NATIONAL ACADEMIES Sciences Engineering Medicine

TRB TRANSPORTATION RESEARCH BOARD

TRB Webinar: Overcoming Policy Challenges to Implementing Priced Managed Lanes

April 17, 2023

3:00 – 4:30 PM

PDH Certification Information

1.5 Professional Development Hours (PDH) – see follow-up email

You must attend the entire webinar.

Questions? Contact Andie Pitchford at TRBwebinar@nas.edu

The Transportation Research Board has met the standards and requirements of the Registered Continuing Education Program. Credit earned on completion of this program will be reported to RCEP at RCEP.net. A certificate of completion will be issued to each participant. As such, it does not include content that may be deemed or construed to be an approval or endorsement by the RCEP.

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CLE Credit Information

1.25 Continuing Legal Education Credits from the American Bar Association

You must attend the entire webinar

TRB did not seek approval for this workshop from the state board, we advise you contact your state board to see if credit would be accepted

See email following webinar for the certificate to provide to your board

Purpose Statement

This webinar will question why we implement priced managed lanes and changing goals for implementation. Presenters will share the value propositions of priced managed lanes, equity programs that help implementation, and specific strategies for communicating environmental and travel demand benefits.

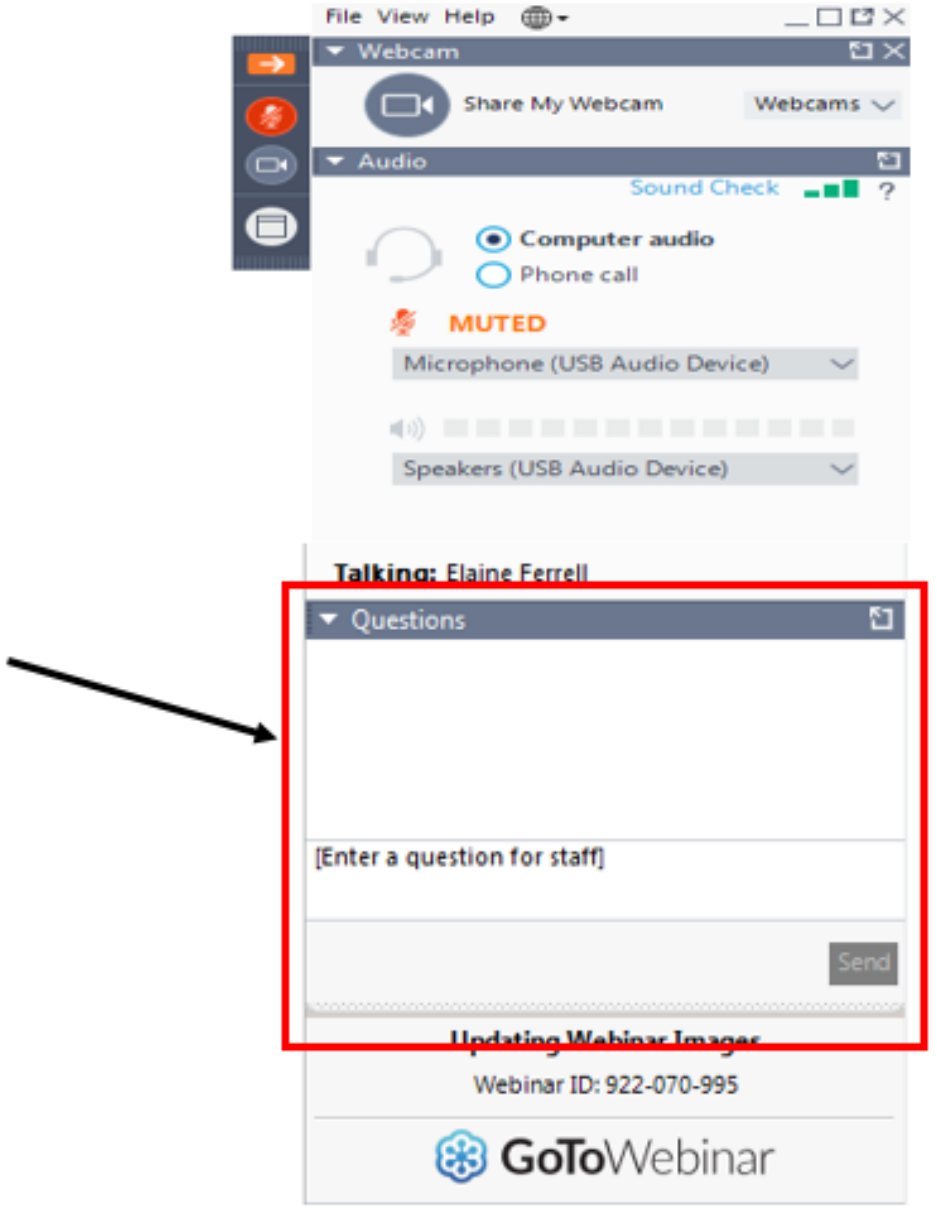
Learning Objectives

At the end of this webinar, you will be able to:

- Identify various value propositions of priced managed lanes
- Insert equity programs to help implementation
- Share specific strategies and tactics for communicating the environmental and travel demand benefits of priced managed lanes

Questions and Answers

- Please type your questions into your webinar control panel
- We will read your questions out loud, and answer as many as time allows



Today's presenters

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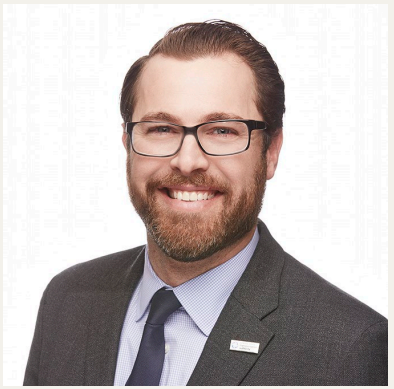
Placer County Transportation Planning Agency



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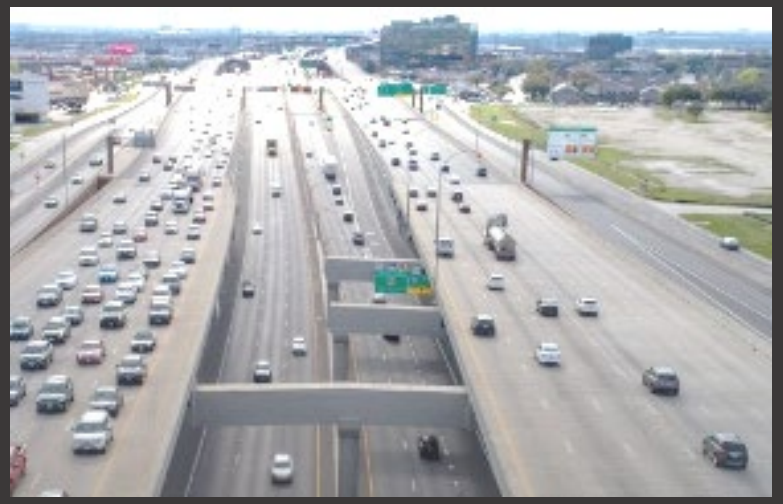
NATIONAL ACADEMIES Sciences Engineering Medicine

Overcoming Policy Challenges on Managed Lanes: A Brief History

Chuck Fuhs

April 17, 2023

Priced Managed Lane Projects

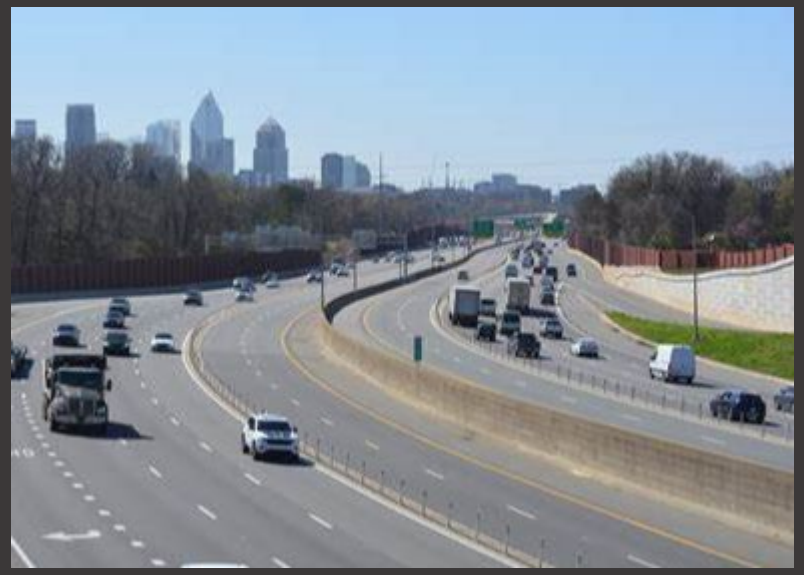


I-635, Dallas

SR 91, Orange/Riverside Counties, CA

I-75/575 NW Corridor, Atlanta

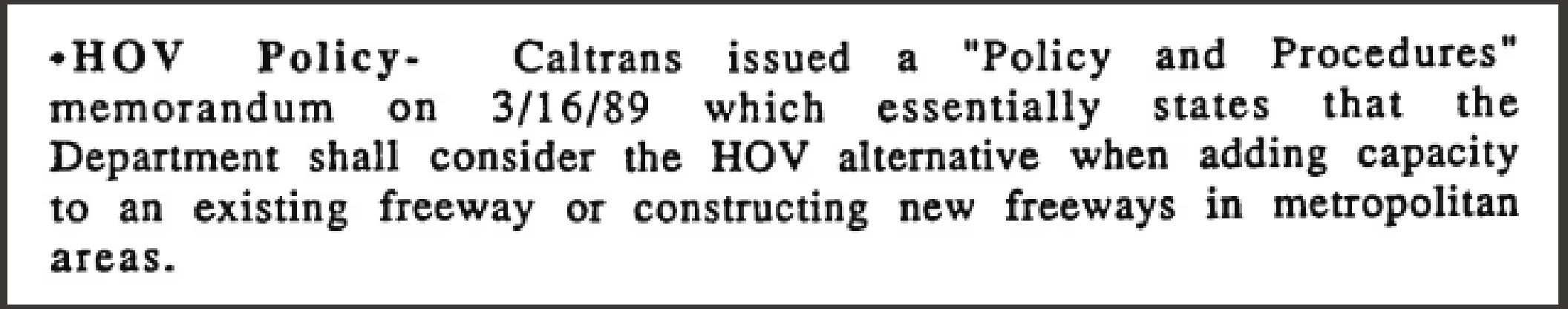
US 36, Denver area



I-77, Charlotte

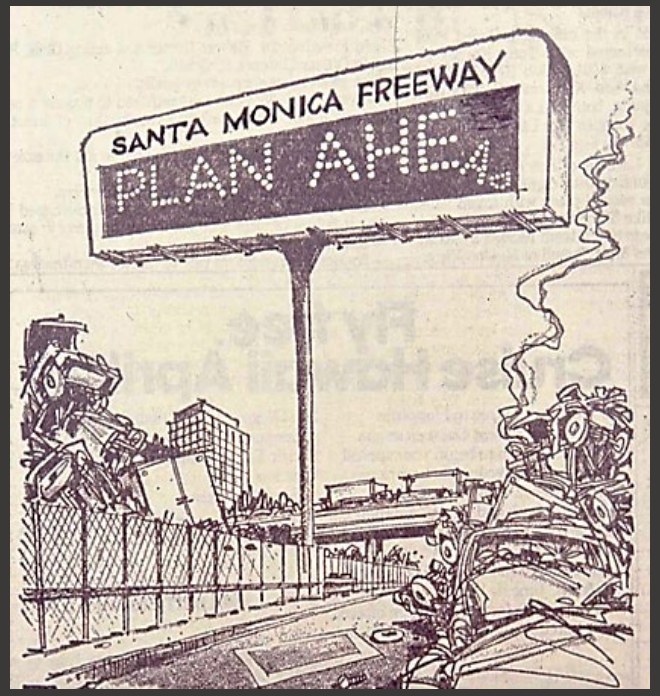
Examples: Policies Supporting HOV Lanes, 1988-89

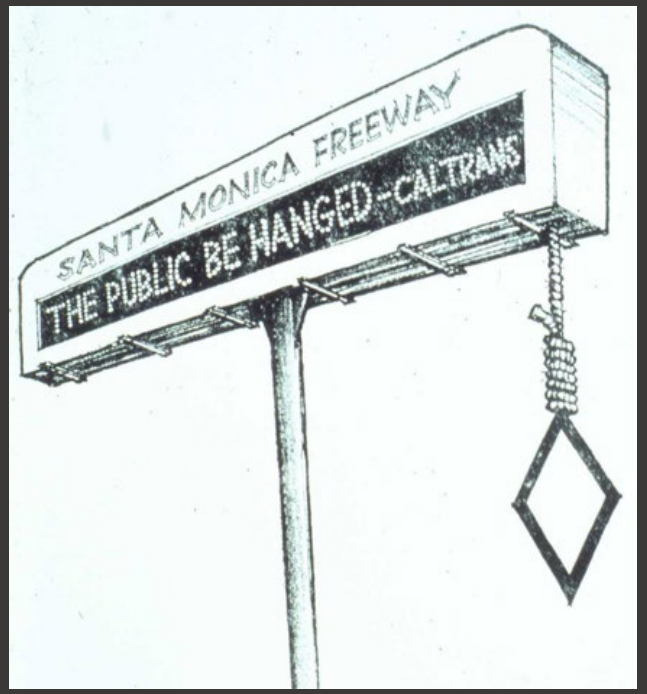
The Federal Highway Administration (FHWA) strongly supports HOV lanes as a cost-effective and environmentally friendly option to help move people along congested city and suburban routes. FHWA encourages the installation of HOV lanes as an important part of an areawide approach to help metropolitan areas address the needs they have identified for mobility, safety, productivity, environmental, and quality of life. In accepting Federal-aid funds, agencies agree to manage, operate, and maintain HOV lanes as they are planned, designed, constructed and approved.



•**HOV Policy-** Caltrans issued a "Policy and Procedures" memorandum on 3/16/89 which essentially states that the Department shall consider the HOV alternative when adding capacity to an existing freeway or constructing new freeways in metropolitan areas.

Policy Challenges: Example 1





DIAMOND IS ROUGH

New Plan Ties Up Santa Monica Fwy.

Rash of Accidents, Warnings

Nutty Task Making Rangers Squirrelly

Santa Monica Diamond Lanes, Los Angeles

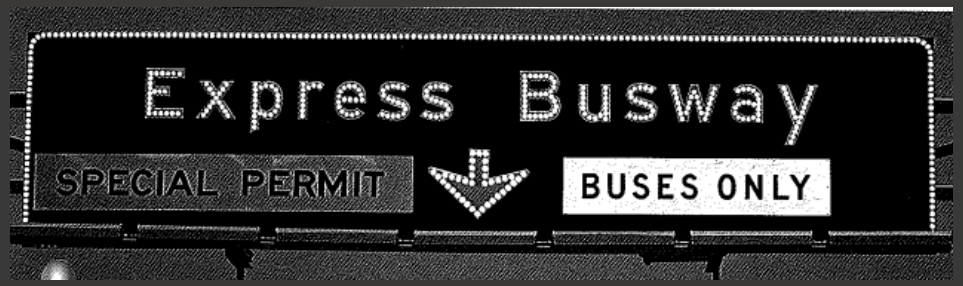
Policy Challenges: Example 2

Prior operation

Bus and carpool congestion

Current operation

Policy Opportunities: Example 3

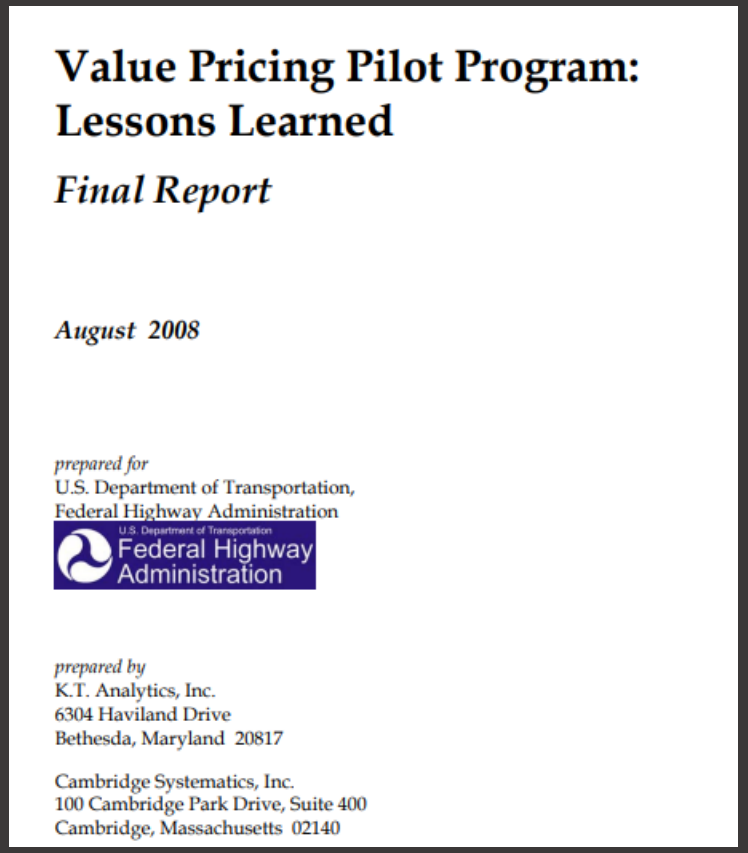


By the end of the bus strike, a level of usage of 700 carpools (about 2,300 persons) per peak period was attained. Less than one-fourth of bus commuters regularly carpooled in the exclusive lanes during the strike, while almost one-half drove alone. Almost one-half of carpool lane users had been in carpools before the strike. Of those who had been carpooling before the strike, half had destinations not in the primary bus service area of downtown-Wilshire. Average occupancy of carpools using the lane was 3.3 persons per vehicle. An average of 33 or 5.4% of those using the lane were violators. On average, two-thirds of the violators were two-person vehicles, while one-third had only one person.

