**Date:** October 4, 2021

**Date of Meeting:** September 24, 2021

**Meeting Location:** Video conference

**Work Order Number:** 32189-005

**Project:** Howard County Complete Streets

**Meeting Description:** Complete Streets Implementation Team Meeting #23

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Introduction, roll call, agenda review

Chris Eatough introduced Doug Kampe and Brian Nevin from the Howard County Public School System (HCPSS) transportation office. Brian will be the official HCPSS representative on the Complete Streets Implementation Team (CSIT), replacing David Ramsay. Chris shared that Brian and Doug are well versed in the HCPSS transportation network and will provide the group with valuable insights. Bryan Townsend introduced Jeremy Mocny from WRA, a senior professional who will be assisting with some outstanding items in the design manual over the next few weeks.

Bryan welcomed all attendees and reviewed the agenda, and then led the group through the materials attached to these minutes.

Review of Chapter 2 (Street Design) revisions

Bryan Townsend provided an overview of Chapter 2 (Street Design) revisions. He observed that some of the vocabulary being used may be unfamiliar to some of the new members of the CSIT, and that they should ask for clarification if necessary. Significant revisions will be highlighted by staff, but all changes are included in the version of the draft that was distributed to CSIT members in advance of the meeting. Because detailed information is provided in the attached meeting materials, these minutes will focus on questions and comments from members of the CSIT.

Bryan shared that the team is still working on technical edits that better clarify the relationship between target speed and design speed, as well as the design vehicle and control vehicle. This week, the team has received feedback from various road users including the Fire Marshall’s Office, HCPSS, and the Department of Public Works on the size of their vehicles. The Fire Marshall’s Office was also able to provide valuable feedback on how they navigate Howard County roadways today.

Bryan noted that additional language was provided to clarify the sidewalk section. Jennifer White asked for clarification on the level of design guidance that the Design Manual will provide. Bryan replied that the goal is to provide as much information as possible for the Designer but refer to outside guidance when it is appropriate. For example, the external document that is cross-referenced in the roundabout section is over 400 pages long, and it is impossible to provide that level of detail within the Howard County Design Manual. Leah noted that citing external resources can also be a good approach when that guidance is due to be updated, that way Howard County streets are being designed to current standards. Jennifer asked that those areas be pointed out during today’s review of Chapter 2.

Leah provided an overview of changes to the shared use path section. In the previous draft, low volume was provided as a reason to provide an 8-foot wide path instead of a 10-foot wide path. That clause has been removed, and the only reason a narrower path will be permitted in Howard County is if there are physical constraints. Several comments were received about target speed for shared use paths, which was listed as 18 mph in the last draft. Additional guidance was provided that in circumstances with large numbers of pedestrians, 12-15 mph is preferred. The horizontal alignment section was also revised to clarify that shared use paths may not always run adjacent to a roadway. The chart for curvature based on target speeds had included speeds up to 30 mph, and a request was made to remove the entries for 25 and 30 mph since they are significantly higher than the target speed for paths. Leah explained that the larger radii are intended to accommodate inexperienced riders who are not able to sufficiently modulate their speed on a descent. Chris asked that a note be added to the higher speeds to indicate that those speeds and the resulting radii are intended for use on long grades where experienced riders may reach higher rates of speed.

Jessica Bellah asked for clarification about how environmental features are defined and for clarification on the type of environmental features that would be cause for narrowing a shared use path. Leah replied that the current language references physical constraints including an environmental feature but does not define the phrase, noting that further clarification could be provided by the team. Jessica replied that a particular area of interest is protecting trees. John Seefried suggested using the phrase “regulated environmental feature,” which is less ambiguous. Chris asked whether
the phrase regulated environmental feature would encompass trees. Jessica replied that champion trees are regulated environmental features, as are street trees. Christiana Rigby shared that County Council would support shared use path alignments that save trees where possible. Kris Jagarapu expressed favor with any clarification that will help save trees. Jessica agreed with the proposed language.

