



Interstate 405 Project Update And Toll Revenue Investment Plan

Discussion Items

- Net toll revenue policy discussion
- Project modifications and potential cost savings
- Delivery methods and implications
- Lane configurations – south end of project
- Lane configurations – north end of project

Net Toll Revenue Policy Discussion



Express Facility Revenues

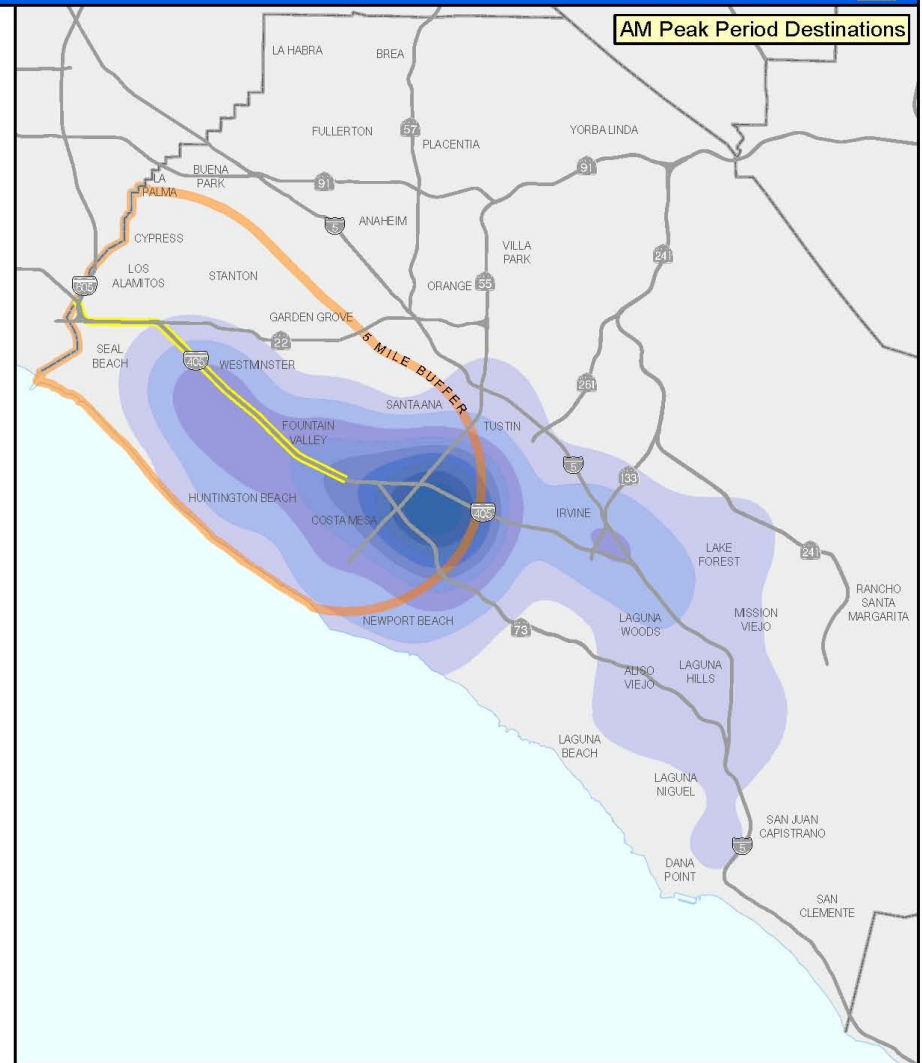
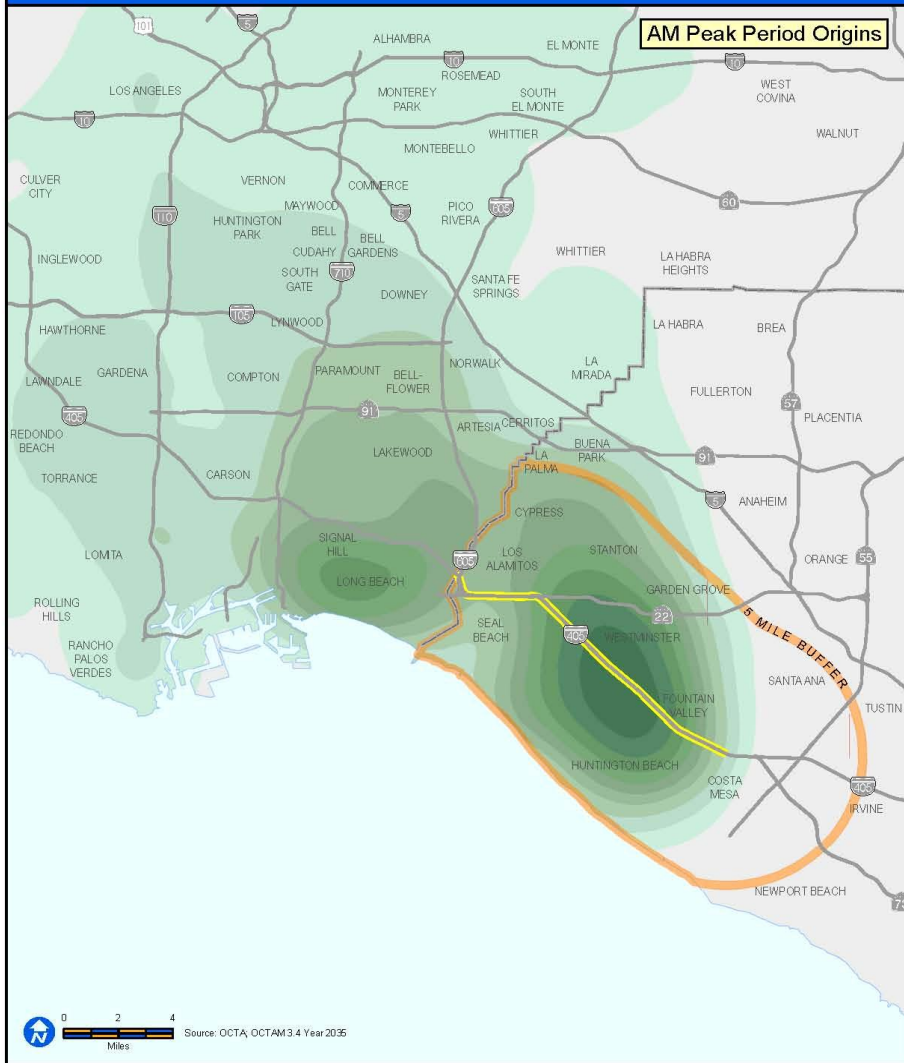
- Net tolls defined as available revenues after:
 - Operations
 - Maintenance
 - Capital expenses
 - Debt service
- I-405 net toll revenue estimate \$1.5 billion
- Revenue as early as 2020
- Board requested initial concepts

Guiding the Effort

- Enabling legislation - Street & Highways Code Section 143 as amended by SB 4
- 91 Express lanes legislation (SB 1316) and experience
- Board policy on express lane planning and implementation (adopted December 2011)
- Travel patterns in the corridor

