

Interstate 405 Improvement Project

Initial Toll Policy and Preliminary Finance Plan

Background

- I-405 carries 257,000 – 370,000 Average Daily Traffic*
- Regular and high-occupancy vehicle (HOV) lanes congested in peak hours
- Traffic growth of about 30% expected by 2040
- Project more than 11 years in development
- Final Environmental Impact Report approved March 2015
 - Adds one General Purpose lane each direction
 - Fulfills promise to voters by delivering Measure M Project K
 - Adds one Express Lane each direction**
 - Paid for with user fees / tolls
 - Reconstructs 18 bridges

Description	Direction	New lanes
General Purpose	Northbound	1
General Purpose	Southbound	1
Express Lane	Northbound	1
Express Lane	Southbound	1
<hr/>		
Total New Lanes	Both directions	4

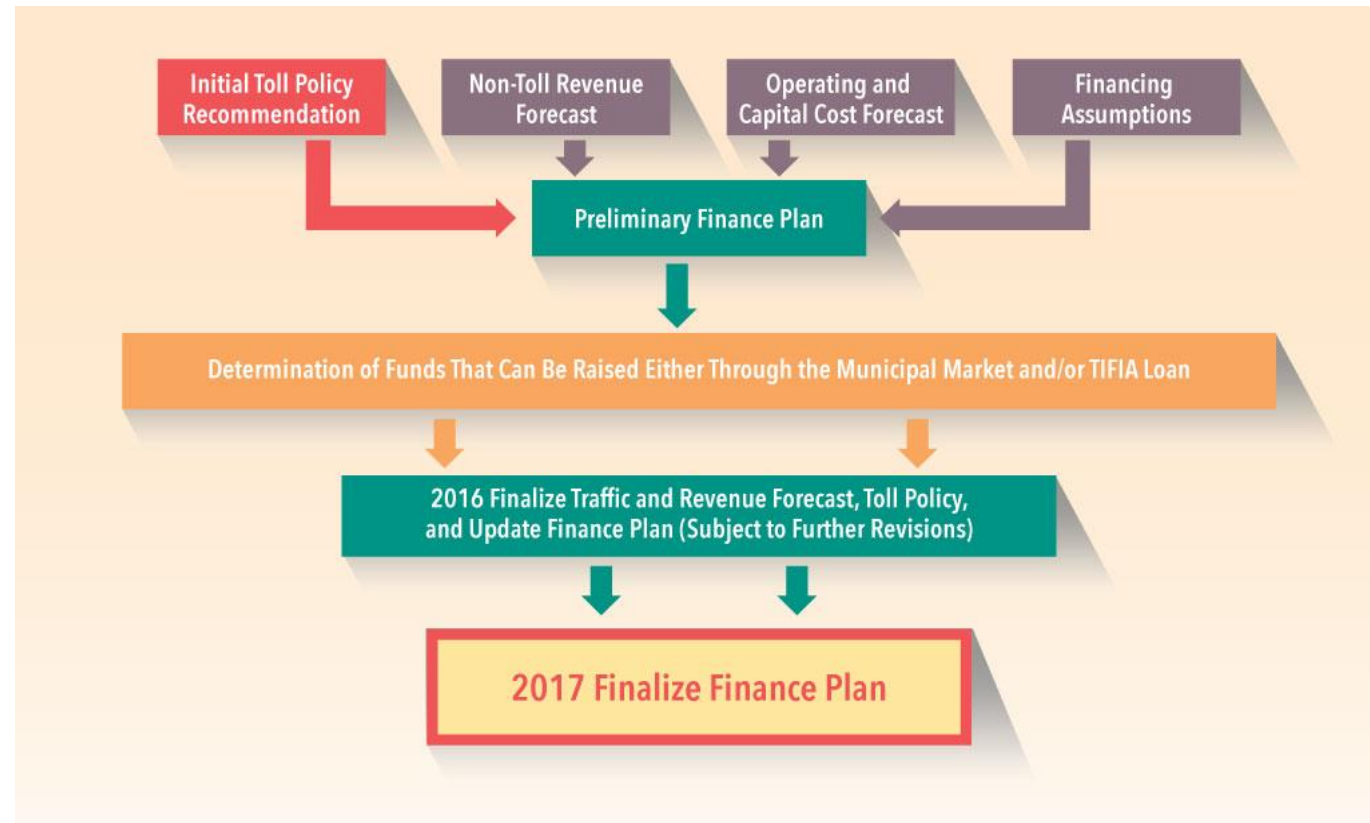
* Represents traffic in 2009 - From Final Environmental Impact Report

** The one new Express Lane is combined with the existing high-occupancy vehicle lane to form a two-lane each direction Express Lanes facility.

