TRINITY DRIVE/NM 502
ROAD DIET
Diamond Dr. to Oppenheimer Dr.

Incorporated County of Los Alamos

Public Works Department

July 18, 2023

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TRINITY DRIVE/NM 502 ROAD DIET

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TRINITY DRIVE/NM 502 ROAD DIET

Background:

- Improvements associated with an NMDOT State Grant for Pedestrian and ADA Improvements, NMDOT Pavement Preservation Project, and “The Hill” Apartment Housing Development.
- **January 3, 2019 –** Transportation Board requested analysis of a Road Diet alternative as part of “The Hill” off-site traffic study.
- **May 2, 2019 -** Transportation Board recommended a Road Diet on Trinity Drive following review of all alternatives from “The Hill” off-site traffic study.
- **June 25, 2019 –** Council presentation on findings of “The Hill” off-site traffic study. No Council Action taken.
- **May 26, 2020 –** Council voted against (4-3) adopting Resolution No.20-05 supporting implementation of the Road Diet.
- **June 9, 2020 –** Council reconsidered and voted (4-3) to adopt Resolution No.20-05 supporting implementation of the Road Diet.
- **June 11, 2020 –** Road Diet Pavement Markings Implemented.

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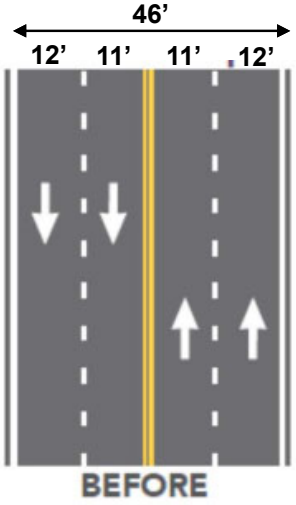
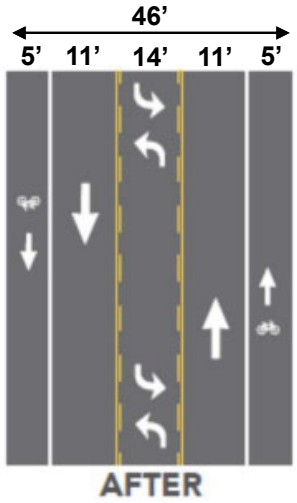
TRINITY DRIVE/NM 502 ROAD DIET





TRINITY DRIVE/NM 502 ROAD DIET

Road Diet – Evaluation

Pros:

- Continuous Center Lane
  - Left turn storage
  - Two stage crossing availability (gap acceptance)
  - Emergency access availability
- Traffic Calming
- Conflict Points Reduced (Less rear-end, and right-angle crashes)
- Community-Focused Complete Streets
  - Bike Lanes (both directions)
  - Pedestrian Buffer from Vehicular Traffic (both directions)
  - Pedestrian Crossing - Median Refuge Availability
  - Pedestrian – Fewer Lanes to Cross
  - Transit Bus Bay Proposed Near 36th Street
- Left Turn Lane Provided to Hospital East Entrance

Cons:

- Does not solve capacity problems at major intersections – Diamond Drive / Oppenheimer
- Driver Expectation – Motorists accustomed to 4 lanes, Public Perception
- Continuous Center Lane Conflict where multiple, closely spaced driveways exist
- Median Pedestrian Refuges can Restrict Emergency Access

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TRINITY DRIVE/NM 502 ROAD DIET

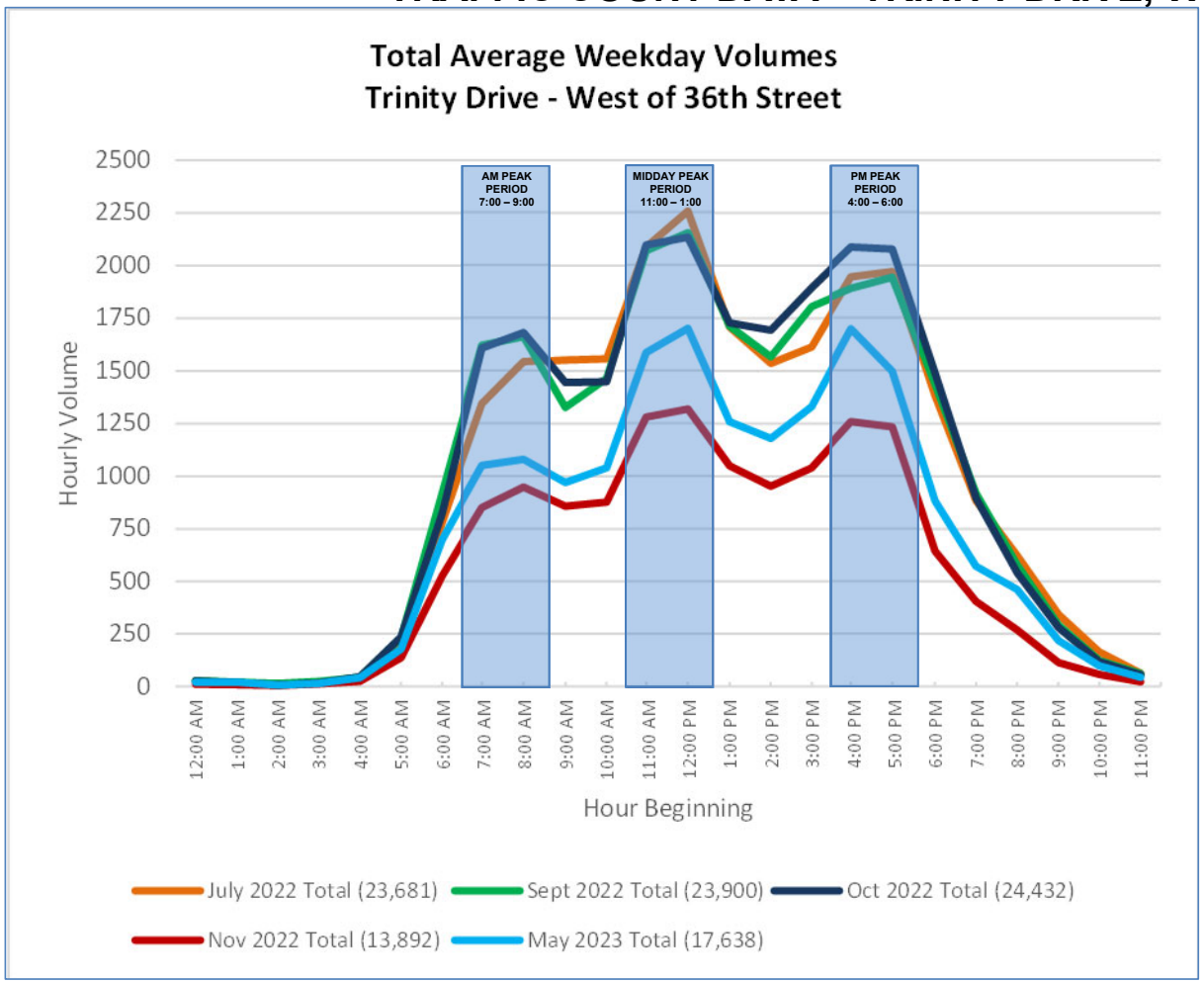
Challenges: Canyon Road Reconstruction Project

