



COLORADO

Department of
Transportation



I-70 Mountain Express Lane (MEXL)

CCI TRED Committee

March 16, 2017



Agenda

- Corridor and Project Overview
- Overview of 2016 – 2017 Summer & Winter Season Operations
- Findings



I-70 Mountain Corridor

- Interstate freight movement
- Access to mountain resorts
- 30% of State's tourism revenue
- Severe congestion in the corridor frustrates travelers, harms local communities and small businesses, and creates challenges for intrastate and interstate commerce
- When congestion is high,
 - motorists less willing to stop at local towns for fear of losing their spot, or
 - they may not travel on I-70 at all



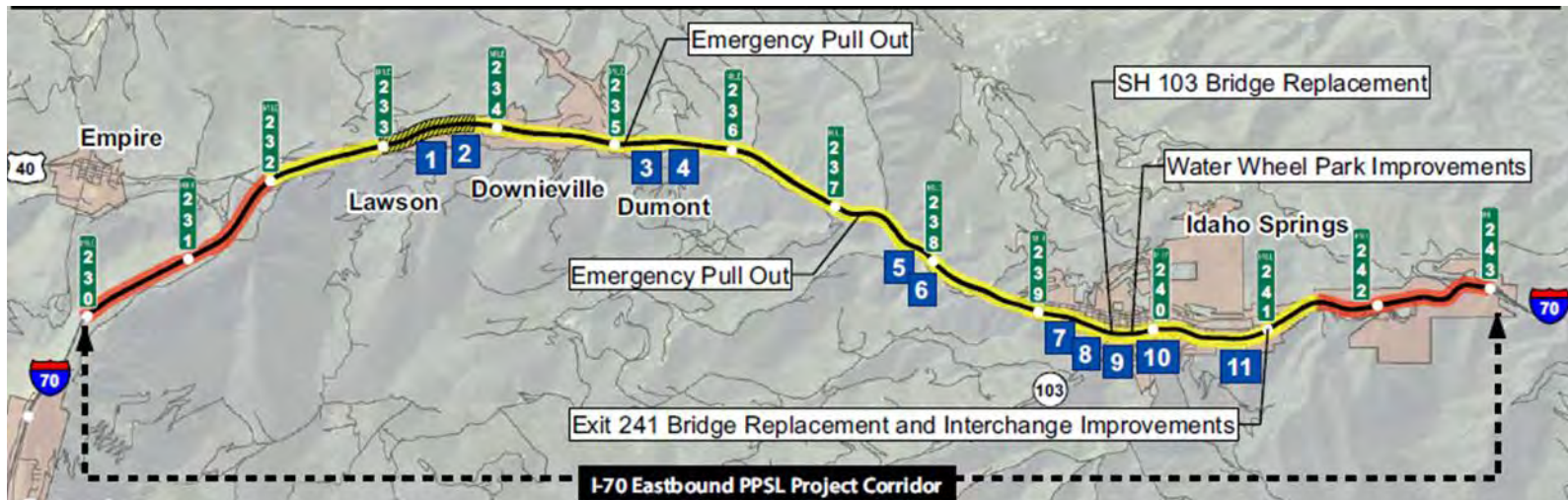
Recent Improvements

- Veterans Memorial Tunnels
 - Expanded each bore to 3 lanes
 - \$200 million
- Eastbound Mountain Express Lane
 - Empire Junction to VMT
 - \$76 million
 - Additional \$20 million for associated frontage road, greenway and other improvements
- EJMT Fire Suppression - \$20 million



Project Overview

- Utilizes shoulder for travel during peak periods of congestion.
- Begins at US 40 (Empire Junction) Interchange
- Ends at the Veterans Memorial Tunnel
- Includes signing, ITS and ATM outside project limits
- Opened December 19, 2015





Operation Review

- Minimum \$3 toll/Maximum \$8 toll - currently opening at \$5 and raise to \$6 when EJMT volumes >2,000 vph
- Winter season throughput increased by 15%
- Average Express Lane speed 60 mph (low 47 mph)
- Average GP Lanes speed 53 mph (low 41 mph)
- Peak weekends saw travel times decreased between 25% and 50% over same weekends in previous years
- Peak hour travel speeds stayed above 45 mph in Express Lane and above 35 mph in GP lanes
- Incidents down 15%
- Time to clear incidents has improved
- Time to clear corridor back-ups has improved