Chad Edmonson asked how shared use paths interface with small residential lots. The Department of Planning and Zoning is currently working on a proposal for single family detached homes with front yards that are only 25 feet deep. Because the parcels are so small, there is only a small grass lawn and a 10-foot pathway. Chad asked whether the Design Manual would recommend sidewalks on both sides of the road in this situation. Chris asked whether the pathway is located within the right of way or on private property. Chad replied that for people using the street, the location of the right of way is unclear, and in this situation the pathway appears to dominate the front yard. It is difficult to install a shared use path in locations where lots and yards are so small. Bryan asked whether the homes are existing or if this is a proposed subdivision. Chad replied it is proposed. Leah clarified that the right of way would be set based on the new street types. In this instance, a street type with on-street bicycle facilities may be more appropriate. It would be incumbent upon the developer and County to select the appropriate street type for the context. Bryan asked whether people have a landing area outside of their home that is not within the pathway.

Leah noted that several questions were received about the meaning of the phrase “independent right of way” in the vertical alignment portion of the shared use paths section and clarified that it references paths that are not adjacent to the roadway. Kris asked if this would be a situation where there is an easement. Leah confirmed that it would and referenced the Columbia Association (CA) trail network, as well as back of parcel path connections to nearby destinations like schools or libraries. Bryan suggested the term “independent alignment” may be more appropriate. Jessica agreed with the phrase “independent alignment,” since the CA trail network is on private land that has easements for the trail network.

Bryan provided an overview to changes in the bicycle facilities section. Additional references have been provided that should be used in the design of bicycle facilities. Leah asked for clarification on which method of separation should be removed from the separated bike lane sections. Kris replied that the County is not comfortable using precast curb sections due to maintenance concerns. Leah noted the draft would be updated accordingly.

Leah noted that the two-way separated bike lane draft calls for a 3-foot buffer, but a larger buffer may be desirable, especially if there is on-street parking so cyclists can avoid car doors. The photos throughout the bicycle facility section will be updated with Howard County examples if possible. Leah also noted that the buffered bicycle lane language has been updated to allow a 2 or 3 foot buffer. Jessica asked at what width of a buffered bike lane do we start considering using a landscape buffer. Leah stated that if there is space, a buffered bike lane is preferred over a conventional bike lane. Chris confirmed that the language here is to direct Designers towards 2-3-foot buffer. Buffers are always painted. Separated bike lanes could feature a landscaped buffer, but only if the buffer is larger than 3 feet.

Leah provided an overview of additional changes to the bicycle facility section. Additional detail was added where requested. The language on rumble strips in the shoulder section was struck since Howard County does not use rumble strips on any of their roadways. The advisory bicycle lane section was struck because auxiliary lanes are considered an experimental treatment by FHWA. It will be re-evaluated for inclusion once further guidance from FHWA is released.

Leah explained some changes were made to the Level of Traffic Stress (LTS) section to ensure it is consistent with Chapter 5. Additional guidance on transitions, signage, and bicycle ramps was also provided.

Bryan explained that the Traffic Calming section is still under internal review, and recommended CSIT members hold off on their review until and updated draft of Chapter 2 is distributed.

Leah shared that there were substantial additions to the section regarding buffered and conventional bike lanes at intersections including guidance on through bike lanes, combined bike lanes/turn lanes, bicycle boxes, two-stage turn queue boxes, and side street crossings. Combined bike lanes/turn lanes are used in a situation where there is not sufficient space to continue a full bike through lane at an intersection. The combined treatment shows drivers and bicyclists where they should be positioned in the roadway, and whoever arrives to the intersection first has priority.
This treatment should be coupled with a no turn on red restriction and is appropriate for lower speed roadways (30 mph or less). Kris noted that 10' may not provide sufficient space for the required pavement markings. Chris noted that there are a lot of locations where this treatment would be appropriate in Howard County.

