

Mercer St. to I-5 Ramp Meters

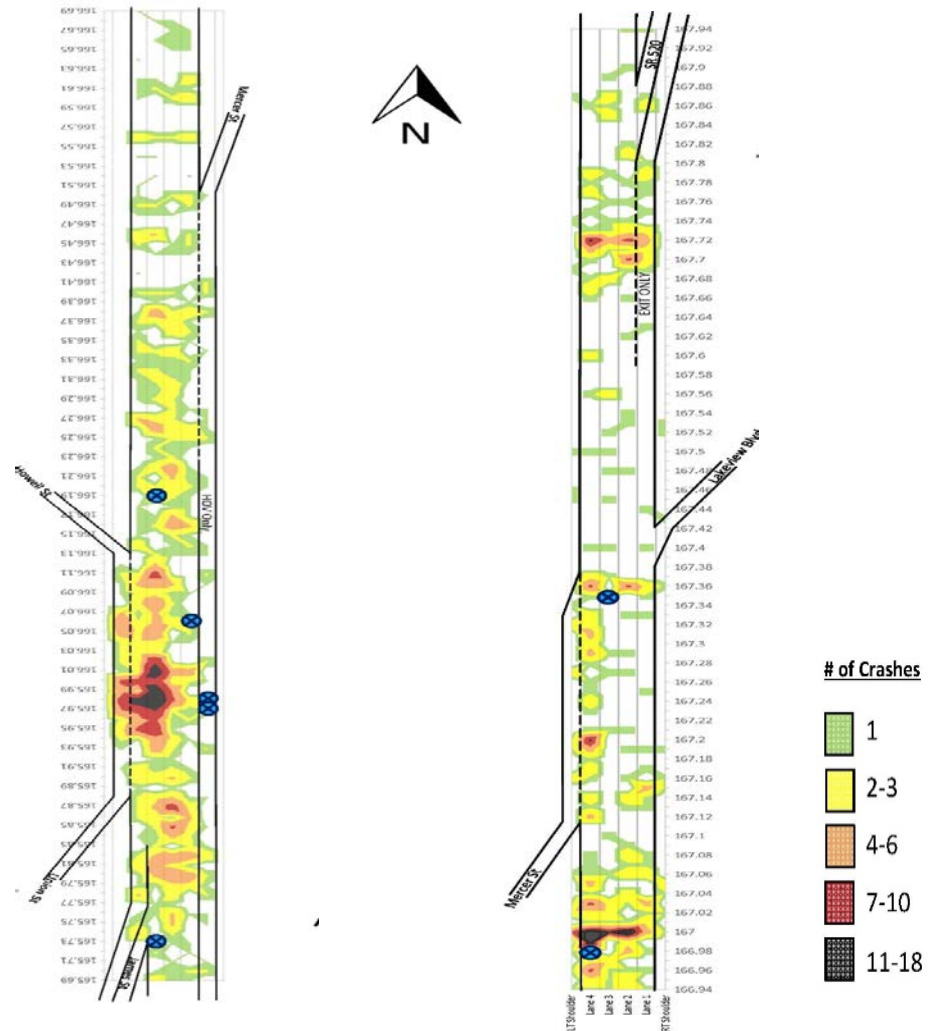
Mercer Corridor Stakeholders Meeting December 13, 2017

Morgan Balogh P.E.
WSDOT NW Assistant Traffic Engineer

I-5 Congestion and Crash History in Mercer Street Vicinity

- Vehicles merging from Mercer Street on-ramps and weaving movements such as that to SR 520 affect traffic flow across the I-5 mainline.
- Impact over several hours each day of the week.
- High concentration of crashes in the vicinity of the Mercer Street on-ramps.

