4.2

COMMERCIAL DESIGN ELEMENTS

On-Street Parking ................................................................. 114
Cafe Seating & Outdoor Retail ............................................... 118
Loading Zones ...................................................................... 122
Short-Term Parking & Drop-Off ............................................. 126
Public Alleys ......................................................................... 128
DESCRIPTION & INTENT

On-street parking, also referred to as curbside parking, is permissible space in the public right-of-way in which drivers may leave their car, motorcycle, or other vehicle and visit the shops, offices, and residences of downtown. Curbside parking has a profound influence over the character, operation, and comfort of downtown streets.

Public curbsides are in high demand for a wide variety of uses including curb bumpouts or sidewalk extensions, vehicle parking and loading, commercial deliveries, waste and recycling removal, bicycle parking and in some cities public seating, mobile vending and/or cafe dining. In higher intensity Commercial or Mixed use areas on-street parking is typically limited to short-term, higher turnover parking activities. Longer duration stays are better accommodated in off-street lots or parking ramps.

Where parking demands are high, metering (pay to park) is a best practice management strategy to optimize use of the spaces and encourage the balanced use of both on- and off-street parking resources.

Parking may be permitted at all times of day or only during non-peak travel hours. On-street parking can be used as a buffer for other street uses including protecting sidewalks and/or bicycle facilities from traffic moving in the travel lanes, and on-street parking can have a traffic calming effect. This protection generally increases the sense of comfort and enjoyment of these street spaces and modes of travel. Permanently reserving curbsides for on-street parking enables flexibility for future street design strategies (e.g. bumpouts and bike lanes). When parking is restricted and the curb lane is converted to a travel lane or solid waste removal site, even for a few short hours of the day, future use is constrained.

USE & APPLICATION

Location

- On-street parking is appropriate and beneficial to most street types and contexts. Vehicle emphasis corridors may prohibit on-street parking or restrict it during peak travel hours in order to increase vehicle capacity.
- On-street parking can be designated or managed to provide curbside access for persons with disabilities. In the State of Michigan, people who need handicap parking can apply for a Free Parking Application. This placard allows them to park for free.
- Increasingly cities are adopting Ann Arbor’s approach and designating metered, curbside spaces reserved for drivers displaying valid disability placards concurrent with installation of accessible, multi-space payment machines. Regardless of the method, curbside parking for persons with disabilities should be proximate to major destinations including principal commercial areas and civic buildings.
- Metered (paid) curbside parking is most appropriate in or adjacent to areas with high curbside demand and a high level of activity throughout most hours of the day. Curbside parking need not be metered in areas of lower demand (e.g. Near Neighborhood contexts), and
parking can be managed to provide a sufficient level of access to those who need it (e.g. through Residential Parking Permits).

- While beneficial, on-street parking is only one use of the public curbside. Alternative uses of the curbside may provide a greater public good in appropriate areas, including conversion to bicycle facilities, transit lanes, bumpouts, bicycle parking or other uses. The use of the public curbside must weigh the needs of the uses on that block face against the role and necessity of the street as a link in a larger networked system.

Related Design Elements

- **Bicycle Lanes**: Curbside parking conflict with cyclists within the first 2 to 3 feet of a parked car. This is known as the “dooring zone,” the area where vehicle drivers or passengers may inadvertently open their door into a passing cyclist. Parking lanes and adjacent facilities should be designed with adequate space, such as a 2 to 3 feet wide buffer zone between the parking lane and the bicycle lane, to minimize this risk.

- **Cafe Seating and Outdoor Retail**: Access into and out of vehicles parked at the curbside may conflict with cafe seating in the Amenity Zone of the sidewalk. Similarly bicycle racks, parking meters, street light poles, and other fixtures in the Amenity Zone should provide sufficient space to enable access and egress from vehicles parked curbside. Typically 24 inches is sufficient clearance between parked vehicles and Amenity Zone elements.

**DESIGN & OPERATIONS**

**Design Requirements**

- **Limits of Parking**: Restrict curbside parking within 20 feet of intersections to maintain clear site lines.

- **Parking Angle**: On-street parking shall align parallel to the curb. While perpendicular or angled parking are also acceptable configurations, in narrow street rights-of-way like downtown Ann Arbor parallel parking provides more benefits and fewer conflicts with other street users.

