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The ATD Crossing Guidelines provide guidance on the selection of appropriate safety treatments at uncontrolled crossings and are adapted from national research and guidance with further calibration to account for local context. This document offers treatments that may be appropriate for new crossings or crossings requiring further enhancements to meet safety standards based on vehicle speeds, volumes and roadway configuration, however, in all cases the final determination of the appropriate treatment(s) requires approval from the City Traffic Engineer or their designee.

Using the Crossing Guidelines:

If required by the Transportation Criteria Manual or recommended by a City Engineer, new or upgraded crossings should utilize treatments included in the Crossing Matrix on the next page.

To determine the applicable cell for an uncontrolled crossing location three pieces of information are needed :

- 1. 85th percentile vehicle speeds*, if known, or posted speed limit.
- 2. Vehicle volumes in Annual Average Daily Traffic (AADT)*
- 3. Roadway configuration in number of lanes and median presence.

The numbers within the applicable cell indicate that the treatment is a candidate countermeasure for the crossing location in question. The matrix and the countermeasure descriptions on the bottom of the page provide additional guidance on preferred treatments and when certain treatments should only be used in combination with other treatments. Final determination of the appropriate treatment(s) should be made in consultation with the City Traffic Engineer or their designee.

*Up to five years of historical speed or volume data can be used

Additional Notes:

- The continental style marking is the standard marking for all crosswalks in Austin.
- Crosswalks should be marked on all legs of signalized intersections, unless recommended otherwise by the City Traffic Engineer or designee.
- Crosswalks should be marked at stop-controlled intersections when recommended by the City Traffic Engineer or designee.
- The City Traffic Engineer or designee may make the determination that existing marked, uncontrolled crossings that do not meet the safety standards established in this document should be removed until such a time that they can be upgraded to meet safety standards.
- Several of the treatments included in the Crossing Matrix are also commonly utilized for speed mitigation purposes, and the ATD Crossing Guidelines do not conflict with or supersede any guidance in the Transportation Criteria Manual, the ATD Speed Management Toolkit, or other design guidance regarding speed management.
- The Crossing Matrix is adapted from the Federal Highway Administration's "Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations" (2018) with further calibration to account for local context.

Crossing Matrix for uncontrolled crossings

	Vehicle AADT <9,000			Vehicle AADT 9,000 - 15,000			Vehicle AADT >15,000		
Roadway Configuration*	≤30 mph	>30 and <40 mph	≥40 mph	≤30 mph	>30 and <40 mph	≥40 mph	≤30 mph	>30 and <40 mph	≥40 mph
2 lanes (1 lane in each direction)	123 456	1 3 5 6 7 9	1 3 5 6 7 9	1 3 4 5 6	1 3 4 5 6 7 9	1 3 5 6 7 9	1 3 4 5 6 7 9	1 3 5 6 7 9	1 3 5 6 9
3 lanes with raised median (1 lane in each direction)	123 456	1 3 4 5 6 7 9	1 3 5 6 7 9	1 3 4 5 6 7 9	1 3 4 5 6 7 9	1 3 5 6 7 9	1 3 4 5 6 7 9	1 3 5 6 7 9	1 3 5 6 9
3 lanes w/o raised median (1 lane in each direction with a two-way left-turn lane)	1 2 3 4 5 6 7 9	1 3 4 5 6 7 9	1 3 5 6 9	1 3 4 5 6 7 9	1 3 4 5 7 9	1 3 4 5 6 9	1 3 4 5 6 7 9	1 3 5 6 9	1 3 5 6 9
4+ lanes with raised median (2+ lanes in each direction)	1 3 4 5 6 7 8 9	1 3 4 5 6 7 8 9	1 3 4 5 6 8 9	1 3 4 5 6 7 8 9	1 3 4 5 6 7 8 9	1 3 5 6 8 9	1 3 5 6 7 8 9	1 3 5 6 8 9	1 3 5 6 8 9
4+ lanes w/o raised median (2+ lanes in each direction)	1 3 4 5 6 7 8 9	1 3 4 5 6 7 8 9	1 3 5 6 8 9	1 3 4 5 6 7 8 9	1 3 4 5 6 7 8 9	1 3 5 6 8 9	1 3 5 6 7 8 9	1 3 5 6 8 9	1 3 5 6 8 9

Vehicle Speeds and Volumes

*Treat one-way streets as if they were a single leg of a two-way street (e.g. treat a multi-lane one-way street the same as a multilane street with raised median).

Legend:

- Visibility enhancements: Contenental crosswalk markings, parking restrictions on crosswalk approach, adequate nighttime lighting, and crossing warning signs.
- 2 Raised crosswalk: Should typically only be used in combination with other countermeasures recommended in the cell. TCM provides additional design guidance.
- 3 Advance Stop Here for Pedestrian sign and stop line: Should typically only be used in combination with other countermeasures recommended in the cell.
- 4 In-street sign or delineator post on lane line: Should always be used in combination with a marked crosswalk when a crosswalk is the only chosen treatment.
- 5 Curb extension: Should typically only be used in combination with other countermeasures recommended in the cell, or in place of a crossing island when a crossing island isn't feasible. See TCM for additional guidance on where curb extensions are required.
- 6 Crossing Island: Should be used in combination with RRFB or PHB, if feasible, when those treatments are recommended. For crossings of roadway configurations with existing raised medians, the median should functionally serve as a crossing island.
- 7 Rectangular Rapid Flashing Beacon (RRFB)
- 8 Lane Conversion
- 9 Pedestrian Hybrid Beacon (PHB)

Given the set of conditions in a cell:

Signifies that the countermeasure is a candidate # treatment at an uncontrolled crossing location.

Signifies that the countermeasure should always be considered, but not required, based upon engineering judgement, which may include the presence of vulnerable users or other characteristics of the location.

Signifies that countermeasure should always occur in conjunction with other identified countermeasures, when feasible.

Signifies that countermeasure should always be considered as the first treatment, if feasible.

The absence of a number signifies that the countermeasure is generally not an appropriate treatment, but exceptions may be considered following engineering judgement.