Getting to Finance Plan

Projections / estimates:

- ✓ Traffic and Revenue Study
- ✓ Operations & Maintenance Costs
- ✓ Non-Toll Revenue
- ✓ Violations
- ✓ Leakage
- ✓ Net Revenue Available for Debt Service
- ✓ Project Cost*



* Current estimate based on Federal Highway Administration Cost Estimate Review (April 28, 2016) plus contingency for unassigned risk. Project cost is not finalized until the design-build contract is awarded.

Board / Stakeholder Involvement –Toll Policy and Finance Plan Development*

- 3 Board of Director presentations
- 6 Board of Director Committee meetings
 - TIFIA Letter of Interest / I-405 Financing Updates
 - Assumptions and Options for Toll Policy Development
 - Traffic & Revenue Study Workshop
 - Operations/Maintenance/Non-Toll Revenue/Leakage Assumptions
 - Initial Financing Options
- 3 Federal Highway Administration/Caltrans Partners meetings
- 1 Caltrans toll policy meeting
- 2 Corridor City Technical Steering Committee meetings/workshops
- Digital communications to public stakeholder database

Approved by Board October 12, 2015

Description	Action
Toll Policy Goals	Approved
Pricing Methodology	Time of Day, One Hour Static Variable
Peak Toll Adjustments	OCTA 91 Express Lanes (91 EL)
Non-Peak Toll Adjustments	Riverside County Transportation Commission 91 EL
Hours of Operation	24/7
Access Points	Intermediate Access
Non-Toll Revenue: Account Fees, Violations	OCTA 91 EL
Enforcement Approach	Manual and Automated
Prohibited Vehicles, Discounts, Exemptions	Large trucks (over 10,000 pounds) and towed trailers
Toll Collection	Title 21-Compliant Transponder (monitor technology improvements)
Toll Policy Options for Analysis	Four*

* Plus two sensitivity analyses were modeled.

Adopted Toll Policy Goals and Options

- Provide Express Lanes customers with a safe, reliable, predictable commute.
- Optimize throughput at free flow speeds.
- Increase average vehicle occupancy.
- Balance capacity and demand to serve customers who pay tolls as well as people who rideshare or use transit.
- Generate sufficient revenue to sustain the financial viability of the 405 Express Lanes.
- Ensure all covenants in the financing documents are met.
- Ensure any potential net excess toll revenues are used for Interstate 405 corridor improvements.*

A	B	B1 (sensitivity analysis)	C	C1 (sensitivity analysis)	D
HOV2+ Free All Day	HOV2+ Free Non-Peak, HOV3+ 50% Peak	HOV2+ Free Non-Peak, HOV3+ Free All Day	HOV3+ 50% Peak	HOV3+ Free All Day	**

* Assumes debt service coverage ratios and reserve requirements are met
 **Greater revenues (for rating agencies)

Initial Financing Observations

- Lower TIFIA loan rate provides OCTA greater flexibility*
 - Minimizes borrowing costs
 - 1.3x debt coverage ratio allows greater flexibility in toll policy
 - Interest starts with each loan disbursement and accretes over time
 - Accreted interest is added to TIFIA loan repayment obligation
 - “Patient” lender provides potential for principal deferral
 - TIFIA has experience / expertise in toll facilities
- Toll revenue bonds provide a secondary financing option
 - Option is more expensive and reduces flexibility in toll policy
 - Capitalized interest during construction may exceed \$250 million
 - Capitalized interest cost is added to toll revenue bond issuance amount
 - 1.75x debt coverage ratio required

