



TRANSPORTATION ADVISORY COMMITTEE

7 Twin Circle Drive, Arlington, MA 02474

Memorandum

To: Board of Selectmen, Arlington, Massachusetts

From: Transportation Advisory Committee

Subject: Recommendations for Marathon Street and Waldo Road

Date: May 31, 2006

Marathon Street and Waldo Road are in a residential area, near the East Arlington business district. The intersection of Marathon/Waldo has two-way stop control, with stop signs facing Waldo. Jon Whitney, a resident of the neighborhood, has proposed

- Making Marathon/Waldo a 3-way stop with an added stop sign on Marathon
- Reduced speed limit on Marathon.

Our Recommendations

1. Replace the graffiti-covered, faded stop sign on Waldo Road westbound.
2. Since the view of this stop sign is partially obstructed by a street tree, and the sign cannot be moved closer to the curb, add a stop-ahead sign warning sign on Waldo Road westbound.
3. Paint stop bars on Waldo Road at the intersection.

The traffic volumes on Waldo Road are not high enough to warrant a three-way stop sign. (See http://tac.arlington.ma.us/documents/guidelines_all_way_stop.pdf)

Given the legal constraints on speed limit changes, changing the speed limit is not a realistic option.

The attachment contains details on traffic volumes and on other options that were considered.

Respectfully submitted,

Edward Starr
Chair of Transportation Advisory Committee

Background

Marathon Street is in a thickly settled residential area, near the East Arlington business district. It is a public way that runs one way from Massachusetts Avenue to Broadway (Figure 1). It is approximately 28' wide from curb to curb at Waldo Road, although curbs are sometimes not well-defined. Waldo Road is a two-way local street, also 28' wide. The intersection of Marathon/Waldo has two-way stop control, with stop signs facing Waldo.

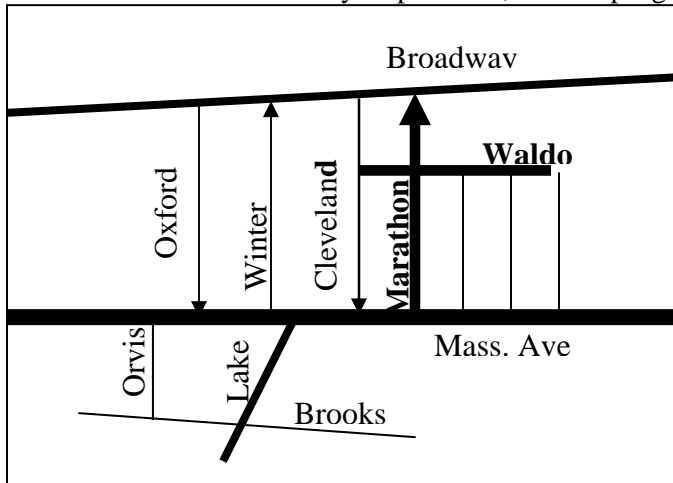


Figure 1 Location Map

Traffic Volumes and Speeds

Volume and speed measurements were made for a total of three days between noon on 10/7/2002 and noon on 10/10/2002 at #38 Marathon (between Mass Ave and Waldo). Average daily traffic is approximately 2,600 vehicles. Mean speed is 25 mph, while 85th percentile speed is 30 mph (Figure 2). Peak traffic of approximately 250 vehicles per hour occurs in the evening (5 – 6 PM).

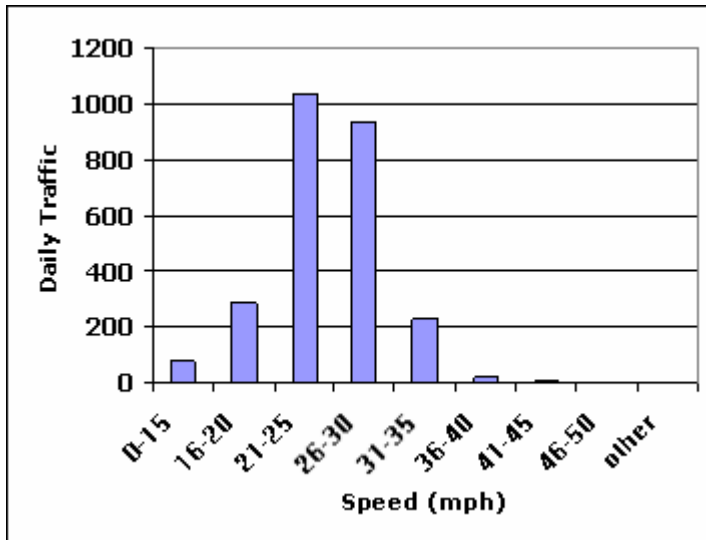


Figure 2 Speed Distribution

No formal measurements have been done on Waldo. However, the following informal observations were made:

- Sunday 4/9/2006 10:30 AM: Approximately 30 vehicles in 20 minutes.
- Wednesday 4/12/2006 7:52 AM: 14 vehicles in 6 minutes
- Wednesday 4/12/2006 5:19 PM: 20 vehicles in 12 minutes. Approximately 60 percent were coming from Cleveland Street.