- **Parking Space Size**: Parallel curbside parking spaces shall be a minimum of 7 feet of width and 18 feet of length. A minimum length of 20 feet is typically used when spaces are marked or singly metered to ensure sufficient space for parallel parking maneuvers.

- **ADA Accessibility**: Parking spaces designated for use by persons with disabilities should be located adjacent to curb ramps to facilitate access to and from the sidewalk space by persons of all abilities.
• **Intersection Clearance**: Restrict curbside parking or stopping within 20 feet of intersections to maintain clear line of site. The end of the parking zone shall be delineated with pavement markings.

• **Meters**: When parking is metered, standard Ann Arbor multi-space, pay by space, metering system shall be utilized.

  » **Pay Stations**: The metering system shall use centralized pay stations with at least one station per block face.

  » **Space Number Signs**: The space number for each individual space shall be marked with a fixed sign. Signs should be in between parking spaces and identify the two adjacent spaces.

• **Special Parking Zones**: Temporal curbside parking, parking that is restricted for some periods of the day, and/or converted to a travel lane, shall require additional signage and enforcement.

**Additional Design Considerations**

Individual parking spaces may be marked with “T” pavement markings at their outside edge. Alternatively parking may be defined with a solid white line to discourage encroachment of parked vehicles into adjoining travel ways.

• Parking may be immediately adjacent to the curb or, if used in conjunction with cycle tracks or other similar treatments, aligned some distance from the curb.

**Design References**

• The U.S. Access Board Draft PROWAG provides guidance for on-street accessible parking spaces.

• The DDA establishes policy for on-street metered parking in downtown Ann Arbor. The City of Ann Arbor oversees the Residential Permit Parking Program.

**Sustainability Considerations**

• Alternative uses of on-street parking, such as bike corrals, can encourage other modes of transit and reduce vehicle emissions and fuel consumption.

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MAINTENANCE & MANAGEMENT

Seasonal Use & Maintenance

- **Snow Removal**: Snow should be removed from curbside parking areas as they provide vital access to the businesses and activities of downtown.
  - The City of Ann Arbor clears snow from curbside parking spaces.
  - Snow can be temporarily stored in curbside parking spaces, but for no more than 24 hours.

Reviews & Approvals

- The City of Ann Arbor Customer Services Unit is responsible for issuing permits for residential permit parking.
- The DDA is responsible for managing curbside space and permitting uses in the DDA Parking Area.
- Private Development and UM Projects:
  - Projects that impact on-street parking spaces will be evaluated under the City Council Resolution to Approve a City Policy Regarding Removal of On-street Metered Public Parking Spaces and DDA Policy Regarding On-street Meter Removal.
  - Projects should not impact an on-street parking meter space unless a compelling, broad community benefit can be established.
  - If a proposed project impacts on-street parking, DDA staff will evaluate the need for removal.
  - If removal is approved, the project will be charged $45,000 and 10 years of lost revenue per space unless there is a community benefit as defined by the above policies.
DESCRIPTION & INTENT

Sidewalks and the adjacent Frontage and Amenity Zones are important spaces within the street environment for pedestrian and commercial activity.

Cafe dining and outdoor retail allows private business owners to occupy a portion of the public right-of-way in front of their business or commercial operation for purposes of economic activity. Cafe dining enables restaurants, bars, and other establishments to provide outdoor seating space to serve patrons. On the retail side, outdoor retail enables the display and sale of retail goods within the public right-of-way.

USE & APPLICATION

This Design Element relates to providing well-designed space and accommodation for cafe dining and outdoor retail to occur within the public realm downtown; but does not require such activities to occur.

Location

- Space for cafe dining and outdoor retail is encouraged within areas of downtown with relatively high levels of pedestrian and commercial activity. See Pedestrian & Access Emphasis Streets.

- Adequate space for outdoor commercial activity is recommended on all other Commercial and Mixed Frontage Context streets.

- In Civic & University and Near Neighborhood areas, providing space for cafe dining and outdoor retail can be an opportunity on a case-by-case basis, in consideration of the specific land use-mix on the street. In general, cafe dining or other potentially loud activities should be limited when close to residential housing.