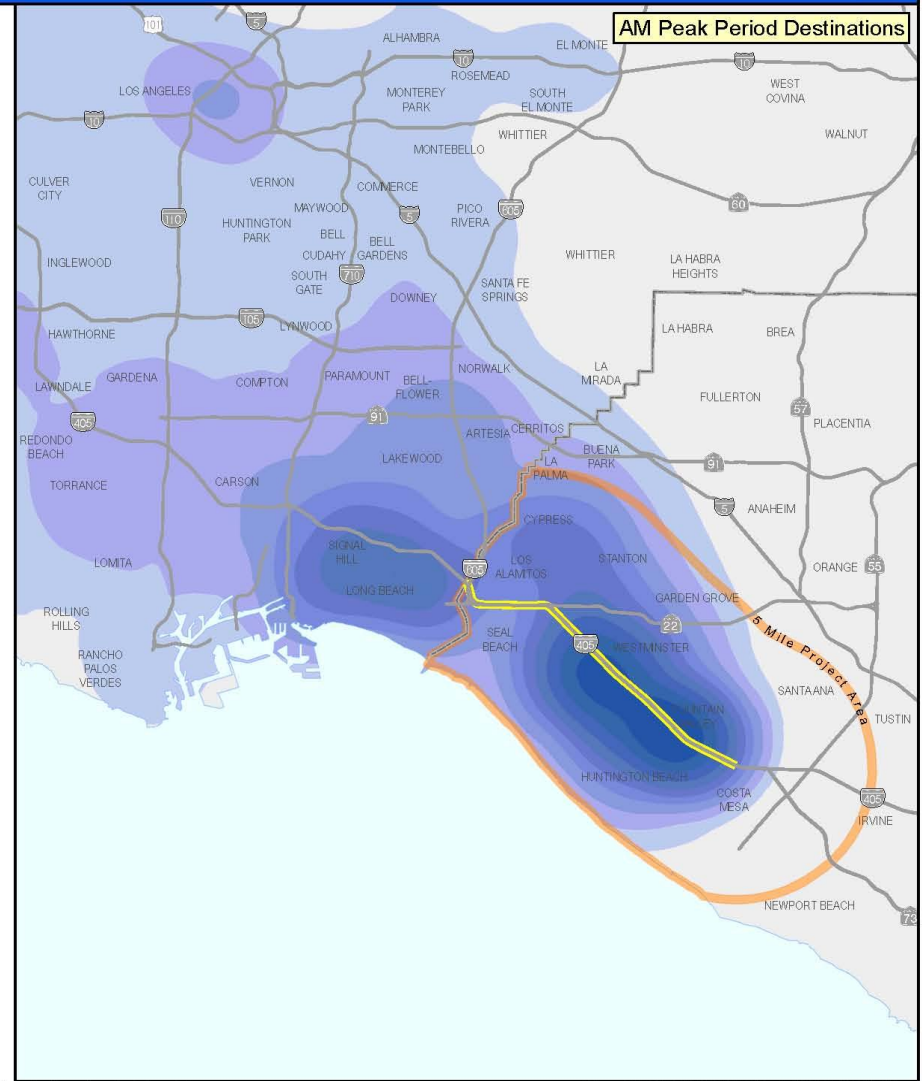
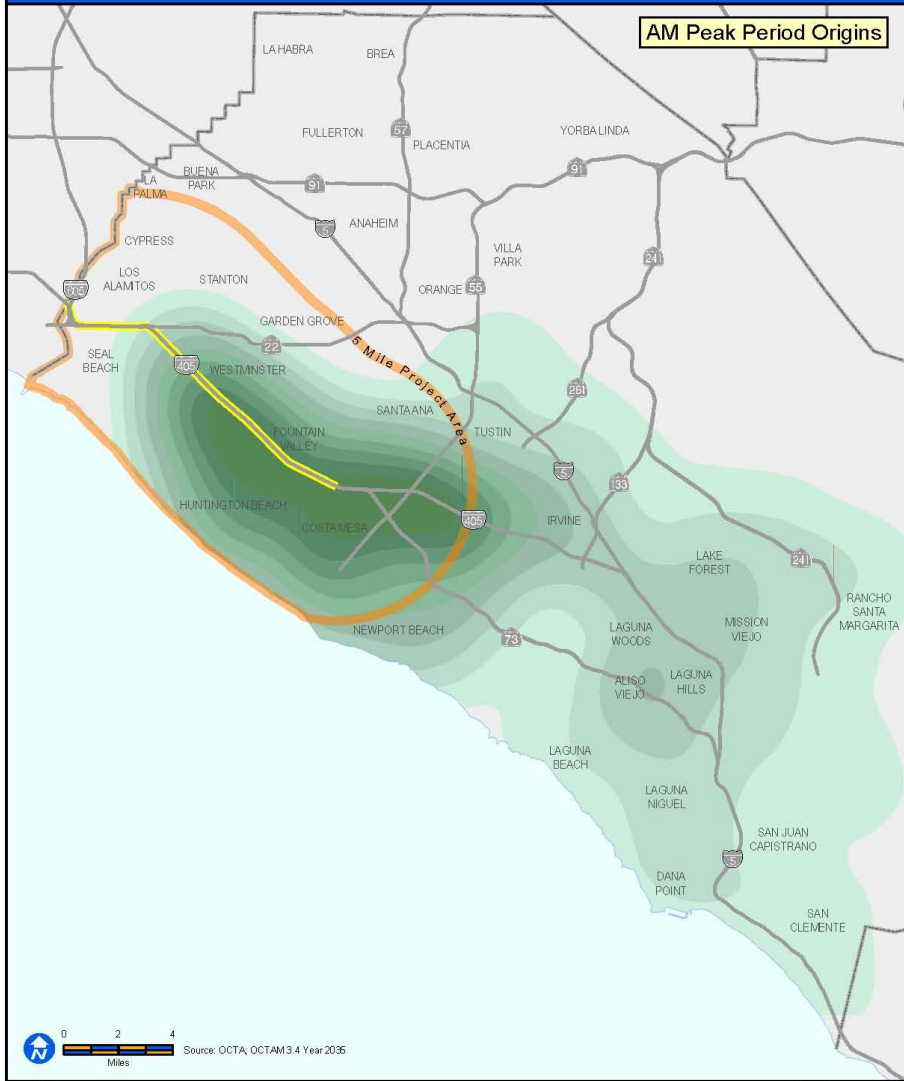
Morning Southbound I-405 Origin & Destination Patterns

Southbound I-405 Traffic between I-605 and Harbor Blvd.



