OCTA

BOARD COMMITTEE TRANSMITTAL

April 23, 2012

To: Members of the Board of Directors

From: Wendy Knowles, Clerk of the Board

Subject: Update on the Interstate 405 Improvement Project Alternatives, Business Models, and Delivery Options

Regional Planning and Highways Committee Meeting of April 16, 2012

Present: Directors Cavecche, Crandall, Galloway, Glaab, Hansen, Herzog, and Nelson
Absent: Director Bates

Committee Vote

No action was taken on this receive and file information item.

Staff Recommendation

Receive and file as an information item.

ORANGE COUNTY TRANSPORTATION AUTHORITY

Update on the Interstate 405 Improvement Project Alternatives, Business Models, and Delivery Options

Staff Report

OCTA

April 16, 2012

To: Regional Planning and Highways Committee

From: Will Kempton, Chief Executive Officer

Subject: Update on the Interstate 405 Improvement Project Alternatives, Business Models, and Delivery Options

Overview

Project development and environmental clearance work continues on the Interstate 405 Improvement Project between State Route 55 and Interstate 605. Three build alternatives, including the use of tolled express lanes, are being evaluated in the draft environmental document. Cost estimates for all three build alternatives exceed the funding identified in Measure M2 Project K. Staff is presenting the findings of the strategic financial and delivery advisor retained to further assess the project's financial and delivery options.

Recommendation

Receive and file as an information item.

Background

The Interstate 405 (I-405) Improvement Project (Project) proposes to add new lanes to the I-405 between State Route 55 and Interstate 605 (I-605), generally within the existing right-of-way (ROW). Project development and environmental clearance work is ongoing. Three build alternatives are being considered. Alternative 1 proposes to add a single general purpose lane in each direction from Euclid Street to I-605, Alternative 2 proposes to add dual general purpose lanes in each direction from Euclid Street to I-605, and Alternative 3 proposes to add a single general purpose lane from Euclid Street to I-605 and add one express lane which, combined with the existing high-occupancy vehicle lane, operates as a two-lane express lane facility in each direction from State Route 73 (SR-73) to I-605. All three of these alternatives deliver at least one general purpose lane in each direction, meeting the commitment made for the I-405 as part of Measure M2 (M2) Project K. Cost estimates for all three build alternatives exceed the funding identified in M2 Project K, which is currently estimated to be $600 million.

On April 25, 2011, staff presented results of the Phase II Traffic and Revenue Feasibility Study for Alternative 3 which indicated that projected toll and non-toll revenues do not match the projected funding needed to cover the difference between the $600 million identified for M2 Project K and the cost estimates to build the Project. On April 25, 2011, the Orange County Transportation Authority (OCTA) Board of Directors (Board) authorized staff to evaluate alternative funding and delivery methods to further assess the financial feasibility of the Project.

Sperry Capital, Inc., (Sperry Capital) was retained to further assess the Project's financial viability, research options available to leverage additional available funding, and determine the legislative steps required to implement the Project.

Discussion

The objectives of the advisor included comparison of the use of innovative finance and project delivery options to potentially implement all three alternatives. For Alternative 3, the express lanes alternative, three separate project finance and delivery options were evaluated: Option One – Self Finance, whereby OCTA issues non-recourse toll road revenue bonds; Option Two – Availability Payments, whereby OCTA pays a private developer "performance based" availability payments, and Option Three – Public-Private Partnership (P3) Concession, whereby OCTA pays a private developer based on future toll and non-toll revenues.

Sperry Capital obtained project construction cost estimates from the consultant currently preparing the draft environmental document and performed its own evaluation of these cost estimates. Sperry Capital used the already completed Phase II traffic and revenue projections and analyzed OCTA's retained costs, such as support costs and ROW costs, which were compiled to estimate the total required funding. Sperry Capital also estimated the likely express lanes non-toll revenue, operating costs, and lifecycle costs for the three express lanes finance and delivery options. Finally, the Sperry Capital team estimated finance costs, along with the required issuance costs, such as capitalized interest during construction, and the initial funding of a debt service reserve fund to model and compile the total required funding.

Alternative Financing Options

For Alternatives 1 and 2, the total estimated project cost is $1.3 billion and $1.4 billion, respectively. As the M2 revenues for this project are currently estimated to be $600 million over the life of the M2 program, this leaves an estimated funding need of $700 million for Alternative 1 and $800 million for Alternative 2.

