

Cesar Chavez in a Post-Express Lanes World

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The Process

- Study the Problem
 - Field observations
 - Data analysis
 - Citizen & property owner feedback
- Solutions
 - Signal retiming
 - Striping changes
 - Intersection redesign

Context of the Cesar Chavez Corridor

- Mopac Express Lanes Traffic
- IH 35 Bottleneck
- Limited river crossings
- Main street throughput vs. side street access

Capacity of a Roadway

- Capacity
 - The amount of vehicles that can possibly travel on a roadway
- For each lane:
 - 1 vehicle every 2.5 s \rightarrow 1440 veh/hr
 - 40% of the cycle for one direction means each signal can accommodate 575 veh/hr
 - We have 2 lanes E/W on Cesar Chavez
- 1150 veh/hr in one direction
 - IF they have somewhere to go
 - IF everyone is driving attentively
 - IF there's no lane blocking
- We are experiencing demand much closer to 1500 veh/hr

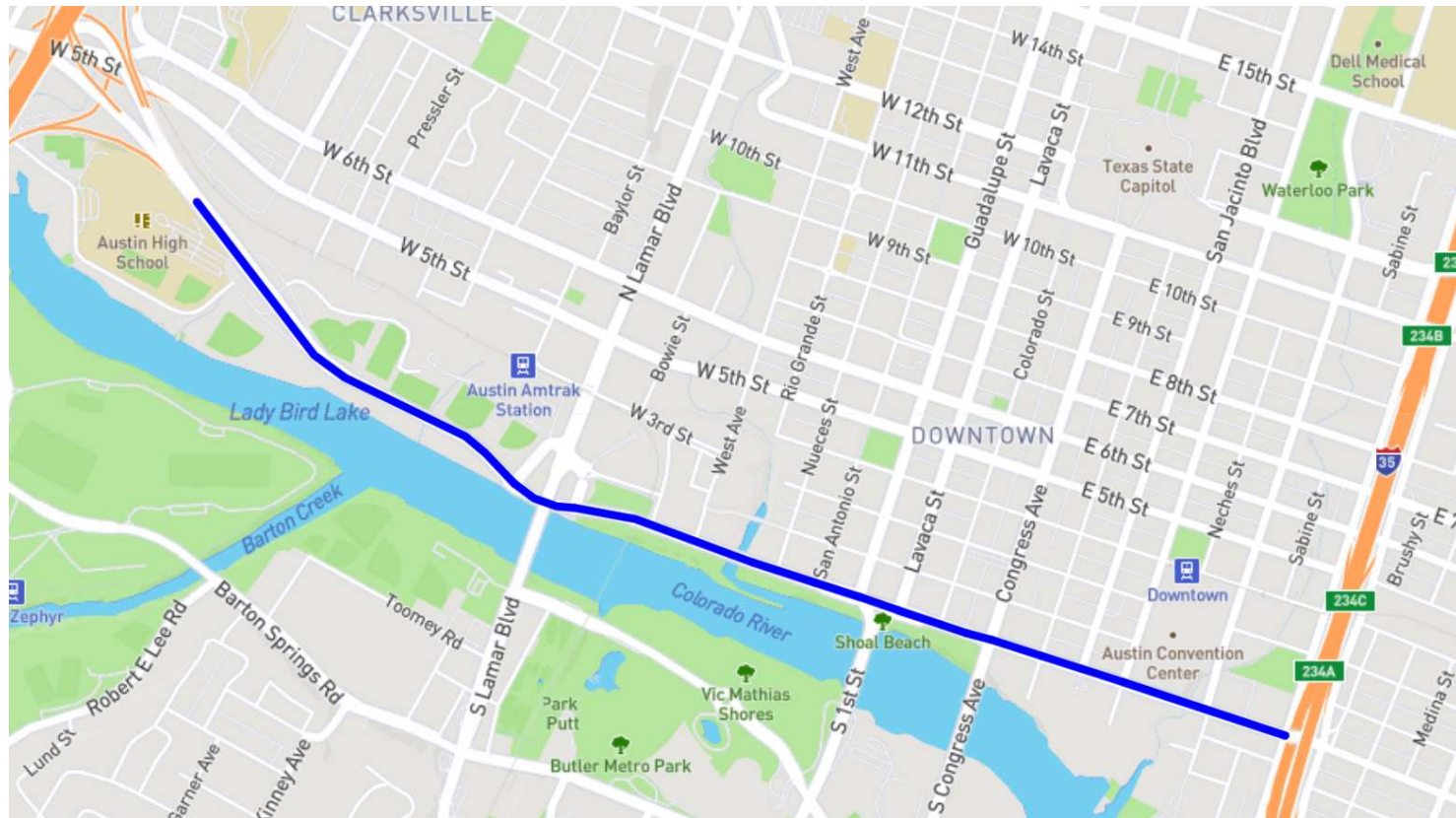
The Strategy

- AM peak:
 - Raise the cycle length to provide fewer long stops
 - Prioritize progression and high volume turns that access major work buildings
- PM peak:
 - Clear a few of the critical blocks each cycle
 - Prioritize daily commuters leaving the area