2012-2016 Crashes

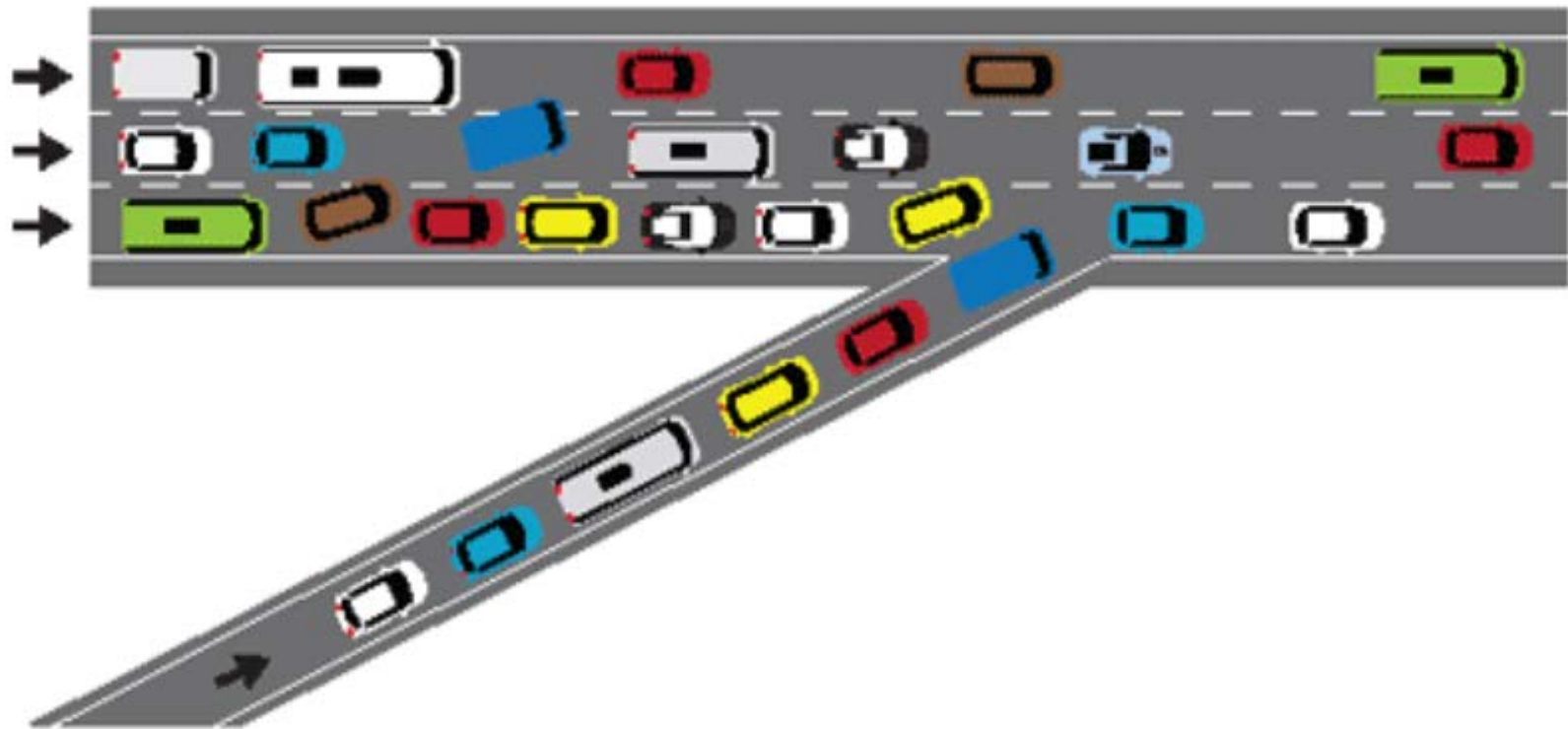


Ramp Meters, time tested and proven to be effective.

- First deployed in the 1960's.
- 27 States have ramp meters.
- We have 245 Ramp Meters in Puget Sound.
- Long proven tool to reduce congestion, improve safety, and improve air quality.
- High benefits with low cost.

