



Orange County Transportation Authority

I-405 Improvement Project

Rating Agency Update

December 2016



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1. Presentation Participants and Experience

Presentation Participants

- ❑ Lori Donchak, *Chair*, OCTA Board of Directors
- ❑ Michael Hennessey, *Vice-Chair*, OCTA Board of Directors
- ❑ Darrell Johnson, *Chief Executive Officer* – OCTA
- ❑ Andy Oftelie, *Executive Director, Finance & Administration* – OCTA
- ❑ Jeff Mills, *405 Program Manager* – OCTA
- ❑ Kirk Avila, *Treasurer and General Manager of the 91 Express Lanes* – OCTA
- ❑ Steven Abendschein, *Senior Principal* – Stantec
- ❑ Barney Allison, *Bond/Procurement Counsel* – Nossaman LLP
- ❑ Kevin O'Brien, *Managing Director*, – BAML
- ❑ Sandra Brinkert, *Managing Director* – BAML
- ❑ Jim Martling, *Principal* – Sperry

405 Project Team

- ❑ Orange County Transportation Authority, *Sponsor and Project Manager*
- ❑ Caltrans, *Partner*
- ❑ Federal Highway Administration, *Partner*
- ❑ Stantec Consulting Services Inc., *Traffic and Revenue Study Consultant*
- ❑ Woodruff, Spradlin & Smart, *General Counsel*
- ❑ Nossaman LLP, *Bond/Procurement Counsel*
- ❑ Parsons Transportation Group, *Program Management Consultant*
- ❑ Jacobs Engineering Group, *Construction Management Consultant*
- ❑ HNTB, *O&M, Non-Toll Revenue, Leakage, Major Maintenance Assumptions Consultant*
- ❑ Kleinfelder/Simon Wong Engineering, *Public Outreach*
- ❑ Sperry Capital Inc., *Financial Advisor*
- ❑ Bank of America Merrill Lynch, *TIFIA Advisor/Underwriter*
- ❑ Toll Lane System Integrator, *initiate procurement in 2017*
- ❑ Toll Lanes Operator, *initiate procurement in 2018*
- ❑ OC 405 Partners, *Design Builder*



Why We Are Here

- ❑ OCTA is here today to present an overview of the 405 Project including the 405 Express Lanes, the Stantec Investment Grade 405 Express Lanes Traffic and Revenue Study, and discuss the preliminary TIFIA loan features in the financial model
- ❑ OCTA submitted a Letter of Interest (LOI) February 17, 2016 for a \$561 million TIFIA loan based on an assumed \$1.7 billion 405 Project Cost
- ❑ S&P Global provided OCTA with a BBB- indicative credit rating on July 20, 2016, after a review of 405 Project documents and the preliminary financial model based on the \$1.9 billion 405 Project cost and \$627 million TIFIA loan
- ❑ OCTA made an oral presentation to the Build America Bureau August 18, 2016 and is currently in the credit review process
- ❑ The estimated 405 Project Cost (based on the Design-Builder Contract bid amount) is \$1.9 billion
- ❑ OCTA needs two investment grade ratings for the TIFIA loan financial close
- ❑ OCTA plans to engage two credit rating agencies to rate the TIFIA loan in January and to initiate a formal investment grade request process shortly thereafter
- ❑ OCTA expects the TIFIA loan to reach financial close in March 2017



Recent Board of Directors Actions on the I-405 Project

☐ April 2015

- Terms and Conditions with Caltrans approved
- Authorization to acquire right-of-way

☐ May 2015

- Awarded construction management contract

☐ October 2015

- 405 Express Lanes toll policy goals approved
- 405 Express Lanes other policy decisions approved

☐ May 2016

- Initial toll policy selected for the 405 Express Lanes (first 3.5 years has HOV2+ free during non-peak hours and HOV3+ free all day, after 3.5 years allows HOV3+ free all day only)
- Preliminary finance plan approved

☐ November 2016

- Design-build team selected and approved
- Toll Operating Agreement with Caltrans approved for the 405 Express Lanes





2. Orange County Transportation Authority

Orange County Transportation Authority

- ❑ OCTA is a multi-modal transportation agency created 25 years ago in 1991 with the consolidation of seven separate agencies
- ❑ Governed by a 17-member Board of Directors consisting of 5 county supervisors, 10 city members, 2 public members and also includes the Director of Caltrans as a non-voting member
- ❑ OCTA serves Orange County residents and commuters by managing and providing:
 - Countywide bus and paratransit service
 - Metrolink commuter rail
 - Freeway improvements
 - Street and road improvements
 - 91 Express Lanes
 - LOSSAN Corridor services
 - Motorist aid services
 - Taxi program regulation
 - Bike trail and rideshare programs
- ❑ OCTA administered the Measure M1 (M1) 20-year sales tax program (1991-2011) and is currently administering the Measure M2 (M2) 30-year sales tax program (2011-2041)



OCTA Experience

❑ OCTA's history includes:

- Experienced team of executive staff
- Operating the 91 Express Lanes for 14 years
- Issued approximately \$2 billion of M1 and M2 bonds (rated AA+/Aa2/AA+) and 4 issues of non-recourse 91 Express Lanes bonds which are now rated AA-/A1/A
- Major project delivery experience with highways and grade separation projects

❑ Successful project delivery history includes:

- Delivered a \$4 billion M1 20-year sales tax program
- Major improvements on most Orange County freeways
- \$550 million design-build project on the SR-22 freeway, the largest design-build project completed on an active freeway in California
- Delivered over \$1.5 billion of M2 projects to date including various freeway, local streets and roads, and transit projects



OCTA's Managed Lanes Experience

- ❑ 91 Express Lanes were developed as a P3 concession and opened in 1995 as the first U.S. toll road to use all-electronic tolling to collect tolls based on congestion management pricing; OCTA purchased the 91 Express Lanes on January 3, 2003
- ❑ OCTA runs the 91 Express Lanes like a business:
 - Operations
 - Working with private and public sectors to manage the facility that currently has average daily traffic volumes of approximately 36,000
 - Demonstrated operating success through experience in strong and recessionary economies which resulted in upgrades by S&P and Fitch
 - Debt
 - Issued closed-lien \$195 million non-recourse toll road revenue bonds in November 2003
 - Closed \$100 million private placement in 2007 and \$100 million private placement in 2010
 - Refinanced 2003 bonds in 2013 with an open-lien indenture and \$124 million in non-recourse toll road revenue bonds
 - 2013 bonds are rated AA-/A1/A
 - Customer service
 - 91 percent of customers indicated they were satisfied with their experiences when using the 91 Express Lanes





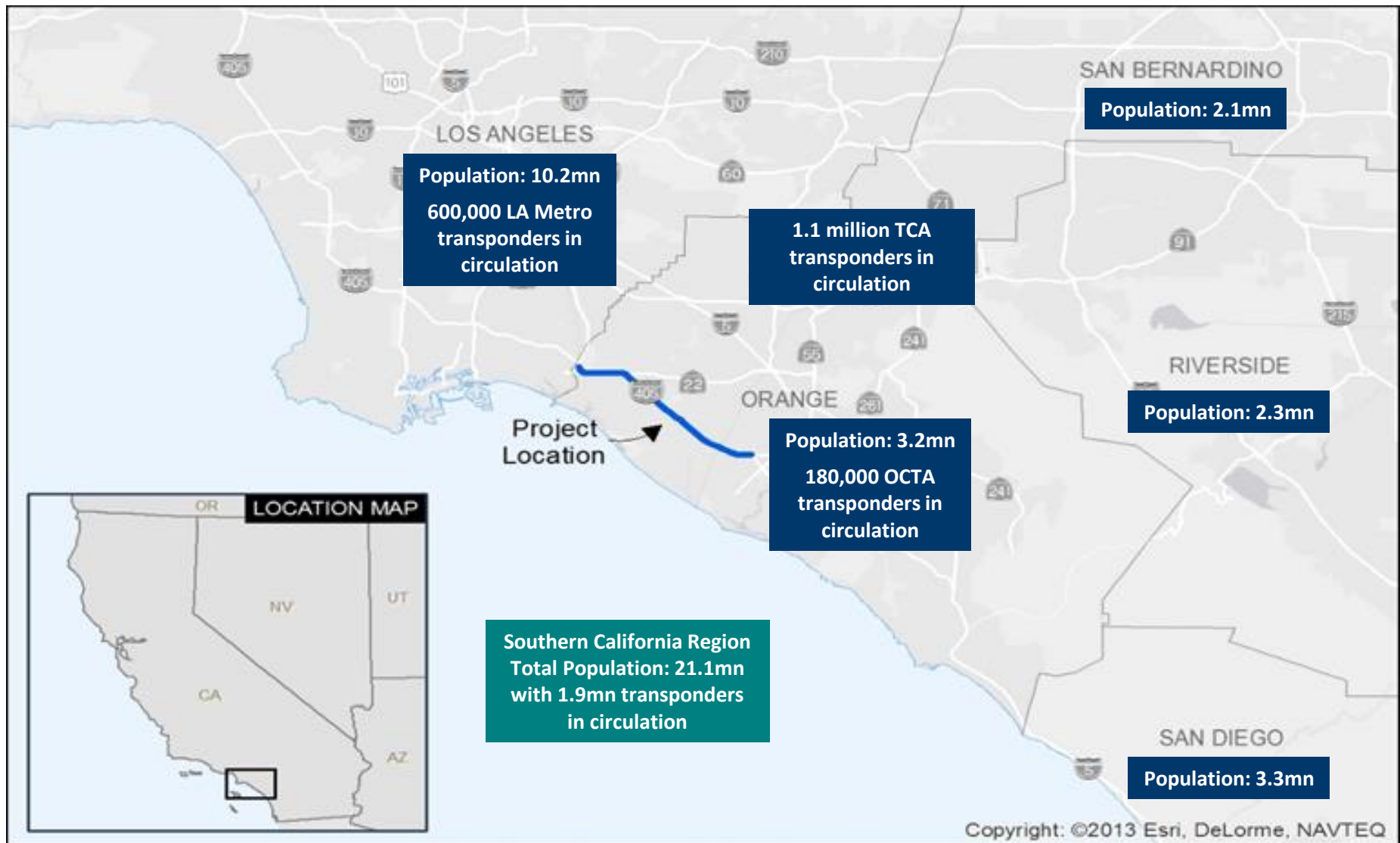
3. 405 Project Overview

Purpose and Need

- ❑ I-405 is an essential part of the National Highway System and an integral part of the FHWA's Primary Freight Network
- ❑ The 405 Project is a 16-mile corridor that runs north from the SR-73 to the I-605 and passes through, or adjacent to, the cities of Costa Mesa, Fountain Valley, Huntington Beach, Westminster, Garden Grove, Seal Beach, Long Beach, and the community of Rossmore
- ❑ The 405 Project corridor carries between 257,000 to 370,000 vehicles per day (by 2040, these figures are projected to grow to 288,000 to 427,000 vehicles per day)
- ❑ There is insufficient capacity within the 405 Project corridor on the I-405 to accommodate existing and projected travel demands
- ❑ The 405 Project corridor mainline general purpose (GP) lanes and high occupancy vehicle (HOV) lanes have operational and geometric deficiencies
- ❑ The interchanges in the 405 Project area have geometric, storage, and operational capacity deficiencies
- ❑ The 405 Project corridor currently has limitations in detecting traffic incidents and providing rapid response and clearance due to lack of capacity and technological infrastructure



405 Project Map

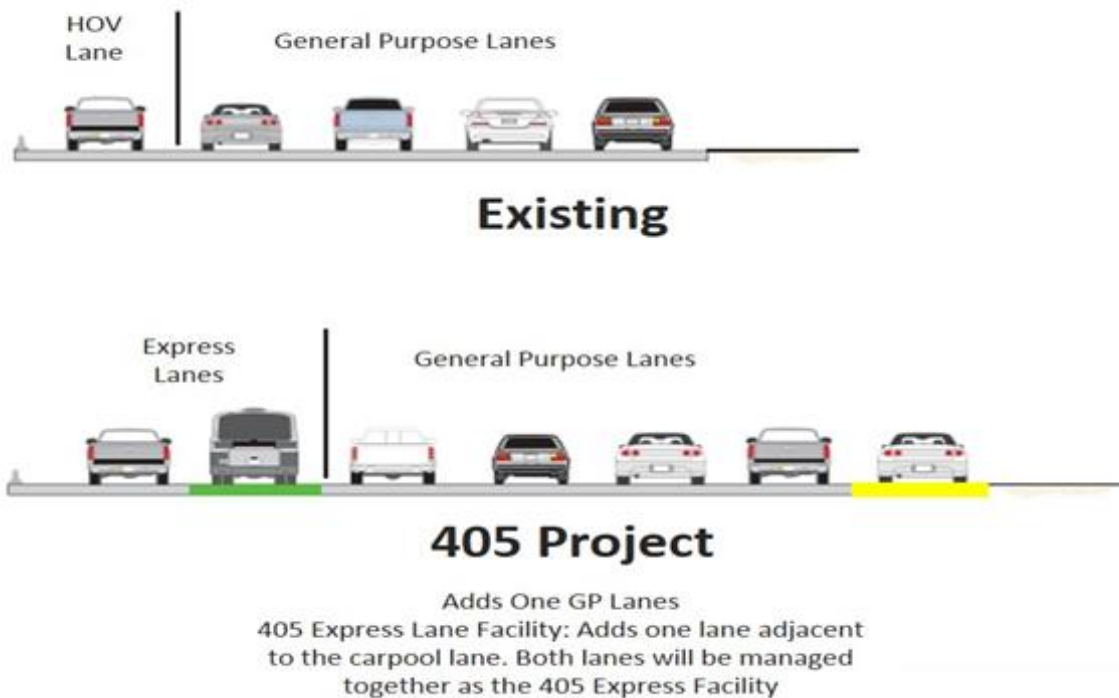


Source: (Population) California Department of Finance
Transponder sources: LA Metro, TCA, and OCTA



405 Project Schematic View

The new GP lane is highlighted in yellow and the new 405 Express Lane in the I-405 median is highlighted in green



405 Project Artist's Rendition

The new GP lanes are highlighted in yellow. Existing carpool lanes that will be combined with the new 405 Express Lanes to provide a dual-lane express lanes facility highlighted in green



405 Project Overview

- ❑ The estimated \$1.9 billion 405 Project improves mobility and fixes operational deficiencies along one of the most congested highway corridors in the nation
- ❑ The 405 Project will add one GP lane to I-405 from Euclid Street north to the I-605 interchange near the Los Angeles county line in each direction and add a tolled express lane in each direction from the SR-73 north to the SR-22 that will combine with the existing HOV lanes to create 2x2 405 Express Lanes in the I-405 median from SR-73 to I-605
- ❑ Significant 405 Project Scope features include:
 - 18 bridge replacements (overcrossings) plus new and widened bridges
 - Interchange reconfigurations
 - Auxiliary lane improvements
 - Arterial improvements
 - Drainage improvements
 - Tolling infrastructure
 - Utility relocations
 - Ramp improvements
 - Aesthetics and landscaping
 - New and replaced soundwalls
 - Transportation System Management (TSM) and Transportation Demand Management (TDM) improvements



Benefits

- ❑ The 405 Project will significantly enhance local and regional mobility, increase operational efficiencies, goods movement and economic competitiveness, air quality, and safety. The benefits of the 405 Project include:
 - Ability to provide reliable, congestion-free travel in the 405 Express Lanes
 - Stantec estimates that the 405 Express Lanes will initially offer about 14 to 17 minutes of travel time savings in each direction versus the GP lanes
 - Improves traffic flow on arterial routes
 - More efficient use of the Orange County and regional transportation system by encouraging transit and carpools
 - Improvement of safety and congestion by addressing operational and geometric deficiencies, and reducing accidents
 - Enhancement of the quality of life for 405 Project corridor communities by reducing demand on local streets
 - Elimination of HOV lane degradation as defined in Federal regulations
 - The offset of biological impacts from OCTA's county wide highway improvement projects due to the 405 Project's inclusion in OCTA's M2 Environmental Mitigation Program
 - The generation of excess net toll revenues must be reinvested in transportation projects in the I-405 corridor pursuant to AB 194



Travel Time Benefit Comparison

Northbound PM Peak Hour Travel Time from SR-73 to I-605

	Existing Conditions	Year 2040		
		No Build	Add One GP Lane	Add One GP Lane and Express Lane
General Purpose Lanes	25 minutes	133 minutes	57 minutes	29 minutes
High-Occupancy Vehicle/Express Lanes	19 minutes	121 minutes	54 minutes	13 minutes

Express Lanes assume high-occupancy vehicles with three or more individuals traveling for free at all times of the day

405 Project Development and Approvals

- ☐ February 2006: Major Investment Study
- ☐ July 2008: Project Study Report/Project Development Support
- ☐ May to July 2012: DEIR/EIS public review period
- ☐ February 2015: Caltrans identifies \$82 million for the 405 Project
- ☐ April 2015: Board agrees to Terms and Conditions with Caltrans, which include the 405 Express Lanes
- ☐ April 2015: OCTA Board authorization to acquire ROW
- ☐ May 2015: OCTA Board awards construction management contract
- ☐ May 15, 2015: The Record of Decision signed by Caltrans
- ☐ June 17, 2015: The Notice of Determination filed with the State
- ☐ April 11, 2016: Stantec releases the draft investment grade 405 Express Lanes traffic and revenue results that analyzed toll options A, B, and C
- ☐ April 28, 2016: FHWA completes Construction-Level Cost Estimate Review
- ☐ May 18, 2016: pursuant to AB 194, the California Transportation Commission approves tolling facility for the 405 Express Lanes
- ☐ May 23, 2016: the OCTA Board of Directors selects preliminary toll policy
- ☐ August 23, 2016: FHWA approval of Project Oversight Agreement
- ☐ September 6, 2016: FHWA approval of the Project Management Plan
- ☐ September 13, 2016: FHWA approval of Initial Financial Plan



Toll Operating Agreement Approved

- ❑ On November 14, 2016, OCTA's Board approved the Toll Operating Agreement with Caltrans
- ❑ Agreement addresses all matters related to the design, construction, maintenance, and operations of the 405 Express Lanes
- ❑ Key points of the Agreement include:
 - Term of the lease for the 405 Express Lanes shall be 40 years, beginning on the first day the 405 Express Lanes opens for public use
 - If toll revenues are found to be insufficient and refinancing of the debt is required, the lease term may be renegotiated and extended to provide for an extended term
 - OCTA shall be responsible for:
 - Operations of the 405 Express Lanes, including the collection of tolls and setting toll policy
 - Maintenance of the 405 Express Lanes
 - Overall funding and finance plans
 - Maintaining adequate reserves
 - OCTA, in partnership with Caltrans, shall develop and annually update an Expenditure Plan for potential excess toll revenue
- ❑ At the end of the term of the lease, all 405 Express Lanes property, equipment, and systems shall be transferred back to Caltrans





4. 405 Project Design-Build

405 Project Design-Builder Scope

The 405 Project will be built in a 16-mile corridor from the Los Angeles county line south to the SR-73 in Costa Mesa just north of the John Wayne Airport

Conceptual staging plans have been prepared to examine the sequence of construction to ensure a logical progression of activities

Reasonable durations have been applied in the schedule to each element of the construction and activities linked according to the sequence developed during preliminary engineering

From a technical standpoint, this is a relatively straight-forward construction project involving widening an existing freeway and typical bridge construction

Overview

16 miles total, 14 miles of 2x2 405 Express Lanes

One new GP lane in each direction

Direct connectors to/from SR-73, SR-22 and I-605

Two additional intermediate access points

Bridge improvements

6 bridge widenings

8 new bridges

18 bridge replacements

Additional improvements

Improvement of local arterials

Auxiliary lanes improvements

Improved ramp metering

New, improved sidewalks and bike facilities

Toll infrastructure CCTV, ETTM, and ETC facilities

Drainage improvements



Design-Build Recent Milestones and Next Steps

Recent Milestones	Date
Board approved award of the design-build contract to OC 405 Partners	November 14, 2016