For Alternative 3, the express lanes alternative, the total estimated project cost is $1.7 billion. Alternative 3 is approximately two miles longer than the other two alternatives and includes an Express Lanes direct connector between the I-405 and the SR-73, and would require additional Intelligent Transportation System components to operate the Express Lanes facility. Alternative 3 delivers congestion management via tolling to provide the public with the option of a guaranteed speed and travel time through the corridor. Alternative 3 provides for greater vehicle throughput, as vehicles travelling at or near the speed limit in the Express Lanes will move through the corridor in greater numbers than vehicles in slower moving general purpose lanes. With the same M2 revenues of $600 million for the Express Lanes Alternative, the funding need is approximately $1.1 billion.

For Alternative 3, three separate project finance options were modeled - Self Finance, the use of Availability Payments, and a P3 Concession. In all cases, the project cost is $1.7 billion. For the Self Finance option, approximately $300 million dollars could be raised from non-recourse future toll revenue bonds, leaving a funding need of $800 million. This funding need could be met by the sale of future M2 revenue bonds. This option would ensure that revenue generated would be controlled by OCTA, with these revenues projected to be approximately $1.4 billion over the next 30 years. With the Availability Payments option, approximately $1.2 billion could be raised, although the repayment cost of $5.8 billion exceeds the future toll revenue projections of $4.9 billion, leaving a deficit of $900 million. Performance based repayments would be made by OCTA regardless of toll revenues. With the P3 Concession option, approximately $800 million could be raised, leaving a funding need of $200 million. All toll revenues would go to the P3 Concessionaire, and there would be no debt costs associated with this option.

A federal Transportation Infrastructure Finance and Innovation Act (TIFIA) loan guarantee could substantially reduce the costs associated with obtaining financing for the Project. There are a number of threshold requirements that must be met in order for a project to qualify for TIFIA funding, including that the project's senior debt receive an investment grade rating from a nationally recognized credit rating agency and the project has a dedicated revenue source, such as tolls, that are pledged to secure debt service payments for both TIFIA and senior debt financing. The TIFIA currently has approximately $110 million available annually to provide credit subsidy support to projects. However, proposed authorizing legislation in both houses of Congress substantially increases that total to $1 billion annually. Although dependent on the individual risk profile of each loan, collectively, even the lower budget authority could support approximately $1.1 billion in annual lending capacity. In addition, minority equity investors such as the California Public Employees'

Retirement System could also provide financing in exchange for a relatively stable long term return on its investment.

As part of the M2020 Board Workshop held on February 27, 2012, staff presented options to the Board which would allow the M2 program to fund for the construction cost to build Alternative 1, via the issuance of future M2 revenue bonds. Alternative 2 would require an additional $100 million and would deliver above the M2 commitment. Also presented was a method to fund for Alternative 3, via the issuance of future M2 revenue bonds and the issuing of future toll revenue bonds.

Delivery Method

The Project's financial model assumes that design-build is the delivery method for all three alternatives and all Alternative 3 options. The design-build delivery method can significantly reduce the total time to design and construct the Project as compared to the traditional design-bid-build delivery method. In addition, the design-build delivery method allows the shifting of certain risks to the private contractor as well as providing the opportunity for design and construction innovation from the private contractor.

There are a number of options available for OCTA to use the design-build procurement method for the Project. One legislatively authorized option is to use California Streets and Highways Code Section 143 (Section 143), which allows a public or private entity, or a consortia thereof, to enter into a lease agreement with the California Department of Transportation for a transportation project. Section 143 provides for best value design-build to be used as the procurement process. An advantage of Section 143 is that this legislation includes the required state tolling authority. The California Transportation Commission (CTC) must approve the Project, and this program sunsets on December 31, 2016.

Another legislatively authorized option is to use California Public Contract Code, Section 6800, which established a design-build demonstration program for a limited number of projects to evaluate the benefits of the design-build delivery method. Again, the CTC must approve the Project, and this program sunsets on January 1, 2014. Use of this option would require OCTA to pursue a legislative change to the sunset date.

