

**DURHAM • CHAPEL HILL • CARRBORO  
METROPOLITAN PLANNING ORGANIZATION**

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January 19, 2022

Ryan Brumfield, PE  
Director, Integrated Mobility Division  
N.C. Department of Transportation  
1501 Mail Service Center  
Raleigh, NC 27699-1501

Dear Ryan,

The Durham-Chapel Hill-Carrboro MPO and its member jurisdictions have long advocated and supported the development of transportation projects that incorporate safe and convenient walking and biking facilities. Such projects support the MPO's goals of improving safety for all modes, creating more equitable access to transportation, and combatting climate change.

Thank you for providing the Complete Streets Update presentation to DCHC MPO staff and providing the draft NCDOT Complete Streets Evaluation Methodology ("Evaluation Methodology") and flowchart for review. DCHC MPO staff have the following comments, questions, and feedback:

1. In 2017, NCDOT Deputy Secretary Julie White invited the DCHC MPO Board to submit comments on needed changes to the NCDOT Complete Streets Policy. In its letter of October 11, 2017, the MPO Board requested that NCDOT maintain bicycle facilities, including shared use paths, that are within NCDOT right-of-way, and that NCDOT develop a strategy for the provision and maintenance of sidewalks and shared use paths in NCDOT right-of-way in urbanizing areas (i.e., including outside municipal limits). In response, in 2019 NCDOT made a commitment to maintain bicycle and pedestrian facilities outside of municipalities. We are disappointed to see that NCDOT is now walking away from that commitment.

In 2019, the NCDOT Complete Streets Implementation Guide ("Implementation Guide") said that improvements within a municipality were subject to local maintenance and maintenance agreements:

**6.2 Maintenance**

Bicycle and pedestrian improvements **within a municipal boundary** are subject to local maintenance. A local maintenance agreement will be executed prior to the completion of a construction project.

In instances where a local maintenance agreement is not executed to maintain a bicycle or pedestrian facility, NCDOT will maintain the facility after construction if the bicycle or pedestrian facility lies within NCDOT right-of-way.

In 2020, the Implementation Guide was changed to make reference to county maintenance agreements, but these were not required:

**6.4 Maintenance**

Bicycle, pedestrian, and transit improvements inside a municipal boundary are subject to local maintenance. A local maintenance agreement will be executed prior to the completion of a construction project.

For bicycle pedestrian, and transit improvements outside of a municipal boundary where a county maintenance agreement is not executed to maintain the facility, NCDOT will maintain the facility after construction if the bicycle or pedestrian facility lies within NCDOT right-of-way.

Now in 2021, NCDOT states that maintenance agreements be required for all separated facilities (sidewalks and sidepaths), regardless of location inside or outside a municipality. The Evaluation Methodology on page 9 states the following:

- o Maintenance agreements must be in place for all separated facilities. In the event that an agreement cannot be reached with an LGA for separated facilities, the Project Manager and Lead should evaluate the next highest non-separated facility type for inclusion in the project.

The presentation provided by Ryan Brumfield to MPO staff states that maintenance agreements are not required in cases of high demand/risk, but the definition and application of these exceptions is not included or described in the Evaluation Methodology.

- Clarify that maintenance agreements are needed for all separated facilities, with exceptions in cases of high demand/risk.

Counties in North Carolina do not have policies, funding, staff, or internal structures for any type of road maintenance, including maintenance of sidewalks and sidepaths. As historian William S. Powell has written, "Since 1931, under the pressure of widespread economic failure of county governments during the Great Depression, the state added to its purview the maintenance of practically all roads in North Carolina." In addition, recent changes to the state's annexation laws make it likely that many urbanizing areas will be located outside municipalities and that it will be increasingly common to have roadways that cross in and out of municipalities at the edges of urbanizing areas.

Unless NCDOT agrees to maintain facilities outside of municipalities, it is our concern that there will be incomplete and disconnected pedestrian and bicycle facilities at the edges. We will not be providing complete streets and functional transportation networks if facilities stop and start at municipal boundaries. Requiring counties to maintain sidewalks and sidepaths seems very much in conflict with the language and spirit of the Complete Streets Policy the Board of Transportation adopted in 2019. Requiring that municipalities maintain sidewalks and sidepaths in areas that do not pay municipal taxes is also not financially sustainable.

