SR 37: AFFORDABILITY ANALYSIS & FINANCING OPTIONS

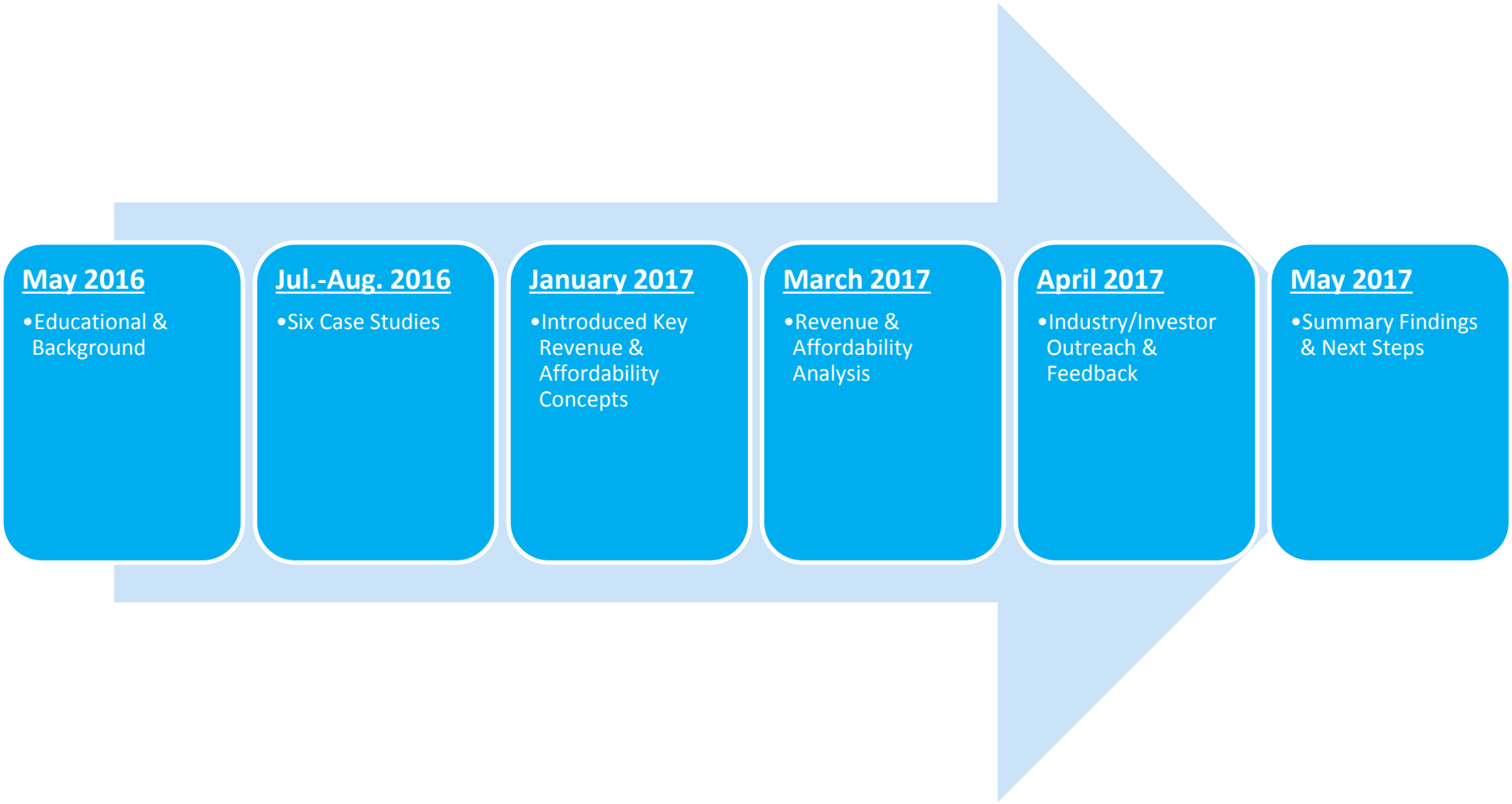
PFAL

May 04, 2017

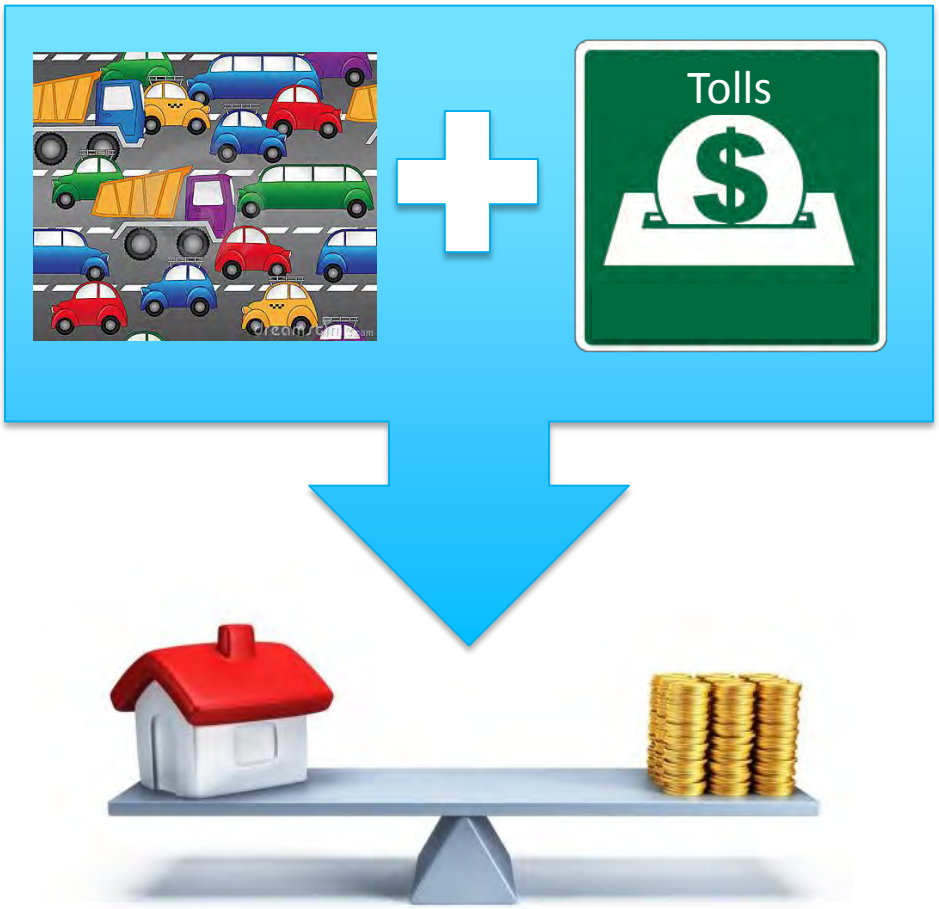
AGENDA

1. Introduction
2. Affordability analysis
3. Next steps
4. Q&A

GETTING TO THIS POINT

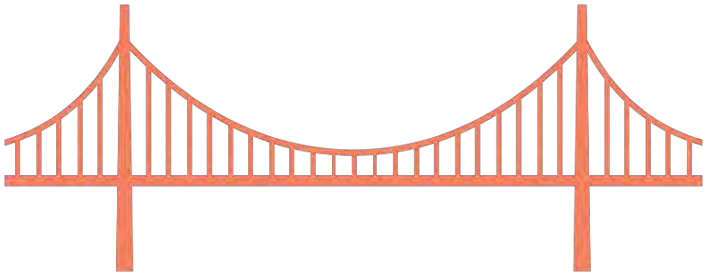


PROCESS OVERVIEW



Project Affordability

TOLLING CONCEPTS



"Toll Road"

Three toll locations
Toll charge per mile travelled

Segment	Toll
A	$1.70
B	$2.25
C	$1.05
Total	$5.00

"Toll Bridge"

One toll location
Toll charge per "crossing"

Segment	Toll
A	-
B	$5.00
C	-
Total	$5.00

ALTERNATIVE TOLL REVENUE GENERATION SCENARIOS TESTED

Scenario	Toll Rate	Toll Option	Total Revenue
Four lanes tolled	$5 ⇆	Toll Road (3 locations)	$12.5 b
		Toll Bridge (1 location)	$9.3 b
Two lanes tolled one direction	$7 →	Toll Road (3 locations)	$9.4 b
		Toll Bridge (1 location)	$7.5 b
One reversible lane tolled	$5 ⇆	Toll Bridge (1 location) AM – westbound PM - eastbound	$0.3 b

* Total revenue generated over 50 years of tolling. Toll rate escalated over this period.

