Veirs Mill Corridor Master Plan: Work Session #7

During the seventh work session, staff will continue discussions with the Planning Board on the transportation recommendations in the Veirs Mill Corridor Master Plan Public Hearing Draft. The discussion will primarily focus on the traffic analysis completed in support of the plan. In addition, staff will present information on the public hearing draft’s recommendation for the interchange at Veirs Mill Road and Randolph Road, as well as refinements to the transportation recommendations in response to direction provided by the Planning Board during previous work sessions.

SCHEDULE

The Planning Board’s public hearing on the Veirs Mill Corridor Master Plan was held on April 26, 2018 and the Board held three work sessions focused on the land use and zoning recommendations in the public hearing draft on May 17, June 7 and July 12. The fourth and fifth work sessions, held on September 20 and October 4, focused on the transportation recommendations. The fifth work session, held on November 15, focused on the testimony received for properties in the Connecticut-Randolph District and the Twinbrook District. Additional work sessions are scheduled for December 13 and December 20 (if needed) to review the Planning Board Draft. Key milestones in the Veirs Mill Corridor Master Plan process include the following:

- January 11, 2018: Preliminary Recommendations presented to the Planning Board
- March 8, 2018: Working Draft presented to the Planning Board
- April 26, 2018: Planning Board Public Hearing
- May 17, 2018: Planning Board Work Session #1
- June 7, 2018: Planning Board Work Session #2
- July 12, 2018: Planning Board Work Session #3
- September 20, 2018: Planning Board Work Session #4
- October 4, 2018: Planning Board Work Session #5
- November 15, 2018: Planning Board Work Session #6
- November 29, 2018: Planning Board Work Session #7
- December 13, 2018: Planning Board Work Session #8
- December 20, 2018: Planning Board Work Session #9 (Tentative)

Attachment: Letter from Connecticut Avenue Estates Civic Association
WORK SESSION PURPOSE

During the seventh work session, staff will present the results of the traffic analysis completed in support of the plan, including an intersection analysis as well as a corridor analysis. As discussed during the September 20 work session, the overall transportation goal of the Veirs Mill Corridor Master Plan is to transform Veirs Mill Road from a motor-vehicle dominated corridor to a safe, efficient and multimodal complete street. The transportation recommendations seek to increase safety, enhance connectivity and prioritize the safety of all road users, consistent with Vision Zero.

As the transportation recommendations prioritize the safety of all road users, the recommendations result in additional forecasted vehicular delay at local intersections, as well as along the corridor. During the seventh work session, staff will provide justification to support acceptance of the additional vehicular delay to improve safety as well as present mitigation strategies to address the increase in vehicular delay.

In addition, staff will present information on the public hearing draft’s recommendation for the planned interchange at Veirs Mill Road and Randolph Road, as well as refinements to the transportation recommendations in response to direction provided by the Planning Board during previous work sessions.

TRANSPORTATION ANALYSIS

Existing Conditions – Local Intersection Traffic Analysis

Consistent with the 2016-2020 Subdivision Staging Policy (SSP), the traffic conditions at selected intersections within and near the Veirs Mill Corridor Master Plan area were evaluated in the context of existing conditions and alternative master plan scenarios. The ten intersections evaluated are shown in Figure 1, which includes five intersections located outside of the plan area. The five intersections outside the plan area were included in the analysis as they are major intersections that serve as “gateways” to and from the plan area and provide a thorough, comprehensive analysis of the traffic conditions.
The plan area is primarily located within the Kensington / Wheaton and Aspen Hill Policy Areas, although the southwestern portion of the plan area is located within the North Bethesda Policy Area. Each policy area is assigned a congestion standard and the standards are used to evaluate traffic conditions for each of the intersections. As two intersections (Veirs Mill Road at Rockville Pike and Veirs Mill Road at Twinbrook Parkway) are located on the boundary shared by two policy areas, county policy requires the application of the higher congestion delay standard when evaluating intersection performance adequacy. The congestion standards for each of the relevant policy areas are shown in Table 1.

Figure 1: Relationship of Master Plan Boundary to Policy Areas and Study Area Intersections
Table 1: Subdivision Staging Policy Intersection Congestion Standards

<table>
<thead>
<tr>
<th>Policy Area</th>
<th>HCM Volume-to-Capacity Equivalent</th>
<th>HCM Average Vehicle Delay Standard (seconds/vehicle)</th>
<th>Intersection IDs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aspen Hill</td>
<td>0.92</td>
<td>59</td>
<td>4</td>
</tr>
<tr>
<td>Rockville City</td>
<td>0.94</td>
<td>63</td>
<td>2, 3</td>
</tr>
<tr>
<td>North Bethesda</td>
<td>0.97</td>
<td>71</td>
<td>3</td>
</tr>
<tr>
<td>Kensington/Wheaton</td>
<td>1.00</td>
<td>80</td>
<td>5, 6, 10</td>
</tr>
<tr>
<td>Rockville Town Center</td>
<td>1.13</td>
<td>120</td>
<td>1, 2</td>
</tr>
<tr>
<td>Wheaton CBD</td>
<td>1.13</td>
<td>120</td>
<td>7, 8</td>
</tr>
<tr>
<td>Twinbrook</td>
<td>1.13</td>
<td>120</td>
<td>9</td>
</tr>
</tbody>
</table>

