Countywide Transit Corridors Functional Master Plan

Appendix 6
Recommended Elements of a Plan of Improvements for Bicycle-Pedestrian Priority Areas

MCDOT is currently updating the State's Bicycle-Pedestrian Master Plan and is expected to include recommendations for plans of improvement for Bicycle-Pedestrian Priority Area (BPPAs). In the interim, listed below are a number of elements that we recommend be included in the creation of a plan of improvements for BPPAs, as designated in the *Countywide Transit Corridors Functional Master Plan*, but should also be considered for any area where pedestrians and bicyclists comprise a significant proportion of the traveling public. These issues are structured into a baseline condition for all areas where pedestrians and bicyclists are permitted, for Business and Urban Districts as defined by the Maryland Vehicle Law, and for BPPAs.

Baseline Improvements for Bicyclists and Pedestrians

Accommodation during Construction: Strict adherence to the Manual on Uniform Traffic Control Devices' recommendations in regard to minimizing inconvenience for pedestrians and bicyclists during construction should be made an explicit part of the plan. Sidewalks and bike facilities should be closed only as a last resort.

In addition to the normal maintenance of traffic issues, the construction sequencing of work should be addressed in the plan. For example, handicap ramp relocations should only be done when the adjacent crosswalks can be striped in the new location within the next week.

Lane Striping: Lane striping should reflect the guidance of the Maryland MUTCD rather than repeating the existing lane striping pattern. Often the normal lane striping on State highways is extended through unsignalized intersections in Montgomery County, but this practice is not in conformance with MD-MUTCD Section 3B.08:

> "Where highway design or reduced visibility conditions make it desirable to provide control or to guide vehicles through an intersection or interchange, such as at offset, skewed, complex, or multilegged intersections, or where multiple turn lanes are used, dotted lane markings should be used to extend longitudinal line markings through an intersection or interchange area."

The extension of normal lane striping often occurs even on straight, flat roads that are not complex in any way that would warrant lane extensions per the guidance in the MD-MUTCD. In locations where extensions are needed, the different pattern presented by dotted lane markings would more clearly alert drivers to the presence of an intersection.

Using normal lane striping for this purpose obscures the presence of intersections, making drivers entering the roadway from a side street an unexpected occurrence. Pedestrians crossing from these streets also may appear to the driver as a surprise, or even that they're not supposed to be crossing at that location even though pedestrians have the right-of-way at unsignalized intersections. A break in the normal striping pattern at intersections, as recommended by the Maryland MUTCD, alerts drivers on the main road and improves safety. Transit patrons and other pedestrians in areas along State highways would benefit from closer adherence to MD-MUTCD guidance in this regard.

Bus stops: Every project should show bus stops within the project limits in the contract documents. Safe ADA-accessible crossings should be provided to all bus stops and wherever possible, median refuges should be provided at intersections and at mid-block bus stop locations that are to be retained.

Sidewalks: Sidewalks should be constructed or reconstructed to standard where appropriate as part of all access permits.

Additional Improvements for Bicyclists and Pedestrians in Business and Urban Districts

SHA's Bicycle Pedestrian Design Guidelines: SHA should adopt its guidelines as SHA Policy in areas where pedestrians and bicyclists comprise a significant proportion of the traveling public. These guidelines were created in 2006 as a very progressive document intended to promote bicycle and pedestrian access and safety. Because of their status as guidelines however, their use has been limited, missing the opportunity to create roadway designs that better accommodate pedestrians and bicyclists at little or no additional cost. This Best Practice document should become part of the engineer's standard toolbox, more generally promoting the goal of safely and efficiently accommodating all users of the public right-of-way.

ADA accommodation: Crosswalks, whether marked or unmarked, exist at the intersection of all public streets per Maryland Vehicle Law. Therefore, all intersections, including unsignalized and tee intersections, and intersections on divided roadways where the median is not broken for vehicular movement, should be made ADA-accessible. Where an ADA-accessible crossing cannot be provided, the crossing should be posted to prohibit the crossing to everyone.

ADA Best Practices should be used to provide the best accommodation for all users. Where this cannot be achieved, the reasons should be documented.

Accommodation during construction: Signs should be posted at worksites with contact information for the inspector who can then be quickly and easily notified of any problems. Special attention should be paid to winter closures where work may be left unfinished for perhaps months at a time. A month in advance of the normal winter closure period, a shutdown plan should be created for all work in progress and open worksites minimized.

