

April 23, 2021

The Honorable Peter Buttigieg
Secretary of Transportation
U.S. Department of Transportation (U.S. DOT)

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Acting Administrator
Federal Highway Administration (FHWA)

RE: Comments on how to revise the MUTCD to prioritize people walking and biking by integrating public health, equity, and climate justice

Dear Secretary Buttigieg and Acting Administrator Pollack:

This letter contains LINK Houston's recommendations on how the Federal Highway Administration can improve the next version of the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD). LINK Houston advocates for a robust and equitable transportation network so that all people can reach opportunity. We strive to be anti-racist and center equity and climate justice in all we do. We thank [Salud America!](#) for providing model comments to aid the public in commenting on the MUTCD to prioritize public health, safety, and equity – especially for people walking and biking.

People should be able to reach such opportunities safely and with dignity by walking, rolling, biking, and riding transit. These deeply affordable options must be as viable as those afforded by people able to, or choosing to, own and operate personal vehicles. Transportation infrastructure effectively connects people to opportunity when planned, designed, and implemented to prioritize practicality, safety, and personal dignity. People who walk, use a wheelchair or other mobility device, bike, or ride transit are most exposed to harm on our country's streets. We know we can do better.

Revising the MUTCD now, and more frequently in the future, is important. Transportation engineering prioritizes convenience for people driving over safety for people walking or biking. This makes streets more dangerous for everyone, including drivers. We look for three systemic changes in the next revision of the MUTCD:

1. **Integrate the Safe System Approach** to prevent injury and death.
2. **Promote Safe Speeds** by moving away from relying on the 85th percentile rule, instead setting limits based on safety for all road users.
3. **Prioritize Vulnerable Road Users** by establishing standards requiring more practical and realistic consideration for people walking, rolling, and biking.

The benefits and burdens of transportation policies and systems should be equitably allocated across communities so we collectively address past harm and neglect to ensure that all people can reach opportunities in the future.

Sincerely,



Oni K. Blair, Executive Director



1. INTEGRATE THE SAFE SYSTEM APPROACH

Like disease, traffic injuries and deaths are preventable.

Thus, a public health approach is applicable to transportation engineering. A public health approach adopts three levels of prevention strategies: primary, secondary, and tertiary.

- Primary prevention strategies emphasize systemic change to improve outcomes for entire populations by preventing risk factors and increasing protective factors, such as prioritizing narrow, connected streets and improving multi-modal level of service.
- Secondary prevention strategies detect risk factors and target interventions to prevent the extent and severity of negative outcomes, such as detecting excessive pedestrian delay and installing a pedestrian signal without mandating unrealistic pedestrian volumes in unsafe intersections.
- Tertiary prevention strategies manage negative outcomes after they have occurred, such as identifying pedestrian crash hot spots and targeting safety measures in those areas.

The goal of primary and secondary prevention efforts is to prevent injury and death from ever occurring. This philosophy is at the center of the Safe System Approach in transportation safety.

While we recognize the time and effort that has gone into the current MUTCD revisions, the line-by-line revisions are not adequate to address the safety and accessibility concerns in our country.

After all, America is No. 42 of 51 high-income countries for per capita traffic fatalities.

The National Safety Council reports that during the past pandemic year, miles driven dropped 13% while the roadway death rate spiked 24%¹. In addition, while the share of walking trips remained steady around 10.5% from 2009 and 2017, the number of people walking struck and killed by people driving increased 45% from 2010 and 2019, according to the new 2021 Dangerous by Design report from Smart Growth America².

These deaths are neither random nor evenly distributed. “The fatality rate in the lowest income neighborhoods was nearly twice that of middle-income census tracts (in median household income) and almost three times that of higher-income neighborhoods,” the Dangerous by Design press release states.

Many deaths can be prevented if we overhaul the MUTCD with a public health approach to safety. The MUTCD can prevent injury and death by requiring signs and signals that prioritize people walking rather than requiring pedestrian delay, pedestrian conflicts, and pedestrians crossing a major street as criteria to justify signs and signals.