- **Canyon Road Closed to Through Traffic – July 5, 2022** (Approx 7,000 to 10,000 vehicles per day detoured to Trinity Drive)
  - Caused significant delays at Diamond Drive/Trinity Drive Intersection during peak periods
  - Caused periodic slowdowns along Trinity Drive during peak periods
- **Canyon Road Reopened to Traffic – October 24, 2022**

Photo Credit: Los Alamos Reporter

TRINITY DRIVE/NM 502 ROAD DIET

TRAFFIC COUNT DATA – TRINITY DRIVE, WEST OF 36th STREET



TOTAL Average Weekday Traffic Volumes

- July 2022* = 23,681 vehicles per day
- September 2022* = 23,900 vehicles per day
- October 2022* = 24,432 vehicles per day
- November 2022 = 13,892 vehicles per day
- May 2023 = 17,638 vehicles per day

* - Traffic Counts conducted during Canyon Road Closure

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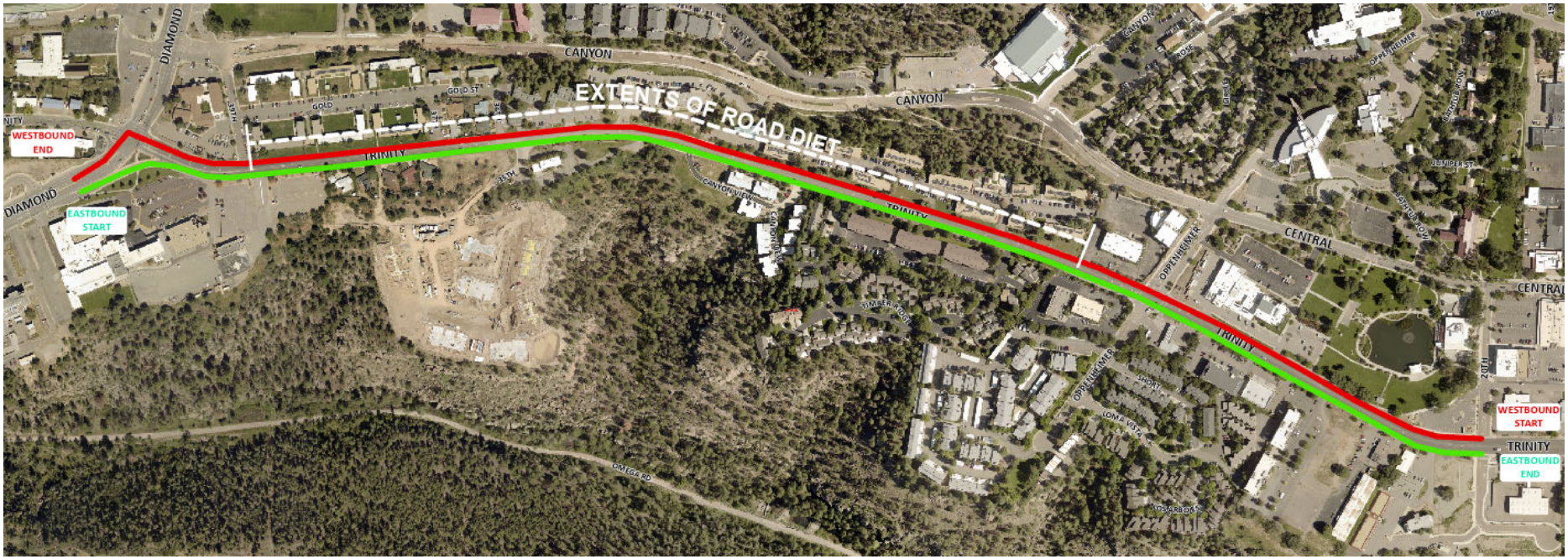
TRINITY DRIVE/NM 502 ROAD DIET

TRAVEL TIME DATA COLLECTION METHODOLOGY

- Floating Car Method
- Speed Tracker App used to record speed and travel times
- Collection Periods: AM (7:00 – 9:00), Midday (11:00 – 1:00), PM (4:00 – 6:00)
- 8 – 11 runs per direction completed during each collection period (Between Central Ave Roundabout & Diamond Dr.)
- Extracted data between 20th St and Diamond Dr for Road Diet Evaluation (1.05 Miles)
- Maximum Free Flow Speed Set at 40mph



TRINITY DRIVE/NM 502 ROAD DIET

TRAVEL TIME DATA – Between Diamond Drive and 20th Street

EASTBOUND

Trinity Drive - Average AM Peak Period Travel Times
EASTBOUND (Diamond Dr. to 20th St.)

