3. Design Standards

3.5 Pedestrian Facilities

The City of Albuquerque-Bernalillo County Comprehensive Plan emphasizes the provision of a range of safe travel options, including access for pedestrians to all areas of the City. As such, all public and private transportation facilities shall include pedestrian appropriate accommodations.

3.5.1 Public Sidewalks

3.5.1.1 General Provisions

1. All roads in public right-of-way or roadway easements shall include distinct and accessible pedestrian accommodations. Alleyways are exempt from the requirement for separate pedestrian accommodations.
2. All new roadway construction shall include sidewalks and landscape/buffer zones installed on both sides of the street.
3. Roadway reconstruction shall include sidewalks and landscape/buffer zones installed on both sides of the street to the greatest extent feasible.
4. Additional right-of-way or easements may be required if any portion of the sidewalk is located outside the existing right-of-way.
5. High pedestrian activity areas are defined as Comp Plan-designated Centers, Main Street Corridors, and Premium Transit station areas, as well as areas surrounding big box stores or clusters of retail activity, school zones, locations where buildings with zero setback are present, and neighborhoods with an average density of 10 units per acre. Multi-modal and Major Transit Corridors may also be considered high pedestrian activity areas depending on the surrounding land uses.
6. See Chapter 2 of the DPM for general variance procedures.
7. In locations along Comp Plan-designated Corridors with constrained right-of-way the designer should consult the Priority Street Elements Matrix (Comp Plan Table 7-5) for which elements take precedence.
8. Exceptions to sidewalk and width requirements may be granted in historic neighborhoods, where sidewalks have traditionally not been present, or to match the surrounding character of the residential area. Variances may be granted by the City Engineer within developed areas that predominantly lack sidewalk and where existing right-of-way widths are insufficient to add them.

NOTE: This page will appear in the street element section. This is provided to the DPM Executive Committee for information only right now.

Pedestrian Realm

The generally elevated area above the Travel Way between the curb and the right-of-way line of the adjacent parcel. The Pedestrian Realm supports the needs of pedestrians and provides access between adjacent parcels and along the Travel Way, as well as space for utilities, landscaping, and other street furnishings.

The scale and design of Pedestrian Realm elements varies depending on the location and context. In general, wider buffers and sidewalks are desired in areas with high levels of pedestrian activity, including designated centers and along certain designated corridors. Detailed guidance can be found in the Pedestrian Facilities section (3.5), including the application of the standards listed in Table 1 during reconstruction projects.

Frontage Zone

The segment between the sidewalk and the property line. This space reduces the likelihood of encroachments, reduces conflicts from people exiting buildings and addresses the effect of people shying away from walls or other vertical structures, which effectively reduces the clear sidewalk area. Frontage zones are most appropriate on roadways classified as collectors or above, and on non-residential local roads. Frontage Zones are not applicable in locations where there is no setback. The Frontage Zone is typically between 1-2.5’ on all roadways classified as collectors and above.

Sidewalk

The raised pedestrian facilities separated from the road surface by the curb and gutter. For ADA/PROWAG purposes, the sidewalk area is also referred to as the “pedestrian access route,” and must be free of obstacles, protruding objects, and vertical obstructions.

Landscape/Buffer Zone

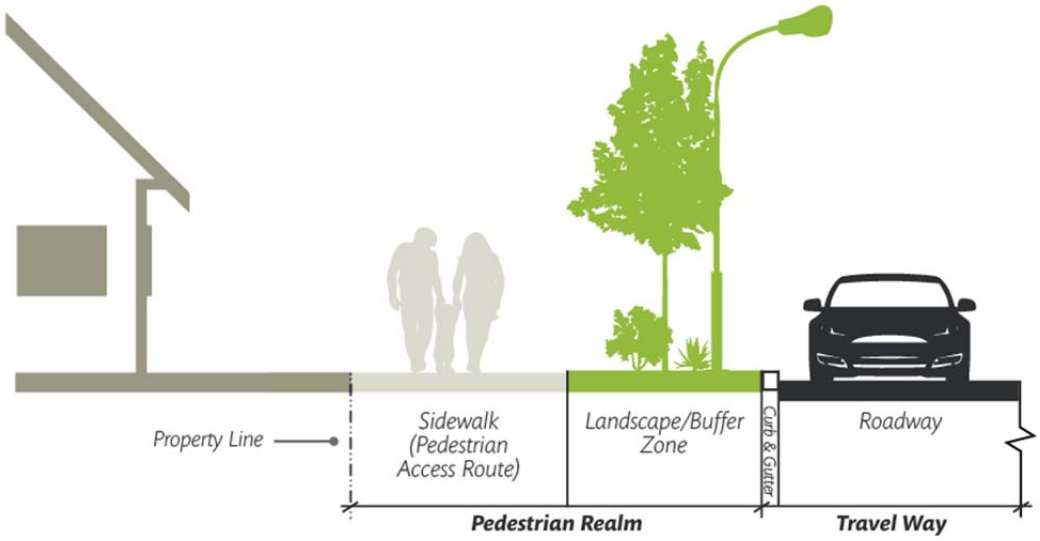
The setback from the curb provides space for signage, utilities, storm water catchment, landscaping, street furnishings, and driveway aprons. This space is also referred to as the furnishing zone. The landscape/buffer zone separates the sidewalk from automobile traffic, making a more comfortable pedestrian environment. It ensures an adequate pedestrian access route by providing space outside of the sidewalk to locate street infrastructure. The buffer zone also allows for the necessary space to install ADA/PROWAG accessible ramps at intersections. See Table 1 for landscape/buffer zone widths. The top of the curb is included in the landscape/buffer zone, but is not considered part of the sidewalk.