Table 2 summarizes the results of the existing conditions analysis for each intersection for the AM and PM peak hours. Traffic delay, measured in seconds, represents the estimated average vehicle delay for vehicles that travel through an intersection. Intersections estimated to operate at or above the congestion delay threshold reflected by the applicable policy area delay standard are considered “failing.” The ratio of estimated Highway Capacity Manual (HCM) delay relative to the applicable policy area congestion delay standard above 1.0 represents a failing traffic condition.

Table 2: Existing Condition (Year 2016) Traffic Delay

<table>
<thead>
<tr>
<th>ID</th>
<th>E-W Road</th>
<th>N-S Road</th>
<th>Delay Standard (seconds)</th>
<th>AM Delay</th>
<th>AM Ratio</th>
<th>PM Delay</th>
<th>PM Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>Rockville Pike (MD 355)</td>
<td>120</td>
<td>39.9</td>
<td>0.33</td>
<td>76.2</td>
<td>0.64</td>
</tr>
<tr>
<td>2</td>
<td>Rockville Pike (MD 355)</td>
<td>First Street (MD 28)</td>
<td>120</td>
<td>51.9</td>
<td>0.43</td>
<td>44.5</td>
<td>0.37</td>
</tr>
<tr>
<td>3</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>Twinbrook Pkwy</td>
<td>71</td>
<td>77.7</td>
<td>1.09</td>
<td>75.5</td>
<td>1.06</td>
</tr>
<tr>
<td>4</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>Robindale Dr</td>
<td>59</td>
<td>7.1</td>
<td>0.12</td>
<td>3.8</td>
<td>0.06</td>
</tr>
<tr>
<td>5</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>Randolph Rd</td>
<td>80</td>
<td>70.1</td>
<td>0.88</td>
<td>57.1</td>
<td>0.71</td>
</tr>
<tr>
<td>6</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>Connecticut Ave (MD 185)</td>
<td>80</td>
<td>74.5</td>
<td>0.93</td>
<td>103.4</td>
<td>1.29</td>
</tr>
<tr>
<td>7</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>University Blvd (MD 193)</td>
<td>120</td>
<td>52.4</td>
<td>0.44</td>
<td>64.7</td>
<td>0.54</td>
</tr>
<tr>
<td>8</td>
<td>Veirs Mill Rd (MD 586)</td>
<td>Georgia Ave (MD 97)</td>
<td>120</td>
<td>27.2</td>
<td>0.23</td>
<td>25.1</td>
<td>0.21</td>
</tr>
<tr>
<td>9</td>
<td>Parklawn Dr</td>
<td>Twinbrook Pkwy</td>
<td>120</td>
<td>39.6</td>
<td>0.33</td>
<td>37.2</td>
<td>0.31</td>
</tr>
<tr>
<td>10</td>
<td>Randolph Rd</td>
<td>Connecticut Ave (MD 185)</td>
<td>80</td>
<td>84.0</td>
<td>1.05</td>
<td>87.7</td>
<td>1.10</td>
</tr>
</tbody>
</table>
Three intersections in the plan area exhibited existing failing conditions during either the AM or PM, or both the AM and PM peak hours of travel. These include:

- Veirs Mill Road (MD 586) at Twinbrook Parkway exceeded the North Bethesda Policy Area congestion standard during the AM and PM peak hour of travel.
- Veirs Mill Road (MD 586) at Connecticut Avenue (MD 185) exceeded the Kensington / Wheaton Policy Area congestion standard during the PM peak hour of travel.
- Randolph Road at Connecticut Avenue (MD 185) exceeded the Kensington / Wheaton Policy Area congestion standard during the AM and PM peak hours of travel.

**Future Conditions – Local Intersection Traffic Analysis**

Consistent with other master plans, intersection performance within the plan area was also evaluated for the future. The intersection performance for the future was evaluated for a “no build” land use scenario reflecting existing zoning as well as a land use scenario reflecting the zoning recommendations discussed during previous Planning Board work sessions. The future conditions land use assumptions that were analyzed included existing development, pipeline development and development anticipated based on the plan’s land use and zoning recommendations.

In addition to the future conditions land use scenarios, the traffic analysis also assumed the plan’s transportation recommendations that seek to increase safety, enhance connectivity and prioritize the safety of all road users consistent with Vision Zero – including some transportation recommendations that reduce intersection performance. These recommendations include: (1) bus rapid transit operating in the Veirs Mill Road right-of-way in dedicated, curb-running lanes; (2) two travel lanes in each direction; (3) a Veirs Mill Road target speed of 35 miles per hour; (4) reducing the number of left turn lanes to a single lane at selected intersections (where feasible); and (5) eliminating channelized right-turn lanes.

