



New Directions in Financing



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From the White House



A FOCUS ON INFRASTRUCTURE

Grow America Act, a six-year, \$478 billion proposal to increase funding for highways, roads, bridges, transit, and rail systems around the country.

Build American Investment Initiative (BAII) - increasing procurement of private sector capital to further invest in ports, roads, bridges, broadband networks, and drinking water and sewer networks

The Rural Opportunity Investment Initiative attempts to connect planned infrastructure projects in rural communities with investors, while also improving access to USDA credit programs

Rebuild America Partnership – establishing a national Infrastructure Bank to leverage private and public capital to support infrastructure projects of national and regional significance

From the Department of Treasury

“...aims to help attract more private investment in infrastructure, and in turn, spur economic growth and create opportunity for hardworking Americans.”

- Lower long term project costs
- Improved service quality
- Faster completion of projects
- Local economic opportunity and jobs



From John Oliver

YouTube it!!
Last week Tonight
with John Oliver:
Infrastructure



New Acronyms – New Financing Mechanisms

AFFs – tax credit America Fast Forward Bonds

- 35 year maturity
- Treasury established interest “index” – or - Taxable bonds at 28 percent subsidy
- Expanded list of taxes to which the credit applies including fed withholding tax on wages and benefits retained by employers and pension plan administrators

QPIBs – tax-exempt Qualified Public Improvement Bonds

- Not subject to AMT or volume cap
- Requires governmental ownership (but may be leased under certain terms) and a public use requirement

Move America Bonds –tax-exempt Qualified Private Activity

Bonds (Wyden,Ore(D), Hoeven,ND(R))

- Interest income excluded from AMT
- 50% can be used for land acquisition related to project
- Subject to uniform volume cap (50% of state’s current)
- Move America Credits exchanged for volume cap

Other Proposed 2016 Budget Items

- Expand the qualified small issuer limit in the definition of qualified tax-exempt obligations to include issuers up to \$30M from \$10M of tax-exempt annually
- Limit the tax rate where upper-income taxpayers can use itemized deductions and other tax preferences, including interest on tax-exempt bonds to reduce the tax liability to a maximum of 28 percent.