3.5.1.2 Pedestrian Realm Typologies

See the Street Elements section (23-1.3) for pedestrian realm definitions. Below are the graphic configurations of the pedestrian realm.

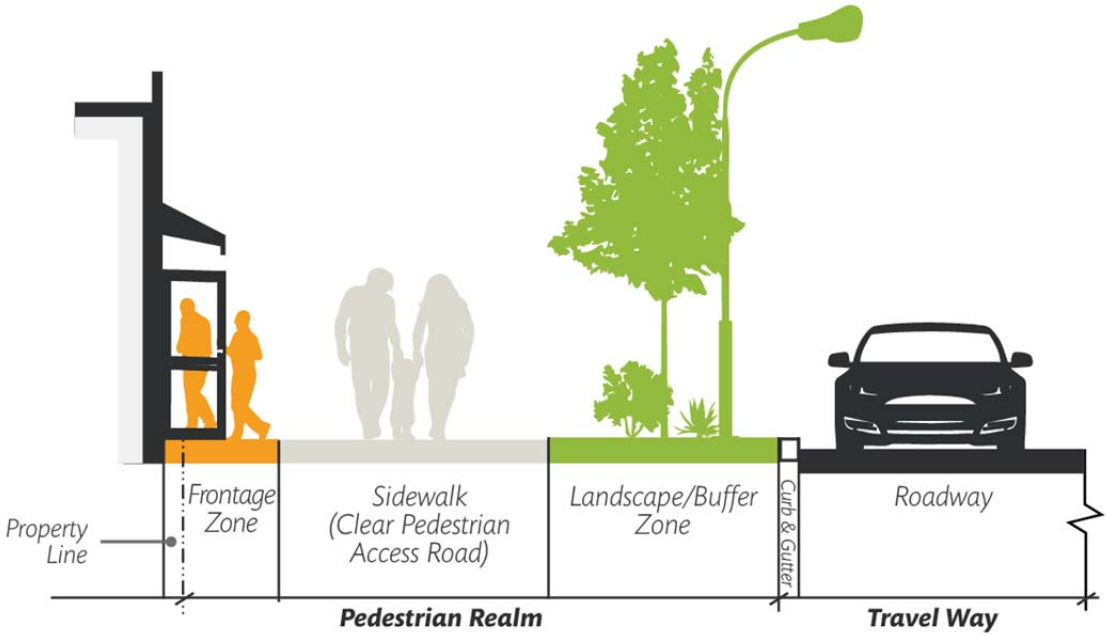
3.5.1.2.1 Residential Areas

Figure 3.5-1 Residential Area



3.5.1.2.2 Mixed Use Areas

Figure 3.5-2 Mixed Use Area



3.5.1.3 Pedestrian Facility Dimensions

1. See Table 3.5-1 for design requirements for pedestrian facilities and other roadway elements by location and functional class. See the Local Roads section (23-3.10) for additional guidance on pedestrian facilities on local roadways.
2. All sidewalks on new and reconstructed roadways shall provide a minimum 5 foot wide pedestrian access route (PAR).
3. Wider sidewalks shall be provided in Plan-designated Centers, along Transit, Multi-modal, and Main Street corridors, and locations with high-pedestrian activity levels per Table 3.5-1
4. If right-of-way is constrained and there is insufficient space for a landscaping buffer, the sidewalk should be widened an additional 2 feet. This extra width is used to provide additional pedestrian circulation and comfort, and to create separation from transit service running in curbside lanes, while also serving the various roles of the landscape/buffer zone.