Run Date	Total Travel Time	Moving Time	Stop Time	Ave. Speed	Max Speed
Sept 29, 2022	1 min 58 sec	1 min 55 sec	4 sec	31.7 MPH	38.5 MPH
Oct 13, 2022	2 min 2 sec	1 min 59 sec	3 sec	30.8 MPH	38.9 MPH
Nov 17, 2022	1 min 52 sec	1 min 48 sec	4 sec	33.5 MPH	40.4 MPH

Trinity Drive - Average Midday Peak Period Travel Times
EASTBOUND (Diamond Dr. to 20th St.)

Run Date	Total Travel Time	Moving Time	Stop Time	Ave. Speed	Max Speed
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Nov 17, 2022	1 min 52 sec	1 min 51 sec	1 sec	33.5 MPH	39.5 MPH

Trinity Drive - Average PM Peak Period Travel Times
EASTBOUND (Diamond Dr. to 20th St.)

Run Date	Total Travel Time	Moving Time	Stop Time	Ave. Speed	Max Speed
Sept 29, 2022	3 min 4 sec	2 min 49 sec	15 sec	20.4 MPH	37 MPH
Oct 13, 2022	3 min 15 sec	2 min 42 sec	33 sec	19.2 MPH	38.1 MPH
Nov 17, 2022	2 min 12 sec	2 min 7 sec	5 sec	28.4 MPH	38.4 MPH

WESTBOUND

Trinity Drive - Average AM Peak Period Travel Times
WESTBOUND (20th St. to Diamond Dr.)

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September and October 2022 Travel Time Runs conducted during Canyon Road Closure

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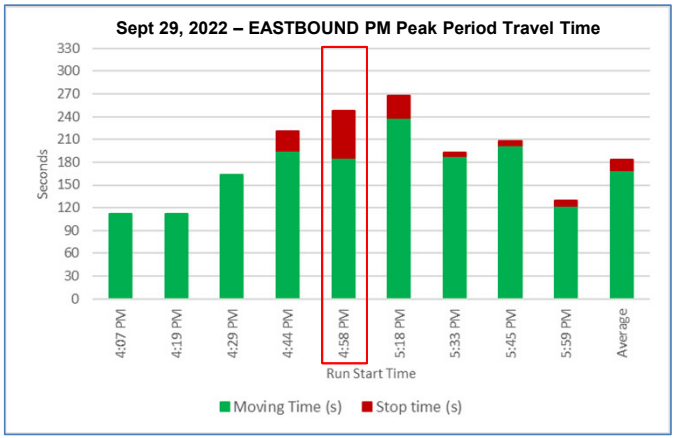