Next Steps	Date
Notice to Proceed No. 1 for Administration and Design	January 2017
Notice to Proceed No. 2 for Construction	May 2017
Design and construction	2017-2022
405 Express Lanes open	January 2023



Design-Build Team

OC 405 Partners, Joint Venture	
Principal Participants	Notes
OHL USA	International construction firm with local Orange County experience
Astaldi Construction Corporation	International construction firm with significant experience in Florida
Major Participants	
Myers & Sons Construction	California-based heavy civil construction contractor
MCM Construction	California-based heavy civil construction contractor
All American Asphalt	California-based paving contractor
Pacific Infrastructure 405 Designers (Joint Venture) <ul style="list-style-type: none"> • Moffatt & Nichol • H.W. Lochner • Arup North America 	<ul style="list-style-type: none"> • Moffatt & Nichol has significant California design experience • Lochner has significant US design-build experience • Arup has significant California design experience
Key Subcontractors	
Advanced Civil Technologies	Local roadway design firm
Betkon	Local safety firm
Circlepoint	Local public outreach firm
Fugro Consultants	Local geotechnical design firm
Hout Construction Services	Local construction services firm
ICF International	Environmental compliance firm
Iteris	Traffic and ITS design firm
Lynn Capouya Landscape Architects	Local landscape architecture firm
TEC Management Consultants	Local utility coordination firm
The Solis Group	Local DBE coordination/compliance firm



Toll Contractor Procurements

- ☐ OCTA plans to initiate the procurement for the Toll Lanes System Integrator (TLSI) in early 2017
- ☐ The TLSI services address the design, development, implementation, testing, and maintenance of the physical roadside toll and ITS equipment and systems including the electronic toll and traffic management (ETTM) sites and other hardware used in creating and archiving toll transactions and transmitting license plate videos
- ☐ The TLSI contract award is timed to account for DB progress
- ☐ OCTA also plans to initiate the procurement for a Toll Lanes Operator (TLO) in early 2018
- ☐ The TLO will perform daily management activities such as collecting tolls, maintaining the tolling infrastructure, setting tolls based on the Board of Directors' Toll Policy, undertaking all of the back-office operations necessary for toll collection, and operating customer service centers



5. 405 Project Risks and Mitigation

Program and Construction Management

OCTA selected Parsons/HNTB in 2014 as the program management consultant (PMC) for the 405 Project. The PMC's responsibilities include:

Project Development	Project Implementation
Development of Project Management Plan (PMP) that meets requirements of federal legislation	Maintain critical path schedule in Primavera 6.0 to track progress and costs
Development of Risk Management Plan	Oversee efficient quality management program
Review of the financial and technical competence of three short-listed DB proposers	Provide proactive utility agency coordination approach
Evaluation and mitigation of geologic, utility, environmental/permitting, regulatory, ROW risks	Provide effective project controls, communications, and reporting requirements
Definition and mitigation of stakeholder and third party agency risks	Oversee detailed control of ROW acquisition
Preparation of independent Engineer's Technical Report for rating agencies and lenders	Oversee detailed control of utility conflicts and relocations

OCTA retained Jacobs Engineering Group as construction management consultant (CMC) to assist with supervising construction; OCTA, Caltrans, the PMC, the CMC, and the Design-Builder will be co-located in one office near the 405 Project corridor for improved daily management



Federal Oversight Responsibilities

Federal Oversight

☐ Cost Estimate Review (CER)

- NEPA-Level FHWA CER in 2015; Construction-Level FHWA CER in April 2016 with 95% level of confidence (FHWA requires 70% level of confidence)

☐ Project Oversight Agreement was approved by the FHWA on August 23, 2016

- Agreement assigns specific project responsibilities among FHWA and Caltrans that are necessary for development and delivery of the project
- Covers design, construction and operational phases
- Project identified by FHWA as Project of Corporate Interest (PoCI). FHWA is willing to commit additional resources to help ensure successful project delivery

☐ The PMP was approved by the FHWA on September 6, 2016

- Documents roles, responsibilities, procedures, delivery schedule, applicable standards, communications and other processes used to manage the project
- Monthly status meetings between OCTA, FHWA, Caltrans and PMC
- Risk management and other project management controls described in detail

☐ Initial Financial Plan was approved by the FHWA on September 13, 2016

- Updated annually



Caltrans Oversight Responsibilities

Caltrans Oversight

- ❑ Project Terms and Conditions Between OCTA and Caltrans
 - Approved in May 2015
 - Govern roles and responsibilities for project delivery, funding/financing, operations and net excess revenue
- ❑ NOD/ROD
 - Executed by Caltrans May 15, 2015 and June 16, 2015
- ❑ Design-Build Cooperative Agreement
 - Executed June 30, 2015
 - Governs DB, funding, oversight, construction, and ROW
 - Assigned Caltrans Corridor Manager – all key personnel co-located
 - Funds Caltrans Enhanced Oversight – personnel 100% dedicated to project
 - Funds Caltrans construction inspection oversight pursuant to AB 401
 - Active and engaged partner with aligned goals
- ❑ Toll Operating Agreement
 - Approved Project Terms and Conditions are basis of agreement
 - Approved by Board on November 14, 2016 and in signature cycle for execution

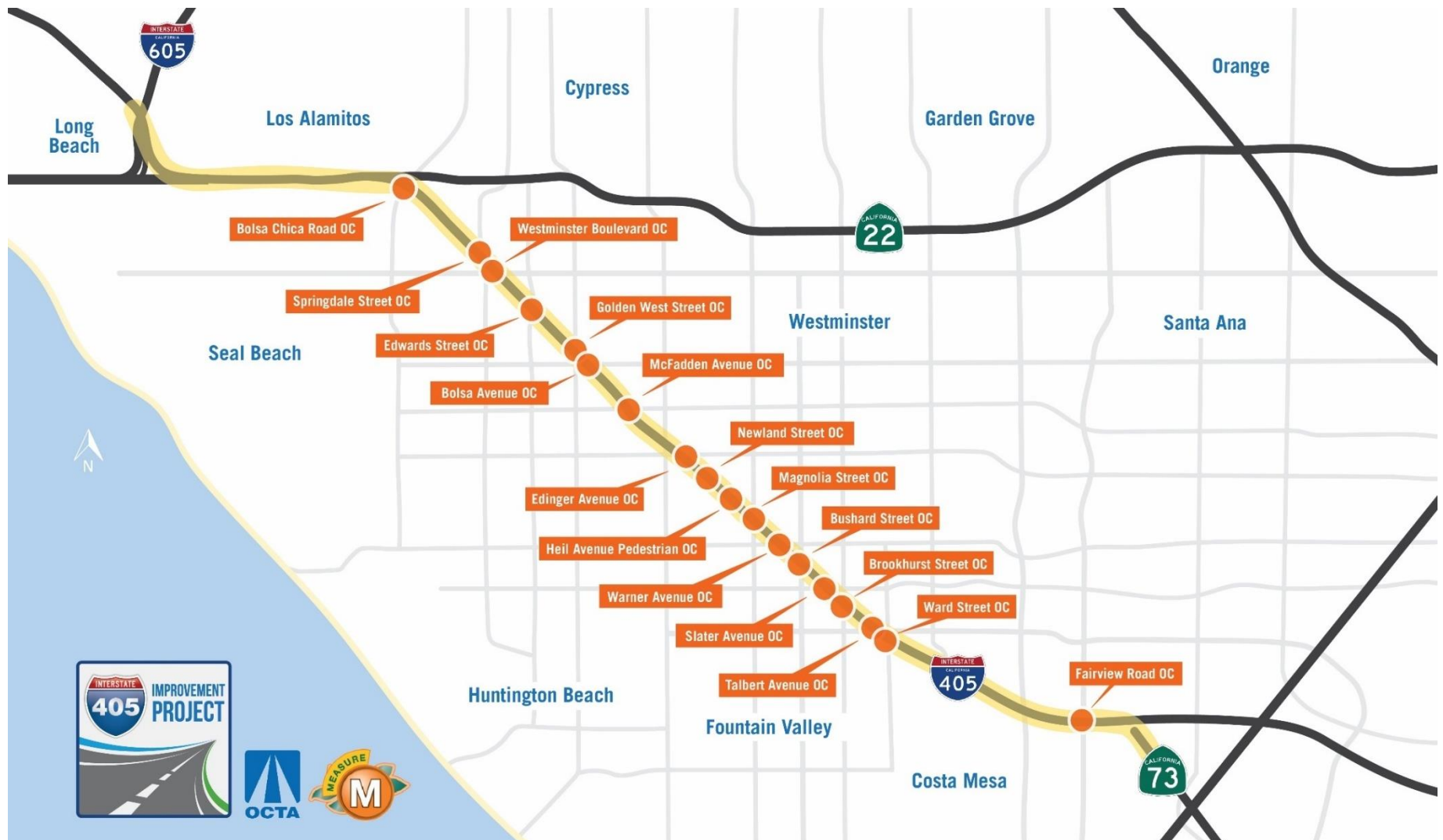


Local Oversight Responsibilities

Local Oversight

- ❑ Cooperative Agreements executed with the five cities along corridor
 - Funds City staff time to expedite design and TMP reviews, provide inspection oversight services and city police traffic services during construction
 - Sets scope of improvements and review periods for submittals
- ❑ Cooperative Agreement executed with Orange County Flood Control District
 - Funds District staff time to expedite design reviews, and provide inspection oversight services
 - Sets scope of improvements and review periods for submittals
 - Establishes and advances design concepts for various flood control improvements along Project corridor
- ❑ Cooperative Agreement executed with Orange County Sanitation District
 - Funds District staff time to expedite design reviews, and provide inspection oversight services
 - Sets review periods for submittals
 - Advances design concept for Sanitation District facility impacts

18 Bridge (Overcrossing) Replacements



Mitigating Right of Way Acquisition Risks

As of December 2, 2016, 183 Notices to Appraise have been issued; 108 offers have been presented, all residential temporary construction easements; 90 agreements have been signed; 70 escrows have been closed

OCTA is utilizing federal incentive payment program (“Sign in 60”) and Board-approved modified settlement delegation for this project to expedite right of way (ROW) acquisition

No residential relocations are required, and currently no parcels requiring eminent domain

Embedded into master schedule is a 5,000+ activity schedule to closely track the ROW acquisition progress; schedule assumes each parcel requires eminent domain and contingencies included in the schedule activities

One Union Pacific (UP) spur line railroad crossing; preliminary Agreement executed with UP for review of design plans; Construction and Maintenance Agreement contractually required one year after Design-Builder submits final plans for railroad crossing

ROW impacts to 293 parcels

76 partial fee acquisitions

24 permanent easements

193 temporary construction easements

171 residential parcels

80 commercial parcels

42 public properties

ROW 100% available to DB in October 2020



Mitigating Utility Conflict Risks

- ☐ 22 Utility Owners
- ☐ 120 Utility Conflicts
 - 70 dry utility conflicts and 50 wet utility (water and sewer) conflicts
 - Prior rights determined and confirmed with utility owner on 121 conflicts
 - Conceptual relocation plans prepared for all 122 conflicts and obtained utility owner and Caltrans concurrence
 - Conceptual relocation plans provided to Design-Builders as Reference Materials
- ☐ 38 Preliminary Engineering Agreements
 - 35 executed and the remaining three are in final stages of being executed
 - Utilized to advance design of relocation plans at OCTA's expense
- ☐ 103 Utility Agreements
 - Utility Agreements will be executed after the Design-Builder prepares final design
 - Majority of Draft Utility Agreements prepared and provided to Design-Builders as Reference Materials
- ☐ Utility performance and delivery durations negotiated with utility owners and included in Design-Build contract documents

Risk Mitigation – Security Package in DB Contract

- ☐ Proposal bond equal to 5% of the contract amount
- ☐ Performance bond equal to 50% of the contract amount
- ☐ Payment bond equal to 50% of the contract amount
- ☐ 5% retainage of payment to Design-Builder for work performed
- ☐ Joint venture team members acknowledge their joint and several liability and provide parent guarantees
- ☐ Termination for convenience
- ☐ Partnering and dispute resolution provisions
- ☐ \$125 million limit of liability with carve outs for:
 - Insurance proceeds
 - Claims under the Payment Bond
 - OCTA's cost to complete and/or correct the work
 - Fraud, gross negligence, criminal conduct

Risk Mitigation – Security Package in DB Contract (continued)

- ☐ DB shall achieve Substantial Completion within 2,049 days of NTP No. 2
- ☐ \$140,000 liquidated damages (LD's) for each day of delay in achieving Substantial Completion beyond the Substantial Completion Deadline through the date of Substantial Completion, not to exceed 365 days
- ☐ DB shall achieve Project Completion within 120 days of Substantial Completion
- ☐ \$30,000 LD's for each day after the Project Completion Deadline through the date of Project Completion, not to exceed 365 days
- ☐ DB shall achieve Final Acceptance within 120 days of Project Completion
- ☐ \$20,000 LD's for each day after the Final Acceptance Deadline and through the Final Acceptance Date, not to exceed 365 days