NCDOT's new Evaluation Methodology absolves NCDOT of any maintenance responsibility outside of municipalities and does not offer a practical solution in its place. Without a solution, facilities will not be built, and NCDOT will be building more roadways that require costly retrofits in the future, adding to the already long list of similar needs in the state. In the spirit of the Complete Streets Policy, NCDOT needs to work with counties, municipalities, MPOs, and RPOs to identify a solution for building facilities in these areas that reflects the reality of local government roles and capabilities and can be applied equitably across the state in rural low-resource areas and rapidly urbanizing high-growth areas.

2. In “Step 2-Transportation Need Determination” of the Evaluation Methodology, it is stated that for Intermittent/None and Low demand areas (based on the pedestrian/bicyclist [demand estimation map](#)), the Project Lead or Manager should consult with the relevant Metropolitan Planning Organization (MPO) or Rural Planning Organization (RPO) for current land use context and future land use or population growth assumptions **OR** contact Integrated Mobility Division (IMD) to determine if demand in the project area is likely to increase through the project design year.

NCDOT Project Leads should **ALWAYS** consult with MPO/RPO staff, and the Implementation Guide and Evaluation Methodology should reflect that requirement. Local consultation and knowledge of plans, development policies, and trends is essential to provide an informed opinion about the demand for sidewalks and bike facilities. DCHC MPO recently had an unfortunate experience where an IMD staff person made a recommendation on bicycle and pedestrian facility needs for a project without consulting local staff. This IMD staff person did not understand local land use trends and policies, was not aware of subdivisions currently under construction in the area, misinterpreted the adopted DCHC CTP, and was not aware of previous commitments made by NCDOT staff to DCHC MPO and the City of Durham.

When Interstate 40 was constructed in Durham and Orange counties, many bridges over the interstate did not include sidewalks or bike facilities. As Durham, Chapel Hill, and Hillsborough have grown, this has become a real liability. For instance, it is not safe for children to walk to several schools because of these bridges. The Old Durham-Chapel Hill Road bicycle and pedestrian project, partially completed and partially under construction by NCDOT, is missing a critical connection over I-40. Despite Durham, Chapel Hill, and the DCHC MPO spending over \$18 million on this project, widening the I-40 bridge could not be accommodated in the project budget. Another example is the narrow Orange Grove Road bridge over I-40 near Hillsborough, which is a barrier for students in residential areas on one side of the bridge who desire to walk to two schools on the other side, and has been the topic of multiple discussions by the DCHC MPO Board and NCDOT over the past 20 years. Improvements to these bridges have been submitted for funding through STI, but as you know projects to widen bridges for bike-ped accommodations do not score well. These are but two examples in our region of a lack of forethought for accommodations for bicyclists and pedestrians as highway projects are constructed. The Evaluation Methodology, as currently drafted, continues this lack of foresight in areas that are growing and developing.

When designing facilities that will last 75 years or more, we do not want an IMD staffer sitting in Raleigh making decisions about bicycle and pedestrian infrastructure needs in our region, and creating network gaps that the MPO and local governments will be asked to fix later at very high costs. It is not and will not be financially possible for local government to retrofit all of these incomplete streets. We must stop building future liabilities for our communities, and local staff are most knowledgeable about needs, plans, and growth areas.

3. The pedestrian/bicyclist [demand estimation map](#) in Step 2 of the Evaluation Methodology needs additional refinement. While this is intended to be a tool for analysis, we are concerned that the tool will take on an amplified and unjustified level of importance and be used to justify the exclusion of bicycle and pedestrian facilities in areas where they are needed. The tool is showing that Duke East Campus and parts of the NC State campus are “Low Demand” areas for bicycle and pedestrian facilities. Other “Low Demand” areas include Research Triangle Park, portions of downtown Charlotte, a portion of the historically African-American Bragtown neighborhood in Durham that includes a library, a city park, commercial destinations, and many high-use transit stops, and an area in south Durham that includes a regional city park, new housing, a new elementary school, and the American Tobacco Trail. Residents of Bragtown and south Durham are currently requesting sidewalks to better connect their communities.

Furthermore, the Evaluation Methodology needs to clearly state that the demand estimation map is to be used as a tool for incorporation of bicycle and pedestrian facilities, not the exclusion of those facilities. The MPO's concern is that if an area is shown on the map as Low Demand, even if demand could be high (as stated in the examples above), that will be used by NCDOT as justification for exclusion of those facilities on a project. Rather, the Evaluation Methodology needs to state that the demand estimation map serves as a guide for where to include facilities, not exclude, and further exploration such as consultation with the MPO/RPO and local staff will be used to determine the necessity of bicycle and pedestrian facilities.