State Revolving Funds – Adding to the Toolbox

Direct Loans

Leveraged Programs

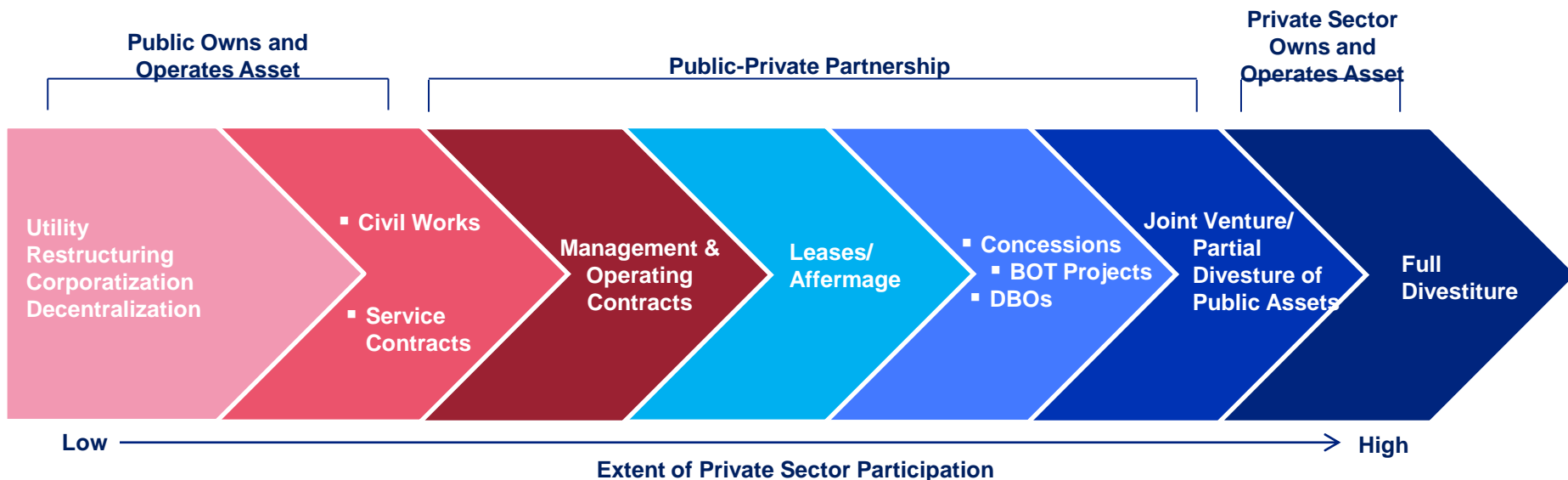
Guarantee Programs

Public-Private Partnerships



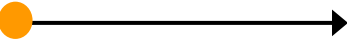




What are public-private partnerships (P3s)?

- Contractual agreements between a government agency and a private party for construction, operation and/or financing of projects and significant government functions
- Concession agreements address key terms between the public and private entity:
 - Scope, duration and exclusivity
 - Allocation of risk and responsibilities
 - Service and performance requirements
 - Financing mechanism



Source: ppp.worldbank.org

P3s encompass a spectrum of possibilities

Structure	Control/Risk	Description
	Gov't Private	
Public Ownership		Traditional revenue stream – design, construction, O&M, governance... remains with government
Public Ownership / Private Management		Certain elements of above may be contracted
New Development / Availability Payment and Sharing Models		Private entity constructs, operates, maintains and finances a project in return for periodic lease payments based on performance
Concessions		Public owns asset and maintains governance. Private entity responsible for O&M, construction and revenue and cost risk
Private Ownership		All activities controlled by private entity, including rates

P3s create value for both public and private partners

Public Sector	Shared	Private Sector
<ul style="list-style-type: none"> • Monetize non-core services to generate upfront payment 	<ul style="list-style-type: none"> • Partner to share risk 	<ul style="list-style-type: none"> • Access to markets with traditionally high barriers to entry
<ul style="list-style-type: none"> • Opportunity to reset stakeholder objectives 	<ul style="list-style-type: none"> • Access to private/public funds 	<ul style="list-style-type: none"> • Pre-established client base
<ul style="list-style-type: none"> • Frees up resources and increases capacity for other projects 	<ul style="list-style-type: none"> • Leverage partner's market access 	<ul style="list-style-type: none"> • Relatively less competitors in market
<ul style="list-style-type: none"> • Creates competition and transparency 	<ul style="list-style-type: none"> • Reallocation of expertise and responsibilities 	<ul style="list-style-type: none"> • Leverage existing expertise to improve asset value and return
<ul style="list-style-type: none"> • Utilize private sector expertise 	<ul style="list-style-type: none"> • Contractually defined deadlines and terms mitigate uncertainty in deal 	<ul style="list-style-type: none"> • Long-term, relatively predictable revenues
<ul style="list-style-type: none"> • Potential improvements in asset value and operational efficiencies 	<ul style="list-style-type: none"> • Value driven pricing 	<ul style="list-style-type: none"> • Potential benefits from tax and other credits
<ul style="list-style-type: none"> • Alternative to traditional financing methods 		<ul style="list-style-type: none"> • Build firm brand on large scale projects

P3s – A Lifecycle Perspective

- P3 Projects consider the whole life cycle of an asset
 - Integration of design and construction with operations and maintenance achieves lifecycle cost savings and asset performance
- The concessionaire acts like an owner and not a renter, putting asset performance first
 - Collaborative design effort, with focus on performance and outcomes, will achieve innovation and optimization by considering total lifecycle costs rather than specific technical specifications
 - Performance specifications are designed to incentivize the concessionaire to develop a project that is efficiently well-operated and maintained

P3s – Potential Barriers

- CIFA Municipal Market Committee plans to
 - identify potential barriers for SRFs
 - Identify and describe potential applications for SRFs
 - Use the portal to accumulate relevant information on the topic
- NABL is working on suggestions to tax rules which will facilitate P3s:
 - Expanding safe harbors under which management contracts would not give rise to private business use
 - Allow for longer-term management contracts
 - Allow for revenue or profit sharing