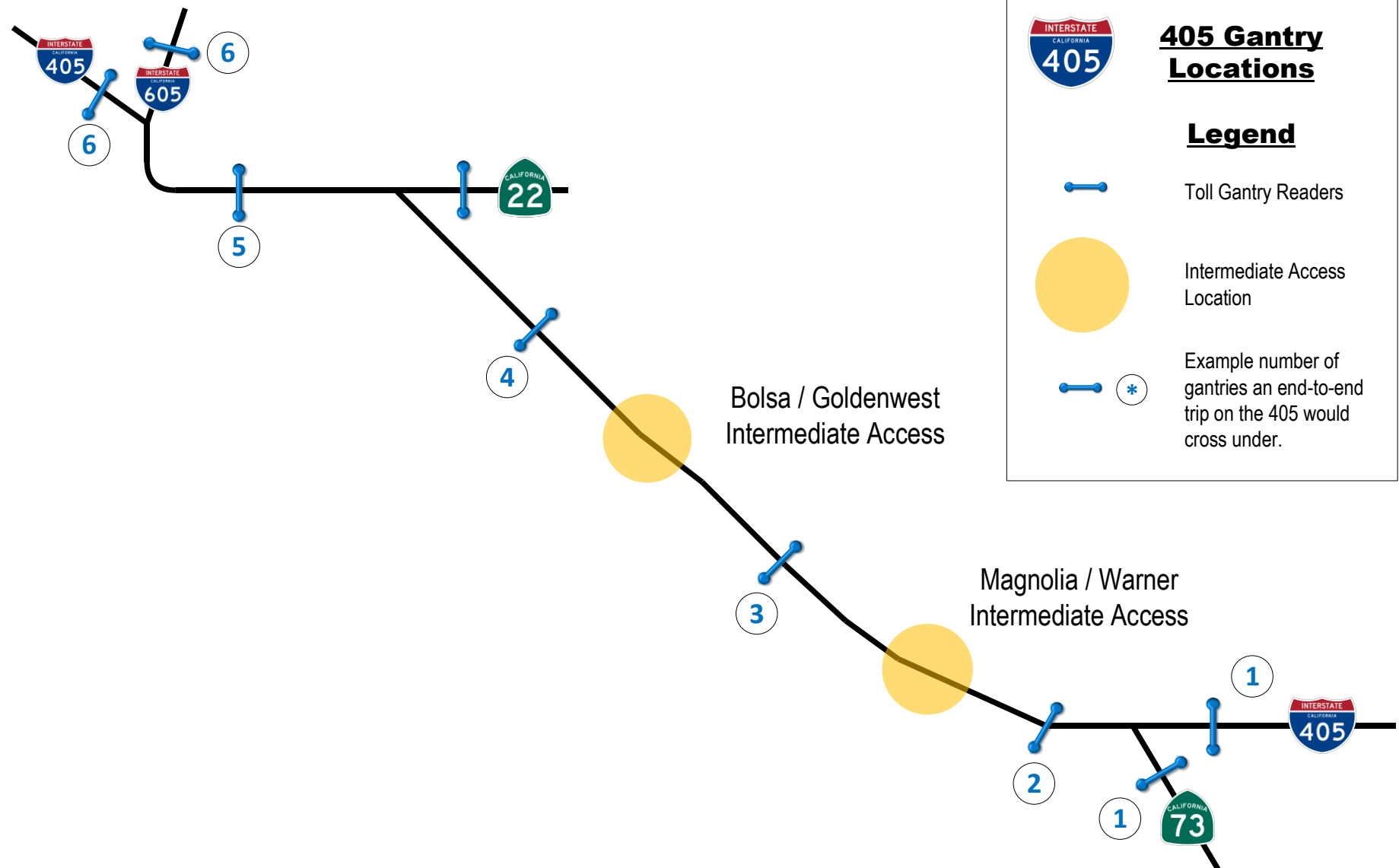


6. Stantec Traffic and Revenue Study

Regional Map



Project Configuration

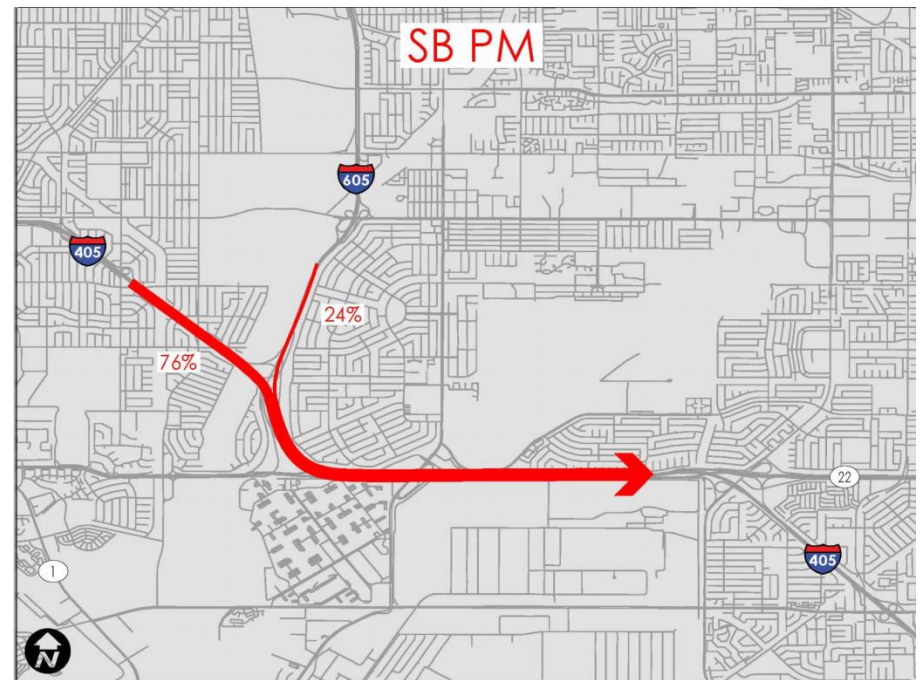
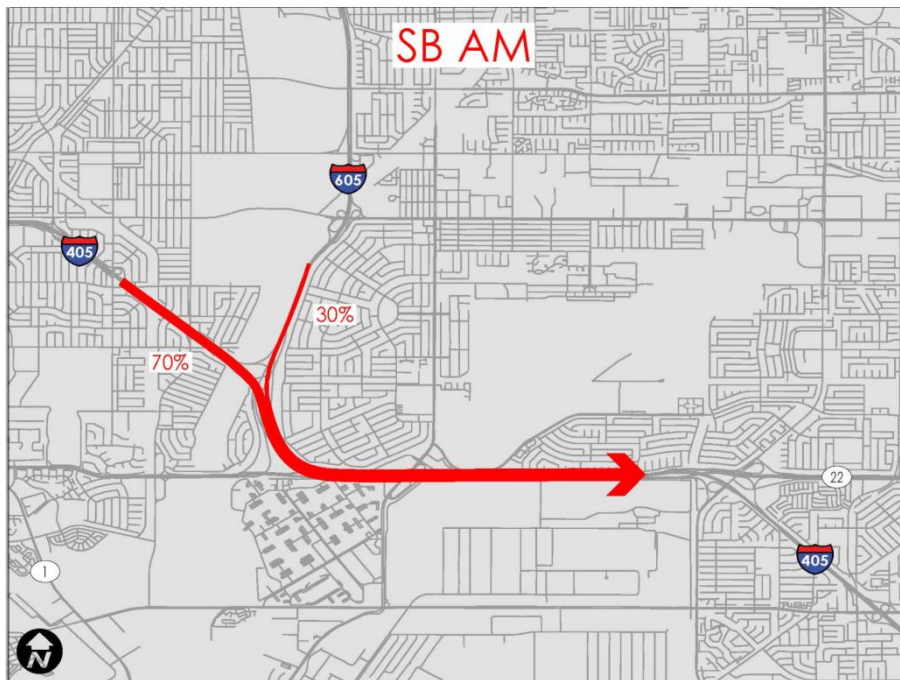
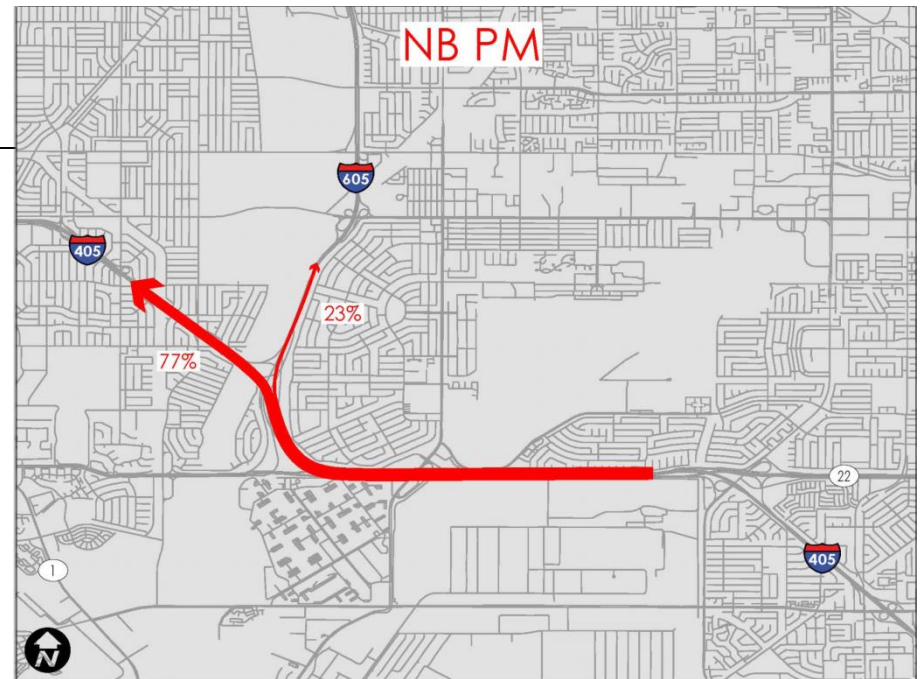
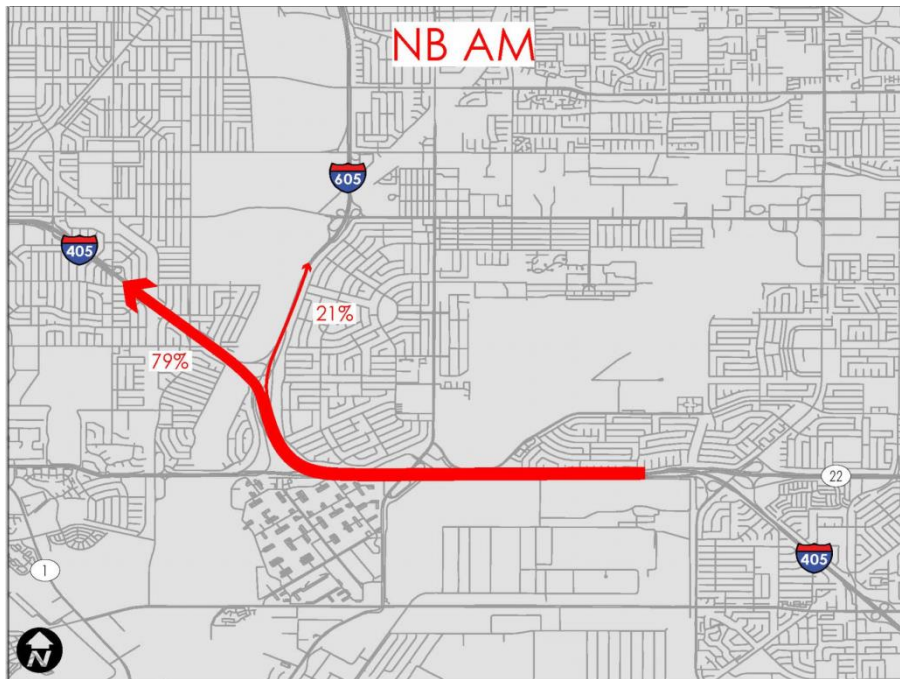






Corridor Speeds – Thursday, June 11, 2015

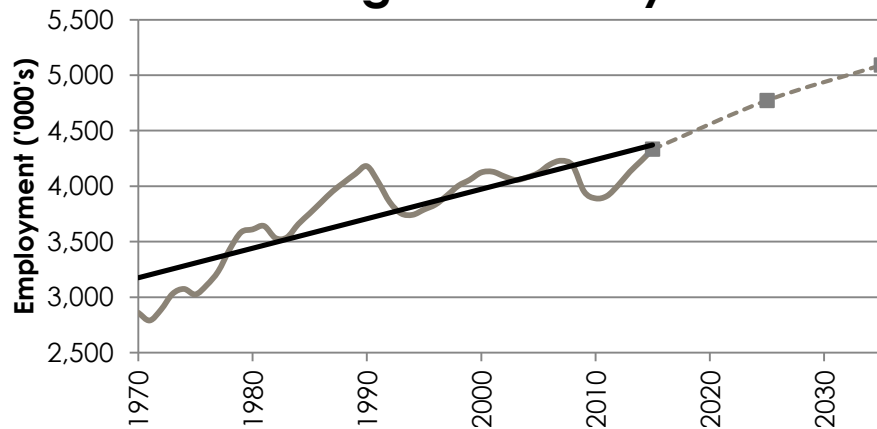
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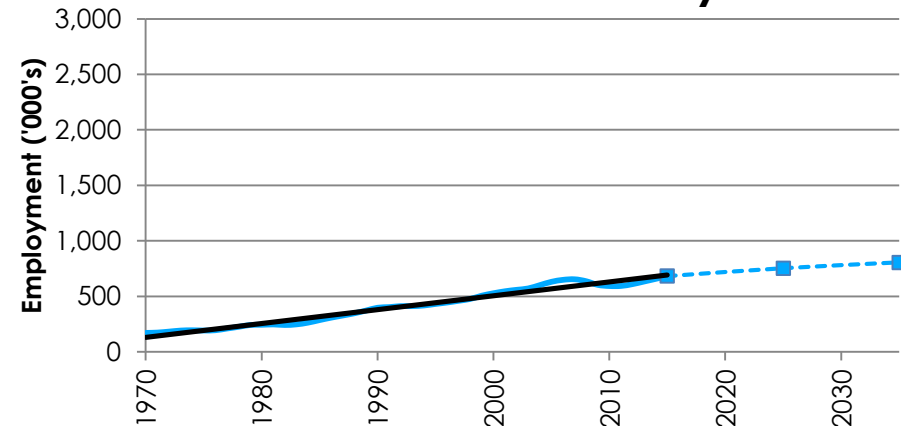
Socio-economic Forecast

Historical Employment

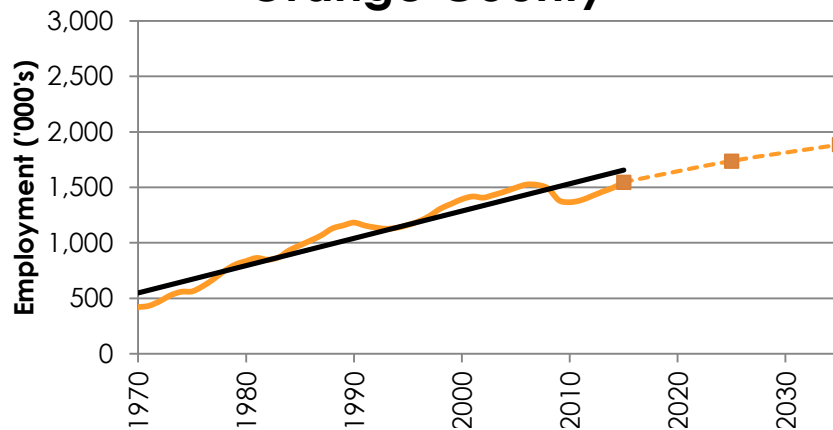
Los Angeles County



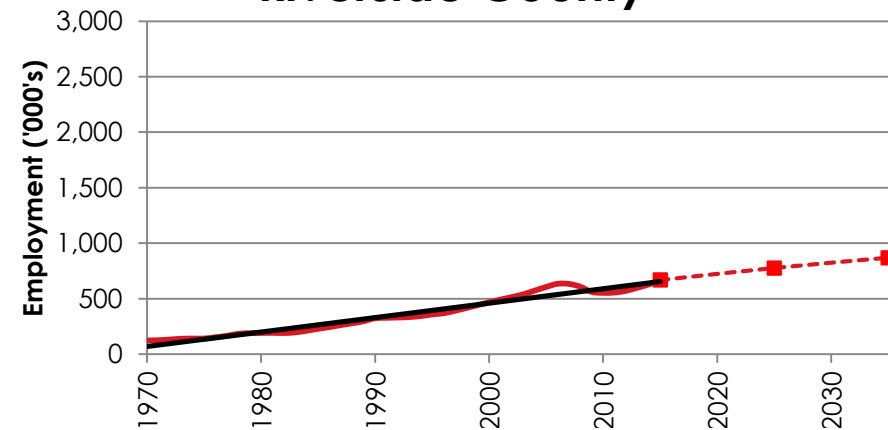
San Bernardino County



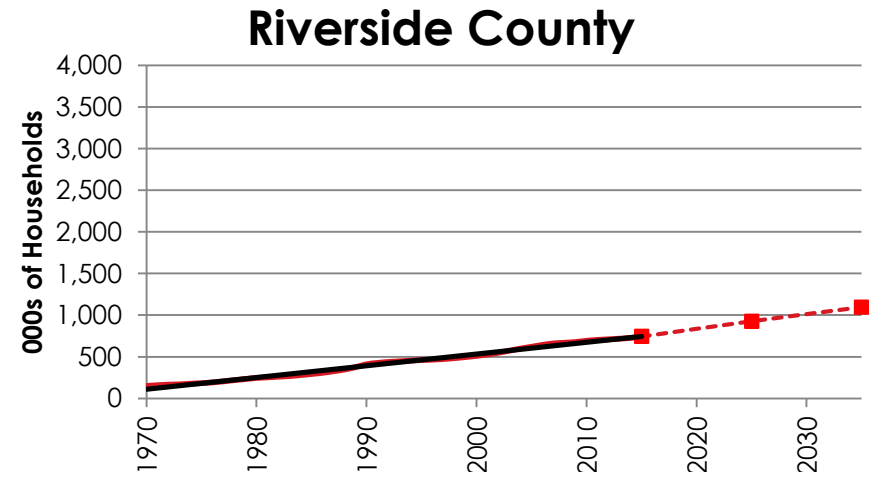
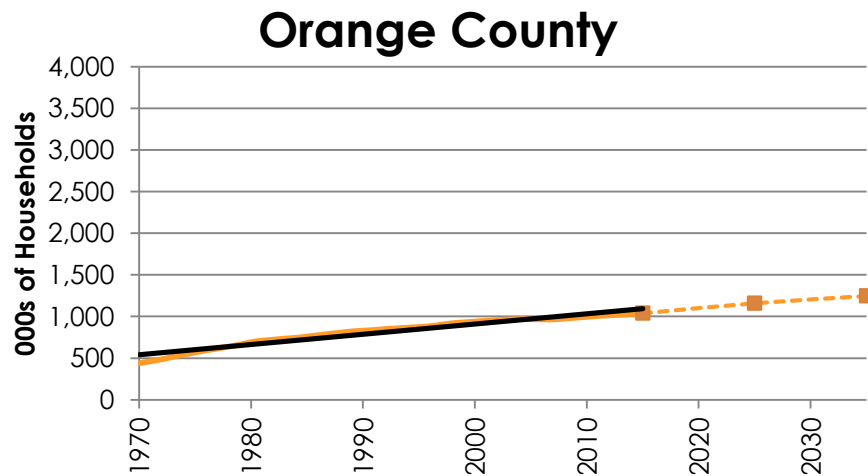
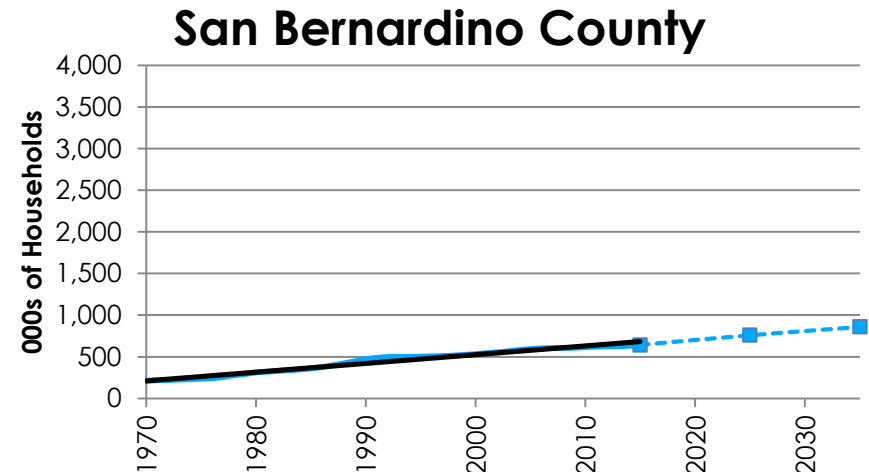
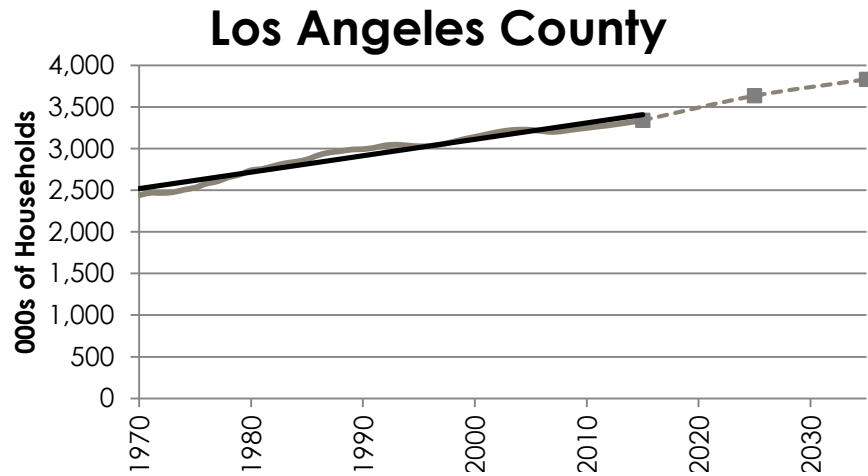
Orange County



