

TRANSPORTATION COMMITTEE REPORT relative to maximizing traffic signal priority for the Exposition E Line where it operates in street-running mode.

Recommendation for Council action:

DIRECT the Los Angeles Department of Transportation (LADOT):

- a. In cooperation with Los Angeles County Metropolitan Transportation Authority (Metro), to expand the enhanced transit priority, tested at Exposition Boulevard and Normandie Avenue, throughout the street-running section of the Exposition E Line, with the goal of reducing end-to-end travel times and achieving at least 90 percent travel time reliability.
- b. To report in 60 days on the progress the Department has made and the benefits the changes have achieved.
- c. To report on the feasibility, cost, and benefit of full signal pre-emption on all or portions of the street-running section of the Exposition E Line.

Fiscal Impact Statement: The LADOT reports that this action will not impact the General Fund.

Community Impact Statement: None submitted.

SUMMARY

In a report to Council dated February 5, 2020, LADOT discusses maximizing traffic signal priority for the Exposition E Line where it operates in street-running mode. LADOT provides transit priority at all of the signalized intersections where trains operate in street-running mode, in which train operators follow the traffic signal indications. This transit priority provides an early green or an extended green to help trains move through the corridor with minimal delay. Transit priority accomplishes this by reducing the green allotted to other movements, typically by up to 12 seconds, or 10 percent of the 120-second signal cycle. The Transit Priority System tracks arriving trains and passes information ahead to upcoming traffic signals to help trains proceed through intersections without stopping or with minimal delay.

Following the expansion of the Exposition E Line to Santa Monica in 2016, the line's ridership has exceeded Metro's forecasts. With more passengers boarding and alighting at stations, trains require additional time at stations, which has impacted the times when trains arrive at signalized intersections.

LADOT goes on to discuss altering signalization times at Vermont and Western Avenues to account for the additional time trains are loading at stations allowing signal timing to better match actual train arrival and travel times. LADOT engineers also developed a new application of transit priority that has the effect of allowing the signal controller to reach into future signal cycles to borrow time to extend the window for an approaching train, thus creating a new type of enhanced transit priority. Combined, these strategies have reduced the average delay at Normandie from 27 to 17 seconds and have allowed an average of 79 percent of trains to travel through the signal without stopping.

LADOT recommends the use of this approach throughout the street-running section of the Exposition E Line, with the goal of reducing end-to-end travel times.

At its meeting held February 12, 2020, the Transportation Committee discussed this matter with LADOT staff. The Department representative stated that increased ridership on the Exposition E line has delayed boarding times at stations, thereby making it difficult for trains to meet the two-minute light signalization cycle. The Department believes the sequencing of lights can be modified to take this into account. Doing so can reduce the occurrence of delays from 80 to 50 percent. Support for LADOT's proposal was expressed by a Metro representative.

Committee members discussed the alternative approach of using signal pre-emption. LADOT staff stated that signal pre-emption may require additional or modified infrastructure at street crossings including gates and bells. Committee members requested LADOT discuss signal pre-emption, and its impact on pedestrians, traffic, and other forms of transit. It was also requested that LADOT examine the congestion of north-south traffic at street crossings. The Transportation Committee recommended that Council approve LADOT's report recommendations.

Respectfully Submitted,

TRANSPORTATION COMMITTEE



MEMBER VOTE

BONIN: YES

MARTINEZ: ABSENT

KORETZ: YES

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-NOT OFFICIAL UNTIL COUNCIL ACTS-