In General, P3s appeal to a diverse investor base

- Highly active investors since 2011 include: Macquarie, Global Infrastructure Partners, QIC, Alinda, Canada Pension Plan, Goldman Sachs, RREEF Infrastructure and Morgan Stanley, among many others
- Private equity investor funds and pension funds have designated specific funds for investments in infrastructure assets
 - Assets include transportation, parking, gaming, alcohol, airports, port, utilities, and social infrastructure (i.e. student housing)
 - Each investor or fund will have a different view as to the size of asset, risk tolerance, project requirements, other value driving variables
 - Fund governance and rules may preclude investment in certain types of assets or transactions
 - Certain funds will charge an advisory fee to co-investors
 - Real estate type of assets, for example certain parking assets, will meet investment criteria for certain funds but not for others
 - Infrastructure assets are generally considered safe and stable returns on investment
- Projects that have a well-designed, fair P3 process in place will receive the greatest attention from investors
 - Procurement process ought to be transparent and unbiased
 - All potential conflicts of interest are disclosed
 - Independent transaction advisor
- Political certainty is of paramount importance

In General, P3 Project Selection

- P3 opportunities exist across many asset classes, and many specifically address opportunities in:
 - Greenfields
 - New projects that will require design, build, and management services
 - Wish list projects without available funding
 - Political barriers to accessing traditional funding sources
 - Brownfields
 - Improvements to existing facilities or project
 - Deteriorating, underfunded assets
 - Changing demographics and economics subject project to creative reuse
 - Additional services and projects characterized by:
 - User fee revenue stream
 - Expensive construction and maintenance costs
 - Competition with robust private market
 - Operational struggle and inefficiencies
 - Intensive resource and labor allocation
 - Lack of popular support

Select sector trends and P3 opportunities

Higher Education

- Trends
 - Encompasses a wide range of assets, including parking, student housing, student recruitment and energy
 - Capital constraints across educational institutions especially those reliant on state and local funding
- Opportunities
 - Exit non-core businesses to focus funding on instruction, scholarships, etc.
 - Invest in facilities upgrades despite capital constraints

Municipal Government / Social Infrastructure

- Trends
 - Several municipalities have entered design and operating contracts for public buildings such as courthouses
 - Cost cutting in health care to improve balance sheets
 - Rapidly shifting health care market due to legislative, demographic, and technological changes
- Opportunities
 - Government buildings
 - Health care consolidations

Energy

- Trends
 - Most active and diversified infrastructure asset class
 - Renewables and alternative energy
 - Distribution, transportation, and focus on storage
- Opportunities
 - High level of competition across assets
 - Power generation
 - Natural gas distribution and transportation
 - Storage and energy services companies

Select sector trends and P3 opportunities

Roads and Transit

- Trends
 - Increased government interest in private investment in US infrastructure
 - Urban highway system is particular need of upgrades
 - Transit continues to be underfunded
 - Political challenges remain; significant barriers to completing transaction
- Opportunities
 - Airport privatizations
 - Road maintenance and related companies
 - Parking and facilities operators
 - Transit

Water / Wastewater

- Trends
 - 85% of US water and 98% of US wastewater systems are owned by municipalities, many with capital need for renovation or replacement
 - USEPA regulations driving investment requirements
 - Increased investment in desalination and water recycling/reuse as a method of saving costs long-term
- Opportunities
 - System privatization
 - Fragmented system renovation
 - Service consolidation
 - District water

Port and Rail

- Trends
 - Governments globally are seeking investment in ports as a key catalyst of economic development
 - Record cap ex investment by railroads in rail infrastructure to compete with trucking and maritime shipping
- Opportunities
 - Regional marine terminal operators and port-side services
 - Terminal expansion and redevelopment
 - Short-line rail, rail-oriented logistics and services

