



Traffic Signal Design Manual

ORIGINATOR Director, Bureau of Highway Operations		3-3-8
CHAPTER 3	Project Scoping Process & Geometric Design Considerations	
SECTION 3	Intersection Geometrics	
SUBJECT 8	Pedestrians	

THIS SECTION OFFERS INTERIM GUIDANCE ONLY

Intersections *should* be designed to accommodate pedestrian traffic whenever required, see TEOpS 4-4-3. The surrounding area *should* be surveyed for schools, development which *may* lend towards pedestrian traffic, elderly housing, group homes, etc. to determine if pedestrian indications *should* be included. Pedestrian provisions need to include signal infrastructure design requirements and pushbutton placement that are ADA compliant. For more information on accessible design requirements refer to FDM 11-25-30, Curb Ramps or go to www.access-board.gov. Also, each WisDOT regional pedestrian/bicycle coordinator has a copy of "Part 2, *Designing Sidewalks and Trails For Access*, September 2001" which is the primary reference for designing curb ramps and other accessibility considerations.

Traffic signal standards/poles should be located to accommodate the addition of pedestrian signals and pushbuttons in the future. To accomplish this the standards/poles must be located within 2 feet of the sidewalk and or crosswalk. Be sure the button is placed on the correct side of the pole. Refer to TSDM Subject 6-1-3, Signal Poles/Standards and Foundations.

It is recommended to place a pedestrian crossing on the right side of a T-intersection to prevent left turning vehicles from queuing due to pedestrians in the crosswalk. Refer to Figure 1 for typical layouts of crosswalks at a signalized intersection.

If there is no channelized right turn, the preferred design incorporates Type 2 curb ramps. These are particularly desirable in locations where visually impaired pedestrians may use the intersection. A Type 2 curb ramp will properly align pedestrians with the correct crosswalks whereas a Type 1 curb ramp will orient the pedestrian into the middle of the intersection.

If there is a channelized right turn, the preferred curb ramp design incorporates a Type 1 curb ramp that will direct pedestrians to the channelizing island (porkchop). Pedestrians *should* then be directed to cross the mainline or side street accordingly. This method implies that the channelizing island (porkchop) is large enough (150 ft²

minimum) to accommodate space for pedestrians/bicycle cut-throughs, pullboxes, signal bases, and curb ramps.

Crossing pedestrians to a channelizing island, as described above has several advantages:

1. It reduces pedestrian crossing time,
2. It reduces the number of conflicting traffic turning maneuvers that pedestrians will need to negotiate,
3. This design will typically accommodate larger design vehicles and heavy turning movements with less intersection delay.

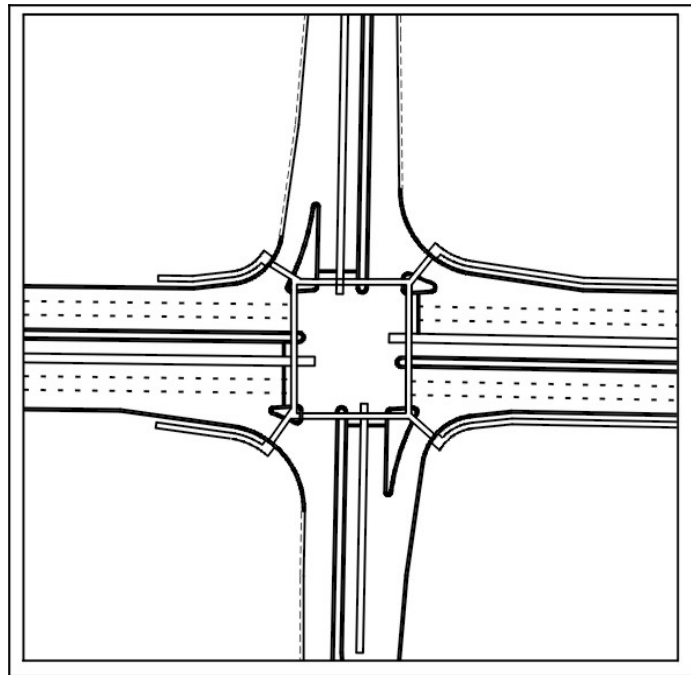


Figure 1

Typical crosswalk placement at a signalized intersection