Prior Planning Board Worksessions

June 23, 2020
- Metro Neighborhoods: Metro West, Metro South, Old Derwood and Metro North-WMATA

July 9, 2020
- Historic Designation: Derwood Store and Post Office

July 23, 2020
- Key properties, including the Grove, Shady Grove Plaza and Crabbs Branch Way Office Park
Planning Board Worksession

Worksession Overview

Mobility
- Vision Zero
- Interchanges
- BRT: MD 355/CCT
- Transit: Shady Grove and MARC
- Bikeways
Purpose & Agenda

Purpose:
• Initiate a dialogue on the Plan's transportation recommendations;
• Review transportation related feedback; and
• Suggest updates to Plan’s transportation recommendations.

Agenda:
• Vision Zero Overview
• A New Perspective on Capital Improvements
• Draft Plan Comments and Guidance
Vision Zero
Overview
Shady Grove Minor Master Plan Amendment
High Injury Network

• High Injury Network (2012-2016 Data):
  • Five or more serious injuries or fatalities
  • One or more collisions per mile

• Three significant High Injury Network segments in Sector Plan Area
  • MD 355 (Shady Grove Road to Gude Drive/points south)
  • Shady Grove Road (I-370/Metro Access Road & Shady Grove road interchange to Midcounty Highway)
  • Crabbs Branch Way (Redland Road to Indianola Drive)

• One additional partial segment on Shady Grove Road east of MD 355
Spot Speed Study & Crash Analysis

January 2015–March 2019

- 48 percent to 84 percent of drivers exceeded posted speed limits on six studied segments (depicted as 🟢 on map)
- 2.45 percent of crashes resulted in severe injury or fatality
- 3.79 percent of crashes involved a nonmotorist
- Six nonmotorist crashes resulted in severe injury or fatality
- Three fatalities occurred in the study area
- Right-turn movements accounted for 31 percent of crashes involving nonmotorists
- Left-turn movements accounted for 23 percent of crashes involving nonmotorists
- Overall, 48 percent of crashes resulting in a severe injury or fatality involved a left-turn movement
Pedestrian Level of Comfort Evaluation

- Context (i.e. urban vs. non-urban)
- Segments:
  - Adequate pedestrian buffer
  - Posted speed
  - Facility width
  - Presence of hazards & obstructions
  - Lighting
- Crossings:
  - Number of lanes
  - Presence of refuges
  - Presence of protected phases
  - ADA Best practices (pushbuttons, detectable warning strips, ramp orientation, ramp quality, etc.)
Pedestrian Level of Comfort Evaluation
Base Pedestrian Connectivity

Comfortable Pedestrian Connectivity

Example Barrier Locations

1. MD 355 & King Farm Boulevard
2. Shady Grove Road & Crabb’s Branch Way
3. Redland Road & Metro Station Access Road
General Vision Zero Recommendations

- Require a minimum of six feet of separation between the roadway and ped/bike facilities.
- Where a six-foot buffer cannot be achieved, require vertical separation to protect users from moving traffic.

- Ensure all crossings are ADA compliant with curb ramps oriented in the direction of crossing.
- Limit curb radii to maximum of 25 feet.
- Restrict the implementation of additional travel or turn lanes until safety and person throughput can be demonstrated.
Selected Specific Vision Zero Recommendations

- Pedestrian delay on MD 355
- Vegetated median along Crabbs Branch Way along High-Injury Network (HIN) segment
- Stop controlled crossing facility at Miller Fall Road and the entrance to Shady Grove Middle School
- New sidewalks along gaps on Redland Road, Midcounty Highway, and Shady Grove Road
- Commercial entrance consolidation along MD 355
A New Perspective on Capital Improvements

Shady Grove Minor Master Plan Amendment
### Significant Transportation Capital Improvements

<table>
<thead>
<tr>
<th>Potential Capital Project</th>
<th>Estimated Capital Costs (2019 dollars)</th>
</tr>
</thead>
<tbody>
<tr>
<td>MD 355 Bus Rapid Transitway Alternative B Modified</td>
<td>$820 million</td>
</tr>
<tr>
<td>Corridor Cities Transitway Phase 1</td>
<td>$838 million</td>
</tr>
<tr>
<td>1. MARC Improvements (Must Precede Station) Additional Mainline Track &amp; Railyard Capacity</td>
<td>$720 million</td>
</tr>
<tr>
<td>2. Montgomery College Infill Metrorail Station</td>
<td>Not Studied</td>
</tr>
<tr>
<td>3. MD 355 &amp; Gude Drive SPUI Interchange (2006 Plan - Not Recommended)</td>
<td>$75 million</td>
</tr>
</tbody>
</table>
MARC Rail Improvements

- Additional mainline track or (or outright purchase of Brunswick Line) would need to precede Shady Grove Infill MARC Station

- Additional track needs, at minimum, 13 feet per direction. MARC Communities Plan calls for 25 feet of additional ROW in Appendix only—not a regulatory requirement

- Draft Plan does not require dedication, but could include: “If the Maryland Transit Administration (MTA) develops an implementation plan for additional mainline track along the Brunswick line, properties adjacent to the northern side of the MARC rail line within the Plan area should dedicate width called for by MTA’s Plan.”

