STATE ROUTE 68 CORRIDOR OPERATIONS EVALUATION

May 27, 2026

Efficient
Corridor
Mobility

GHD

TAMC Board Meeting

CORRIDOR CONTEXT

Why SR68 Matters

Recurring Congestion

2-mile Queues in AM

Unreliable travel times

Rear-end collisions during peak commutes

Westbound AM Traffic

Why Now?

- TAMC Board requested a report on preliminary findings

- Adaptive operations implemented May 5

- Monitoring typically done in Fall and Spring
  - “Normal” traffic conditions
  - school is in session
  - Few holidays or seasonal variation

- Data had to be collected prior to school dismissal for summer

How Traffic Signals Work

- Rigid sequence
- Like working independently
- Like to be spaced far apart
- Share Time

Modes of Operation

- FREE
  - Distributes time equitably
  - Does not anticipate traffic arrivals
  - No schedule= constant adjustments to traffic

- COORDINATED
  - Takes time from side street to improve mainline traffic flow
  - Presumes mainline traffic arrivals and prioritizes one travel direction
  - Inflexible schedule= poor operation when traffic pattern changes

- ADAPTIVE
  - Adjusts time to balance competing objectives
  - Approaches COORDINATION in peak periods and FREE in off-peak
  - Adjusts schedule to seasonal changes, special events and incidents

Miovision System on State Route 68

- Miovision set guardrails with Caltrans input and signal timing plans
- AI collects and evaluates real-time traffic data
- Adaptive system adjusts to traffic patterns according to guardrails
- Caltrans monitors operations and adjust boundaries as needed
- **Not a “set it and forget it” system**

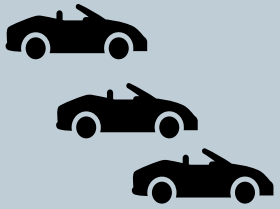
ADAPTIVE SIGNAL SYSTEM UPDATE

Adaptive/ AI Signal Operations Status

- Miovision AI analytics connected in April, 2026
- Adaptive system activated May 4, 2026
- Miovision working closely with Caltrans for first few months
- Data collection is ongoing and shows good results