Another concern with the demand estimation tool is that it only looks backward, not forward. DCHC MPO, and other MPOs, have adopted plans and tools (such as Community Viz used to prepare the DCHC MTP) that look at anticipated future land use. NCDOT also regularly conducts traffic forecasts that incorporate future demand into the design of highway projects. In addition, the demand estimation tool does not include transit data, even though the adopted Complete Streets Policy references not only population and employment densities but also level of transit service to justify the incorporation of multimodal facilities in a project.

4. Step 3 of the Evaluation Methodology introduces a new concept, the "anticipated demand methodology." This appears to be different than the demand estimating process in Step 2, and uses actual or estimated bike-ped counts multiplied by a project growth rate, as well as data from the ITE Trip Generation Manual. There is no discussion of how the bike-ped counts will be collected or estimated, and it is not clear how the demand estimate developed in Step 3 is related to the demand estimate in Step 2. Why are there two different methodologies for estimating bike-ped demand? We are concerned that the results of Step 3 can be used to cancel out the demand estimate in Step 2, or vice versa. It should be made clear in the Evaluation Methodology that both steps are intended to identify inclusion of bike-ped facilities in projects, not as an opportunity to exclude such facilities. Additionally, more detail and an example of this estimation process should be added to the Evaluation Methodology.
5. Step 1 of the Evaluation Methodology states that "Interstate projects where Y-line roadways/facilities are modified" are not subject to the Complete Streets Policy. We strongly disagree. As discussed previously, interchanges and roadways (i.e., Y-lines) that cross under or over an Interstate or other controlled access highway, need bicycle and pedestrian facilities and MUST be subject to the Complete Streets Policy.

Historically controlled access highways have divided communities (e.g., Durham Freeway), and not providing bicycle and pedestrian accommodations on Y-lines will further the harmful severing effect of these projects. In fact, the Evaluation Methodology should be modified to state that additional standalone bicycle/pedestrian bridges or underpasses will be evaluated during project development to mitigate harm and connect communities divided by these projects. In some locations, it may also be appropriate to include a shared use path parallel to an Interstate (e.g., the path adjacent to I-66 in northern Virginia).

The recently passed federal Infrastructure Investment and Jobs Act includes the Reconnecting Communities program to remove barriers caused by legacy infrastructure, while NCDOT's Evaluation Methodology would create more such barriers.

6. The Implementation Guide states that "National Association of City Transportation Officials (NACTO) guides will serve as supplemental references for facility design for projects in urban core, urban, and some suburban locations and will be used in coordination with the NCDOT Roadway Design Manual and AASHTO guides." Please add references to the entire suite of NACTO guides in the Evaluation Methodology.
7. In recent correspondence, IMD staff seem to be making a distinction in the application of the Complete Streets Policy depending on the funding source for a project. The Complete Streets Policy must apply to all

projects regardless of funding source; please clarify that in the Implementation Guide and the Evaluation Methodology. For example, the policy must be applied the same way to a bridge project regardless of whether the bridge is built with rail funds or highway funds. Please also make it clear in all materials that the Complete Streets policy applies to projects managed or funded by the N.C. Turnpike Authority.

8. In recent correspondence, some NCDOT staff appear to believe that cost sharing applies to bike-ped facilities on bridges. Please ensure that the following language from the Implementation Guide is also referenced in the Evaluation Methodology: "NCDOT is responsible for the full cost of bridge replacements and bridge widenings, including approved pedestrian facilities on the structure. Bridges will not be included in the total project construction cost for cost-sharing purposes." The language also needs to be modified to make it clear that NCDOT is responsible for the full cost of bicycle facilities on bridges.
9. In Step 5, we have concerns about re-evaluating the Complete Streets components of a project if including these components results in a 10 percent project cost increase. Including an arbitrary percentage threshold could lead to compromises that reduce the level of comfort and safety for people walking and bicycling, thus reducing the benefit of these facilities, even in areas where the demonstrated need is high.

The cost of providing facilities on bridges should not be included in any cost percentage calculation, based on existing policy discussed in # 8 above. If a threshold must be included, perhaps it should be 15 percent to reflect that more than 15 percent of crash fatalities in North Carolina are either pedestrians or cyclists.