* TIFIA = Transportation Infrastructure Finance and Innovation Act

Proposal to Better Achieve Goals

Create a B1/C1 “Hybrid” Option

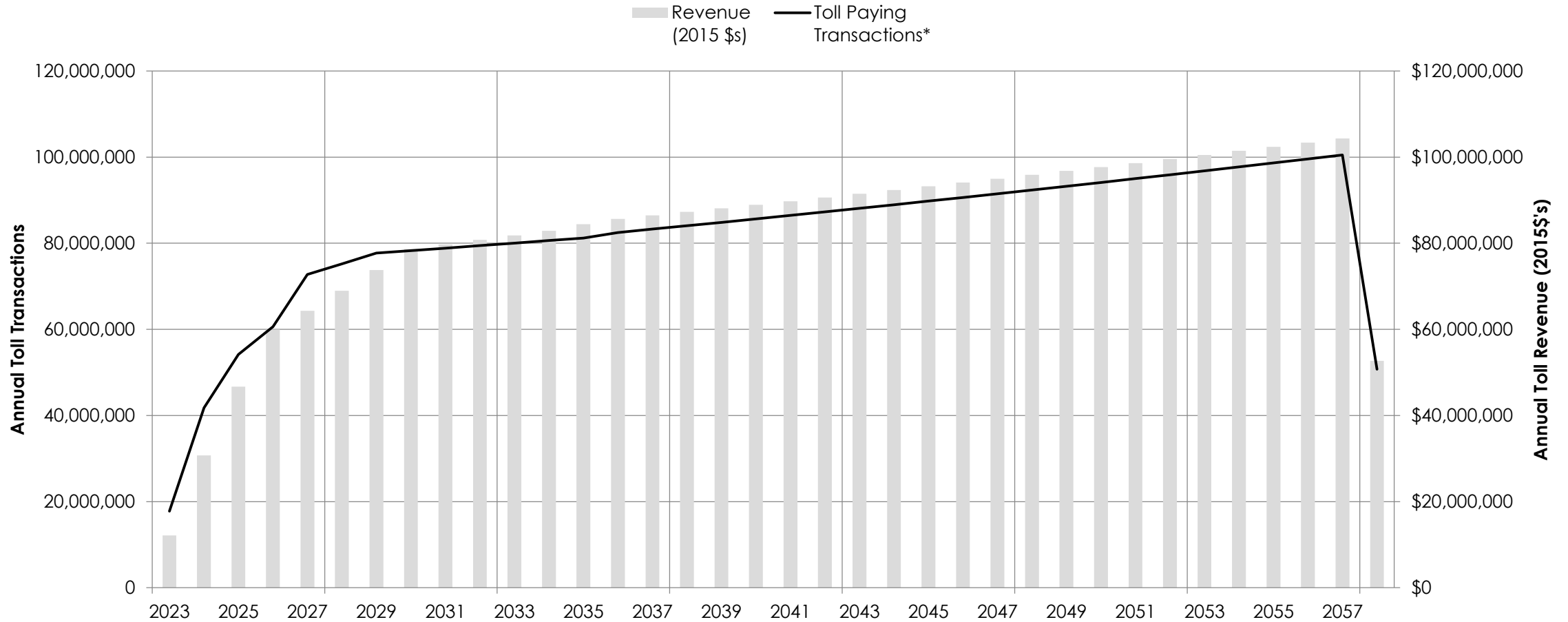
- Use Option B1 for initial 3.5 years – HOV2 free in non-peak*, HOV3+ free all day
- Use Option C1 for balance of financing – HOV3+ free all day**

* If State occupancy requirements for HOV lanes change from HOV2+ to HOV3+ in off-peak hours, the 405 Express Lanes would adopt this policy.