Figure 3.5-3 Street Element Dimensions along Major Roads

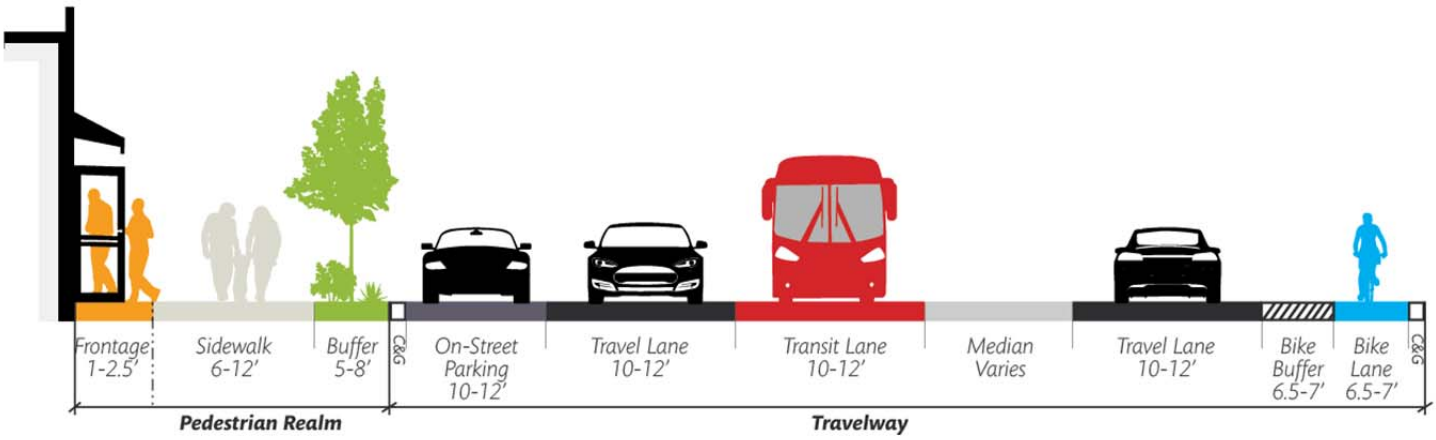


Table 3.5-1 Street Element Dimensions

Corridor Type	Location	Design Speed (MPH)	Pedestrian Realm			Travel Way		
			Frontage Zone	Sidewalk Width	Landscape / Buffer Zone	Bike Lane Width[1]	Bike Buffer	Travel Lane Width[3]
Premium Transit	Inside Center	30-35	1-2.5'	10-12'	6-8'	6-6.5'	0-3'	10-12'
	Outside Center	35-40	1-2.5'	8-10'	6-8'	6-7'	1.5-3'	10-12'
Major Transit	Inside Center	30-35	1-2.5'	10-12'	6-8'	5-6.5'	0-3'	10-12'
	Outside Center	35-40	N/A	6-10'	6-8'	6-7'	1.5-3'	10-12'
Multi-Modal	Inside Center	30-35	1-2.5'	10-12'	6-8'	5-6.5'	0-3'	10-11'
	Outside Center	35-40	N/A	6-10'	6-8'	6-7'	1.5-3'	10-11'
Commuter	Inside Center	30-35	1-2.5'	10'	6-8'	5-6.5'	1.5-3'	10-12'
	Outside Center	40-50	N/A	6'	6-8'	6-7'	3-5'	10-12'
Main Street	Main Street	25-30	1-2.5'	10-12'	6-8'	5-6.5'	0-3'	10-11'
Other Arterial	Inside Center	30-35	1-2.5'	10'	6-8'	5-6.5'	0-3'	10-11'
	Outside Center	35-40	N/A	6'	5-6’	6-7'	1.5-3'	10-11'
Minor Arterial	Inside Center	30-35	1-2.5'	10'	6-8'	5-6.5'	0-3'	10-11'
	Outside Center	35-40	N/A	6'	5-6'	6-6.5'	1.5-3'	10-11'
Major Collector	Inside Center	25-30	1-2.5'	10'	5-6'	5'	0-3'	10-11'
	Outside Center	30-35	N/A	6'	5-6'	5-6'	0-3'	10-11'
Minor Collector	Inside Center	25-30	1-2.5'	10'	5-6’	5'	0-3'	10-11'
	Outside Center	30-35	N/A	6'	5-6’	5-6'	0-3'	10-11'
Major Local	Inside Center	18-25	1-2.5’	5'	5-6’	Shared Lane[2]		See Local Road Section
	Outside Center	18-25	N/A	5'	5-6’			
Other Locals	Inside / Outside Center	18-25	1-2.5’ / N/A	5'	5-6’	N/A	N/A	

[1]Not including the gutter pan.

[2]Dedicated bicycle infrastructure may be appropriate along some Major Local roads. In these circumstances, use the design characteristics of a minor collector (inside center). See the Local Roads section (23-3.10) for more information.

[3]See the Public Transit section (23-3.7) for additional guidance on travel lane widths for roads with transit service.

3.5.1.4 Frontage Zone

1. A frontage zone is not required for development in residential and non-residential zone districts where large front setbacks apply.
2. The frontage zone is encouraged for development in mixed use zones, particularly in areas with setback maximums, with overhead awnings and signs projecting over the sidewalk, and in Downtown, Urban Centers, Premium Transit Corridors, and Main Streets, as designated by the Comp Plan.

3.5.1.5 Sidewalk Design Requirements

1. Sidewalks and curb ramps are to be a minimum 4" thick Portland cement concrete as shown in the Standard Details. Designs incorporating alternate materials must be approved by the Design Review Committee. The basis for consideration of such approval will be appropriateness, safety, and durability resulting in a useful life expectancy near or equal to that of the standard Portland cement concrete sidewalks.
2. All new sidewalks shall meet or exceed ADA/PROWAG requirements. Reconstruction projects including sidewalks and ramps shall be brought into conformity with ADA/PROWAG standards to the maximum extent possible.
3. Sidewalk cross slopes shall not exceed 2%. To ensure ADA/PROWAG compliance, it is recommended that cross slopes be designed at 1.5% to allow for tolerance in construction. See Figure 3.5-3.
4. The sidewalk running slopes shall have a maximum grade of 5%. In constrained conditions, the sidewalk may match but not exceed the general grade established by the adjacent roadway or right-of-way easement. See Figure 3.5-3.

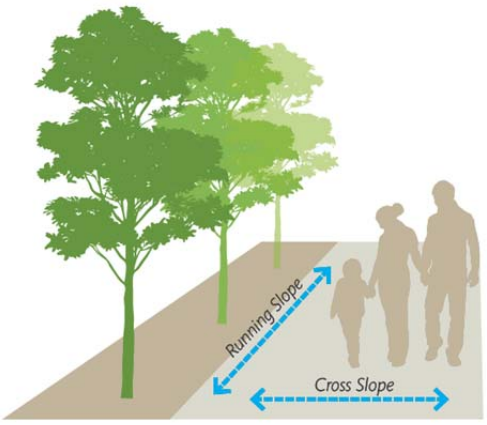
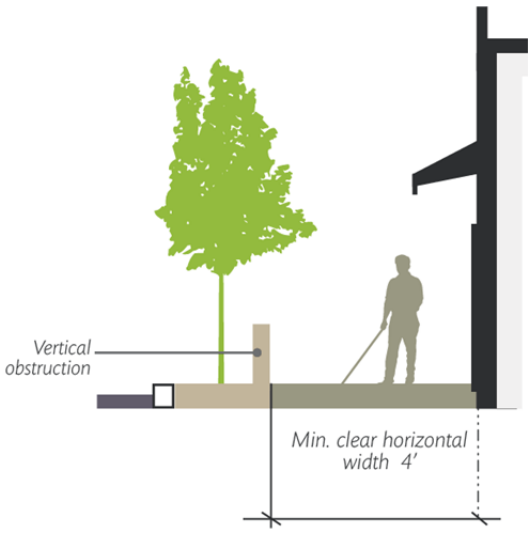


Figure 3.5-4 Sidewalk Slopes

5. If it is necessary to locate objects such as mailboxes, hydrants, signposts, etc. within a sidewalk, then the sidewalk shall be widened to provide a minimum pedestrian access route (PAR) of 4 feet around any part of the obstruction.

