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**INSTRUCTIONAL BULLETIN NO. 23-09**

Chapter 3 Updates Regarding Pedestrian Crossings and Crosswalk Markings at Intersections  
**Effective with February 9, 2024 Letting (November 29, 2023 turn-in)**

**The Roadway Design Guidelines Chapter 3 has been revised as follows:**

**3-301.00 ACCESSIBILITY REQUIREMENTS BY PROJECT TYPE**

Wherever pedestrian facilities are intended to be a part of a transportation system, federal regulations (28 CFR Part 35) require that those pedestrian facilities meet or exceed ADA guidelines. All new construction or alteration of existing transportation facilities must be designed and constructed to be accessible to and usable by persons with disabilities. FHWA is one of the federal agencies designated by the Department of Justice to ensure compliance with the ADA for transportation projects.

All projects shall review and evaluate the existing pedestrian access and connectivity within the scope of the project to address and correct identified deficiencies not meeting ADA, [PROWAG](#), and TDOT requirements.

All new construction projects will be constructed to meet current accessibility requirements.

**All alterations** funded and developed by or for the Department on state right-of-way shall evaluate the existing pedestrian circulation, accessibility and connectivity. Any deficiencies should be identified (i.e., **Regional Operations Division's** Resurfacing PS&E report or Strategic Transportation Investment Division's Report) and included with the project scope. All other projects developed by or for Divisions other than Roadway Design shall follow the same scoping requirements regardless of funding type, funding percentage, or letting type.

Roadway maintenance activities do not warrant addressing and correcting ADA deficiencies. Resurfacing is not considered maintenance, but as an alteration.

All Local Program projects administered by the Program Development and Administration Division shall follow the same guidance based on project type. Projects developed and let by local agencies shall follow the same guidance since all local agencies are obligated to fulfill FHWA required

ADA elements. Projects within TDOT right-of-way shall comply with all TDOT standards, regardless of funding.

### 3-301.02 ALTERATIONS

A roadway **alteration** is a change to any portion of an existing facility (site, structure, or improvement of a pedestrian or vehicular route) located in the right-of-way that affects or could affect usability, access, circulation, or use of the facility. Alterations could affect the structure, grade, function, and use of the roadway. Any project that affects or could affect the usability of a pedestrian facility is classified as an **alteration**.

- All new pedestrian facilities included in an **alteration** that is put in place within an existing developed right-of-way must meet applicable ADA, PROWAG, and TDOT requirements to the maximum extent feasible.
- All existing pedestrian facilities disturbed by or **triggered by an alteration** must be replaced. The replacement facilities must meet current ADA, PROWAG, and TDOT requirements to the maximum extent feasible.
- If pedestrian facilities are present, curb ramps are required at **signalized** intersections and other pedestrian crossings.
- Installation of crosswalk markings and applicable signs will be required at **pedestrian crossings at signalized** intersections, midblock crossings, and other uncontrolled crossings deemed necessary.
- **A Project shall not have the effect of decreasing** the accessibility of a pedestrian facility or an accessible connection to an adjacent building or site below the ADA accessibility requirements in effect at the time of the alteration. Decreasing accessibility for all pedestrians may be required under extreme safety concerns.
- Within the construction limits of an **alteration**, any existing connection from a pedestrian access route to a crosswalk (marked or unmarked) that is missing a receiving curb ramp must have a curb ramp installed that meets ADA, PROWAG, and TDOT accessibility requirements to the maximum extent feasible.
- **At any intersection in the public right-of-way that has at least one corner served by a public sidewalk or a pedestrian access route, all corners should be evaluated for need of pedestrian landings and crosswalk marking.**
- Within the construction limits of an **alteration**, evaluate all existing curb ramps to determine whether curb ramp design elements meet the current accessibility criteria. Curb ramps that do not meet the accessibility criteria must be modified or replaced to meet applicable accessibility requirements. This may also trigger modification of other adjacent sidewalk facilities to incorporate transitional segments to ensure specific elements of a curb ramp will meet the accessibility criteria. Resurfacing projects are always considered alteration projects and require ADA compliance. Within the **construction limits**, evaluate all existing crosswalks (marked or unmarked) to

determine whether crosswalk design elements meet the accessibility criteria for a legal pedestrian access route. Modify crosswalk slopes to meet the required accessibility standards to the maximum extent feasible.