Project Performance Indicators

Travel Time



Queues

Delay

Speed

Safety

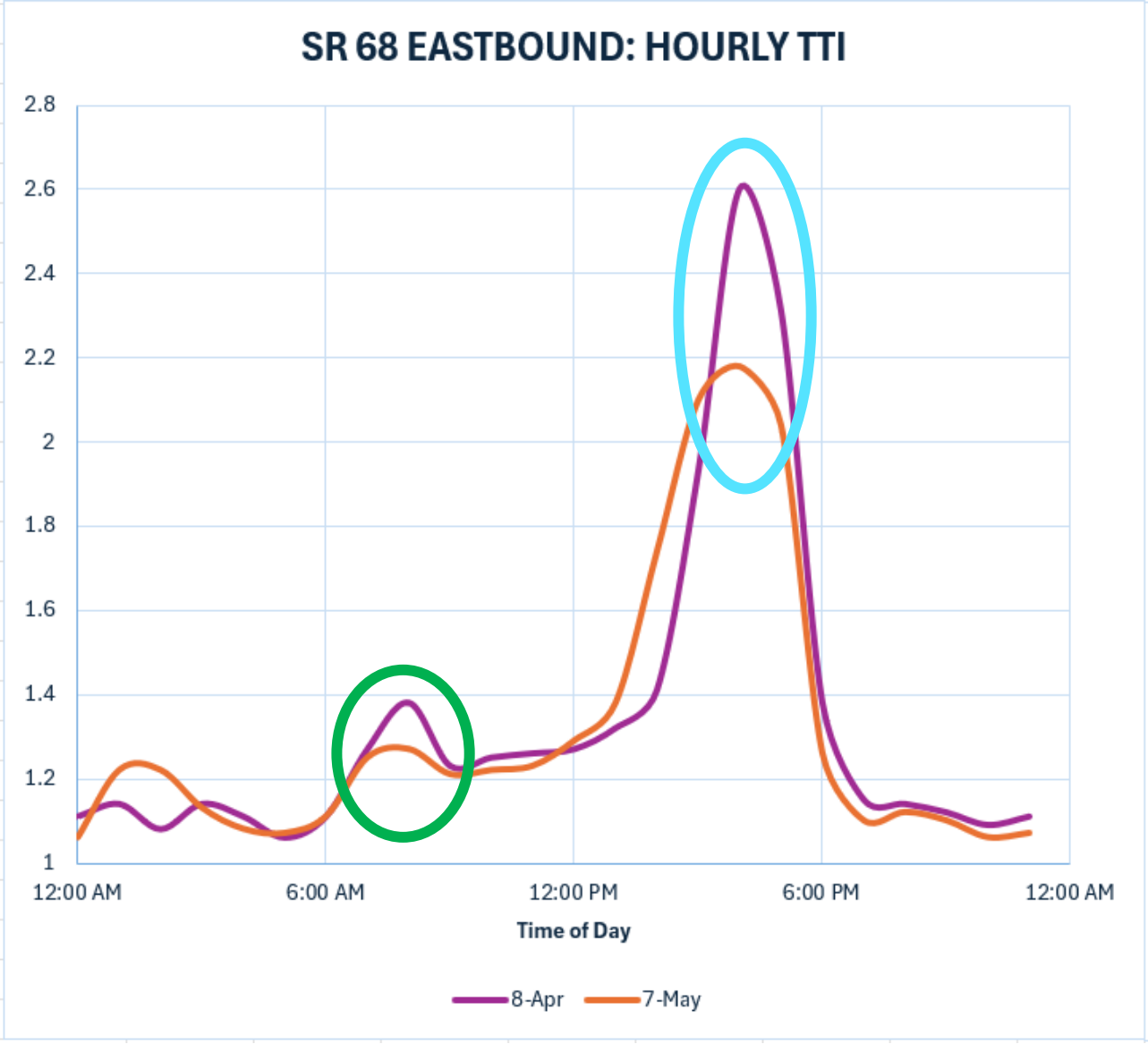
MIOVISION Data Validation

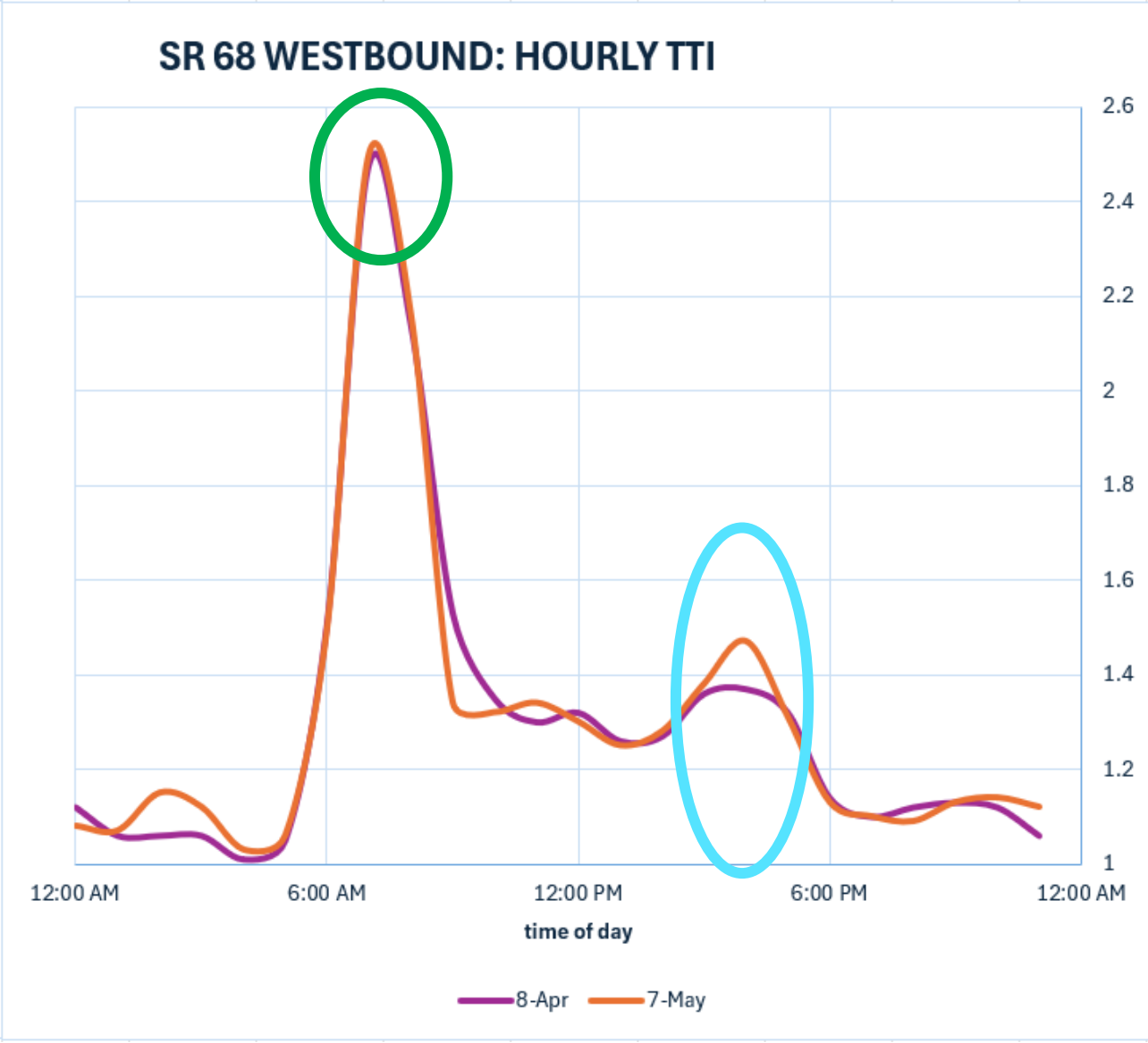
Before and After Travel Time Runs: Field Data vs. Miovision AI			
Scenario		Reduction in Travel Time (minutes: seconds)	
		AM PEAK	PM PEAK
Westbound	In-Field	4:00	2:06
	Miovision	4:20	3:00
Eastbound	In-Field	0:12	0:48
	Miovision	0:42	0:20

Travel Time Index (TTI): Comparing Travel Times

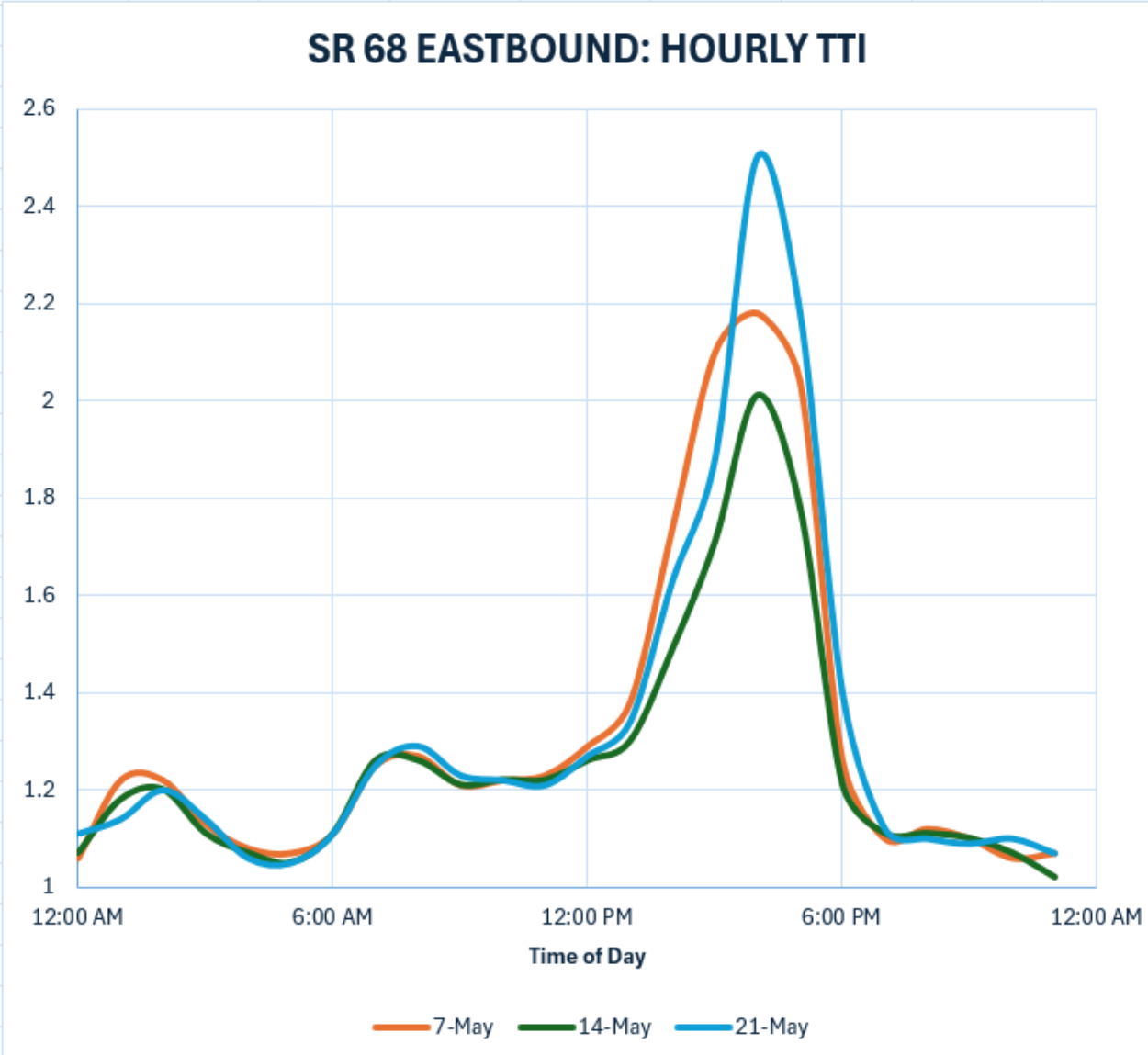
- TTI= (Travel Time)/(Free Flow Conditions)
  - ➢ TTI= 1: vehicle traveled at speed limit
  - ➢ TTI= 2: vehicle traveled at ½ the speed limit
- This allows a fair comparison of travel times on different days and different directions