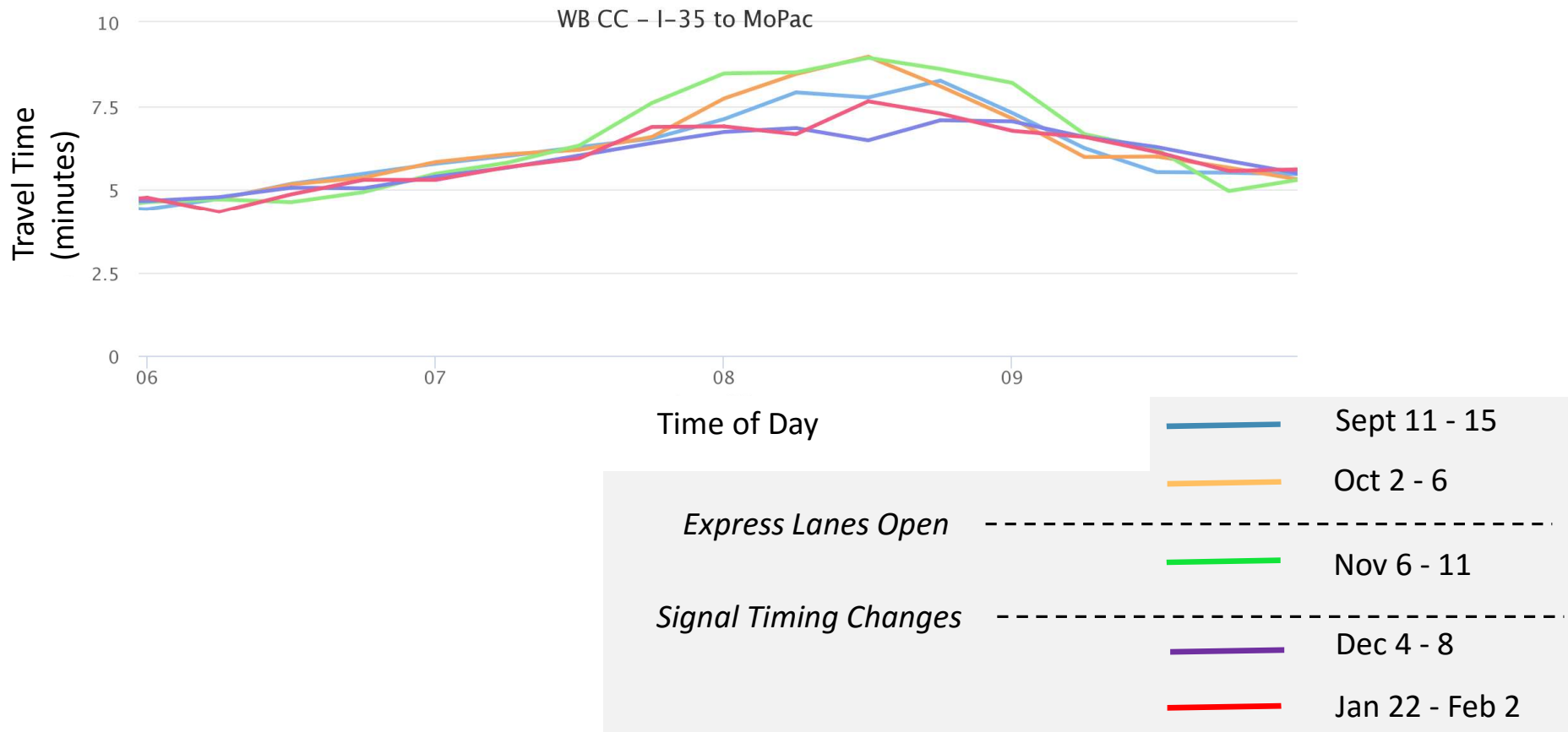
Timeline & Analysis Weeks

- September (2nd week) – Before Express Lanes Open
- October (1st week) – Also before Express Lanes open
 - 10/7 – Northbound Mopac Express lanes open
 - 10/30 – Southbound opens
- November (1st week) – First week after Express Lanes Open