### **3-400.00 GENERAL**

Pedestrian travel is a vital transportation mode. It is used at some point by everyone and is a critical link to everyday life for many. Designers must be aware of the various physical needs and abilities of pedestrians to ensure facilities provide universal access.

Under Tennessee law, pedestrians have the right-of-way at all **unmarked crosswalks**, driveways, and marked crosswalks. However, pedestrians must act responsibly, using pedestrian signals and sidewalks where they are available. **TCA 55-8 Series** Section 504 of the Rehabilitation Act and the Americans with Disabilities Act of 1990 (ADA) requires pedestrian facilities to be designed and constructed so they are readily accessible to and usable by persons with disabilities. This chapter provides accessibility criteria for the design of pedestrian facilities that meet applicable state and federal standards.

The pedestrian facilities included in a project shall be determined during the project planning phase based on access control of the highway, local transportation plans, comprehensive plans and other plans (such as Safe Route to School Plans developed by schools and school districts), the roadside environment, existing and projected pedestrian volumes, user age group(s), and the continuity of local walkways along or across the roadway.

If a project scope proposes to exclude curb ramps, they can be funded and installed separately. However, all work must be completed **before** the project (i.e., resurfacing) or at the same time, **not after**. See the [Supplement to the 2013 DOJ/DOT Joint Technical Assistance on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing](#). For any project in which this applies, add a special note that specifies the project number under which the curb ramps will be installed.

If a project is a maintenance project, curb ramps are not required at the time of the improvement. Alteration and maintenance projects are defined in the [Department of Justice/Department of Transportation Joint Technical Assistance on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing](#) document.

### **3-405.00 PEDESTRIAN CROSSINGS AND CROSSWALK MARKINGS AT INTERSECTIONS**

In Tennessee, TCA 55-8-101(16) provides that both unmarked and marked crosswalks may exist as described below, respectively:

1. That part of a roadway at an intersection included within the connections of the lateral lines of the sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway

**AND/OR**

2. Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface

Additionally, pedestrians are given right-of-way at locations where pedestrian signals exist (TCA 55-8-111).

An unmarked crosswalk is created only when a sidewalk on one side of the roadway continues in that same direction on the opposite side OR if there are pedestrian signals. Designers have flexibility at many intersections to determine if and where to place pedestrian crossings but should also be aware of unmarked crosswalks that are not currently ADA Accessible. Designers should consider impacts at intersections with incomplete or asymmetrical pedestrian circulation. Certain intersection legs may not meet the definition of unmarked crosswalks. The most common examples may be at "T" intersections, where there would be no pedestrian right-of-way given for crossing from the stem of the "T" across to the top of the "T" unless the pavement is marked OR a pedestrian signal is provided OR a pedestrian path continues in the same direction, extending the stem of the "T". In other words, sidewalks that are perpendicular to each other (at 90 degrees) interrupted by a roadway do not automatically create legal crosswalks. See Figure 3-6 below for intersection examples showing where marked or unmarked crosswalks exist.