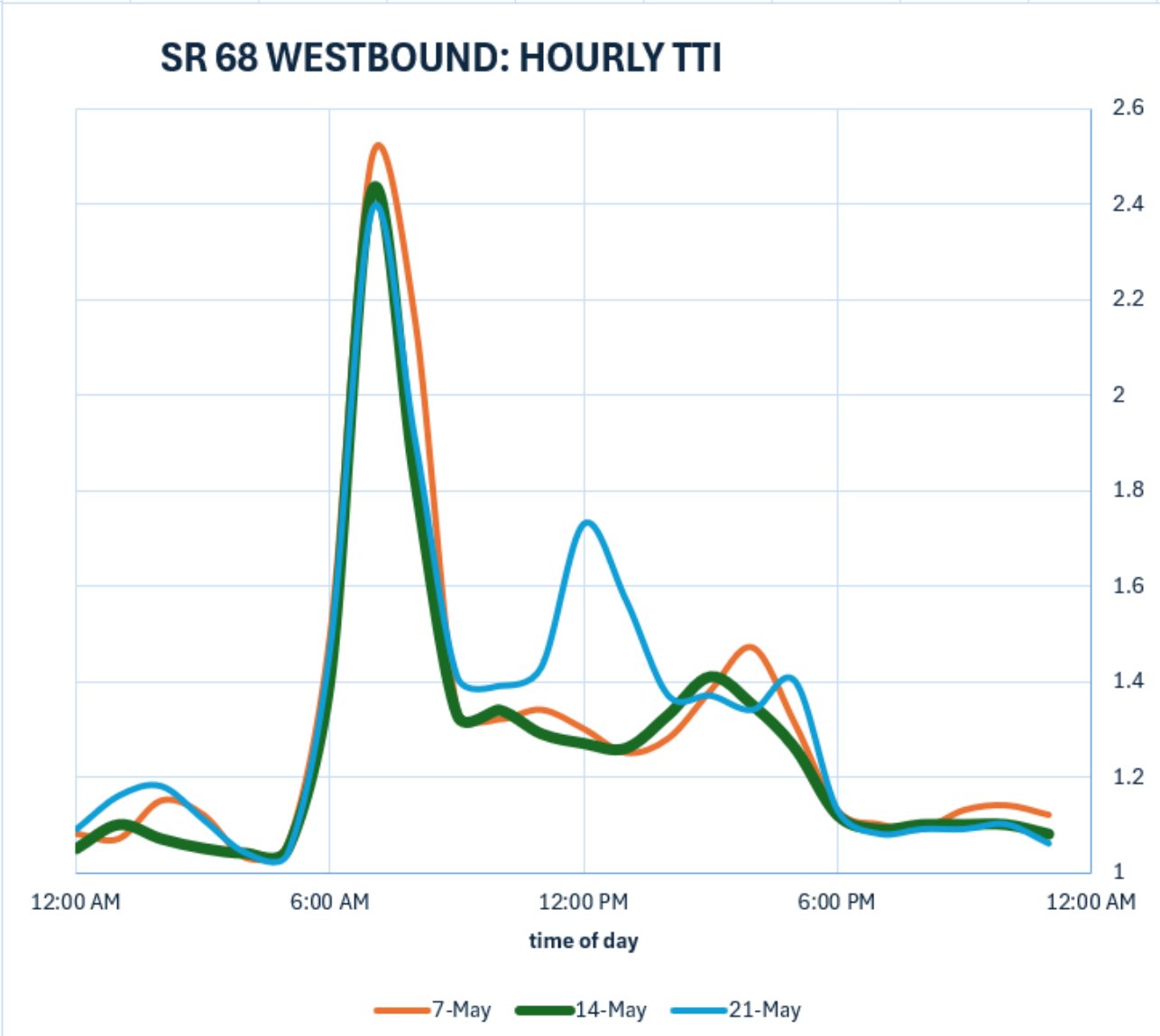
Adaptive: Before and After Preliminary Results