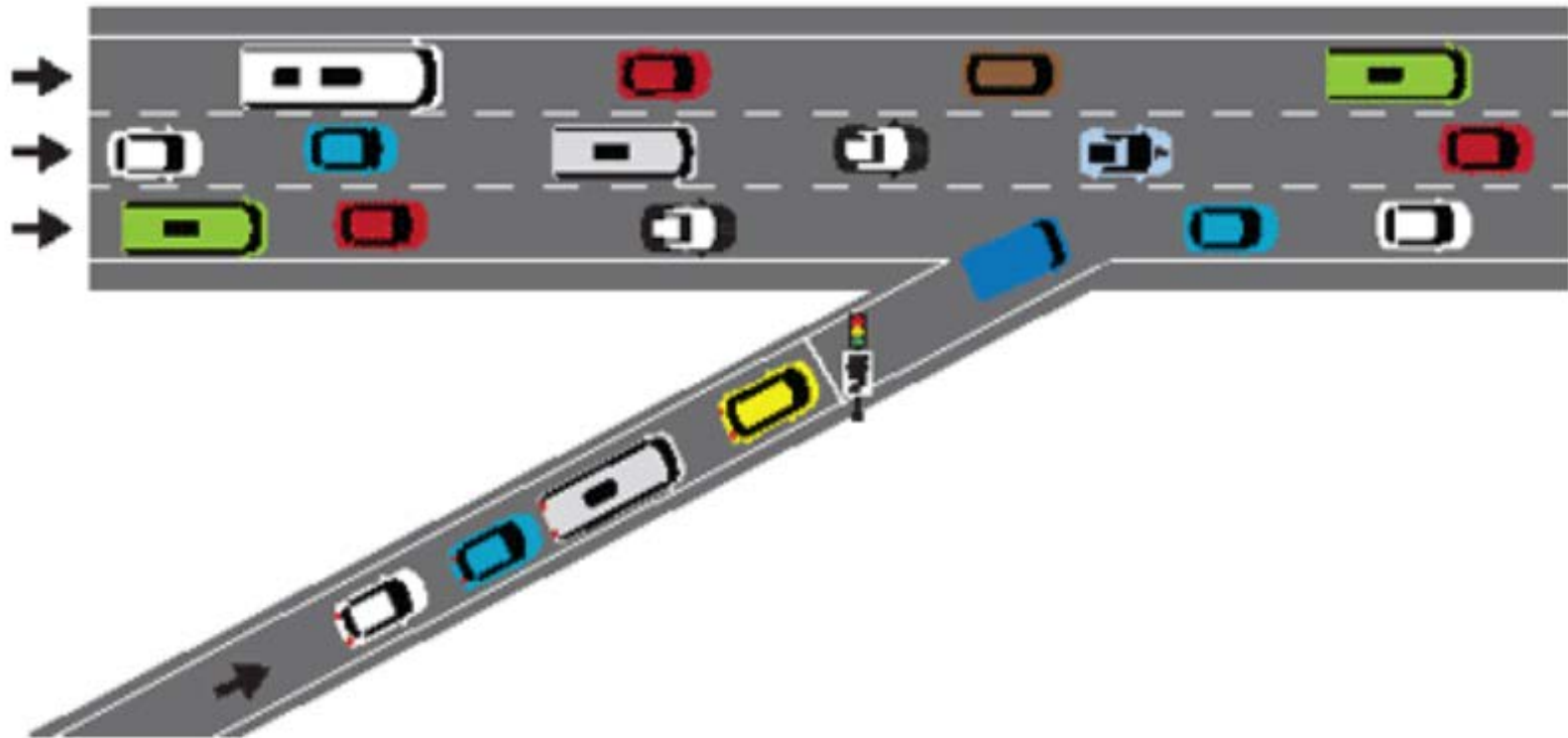
How Ramp Meters Work

Freeway Without Ramp Metering



How Ramp Meters Work

Freeway With Ramp Metering



Ramp Meters are Adaptive

- Adaptive proven software runs the meters.
- Automatically adjusts to both freeway and ramp conditions.
- 24/7/365 monitored
- Dedicated operator during peak periods.



Working with SDOT to improve transportation mobility

- Keep I-5 moving to benefit local street operations
- Endorsement by SDOT management
- SDOT coordinating with key Councilmembers
- Agreement with SDOT on phased implementation, operational approach, monitoring/coordination

The Field Installation

- **Long Term Target** in which we have kept innovating to improve the operations. Delayed operation in the past.
- **Northbound.** Two metered lanes.
- **Southbound.** Two metered lanes, and one metered shoulder.

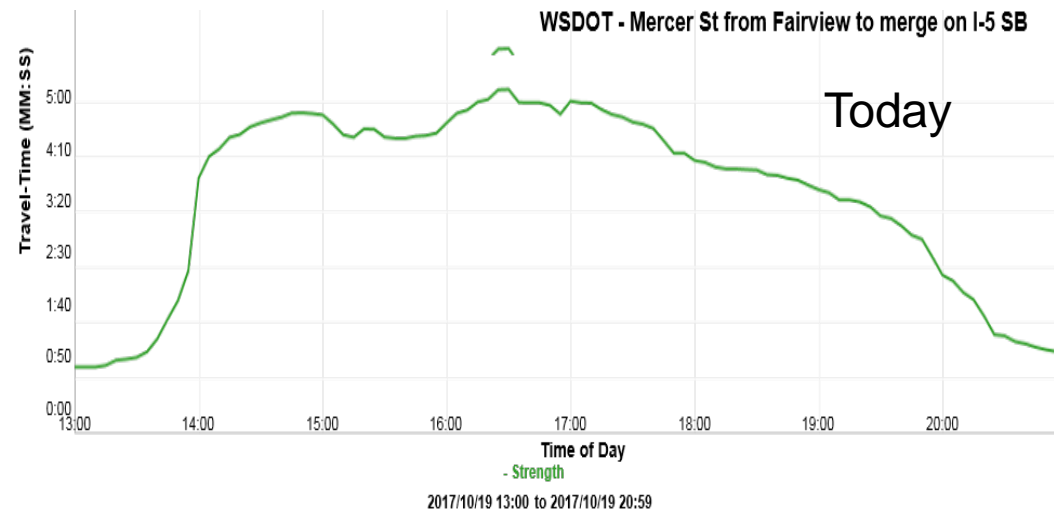


Expected Benefits

- Reduce congestion on I-5 during the edges of the peak periods
- Improve I-5 throughput approximately 5% during peak periods.
- Reduce collisions on I-5 and the ramps, 34% reduction during hours of operation. Benefits from Collision reduction alone will exceed the cost of the project in less than 2 years.