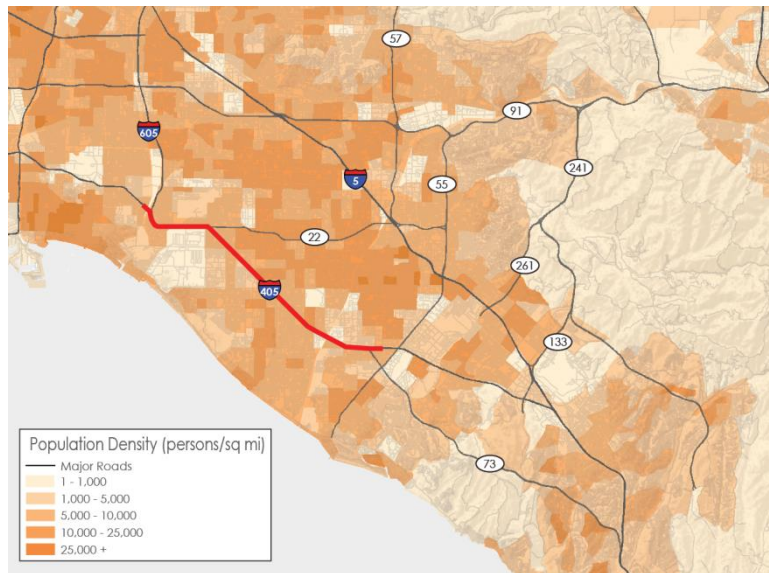
Riverside County



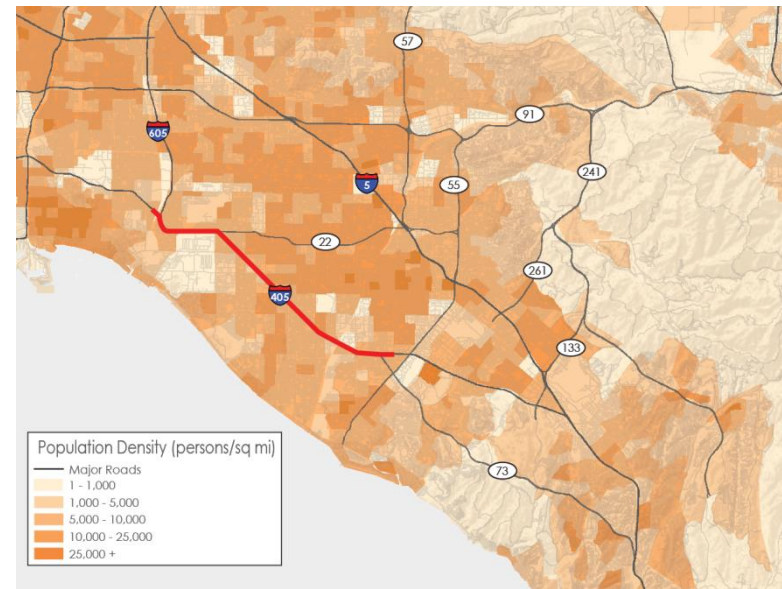
Historical Number of Households



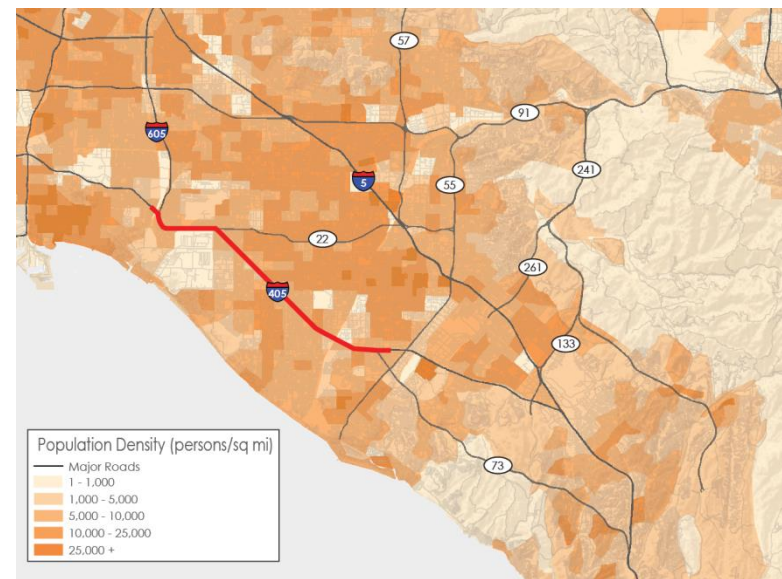
Population Density



2015

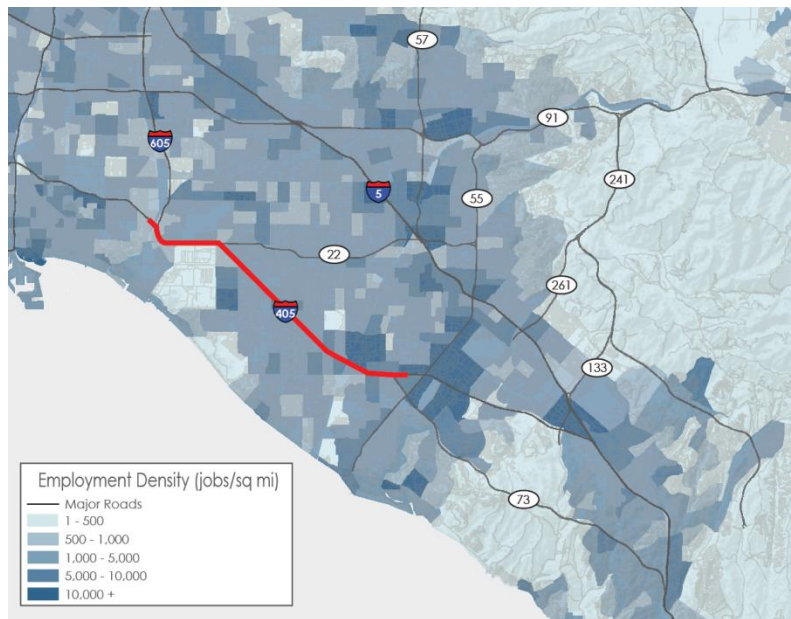


2025

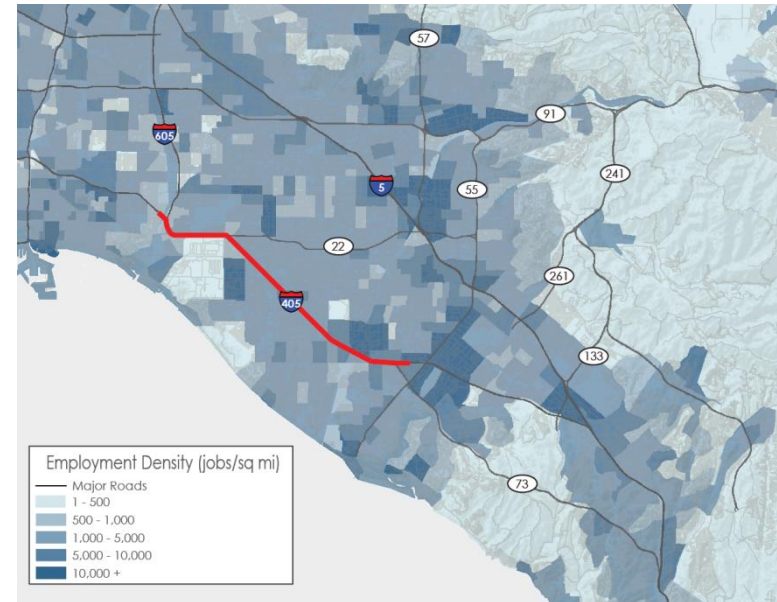


2035

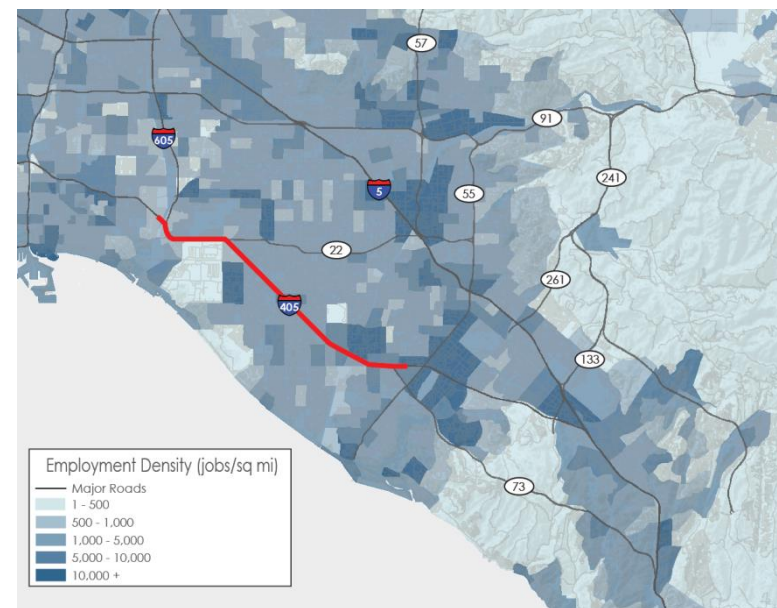
Employment Density



2015



2025



2035

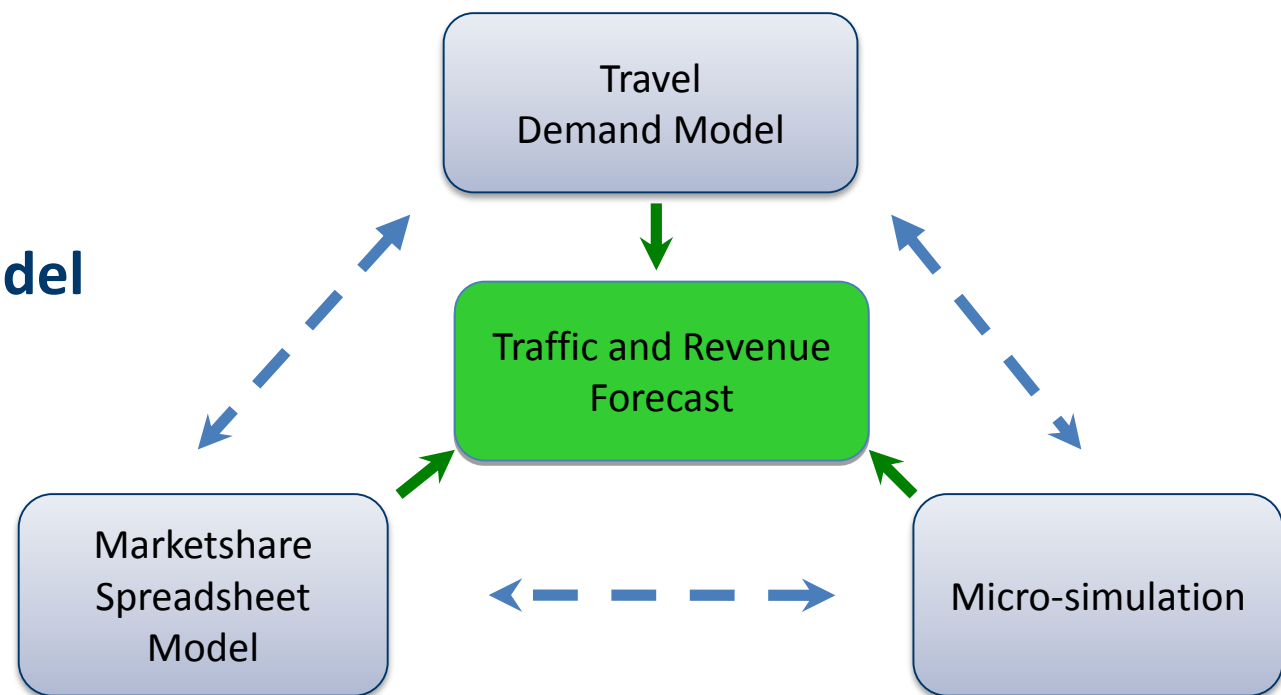
Model Calibration and Development

Modeling Process

Travel Demand Model

Microsimulation

Marketshare Model

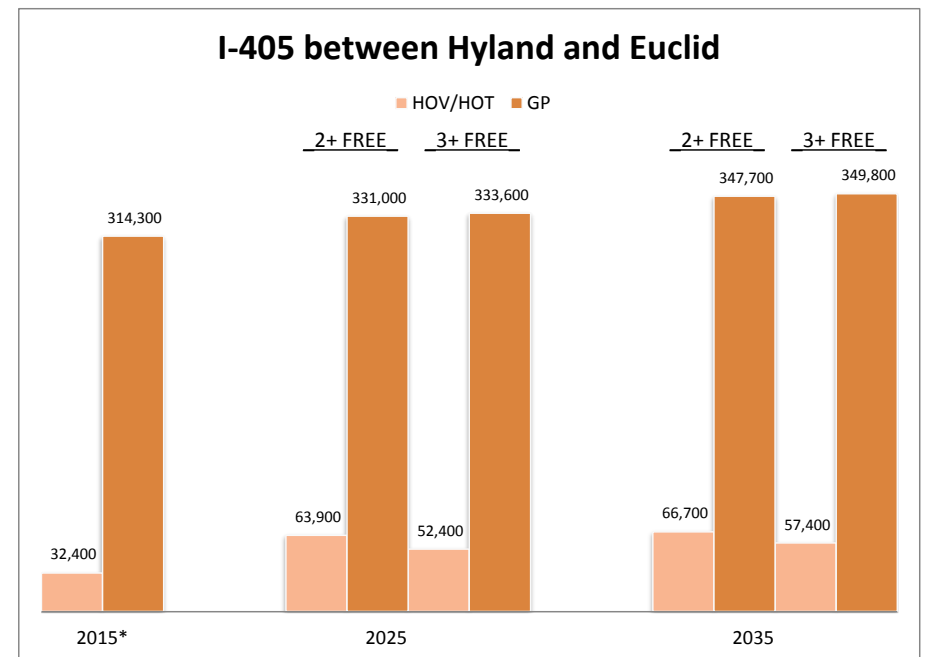
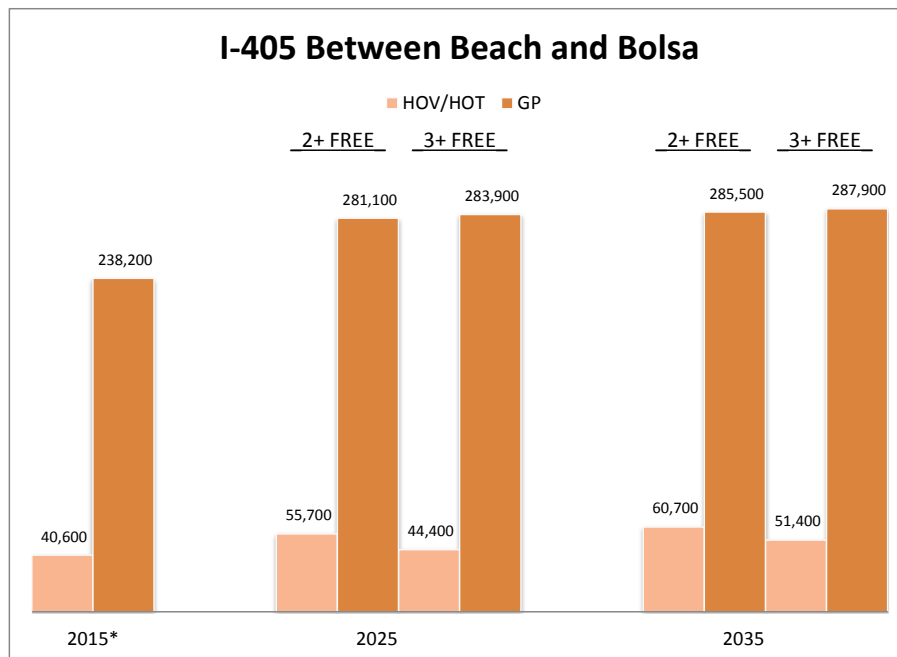


Freeway Improvements (2016 – 2035)



Trip and Corridor Growth

Year	Total Trips	CAGR	Total HOV2 Trips	CAGR	Total HOV3 Trips	CAGR
2015	39,743,116		6,907,970		4,170,942	
2025	45,340,830	1.3%	7,765,441	1.2%	4,690,274	1.2%
2034	49,454,863	1.0%	8,474,031	1.0%	5,129,227	1.0%
2035	49,361,237	-0.2%	8,227,215	-2.9%	5,282,417	3.0%



- Corridor grows by 1.1 to 1.9% per year between 2015 and 2025
- Corridor grows by 0.3 to 0.5% per year between 2025 and 2035

Traffic and Revenue Forecasts

Key Assumptions

□ Peak Period Definitions:

- 6 to 10 AM (weekday)
- 3 to 8 PM (weekday)
- 1 to 6 PM (weekend)

□ Static Variable Hourly Toll Schedule

□ Toll Options:

Toll Scenario	SOV	HOV2	HOV3+
A	Tolled all times	Free all times	Free all times
B	Tolled all times	Free Non-Peak Tolled in Peak	Free Non-Peak 50% toll in peak
B1	Tolled all times	Free Non-Peak Tolled in Peak	Free all times
C	Tolled all times	Tolled all times	Free Non-Peak 50% toll in peak
C1	Tolled all times	Tolled all times	Free all times
D ¹	Tolled all times	Tolled all times	Free Non-Peak 50% toll in peak

¹Option D contains the same occupancy assumptions as Option C but toll rates are set to maximize revenue

Approved Toll Option B1/C1:

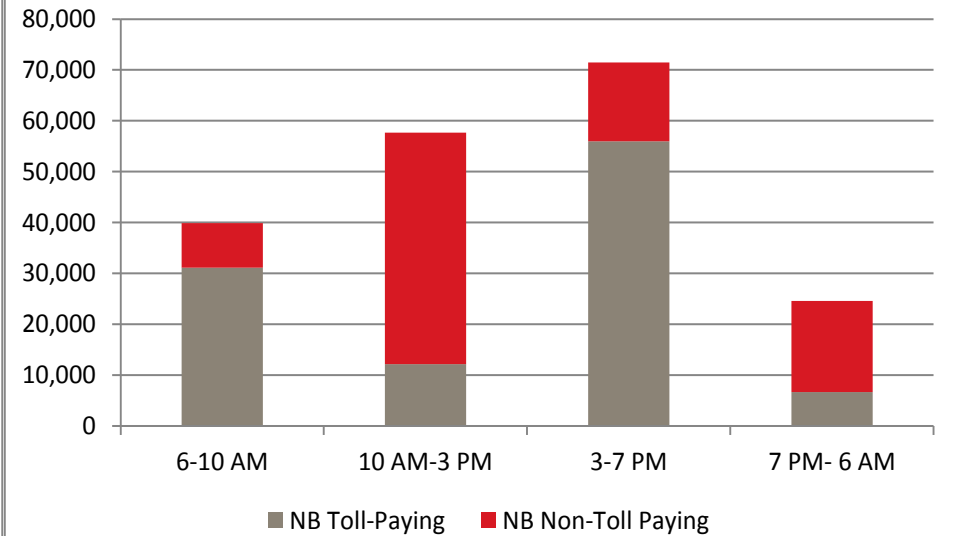
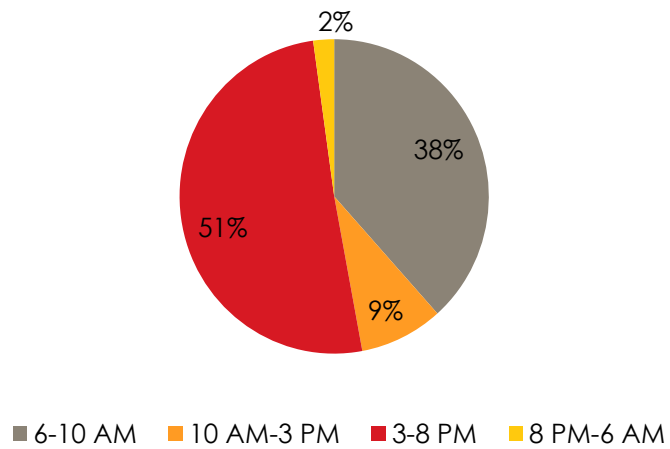
B1: HOV-2+ Free Off-Peak (3.5 years)

C1: HOV-3+ Free Off-Peak (31.5 years)

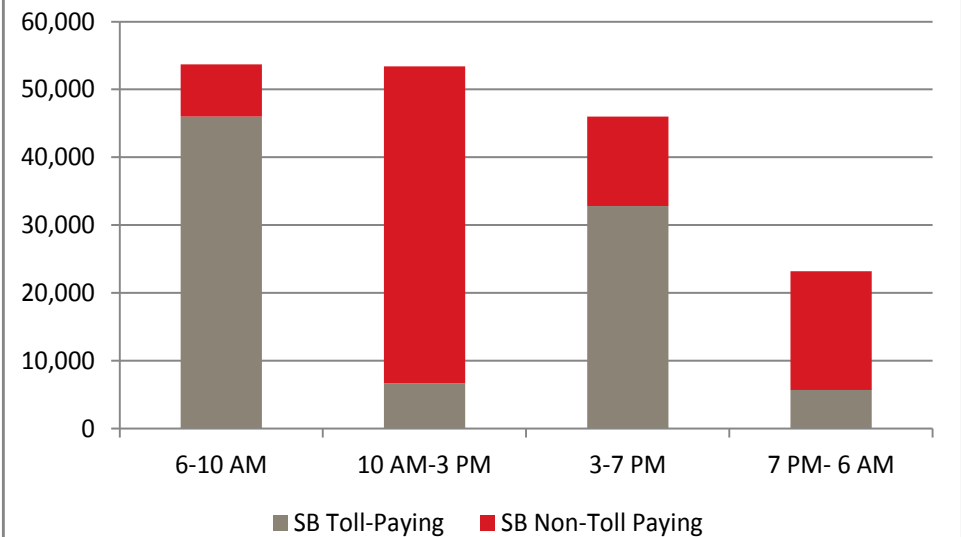
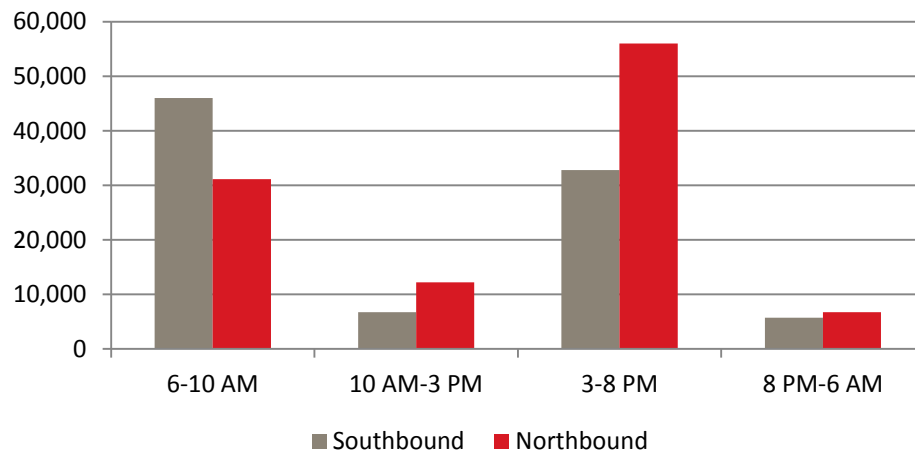
B1/C1: HOV-3+ Free Peak (all years)

