CITY OF COLUMBUS, OHIO ADA RULES AND REGULATIONS



Effective August 1, 2025

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I. AUTHORITY

Pursuant to the authority granted under Ordinance 1987-2008 passed December 15, 2008 (Section 2105.125 of the Columbus City Code, 1959, as amended), the Director of Public Service hereby adopts, establishes, and publishes these rules and regulations to be effective at the earliest time allowed by law. These rules supersede rules previously promulgated in 2023.

II. APPLICATION

This policy shall be applicable to all ADA features installed within right-of-way controlled by the City of Columbus. This policy shall also replace and supersede the following General Policies and Procedures:

• City of Columbus, Ohio - ADA Rules and Regulations –May 4, 2023

III. EFFECTIVE DATE

This policy shall be effective August 1, 2025 and shall supersede all previous applicable policies and standards. All site plans, permits and capital improvement plans submitted for review following the effective date shall comply with these rules and regulations.

IV. BACKGROUND

The Americans with Disabilities Act (ADA) of 1990 established that it is discriminatory and a violation of a disabled person's civil rights to deny access to various public and privately owned facilities and resources that are accessible to able-bodied persons. Title II of ADA applies to state and local governments. Among the items listed in Title II that shall be made accessible are pedestrian facilities and routes along the public right-of-way. Responsibility for making these facilities compliant in the City of Columbus is the responsibility of the Department of Public Service.

The ADA gives responsibility for enforcing these requirements to the US Department of Justice (DOJ). The DOJ issues standards that provide specific requirements for ADA compliance for all public facilities and many private facilities available for use by the general public. The most recent DOJ standards were issued in 2010 and are commonly known as "DOJ's 2010 Standards." These standards, for the most part, are those presented in various guideline documents developed and published by the Access Board.

In order to provide a practical framework for determination of accessibility, the Access Board, an agency established by the Federal Government to create guidelines, developed the concept of the Pedestrian Access Route, or PAR. This is, in essence, a path through and contained within a pedestrian facility that has slope, grade, surface characteristic, and other features that make it usable by persons having certain mobility and sensory impairment conditions. The PAR must be an unbroken route that will provide access to any destination along a given right-of-way that can otherwise be reached by an able-bodied pedestrian. It may extend the entire width of a sidewalk or walkway, or it may consist of only a specified width of the overall walkway or path.

Curb ramps are essential elements of a PAR and they are required when the route requires a change in elevation. This usually occurs in curbs at intersections, where an individual must travel from a sidewalk down onto street level in order to negotiate a crosswalk, and then return to the sidewalk on the opposite

side. However, curb ramps may be constructed any time a change in elevation is necessary. Curb ramps shall always include detectable warnings when a portion of the PAR crosses a public street, or where specifically required.

Curb ramps are constructed at curbed intersections, if a sidewalk exists. Blended transitions may be constructed where sidewalk is present, without curb. Curb ramps may also be required when no sidewalk is present but access is needed to pedestrian pushbuttons located off the roadway. In most cases however, curb ramps do not need to be built where there is no sidewalk, since by definition the pedestrian route will be along the roadway pavement.

V. **DEFINITIONS**

The following words, terms and phrases, when used in these rules and regulations, shall have the meanings ascribed to them, except when the context clearly indicates a different meaning:

- A. ADA Americans with Disabilities Act of 1990, and all subsequent amendments.
- B. Alley According to Section 2101.03 of the Columbus City Code, "Alley" means street or highway intended to provide access to the rear or side of lots or buildings in the City and not intended for the purpose of through vehicular traffic, and includes any street or highway that has been declared an "alley" by City Council. This definition is based on ORC 4511.01. Alleys also typically do not serve as the primary frontage for properties along them.
- C. Alteration See Chapter VII of this document for definition.
- D. Addition An expansion, extension or increase in the area of a facility within the Right-of-Way.
- E. Blended Transition At raised pedestrian street crossings, depressed corners, or similar connections between pedestrian access routes at the level of the sidewalk and the level of the pedestrian street crossing that have a grade of 5 percent or less. Blended transitions are suitable for a range of sidewalk conditions. Blended transitions shall have a detectable warning strip the full width of the blended transition, minus the required 2" of concrete on each side.
- F. Capital Improvement Project (CIP) A publicly funded project in the Right-of-Way.
- G. Crosswalk (1) That part of a roadway at intersections ordinarily included within the real or projected promulgation of property lines and curb lines or, in the absence of curbs, the edges of the traversable roadway. (2) Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface. (COC Code 900.04). All crosswalks are required to be compliant.
- H. Curb Ramp A short ramp cutting through a curb or running up to it. This is the primary means of providing an accessible route from sidewalks to crosswalks. The accessible portion of the curb ramp typically includes an upper landing and a sloped ramp with a detectable warning.
- I. CWP Columbus Water and Power (Formerly DPU, Department of Public Utilities)
- J. Detectable Warning A standardized surface of truncated domes built on or applied to walking surfaces or other elements to warn visually impaired people of hazards on a circulation path. These units are typically used in instances where pedestrians are passing from dedicated walking areas onto areas having vehicular traffic.
- K. Developer The party initiating a project or process that will involve changes in the City right-of-way.
- L. DPS The City of Columbus Department of Public Service.

- M. Intersection The area embraced within the prolongation or connection of the lateral curb lines, or if none, then the lateral boundary lines of the roadways of two highways which join one another at, or approximately at, right angles, or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict. (ORC 4511.01 (KK))
- N. Landing A relatively flat area (slope less than 1:48 or 2.1%, any direction) used by disabled individuals to move from one sloped area to another. Landing is synonymous with turning space for the purpose of this document.
- O. Long Flare The area adjacent to the sloped portion of ramp that provides a transition from the sloped portion of the ramp to the existing surface. It is not designed to be part of an accessible route; however, it is designed to be walked upon by able-bodied pedestrians.
- P. Orphan Ramp A ramp which provides access to a legal crosswalk for which there is no corresponding ramp on the opposite end to exit the crosswalk and access an existing sidewalk.
- Q. Pedestrian Pad (Ped Pad) Access from the roadway to a pedestrian pushbutton, not connected to any sidewalk.
- R. PROWAG The Proposed Right-of-Way Access Guidelines (Final Rule introduced August 8, 2023).
- S. PAR Pedestrian Access Route (for definition and explanation, see <u>Chapter IV</u> of this document, for characteristics, see <u>Chapter IX</u>, this document).
- T. Short Flare The area adjacent to the sloped portion of the ramp that provides a transition from the sloped portion of the ramp to the existing surface. It is not designed to be part of an accessible route. Unlike a long flare, it is not designed to be traversed by able-bodied individuals. This flare is only to be used when a ramp is adjacent to an obstruction or non-walkable surface, such as a utility strip.
- U. Turning Space Synonymous with landing for the purpose of this document.

VI. STANDARDS AND REFERENCES: DESCRIPTIONS AND HIERARCHY

The City of Columbus ADA Rules and Regulations were developed based on guidance and requirements described in the below hierarchy of documents. For an ADA related issue within the right-of-way for which clear guidance is not provided by the City of Columbus ADA Rules and Regulations, refer to the hierarchy below to determine ADA compliance.

Hierarchy of documents outside the City of Columbus:

- 1. ADAAG DOJ's 2010 ADA Standards for Accessible Design, September 15, 2010
- 2. PROWAG Proposed Accessibility Guidelines for Pedestrian Facilities in the Public Right-of-Way (2023) (aka: Public Rights of Way Accessibility Guidelines)
- 3. OMUTCD Ohio Manual of Uniform Traffic Control Devices (2012)
- 4. MUTCD Manual of Uniform Traffic Control Devices FHWA (11th edition)
- Department of Justice/Department of Transportation Joint Technical Assistance on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing (2013)

VII. ADA COMPLIANCE IN CONSTRUCTION: CONDITIONS AND APPLICATION

A. Applicability

1. New Construction

New construction is described as a type of project that provides facilities in an area that had previously been unused and undeveloped. Examples of these types of projects include roadway extensions, construction of new sidewalks or shared use paths in undeveloped areas, new subdivisions, and other new developments.

In new construction, all corners of all intersections affected by a given project are subject to full ADA compliance.

2. Alterations

Alterations, or altered, is defined as a change to or an addition of a pedestrian facility in an existing, developed public right-of-way that affects or could affect pedestrian access, circulation, or usability.

Compliance requirements are less strict than for new construction in that it is limited to work which is technically feasible (work possible given the constraints imposed by the existing conditions). The extent of compliance depends on project type and project owner. Compliance is required to be made to the maximum extent feasible given these constraints. See section IX.E.1 Pinch Points for examples.

3. Maintenance and Repair

Maintenance and repair is defined as work that does not alter existing elements of the pedestrian pathway and therefore does not trigger an obligation to provide accessible features.

Examples of this work include but are not limited to the following:

- a. Spot patching and pothole repair
- b. Reseating of disturbed curbing
- c. Restriping of existing markings in place
- d. Thincoat sealing
- e. Crack sealing
- f. Trenching for underground utility construction
- g. Diamond grinding
- h. Spot friction treatments
- i. Joint repair
- j. Replacement of pavement markings in-kind
- k. Unplanned traffic signal work that replaces existing signal infrastructure in order to immediately restore operation such as replacement of equipment due to vehicular knockdowns or equipment failure
- 1. Replacement of traffic signal controller cabinet or internal parts

- m. Signal detection installation or relocation (detector loops, radar, or video)
- n. Signal phasing or timing changes

B. Responsibilities by Project Type and Owner

1. General

This section describes the range of project owners and what their responsibilities are to meet ADA guidelines, as a function of work type.