Tolls

- ExpressLane Transponder Rates most often \$5 and \$6
- Corresponding License Plate Toll rate is \$9.92 and \$11.50
- LPT Substantially Higher Cost to Process and Collect
 - 40% Rejected Image (Snow Covered / Bike or Ski Rack)
 - Cost to Process 62 cents per transaction vs. 18 cents.
 - Process: Read Plate / DMV Search / Identify Owner / Mail Invoice / Collection Costs



2016 Summer Overview

May 30th through September 5th (Memorial Day through Labor Day)

- 29 days of operation
- 266 hours of operation
- Typical opening time
 - 9 AM
- Typical closing time
 - Saturday: 6 PM
 - Sunday: 7 PM



2016 Summer Volumes

- Corridor
 - 1.06 million vehicles
 - 2010-2012 average: 993,500 vehicles
- MEXL
 - 82,600 vehicles (8% capture rate)



2016 Summer Travel Times

- MEXL
 - Peak Hour Season Average: 12.1 minutes (59 mph)
 - Slowest: 16.1 minutes (44 mph) - Sunday June 19th, Father's Day
 - GP lanes 19.4 minutes (37 mph)
 - Fastest: 10.5 minutes (68 mph) - Saturday July 9th
 - GP lanes 11.5 minutes (62 mph)
- General Purpose Lanes
 - Peak Hour Season Average: 14.0 minutes (51 mph)
 - Slowest: 21.1 minutes (34 mph) - Sunday June 26th
 - Fastest: 10.7 minutes (66 mph) - Saturday August 27th
 - 2013-2015 Peak Hour Season Average: 22.4 minutes (32 mph)
 - Slowest: 80.4 minutes (9 mph)
 - Fastest: 11.9 minutes (60 mph)



2016-17 Winter Overview

November 26th through March 5th

- 15 days of operation for 2016 / 23 days in 2017 = 38 days
- 119 hrs of operation for 2016 / 202 hrs in 2017 = 321 hrs
- Typical opening time: 9:00 AM
- Typical closing time
 - Saturday: 6 PM
 - Sunday: 7 PM



2016-17 Winter Volumes

- Corridor
 - 1,047,842 vehicles
- MEXL
 - 99,928 vehicles (10% capture rate)
- Opening Year 12/19/2015 – 03/06/2016
 - Corridor 808,238 Vehicles / MEXL 35,685 / 4.5% Capture Rate