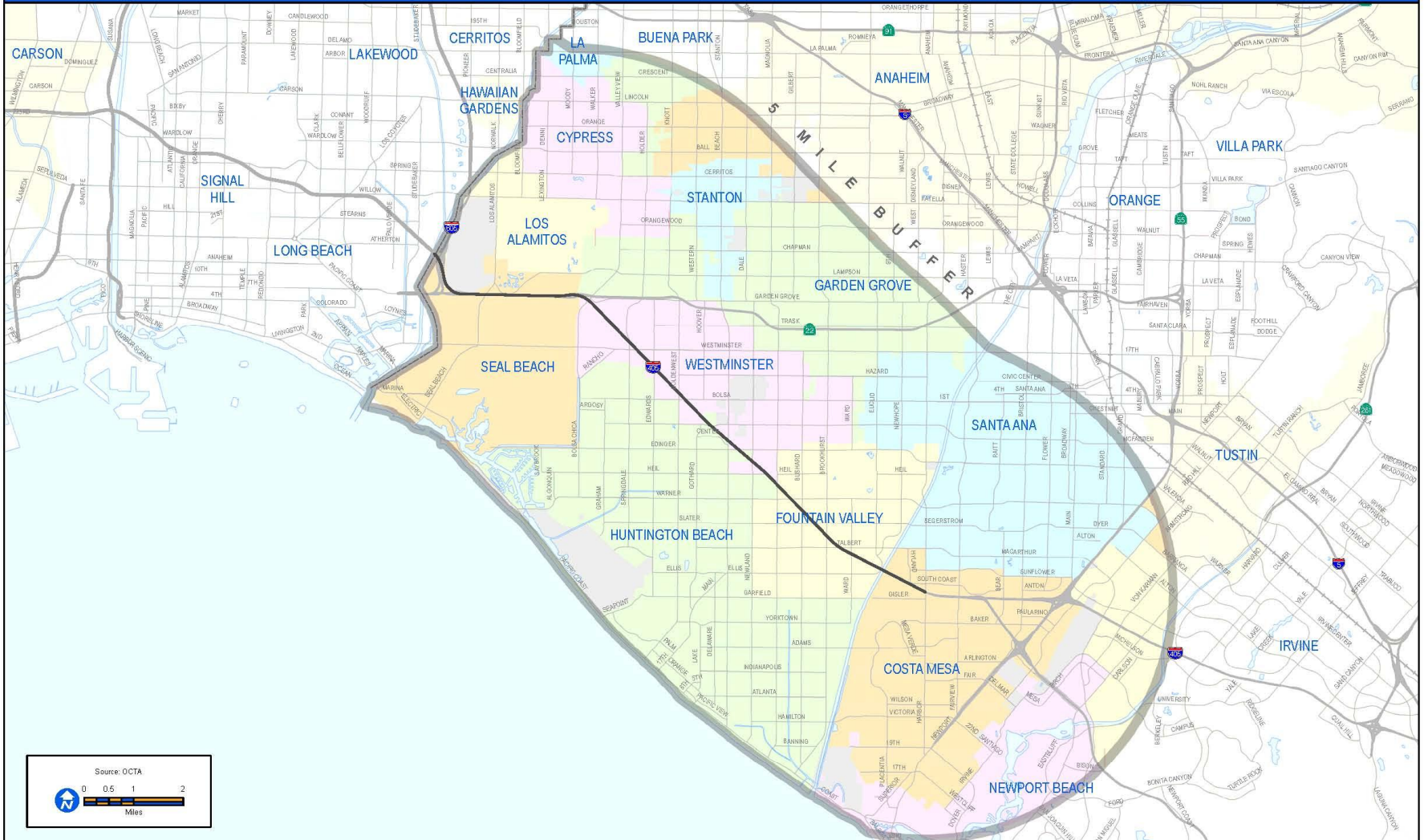
Morning Northbound I-405 Origin & Destination Patterns

Northbound I-405 Traffic between Harbor Blvd. and I-605



I-405 Corridor Commute Shed 5 Mile Radius

I-405 between I-605 and Harbor Blvd.



Source: OCTA

0 0.5 1 2
Miles

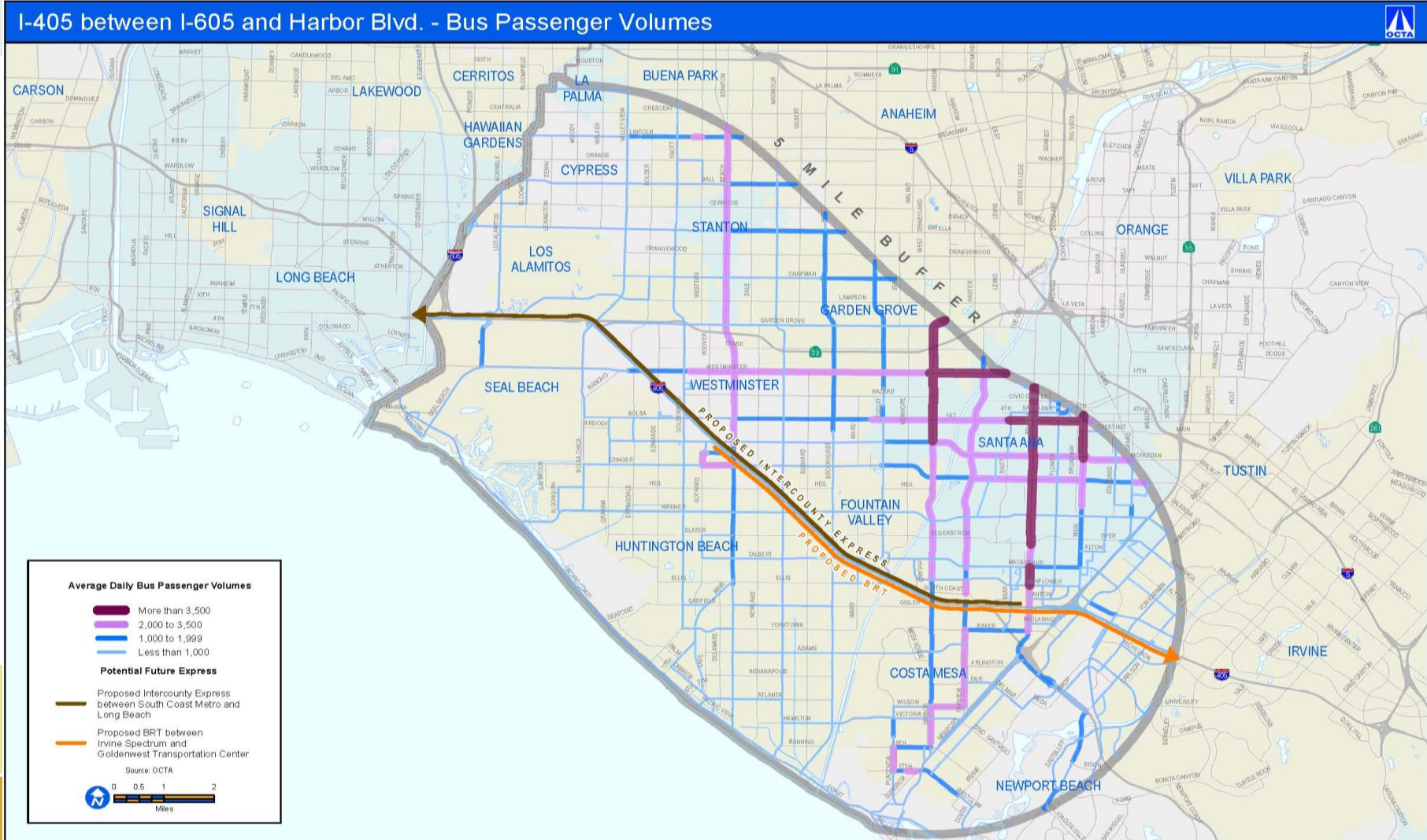
Concept Proposal

- Modeled after 91 Express Lanes
- Annual implementation plan – local coordination
- Regional coordination with Metro and SCAG
- Plan approval by OCTA Board of Directors