<u>Table 7-1</u> outlines various work types that may impact pedestrians, and the requirements for bringing the facilities into compliance with this policy based on the project owner.

2. Roadway Improvements - Publicly Funded

Any roadway improvement project using public funds, initiated within the limits of the corporate boundary of the City of Columbus where curb and sidewalk are existing or proposed, shall be made ADA compliant. Roadway resurfacing is inherent in most City projects. Compliance is required to the maximum extent feasible. The scope for any resurfacing project that includes roadway having sidewalk shall include compliant curb ramps. Further, curb ramps shall be constructed prior to or concurrently with resurfacing activities. If curb to curb resurfacing extends into any legal crosswalk of an intersection, all curb ramps and pedestrian pushbuttons within that intersection must be made fully compliant. Judgment regarding timing and scope of future projects should be utilized to limit redundancy and waste.

3. Utility Improvements – Publicly Funded

Resurfacing of the roadway is typical where utility improvements occur. When the resurfacing associated with a utility project only affects one leg of an intersection, the project is responsible for making that leg compliant. When resurfacing impacts two or more legs of an intersection, all legs of the intersection must be made compliant. These ADA improvements shall be included in the scope of the utility project. If sidewalks at intersections are disturbed as a result of utility construction activities, affected corners shall be rebuilt compliant.

4. Roadway Improvements - Privately Funded

Any roadway improvements scoped as a result of private development projects, such as new turn lanes, signal improvements, or pavement improvements, shall include, as part of the project scope, all work that will make any affected intersections compliant. See <u>Section VII.B.6</u> for ramp design requirements.

5. Utility Improvements - Privately Funded

Privately funded utility improvements within the right-of-way will require all disturbed facilities to be restored to an ADA compliant condition. For example, if an existing curb ramp is disturbed or a corner where sidewalk meets the curb that does not contain a ramp is disturbed, a new compliant curb ramp will be required. Transition to existing facilities will be required per this

document. Improvements to areas not disturbed such as opposing ramps will not be required. If curb to curb resurfacing extends into any legal crosswalk of an intersection, all curb ramps and pedestrian pushbuttons within that intersection must be made fully compliant.

6. Property Improvements - Privately Funded

In the event that a developer makes improvements to a parcel that occupies one corner of an intersection, the scope for the project shall include construction required to make the corner they own or control compliant, as well as opposing ramps and pushbuttons as needed in order to avoid an "orphan ramp" situation, as determined by the Department of Public Service. Refer to Section VIII.E for requirements pertaining to "orphan ramps." The improvements of a single-unit dwelling on an existing platted lot will not require the property owner to construct the curb ramps or pushbuttons. The Division of Infrastructure Management will coordinate the construction of these ramps and pushbuttons via a Citywide curb ramp project. See below for ramp design requirements.

a. Private Development Ramp Design Requirements

In the event that a private development project impacts one or more corners of an intersection, the scope of the project shall include the following to create a compliant PAR from each corner impacted by construction: (See Figure 7-1)

i. Ramp Design

The developer or agency responsible for the project shall provide the complete design of all curb ramps to be constructed at each intersection impacted by construction. The remaining ramps at that intersection that will not be constructed with the project shall be designed to the requirements of Design/Build drawings and included on the plan showing the entire intersection. This requirement is necessary to ensure that curb ramps installed with the project are properly designed and located accounting for future curb ramp installations on corners not impacted by the project. The City will maintain the design for future use. At signalized intersections, the design may also include separate pedestrian pushbutton devices.

ii. Ramp Construction

The developer or agency responsible for the project impacting an intersection shall be responsible for constructing compliant curb ramps and pedestrian pushbutton to restore all impacted PARs under the following conditions:

1. Non-existent curb ramps on undisturbed opposing corners:

Where a sidewalk is present, but no ramp exists at the opposite end of each crosswalk at intersection corners impacted by the project, the developer or agency shall be responsible for the construction of those ramps, in addition to the curb ramps at the intersection

corner(s) disturbed by the project. If insufficient right-of-way exists that would preclude the construction of an opposing ramp or if significant utility relocations that would cause an undue burden on the developer/agency would be necessary to permit the construction of an opposing ramp, the developer/agency may request a variance. If such a waiver is approved, the City will take the responsibility for construction of the required opposing ramp(s) and the developer/agency will be assessed an appropriate fee. The provisions of this section shall not apply to the redevelopment of a single-unit dwelling on an existing platted lot. In the case of a redevelopment of a single-unit dwelling within an existing platted lot, the property owner shall be responsible for construction of sidewalk at the intersection corner disturbed by the project, but would be granted an automatic waiver of the requirements to install any ramp(s), with the City taking the responsibility for the construction of the required ramp(s).

2. Non-compliant curb ramps on undisturbed opposing corners:

Where a non-compliant curb ramp exists at the opposite end of each crosswalk at intersection corners impacted by the project, the City shall be responsible for the cost of constructing the replacement of the non-compliant curb ramps. The developer or agency shall be responsible for the construction of compliant ramps at the intersection corner(s) disturbed by the project and the design of opposing ramps to ensure that the ramps to be built by the developer or agency shall be properly located.

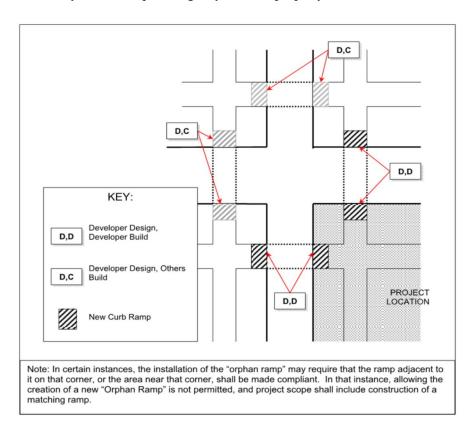


Figure 7-1: Ramp Design Requirements

TABLE 7-1: ADA COMPLIANCE REQUIREMENTS BY PROJECT SCOPE AND OWNER

		Items Required to be Brought to Compliance with this Policy				
Work Type	Description	Roadway Improvements - Publicly Funded (DPS, CRPD, ODOT)	Utility Improvements - Publicly Funded (CWP)	Roadway Improvements- Privately Funded	Property Improvements - Privately Funded	Utility Improvements - Privately Funded
Resurfacing	Any pavement replacement within the legal crosswalk that extends to abut a curb. Includes resurfacing, partial, and full depth pavement.	All Ramps and Pushbuttons that are inaccessible	Ramps and Pushbuttons as described in Section VII.B.3	Ramps and Pushbuttons on Impacted Corner	N/A	Ramps on Impacted Corner
Striping	Crosswalk striping improvements - installation or upgrade. This does not include replacement of markings in kind.	All Ramps and Pushbuttons on Impacted Leg that are inaccessible	N/A	Ramps and Pushbuttons on Impacted leg	N/A	N/A
Pedestrian Improvements	Any sidewalk or Shared Use Path installation/replacement	All Ramps and Pushbuttons	Ramps and Pushbuttons on Impacted leg	Ramps and Pushbuttons on Impacted Corner	Ramps on Impacted Legs	Ramps on Impacted Corner
Signal Improvements	Installation of pedestrian pushbuttons (where they did not previously exist)	All Ramps and Pushbuttons that are inaccessible	N/A	Ramps and Pushbuttons on Impacted leg	N/A	N/A
Signal Improvements	Relocation of pedestrian pushbuttons	Ramps and Pushbuttons on Impacted Corner	N/A	Ramps and Pushbuttons on Impacted Corner	N/A	N/A
Signal Improvements	Installation of Accessible Pedestrian Signals (APS) where APS did not previously exist.	All Ramps and Pushbuttons	N/A	Ramps and Pushbuttons on Impacted Corner	N/A	N/A
Signal Improvements	Replacing signal pole	Ramps and Pushbuttons on Impacted Corner	N/A	No action required	N/A	N/A
Signal Improvements	Pedestrian Signal Head Installation	All Ramps and Pushbuttons	N/A	Ramps and Pushbuttons on Impacted leg	N/A	N/A
Signal and Traffic Control Improvements	Installation of traffic signals, PHBs, RRFBs, flashing signs, etc. (where they did not previously exist)	All Ramps and Pushbuttons	N/A	All Ramps and Pushbuttons	N/A	N/A

Notes:

^{1.} If an existing pushbutton is located in an existing, compliant location but a new ramp position causes the pushbutton to be less accessible than the existing condition, the project shall be responsible for making the pushbutton at least as accessible.

^{2.} Where 2 or more legs are affected, all legs shall be made compliant, see section VII.B.3

^{3.} See Section VII.B.6 for Ramp Design Requirements

VIII. CURB RAMP CONSTRUCTION SCENARIOS

A. Introduction

Generally, curb ramps are needed wherever a sidewalk or other pedestrian walkway crosses a curb. Ramps are not required where no pedestrian facilities are present. Curb ramps are generally not to be constructed at locations that are not intersections, such as private drives or private roadways, hammerheads, cul-de-sacs, a curve where street name changes, and the terminus of dead-end streets. When curb ramps are proposed at locations which are not intersections, additional signage and striping shall be required. Refer to DPS Design Memo 6.41.