** Option C1 was analyzed to determine how HOV3+ free in peak hours performed.

Hybrid B1/C1- Traffic and Revenue Forecast

OCTA I-405 Express Lanes T&R Forecast



Hybrid B1/C1 – Toll Rates By Segment 2025

2025 TOLL													
Northbound	Dist	AM0	AM1	AM2	AM3	AM4	MD	PM1	PM2	PM3	PM4	PM5	NT
405N NB HOT DC	0.36	\$ 0.14	\$ 0.23	\$ 0.50	\$ 0.39	\$ 0.29	\$ 0.21	\$ 1.70	\$ 0.72	\$ 1.88	\$ 1.88	\$ 0.20	\$ 0.06
605 NB HOT DC	1.43	\$ 0.21	\$ 0.36	\$ 0.50	\$ 0.46	\$ 0.50	\$ 0.48	\$ 0.68	\$ 0.61	\$ 0.71	\$ 0.78	\$ 0.43	\$ 0.23
22-605	2.02	\$ 0.50	\$ 0.87	\$ 1.01	\$ 1.01	\$ 1.01	\$ 0.85	\$ 1.15	\$ 1.11	\$ 1.21	\$ 1.25	\$ 0.81	\$ 0.34
22 NB HOT DC	0.65	\$ 0.13	\$ 0.19	\$ 0.16	\$ 0.19	\$ 0.18	\$ 0.14	\$ 0.16	\$ 0.14	\$ 0.26	\$ 0.26	\$ 0.16	\$ 0.10
Bolsa-22	3.14	\$ 0.64	\$ 0.94	\$ 1.26	\$ 1.26	\$ 1.32	\$ 1.10	\$ 1.60	\$ 1.57	\$ 1.32	\$ 1.41	\$ 1.04	\$ 0.50
Magnolia-Bolsa	3.11	\$ 0.59	\$ 0.78	\$ 1.15	\$ 1.09	\$ 1.18	\$ 1.03	\$ 1.71	\$ 1.56	\$ 1.56	\$ 1.56	\$ 1.31	\$ 0.50
73-Magnolia	4.24	\$ 0.81	\$ 1.06	\$ 1.70	\$ 1.70	\$ 1.82	\$ 2.12	\$ 3.05	\$ 2.46	\$ 2.30	\$ 3.05	\$ 2.97	\$ 0.68
73 NB HOT DC	0.74	\$ 0.11	\$ 0.19	\$ 0.26	\$ 0.30	\$ 0.31	\$ 0.31	\$ 1.04	\$ 0.54	\$ 0.52	\$ 0.59	\$ 1.49	\$ 0.11
405S NB HOT DC	0.28	\$ 0.06	\$ 0.08	\$ 0.11	\$ 0.12	\$ 0.12	\$ 0.18	\$ 0.35	\$ 0.17	\$ 0.45	\$ 0.83	\$ 0.25	\$ 0.04
Full Length Toll	13.14	\$ 2.74	\$ 3.96	\$ 5.72	\$ 5.56	\$ 5.74	\$ 5.49	\$ 9.56	\$ 7.58	\$ 8.72	\$ 9.99	\$ 6.57	\$ 2.13
Southbound	Dist	AM0	AM1	AM2	AM3	AM4	MD	PM1	PM2	PM3	PM4	PM5	NT
405S SB HOT DC	0.36	\$ 0.06	\$ 0.14	\$ 0.21	\$ 0.36	\$ 0.25	\$ 0.21	\$ 0.26	\$ 0.25	\$ 0.36	\$ 0.27	\$ 0.16	\$ 0.06
605 SB HOT DC	1.43	\$ 0.21	\$ 0.61	\$ 0.57	\$ 0.64	\$ 0.57	\$ 0.54	\$ 0.36	\$ 0.43	\$ 0.50	\$ 0.54	\$ 0.36	\$ 0.23
605-22	2.02	\$ 0.39	\$ 0.81	\$ 0.91	\$ 1.19	\$ 1.05	\$ 0.91	\$ 0.91	\$ 0.93	\$ 1.01	\$ 0.97	\$ 0.71	\$ 0.34
22 SB HOT DC	0.65	\$ 0.10	\$ 0.10	\$ 0.19	\$ 0.12	\$ 0.10	\$ 0.14	\$ 0.19	\$ 0.16	\$ 0.18	\$ 0.13	\$ 0.16	\$ 0.10
22-Bolsa	3.14	\$ 0.57	\$ 1.16	\$ 1.10	\$ 1.66	\$ 1.63	\$ 1.22	\$ 1.10	\$ 1.26	\$ 1.26	\$ 1.41	\$ 0.94	\$ 0.50
Bolsa-Magnolia	3.11	\$ 0.53	\$ 1.49	\$ 1.15	\$ 1.71	\$ 1.77	\$ 1.21	\$ 1.00	\$ 1.34	\$ 1.18	\$ 1.34	\$ 0.78	\$ 0.50
Magnolia-73	4.24	\$ 0.67	\$ 1.91	\$ 2.46	\$ 2.67	\$ 2.42	\$ 1.48	\$ 1.36	\$ 1.70	\$ 1.48	\$ 1.48	\$ 1.05	\$ 0.68
73 SB HOT DC	0.74	\$ 0.11	\$ 0.37	\$ 0.48	\$ 0.52	\$ 0.46	\$ 0.24	\$ 0.26	\$ 0.28	\$ 0.28	\$ 0.28	\$ 0.19	\$ 0.11
405S SB HOT DC	0.28	\$ 0.06	\$ 0.14	\$ 0.16	\$ 0.21	\$ 0.18	\$ 0.12	\$ 0.08	\$ 0.10	\$ 0.10	\$ 0.11	\$ 0.07	\$ 0.04
Full Length Toll	13.14	\$ 2.27	\$ 5.65	\$ 5.98	\$ 7.80	\$ 7.31	\$ 5.17	\$ 4.70	\$ 5.57	\$ 5.39	\$ 5.58	\$ 3.71	\$ 2.13

AM0	5-6am	PM1	3-4pm
AM1	6-7am	PM2	4-5pm
AM2	7-8am	PM3	5-6pm
AM3	8-9am	PM4	6-7pm
AM4	9-10am	PM5	7-8pm
MD	10am-3pm	NT	8pm-5am

