»»»» Next Gen Freeways

PLAN BAY AREA 2050

STRATEGY T5
FREEWAY TOLLING

METROPOLITAN TRANSPORTATION COMMISSION

In partnership with Caltrans

Next Generation Bay Area Freeways Study

Round 1 Analysis Findings

Policy Advisory Council
September 2023

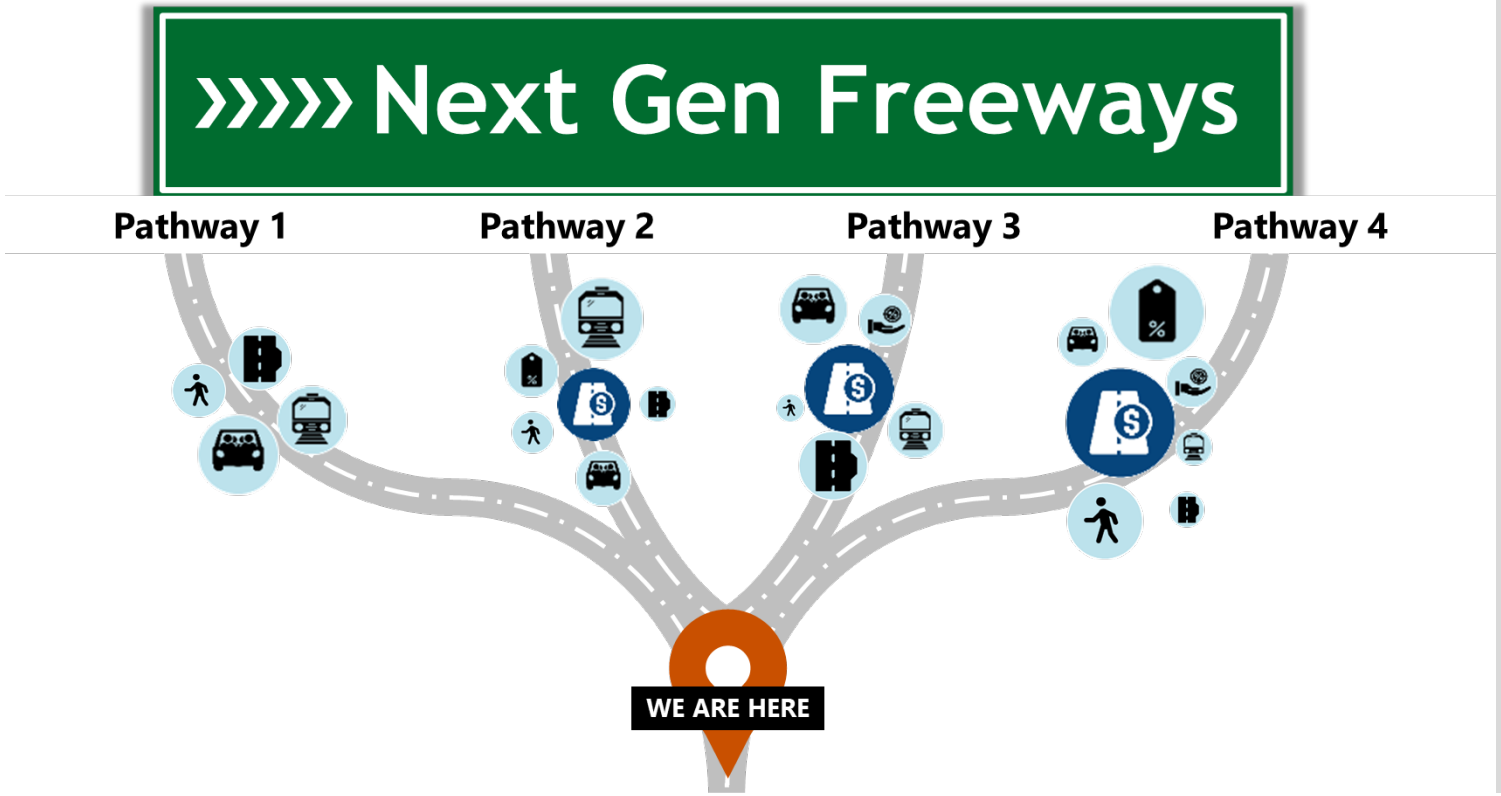
Why explore pricing?

