



COLORADO

Transportation
Investment Office

I-70 Peak Period Shoulder Lanes (PPSL) Memorandum of Understanding (MOU) Review

August 14, 2024

FHWA-CTIO MOU Overview

Operating period November 1 - October 31st (days reset at this point)

The number of days and hours MEXL can be open is restricted

- Eastbound 100 Days with 1,168 Hours (roughly 12 hours per day)
- Westbound 125 Days with 965 Hours (roughly 8 hours per day)

CTIO uses historical traffic data to set a calendar of the days to be open

CTIO annually reports performance measurements to FHWA, including days/hours used

FHWA-CTIO MOU: Operational Limitations

MEXL is limited to peak periods of congestion based on historical data defined in an MOU between FHWA, CDOT and, CTIO.

Defined as Saturdays and Sundays in the eastbound direction and Fridays, Saturdays, and Sundays in the westbound direction from December through March and July through September

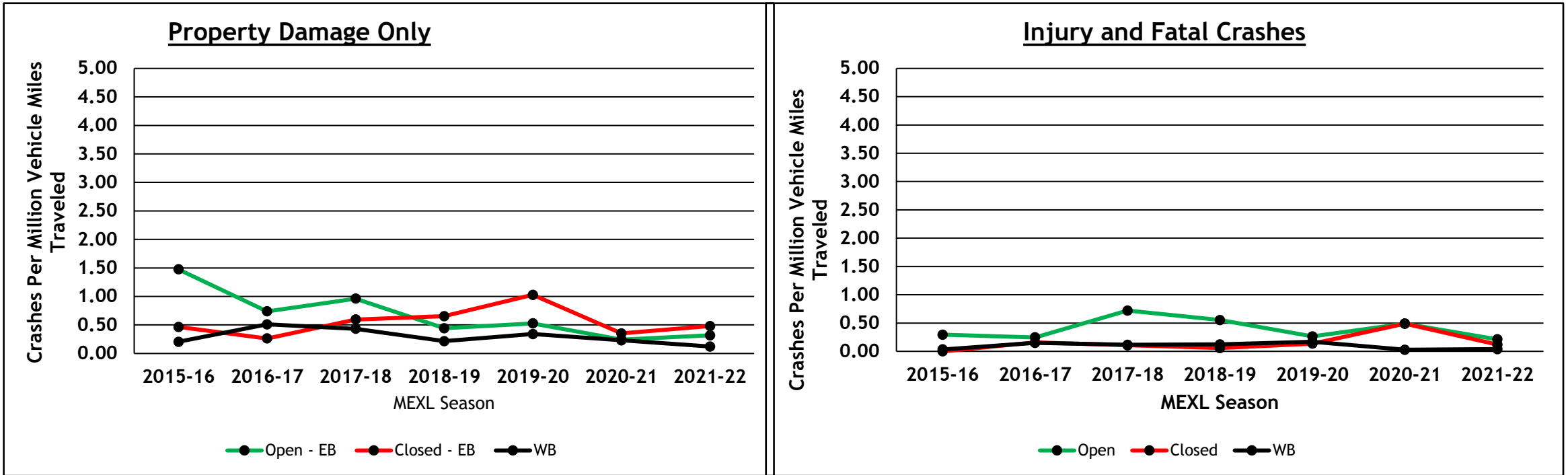
CTIO has the flexibility to determine when congestion levels warrant opening MEXL

MEXL will cease operation by 2035 unless modified by a different project, which may or may not be a part of the Corridor's long-term solution



Safety Data and Traffic Patterns

Safety Data



No statistical difference between crash rates Eastbound PPSL (OPEN VS CLOSED).

The graphs include westbound crash rates before the PPSL in that direction opened in 2023 for comparison.

Average Crash Clearance Times

Faster when the Eastbound PPSL is open.

	2018-19*	2019-20	2020-21	2021-22	Average
Open	0:30	0:45	0:29	0:34	0:34
Closed	0:51	0:49	1:07	0:49	0:54
Difference (Closed-Open)	0:21	0:04	0:38	0:15	0:19

*2018-19 was the first season that clearance times while closed were reported

Additional Safety Measures

Express Lanes Safety Enforcement Program (SEP)

The PPSL's were the first facilities on the CTIO system to have the SEP.