Order-of-magnitude comparison, for illustrative purposes only.

e/w = each way; o/w = one way

TOLL REVENUE CONCLUSIONS

Tolling

- Tolling is required to fund a replacement project.
- There are scenarios that generate enough toll revenue to fund a major replacement project.

Revenue Range

- Toll revenue generated is $300 million to $12.5 billion over 50 years depending on tolling strategy (i.e. toll road vs. toll bridge), toll rates and number of tolled lanes.

Tolling One Lane

- Tolling at least two lanes in one direction is necessary to fund a viable project.
- Tolling only one reversible lane (i.e. leaving at least one lane free in each direction) is insufficient to fund the lowest cost $1 billion solution.

Additional Cash

- Potential for “additional cash” beyond initial investment scope, which could be used for other project improvements in the corridor.

Traffic Diversion

- Further analysis required to assess the impact of increased traffic diversion to “free” alternatives, if a toll is imposed on the SR 37 facility.

FINANCING THE PROJECT - NEXT STEPS

Q1: What financing strategy(ies) should we pursue?

The strategy will determine what project size we can afford using a combination of tolling and financing options.

TECHNICAL ALTERNATIVES

1. Levee/Embankment

Segment	Construction Cost in 2030	Construction Cost in 2022
A	$0.5 b	$0.4 b
B	$0.7 b	$0.5 b
C	$0.1 b	$0.1 b
Total	**$1.3 b**	**$1.0 b**

2. Slab Bridge Causeway

Segment	Construction Cost in 2030	Construction Cost in 2022
A	$1.3 b	$1.0 b
B	$2.2 b	$1.7 b
C	$0.3 b	$0.3 b
Total	**$3.8 b**	**$3.0 b**

3. Box Girder Causeway

Segment	Construction Cost in 2030	Construction Cost in 2022
A	$1.4 b	$1.1 b
B	$2.5 b	$2.0 b
C	$0.4 b	$0.3 b
Total	**$4.3 b**	**$3.4 b**

Source: UC Davis Study, 2016

DELIVERY OPTIONS

1. Traditional

- **Revenue:** non-tolled facility
- **Facility Ownership:** public
- **Contract:** traditional inter-agency agreements
- **Funding:** only public funds (local/state/fed grants)
- **Delivery Method:** Design-Bid-Build (DBB)

2. Public-private partnership (P3)

- **Revenue:** tolls, sales tax
- **Facility Ownership:** public
- **Contract:** long term lease with private partner (e.g. 30 to 50 years)
- **Funding:** mix of public funds (local/state/fed grants) and private funds (equity & debt)
- **Delivery Method:** Design-Build-Finance-Operate-Maintain (DBFOM), DBFM and DBF

3. Public-Public

- **Revenue:** tolls, sales tax
- **Facility Ownership:** public
- **Contract:** Cooperative Agreement e.g. Bay Area Toll Authority (BATA)
- **Funding:** publicly financed (e.g. revenue bonds), grants
- **Delivery Method:** DBB, DB

4. Privatization

- **Revenue:** tolls
- **Facility Ownership:** private
- **Contract:** Acquisition & Development Agreement
- **Funding:** 100% privately financed (equity & debt)
- **Delivery Method:** full private responsibility for asset

Goals/Objectives: Roles & Responsibilities

Determine "Best Value" approach via Value-for-Money Assessment

Industry/Market Feedback

AFFORDABILITY CONCLUSIONS

Minimum Toll Rate

- Toll Road: $6 one-way or $3 each-way funds $1 billion solution for Segment A, B & C.
- Toll Bridge: $4 one-way or $ 2 each-way funds $500 million solution for Segment B.

Upper End Toll Rate

- Toll Road: $7 each-way funds $2.6 billion project.
- Toll Bridge: $7 each-way funds $1.9 billion project.

Responsibilities & Transfer of Risk

- Identify acceptance and transfer of risk.
- Desire for risk transfer needs to be balanced with a potential to have a higher or lower investment return.

Note: affordability assessment includes funding design, construction, O&M, full lifecycle and financing costs for years 1-50

DELIVERY - NEXT STEPS

Q1: What risks and responsibilities can the public sector transfer to the private sector?

Q2: How will the public sector fund the risks and responsibilities it choses to retain?

The trade-off analysis (considering cost, availability of funding, level of control and revenue sharing potential) will determine which delivery method is most appropriate.