We are studying roadway pricing because…

- We need bold strategies to meet ambitious state-mandated **climate targets**
- **Congestion** has roared back, even with many more people working-from-home
- Pricing has the potential to **advance equity**, if done right

Next Gen Freeways

Pricing pathways must advance key regional goals.



Goals of Next Generation Freeways

- Reliable
- Efficient
- Affordable
- Reparative
- Safe

What are "Pathways"?

Pricing Strategy + Complementary Strategies

Near-term Plan Bay Area strategies are foundational.

All pathways assume implementation of these **near-term strategies through 2035** included in the adopted Plan Bay Area 2050:

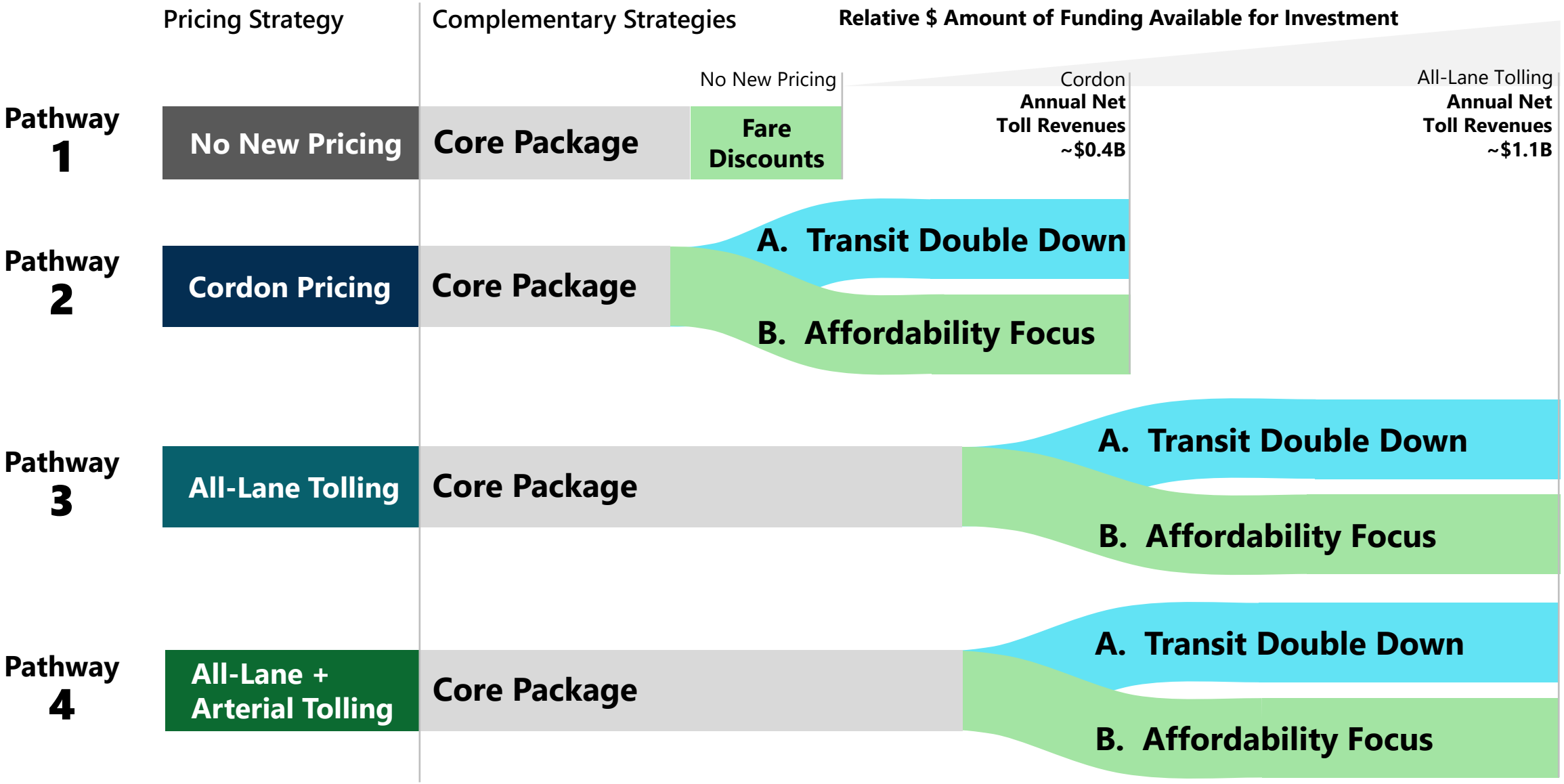
Includes projects such as:
- BART to Silicon Valley Ph. 2
- BART Core Capacity
- Caltrain Portal
- Valley Link
- Express Lanes Network