Table 3 summarizes the AM and PM peak hour results of the future conditions analysis for each study area intersection in the context of the two scenarios described above.
Table 3: Future Condition Traffic Delay

<table>
<thead>
<tr>
<th>ID</th>
<th>E-W Road</th>
<th>N-S Road</th>
<th>Delay Standard (seconds)</th>
<th>2040 Veirs Mill Corridor Plan No Mitigation</th>
<th>2040 Veirs Mill Corridor Plan Mitigated (Increased Standard to 100 seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>AM</td>
<td>PM</td>
</tr>
<tr>
<td>1</td>
<td>MD 586</td>
<td>MD 355</td>
<td>120</td>
<td>D (40.8)</td>
<td>F (116.4)</td>
</tr>
<tr>
<td>2</td>
<td>MD 355</td>
<td>MD 28</td>
<td>120</td>
<td>F (87.0)</td>
<td>F (68.8)</td>
</tr>
<tr>
<td>3</td>
<td>MD 586</td>
<td>Twinbrook Pkwy</td>
<td>71</td>
<td>F (191.6)</td>
<td>F (159.1)</td>
</tr>
<tr>
<td>4</td>
<td>MD 586</td>
<td>Robindale Dr</td>
<td>59</td>
<td>A (7.0)</td>
<td>A (3.4)</td>
</tr>
<tr>
<td>5</td>
<td>MD 586</td>
<td>Randolph Rd</td>
<td>80</td>
<td>F (122.1)</td>
<td>F (88.2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>MD 586</td>
<td>MD 185</td>
<td>80</td>
<td>E (74.7)</td>
<td>F (101.6)</td>
</tr>
<tr>
<td>7</td>
<td>MD 586</td>
<td>MD 193</td>
<td>120</td>
<td>D (47.2)</td>
<td>D (53.3)</td>
</tr>
<tr>
<td>8</td>
<td>MD 586</td>
<td>MD 97</td>
<td>120</td>
<td>C (28.1)</td>
<td>C (24.8)</td>
</tr>
<tr>
<td>9</td>
<td>Twinbrook Pkwy</td>
<td>Parklawn Dr</td>
<td>120</td>
<td>D (54.7)</td>
<td>F (80.8)</td>
</tr>
<tr>
<td>10</td>
<td>MD 185</td>
<td>Randolph Rd</td>
<td>80</td>
<td>F (120.4)</td>
<td>F (112.7)</td>
</tr>
</tbody>
</table>

With respect to the Veirs Mill Corridor Master Plan scenario, the following two sets of results are reported in Table 3 and are briefly described below:

- **2040 Veirs Mill Corridor Plan – No Mitigation**: Estimated year 2040 intersection delay results without mitigation.
- **2040 Veirs Mill Corridor Plan – Mitigated (increased standard to 100 seconds)**: Estimated year 2040 intersection delay results reflecting signal timing mitigation coupled with an assumed increase of delay standard to 100 seconds within the plan area.

Without mitigation, observation of these results indicates that unacceptable traffic congestion conditions are forecasted during the AM and/or PM peak hours of travel at the following study area intersections:

- Veirs Mill Road (MD 586) at First Street (MD 28)
- Veirs Mill Road (MD 586) at Twinbrook Parkway
- Veirs Mill Road (MD 586) at Randolph Road
- Veirs Mill Road (MD 586) at Connecticut Avenue (MD 185)
Connecticut Ave. (MD 185) at Randolph Road

With the application of signal timing mitigation coupled with the policy assumption to increase the intersection delay standard to 100 seconds within the plan area, acceptable traffic congestion conditions can be achieved at most study area intersections. The notable exceptions are:

- Veirs Mill Road (MD 586) at Randolph Road – Forecasted delay is estimated to exceed the proposed 100 second delay standard by 15 seconds.
- Veirs Mill Road (MD 586) at Connecticut Avenue – Forecasted delay is estimated to marginally exceed the proposed delay standard by 1.6 seconds.
- Connecticut Avenue (MD 185) at Randolph Road – Forecasted delay is estimated to marginally exceed the proposed delay standard by 2.4 seconds.

This proposed approach is consistent with the Vision Zero objectives of this plan.

Planning staff has produced a similar set of intersection delay results pertaining to the no-build scenarios described above. In this regard, two key points should be recognized. First, given the modest zoning changes recommended by this plan, the difference between the land use assumptions reflected in the no-build and Veirs Mill Corridor Master Plan scenarios are minimal. Second, the transportation networks assumed in support of the evaluation of both scenarios are the same. As a result, the traffic analysis results derived from the evaluation of the no-build scenario are not provided in this staff report. For comparison purposes, this information will be presented and discussed during the November 29 work session with the Planning Board.

Future Conditions - Corridor Traffic Analysis

In addition to the intersection analysis, a corridor analysis was also completed to evaluate travel times with the implementation of the plan recommendations including:

- Bus Rapid Transit in dedicated, curb-running lanes;
- Two travel lanes in each direction;
- A target speed of 35 miles per hour;
- Limiting unsignalized left turns, where feasible;
- Limiting left turn lanes to a single lane, where feasible; and
- Adding four new protected crossings within the Veirs Mill Corridor Master Plan area.

