THE INFLUENCE OF P3s ON DESIGN FLEXIBILITY AND DOWNSTREAM DESIGN FEEDBACK IN THE PRESIDIO PARKWAY

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Overview

• Part 1: Background
• Part 2: Methodology
• Part 3: Findings
• Part 4: Conclusions
Part 1: Background

“A Public-Private Partnership (P3) is a long-term contractual arrangement between the public and private sectors where mutual benefits are sought and where ultimately the private sector provides management and operating services [and] puts private finance at risk.”

– Garvin & Bosso (2008)

→ P3s bundle Initial Delivery and Usage of a facility

1 Miller et al. (2000)
Research Objective & Question

• Previous studies focused on initial delivery\textsuperscript{1-3}
• A lack of exploration beyond initial delivery

→ “How does a P3 affect the life cycle design decision-making process of highway projects?”

\textsuperscript{1} Blanc-Brude et al. (2006)
\textsuperscript{2} Chasey et al. (2012)
\textsuperscript{3} NAO (2003)
Part 2: Methodology

- An embedded single-case study design
- A unique context to conduct a side-by-side comparison
- Semi-structured interviews with key informants

**CONTEXT:** Project Delivery of Highway Projects in the US

**CASE:** Presidio Parkway Project

- **Embedded Unit of Analysis 1:** Design Decision-Making Process
  - Phase I – DBB Delivery
- **Embedded Unit of Analysis 2:** Design Decision-Making Process
  - Phase II – P3 Delivery
CONSTRUCTION TIMELINE & PROJECT FEATURES

- **2009**: PHASE I - Traffic Shift
- **2010**: PHASE II - Traffic Shift

Source: PresidioParkway.com
Data Collection

• 16 semi-structured interviews with 20 individuals
  • 15 Public Sector (3 consultants)
  • 5 Private Sector

Public Sponsor’s Consultants
Technical/Financial/Other:

ARUP
PB
joint venture

Public Co-Sponsors

Gov’t Advisers/Support
Legal/P3 Unit:

Lenders
TIFIA, U.S. DOT
& 5 Commercial Banks

Equity Investors

P3 Developer

P3 Advisers
(legal, financial, technical)

Design & Engineering

O&M Contractor

Design-Build JV

Government Advisers/Support
Legal/P3 Unit:

Equity Investors

Lenders
TIFIA, U.S. DOT
& 5 Commercial Banks

Design-Build JV

P3 Developer

P3 Advisers
(legal, financial, technical)
## Data Analysis

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![Bar chart showing percentage coverage](chart.png)

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Part 3: Findings
Timing of P3 Implementation

“Just because phase one was already built, a lot of ground work was done for the P3 group and in the contract we have some language that phase two has to be similar to phase one, so pretty much it takes the innovation out of the developer.”

- Project Sponsor Design Manager

“I think this project has not had as much leeway for innovation as what I think of is a typical P3 because we have been more confined by what was done in phase I of the project with respect to the design.”

- P3 Developer PM
Design Flexibility

“This project is rather prescriptive for a P3 project because it is supposed to mimic the look of the other side so there isn’t really a lot of flexibility.”

- Project Sponsor Consultant

“This job is a little more prescriptive, I mean [the DOT] had designed the first 2 big elements of the job, the southbound battery tunnel and the presidio viaduct, and we are really following the boiler plate of [the DOT’s] specifications.”

-P3 DBJV Manager
“[The P3 designer] would tell us all day long, 'we never really get to talk to the end user and how they want it configured, how they want it to function', and those are all the conversations that we have on a weekly basis.”

“I think phase one was built as a roadway project and not necessarily a tunnel project which has a lot of more intricacies in terms of how traffic is managed, how the systems in the tunnel are managed... that is where your bang is, your bang for your buck is there.”

- P3 O&M Project Manager
Part 4: Conclusions

- Timing of P3 implementation
- Design ‘prescriptiveness’ in P3s
- Downstream design feedback benefits
  - Ability to influence the “means and methods”
  - O&M alignment
Limitations & Future Work

- Findings of a **within-case** analysis
- On-going **cross-case** comparative analysis

**CONTEXT:** Project Delivery of Highway Projects in the US

- **Presidio Parkway Project**
  - Embedded Unit of Analysis 1: Design Decision-Making Process Phase I – DBB Delivery
  - Embedded Unit of Analysis 2: Design Decision-Making Process Phase II – P3 Delivery

- **US-36 Managed Lanes Project**
  - Embedded Unit of Analysis 1: Design Decision-Making Process Phase I – DBB Delivery
  - Embedded Unit of Analysis 2: Design Decision-Making Process Phase II – P3 Delivery

- **Elizabeth River Tunnels**
  - Embedded Unit of Analysis: Design Decision-Making Process – P3 Delivery

**Literal Replication Across Three P3 Cases**
Thank You

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References