Reference: Ghalleger, Michael P., The El Monte Busway: Cost Effectiveness Considerations, October 1975

Policy Opportunities: Example 4

"Pilot projects and studies are leading many metropolitan areas to develop managed lane systems and to integrate congestion pricing strategies into their regional plans and implementation programs to support larger regional congestion reduction and mobility goals." *FHWA Value Pricing Pilot Program website*



Value Pricing Pilot Program: Lessons Learned

Final Report

August 2008

prepared for
U.S. Department of Transportation,
Federal Highway Administration

U.S. Department of Transportation
Federal Highway Administration

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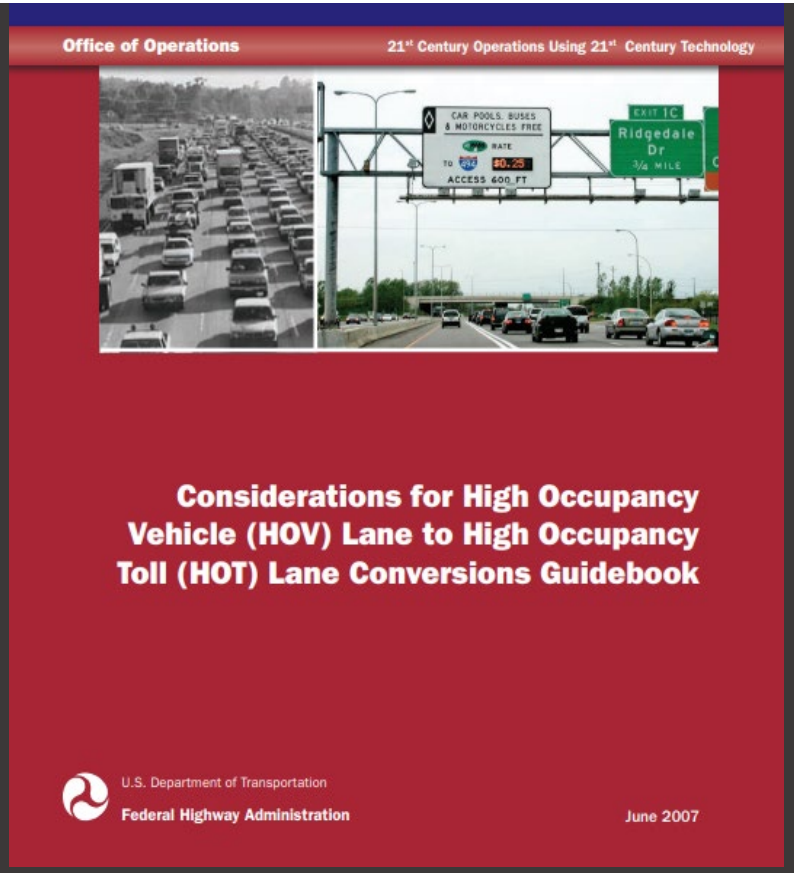


I-35W Minneapolis

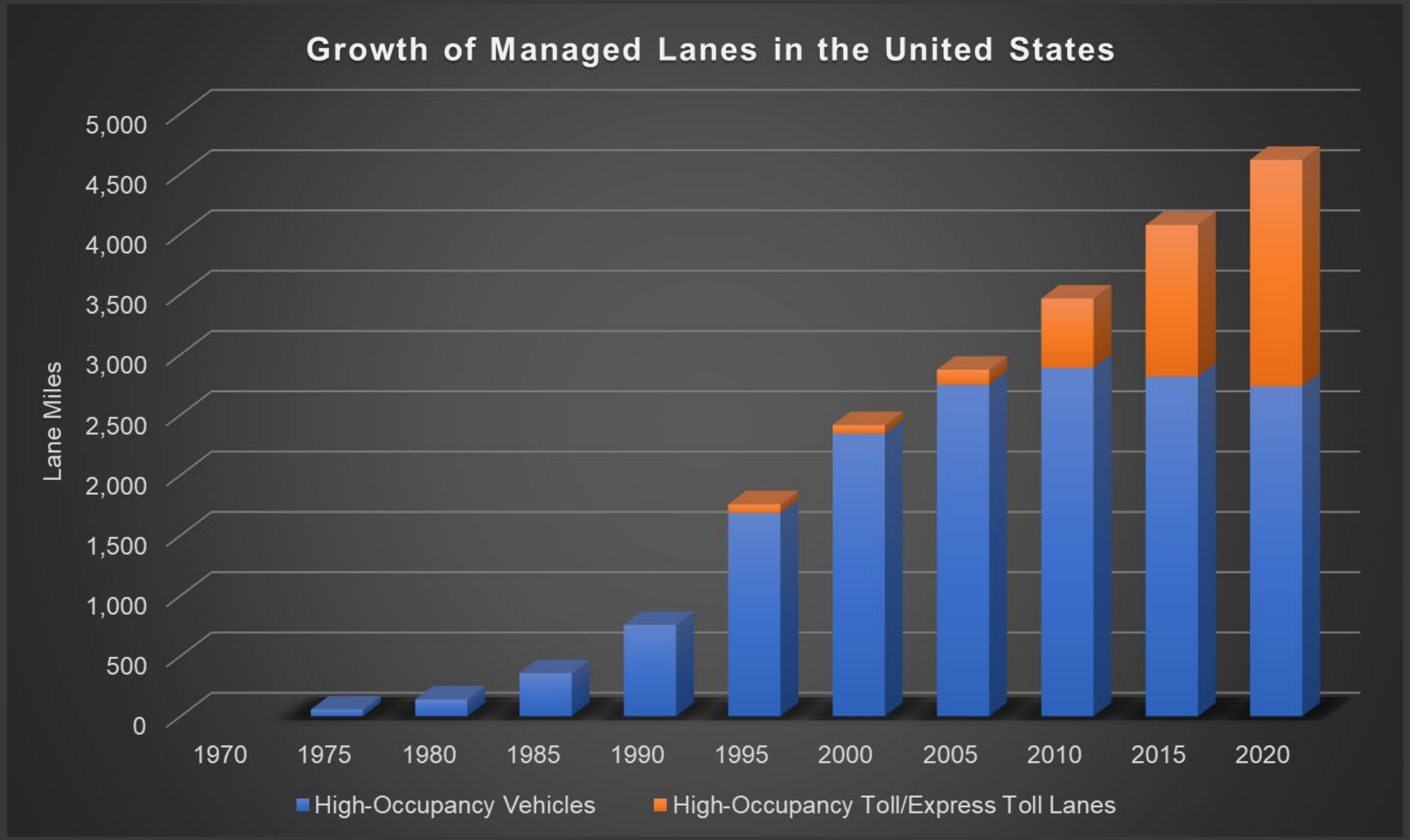
I-495, Capital Beltway, Virginia

I-110 Los Angeles

US 36, Denver area

I-75/575 Northwest Corridor, Atlanta

I-595 Ft
Lauderdale area

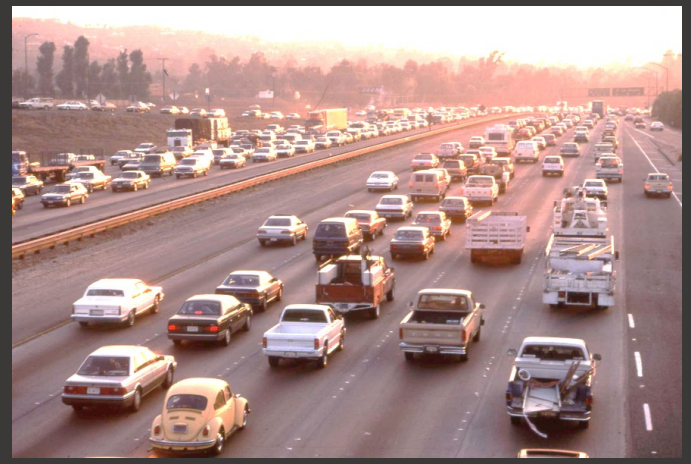

Growth of Managed Lanes in the United States
Lane Miles
5,000
4,500
4,000
3,500
3,000
2,500
2,000
1,500
1,000
500
0
1970
1975
1980
1985
1990
1995
2000
2005
2010
2015
2020
High-Occupancy Vehicles
High-Occupancy Toll/Express Toll Lanes

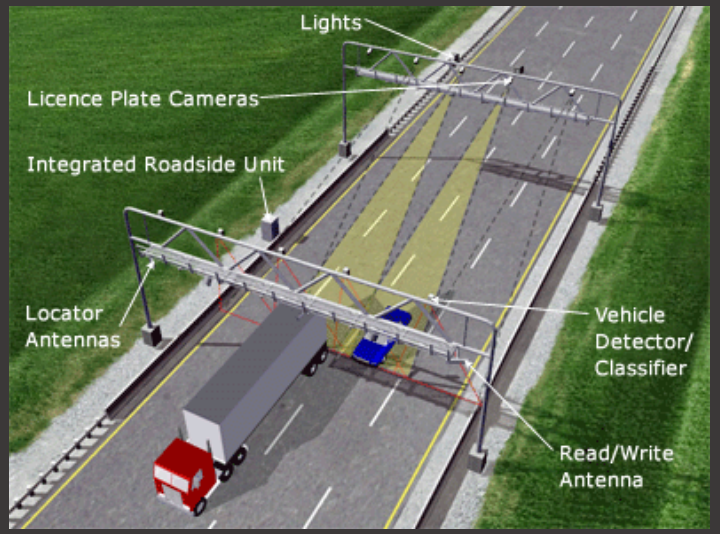
Challenges

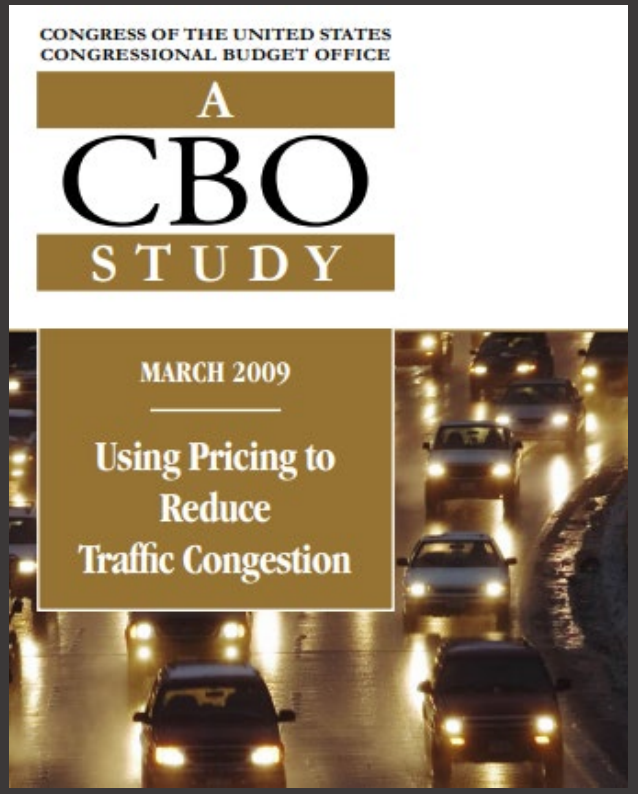
- Eroding carpool/transit incentives with pricing
- Managing demand while monetizing investments
- Impact of electric vehicles
- Enforcement
- Maintaining public support and understanding
- Changes in commute behavior
- Complex rules and regulations
- Adverse policy impacts

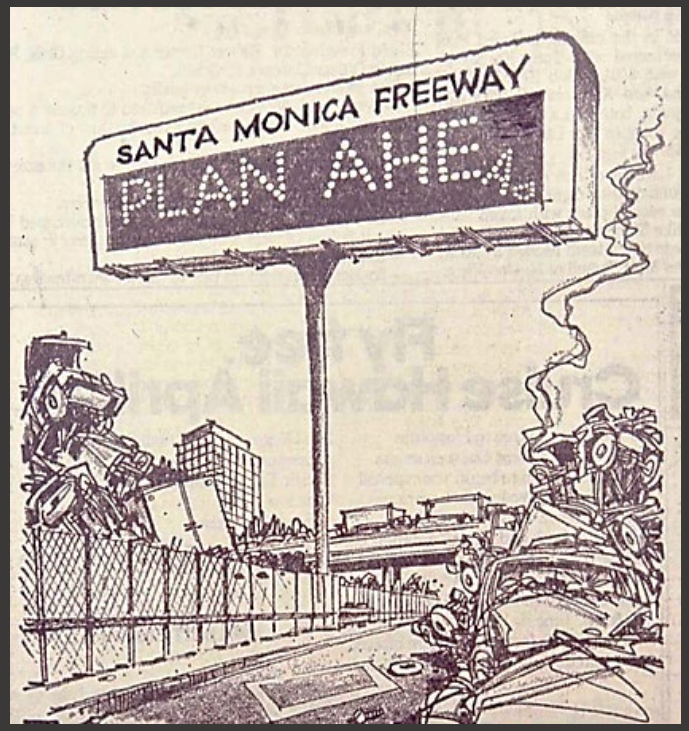
Inflection Point Factors

- Adversity
- Champions
- Technology
- Policy

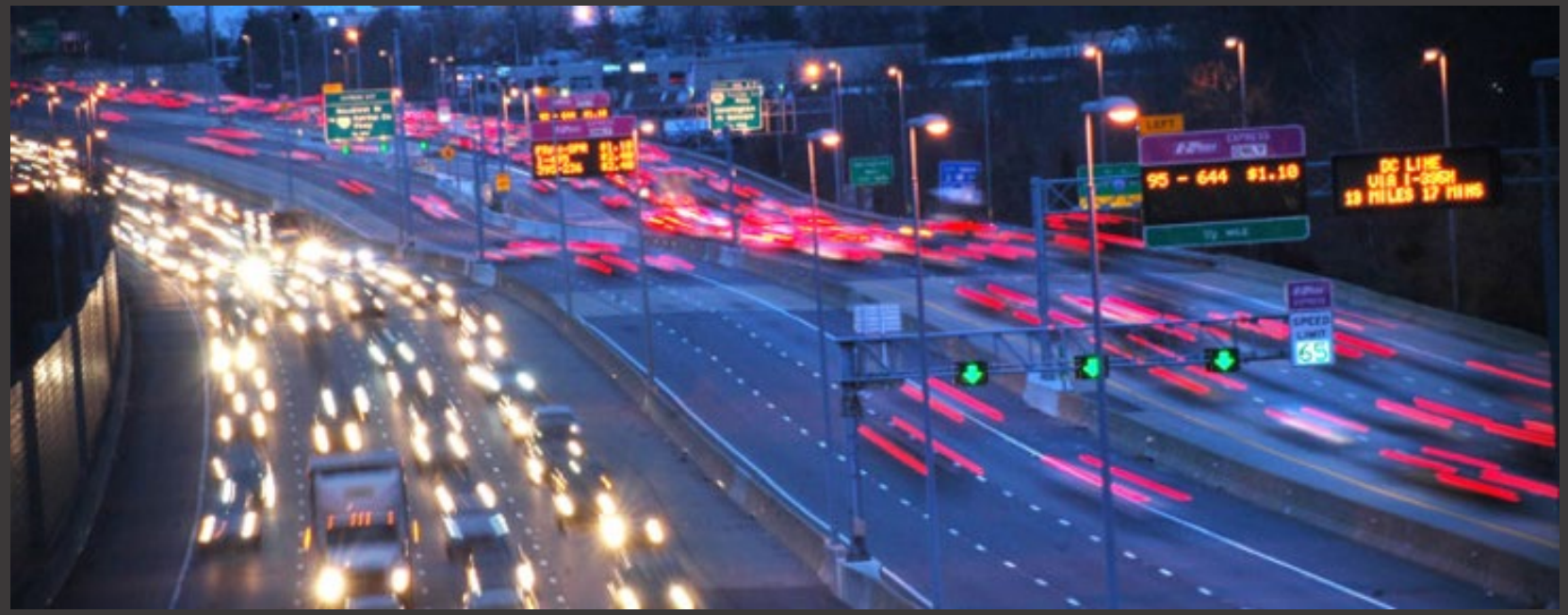








Closing Remarks



Innovate 680 Vehicle-Miles Traveled (VMT) Mitigation Program

Transportation Research Board | Webinar

April 2023

Senate Bill 743

September 2013 - SB 743 passed by California Legislature, requiring the Governor's Office of Planning and Research (OPR) to **identify new metrics for identifying and mitigating transportation impacts under California Environmental Quality Act (CEQA)**

SB 743 Implementation

- December 2018 - OPR released Technical Advisory on Evaluating Transportation Impacts in CEQA using Vehicle Miles Traveled (VMT).
- Vehicle Miles Traveled (VMT) replaces Level of Service (LOS) as the new metric for evaluating transportation impacts under CEQA
- July 1, 2020 - Statewide SB 743 Implementation Deadline
- September 2020 - Caltrans released guidance for implementing the new VMT metric for transportation projects.