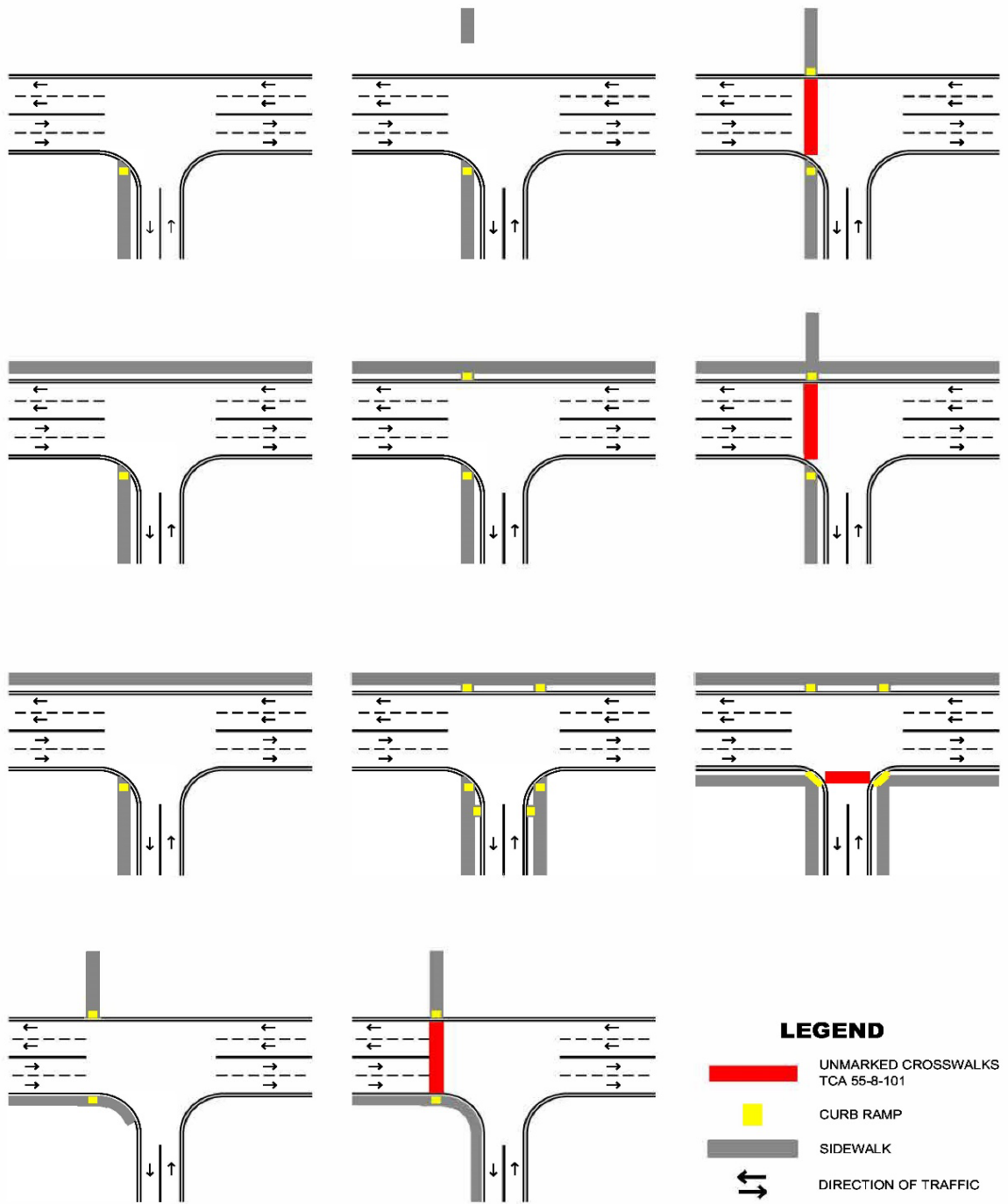


Figure 3-5A – Unmarked Crosswalk

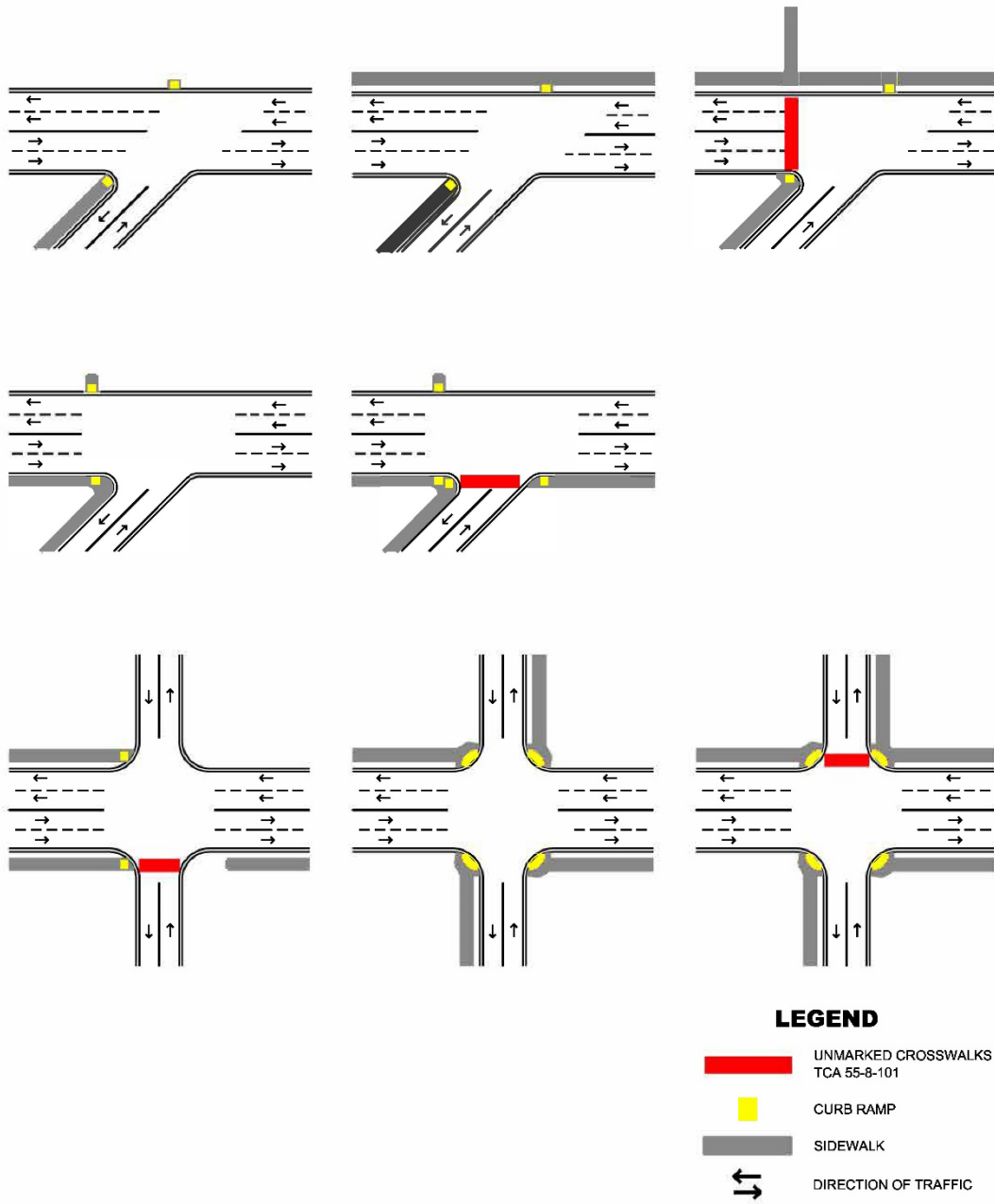


Figure 3-5A – Unmarked Crosswalk-Continued

Note: If the pavement is marked at any location OR if there are pedestrian signals installed, the crossing is a crosswalk with pedestrians having the right-of-way. Additionally, the manner in which the intersection is controlled (yield, stop, or signal w/o ped signals) or the presence of a curb ramp does not automatically create a crosswalk. A particular intersection may be signal controlled, stop/yield controlled, or uncontrolled.

Intersections without pedestrian facilities on opposite corners do not require crosswalk pavement markings, ADA ramps, or other considerations for pedestrians. If a project includes the construction of new or alterations to existing pedestrian facilities, such as sidewalk or shared-use path, the designer should evaluate the existing roadway and intersection conditions to provide safe and reliable crosswalks for all users. At intersections where there are pedestrian facilities at some corners, designers should evaluate pedestrian need and safety in choosing whether to mark a crosswalk and provide accessibility on opposite sides. If an intersection does not have sidewalk but does have other existing pedestrian facilities such as pedestrian signals; then, the pavement shall be marked and accessible pedestrian refuges installed. Finally, if the presence of two curb ramps across an intersection leg does not currently meet the definition of an