The corridor analysis will be discussed with the Planning Board during the November 29 work session.

MITIGATION STRATEGIES

The 2017 Local Area Transportation Review Guidelines provides guidance that prioritizes the application of non-auto strategies to mitigate unacceptable traffic congestion, particularly in Road Code Urban Areas and Bicycle Pedestrian Priority Areas, such as Veirs Mill Road. The priorities for mitigation include:

- **Transportation demand management (TDM) approaches to reduce vehicular demand** – Unlike typical master plans that focus on a specific policy area, the geography of this master plan area is a corridor that traverses portions of several policy areas. Furthermore, most of the traffic in the Veirs Mill Corridor is through-traffic and does not result from workers traveling to the plan.
area or residents leaving the plan area. These existing characteristics, coupled with the limited changes to land use and zoning recommended by this master plan, do not support the establishment of non-auto driver mode share (NADMS) goals as an effective TDM strategy to reduce vehicular demand along Veirs Mill Road.

- **Pedestrian or bicycle improvements** – A primary focus of the Veirs Mill Corridor Master Plan is to develop a well-connected network of convenient and safe pedestrian and bicycle facilities. As the plan area currently lacks basic pedestrian and bicycle facilities, this plan proposes a combination of short- and long-term pedestrian and bicycle improvements to provide this essential non-auto infrastructure for the residents, employees and visitors of the plan areas.

- **Transit facility or service improvements** – Veirs Mill Road serves as a significant transit corridor, with extensive bus service provided by the Washington Metropolitan Area Transit Authority’s (WMATA) Metrobus and Montgomery County’s Ride On services. WMATA designated Veirs Mill Road as part of its Priority Corridor Network, as the Veirs Mill bus routes (C4 and Q routes) have some of the highest ridership in the Metrobus system. Veirs Mill Road is also identified as a future bus rapid transit corridor in the 2013 Countywide Transit Corridors Functional Master Plan and additional planning for the implementation of BRT has been completed by the Maryland Department of Transportation State Highway Administration and the Montgomery County Department of Transportation in recent years. The transit recommendations in the Veirs Mill Corridor Master Plan seek to improve the quality of and access to existing bus stops and future BRT stations as well as support the implementation of BRT service in the near-term.

- **Intersection operational improvements** – To the extent feasible, this mitigation strategy, including signal timing adjustments at local intersections and progressive signal timing along the corridor, is reflected in the traffic analysis performed in support of this plan.

As shown in Tables 3 and 4, where traffic delay increases, the plan recommendations prioritize the safety and mobility of pedestrians, bicyclists and transit users and seek to balance the transportation network to serve all road users.

**SUPPORT FOR A BALANCED TRANSPORTATION NETWORK**

While Veirs Mill Road was originally designed, constructed and operated to accommodate east-west travel by motor vehicle in a suburban context, it has evolved over the last 20 to 30 years into a heavily used transit corridor in an urbanizing area of the county. This evolution is apparent through Veirs Mill Road’s designation as a bus rapid transit corridor and a Bicycle Pedestrian Priority Area in the 2013 Countywide Transit Corridors Functional Master Plan.

In addition to adopted plans and policies, the evolution is also apparent in the number of pedestrians and bicyclists increasingly present on and along Veirs Mill Road to access transit and other destinations. However, as discussed during the September 20 work session, the plan area currently lacks basic pedestrian and bicycle facilities and experiences disproportionately high rates of pedestrian and bicycle fatalities and severe injuries in relation to the total number of person trips along Veirs Mill Road. As the use of Veirs Mill Road has evolved from motor vehicle travel to walking, bicycling and transit, it is critical to adapt to the changing character of the corridor and improve safety, walkability and connectivity for all road users, while balancing the acceptance of increased vehicular delay at signalized intersections within the plan area that are located along Veirs Mill Road.
The Veirs Mill Corridor Master Plan Public Hearing Draft also recommends the creation of a new street classification for multimodal transit corridors, such as Veirs Mill Road, that prioritizes walking and bicycling on planned light rail and bus rapid transit corridors by reducing target speeds and providing more frequent crossing opportunities. The establishment of a multimodal transit corridor classification is being discussed as part of the development of a Complete Streets Design Guide, a collaborative initiative between the Planning Department and the Montgomery County Department of Transportation.

Improving the safety of all road users is consistent with Vision Zero, an international strategy to eliminate traffic related fatalities and severe injuries, which was adopted by the County Council in 2016. The adoption of Vision Zero, just prior to the approval of the 2016 SSP, represents a significant change in policy, as Vision Zero prioritizes the safety of all road users rather than focusing on vehicular mobility. As the first master plan to commence following the adoption of Vision Zero, the Veirs Mill Corridor Master Plan seeks to prioritize safety and asserts that increased vehicular delay is acceptable, particularly coupled with the availability of transit, as well as the pedestrian and bicycle recommendations for the plan area.