- Near-term **transit transformation & capital expansion** priorities
- Robust **housing & economic** strategies *(and associated land use outcomes)*
- Expanded **travel demand management** strategies *(including telecommuting)*
- Federal, state, regional, and local actions to rapidly **electrify** the transportation system
- **Reduced speed limits**

Between 2030 and 2035, **additional "complementary" strategies** unique to each pathway are assumed to be implemented in a phased manner, including:

- Additional **transit** investments
- Additional **active transportation** investments
- Additional **community-scale** investments
- Expanded **discount programs**
- Additional **safety investments**

Seven distinct pathways were co-created in Round 1.



In particular, all-lane tolling pathways proved promising.

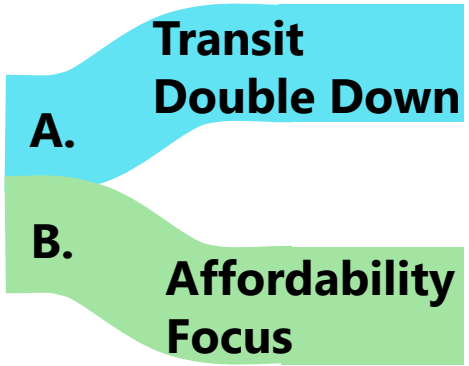
2. Cordon Pricing

3. All-Lane Tolling

4. All-Lane + Arterial Tolling

What did we learn about the pricing strategies?

- While cordon pricing yielded positive outcomes at the local jurisdiction level, it has limited potential for benefits as a regional-scale pricing strategy.
- All-lane tolling had greater potential to advance regional goals – yielding up to three percent reduction in regional VMT – but requires thoughtful mitigations to reduce diversion to local roads and increase mode shift.



What did we learn about the complementary strategies?

- While new express bus lines initially seemed promising in Transit Double Down, reinvesting revenues in local transit services may yield greater mode shift.
- Toll discounts in Affordability Focus played a meaningful role in mitigating affordability concerns, whereas transit discounts proved a viable alternative to capital & operating investments to grow ridership.

What progress did all-lane tolling pathways make on goals?

(1/3)

Reliable

Freeway travel times and traffic congestion saw significant reductions from tolling.

Peak period travel times decreased by up to 24% on some of the region's busiest freeways for people and goods; diversion to major parallel local streets is an issue that can be mitigated by arterial tolling.

Average change in freeway travel times

Pathway 3	-10%
Pathway 4	-8%

Average change in major parallel arterial travel times

Pathway 3	+8%
Pathway 4	+0%

Efficient

Despite this, transit systems saw only limited ridership growth.

Transit alternatives became faster, but so did driving, resulting only in roughly 160K new boardings on a typical weekday; commute mode shift to non-auto modes was modest

Change in non-auto commute mode share

Pathways 3 & 4	+0.4% to +0.7%

Note: Statistics forecasted for a typical weekday in year 2035, relative to Pathway 1 (no new pricing initiatives).
Travel times are forecasted for the peak period & peak direction of travel; mode share is for commute trips in the peak period.