SB 743 Implementation

- Transportation Analysis Framework (TAF)
  - Details methodology for calculating induced demand for capacity increasing transportation projects on the State Highway System.
- Transportation Analysis Under CEQA (TAC)
  - Provides guidance for making CEQAsignificance determinations for transportation projects along the State Highway System.

The TAF and TAC together provide the guidance needed to implement SB 743 for analyzing transportation impacts.

SB 743 Implementation

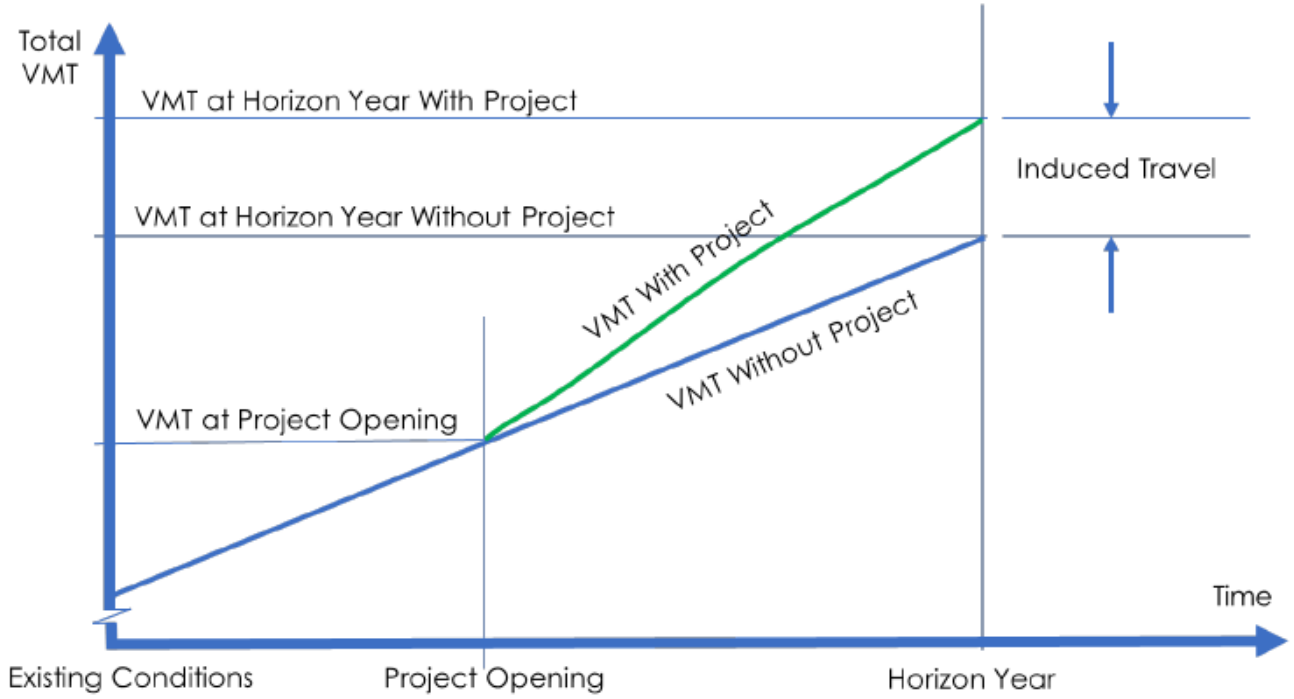


Figure 2. Identification of Induced Travel
(VMT Attributable to a Transportation Project)

SB743 Implementation

- No significance threshold established in Caltrans guidance
- Induced VMT needs to be fully mitigated
- Modeling is required to quantify project induced VMT and VMT reductions from mitigation measures
- VMT model and mitigation strategies require Caltrans approval

INNOVATE 680

Imagine the Possibilities

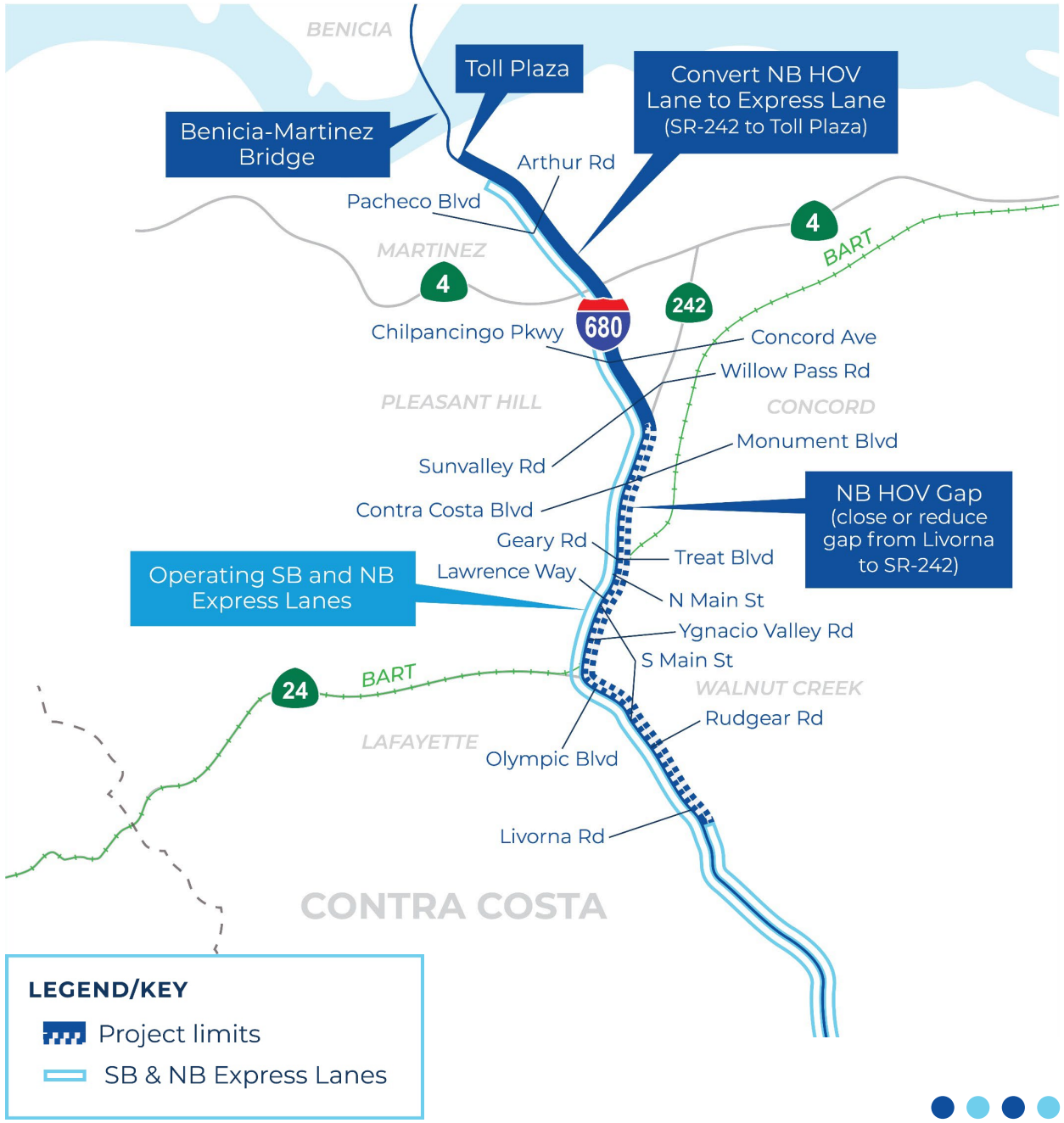
6 PROJECTS

1 FULLY CONNECTED CORRIDOR


EXPRESS LANE
TO ONLY
TO
TOLL
$1.50
$3.50
HOV 2+ NO TOLL W/FASTRAK FLEX
EXPRESS LANE
FASTRAK
ONLY
HOV 2+
FASTRAK FLEX
NO TOLL
SPEED LIMIT
65
SPEED LIMIT
65
EXPRESS LANE
Contra Costa Blvd
Monument Blvd
Concord
242
3/4
1
2 1/2

NB I-680 Express Lane Completion

Description of Project:
Close or reduce existing express lane gap from Livorna Road in Walnut Creek to the Benicia-Martinez Bridge for **25 miles of nearly continuous express lanes** in the northbound direction.



Purpose & Need

The purpose of this project is to:


Reduce peak-period congestion and delay on northbound I-680.


Improve travel time reliability in the corridor.


Encourage use of high occupancy vehicles and transit service.

Optimize use of the existing HOV lane capacity in the I-680 corridor.


Provide efficient travel options for all vehicles.

Purpose & Need

Based on existing roadway conditions and the Traffic Engineering Performance Assessment, the Project Purpose & Need addresses the following priorities:

Congestion Relief

Smooth traffic throughout the corridor, where delays can reach 30 minutes when traveling from one end of the county to the other.

System Continuity

Address the lack of continuous express lanes within the county, which leads to increased travel times for users.

Operational Improvements

Reduce bottlenecks along the corridor by addressing weaving issues like those at the Lawrence Way on-ramp and the Treat Boulevard off-ramp, which regularly cause traffic to back up to the SR-24 interchange.

PROJECT BUILD ALTERNATIVES

Key Design Elements Under Consideration

REALIGN SOUTHBOUND I-680

Realign existing SB 680 to accommodate a northbound express lane through SR-24 Interchange

HIGH OCCUPANCY VEHICLE (HOV) LANE CONVERSION

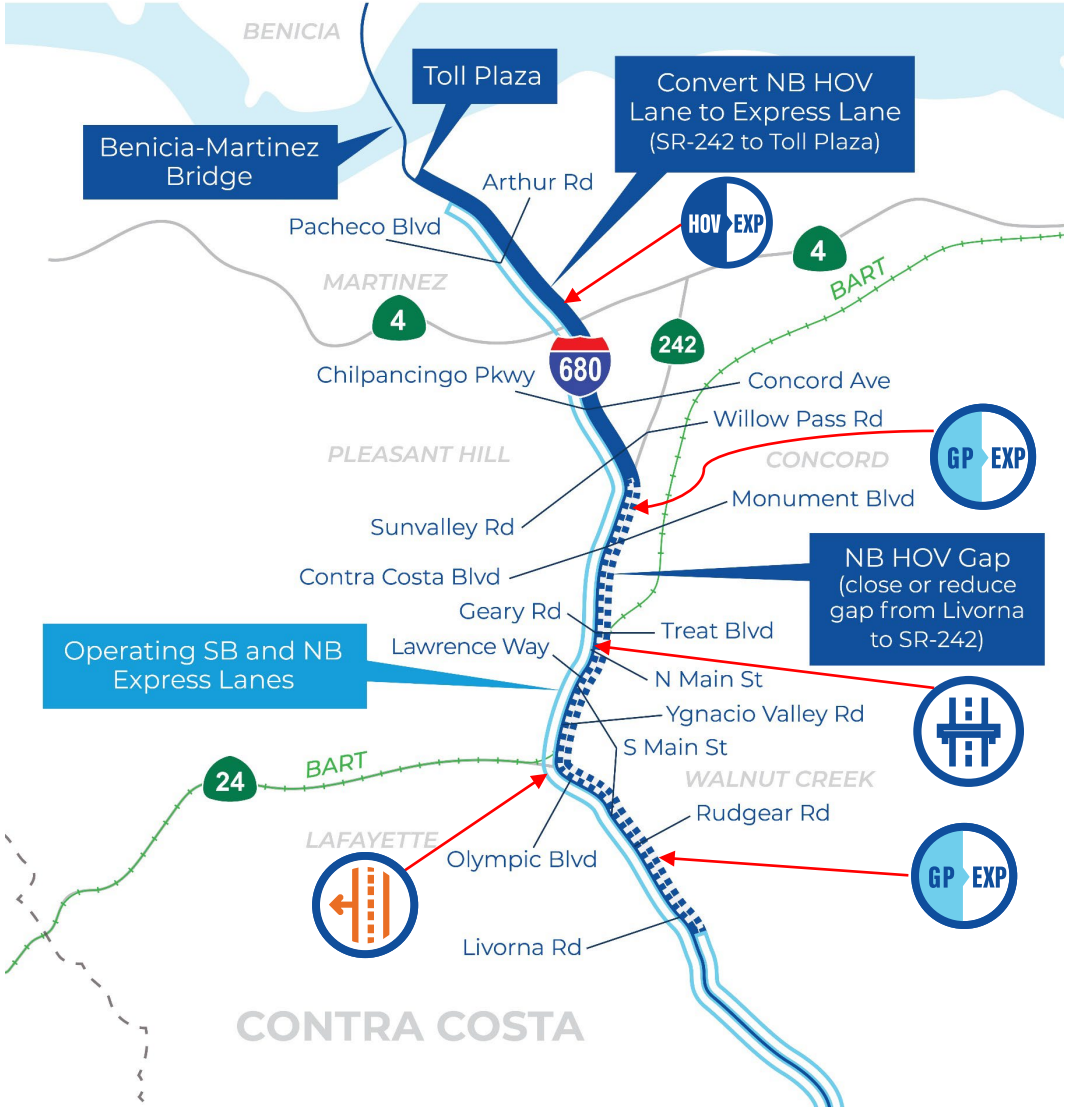
Convert existing high occupancy vehicle (HOV) lane to an express lane.

