



# DRIVEWAYS & CURBCUTS


Driveways and curb cuts provide access from the public right-of-way through the pedestrian zone to private property. While driveways and curb cuts provide essential access to private property, they introduce conflict with pedestrian and bicycle travel, and reduce the efficiency of vehicular travel corridors. Cities around the country are working to encourage shared access points and restore or reintroduce alley networks to reduce the impact of and need for driveways and curb cuts.

## USE

- Driveways and curb cuts should be used only when access from alleys or shared access facilities is not available.
- Driveways and curb cuts should be located on the lowest order street abutting a property.
- Limit properties to one vehicular curb cut on each street frontage and two per property whenever practical.
- Driveways should be discouraged, minimized, or prohibited on critical vehicle network streets (such as Crosstown Connector) and on streets with a high concentration of pedestrian activity (such as Urban Center and Neighborhood Business Streets).
- Existing driveways and curb cut access points should be consolidated whenever possible for shared access and to reduce conflict points along roadways.
- Alleys serving multiple properties or users should be considered in infill developments and redevelopments to minimize the number of necessary curb cuts. These alleys can be regarded as small streets and provide key connections in the street network.

## DESIGN

- Sidewalks have priority over driveways and curb cuts. Sidewalks should proceed straight and at grade across driveways and curb cuts as to abide with the ADA. Sidewalk materials should also extend across the driveway providing clear visual reference that pedestrians have the right-of-way and that vehicles must yield.
- Driveway width should be minimized to the extent possible. Driveway openings of 10 feet are adequate for one-way access or to service a single residential property. Driveways that are designated Fire Apparatus Access Roads (Fire Lanes) must be a minimum of 20' wide and have appropriate turning radii for fire apparatus.
- Driveway apron turn radii should be as tight as practical to slow vehicles entering into and across the Pedestrian Zone.
- Driveways should be designed to provide clear sight lines of the sidewalk without the vehicle entering the pedestrian Through Zone. Driveways may utilize stop signs and markings and/or speed humps to slow and stop egressing vehicles before they enter the pedestrian zone. Drivers must not block the pedestrian zone as they enter into or egress from private property.
- Drivers utilizing driveways or curb cuts must always yield to pedestrians.
- Conflict markings, which indicate where bicyclists should travel through an intersection, should be used on bicycle lanes that cross high volume driveways to increase awareness of potential conflict points.

 Driveways and other access ramps can be made from flexible porous pavement. Flexible porous pavement allows stormwater to pass through the pavement to a stone storage layer beneath. The water then either infiltrates into the soil or flows through an underdrain to the storm drain network. It is effective in storing, infiltrating, and treating runoff from impervious surfaces. A variety of flexible porous pavements are available, including concrete pavers, paving grids, pervious concrete, porous asphalt, porous rubberized asphalt, and glass porous paving.

### SPECIAL CONSIDERATIONS

- Where the Pedestrian Zone, and in particular the Parkway Zone, are constrained such that the driveway apron cannot rise to sidewalk height, the sidewalk may be lowered to an intermediary height between street and sidewalk level through the use of sidewalk ramps and well executed design.

### OPERATIONS AND MAINTENANCE

- Maintenance of driveways is the responsibility of the private property owner.
- No parking or loading/unloading shall occur within the sidewalk through the driveway.

### REFERENCES

- City of Grand Rapids Street Classification Policy, 1996
  - Section 3. Driveways
- NACTO: Urban Street Design Guide, 2013

- Streets: Green Alley <http://nacto.org/publication/urban-street-design-guide/streets/green-alley/>
- Streets: Commercial Alley <http://nacto.org/publication/urban-street-design-guide/streets/commercial-alley/>
- AASHTO: Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004
  - Section 2.4.4: Driveways and Access
  - Section 3.2.6: Driveway Access Management
- AASHTO: A Policy on Geometric Design of Highways and Streets (Green Book), 2011
  - Section 4.15.2: Driveways
  - Section 5.3.2: Cross-Sectional Elements
- MDOT Traffic and Safety Notes
  - Notes Manual 608A Spacing for Commercial Drives and Streets [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mdot\\_note608a.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mdot_note608a.pdf)

### DETAILS

- City of Grand Rapids Standard Construction Specifications, 1993 Edition
  - Standard Details P-2 Radius Driveway Return and Approach Details and Sidewalk Details
  - Standard Details P-2A Radius Alley Return and Approach Details and Sidewalk Details
  - Standard Details P-3 Combined Driveway Approach and Sidewalk
  - Standard Details P-3A Dub-Down Driveway Approach Details
  - Standard Details P-4 Combined Dub-Down Alley Approach and Sidewalk Details
  - Standard Details P-4A Standard Dub-Down Alley Approach Details
  - Standard Details P-17 Alley Pavement
- MDOT Road Standard Plans
  - Standard Plan R-29-I Driveway Openings & Approaches, and Concrete Sidewalks <http://mdotcf.state.mi.us/public/design/files/englishstandardplans/files/R029I.pdf>
- MDOT Geometric Design Guides
  - GEO-680-B Commercial Driveways [http://mdotcf.state.mi.us/public/tands/Details\\_Web/geo680b.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/geo680b.pdf)