crosswalk as shown in figure 3-5a designers should mark the crossing to remove any confusion on the part of pedestrians or vehicles as to the legality of that crossing. These steps will remove any possible confusion regarding the use of the crossing.

During the development of 3R projects the designer should evaluate the existing roadway conditions and study all existing controlled or uncontrolled crossings to provide a safe access to pedestrians and reliable transportation for motorists. At a minimum all crosswalks are required to have curb ramps installed.

Controlled (signal, stop or yield) pedestrian crossings on state routes require crosswalk pavement markings, along with stop bar or yield marking with signs in accordance with MUTCD. It is recommended but not mandatory to have marked crosswalks at all controlled pedestrian crossings on non-state routes. See Figure 3-6 Required Crosswalk Markings along State Routes.

### **3-405.10 UNCONTROLLED PEDESTRIAN CROSSINGS**

Uncontrolled Pedestrian Crossings are those crosswalks across legs of an intersection without signal, stop, or yield control. Most common would be intersecting minor street with stop control along a major roadway with no traffic signals or stop control. At these **uncontrolled pedestrian crossings**, crosswalks exist at all locations that meet the definition of crosswalks under TCA 55-8-101. These crosswalks could pose an increased risk for vehicles and pedestrians; therefore, sound engineering judgement/principles and behavior of pedestrians should be considered.