Figure 3.5-5 Pedestrian Access Route



6. If an object must protrude farther than 4 inches into a pedestrian access route at a height that is greater than 27 inches and less than 80 inches above the sidewalk surface, it must include a warning device that is detectable by a vision-impaired person who navigates with a cane. The minimum 4-foot PAR must still be provided around the object.

3.5.1.6 Landscape/Buffer Zone Requirements

1. See Table 3.5-1 for required landscape/buffer zone widths.
2. Landscape/buffer zones are required for all new development.
3. Landscape/buffer zone surfacing may consist of planting areas or a walkable surface provided that it is visually distinct from the pedestrian access route.
4. It strongly encouraged to include landscape/buffer zones in road reconstruction projects, especially along higher speed roadways, to improve pedestrian safety and comfort. Due to constrained right-of-way, buffers shall be provided as space permits. Where 2-foot width or less is available for the landscape/buffer zone, the sidewalk may be widened.
5. Landscape/buffer zones are a high priority along corridors where transit operates.
6. In locations where there is insufficient right-of-way for landscape/buffer zone street trees shall be located in tree grates or other approved walkable surface.
7. For minimum planting area size, plant size, spacing, soil condition, installation, irrigation, and other general information applicable to planting in the public right-of-way, see IDO Section 14-16-5-6(C), General Landscaping Standards.
8. For information about required street trees, their location, and tree well dimensions, see Street Frontage and Frontage Landscaping (14-16-5-6(D)) and the Street Tree Ordinance (6-6-2).
9. Landscape/buffer zones may be utilized as a form of Low Impact Development (LID). LID guidelines are located in Chapter 22.

3.5.1.7 Curb Ramp Requirements

1. All curb ramps shall meet or exceed ADA/PROWAG requirements.
2. Curb ramps are required to provide access between elevated pedestrian facilities and road surfaces at pedestrian crossings. Ramps shall be installed at all intersections unless pedestrian crossing is prohibited. For the purposes of this section, the following definitions apply:
   (1) Intersection: The location where two roadways (public or private) intersect.
   (2) Intersection crosswalk: The extension of a sidewalk or shoulder across an intersection, whether it is marked or not.
3. Curb ramps are categorized by their design and position relative to the pedestrian facility and roadway. See figures 3.5-5, 3.5-6, and 3.5-7 below for illustrative examples of common ramps.

Figure 3.5-8 Directional Curb Ramp

Directional curb ramps shall have a running slope that is in-line with the direction of sidewalk travel.

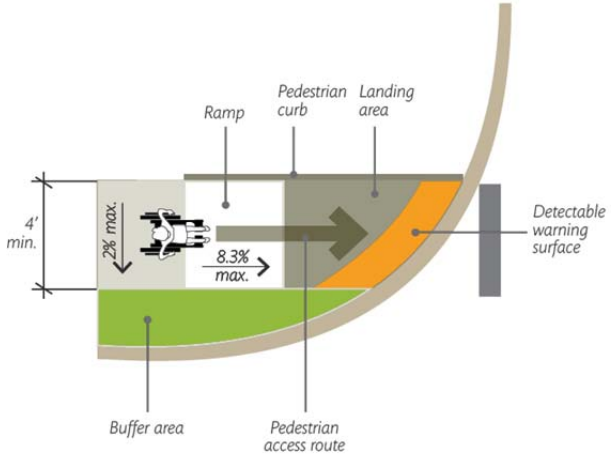


Figure 3.5-6 Perpendicular Curb Ramp

Perpendicular curb ramps shall have a running slope that cuts through or is built up to the gutter grade break at right angles.