Scenarios have been developed to address many situations found throughout the City of Columbus based on the availability of the sidewalk network. These are included in the Appendix 1. A full sidewalk network is described as pedestrian facilities on all legs in all directions. Scenarios present the minimum required ramps for the conditions shown. Additional ramps may be added based on engineering judgment, taking into consideration pedestrian travel patterns and high-volume destinations. Reducing the number of ramps shown in the Scenarios due to existing constraints will require a design variance, described in DPS Design Memo 1.01. Below is direction on common general intersection scenarios that occur throughout the City of Columbus.

B. Intersection Types

1. 4-Way Intersections

When a complete sidewalk network exists and the intersection does not include an unsignalized arterial street, all ramps shall be provided at all crossings. When the sidewalk network is incomplete, all sidewalk segments and pedestrian pushbuttons shall have at least one sidewalk connection to the street. Various scenarios apply. See Appendix 1.

2. 3-Way ("Tee") Intersections

When a complete sidewalk network exists at a 3-way ("Tee") unsignalized intersection, a total of four ramps shall be provided as shown in <u>Figure 8-1</u> and <u>Appendix 1</u> (3W-4). When a complete sidewalk network exists at a 3-way ("Tee") intersection and the intersection is signalized, a total of six ramps shall be provided as shown in the Appendix 1 (3W-6 SIG).

When the sidewalk network is incomplete, various scenarios apply. See Appendix 1.

In the event that four ramps are required, and there is a choice of locations for ramps accessing the PARs crossing the through street, preference will be given for the PAR that does not cross the right-turn movement of the intersecting street (see <u>Figure 8-1</u>). When the intersecting street is a one-way street, the ramps should be placed on the approaching side of the one-way street.

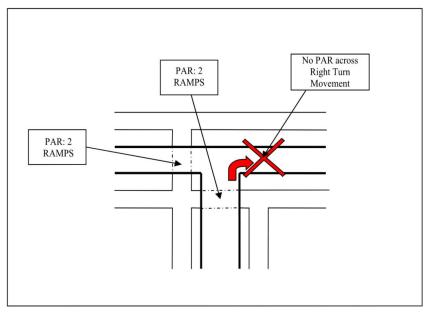


Figure 8-1

3. Signalized Intersections

Curb ramps shall be constructed at signalized intersections per Appendix 1. In addition to these locations, curb ramps at signalized intersections shall be provided to access pedestrian pushbuttons regardless of the presence of a sidewalk network. Access shall be provided to the pushbutton with a curb ramp or pedestrian pad (see VIII.F and <a href="Standard Construction Drawing (SCD) 2319).

4. Unsignalized Arterial Intersections

Unsignalized crossings of arterial streets will have a minimum of two paired ramps crossing the arterial on one side of the intersection and ramps crossing the side street on both sides of the arterial. Signalized arterial intersections will receive ramps crossing all legal crosswalks. Refer to Scenarios.

5. Offset Streets

Under some conditions, an intersection may be "offset"; that is, the centerline of one leg of an intersection may be shifted a significant distance from the centerline of its opposing side. If the offset is 200 feet or less, the intersection shall be treated as a single 4-way intersection.

In the case of 2 non-arterial streets intersecting with an offset 200 feet or less, a total of 8 ramps will be constructed, with the ramps on the interior of the offset not being required.

In the case of a residential and arterial non-signalized intersection with an offset of 200 feet or less, only one crossing shall be required across the arterial street.

If the offset exceeds 200 feet, the intersection shall be treated as two separate "tee" intersections and each shall abide by the requirements of section <u>VIII.B.2</u>. Refer to Figure 8.2 for an illustration.

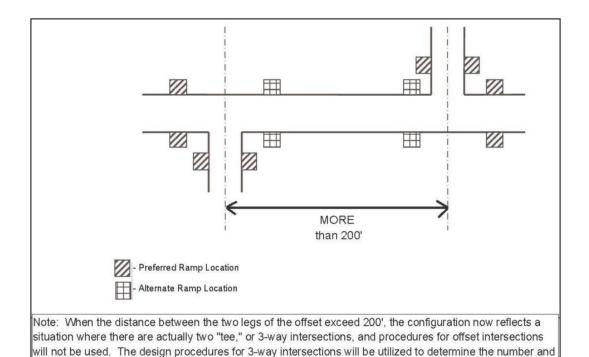


Figure 8-2

6. Roundabouts

See <u>DPS Design Memo 7.04</u> for additional information.

7. Intersections with Freeway Ramps

location of ramps for each of the two individual intersections.

The junction of city streets and freeway ramps (entrance and exit) shall be treated as an intersection. ADA ramps shall be required except where crossing continuous turn lanes. These locations shall be evaluated to determine the appropriate treatment.

C. Alleys

1. PARs Crossing Alleys

The alley crossing must meet the same requirements as a typical crosswalk. Typically, the most difficult issue is providing a compliant cross-slope. All new construction that includes alley returns will require full compliance. Refer to SCD 2150 for further details.

Alterations that are not specifically scoped to reconstruct the alley will not require that the cross-slope of the PAR crossing the alley be made fully compliant when it requires work beyond the original scope of the project. For example, resurfacing will correct the alley PAR when the correction can be performed with 1½" milling or less and asphalt built-up. Stand-alone curb ramp projects will not require milling to correct the PAR since milling is not in the original project scope. Full depth street reconstruction including alley returns will require the alley PAR to be made compliant.

Where the alley PAR is not made compliant, ramps shall be constructed to be compliant and should accommodate future alley PAR correction without the need for ramp replacement.

Asphalt transition patches will be installed in the alley to transition from the compliant ramp to the non-compliant PAR as smoothly as possible.

2. Curb Ramps at Alleys

The junction of an alley with a street is not a legal intersection. This, in turn, means that there are no legal crosswalks in place that will traverse the street, therefore no PAR crosses the larger street. A PAR does however cross the alley, as this entails crossing a City of Columbus right-of-way. See Appendix 1 for ramp placement guidance.

Curb ramps allowing pedestrians to traverse the major roadway shall be constructed at the junction of alleys and roadways only if marked crosswalks are in place traversing that main roadway.

D. Sidewalk Transitions at Private Driveways

Where a privately owned road or driveway meets a street, flush connections to the sidewalk shall be constructed crossing the private drive. The design of these should meet curb ramp requirements or blended transition requirements, but should generally not include detectable warnings (see Chapter In this document for exceptions). This is not considered an intersection, so curb ramps should not be constructed crossing the main road.

Unless expressly stated otherwise, construction and maintenance of curb ramps or blended transitions at privately owned driveways is the responsibility of the property owner or developer, and not the City. Curb ramps and blended transitions in areas having sidewalks will be constructed as part of pavement repair work, and will be triggered when the property owner requests a right- of-way permit or submits construction plans for review. The property owner will be required to construct all features of the approach located in the City right-of-way according to City of Columbus standards and to ensure that a compliant PAR is constructed across the width of the drive, as stated in this document.

When sidewalk construction terminates at a private drive or access point, a sidewalk stub shall be constructed on the opposite side of the private drive or access point where sidewalk construction occurs unless otherwise approved by the City Engineer or designee.

E. Non-Paired or "Orphan" Ramps

It is considered best practice to install ramps in pairs. That is, when a ramp is constructed on one side of a street, a ramp will be constructed on the opposite side of the street if sidewalk is present. This creates a continuous PAR throughout the length of the legal crosswalk, and is done so to prevent stranding disabled persons within the roadway. There are circumstances where ramps would not be placed in a pair, but one ramp is warranted. This exception occurs where only one side of the street has sidewalk and the ramp provides access from the street to the sidewalk and vice versa. See Appendix 1 for variations and examples of this.

F. Pedestrian Pads

Where pedestrian pushbuttons are present, ADA compliant access must be provided to them. Where pushbuttons are present on a corner where there is no sidewalk, a pedestrian pad (PP) shall be constructed to allow for access from the roadway to the pushbutton. The pedestrian pad can be connected to curbed or uncurbed roadway and can be considered a ramp or a blended transition based on field conditions. At minimum, it provides access to a single pushbutton and PAR, but the best practice is to provide access to the pushbutton and connection between both crosswalks at a corner.

This can be accomplished through two connected ramps/blended transitions or one shared ramp in that order of preference. SCD 2319 provides further detail on the horizontal alignment of these PPs, and grades and dimensions must be in compliance with the technical requirements of this document. The pushbutton can be located in any of the positions allowed in Figures 12-2, and 12-3. A single PP that only accesses one pushbutton and crosswalk should only be utilized when connected and shared ramps accessing both crosswalks are not feasible.

G. Prohibited Crossings

Where the Division of Traffic Management has determined that a crossing is not appropriate for safety or operational reasons, the crossing shall be signed as no pedestrian crossing using the R9-3 sign. See Figure 8-4. Curb ramps shall not be provided for these crossings. No pedestrian crossings are permitted when this sign is used.



R9-3 Figure 8-4

H. Locations Where Curb Ramp Installation is Infeasible

Where a curb ramp is required to be installed by other sections of this policy but the installation of a curb ramp would be technically infeasible, the curb ramp may be omitted with a design variance per DPS Design Memo 1.01. The crossing shall be signed with a permanent accessible route detour using sign CR-418 (See Figure 8-5). Crossing the roadway is still permitted with this sign but it directs users to an accessible route. Typically, multiple signs are placed at decision points in both directions to avoid the disabled user backtracking to find the accessible route.