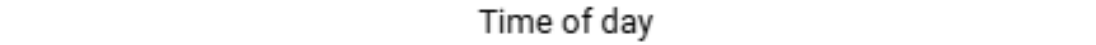
Adaptive Adjustments

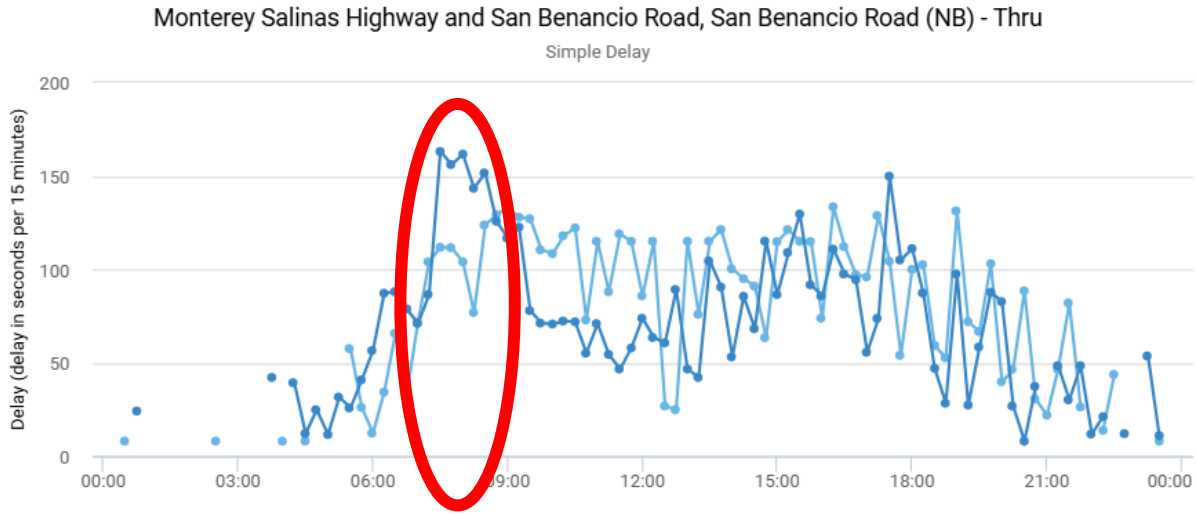


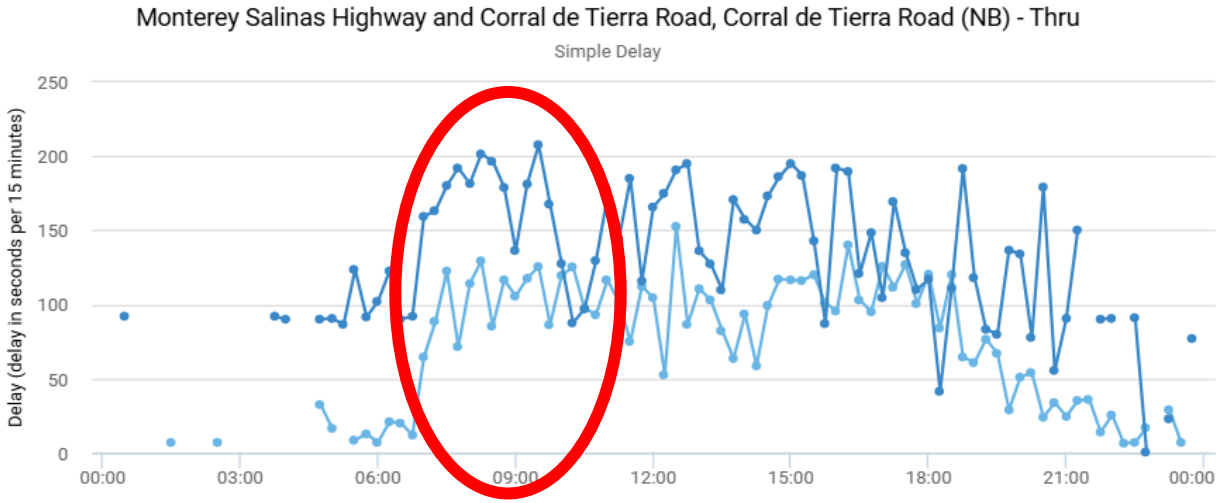


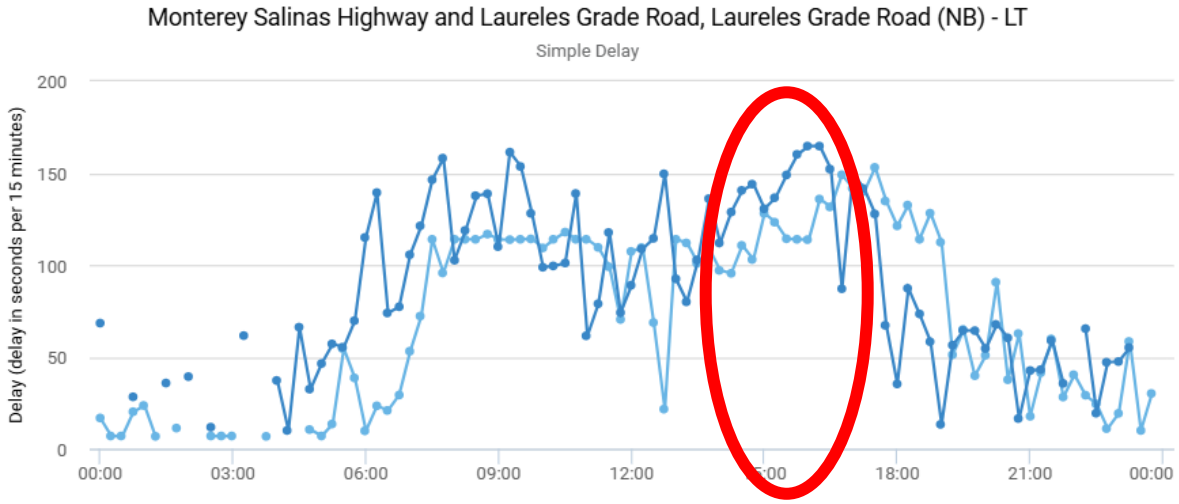
SIDE STREET DELAY

Data from April 14th, 2026 and May 12th, 2026









KEY TAKEAWAYS FROM EARLY RESULTS

- Adaptive operations improve mainline travel times & increase side street delay
- Miovision AI data is valid
- Can’t create time- so safety and queue instability remain with any signal operation
- Adaptive strength is adjusting to changing travel patterns
- It is not a “set it and forget it” system
- Miovision will conduct a thorough before-and-after study
- Preliminary results support continuing pilot project

NEXT STEPS

1. Continue the pilot
2. Miovision Before-and-After Study
3. Adaptive is new baseline
4. Roundabout microsimulation modelling
5. Evaluate roundabouts