Gaming and Alcohol

- Trends
 - Many states rethinking consumer-facing businesses like alcohol and gaming
 - 18 control states in wholesale or retail alcohol businesses
 - 44 state lotteries facing increasing competition and regulatory changes (i.e. internet gaming)
 - Expanded and redevelopment of gaming in many states
- Opportunities
 - Private management
 - Wholesale consolidation
 - Services companies

The P3 Process

Key process, valuation issues and success factors

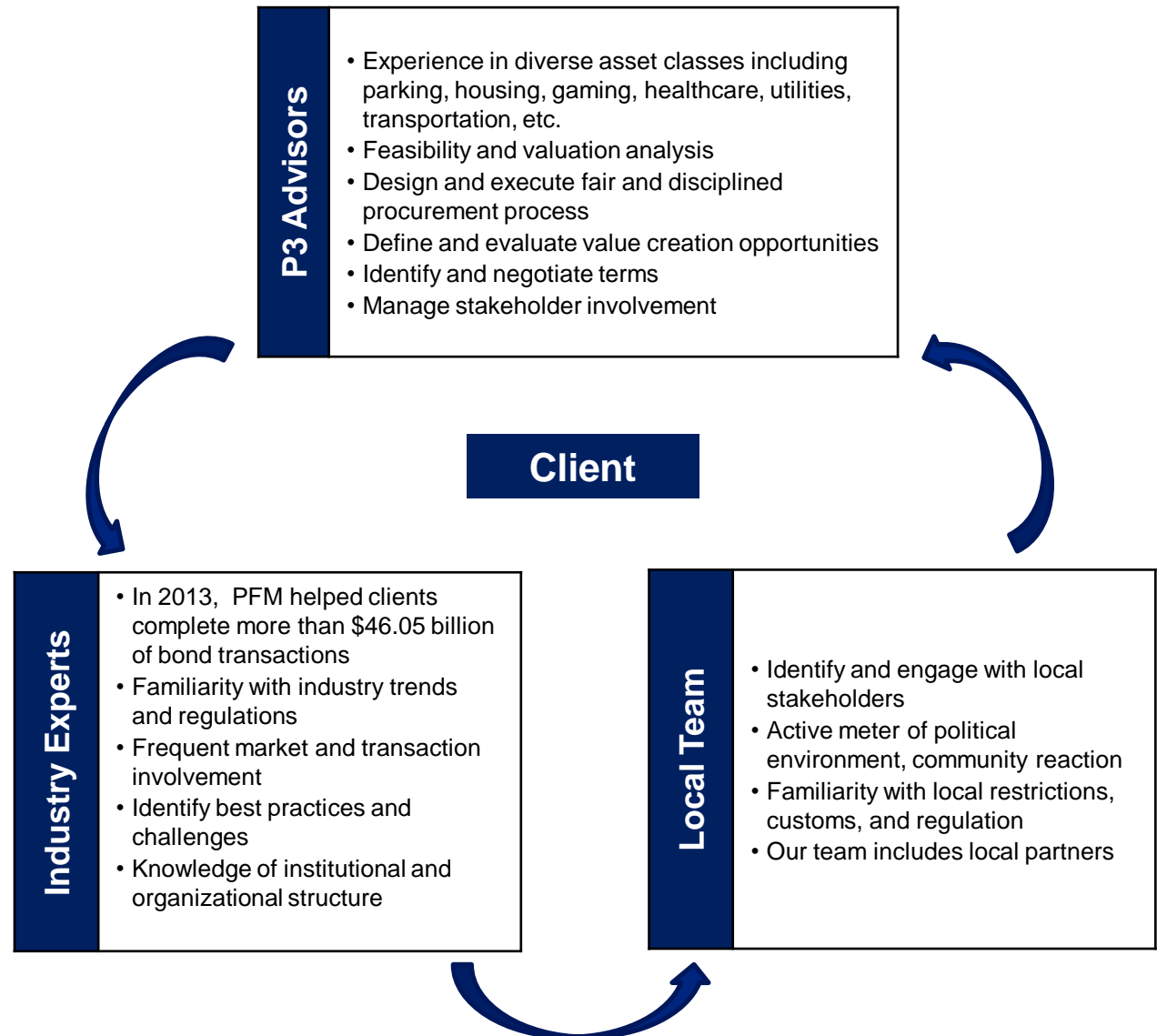
- In order to maximize interest among potential private sector partners it is essential that the government entity and its advisors work together to maximize process clarity and minimize political and regulatory uncertainty
- Designing a successful P3 process will be necessary to achieving the best result for the government entity and its stakeholders
- Potential private sector partner must have confidence that the government entity:
 - Is sufficiently motivated to divest the assets and has the conviction to see the process through to completion
 - Has clear strategic objectives that are motivating the transaction
 - Has adequate time and resources to pursue the process
 - Has obtained a clear level of buy-in from stakeholders who have the ability to impede the transactions
 - Can manage the required approvals necessary to close a deal
- Key activities to address these issues include:
 - Design a process that is aimed at achieving key financial and policy objectives
 - Understand and assess the impact of policy objectives on asset value and marketability
 - Develop clear pathway for transaction approval prior to any procurement launch
 - Balance financial objectives with policy goals
 - Maintain ongoing engagement with stakeholders throughout the process
 - Set realistic expectations on the risks, benefits and costs as well as timing

