National Association of
City Transportation Officials

Ryan Russo
Executive Director

120 Park Avenue, 21st Floor
New York, NY 10017
nacto@nacto.org

www.nacto.org

July 2, 2024

Dear Deputy Secretary Trottenberg and Acting Under Secretary Coes:

On behalf of our 95 member cities and agencies in the U.S., NACTO respectfully requests the opportunity to work with the Office of the Secretary of Transportation, the Federal Highway Administration's Office of Safety and Manual on Uniform Traffic Control Devices (MUTCD) team on moving the MUTCD forward. It is important to continue the conversations on answering questions and clarifications in the 11th Edition of the MUTCD as well as partnering to educate NACTO members and partners on important changes in the new manual. NACTO is also committed to working on the 12th Edition and future editions of the MUTCD involving city practitioners in creating a new structure for change.

NACTO organized a campaign among our members and dozens of partner organizations to call on FHWA to update the MUTCD into a proactive, multimodal safety regulation. We appreciate the work of our partners at FHWA in making progress to improve this crucial document, but we want to ensure future amendments and editions of the MUTCD and the development process are improved to meet the needs of everyone who uses our streets.

The 11th Edition makes essential steps toward a safer, more people-focused transportation system with positive changes, including:

- Modernizing the method for setting speed zones by adding a context-sensitive approach that accounts for adjacent land use, pedestrian and bicyclist needs, and crash history.
- Making it easier to install crosswalks and aligning with guidance and best practices for improving and installing crosswalk markings.
- Explicitly allowing the use of green bike lanes, red transit lanes, and asphalt art.

The 11th Edition falls short in key areas that play an outsized role in the unsafe design of our streets:

- It continues to unrealistically identify target road users as pedestrians and bicyclists who always act "alertly and attentively," "reasonably and prudently," and "in a lawful manner." This definition fails to recognize the inevitability of human error and the enormous range of urban street users.
- Pedestrian safety in the MUTCD needs to be more adequately addressed. The lack of pedestrian or bike network warrants for signals treats signals as a problem that should be avoided rather than a tool to solve specific problems. Safety is secondary to free-flow traffic.
- The new autonomous vehicles section has been improved, but still should not exist.

- The MUTCD is not intended to be geometric design guidance, but it includes dozens of recommendations about geometric design details for bicycling, which overrides local context and local engineering judgment.

Looking ahead to the 12th Edition, FHWA has an opportunity to substantially advance the safe system approach while resolving contradictions in the 11th Edition. NACTO recommends the following:

1. A new stakeholder group should be organized to represent the needs of developed areas (urban, suburban, and rural). This new group could be constructed from NACTO's existing National Standards Committee and will complement the existing knowledge base in the National Committee on Uniform Traffic Control Devices. The National Standards Committee is a group of experienced city practitioners who work to integrate NACTO principles into national design and engineering standards by focusing on documents or processes that can either empower cities or pose technical barriers.
2. Experimentation and innovation should be used to expand the state of the practice, revisit long-held assumptions, and update practices to meet modern needs.
3. Guidance (not the standards that set the size and color of signs) needs to be developed in a format other than rulemaking–one with iterations and conversations with practitioners. In the past, FHWA has not shared ideas or draft material with the public until the start of the formal rulemaking process. During this process, federal law prevents the agency from openly communicating with cities, advocates, and other stakeholders, making transparency and dialogue impossible. A more open process should be established for gathering input from transportation practitioners in developed areas.
4. Contextual standards need to be created for streets in developed areas, including urban and suburban streets and rural streets that function as main streets through communities. These areas are distinct from freeways, expressways, or rural highways outside of urbanized locations and require different standards.

The current challenges and opportunities that inform these recommendations are discussed in more detail below. We are happy to provide additional details on the recommendations included herein and look forward to continuing the discussion and preparation for 11th Edition amendments and the 12th Edition.

NACTO and our members are ready to help and welcome the opportunity to further discuss moving the MUTCD forward with you.

Sincerely,

Ryan Russo
Executive Director, National Association of City Transportation Officials

Inconsistencies and Contradictions in the 11th Edition

What was initially a document to standardize signage on rural roads has evolved to govern every street in the United States. Urban streets serve a variety of functions and many users. The MUTCD's uniformity and rigidity are valuable on high-speed highways and for critical features like stop signs and uniform traffic lights (green/yellow/red), but in its current form, it is challenging in the complex, vibrant contexts of city streets. In looking ahead to the 12th Edition, FHWA has an opportunity to substantially advance the safe system approach while resolving contradictions in the 11th Edition of the MUTCD.