BRAIDED RAMPS

Braided Ramps between Lawrence Way on ramp and Treat Blvd off ramp to reduce weaving movements

GENERAL PURPOSE (GP) LANE CONVERSION

Convert existing GP lane to an express lane



Project Build Alternatives

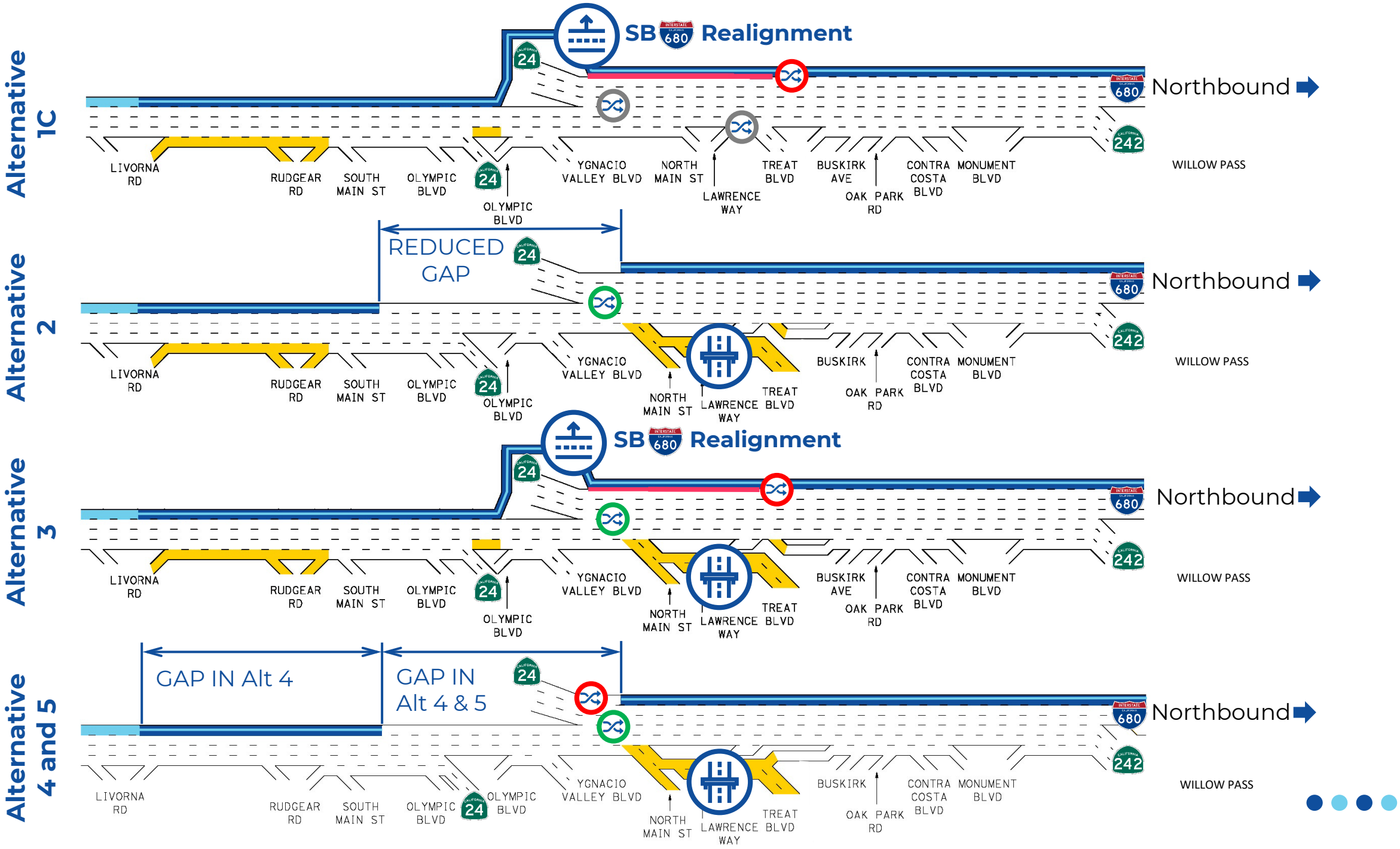
Alternative 1C
- Close the Gap with Realignment
- Capital Cost: $310M

Alternative 2
- Reduce the Gap plus Braided Ramps
- Capital Cost: $235M

Alternative 3
- Close the Gap with Realignment plus Braided Ramps
- Capital Cost: $375M

Alternative 4
- Reduce the Gap by Converting General Purpose Lane to HOV Lane plus Braided Ramps
- Capital Cost: $65M

Alternative 5
- Reduce the Gap by Converting General Purpose Lane to Express Lane plus Braided Ramps
- Capital Cost: $117M


Alternative 1C
SB 680 Realignment
Northbound
LIVORNA RD
RUDGEAR RD
SOUTH MAIN ST
OLYMPIC BLVD
OLYMPIC BLVD
YGNACIO VALLEY BLVD
NORTH MAIN ST
LAWRENCE WAY
TREAT BLVD
BUSKIRK AVE
OAK PARK RD
CONTRA COSTA BLVD
MONUMENT BLVD
WILLOW PASS
Alternative 2
REDUCED GAP
Northbound
LIVORNA RD
RUDGEAR RD
SOUTH MAIN ST
OLYMPIC BLVD
OLYMPIC BLVD
YGNACIO VALLEY BLVD
NORTH MAIN ST
LAWRENCE WAY
TREAT BLVD
BUSKIRK
OAK PARK RD
CONTRA COSTA BLVD
MONUMENT BLVD
WILLOW PASS
Alternative 3
SB 680 Realignment
Northbound
LIVORNA RD
RUDGEAR RD
SOUTH MAIN ST
OLYMPIC BLVD
OLYMPIC BLVD
YGNACIO VALLEY BLVD
NORTH MAIN ST
LAWRENCE WAY
TREAT BLVD
BUSKIRK AVE
OAK PARK RD
CONTRA COSTA BLVD
MONUMENT BLVD
WILLOW PASS
Alternative 4 and 5
GAP IN Alt 4
GAP IN Alt 4 & 5
Northbound
LIVORNA RD
RUDGEAR RD
SOUTH MAIN ST
OLYMPIC BLVD
OLYMPIC BLVD
YGNACIO VALLEY BLVD
NORTH MAIN ST
LAWRENCE WAY
TREAT BLVD
BUSKIRK
OAK PARK RD
CONTRA COSTA BLVD
MONUMENT BLVD
WILLOW PASS

Traffic Analysis

Project Limits MOEs (2047)

MOEs	No Build	Alt 1C	Alt 2	Alt 3	Alt 4	Alt 5
I-680 Project Limits (Livorna to Waterfront)						
Total delay (hr.)	7,947	5,088	5,331	6,498	**10,632**	5,496
Avg delay (sec/veh served)	237	151	156	194	**332**	165
Vehicles served	120,787	121,678	122,775	120,671	**115,378**	120,250
SR 24 Segment (Upper Happy Valley to I-680)						
Total delay (hr.)	2,543	**3,733**	567	**3,843**	1,566	**2,891**
Avg delay (sec/veh served)	164	**244**	36	**252**	100	**188**
Vehicles served	55,727	**55,126**	57,129	**54,989**	56,370	**55,413**
Total Delay	**10,490**	**8,821**	**5,898**	**10,342**	**12,198**	**8,387**

Note: **Red text means deficient compared to no build.**

Project Study Limits (PSL) MOEs (2047)

MOEs	No Build	Alt 1C	Alt 2	Alt 3	Alt 4	Alt 5
Project Study Limits (PSL): I-680 (Ascota to Waterfront), SR-24 (Upper Happy Valley to I-680)						
Vehicle Miles Travelled (VMT)	1,168,624	**1,217,084**	**1,229,542**	**1,232,608**	1,076,404	**1,170,678**
Total delay (hr.) – In System	27,101	25,390	22,607	27,046	**42,545**	23,778
Avg delay (sec/veh served)	499	468	414	**503**	**830**	439
Avg delay (sec/mile)	84	75	66	79	**142**	73
Vehicles served	195,555	195,293	196,467	**193,584**	**184,488**	**195,040**
Vehicles unserved	5,931	5,989	**6,079**	5,484	**15,140**	**6,459**

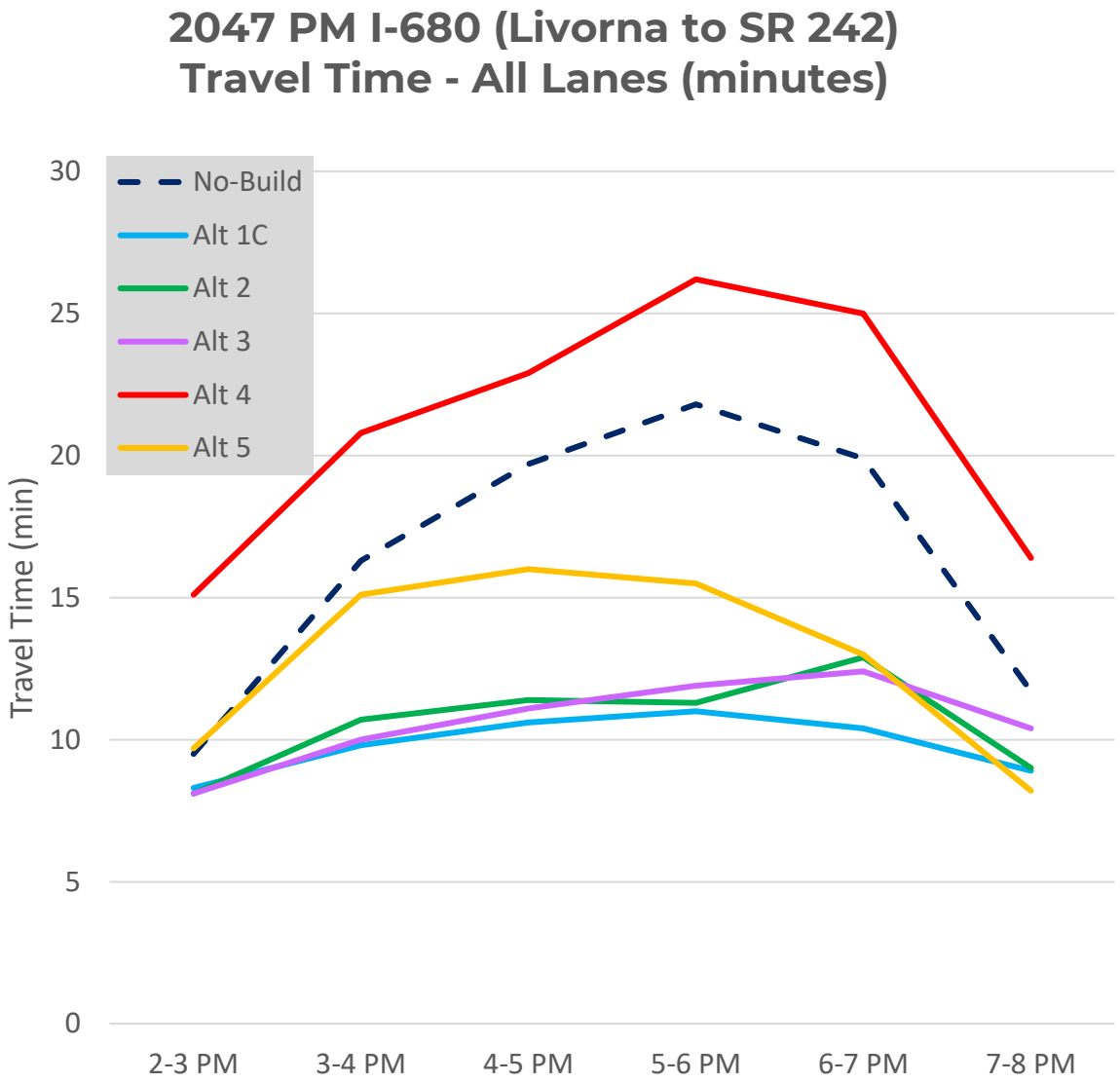
Note: 1. VMT is limited to the freeway study area. It does not include the change in VMT in the project's area of influence.
2. **Red text means deficient compared to no build.**

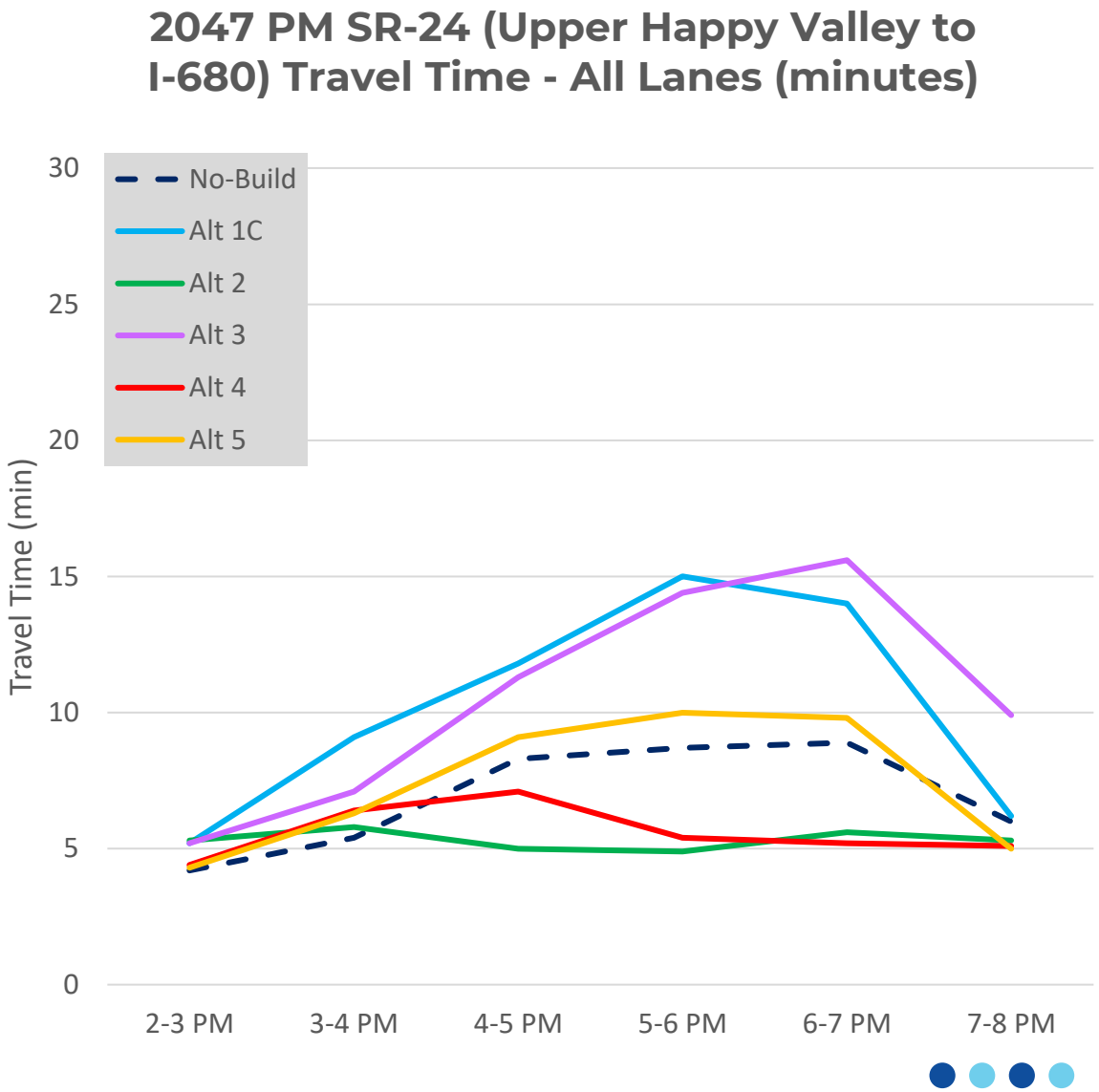
Mainline Throughput (All Lanes – 2047)

I-680 Mainline Demand	No Build	Alt 1C	Alt 2	Alt 3	Alt 4	Alt 5
After Sycamore Valley on ramp	35,782	36,670	36,440	36,890	**35,776**	35,782
N/O El Pintado Rd	35,127	36,231	35,915	36,399	**35,091**	**35,118**
After SR 24 on ramp	46,357	51,086	48,909	51,186	**45,167**	**46,281**
After Monument on ramp	57,418	62,208	61,807	62,158	**56,345**	**57,315**
Bet. 242 and Willow Pass	29,691	34,789	34,421	34,989	**29,317**	**29,610**

Note: **Red text means deficient compared to no build.**

Travel Times (2047)





Travel Time Comparison – PSL (2047)

MOEs	No Build	Alt 1C	Alt 2	Alt 3	Alt 4	Alt 5
GP Users: I-680 (Alcosta to Waterfront)						
Travel Time (minutes)	36.5	35.1	35.3	**37.1**	**41.3**	34.9
Manage Lane Users: I-680 (Alcosta to Waterfront)						
Travel Time (minutes)	30.9	25.1	25.1	25.4	**31.2**	27.5
Manage Lane User Travel Time Differential						
GP lanes vs Manager Lanes Travel Time (minutes)	5.6	10.0	10.2	11.7	10.1	7.4

Note: 1. 2-8 PM Average Travel Time

2. **Red text means deficient compared to no build.**

Summary of Traffic Operation Benefits

Traffic Operations Benefits	Alternative				
	1C	2	3	4	5
Delay on I-680 Operations 2047	Reduces	Reduces	Slightly Reduces	Increases	Slightly Reduces
Delay on SR-24 Operations 2047	Increases	Reduces	Increases	Slightly Reduces	Increases
Travel Time on I-680 Operations 2047	Reduces	Reduces	Reduces	Increases	Slightly Reduces
Travel Time on SR-24 Operations 2047	Increases	Reduces	Increases	Slightly Reduces	Slightly Increases
Travel Time Savings on Managed Lanes	Increases	Increases	Increases	Reduces	Slightly Increases
Improves I-680 Corridor Throughput	Increases	Increases	Increases	Reduces	Slightly Reduces