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AMENITY ZONE / FRONTAGE ZONE

CAFE DINING & OUTDOOR RETAIL
Related Design Elements

- Parking Spaces and Meters: Public access to parking meters, pay stations, and from parking spaces to the sidewalk needs to be considered in the layout and design of any sidewalk occupancy activities.

Policy Guidance

- The Sidewalk Occupancy Permit documentation contains additional guidance and permitting requirements for cafe dining and outdoor retail within the public right-of-way.

DESIGN & OPERATIONS

Design Requirements

A Clear Walk Zone: A 6 foot wide minimum clear Walking Zone and sidewalk within the Pedestrian Area shall be maintained with absolutely no encroachments in a straight, consistent alignment along the entire block face. This clear zone shall be free of any encroachments such as tables, chairs, fencing, planters boxes, sales racks, signs, or any other physical obstructions.

- This minimum clear Walking Zone shall be increased as needed for consistency in streets designed with wider sidewalks. See Sidewalks & Pedestrian Area Design Element.

- In locations where building doors swing out and into the 6 foot wide clear zone, the 6 foot minimum clear zone should take into account the door swing areas and provide additional clearance, where feasible. As new sidewalks are constructed, a 2 foot frontage zone shall be included to provide this buffer.

B Curb Clearance: A minimum of 2 feet from the edge of curb shall be kept clear at all times to buffer against parked cars or travel lanes or to maintain parking meter access or other needs for the immediate curb areas,
unless the entire street is closed as part of a larger special event and street closure.

- **Location**: All cafe seating and outdoor retail activities shall be located within the Amenity Zone of the street to provide the required clear and straight Walking Zone.
  
  » Occupied areas must provide free and clear access to parking meters and parking pay stations.
  
  » Current downtown sidewalks are not designed to accommodate dining in the Frontage Zone, while meeting ADA requirements. Activities may occur in the Frontage Zone only if the street segment has been designed specifically, and with Street Design Team approval, to accommodate occupancy in the Frontage Zone.
  
  » If sidewalks are redesigned, the placement of cafe seating shall be consistent at the block level to allow pedestrians a consistent and straight Walking Zone.

- **Fencing Requirements**: For cafe dining occupancy uses serving alcohol, a ridged fence enclosure with at least two horizontal stringers along the entire run shall be used to define the edges of the occupied zone. Fencing shall run completely along the curbside edge of the occupied area, maintaining the 2 foot clear zone off the curb, and along the ends of the occupied area. Fencing is encouraged along the edge of the sidewalk to maintain clear separation between sidewalk traffic and the occupied area, although it is not required.
  
  » Fencing must be made of durable materials and construction. Fencing must be self-standing and may not be attached or bolted to pavement surfaces, landscape planters, buildings, or other street fixtures.

- **Plan Requirement**: Areas designated for dining and outdoor retail must submit a scaled graphic plan indicating the area designated for sidewalk occupancy. Must conform to other requirements identified in the permit application.

### Additional Design Considerations

- **Wider Clear Zones**: An 8 foot wide or wider clear Walking Zone is preferred in areas with higher pedestrian volumes (Destination Commercial, Commercial, and Civic & University Frontage Contexts) and wider sidewalk clear zones may be required when streets are designed and/or reconstructed as such.

- **Amenity and Frontage Zone Width**: Street projects where cafe dining and outdoor retail is recommended should examine providing a wider Amenity and/or Frontage Zone to accommodate outdoor retail. See Sidewalk & Amenity Zone Design Element.

- **Heaters**: Outdoor heaters may be used within occupied areas provided they meet fire code requirements, are free standing, do not generate noise, and do not require cables, wires, or other hookups to cross the clear Walking Zone.

### Utility Considerations

- Provide ready access to utilities if needed for maintenance or other utility operations. Occupied areas must make note of where utility access panels,
vault covers, and other utility connection points are located.

MAINTENANCE & MANAGEMENT

General Maintenance

- Sidewalk occupants are required to ensure that their occupancy conforms to the layout stipulated in their permit at all times. Fencing, seating, sales racks, or other features must be maintained and checked to ensure that no encroachment into clear zones occur.