Hybrid B1/C1 – Toll Rates By Segment 2035

2035 TOLL													
Northbound	Dist	AM0	AM1	AM2	AM3	AM4	MD	PM1	PM2	PM3	PM4	PM5	NT
405N NB HOT DC	0.36	\$ 0.14	\$ 0.54	\$ 1.43	\$ 0.90	\$ 0.90	\$ 0.19	\$ 2.69	\$ 1.79	\$ 2.87	\$ 2.60	\$ 0.32	\$ 0.06
605 NB HOT DC	1.43	\$ 0.23	\$ 0.47	\$ 0.66	\$ 0.64	\$ 0.64	\$ 0.47	\$ 0.74	\$ 0.64	\$ 0.71	\$ 0.78	\$ 0.44	\$ 0.21
22-605	2.02	\$ 0.52	\$ 0.97	\$ 1.13	\$ 1.07	\$ 1.05	\$ 0.87	\$ 1.13	\$ 1.17	\$ 1.13	\$ 1.21	\$ 0.85	\$ 0.30
22 NB HOT DC	0.65	\$ 0.16	\$ 0.24	\$ 0.19	\$ 0.20	\$ 0.21	\$ 0.14	\$ 0.16	\$ 0.17	\$ 0.27	\$ 0.24	\$ 0.19	\$ 0.10
Bolsa-22	3.14	\$ 0.63	\$ 1.10	\$ 1.44	\$ 1.35	\$ 1.35	\$ 1.10	\$ 1.51	\$ 1.51	\$ 1.45	\$ 1.41	\$ 1.10	\$ 0.47
Magnolia-Bolsa	3.11	\$ 0.62	\$ 0.93	\$ 1.34	\$ 1.31	\$ 1.18	\$ 1.12	\$ 1.62	\$ 1.49	\$ 1.60	\$ 1.62	\$ 1.24	\$ 0.47
73-Magnolia	4.24	\$ 0.81	\$ 1.19	\$ 1.82	\$ 1.82	\$ 1.82	\$ 1.91	\$ 2.76	\$ 2.42	\$ 2.72	\$ 2.97	\$ 2.67	\$ 0.64
73 NB HOT DC	0.74	\$ 0.11	\$ 0.20	\$ 0.32	\$ 0.33	\$ 0.36	\$ 0.36	\$ 1.56	\$ 0.74	\$ 0.79	\$ 1.11	\$ 2.04	\$ 0.11
405S NB HOT DC	0.28	\$ 0.06	\$ 0.08	\$ 0.11	\$ 0.12	\$ 0.11	\$ 0.12	\$ 0.49	\$ 0.17	\$ 0.19	\$ 0.69	\$ 0.19	\$ 0.05
Full Length Toll	13.14	\$ 2.77	\$ 4.81	\$ 7.28	\$ 6.56	\$ 6.41	\$ 5.31	\$ 10.18	\$ 8.54	\$ 9.96	\$ 10.50	\$ 6.38	\$ 1.99
Southbound	Dist	AM0	AM1	AM2	AM3	AM4	MD	PM1	PM2	PM3	PM4	PM5	NT
405N SB HOT DC	0.36	\$ 0.07	\$ 0.14	\$ 0.20	\$ 0.72	\$ 0.28	\$ 0.18	\$ 0.27	\$ 0.29	\$ 0.90	\$ 0.36	\$ 0.16	\$ 0.06
605 SB HOT DC	1.43	\$ 0.24	\$ 0.60	\$ 0.47	\$ 0.64	\$ 0.63	\$ 0.54	\$ 0.54	\$ 0.54	\$ 0.54	\$ 0.63	\$ 0.47	\$ 0.21
605-22	2.02	\$ 0.38	\$ 0.85	\$ 0.93	\$ 1.07	\$ 1.07	\$ 0.87	\$ 0.97	\$ 1.03	\$ 1.07	\$ 1.07	\$ 0.81	\$ 0.30
22 SB HOT DC	0.65	\$ 0.08	\$ 0.10	\$ 0.17	\$ 0.12	\$ 0.10	\$ 0.13	\$ 0.17	\$ 0.14	\$ 0.17	\$ 0.13	\$ 0.15	\$ 0.10
22-Bolsa	3.14	\$ 0.53	\$ 1.26	\$ 1.19	\$ 1.60	\$ 1.60	\$ 1.22	\$ 1.29	\$ 1.41	\$ 1.44	\$ 1.35	\$ 1.04	\$ 0.47
Bolsa-Magnolia	3.11	\$ 0.53	\$ 1.68	\$ 1.18	\$ 1.65	\$ 1.87	\$ 1.28	\$ 1.24	\$ 1.49	\$ 1.37	\$ 1.43	\$ 0.93	\$ 0.47
Magnolia-73	4.24	\$ 0.76	\$ 2.21	\$ 2.38	\$ 2.63	\$ 2.50	\$ 1.57	\$ 1.61	\$ 1.82	\$ 1.70	\$ 1.70	\$ 1.19	\$ 0.64
73 SB HOT DC	0.74	\$ 0.11	\$ 0.41	\$ 0.59	\$ 0.67	\$ 0.56	\$ 0.28	\$ 0.30	\$ 0.32	\$ 0.30	\$ 0.30	\$ 0.21	\$ 0.11
405S SB HOT DC	0.28	\$ 0.05	\$ 0.14	\$ 0.14	\$ 0.17	\$ 0.16	\$ 0.10	\$ 0.10	\$ 0.12	\$ 0.11	\$ 0.11	\$ 0.08	\$ 0.05
Full Length Toll	13.14	\$ 2.33	\$ 6.28	\$ 6.02	\$ 7.84	\$ 7.48	\$ 5.22	\$ 5.48	\$ 6.16	\$ 6.58	\$ 6.02	\$ 4.21	\$ 1.99