VMT Analysis and Mitigation

Summary of Induced VMT

Alternative	Alternative 1C	Alternative 2	Alternative 3	Alternative 5
	Closes Gap	Reduce Gap w/ Braided Ramp	Closes Gap w/ Braided Ramp	Reduces Gap Through GP Conversion w/ Braided Ramp
Estimated Capital Cost	$310M	$235M	$375M	$117M
Induced VMT*	+102,583	+83,723	+100,981	NA
Requires VMT Mitigation	✓	✓	✓	*VMT Exempt*

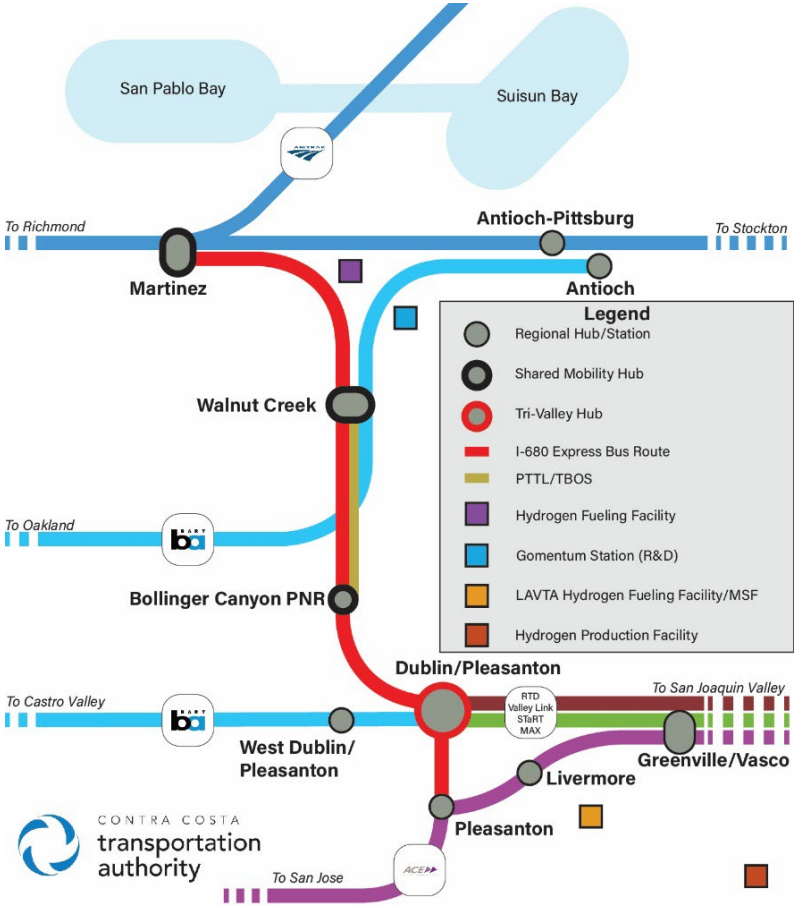
*Compared to No Build

VMT Mitigation Strategy

I-680 Express Bus

Shared Mobility Hubs

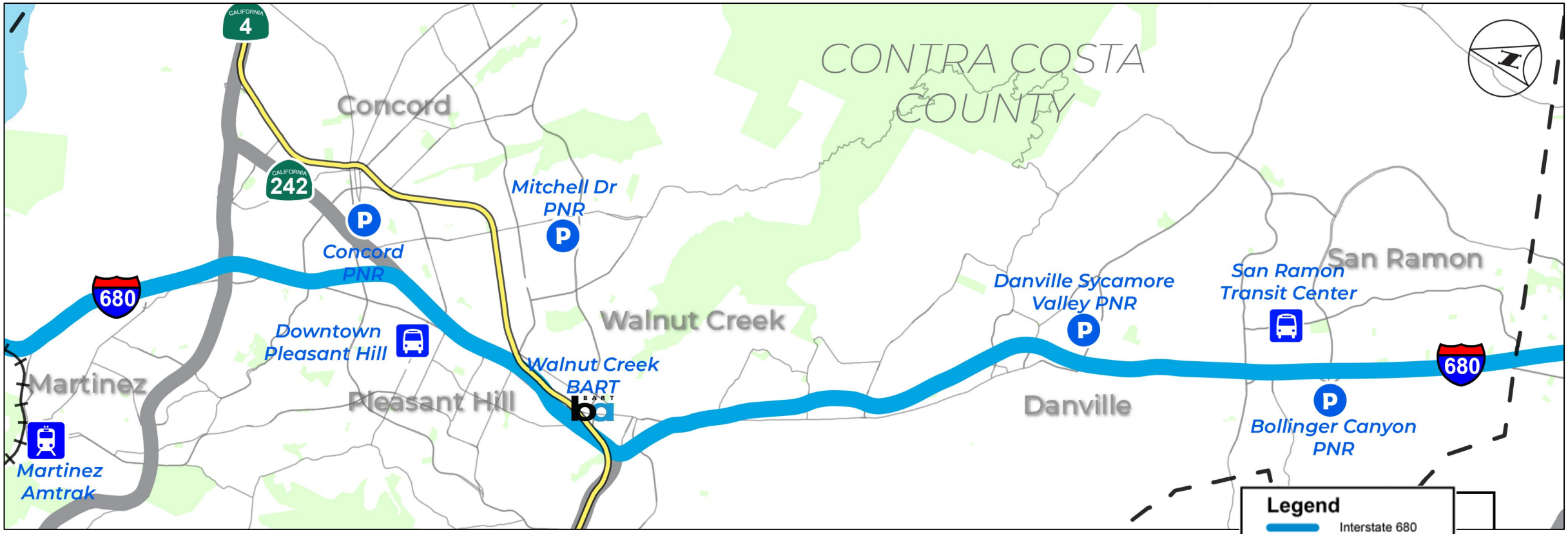
Transportation Demand Management (TDM) Program



ONE SEAT RIDE ON INTERSTATE 680

- Result of Express Bus Study
- Partnership between County Connection and LAVTA
- Seamless mobility between transit and employment centers in Contra Costa & Alameda County
- Zero Emission Hydrogen/Electric Buses with fueling infrastructure & shared mobility hubs

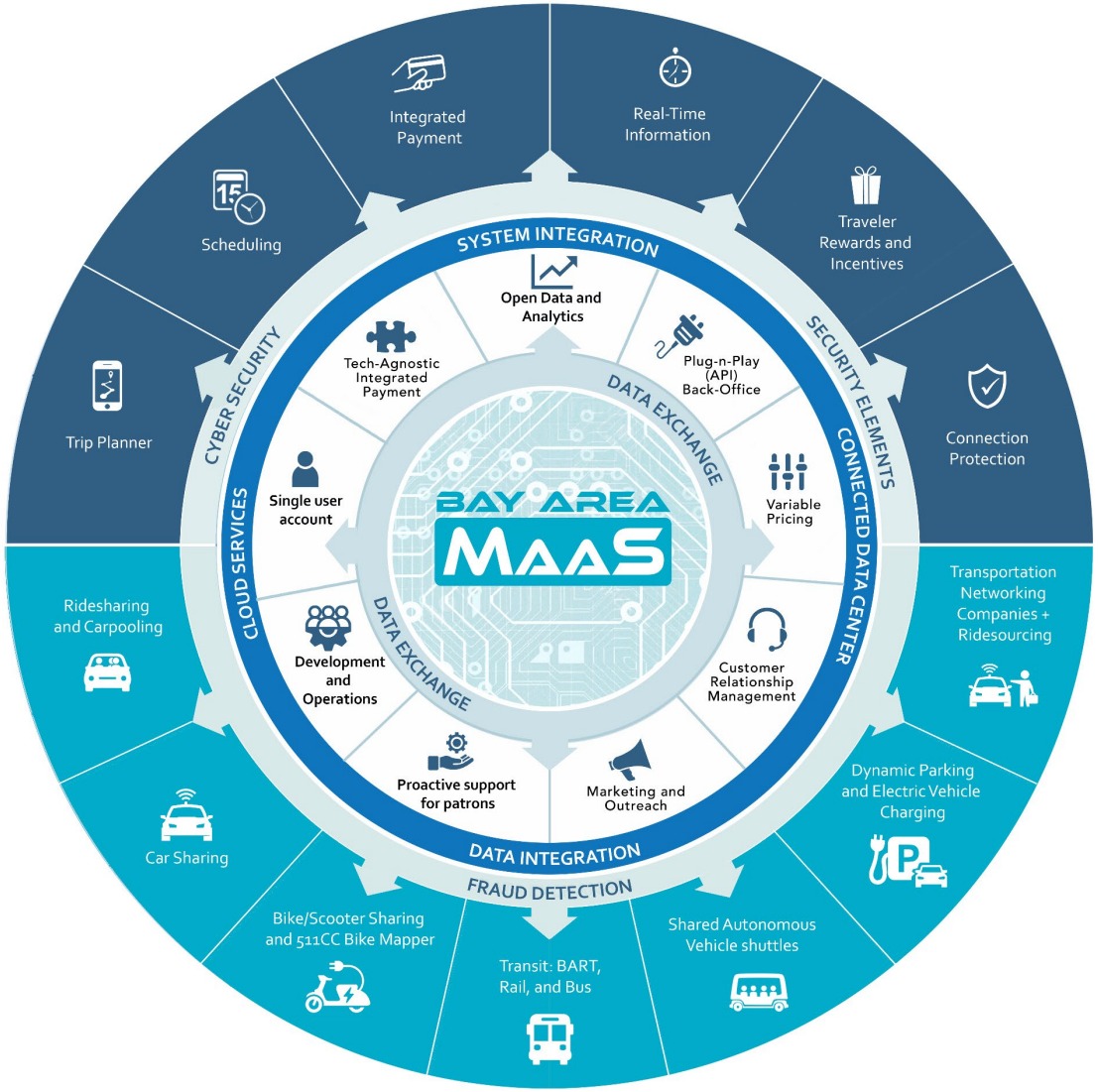
Mobility Hub Feasibility Study Locations



SITE	JURISDICTION	TYPE
Martinez Amtrak	Martinez	Regional multimodal hub
Downtown Pleasant Hill	Pleasant Hill	Downtown & residential area
Concord PNR	Concord	Neighborhood PNR in commercial area
Mitchell Dr PNR	Walnut Creek	Neighborhood PNR in commercial area
Walnut Creek BART	Walnut Creek	BART station
Danville Sycamore Valley PNR	Danville	Freeway PNR in mixed-use area
San Ramon Transit Center	San Ramon	Bus transit center in commercial area
Bollinger Canyon PNR	San Ramon	Freeway PNR in mixed-use area

Mobility on Demand -

Travel Demand Management Programs



Proposed Full VMT Mitigation Strategies

I-680 Shared Mobility Hubs

I-680 Express Bus Project

TDM Programs

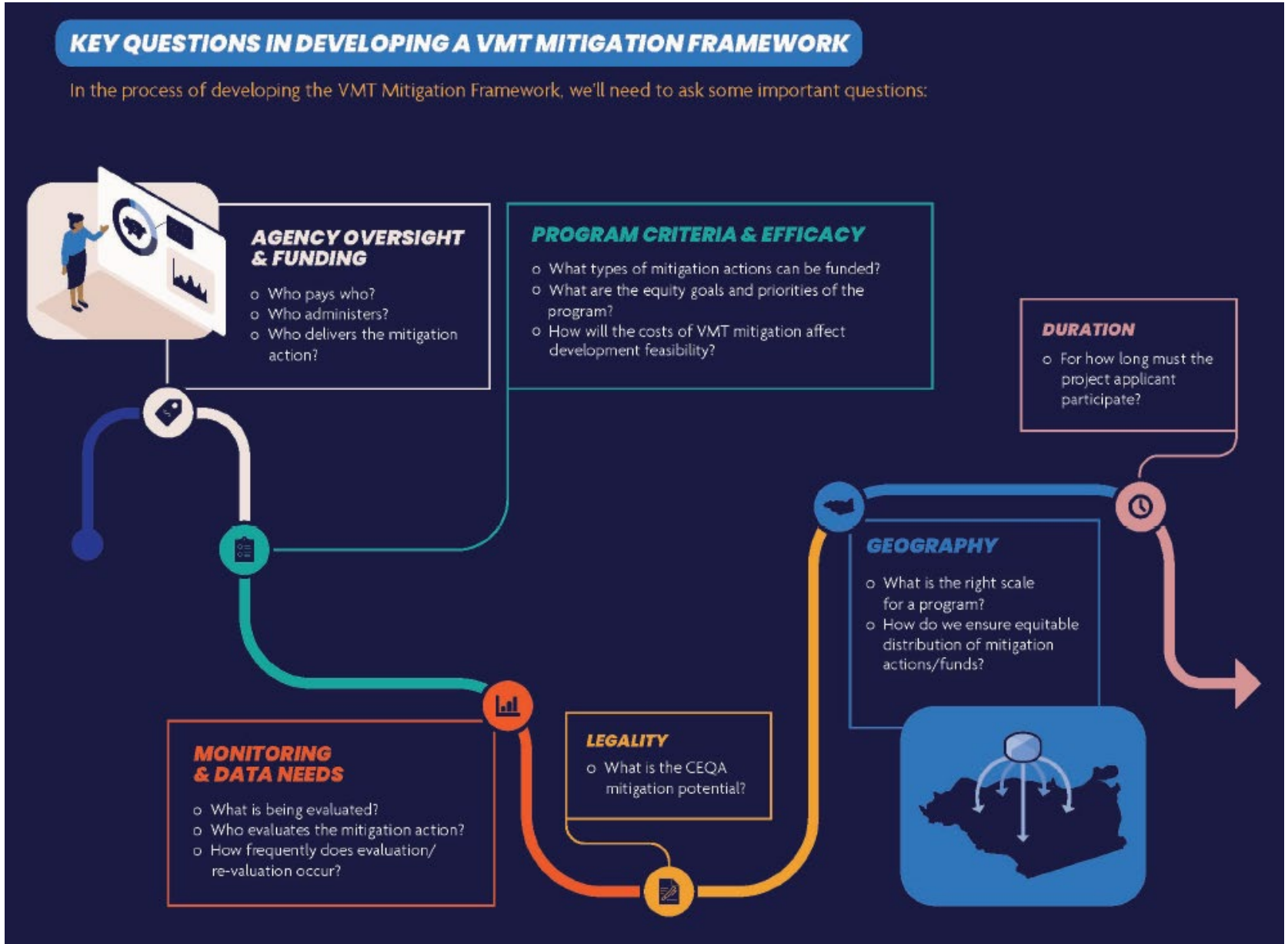
VMT Mitigation	Estimated Capital Cost (M)	Estimated Annual O&M Cost (M)
I-680 Express Bus	$71.4	$6.8
I-680 Shared Mobility Hubs (3) • Bollinger Canyon Road • Walnut Creek BART Station • Martinez Amtrak Station	$46.5	TBD
TDM Program	$0.00	$1.4 to $2.5

Summary of Capital Costs with VMT Mitigation

Alternative	Alternative 1C	Alternative 2	Alternative 3	Alternative 5
	Closes Gap	Reduce Gap w/ Braided Ramp	Closes Gap w/ Braided Ramp	Reduces Gap Through GP Conversion w/ Braided Ramp
Estimated Capital Cost*	$310M	$235M	$375M	$117M
Induced VMT	+102,583	+83,723	+100,981	NA – VMT Exempt
Mitigation Cost**	$143M	$136M	$142M	NA – VMT Exempt
Total Cost*	$453M	$371M	$517M	$117M

* Preliminary, subject to change
** Mitigation Cost shown assumes 20 years of mitigation

VMT Mitigation Program Development



- Program Type
- Program Criteria & Efficacy
- Program Administration
- Geography
- Legality
- Monitoring