“Reduction or elimination of the risks faced by pedestrians is an important and achievable policy goal,” according to a 2013 road safety manual to save pedestrian lives from the World Health Organization (WHO)³.

¹ <https://www.nsc.org/newsroom/motor-vehicle-deaths-2020-estimated-to-be-highest>

² <https://smartgrowthamerica.org/dangerous-by-design/>

³ <https://www.who.int/publications/i/item/pedestrian-safety-a-road-safety-manual-for-decision-makers-and-practitioners>



As with public health efforts, the Safe System Approach is proactive and emphasizes prevention. The focus is on systemic change to create a built environment where simple mistakes do not result in serious injuries or deaths. For example, the primary cause of serious injuries and deaths on roads is the transfer of kinetic energy in a crash. We now know that efforts to increase free-flowing vehicles are a risk factor for injury. The Safe System Approach seeks to analyze and subsequently reduce risk factors and improve protective factors to minimize crashes and their consequences for entire populations. By adopting a Safe System Approach to safety, one can design high-risk conflicts out of the system.

While a larger effort to overhaul the MUTCD is merited, we understand there is an immediate need for some of the proposed revisions. Thus, it might be advantageous to develop a more responsive revision process that allows for periodic revisions between comprehensive decennial updates. The medical sector, for example, accepts and reviews annual requests for revisions to one of their most important documents, the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM). Revisions from the public and private sector are sent to the ICD-10-CM Coordination and Maintenance Committee for review before also going through the formal public comment period through the Federal Register. As travel behaviors change and new innovations and technologies emerge, engineering signs and signals need to adapt.

As it is, the proposed revisions continue to stand in the way of the basic safety measures that are necessary to adopt primary, secondary, and tertiary prevention strategies to save lives.

In the face of unacceptable traffic injuries and fatalities and barriers to safe options, we need a MUTCD rule book that is informed by a public health approach to reduce risk factors and increase protective factors for the thousands of preventable deaths and millions of preventable injuries that occur on American roads every year.

2. PROMOTE SAFE SPEEDS

We are concerned that the MUTCD revisions continue to rely on the 85th percentile speed.

By setting speed limits based on the fastest drivers at free flow conditions, the 85th percentile rule rewards people driving at excessive speeds and ignores the presence of people walking and biking. This generates a cycle of speed escalation at the expense of safety, particularly in cities.

Note that, in 2017, the National Transportation Safety Board (NTSB) discouraged use of the 85th percentile practice to set speed limits. Among the NTSB's 2021-2022 Most Wanted Listed of Transportation Safety Improvements is the call for regulators to "revise regulations to strengthen requirements for all speed engineering studies and remove the guidance that speed limits in speed zones be within 5 mph of the 85th percentile speed"⁴.

"A growing body of evidence shows that speed limit changes alone can lead to measurable declines in speeds and crashes, even absent enforcement or engineering changes," according to a July 2020 press release from NACTO.⁵

Federal guidance must be rooted in valid research that equates speed setting practices to the speed with the lowest crash involvement rate.

⁴ <https://www.nts.gov/safety/mwl/Pages/mwl-21-22/mwl-hs-01.aspx>

⁵ <https://nacto.org/2020/07/22/nacto-announces-new-framework-to-set-safe-speed-limits/>



NACTO's City Limits offers three solutions to the 85th percentile rule for setting speed limits on urban streets: setting default speed limits on many streets at once; designating slow zones in sensitive areas; and setting corridor speed limits on high priority major streets using a "Safe Speed Study."⁶

We need a MUTCD rule book that prioritizes practices to set speed limits based on safety for all road users, rather than based on how fast someone can comfortably drive.