Resurfacing projects: Resurfacing projects should include a safety evaluation of the locations of all handicap ramps and crosswalks, which should be relocated and reconstructed as necessary to conform to SHA's Bicycle Pedestrian Design Guidelines and ADA Best Practices.

Re-evaluation of speed limits: While Montgomery County continues to urbanize, the posted speeds of adjacent roadways are often not reassessed unless the roadway is being rebuilt. Posted speed limits in BPPAs and other Business and Urban Districts should be re-evaluated and waivers documented for limits in excess of the statutory speed limits. Design speeds for projects in these areas should not exceed the approved posted speed.

Further Improvements in Bicycle-Pedestrian Priority Areas

Minimizing disruption to pedestrian travel: SHA should ensure that construction affecting pedestrian and bike accessibility in BPPAs be expedited to the extent practicable. For example, utility work in BPPAs, such as pole relocations and valve adjustments, should be prioritized so that the utility companies know that these work items are more important than those outside BPPAs.

Access for Handicapped and Other Pedestrians during Snow Emergencies: A definite timeline should be set for handicap ramps at intersections to be cleared of snow after a snowstorm. When roadways get

plowed on intersecting streets, the area in front of the circular curb—where most handicapped ramps are—are often blocked with snow, reducing access for handicapped persons since they are the least likely to be able to climb over the resulting snow mounds.

An extra pass by a snowplow around the corner in priority areas would greatly improve pedestrian accessibility and safety in the winter in general, as well as providing basic accommodation for handicapped persons. While property owners in Montgomery County are required to clear the snow from sidewalks within 24 hours after a snow storm, there is no requirement for them to shovel snow in the street, particularly the large mounds of snow that end up in front of the circular curb. While this is a problem with both County and State roads, the majority of our transit routes are on State roads, increasing the need to correct this problem.

Signing and Striping: Crosswalk striping in BPPAs should be inspected quarterly to ensure that they are in good condition. Where these crosswalks are impacted by utility work, they should be inspected upon completion of the work to ensure that they remain in good condition.

Intersections: Where an intersection in a BPPA meets any traffic signal warrant, a traffic signal should be provided to facilitate safe pedestrian and bicyclist movement. Signalized intersections should have marked crosswalks on each leg of the intersection, per SHA's bicycle-pedestrian guidelines. Handicap ramp designs in BPPAs should be coordinated with pedestrian access points to adjacent properties to facilitate travel to, through, and around the ramps.

All projects along State highways in BPPAs should be reviewed by SHA's Office of Environmental Design to address the higher level of urban design that is required in these areas. One example is a coordinated and consolidated design of traffic signal poles, signs, lights, and other equipment at intersections near handicap ramps. These facilities should be combined where possible and use the fewest number of poles to minimize obstructions where the greatest number of pedestrians congregate. Also, the bases of the poles, including Audible Pedestrian Signal poles, should be countersunk where possible to minimize the footprint of these obstructions, thereby maximizing the pedestrian circulation area.

Lighting: Lighting in BPPAs should meet AASHTO standards; this is particular true for intersections. Care should be taken in the location of lighting fixtures in relation to crosswalks so that the light source is between the vehicle and the pedestrian wherever possible, maximizing contrast. Increasing the contrast between pedestrians and the road ahead has been shown to provide a general benefit to drivers but most particularly to elderly drivers, whose percentage of the population is increasing. Requiring developers to bring adjacent intersections to current lighting standards should be a requirement of their access permit.

Optimize traffic signal timing for pedestrians: There are many places where pedestrians are unnecessarily prevented from crossing the roadway because the "DON'T WALK" light is on when it doesn't need to be. The traffic signal timing and phasing in BPPAs should be reviewed and revised as necessary to maximize pedestrian mobility.

Curb height: Curb height on State highways in BPPAs should be 6" rather than the normal SHA standard 8" to reduce the required handicap ramp length. In addition to making it easier for handicapped people to get around in these more urban areas, the shorter ramp length would ensure that there is a greater level area behind the ramp so that all pedestrians who are not crossing are not unnecessarily required to traverse the ramp and negotiate that grade.

Area-specific BPPA plans: BPPA plans should include all Master or Sector Plan-recommended pedestrian and bike improvements within the BPPA.