



The Transportation Policy Body for the North Central Texas Council of Governments
(Metropolitan Planning Organization for the Dallas-Fort Worth Region)

April 27, 2021

Mr. Kevin Sylvester
Office of Transportation Operations
Federal Highway Administration
United States Department of Transportation
1200 New Jersey Avenue, SE
Washington, DC 20590

Dear Mr. Sylvester:

On behalf of the Regional Transportation Council (RTC) and the North Central Texas Council of Governments (NCTCOG), the Metropolitan Planning Organization (MPO) for the Dallas-Fort Worth Area, we would like to submit comments on the Federal Highway Administration's (FHWA) notice published in the December 14, 2020, Federal Register, National Standards for Traffic Control Devices; the Manual on Uniform Traffic Control Devices (MUTCD) for Streets and Highways; Revision, **Docket No. FHWA-2020-0001**.

As the MPO for the North Texas region, the RTC and NCTCOG are responsible for transportation planning in a 12-county area with a current population estimate greater than 7.5 million. With such a large and fast-growing region, NCTCOG has been making a concerted effort in the past several years to pursue innovation in transportation and air quality planning, so NCTCOG is grateful for FHWA's decision to update the MUTCD's technical provisions to respond to advances in technologies and operational practices and incorporate recent trends and innovations. Please consider the below comments as FHWA refines the proposed 11th edition of the MUTCD.

Traffic Incident Management

Safety is one of NCTCOG's chief goals in planning for the regional transportation system. To this end, NCTCOG regularly hosts training on traffic incident management for the region's emergency responders. A subcommittee of local transportation professionals and emergency responders in the region reviewed Chapter 6O - Control of Traffic Through Traffic Incident Management Areas and recommends two changes to the proposed 11th edition. First, the incident class durations should be changed to reflect the amount of time needed to deploy equipment. The proposed incident class durations in Chapter 6O.01 are as follows:

- A. Major – expected duration of more than two hours;
- B. Intermediate – expected duration of 30 minutes to two hours; and
- C. Minor – expected duration under 30 minutes.

NCTCOG requests the following changes to the incident class durations:

- A. Major – expected duration of more than four hours;
- B. Intermediate – expected duration of 60 minutes to four hours; and
- C. Minor – expected duration under 60 minutes.

These durations would better represent the number of incidents within our region that fall within each incident class.

In addition, NCTCOG recognizes that most early responders to incidents do not carry the type and amount of traffic control devices needed for incidents. Such devices are likely delivered by other vehicles summoned to the scene by early responders. Therefore, the NCTCOG recommends that guidance in this chapter be modified to recognize that early responders do not usually deploy traffic control devices but instead request this support from others. However, nothing in the guidance would prohibit or discourage early responders from deploying the needed traffic controls if they have devices available.

Bicycle and Pedestrian Facilities

NCTCOG's interest in safety also extends to bicycle and pedestrian facilities. Between 2015 and 2019, in North Texas, there were more than 10,500 reported bicycle and pedestrian crashes involving motor vehicles that resulted in more than 800 fatalities, according to the Texas Department of Transportation. NCTCOG has undertaken an extensive public education and outreach campaign to save lives, and the following comments on crosswalks, pavement and pedestrian signals are informed by this effort.

MUTCD guidance in Section 3C.02 advises that crosswalk markings "should not be used indiscriminately," but it would be better if the MUTCD recommended crosswalks be installed at all signalized intersections and then provided "Options" of when a crosswalk might not be necessary. In this same vein, guidance in Section 4D.02 recommends that pedestrian signals "should" be installed at marked crosswalks at signalized intersections, but "shall" would state this more strongly.

In Sec. 3H.03, the guidance on aesthetic treatments in crosswalks is written from the perspective of motor vehicle drivers rather than pedestrians. References to the right-of-way being "dedicated exclusively to highway-related functions" and pedestrians "loitering" in crosswalks should be removed. Furthermore, Sec 3H.03 visual standards on crosswalk designs are overly prescriptive and should be moved to guidance, with the exception of standards regarding vision-impaired pedestrians who rely on tactile cues. Similarly, the guidance on colored pavement in Sec. 3H.01 says colored pavement is used to "regulate, warn, guide or otherwise communicate with traffic" and is not clear about whether colored pavement may be used for decorative and/or painted intersections. NCTCOG recommends allowing colored pavement within intersections for aesthetic purposes.

