

Route 50 at Manchester Street Traffic Operations and Safety Study

Frequently Asked Questions

Updated March 2022

Can the intersection of Route 50 at Manchester Street be grade separated by bridging Route 50 over Manchester Street or vice versa?

This study's purpose is to identify and evaluate short-term and mid-term concepts to improve the safety and operations at the Route 50 and Manchester Street intersection. Although not considered as part of this study, installing a grade separated intersection would require creating a project and identifying funding for design, right of way acquisition, utility adjustments and construction. Acquisition of right of way in the vicinity of the intersection is anticipated to significantly impact the surrounding communities.

How can the turn lane operation be enforced on Manchester Street for vehicles crossing Route 50? Is there a more optimal lane configuration for Manchester Street?

The current lane configuration on Manchester Street consists of a northbound shared left-turn/through lane and right-turn lane and a southbound left-turn lane and shared through/right-turn lane. Based on the turning movements counts collected as part of the study, the existing lane configuration is the optimal lane configuration considering the number of available lanes and traffic volumes. Additional signing and pavement markings on Manchester Street approaching Route 50 are under consideration as part of the study recommendations to inform drivers and reinforce lane configurations on Manchester Street.

How can the signalized intersection at Route 50 and Manchester Street be more visible and expected by motorists?

Arlington County is planning to install high visibility backplates on traffic signal heads in late 2021 which will improve the visibility of the signal heads. In addition, installation of pedestrian warning signs ("Turning Vehicles Yield to Pedestrians") at the intersection is another potential improvement under consideration as part of the study. Additional signing and pavement markings on Manchester Street approaching Route 50 are under consideration as part of the study to inform drivers and reinforce lane configurations on Manchester Street.

Can the speed limit along Route 50 be reduced to 35 MPH to address speeding?

Speed data trends were reviewed as part of the study's traffic operations analysis. In general, average travel speeds are not significantly greater than the 45-mile per hour posted speed limit through the study area due to the signalized intersections at Olin Drive, Manchester Street, and Edison Street. Therefore, a speed limit reduction was not considered as part of the range of alternatives considered.

Speed limits (other than statutory speed limits) are established based on an engineering study as required by Virginia law as well as standard engineering practice. The speed study analyzes various factors affecting the safe and appropriate speed on a particular road, such as the physical features (e.g., geometry, lane and shoulder width, etc.), the type and extent of development (e.g. residential, commercial, etc.) along the roadway, crash data, the extent of pedestrian and bicycle activity, and the prevailing speed on the roadway under typical conditions.

Speed limits also assist law enforcement personnel and promote better traffic flow by potentially reducing a wide variance in speeds. Increasing the range of motorist travel speeds typically results in a higher frequency of crashes. More information regarding the establishment of speed limits can be found on VDOT's website: <https://www.virginiadot.org/info/faq-speedlimits.asp>

Can a corridor safety study for the entire length of Route 50 in Arlington County and Fairfax County be conducted in order to identify and implement consistent operational and safety improvements through the whole corridor?

This study's purpose is to identify and evaluate short-term and mid-term concepts to improve the safety and operations at the Route 50 and Manchester Street intersection.

Studies of Route 50 have recently been completed in both Fairfax and Arlington Counties (<https://www.virginiadot.org/projects/northern%20virginia/default.asp>). In 2020, Arlington County submitted a successful application for VDOT SmartScale funding for substantial improvements along Route 50 between Glebe Road and Fillmore Street.

How can the conflict between vehicles not yielding to pedestrians in the crosswalks be avoided?

Arlington County is planning to implement protected-only left-turn phasing on the eastbound and westbound Route 50 approaches to Manchester Street where left-turning vehicles only are only permitted to turn during a green arrow. This improvement is scheduled to occur in late 2021 and will reduce conflicts between pedestrians crossing Manchester Street and left-turning vehicles from Route 50.

The potential short-term improvement concepts involving modifying the northbound and southbound Manchester Street phasing from a single concurrent phase to two phases would eliminate the conflicts between vehicles making a left turn from Manchester Street and pedestrians crossing Route 50. Vehicles turning right from Manchester Street to Route 50 would still be expected to yield to pedestrians.

In addition, installation of pedestrian warning signs ("Turning Vehicles Yield to Pedestrians") at the intersection is another potential improvement under consideration as part of the study.

Should the pedestrian walk time be extended for pedestrians crossing Route 50?

Pedestrian crossing times are based on Arlington County, VDOT and industry standards and typical pedestrian walking speeds. The combined pedestrian "WALK" time and "FLASHING DON'T WALK" time of 35 seconds is longer than the required standards for crossing of Route 50. In addition, a 4 second

Lead Pedestrian Interval (LPI) is provided for crossings of Route 50 to give pedestrians a “head start” when entering an intersection with a corresponding green signal in the same direction of travel. LPIs enhance the visibility of pedestrians in the intersection and reinforce their right-of-way over turning vehicles, especially in locations with a history of conflict.

If the conflict is removed or improved between the pedestrians crossing Route 50 and motorists turning from Manchester Street to Route 50, pedestrians will be able to begin crossing Route 50 without needing to hesitate and wait for turning vehicles who are not yielding to pedestrians; therefore, allowing for more effective crossing time.

How can traffic regulations be enforced? (i.e., speed limit, right turn on red prohibition, red light running, etc.)

Strategies to address safety issues include the “3 E’s” - Education, Enforcement, and Engineering. In addition to considering engineering strategies to address safety issues at the intersection, the study team has involved the Arlington County Police Department to understand the community’s safety concerns and identify potential enforcement options in order to address the enforcement aspect of traffic safety.

How were the Alternatives under consideration developed?

The study team evaluated existing safety and operations through the review of field data collection and observations, historical crash trends, speed and traffic volume data including vehicles, bicycles, and pedestrian data. Public feedback was also collected and reviewed from the Boulevard Manor Civic Association meeting on October 21, 2019. Insight from the public and stakeholders was used along with the traffic and crash data analysis in order to develop various alternatives and supplemental options which meet the study’s goals and objectives.

The technical team (VDOT staff and consultant, Arlington County staff, with input from Arlington County Police) will use public input to further screen proposed improvements and develop cost estimates.

It should be noted that this study does not set construction dates for any of the alternatives. The purpose of this study is to develop proposed improvements that can be implemented with operational measures (such as signal timings) or that localities can pursue for funding (for design, right of way acquisition and utility adjustments if applicable, and construction).

Why were the No Right Turn On Red signs installed on northbound and southbound Manchester Street at Route 50?

The No Right Turn On Red” signs were installed to improve pedestrian safety and reduce the potential for conflicts between vehicles and pedestrians crossing Route 50 during the WALK indication. Although this change may have increased the length of queues on the northbound Manchester Street approach and resulted in fewer gaps for motorists turning from the service road since motorists can no longer legally make right turns on red, this change was made to improve pedestrian safety at the intersection.