We would also ask NCDOT to consider other design solutions for reducing project costs, such as reducing the design speed, median width, and gutter width, or using an alternative intersection design (e.g., roundabout) to reduce project costs and impacts.

We also question using the NCDOT Bicycle/Pedestrian Cost Estimation Tool (BPCE) to estimate the cost of incidental bicycle and pedestrian facilities that are included as part of a roadway project, since that tool was designed to estimate the cost of standalone bicycle and pedestrian facilities. There would likely be economies of scale for incidental bicycle and pedestrian facilities that are not reflected in the BPCE estimates.

10. NCDOT is responsible for the full cost of bridge replacements and bridge widenings, including approved pedestrian facilities on the structure. Therefore, if a decision is made to not provide sidewalk on a bridge, but to leave space for the sidewalk to be added later, the Evaluation Methodology should clearly state that the bridge will be designed with pedestrian railing and to accommodate the additional weight of the future sidewalk, that NCDOT will manage the design and construction of the sidewalk when it is needed, and spell out the threshold or conditions that will trigger the construction of the sidewalk by NCDOT. This commitment should be reflected in a binding document, such as the municipal agreement and environmental document for the project.
11. The Complete Streets Policy documents reference bridges but not culverts, and this has caused confusion in the DCHC area during project development. Please add references to all of the Complete Streets documents to explain how the policy applies to culverts. We would anticipate that the policy for culverts would be the same as for bridges.
12. Please add to the Evaluation Methodology that when projects terminate at an intersection, they should terminate at the far side of the intersection so that the full intersection is included in the project. This will ensure that the project improves the pedestrian and bicycle network at the intersection, where bicycle and pedestrian crashes often occur. In the past, we have seen projects terminate before an intersection and thus

no improvements were made to improve pedestrian and bicycle connectivity and safety within the intersection.

13. The presentation provided by Ryan Brumfield to MPO staff showed a roadway cross-section with 10-foot travel lanes for a four-lane, median-divided road. In our experience NCDOT staff will not approve 10-foot travel lanes on an arterial; the minimum NCDOT staff will approve is 11 feet. Is NCDOT proposing a change to allow 10-foot travel lanes?

Below are additional comments regarding specific language in the draft NCDOT Complete Streets Evaluation Methodology:

14. On page 2, please add additional documents that should be reviewed under “Step 1 – Initial Screening and Data Input.” These include, but are not limited to, the following:
- local transit plans, transit route maps, and transit stops
  - local comprehensive plans and land use plans
  - approved site plans and rezonings
  - bicycle and pedestrian facilities being constructed by private development or local government (i.e., projects not in the STIP)
15. On page 3, it is stated that several other types of projects are not subject to the Complete Streets Policy, including Safety projects, and Maintenance and HMIP projects. Please provide details on the alternative evaluation process that applies to these types of projects. In the past these types of projects in the DCHC region have often included Complete Streets elements (e.g., Herndon-Barbee roundabout, Erwin-Randolph traffic signal), and we request that NCDOT not put in place a blanket prohibition on the inclusion of Complete Streets elements in these projects.
16. On page 3, there is reference to NCDOT Complete Streets Resurfacing and Maintenance Activities Implementation Guidance. Is this referring to Element 3 of the Implementation Guide or a different document? Please correct or clarify the reference.
17. On page 5, can you explain what is meant by this sentence: “Existing pedestrian facilities within one-half (0.5) mile and existing bicycle facilities within three (3) miles of the project should be considered as establishing a gap in the network?” For instance, do you measure facilities that are within 0.5 miles and 3 miles of any portion of the project? Please consider adding an example to the text to avoid confusion in the application of this analysis.
18. On Page 6, please review this sentence in context: “The listed priority facility is evaluated first, followed by the facility options that provide the greatest separation from motor vehicles as listed in Table 3.” This sentence seems to contradict the other sentences in that paragraph. Please review the sentence and rewrite to improve clarity, and please consider adding an example to the text to avoid confusion in the interpretation and preparation of this analysis.

Thank you for your consideration of these comments. Please let us know if you have questions.

Sincerely,



Dale McKeel

Bicycle and Pedestrian Planner, DCHC MPO

cc: Julie White, Deputy Secretary for Multi-Modal Transportation, NCDOT  
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