Option B1: 2025 T&R Results

revenue by period

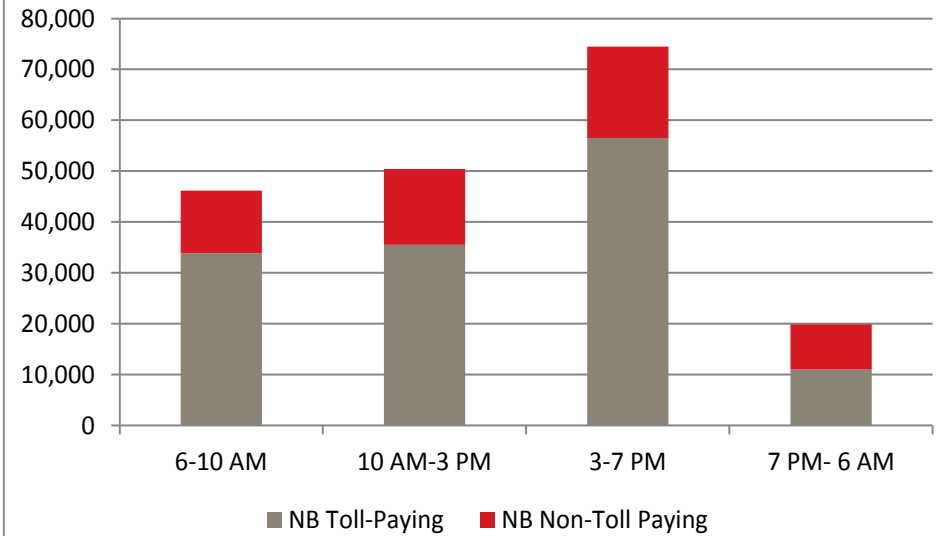
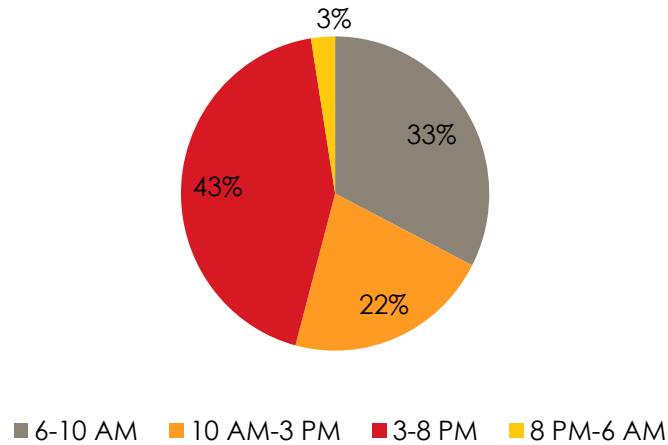


weekday toll transactions

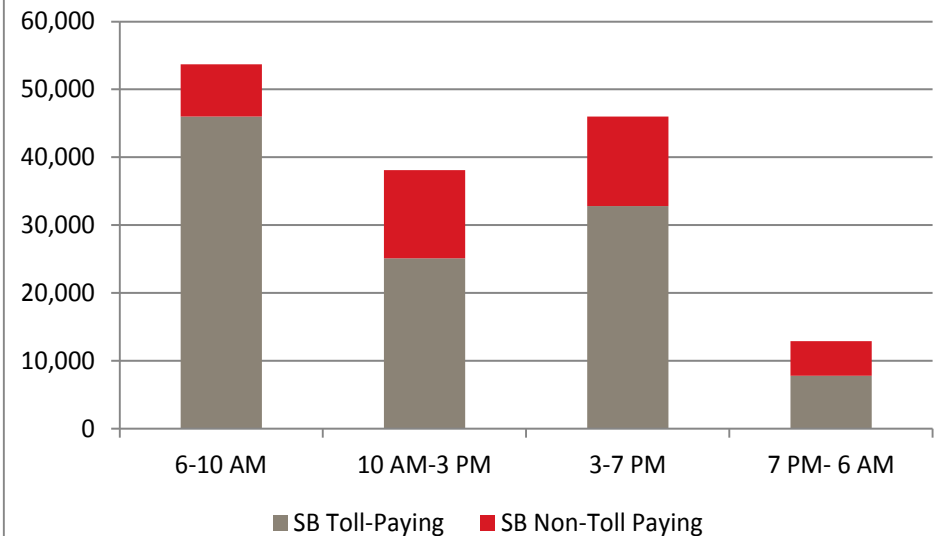
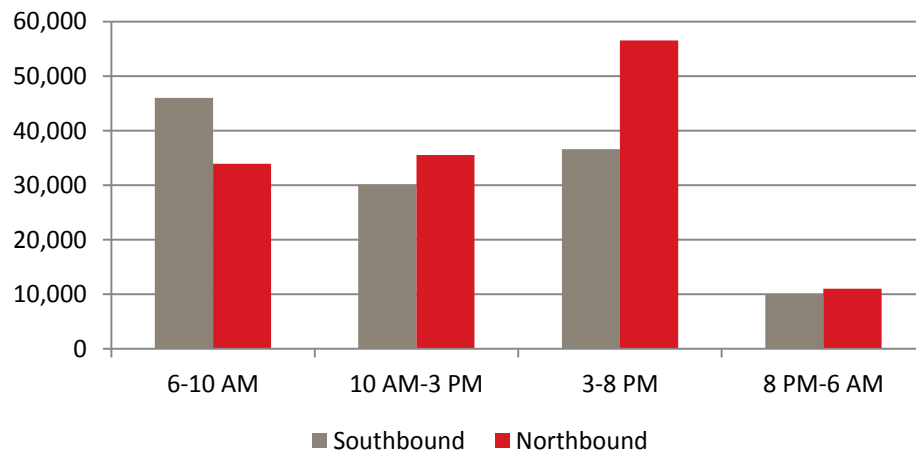


Option C1: 2035 T&R Results

revenue by period



weekday toll transactions



Toll Rates by Segment – 2025 (Toll Option B1)

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



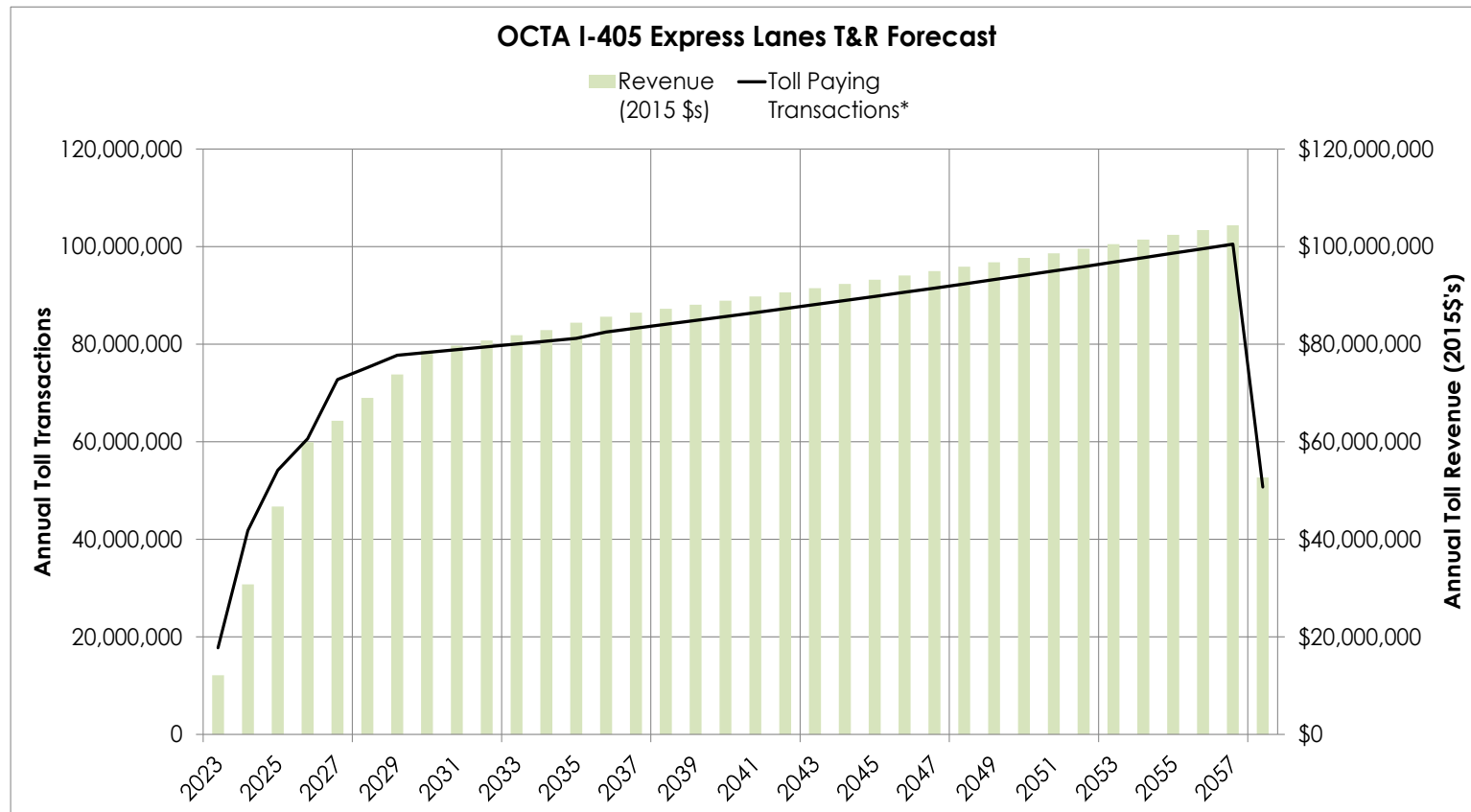
Toll Rates by Segment – 2035 (Toll Option C1)

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



Traffic and Revenue Forecast



- Annualization of weekday T&R
 - Toll transactions = 315
 - HOV transactions = 350
 - Revenue = 300
- T&R Ramp-up
 - Fully ramped up by end of FY 2026
 - Toll Transactions, FY 2023 = 60%, FY 2024 = 70%, FY 2025 = 90%
 - Revenue, FY 2023 = 40%, FY 2024 = 50%, FY 2025 = 75%, FY 2026 = 95%

Traffic and Revenue Forecast

Forecast Year	Fiscal Year	Toll Paying Transactions*	y/y % Change	Total Transactions	y/y % Change	Non-Toll Paying Transactions	y/y % Change	% HOV	Revenue (2015 \$)	y/y % Change	Average Toll / Transaction	y/y % Change
0.5	2023	17,786,500		35,433,500		17,647,000		50%	\$12,143,500		\$0.68	
1.5	2024	41,813,000	135.1%	83,577,000	135.9%	41,764,000	136.7%	50%	\$30,751,000	153.2%	\$0.74	7.7%
2.5	2025	54,164,000	29.5%	108,625,000	30.0%	54,461,000	30.4%	50%	\$46,721,000	51.9%	\$0.86	17.3%
3.5	2026	60,635,000	11.9%	122,009,000	12.3%	61,374,000	12.7%	50%	\$59,944,000	28.3%	\$0.99	14.6%
4.5	2027	72,745,000	20.0%	101,930,000	-16.5%	29,185,000	-52.4%	29%	\$64,305,000	7.3%	\$0.88	-10.6%
5.5	2028	75,212,000	3.4%	106,162,000	4.2%	30,950,000	6.0%	29%	\$68,984,000	7.3%	\$0.92	3.8%
6.5	2029	77,711,000	3.3%	110,513,000	4.1%	32,802,000	6.0%	30%	\$73,775,000	6.9%	\$0.95	3.5%
7.5	2030	78,287,000	0.7%	112,181,000	1.5%	33,894,000	3.3%	30%	\$78,681,000	6.6%	\$1.01	5.9%
8.5	2031	78,866,000	0.7%	113,889,000	1.5%	35,023,000	3.3%	31%	\$79,717,000	1.3%	\$1.01	0.6%
9.5	2032	79,450,000	0.7%	115,639,000	1.5%	36,189,000	3.3%	31%	\$80,766,000	1.3%	\$1.02	0.6%
10.5	2033	80,038,000	0.7%	117,433,000	1.6%	37,395,000	3.3%	32%	\$81,830,000	1.3%	\$1.02	0.6%
11.5	2034	80,631,000	0.7%	119,271,000	1.6%	38,640,000	3.3%	32%	\$82,907,000	1.3%	\$1.03	0.6%
12.5	2035	81,208,000	0.7%	118,862,000	-0.3%	37,654,000	-2.6%	32%	\$84,401,000	1.8%	\$1.04	1.1%
13.5	2036	82,496,000	1.6%	119,109,000	0.2%	36,613,000	-2.8%	31%	\$85,643,000	1.5%	\$1.04	-0.1%
14.5	2037	83,276,000	0.9%	119,979,000	0.7%	36,703,000	0.2%	31%	\$86,453,000	0.9%	\$1.04	0.0%
15.5	2038	84,063,000	0.9%	120,856,000	0.7%	36,793,000	0.2%	30%	\$87,270,000	0.9%	\$1.04	0.0%
16.5	2039	84,858,000	0.9%	121,741,000	0.7%	36,883,000	0.2%	30%	\$88,095,000	0.9%	\$1.04	0.0%
17.5	2040	85,661,000	0.9%	122,633,000	0.7%	36,972,000	0.2%	30%	\$88,928,000	0.9%	\$1.04	0.0%
18.5	2041	86,470,000	0.9%	123,533,000	0.7%	37,063,000	0.2%	30%	\$89,769,000	0.9%	\$1.04	0.0%
19.5	2042	87,288,000	0.9%	124,442,000	0.7%	37,154,000	0.2%	30%	\$90,617,000	0.9%	\$1.04	0.0%
20.5	2043	88,113,000	0.9%	125,358,000	0.7%	37,245,000	0.2%	30%	\$91,474,000	0.9%	\$1.04	0.0%
21.5	2044	88,946,000	0.9%	126,282,000	0.7%	37,336,000	0.2%	30%	\$92,339,000	0.9%	\$1.04	0.0%
22.5	2045	89,787,000	0.9%	127,214,000	0.7%	37,427,000	0.2%	29%	\$93,212,000	0.9%	\$1.04	0.0%
23.5	2046	90,636,000	0.9%	128,155,000	0.7%	37,519,000	0.2%	29%	\$94,093,000	0.9%	\$1.04	0.0%
24.5	2047	91,493,000	0.9%	129,103,000	0.7%	37,610,000	0.2%	29%	\$94,983,000	0.9%	\$1.04	0.0%
25.5	2048	92,358,000	0.9%	130,060,000	0.7%	37,702,000	0.2%	29%	\$95,881,000	0.9%	\$1.04	0.0%
26.5	2049	93,231,000	0.9%	131,026,000	0.7%	37,795,000	0.2%	29%	\$96,788,000	0.9%	\$1.04	0.0%
27.5	2050	94,113,000	0.9%	132,000,000	0.7%	37,887,000	0.2%	29%	\$97,703,000	0.9%	\$1.04	0.0%
28.5	2051	95,003,000	0.9%	132,982,000	0.7%	37,979,000	0.2%	29%	\$98,626,000	0.9%	\$1.04	0.0%
29.5	2052	95,901,000	0.9%	133,973,000	0.7%	38,072,000	0.2%	28%	\$99,559,000	0.9%	\$1.04	0.0%
30.5	2053	96,808,000	0.9%	134,973,000	0.7%	38,165,000	0.2%	28%	\$100,500,000	0.9%	\$1.04	0.0%
31.5	2054	97,723,000	0.9%	135,982,000	0.7%	38,259,000	0.2%	28%	\$101,450,000	0.9%	\$1.04	0.0%
32.5	2055	98,647,000	0.9%	136,999,000	0.7%	38,352,000	0.2%	28%	\$102,409,000	0.9%	\$1.04	0.0%
33.5	2056	99,579,000	0.9%	138,025,000	0.7%	38,446,000	0.2%	28%	\$103,378,000	0.9%	\$1.04	0.0%
34.5	2057	100,521,000	0.9%	139,061,000	0.8%	38,540,000	0.2%	28%	\$104,355,000	0.9%	\$1.04	0.0%
35	2058	50,735,500	-49.5%	70,053,000	-49.6%	19,317,500	-49.9%	28%	\$52,671,000	-49.5%	\$1.04	0.0%

*Transactions are defined as toll gantry readings. Each time a vehicle passes through a gantry they are recorded as a transaction. A full-length trip is recorded as 6 transactions.



7. 405 Project Preliminary TIFIA Loan Plan of Finance

Financial Model Inputs for the 405 Express Lanes

☐ Traffic and revenue projections

- Toll policy includes HOV2 free in non-peak and HOV3+ free all day for first 3.5 years
- After initial 3.5 years, toll policy switches to HOV3+ free all day only
- Toll revenues escalated by 2 percent per year
- 3 year ramp up period
- Projections are provided by Stantec

☐ Leakage assumptions

- Year 1: 6 percent pursuable, 6 percent non-pursuable, and 20 percent mis-declaration of HOV trips
- Year 2: 4.5 percent pursuable, 4.5 percent non-pursuable, and 15 percent mis-declaration of HOV trips
- Year 3+: 3 percent pursuable, 3 percent non-pursuable, and 10 percent mis-declaration of HOV trips

☐ Non-toll revenues

- 90 percent of trips by other agency transponder accounts
- Comprised of monthly minimum account fees and violation fines
- Projections are provided by HNTB



Financial Model Inputs for the 405 Express Lanes - continued

❑ Operating expense assumptions

- Based on stand-alone 405 Express Lanes operations
- Similar contract structure to the 91 Express Lanes
- Customer service center, back-office system, and roadway tolling system included at anticipated market cost
- Additional California Highway Patrol enforcement for the first 3 years
- Operating contract escalated at 3 percent and general expense escalation at 2 percent
- Projections are provided by HNTB

❑ General financial assumptions

- Interest rate at 3.35 percent (12/5/16 rate plus 25 basis points)
- Ascending debt structure with 2 percent growth
- Debt service reserve account funded within 1 year of substantial completion and is equal to the total debt service due in the next 12 months
- Operations and maintenance reserve account funded with net toll revenues and equal to \$6.25 million
- Major maintenance reserve account funded with net toll revenues and equal to \$14 million



Estimated 405 Project Sources and Uses

- ❑ As of November 30, 2016, OCTA has spent approximately \$64.6 million on the 405 Project
- ❑ OCTA currently plans to spend \$423.7 million in Pay-as-you-Go M2 funding and then issue M2 Sales Tax Revenue Bonds to generate 405 Project construction proceeds of \$714 million in 2021
- ❑ OCTA has pledged up to \$1.254 billion of M2; the preliminary financial model shows \$1.138 billion needed from M2 funds

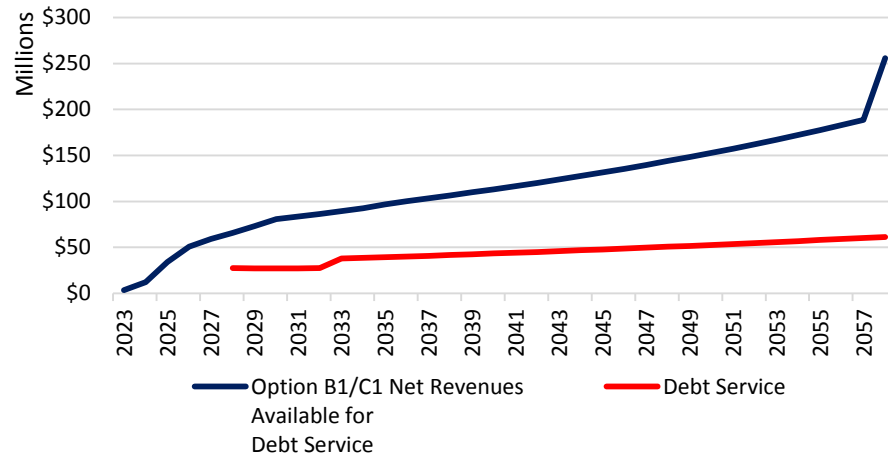
Sources of Funds (\$000's)		Uses of Funds During Construction (\$000's)	
M2 Pay-as-you-Go Funds	\$423,629	Design-Builder Costs (4)	\$1,316,131
M2 Bond Proceeds	\$714,000	OCTA Costs (4)	\$583,869
TIFIA Loan(1)	\$627,000		
\$82,000 from Caltrans, \$7.771 from TCIF (2)	\$89,771		
Federal Grants(3)	\$45,600		
Total Sources	\$1,900,000	Total Uses	\$1,900,000