Leah explained that the bike box treatment allows bicyclists to make left turns safely and keeps bicyclists out of the crosswalk. Two-stage turn queue boxes work by allowing a bicyclist who needs to turn left across a multi-lane roadway to travel straight and wait in a painted box for the opposite light to turn green, accomplishing the turning movement in two stages. Jessica Bellah asked whether bicyclists can join traffic and make a normal left turn. Leah replied that bicyclists are not prohibited from riding with traffic, but this treatment provides a lower stress way to navigate a high stress turn. This practice would also require a right turn on red restriction. The section on side street crossings allows for the application of green pavement markings in conflict zones. Leah clarified that the County is still working on developing a set of specifications for green pavement marking, which is critical because certain types of paint and treatments can be slippery for bicyclists. Kris asked if there is any guidance from AASHTO. Leah replied that resources are available, and usually an aggregate is mixed into the paint or binder. Jeremy Mocny asked whether the frictional requirements for paint is different for bicyclists and pedestrians. Leah replied she would send Jeremy resources.

Chris noted that Montgomery County has experience using green pavement markings and that he would follow up with them for guidance. He noted that FHWA approved the use of green paint in 2011. The Oakland Mills Road project is incorporating green pavement markings at a road crossing that will be installed in spring of 2022. Jenn Biddle noted the County is in the process of testing a preformed thermoplastic green pavement marking and is interested in testing other potential materials in advance.

Leah noted that the driveway section also includes information about pavement markings in conflict zones, which illustrates a slightly different treatment than what is suggested in the section about bicycle facilities at side street crossings. Chris agreed that these sections could be consolidated, and that the striping guidance provided in the bicycle facilities at side street crossings is the preferred treatment type. Leah noted the sections would be consolidated.

Leah requested feedback from staff on the on-street parallel parking table provided in the residential parking section. She noted the bicycle parking section provides a cross reference to the Association of Pedestrian and Bicycle Professionals Bicycle Parking Guidelines which is consistent with how the Office of Transportation currently handles bicycle parking issues for development projects. Chris replied that the Design Manual cannot require developers to provide bicycle parking. A requirement would have to be addressed as part of the updates to the subdivision regulations.

**Update on Technical Reviews Ongoing**

Bryan summarized which topics are still being updated as:

- Design vehicle/control vehicle and intersection radii
- Design speed
- Speed management devices
- Revisions to traffic signal sections
- Channelizing island guidance

Bryan noted that additional guidance on the application of design vehicles and control vehicles in street design is being developed. The goal is to reference the appropriate vehicles for the Howard County context based on information received from the Department of Public Works, Fire, and HCPSS. Concurrently, additional guidance on the application of target and design speed based on Howard County street types is developed. The speed management section will include significant new guidance for Designers. Significant revisions to the traffic signal and channelizing island guidance are also underway.

Updates to the above topics will include significant changes to the following sections:
• 2.1.D, General, Design Controls
• 2.2.E.10, Typical Section Elements, Travel Lanes, Traffic Calming Measures
• 2.4.B.1, Intersection Design, Geometric Design, Location and Spacing
• 2.4.B.3, Intersection Design, Geometric Design, Design and Control Vehicle Turning Paths
• 2.4.B.4, Intersection Design, Geometric Design, Minimum Curvature for Turning Movements
• 2.4.B.9, Intersection Design, Geometric Design, Traffic Island
• 2.4.E.2, Intersection Design, Geometric Design, Pedestrian Design Elements at Intersections, Curb Ramps
• 2.4.E.3, Intersection Design, Geometric Design, Pedestrian Design Elements at Intersections, Signalized intersections
• 2.4.F, Intersection Design, Geometric Design, Shared Use Paths at Intersections
• 2.5.A, Driveways, General
• 2.5.C, Driveways, Commercial – Industrial and Multi-family

Schedule review

The CSIT will be provided with a complete final draft of Chapter 2 by Friday, October 1. Jennifer White asked if the CSIT is expected to provide comments on Chapter 2 next week. Bryan replied that comments on the distributed draft of Chapter 2 would be appreciated by Friday, October 1, after which the CSIT will be asked to review and provide comments on the outstanding sections.

Next Steps

Action items from this meeting include:

• WRA and County staff to resolve outstanding technical issues
• CSIT to provide feedback on current draft of Chapter 2 by October 1
• WRA to distribute the following materials for CSIT review on October 1
  o Final draft of Chapter 2, inclusive of outstanding sections
  o Final draft of Chapters 1, 3, 4, and 5
  o Updated Comment Log

Leah Kacanda, AICP