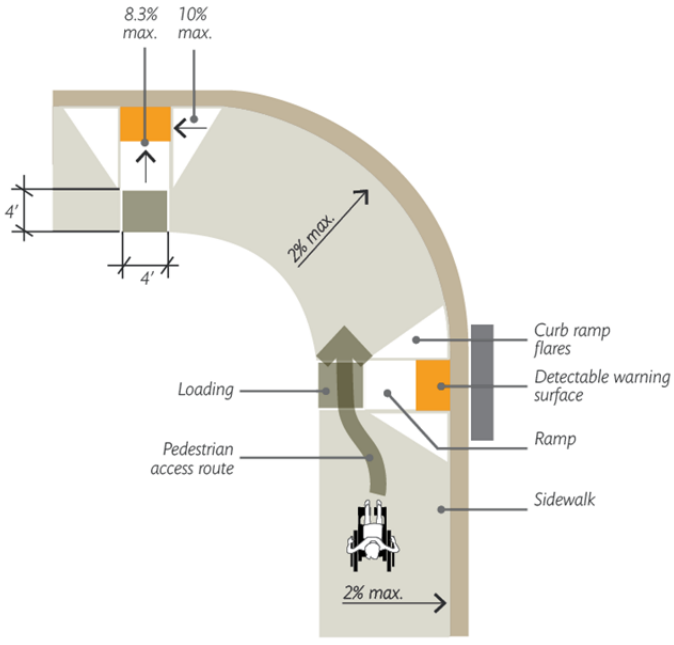
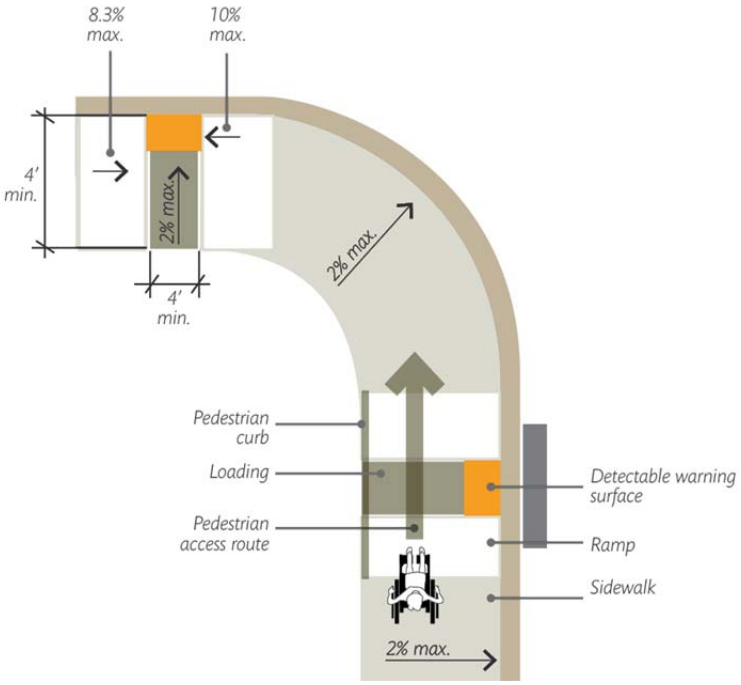


Figure 3.5-7 Parallel Curb Ramp



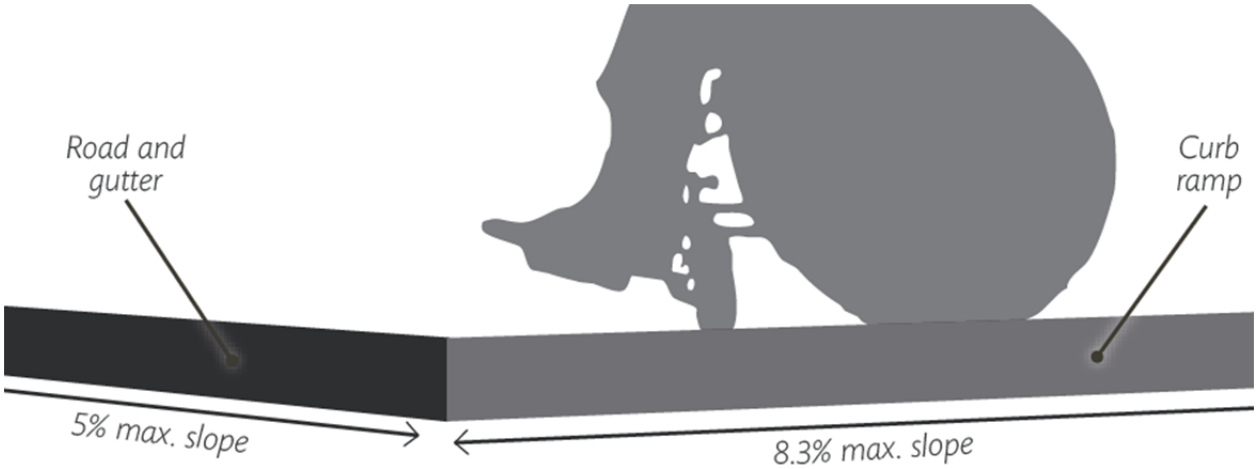
Parallel curb ramps shall have a ramp running slopes that are in-line with the direction of sidewalk travel.

4. Curb ramps shall be aligned to fall within the boundaries of crosswalks, marked or unmarked, so that pedestrians who have vision or mobility impairments are not directed outside the crosswalk or into a vehicle travel lane.
5. As much as possible, curb ramps shall be aligned in-line with the direction of pedestrian travel. ADA/PROWAG compliant ramps shall be wholly within the public right-of-way.
6. During reconstruction projects on collector and arterial roadways, parallel or perpendicular curb ramps shall replace diagonal ramps, where feasible. Ramps on the opposing side of the street shall be reconstructed to match newly installed parallel or perpendicular curb ramps.
7. Diagonal curb ramps and blended transition ramps are generally discouraged in new construction projects. They may be acceptable at the intersections of major local and normal local roadways. See the Local Roads (23-3.10) section for more information. All diagonal and blended transition ramps shall be ADA/PROWAG compliant.
8. Ramps for crossings at intersections shall be located as close to the intersection as practicable to make pedestrians more visible to turning vehicles.
9. The running slope of the curb ramp shall not exceed 8.3%. To ensure ADA/PROWAG compliance, it is recommended that the running slope be designed at a maximum of 7.5%. At the discretion of the City Engineer,

exceptions may be necessary as part of road reconstruction projects where compliance is not feasible.