CR-418

Figure 8-5

IX. TECHNICAL RAMP AND PAR REQUIREMENTS

A. Running Slope

1. Ramp Running Slope

This is the slope that runs parallel to the direction of travel along a ramp.

City of Columbus Standard:

Running slope minimum: 5.0% Running slope maximum: 7.7%

Federal Standard:

Running slope minimum: 5.0% Running slope maximum: 8.3%

2. PAR Running Slope

City of Columbus Standard:

Running Slope Maximum 5.0%

Federal Standard:

Running Slope Maximum 5.0%

Note: The running slope may run downwards toward the street, which is typical, or in rare circumstances, it may run upward toward the street. Both situations are permitted, as long as the

running slope is within the allowable slope thresholds established above. Curb ramps and sidewalks are to be designed and constructed not to hold water.

EXCEPTION: A curb ramp run shall not be required to exceed 15 feet in length.

Inspection Guidelines and Construction Tolerances: Ramps are to be designed and constructed to the 7.7% running slope maximum. If an ensuing inspection notes that this standard has not been met, yet the slope of the ramp does not exceed the Federal standard of 8.3%, the ramp may be approved, provided it does not violate other ramp design and construction standards established by the City of Columbus.

B. Cross Slope

Cross slope is the slope that runs perpendicular to the direction of travel down a ramp, blended transition, or other relatively level surface of a PAR.

City of Columbus Standard:

Cross slope maximum: 1.6%

Federal Standard:

Cross slope maximum: 2.1%

Cross slope within a crosswalk where:

- a. Yield or Stop Control Devices: 2.1%
- b. Uncontrolled Approach: 5.0%
- c. Traffic Control Signal or Pedestrian Hybrid Beacon: 5.0%
- d. Midblock or Roundabout*: Match street grade

*See City of Columbus Design Memo 7.04 for further Roundabout crosswalk requirements

Inspection Guidelines and Construction Tolerances: Ramps and landings are to be designed and constructed to 1.6%, cross slope maximum. If an ensuing inspection notes that this standard has not been met, yet the slope of the ramp does not exceed the Federal standard of 2.1%, the ramp may be approved provided it does not violate other ramp design and construction standards established by the City of Columbus.

Where roadway slope exceeds 2.1%, ramp shall meet roadway slope. Any transition necessary shall be made up within the ramp boundary.

C. Landing (Turning space)

1. Perpendicular Curb Ramps

A landing 4' minimum by 4' minimum shall be provided at the top of perpendicular curb ramps and at the bottom of a parallel curb ramp run and shall be permitted to overlap other landings and clear floor or ground space. General cross slope standards apply.

City of Columbus requires walk areas between perpendicular ramps (rounding corners) be designed to accommodate a wheelchair turning from one ramp landing to the next.

2. Parallel Curb Ramps

A landing 4' minimum by 4' minimum shall be provided at the bottom of the curb ramp and shall be permitted to overlap other landings and clear spaces.

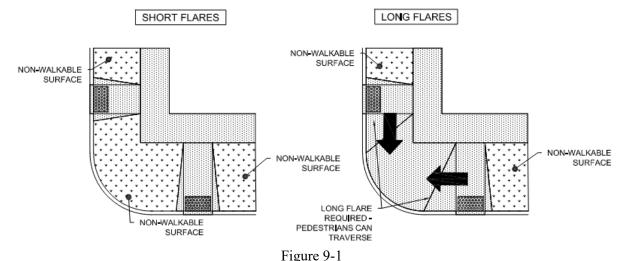
D. Flares

1. Long Flares

On perpendicular curb ramps, flared sides sloped at 10% maximum shall be provided where a circulation path or walkable surface crosses the curb ramp. The measurement is taken along the backside of the curb and the maximum 10% slope is measured relative to the horizontal plane.

2. Short Flares

These are commonly 12" or wider (up to 5') at the curb, and are used at locations where there is no walkable surface adjacent to the ramp. Non-walkable surfaces may be grass, trees, landscaping, areas blocked by utility poles or street furniture, etc. Manhole covers and hatches are considered to be walkable surfaces, if they are flush with the sidewalk surface. Short flares should never be used at any location where pedestrian traffic can be expected to cross them.



E. Width

The clear width of landings, blended transitions, and curb ramps, excluding flares, shall be 48" minimum. The PAR shall have a minimum width of 48".

Where the existing sidewalk is between 36" and 48" in width, engineering judgment should be used to determine the extent of ADA improvements. In these cases, ADA improvements should only be implemented where the PAR is unbroken between two intersections. Sidewalks less than 36" in width shall not be considered a PAR.

1. Pinch Points

On alteration projects, where it is technically infeasible to achieve a 48" PAR, it is permissible to reduce the width of the pedestrian access route (PAR) to no less than 32" along the PAR for a distance of no more than 24".

Technical infeasibility can be from an existing physical constraint, or work type beyond the scope of the project. Such would be the case of an existing traffic signal pole or a utility pole if replacing them was not in the original project scope. If installation or replacement of such obstructing objects is within the scope of the project, these objects shall be placed to provide a minimum 48" PAR.

Existing physical constraints include, but are not limited to, underlying terrain, underground structures, adjacent developed facilities, drainage, or the presence of a significant natural or historic feature.

These pinch points must be separated by a minimum of 48".

On new construction projects, any reduction of the PAR width below 48" requires a design variance per <u>DPS Design Memo 1.01</u>.

F. Detectable Warnings

Detectable warning surfaces shall be provided in many conditions where a pedestrian path crosses a vehicular way as described throughout this document (Chapters <u>IX</u> and <u>XII</u>) and to the specifications set forth in the <u>City of Columbus SCD 2319</u> and the latest edition of the City of Columbus <u>Construction and Material Specifications Manual (CMSC)</u>.

G. Surfaces

Surfaces shall be stable, firm, and slip resistant. Gratings, access covers, and other appurtenances shall not be located on curb ramp landings or slopes, blended transitions, and gutter areas within the pedestrian access route. However, these items may be allowed within sections of the pedestrian accessible route, including flares, provided they comply with requirements set forth for PAR surfaces.

H. Grade Breaks

The running slope of a ramp shall be uniform between two landings or flat areas. Variations in slope, such as grade breaks within runs can disrupt wheelchair travel. Grade breaks shall be perpendicular to the direction of travel and shall be no closer than 2-feet apart.

I. Changes in Level ("Lips")

Vertical changes in level ("lips") greater than 1/4" shall not be permitted on curb ramps, blended transitions, landings, or gutter areas within the pedestrian access route. Where adjusting elements in the field to achieve a flush transition in the PAR is not feasible, and the level difference is 1/2" or less, a bevel as depicted in Figure 9-2 is permissible.



Figure 9-2

J. Horizontal openings located within the PAR

Horizontal openings in gratings and joints shall not permit passage of a sphere more than 0.5 inches in diameter. Elongated openings in gratings shall be placed so that the long dimension is perpendicular to the dominant direction of travel. Refer to Figure 9-3.

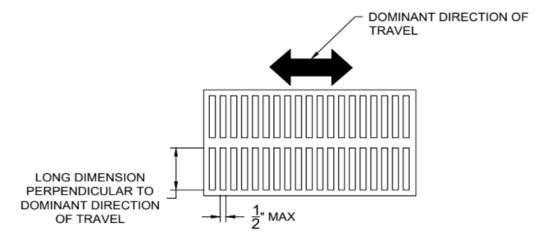


Figure 9-3

K. Counter Slopes

The algebraic difference between the slope of a ramp or blended transition and the adjacent street or gutter shall not exceed 13.3%. If the change of grade exceeds 13.3%, a 24" transitional space shall be provided at a maximum of 2.1%.

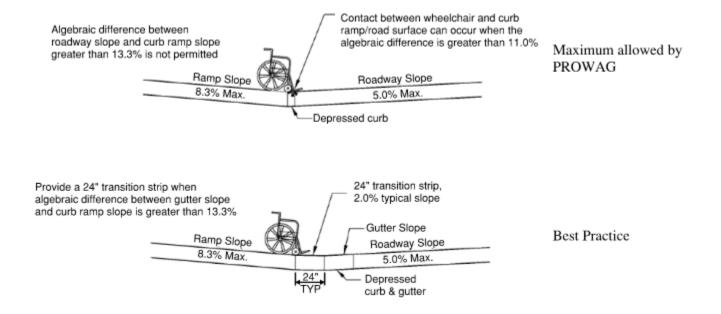


Figure 9-4

L. Location of Curb Ramps within Intersections

Curb ramps at street intersections are to be located within the "Design Boundary" as shown in Figure 9-5. Additional information is provided on the order of preference of this ramp placement location.