A third option would be for OCTA to seek authorizing design-build legislation specifically for the Project. This may have the advantage of allowing OCTA to seek more favorable conditions for delivery of the Project. Riverside County Transportation Commission obtained its own legislative authority for the State Route 91 Corridor Improvement Project (2010 A.B. 2089, amending Public Contract Code Section 6802(3)), which also includes tolling authority.

Next Steps

The goal of the Project is to proceed immediately into the implementation phase once the notice of determination/record of decision for the environmental impact report/environmental impact statement (EIR/EIS) is approved, which is currently scheduled for 2013.

All three build alternatives will continue to be evaluated during the environmental process. Public review of the draft EIR/EIS is scheduled for June 2012. After release of the draft EIR/EIS for the public review and comment period, staff will bring all three alternatives to the Board for a decision on a Locally Preferred Alternative (LPA). The final EIR/EIS will be prepared based on this recommendation. At that time, staff will seek approval to release a request for proposals (RFP) for program management services, assuming the design-build procurement method will be used to implement the Project's LPA. Release of the RFP and subsequent hiring of a program management consultant is critical to the overall project delivery schedule as the tasks required to prepare the design-build RFP are extensive and will take approximately 18 months to develop.

Summary

Staff is providing information from the strategic financial and delivery advisor analysis performed for the I-405 Improvement Project.

Attachment

None.

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ORANGE COUNTY TRANSPORTATION AUTHORITY

Update on the Interstate 405 Improvement Project Alternatives, Business Models, and Delivery Options

PowerPoint

Update on the Interstate 405 Improvement Project Alternatives, Business Models, and Delivery Options

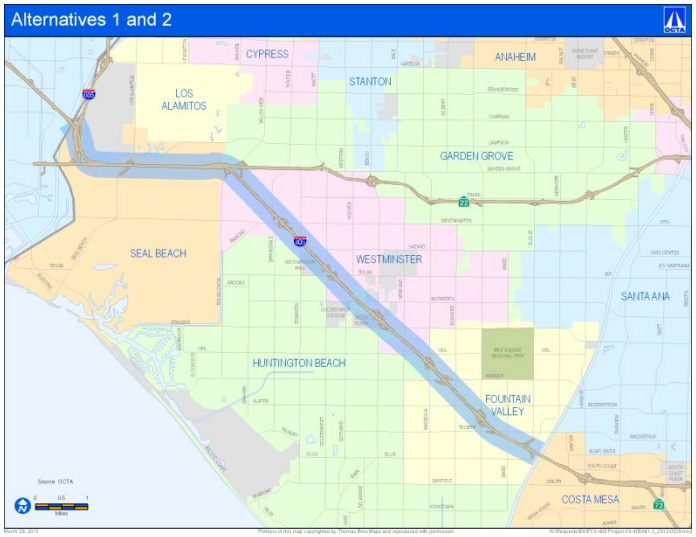
Overview

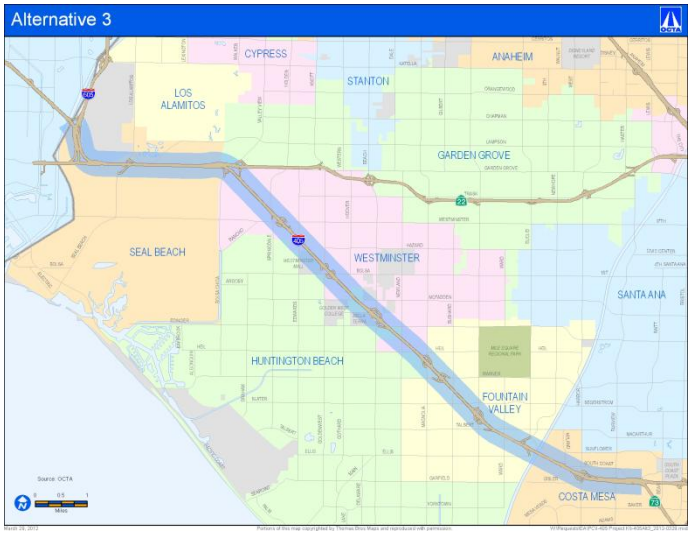
I-405 Draft EIR / EIS released soon – Three build alternatives