Concept Options

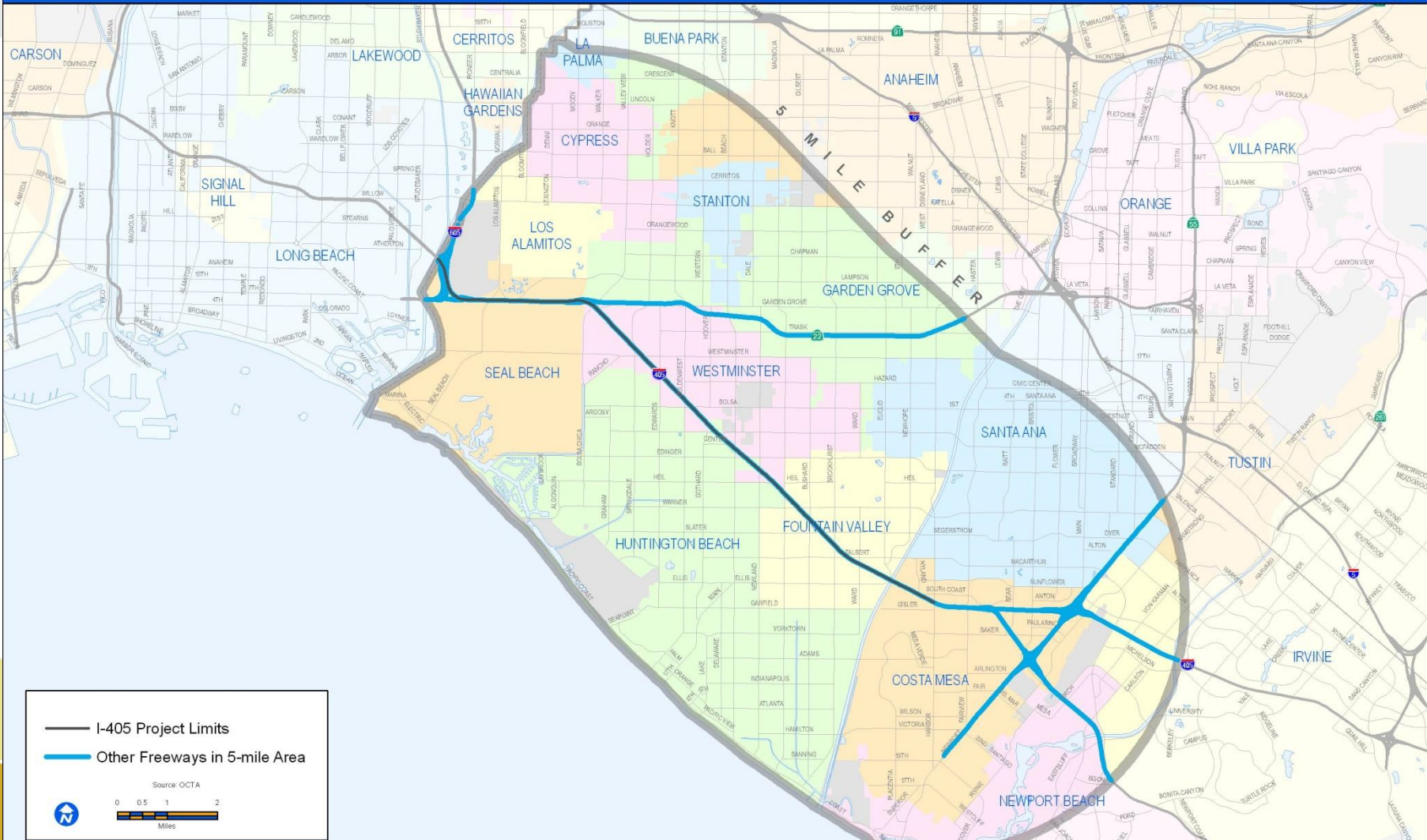
- Early retirement of debt
- Enhanced transit services
- Freeway capacity improvements
- Arterial improvements that reduce congestion in corridor

I-405 Corridor Transit: Future Express and Current Bus Ridership



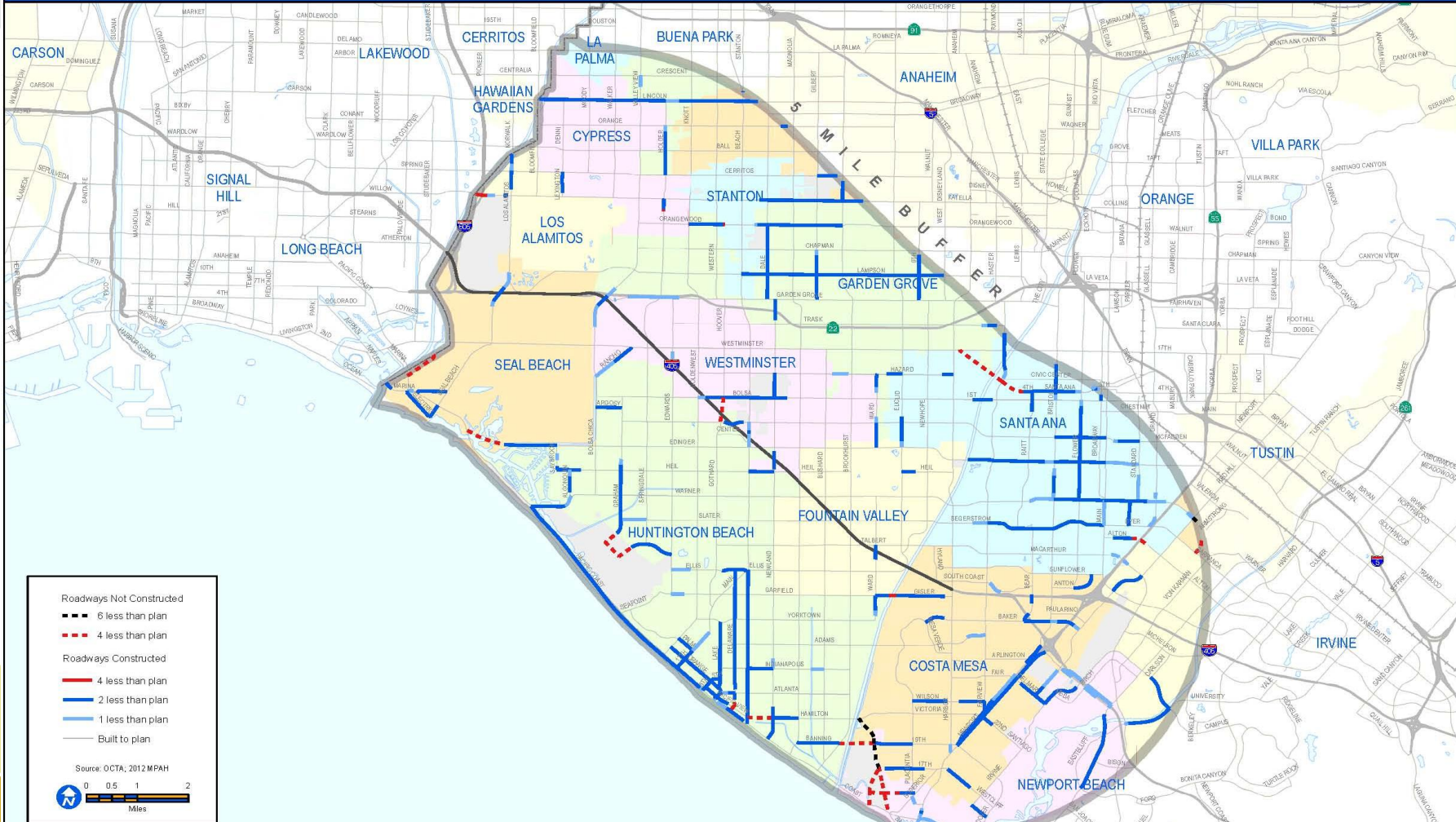
I-405 Corridor Freeway Capacity

I-405 between I-605 and Harbor Blvd. - Other Freeway Segments



I-405 Corridor: Planned Arterial Roads

I-405 between I-605 and Harbor Blvd. - Roads not Constructed or Not Built to Plan



Portions of this map copyrighted by Thomas Bros Maps and reproduced with permission.