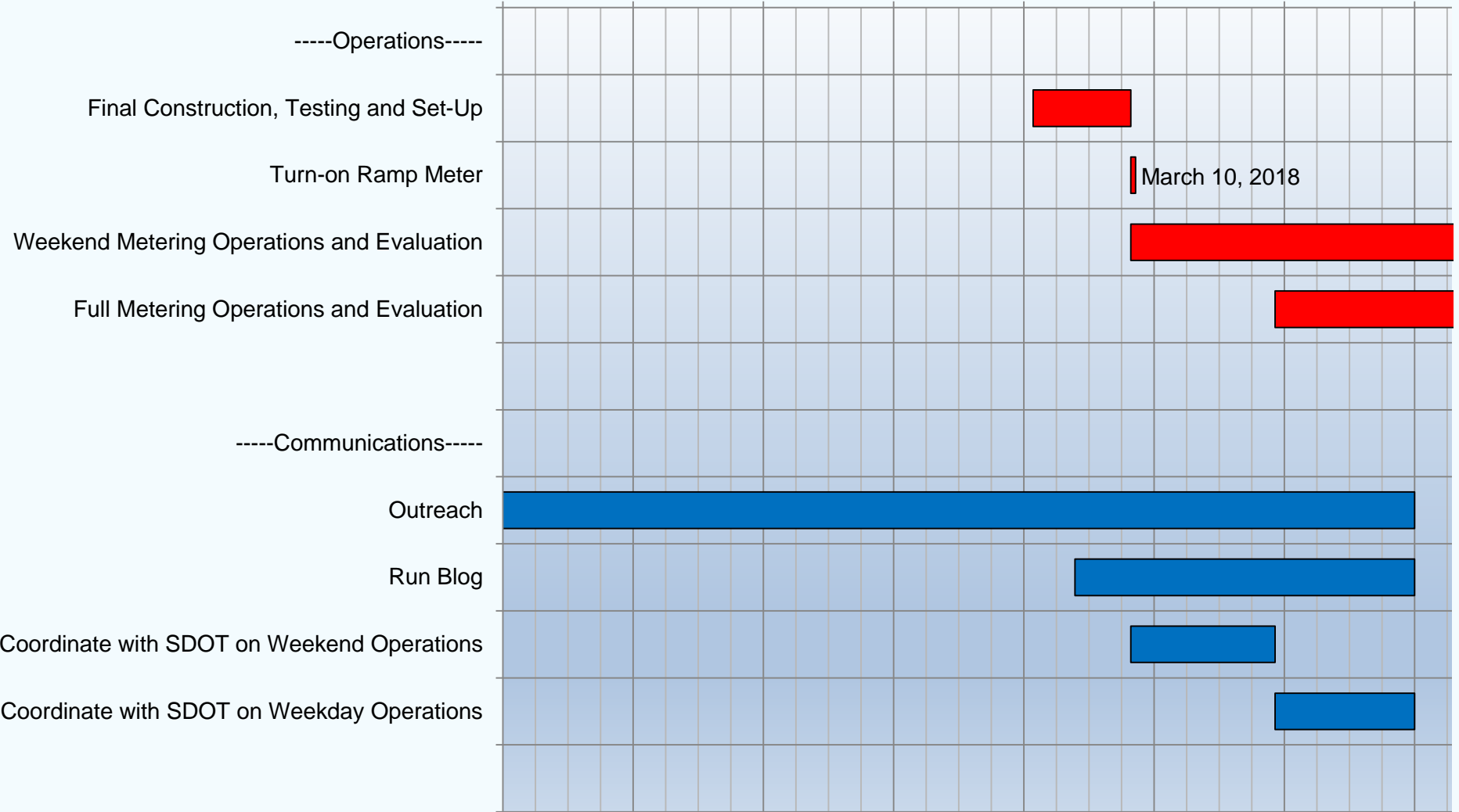
Perceptions

- Backup from ramp onto city streets?
- More delay added on Mercer Street travel?
- Why is there no exclusive HOV bypass lane(s)?



Mercer St. Ramp Meters, Start-Up Schedule

10/26/2017 11/23/2017 12/21/2017 1/18/2018 2/15/2018 3/15/2018 4/12/2018 5/10/2018



Questions

Morgan Balogh P.E.
WSDOT NW Region Assistant Traffic Engineer
(206) 410-0001
baloghm@wsdot.wa.gov