Thank You

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Tim Haile

OVERCOMING POLICY CHALLENGES

to

IMPLEMENTING PRICED MANAGED LANES

Webinar | Transportation Research Board April 17, 2023

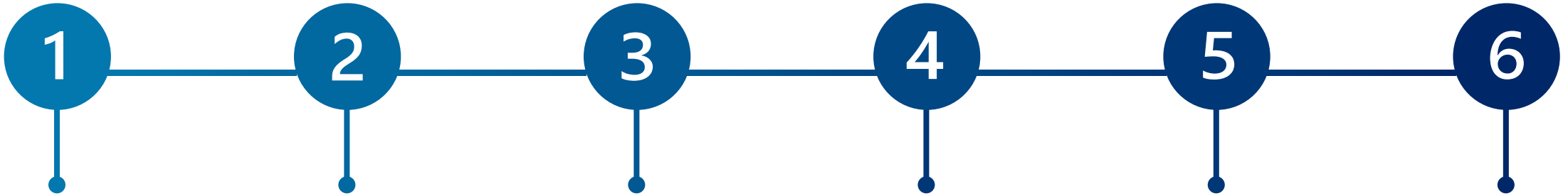
Dan Lamers, P.E.
NCTCOG
dlamers@nctcog.org

North Central Texas Council of Governments

MANAGED LANE OVERVIEW

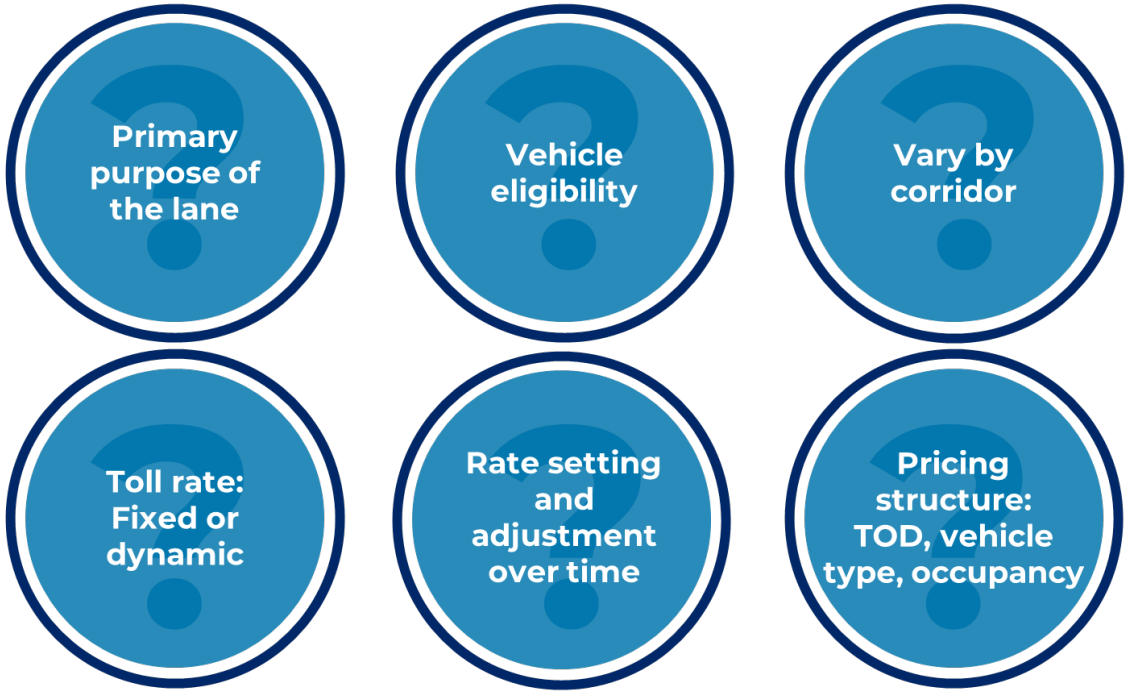
- Managed Lane History
- Policy
- Working group structure
- System map
- Pushback
- LBJ East Example
- Toolkit

MANAGED LANES EVOLUTION



1. HOV
2. TOLLED MANAGED
3. DYNAMICALLY PRICED
4. GUARANTEED TRANSIT
5. EARLY DEPLOYMENT VEHICLE TECHNOLOGY
6. DRIVERLESS TRUCKS

NCTCOG MANAGED LANE POLICY



SPEED GUARANTEE

- MINIMUM AVERAGE OF 50 MPH

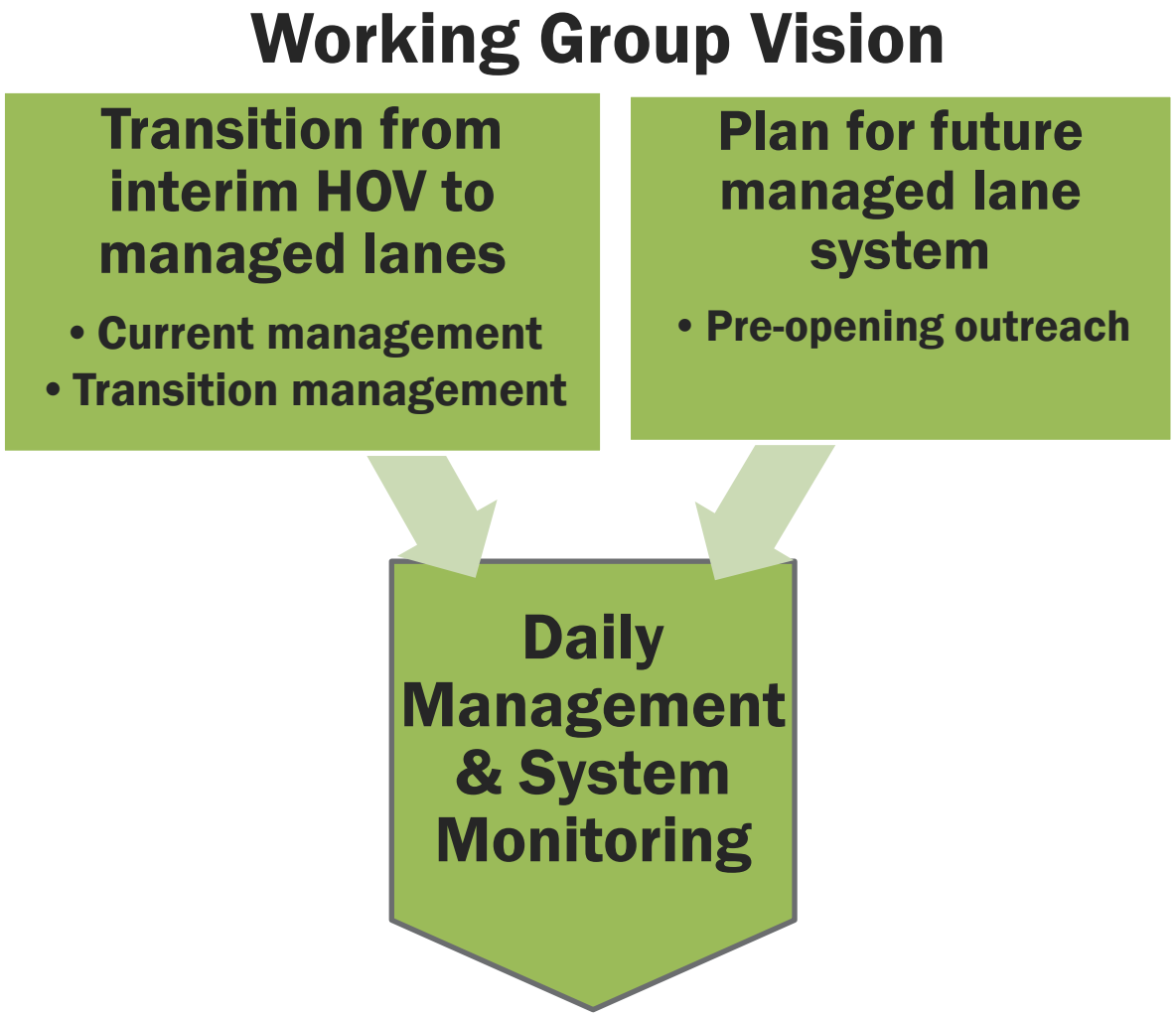
PRICE

- INITIALLY A SCHEDULED, FIXED RATE
- **$0.75** PER MILE (2010 $)
- DYNAMIC PRICING AFTER 6 MONTHS (WITH SOFT CAP)

DISCOUNT

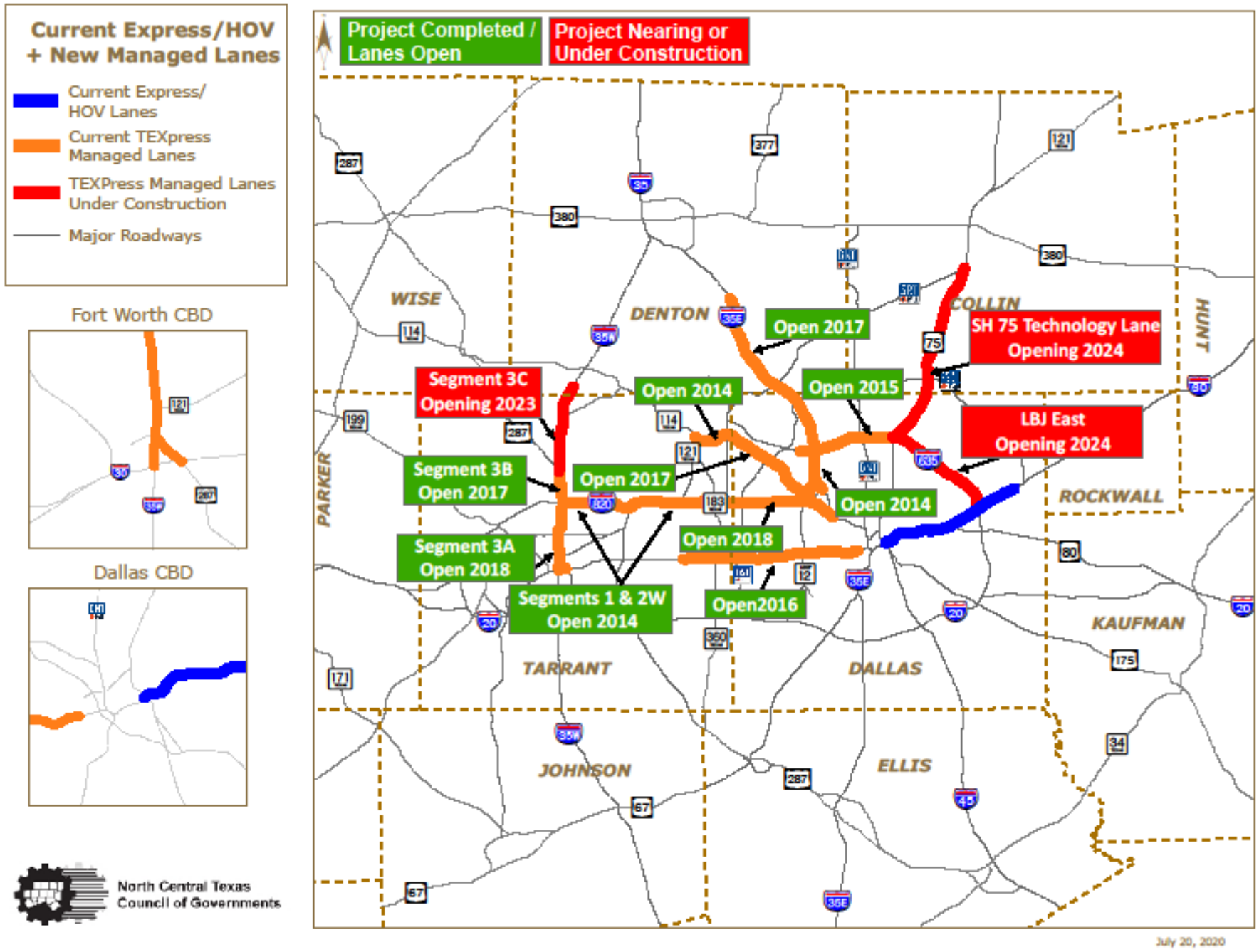
- **HOV 2+** 50% DISCOUNT DURING PEAK PERIODS
- **HOV 3+** DEFERRED CONTINGENT ON DATA REPORTING
- MPO REIMBURSES OPERATOR
- DISCOUNT ELIMINATED WHEN REGION REACHES ATTAINMENT
- NO DISCOUNTS FOR “SPECIAL VEHICLES”

REGIONAL MANAGED LANE WORKING GROUP



- Established 2011 – meets quarterly
- TxDOT, PPP providers, North Texas Tollway Authority (NTTA)
- Texas A&M Transportation Institute (TTI) and University of Texas at Arlington (UTA) periodically attend
- Identified numerous system-level inconsistencies
- Address policy, technical elements, and public outreach

Managed Lane System



MANAGED LANE SPEEDBUMPS: AN UNCERTAIN FUTURE

TEXAS – "THE EPICENTER OF THE TOLL BACKLASH"

Resistance from the governor and lieutenant governor caused TxDOT to remove more than a dozen toll projects from their 10-year plan.

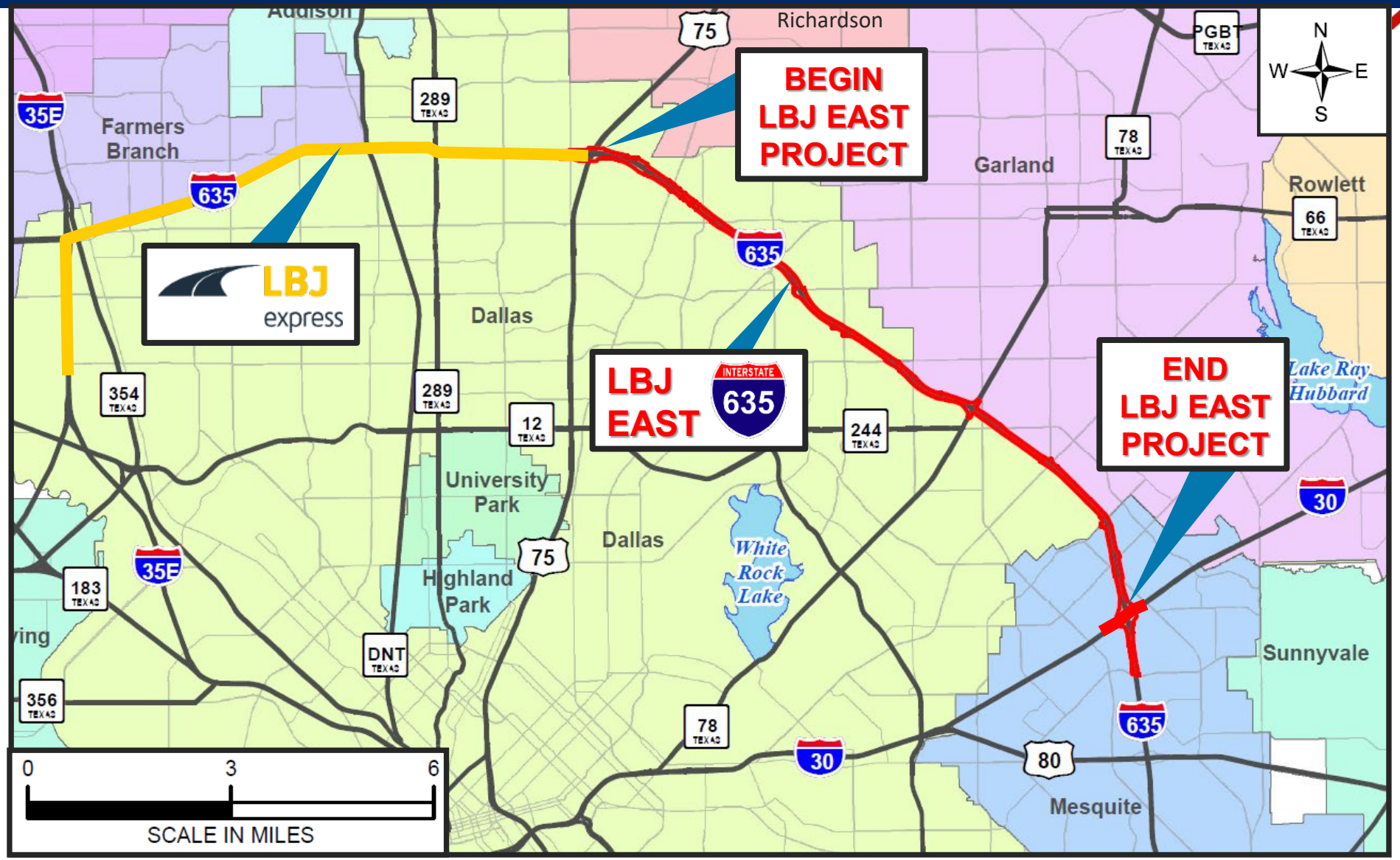
More than a dozen bills were filed in 2015 against new toll projects and some aimed to dismantle existing toll system entirely.

Tolling Plans removed several corridors throughout Texas due to pressure from State Legislature.

