Overview of the Community-Based Public-Private Partnership (CBP3) Approach for Green Stormwater Infrastructure

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We’re Paying A Premium for a Legacy of Outdated, Failing Infrastructure!!

$3.6 trillion by 2020.

Water Infrastructure Grade = D

$700 Billion + Loss For Businesses By 2020

“The heavily engineered, capital intensive, facility-construction solutions that dominated 20th century approaches to water management are no longer sufficient.”

America 2050: An Infrastructure Vision for 21st Century America
The Regulatory Context - Stormwater/Wet Weather

~$150B in wet weather/stormwater needs

Regulated Entities

• **7,500** communities regulated municipal separate storm sewer systems (MS4s) in the U.S.

• **Growing interest** and public demand for green stormwater infrastructure

• Due to **expanded urbanized acres & increased localized flooding**
Evolution in Stormwater Management

Traditional Stormwater Management

Collect | Convey | Detain

Green Stormwater Infrastructure

Infiltrate | Retain
Need Viable, Cost-Effective Solutions

It's all about the MONEY!

But It's also about DELIVERY & CAPACITY!

O&M Big Factor!
What IS a CBP3?

• A new program/projects procurement & delivery model, based upon aspects of the traditional P3 approach

• An approach that:

  • Seeks to **drive down costs** of “green stormwater infrastructure” (GSI) **implementation** and **maintenance**, while providing for **multiple benefits to the community**

  • **Accelerate** the pace of implementation

  • Provide potential for **high-value investments** (as opposed to the cheapest/least-cost option), while ensuring for quality and affordability.
What IS a CBP3?

• A non-traditional approach to the P3 framework
• A true, long-term PARTNERSHIP between public and private parties
• An arrangement that stresses Triple Bottom Line Results – economic, social and environmental benefits

What ISN’T a CBP3?

• A traditional P3 framework
• Privatization
• A “one-size fits all” approach with limited benefits to the community
“Bottom Line Up Front”

Accountability

- Public retains control and ownership of all funding, priorities, goals, and assets
- Private sector shares in the execution, construction, and maintenance risks
- Performance based approach of the government’s economic and social goals
“Bottom Line Up Front”

Resiliency

• Flexibility to adapt scope and performance criteria to continue to meet and support Government entity objectives as they evolve
• Reinvestment of all cash flow and savings back to the government
• Alternative financing structures that ensure government control of funding with reserves and sureties
“Bottom Line Up Front”

Sustainability

• Surety for operations and maintenance for the life cycle of the assets and any funding liabilities
• Reduced barriers to entry for local small disadvantaged businesses
• Centered on workforce development for meaningful long term employment and practioning
“Bottom Line Up Front”

- **Private sector** is contracted as **an accountable advocate** of the public’s goals and compensated for the achievement of performance based goals vs time and material.

- Incorporates **long-term life-cycle O&M** as part of the capital program funding.
“Bottom Line Up Front”

- *Streamlines procurement inefficiencies* and disconnects that result in change orders.
- *Structured to maximize funding and savings to the projects* versus the consultants/contractors.
- *Leverages private sectors scalability, services, innovation*, and ability to activate and grow the local economy.
Standard Design-Bid-Build Approach

**Municipality**
- Identify projects, scope, and priorities; Administers program and permit;
- Finances/funds the work; Maintains the infrastructure (unless contracted out)

**Consultants**
- Provides design services per scope; limits innovation due to prescribed scope; no accountability for outcomes/goals; risk remains with municipality

**Contractors**
- (Construction Only **NO** long term Maintenance)

**Price Increases Due To**
- Low volume of work
- Misaligned interests/priorities
- Frictional costs
- Field conditions
- Sub-par design work
- Change orders
Traditional P3 Approach

Municipality
(Retains responsibility for economic development outcomes)

Ownership and Control given to the Private Entity and financial stakeholders

Private Entity
(Scope, delivery, & return focused)

Financial Stakeholders
Debt/Equity/Grant
(control priorities, preferred returns)

Advantages
- Reduced project costs
- Project delivery time
- Transfer of risk
- Long term O&M
- Off-balance sheet financing

Disadvantages
- Profit/return is motivator
- Large reliance on private financing can be costly
- Loss of control by public
- Economic development not a driver
Community Based P3 Model

**Municipality**
- Ownership and Control retained by the public partner

**Private Entity**
- Provides surety of execution and Adopts shared goals managed through performance metrics

**CBP3 Entity**
- Integrated program services that lowers delivery costs and incentives private sector delivery to be outcome based
- Focus on lower procurement barriers and procuring local disadvantaged businesses and jobs

**Traditional P3 Advantages**
- Reduced project costs
- Project delivery time
- Transfer of risk
- Long term O&M
- Shared economic and social goals
- Alternative financing

**Additional CBP3 Advantages**
- Community is priority
- Mixed public/private financing can reduce financing costs
- Municipality has high degree of control/input
- Reinvestment into project
- Aligned interests
- Fixed-fee; Performance goals
# CBP3 Business Model Canvas

## Key Delivery Capacity
- Community economic development organizations
- Local Subcontractor base
- Planning and Design (A&E) subcontractors
- General construction subcontractors
- Operations and Maintenance subcontractors

## Key Activities of Private Partner
- Program Mgmt
- Risk/Financial Mgmt services
- Procurement and mgmt of DBOM
- Economic &Workforce Development
- Community relations