10. For connections to steep roadways the ramp does not need to exceed 15 feet in length. Refer to PROWAG for additional guidance.
11. The change in grade at the bottom of the curb ramp and adjoining road surface is typically 10% and shall not exceed 13.3%. The counter slope of the gutter or road at the foot of a curb ramp is not to exceed 5.0%. See Figure 3.5-8 for the maximum allowed counter slope .

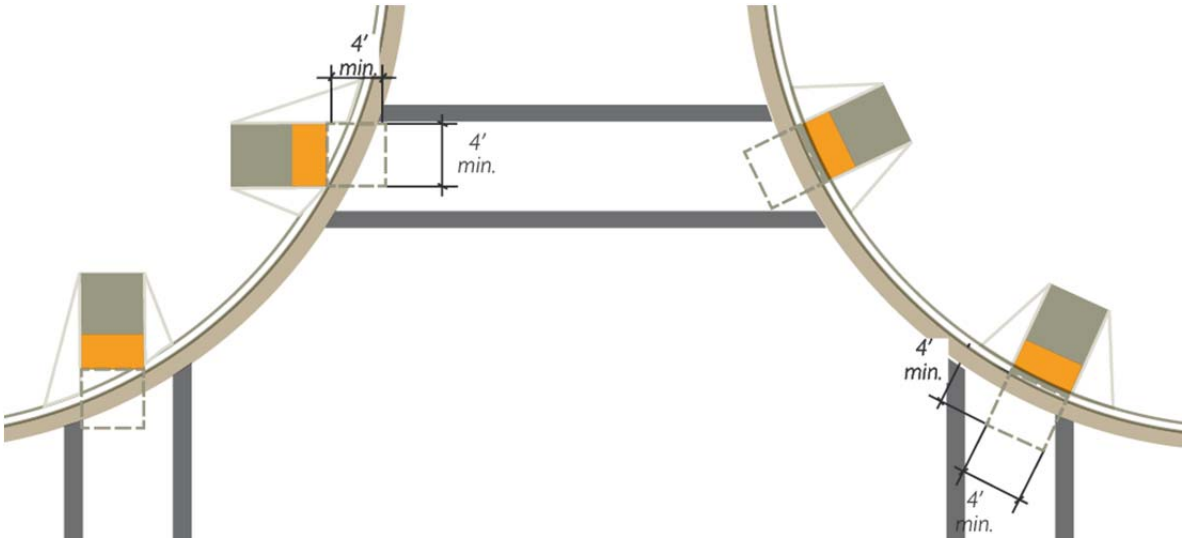
Figure 3.5-9 Curb Ramp Counter Slope



12. The maximum cross slope of a curb ramp is 2%. To ensure ADA/PROWAG compliance, it is recommended that cross slopes be designed at 1.5%.
13. Ramps shall be as wide as the adjoining sidewalk to the greatest extent feasible. The minimum width of the ramp, excluding side flares, is 4 feet.
14. For parallel ramps, a level landing shall be provided at the bottom the ramp within the pedestrian access route. The landing length and width shall be at least 4 feet. The running and cross slopes of the landing shall not exceed 2%. To ensure ADA/PROWAG compliance, it is recommended that running and cross slope be designed at 1.5%.
15. For perpendicular ramps, a level landing shall be provided at the top the ramp within the pedestrian access route. The landing length and width shall be at least 4 feet. The running and cross slopes of the landing shall not exceed 2%. To ensure ADA/PROWAG compliance, it is recommended that running and cross slope be designed at 1.5%.
16. The running and cross slopes for mid-block crossings may match the grade of the roadway.

17. Beyond the bottom grade break where the ramp meets the roadway, a clear space of 4 feet by 4 feet shall be provided within the width of the pedestrian street crossing (marked or unmarked crosswalk) and wholly outside of the parallel vehicle travel lane.

Figure 3.5-10 Curb Ramp Clear Space



18. The maximum slope of the side flares between the curb ramp and the sidewalk is 10%, measured parallel to the gutter.
19. Ramps shall not be obstructed by hydrants, signposts, poles, utilities, or other vertical obstructions. Manhole, water meters, or valve covers may need to be adjusted to match the ramp slope.
20. Surface materials used for curb ramps shall be firm, stable and slip-resistant.
21. Curb ramps shall include a detectable warning surface (DWS), measuring 2 feet in the direction of travel and the full width of the ramp, excluding the flares. The DWS shall be placed at the back of the curb, but is not required to follow a curb radius.
22. DWS are required on all curb ramps located in the public right-of-way. They are required at driveway entrances that are wider than 24'.
23. Detectable warning surfaces shall contrast visually with the adjacent gutter, road or walkway surface, either light-on-dark or dark-on-light.

3.5.1.8 Pedestrian Signal Devices

1. In accordance with PROWAG, all new or reconstructed pedestrian signal devices shall be installed to be accessible to pedestrians with vision or mobility impairments. Signal poles shall be located to not obstruct pedestrian movements.
2. Criteria for accessible pedestrian signals are provided in “Accessible Sidewalks and Street Crossings,” published by the U.S. Department of Transportation, Federal Highway Administration.

3.5.1.9 Crosswalk Design

1. Crosswalks indicate to pedestrians where to cross a street. For more guidance on the appropriate locations for crosswalks, see the Designated Pedestrian Crossings in section 23-3.1.
2. See the Pavement Design section 23-3.3 for guidance on appropriate materials to be utilized in the crosswalk.
3. The running slope and cross slope shall meet ADA/PROWAG requirements.
4. In Centers, the width of marked crosswalks should be at least 10 feet and should match the width of the sidewalk. In other areas, marked crosswalks should be no less than 6 feet wide.
5. Marked crosswalk lines should extend the full length of the crossing.
6. Curb extensions may be provided at crosswalks to reduce the crossing distance for pedestrians, depending on roadway conditions and appropriate curb return radius. See the NACTO Urban Street Design Guide or other accepted standards for additional guidance on curb extension design and appropriate situations for implementation.
7. See Figure 3.5-10 for acceptable crosswalk marking designs. See the MUTCD and standard City drawings for guidance on pavement markings.