7,408 warnings during the 30-day grace period

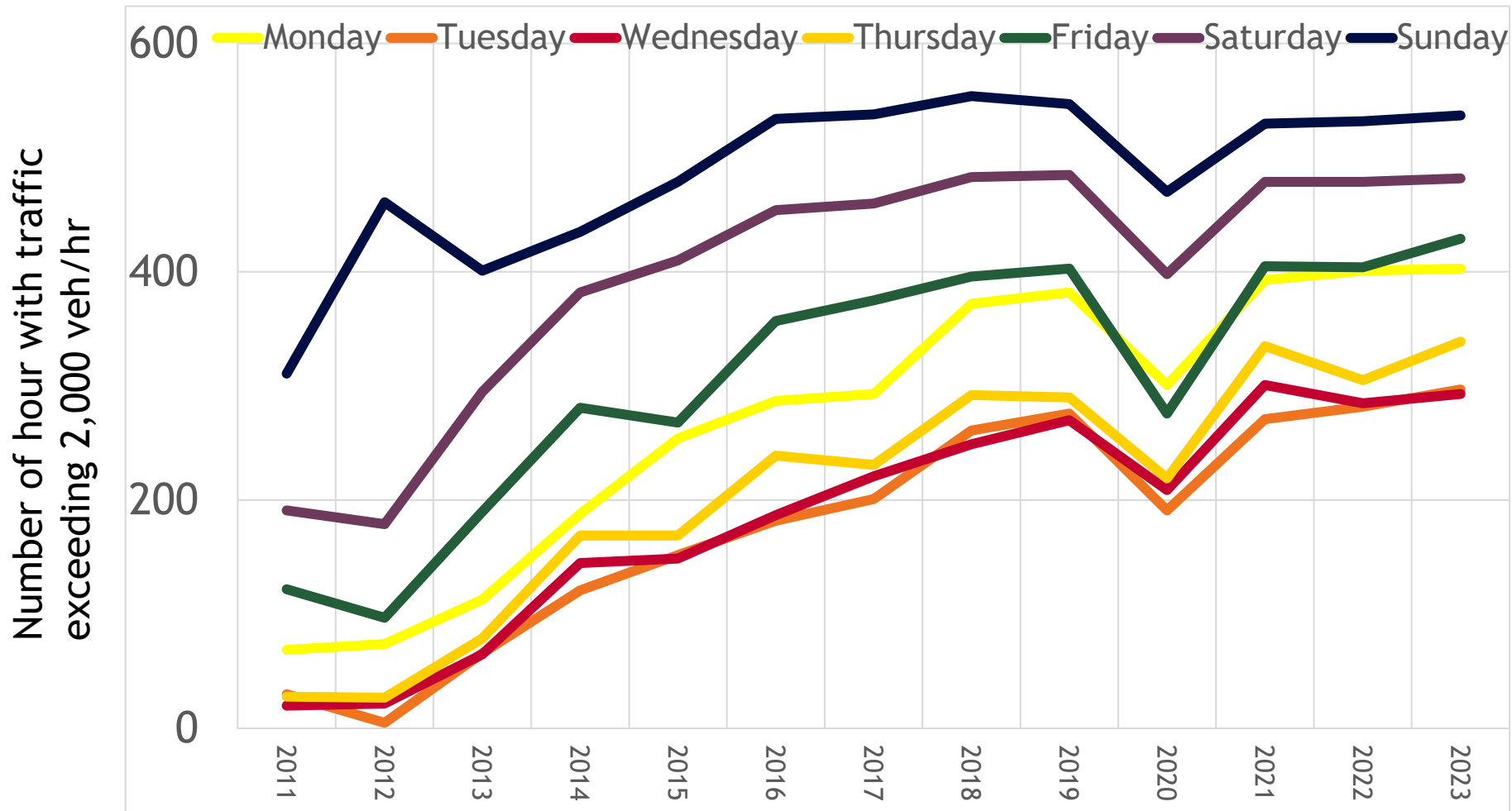
Variable speed limit (VSL) signs

An electronic speed limit sign with an LED display that can be changed to best suit conditions on the highway.

The project added new vehicle speed/volume and weather detectors to gather real-time and consistent traffic and weather data.

This new technology automatically adjusts the speed limit based on congestion, traffic conditions and adverse weather such as a snow storm and icy roads improving safety.

Eastbound traffic patterns shifts and weekday traffic increases



- 2.2% annual growth between 2010 and 2022 in the area of the PPSL's
- Across the entire I-70 corridor, annual growth of 1.8% for 2010-2022.
- Data shows that the hours when traffic volumes warrant opening is shifting outside of normal "peak periods"

Summary

The lanes are not less safe when they are open

- Accident clearance times are faster (average of 20 minutes faster over the last 4 years)
- No statistical difference in accidents when they are open vs. closed

Additional safety measures are being implemented-

- Electronic safety and toll evasion enforcement
- variable speed limits

Corridor growth has not been considered when determining current thresholds

Current hours and days are not keeping up with the needs of the corridor

Next Steps

Agreement in principle with FHWA staff on the changes to the MOU.

Engagement with the stakeholders to discuss their feedback on the proposed changes.

Adjust (if necessary) to take into consideration feedback received.

Execute the MOU through board action with changes effective for the current operating year.