- Sidewalk occupants are required to keep areas free from trash, debris, food scraps, or other refuse on a daily basis.

Seasonal Use & Maintenance

- Sidewalk occupancy permits are valid from May 1 to April 30. Most sidewalk occupancy uses are not well-suited during the winter months, and Amenity Zones used for sidewalk occupancy often provide snow storage functions during the winter. During these months, cafe furniture shall be adequately stored outside of the Public ROW.

Review & Approvals

- Businesses, property owners, or others wishing to occupy a sidewalk for commercial purposes are required to submit a Sidewalk Occupancy Permit to the City of Ann Arbor Community Services Permit Desk.

- Permits are issued by the City of Ann Arbor Community Services Unit.
CURBSIDE ZONE

LOADING ZONES

DESCRIPTION & INTENT

A loading zone is a dedicated space at the curbside intended for short duration use to directly service nearby businesses or properties. In this context, loading zone primarily refers to use of the curbside space for material deliveries. Zones for the loading and unloading of passengers are addressed in the “drop-off zone” section; however, loading zones may serve both purposes.

Loading zones help promote a strong economy and a vibrant retail environment. A sufficient number of loading zones, appropriately located and designed, can dramatically improve the safety, operation, and vitality of a street. Loading zones may reduce the incidence of truck double-parking and the cost of goods delivery borne by local businesses and their consumers. However, loading zones also take up space that could otherwise be used for parking, pedestrian, or transit space and therefore should be well managed to optimize use. In some locations, loading zones can serve dual purpose by day-part, for example serving as loading during the early hours and taxi-stand into the evening.

USE & APPLICATION

Location

- Loading zones are generally used by a number of businesses or properties on a block and are a shared resource. The need for new spaces should be reviewed in the context of a block or neighborhood.
- Loading zones can be located wherever curbsides are not used as travel lanes.
- Loading zones are appropriate and necessary in Commercial and Mixed use contexts and may be used on all Functional Emphasis corridors, though special caution should be used on pedestrian, bicycle and transit emphasis streets.
- Loading zones should be considered carefully in Near Neighborhood areas such that truck traffic is not encouraged on quieter residential focused streets.
- Loading zones are intended for short duration parking – typically 30 minutes or less. Loading zones are typically reserved for only a portion of the day and used for general parking or travel at other times. If loading zone installations impact on-street parking, parking removal may be subject to meter removal and loss revenue fees.
- Alleys should be used for loading whenever possible. Off-street loading facilities are generally required for new developments and should be designed and managed to facilitate their use. Despite the presence of alleys and/or off-street loading, on-street loading zones may still be required.
Related Design Elements

- **Sidewalks**: Sidewalks near loading zones should be wide enough to accommodate delivery people moving items from the vehicle to the business without disrupting pedestrian traffic.

- **Bicycle Lanes**: Loading zones should not block any part of an adjacent bicycle lane.
  - Adjacent travel lanes should be wide enough to permit passing a commercial vehicle parked at curbside.

- **Bumpouts**: On-streets where a parking lane may no longer be warranted, consider bumpouts or flexible use of parking lane around the loading zone to expand pedestrian space.

- **On-Street Parking**: If loading zone installations impact on-street parking, parking removal may be subject to meter removal and loss revenue fees.

- **Cafe Seating and Outdoor Retail**: Cafe seating should not be placed near loading zones, as movement from deliveries may negatively impact dining activities.

- **Bicycle racks** should not be placed adjacent to loading zones, as deliveries may prevent cyclists from accessing their bikes.

- **Transit/Protected Bicycle Lanes**: Do not use loading zones on curbsides where a transit lane or protected bicycle lane is present.

### DESIGN & OPERATIONS

#### Design Requirements

**A Length**: Loading zones intended for material deliveries shall be designed to accommodate, at minimum, a single unit 30 foot delivery vehicle (SU-30).

**B Width**: Loading zones shall be a minimum of 8 feet wide; however, 9 feet is desirable. If 9 feet cannot be accommodated, travel lanes on streets with loading zones should anticipate potential affects from loading vehicles.