CURRENT ENVIRONMENT

- Legislature must specifically approve new CDA or financing
- TxDOT “not allowed” to recommend new toll facilities or include in study unless in MPO MTP

I-635 LBJ EAST PROJECT



I-635 LBJ EAST PROJECT

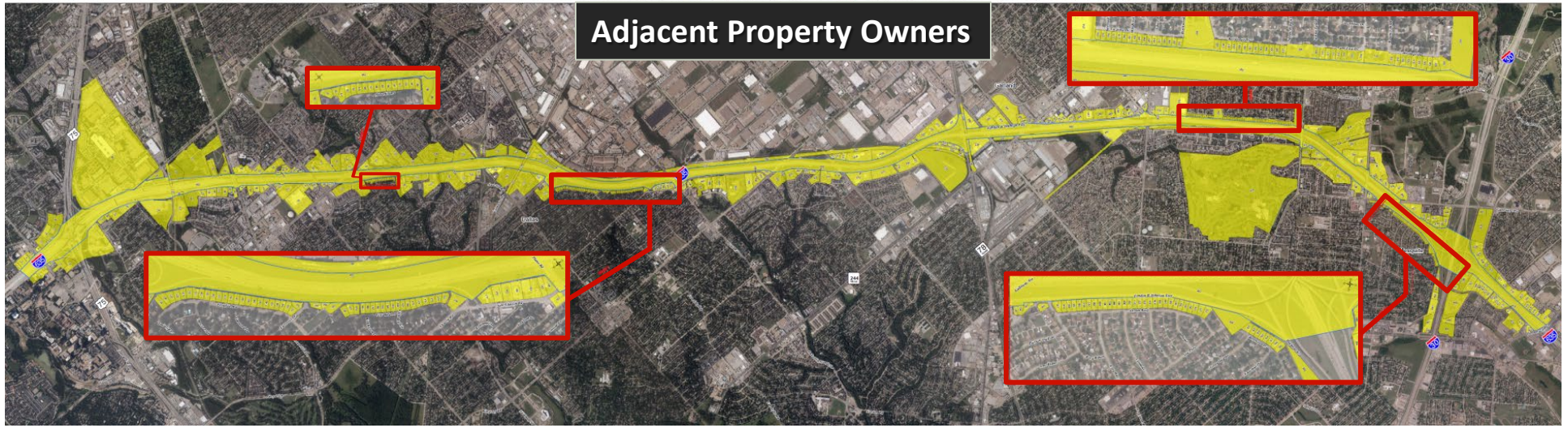
PROJECT SUPPORT

- In MTP since 1993
- Extension of LBJE CDA
- 2017 Regional Transportation Council policy to expedite project
- Overwhelming local support – elected officials and public
- MPO has federal responsibility to coordinate with local officials

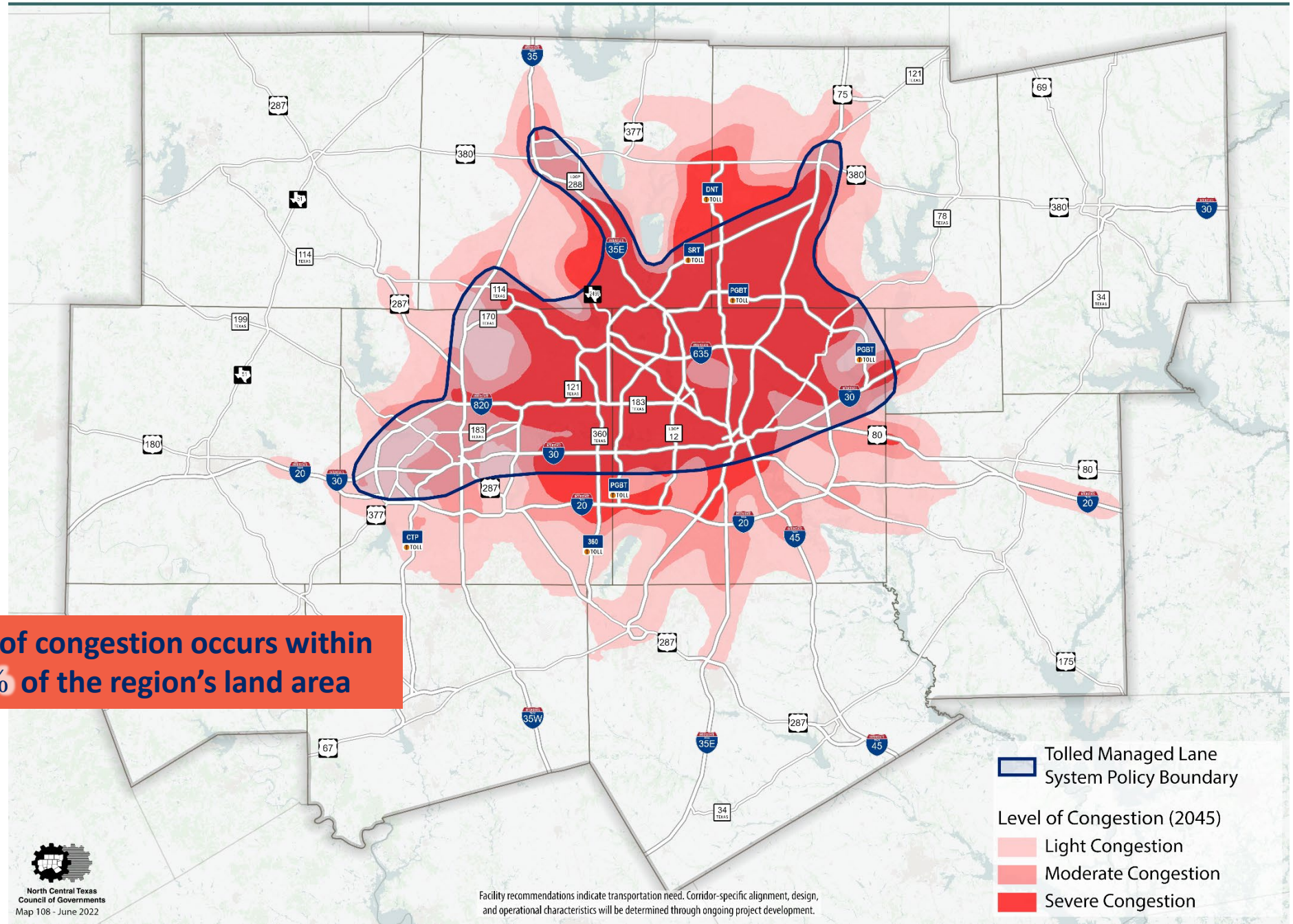
I-635 LBJ EAST PROJECT

PUBLIC OUTREACH

- Express/HOV Lanes – One Public Meeting & One Public Hearing
- Ultimate Design – One Public Meeting & One Public Hearing
- **Stakeholder Work Group meetings – at milestones**
- Cities of Dallas, Garland & Mesquite, Dallas Co. DART, NCTCOG, FHWA
- Individual Elected official (Local, Statewide, Federal) briefings and presentations
- Meeting notices mailed to elected officials and ~400 adjacent property owners
- Website (www.KeepItMovingDallas.org), fact sheet, and other tools

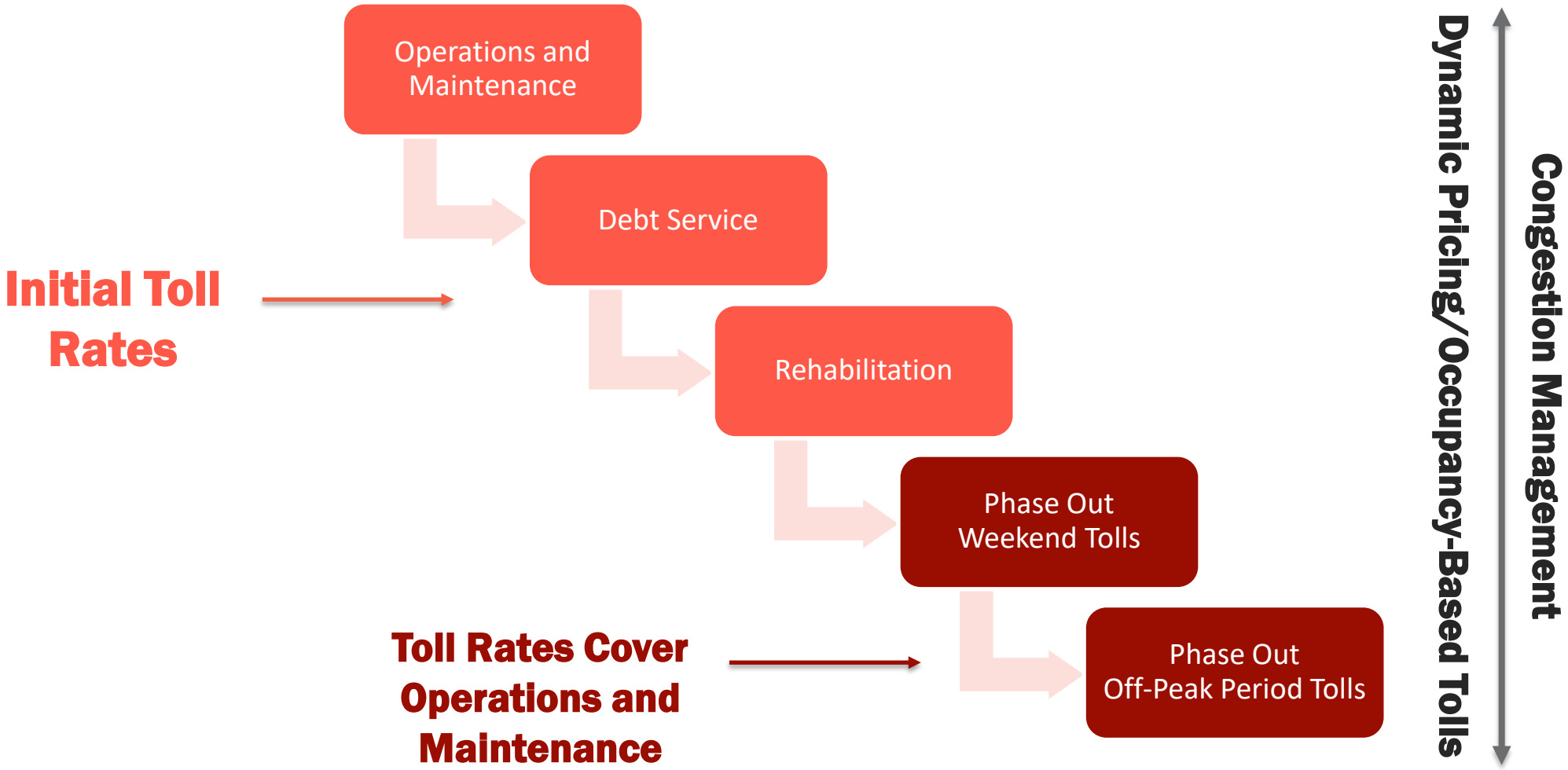


Tolled Managed Lane System Policy Boundary



78% of congestion occurs within 13% of the region's land area

REDUCTION OF MANAGED LANE TOLLS OVER TIME



AGREEMENT

- Include in MTP but add general purpose capacity at same time
- Construct continuous frontage roads
- Better arterial street connectivity
- Minimal ROW – design exceptions needed
- Include Noise walls

TOLL/MANAGED LANES TOOLKIT

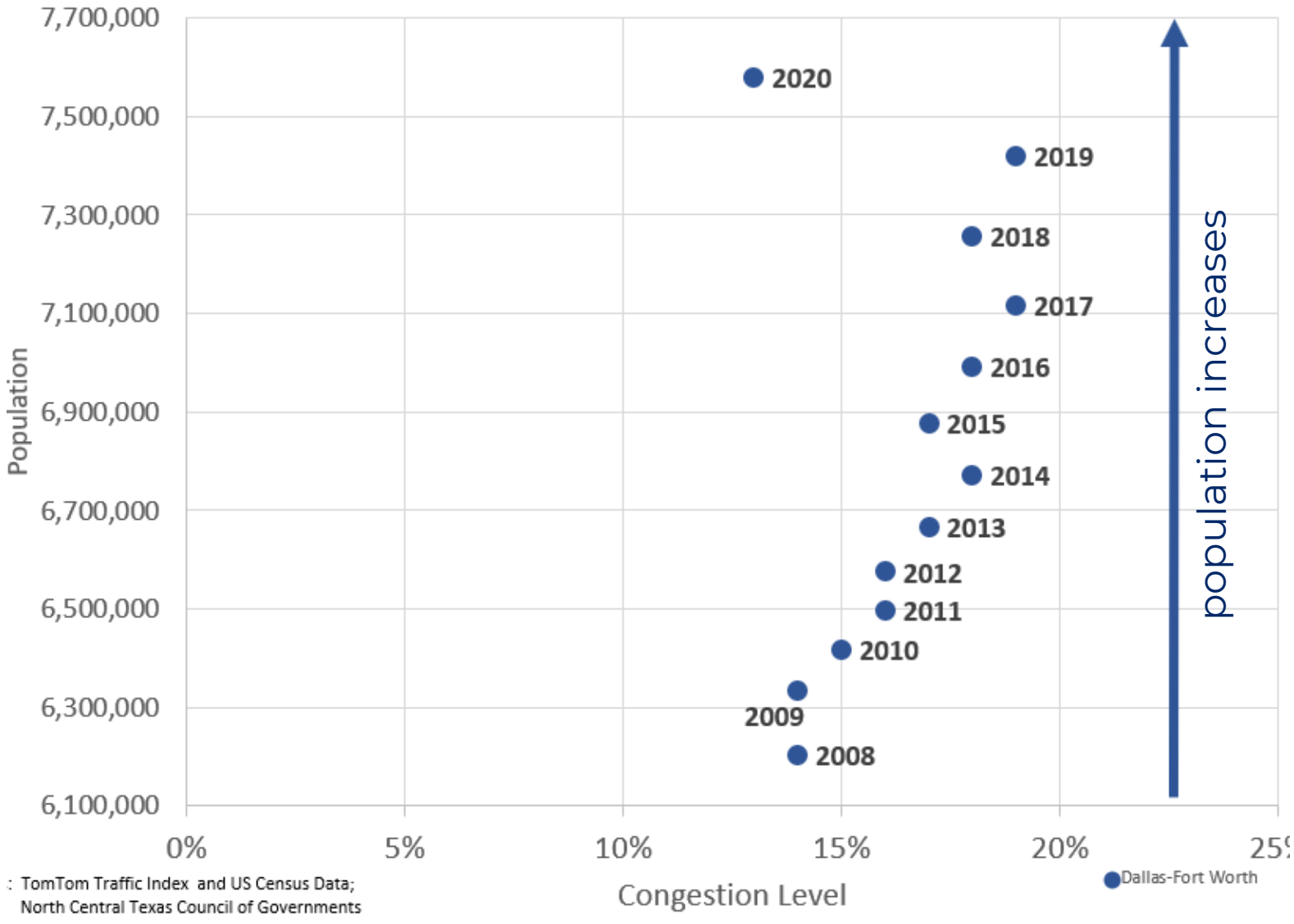
EDUCATION

- Regional Growth
- Funding Challenges
- What are TEXPRESS Lanes?
- Current Usage Facts

BENEFITS

- Choice
- Congestion Reduction
- Reliability
- Economic Development
- Air Quality
- Economic development

DALLAS-FORT WORTH CONGESTION REMAINS CONSTANT DESPITE POPULATION INCREASES



: TomTom Traffic Index and US Census Data;
North Central Texas Council of Governments

FUNDING CHALLENGES

State fuel taxes have not increased since 1991.