Achieving increased safety for all road users requires reducing speeds and eliminating conflicts. For example, the removal of channelized right-turn lanes decreases the speed of turning vehicles and eliminates conflicts between vehicles and pedestrians or bicyclists within the crosswalk. Further, the removal of channelized right-turn lanes and the reduction of double-left turn lanes to a single left-turn lane provides direct crossings for pedestrians and bicyclists and reduces their exposure to turning vehicles.

In previous master plans, transportation adequacy provides a higher tolerance for traffic congestion in areas with greater activity and transit service opportunities. In the context of the Veirs Mill Corridor Master Plan, the adoption of Vision Zero inevitably requires a higher tolerance for traffic congestion to achieve increased safety for all road users and to eliminate traffic related fatalities and severe injuries in line with the County’s Vision Zero policy.

As mentioned above, the higher tolerance for traffic congestion can be achieved through the proposed introduction of a new traffic congestion standard for signalized intersections on multimodal transit corridors, such as Veirs Mill Road. Such a standard would increase the delay standard along Veirs Mill Road, which connects two Metro Station Policy Areas, to 100 seconds. As a high-ridership bus corridor and an emerging bus rapid transit corridor, a higher tolerance for traffic congestion should be considered. While the transit services opportunities are not commensurate with those of Metro Station Policy Areas, the transit service opportunities along multimodal transit corridors are robust and the delay standard should reflect the existing and planned services.

While the creation of a new traffic congestion standard for multimodal corridors to achieve increased safety is a new concept which has not been adopted yet, Veirs Mill is not the first master plan in which the traffic congestion standard was modified to achieve county objectives.

In the context of the 2014 White Oak Science Gateway Master Plan, the White Oak policy area was classified as “urban” from a policy area transportation test perspective in recognition of it being an emerging BRT area with existing high-quality local and commuter bus service along Colesville Road (US 29) and New Hampshire Avenue (MD 650). This classification allowed a higher tolerance of traffic congestion in the White Oak policy area relative to the surrounding Fairland/Colesville policy area that
retained its “suburban” classification. The intent of this classification was largely to encourage economic development in the east county. While increases in traffic congestion standards are not contemplated along Veirs Mill Road to encourage economic development, such changes are contemplated to promote the objective of improved safety for all road users consistent with Vision Zero.

**SSP DISCUSSION: CHALLENGES ASSOCIATED WITH EXCLUSIVE RELIANCE ON LOS**

Ideally, every master plan should have a balance between its proposed land use and its proposed transportation network and services. For more than two decades this “balance” has been defined as what is needed to meet the current adequate public facilities (APF) requirements as described in the Subdivision Staging Policy (SSP). Achieving this balance in a master plan is not an academic exercise: if a plan is not balanced, then at some point in the future a proposed master-planned development will be unable to proceed because it will have no means to meet the APF requirements.

In the past quarter century there have been only two master plans adopted which did not achieve this balance. The Potomac Sub-Region Plan (most recently revised in 2002) stipulates that its two-lane roads would not be widened, except at intersections; the community is willing to accept congestion to retain its pastoral ambiance. The Council has rationalized this by recognizing that relatively little through-traffic flows on these roads, and so the future congestion would not significantly affect County residents living outside the sub-region.

The other plan is the Chevy Chase Lake Sector Plan (2013), which forecasts that three intersections will fail Local Area Transportation Review (LATR) at buildout. However, the failure will be at the margin, mainly because the Council included in the plan certain intersection improvements that would bring the sector plan area much closer to passing LATR at buildout.

According to the adopted 2016-2020 SSP, the congestion standard for signalized intersections in county policy areas is based on volume/capacity ratio (using the Highway Capacity Manual method), which translates to an average vehicle delay measured in seconds/vehicle (s/v) and equivalent level of service (LOS) for automobile travel.

To determine whether or not a master plan is in balance, the Council has applied the current SSP transportation test, but using a long-term time frame. This test consists of a Local Area Transportation Review (LATR) analysis reflecting a master plan buildout time horizon that evaluates the traffic generated by the buildout of planned development on a network that assumes certain intersection improvements.

The concept of LOS has been used by traffic and transportation engineers for over 50 years to describe operating conditions for automobile travel on existing or planned roads. LOS is most commonly measured using average vehicle delay at an intersection. It is expressed as a letter grade, ranging from LOS A to LOS F, where LOS A represents completely free-flow conditions, LOS E represents capacity conditions, and LOS F represents over-capacity conditions with considerable delay (Table 5).

This report-card grading is based on a driver’s perspective and the notion that delay is to be minimized. The grading ignores intersection performance from the perspective of other users such as people who walk, people who bicycle and people that take transit. Further, LOS grades below LOS E also represent a low level of utilization, which normally would constitute a poor rating for public infrastructure. Many cities have adopted policies to maintain LOS D or better conditions during peak hours, based on
guidance from *A Policy on Geometric Design of Highways and Streets* (American Association of State Highway and Transportation Officials 2011) and other sources.