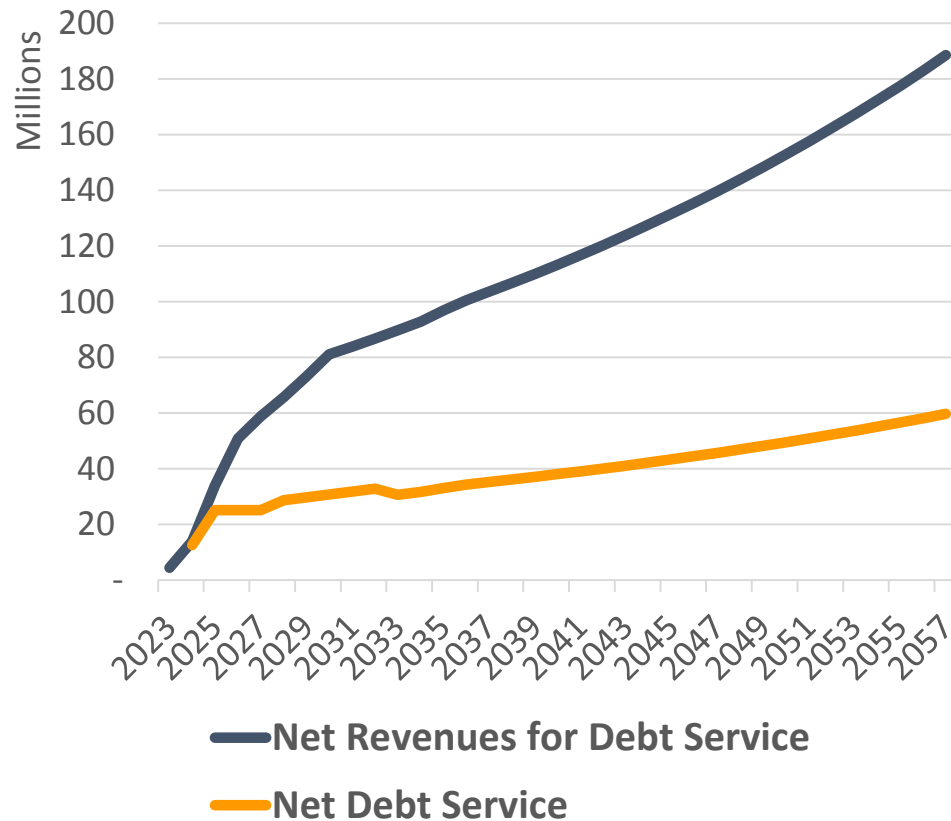
AM0	5-6am	PM1	3-4pm
AM1	6-7am	PM2	4-5pm
AM2	7-8am	PM3	5-6pm
AM3	8-9am	PM4	6-7pm
AM4	9-10am	PM5	7-8pm
MD	10am-3pm	NT	8pm-5am

Hybrid B1/C1- Initial Cash Flow Pro Forma (\$ millions)