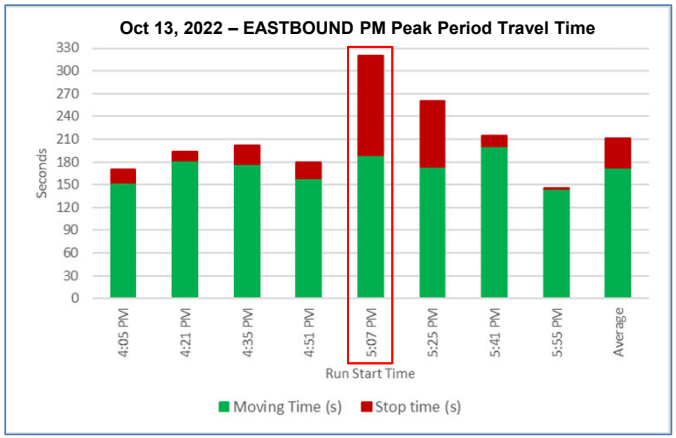

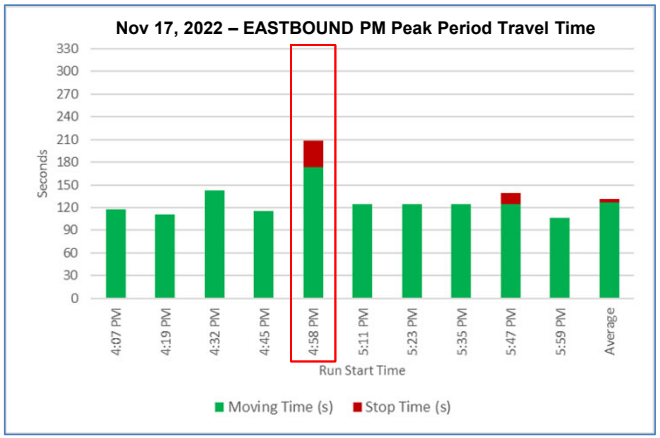

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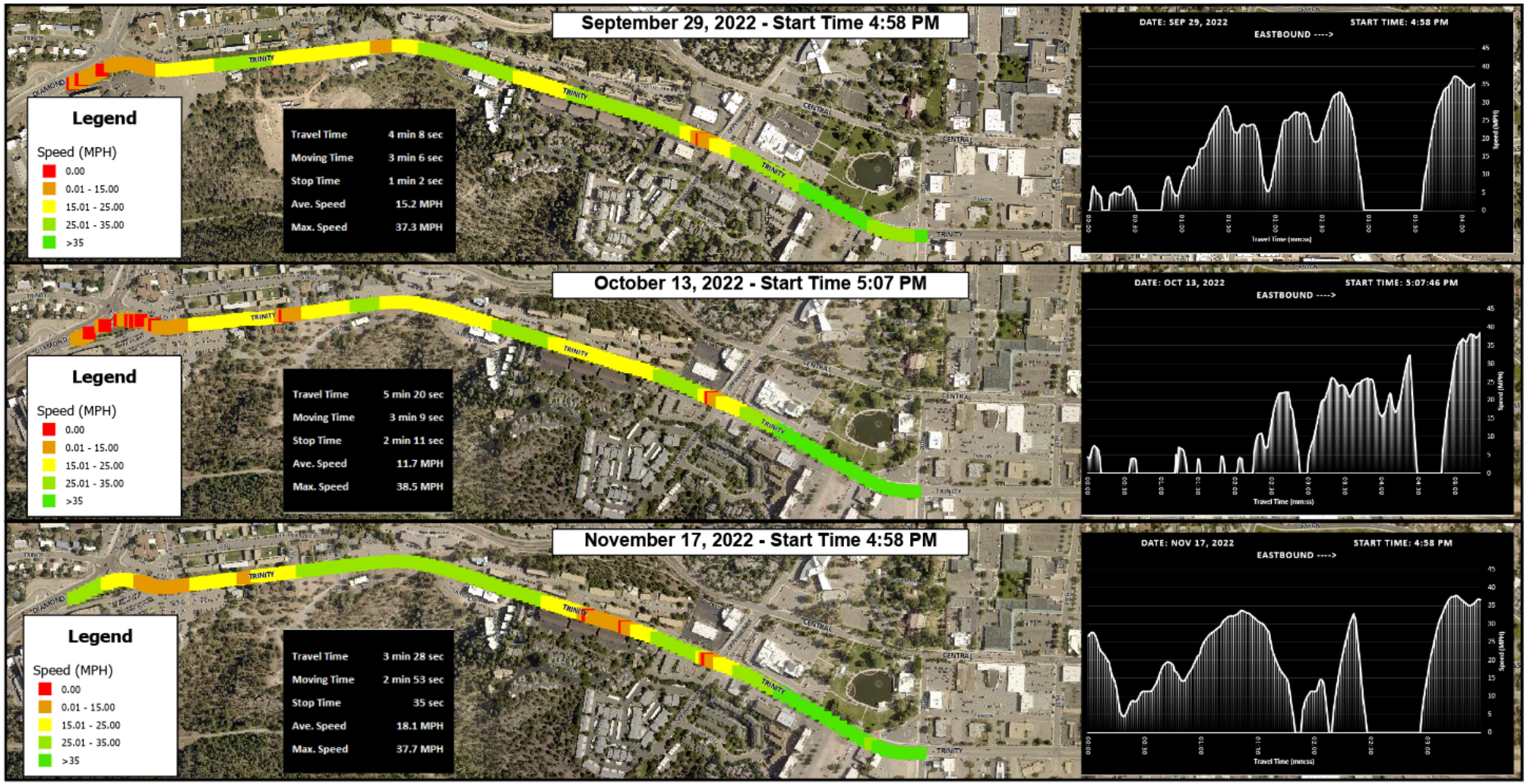

TRINITY DRIVE/NM 502 ROAD DIET

Crash Data - Trinity Drive, Between Diamond Drive and Oppenheimer Drive

Year	Total # Crashes	Property Damage Only	Injury	Single Vehicle	Multiple Vehicle	Pedestrian Involved	Bicycle Involved	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
2014	3	3	0	0	3	0	0	0	0	0	1	1	0	0	1	0	0	0	0
2015	5	3	2	0	5	1	0	0	0	0	0	0	0	1	1	2	1	0	0
2016	12	10	2	1	11	0	0	1	1	0	0	1	0	1	0	1	2	5	0
2017	12	8	4	1	11	0	2	3	0	3	1	0	0	2	2	0	1	0	0
2018	11	7	4	0	11	0	1	0	0	1	1	1	1	1	1	1	0	2	2
2019	9	8	1	0	9	0	0	0	2	1	0	0	0	0	2	2	1	1	0
2020	3	2	1	0	3	0	0	0	0	1	0	1	0	0	0	0	0	1	0
2021	4	2	2	0	4	0	1	0	0	0	0	0	0	0	0	1	1	0	2
2022	11	7	4	0	11	0	3	2	0	0	1	0	1	5	0	0	2	0	0
Totals	**70**	**50**	**20**	**2**	**68**	**1**	**7**	**6**	**3**	**6**	**4**	**4**	**2**	**10**	**7**	**7**	**8**	**9**	**4**

Bicycle Involved Crashes
04/06, 06/08, & 07/05

Road Diet Implemented
June 11, 2020

Canyon Road Closed
July 5 through October 24, 2022

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TRINITY DRIVE/NM 502 ROAD DIET

Conclusions

- During Worst Case Scenario (Canyon Road Closure), Road Diet segment continued to flow with only a reduction in speed.
- The Primary Constraint affecting capacity is the Signalized intersection at Diamond and Oppenheimer
- Under normal traffic conditions no prolonged traffic flow issues
- Improvements to Safety
- Reported improvements to Pedestrians and Bicyclist comfort
- Public Safety and Emergency Management
  - No Impact to evacuation due to multiple routes available.
  - Emergency response is enhanced due to available center lane.

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Questions?