Existing uncontrolled pedestrian crossings may not have existing marked crosswalks or compliant ADA curb ramps. During the development of 3R projects the designer should identify and study all existing uncontrolled crossings to provide a safe access to pedestrians and reliable transportation for motorists. *At a minimum all pedestrian crossings are required to have curb ramps installed.*

The decision to mark an uncontrolled crosswalk, provide signs or other safety measures is based on sound engineering judgement, which considers the demands (crash history, etc.) and behavior of pedestrians and drivers at specific locations. The MUTCD states the following on crosswalk marking at uncontrolled locations:

### Section 3B.18 Crosswalk Markings

*Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors.*

*New marked crosswalks alone, without other measures designed to reduce traffic speeds, shorten crossing distances, enhance driver awareness of the crossing, and/or provide active warning of pedestrian presence, should not be installed across uncontrolled roadways where the speed limit exceeds 40 mph and either:*

- A. The roadway has four or more lanes of travel without a raised median or pedestrian refuge island and an ADT of 12,000 vehicles per day or greater: or*
- B. The roadway has four or more lanes of travel with a raised median or pedestrian refuge island and an ADT of 15,000 vehicles per day or greater.*

Additionally, in 2018 the FHWA issued a comprehensive document "[Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations](#)" to assist Designers on what countermeasures can be installed to increase driver awareness and pedestrian safety and when it is most appropriate to use those measures. See Table 3-2A for information regarding pedestrian safety countermeasures.

It is important to note that when using this table, the TDOT AADT ranges for the three columns are **AADT<10,000**; **10,000<AADT>15,000**; **AADT>15,000**. At certain types of uncontrolled crossings, such as roundabouts, single-lane entries and exits are preferred for pedestrian crossings. Splitter islands should be designed to fully accommodate pedestrians as a refuge location.

### **3-405.15 CLOSING CROSSWALKS**

Existing crosswalks may be present which pose an excessive safety concern for pedestrians. When this happens, designers should first look to improve safety at the crossing utilizing proven countermeasures such as pavement marking, advance signs, improved street lighting, and reducing speed limits. In rare circumstances, a particular pedestrian crossing should be closed. Closing a sidewalk is a last resort and should be pursued only when the crosswalk has a history of safety issues and when other efforts at safety improvement were attempted and found to be ineffective. The act of removing crosswalk pavement marking or choosing not to install ADA Curb Ramps is insufficient to consider a crossing as closed. The following requirements apply when it is determined that closing the crosswalk is the only safe alternative:

- Provide a physical barrier and signs to indicate that the crossing is closed for all users.
- Provide a reasonable alternate route that all pedestrians can use. The route should include multiple countermeasures for safe pedestrian crossing. Most importantly, the route should be located within a reasonable distance from the closed crossing.



### **3-405.50 UNMARKED CROSSWALKS**

While ADA accessible crosswalks are mandatory, leaving some crosswalk locations unmarked may be acceptable and even preferred on some roadways per engineering discretion. While all controlled crossings (stop, yield, or signal) should have marked crosswalks, uncontrolled crossings may not require marked crosswalk treatment if conditions meet the minimum safety standards.

### **3-405.60 ACCESSIBLE CROSSWALK DESIGN ELEMENTS**

Crosswalk surfaces should be even, free of joints (less than 1/2"), lips (less than 1/4") and not slippery. Designer should avoid utility structures such as manholes, drainage grates and place crosswalks to minimize the walking distance across the vehicle traveled way. This could include applying pedestrian focused design treatments such as reducing lane widths, minimizing turning radii, providing pedestrian refuge islands, constructing curb extensions, and limiting the use of turn lanes. Designer should confirm the roadway running slope and cross slope is in accordance with PROWAG 302 where crosswalks are proposed and when project scope would permit the altering of the roadway geometry. Where on-street parking is present and minimum radii can be met at the intersection, the Designer should consider curb extensions to further minimize the distance required to travel by pedestrians. The lateral offset of the curb extension should be at least one (1) foot from any through movement traffic such as motor vehicles or bicycle lanes. Refer to *Chapter 3-703.00* for additional information on curb extensions.

Chapter 3 has been updated on the website at this link:  
[DG-C3.pdf \(tn.gov\)](#)



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SMH:ARH:JRQ  
August 28, 2023