W:\Requests\DCS\SPW\AF\res\wst-405\wst-405_5m_buiter_MPAH\duh_2012-0809.mxd

Policy Discussion

- Use 91 Express Lanes concept
- Retire debt early versus additional transportation investments
- Relative priority of various investments
 - Transit
 - Highway
 - Arterial network
- Formula versus competitive process

Estimated Cost Savings Project Delivery Lane Configurations

Estimated Cost Savings

Description	Estimated Cost Savings
Truncation	\$180 million
Braided Ramps	\$70 million
Parking	negligible

Project Delivery

Schedule

Design-Build opening year: 2019

Design-Bid-Build opening year: 2021

Cost

Alternatives*	Design-Build	Design-Bid-Build	Difference
Alt. 1	\$1.23 billion	\$1.33 billion	\$100 million
Alt. 2	\$1.33 billion	\$1.43 billion	\$100 million
Alt. 3	\$1.63 billion	n/a	n/a
Alt. 3 Modified	\$1.45 billion	n/a	n/a

* Reflects estimated cost savings from design modifications



Lane Configurations – South End of Project

I-405 Northbound Direction

Interchanges

I-605

SR-22/7th St

Seal Beach Blvd

SR-22/Valley View

Westminster/Springdale

Goldenwest/Bolsa

Beach/Edinger

Magnolia/Warner

Brookhurst/Talbert

Euclid/Ellis

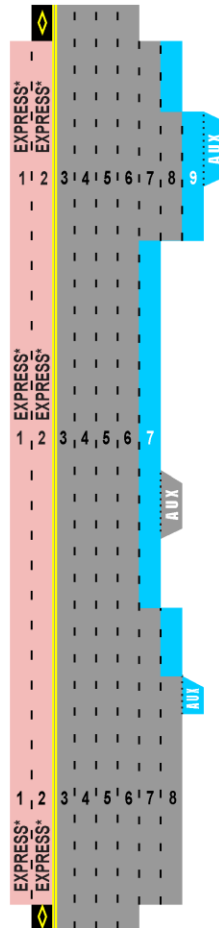
Harbor

Fairview

SR-73

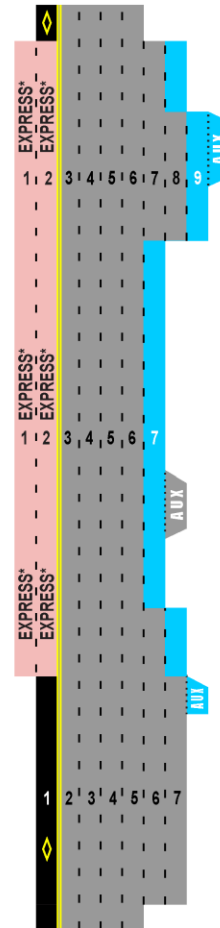
Alternative 3

Express* Lanes
add 1 GP Lane



Alternative 3 Modified

Modified



I-605

SR-22/Valley View

Beach/Edinger

Magnolia/Warner

Brookhurst/Talbert

Euclid/Ellis

South Coast Dr

LEGEND

Existing General Purpose Lane



Existing Carpool Lane



New SR22 Carpool Lane



New General Purpose Lane



Express Lanes



New Auxiliary Lane



Existing Auxiliary Lane



Limited HOV/Express Access



Continuous HOV Access



I-405 Southbound Direction

Interchanges

Alternative 3
Express* Lanes
add 1 GP Lane

Alternative 3
Modified

I-605

I-605

SR-22/7th St

Seal Beach Blvd

SR-22/Valley View

SR-22/Valley View

Westminster/Springdale

Goldenwest/Bolsa

Beach/Edinger

Beach/Edinger

Magnolia/Warner

Magnolia/Warner

Brookhurst/Talbert

Brookhurst/Talbert

Euclid/Ellis

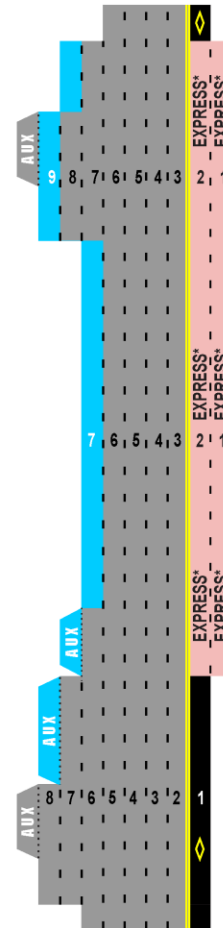
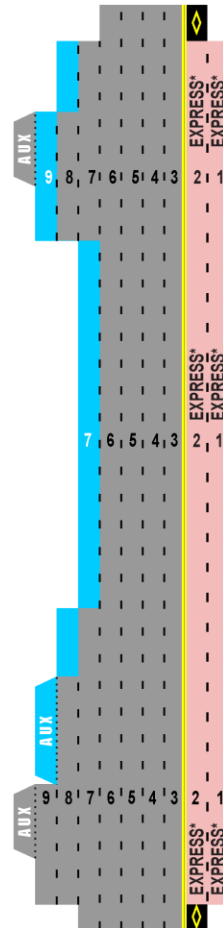
Euclid/Ellis

Harbor

South Coast Dr

Fairview

SR-73



LEGEND

Existing General Purpose Lane



Existing Carpool Lane



New SR22 Carpool Lane



New General Purpose Lane



Express Lanes



New Auxiliary Lane



Existing Auxiliary Lane



Limited HOV/Express Access



Continuous HOV Access



Lane Configurations – North End of Project

Plan Sheet Review
(Information to be presented at the
Aug. 27, 2012 Board meeting)

Next Steps

- Board of Directors September 10, 2012
- Regional Planning and Highways September 17, 2012
- Board of Directors LPA* September 24, 2012
- Project Development Team PA** Fall 2012

* LPA = Locally Preferred Alternative

** PA = Preferred Alternative



Interstate 405 Project Update
& Toll Revenue Investment Plan

Part A: Discussion of Net Toll Revenues

DRAFT I-405 EXPRESS LANE TOLL REVENUE POLICIES

Precepts

SB 4 X2 143 J (1)

Agreements entered into pursuant to this section shall authorize the contracting entity or lessee to impose tolls and user fees for use of a facility constructed by it, and shall require that over the term of the lease the toll revenues and user fees be applied to payment of the capital outlay costs for the project, the costs associated with operations, toll and user fee collection, administration of the facility, reimbursement to the department or other governmental entity for the costs of services to develop and maintain the project, police services, and a reasonable return on investment.

The agreement shall require that, notwithstanding Sections 164, 188, and 188.1, any excess toll or user fee revenue either be applied to any indebtedness incurred by the contracting entity or lessee with respect to the project, improvements to the project, or be paid into the State Highway Account, or for all three purposes, except that any excess toll revenue under a lease agreement with a regional transportation agency may be paid to the regional transportation agency for use in improving public transportation in and near the project boundaries.

SB 1316 - 91 Express Policies

Excess toll revenues beyond the expenditure needs of paragraph may be expended for the following purposes:

To enhance transit service designed to reduce traffic congestion on State Highway Route 91 or to expand travel options along the State Highway Route 91 corridor.

Revenues expended under this subparagraph may be used to maintain the enhanced transit service. Eligible expenditures include, but are not limited to, transit operating assistance, the acquisition of transit vehicles, improvements to commuter rail traveling between Riverside and Orange Counties, and those transit capital improvements otherwise eligible to be funded under the State Transportation Improvement Program pursuant to Section 164 of the Streets and Highways Code.

To make operational or capacity improvements designed to reduce congestion or improve the flow of traffic on State Highway Route 91.

Eligible expenditures may include any phase of project delivery to make capital improvements to onramps, connector roads, roadways, bridges, or other structures that are related to the tolled and non-tolled facilities on State Highway Route 91 between State Highway Route 57 to the west and the Orange and Riverside county line to the east.

OCTA Board (Adopted) Express Lane Planning & Implementation Principles – Revenue Section

Any express lane project revenues in excess of what is needed for annual debt payments, financing requirements, and operations responsibilities shall be used for congestion relief projects and expanded transit options in the same corridor area.

Continued operations of express lanes, beyond bond retirement dates, shall be subject to demonstrated congestion relief measured by vehicle throughput and average vehicle occupancy levels in the corridor.