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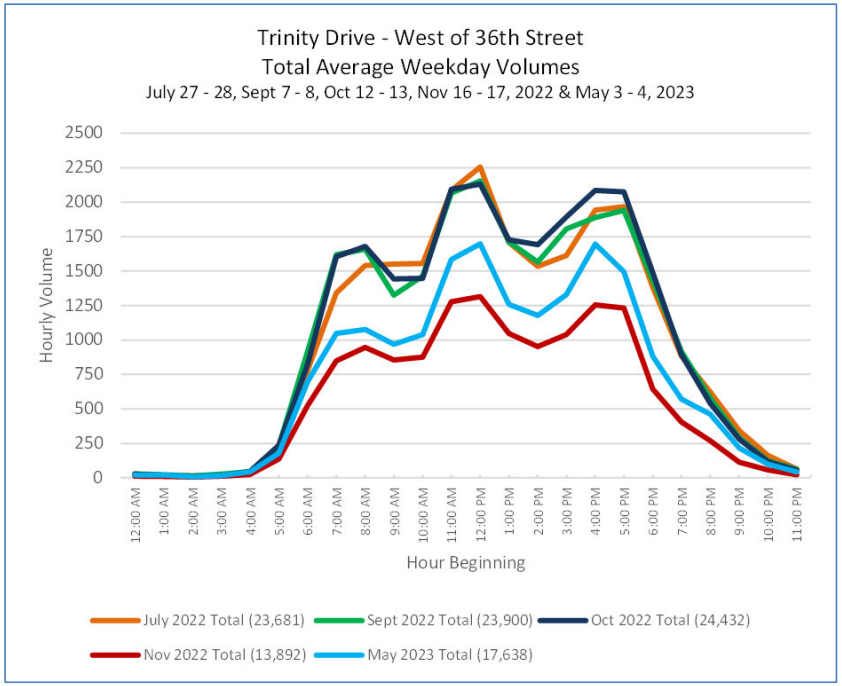
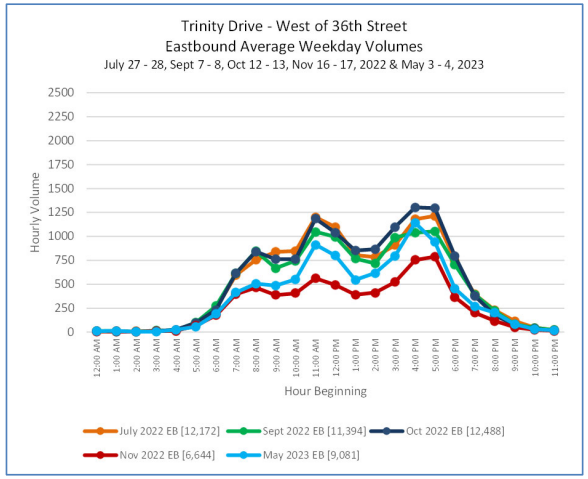
Appendix
Additional Data Collected

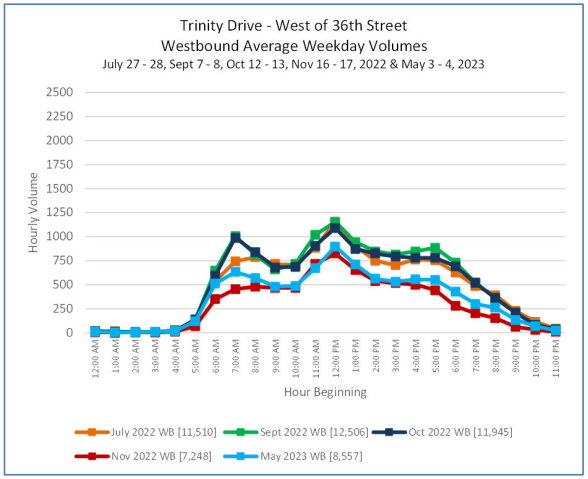
TRINITY DRIVE/NM 502 ROAD DIET

TRAFFIC COUNT DATA – TRINITY DRIVE, WEST OF 36th STREET

July, September and October 2022 Traffic Counts conducted during Canyon Road Closure







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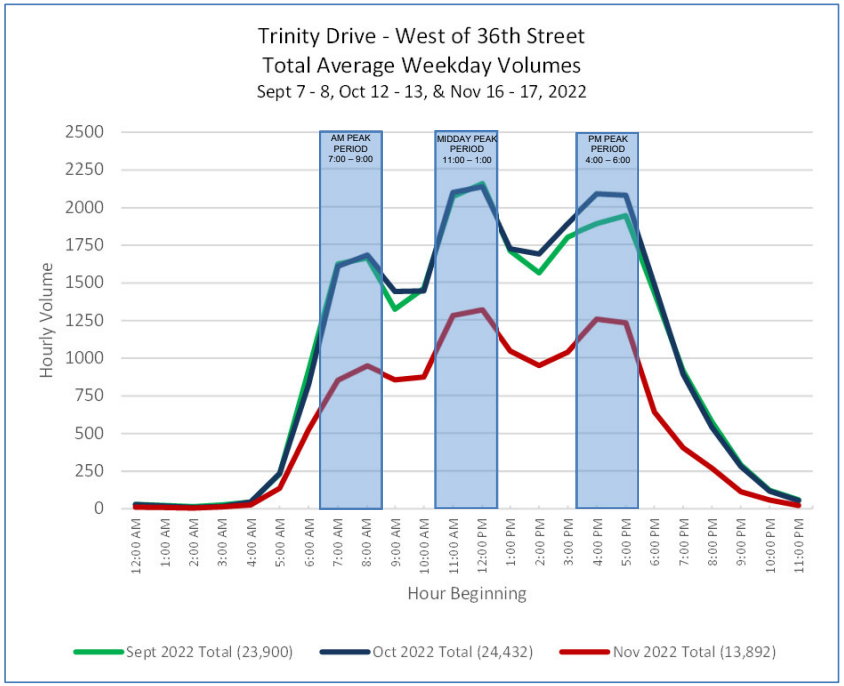