## Key Resources
- Legal Know-How
- Financial Know-How
- Public relations / outreach
- Workforce education
- Program/Risk controls
- Technology research
- Federal/State/Local regulations

## Value Proposition
- Regulatory compliance
- Long term commitment to maintenance
- Reduced costs through a aggregated design build, finance, operate and maintain solution
- Reduced construction and maintenance risk
- Performance based accountability
- All cash flow and savings reinvested back to the government.
- Create a local marketplace that enables more economic development and job growth
- Eliminate traditional gov’t procurement inefficiencies

## Customer Segments
- Regulated Public MS4 permit holders through the EPA’s NPDES permit program

## Stakeholders
- Federal/State Regulators
- City agencies and organizations
- Community organizations

## Relationship between Public and Private Partner
- Government retains control
- Governance and oversight of private partner
- Long Term Contractual performance based agreement
- Private partner accountable for delivery, economic, & social outcomes

## Cost Structure
- Soft Costs
  - Procurement costs/ Legal negotiation costs
- Hard Costs (all planning and local procurement costs)
  - Program – Social/Economic Development costs
  - Design/Build Cost
  - Operations and Maintenance Costs

## Revenue Streams
- CIP / Operating Budgets
- Water /Wastewater fee streams
- Storm water Utility Fees
Prince George’s County, MD

First CBP3 Demonstration Pilot in Country

- CBP3 entity established – Clean Water Partnership (Prince Geo. County / Corvias Solutions) – March, 2015
- $100M/2,000 impervious acres for initial (3 yr) “pilot” phase
- County MS4 Permit Requires Total of 15,000 impervious acres to retrofit
- Significant cost reductions realized already (e.g. -17 weeks to less than 7 weeks – project design and delivery)
- Recognized by the Whitehouse as an innovative, 21st century approach to addressing water infrastructure & resiliency
- Over 1400 acres already in design/development
Growing National Interests!

First National NCPPP/USEPA CBP3 Summit

December 7, 2015, Philadelphia, PA

- Over 180 attendees from around the country with multidisciplinary backgrounds
- Presentations on:
  - Technology/innovation
  - Finance/Investing
  - Application of the CBP3 model
  - Public sector views on the CBP3 model
- New/emerging areas of interest:
  - SRF leveraging for GI
  - Real-time Control/Monitoring
CBP3 Community Self-Help Guide

- Led by EPA Region 3 – Issued April, 2015
- A model based upon the DBFOM approach
- Lowers costs through economies of scale and more cost-efficient project delivery
- Based upon long-term partnership
- Aligns community benefits with program incentives

Download document at:
WHAT’S Next!!

CBP3 Planning and Implementation Tools

Value for Money (VfM) Analysis
- Status quo/traditional versus P3 Delivery - including CBP3 TBL Analysis

Request For Information (RFI)
- Looking for general interest and input from private sector on approaches, ideas, etc.
- Way to advertise project ahead of RFQ

Request For Qualifications (RFQ)
- Provides project scope and goals
- Requests info on experience, background and approach to meet scope and goals
- Generally does not include costs
WHAT’S Next!!

CBP3 Planning and Implementation Tools

Request For Proposals (RFP)
- Proposals from shortlisted group
- Requests additional background/experience, and approach information
- Includes more details, including costs and financing

CBP3 Contract Documents
- Partnership Agreement
- O&M Agreement
Innovative Financing/Funding

Innovative Approaches

• Incentive-based (Philadelphia, PA)
• Market-based (Washington, D.C.)
• Public-Private Partnership (CBP3) (Prince Georges County, MD)
Market-Based Approaches

Green City, Clean Waters

Big Stick / Big Carrot

- PWD raised stormwater fees on some non-residential property owners
- Credit/rebate of up to 80% provided for onsite retention provided
- Findings show ROI is challenging
- Project aggregation may help
- Stormwater Management Incentive Program (SMIP) and Greened Acres Retrofit Program (GARP) programs launched
  - Fund retrofits <$100K (SMIP), <$90K and >10 ac (GARP)
Market-Based Approaches

Stormwater Volume Trading

• District of Columbia’s Stormwater Retention Credit (SRC) program
• Half on-site required, rest can be purchased
• Credit buyers in urban core, credit generators in outlying urban districts
• Exported retention could lead to social and environmental benefits and economic efficiencies
• First trade occurred in September, 2014!!!
CBP3s in Other Contexts?

- More CBP3s expected to emerge in near future
- Designed to be a flexible and transferrable model
  - Varying financial conditions, scales, etc.
  - Helpful if a dedicated funding source exists (stormwater utility, etc.)
- Can be used to address a number of drivers
  - Water quality, flooding, economic development, resilience, and more
Do P3s Work Everywhere/All the Time?

No – it depends upon...

- State statutes and local procurement process
  - Texas has strong P3 legislation
- Financial condition of local jurisdiction
- Outcome of Value-for-Money analysis
- Regulatory driver(s)
- Attitude towards P3 approach
- Outcome-based vision, not restricted to project-based vision
How to Get Started

**Starts with a vision...**

- Articulate your program/community goals
  - Developing an RFI and/or RFQ can help
- Perform a Value-for-Money analysis
- Develop a RFP
- Negotiate with top candidate
- Finalize and move forward
Community-Based Public-Private Partnerships (CBP3) for Green Stormwater Infrastructure

Thank You!

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