



# ON-STREET PARKING

On-street parking provides support to local commercial businesses, offices, and residents by providing a convenient location for short-term parking.

On-street parking in commercial areas not only provides access to adjacent businesses, but also provides traffic calming benefits. On-street parking buffers pedestrians from adjacent traffic, which can be critical to providing a comfortable walking and bicycling environment on fast-moving, heavily-trafficked streets where a cycle track or sidewalk may be located adjacent to the curb. In residential areas, on-street parking provides residents and visitors with short-term and overnight parking spaces. On-street parking may be aligned along the roadway, parallel to the curb, at an angle to the curb, or perpendicular to the curb, depending on the width and operation of the street.

## USE

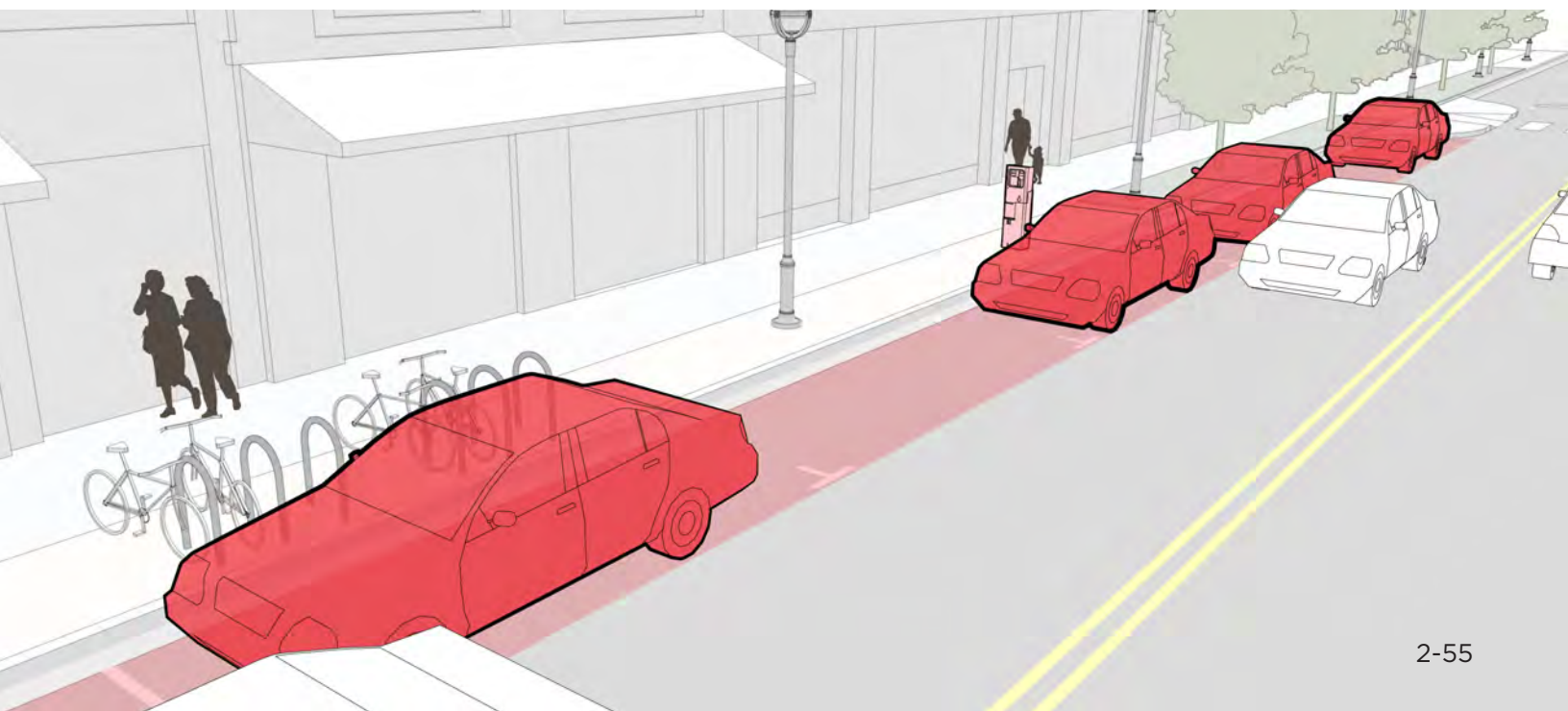
- On-street parking is generally appropriate on all street types, although it may be less common on limited access Crosstown Connector streets.
- While valuable, on-street parking is a benefit, not a need on most streets. Vital Streets must first safely accommodate the mobility needs of all travelers, before using right-of-way space for parking.
- Where rights-of-way are narrow, on-street parking may be removed to meet recommended sidewalk widths or other travelway needs.
- On-street parking must be effectively managed such that one or two parking spaces are generally available on every block to prevent motorists from circling the block looking for parking and unnecessarily adding to traffic volumes. Pricing is often the most effective means of managing curbside parking.
- On-street parking may be located on one or both sides of the street.
- Parallel parking spaces may also be used for loading and drop off.
- Angled parking uses less linear curb length per parking space than traditional parallel parking so more spaces can be provided on the same block, but only in locations with sufficient right of way widths. Angled parking is generally limited to lower speed, lower volume streets and is generally not suitable for commercial loading purposes.