 - 11/30 – New timing plans begin
- December (1st week) – First week after new timing plans begin
- January (4th & 5th weeks) – last two weeks
 - (school back in session -> traffic much heavier)

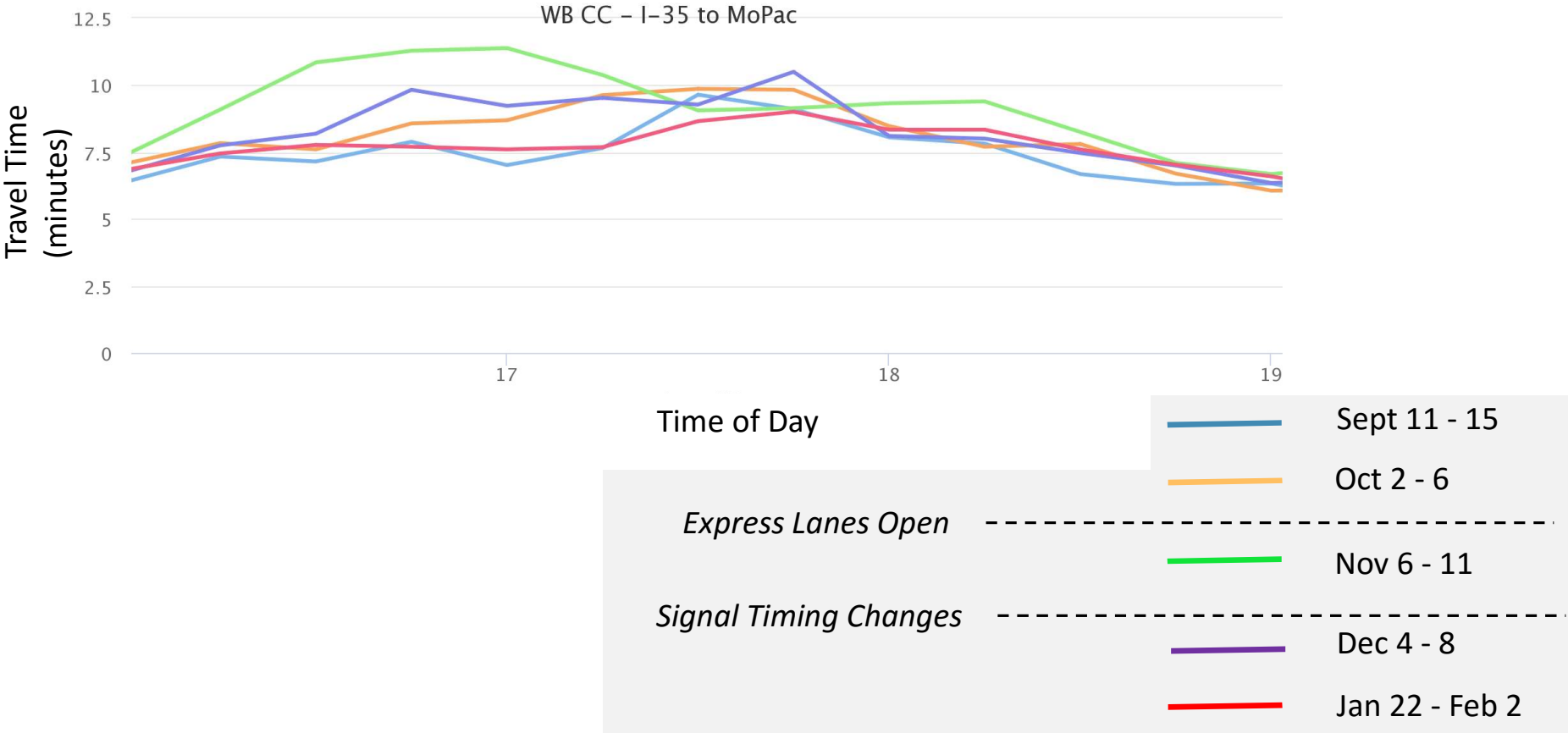
Study Area (Probe Data)