Alternative 1 - Adds one GP* lane each direction from I-605 to Euclid Street

Alternative 2 - Adds two GP* lanes each direction from I-605 to Euclid Street

Alternative 3 - Adds one GP lane to Euclid Street and one express lane each direction from I-605 to SR-73; express lane combines with existing HOV** lane to make a 2-lane (each direction) express facility (HOV3+)





* GP = General Purpose Lane

** HOV = High Occupancy Vehicle

Measure M2 Board Workshop

- Confirmed we have financial capacity to deliver M2
- Showed I-405 in context of overall M2 program
- M2 includes $600M line item for I-405
- Discussed financial methods for delivering I-405

I-405 includes three alternatives with estimated costs:

- Alternative 1 $1.3B
- Alternative 2 $1.4B
- Alternative 3 $1.7B

I-405 – Existing Conditions

I-405 looking northwest at Springdale Street overcrossing

I-405 Improvement Project - Alternative 1

Adds one GP lane in each direction I-605 to Euclid Street

I-405 Improvement Project - Alternative 2

Adds two GP lanes in each direction I-605 to Euclid Street

I-405 Improvement Project - Alternative 3

Adds one GP lane and an express lane which, combined with existing HOV lane, operates as an express facility like the 91 Express Lanes – extends from I-605 to SR-73

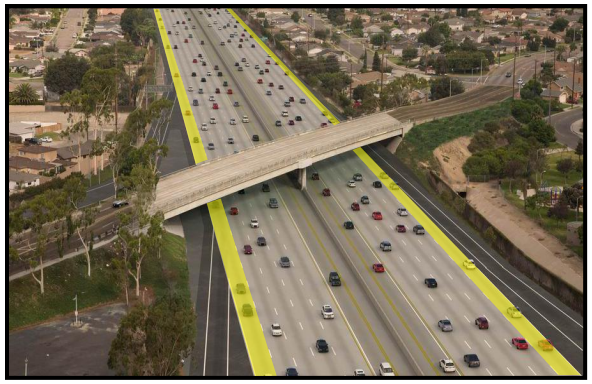
I-405 Delivery Approaches

Depending on alternative selected, could use:

- Traditional design-bid-build
- Design-build
- Design-build-finance
- Design-build-finance-operate-maintain

Alternative 1

- Delivers M2 Project K
- M2 Project K is one GP lane in each direction
- Cost estimate is $1.3B*
  - $600M available from M2 Project K line item
  - Funding need is $700M**
- Requires design-build legislation
- No revenue potential

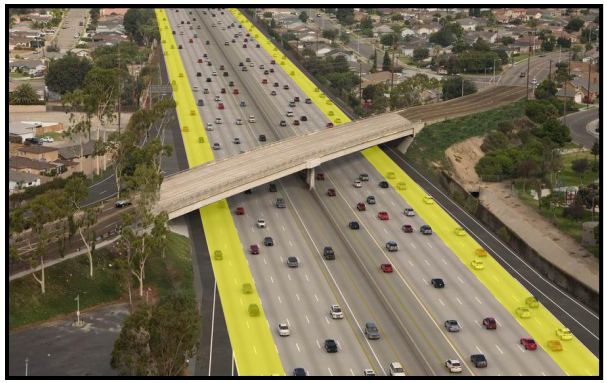


* Cost estimates assume design-build delivery model

** Potential to be funded from M2 Freeway Program as proposed in Draft M2020 Plan

Alternative 2

- Delivers M2 Project K
- Builds one additional GP lane in each direction beyond M2 Project K
- Cost estimate is $1.4B*
  - $600M available from M2 Project K revenues
  - Funding need is $800M**
- Requires design-build legislation
- No revenue potential



* Cost estimates assume design-build delivery model

** Potential to be funded from M2 Freeway Program as proposed in Draft M2020 Plan

Alternative 3

- Delivers M2 Project K
- Builds capacity beyond M2 Project K and increases throughput
- Three delivery options analyzed
- Requires design-build and tolling authority
- Cost estimate is ~ $1.7B*
  - $600M available from M2 Project K revenues
  - Funding need depends on delivery option
- Revenue available from tolls

* Cost estimate varies depending on financing option

Stantec Traffic and Revenue (T&R)

T&R Phase II assumptions:

- New GP lanes to Euclid Street and new express lanes from I-605 to SR-73
- Direct express connection to SR-73
- Two intermediate access points
- 91 Express Lanes toll policy
  - Uses congestion management pricing by adjusting tolls up or down depending on traffic volume
  - HOV3+ rides free most hours (except super peak when they pay half price)

I-405 Improvement Project
Alternative 3 Delivery Options

Prepared for OCTA by:
Sperry Capital, Inc.
InfraConsult LLC
KPMG LLP
Ray Strategies LLC

Alternative 3, Delivery Option 1

- Option 1: Self-Finance
  - Design-build
  - 91 Express Lanes operating model
    - Same toll and non-toll revenue structure
    - OCTA responsible for operations and maintenance (O&M)
  - OCTA retains toll revenue and revenue risk and control of toll structure
- Minority equity investment potential (Hybrid)

Alternative 3, Delivery Option 2

- Option 2: Availability Payment (AP) Contract
  - Design-Build-Finance-Operate-Maintain (DBFOM)
  - OCTA makes “performance based” payments to private contractor regardless of toll revenue
  - Contractor responsible for DBFOM
  - OCTA retains revenue risk and control of toll structure

Alternative 3, Delivery Option 3

- Option 3: Public-Private-Partnership (P3) Concession
  - Concessionaire's responsibility:
    - Design-Build-Finance-Operate-Maintain
  - Concessionaire retains revenue and revenue risk
  - Must negotiate toll policy

