

MEMORANDUM

December 27, 2023

To: Adam Greenstein
Organization: Anne Arundel County
From: Diane Lambert, Toole Design Group
Project: Anne Arundel County Safe Routes to School Accessibility Study and Training Program

Re: Accessibility Study Executive Summary of Overarching Issues and Recommendations

1. Background

Anne Arundel County (AACO) and Anne Arundel County Public Schools (AACPS) recognize that schools are vital community resources. To improve safety and transportation choices for all residents, the County and school district partnered to conduct a Safe Routes to School Accessibility Study at 17 schools identified in *Move Anne Arundel!*, the County's Transportation Functional Master Plan.

The studies were overseen by a Project Management Team consisting of County, State and School District representatives. They focused on infrastructure within the school walk zone but also assessed opportunities within the school attendance area to expand active transportation to school.

Studies were conducted October 24, 2022 through February 8, 2023, and included one-day site visits to observe school arrival and dismissal and to assess existing walking and bicycling infrastructure. Surveys were also conducted to assess travel modes and barriers to walking or bicycling to and from school.

Existing conditions and recommendations reports were developed for each of the 17 schools, recommending infrastructure improvements, and education, encouragement, enforcement, and evaluation strategies to increase the number of children that could safely walk or ride bikes to school. The reports were available for public comment on the County's website from September 8 through November 5, 2023 and one virtual public meeting was held for all schools between October 3 and October 26, 2023.

2. Overarching Issues and Recommendations

In addition to school-specific recommendations included in the plans, Toole Design noted several issues that repeated across the study areas and may benefit from a County or District level assessment, including:

School Zone Signs and Pavement Markings

School zone signs and markings are not using the full toolbox of allowable treatments per the MDMUTCD. This includes signs and markings within the designated school zone and the flexibility to use signs and markings outside of the designated school zone as deemed necessary. Several recommendations were included in the school plans to "Enhance existing school zone signage", but this could also be done as a separate project for all schools in the district.

Curb Ramp and Crosswalk Alignment

Several new curb ramp installations do not align with the marked crosswalks. Examine curb ramp and crosswalk marking installation procedures to refine implementation as needed.

Snow Removal from Sidewalks

During school observations, several parents commented that in the winter sidewalks and trails connecting to school property are not cleared, presenting a barrier to students walking to school. AACPS and County offices could collaborate to identify key student walking routes to district schools and discuss efforts to improve sidewalk snow removal.

AACPS School Walk Zone Determination

Several of the study school walk zones have few to no sidewalks or other facilities to provide a separated, safe environment for child pedestrians. AACPS has a [policy on Eligible Riders](#) which describes how decisions are made relative to establishing the “walk zone” or to identify students that are not eligible for school bus transportation. This policy is nine years old and includes justifications that do not align with current transportation research on safe pedestrian infrastructure, particularly for children. These include implying that a “suitable walkway” is not required when traffic volumes are at a level that is considered “non-hazardous”, and that walking up to three tenths of a mile along a three-foot shoulder of a road with a posted speed of 40mph is not hazardous.

Multilane roads, high vehicle speeds, and high traffic volumes present increased risk for pedestrians of all ages,¹ and risk thresholds may be lower for young children. Walking near motor vehicles requires strong attention and focus skills, the ability to process information and make decisions quickly, impulse control and the ability to handle multiple cognitive and physical tasks at once.^{2 3} Child pedestrians have differing cognitive and physical abilities than adults, making them more susceptible to their own mistakes and the mistakes of others. Also, due to their smaller size, children are more vulnerable to speed-related crashes, and their growing and developing bodies also make them more susceptible to impacts from injuries.⁴ AACPS should collaborate with the County to update the Eligible Riders/walk zone policy to acknowledge special considerations for child pedestrians and better align with multimodal safety best practices.

¹ National Academies of Sciences, Engineering, and Medicine. (2018). *Systemic pedestrian safety analysis (Project No. 17-73)*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25255>

² Schwebel, D. C., Davis, A. L., & O’Neal, E. E. (2012). Child pedestrian injury: A review of behavioral risks and preventive strategies. *American Journal of Lifestyle Medicine*, 6(4), 292–302. <https://doi.org/10.1177/0885066611404876>

³ Percer, Jenny (2009). Child Pedestrian Safety Education: Applying Learning and Developmental Theories to Develop Safe Street-Crossing Behaviors. <https://doi.org/10.21949/1525673>

⁴ Peden, M., Oyegbite, K., Ozanne-Smith, J., Hyder, A. A., Branche, C., Rahman, A. F., Rivara, F., & Bartolomeos, K. (2008). *World Report on Child Injury Prevention*. World Health Organization.