



TURN LANES

Turn lanes provide a space for vehicles to move out of the general flow of traffic into a dedicated space to wait for a gap in pedestrian and/or oncoming vehicle traffic in order to complete a turn. Turn lanes, particularly center turn lanes, can significantly improve vehicle throughput. Often, four-lane bi-directional streets can be reduced to one lane in each direction (with a center turn lane) and still maintain roadway vehicle capacity while creating space for other uses, such as bicycle facilities, wider sidewalks, or a parking lane. This is known as a road diet.

The assemblage of travel lanes together with turn lanes can have a substantial effect on the street experience, especially for pedestrians. Although a “typical section” taken at a midblock location may result in a relatively narrow cross section, inclusion of right- and/or left-turn lanes at intersections can dramatically increase the total roadway width and pedestrian crossing distance.

USE

- Turn lanes can dramatically improve the throughput of vehicular corridors. However, without adding protected traffic signal phases, they do introduce additional conflict and uncertainty in their interaction with other modes. Turn lanes should only be used where necessary and after evaluation of their impact on the safety and operation of other modes on the corridor.
- Turn lanes are generally only required on higher order streets such as Crosstown Connector, Urban Center, Neighborhood Business, and Network Residential. Maker/Industrial streets may also benefit from turn lanes given the higher proportion of heavy vehicles expected on these streets.

DESIGN

- Turn lanes are generally 10 feet wide. Center turn lanes may require slightly more generous width.
- Turn lanes should be designed with appropriate length to accommodate reasonably expected queuing demand. Turn queue bays should not be longer than is required.
- Turn lanes may or may not be managed through separate signal phases depending on the volume and other intersection operations.

SPECIAL CONSIDERATIONS

- For streets where the addition of turn lanes requires pedestrians to cross more than four lanes of traffic, look for ways to install pedestrian crossing islands to provide a safe haven for pedestrians crossing the corridor.

REFERENCES

- MMUTCD, 2011
 - Part 2 Signs: Chapter 2B. Regulatory Signs, Barricades, and Gates http://mdotcf.state.mi.us/public/tands/Details_Web/mmutcdpart2b_2011.pdf
 - Part 3 Markings: Chapter 3B. Pavement and Curb Markings
 - Section 3B.01: Yellow Center Line Pavement Markings and Warrants
 - Section 3B.03: Other Yellow Longitudinal Pavement Markings http://mdotcf.state.mi.us/public/tands/Details_Web/mmutcdpart3_2011.pdf

DETAILS

- MDOT Standard Highway Signs
 - SHS-E01-REG “R” Regulatory Signs http://mdotcf.state.mi.us/public/tands/Details_Web/mdot_signs_e01_regulatory.pdf