- If angled parking is desired, back-in angled parking should be utilized as it improves sight lines and can be used in combination with bicycle lanes. Front-in angled parking can create safety issues given the poor visibility while backing out of spaces. It cannot be used in combination with standard bicycle lanes.

## DESIGN

- Typically, on-street parking is oriented curbside, parking parallel to the curb. While perpendicular or angled parking are also acceptable configurations, they are only appropriate on wider streets and generally those without bicycle facilities. If a street is intended to serve both bicycle facilities and angled parking, then back-in angled parking should be used.)
- Parking spaces may be marked or unmarked depending on how they are managed. In commercial areas, individual parking spaces may be marked with “T” and “L” pavement markings at their outside edge or defined with a solid white line to discourage encroachment of parked vehicles into adjoining travel ways. At minimum, white pavement markings should indicate the limit of allowed parking in the vicinity of intersections. In residential areas, parking spaces are generally unmarked.
- Parallel curbside parking spaces require a minimum of seven feet of width and 18 feet of length, 8 feet wide by 22 feet long is preferred, inclusive of the gutter pan. When using MDOT funds in commercial areas and along bus and truck routes, eight feet is required. A wider parking lane may be considered in loading zones with frequent large vehicles (e.g., large trucks, school buses) taking into consideration the street type and turnover expected.
- Parking shall be prohibited within 15 feet of either side of fire hydrants per current City Code.
- Parking should be prohibited at least 20 feet from nearside of midblock crosswalks, but presently there is no code requirement to prohibit parking a minimum distance from midblock crosswalks.
- Parking should be prohibited at bus stops.
- Parking should be restricted within 30 feet of traffic controls to maintain clear line of sight and all other areas prohibited by city ordinance (Chapter 181, Article 4, Section 10.45).<sup>16</sup>
- Parking may be immediately adjacent to the curb or, if used in conjunction with protected bicycle lanes or other similar treatments, aligned some distance from the curb.

<sup>16</sup> [https://www.municode.com/library/mi/grand\\_rapids/codes/code\\_of\\_ordinances?nodeId=TITX--TRAFFIC\\_CH181GETRRE\\_ART4PARE\\_S10.45PRPA](https://www.municode.com/library/mi/grand_rapids/codes/code_of_ordinances?nodeId=TITX--TRAFFIC_CH181GETRRE_ART4PARE_S10.45PRPA)



-  Permeable paving such as pervious concrete or pavers should be considered for stormwater management.
-  On streets with narrow sidewalks, where tree planting is limited by conflicts with utilities or driveways, or where there is a desire to visually narrow the roadway, landscaped planters or subsurface tree cells may be placed between parking spaces at regular intervals. The planters should not exceed the width of the parking lane.