PFM project management approach

	Steps	Detailed Tasks	Milestones	
1	Assessment & Preparation	<ul style="list-style-type: none"> ▪ Determine project objectives ▪ Identify policy considerations ▪ Identify legal and legislative hurdles ▪ Confirm project scope ▪ Collect data and build financial model 	<ul style="list-style-type: none"> ▪ Form project team ▪ Engage key decision makers 	} Feasibility
2	Alternative Analysis	<ul style="list-style-type: none"> ▪ Short list viable structures against criteria ▪ Develop valuation for alternatives ▪ Select preferred alternative ▪ Initiate selection of remainder of advisory team 	<ul style="list-style-type: none"> ▪ Perform valuation of alternatives and sensitivity analysis ▪ Selection of preferred alternative 	
3	Communications	<ul style="list-style-type: none"> ▪ Inform and engage key stakeholders ▪ Inform and engage political and legislative participants ▪ Develop presentation materials 	<ul style="list-style-type: none"> ▪ Identify policy issues and workable solutions 	
4	Procurement Process	<ul style="list-style-type: none"> ▪ Assist in development of transaction documents (RFQ, Confidential Information Memorandum (CIM), RFP, etc.) ▪ Review and provide input on the Agreement ▪ Qualify bidders ▪ Conduct best and final offer process (BAFO) 	<ul style="list-style-type: none"> ▪ Ensure transaction documents meet client objectives ▪ Communicate key document terms to stakeholders 	} Procurement
5	Transition & Implementation	<ul style="list-style-type: none"> ▪ Ensure detailed transition plan is in place ▪ Inform stakeholders and educate the public ▪ Contract oversight and management 	<ul style="list-style-type: none"> ▪ Closing ▪ Initiate transaction ▪ Review and monitoring 	

Typical P3 advisory team

- A typical team involved in a P3 includes:
 - Feasibility or revenue consultants
 - Independent advisor
 - Sell-side advisor
 - Legal advisors
- Depending on the project, PFM may serve as feasibility consultants, independent advisors, and sell-side advisors
- PFM has a dedicated team focused on nationwide P3 and municipal financing opportunities spanning a variety of asset classes



Valuation approaches

- Income approach (discounted cash flow)
 - Value of the business is equal to the present value of its future cash flows
 - Anticipated future cash flows are discounted at a rate commensurate with the risk characteristics associated with the cash flows
 - Market data supports the discount rate
 - Ability to reflect different assumptions and factors associated with desired arrangement and time horizons
 - Ability to discretely incorporate various forecasted growth and margin assumptions
- Market comparable approach
 - Estimate value by applying market multiples, from similar businesses that are publicly traded, to the subject company's earnings, sales or other market indicators
 - Market multiples are adjusted for differences between the publicly traded companies and the subject company based upon sustainable growth, profit margins, asset returns, size and leverage
- Market transaction approach
 - Estimate value by applying transaction multiples from ownership interests that have been sold to the subject company's earnings, sales or other market indicators
 - Transaction multiples are adjusted for comparability factors such as profitability and sales terms
- Cost approach
 - Estimate value by determining the market cost to replicate the existing assets of the business
 - Requires detailed appraisal of each asset
 - Does not capture goodwill value of ongoing business