COLUMN	A	B	C = A + B	D	E	F = C + D + E	G	H = F + G
Fiscal Year Ending	Gross Potential Toll Revenues ¹	Leakage ²	Net Toll Revenues	Non-Toll Revenues ²	DSRF Earnings ³	Gross Revenues	O&M ²	Net Revenues For Debt Service
2023	14.2	(4.0)	10.2	3.1	0.0	13.3	(8.8)	4.5
2024	36.8	(8.8)	27.9	9.2	0.0	37.1	(23.1)	14.0
2025	57.0	(8.8)	48.1	9.2	0.2	57.5	(23.8)	33.7
2026	74.5	(8.4)	66.1	8.7	0.2	75.0	(24.4)	50.6
2027	81.6	(6.6)	75.0	7.6	0.2	82.7	(24.1)	58.6
2028	89.2	(7.3)	82.0	8.3	0.2	90.4	(24.9)	65.5

1. Per Stantec April 28, 2016, escalated at 2% from \$2015
2. Per Parsons/HNTB on April 29, 2016
3. Represents interest earnings in USTs

Hybrid B1/C1 - TIFIA



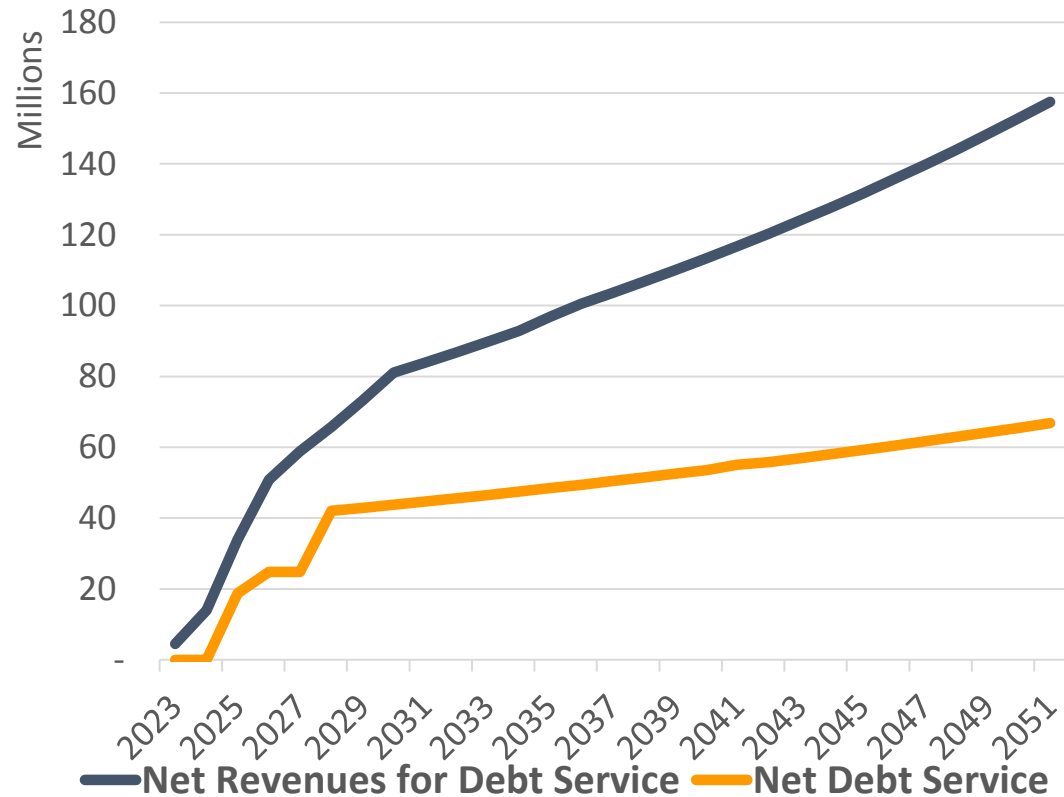
Fiscal Year Ending	Net Revenues for Debt Service	Net Debt Service	DSCR
2023	4.5	-	-
2024	14.0	12.6	1.11x
2025	33.7	25.2	1.34x
2026	50.6	25.2	2.01x
2027	58.6	25.2	2.32x
2028	65.5	28.7	2.28x
2029	73.2	29.7	2.46x
2030	81.1	30.7	2.64x
2031	83.9	31.8	2.64x
2032	86.8	32.9	2.64x
2033	89.7	30.6	2.93x

Net revenues for debt service and net debt service provided in \$ millions.