*Table 4: Equivalency Between LOS and Average Vehicle Delay*

<table>
<thead>
<tr>
<th>HCM LOS Threshold/ Boundary</th>
<th>Corresponding Average Vehicle Delay per HCM (seconds)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A / B</td>
<td>10</td>
<td>Operations with very slight delay, with no approach phase fully utilized.</td>
</tr>
<tr>
<td>B / C</td>
<td>20</td>
<td>Operations with slight delay, with occasional full utilization of approach phase.</td>
</tr>
<tr>
<td>D / E</td>
<td>55</td>
<td>Operations with heavier, but frequently tolerable delay. Many vehicles stop, and individual cycle failures are noticeable.</td>
</tr>
<tr>
<td>E / F</td>
<td>80</td>
<td>Operations with very high delays and congestion volumes vary widely depending on downstream queue conditions.</td>
</tr>
<tr>
<td>n/a</td>
<td>120</td>
<td>Operations with extremely high delays and congestion volumes vary widely depending on downstream queue conditions.</td>
</tr>
</tbody>
</table>

LOS can be a very useful and effective metric for designing infrastructure and understanding the consequences to automobile traffic of planning and design decisions. However, that is generally the extent of its utility. It does not help to inform us about a number of other factors that are important such as the availability of and access to other modes of travel and potential impacts to safety for all road users resulting from increased vehicular speeds and infrastructure design that prioritizes motor vehicle travel. The Veirs Mill Corridor Master Plan seeks to provide safe and efficient travel for all transportation modes and the LOS metric does not consider operations or conditions for other modes of transportation, including walking, bicycling and transit use.

**VEIRS MILL ROAD AND RANDOLPH ROAD INTERCHANGE**

The 2004 Amendment to the Master Plan of Highways (Transportation) Within Montgomery County recommended a grade-separated interchange at Veirs Mill Road and Randolph Road to improve vehicular mobility. While the 2004 amendment did not include a specific interchange design, it was envisioned as a tight urban diamond interchange to minimize private property impacts, with Randolph Road diverting below Veirs Mill Road (similar to the new interchange on Georgia Avenue with Randolph Road). The interchange has not proceeded to planning or design and is not included in the county’s capital improvement program.

The Veirs Mill Corridor Master Plan Public Hearing Draft recommends the elimination of the interchange from the Master Plan of Highways and Transitways. The grade-separated interchange at this intersection is inconsistent with the overall transportation goals of the plan, which seek to improve safety and connectivity for pedestrians, bicyclists and transit users. An interchange, even a tight urban diamond, prioritizes vehicular mobility and minimizes connectivity for other transportation modes.
It is important to note that the intersection of Veirs Mill Road and Randolph Road is located at the center of an existing Bicycle and Pedestrian Priority Area (BiPPA), designated by the 2013 Countywide Transit Corridors Functional Master Plan. With this designation, bicycle and pedestrian safety and mobility are the highest priority. This intersection currently experiences significant pedestrian volumes, which are anticipated to grow with the implementation of bus rapid transit on both Veirs Mill Road and Randolph Road, as well as the potential for walkable, transit-oriented redevelopment.

In addition to the inherent conflict between the plan’s overall transportation goals and a grade-separated interchange, an interchange at this location does not appear to fully consider the relationship between the interchange and Montrose Parkway. With the implementation of Montrose Parkway, it is anticipated that vehicular movements may shift from Randolph Road to Montrose Parkway. At the intersection of Montrose Parkway with Veirs Mill Road, it is anticipated that vehicles would travel eastbound on Veirs Mill Road and then northbound on Randolph Road to continue northeast. The diversion of these vehicular movements suggests limited utility in an interchange that prioritizes the through movement of vehicles on Veirs Mill Road and Randolph Road.

Also, as acknowledged in the 2004 amendment, an interchange at this location would likely impact private property. The properties at the intersection of Veirs Mill Road and Randolph Road are the only commercially zoned properties in the plan area. These properties provide valuable neighborhood serving uses today and are envisioned to transform to a walkable, transit-oriented redevelopment in the long-term. The construction of an interchange, even a tight urban diamond, would have impacts to the properties – both during a lengthy construction process and after completion – and would compromise the long-term character envisioned for this location. For these reasons, the Veirs Mill Corridor Master Plan proposes to eliminate the planned interchange at Veirs Mill Road and Randolph Road from the Master Plan of Highways and Transitways.

RECOMMENDATIONS TO IMPROVE CONNECTIVITY

As discussed with the Planning Board during the October 4 work session, staff has completed a pedestrian level of comfort analysis for the Veirs Mill Corridor Master Plan to identify locations in the walking network that are uncomfortable due to inadequate sidewalks and crossings. This analysis evaluates pedestrian connectivity for each of the four districts in the master plan as well as the degree to which residential units are connected to bus stops by comfortable walking routes. The existing pedestrian connectivity for the plan area is approximately 50 percent. Connectivity grows to 59 percent with the plan’s short-term recommendations and 85 percent with the plan’s long-term recommendations.

