



January 5, 2023

TO: Craig Simoneau, P.E., Acting City Manager

FROM: Bryan Barnett-Woods, AICP, Vision Zero Coordinator *BB*

VIA: Emad Elshafei, P.E., Chief of Traffic and Transportation *EE*
James Woods, P.E., Acting Director of Public Works *JW*

SUBJECT: Vision Zero Post-Crash Inspection – December 26, 2023, Veirs Mill Road and Atlantic Avenue

The purpose of this memorandum is to provide a report for the inspection conducted by city staff after the pedestrian fatal crash on December 26, 2023. After a fatal crash in Rockville, the Montgomery County Collision Reconstruction Unit (CRU) manages the crash investigation and prepares the CRU crash report. Unlike property damage or minor injury crashes, this process can take several weeks to complete. While the CRU prepares its report, the city conducts a Vision Zero Post-Crash Inspection shortly after a fatal crash is reported.

The city's Department of Public Works (DPW) inspects the roadway pavement, sidewalks, curb ramps, signs, and pavement markings; confirms that the traffic signals and pedestrian signals are operating appropriately; and assesses whether the streetlights are working and whether lighting is sufficient. Additionally, the Public Information Office (PIO) posts Vision Zero safety messages relevant to all modes of travel. Lastly, the Rockville City Police Department (RCPD) determines whether additional enforcement for pedestrians and motorists is necessary.

As recommended, this memo, and subsequent Vision Zero post-crash inspection memos, will be posted on the City's Vision Zero webpage and be accessible to the public.

Additionally, as part of state legislation, the Maryland Department of Transportation State Highway Administration (MDOT SHA), will prepare a "Pedestrian and Bicycle Fatality Infrastructure Review". This review will be posted to the MDOT SHA website within six months of the crash.

December 26, 2023, Veirs Mill Road (MD 586) and Atlantic Avenue Crash

On December 26, 2023, a pedestrian crossing Veirs Mill Road at Atlantic Avenue was killed in a crash. Veirs Mill Road is a state-owned and maintained roadway, Atlantic Avenue is city-owned and maintained by the City of Rockville. The intersection is owned by MDOT SHA and the traffic signal is operated and maintained by Montgomery County Department of Transportation (MCDOT) on behalf of MDOT SHA. The Montgomery County CRU is currently investigating the crash.

Post-Crash Inspection Findings and Response

DPW staff completed its post-crash inspection during the last week of December 2023, and the first week of January 2024.

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Signage and Pavement Markings - DPW staff inspected the signage and pavement markings on Veirs Mill Road at and beyond Atlantic Avenue. There is a “Keep Right” sign knocked down on Veirs Mill Road at Meadow Hall Drive headed towards Twinbrook Pkwy. There is also a “Keep Right” sign leaning on Veirs Mill Road at Twinbrook Parkway headed towards Atlantic Avenue. DPW staff has reported these deficiencies to MDOT SHA.

The turn arrows on the pavement coming out of Twinbrook Shopping Center are faded. DPW staff has reported this issue to MDOT SHA.

All other signs, delineators (flex posts), crosswalks, stop bars and long lines are in good condition.

Roadway Pavement and Sidewalk – There is a sidewalk trip hazard on the sidewalk on eastbound Veirs Mill Road in front of the McDonalds restaurant. DPW staff has repaired this trip hazard. There is a steel plate in the roadway existing the shopping center in the north leg of the intersection, however it does not present a hazard.

All other sidewalks, curb ramps, and roadway pavement are in good condition.

Intersection Signal – The pedestrian signal push button instructional signs are faded. DPW Staff has reported this issue to MDOT SHA and MCDOT.

The intersection signal is operating as programmed. The pedestrian signal, including the accessible pedestrian signal (APS) push buttons are also operating as programmed. More information regarding the signal timing is below.

Streetlights– Two streetlights on the east side of the intersection were reported as flickering. DPW staff has reported this issue to PEPCO for repair.

All other streetlights are in good condition.

DPW staff has reviewed the location of the existing streetlights at the intersection. The streetlight on the northeast corner of the intersection is slightly off set from the intersection. An additional streetlight can be placed on the existing mast-arm at this corner. DPW staff has submitted a request to add a streetlight here to MDOT SHA.

Public Outreach – The Public Information Office has prepared Rockville Vision Zero branded pedestrian and motorist directed safety messaging which will be released through the City’s social media and other channels. PIO does not recommend installing signage indicating the recent fatality.

Enforcement – The RCPD will conduct additional traffic details at the intersection. RCPD will also request the CRU to provide the crash report when it is available.

Intersection Signal Timing and Pedestrian Signal Timing

The distance to cross Veirs Mill Road varies between 84 and 88 feet. This distance requires 24-25 seconds to cross as the standard pedestrian speed is 3.5 feet per second. The current signal timing plan shows that MCDOT provides 7 seconds “Walk” and 22 seconds “Flash Don’t Walk” (FDW). If this signal were operated by DPW, the FDW would be increased from 22 to 25 seconds. MCDOT includes the yellow signal time as well, which is about 3.5 seconds, and therefore, totals 25.5 seconds. In some cases in Rockville, especially intersections frequented by older adults, DPW calculates the pedestrian crossing time using a pedestrian speed of 3 ft/sec. to increase the FDW phase.

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According to MCDOT's signal timing sheets, the cycle length varies between 120 and 180 seconds, depending on the time of day. This means that the longest wait time for a pedestrian would be 180 seconds until they get a Walk signal to cross Veirs Mill Road.