Establishing the Curb Ramp Design Boundary

STEP 6 Intersect Crown of Roadway STEP 1 Define Roadway Projection: Use PC & PT to connect curb STEP 2 lines or extend edge of pavement Establish 2' Setback Parallel to roadway projection STEP 7 Establish Design Boundary The Design Boundary is defined by: R/W The maximum rotation around the curb radius into the intersection that will allow a level Line B _ - - R/W turning area at the flat roadway Š crown inside the crosswalk and at the safe distance from parallel Ř vehicular traffic . Lines C1 and C2 represent the the 2' setback line projecting to center of the curve returns STEP 5 Either the maximum Safe Crossing Limit (Line A) or the back of the legal crosswalk (Line B) - whichever is the closest to Locate Maximum Safe Crossing Limit (Line A) X = 25' for radius less than 20' the intersection otherwise, X = Radius + 5 Where obstructions or vehicle (Note: Depending upon conditions, Line sight distance prevent the curb ramps from being located as A may be either closer to, or farther from the intersection than Line B) STEP 3 described in 1 and 2 the ramp may be located closer to the Extend Each R/W intersection providing a 4' x 4' parallel to roadway STEP 4 clear space parallel to the ramp projection centerline is provided withe 2' setback roadway projection as Define Legal Crosswalk (Line B) Using R/W projection farthest from roadway PLUS 15' shown (D). **Hierarchy of preferred Ramp Location** First area to place ramps Second area to place ramps Third area to place ramps Curb ramps at street intersections must be fully contained (outside edges-excluding flares) within the curb segments defined by the Design Boundary as shown in the above illustration. Curb ramps are to be located as close as possible to the intersection and within the Design Boundary. Drawing not to scale

Figure 9-5

M. Protrusions

Objects with leading edges more than 27" and not more than 80" above the finish surface shall protrude 4" maximum horizontally into pedestrian circulation paths (Figure 9-6). Examples of this include signs, utility meters, guy wires (Figure 9-7), pole mounted traffic signal controller or other utility cabinets, and trees. Objects that cannot be relocated shall be made detectable, i.e. curb or unwalkable area added beneath.

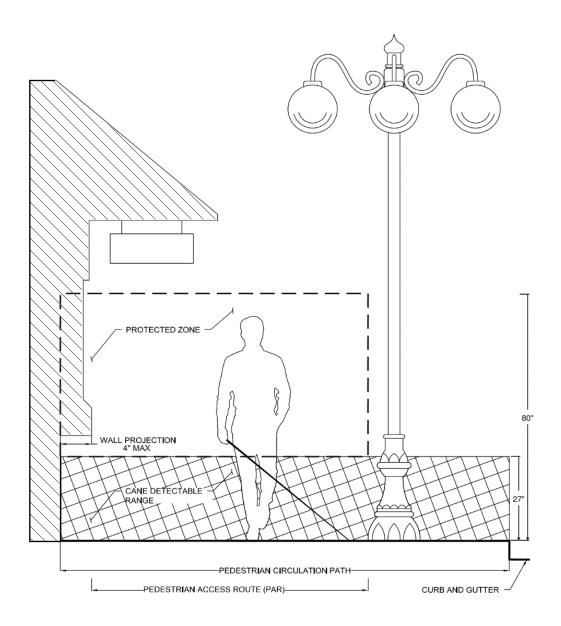
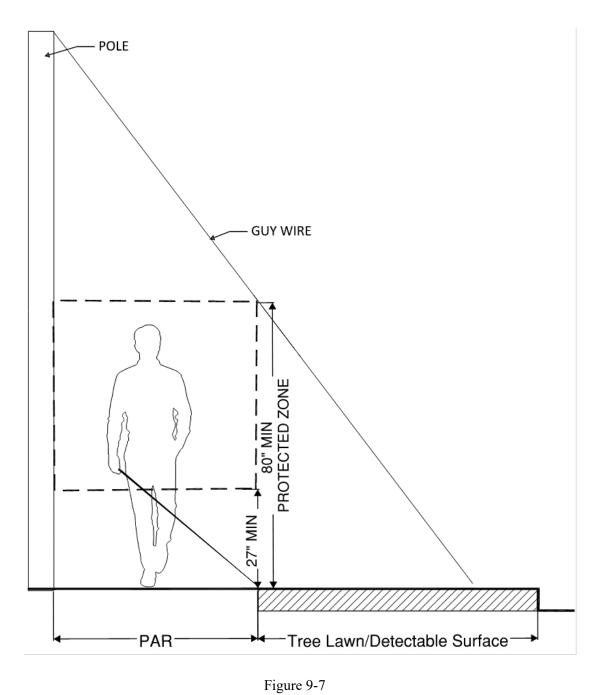


Figure 9-6



The requirements for pole-mounted traffic signal controller cabinets are outlined in the <u>Traffic Signal Design Manual</u>. If the replacement or relocation of the protruding pole-mounted controller cabinet is not within the scope of the project, the overhang may be mitigated using under-cabinet curbing as depicted in Figure 9-8.

POLE-MOUNTED CABINET Not to Scale

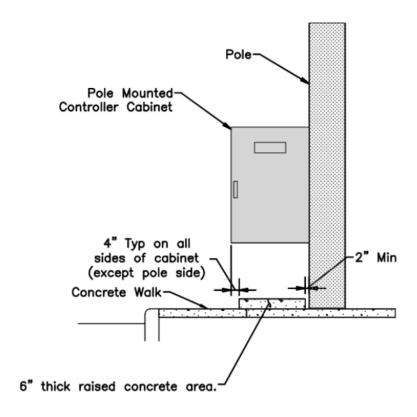


Figure 9-8

X. DESIGN AND CONSTRUCTION PROCEDURES

A. Ramp Design Types and Requirements

1. Full Design

This is the most detail required in a ramp design. For a full design, an elevation is provided at every grade break within the ramp area. The entire ramp area is a walkable surface from where the sidewalk transitions from typical section to where it transitions back to typical section. All sidewalk width dimensions are shown along with slopes of the walk. Use flow arrows to indicate the prevailing slope. Right-of-way (ROW) limits are shown. All existing and proposed facilities and obstructions are shown. Pushbutton locations are shown where applicable. This type of design should be used on new construction projects where the ramp is not connecting to an existing edge of pavement. It should also be used where existing physical or right-of-way constraints do not allow for space to adjust grades while maintaining minimum PARs and access outside the ROW.

2. Design/Build

This is the most minimal type of ramp design. An aerial orthographic photo of the intersection is used to create a scaled base drawing. The designer places a centerline perpendicular to the curb or edge of pavement at the proposed centerline of the ramp and labels it with a letter detailing the standard drawing ramp type to be used from Columbus SCD 2319. All other work necessary to construct the ramp should be noted on the plans including but not limited to: locations of all facilities and obstructions, sign and striping relocation, right-of-way conflicts and encroachments, casting and pull box adjustments, existing problems such as ponding to be corrected, and any other information needed to construct the ramp. The plan may also use on site photos with sketches to clarify the proposed layout and limits of work. All right-of-way acquisition must be completed prior to the start of the project. This design type should only be used on alteration projects where the designer assesses the ramp to be easily constructed within specifications. It is the responsibility of the designer to account for all existing conditions and call out a ramp that is feasible. Where modifications to the standard drawing ramps are necessary, they must be clearly noted on the drawing. It is the responsibility of the contractor to construct a compliant ramp and certify it via compliance form. If the contractor feels the plan design/build is not feasible, it is the contractor's responsibility to bring that to the attention of the administrator of the contract immediately, and not construct a non-compliant ramp without a design variance in advance.

3. Construction Scope for Design/Build

The contractor is fully responsible for constructing compliant ramps of the type and approximate location specified in the design/build drawings. Prior to construction, the contractor must make a field assessment of the design and generate a submittal drawing showing the actual location of where the ramp and landing of the ramps are, along with the additional sidewalk replacement area for transition. Connection to existing facilities outside the right-of-way cannot be made any less accessible than the existing condition. If the contractor determines that ramps cannot be constructed as depicted in the design/build drawings, it must be clearly noted, and the contractor's

recommended solution detailed on the submittal. The Construction Project Manager or designee will review and approve the contractor's submittal prior to commencing ramp work.

B. Design Requirements per Project Type

1. Resurfacing

These alteration projects require the minimum design necessary to construct a compliant ramp. The majority of intersections will be design/build, but existing constraints may require full designs.

2. Roadway Improvements - Capital Improvement Projects

Most ramps will be required to be fully designed. Whenever the connected roadway edge will change elevation, a full design is required. Design/build ramps will be called out in the scope where it is determined that grade, obstructions, and ROW do not necessitate a full design.

3. Utility Improvements - Capital Improvement Projects

Most ramps will be required to be fully designed. Whenever the connected roadway edge will change elevation, a full design is required. CWP must have agreement in advance with DPS to use design build ramps on a utility improvement capital improvement project.

4. Utility Improvements - Privately Funded

For any ADA ramp to be constructed or reconstructed by a privately funded utility project, the permit holder must submit a design meeting the requirements of a design/build contractor submittal which must be provided to DPS for review and approval. A full design may be required where it is determined that location constraints will require more detail.

5. Roadway Improvements - Privately Funded

Where there is work to the adjacent roadway, traffic signal, or pushbutton changes, a full design is required.

6. Property Improvements - Privately funded

Where a privately funded property improvement does not qualify for the City to design and construct the ramp(s), and does not require an E or CC plan, a design/build contractor submittal must be provided to DPS for review and approval. Based on complexity, DPS may require a full design be submitted.

XI. INTERSECTION DESIGN ADA BEST PRACTICES

The following are best practices to be utilized when designing ramps and PARs at an intersection. These are not absolute requirements but should be used when the project allows. The type of project, scope of work, availability of right-of-way, and existing facilities are all factors in the ultimate design of the intersection.

