



Evaluation of “Crosswalk and Lighted Crosswalk System”

489 Hamilton Street
September 18, 2023

Petition: Sheila Bilotta et al. request installation of flashing crosswalk light on Hamilton St. at the crosswalk in the vicinity of 489 Hamilton St.
8e CC January 31, 2023

Scheduled Committee Hearing: September 20, 2023 Traffic & Parking Committee, Item 4c

Prepared by: Todd M. Kirrane., Assistant Director

The petitioners have requested the installation of a Rectangular Rapid Flashing Beacon (RRFB) system for the crosswalk across Hamilton Street at Palisades Street. RRFBs are a federal highway approved traffic control device that is designed to improve pedestrian safety and access at uncontrolled crosswalk locations by providing extra visual cues to the motorist that a pedestrian is within the crosswalk and crossing across their path of travel. Studies have shown that the RRFB can improve safety and access for pedestrians by reducing pedestrian related crashes by up to 47% and increase motorist yielding rates up to 98%. The Federal Highway Administration allows municipal jurisdictions to install RRFBs on City controlled rights-of-way provided that the municipality does so in full compliance with Interim Approval 21. Typical installation costs range from \$30,000 to more than \$40,000 per location depending on the specific design and components included.

Hamilton Street is classified by the Massachusetts Department of Transportation (MassDOT) as an Urban Collector under City Jurisdiction. The roadway is approximately 38 feet curb to curb, generally runs in an east-west direction in this segment and provides a regional connection between downtown Worcester and the recreational destinations on Lake Ave. The road includes two-way motor vehicle operations with 1 general purpose travel lane in each direction and an on-street bike lane in each direction. On Street parking is not permitted on either side. The statutory (unposted) speed limit is 30 mph. Land use along this section is single family residential. There are 6 to 7 foot sidewalks along the north side and 5 foot sidewalks and a tree lawn along the southern side in this section.

A crosswalk is provided on the westerly side of the intersection with Palisades Street. Curb ramps are provided at either end of the crosswalk and based on visual inspection appear ADA compliant. A westbound WRTA bus stop is present on the north side of the roadway; however, the corresponding eastbound bus stop is located one block to the east near Coburn Street.