There are outstanding questions and clarifications needed on the 11th Edition changes. Following the publication of the 11th edition in December 2023, NACTO convened city transportation engineers and other practitioners to review the new Manual in detail. NACTO also worked with street design practitioners to develop a preliminary list of pressing questions for a clarification request sent to FHWA MUTCD staff in early April 2024. We have received answers to about half of the questions. NACTO supports continued informal dialogue between practitioners and FHWA staff directly outside of the rulemaking process to get MUTCD questions answered.

Experimentation and innovation should be used to expand the state of the practice, revisit long-held assumptions, and update practices to meet modern needs. Within the MUTCD, the FHWA provides opportunities for jurisdictions to test new traffic control devices and different applications of existing devices. In bicycle design, cities have diligently documented and detailed the real-world use of bike boxes, two-stage turn boxes, green-backed shared-lane markings (“sharrows”), advisory bike lanes, and permissive turns at bike signals. This work was completed through the FHWA-required “Request to Experiment” process, which is detailed in the MUTCD. Yet, this real-world application doesn’t seem to have informed some of the decisions made in the 11th Edition. This highlights a concern from city practitioners about how research is used to justify a change to the MUTCD.

The MUTCD burdens cities with funding research and data collection to advance best practices. Many local practitioners are hesitant to participate in the experimentation process; they must bear the costs of implementation and data collection, oversee a rigorous research project in addition to regular duties, and expose themselves to potential professional and political liabilities.

There needs to be clarification of the relationship between PROWAG and the MUTCD. The U.S. Access Board’s final adoption of the Public Right-of-Way Accessibility Guidelines (PROWAG) in September 2023 was a significant step forward in advancing the rights and mobility of people with disabilities across the United States. USDOT had announced in its regulatory agenda that it intends to issue a Notice of Proposed Rulemaking (NPRM) to adopt PROWAG into its regulations in spring 2024, which has now passed. The MUTCD and PROWAG are firmly related, especially regarding signal warrants and clarity around accessibility measures in quick-build projects. A specific timeline for completing this process should be communicated so state and local transportation agencies can prepare.

The 11th Edition contains contradictions with the safe system approach. The 11th Edition refers to the Safe System Approach to road safety but falls short of applying it systematically to the MUTCD. A key example is the continued reliance on a “wait-and-see” approach to pedestrian

signal warrants, in which only very high volumes of pedestrians already crossing a major street can justify the signal warrant. The 11th Edition contains a fundamental misunderstanding that the safe system approach is removing all conflicts, which is not possible. FHWA responses to questions about permissive turns over bike signals demonstrate this attempt at removing all conflicts.

There is an inconsistent application of uniformity applied in the 11th Edition. The need for uniformity in the use of signs, signals, and markings justifies the existence of a national MUTCD. However, the MUTCD has yet to create a uniform national practice in using various traffic control devices. Especially in the application of devices, the Manual falls short of protecting vulnerable users: for example, pedestrian signals are only recommended, not required, at signalized intersections, but two vehicular signal heads are required at every intersection approach. While each decision has been well-intentioned, the accumulation of decisions about where and how to apply traffic control devices has led to the opposite of uniformity.

The MUTCD grandfathers outdated standards. Devices and standards introduced after the 1971 modernization of the MUTCD have generally been subject to research and testing requirements. Those introduced before this period have remained in the text and must be changed piecemeal. Grandfathering in unresearched regulations is, to some extent, unavoidable in an 80-year-old thousand-page document, but there must be lower barriers to change when the situation calls for it.

The 11th Edition adds new requirements that lack justification and research, including the new section on AVs. New requirements were added in the 11th Edition without considering the real-world implications. For example, speed feedback signs must now be yellow in the 11th Edition, which was changed with no advance notice or justification. Similarly, the new MUTCD Part V on AVs should not exist. The section is completely unfounded and based on a still nascent technology that is being piloted and evaluated without a clear understanding of its impacts. It's unclear what AVs need that is different from humans using streets and the section's existence exacerbates concerns of cities where streets are designed for AVs instead of AVs being required to work on the already-existing streets cities have. Previous requests from NACTO and member cities to change elements of the MUTCD have been met with requirements for research and documented experimentation. Yet, AVs are normalized without following similar requirements and the new section absolves AV companies of the responsibility to build vehicles that keep road users safe within the existing transportation network. The new MUTCD changes have real-world implications and potential financial implications for cities.