Alternative Fuel Corridors

As the MPO for the Dallas-Fort Worth ozone nonattainment area, NCTCOG is tasked with increasing the use of alternative fuel vehicles to help reduce ozone-forming pollution. Zero-emission vehicles especially help reduce the air pollution impact of the transportation sector, with on-road mobile vehicles currently contributing nearly half of all ozone-forming emissions of nitrogen oxides (NOX). Although ozone levels continue to decrease, the DFW nonattainment area is currently facing reclassification to more stringent nonattainment designations under both the 2008 and 2015 ozone standards. NCTCOG also houses the Dallas-Fort Worth Clean Cities Coalition, a US Department of Energy program working to increase adoption of alternative fuels. Accordingly, NCTCOG has been deeply involved in designating alternative fuel corridors under Section 1413 of the Fixing America's Surface Transportation (FAST) Act.

Overall, NCTCOG wishes to suggest FHWA consider substituting the word "fuel" for "gas" throughout the proposed 11th edition. NCTCOG disagrees with the implication in the MUTCD that fueling facilities are defined primarily by the availability of gasoline and instead supports an approach that gives parity to alternative fueling stations on signage. NCTCOG proposes defining "fuel" to include gasoline, diesel, and alternative fuels, and defining "alternative fuels" to include at least all alternative fuels included in the FHWA Alternative Fuels Corridor Program (electric, hydrogen fuel cell, propane, natural gas) under 23 U.S.C. 151. The change from "gas" to "fuel" is specifically requested in Sections 2I.03, 2J.01 and 2J.02.

Highway corridor signage must necessarily reflect this inclusive view of fuel. For example, General Service Sign D9-7 Gas in Proposed Figures, Part 2, uses a gas pump symbol to indicate the availability of fuel on a highway sign: All fuels are labeled by a letter, such as "CNG" or "EV"—except for gasoline. Parity among all fuel types would require gasoline be labeled with a "G."

For proposed new Section 2H.14, NCTCOG supports this effort to incorporate standards and guidance for consistent use of Alternative Fuels Corridor Signs nationwide. In addition, regarding Section 2H.14:

- NCTCOG opposes prohibiting states from incorporating alternative fueling stations into existing logo programs and recommends FHWA remove this restriction.
- NCTCOG asks FHWA to consider elevating guidance on LAST IN CORRIDOR signage warning alternative fuel consumers of the last opportunity to refuel their vehicles to a standard to avoid consumer confusion and best inform motorists.
- NCTCOG supports the requirement for General Service signs identifying the alternative fuels available in the corridor to be included with the Alternative Fuels Corridor signs in a sign assembly and additional directional assemblies to reach fuel services.
- NCTCOG recommends allowing General Service signs in the sign assembly indicating the end of a corridor if additional alternative fuel facilities are available.
- NCTCOG recommends that FHWA change statements permitting additional signs beyond major intersections/interchanges on long corridors or when the availability of one or more of the alternative fuel facilities discontinues from "Option" statements to guidance to advise states that this is a best practice to adequately communicate fuel availability.

In Section 2I.03, NCTCOG appreciates the new “Support” and “Option” statements acknowledging that motorist expectations for alternative fuels may vary from conventional fuel vehicles. This would create flexibility for posting General Service signs for more types of alternative fueling stations, especially EV charging stations that may not be collocated with conventional fueling sites. NCTCOG recommends removing “public telephone” from the criteria for services listed on “Gas, Diesel, and/ or alternative fuel” General Service signs.

For Chapter 2J, NCTCOG recommends that supplemental messages identifying available alternative fuels be allowed for all business categories of Specific Service signs. Due to the length of time required to refuel some alternative fuel vehicles, it is reasonable to expect motorists to pursue activities and amenities, such as food and local attractions, while they wait. This is especially true for EV charging stations, which are a current administration priority and are often co-located with FOOD or LODGING establishments. Moreover, this creates an opportunity for businesses that diversified the scope of services they provide.

In Chapter 2J, NCTCOG further recommends:

- Revising in 2J.01 the guidance criteria for statewide policy for Gas business identification sign panels to include alternative fuels in addition to gasoline
- Revising in 2J.02 the proposed standard language prohibiting Gas Specific Services signs for businesses that do not offer gasoline but offer alternative fuels to read “a business that does not offer gasoline but offers alternative fuels may be signed using FUEL Specific Service signs.”
- Revising in 2J.03 the proposed “Option” language limiting supplemental messages identifying available alternative fuels to Gas Specific Services signs for gasoline facilities that provide the specified alternative fuel to “a supplemental message identifying an alternative fuel available may be added to the business identification sign panels on a Specific Services sign for any business that provides the specified alternative fuel.”