EYA sound wall located within potential 25-foot reservation area; no previous dedication/reservation
MD 355 & Gude Drive Interchange

- Rockville, MCDOT concerned with removal based on potential proximate managed lanes access
- Overpass est. $25M; SPUI est. $75M
- Negligible benefit along MD 355 due to upstream queuing
- Managed lanes access to Shady Grove WMATA Metrorail is via I-370 and Metro Access Road
- Forthcoming County Growth Policy recommends 100 seconds per vehicle delay threshold
Mobility: MD 355 and Gude Drive

- The Georgia Avenue and Randolph Road Interchange cost $74.8 million ($44.4M construction, $30.4M engineering and acquisition)\(^1\)

- The State and County funded 42.8% percent of the project. Additional funds were provided by the Federal Government\(^1\)

- Assuming the interchange at MD 355 and Gude costs roughly $75 million, **what alternative items could be funded?**

### Table: Alternative Items That Could Be Funded

<table>
<thead>
<tr>
<th>Items</th>
<th>$32 million</th>
<th>$75 million</th>
</tr>
</thead>
<tbody>
<tr>
<td>high-visibility crosswalk markings(^2)</td>
<td>1.9 million linear feet of high-visibility markings</td>
<td>4.6 million linear feet of high-visibility markings</td>
</tr>
<tr>
<td>Linear feet of ten-foot wide sidepaths(^2)</td>
<td>476,190 linear feet of sidepaths</td>
<td>1,116,071 linear feet of sidepaths</td>
</tr>
<tr>
<td>ADA compliant replacement curb ramps(^2)</td>
<td>8,333 replacement curb ramps</td>
<td>19,531 replacement curb ramps</td>
</tr>
<tr>
<td>percent of 56-acre industrial site at $60 PSF</td>
<td>21.9%</td>
<td>51.2%</td>
</tr>
<tr>
<td>percent of the entire MD 355 BRT system(^3)</td>
<td>3.9%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

Sources:
\(^2\)Virginia Department of Transportation, 2017, Fairfax County Parkway & Franconia-Springfield Parkway Corridor Study, Appendix L, Planning Level Cost Estimates
\(^3\)Montgomery County Department of Transportation, 2019, Draft Corridor Summary Report, Executive Summary
MD 355 & Gude Drive Interchange

Revised Draft Plan Recommendation

- Amend the existing Subdivision Staging Policy County Growth Policy congestion standard for this intersection to be no less than 80 seconds 100 seconds of delay per vehicle to have a more consistent transportation policy approach for the MD 355 Corridor.
Draft Plan
Comments & Guidance
Shady Grove Minor Master Plan Amendment
Previous Planning Board Comments

• Agree with removal of **MD 355 & Gude Interchange**
• Location and land needs associated with **infill MARC Rail Station**
• Coordination with other agencies and planning efforts
  • Maryland Department of Transportation’s **Managed Lanes**
  • Maryland Transit Administration **MARC Rail**
  • **Maryland Transportation Authority** (MDTA)
  • Planning Department’s **Corridor Forward: The I-270 Transit Plan**
• Safety and capacity at specific intersections:
  • Safety at **Shady Grove Road & Crabbs Branch Way**
  • Safety and capacity at **MD 355 and Shady Grove Road**
  • Capacity at **Shady Grove Road and Choke Cherry Road** (outside planning area)
Contributing factors to intersection nonmotorist crashes and killed or seriously injured (KSI) crashes:

- Permissive lefts (one fatality)
- Poor right-turn stop compliance
- Speed (one fatality)
- 2006 Plan recommended pedestrian underpass; 2020 Plan steps away from recommendation
- Plan addresses speed reduction
- Transportation appendix includes specific safety information for intersection and potential improvements
  - MCDOT is using appendix to inform traffic calming at the intersection
1. Consistent with Vision Zero principles, if future amendments to the County’s Subdivision-Staging Policy (SSP) recommend alternative or differing operational adequacy metrics than average intersection delay, remove the channelized right turns at Shady Grove Road and MD 355.