* Thank you

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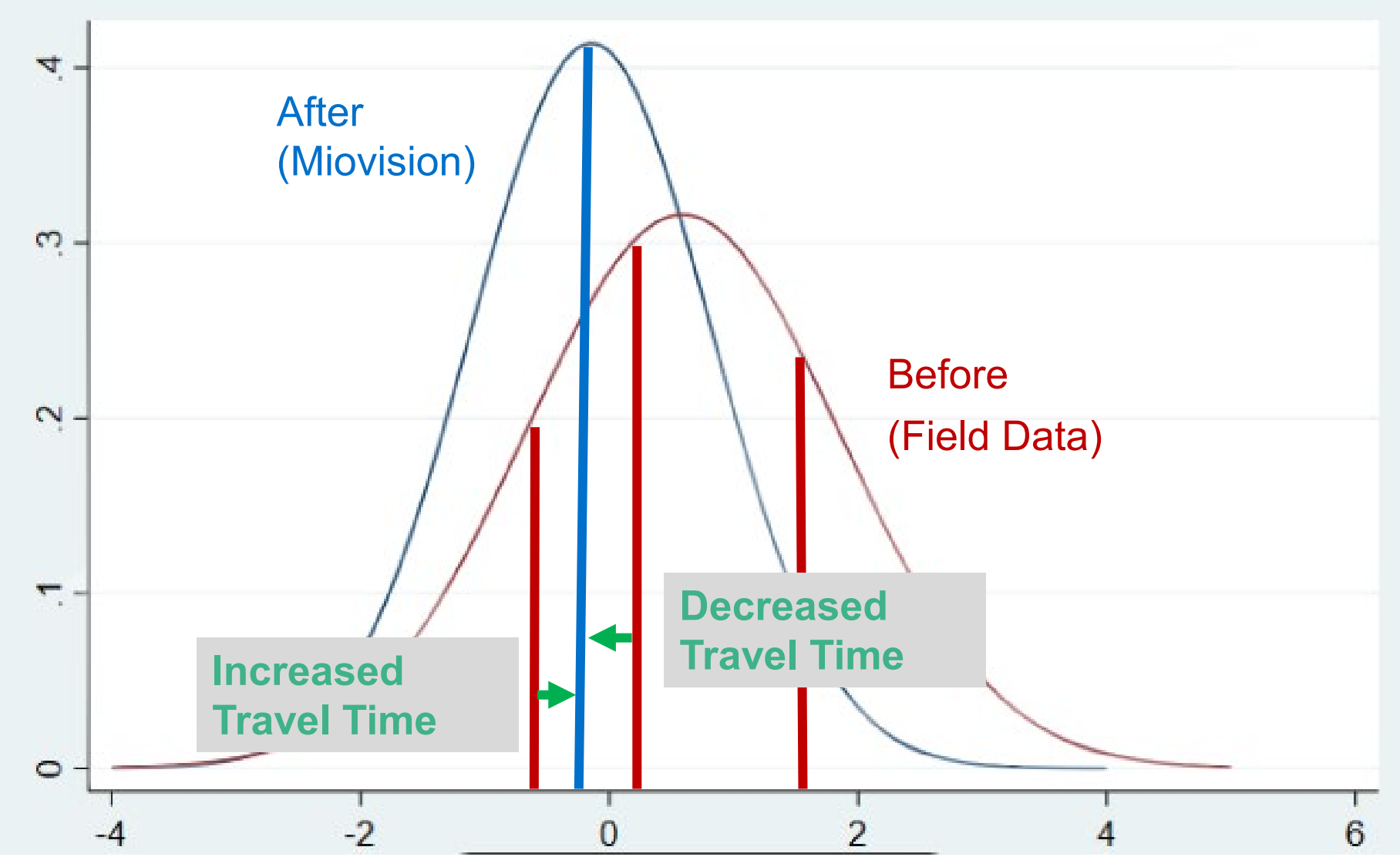
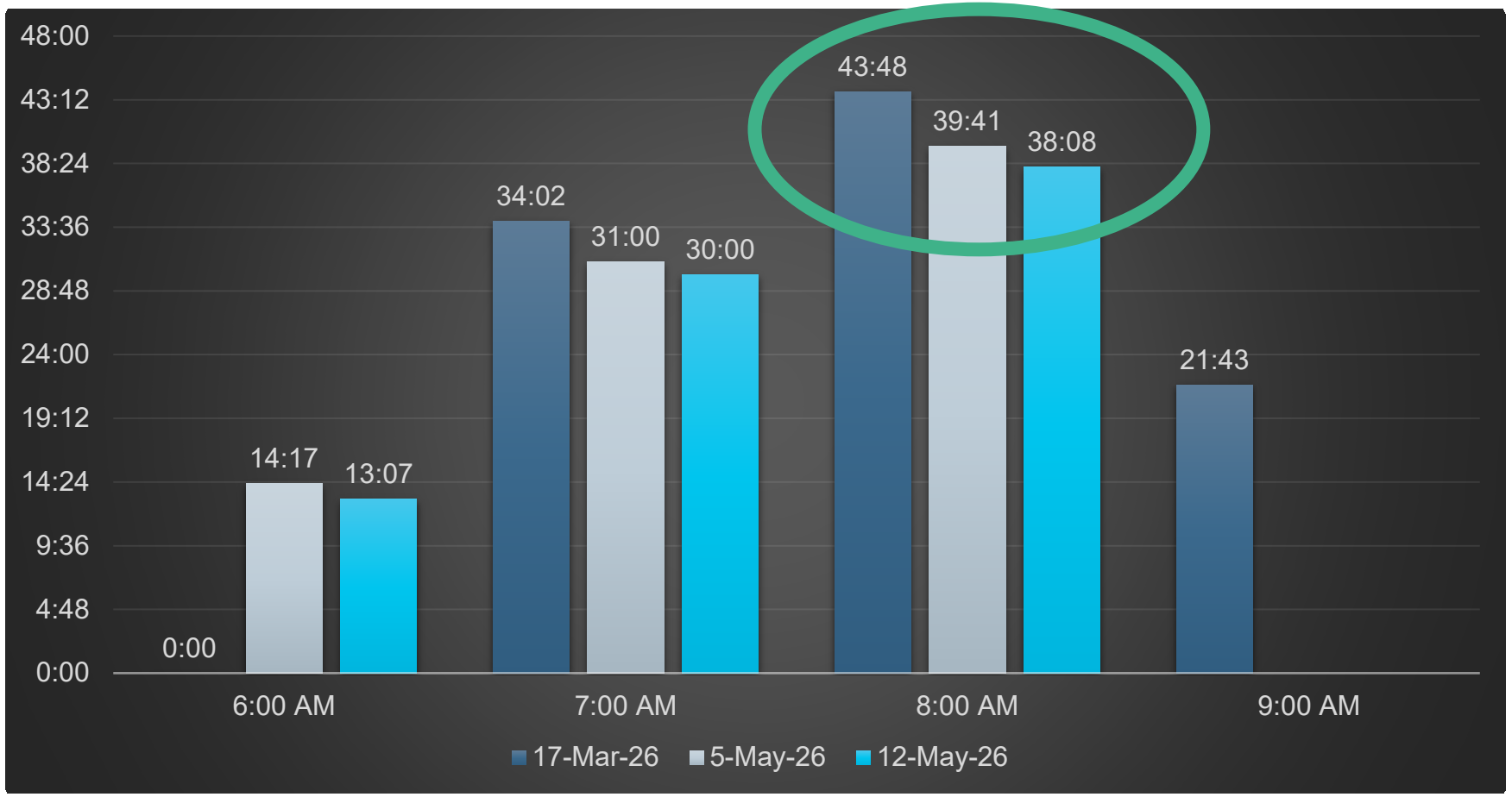
Comparing Results