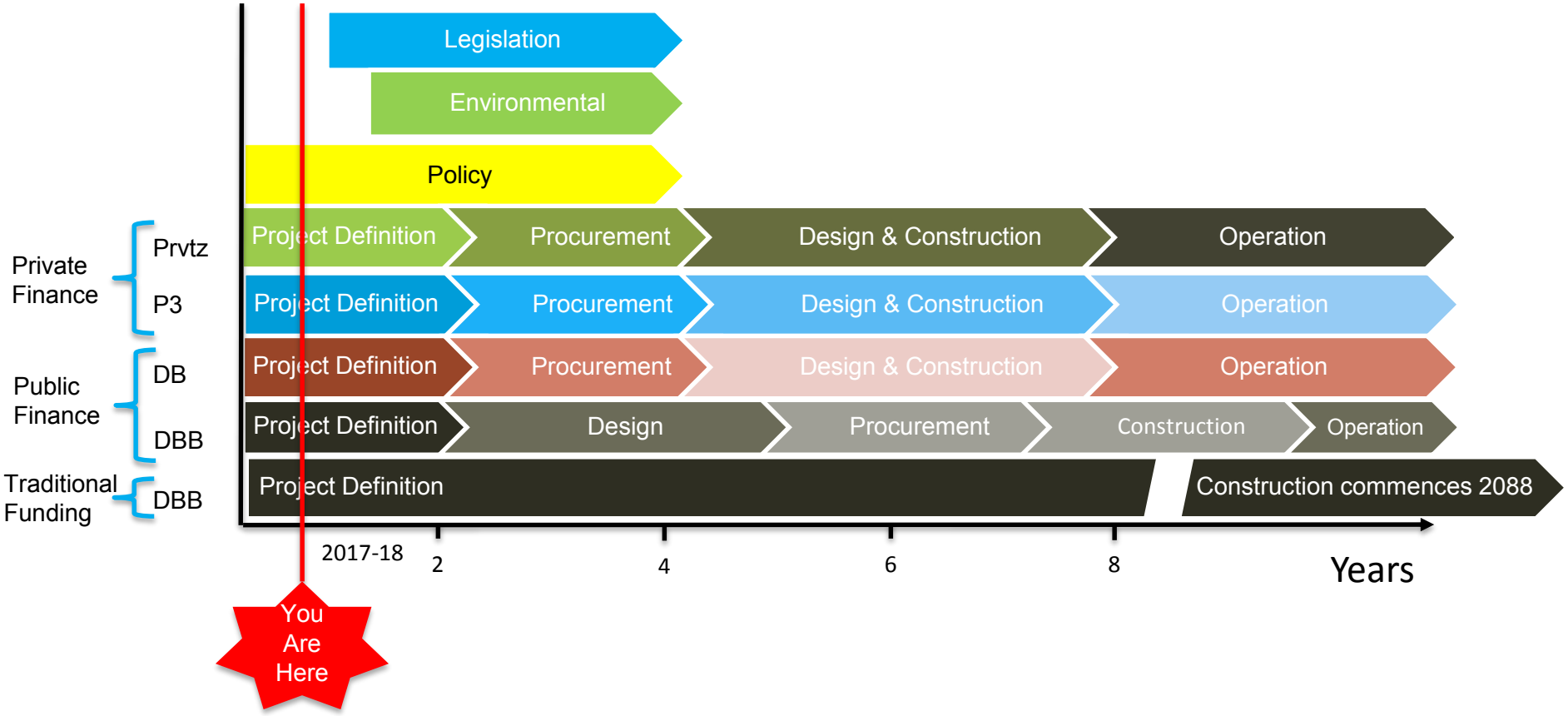
RISK TRANSFER

Typical risk transfer and funding responsibility under alternative delivery methods. Trade-offs include availability of public funding, level of control and revenue sharing.