2. Restrict future widening at Shady Grove Road and MD 355. This recommendation excludes any widening or improvements necessary to support BRT, bicycle, and pedestrian needs.
# Requested Planning Board Guidance: Non-Auto Driver Mode Share Goals

<table>
<thead>
<tr>
<th>MCDOT Request</th>
<th>Response</th>
<th>Proposed Draft Plan Additions/Edits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Explain how the NADMS goals will be achieved.</td>
<td>The best mechanism to improve transit ridership is to make it more competitive with driving. The Plan supports restrictions on new auto capacity enhancements until person-throughput can be demonstrated.</td>
<td>This plan recommends restrictions on the implementation of additional travel or turn lanes until safety and progress toward the Sector Plan’s NADMS goals can be demonstrated.</td>
</tr>
<tr>
<td>Reduce the NADMS target for the Metro Station Policy Area (MSPA) from 50 to 45 percent.</td>
<td>The MSPA target of 50 percent is consistent with other Metrorail-proximate Plans.</td>
<td>No proposed changes.</td>
</tr>
<tr>
<td>Reduce the NADMS target for the Sector Plan Area (excluding the MSPA) from 35 to 30 percent.</td>
<td>The 35 percent goal for the Sector Plan Area (beyond the MSPA) could be achieved by improving bike/ped/micromobility access to Metro and marketing to single family properties in the Sector Plan Area.</td>
<td>Expand the Greater Shady Grove Transportation Management District to include the entirety of the Sector Plan Area.</td>
</tr>
</tbody>
</table>

---

**Planning Board Workseshion**

22
### Requested Planning Board Guidance: Non-Auto Driver Mode Share Goals

<table>
<thead>
<tr>
<th>MCDOT Request</th>
<th>Response</th>
<th>Proposed Draft Plan Additions/Edits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce the NADMS target for employees commuting into the Plan area from 25 to 20 percent.</td>
<td>Modeling suggests that, without intervention, transit mode share will be just over 10 percent. We agree that there are limited connections from the east to the Plan area.</td>
<td>Increase the existing NADMS goal for employees commuting into the Plan who reside elsewhere from 12.5 to 15 percent.</td>
</tr>
<tr>
<td>Emphasize comments related to micromobility throughout the document.</td>
<td>Staff supports this recommendation and will add references to micromobility throughout the Plan. Staff will include an additional macro-level recommendation.</td>
<td>Support micromobility in the Plan area through the provision of planned bicycle facilities and dedicated space for accessible, weather-protected storage in new developments.</td>
</tr>
</tbody>
</table>
Council Resolution 18-957 directs staff to exclude unconstructed Midcounty Highway segment for master-plan travel demand modeling.

Requested Planning Board Guidance: Midcounty Highway

- Current terminus at Shady Grove Road
- Unconstructed segment remains master-planned
- Interchange with MD 200 not constructed in 2009; would present significant expense
- Implementation would have environmental drawbacks, including loss of mature tree canopy

Mill Creek Park
Redland Local Park

MD 200
• Oakmont Avenue currently classified as 80-foot arterial
• Draft Plan recommends 60-foot Industrial Roadway
• Draft Plan does not rezone nearby light industrial properties
• Continuous sidewalk with separation is possible in proposed 60-foot section
• Significant capital improvement project to relocate utility lines and storm swale
• Encourage coordination between existing property owners, the County, and the Town of Washington Grove to improve pedestrian safety along Oakmont Avenue, including the provision of a continuous sidewalk on at least one side of the roadway.
Requested Planning Board Guidance: Bicycle Connection to Washington Grove

- Plan recommends removal of the Oakmont Avenue sidepath to avoid setting up false expectations

- Safe parallel connections to Washington Grove recommended via Brown Street

- The Town of Washington Grove has requested that the Plan’s bicycle table be revised from “Brown Street” to “Washington Grove”

  - MCDOT is currently examining multimodal connections through Piedmont Crossing Local Park

  - Staff supports request, but notes that it is atypical and results in some ambiguity
Staff Contacts

Nkosi Yearwood, Planner Coordinator
nkosi.yearwood@montgomeryplanning.org
Shady Grove Minor Master Plan Amendment Project Lead

Patrick Reed, AICP, Transportation Planner Coordinator
patrick.reed@montgomeryplanning.org
Shady Grove Minor Master Plan Amendment Transportation Support
Next Worksessions

Planning Board Review

- **September 24**: Parks and Open Spaces/Community Facilities/Sustainability/ Land Use wrap up