Staff further evaluated the pedestrian connectivity to determine if any additional recommendations, or revisions to the current recommendations, could increase connectivity in the plan area. Based on this analysis, staff recommends that the Planning Board consider the following revisions to the Public Hearing Draft:

- Revise the pedestrian network recommendations to reference the need for adequate landscape buffers between the sidewalk and the curb with the installation of all new sidewalks on Veirs Mill Road and intersecting streets. For example, improved landscape buffers are needed on Veirs Mill Road, Connecticut Avenue, Randolph Road and Twinbrook Parkway; and
• Evaluate the potential for additional protected crossings at Galt Avenue, Bushey Drive and Havard Street to further improve connectivity and reduce the distance between protected crossing opportunities.

CONCLUSION

During the seventh work session, staff will continue discussions with the Planning Board on the Public Hearing Draft and request final guidance from the Planning Board on the transportation recommendations in the plan.

As discussed in this memo, staff recommends that the Planning Board consider the following:

• As part of the Complete Streets Design Guide initiative, expand the street classification in the Context Sensitive Road Design Standards to include multimodal transit corridors (including master-planned light rail and bus rapid transit corridors) and designate the Veirs Mill Corridor as a multimodal transit corridor.
• Create a new traffic congestion standard of 100 seconds for multimodal transit corridors, such as Veirs Mill Road, to achieve increased safety.
• Eliminate the planned interchange at Veirs Mill Road and Randolph Road from the Master Plan of Highways and Transitways.
• Revise the pedestrian network recommendations to reference the need for adequate landscape buffers between the sidewalk and the curb and evaluate the potential for additional protected crossings at Galt Avenue, Bushey Drive and Havard Street.

Staff will return to the Planning Board on December 13 to review the Planning Board Draft.
Montgomery County Planning Department
M-NCPPC (The Maryland – National Capital Park & Planning Commission)
8787 Georgia Avenue
Silver Spring, MD 20910-3760

Attention: Commissioner Tina E. Patterson
301 495-4605
Tina.Patterson@mnccpcc-mc.org

Re: Veirs Mill Road (MD586) Corridor Master Plan

Commissioner:

I am Carolyn Gupta with the Connecticut Avenue Estates Civic Association. We consist of over 1,110 homes with the borders being Randolph Road, Connecticut Avenue (MD185), Veirs Mill Road (MD586), Claridge Road, & Henderson Avenue.

Individually, I am a pedestrian, public transportation user (during rush hours on weekends, & non-rush hour), as well as a motorist.

I am Joyce Thomas, President of the Montclair Manor Homeowners Association (MMHA). Our community consists of sixty-four (64) townhouses, located on Claridge Court &
Veirs Mill Road (MD586). The community consists of a diverse, moderate working class. Many of the residents utilize the Metro & Ride On services.

I appreciate hearing the comments of residents along the 4-mile Veirs Mill Road Corridor, and being able to give my recorded comments about the Corridor on Thursday, April 26th.

Joyce & I attended most of the meetings conducted by Ms. Jessica McVary of M-NCPPC.

The following pages are taken from the Veirs Mill Corridor Master Plan: Connecting Communities – Public Hearing Draft, April 2018, the Maryland – National Capital Park & Planning Commission:

p. 7, 1.6.3 Opportunities – It indicates a Bus Rapid Transit (BRT) could increase transit ridership.

p. 19 - .... Utilize the future BRT to introduce local character & build connections between the corridor & neighborhood amenities or public facilities.

pp. 20. 24, 25 (3) Plant street trees along residential sidewalk (& road medians) where missing
(5) Explore opportunities for public art at bus shelters & bus rapid transit shelters.

These suggestions are helpful; however, there are sufficient bus shelter on Veirs Mill Rd. (MD586), and putting in BRT shelters would affect neighbors’ homes that are located on Veirs Mill. Also, SHA & Montgomery County are not providing enough maintenance of the existing bus shelters.

For example, on snow days, the sidewalks leading to the bus shelters on MD586 between Connecticut Avenue (MD185) & Claridge Road are not shoveled. The shelters are shoveled, but there is a dangerous safety hazard for pedestrians to walk on the deep and/or slippery snow & ice, or pedestrians taking an
even more dangerous step to walk on the road to avoid falling of slipping on the snow & ice on the sidewalk.

There are rampant violations of those placing unauthorized, business cards, flyers & ads (mostly written in Spanish) on the bus shelters, such as “Curandera y consejera Gladis, 240 485-4892, “¿Necesita trabajo? No inglé. No experiencia... 301 674-9841 (in Spanish), and “Wellness Coach: Levy Aguilar.... , 301 674-9841”. These taped ads are defacing the shelters. The free newspaper stands are an eyesore. The companies of these newsstands do not pay attention to them. Some are knocked over on the ground & some are damaged.