AM PEAK HOUR TRAVEL TIME: FIELD DATA

Westbound Before vs After



13%

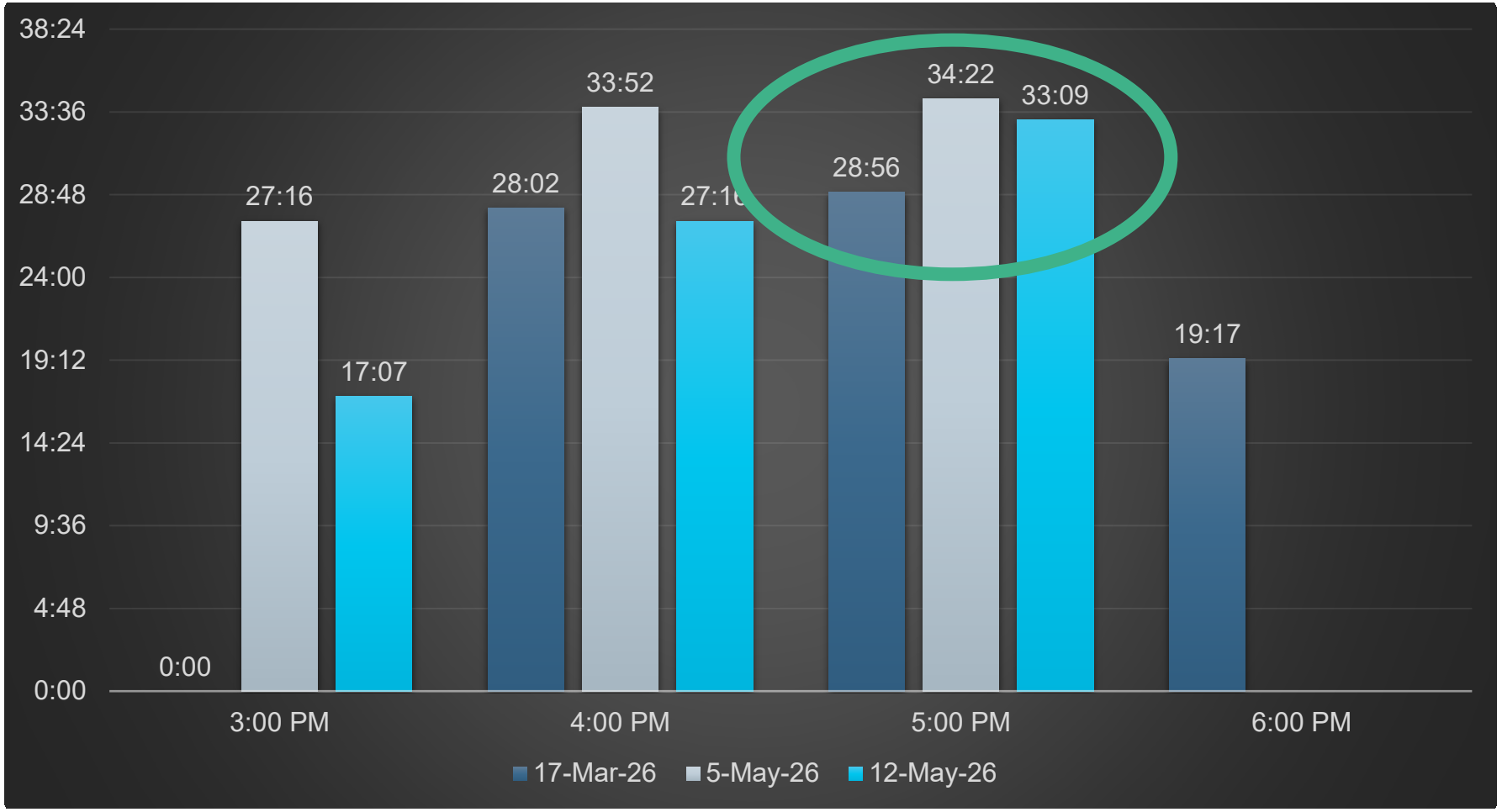
Improvement

Before (March 17, 2026: 43:48 min

After (May 12, 2026: 38:08 min

PEAK HOUR TRAVEL TIME COMPARISON

Field Travel Time Runs: Before vs After (PM Peak) – Josselyn to Reservation/ River