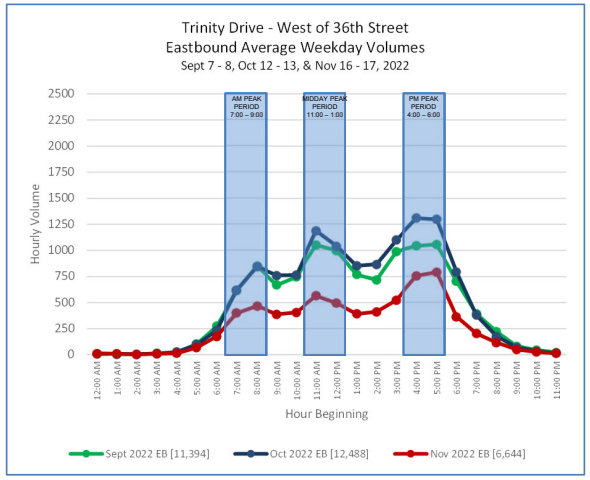

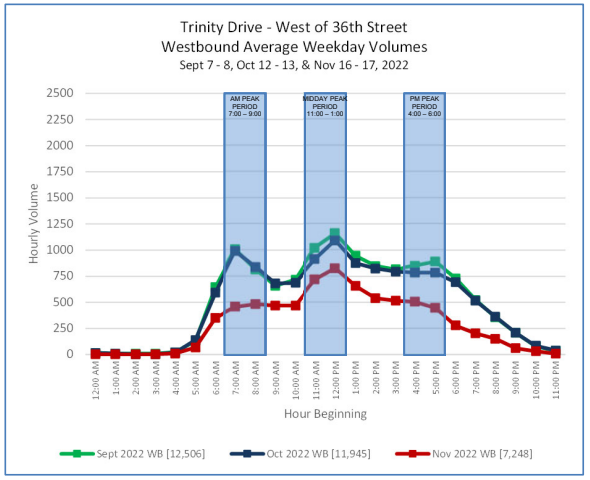

TRINITY DRIVE/NM 502 ROAD DIET

TRAVEL TIME DATA – Eastbound Between Diamond Drive and 20th Street

September and October 2022 Travel Time Runs conducted during Canyon Road Closure

Trinity Drive - Average AM Peak Period Travel Times EASTBOUND (Diamond Dr. to 20th St.)					
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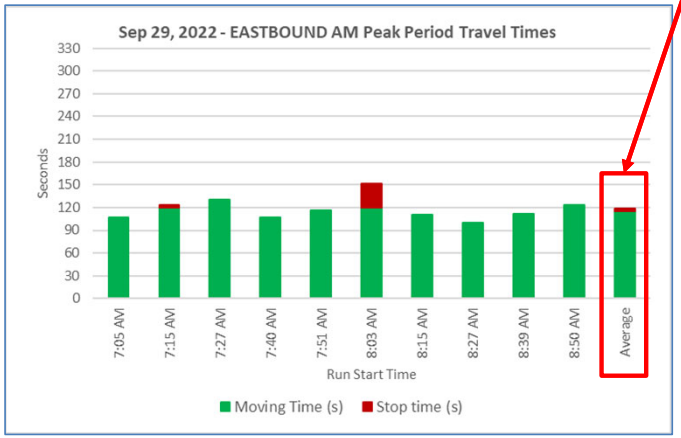

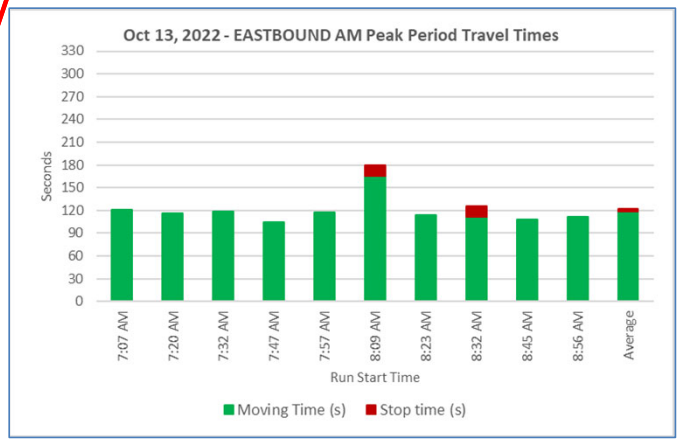

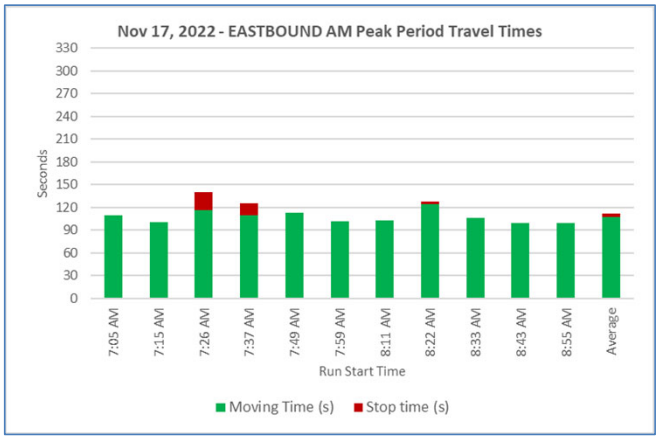

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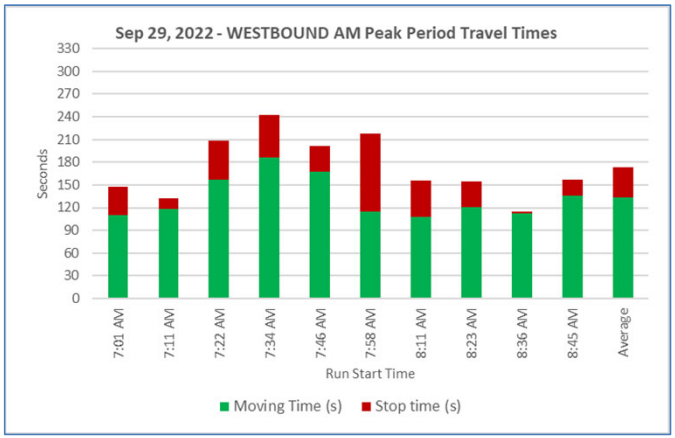