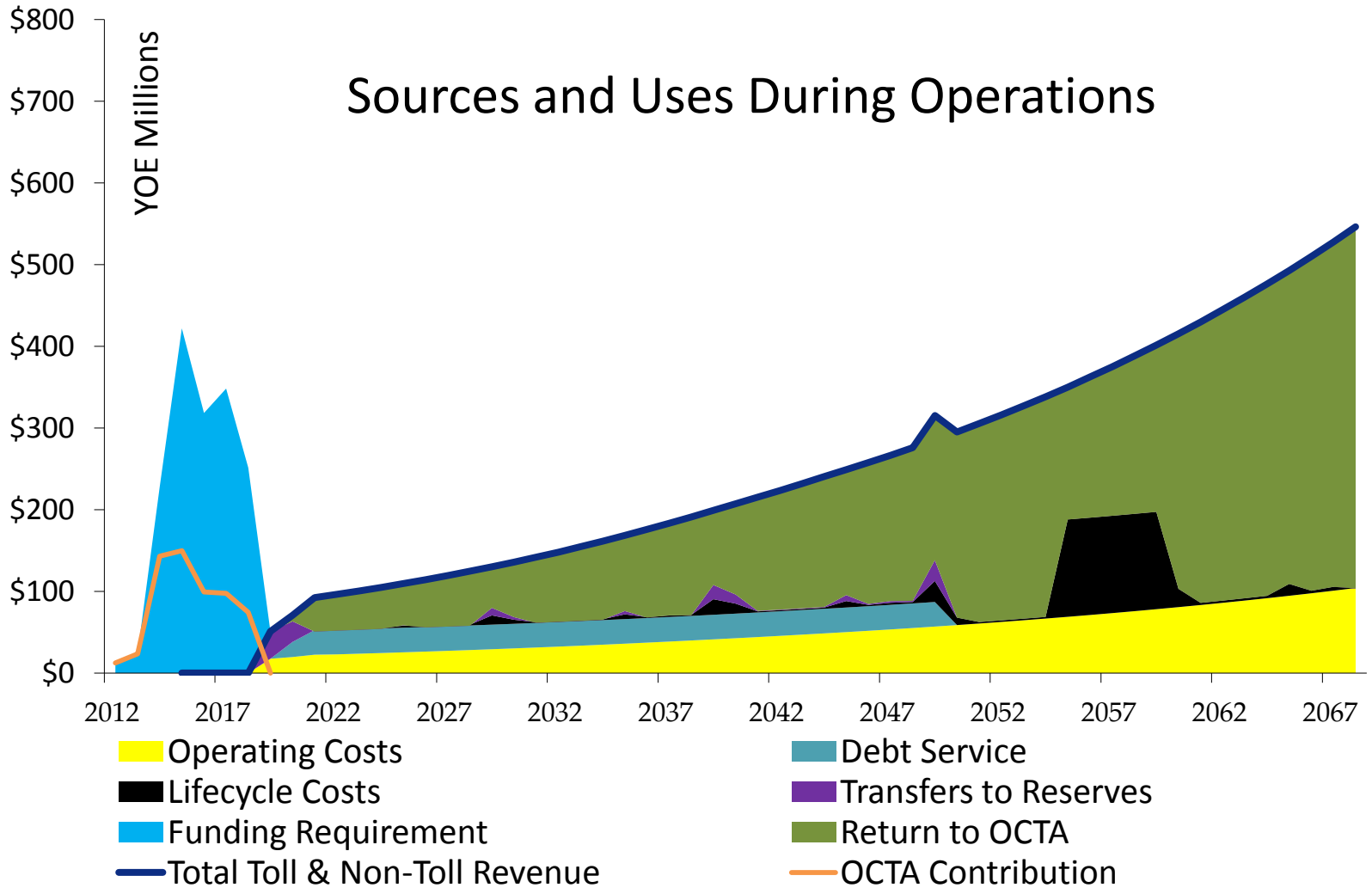
Self-Finance Characteristics

- Upfront needs include $1.4B (M2 and external funds)
- Non-recourse toll bonds for early construction ~ $300M*
  - Likely BBB- or BBB rating
  - Assumes level debt structure
  - Requires 1.75x debt coverage ratio
  - Requires capitalized interest
- Uses 91 Express Lanes toll structure, non-toll revenue and operating cost model
- Generates $2.8B net revenue by 2048**

* Non-recourse bonds are paid solely from express lanes toll revenues.