14% Increase

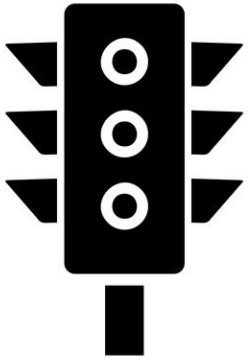
Before (March 17, 2026: 28:56 min

After (May 12, 2026: 33:09 min

ROUNDABOUT BCA PREVIEW

Alternatives Being Compared

AI/ Adaptive Signal



- Flexible
- Lower Initial Cost
- Easier Adjustments
- Signal Coordination

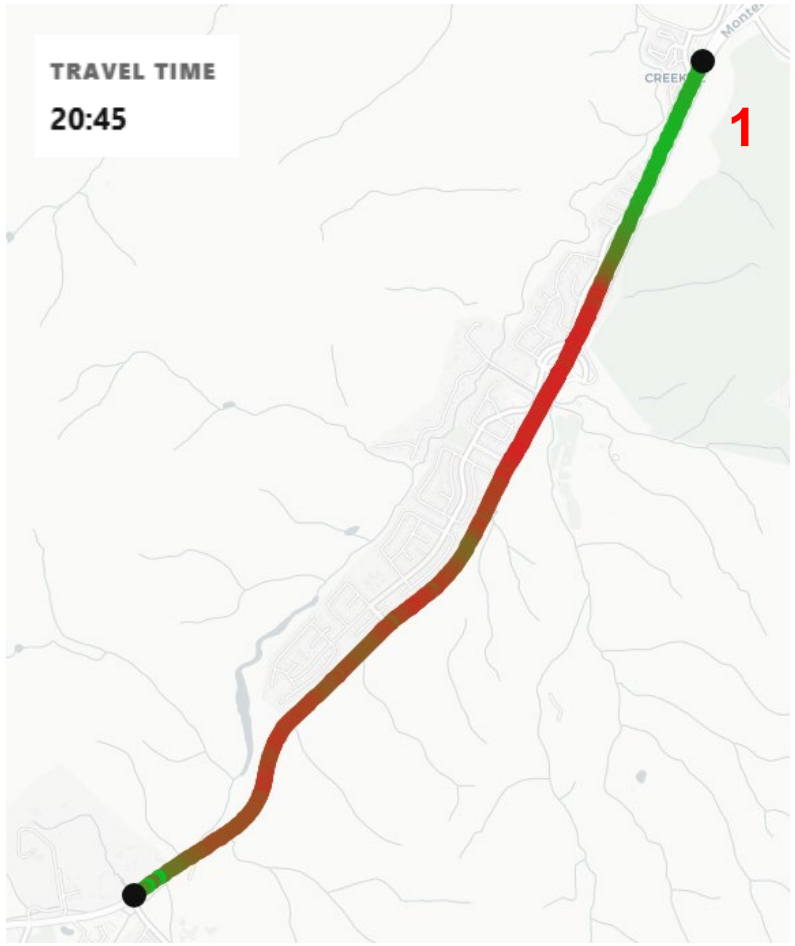
Hybrid Roundabouts

- Permanent Geometry
- Higher Safety Potential
- Lower long-term maintenance
- Continuous flow

Hybrid roundabouts proposed at three intersections (San Benancio, Corral De Tierra, and Laureles Grade)

COMPASS IoT VALIDATION

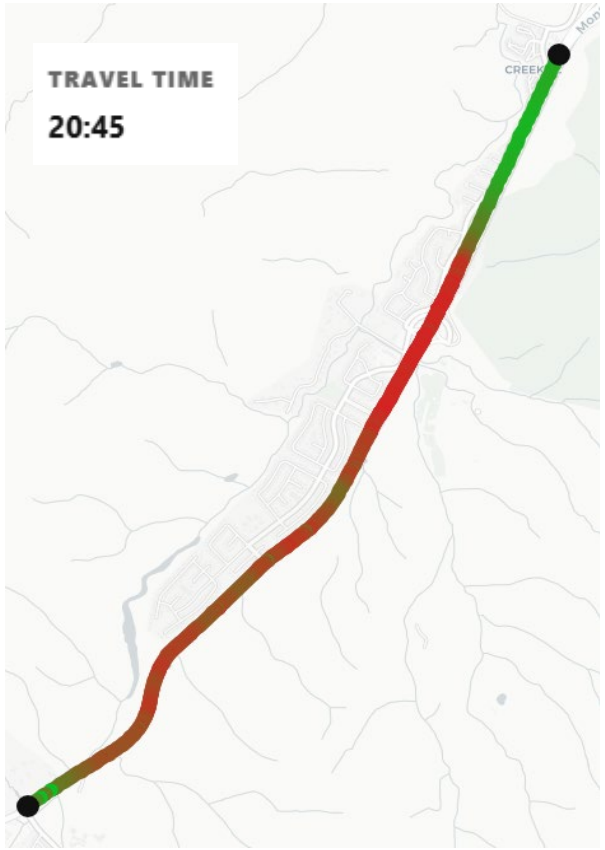
Field Travel Times (March 17, 2026)