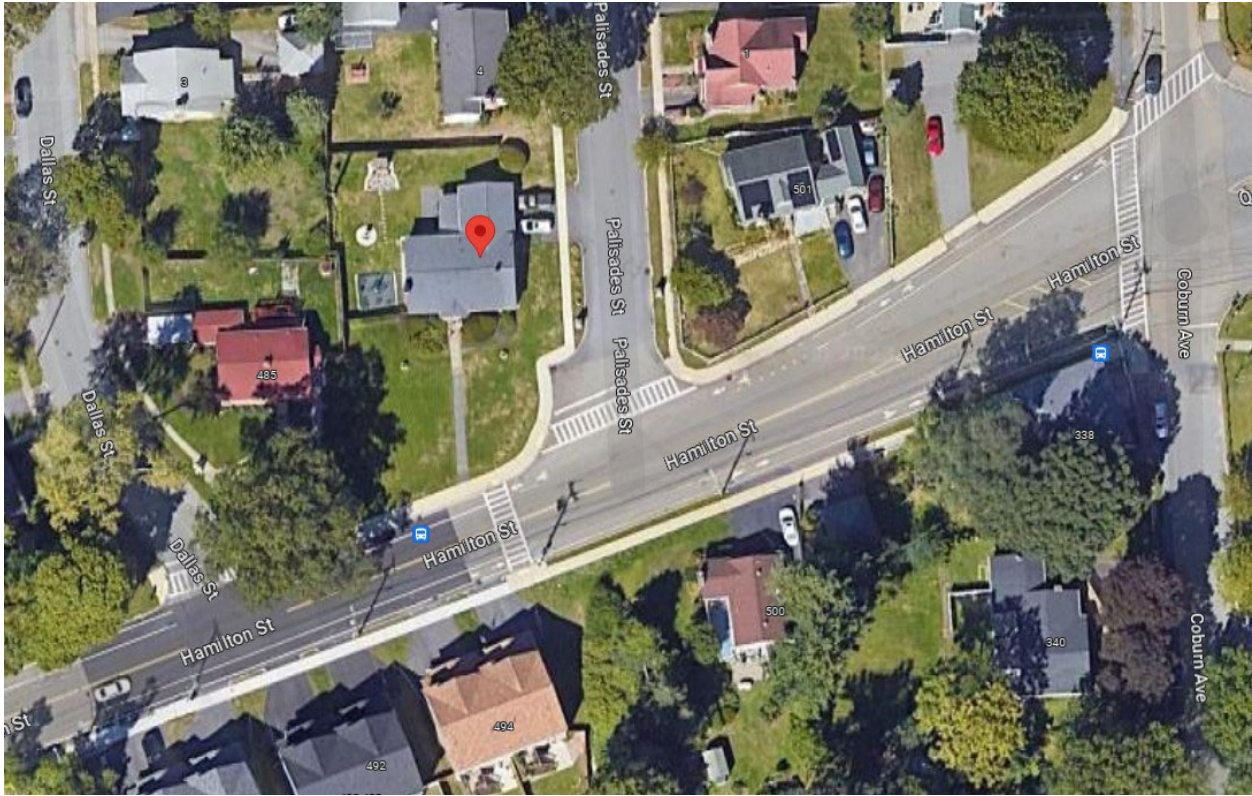


IMAGE 1: AERIAL VIEW OF LOCATION

In September, staff from DTM investigated the location to determine if it was an appropriate candidate for the installation of an RRFB system. Aspects investigated include:

- **Traffic Volumes & Speed:** As an urban collector, Sunderland Rd has higher than normal volume of traffic in this segment. Using Streetlight Insight data, the average daily volume approaching the crosswalk from the east is 4209 vehicles. The average speed on that approach is 27 mph and an 85th percentile speed of 36 mph. The average daily volume approaching the crosswalk from the west is 3671 vehicles. The average speed on that approach is 28 mph and an 85th percentile speed of 36 mph.
- **Pedestrian Sightlines:** The pedestrian sightlines are over 300 feet in either direction. The stopping sight distance needed for the approaching vehicle traveling at the 85th percentile speed is 194 feet. Because on-street parking is prohibited, sightlines are not obscured by parked vehicles.
- **Crosswalk Visibility:** The crosswalk is painted in the high visibility pattern of a ladder style and there is an older school bus yellow pedestrian in crosswalk sign on the eastbound approach. However, there is no corresponding sign on the westbound approach which has the heavier traffic volume.
- **Signing:** A crosswalk sign and corresponding arrow plaque are provided facing eastbound traffic. However, there is no corresponding sign on the westbound approach which has the heavier traffic volume.
- **Crash History:** According the Massachusetts Department of Transportation's Crash Portal, there have been no motor vehicle crashes that this location in the last 5 years. However, this does not account for non-reported crashes or near-miss events.
- **Pedestrian use:** The crosswalk serves a low density single-family neighborhood and is not associated with any special generators of pedestrian traffic. Given these factors, the presumed usage of the crosswalk is low.

Based on staff observation and the recorded traffic characteristics of Hamilton Street in the vicinity of the crosswalk, staff does not believe that the installation of a RRFB system is warranted. Instead, staff recommends the following improvements:

1. Installation of MUTCD Compliant Pedestrian in Crosswalk Signage.



This sign and supplemental arrow plaque are used to notify drivers of a crosswalk so that they are made aware that they may encounter a pedestrian and will be more on alert. We recommend placement of these signs facing westbound traffic at the subject crosswalk (signs already exist facing eastbound traffic).

Recommendation: Based on review of pedestrian, traffic and roadway characteristics at this location, DTM recommends the following:

- Vote to FILE the request for installation of a RRFB system at this location
- Chair's Order requesting that the Commissioner of Transportation & Mobility, through the City Manager, to install the MUTCD compliant Pedestrian in Crosswalk signage at this location.