** Does not reflect M2 debt service; revenues are expressed in nominal dollars.

Self-Finance Cash Flow

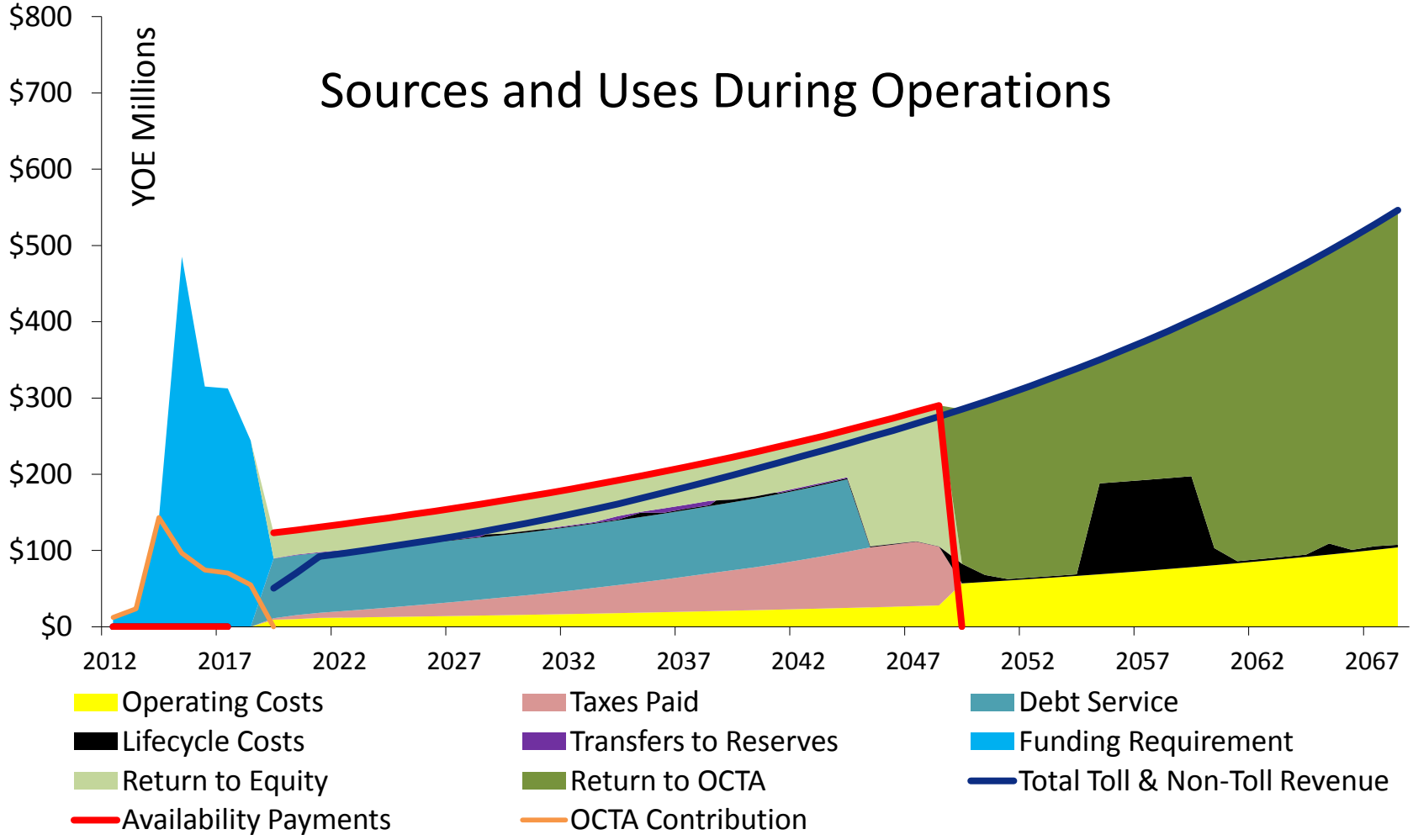


AP Contract Characteristics

- Assumes $400 million from M2 with $1.2B from contractor
- Contractor raises 100 percent of design and construction costs
- 30-year AP cost is $5.8B
  - $123M in 2018, growing to $290M in 2048
  - OCTA responsible for any revenue shortfall
  - First year shortfall ~ $70M
- 30-year toll revenue estimate is $4.9B
- Net shortfall is $900M