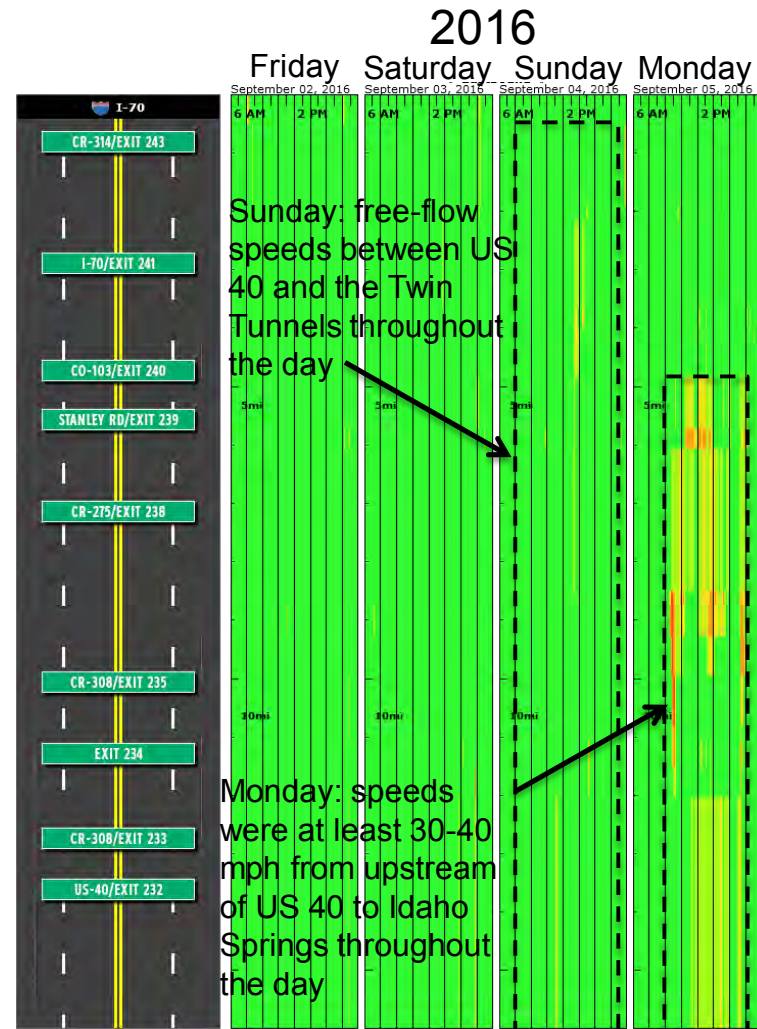
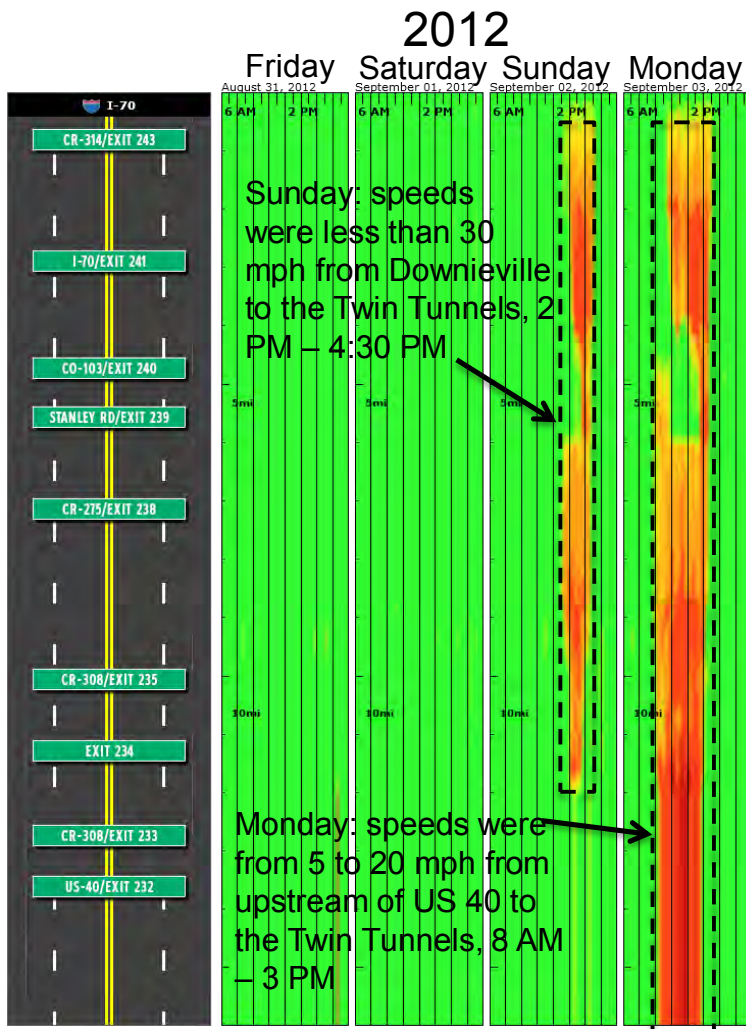
2016 Winter Travel Times

- MEXL Open 38 days 2016 – 2017 Winter Season
- 8 days with > 35k Volume Per Day (VPD). 4 of these days > 40k VPD.
 - On each of these days peak hour travel speeds stayed above 55 mph in MEXL and above 40 mph in the GP lanes
- Prior to MEXL:
 - 35k VPD corridor would collapse with speeds at 15 – 20 mph
 - 40k VPD corridor would collapse with speeds at 0 - 5 mph.



Travel Speeds

Labor Day Travel Speeds Comparison





Findings

- Other Benefits
 - Continues to be well received by the public 100,000 customers this Winter Season
 - Has alleviated congestion on Frontage Road
 - Time to clear incidents has improved
 - Time to clear corridor back-ups has substantially improved



Questions & Discussion

- **Thank You!**



I-70 Mtn. Express Lanes – Summary

MEXL has had more than 500k customers since opening on 12/19/15