1. The non-recourse TIFIA loan will be solely secured by pledged revenues generated by tolls charged on the 405 Express Lanes
2. Transportation Corridor Improvement Fund authorized by California Transportation Commission October 2016
3. The Federal grants include \$35 million from Surface Transportation Program (renamed under the FAST Act to Surface Transportation Block Grant), \$1.13 million from Interstate Maintenance Discretionary (IMD) Program, \$8.528 million from High Priority Projects earmarks from TEA-21 and SAFETEA-LU, and \$990,000 from 2006 appropriations bill earmarks
4. Contingencies and escalation included

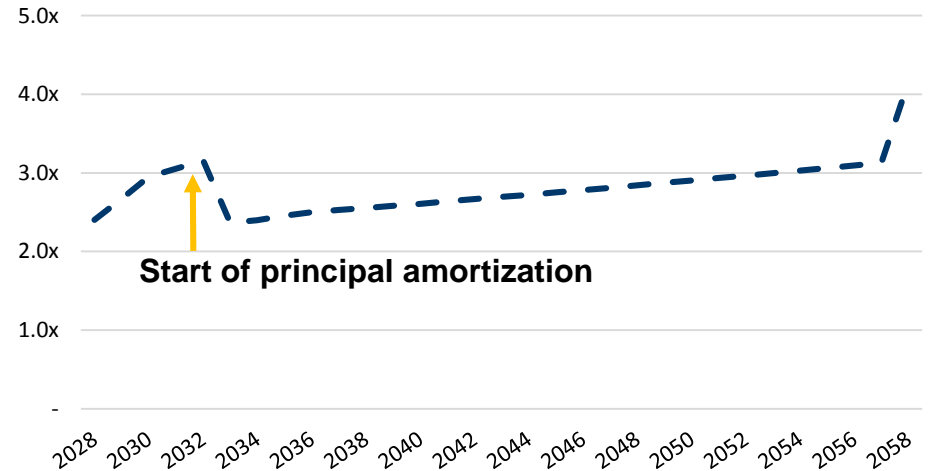


Option B1/C1 Projected Net Revenues Available for TIFIA Debt Service

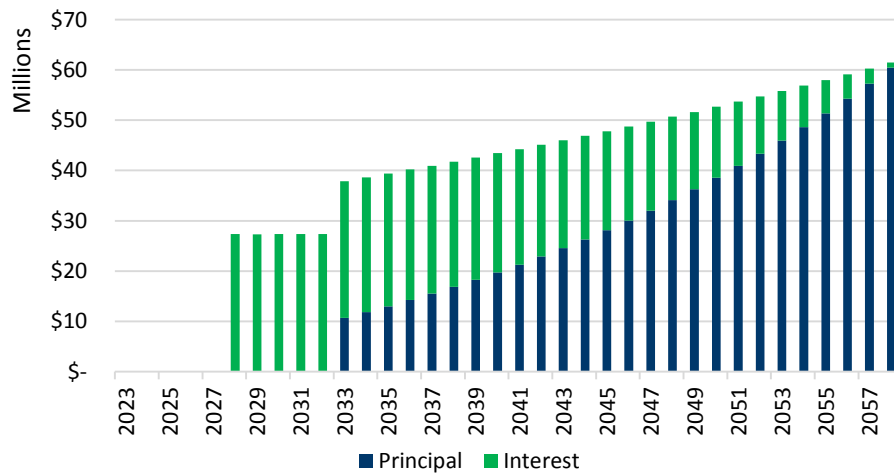
Net Revenues Available for Debt Service vs. Debt Service



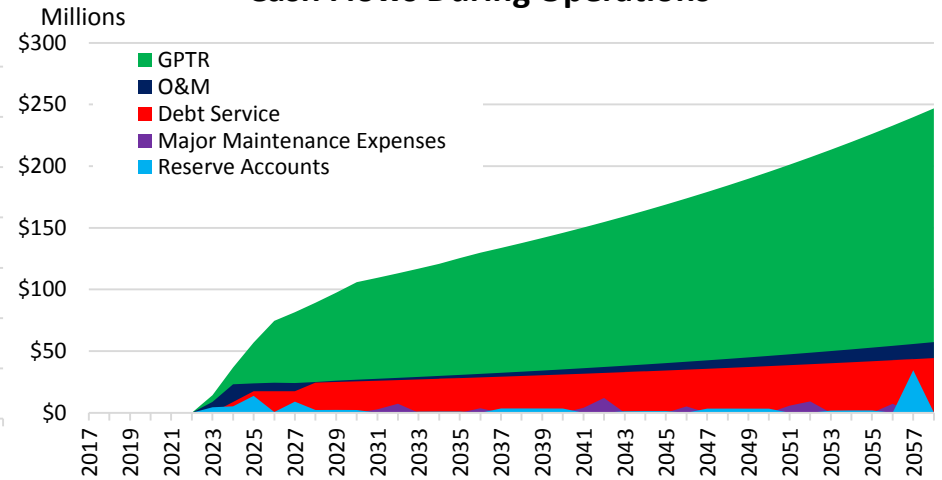
Debt Service Coverage Ratio



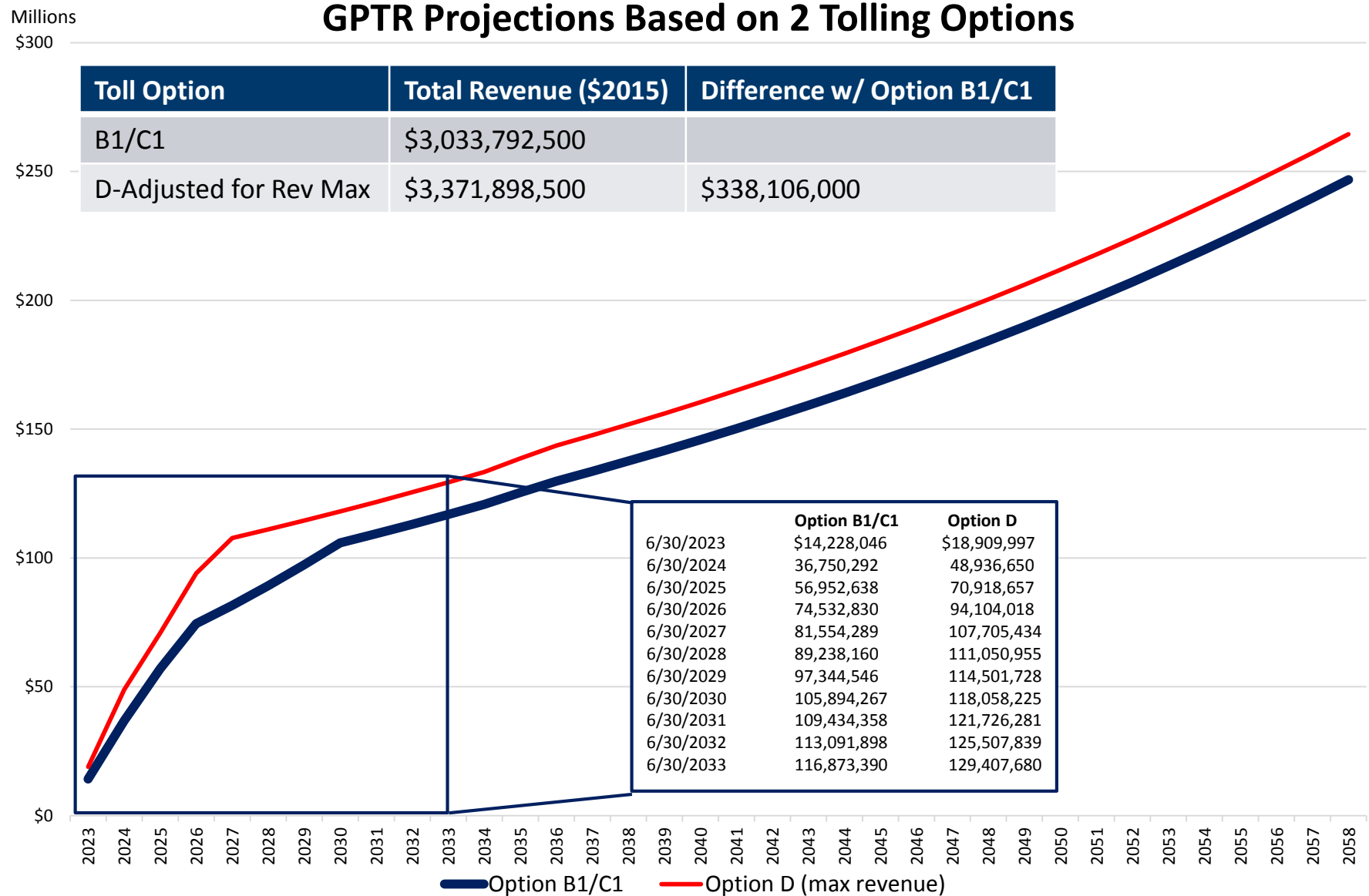
Debt Service



Cash Flows During Operations



Toll Option D Illustrates Pricing Power in 405 Project Corridor



OCTA Has Ample M2 Debt Capacity to Fund the 405 Project

OCTA currently expects to spend a total of \$423.7 million of M2 pay-go funds prior to issuing M2 bonds in 2021

The 2021 M2 bond issue allocates \$714 million of proceeds to the 405 Project

OCTA's outstanding \$325.5 million of Series 2010 Sales Tax Revenue Bonds are currently rated Aa2/AA+/AA+

OCTA currently plans to issue additional bonds in 2025 and 2032 for non 405 projects

Fiscal Year	M2 Revenues ⁽¹⁾⁽²⁾		Estimated Future M2 Issues			Debt Service Coverage Ratio
			\$352,570,000 2010 Sales Tax Revenue Bonds Debt Service ⁽³⁾	\$721,215,000 2021 Sales Tax Revenue Bonds ⁽⁴⁾ Debt Service	\$1,073,785,000 Total Parity Sales Tax Revenue Bond Debt Service	
2011	\$47,207,102		\$2,228,051		\$2,228,051	21.19x
2012	\$191,782,613		\$15,424,967		\$15,424,967	12.43x
2013	\$203,624,645	5.8%	\$21,834,967		\$21,834,967	9.33x
2014	\$213,733,920	4.7%	\$21,832,667		\$21,832,667	9.79x
2015	\$222,921,031	4.1%	\$21,833,967		\$21,833,967	10.21x
2016	\$229,293,187	2.8%	\$21,835,417		\$21,835,417	10.50x
2017	\$237,547,742	3.5%	\$21,834,417		\$21,834,417	10.88x
2018	\$245,386,817	3.2%	\$21,835,417		\$21,835,417	11.24x
2019	\$253,729,969	3.3%	\$21,836,667		\$21,836,667	11.62x
2020	\$263,117,978	3.6%	\$21,836,167		\$21,836,167	12.05x
2021	\$273,642,697	3.8%	\$21,837,317	\$4,066,351	\$25,903,668	10.56x
2022	\$284,835,178	3.9%	\$21,834,955	\$56,665,142	\$78,500,097	3.63x
2023	\$296,354,436	3.9%	\$21,836,015	\$56,661,867	\$78,497,882	3.78x
2024	\$308,427,497	3.9%	\$21,833,275	\$56,660,624	\$78,493,899	3.93x
2025	\$320,951,069	3.9%	\$21,836,046	\$56,663,024	\$78,499,069	4.09x
2026	\$333,187,801	3.7%	\$21,837,543	\$56,661,204	\$78,498,746	4.24x
2027	\$346,308,232	3.8%	\$21,836,928	\$56,665,199	\$78,502,126	4.41x
2028	\$360,759,642	4.0%	\$21,834,535	\$56,660,552	\$78,495,087	4.60x
2029	\$376,271,831	4.1%	\$21,834,467	\$56,665,065	\$78,499,532	4.79x
2030	\$392,782,258	4.2%	\$21,835,601	\$56,664,202	\$78,499,802	5.00x
2031	\$410,245,775	4.3%	\$21,836,814	\$56,660,027	\$78,496,841	5.23x
2032	\$426,988,927	3.9%	\$21,836,984	\$56,660,213	\$78,497,197	5.44x
2033	\$444,216,239	3.9%	\$21,834,989	\$56,663,066	\$78,498,054	5.66x
2034	\$462,339,166	3.9%	\$21,834,705	\$56,662,250	\$78,496,954	5.89x
2035	\$481,333,403	3.9%	\$21,834,785	\$56,660,130	\$78,494,915	6.13x
2036	\$500,968,684	3.9%	\$21,833,884	\$56,664,210	\$78,498,093	6.38x
2037	\$521,043,919	3.9%	\$21,835,653	\$56,662,694	\$78,498,346	6.64x
2038	\$541,817,799	3.8%	\$21,838,521	\$56,661,625	\$78,500,146	6.90x
2039	\$563,226,660	3.8%	\$21,835,916	\$56,662,343	\$78,498,259	7.18x
2040	\$585,371,587	3.8%	\$21,836,492	\$56,664,425	\$78,500,916	7.46x
2041	\$456,023,428	-28.4%	\$21,838,452	\$56,662,200	\$78,500,652	5.81x

1 Actual FY 2011 - FY 2016; Sales Tax assumed to grow at approximately 4.1% annually thereafter

2 Revenues equals all Sales Tax Revenues plus interest income. Sales Tax Revenues means 100% of Sales Tax collected by Board of Equalization less the sum of (i) 1.5% paid BOE, (ii) 1% paid to OCTA for administration, 2% for environmental clean up, and (iii) 18% for a local fair share to cities.

3 After Build America Bonds Subsidy Payments

4 Based on market rates as of December 12, 2016 Aa2/AA+/AA+ scale plus 150 basis points



Preliminary TIFIA Loan Flow of Funds

Order	Revenue Accounts
1 st	Operation and Maintenance Expenses
2 nd	Fees, Administrative Costs, and Expenses due under Parity Bond Indenture and Second Lien Bond Indenture
3 rd	Mandatory Interest portion of TIFIA Debt Service and Parity Bond Interest
4 th	Mandatory Principal portion of TIFIA Debt Service and Parity Bond Principal
5 th	TIFIA Debt Service Reserve Account and Parity Bond Debt Service Reserve Account
6 th	Scheduled interest portion of TIFIA Debt Service
7 th	Scheduled Principal portion of TIFIA Debt Service (if any)
8 th	Second Lien Bond Interest (if any)
9 th	Second Lien Principal (if any)
10 th	Second Lien Bond Debt Service Reserve Account (if any)
11 th	Operations and Maintenance Reserve Account
12 th	Major Maintenance Reserve Account
13 th	Capital Improvement Fund
14 th	Revenues Available for Capital Expenditures Account



8. Summary of Requested TIFIA Loan Credit Strengths

Summary of 405 Project TIFIA Loan Credit Strengths

OCTA Attributes	<p>14 years of successfully operating the 91 Express Lanes</p> <p>Issued 4 non-recourse 91 Express Lanes Toll Bonds totaling \$519 million; currently rated AA-/A1/A</p> <p>OCTA's Capital Program team experience, recent SR-22 \$550 million DB success</p> <p>Executive team continuity and experience</p> <p>Approximately \$2 billion of M1 and M2 debt issuance and investment management experience</p>
405 Project Attributes	<p>The I-405 is the most congested freeway in the U.S. and has significant weekday, weekend peak periods</p> <p>OCTA has pledged up to \$1.254 billion of M2 and \$82 million Caltrans contribution, \$45.6 million grants</p> <p>Financial model shows \$1.138 billion needed for M2 funds</p> <p>T&R Option D, revenue maximum sensitivity case, underscores pricing power in the 405 Project corridor</p>
Ramp-up Mitigation	<p>405 Express Lanes customers will understand congestion management pricing and tolling. OCTA's 91 Express Lanes has 180,000 transponders in circulation, LA Metro's 10 and 110 Express Lanes have 600,000, and the Orange County TCAs have 1.1 million transponders in circulation. HNTB estimates that 90% of 405 Express Lanes customers will use transponder issued by a different entity</p>
405 Express Lanes Pledged Revenue Security	<p>100% of net toll revenues secures TIFIA loan</p> <p>Provision to issue parity lien completion obligations in amount up to 15% of original TIFIA loan amount</p> <p>Absence of initial senior toll obligations at financial close increases TIFIA loan DSCRs</p> <p>1.30x rate covenant backed by pricing power of 405 Project corridor protects TIFIA lender</p> <p>DSRA funded within 12 months Substantial Completion at sum equal to next year's debt service</p> <p>Operations & Maintenance and Major Maintenance Reserves built up through monthly deposits</p> <p>Above normal DSCRs, based on 2% ascending debt structure, provides increased loan repayment flexibility</p>



Summary of 405 Project TIFIA Loan Credit Strengths Continued

DB Risk Mitigation	Project development and oversight partnership with Caltrans HQ and District 12 (the District 12 Director is an ex-officio member of the OCTA Board of Directors)
	Project development and oversight partnership with local FHWA division
	Caltrans has agreed to fund \$82 million for the 405 Project
	Experience of OCTA's Capital Programs leadership
	PMC and CMC major projects and managed lanes experience working with Caltrans
	Lump-sum, schedule limits in DB Contract
	DB Contract has strong security package
	Comprehensive critical path method schedule developed with contingencies included
	Right of way and utility relocation risks identified and mitigation in place to minimize risk
	FHWA Construction-Level CER in April 2016 based on 95% level of confidence
	\$1.9 billion cost estimate includes 10.5% risk contingency based on risk profile
T&R	Board adopted Preferred Toll Policy and preliminary Financial Plan which maximizes throughput and results in strong DSCRs
	Value of time, pricing power of 405 Project corridor allows for substantial toll increase flexibility
	Stantec has completed recent T&R studies for OCTA's and RCTC's 91 Express Lanes, TCA toll roads
	Detailed HNTB analysis of projected annual O&M, Non-toll Revenues, Leakage



9. Schedule

Schedule

Milestones	Date
Rating agencies updates in New York	December 2016
OCTA engages two rating agencies for TIFIA loan investment grade ratings	January 2017
Rating agency presentations	January/February 2017
Receive two investment grade ratings	February/March 2017
TIFIA Loan financial close	March 2017



10. Contacts

Contact Information



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- Jim Martling (415) 339-9201 (office) jmartling@sperrycapital.com
Principal (415) 250-0870 (cell)



Orange County Transportation Authority

- Andy Oftelie (714) 560-5649 aoftelie@octa.net
Executive Director, Finance & Administration
- Kirk Avila (714) 560-5674 kavila@octa.net
Treasurer, General Manager 91 Express Lanes





Appendix A – 405 Project Details

Legislation that Allows the 405 Project

❑ Assembly Bill 401 (Chapter 586, Statutes of 2013)

- OCTA will select a Design-Builder by implementing a two-step procurement process resulting in a best value selection, in accordance with the Code of Federal Regulations and AB 401 (codified in the California Public Contract Code Sections 6820 -6829 and the California Streets and Highways Code Section 91.2).

