



# Current Smart City P3 Projects: A Deeper Dive

Wednesday, April 10, 2019  
2:00 pm – 2:30 pm (EST)

Get Smart about Smart City P3s: A Series of 30-Minute Webinars

Hosted by Ice Miller - Public-Private Partnerships (P3)

**Speakers:**

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# Overview

Municipalities increasingly find themselves in a precarious balancing act to streamline costs for their utilities, water and waste management, economic development, transportation, and telecommunications, while simultaneously trying to improve services.

In this webinar, we'll examine how some cities are using **P3s to go *smart*.**

# Smart City Sectors Utilizing P3 Arrangements

- Energy and Utility Monitoring
- Transportation and Parking Infrastructure
- Intelligent Transportation Systems
- Broadband/ Telecommunications
- And more . . .

# Planning for a Smart City P3

## First...

- ➔ Define immediate needs and future plans
  - Overhaul aging infrastructure?
  - Opportunity for innovation?
  - Specific problem to solve?
- ➔ Inventory existing municipal assets
- ➔ Assess the city/ state's P3 environment

# Planning for a Smart City P3

## Then...

- Engage stakeholders early
- Survey the marketplace
- Develop a business plan
- Seek trusted advisors
- Engage partners
- Determine funding . . .

# Funding Is Key in Deploying Smart City Projects

Many cities are excited to get to work on smart cities initiatives, but few cities are prepared to fund their projects.



# Promise of Smart Cities vs. the Challenge of Paying for Them

- ➔ Cities are looking for ways to bring in cash to offset depressed tax revenues and longer term cuts in federal support.
- ➔ Emergence of innovative technologies to help cities become smarter holds great promise.
- ➔ **Yet, the challenge remains: finding ways to finance the much-needed infrastructure upgrades.**
- ➔ Cities hoping to upgrade infrastructure with technologies must find investors and financial institutions willing to finance “smart” projects.
- ➔ Financing smart projects is expensive and requires creative approaches that focus on both short-term and long-term goals.

# How do Smart Cities Obtain Funding?

## ➔ Building infrastructure investments

The amount of institutional investment dollars flowing into infrastructure funds reached a record \$90 billion last year, nearly doubling the annual amount in 2014.

Year	Infrastructure Funds Closed	Capital Raised
2014	80	\$46 billion
2015	92	\$50 billion
2016	88	\$66 billion
2017	94	\$75 billion
2018	90	\$90 billion

Note: Capital raised is the average infrastructure aggregate capital raise  
Source: Prequin • Created with Datawrapper



# How do Smart Cities Obtain Funding?

## ➤ Potential new federal infrastructure plan?

- The White House isn't giving up hope of pursuing a "significant" infrastructure initiative during President Trump's first term and held a high-level meeting Tuesday to chart potential paths forward.
- Recent hour-long meeting, convened by the National Economic Council and helmed by NEC Director Larry Kudlow, was described as a "status conference" to discuss how best to move forward on a package once the government shutdown ends.
- Unclear whether we will see infrastructure plan. Democrats in Congress to bring their own infrastructure proposal out first.

## ➤ Challenges:

- Expensive
- Financial crisis lingering
- Infrastructure problem(Civil Engineers recently graded D+)
- Cities and Towns are cash strapped.

# Summary of Municipal Finance Tools for Smart Cities

Government-based Finance Options	Development Exactions	Public and Private Options	Private Sector Leveraging
General Obligation Bonds	Dedication Requirements	Public-Private Partnership	Loan Loss Reserve Funds
Revenue Bonds	Tap Fees	Pay for Performance	Debt Service Reserves
Industrial Revenue Bonds	Linkage Fees	Securitization and Structured Finance	Loan Guarantees
Green Bonds	Impact Fees	Catastrophe Bonds	On-Bill Financing
Qualified Energy Conservation Bonds			Pooled Bond Financing
Social Impact Bonds			Pooled Lease-Purchasing Finance
Public Benefit Funds			Value Capture
Linked Deposit Programs			Tax Increment Financing
Energy Efficiency Loans			Opportunity Zones
Property-Assessed Clean Energy Programs			
Greenhouse Emissions Allowance Auctions			
User Fees			

# Examples of Smart City P3 Projects: US-33 “Smart Mobility” Corridor

- ➔ Slated to be the longest automotive/connected vehicle (CAV) testing corridor in the world
- ➔ Public and private partners include:
  - ➔ Cities of Dublin and Marysville, Ohio
  - ➔ Union County, Ohio
  - ➔ Logan County Economic Development
  - ➔ Ohio Department of Transportation (ODOT)
  - ➔ Honda
  - ➔ Battelle
  - ➔ Michael Baker

# Examples of Smart City P3 Projects: US-33 “Smart Mobility” Corridor

- ➔ Over \$3.4 million in public and private match dollars
- ➔ Project includes:
  - ➔ installation of a fiber network and DSRC/ Roadside Units
  - ➔ installation of communication devices/ Wi-Fi in fleets
  - ➔ utilization of warning systems and smart traffic signals
  - ➔ data collection
- ➔ Public sector benefits: economic development opportunities for communities along the corridor
- ➔ Private sector benefits: expedited approvals for use of rights-of-way, etc. to enable CAV testing