Pro forma models help to evaluate alternatives

SCENARIO 3: PRIVATE PARTNER FUNDING DRAFT-CONFIDENTIAL

Project Cost	
Buildings and Related Site and Infrastructure	\$271,570,400
Power Plant/Infrastructure/IT/Roadways	\$95,940,000
Other	\$0
Total	\$365,510,400

Upfront Equity Contribution		
Include? <input type="checkbox"/>	Parking Monetization	\$0
Do Not Include <input type="checkbox"/>	Utilities Monetization	\$150,000,000
Do Not Include <input type="checkbox"/>	Grants	\$0
Do Not Include <input type="checkbox"/>	Gifts	\$0
None <input type="checkbox"/>	Capital Campaign	\$0
Do Not Include <input type="checkbox"/>	Endowment Loan	\$0
Total		\$150,000,000

Alternative Funding Model Assumptions		
Project Cost	\$365,510,400	
University Contribution	\$150,000,000	
Equity IRR	12.00%	
Debt Rate	4.11%	
Equity %	27.63%	
Debt %	72.37%	
Equity	-\$49,000,000	
Debt	\$264,510,400	
WACC	2.32%	
Availability Payment Growth	0.00%	
Include <input type="checkbox"/>	Starting O&M Cost	\$2,546,097
	O&M Efficiency	10.00%
	O&M Growth Rate	0.00%
	O&M Start Date	2017
	Total PV of Investor Cashflow	\$368,390,193
	Total Debt & Equity	\$215,510,400
	Initial Availability Payment	\$19,139,945
	Private Partner Term	30
	Start Date	2015

Annual Revenue Levers		
Do Not Include <input type="checkbox"/>	Gateway	\$0
Do Not Include <input type="checkbox"/>	Space Analysis	\$0
	Space Analysis Begin Date	2015
Include <input type="checkbox"/>	Parking Contribution	See Cash Flows
Include <input type="checkbox"/>	General contribution	See Cash Flows
	General Contribution Amount	\$7,000,000
	General Contribution Begin Date	2015
	Annual Student Fee Revenue	\$7,000,000

weighted @ 10% 650,867
 weighted @ 70% 394,734
 weighted @ 20% 135,797

Avg. Student
 15 SCH

To Solve:
 <<Goal Seek
 <<To match this value
 <<By changing this value

<<If parking monetization is included, this must not be.

<<Solve by changing this value

Availability Scenario Cash Flows												
	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Private Partner Cash Flows												
Availability Payment	\$0	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945	\$19,139,945
O&M	\$0	\$0	\$0	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)	(\$2,546,097)
Total	\$0	\$19,139,945	\$19,139,945	\$16,593,848	\$16,593,848	\$16,593,848	\$16,593,848	\$16,593,848	\$16,593,848	\$16,593,848	\$16,593,848	\$16,593,848
University Expense (Revenue)												
Utilities Purchase Agreement	\$0	\$0	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000	\$5,800,000
Endowment Loan Payment	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Gateway Net Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Parking Contribution	\$0	\$0	\$0	\$0	\$0	(\$1,000,000)	(\$1,000,000)	(\$1,000,000)	(\$1,000,000)	(\$1,000,000)	(\$1,000,000)	(\$1,000,000)
Space Analysis	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
General Contribution	\$0	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)
State Contribution	\$0	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)	(\$7,000,000)
Availability Payment after Additional Funding	\$0	\$5,139,945	\$10,939,945	\$8,393,848	\$8,393,848	\$7,393,848	\$7,393,848	\$7,393,848	\$7,393,848	\$7,393,848	\$7,393,848	\$7,393,848
Student Credit Hour Fees												
University SCH	\$0.00	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08	\$1.08
CLAS SCH	\$0.00	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41	\$12.41
CLAS Course Fee	\$0.00	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31	\$10.31
Other:												
Net Variance:												
Revenue from Student Fees	\$0	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000	\$7,000,000
Funding Gap	\$0	\$1,860,055	(\$3,939,945)	(\$1,393,848)	(\$1,393,848)	(\$393,848)	(\$393,848)	(\$393,848)	(\$393,848)	(\$393,848)	(\$393,848)	(\$393,848)
General Fund	\$0	\$1,860,055	(\$2,079,890)	(\$3,473,738)	(\$4,867,586)	(\$5,261,434)	(\$5,655,281)	(\$6,049,129)	(\$6,442,977)	(\$6,836,825)	(\$7,230,673)	(\$7,624,521)
PV of General Fund	\$0	\$1,754,769	(\$1,962,161)	(\$3,277,111)	(\$4,592,062)	(\$4,963,617)	(\$5,335,171)	(\$5,706,726)	(\$6,078,280)	(\$6,449,835)	(\$6,821,389)	(\$7,192,944)
Student Fee cost to Student												
Semester \$												
University SCH	\$0.00	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13	\$16.13
CLAS SCH	\$0.00	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20	\$186.20
CLAS Course Fee	\$0.00	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64	\$154.64
Total	\$0	\$357	\$357	\$357	\$357	\$357	\$357	\$357	\$357	\$357	\$357	\$357