❑ Assembly Bill 194 (Chapter 687, Statutes of 2015)

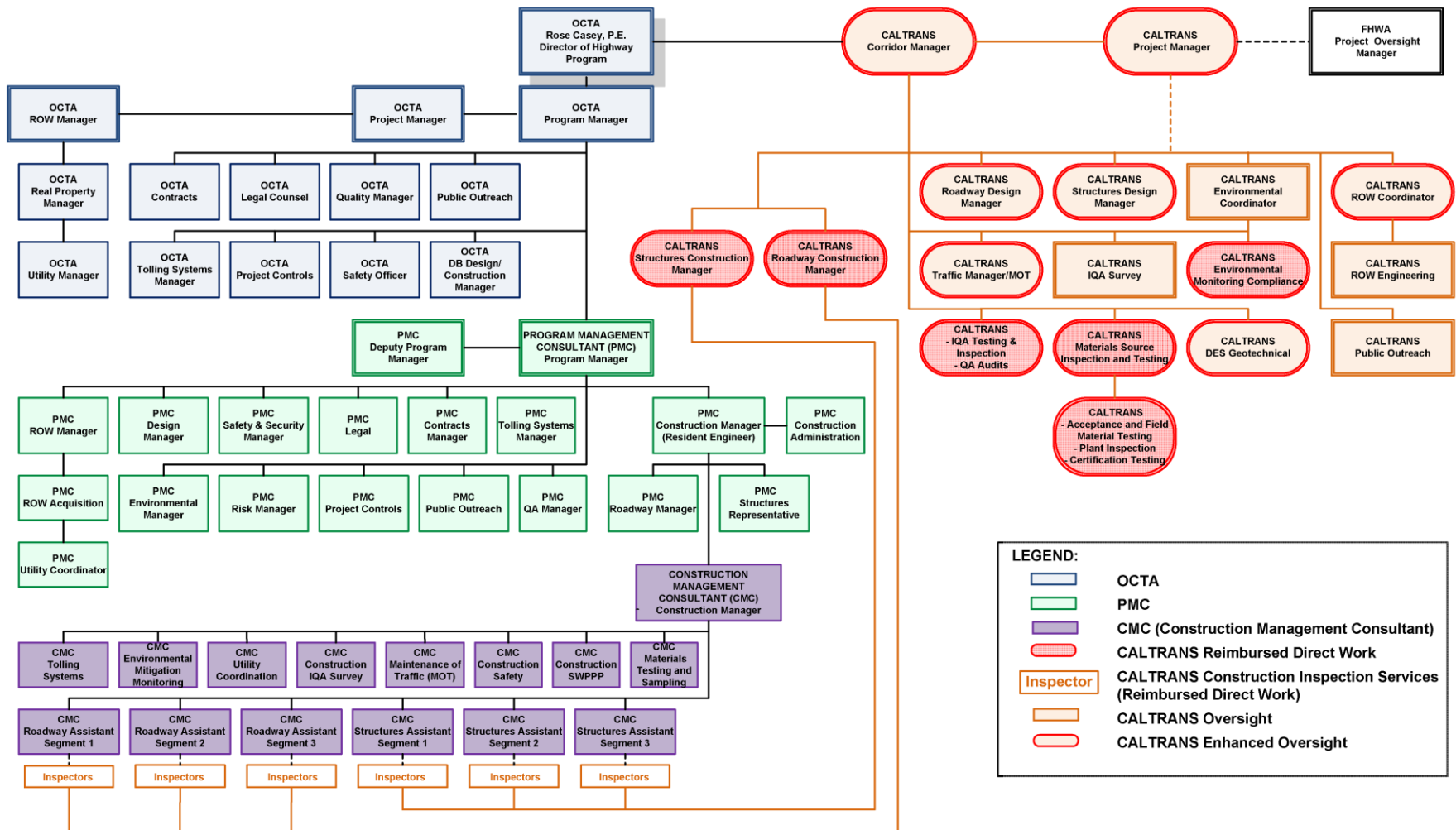
- Last year the California Legislature passed and Governor signed Assembly Bill (AB) 194 by Assembly Member Jim Frazier (D-Oakley)
- AB 194 was sponsored by the Self-Help Counties Coalition which authorizes regional transportation agencies and Caltrans to apply to the California Transportation Commission (CTC) to implement high-occupancy toll (HOT) facilities
- AB 194 puts in place a workable framework that will govern the planning and operation of HOT facilities in the state, while ensuring the recognition and preservation of local transportation needs and priorities
- The bill requires a strict and thorough CTC application process, requiring that local communities are afforded the opportunity to comment on proposed HOT Lane projects, and that the administrative and operational responsibility of locally sponsored HOT lane projects are retained at the local level



405 Project Detailed Cost (Including DB Bid Amount)

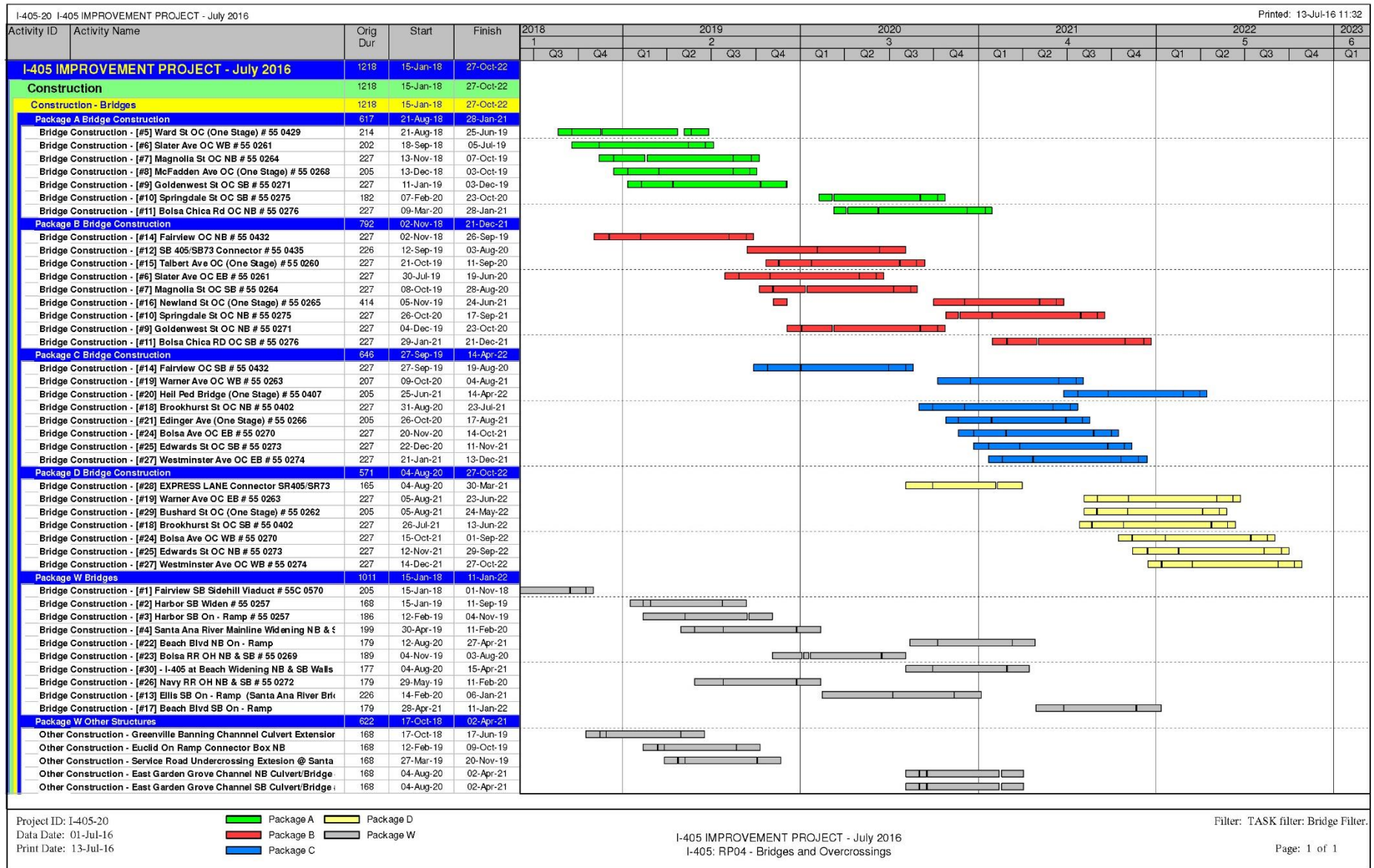
Cost Category	Summary Cost Element	Value (000's)
Design-Builder Costs	Project Management and Professional Services	\$332,375
	Construction Management	\$159,500
	Wet Utilities and Railroad Coordination	\$6,500
	Earthwork	\$35,800
	Pavements	\$95,000
	Roadway and Drainage	\$105,000
	Bridges and Walls	\$294,000
	Traffic Elements and Maintenance of Traffic	\$135,000
	Landscaping and Aesthetics	\$30,000
	Allowance Priced Items	\$23,890
	Subtotal Design-Builder Bid Amount	\$1,217,065
	Contingency for Design-Builder Costs	\$99,066
	Subtotal Design-Builder Costs	\$1,316,131
OCTA Costs	Right of Way Acquisition	\$99,727
	Dry Utilities	\$57,153
	Third Party Agreements	\$16,700
	OCTA Program Management	\$75,516
	Consultant Program and Construction Management	\$122,040
	Caltrans Enhanced Oversight and Inspection Services	\$55,400
	Toll Systems Integration	\$39,928
	Preliminary Engineering and Environmental Documentation	\$17,800
	Contingency for OCTA Costs	\$99,605
	Subtotal OCTA Costs	\$583,869
Total Program Costs		\$1,900,000



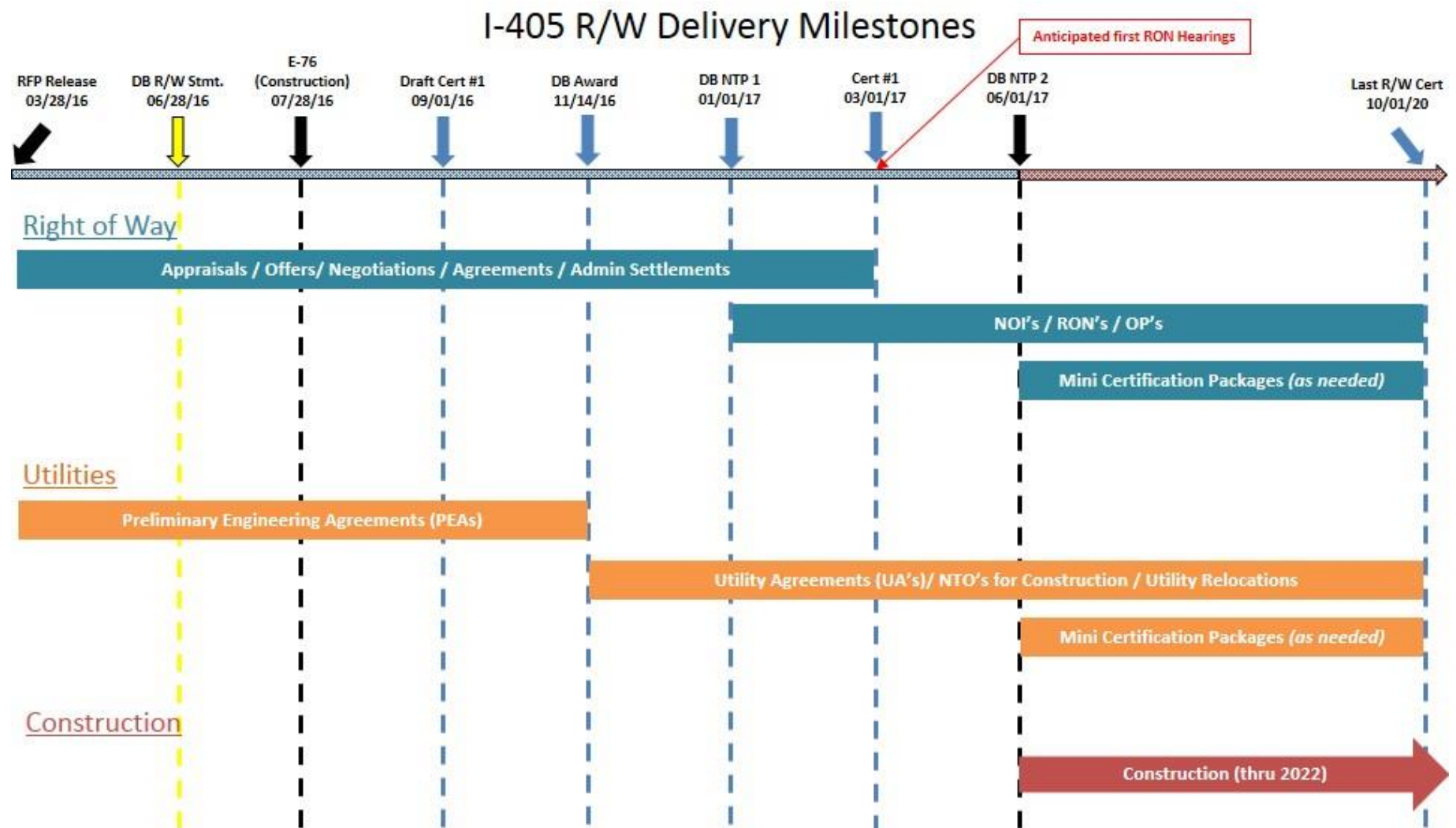


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Construction Sequencing Development and Risk Mitigation



ROW Delivery Program





Appendix B – Measure M Programs

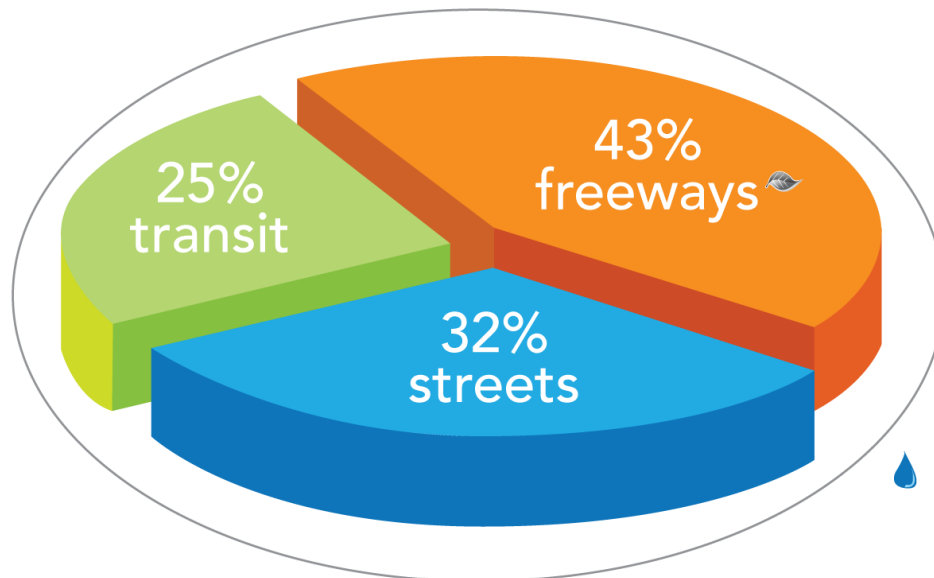
Measure M


- ❑ Half-cent transportation sales tax
- ❑ Passed in 1990 for 20 years (M1)
 - Delivered over \$4 billion of improvements
 - Leveraged \$1.2 billion external funds
 - Accelerated M1 delivery with bonding (allowable by ordinance)
 - Provided mobility benefit sooner
 - Realized cost savings
 - Delivered bonus project – added SR-22 widening
 - M1 close-out effective June 30, 2015
- ❑ Renewed in 2006 for 30 years (M2)
 - Passed by nearly 70% of voters
 - Forecasted to generate approximately \$14.8 billion




Measure M2 Investment Plan

Funding Distribution




 A total of 5% of M2 Freeway Program funds is allocated to the Freeway Environmental Mitigation Program

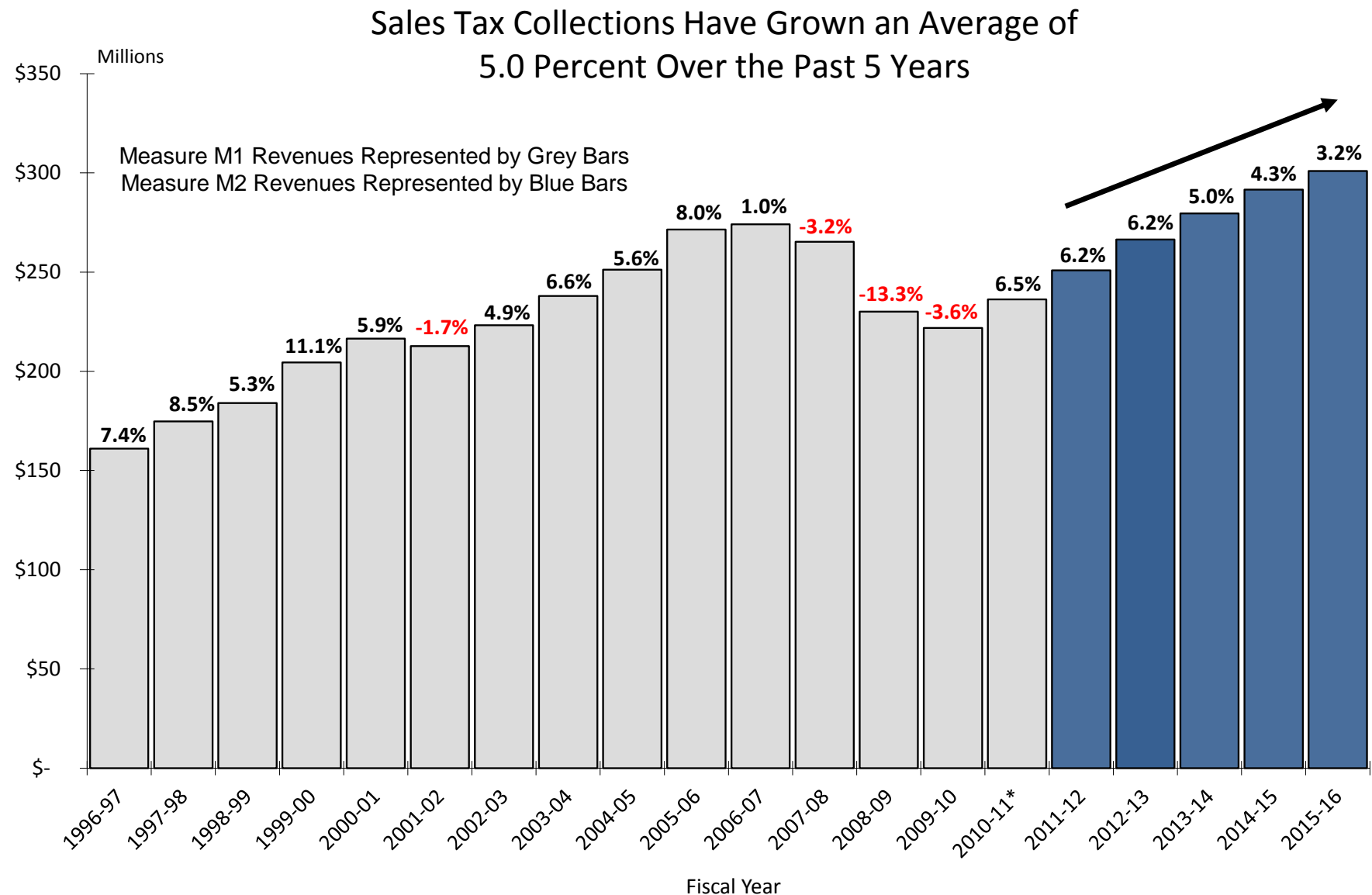
 A total of 2% of the overall M2 Program funds is allocated to the Environmental Cleanup Program