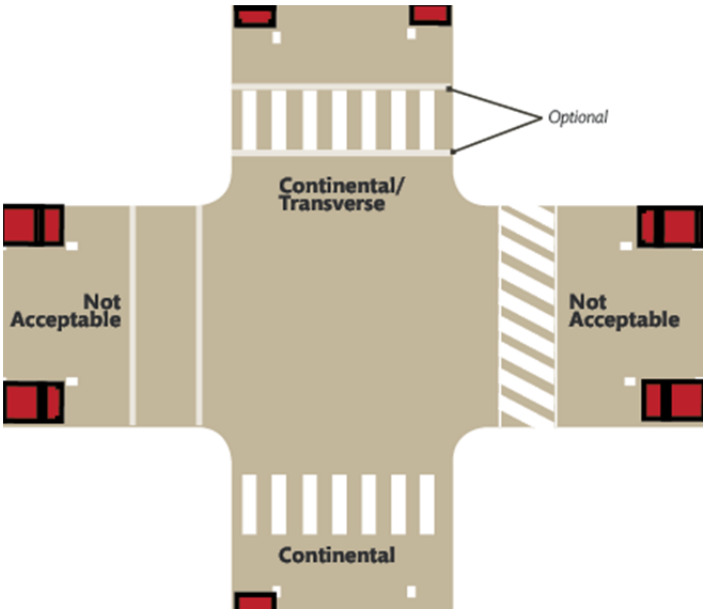


Figure 3.5-11 Crosswalk Marking

3.5.1.10 Refuge Islands

1. Median refuges or pedestrian safety islands (referred hereafter as “refuge islands”) are protected spaces in the center of the roads, and may be located at signalized or unsignalized intersections or at mid-block crossings. At unsignalized crossings median refuges enable bicyclists and pedestrians to safely cross a street halfway.
2. These features may be used in combination with other dedicated crossing elements, including marked crosswalks, signage, flash beacons, HAWK signals, and traffic signals. See the Designated Pedestrian Crossings discussion in the Roadway Design and Network Connectivity section 23-3.1 for additional information.
3. Refuge islands are recommended for designated pedestrian crossings under the following circumstances, as right-of-way allows:
    1) Where pedestrians must cross a total of three lanes or more
    2) Designated bicycle routes
    3) High pedestrian and/or bicycle volume crossings
    4) Roads with speeds above 30 MPH and/or traffic volumes higher than 12,000 ADT that provide impediments to safe crossing movements
4. Refuge islands should be least 6 feet wide, with a width of 8-10’ preferred. A median refuge of less than 6’ may be considered where right-of-way is constrained, though smaller widths provide insufficient protection for bicyclists and should not be installed along dedicated bicycle routes.
5. Detectable warning surface is required for median refuges 6’ or wider.
6. Refuge islands should provide a clear 6’ level waiting area within the median. A pedestrian cut through (i.e. at-grade refuge island within a median) is desirable for narrower median refuge islands. At-grade median refuge islands should have clear signage, pavement markings, curbs, and/or raised elements such as plantings or bollards to protect pedestrians waiting in the center of the roadway.
7. See Figure 3.5-12 thru 3.5-14 for examples of refuge islands.
8. Analysis of vehicle access should be considered as the presence of median refuge islands may result in restrictions to vehicle turn movements.
9. See the NACTO Urban Street Design Guide and the NACTO Urban Bikeway Design Guide, or other acceptable design guidance documents, for additional information on the design and appropriateness of refuge islands.