AP

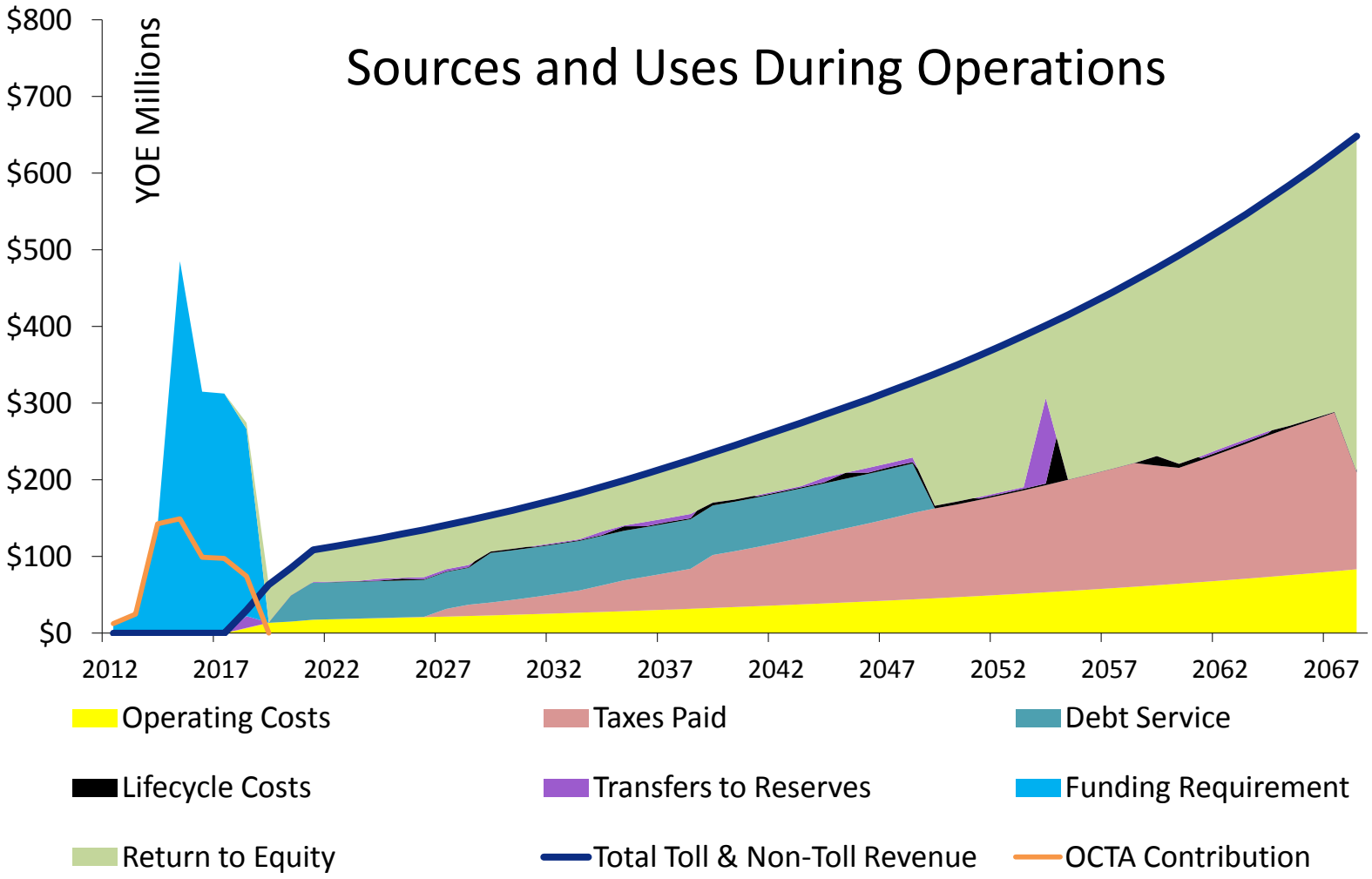
AP Cash Flow


Sources and Uses During Operations
YOE Millions
$800
$700
$600
$500
$400
$300
$200
$100
$0
2012
2017
2022
2027
2032
2037
2042
2047
2052
2057
2062
2067
Operating Costs
Taxes Paid
Debt Service
Lifecycle Costs
Transfers to Reserves
Funding Requirement
Return to Equity
Return to OCTA
Total Toll & Non-Toll Revenue
Availability Payments
OCTA Contribution

P3 Concession Characteristics

- Assumes $600M from M2 and $800M from concessionaire
- Funding shortfall is $200M
- 50-year concession
- Concessionaire responsible for construction, financing, O&M, lifecycle costs
- Concessionaire keeps 100 percent of revenue and assumes 100 percent of revenue risk
- Assumes 20 percent higher T&R as compared with Stantec forecast

P3 Concession Cash Flows



Risk Transfer by Delivery Method

	Design	Build	Operations	Maintenance	Financing	Revenues
Option 1 (Self-Finance)	●	●	○	○	○	○
Option 2 (Availability Payment)	●	●	●	●	●	○
Option 3 (P3 Concession)	●	●	●	●	●	●

○ Responsibility of OCTA

● Responsibility of the Private Sector

Alternative 3 Options Comparison (In Billions $)

Column	A (A=B+C+D)	B	C	D	E	F	G	H (E-F-G=H)
Delivery Options	Total I-405 Project Cost	M2 Assumption	Debt/Funds Available for Construction	Funds Needed	Toll Revenue Estimate	Total O&M and lifecycle	Toll Road Debt Cost/AP Payments	Net Toll Revenue to OCTA (30 Years)
SF	$1.7	$0.6	$0.3 (toll bonds)	$0.8	$4.9 (30 yrs)	$1.2	$0.9	$2.8+
AP	$1.6*	$0.4**	$1.2 (AP funds)	$0.0	$4.9 (30 yrs)	N/A	$5.8	($0.9)
P3	$1.6*	$0.6	$0.8 (concession)	$0.2	N/A (concession)	N/A	N/A	$0

* Estimates for AP and P3 reflects fewer project contingencies and consultant-provided cost variances

** Represents support and right-of-way capital costs only

\+ Does not include debt service on M2 bonds; could be used to repay M2, accelerate toll debt retirement, or other purposes

Conclusions

SF

Self-finance gives OCTA local control and ownership of excess revenue

AP

AP contract requires payments regardless of toll revenues for 30 years. AP transfers control, OCTA keeps revenue; however, cost is greater than toll revenues and results in a shortfall.

P3

P3 concession transfers control and all toll revenues typically for 50 years

Next Steps

Description	Dates (2012)
I-405 DEIR/DEIS Release	May
I-405 DEIR/DEIS 45-day Public Review	May/June
I-405 Locally Preferred Alternative Selection	June/July
M2020 Recommendations and I-405 Delivery Model Selection	July/Aug
M2020 Plan of Finance	Oct/Nov