1% Administrative Cap

1 ½ % State Board of Equalization

 M2 Projects and Programs		
Freeway Projects		
I-5	Santa Ana Freeway Interchange Improvements	A
I-5	Santa Ana/San Diego Freeway Improvements	B C D
SR-22	Garden Grove Freeway Access Improvements	E
SR-55	Costa Mesa Freeway Improvements	F
SR-57	Orange Freeway Improvements	G
SR-91	Riverside Freeway Improvements	H I J
I-405	San Diego Freeway Improvements	K L
I-605	Freeway Access Improvements	M
All	Freeway Service Patrol	N
Streets & Roads Projects		
	Regional Capacity Program	O
	Regional Traffic Signal Synchronization Program	P
	Local Fair Share Program	Q
Transit Projects		
	High Frequency Metrolink Service	R
	Transit Extensions to Metrolink	S
	Metrolink Gateways	T
	Expand Mobility Choices for Seniors and Persons with Disabilities	U
	Community Based Transit/Circulators	V
	Safe Transit Stops	W
Environmental Cleanup		
	Clean Up Highway and Street Runoff that Pollutes Beaches	X
Taxpayer Safeguards and Audits		
	Collect Sales Taxes (State charges required by law)	
	Oversight and Annual Audits	

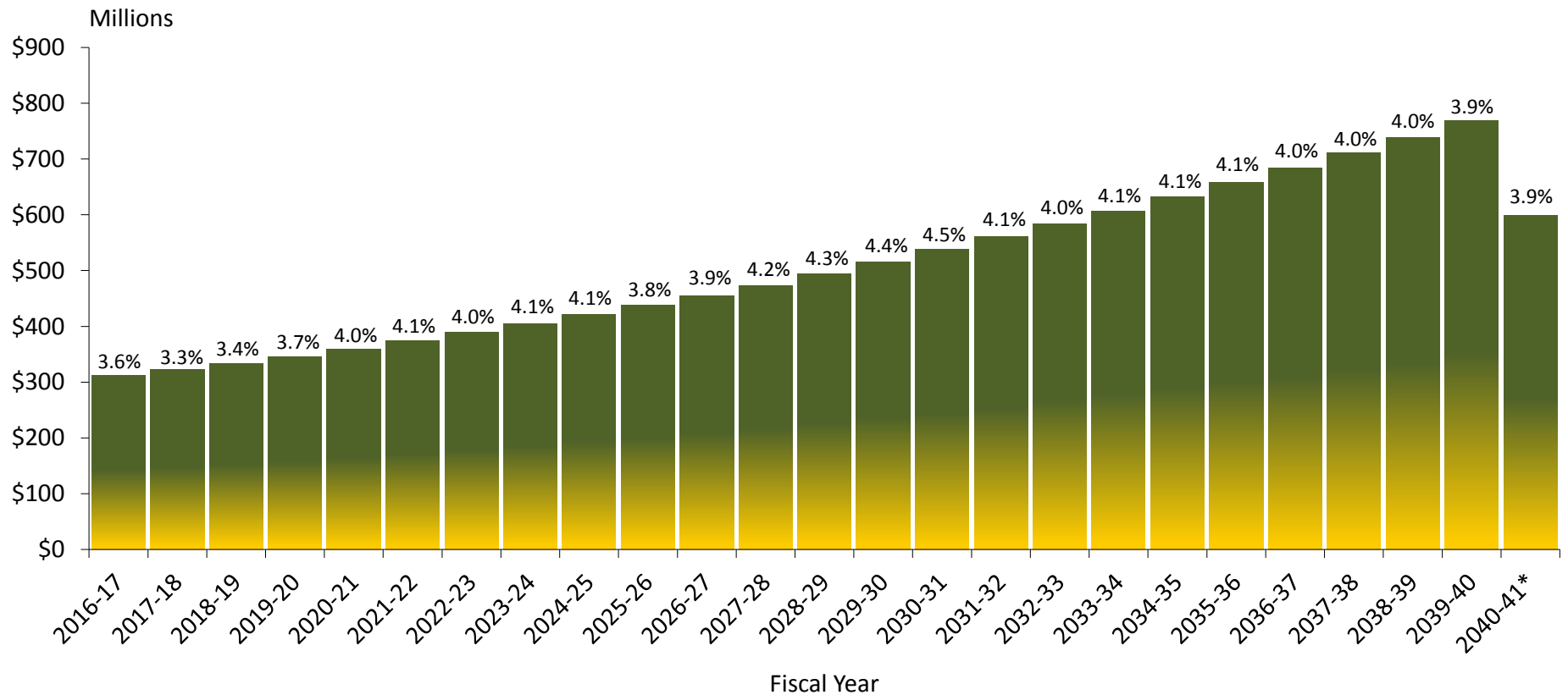
Historical Sales Tax Collections (Measure M1 and M2)



* Fiscal Year 2010-11 represents a combination of Measure M1 (three quarters of the year) and Measure M2 (one quarter of the year) sales tax revenues.

Measure M2 Nominal Forecast Totals \$14.2 Billion

Annual Sales Tax Revenue Forecast



* Represents three quarters of a year of sales tax collections





Appendix C – Orange County Employment Update

Unemployment Rate Comparison

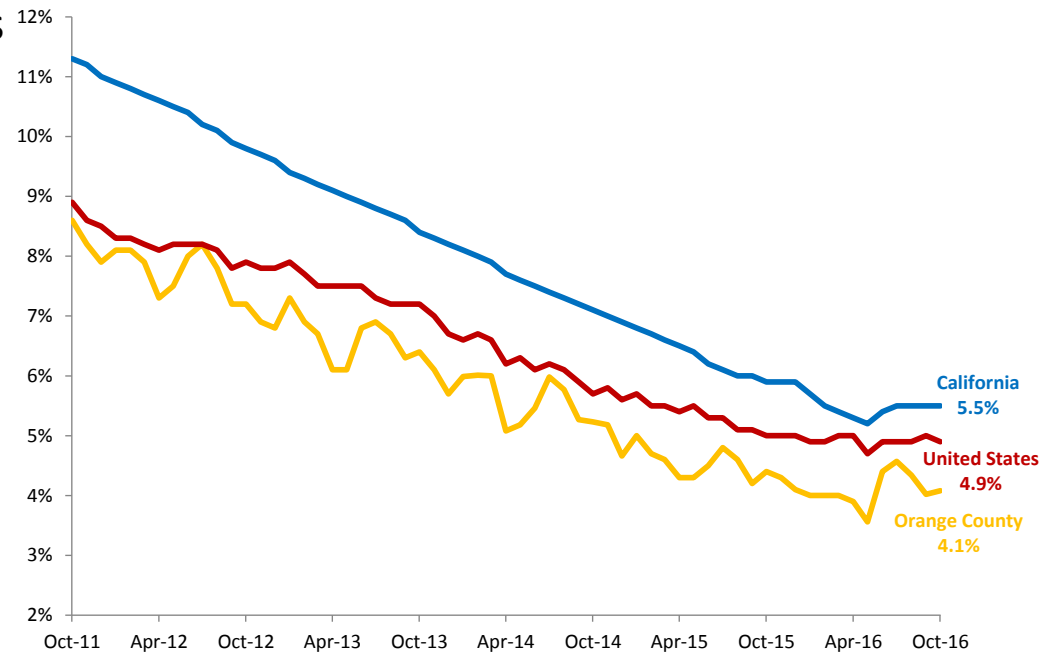
- ❑ Orange County's unemployment rate decreased to 4.1 percent in October 2016

- ❑ Orange County's rate of 4.1 percent is the sixth lowest in the state (out of 58 counties)

- ❑ Orange County has the lowest unemployment rate in the Southern California region:

Orange	4.1%
San Diego	4.8%
Los Angeles	5.1%
Ventura	5.3%
Riverside/San Bernardino	6.3%

Monthly Unemployment Rates Since 2011



Source: State of California Employment Development Department, November 2016



Employment Growth by County

- ❑ Since the recession, Orange County has seen strong employment growth over the past five years
- ❑ Orange County's employment growth averaged 1.43 percent over the past 20 years exceeding the state average

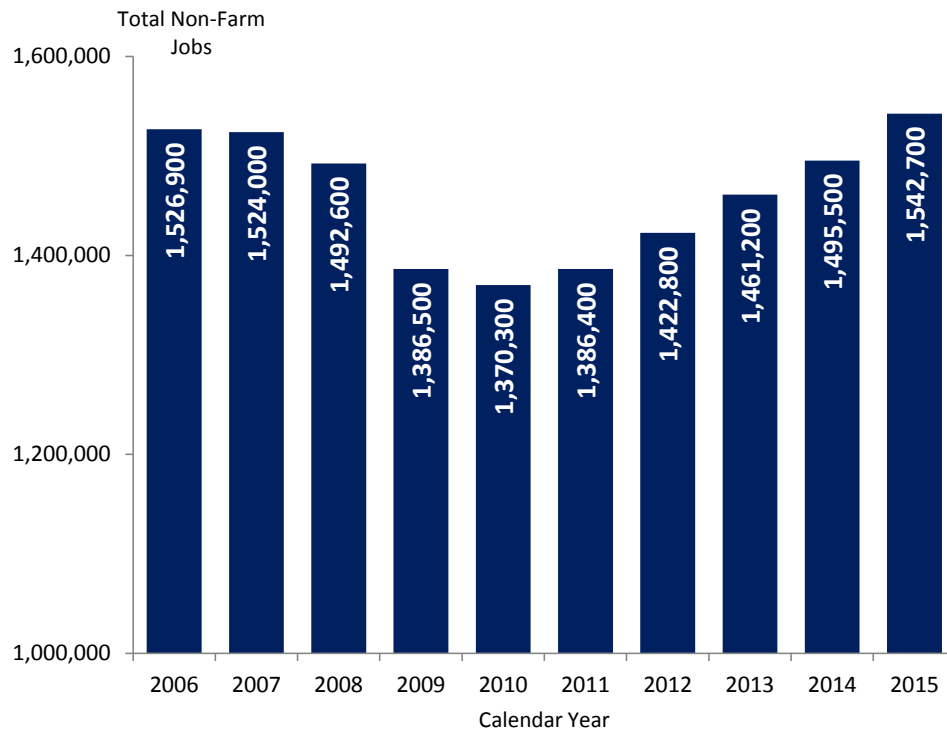
County	1995	2000	2005	2010	2015
Orange	1,161,200	1,393,200	1,498,300	1,370,300	1,542,700
Period	1995-00	2000-05	2005-10	2010-15	1995-15
Incremental Growth	232,000	105,100	(128,000)	172,400	381,500
Average Annual Growth	46,400	21,020	(25,600)	34,480	19,075
Compound Annual Growth Rate	3.71%	1.47%	-1.77%	2.40%	1.43%
Los Angeles	3,789,000	4,125,000	4,138,500	3,923,200	4,274,200
Period	1995-00	2000-05	2005-10	2010-15	1995-15
Incremental Growth	336,000	13,500	(215,300)	351,000	485,200
Average Annual Growth	67,200	2,700	(43,060)	70,200	24,260
Compound Annual Growth Rate	1.71%	0.07%	-1.06%	1.73%	0.60%
San Diego	988,600	1,200,000	1,294,500	1,242,000	1,386,400
Period	1995-00	2000-05	2005-10	2010-15	1995-15
Incremental Growth	211,400	94,500	(52,500)	144,400	397,800
Average Annual Growth	42,280	18,900	(10,500)	28,880	19,890
Compound Annual Growth Rate	3.95%	1.53%	-0.82%	2.22%	1.71%
California	12,481,000	14,585,300	15,045,200	14,282,500	16,051,500
Period	1995-00	2000-05	2005-10	2010-15	1995-15
Incremental Growth	2,104,300	459,900	(762,700)	1,769,000	3,570,500
Average Annual Growth	420,860	91,980	(152,540)	353,800	178,525
Compound Annual Growth Rate	3.17%	0.62%	-1.04%	2.36%	1.27%

Source: State of California Employment Development Department, July 2016

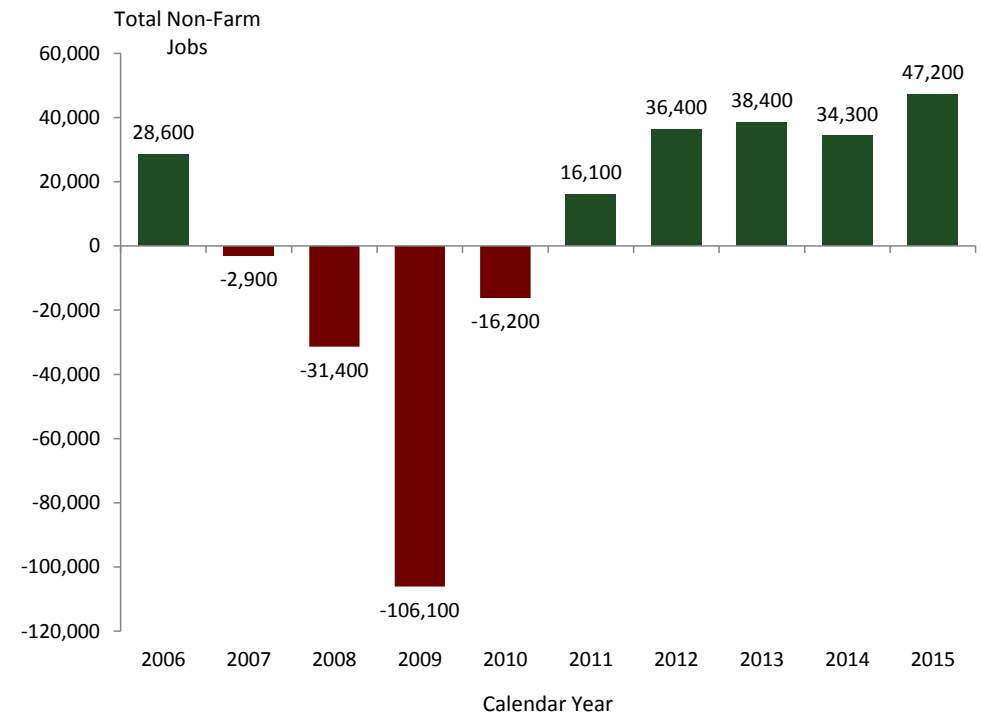


Orange County Employment Surpasses Pre-Recessionary Highs

Employment History



Job Creation and Loss History



Source: State of California Employment Development Department, June 2016



Appendix D - Toll Policy Details

OCTA Board Guidelines for a Balanced Toll Policy

- ❑ In October 2015, the OCTA Board adopted Toll Policy Goals and approved the 405 Express Lanes policy decisions for the initial toll policy

Toll Policy Goals

- Provide 405 Express Lanes customers with safe, reliable, predictable commute
- Optimize throughput at free flow speeds
- Increase average vehicle occupancy
- Balance capacity and demand to service 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 405 Express Lanes financing documents are met
- Ensure that net excess revenues are used for I-405 corridor improvements

Policy Decisions Approved by the Board

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 Revenues: Account Fees, Violations	OCTA 91 EL
Enforcement Approach	Manual and Automated
Prohibited Vehicles, Discounts, Exemptions	Large trucks (over 10,000 lbs) and towed trailers
Toll Collection	Title 21-Compliant Transponder (monitor technology improvements)
Toll Policy Options for Analysis	Four*

*Plus two sensitivity analyses were modeled

Preferred Toll Policy Option Summary

- ☐ Initial Policy adopted by the OCTA Board in May 2016
- ☐ Traffic volumes are monitored on an hourly basis
- ☐ Policy establishes trigger points to adjust tolls up or down, depending on traffic volume and compliance with covenants
- ☐ Toll adjustments are performed on a quarterly basis
- ☐ Policy includes COLA annual adjustments and three ride free
- ☐ Board of Directors and customers are notified at least ten days prior to an adjustment

405 Express Lanes Toll Policy Decision Process - Peak

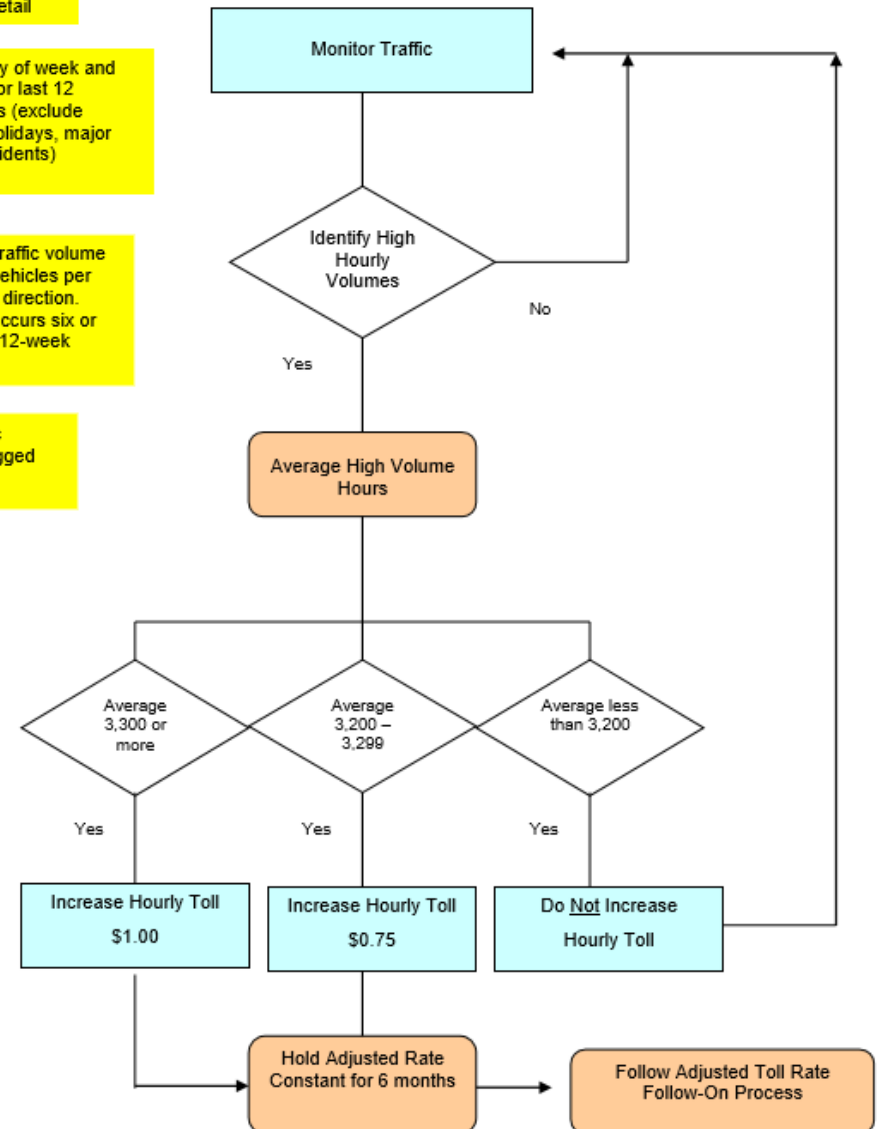
Toll Policy Decision Process Congestion Management Pricing in Peak Hours

Definitions / Detail

Monitor hourly, day of week and directional traffic for last 12 consecutive weeks (exclude days/hours with holidays, major incidents, and accidents)

Flag hours when traffic volume is 3,128 or more vehicles per hour, per day, per direction. Determine if this occurs six or more times in the 12-week period.

Average the traffic volume for the flagged hours.





Appendix E – TIFIA Model Assumptions

General TIFIA Loan Assumptions

Substantial Completion Date	12/31/2022
TIFIA Loan Amount (Principal)	\$627,000,000
Debt Service Commencement Date	12/1/2027
Principal Amortization Commencement Date	12/1/2032
Amortization Payment Schedule	Annual
Final Maturity Date	12/1/2057
TIFIA Interest Rate ¹	3.35%
Capitalized Interest Through	12/1/2027
Debt Service Structure	Ascending at 2% Annually

¹ TIFIA Rate as of December 5, 2016 plus 25 basis points