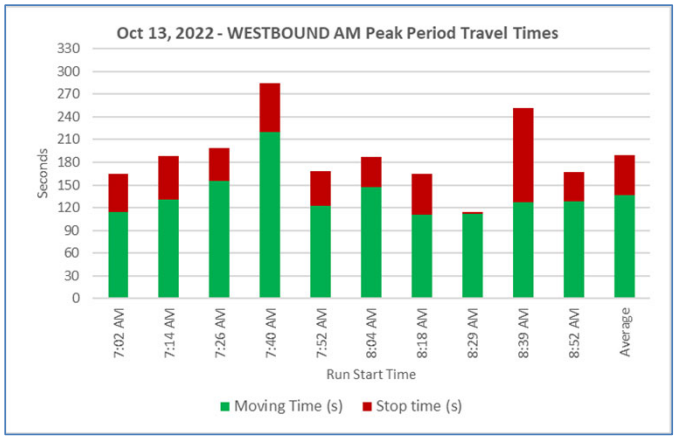

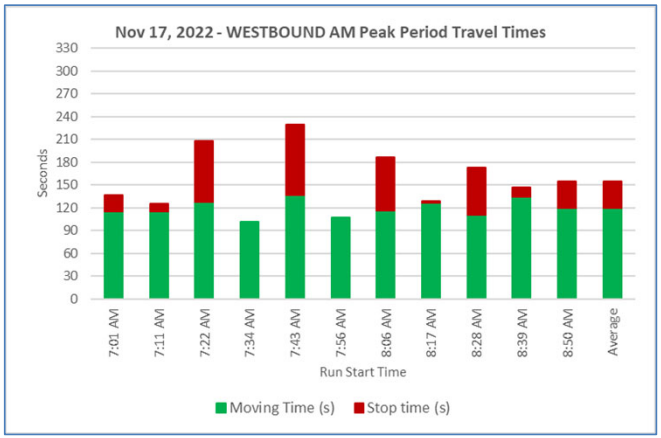

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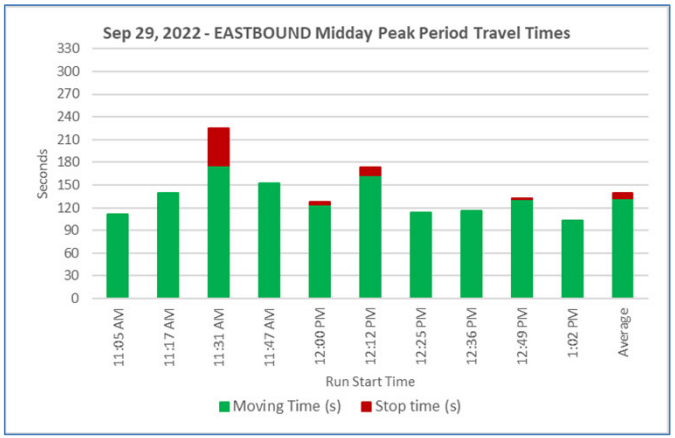

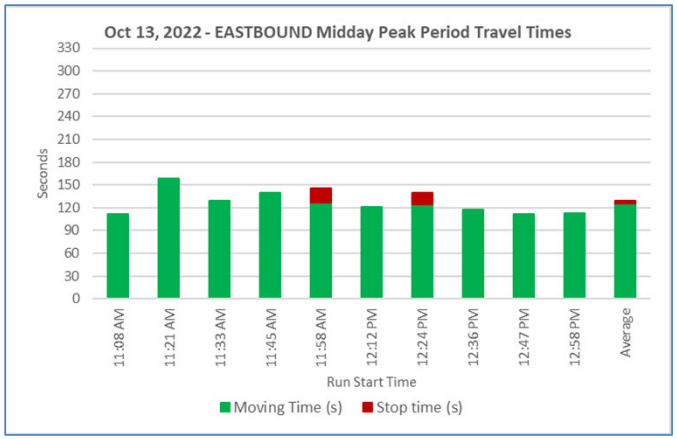

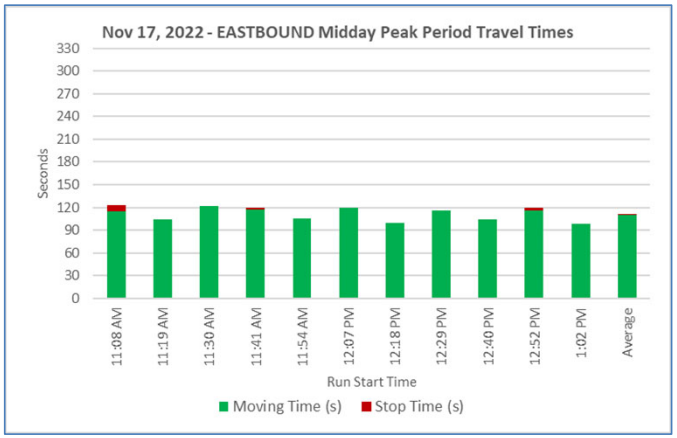

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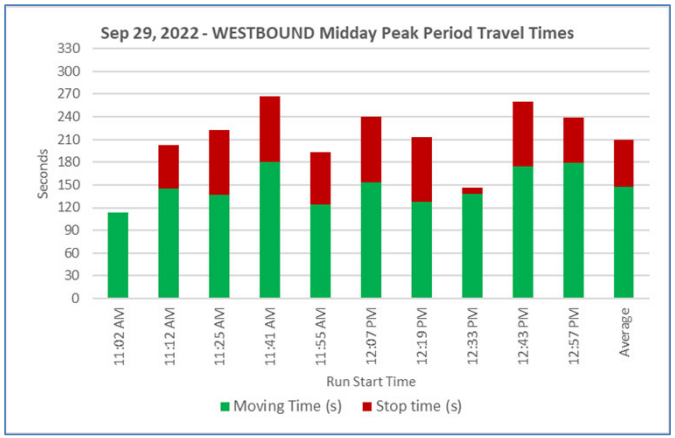