DRAFT I-405 EXPRESS LANE TOLL REVENUE POLICIES

The I-405 Express Lanes shall be implemented and operated in accordance with Express Lane Policy and Implementation Principles adopted by the Orange County Transportation Authority (OCTA) Board of Directors on December 12, 2011 (Attachment A).

In addition, with regard to any net revenues that may result from the operation of the I-405 Express Lanes, they shall be applied according to the following policies:

1. Net revenues are defined as revenues beyond what is needed for annual debt payments, financing requirements, capital expenditures and operations responsibilities for the I-405 Express Lanes.
2. Net Revenues may be expended only within the I-405 corridor, which is defined as 5 miles either side of the center line of the I-405 freeway and a 5 mile radius from the north and south termini. Funds may be expended only within Orange County.
3. Expenditure of the revenues shall be subject to the preparation of an Implementation Plan to be prepared annually with input from the local agencies within the corridor and Caltrans and to be approved by the Board of Directors. A copy of the Implementation Plan shall be forwarded to Southern California Association of Governments and Los Angeles Metro.
4. Net Revenues may be expended solely for the following purposes:
 - a. Early retirement of debt incurred for the design and construction of the I-405 Express Lanes.
 - b. Enhancement of public transportation services to reduce traffic congestion or to expand travel options within the defined I-405 corridor. Revenues may be used to implement, operate and maintain the enhanced public transportation services. Eligible expenditures include, but are not limited to; acquisition of transit and vanpool vehicles; operating assistance for transit services; and rideshare services and support facilities; and those transit capital improvements eligible to be funded under the State Transportation Improvement Program pursuant to Section 164 of the Streets and Highways Code.
 - c. Operational or capacity improvements designed to reduce congestion or improve the flow of traffic on I-405. Eligible expenditures may include any phase of project delivery to make capital improvements to onramps, connector roads, roadways, bridges, or other structures that are related to the tolled and non-tolled facilities on I-405 within the defined I-405 corridor.
 - d. At least ___ percent of available Net Revenues shall be used for improvements to facilities on the Master Plan of Arterial Highways (MPAH) that can be shown to reduce congestion or improve the flow of traffic on I-405. Eligible expenditures may include capacity improvements, gap closures, signal synchronization, and other operational improvements. Funds shall be allocated through a competitive process in accordance with the Combined Transportation Funding Program (CTFP) procedures and guidelines. Criteria for allocation shall take into consideration project costs, readiness, effectiveness, benefits and the nexus with reduced congestion and/or improved traffic flow on I-405.

Express Lane Planning and Implementation Principles

User Experience

1. Express lane projects shall be designed and implemented to provide safe, reliable, and predictable travel times.
2. Express lanes shall be planned and implemented to support improved regional connectivity.
3. Design and management of the interface of express lane facilities with existing freeway, high-occupancy vehicle, and express facilities shall seek to achieve a consistent, seamless user experience.

Existing System

4. Express lane projects shall not be implemented to replace committed projects to be funded with local transportation sales tax revenues.
5. Although Caltrans and Federal Highway Administration control highway operations, OCTA does not intend to replace existing mixed-flow freeway lanes with express lanes.
6. Existing high-occupancy vehicle lanes may be functionally encompassed within an express lane project, provided:
 - a. The total number of lanes is increased by the project; and
 - b. Both vehicle throughput and average vehicle occupancy levels can be maintained and/or improved.

Operations

7. Express lane operations policies shall:
 - a. Assure coverage of capital and operations costs as well as maintenance responsibilities.
 - b. Maximize overall corridor throughput and efficiency through congestion pricing.
 - c. Promote increased average vehicle occupancy, including incentives for carpools, vanpools, and transit services.

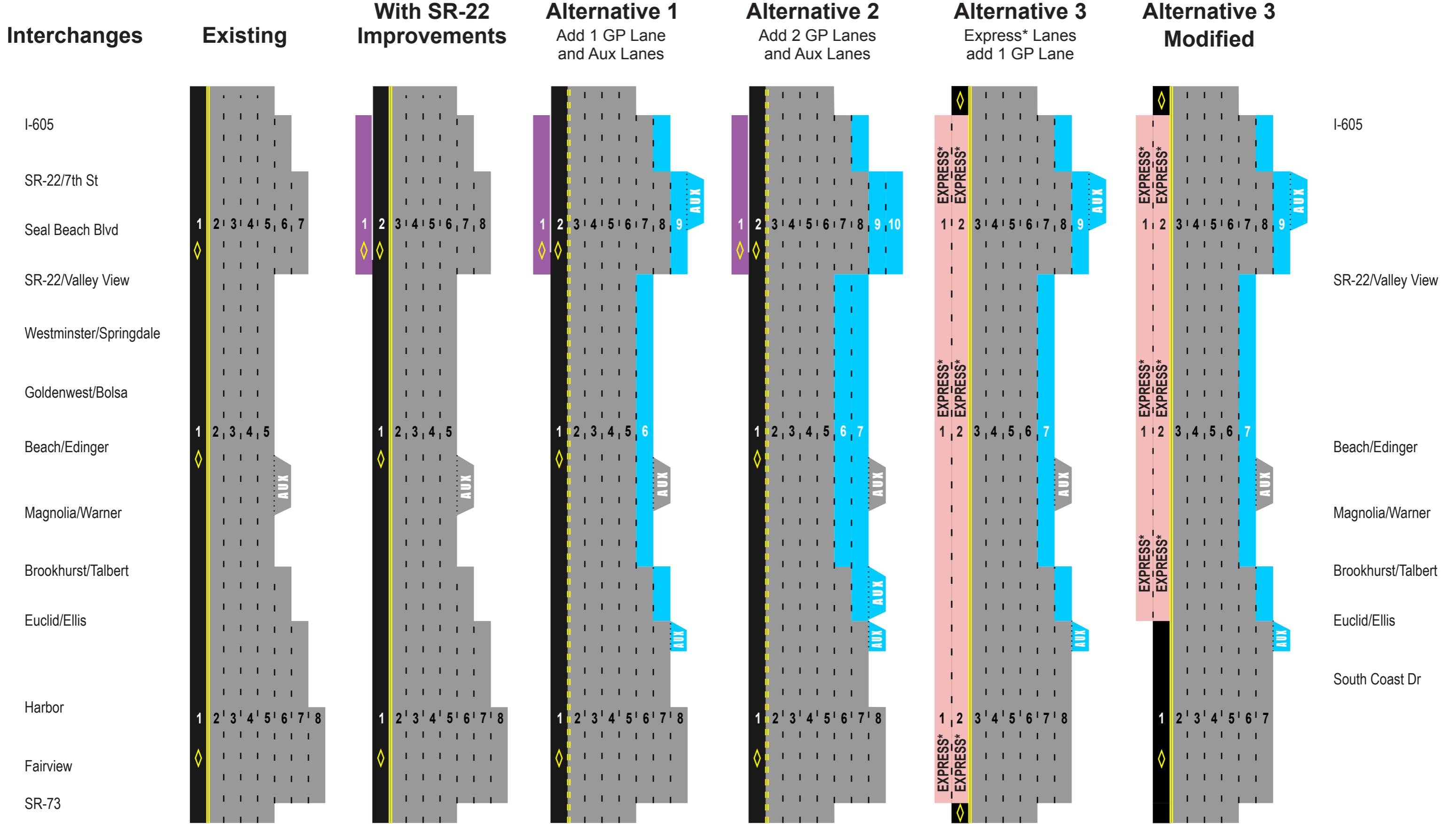
Revenues

8. Any express lane project revenues in excess of what is needed for annual debt payments, financing requirements, and operations responsibilities shall be used for congestion relief projects and expanded transit options in the same corridor area.
9. Continued operations of express lanes, beyond bond retirement dates, shall be subject to demonstrated congestion relief measured by vehicle throughput and average vehicle occupancy levels in the corridor.