Delivery Option	Project Definition	Environmental	Design	Construction	Operations & Maintenance	Toll Revenue
Traditional (DBB)	Public					N/A
P3 (DBFOM)	Public		Private			Public or Private
Public (DBB or DB)	Public		Private*		Public	Public
Privatization	Private					Private

* Private sector does not fund or finance but is compensated on a “pay-go” basis

PROJECT DEVELOPMENT INDICATIVE TIMELINES



Delivery models: Prvtz = Privatization, P3 = Public Private Partnership, DB = Design Build, DBB = Design Bid Build

Private finance means private debt/equity e.g. developer/infrastructure funds, bank debt, private placement, PABs;
Public finance means municipal/federal debt e.g. revenue bonds, TIFIA loan;
Traditional funding means the highway is not tolled e.g. federal/state/local funding such as STIP/ITIP;

Q & A

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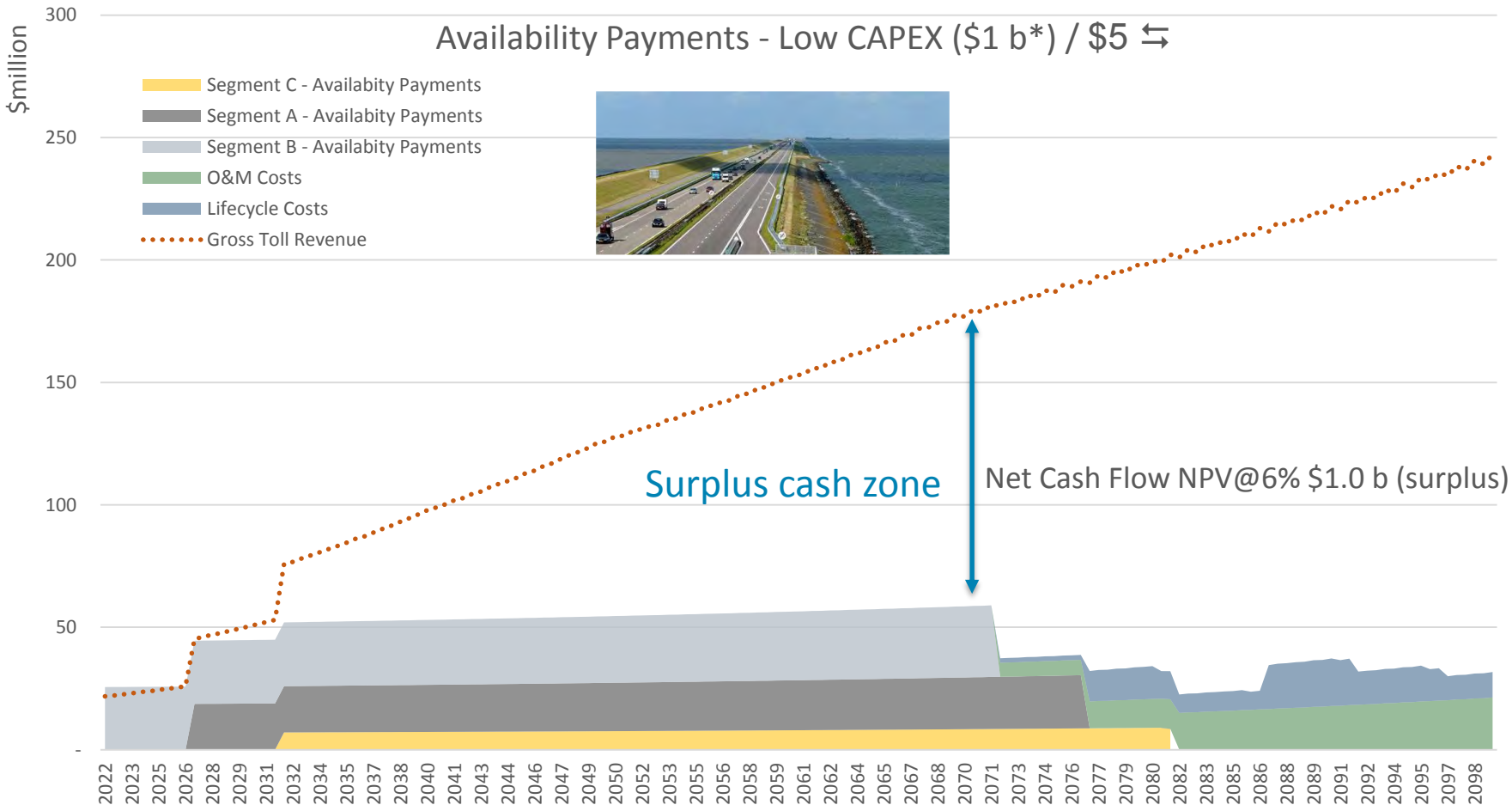
P3: FULLY FUNDED PROGRAM



* Construction costs from the UC Davis Study, 2016.
NPV means Net Present Value.

FEASIBILITY ENVELOPE