- **Markings and Signage**: Use MMUTCD standards for appropriate loading zone signage. Loading zones shall be well-marked to indicate to other drivers that they cannot park there.

- **Pedestrian Access**: Loading zones shall not be located or sized such that they impede the use of adjacent crosswalks.

- **Street trees**: Do not be plant street trees adjacent to loading zones due to potential conflicts with delivery vehicles; unless adequate space is provided for the tree canopy to grow without contacting delivery trucks.
Additional Design Considerations

- **Location**: Place loading zones near intersections, and preferable on the far side of intersections to facilitate access to and from the rear of trucks and to have close access to curb ramps for moving materials into buildings.

- **Sidewalk Obstructions**: Sidewalk space adjacent to loading zones should be reasonably clear of furnishings, landscaping and other obstacles.

- **Operations & Timing**:
  - **Use Time Limit**: Restrict deliveries in the loading zone to 30 minutes maximum to ensure turnover and prevent double-parking from other delivery vehicles. Consider metering loading zones to encourage turn over.
  - **Coordination**: Encourage collaboration among businesses to coordinate and/or stagger delivery times to discourage double-parking if multiple businesses are sharing the loading zone.
  - **Off-Peak Loading**: Encourage loading during off-peak hours (typically early morning or late evening). Consider reserving zones for loading only during these preferred times.

- **Non-Loading Uses**:
  - **Parking, Taxi-Stands, Valet**: Permit use of loading zones for other uses during non-delivery hours. Typical uses include curbside parking (after normal metered hours), taxi stands, or valet parking operations.
  - **Passenger Drop-Off**: Loading zones may be used for passenger drop-off provided trucks are not actively seeking access.

**Design References**

- The MMUTCD provides standards for pavement markings and signage in loading zones.

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**MAINTENANCE & MANAGEMENT**

**General Maintenance**

- **Enforcement**: Enforcement can be a significant concern and challenge for loading zones. Clear signage is necessary, but reliable enforcement is also required to ensure loading zones are not used for auto parking or longer duration parking by commercial vehicles.

**Seasonal Use & Maintenance**

- **Snow Removal**: Clear loading zones of snow. Do not use for snow storage.

**Reviews & Approvals**

- The DDA is responsible for overseeing curbside uses/programming through the parking contract with the City.
- The Ann Arbor Engineering Unit coordinates to issue Traffic Control Orders for enforcement purposes.
- New private or The University of Michigan developments that require new loading zones as a result of building use and activity will be subject to meter removal fees and revenue replacement if preexisting on-street parking spaces are impacted.
4.2 COMMERCIAL DESIGN ELEMENTS

[LOADING ZONES]
CURBSIDE ZONE

SHORT-TERM PARKING & DROP-OFF

DESCRIPTION & INTENT

A short-term drop-off zone is a dedicated space at the curbside for vehicles to drop-off or receive passengers. Drop-off zones can receive taxicabs or private vehicles, and increase the accessibility of a pedestrian-oriented district, accommodating visitors with limited mobility who may not be able to walk long distances. Drop-off zones are generally open to the public and are sometimes used for brief loading as well.

Drop-off zones may also accommodate short-term parking, usually less than 10 minutes, allowing people to pick up goods (e.g., carry-out orders) without having to park in a more remote location or search extensively for an open parking space.

USE & APPLICATION

Location

- Drop-off zones are suitable for all Frontage Zones and all Functional Emphasis street types.
- Drop-off spaces are located in the curbside parking lane. Given high and competing demand for curbside space, the need for and benefit of drop-off spaces must be clearly demonstrated. Common criteria include greater access for more people and where need cannot be otherwise met. Drop-off zones established to serve a particular property will be subject to fees and/or revenue replacement.
- Drop-off zones are appropriate near buildings that may receive a large number of visitors, particularly visitors with limited mobility, or a high number of short-term trips such as medical or institutional buildings, hotels or large residential buildings.
- Drop-off zones and the vehicles entering and exiting them must not degrade safe and efficient operation of the adjacent travel lanes, including bicycle facilities, and Walking Zones.
- The curb should be reserved for drop-off for the shortest duration possible. Drop-off zones may be used for other purposes during the balance of the day. Common uses include commercial loading, taxi stands, and metered parking.

