



MEMORANDUM

Diane Nichols Tradd
Assistant City Manager/DPD Director

TO: Eileen M. Donoghue, City Manager *EMD*

FROM: Diane N. Tradd, Assistant City Manager/DPD Director

SUBJECT: MOTION OF 5/23/17 BY COUNCILOR LEAHY
REQUEST THE CITY MANAGER PROVIDE REPORT FROM TRAFFIC ENGINEER REGARDING
INTERSECTION OF DUTTON AND MARKET STREET CONCERNING PEDESTRIAN CROSSING

Craig Thomas
Deputy Director

The Transportation Engineer has conducted a site visit to investigate this concern. The traffic signal at the intersection of Dutton and Market Streets is set up for concurrent phasing, which means that pedestrians cross when the cars in their direction of travel get a green light. This can create a hazardous situation for pedestrians if turning vehicles do not yield to them while crossing. This is a common problem at urban traffic signals. There are several options to make the crossing safer for pedestrians.

Option 1 – add more visible signage for traffic indicating they must yield to pedestrians. Currently there are small white signs indicating that vehicles should yield to pedestrians. They are not positioned such that they are very visible and they are not MUTCD-compliant. Adding larger signs with high-visibility yellow or green would improve the safety of the intersection. Each sign would cost approximately \$25-\$30 and could be installed by the LPD Sign department. Additional costs could include new metal posts to install the signs.



Option 2 – add signage as indicated in Option 1 and change the signal timing from concurrent to exclusive, which would allow pedestrians to cross in every direction while all traffic is stopped. The exclusive pedestrian phase would only occur when a pedestrian pushed a button to cross. This may require the addition of No Turn on Red signs to eliminate the possibility of a turning vehicle going during the exclusive pedestrian phase, as well as reprogramming the signal timing in the traffic control cabinet. Traffic signals that have pedestrian exclusive phasing can cause significant traffic congestion, especially during peak hours.

Option 3 – add signage as indicated in Option 1 and add a leading pedestrian interval (LPI) to the concurrent signal. An LPI gives the pedestrian a head start (typically 3-7 seconds) to begin crossing before turning traffic gets a green light. This is a recommended solution for urban intersections with numerous pedestrians and turning vehicles. It is safer for pedestrians because they are already in the crosswalk and visible to turning vehicles prior to when they begin their turning movement.

The Transportation Engineer recommends installing the signs as soon as they can be purchased/made and the Sign Department has the available manpower for installation. The City Electrician is investigating whether the traffic controller has capacity for additional phasing to re-time the traffic signal with an LPI. If it does, the signal will be re-timed to add a 5 second LPI for each crossing.

NV/ns

10/25/18

cc: Natasha Vance, Transportation Engineer
Lt. Stephen Gendreau, LPD
John Cooper, Sign Division
Steve Coutu, City Electrician