These numbers translate to between 90 (Sunday) and 140 (AM Peak) vehicles per hour entering the intersection from both sides of Waldo Road.

Crashes

According to APD records, the following crashes were reported at Marathon and Waldo between 2000 and 2005.

Acc#	Inc#	Date
564	M/V IN TRAFF MARATHON ST & WALDO	10/30/2000
642	M/V IN TRAFF WALDO RD & MARATHON	12/13/2000
10429	M/V IN TRAFF MARATHON ST & WALDO	8/2/2001
10614	M/V IN TRAFF WALDORD&MARATHON	11/18/2001
20453	M/V IN TRAFF WALDO RD & MARATHON	9/2/2002
30398	M/V IN TRAFF MARATHON ST & WALDO	8/1/2003
50100	M/V IN TRAFF MARATHON ST & WALDO	2/20/2005
50525	M/V IN TRAFF MARATHON ST & WALDO	10/13/2005
50671	M/V IN TRAFF MARATHON ST & WALDO	12/19/2005

Field Observations

1. There are three “children” signs on Marathon Street, including one at the intersection of Waldo.
2. There is a hedge at the southwest corner at #54 Marathon. It may be in violation of the “visibility at corners” section of the zoning code.
3. Because of the hedge, motorists traveling east on Waldo must pull partway into the parking lane on Marathon Street (so that the driver’s eye is by the sidewalk) in order to see. They do not need to pull into the travel lane.
4. When a car is parked in front of #54 Marathon near the intersection, drivers may have to pull into the travel lane in order to see.
5. The stop sign at Waldo/Marathon westbound is faded and covered with graffiti. Its view is partially obstructed by a street tree. There is no space to move it closer to the curb.

Recommendations

1. Replace the graffiti-covered, faded stop sign on Waldo Road westbound.

2. Since the view of this stop sign is partially obstructed by a street tree, and the sign cannot be moved closer to the curb, add a stop-ahead sign warning sign on Waldo Road westbound.
3. Paint stop bars on Waldo Road at the intersection.

Other Options Considered, but Not Recommended

1. Three-way stop. Traffic volumes on Waldo Road are not quite high enough to meet the criteria for a three or four-way stop sign.
2. Speed-limit change. Given MassHighway constraints on speed limit changes, changing the speed limit is not a realistic option.
3. Warning sign on the Marathon Street approach. The intersection does have somewhat restricted visibility, and it is not obvious to a driver on Marathon that there is an intersection at Waldo until he or she is almost there. However, any motorist on Marathon Street might assume that the sign refers to Broadway.
4. Parking restrictions on the Marathon Street approach to the intersection. Although any cars parked on Marathon Street too close to the intersection would create a visibility problem, there is only limited demand for on-street parking in this area. It was not mentioned as an issue in any of the recent crash reports.



Figure 3 Marathon Street looking north, near Mass Ave.



Figure 6 Waldo Westbound (WB) Approach



Figure 4 Waldo Eastbound (EB) Approach



Figure 7 Waldo WB Approach (close up)



Figure 5 View of Marathon from Waldo EB
(note hedge in front of #54 Marathon...white house with blue trim)

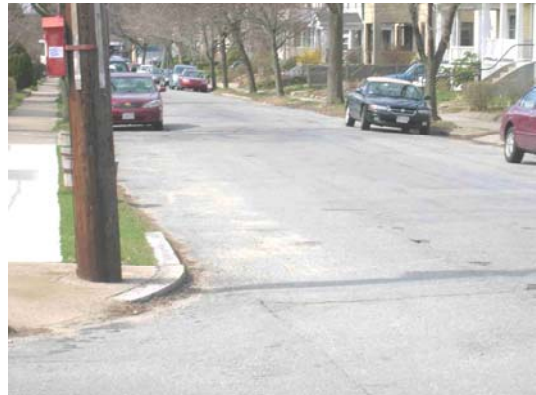


Figure 8 View of Marathon from Waldo