Electric Vehicles

NCTCOG supports the proposed changes for Electric Vehicle (EV) Parking signage in Section 2B.54 because this would open the door to uniformity in signage for EVs, making it easier to identify available EV parking spaces. NCTCOG asks FHWA to consider making this guidance into a standard similar to the Accessible Parking standards in the Americans with Disabilities Act. Such a standard would bring greater uniformity to and awareness of the different parking rules for EVs across the states.

Automated Vehicles

The need for federal guidance relating to automated vehicles (AV) is paramount, and NCTCOG welcomes this effort by FHWA to provide direction through the 11th edition of the MUTCD. However, NCTCOG is confused by several of the general principles articulated in Chapter 5A.

For instance, Section 5A.01 states that the “MUTCD does not address standardizing several areas that might be important to AV technologies such as digital infrastructure, geometric road design, setting maintenance levels for all traffic control devices, and setting minimum condition levels for paving materials.” To limit guidance on traffic control devices for AVs to visually conveyed information is to misunderstand how AVs operate, since “digital infrastructure” is how

highly automated vehicles ingest data. Accordingly, maintenance requirements applicable to traffic control devices and data streams are needed to support the operation of AVs.

On the other hand, Section 5A.04 seems to understand automated vehicles when it states that “the lack of tolerance of DAS [driving automation system] for nonuniformity in traffic control device design and application is a limiting factor of current DAS sophistication, i.e. DAS has limited ability to interpolate across gaps in traffic control device cues to the vehicle.” AVs can process digitally conveyed information more easily than they can process visually conveyed information. For example, AVs can process information about the speed limits within geocoded boundaries and adjust vehicle behavior accordingly more easily than trying to read speed limit signs and make the necessary adjustments on the fly. This makes Section 5A.01’s decision to concentrate on visual infrastructure to the neglect of digital infrastructure difficult to understand. Therefore, the proposed revision of the MUTCD seems like a missed opportunity to acknowledge the technological revolution happening in vehicles and begin digitizing key elements of roadways, including speed limits, warning signs, and traffic signal phase and timing. Digitized traffic control information will not relieve AV developers from their responsibility to design AVs that operate safely.

The proposed MUTCD revision also seems out of touch with recent developments in both regulation and innovation for automated vehicle technologies. Section 5B.03 states that “where possible, connected and automated vehicles (CAV) needs with respect to traffic signals are better addressed through vehicle to infrastructure (V2I) for the reasons stated above and for reliability and accuracy of critical communications under all environmental conditions.” A similar statement is found in Section 5B.05. However, the Federal Communications Commission, in the face of USDOT inaction, has recently scaled back the so-called “safety band” in the 5.9 GHz part of the wireless spectrum section from 75 MHz to 30 MHz and mandated use of a competing communications protocol. Given the uncertainty of the regulatory environment, it is odd to see the MUTCD take a stance in favor of this technology. In fact, many of the functions connected vehicle technology was expected to provide can now be handled by cellular technology being built into vehicles, and recent iterations of cellular technology allow direct peer-to-peer sharing of data without needing to utilize the cellular network at all. The key to success on this front is effective digitization of infrastructure and data sharing with the developer community—an approach the proposed revision bars by disclaiming any responsibility for digital infrastructure.

Finally, in contrast to Part 5’s hands-off approach on automated vehicles, the extensive waiver process outlined in the MUTCD’s Section 1B.06 on experimentation for traffic control devices is a direct impediment to AV deployment. Instead of requiring FHWA approval for innovative AV-related technologies, experimental technologies should be presumptively approved unless FHWA intervenes and disallows a proposed experiment.

NCTCOG commends FHWA for entering the MUTCD into the conversation around automated vehicle regulation, but the approach proposed for Part 5 of the 11th edition is not grounded in a thorough understanding of how AVs work and the opportunities that exist to utilize data to accomplish a wide range of traffic control device functions. At a minimum, the MUTCD must be more flexible and supportive of innovation and experimentation designed to advance the safe and timely introduction of automated vehicles at scale.

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We appreciate the opportunity to provide these comments and look forward to working with FHWA as work continues on the 11th edition of the MUTCD. If you have any questions, please feel free to contact me at (817) 695-9241 or mmorris@nctcog.org.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Morris".

Michael Morris, P.E.
Director of Transportation

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