- Locate ramps as close to the intersection as possible so that the crosswalk is most visible to turning traffic and ramps are closest to the naturally traveled path. Detail on ramp location preference is provided in Figure 9-5.
- Ramp alignment should be as perpendicular as possible to the street being crossed. For corners with small radii (typically less than 11') moving the ramp to the straight section of curb is typically best. For larger radii corners, locate the ramps within the legal crosswalk as close to the intersection as possible.
- The City of Columbus ramp type hierarchy is provided in Columbus <u>SCD 2319</u>.
- Utilize perpendicular ramps whenever possible.
- Align paired ramps as much as possible.
- Maximize ramp running slope.
- Minimize the use of cell walls and curb walls behind sidewalk and grade embankment when possible.
- Utilize all available ramp designs before acquiring ROW for the sole purpose of ramps. If ROW must be acquired, construct the most preferred ramp possible.
- Provide a concrete walking surface in the path that able-bodied pedestrians will typically take. On corners with tree lawn and tighter radius corners, typically in residential areas, install type D ramps and include sidewalk for those not requiring ramp use to walk straight across the street to the opposing sidewalk.
- Do not create very small grass patches less than 3' by 4' that will become maintenance problems.

XII. OTHER ELEMENTS

A. Detectable Warning Units

1. Purpose

Detectable warning surfaces have the purpose of making public spaces more accessible to all individuals by alerting visually impaired pedestrians to vehicular ways, and provide non-visual wayfinding cues. Detectable warnings consist of a surface of truncated domes complying with the City of Columbus CMSC 608. Detectable warnings provide a distinctive surface of truncated domes detectable by cane or underfoot to alert people with vision impairments of the transition to vehicular ways. These warnings compensate for the sloped surfaces of curb ramps which remove a tactile cue provided by curb faces. Detectable warnings shall be on the Approved Producers and Products list approved by the City of Columbus.

2. Where Required

Detectable Warnings shall be used to mark the street edge where a pedestrian path crosses a vehicular way. Visually impaired persons traditionally use the curb as a way finding device that indicates the edge of pavement. As a rule of thumb, detectable warnings are to be installed in any situation where curb has been replaced with a level surface in order to allow persons having mobility limitations to access crosswalks or other pavement areas. Detectable warnings shall be included in all PAR crossings of public roadways, alley crossings, and at all pedestrian circulation paths at private driveways controlled with city-approved yield or stop control devices or traffic signals.

This requirement exists whether-or-not the pathway is sloped to the roadway surface (curb ramp) or level (blended transition). Detectable warning units are not required at approaches to driveways serving single family residential units or to duplex residential units. It is important not to place detectable warnings where not required, as this will diminish the effective message of the detectable warning.

Detectable warnings are required on private drives having city approved yield or stop control devices, or traffic signals such as:

- Private subdivision roads
- Private driveways>26'
- Multi-family housing (>50 units)

In addition to curb ramps, detectable warnings shall be included to mark the following features:

- Pedestrian refuge islands
- Depressed corners
- Borders of raised crosswalks and raised intersections
- Sidewalks crossing railroad tracks
- Bus landing pads at uncurbed streets

B. Pedestrian Pushbuttons and Accessible Pedestrian Signals (APS)

1. General

Pushbuttons shall be mounted so that the face of the pushbutton is no closer than 18 inches from the face of the curb.

Pushbuttons should be mounted so that the face of the pushbutton is no further than 10 feet from the face of the curb. (See Figure 12-2 and 12-3)

Rectangular Rapid Flashing Beacons (RRFBs), Pedestrian Hybrid Beacons (PHBs), and LED flashing border sign pushbutton locations shall also be governed by these rules.

ADVISORY: Where no curb exists, this distance shall be measured from the edge of the gravel shoulder or berm farthest from the roadway. Where neither a curb, shoulder nor berm exists, distance shall be measured from the outside edge of the roadway.

EXCEPTION: The 10-foot maximum distance may be waived if the length of the curb ramp, including a 4-foot landing or "clear ground space", exceeds 10 feet or other existing conditions make this distance infeasible.

Where there are two pushbuttons on the same corner, a minimum separation of 10 feet between pushbuttons should be maintained (Figure 12-1).

EXCEPTION: The minimum distance from other pushbuttons shall not apply to pushbuttons located in medians and islands.

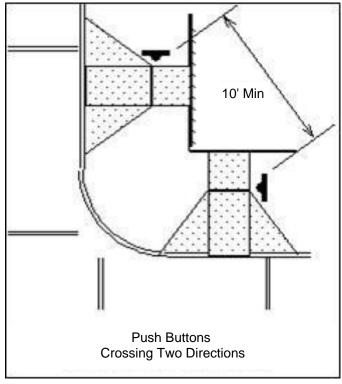


Figure 12-1

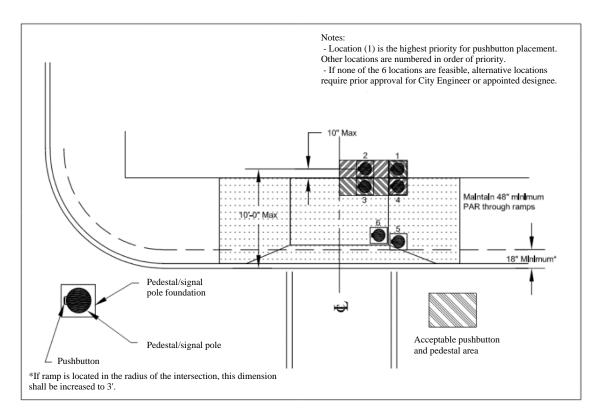


Figure 12-2

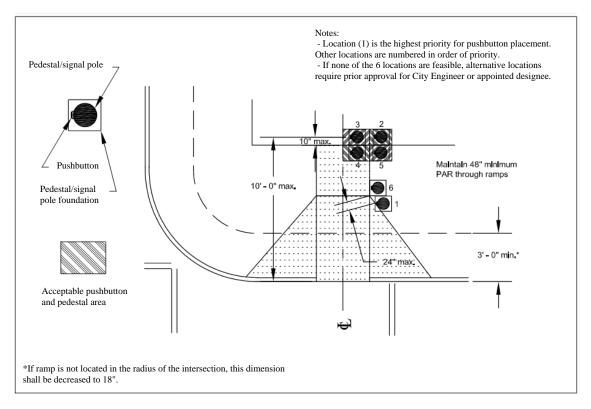


Figure 12-3

Pushbuttons may be located in the ramp landing or pedestrian walkway provided that the clear width of the Pedestrian Access Route (PAR) is not restricted to less than 48" (Figures 12-2 and 12-3).

2. Mounting Height

A pushbutton mounting height of 42" is preferred. If deviating from the standard is required, the minimum allowable mounting height is 36" and the maximum allowable mounting height of 46", as approved by the Engineer.

ADVISORY: Pushbutton height shall be measured vertically from the center of the pushbutton to the surface of the ramp landing.

3. Pushbutton Device

Refer to the City of Columbus CMSC, Section 732.06 for pushbutton specifications.

4. Reach and Proximity

Pushbuttons shall be located no more than 10" behind the curb ramp landing. The standard for mounted pushbuttons is 10" rear and side reach (Figures 12-2 and 12-3).

5. Orientation

The control face of the pushbutton shall be parallel to the crosswalk being served and shall be mounted so that the control face of the pushbutton is facing the intersection (Figure 12-4).

A - Parallel ramps with wide sidewalk B - Parallel ramps with narrow sidewalk 30 ft 30 ft corner radius corner radius D - Perpendicular ramps C - Parallel ramps with narrow sidewalk and tight corner radius with crosswalks far apart Legend → Downward slope Pedestrian pushbutton Detectable warning (per ADAAG) ZZ Landing area (per ADAAG) t 5 ft 10 ft 30 ft corner radius comer radius Notes:

- 1. This figure is not drawn to scale.
- These drawings are intended to describe the typical locations for pedestrian pushbutton installations. They are not intended to be a guide for the design of curb cut ramps.

Figure 12-4

6. Accessible Pedestrian Signals (APS)

Accessible Pedestrian Signal installation will be based on public request and evaluation by the Department of Public Service. Pushbutton placement described throughout this section is based on APS compliant positioning so that existing pedestals can be easily retrofitted with APS at a later date.

7. Conduit for Future APS Installation

When a pedestrian pedestal cannot be installed in a pushbutton-compliant location for a particular crosswalk, underground conduit shall be installed to a future pedestal location. Refer to the Traffic Signal Design Manual for additional information.

8. Pushbutton Placement Exception

Where placement of the pushbutton per Figures 12-2 and 12-3 is not feasible, the placement area of the pushbutton may be expanded to what is shown in OMUTCD Figure 4E-3. This expanded placement is only permitted as a last resort with a written variance. See Chapter XIII for Design Variance guidance.

C. Shared-Use Paths

1. General

Shared Use Paths (SUP) shall meet all requirements for an accessible PAR as defined, and shall be designed in accordance with DPS Design Memo 6.02 Shared Use Paths.