Interstate 405 Project Update
& Toll Revenue Investment Plan

Part B: Lane Configuration Diagrams and
Updated Matrix of Project Follow-up Items

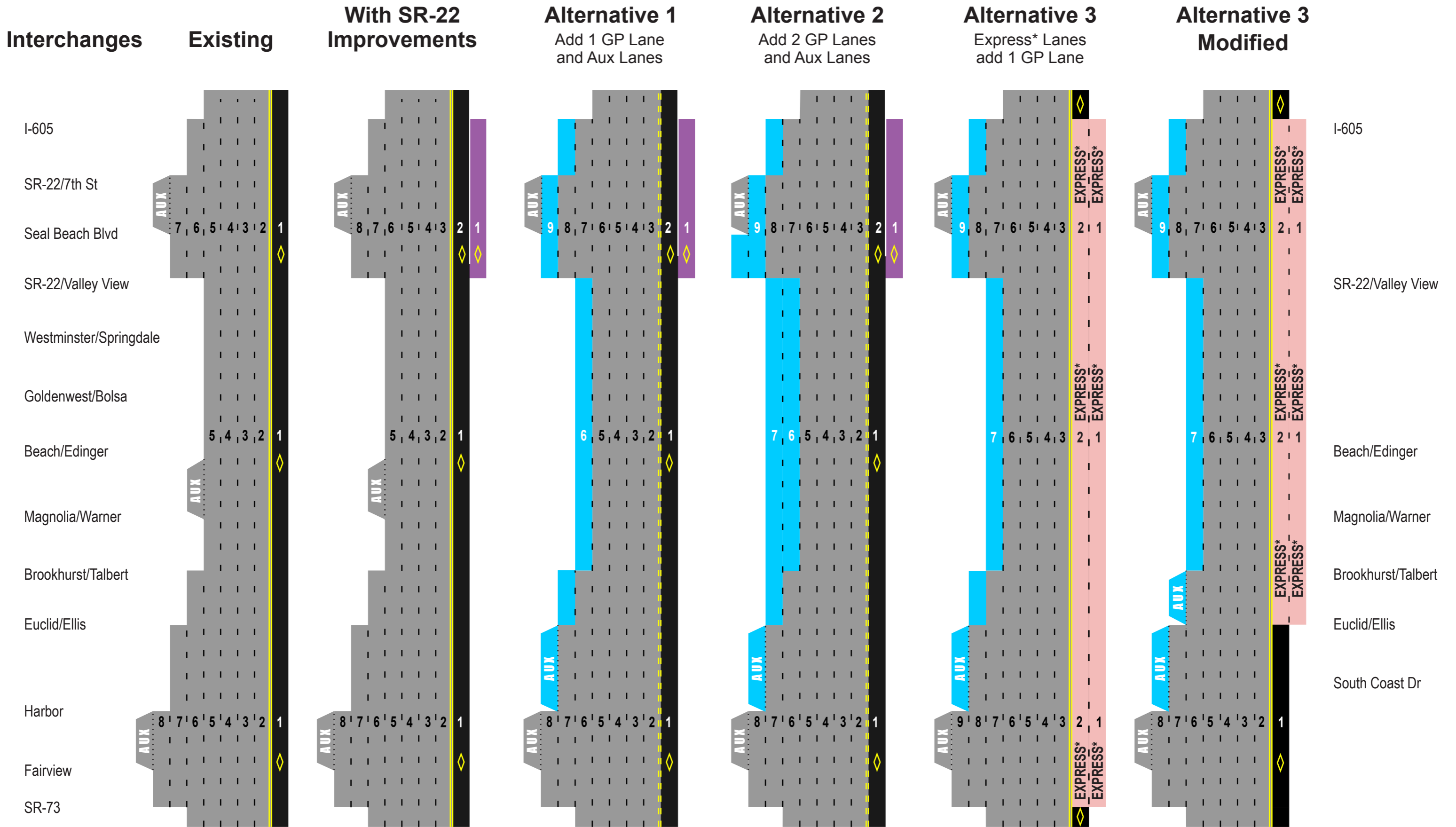
I-405 Improvement Project Alternatives (Northbound)



LEGEND

- Existing General Purpose Lane
- Existing Carpool Lane
- New SR22 Carpool Lane
- New General Purpose Lane
- Express Lanes
- New Auxiliary Lane
- Existing Auxiliary Lane
- Limited HOV/Express Access
- Continuous HOV Access

I-405 Improvement Project Alternatives (Southbound)



LEGEND

- Existing General Purpose Lane
- Existing Carpool Lane
- New SR22 Carpool Lane
- New General Purpose Lane
- Express Lanes **EXPRESS***
- New Auxiliary Lane **AUX**
- Existing Auxiliary Lane **AUX**
- Limited HOV/Express Access
- Continuous HOV Access

**Interstate 405 Improvement Project Follow-Up Items
As of 8/23/2012**

#	Follow-up Actions	Status	Communications Method	Complete ✓
Freeway Operations & Traffic Studies				
1	Provide a diagram showing the freeway cross section for Alternative (Alt) 1, 2, 3, and modified 3. There were questions about lane balancing and capacity between Fairview Avenue and Harbor Boulevard. (Directors Herzog and Crandall)	Staff is developing a lane configuration diagram for modifications to Alt 3 which will be provided to the Board of Directors (Board) in August 2012.	August 27 Board Meeting	
2	Provide information about general purpose traffic conditions / throughput at the SR-73. (Director Cavecche)	The traffic analysis is under way and will be ready for Board review prior to the discussion about the Locally Preferred Alternative (LPA).	September 10 Board Meeting	
3	Provide traffic studies to look at operations in the Orange County /Los Angeles County border area. (Director Bates)	The traffic analysis is under way and will be ready for Board review prior to the discussion about the LPA.	September 10 Board Meeting	
4	Determine whether we have information that shows vehicles would use the I-405/SR-73 express lanes connector and travel the four non-tolled miles to the tolled section of SR-73. (Director Bates)	The study area did not extend beyond the I-405/SR-73 interchange; however, connector volumes for the peak period are available and will be provided to the Board prior to the discussion about the LPA.	Board Memo	
Soundwalls				
5	Clarify ownership of the right of way (ROW) at Almond Avenue. (Director Crandall)	The 10' needed for the soundwall relocation at Almond Avenue is not within Caltrans ROW; however, there is an existing easement for public utility.	This Matrix	✓
6	Provide information about the implications of retaining the existing soundwall with cables at Almond Avenue. (Director Crandall)	If the existing soundwall at Almond Avenue is retained, a crash barrier on the freeway side is likely to be required.	This Matrix	✓
7	Provide information about Seal Beach's proposal to avoid the Almond Avenue soundwall relocation by providing a 4' emergency lane on the freeway. (Director Crandall)	The city of Seal Beach is proposing to reduce the inside shoulder of the freeway in the stretch of I-405 parallel to Almond Avenue to avoid relocation of the existing community wall. This design variation does not meet Caltrans standards and would likely not be approved.	This Matrix	✓