Although our concern with the 85th percentile rule is just one example, we think it is reflective of the long-standing culture of transportation engineering that has privileged convenience for people driving over health, safety, and welfare for all people. We have additional concerns with the proposed revisions, too:

- Outdated signal warrant requirements that mandate unrealistic and unsafe pedestrian crossings perpetuate unwelcoming and unsafe roads for non-motorized road users.
- Including a new section for autonomous vehicles before including a section for pedestrians continues to prioritize vehicles over people.
- The omission of streetlights as a traffic control device ignores the needs of non-motorized road users and exacerbates historic inequities in safe infrastructure in minority and low-income communities.

The proposed revisions continue to stand in the way of the basic safety measures that are necessary to create healthy communities and prevent injuries and deaths. We join numerous individuals and organizations in asking that FHWA reframe and rewrite the MUTCD to create a path for guidance that more closely aligns with the numerous health, safety, equity, and sustainability goals of American cities. To achieve this goal, we also ask that FHWA ensures public health and affordable, equitable transportation advocate partners are included in the process. Of course, we also need an infrastructure bill to invest in retrofitting roads to physically speed creating more healthy, equitable, just, and climate-friendly communities.

3. PRIORITIZE VULNERABLE ROAD USERS

It is not only the unreasonable and imprudent who suffer in a traffic crash. Too many of Americans know someone innocent that has been injured or killed in a motor-vehicle crash.

Yet, according to the MUTCD, "The purpose of traffic control devices, as well as the principles for their use, is to promote highway safety and efficiency by providing for the orderly movement of all reasonable and prudent road users."

Assuming all road users share the virtue of prudence is severely deficient and gives engineers permission to ignore the needs of users who are not "reasonable and prudent."

The US ranks No. 42 of 51 high-income countries for per capita traffic fatalities, and last year, 2020, had the highest year-over-year spike in the roadway fatality rate in 96 years.⁷ This is not because Americans are inherently more reckless than individuals in other high-income countries. It is because our

⁶ https://nacto.org/wp-content/uploads/2020/07/NACTO_CityLimits_Spreads.pdf

⁷ <https://www.nsc.org/newsroom/motor-vehicle-deaths-2020-estimated-to-be-highest>



transportation system prioritizes the free-flowing movement of vehicles over the safety of everyone. It is not surprising then, that Americans view speeding as less dangerous than other risky driving behaviors, such as red-light running or tailgating, despite that even relatively small increases in absolute speed (5 and 10 mph) increase a driver's risk of injury and death.⁸

One contradiction regarding assumptions of prudent behavior in the MUTCD is the utilization of the 85th percentile speed to set speed limits and simultaneous requirement for unrealistic volume of unsafe pedestrians crossing to warrant a traffic signal. These standards increase the speed limit because enough drivers engage in the risky behavior of speeding and simultaneously withhold safety measures for the most vulnerable road users because not enough pedestrians engage in the risky behavior of crossing a major street.

The signs, signals, and markings in the MUTCD dictate how our transportation system is constructed and for whom it is built. It should not be based on whether enough people speed, or not enough people risk their lives crossing a major street.

Instead of focusing on the behavior of prudent road users, the MUTCD should adopt the Safe Systems approach, which stipulates that mistakes should not result in serious injury or death on the roadway. The virtue of prudence should not be the baseline for engineering guidance. Meeting the needs of vulnerable road users should be the baseline for engineering guidance.

We need a MUTCD rule book that prioritizes vulnerable road users.

We also need a more responsive revision process requiring periodic revisions between comprehensive updates so that the public does not wait so long for new practices to save lives. As travel behaviors change and new innovations and technologies emerge, engineering signs and signals need to adapt in this dynamic field. The medical sector, for example, accepts and reviews annual requests for revisions to one of their most important documents, the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM). Revisions from the public and private sector are sent to the ICD-10-CM Coordination and Maintenance Committee for review before also going through the formal public comment period through the Federal Register. We think reasonable and prudent transportation professionals could adopt a similar process rather than the current decennial process.

⁸ <https://www.iihs.org/api/datastore/document/bibliography/2218>