There is a Leading Pedestrian Interval (LPI) phase to cross Veirs Mill Road which provides the pedestrian a head start to cross the street before any vehicle gets a green light.

The County provides a flashing mode phase between 12:30 AM and 5:30 AM. During this time, a pedestrian signal would not function.

DPW will discuss the signal timing with MCDOT and MDOT SHA and advocate for increased crossing time.

Crash history along Veirs Mill Road within Rockville

Under the city's Vision Zero program, Veirs Mill Road is identified as a High Injury Network (HIN) segment, which means at least four fatal or serious injury crashes have occurred on this segment within the past five years. Data used to identify the HIN as well as complete the Vision Zero crash analysis is collected from the Automated Crash Reporting System (ACRS), which is managed by the Maryland State Police and includes crash reports since 2015 from the Maryland State Police, Montgomery County Police, Gaithersburg Police, Rockville Police, and the Maryland-National Capital Park Police. Updated data is uploaded to the Data Montgomery website each week; the city's Vision Zero website also includes a link to this updated data.

Between January 1, 2015, and December 31, 2023, there have been 542 crashes on Veirs Mill Road between the city limit and Rockville Pike (where Veirs Mill Road ends). Of these crashes, 310 crashes were property damage only crashes, 231 crashes involved an injury, and the fatal crash that occurred on December 26, 2023, is the first fatal crash since 2015. Between 2015 and 2023, there were 33 property damage crashes, 51 injury crashes, and 1 fatal crash at or near the Veirs Mill Road and Atlantic Avenue intersection.

In 2023, along Veirs Mill Road, there were 34 property damage crashes, 26 injury crashes, and 1 fatal crash. In 2023, at or near the Veirs Mill Road and Atlantic Avenue intersection, there were 7 property damage crashes, 7 injury crashes, and 1 fatal crash.

Past improvements to the intersection and other MDOT SHA efforts

This is not the first time that city staff or residents have raised concerns with MDOT SHA regarding the Veirs Mill Road and Atlantic Avenue intersection. In 2018, MDOT SHA conducted an evaluation to improve safety at this intersection. As a result of the 2018 study, MDOT SHA implemented the following improvements in 2020:

1. Add a five-second LPI,
2. Install ground mounted "TURNING VEHICLES YIELD TO PEDS" sign for northbound right-turning vehicles,
3. Install mast arm-mounted "TURNING VEHICLES YIELD TO PEDS" signs for northbound right-turning vehicles,
4. Install mast arm-mounted "TURNING VEHICLES YIELD TO PEDS" signs for southbound left-turning and right-turning vehicles, and
5. Replace existing "TURNING VEHICLES YIELD TO PEDS" sign for eastbound right-turning vehicles.

In 2021, DPW staff requested MDOT SHA to lower the posted speed limited on Veirs Mill Road between Twinbrook Parkway and Edmonston Drive from 40 MPH to 35 MPH. This request is currently pending and requires review and approval by the MDOT SHA Office of Traffic Safety. Staff has requested MDOT SHA

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District 3 staff to obtain a status update regarding this request. Moreover, since the fatal crash, DPW staff has requested a second speed study along this corridor to be included in their infrastructure review.

In 2022, DPW staff, upon recommendation of the Rockville Pedestrian Advocacy Committee, requested MDOT SHA to complete an intersection safety audit and implement recommended improvements for all travel modes. MDOT SHA completed the intersection safety audit in March 2022. In September 2022, the following improvements were implemented.

1. Replace all existing crosswalks with continental style crosswalks,
2. Install “SIGNAL AHEAD” signs on both approaches of Veirs Mill Road,
3. Install hardened centerlines on medians on both sides of Veirs Mill Road,
4. Install flex-post curb extensions in northwest and southeast corners, and
5. Install high-visibility signal backplates.

In addition to the above improvements, DPW staff recommended a pedestrian refuge island on both Veirs Mill Road crossings, and a continental crosswalk on the north leg (shopping center entrance) of the intersection. The pedestrian refuge island was not recommended because the median is too narrow for a pedestrian refuge and there is insufficient pedestrian crossing time. The continental crosswalk was not recommended because of low pedestrian activity, no existing pedestrian ramps, poor connectivity, and potential right of way issues.

In 2023, DPW staff received a request on behalf of a resident to evaluate and improve the Veirs Mill Road crossing at Okinawa Avenue. There are bus stops on either side of Veirs Mill Road at this intersection and there is an unmarked crossing with existing curb ramps in the median. MDOT SHA evaluated this intersection and determined that a marked crosswalk or other improvements are not required because of low pedestrian activity and proper motorist yielding. DPW staff does not concur with these findings and will raise this evaluation during the next coordination meeting, recommending relocating the bus stops and removing existing curb ramps or to provide additional crossing facilities consistent with best practices.

MDOT SHA has an ongoing pedestrian safety program known as the Pedestrian Safety Action Plan (PSAP), which is a component of the state’s larger initiative, “Context Driven,” which strives to implement multimodal roadway safety improvements with consideration of land uses abutting the roadway and recognizing the trade-off between access and mobility. Veirs Mill Road is a prioritized PSAP corridor. Other segments of Veirs Mill Road which are outside of the city limits have had speed limits and lane widths reduced. MDOT staff has indicated that there are no updates or plans for additional improvements along Veirs Mill Road within the city currently. DPW staff has requested a meeting to explore future traffic safety and pedestrian improvements along this corridor.

Lastly, MDOT SHA is conducting the “Pedestrian and Bicyclist Fatality Infrastructure Review,” consistent with state law. This review will be shared with DPW and be posted to the MDOT SHA website.