Related Design Elements

- Street trees should not be planted in passenger loading zones.
- Cafe seating should not be placed near loading zones due to conflicts between diners and passenger loading.
- Bicycle racks should not be placed adjacent to drop-off zones due to conflicts between bicycle access and passenger loading.
- Drop-off zones should not be placed on curbsides where a transit lane or protected bicycle lane is present.
Policy References

- The MMUTCD provides standards for pavement markings and signage in drop-off zones.

**DESIGN & OPERATIONS**

**Design Requirements**

- **Length**: Drop-off zones shall be at least 25 feet long and located in front of the building entrance where the zone is requested. If multiple buildings on a block request a drop-off zone, consider a single, common loading area.

- **Width**: Drop-off zones shall be the width of adjacent on-street parking, else a minimum of 8 feet wide. Parking lanes with drop-off zones may need to be wider to accommodate people with special needs. Consider a minimum 8 foot parking lane on-street parking areas with drop-off zones.

- **Sidewalk Clearance**: Maintain an 8 foot wide clearance zone on the sidewalk adjacent to loading zones restricting site furnishings to allow passengers to enter and exit vehicles. Exceptions can be made for benches, which allow passengers to sit and wait for their ride.

- **Location**: Passenger drop-offs should generally be located at the curb line. Exceptions may be made where the curb lane is used for travel.

- **Time Limits**: Limit drop-offs to 15 minutes to encourage turnover and discourage double parking.

- **Markings and Signage**: Drop-off zones should be well-marked to indicate to drivers that they cannot park there. MMUTCD provides standards for appropriate drop-off zone signage.

**MAINTENANCE & MANAGEMENT**

**Seasonal Use & Maintenance**

- **Snow Removal**: Loading zones do not require any special equipment for snow removal. The adjacent property owner is responsible for snow removal in the Walking Zone. Drop-off zones should not be used for snow storage.

**Reviews & Approvals**

- The DDA is responsible for overseeing curbside uses/programming through the parking contract with the City.

- The Ann Arbor Engineering Unit coordinates to issue Traffic Control Orders for enforcement purposes.

- New private or The University of Michigan developments that require new drop-off zones as a result of building use and activity will be subject to meter removal fees and revenue replacement if on-street preexisting parking spaces are impacted.
DESCRIPTION & INTENT

Alleys are an important part of the downtown transportation network, providing space for loading, waste removal, and circulation away from the street. They reduce or eliminate the need for driveways that can create conflicts with people walking or cycling on the street, and free up sidewalk and curb space for other uses.

While alleys are often considered unattractive and unpleasant places to be, they can provide valuable opportunities to expand public space. As the number of downtown residents increases, alleys function as an entry door and backyard. Due to their low speeds and typically intimate scale, alleys may offer safe, comfortable pedestrian and bicycle circulation, or “shared streets” that accommodate landscaping and outdoor seating. Good alleys have extensive, pedestrian-oriented lighting, good sight lines, and allow loading and utility functions to continue while inviting other uses.

Although alleys can be attractive, low volume, low speed intra-block connectors the primary function of alleys is to service buildings off the public street.

Alleys may be public, private or a combination of both, with multiple owners sharing different segments of an alley. Access, use, and maintenance of an alley may vary widely based on ownership and governance; however, safety and efficiency remain common priorities across all alley ownership types.

USE & APPLICATION

Location

- Alleys are appropriate for all Frontage Contexts, and are especially important in Destination Commercial and Commercial areas. Alleys should provide through-connections between streets where possible.

- Where alleys are present, loading and unloading should take place there and not in the street or sidewalk. Where alleys do not provide adequate room for loading, set aside a designated loading zone on the curbside and an appropriate place(s) for container storage. As new development occurs, projects should be required to service solid waste on site or in a public alley and avoid placement of carts or dumpsters in the public street or sidewalk space.

- While not the primary user, pedestrian and bicycle traffic may occur in alleys that provide through-connections, thus they should be designed and regulated as shared environments.
Related Design Elements

- **Lighting**: Focus lighting into the alley and away from building windows.

- **Crosswalks**: should be provided wherever an alley intersects a street. Use pavement markings or a change in pavement materials to denote the area where pedestrians and motorists may cross paths.

