BRIDGING THE INFRASTRUCTURE GAP
Alternative Finance & Delivery of Waterways Infrastructure
Global Infrastructure Market

- Global infrastructure investment needs by 2030 estimated at $57-$67 Trillion (OECD/WEF)
- US infrastructure needs estimated at over $7 Trillion (by 2030), $3.7T needed in next 5 years to keep pace with GDP).
- Majority of these investments cannot be funded by public authorities (fiscal restraints, budget limitations, debt ceilings, repayment capacity, etc.).
- Standard & Poor’s estimates that the majority of public infrastructure spending will go to energy and transportation, putting other sectors at greater risk.
- Within these constraints, governments and public agencies being asked to do more with less.

Infrastructure deficiencies have a direct, material adverse effect on economic growth, competitiveness, life-safety and standards of living.
## America’s Infrastructure Needs

<table>
<thead>
<tr>
<th>ASCE Report Card</th>
<th>GPA:</th>
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<tr>
<td>Bridges</td>
<td>C+</td>
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<td>Dams</td>
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<td>Drinking Water</td>
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<td>Energy</td>
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<td>Hazardous Waste</td>
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<td>Inland Waterways</td>
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<td>Levees</td>
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<td>Ports</td>
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<td>Parks</td>
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<td>Rail</td>
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<td>Roads</td>
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<td>Schools</td>
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<td>Wastewater</td>
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<td>Other</td>
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- ASCE report card does not address all infrastructure needs (i.e., public buildings, university infrastructure, prisons, technology, etc.), nor does it anticipate changing regulatory requirements.
- US does not have the debt capacity and funding sources to address its growing infrastructure needs.
- Technology changes are transforming the realm of possibility for funding infrastructure [implications of Obama’s Smart Cities Initiative].
Alternative Finance & Delivery

- Federal, state and local governments have limited financial resources to devote to capital and operational expenditures
- Addressing growing backlog of deferred maintenance is diverting resources from modernization and expansion projects
- In post-earmark Washington, intense competition for scarce federal funding
- Protracted appropriations delay delivery and exponentially increase costs
- Public authorities seek to extract value from existing assets

Key Alternative Finance & Delivery Drivers

- Access to new sources of financing / Accelerated Delivery of Infrastructure
- Monetization opportunities
- Life-cycle cost reduction / Operational efficiencies
- Risk allocation and incentivized performance

Public authorities across the globe are increasingly turning to alternative finance and delivery to meet infrastructure needs

Infrastructure Delivery Spectrum of Options

- Traditional Delivery: Works/Service Contracts (DBB, DB, etc.)
- Public-Private-Partnerships: Performance-Based Operating Contracts, Lease-like Agreements (LDO, DBOM, EUL), Concessions (DBFOM, BOT, etc.)
- Privatization: Full or Partial Divestiture

Extent of Ownership and Risk Transfer to the Private Sector: Low
Extent of Private Sector Financing: High
Public-Private-Partnership Construct

**Public Partner**
- Specifies requirements/standards
- Owns assets / public service

**Private Partner**
- Build facilities
- Provide services

**Rights**
- P3/P4 Contract

**Users / Public**
- Infrastructure and services
- Payments to Public Partner

**Federal Sponsor**

**Local Sponsors**

**Equity Investors**

**Design / Build**

**Creditors**

**O&M**

Usage Fees
Another Tool in the Toolbox…

**Alternative Finance and P3 are NOT new:**

- Common delivery tool in both developed and developing countries across the world
- For example, from 1990 to 2009 over 1,400 PPP deals were signed in the European Union, representing a capital value of approximately €260 billion
- Canada has successfully closed over 200 infrastructure projects representing over C$70 billion
- P3 deal flow growing annually with increasingly specialized investment funds and operators following deals
- Total global P3 investments to date (since 1990) estimated at **over US$4.3 Trillion**
- Both good and bad examples of P3 exist on the national and international level
- US has been somewhat slow to adopt P3, but the delivery approach is gaining momentum with open support from Treasury, GAO, and others

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**Key Infra Sectors**

- Transport
  - Rail
  - Roads
  - Airports
  - Ports
  - Multi-Modal

- Social Infrastructure
  - Education
  - Public Buildings / Facilities
  - Social housing
  - Healthcare
  - Municipal works

- Environment & Energy
  - Power generation and transmission
  - Oil and gas storage and transport
  - Water and waste management
  - Environmental works