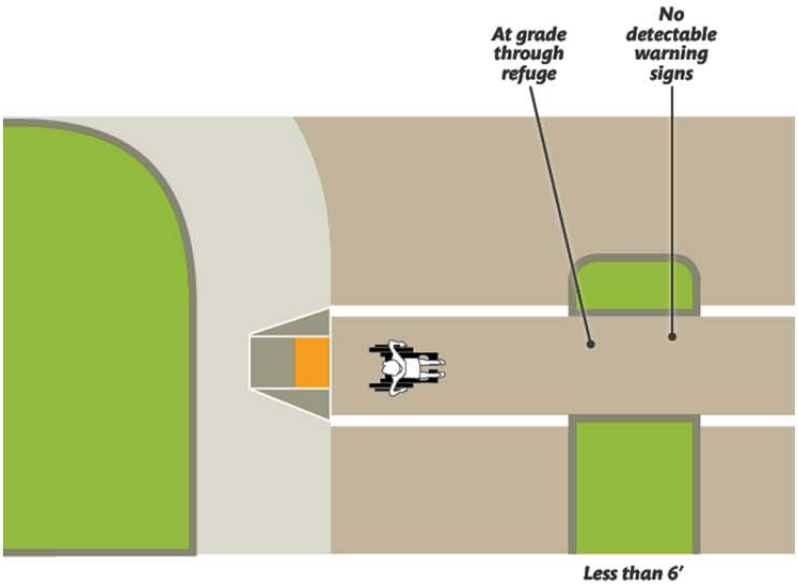


Figure 3.5-12 Refuge Island – Narrow Median

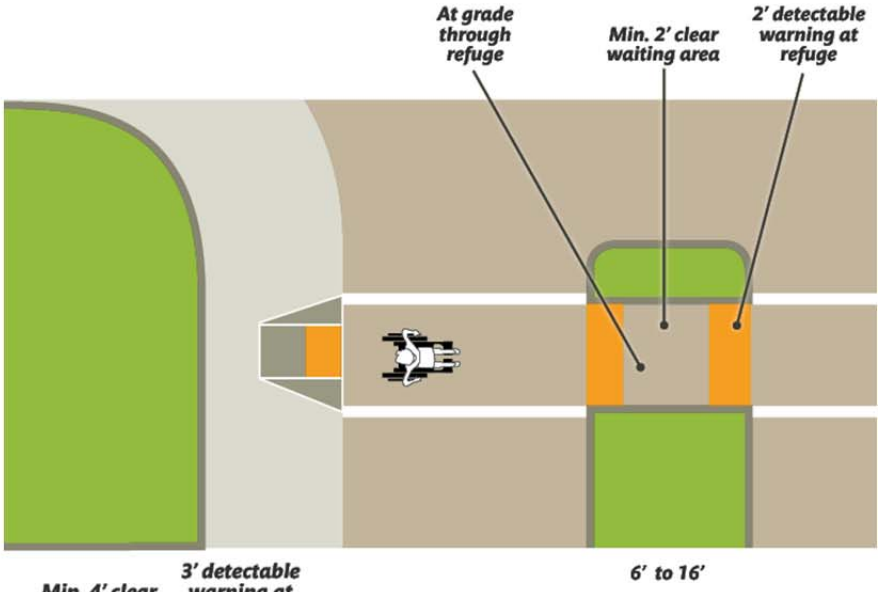


Figure 3.5-13 Refuge Island – At Grade

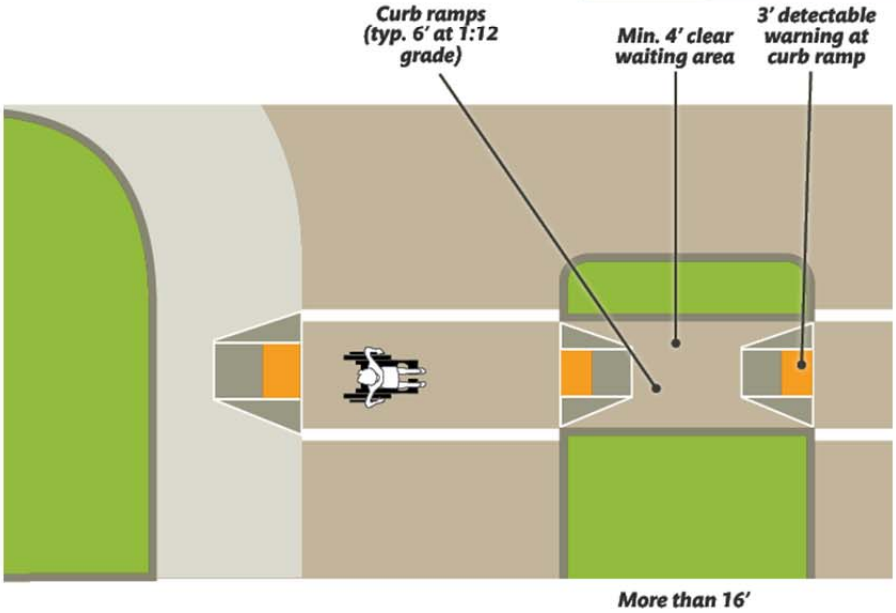


Figure 3.5-14 Refuge Island – Raised Median

3.5.2 Private Walkways

1. All existing and proposed development shall provide safe, direct, and convenient pedestrian access routes (referred to as a private walkway) connecting main entrances of buildings, establishments, or uses on a site that allow for public access, with all other such entrances and with available access points. This includes, but is not limited to parking sites, passenger loading zones, streets, sidewalks, and transit stops. On-site walkways shall also be provided to any abutting public park, trail, Major Open Space, or other civic or institutional use.
2. Per the IDO the following uses are exempt from the above requirement:
    1) Single- or two-family dwelling units
    2) Agricultural use
    3) Open space
    4) Cemetery
    5) Wireless Telecommunication Facility
    6) Off-premise sign
    7) Minor utilities
    8) Other uses not containing a principal building on the premise (with the exception of a parking facility)
3. Pedestrian access on proposed developments shall consist of 6-foot wide accessible, direct, clearly discernible, and ADA/PROWAG-compliant walkway or multi-use path from the public right-of-way to main entrances.
4. Commercial or multi-family developments requiring 5 or fewer parking spaces shall provide a minimum 4-foot walkway.
5. Pedestrian walkways between buildings as required in the IDO section 4-3.4 shall have a minimum width of 5 feet.
6. Pedestrian walkways located on private property shall be constructed of concrete, asphalt, or other firm, stable, and slip-resistant material as approved by the City Engineer.
7. Pedestrian walkways that connect to the public rights-of-way shall be physically separated from vehicular surface areas, except where required to cross a drive aisle; such crossings shall be perpendicular wherever practicable.
8. Pedestrian walkways shall be required in areas served by any street. Private pedestrian walkways shall provide general pedestrian access within the development served and shall connect with all public sidewalks, public streets,

parks, and open space. Each block, or each building in the case of multi-unit living, shall be served by a connection to the pedestrian access system.

9. Private travel ways that connect to the public roadway system and that are designed for travel speeds of 10 MPH or below may allow for pedestrians, bicyclists, and /or vehicles to share the same right-of-way, rather than providing discrete space for each user as approved by the City Engineer.