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Re: Hawthorne council meeting of 10-13-20

Jay Beeber's explanation of why left turn yellows should be longer than 3.0 seconds

1. Page from study Beeber submitted to the Ventura city council on 5-18-20. The full study is available on the City of Ventura website and at a link in Set # 2 on the Ventura Docs page at highwayrobbery (dot) net.

2. Portion of follow-up email Beeber submitted to the Ventura city council on 9-21-20. The full email is available on the City of Ventura website.

Yellow Change Interval Timing

While we have been unable to confirm the current yellow interval timing at the photo enforced intersections in Ventura, it is almost a certainty that the timing for the left turn movements is insufficient for the safe and legal movement of vehicles, especially at the four intersection approaches discussed above.

Note that we are not suggesting that the timing does not comply with the minimum 3.0 second standard defined in the California Manual on Uniform Traffic Control Devices (CA-MUTCD). Rather, we are relating that this standard is no longer considered a “best practice”, especially with regards to yellow signal timing for turning lanes. Even if the city employs a longer yellow time than legally required, the yellow signal timing for these photo enforced turning lanes is likely significantly deficient. Yellow signal timing for turning lanes has never been based on proper engineering principles and the CA-MUTCD only requires a minimum of 3.0 seconds regardless of the approaching traffic’s speed or length and number of turning lanes.

However, in March 2020, the Institute of Transportation Engineers (ITE) published a new Recommended Practice on yellow change interval timing. Jay Beeber of Safer Streets L.A. played a significant role in creating the updated guidelines, especially for yellow times in turning lanes. Within the Recommended Practice, ITE has adopted a new formula for setting yellow signal times that was created and promoted by our team. Mr. Beeber also authored an article explaining the use of this new formula which appeared in the March 2020 issue of the ITE Journal. The article, which might prove instructive for city staff, is included at the end of this report.

Since the Recommended Practice was released just two months ago, the CA-MUTCD and state law have not yet been updated. However, once this update occurs, yellow signal times in turning lanes will likely need to be increased. Revising the yellow times per the ITE Recommended Practice will likely eliminate the vast majority of left turn violations occurring at these intersections. This will have a positive effect on safety, as we have consistently seen a significant reduction in red light running when yellow times have been increased to more appropriate levels. However, with lower violations, the city will likely see a decrease in the revenue generated by the red light cameras and could end up operating the program with a deficit, especially since over 65% of the ticket revenue comes from left turn violations.

For this reason, we strongly suggest that the city not extend the Redflex contract under the current terms. While the contract does provide for cancellation if there is a change in state law, it does not extend this provision for changes to regulations such as those appearing in the CA-MUTCD. It is possible that the standards for yellow light timing could change within the CA-MUTCD without requiring any change to state law. Based on the current contract language, Redflex may not consider a change to the CA-MUTCD as a valid reason for canceling or renegotiating the contract. Note also that many cities with long-term contracts have negotiated the option to cancel for convenience with 30 days notice. The City of Hawthorne has obtained such a provision from Redflex. The City of Ventura should not renew a contract which provides less favorable terms than other nearby cities.

A \$490 Citation

As noted above, ticketing for “rolling-right-turns” has more than doubled over the past six years. While these types of violations are “easy pickins” for enforcement, they generally pose little to no

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*Portion of 9-21-20 email from Jay Beeber to the
Ventura city council*

C. with regard to the yellow timing for dedicated left turn lanes (left arrow), the MUTCD currently provides no specific minimum time other than the blanket 3.0 second minimum for any traffic signal. As explained previously, this 3.0 sec. standard is no longer considered a "best practice", especially with regards to yellow signal timing for turning lanes (see detailed discussion in attachment). Even though the city employs a longer yellow time than legally required, the yellow signal timing for these photo enforced turning lanes is deficient.

In March 2020, the Institute of Transportation Engineers (ITE) published a new Recommended Practice on yellow change interval timing. My article explaining this new protocol appears at the end of the attached document. Within the Recommended Practice, ITE has adopted a new formula for setting yellow signal times that requires yellow signal times in turning lanes to be significantly increased. Revising the yellow times per the ITE Recommended Practice will likely eliminate the vast majority of left turn violations occurring at intersections in Ventura. As a reminder, over 65% of the city's ticket revenue comes from left turn violations, meaning that up to 65% of the tickets issued are going to drivers who may have had no intention of violating the red light and only did so because the yellow time was too short for their otherwise legal movement.