D. ADA Parking Meters and Spaces

1. Accessible Parking Requirements

a. Definitions

- i. "Block" shall mean four (4) intersecting streets, not to include alleys.
- ii. "Marked or metered parking space" shall mean distinct individual parking spaces defined by a parking meter, sign or striping that defines a single stall for vehicular parking.
- iii. "Parking meter" means any mechanical or electronic device used, placed, installed, or erected at or near the curb adjacent to the parking lane, or otherwise on property which is owned, leased, or operated by the city. A parking meter includes, but is not limited to, single space meters, multi-space meters, and parking mobile payment applications authorized by the city of Columbus.
- iv. "Parking zone" shall mean an area covering multiple blocks containing parking meters. Parking zones will be defined by the Division of Mobility and Parking Services. Zones are used to manage the requirement of designated accessible parking spaces in areas with inconsistent or minimal parking per block to ensure that a minimum of four percent (4%) are designated accessible parking spaces.

b. General

New construction or alterations where changes to parking meters, marked parking stalls, and streetscape projects that reconstruct the entire sidewalk area adjacent to marked or metered parking spaces will trigger required compliance with ADA parking requirements detailed below.

- i. In an area identified as a block, the City shall require that a minimum of four percent (4%) or a minimum of one (1) for every twenty-five (25) on-street marked and/or metered parking spaces on each block shall be accessible parking.
- ii. In an area identified as a parking zone, four percent (4%) or greater on-street marked or metered parking spaces in each parking zones shall be accessible parking.

c. Requirements of Accessible Marked and Metered Parking Spaces

- i. All accessible parking spaces shall be identified by a sign displaying the International Symbol of Accessibility and placed at the front of the parking space as to not impede the deployment of a side-lift ramp. In the case where there is more than one accessible parking space, a sign displaying the International Symbol of Accessibility may be placed at the front of the first parking space and at the rear of the last space. A sign is not required at the front of each accessible parking space.
- ii. Accessible parking metered spaces may have a blue parking meter with an approximate height of forty-three (43) inches that includes a post and meter head.
- iii. Parking meters may be located at the head or foot of the parking space.
- iv. Displays and information shall be visible from a point located 3.3 feet maximum above the center of the clear space in front of the parking meter or parking kiosk.
- v. Accessible spaces shall be placed at the first and/or last parking space on the block perimeter where compliant curb ramp exist or will be constructed with the project affecting parking. Always place the ADA parking space on the lesser travelled street where feasible.
- vi. In locations where the first and/or last parking space cannot meet the required standards, the City shall evaluate the contiguous streets to determine if the first and/or last parking space can meet the required standards.
- vii. In locations where a mid-block parking space is requested, the City will evaluate on a case-by-case basis to determine if reasonable accommodations can be made.
- viii. All on-street accessible parallel parking spaces shall be free of signs, street furniture, and other obstacles to permit deployment of a van side-lift ramp or the vehicle occupant to transfer to a wheelchair or scooter.
- ix. In the case where a construction project has displaced an on-street marked and/or metered accessible parking space, the City will reinstall the parking space upon completion of the construction project or will permanently move the accessible parking space to an alternative location.

d. Residential On-Street Accessible Parking

- i. On-street parking in some residential neighborhoods is a limited resource, especially in areas having minimal off-street parking facilities. The mobility of some citizens with disabilities or mobility challenges can be enhanced by the establishment of reserved parking spaces along public streets for handicapped designated vehicles.
- ii. All requests for a residential on-street handicapped parking space shall meet the requirements set forth in the <u>Residential On-Street Handicapped Parking Rules and Regulations</u> and shall be handled on a case-by-case basis.

e. Review of current accessible parking

- i. On an annual basis, the Division of Mobility and Parking Services will review each designated parking zone to assure the four percent (4%) accessible parking requirement is achieved. If the parking zone is non-compliant, the Division will work diligently to identify accessible parking spaces meeting the requirements in Section XII.D.1.c.
- ii. Within one year of each parking zone being established, the Division will identify and sign appropriately four percent (4%) of the on-street parking in each parking zone as accessible parking spaces. The Division will maintain a map of each parking zone and identify each accessible parking space on the map.

XIII. DESIGN VARIANCES

The intent is for all ADA facilities within the public right-of-way to meet the requirements described within this document. In alteration projects, existing conditions may prohibit full compliance by making it technically infeasible or creating a disproportionate cost to obtain full compliance. In this case, the project should make the location as compliant as possible, document the exception to ADA requirements, obtain the required approval, and maintain a record of the exception with project documentation.

The City Engineer or his or her designee will review the request and determine if the exception is technically infeasible. If the design variance is approved, a written approval will be provided to the City representative for the project. The variance shall be filed with the project documents to maintain the record.

See COC Design Memo 1.01 DPS Design Variance Process

XIV. ADA ACCEPTANCE PROCESS

The intent of this policy is to install and document ADA compliant ramps at all locations required by a project's limits and type of work. All newly constructed ramps must be accompanied with an official City of Columbus Curb Ramp Compliance Checklist signed by the contractor's ADA Compliance officer. The most current version of this form can be found on the City of Columbus website.

Any contractor performing modifications or constructing new ADA curb ramps and consultants designing new ramps or determining whether existing ramps are compliant, must name an ADA Compliance officer to represent the company regarding ADA issues. The ADA Compliance officer will sign off on all Curb Ramp Compliance Checklists. It is not required that the ADA Compliance officer be present at the time of measurement, but they take full responsibility for the ADA compliance information provided to the City of Columbus. The name of the ADA Compliance officer must be provided at the project's preconstruction meeting, design kick-off meeting, or initial meeting for other types of projects. Provide the ADA Compliance officer's name and contact information on a dated letter to be maintained with the project files.

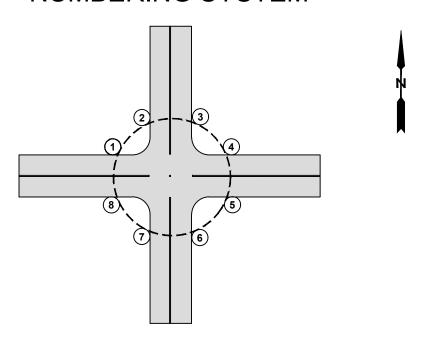
XV. RAMP COMPLIANCE

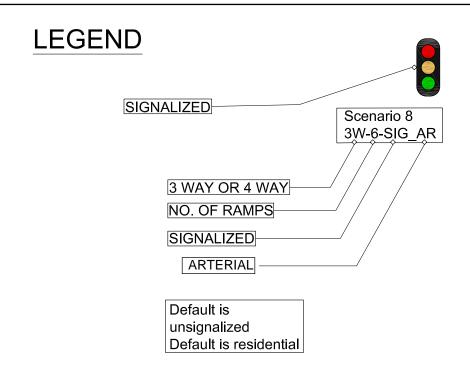
- A. Existing Ramps to remain as compliant When existing ramps within the limits of a project whose scope requires installation of ADA ramps are already compliant, there is no requirement to replace these facilities. An existing curb ramp may be considered compliant if it contains a currently accepted detectable warning in good condition and has no visible signs of non-compliance.
- B. Ramps constructed with CIP projects All new ramps constructed on projects administered by the City of Columbus must be accompanied by a Curb Ramp Compliance Checklist signed by the contractor's ADA Compliance officer. Payment may be withheld for the ramp until the compliance form is received.
- C. Ramps constructed by private developers and private utilities Curb Ramp Compliance Checklist must be completed by the contractor's or designer's ADA Compliance officer for all new ramps constructed or existing ramps to remain within the scope of the project.

The City of Columbus will assure compliance by randomly verifying compliance measurements of completed ramps and existing ramps to remain in place. If it is determined that a provided Curb Ramp Compliance Checklist is not accurate and documents a ramp compliant that is not, a strike will be tallied against the firm's ADA Compliance officer. If the Compliance officer accumulates three strikes in a rolling two-year period, they will no longer be allowed to act as an ADA Compliance officer.

APPENDIX 1 SCENARIOS

INTERSECTION CURB RAMP NUMBERING SYSTEM

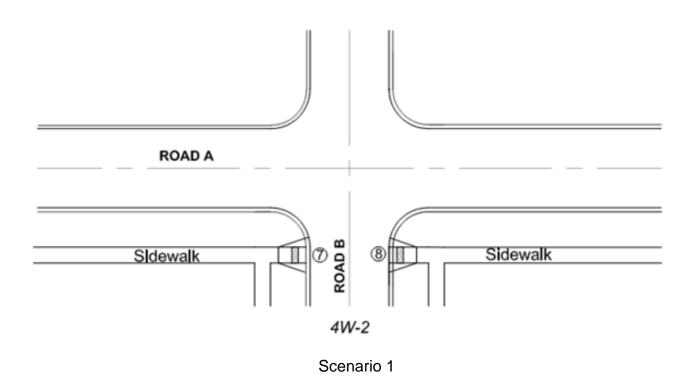


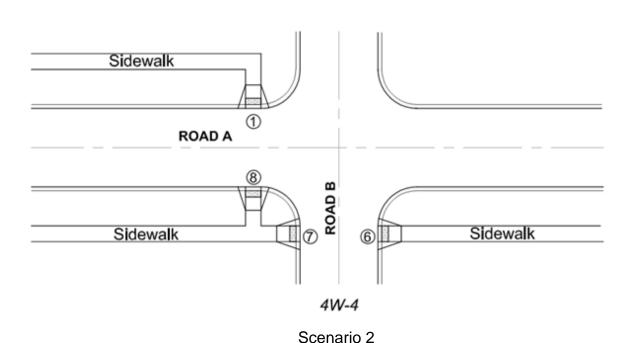


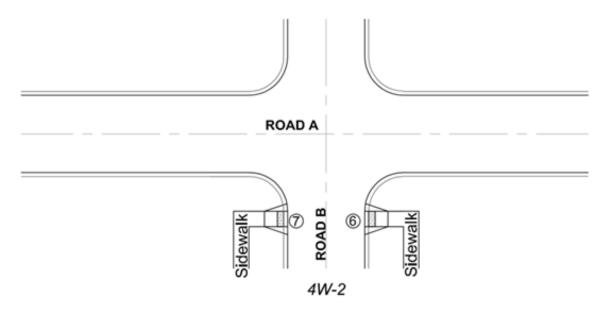
Scenarios have been created to show the minimum number of curb ramps required when the sidewalk network is incomplete

When sidewalks are running alongside a street, the walks are considered the traveled way for the street. When a street doesn't have sidewalks running alongside, the street is considered the traveled way.