DSCR below TIFIA/Toll Revenue Bonds minimum DSCR highlighted in red

DSCR equal to TIFIA/Toll Revenue Bonds minimum DSCR highlighted in yellow

Hybrid B1/C1 - Toll Revenue Bonds



Fiscal Year Ending	Net Revenues for Debt Service	Net Debt Service	DSCR
2023	4.5	-	-
2024	14.0	-	-
2025	33.7	18.8	1.79x
2026	50.6	24.8	2.04x
2027	58.6	24.8	2.36x
2028	65.5	42.1	1.56x
2029	73.2	42.9	1.71x
2030	81.1	43.8	1.85x
2031	83.9	44.7	1.88x
2032	86.8	45.6	1.90x
2033	89.7	46.5	1.93x

Net revenues for debt service and net debt service provided in \$ millions.

DSCR below TIFIA/Toll Revenue Bonds minimum DSCR highlighted in red

DSCR equal to TIFIA/Toll Revenue Bonds minimum DSCR highlighted in yellow

Initial Financing Observations - TIFIA

Investment Grade?	Option A	Option B	Option B1	Option C	Option C1	Hybrid Option B1/C1
Yes				Yes	Yes	Yes
Maybe		Maybe	Maybe			
No	No					

- Option A does not achieve OCTA financing objectives without a sizeable liquidity reserve
- Options B and B1 provide greater certainty than Option A
- Options C and the B1/C1 hybrid reasonably allow OCTA to achieve its financing objectives while preserving the 405 Express Lanes financial flexibility
- The initial analyses completed have not been stress tested by rating agencies, TIFIA or Toll Revenue Bond investors

Hybrid Option Results

Balanced approach:

- ✓ Fulfills Board of Director goal to offer HOV2 free for initial three years
- ✓ Offers customers a safe, reliable, predictable trip
- ✓ Supports throughput at free-flow speeds
- ✓ Designed to increase average vehicle occupancy
- ✓ Is balanced to serve toll paying customers and people who rideshare or use transit
- ✓ Should provide sufficient revenue to sustain 405 Express Lanes financial viability
- ✓ Should provide flexibility so that all covenants in financing documents can be met

Other - Peak and Non-Peak

- **Current Peak Definition:**
 - Weekdays: 6-10 AM and 3-8 PM
 - Weekends: 1 PM to 6 PM
- **Non-Peak Definition:**
 - Weekdays: Midday, 10 AM to 3 PM and evenings/overnight 8 PM to 6 AM
 - Weekends: Anytime except 1 PM to 6 PM
- **To adjust for growth in peak, adopt trigger point to redefine peak:**
 - Monitor non-peak hours for rolling 12-week period
 - If volumes exceed 3,128 vehicles per direction per hour, six or more times, flag and re-define that hour as “peak” and adopt peak toll policy for that hour

* 3,128 represents 92% of maximum optimal capacity of 3,400 vehicles per hour per direction

Project Funding Proposal

- Updated Project Cost Estimate is \$1.9 billion*
- Assumes full TIFIA support
- Toll road revenues provide the sole source of pledge for the TIFIA loan

Source of Funds	Amount
Measure M2 (Pay/Go, Bonds)	\$ 1,145,352,000
Federal Revenues	45,648,000
State Funds	82,000,000
TIFIA Loan (33% of Total Cost)	627,000,000
Total Sources	\$ 1,900,000,000

* Current estimate based on Federal Highway Administration Cost Estimate Review (April 28, 2016) plus contingency for unassigned risk. Project cost is not finalized until the design-build contract is awarded.

Recommendations

- Approve the initial 405 Express Lanes Toll Policy:
 - Use the B1/C1 hybrid option
 - Include trigger points to address growth in peak periods
- Adopt the preliminary Interstate 405 Improvement Project Finance Plan
- Allocate approximately \$10 million in internal funds to cover short-term, reimbursable project development costs
- Reimburse OCUTT for prior funding for project development*
- Authorize staff to process all necessary amendments to the Federal Transportation Improvement Program, and execute or amend all necessary agreements to facilitate the above actions

* OCUTT = Orange County Unified Transportation Trust Fund

Next Steps

We Are Here →

Description	Schedule
Federal Highway Cost Estimate Review	End of April 2016
Initial Toll Policy and Preliminary Finance Plan	May 2016
California Transportation Commission AB 194 Application Approval	May 2016
OCTA – Caltrans Operating Toll Agreement	June/July 2016
TIFIA: Indicative Credit Rating	June 2016
TIFIA: Application	August 2016
Design-Build Contractor Award	November 2016
Design-Build Contractor Notice to Proceed No. 1	January 2017
TIFIA: Loan Approval	March 2017
Design-Build Contractor Notice to Proceed No. 2	May 2017