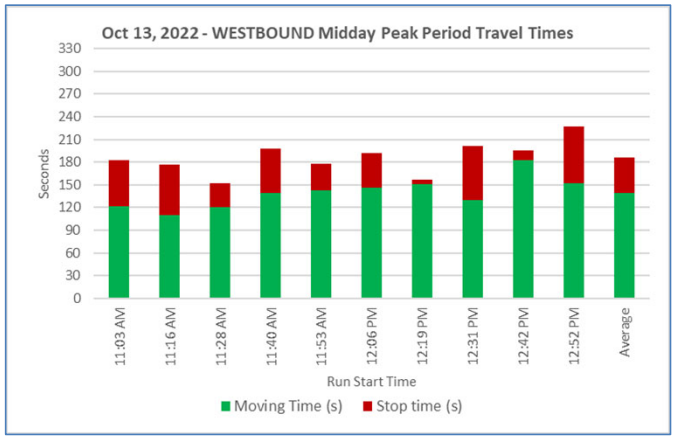

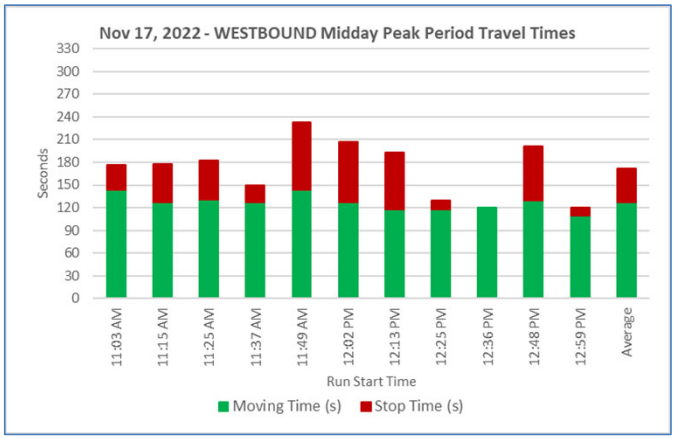

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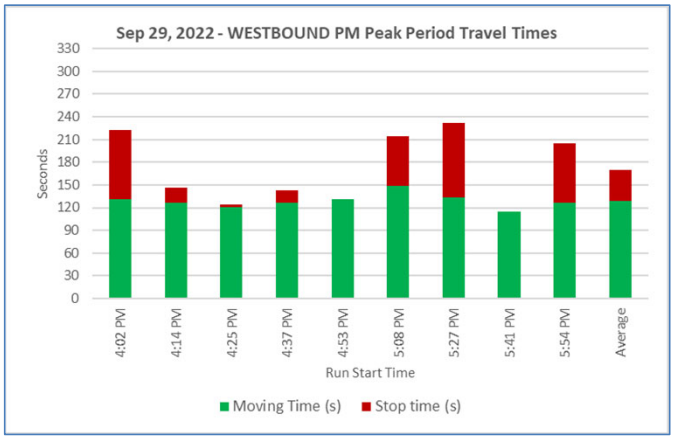

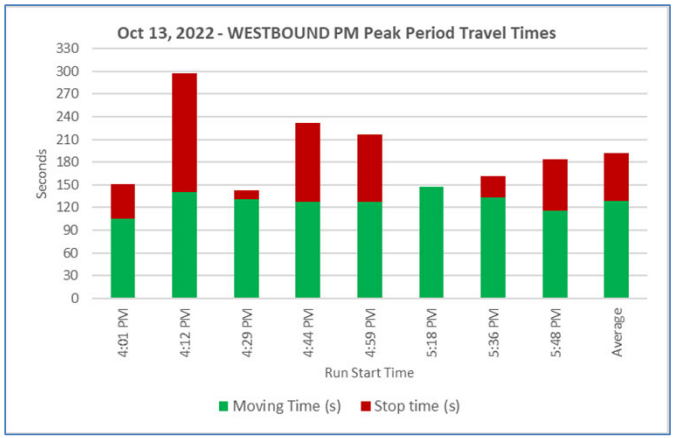

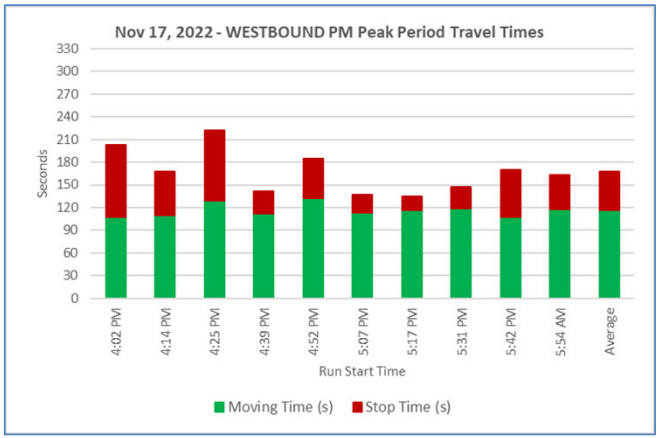

LOS ALAMOS