



U.S. Department
of Transportation



Federal Transit Administration Bus Rapid Transit Demonstration Program

MONTGOMERY COUNTY, MD VEIRS MILL ROAD



1. Narrative of Project Description

- **Type of Project**

As with the Bus Rapid Transit (BRT) concept in general, the Veirs Mill Bus Priority Project will include an array of strategies to improve the operations and service quality of bus service. The proposed strategies include route modifications, queue jumpers at major intersections, shoulder operations, and bus stations with real-time information.

Veirs Mill Road is MD 586, a four- to six-lane Maryland State highway stretching six miles between downtown Rockville and Wheaton. Veirs Mill Road functions as a major arterial, carrying 55,000 vehicles per day. Veirs Mill is one of the most heavily used non-rail transit corridors in the county. Some 11,300 daily transit riders currently use Veirs Mill Road, contributing to a 25 percent transit mode share among residents living adjacent to Veirs Mill Road. Veirs Mill currently experiences major congestion problems, which are projected to

worsen in coming years. The Veirs Mill Bus Priority Project will address the negative effects on transit from increasing congestion.

Route modifications and queue jumping are two BRT strategies that are interrelated in this project. Rerouting is essentially a no-cost measure that takes advantage of an existing slip ramp and a congestion-free parallel street to access the Rockville Metrorail Station. The distance involved is 3/4 of a mile and would conservatively save 60 seconds per peak trip due to fewer traffic signals, less congestion, and faster travel speeds. Because of the geometry of the adjacent intersection and existing congestion backup, this element would be implemented with the creation of an MD 28 queue jumper.

Queue jumpers are a technique for permitting buses to pass through an intersection prior to general purpose traffic. Near side roadway treatment involves an exclusive lane for buses to move to the head of the line (or queue) at an intersection. The principle is that buses advance past backed-up traffic to the front of the intersection. At the concept phase, Montgomery County anticipates continuing the exclusive bus lanes on the far side of each intersection for a sufficient distance so buses can move back into the adjacent general purpose lane. Where adjacent land uses make this approach infeasible, the county will consider providing early green signals for buses so buses can proceed through the intersection before general purpose traffic. Queue jumper concepts have been developed for five major intersections: MD 28, Twinbrook Parkway, Aspen Hill Road, Randolph Road, and Connecticut Avenue.

Shoulder running is the third BRT strategy proposed for Veirs Mill. A 12-foot wide shoulder exists along a 1.5 mile section of Veirs Mill Road between Twinbrook Parkway and Parkland Drive. Buses frequently use this shoulder to avoid traffic conditions, despite the fact that shoulder running is not permitted due to the substandard road surface. This project would upgrade the shoulder for bus operations and construct sidewalks where they do not currently exist.

Also, the county will construct a series of enlarged shelters at key locations along Veirs Mill. The objective of constructing these shelters, more commonly identified with rail systems, is to establish a unique identity to the BRT system and to ensure that patrons are provided with safe, secure, and comfortable waiting areas with ample space. The shelters would provide real-time information on bus arrivals and departures displayed on message boards. Bus service information would also be available by telephone or, by computer, through the world wide web. Solar lighting and emergency call boxes would be installed.

- **Method of Operation**

Eight different bus routes operate along Veirs Mill Road, requiring a total of 35,000 annual platform hours. The majority of bus service (80%) is operated by Washington Area Metropolitan Transit Authority (WMATA). The county directly operates 20% of the Veirs Mill service using its own Ride On system.

The proposed Veirs Mill Project will affect transit operations by speeding buses past key congestion areas in less time. Not only will speeds increase, but service reliability will improve.

- **Service Levels**

Eight routes serve Veirs Mill Road. The length of Veirs Mill Road served by each of these routes varies from a half mile to the entire six miles. In total, these eight bus routes provide 575 daily bus trips, 378 Saturday bus trips, and 272 Sunday bus trips. However, only two routes operate the entire length of Veirs Mill, the Q1 and the Q2. The Q1 provides peak hour limited-stop service. The combined headways for the Q1 and Q2 are:

Current Service Levels

Day of Week	Peak	Base	Evening
Weekday	10 minutes	12 minutes	12 minutes
Saturday	12 minutes	12 minutes	12 minutes
Sunday	12 minutes	12 minutes	12 minutes

Due to travel time savings coupled with projected increased background traffic congestion, service headways are likely to decrease by two to four minutes.

- **Estimated Time Savings**

Travel time savings are projected to be 18% of the current p.m. peak period travel time between Rockville and Wheaton. This travel time savings equates to 6 minutes. The travel time saved will undoubtedly increase with increasing background traffic congestion.

- **Number and Type of Vehicles Providing Service**

All service along Veirs Mill Road, including the Q1 and Q2 routes, are part of longer routes. During peak periods eight buses provide service on the Q2. The number of buses operating other Veirs Mill bus routes vary between two and eight.

Most Veirs Mill bus service is operated with 60-foot articulated WMATA buses. Standard 40-foot and mini-buses are also used and depend upon the route and time of day.

- **Fare Collection and Boarding**

Fare collection would continue to occur onboard transit vehicles. Both WMATA and Montgomery County are moving toward system-wide introduction of swipe farecard technology.

- **Use of ITS Capabilities**

Montgomery County has one of the only fully integrated traffic/transit transportation Management Centers (TMC) in the country. Ride On buses are dispatched from the TMC, using a computer aided dispatch and automatic vehicle location system. However, in order to provide patrons with adequate information and provide traffic signal prioritization, ITS capabilities need to be expanded to WMATA buses.

- **Traffic Engineering and Infrastructure**

Major intersections will need to be reconfigured to provide for queue jumper lanes and 1.5 miles of Veirs Mill Road will need reconstruction to convert a shoulder into a bus lane with adjacent sidewalks.

2. Problems Addressed by the Project

This project addresses three problems: bus speeds, schedule adherence, and improved riders convenience. Due to traffic congestion, Veirs Mill buses lose some 15 minutes per trip to traffic congestion. In assessing a sample of southbound evening peak trips, all bus trips were more than 10% behind scheduled times. Bus shelters with ITS capabilities will improve rider comfort and information.

3. Implementation and Operations Schedule

The Veirs Mill BRT project is largely dependent upon reconfiguration of major intersections by the State Highway Administration. Concept studies are underway for all of the major intersections identified in this project. However, construction funds have not yet been allocated. The county anticipates completing this project, in stages, over the next two to six years.

4. Funding Plan

The projected cost is some \$6 million. The Montgomery County Executive and County Council identified the Veirs Mill project as one of its top two projects for the next session of the Maryland General Assembly.

5. Issues of Concern re: planning, design, implementation and/or operations

The Veirs Mill intersection improvements are under design as part of a larger State Highway Administration Congestion Relief Study. The Congestion Relief Study objective relates to general purpose traffic improvement. Therefore, the widening of project objectives to facilitate transit improvements is an on-going planning and political process.

6. Current Status

The State Highway Administration, County Executive, County Council, WMATA, and the City of Rockville have all endorsed the Veirs Mill BRT project. The county is currently working with the State Highway Administration on developing and assessing design concepts.

7. Contacts

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