

From: SAMMAT Engineering and Sam Schwartz Engineering

To: Mr. James M. Cheeks Jr.
Chief of Traffic Signals, Safety, Standards, and ITS

Subject: Safety Issues: Military Road at 42nd Street, NW

This memo was prepared by SAMMAT Engineering and Sam Schwartz Engineering under the DDOT Traffic Safety Engineering Support Services project to summarize our review of traffic safety issues at the intersection of Military Road and 42nd Street.

According to analysis previously conducted by DDOT staff, twenty-four (24) crashes were reported at this intersection during the six year period 2005 thru 2010, with ten (10) involving right-angle collisions. Half of these crashes occurred between the hours of 4:00 PM and 6:30 PM. Furthermore, field observations by DDOT staff indicate low compliance with the northbound right turn only restriction.

Based on the intersection's crash history and the observed low compliance with the right turn only restriction, as well as limited sight distance caused by high peak-hour traffic volumes on Military Road, DDOT has proposed to restrict movements at the intersection to right turn only for both northbound and southbound approaches, with additional pavement markings and channelizing devices to direct the drivers' path(s). Our field review indicates the approaches to the intersection on Military Road are well marked with 25 mph speed limits signs and "Intersection Ahead" warning signs.

Assuming this intersection does not meet the warrants for installation of a traffic signal or 4-Way Stop control, the traffic engineering measures proposed by DDOT seem appropriate and reasonable to reduce the frequency of collisions associated with drivers currently approaching the intersection from 42nd Street who either attempt to proceed straight across Military Road or turn left onto Military Road.

In addition to the measures proposed by DDOT, and considering the residential nature of this intersection, we suggest that consideration should also be given to implementing appropriate traffic calming devices on Military Road. This includes the installation of speed cameras on Military Road approaching 42nd Street. MPD's speed camera program now includes the use of small, semi-fixed camera housings similar to the device shown in Figure 1. This type of camera unit can potentially be installed in the utility strip of Military Road on both the eastbound and westbound approaches to 42nd Street, at the approximate locations illustrated in Figures 2 and 3.

Figure 1: example of semi-fixed speed camera housing



Figure 2: Potential location for speed camera: WB Military Road approaching 42nd Street



Figure 3: Potential location for speed camera: EB Military Road approaching 42nd Street



To more closely examine the concept of installing speed cameras on Military Road, analysis would be needed of current traffic volumes and speed violations, as well as a determination of the suitability of installing cameras at these proposed locations.

We do not agree with the ANC's suggestion that parking be banned on Military Road to improve sight distance. Parking is already restricted on Military Road far beyond the intersection with 42nd Street, and both DDOT and consultant field observations have concluded that parking does not impede sight distance. Keeping in mind the slow speeds and residential character of the location, we believe it is reasonable to allow the current mid-block parking.

And we do not agree with the ANC's suggestion that Northbound and Southbound green time be restricted to 10 or 15 seconds on Military Road/41st Street. Providing such minimal amounts of green time is inconsistent with standard traffic signal timing practices, and may increase the risk of crashes. Such short timing also has the potential to negatively affect safety and traffic flow at other intersections.

The crash data analyzed to date by DDOT cover 2005 – 2010. Before implementing further measures other than those already proposed by DDOT, we believe it would be prudent to evaluate changes in crash data for the period following the installation of the right-turn-only restrictions.

The ANC resolution refers to "barriers" proposed by DDOT to reinforce the right-turn-only restrictions. The ANC does not appear to have a clear understanding of DDOT's intention to reinforce the right-turn-only restrictions using additional pavement markings, signage and channelizing devices to direct the drivers' paths. It should be reiterated that DDOT has not proposed barriers, but rather channelizing devices, which have a lower profile than barriers.

The ANC references a 2004 Friendship Heights Transportation Study, which we believe is too old to be relevant to current traffic safety investigation efforts. Also, it is not clear who authored this report. Items in the 2004 Study have been review and have been considered.

DDOT should also install the sharrows on 41st St. Field reviews of the area and analysis indicate that there will be no adverse impact to prohibiting through and left-turns at 42nd St. As stated in the DDOT report the Traffic Engineer has review the data is obligated to move forward with this install as this is a "Safety Issue". Finally, there are some relatively simple measures that could be implemented as requested by the ANC, such as adding striping on 42nd Street to indicate on-street parking areas, and installing additional signs to promote compliance with the right-turn-only restrictions.