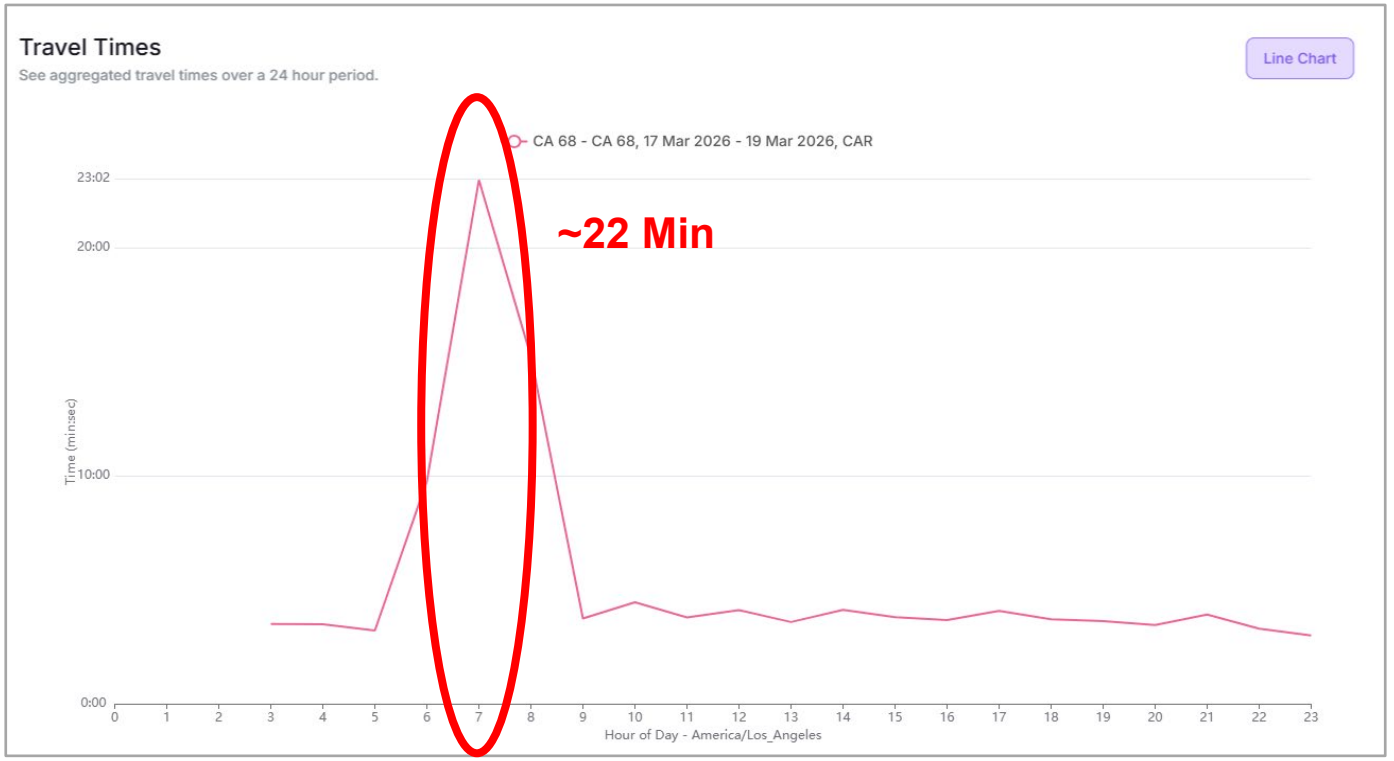
COMPASS IoT VALIDATION

Compass Travel Times (March 17-19, 2026)

1



Actual Field Data

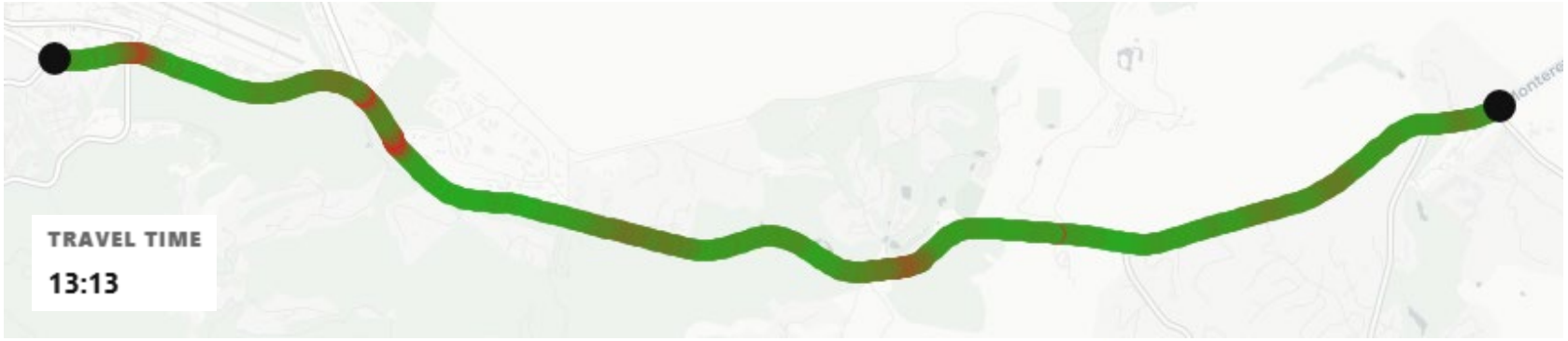


Compass Data

COMPASS IoT VALIDATION

Compass Travel Times (March 17-19, 2026)

2

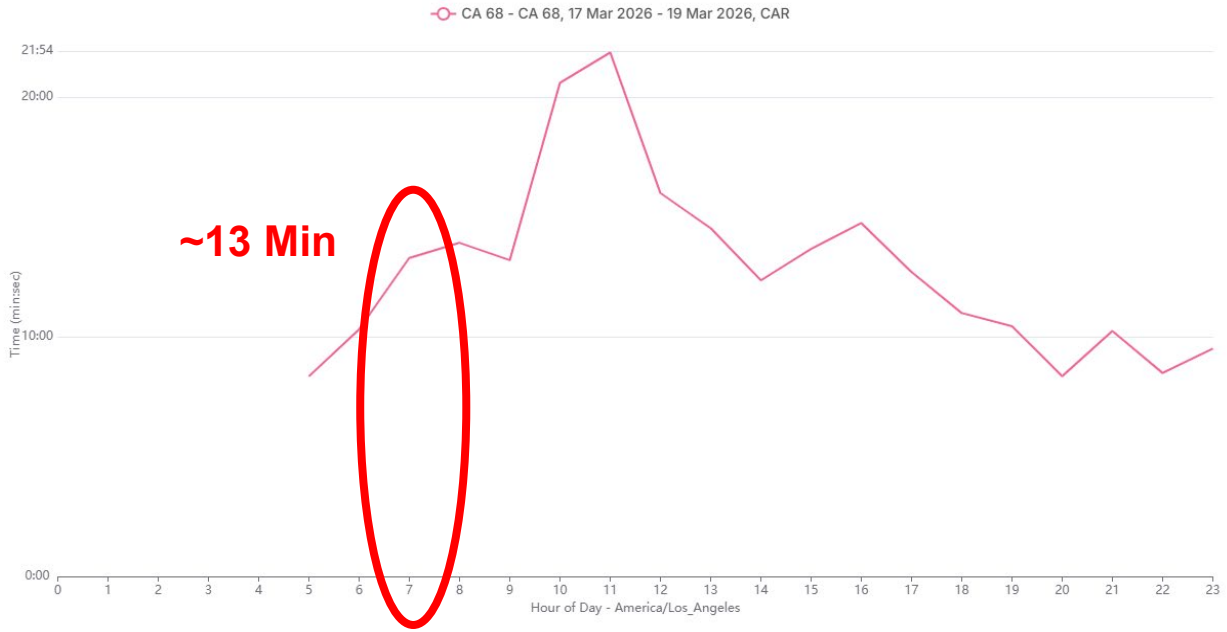


Actual Field Data

Travel Times

See aggregated travel times over a 24 hour period.

Line Chart



Compass Data

COMPASS IoT VALIDATION

Miovision Travel Times (March 17-19, 2026)

2