



National Association of
City Transportation Officials

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MEMORANDUM

From: NACTO Staff

To: Stephanie Pollack, Acting Administrator, FHWA

Re: Comments and Recommended Changes to the 11th Edition of the MUTCD

Date: March 1, 2021

Comments on the MUTCD

The Manual on Uniform Traffic Control Devices (MUTCD) sets standards for all traffic signals, signs, and road markings in the U.S. It is one of the few Federal design standards that applies to all public roads. As a longstanding regulatory document, efforts to increase uniformity within the MUTCD have resulted in increasing restrictions on engineers seeking to achieve the safety goals of our local communities. It is time for a fundamental review of whether the Manual is achieving the goals set out for it.

Among high-income countries, the United States has the highest rate of traffic fatalities, with approximately 40,000 deaths annually. To date, the regulatory standards laid out in the MUTCD have been unable to stem this tide, in contrast to regulatory approaches in Europe or Canada. The Manual's continued over-emphasis on motor vehicle operations and efficiency undercuts the Biden Administration's efforts to address climate change and social inequities, and USDOT's mandate to prioritize safety in the country's transportation system.

The draft 11th Edition of the MUTCD, released in December 2020, introduces new barriers to implementing environmentally responsible bicycle and transit infrastructure, and would do little to fix the inequities that previous editions helped entrench.

By taking action to reframe and rewrite the MUTCD, FHWA would provide practitioners with Federal guidance for safe urban street design, support the Biden Administration's bold equity and sustainability goals, and make huge strides toward USDOT's mandate to reduce traffic deaths and serious injuries.

This memo describes the structural problems present in the MUTCD and a series of options available to USDOT to make corrections.

What is wrong with the current draft 11th Edition of the MUTCD?

The MUTCD has been fundamentally flawed for decades, and opportunities to revise it are rare.

FHWA's proposal is disappointing and will limit multimodal applications and innovations to advance safety by prioritizing automated vehicles and uniformity. The draft 11th Edition of the MUTCD has the following structural problems present throughout the document, which must be corrected:

- **The MUTCD continues to rely on practices proven unsafe.** Despite the poor safety record of US roads, the draft MUTCD directly contradicts USDOT's safe systems approach. The Manual consistently prioritizes operational efficiency for motor vehicles over safety – leaving all other road users virtually unprotected. Examples include:
 - **Speed limits are still based on the dangerous and disproven 85th percentile rule**, and the draft MUTCD does not go far enough to implement the [NTSB's clear recommendation to no longer use this approach](#). Because of this, states would be under no obligation to reduce speed limits in urban areas.
 - **Outdated signal warrant requirements** focus on the history of pedestrian deaths or current crossing demand, instead of known conflicts or planned land use changes. The Manual limits the installation of traffic signals because of the potential that they will slow car travel, and as result the guidelines place pedestrians at risk of being injured or killed – before new signals are recommended. The requirement to meet a signal warrant in the Manual requires more people walking at a subject intersection than cars for the same safe crossing.
 - **Pedestrian signal indications are not required at existing or even new traffic signals**, while redundant motor vehicle signals are required – even at urban intersections.
 - **An exclusionary, victim-blaming posture:** A new stipulation gives engineers permission to ignore the needs of any user who isn't “a reasonable and prudent individual who is alert and attentive” and is “demonstrating due care,” omitting the needs of children, elderly, and disabled road users.

- **The MUTCD prioritizes prescriptive uniformity at the expense of contextually appropriate design.** Cities need guidance on common, safe traffic control elements, but flexibility to adjust designs for all users within their local setting is limited. Uniformity is clearly appropriate in a limited-access high speed highway context, but the MUTCD can get in the way of implementing street designs appropriate for multimodal, urban areas. Examples include:
 - **Poison pills to block bike lanes:** Dozens of new ‘shall’ statements amount to unresearched new restrictions on how a bike lane can be designed – such as prohibitions on commonly used intersection markings, and *requirements* to use specific markings at driveways. These are geometric design, not traffic control device regulation, and will be used to block projects. Hundreds of existing bike lanes in the U.S. would be instantly non-compliant.

- **AV manufacturers avoid responsibility:** A new section on autonomous vehicles elevates a new vehicle technology above existing road users, and further requires that municipalities conform roadways to the sensory capability of the vehicle, rather than ensuring that their vehicle technologies are roadworthy.
 - **Inappropriate regulation of public art on streets,** including a prohibition of celebratory or colorful crosswalks. New language stipulates that “the right-of-way is dedicated exclusively to highway-related functions” and that people should not be encouraged to “engage” with the street. Data shows that high-contrast crosswalks play a key role in pedestrian safety, with color and pattern added to further reflect community character and support neighborhood vitality.
 - **New ‘study’ requirements** for using red transit lanes, the type of procedural requirement that adds veto points and can expose cities to litigation risks that are not present for single-occupant vehicle infrastructure. This has happened before; FHWA required 13 years of study before approving the use of red color in transit lanes, delaying implementation nationwide. Without the red tape that the MUTCD has historically created, cities across the U.S. today would likely have hundreds more miles of red-colored transit lanes, making transit service more convenient, reliable, and accessible to the country’s essential workers.
- **The MUTCD creates prohibitive cost burdens for cities.** Researchers, engineers, and cities have worked for decades to refine traffic control devices, only to have them excluded from the Manual without data to suggest issues with their adoption. While the NPA quantifies costs of some substantive revisions, the assessment did not consider foregone benefits of proven safety countermeasures that would be subject to new restrictions and less widely used. The 11th Edition’s insistence on lengthy academic research, without consideration of proven case studies or applied research, makes it onerous to implement measures that support local quality of life goals or innovative practices. For example:
 - Cities would have to conduct patent searches and comply with arbitrary timelines before getting permission to use even city funds to conduct experiments on city streets that would make improvements to active transportation and transit.
- **The process for developing this draft has missed opportunities for robust discussion to bring the document into the modern era.**
 - **The process for revising and updating the MUTCD remains slow, time-consuming, and resistant to new ideas** even when those ideas are proven effective and practical. Long wait-periods between revisions and frequent delays stifle innovation and progress, hampering efforts to address climate change at a time when we have no time to lose.
 - **Key stakeholders (e.g. cities) should be meaningfully engaged in the draft’s development.** Historically the process for developing the MUTCD has amounted to

trading comments without substantive discussion and without guarantee that many key users of the MUTCD (city transportation professionals) are part of the conversation in a meaningful fashion. Even now, with the comment period open, FHWA is barred from talking about the document, further limiting avenues for productive dialogue or collaborative problem-solving.

How can we fix the MUTCD?

Comments and minor revisions will not address the fundamental flaws. It is our opinion that, if published, the current NPA will do little to advance any meaningful safety or sustainability benefits. And, the introduction of new sections (e.g. on automated vehicles) and the addition of related restrictions (e.g. shifts from should to shall) will result in major backslides on key safety and sustainability outcomes.

The 11th Edition is currently in a comment period, which limits FHWA's ability to gather meaningful input and feedback from stakeholders. To meet the sustainability, safety, and equity goals of the Biden Administration and USDOT, **USDOT should engage a collaborative dialogue with interdisciplinary stakeholders and Manual users, including city transportation experts.**