Best practices

- Actively model the valuation and public policy considerations
 - Consider revenue sharing to align private and public motivations in the run long
 - Weigh the long-term and short-term value
 - If rate increases are necessary, implement gradually
- Ever-increasing transparency and communications
 - Grant stakeholders ample time to review relevant documents
 - Modify terms for special interests based on rational public debate
 - Form diverse advisory committee to engage stakeholders
 - Engage labor unions and proactively develop solutions
 - Use stakeholder feedback to inform the transaction process
- Comprehensive procurement process
 - Retain financial advisor from beginning to perform independent analysis throughout
 - Develop the same framework to evaluate bids
 - Thoroughly vet operators through bidding process
 - Provide adequate time for transition to new operator and new technologies
- Establish penalties for non-compliance with terms of contract

Risks in P3 transactions

- Financial
 - Not receiving as much proceeds as asset is worth in the public sector
 - Loss of future upside potential
 - Reversion or compensating event risks
 - Proceeds must be protected from unanticipated uses
- Service levels
 - Private operator may not provide service at desired levels, at transition or in future
 - Unexpected events may obstruct service and delivery
 - Transition can be a challenge
 - Monitoring and enforcement will require active oversight for life of the deal
- Political
 - Citizens, elected officials, stakeholders and the press may assess differently
 - Communication plans take time
 - Labor and union contentions
 - Information asymmetry must be carefully managed
- Failure to close!

Sample P3 engagements

Oregon State University




P3 Advisor
Student Housing & Campus Development

Oklahoma City Convention Center



P3 Advisor
Convention Center & Hotel

State of Wisconsin



P3 Advisor
Energy Asset Sale

Stevens Institute of Technology



P3 Advisor
Student Housing

Virginia Office of Transportation P3s



P3 Advisor
Air Rights

Global Lighting Management Company (Confidential Client)




P3 Advisor
Sustainable Lighting Infrastructure

North Carolina Department of Transportation



P3 Advisor
Mid-Currituck Bridge

Gettysburg College




P3 Advisor
Student Housing

University of Maryland



P3 Program Advisor

Suffolk County



P3 Advisor
Sewer System

University of South Florida




P3 Advisor
Student Housing

San Diego Regional Planning Agency



P3 Advisor
Bus Facility

State of Connecticut




P3 Advisor
Garage & Other Assets

City of Miami



P3 Advisor
Garage & Convention Center

Pennsylvania Department of Transportation



P3 Advisor
Cell Towers & CNG Buses

University of Kansas



P3 Advisor
Campus Development

Tarrant County Community College




P3 Advisor
Asset Planning

Port of Tacoma



P3 Advisor
Container Terminal Concession

City of Baltimore



P3 Advisor
Garages