The MUTCD attempts to regulate geometric design. The MUTCD has regulatory authority over the use of all road markings, speed limits, stop signs, and traffic signals, but is not intended to regulate roadway design itself. However, the 11th Edition includes dozens of recommendations about geometric design details for bicycling, which overrides local context and local engineering judgment. Specifically, the MUTCD has no authority to regulate roadway geometric design or general traffic engineering. Many of the urban bikeway geometric designs restricted in the 11th Edition have been contradicted by decades of safety and operational studies. These include restrictions on placing bike lanes to the right of a right-turn lane and unwarranted recommendations against using bike boxes. Rather than include duplicative, conflicting guidance, the 11th Edition falls short in embracing designs called for by best practice guidance such as NACTO's Urban Bikeway Design Guide, developed with input from practitioners with expertise in urban bikeway design. Because the document includes geometric design elements, practitioners follow the guidance by default.

The MUTCD attempts to regulate road users and creates a circular relationship with traffic laws. In attempting to provide uniformity in the meaning of traffic control devices, important portions of the Manual contradict modern traffic laws in states, cities, and other jurisdictions. Other sections, such as Chapter 4B, attempt to regulate street users or restrict how states regulate them directly. Most urgently, this appears in the meaning of pedestrian signals, which have changed under law in several states and major cities.

The 11th Edition did not include pedestrian or bike network warrants for signals. Despite some improvements, pedestrian safety in the MUTCD needs to be more adequately addressed. FHWA removed older language from the Signals section that had recommended roadway widening at signals. However, the 11th Edition warrant system treats signals as a problem that should be avoided rather than a tool to solve specific problems. Safety is secondary to free-flow traffic.

To justify installing pedestrian signals, the MUTCD still requires a very high volume of people to be crossing unprotected–or waiting for multiple traffic injuries or deaths to occur. FHWA made small positive changes that unfortunately might not mean much in practice. For example, practitioners are allowed to assume that pedestrian crossing speeds are low, so a signal is warranted if there are only 66 people per hour trying to cross against a constant stream of 1 car an average of every two seconds. Even though this volume is half of the previous edition, this lower warrant is unlikely to be met.

Motor vehicle signals, meanwhile, are routinely installed simply based on traffic projections from a new development. Pedestrian warrant volumes are much higher than in other industrialized countries with far lower traffic fatalities, including Canada. The 11th Edition does not follow FHWA's research about what kinds of streets aren't safe enough to cross without a signal.

How to Fix It

The above issues can be addressed by developing contextual standards for urban, suburban, and rural streets that function as main streets through developed areas. These areas are distinct from freeways, expressways, or rural highways outside of urbanized locations and require different standards. NACTO, our members, and our partners recommend that FHWA create new contextual standards for developed areas. There are two potential ways to do this:

1. A distinct urban/developed areas Manual with input from a new stakeholder group. The existing MUTCD would remain regulatory for high-speed and undeveloped areas.
2. A devices-and-applications Manual that first details the appearance of signs, signals, and markings and then separately shows their application in a variety of conditions.

Regardless of the path for changes to the next MUTCD, a new stakeholder group providing expertise from practitioners working in developed areas across urban, suburban, and rural contexts needs to be formalized to provide input into the process. This new group could be constructed from NACTO's existing National Standards Committee and will complement the existing knowledge base in the National Committee on Uniform Traffic Control Devices. The National Standards Committee is a group of experienced city practitioners who work to integrate NACTO principles into national design and engineering standards by focusing on documents or processes that can either empower cities or pose technical barriers. In addition to the MUTCD,

this group also supports NACTO's ongoing work on other national guides that influence street design.

Our Commitment to Next Steps

While there is still room for improvement in the 11th Edition of the MUTCD, NACTO is working to promote the changes and clarifications that bring it more in line with USDOT Safe System goals than previous editions. NACTO, our members, and partner organizations want to work with USDOT and FHWA to continue moving the MUTCD forward. In 2024, NACTO is working to:

- Educate member agencies and partner organizations on the changes in the 11th Edition
- Continue to work with FHWA to get answers and clarifications in the 11th Edition.
- Host conversations with practitioners and USDOT staff to discuss the experimentation and innovation process for research to support future MUTCDs.
- Understand the timing and process for PROWAG rulemaking and its impacts on the 11th Edition.
- Coordinating with member cities and partners to track the work in states across the country for state MUTCD adoption.
- Collaborate and support the creation of a new developed areas stakeholder group to advise on future editions of the MUTCD from NACTO's National Standards Committee.

We are eager to work closely with the USDOT, FHWA, our members, and other organizations to ensure future editions of the MUTCD meet the needs of everyone who uses our streets. We will continue to press for the best and most flexible use of the MUTCD.