- Other
  - Defence and National Security
  - IT backbone
  - Telecommunications infrastructure
  - National Broadband
  - Emergency Response
U.S. P3 Experience

Overview of U.S. Federal, State, & Municipal P3

**FEDERAL**
- **DOT** has leveraged P3 for many projects, including over $28 Billion in FHWA projects alone
- **DOE** is utilizing P3 for energy infrastructure, including programs for renewable energy, nuclear safety and hydrogen infrastructure
- **DOD** has track-record of utilizing P3 to address military housing, which under the traditional model, would have cost taxpayers $25 billion over 20 years. Let $7B in PPP contracts for renewable energy. Working on P4 for shared services.
- **CBP** is utilizing P3 to address increased demands for facilities and renovations, including facilities agreements in Houston, Dallas, and Miami
- **GSA** has used P3 for years for government facilities

**STATE / LOCAL**
- Majority of US states have adopted P3 enabling legislation in multiple sectors
- Explosive growth in social sector, as well in transport and utilities.
- S&P predicts US P3 market to become market leader

“While P3 cannot eliminate the need for government spending on infrastructure, we can help meet our nation’s infrastructure needs by expanding the sources of investment and using those dollars, whether public or private, as effectively as possible to advance the public’s interest.” – US Treasury
Alternative Finance & Delivery for Waterways
Water Resources & Alt Finance

Local Water Resources

- At municipal level, P3 and alternative finance and delivery are well established norms.
- Spectrum of options range from “Peer Partnering” to long-term concessions and sale-leasebacks.

Federal / Quasi-Federal Water Resources

- At Federal level, WRRDA 2014 sets out framework for alternative finance and delivery, providing a broad spectrum alternative finance and delivery tools:

- P3 is envisioned to be another tool in the federal finance and delivery toolbox.
Waterways Challenges & Opportunities

• While alternative finance and delivery tools hold the promise of accelerating infrastructure and service delivery, they are extremely complex policy tools.

• P3 and alternative financing are not free money and investments will need to be repaid, either by users or taxpayers. The challenge is identifying and structuring the repayment streams.

• WRRDA 2014 provides few, if any, of necessary authorities for P3. Application limited due to the fact that there is no viable repayment mechanism for federal P3:
  – **Inability to ring-fence revenues** and commit them for project specific purposes;
  – **Lack of contract authority to** enter into agreements that **encumber future revenues**;
  – **Legislative and practical impediments to user fees**;
  – Need for legislative authorization to enter into **long-term contracts**;
  – Practical inability to leverage budget-based P3/P4 arrangements due to OMB **scorekeeping guidelines**.
Waterways Challenges & Opportunities

**Constraints**

**Inland Waterways**
- Lack of authority to assess tolls
- No ring-fencing / contract authority
- Sub-optimal application of IWTF
- Federally owned and operated system

**Flood Risk Mgmt**
- Dam safety liability transfers
- Local affordability issues
- Federal availability payment budget treatment

**Opportunities**

- Title 23-type fee authorizations
- Non-federal cost-share partners / P4
- Local monetization opportunities

**Harbors**
- Ineffective HMTF
- Socialized allocation system in a competitive market sector
- Free-rider problem

- Local-level P3 opportunities
- Local monetization opportunities
- Split delivery models and accelerated funding repayment structures
Illinois Waterway is a self-contained network of locks and dams requiring some $599 million in major rehabilitation and repair to meet acceptable performance levels.

Despite strong stakeholder support for the R&R program, competing priorities would likely defer completion of the project until well after 2030.

- With user support, project structuring underway to explore opportunities for risk and cost sharing with non-federal sponsor.
- P3 considered a key component of the structure, in order to secure life-cycle savings, accelerated delivery, and long-term maintenance guarantees.
- Non-federal sponsors currently exploring financing options, including revenue bonds (with a new usage fee), assessments, etc.
Waterways Challenges & Opportunities

**Constraints**

**Hydropower**
- USACE doesn’t commercialize hydropower rights
- Direct impact on Corps operations

**Opportunities**
- Cost off-sets
- Negotiate better deals
- Local monetization opportunity

**Ecosystem Restoration**
- Limitations of federal availability payments
- Constraint on monetization opportunities

**Opportunities**
- Potential for P4 approaches
- Local monetization opportunities
- Federal monetization opportunities

**Water Storage/Supply**
- Revenue Ring-Fencing
- Contract Authority

**Opportunities**
- Local-led P3 opportunities
- Enhance deal terms and creation of a revolving fund
Thank you