We agree that good esthetics are pleasing to the eye, but our communities are constantly reminding SHA to mow the lawn, trim the overhead tree branches to make visibility for motorist, weed-whack & pick up the trash & yard debris on Veirs Mill Road (MD586) between Claridge Road & Connecticut Avenue (MD185). What’s the point of adding features if the existing enhancements are not maintained properly?

pp. 23 – 25 – It mentions to place mobile food vendors to interim public open places

Possibly the owners of the Stoneymill Square Shopping Center on Veirs Mill (MD586) & Randolph Roads are allowing the mobile truck food vendors on their property; meanwhile, some unlicensed vendors are selling food from the back of their vehicles there. This looks very tacky!

The bench at Veirs Mill (MD586) & Claridge Roads by Saint Catherine Labouré RCC needs to be replaced.

P. 26, 2.4.1 - Housing Goals
It is most appreciative to preserve affordable housing through use of tax credits & other financing tools. To protect & preserve existing single-family neighborhoods in & around the master plan area, helps increase property value.

p. 27 2.5 Transportation
Veirs Mill Rd. (MD586) carries about 43,000 vehicles per day, and it has more than 24,000 daily boarding. Both WMATA Metrobus & M.C. Ride On have sufficient busses on this state road.

The idea of taking away one lane going East, and one lane going West on the Veirs Mill Rd. (MD586) lends this approach to traffic congestion which breaks down the smooth flow of traffic.

Previous BRT meetings presented other places in the U.S.A. with BRTs. These areas were more isolated and need a public transportation connection.

We have the money. Let’s not waste our taxpayers’ dollars by implementing a plan that may be futile.

p. 28

This page focuses on Vision Zero to prioritize the safety of all road users, rather than just moving vehicles. It addresses education & enforcement. Public Service Announcements (PSAs) on TV, radio, & newspapers would be an excellent promotion on safety.

We are residents utilizing Veirs Mill Road frequently. I grew up watching daily PSAs on the proper way for pedestrians to cross an intersection by stopping at the corner with no traffic control measures, looking left, looking right, & then looking left again before crossing the street. Where there are traffic lights, for a pedestrian & motorist to heed the lights. Over the years, officials told me that it’s “not in the budget” for PSAs. Well, if they’re considering Vision Zero, PSAs need to be part of the program.
p. 37 - 2.5.5 Pedestrian Network Recommendations
Our community appreciates Park & Planning collaborating with Montgomery County on rebuilding the pedestrian & bicycle bridge that’s over the Joseph’s Branch Creek between Valleywood Drive & Moline Road.

p. 39 - Table 4: Existing & Proposed Signal Locations
ID #15 - Veirs Mill Rd. at Valleywood Drive has an existing unsignalized intersection with Crosswalk Improvements. The Recommendation is for a signalized intersection with an APS.

For someone who’s lived in this community for many years, I use that area almost daily to go the County’s bus shelter on Veirs Mill Road & Gail Street. We can testify a major improvement on pedestrian & motorist awareness and compliance. Therefore, there is no need for a signalized intersection with APS. Since the new traffic signal on Veirs Mill Rd. (MD586) & Claridge Road by St. Catherine Labouré, motorists are actually stopping for pedestrians crossing at the criss-cross crosswalk on Veirs Mill Rd. & Valleywood Dr./Gail Street.

p. 44 - Table 5: Bicycle Network Recommendations for Roadway – Valleywood Drive
Limits – Veirs Mill Road to Plan Boundary
Designation / Type Sidewalk (Side TBD)
This table needs more clarification to explain this section.

p. 45 - 2.5.8 Transit – One of the paragraphs addressed that "Based on its consistently high ridership
volumes & east-west connection, Veirs Mill Road is also identified as a future bus rapid transit (BRT) corridor in the 2013 Countywide Transit Corridors Functional Master Plan.

As the 1st paragraph noted, Veirs Mill Road has the Q1, Q2, Q4, Q5, Q6 & C4 Metro busses, as well as Ride On busses #33, #34, #38, & #48. Veirs Mill Road is mostly residential. It would be more feasible to have BRTs on such state roads as Georgia Ave (MD97) which has 4 Metro stations: Silver Spring, Forest Glen, Wheaton, & Glenmont, as well as 2 hospitals: Holy Cross & MedStar Montgomery General. Georgia Avenue has many more commercial shops than Veirs Mill Road. I also can testify the Y- busses, especially during rush hour, can be standing room, going north or south. Rockville Pike (MD355) also has more commercial stores, restaurants, professional buildings, etc., and could use a BRT.

The newly-renovated Wheaton-Claridge Park is an improvement & an asset to the community. Residents & visitors enjoy the openness of the park and the atmosphere of the natural environment is pleasant.

In summary, we, as residents of Montgomery County, live here, work here, have the best schools, and many community events. Therefore, we are entitled to have a voice in this major decision that has a long-term effect.

Thank you for letting us address our concerns.

Sincerely,

Carolyn Gupta
CAECA President
301 962-8320

And

Joyce Thomas
MMHA President
301 946-0146