- **Curbside Loading**: Do not provide curbside loading zones on streets where the adjacent buildings have access to alley service; loading should occur in the alley.

Policy References

- The NACTO Urban Street Design Guide provides guidance on how to design alleys as shared streets in both residential and commercial environments.

Design Requirements

**A Alley Width**: The following minimum widths apply for new public alleys, recognizing that opportunities for new alleys are sparse.

- One-way alleys shall be a minimum of 20 feet wide, allowing travel around vehicles stopped in the alley for loading or other commercial purposes.

- Two-way alleys should be a minimum of 24 feet wide to allow vehicle passage. New public alleys are unlikely to be constructed.

**B Vertical Clearance**: Maintain a clearance of at least 16 feet above surface grade of the alley to ensure trucks can pass through safely.

**C Sidewalk Interface**: Intersections between alleys and sidewalks can create conflicts between vehicles entering or exiting the alley and people walking on the sidewalk.

- Raise alley entrances to sidewalk level to make motorists aware of on-coming pedestrians.

- Maintain concrete alley pavement across sidewalk to signal to pedestrians an alley entrance.

- Provide adequate signage and visual cues to improve safety.

**D Sight Lines**: Mirrors can be used to protect sight lines to sidewalk and street.

**E Lighting**: Well lit to promote safety. Focus light towards ground.
Utility Considerations

- Alleys are appropriate places for utility lines, particularly above-ground electrical wires, as long as they are at least 16 feet above ground to allow for adequate clearance. Design public alleys not to interfere with loading movements or to impede pedestrian or bicycle circulation.

Sustainability Considerations

- Use low-impact paving materials, such as pervious pavers, to reduce heat island effects, eliminate puddles, and collect and filter stormwater. Special consideration should be given to weight bearing and durability.

Additional Design Considerations

- **Turning Movements:**
  » Maintain easy access for trucks and other delivery vehicles. Ensure that the placement of street furniture, landscaping, or curbs leaves a clear zone for freight vehicle movements entering alleys.
  » Carefully design corners within an alley system to ensure large vehicles can complete turns without damage to vehicle or property. Avoid blind turns.

  **Sight Lines:** Protect sight lines to the sidewalk and public street at alley egress points. Mirrors and/or audible signals can be used to alert motorists and pedestrians about potential conflicts.

  **Lighting:** Well light alleys to promote safety. Focus lighting into the alley and away from building windows. Lighting should be overhead and higher than 16 feet to allow for truck clearance.

- **Access and Egress:**
  » Ensure alleys at least two points of access and/or egress in combination, preferably on two different block faces. Dead-end alleys shall be avoided.
  » Streamline movement and reduce congestion in alleys through one-way alley operations.

- **Alley Use Designation:** Use bollards, signage, and pavement markings to denote alley right-of-way from adjacent properties. Such fixtures can ensure parking and other uses in the alley are kept clear of the alley through zone.

- **Service Hours:** Restrict/reserve hours of use to facilitate essential services like waste removal. Separate hours for waste removal from deliveries.
  » Restrict traffic during non-delivery hours allowing alleys to operate as more of a shared space, creating room for outdoor seating.

- **Materials:** Design alleys as shared spaces by using higher quality pavement treatments (e.g. concrete, brick pavers), distinctive lighting, and providing public amenities such as seating or plantings.
MAINTENANCE & MANAGEMENT

General Maintenance

- The Ann Arbor Field Services Unit is responsible for maintaining public alleys.
- The users of the alley are responsible for waste receptacles and access. Adjacent property owners who use the alley for solid waste storage or grease receptacles are responsible for proper container placement, disposal, cleanliness, and service access.

Seasonal Use & Maintenance

- Alleys may not be used for snow storage. Ensure that clear paths to properties, trash receptacles, and loading zones are maintained. Snow removal responsibilities depend on ownership. Alley users who have trash service in an alley may need to clear snow adjacent to the trash receptacles, if it impedes service access.

Reviews & Approvals

- Ann Arbor Planning and Development Services is responsible for approving private alleys created by new developments as part of the site plan review process.
- The City’s Solid Waste Coordinator approves trash collection alleys.