### SPECIAL CONSIDERATIONS

- The U.S. Access Board Draft Public Rights-of-Way Accessibility Guidelines (PROWAG) provides guidance on accessible parking spaces.<sup>17</sup> If parking meters are present, they must be accessible to persons with disabilities providing a smooth level pathway of at least 36" in width to access the meter. Meters should be installed with payment slot roughly 40" high (from the surface of the sidewalk) and viewer at roughly 42".
- Designated handicapped parking zones should be provided, particularly adjacent to locations where there is known to be high demand for such spaces.
- The State of Michigan has two types of handicapped parking placards—one with a special seal, which means free parking, and one without the special seal, which gives the vehicle the ability to park at the blue designated meters but they need to pay the meters. The handicapped license plate is the latter (pay).
- Curbside parking may introduce conflict with bicyclists within the first two to three feet of a parked car. This is known as the “dooring zone”—the area where auto drivers or passengers may inadvertently open their door into a passing bicyclist. Parking lanes and adjacent facilities should be designed with adequate space to minimize such risks. Moving on-street parking away from the curb to act as a buffer between a bicycle facility and vehicle travel lanes reduces this risk.
- On-street parking may be combined with bulb-outs, parklets, platform dining, bike parking corrals, or other curb zone uses

to enhance the pedestrian experience, safety and multimodal access, particularly in commercial areas.

- In residential areas, residential permit parking may be used as a management strategy for preserving resident access to curbside parking at times when demand from nearby uses might otherwise constrain availability. When applied, parking is restricted to two hours for any vehicle lacking a resident-parking permit. Application of this program is based on request from individual neighborhoods, and documentation of impacts from non-neighborhood uses.

### MANAGEMENT AND OPERATIONS

- Where it is not precluded by heavy vehicles, the parking lane can be paved in concrete or special paving materials to match the pavement used on the adjacent sidewalk.
- Particularly on active commercial streets or areas with high pedestrian volumes or numerous cafes and restaurants, the parking lane may be used for flexible active uses such as café seating on a temporary or semi-permanent basis.
- On-street vehicle parking spaces may be converted to bicycle parking or bicycle parking may also be provided in the parking lane where there is not enough room to park a car, such as between driveways. One 20-foot parking space can accommodate up to 12 bicycles on six U-racks in a bike coral without cluttering limited sidewalk space.
- Head-in angled parking is discouraged because of the lack of visibility between bicyclists and drivers backing out of spaces.
- Back-in angle parking provides motorists with better vision of bicyclists, pedestrians, cars, and trucks as they exit a parking space and enter moving traffic. Back-in angle parking also eliminates the risk of opening a door into traffic that is present in parallel parking situations.
- Snow removal from on street parking spaces is generally completed by the city, however this is a lower priority than clearing travel ways. When necessary, on-street parking spaces may be used for snow storage.

<sup>17</sup> <http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way/background/access-advisory-committee-final-report/x02-6-vehicular-ways-and-facilities>

## REFERENCES

- City of Grand Rapids Street Classification Policy, 1996; Section 6. On-Street Parking, 6.1
- AASHTO: Guide for the Development of Bicycle Facilities, 2012
  - Section 4.6.5: Bicycle Lanes and On-Street Parking
- AASHTO: A Policy on Geometric Design of Highways and Streets (Green Book), 2011
  - Section 4.20: On-Street Parking
- ITE Designing Walkable Urban Thoroughfares: A Context Sensitive Approach, 2010
  - Chapter 9. Traveled Way Design Guidelines: On-Street Parking Configuration and Width <http://library.ite.org/pub/e1cff43c-2354-d714-51d9-d82b39d4dbad>
- MMUTCD, 2011
  - Part 2 Signs: Chapter 2B. Regulatory Signs, Barricades, and Gates [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mmutcdpart2b\\_2011.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mmutcdpart2b_2011.pdf)
  - Part 3 Markings: Chapter 3B. Pavement and Curb Markings; Section 3B.19: Parking Space Markings [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mmutcdpart3\\_2011.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mmutcdpart3_2011.pdf)
- MDOT Traffic and Safety Notes
  - Notes Manual 705A Angled Parking [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mdot\\_note705a.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mdot_note705a.pdf)

## DETAILS

- MDOT Pavement Marking Standards
  - PAVE-956-B Parking Area Pavement Markings [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mdot\\_pave-956-b.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mdot_pave-956-b.pdf)
  - PAVE-957-A Back-In Angle Parking [http://mdotcf.state.mi.us/public/tands/Details\\_Web/mdot\\_pave-957-a.pdf](http://mdotcf.state.mi.us/public/tands/Details_Web/mdot_pave-957-a.pdf)