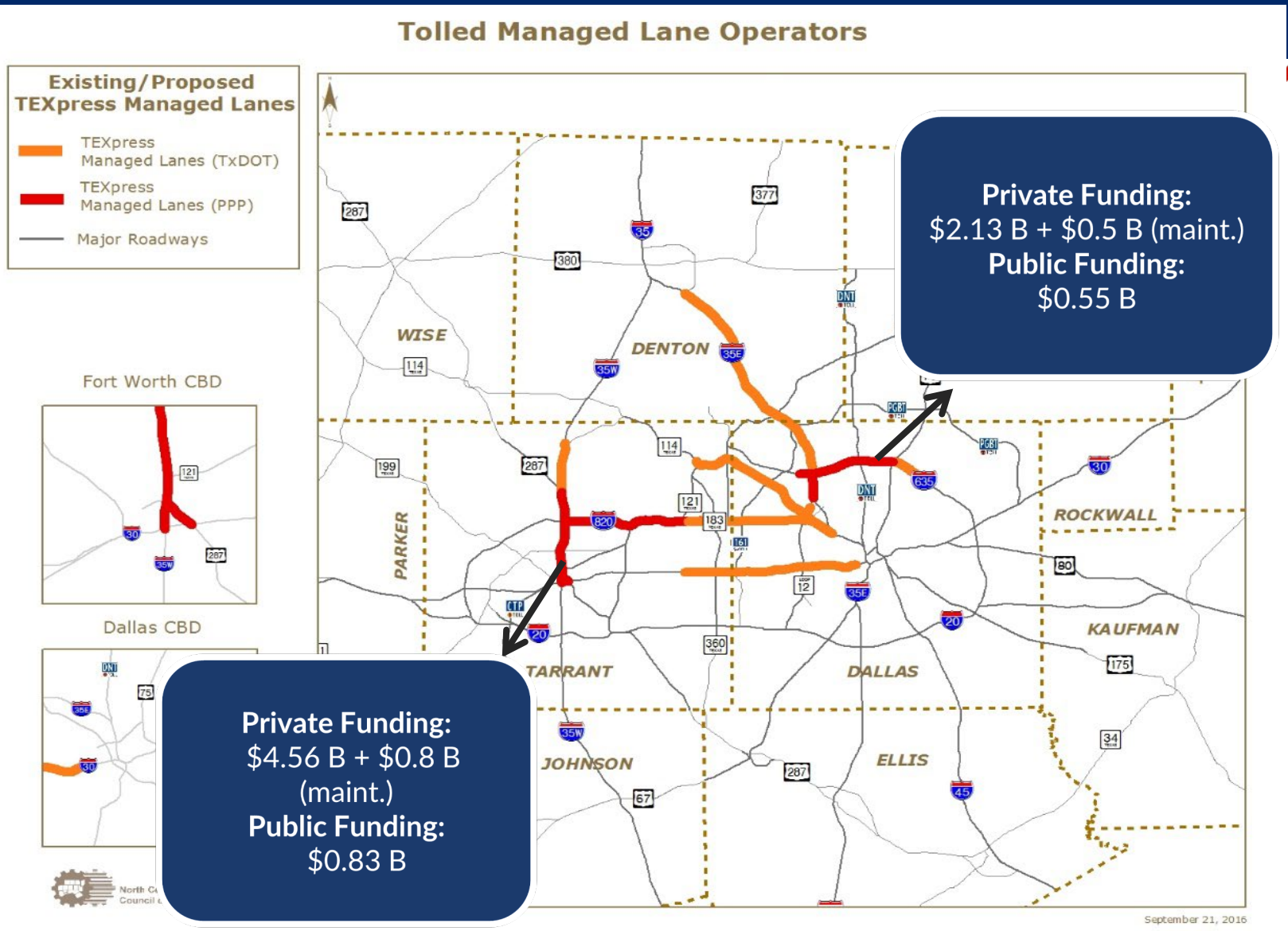
Federal fuel taxes have not increased since 1993.

The gas tax has lost much of its purchasing power and cannot sufficiently fund our roadways.

Increased construction costs

More fuel-efficient vehicles

FINANCIAL LEVERAGING

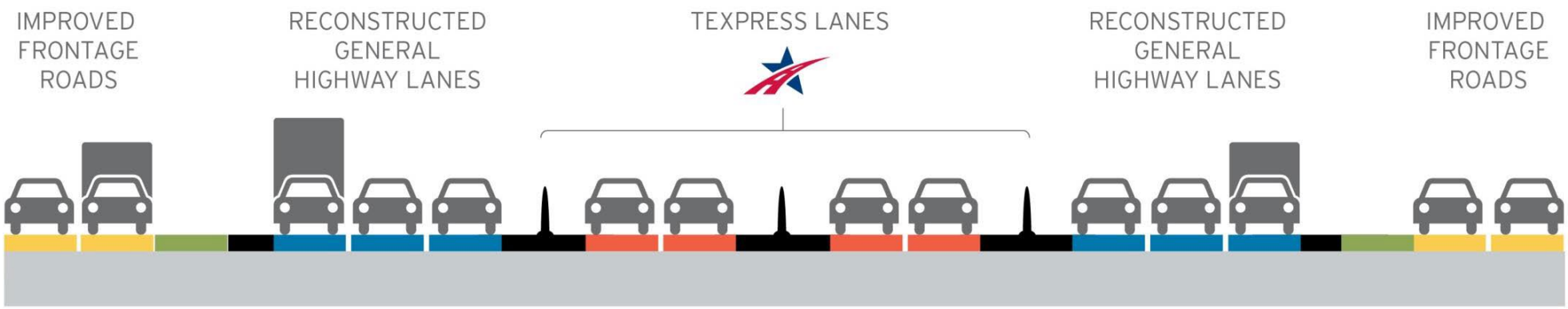


WHAT ARE TEXPRESS LANES?

TEXpress Lanes are unique toll lanes that are built within an existing highway. They add additional capacity to the highway to accommodate more traffic and relieve congestion.

HOW DO TEXPRESS LANES WORK?

Pricing on TEXpress Lanes is adjusted based upon the average speed and number of drivers on the TEXpress Lanes. Drivers are notified of the price they will pay on the toll pricing signs prior to entering any segment of the TEXpress Lanes.



TEXPRESS LANES

TEXpress Lanes add capacity alongside non-tolled lanes and use a pricing model with rates that fluctuate depending on traffic.

COMPARED TO

TOLL ROADS

NTTA toll roads charge standard, non-fluctuating toll fees.

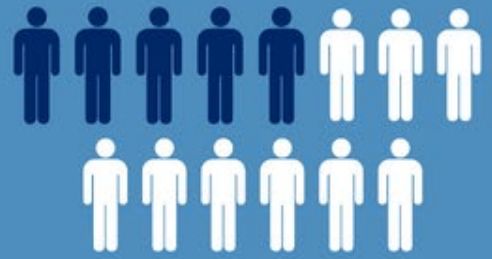
TEXpress Lanes
are for everyone

6+ million different vehicles have used the LBJ & NTE TEXpress Lanes to date

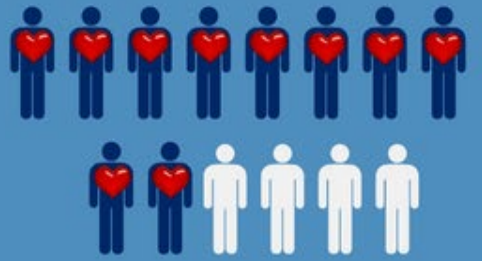
7 million people live in Dallas-Fort Worth

The most common carmakers seen on TEXpress Lanes are Toyota, Ford, and Honda

Only 15% of cars on TEXpress Lanes are luxury brands



5 in 14 users are new to TEXpress Lanes each month.



More than 10 in 14 users view TEXpress Lanes favorably

Source: LBJ TEXpress and NTE TEXpress Lanes

98%

USE TEXPRESS AS-NEEDED

The average TollTag user chooses the TEXpress Lanes **occasionally**.

1 in 5

TRIPS ON TEXPRESS

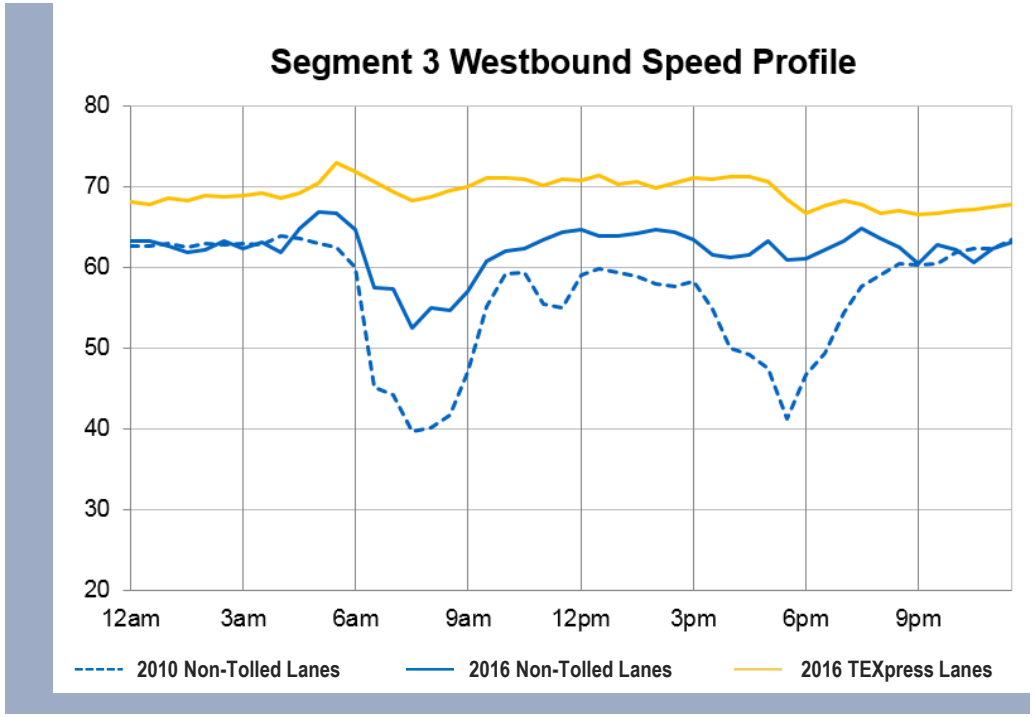
The average TollTag user chooses the TEXpress Lanes for 1 in every 5 trips.

$5-15

BILL/MONTH

Most drivers who choose the TEXpress Lanes have a bill between $5-$15 per month.

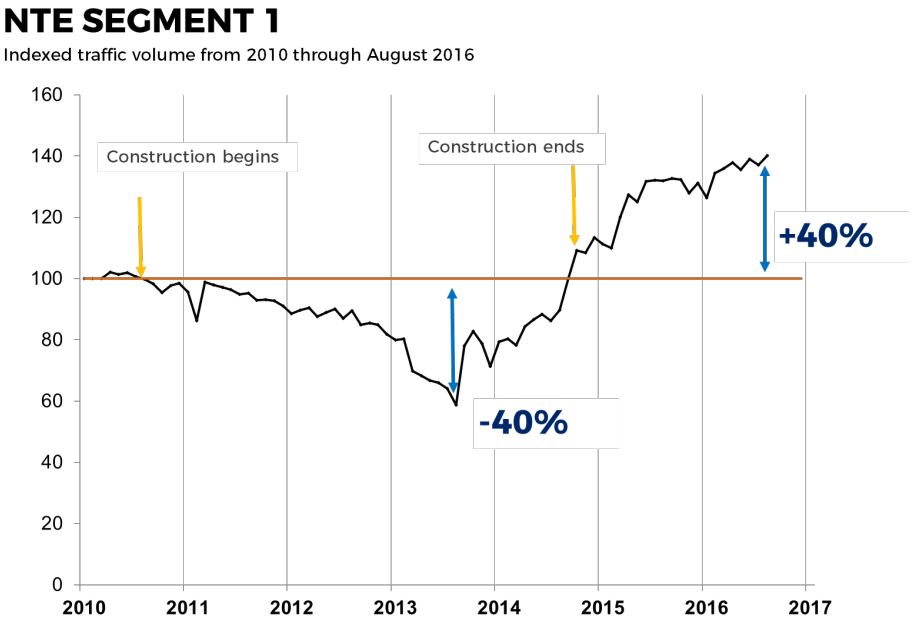
REDUCES CONGESTION



TEXpress Lanes allow for expanded capacity without reducing efficiency.

- **Average speed increased by 10-15% in the LBJ corridor.**
- **Congestion time on non-tolled lanes reduced by 60%.**

REDUCES CONGESTION



NTE corridor traffic totals increased 40% since construction ended, while congestion time on non-tolled lanes has been reduced.


It’s all about drivers who want a more reliable commute.
TEXpress Lanes are a needed choice for North Texas residents.
TEXPRESSLANES.COM
TEXPRESS

Today's presenters

Matt Click
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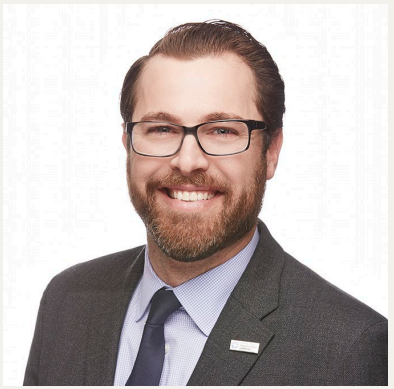
Placer County Transportation Planning Agency



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Upcoming events for you

May 2, 2023

TRB Webinar: Truck Parking Strategies, Technologies, and Partnerships

May 3, 2023

TRB Webinar: Deploying AI Applications for Asset Management

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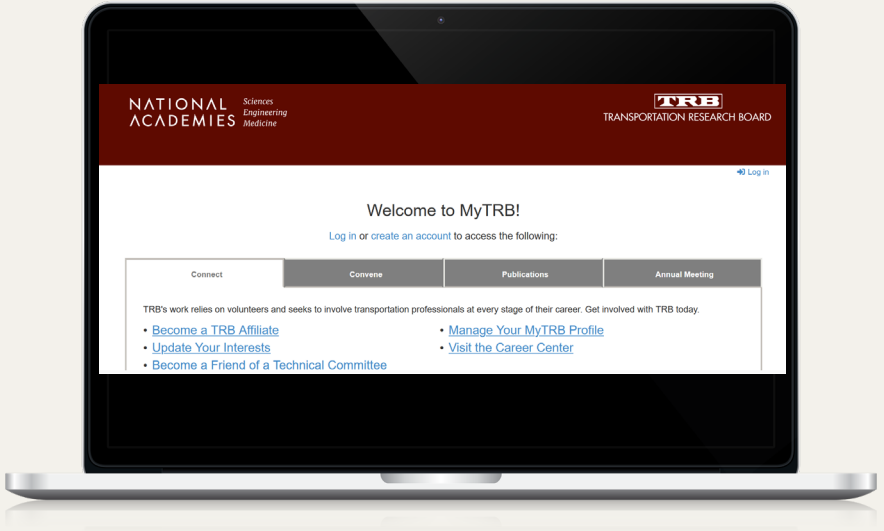

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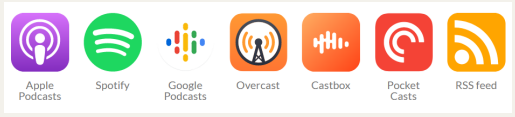

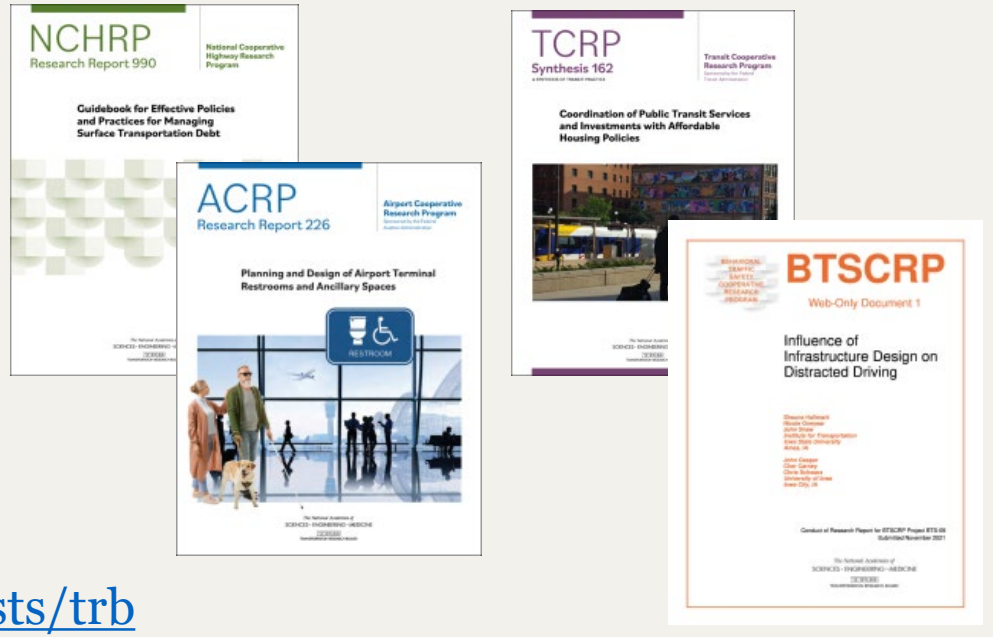

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