

ESTABLISH POLICY ON TRAFFIC SIGNAL OPERATIONS TO PROMOTE SAFE, LIVABLE STREETS AND ENVIRONMENTALLY SUSTAINABLE TRANSPORTATION CHOICES



Items for Discussion

- September 2019 Council referral
- Adopted priorities/policies
- Define Signalized Intersection Access Equity
- Recommendations to ensure safe access for all users
- What is detection at signalized intersections?
- Policy recommendations for pedestrian push buttons



September 2019 Council Referral

- Consider providing direction to staff on transportation priorities in advance of the Active Transportation Plan Work
- Referral has 8 short and long term project priorities
 - Tonight's focus: Intersection Access Equity (beg pedestrian push buttons)



Transportation Policies

- Vision Zero Policy (2019) and *Vision Zero Action Plan (2021)*
- Council adoption of policies on street width, lane width, crosswalks and bulb-outs to promote safe, livable streets, and environmentally sustainable transportation choices (2020)
- Safety toolkit of policies and design guidelines
- Mode shift in Climate Action and Resiliency Plan (2019)



Staff recommends **Signalized Intersection Access Equity** as defining principal objective of traffic signal operations:

“The distribution of cycle time allocated for the various users of the signalized intersection in a balanced manner, by providing the necessary infrastructure improvements needed to allow each user to safely and conveniently cross the street”.



Access and Safety for ALL Users

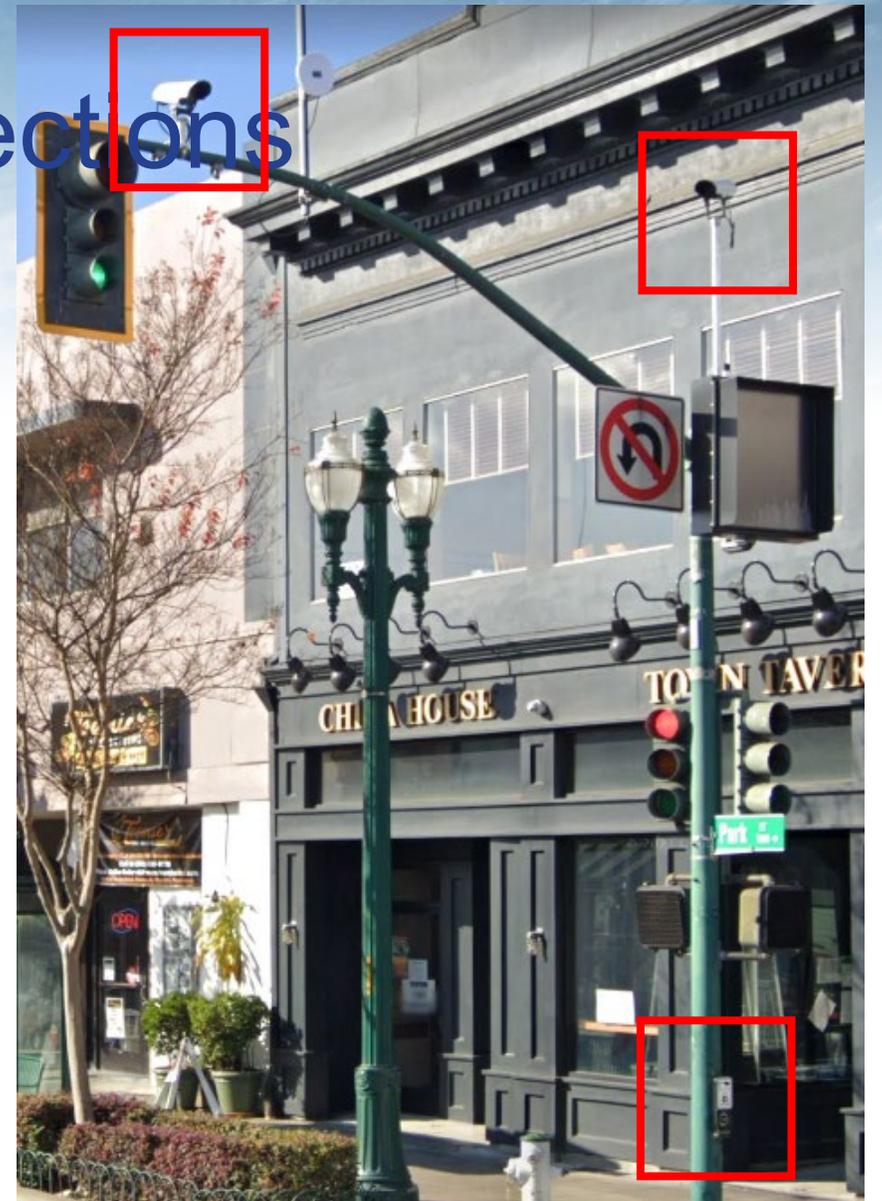
Staff Recommends:

- ***Pedestrian*** enhancements (countdown heads, accessible pedestrian signals, etc)
- Longer **pedestrian** clearance times in school zones and with high elderly or disabled
- Leading **pedestrian** intervals
- ***Bicycle*** enhancements such as detection, bicycle timing parameters, and bicycle signals on designated bikeways, as determined feasible
- ***Transit Signal Priority*** on major transit corridors
- ***Emergency preemption*** equipment and timing



Detection for Signalized Intersections

- Detection is an essential tool
- Used for all modes entering an intersection: pedestrians, vehicles, bicycles, and transit
- Detection allows for demand-based operations



Modeled Impact of Proposed Operation in Referral

- 8 signalized intersections representative of various types across town.
- Model shows 8 intersections operate with less delay/emissions under demand based operations.
- Assuming similar rates across the City's 88 signals, the proposed operation in Council referral:
 - Increase in emissions by 15 tons/year, or the equivalent of nearly 1,700 gallons of gasoline
 - Increase delay by 82,000 hours per year, or about 930 hours per year per intersection
- Tradeoff with Transit Signal Priority



Staff Recommendation for Pedestrian Push Buttons

1. In commercial districts, a WALK signal every cycle (don't have to push the button) 10 AM – 7 PM.
2. Near schools with a school crosswalk (yellow), a WALK signal every cycle during peak start/stop times of school.



Cover ~~be~~ pedestrian push buttons at intersections where the button is not needed, (avoid confusion).

Staff Recommends:

- Not covering pedestrian push buttons.
- Further deploy Accessible Pedestrian Signals.



No pedestrian blocking barricades.

Staff Recommends:

1. New intersections have all leg crosswalks
2. Remove existing barricades on a priority basis: high injury, surrounding land use
3. Replace during pavement management program when ADA ramps are added.



THANK YOU!

QUESTIONS?