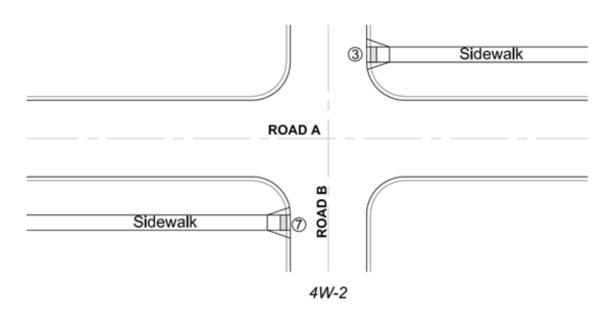
4 Way Intersections



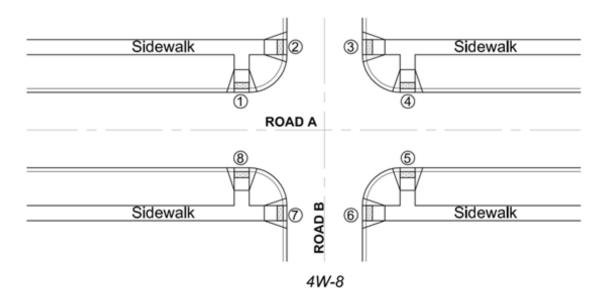




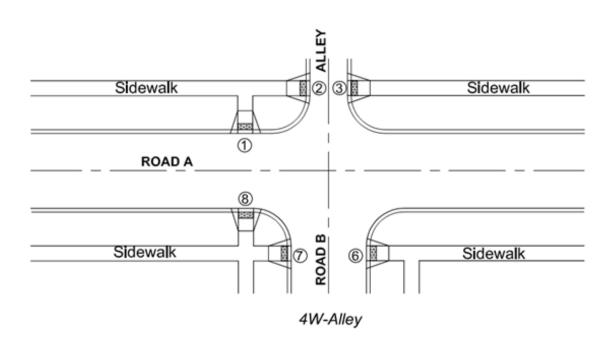
Scenario 3



Scenario 4

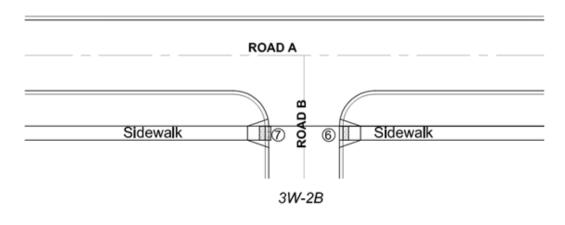


Scenario 5

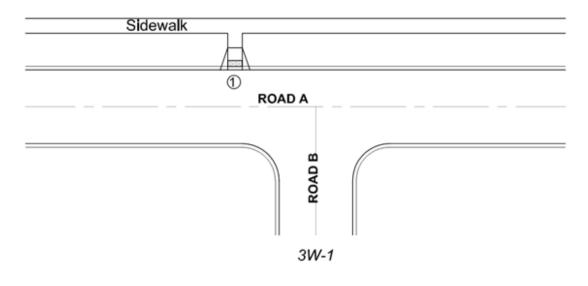


Scenario 6

3 Way Intersections

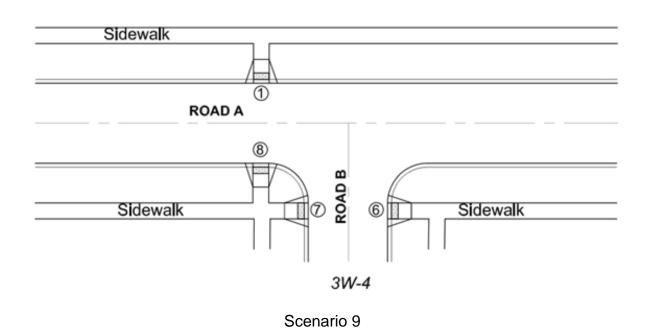


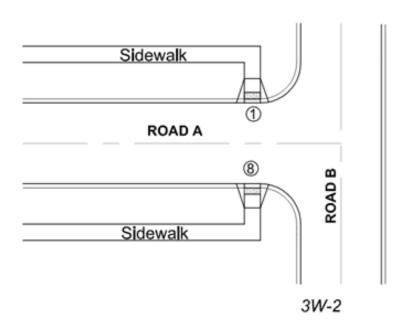
Scenario 7



Scenario 8

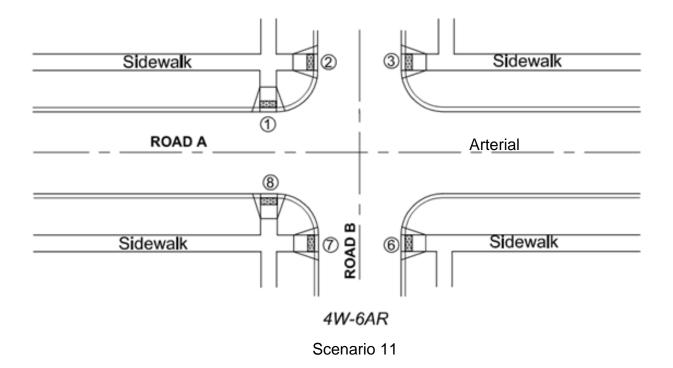
Sidewalk is traveled way for ROAD A. One additional ramp from walk is provided to street level to accommodate access to ROAD B.



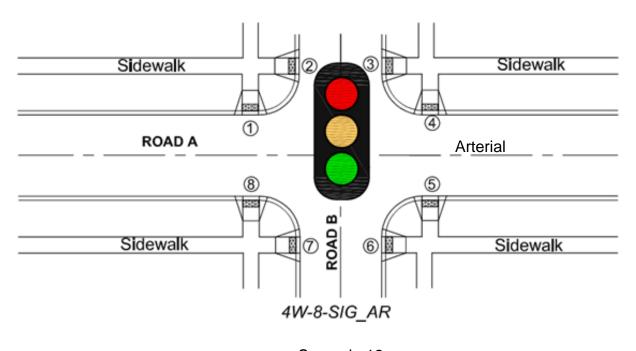


Scenario 10

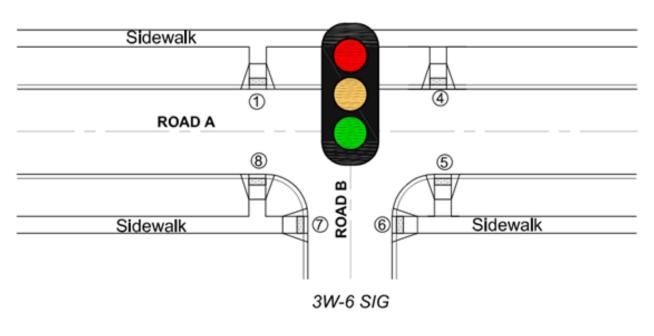
Ramps provide outlet for ROAD A walks and provides access to ROAD B.



Non Signalized crossings of arterial streets will have paired curb ramps crossing the arterial on one side of the intersection and curb ramps crossing both sides of the arterial.

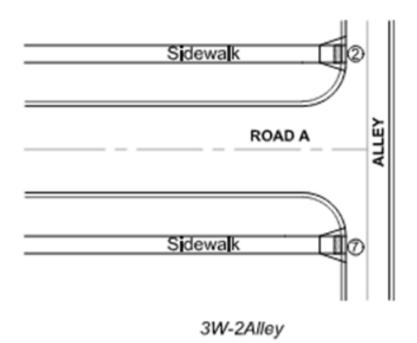


Scenario 12

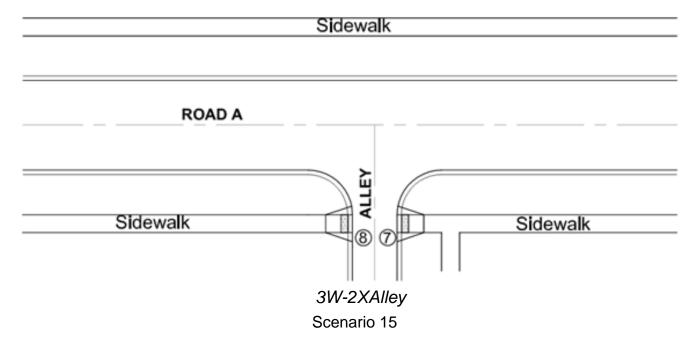


Scenario 13

When a street and alley intersect there are no legal crosswalks that traverse the street, because it is not an intersection. Therefore no PAR crosses street. A PAR does cross the ally and ramps are required.



Scenario14



Scenario 15, 3W-2XAlley, signifies a 3 way intersection with 2 ramps crossing an alley, thus an "X" in the name.