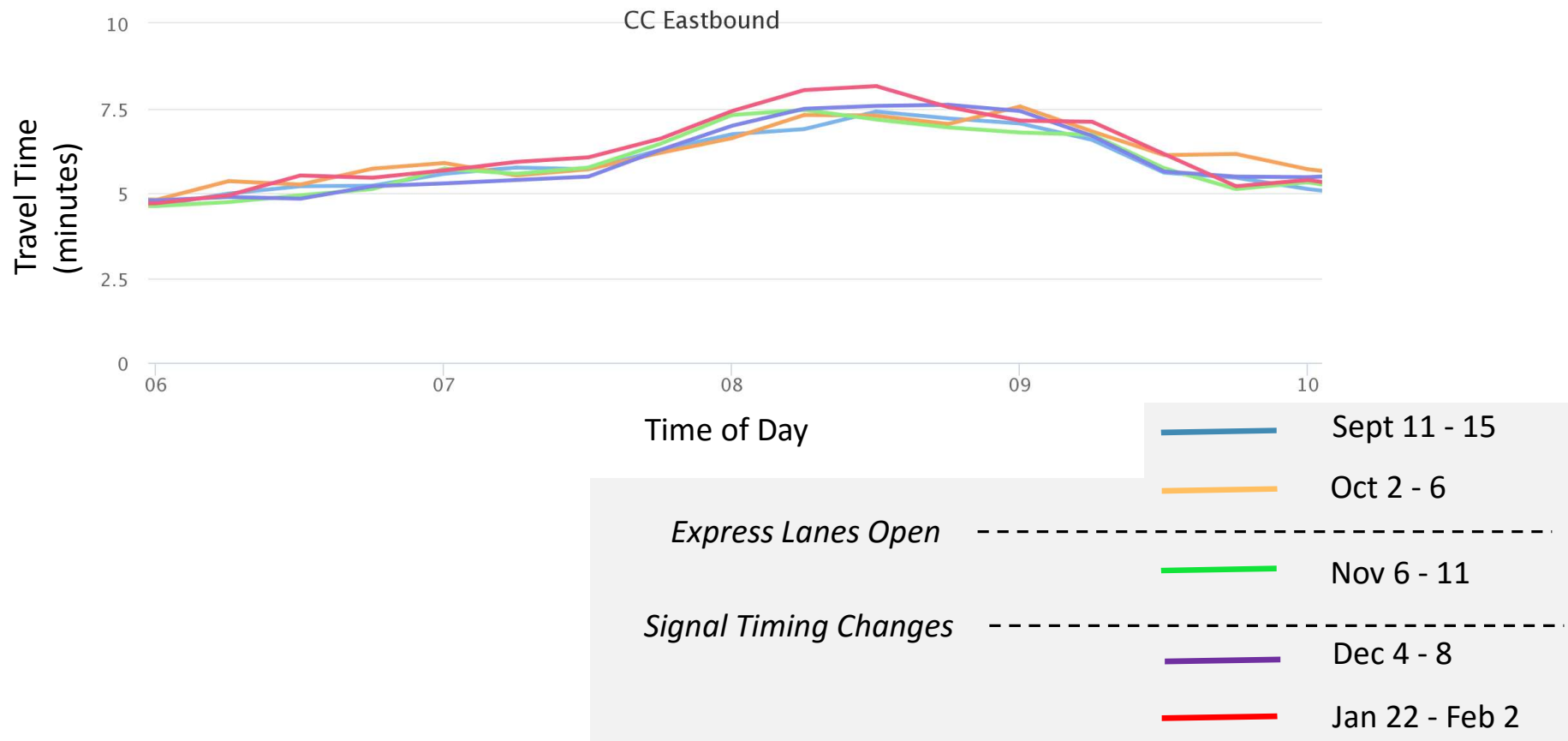
Cesar Chavez Travel Times: WB in the AM



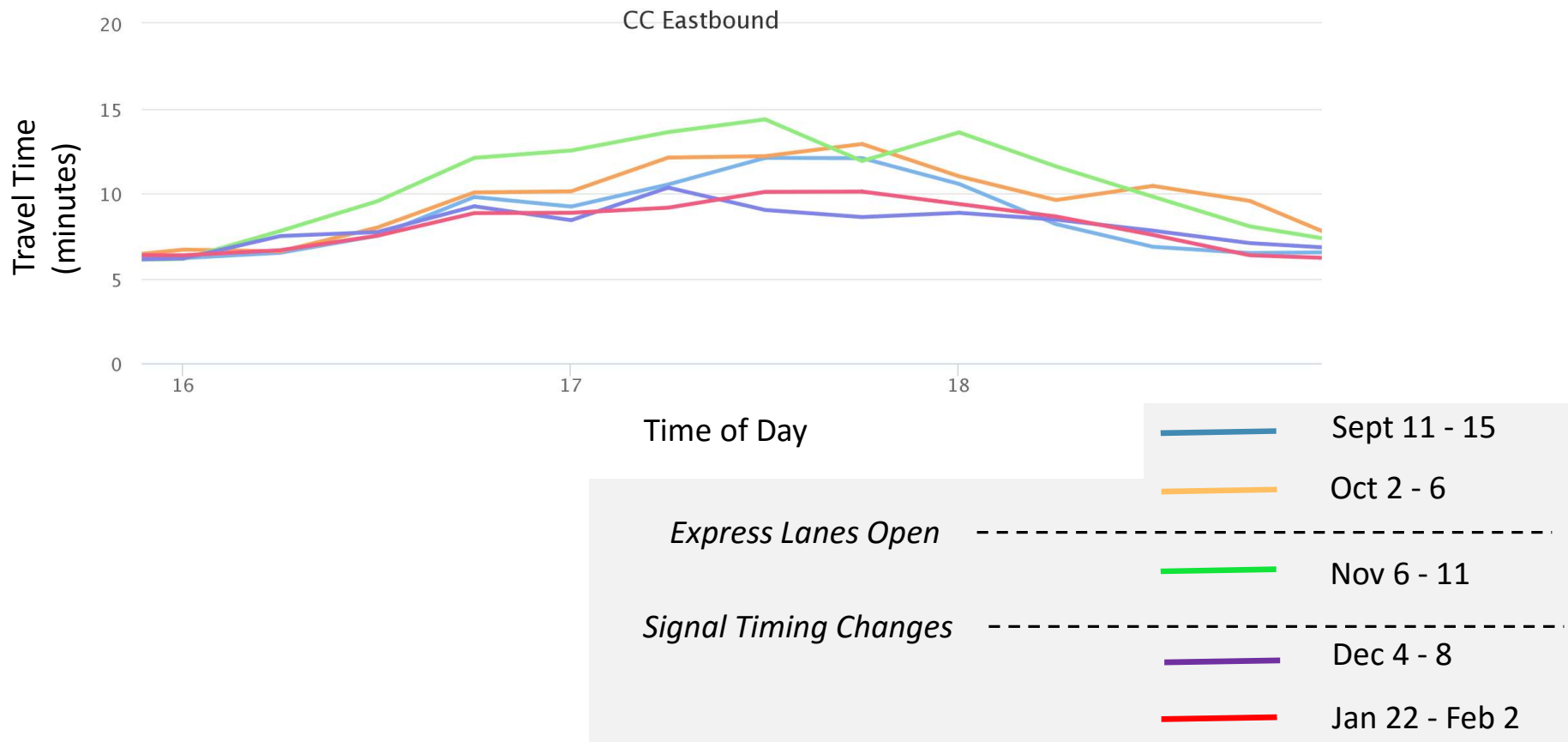
Cesar Chavez Travel Times: WB in the PM



Cesar Chavez Travel Times: EB in the AM



Cesar Chavez Travel Times: EB in the PM



Roadway Modifications (under evaluation)

- Cesar Chavez & BR Reynolds (west of Lamar)
 - Near-term: Restripe to provide better storage for EBL
 - Long-term: Intersection redesign
- Cesar Chavez & South First Bridge
 - Long-term: Beneficial change for NBL
- Cesar Chavez & Congress
 - Near-term: Restripe WBL to have full block turn lane instead of partial and reevaluate need for dynamic lane assignment in PM peak
- Cesar Chavez side streets
 - Evaluate critical locations that are now capable of fitting NB or SB left turn signal heads

Alternate Solutions

- Flexible work schedules
- Telecommuting
- Transit/Bike/Walk

(Listen up to the next presentation!)

Questions?

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atx