# Examples of Smart City P3s: Canton Innovation District Terragraph Project

- ➔ The Canton Innovation District is a 12-block district in downtown Canton that contains a technology incubator
- ➔ State law set the parameters for innovation districts:
  - ➔ Located in a downtown redevelopment district
  - ➔ At least one historic building that is or will be rehabilitated
  - ➔ Internet capable of downloads at 100 gigabits per second
- ➔ Ohio's Innovation District law allows municipalities to use tax increment financing (TIF) to redirect property taxes for economic development
- ➔ Additional private investment was provided by partners

## Examples of Smart City P3s: Terragraph Deployment in Canton, Ohio

- ➔ Canton's downtown innovation district will be the first site for commercial implementation of Terragraph technology
- ➔ Agile, a broadband network provider, will work with broadband solutions provider, RADWIN, and Facebook
- ➔ Terragraph is a multi-gigabit speed wireless network. Equipment is mounted on City-owned street poles and buildings to extend high-speed internet connectivity for significantly less cost than traditional fiber installations
- ➔ Fiber backbone provides access to the Ohio Academic Resources Network (OARnet)

## Examples of Smart City P3s: Dublink Fiber System in Dublin, Ohio

- ➔ "Dublink" is a P3 between the City of Dublin and Fishel for a municipal-owned commercial fiber/conduit and Wi-Fi system for economic development
- ➔ Leased to telecommunications/ private sector
- ➔ Private entities are granted access to the fiber system through indefeasible rights-of-use (IRUs)

# Examples of Smart City P3s: Dublink Fiber System in Dublin, Ohio

## Dublink users are offered:

- ➔ Various forms of delivery
- ➔ Choice of Internet Service Provider/ competition
- ➔ Access to high-speed, low-cost bandwidth

## City has experienced:

- ➔ Growth in businesses and residents in the City
- ➔ Economic development
- ➔ Future-proofed infrastructure



# Illinois P3 History

## Early Projects Examples

Skyway and Chicago parking (garages, meters)

- ➔ Pre-financial crisis
- ➔ Revenue-based transactions
- ➔ Brownfield monetizations

## Looking Forward in Illinois

### Future Opportunities

- ➔ Water Infrastructure
- ➔ Social Infrastructure
- ➔ Economic/Transportation Infrastructure
- ➔ Infrastructure Technology
- ➔ O'Hare Express System (Elon Musk Project)



# TIFIA Examples

## ➤ City of Chicago



### Funding Sources

TIFIA loan - \$98,660,000  
Federal funds - \$232,735,709  
State/Local funds - \$88,097,642

### Innovations

Leveraging of innovating financing streams generated by the project to advance the final phases of the Riverwalk Expansion.

The project encompasses the following elements of the Wacker Drive Reconstruction Project, a major initiative to improve transportation along Wacker Drive, strengthen intermodal links, and establish a continuous pedestrian walkway along the south bank of the Chicago River.

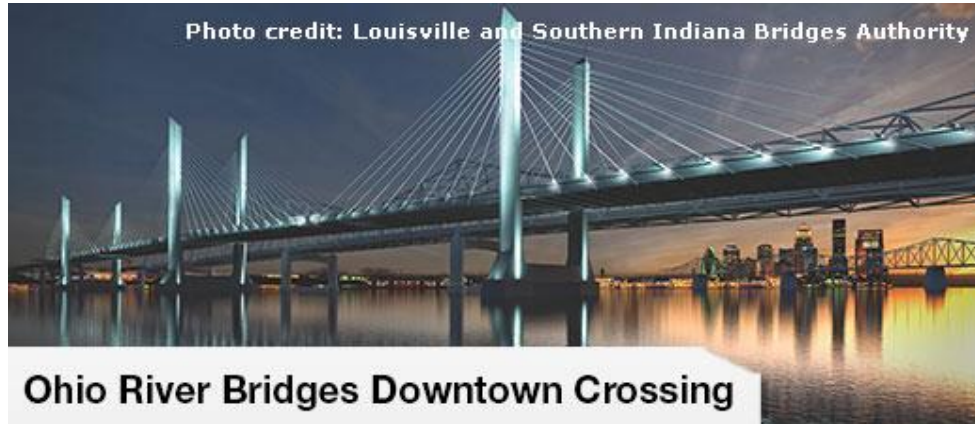
**Wacker Drive** – Full reconstruction of Upper and Lower Wacker Drive from Randolph Street to Congress Drive

**Riverwalk Expansion Phases 1, 2, and 3** – Adjacent to Wacker Drive from Michigan Avenue to Lake Street, along the south bank of the Main Branch of the Chicago River.

The Riverwalk is a public walkway along the banks of the Chicago River, connecting the lakefront with downtown Chicago. It extends from Michigan Avenue to Lake Street, about 0.7 miles.

# TIFIA Examples

## ➤ Louisville and Southern Indiana Bridges Authority



The Downtown Crossing is part of the Ohio River Bridges project, which also includes the East End Crossing eight miles to the east. Together, the Louisville and Southern Indiana Bridges Authority, a bi-state agency, has been responsible for the financing of the \$2.6 billion Ohio River Bridges. Kentucky is delivering the Downtown Crossing through a more traditional design-build contract, while Indiana has chosen to finance the East End Crossing through an availability-pay, public-private partnership. These innovative delivery approaches have combined significant cost savings.

### **Bond Buyer Deal of Year**

# Questions?

*Please insert your questions in the Q&A Panel*

Thank you for joining us.

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