What progress did all-lane tolling pathways make on goals?

(2/3)

Affordable

Pricing burdened only a small share of Bay Area households, especially with toll discounts.

Over half of households do not use tolled facilities on any given average weekday; i.e., the increase in cost burden from tolling is negligible for the median household.

Relatively few households would see a significant increase in toll expenditures, meaning that targeted cost burden relief could be expanded in Round 2 analysis to make further headway toward this goal.

Note: Modeled toll rates range from $0 in low-congestion corridors to $6 for a 20-mile segment in the busiest corridors.

Share of households by incremental annual toll expenditure
(with 50% toll discounts for very low income)

Pathway 3B	>$300	>$1,000
Very Low Income (Less than $55K)	4%	<1%
Low Income ($55K to $110K)	7%	2%
Moderate Income ($110K to $190K)	18%	6%
High Income (More than $190K)	22%	8%

Note: Statistics forecasted for the year 2035, relative to Pathway 1 (no new pricing initiatives).

What progress did all-lane tolling pathways make on goals?

(3/3)

Reparative

Low-income communities would see much greater benefits than burdens.

Toll revenues fund meaningful investments that reverse health, safety, connectivity and aesthetic issues caused by freeways in adjacent communities.

Impacts to very low-income pop.	Pathways 3 & 4
Share of toll revenues incurred	**4% to 8%**
Share of reinvestments that benefit the group	**32% to 38%**

Safe

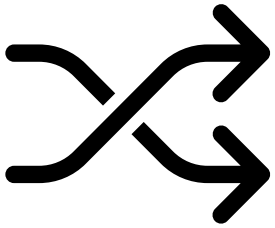
Roadway safety is significantly better than today, but arterial diversion poses risks.

With safety improvements prioritized, estimated fatalities decrease substantially relative to current rates; however, arterial diversion dampens the efficacy of the pathways.

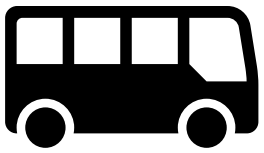
Change in estimated fatalities	
Pathways 3 & 4	**-29% to -30%**

Note: Statistics forecasted for the year 2035, relative to Pathway 1 (no new pricing initiatives).

Four main challenges will be the focus for Round 2 analysis – seeking solutions!

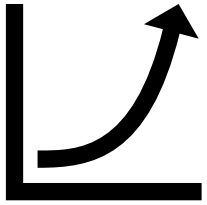


Limiting diversion to arterial & local streets:
While tolling arterials was found to mitigate diversion, are there other strategies could mimic this effect while yielding meaningful reductions in traffic congestion & VMT/GHG?



Increasing mode shift:
How can revenues be better reinvested between existing or new strategies to increase transit ridership & carpooling?

Enhancing affordability:
What strategies are best suited to improve affordability outcomes for high-frequency, low-to-middle-income drivers?



Optimizing tolls with climate lens:
Given ever-more-challenging climate goals, how can pricing pathways be expanded to make even greater headway than what is featured in Plan Bay Area 2050?

Examples of ideas under consideration

- Dual-priced lanes throughout freeway network (in place of all-lane tolling)
- Make arterials more transit-friendly / less attractive to drive
- Boost local transit frequencies

- Small hotspot improvements for local/express bus transit
- Increase investment in bus priority lanes
- Annual Clipper stipend

- Advance payments to very low-income population
- Higher toll discounts (e.g. 75%-90%) for very low-income population
- Transit fare caps

- Higher toll levels
- Expand all-lane tolling to all freeways
- Regional supplement over statewide Road User Charge

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Next Steps:

MTC/ABAG Joint Planning/Admin Committee	Oct 2023
Community Engagement Round 2	Oct/Nov 2023
Pathways Analysis Round 2	Winter 2024

Future Updates to the Council:

Engagement Learnings / Round 2 Analysis Inputs	Winter 2024
Round 2 Analysis Outcomes / Next Steps	Spring 2024

Thank You.

Questions?

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