**Interstate 405 Improvement Project Follow-Up Items
As of 8/23/2012**

#	Follow-up Actions	Status	Communications Method	Complete ✓
8	Explain why we need to move the Almond Avenue community wall for Alt 2 but why we might not need to for Alt 3. (Director Herzog)	Alt 2 includes adding two general purpose lanes in each direction. Alt 3 includes adding one general purpose lane in each direction and uses the High Occupancy Vehicle (HOV) direct connector lanes being built with the West County Connectors project in the area as part of the toll facility under Alt 3. Therefore, the freeway cross section is wider with Alt 2 than with Alt 3 because it includes one additional general purpose lane between the I-405/SR-22 and the SR-22/7 th Street exit.	Board Memo/ Information at August 27 Board Meeting	
9	Can we truncate the toll lanes in Alt 3 at the SR-22 to avoid the wider footprint that could require a relocation of the soundwall at Almond Avenue? (Directors Campbell and Cavecche)	We believe we have a workable solution to avoid relocation of the soundwall under Alternative 3 that does not require truncating the Express Lanes. Truncating the Express Lanes at SR-22 northbound would involve either a lane drop, which would create an unacceptable bottleneck on the freeway mainline, or lane re-designation which would not reduce the freeway footprint or the impacts to the wall. Carrying the Express Lanes to I-605 avoids a lane drop because lanes go directly onto other freeways – SR-22/7 th Street and I-605.	Board Memo / Information at August 27 Board Meeting	
10	Can you modify Alt 2 and use the Alt 1 lane configuration to avoid relocation of the soundwall at Almond Avenue? (Directors Cavecche, and Herzog, and Moorlach)	You cannot use the Alt 1 lane configuration to avoid relocation of the soundwall at Almond Avenue. Terminating the second additional northbound general purpose lane included in Alt 2 at SR-22 would involve a lane drop, which would create an unacceptable bottleneck on the freeway mainline. Carrying the lane to SR-22/7 th Street as shown in the current plans avoids a lane drop because the lane goes directly onto the SR-22/7 th Street freeway connector.	Board Memo / Information at August 27 Board Meeting	
11	Are there design variations available for Alt 2 to avoid relocation of the Almond Avenue soundwall? (Director Cavecche)	We have explored options which would include non-standard design variations and we do not believe we can totally eliminate replacement of portions of the wall under Alt 2.	This Matrix / Information at August 27 Board Meeting	

**Interstate 405 Improvement Project Follow-Up Items
As of 8/23/2012**

#	Follow-up Actions	Status	Communications Method	Complete ✓
Toll Facility				
12	Provide an analysis of an operating policy that allows HOV2+ to ride free to determine whether this approach can support Alt 3 alone. (Director Bates)	Stantec's Phase II Traffic and Revenue Study indicated that an operating policy allowing HOV2+ to ride free does not generate sufficient revenues to pay for the express lanes. Stantec is updating the traffic and revenue forecasts to provide information about other HOV2+ policies that might be feasible. This information, along with the summary information from the prior Phase II report, will be provided to the Board prior to the LPA selection in September 2012.	Information at September 10 Board Meeting	
13	Provide a fuller explanation about the potential lease agreement with the state for toll facility and terms. (Director Herzog)	On August 16, 2012, OCTA's General Counsel provided lease agreement information to the Board of Directors.	E-mail	✓
14	Provide a legal analysis of SB 4 as relates to uses for net toll revenues. (Director Herzog)	On August 16, 2012, OCTA's General Counsel provided information related to SB 4 and allowable uses for net toll revenues.	E-mail	✓
15	Develop a very specific policy on the use of net toll revenues – where they could go, what they could be used for. Also, clarify that net toll revenues go back into the corridor. (Directors Cavecche and Crandall)	Options and a recommended approach for the use of net toll revenues are under development and will be provided to the Finance and Administration Committee on August 22 and to the Board on August 27.	Information at August 27 Board Meeting	
Other				
16	Determine whether or not the draft environmental document needs to be re-circulated given the proposed modifications. (Director Crandall)	It is not anticipated at this time the draft EIR/EIS will require recirculation but this is dependent on a review of supplemental studies that are being prepared.	This Matrix	✓
17	Quantify the cost savings from design modifications at Magnolia/Warner that moves to a collector-distributor system. Also, clarify cost savings from reduced parking relocations. (Director Moorlach).	Staff is developing a matrix to illustrate cost savings achieved by implementing proposed design refinements.	Information at August 27 Board Meeting	

**Interstate 405 Improvement Project Follow-Up Items
As of 8/23/2012**

#	Follow-up Actions	Status	Communications Method	Complete ✓
18	Is the gas line in Seal Beach moving? Which approach is recommended? (Director Crandall)	All of the Interstate I-405 Improvement Project build alternatives require relocation of the underground gas pipelines that are currently in Caltrans right-of-way on the northern edge of the Seal Beach Naval Weapons Station. The draft environmental document lists three options for the pipeline relocations. The Navy has indicated a willingness to grant the easement for the relocation between the inner and outer fences on the naval property. OCTA and Caltrans will be meeting with the Navy in the coming months to further discuss and secure formal approval.	E-mail Director Crandall and this matrix	✓
19	Clarify which bridges being reconstructed under each alternative (Director Cavecche)	All bridges between Bolsa Chica and Euclid Avenue will require reconstruction under Alts 1 and 2 and modified Alt 3.	This matrix	✓
20	What are the cost estimates for Alts 1 and 2 should design-build not be approved? (Director Hansen)	Staff is creating a matrix to compare costs between each alternative with and without design build authority.	Information at August 27 Board Meeting	
21	The project encroaches into the Mike Thompson RV lot in Fountain Valley. Please describe the impacts and identify whether there are ways to reduce them. (Director Crandall)	<p>The project encroaches into the Mike Thompson property on the southbound I-405 approximately 10' for the entire length of the property.</p> <ul style="list-style-type: none"> • A decorative fountain and vehicle display pads immediately adjacent to freeway fence will need to be relocated as part of the acquisition process. <p>The new Ward Street overcrossing approach will encroach into Mike Thompson parking adjacent to Ward Street.</p> <ul style="list-style-type: none"> • Parking impacts will need to be addressed as part of the acquisition process. <p>There are no impacts to Mike Thompson's property adjacent to the northbound I-405.</p> <p>The technical team does not see any ways to avoid these impacts, however, attempts to minimize impacts will continue throughout final design.</p>	This matrix	✓

**Interstate 405 Improvement Project Follow-Up Items
As of 8/23/2012**

#	Follow-up Actions	Status	Communications Method	Complete ✓
Other Staff Follow-Up Items				
22	Provide updated traffic information for Alt 1, 2, 3 and the modified Alt 3 including things like travel time, volume, and throughput.	An updated traffic analysis is under way and will be ready for Board review in September 2012 prior to the discussion about the LPA. The technical team will augment information with data related to congestion management pricing and its impact on throughput.	Information at September 10 Board Meeting	
23	Optimize lane drop configurations at the Los Angeles/Orange County line.	The analysis is under way and will be provided to the Board in prior to the LPA discussion in September.	Information at September 10 Board Meeting	
24	For Alt 2, provide project funding and potential tradeoff information with and without design-build.	Schedule and cost information, along with possible project tradeoff information, will be provided to the Board prior to the consideration of an LPA.	Information at September 10 Board Meeting	
25	Assess costs, traffic and revenue implications of the modified Alt 3.	A report on costs and traffic and revenue data will be provided to the Board prior to their consideration of an LPA.	Information at September 10 Board Meeting	
26	Clarify the soundwall / retaining wall issue in Costa Mesa at Nevada Street. Are impacts the same under Alt 2 and Alt 3?	These retaining walls fluctuate between 12 and 16 feet in height with a 12 feet sound wall replacing the existing sound wall along the edge of the freeway. These walls are caused by the new edge of pavement proposed to be 16 to 29 feet closer to houses along a stretch of the freeway. Details for each alternative to be provided.	Memo	