



City of Chino

Policy on Accessible Pedestrian Facilities

2022 Update



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1 GENERAL PROVISIONS

P101 PURPOSE AND INTENT

The City of Chino (“City”) is a unique and dynamic community that continues to evolve with the revitalization of existing neighborhoods and the development of new commercial, industrial, and residential areas. As the community grows, the City is dedicated to assuring its sidewalks, crosswalks, parks, and buildings are available for use by all residents and visitors, including those who have disabilities.

The City is committed to providing the necessary improvements where all people can participate fully, and equally, in civic life; a place where everyone can live, work, and play. Those pedestrian facilities not designed and constructed in accordance with federal and state accessibility regulations discriminate against individuals with disabilities by preventing them from accessing and using the services the City and others in the community provide. With forethought and consideration these barriers can be prevented and, where existing, shall be removed. Working together, we will build a network of safe, accessible, and convenient pedestrian facilities throughout the City.

Pedestrians include individuals of all abilities. All persons, whether traveling by foot, wheelchair, or other mobility aid, have an equal right to use the pedestrian facilities open to the public. Pedestrians shall be provided the same level of service provided for bicycle and vehicular traffic on streets and highways. *[Civil Code 54(a), CVC 21949(a)]*

For accessibility, a design that is truly inclusive consists of single, barrier-free elements that can be utilized by all people, regardless of individual abilities.

- **Accessible design** describes a site, building or facility that complies with the minimum accessibility provided by the Governing Standards. The focus is adapting to meet the minimum requirements for usability.
- **Universal design** is the design of environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The goal of universal design is to exceed the minimum standards with a design to maximize access for everyone.

The City of Chino Policy on Accessible Pedestrian Facilities (“Policy”) provides a single document to reference the existing requirements pertaining to accessibility regulations and best practices for the design and construction of pedestrian facilities open to the public within the City of Chino. The accessibility regulations that have proven challenging to understand, design, or construct are clarified herein, along with references to the related Governing Standards. This document does not intend to provide or discuss all federal, state, and local codes or guidelines pertaining to accessibility. This Policy shall be utilized as a complement to those regulations and guidelines.

P102 GOVERNING STANDARDS

P102.1 Federal.

The Americans with Disabilities Act of 1990 (ADA) is a civil rights law that prohibits discrimination against people with disabilities. Implementing regulations for Title II of the ADA prohibit discrimination in the provision of services, programs, and activities by state and local governments. This includes ensuring the design and construction of pedestrian facilities in the public right-of-way (PROW) to be usable by people with disabilities. The enforceable federal regulations include the **2010 ADA Standards for Accessible Design (ADAS)** and the implementing regulations of **28 CFR parts 35 and 36**. Additionally, the **Public Rights-of-Way Accessibility Guidelines (PROWAG)** are the accessibility standards within the public right-of-way that are currently proposed for final rulemaking by the United States Access Board. Once adopted by the Department of Justice, these standards will be enforceable under federal law.

P102.2 State.

Title 24 of the California Code of Regulations (California Building Code (CBC) Part 2). Based on the authority within the California Government Code, Section 4450 and the California Code of Regulations, Title 24, Section 1.9, all building, structure, sidewalks, curbs, and related facilities shall be accessible to and usable by persons with disabilities. The public rights-of-way (PROW) is subject to **Chapter 11B of Title 24 of the CBC**.

P102.3 Applicability in the PROW.

Federal, state, and local accessibility standards apply to all public pedestrian facilities, including those located in the PROW. State and federal accessibility regulations set *minimum requirements*, both scoping and technical, for the design and construction of new or altered facilities. [CA Gov. Code 4450, 2010 ADAS Introduction, PROWAG R101.1]

P102.4 City Authority.

The ADA provides for local jurisdictions to have the authority to establish and follow standards that provide greater accessibility than the required minimums in the regulations. [28 CFR 35.103(b)]

P102.5 Order of Precedence.

Where there is a conflict between the requirements of Governing Standards, the requirement that provides the most pedestrian accessibility shall prevail and be used in the design and construction of pedestrian facilities. [CBC 1.1.7.3]

P102.6 General and Specific Requirements.

Within an individual governing standard, specific requirements shall take precedence over general requirements. [CBC 1.1.7.2]

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P102.7 No Explicit Standard.

Where there are no explicit standards for a type a facility, and that facility is not specifically exempted from being accessible, it shall still be designed and constructed so it is readily accessible to and usable by individuals with disabilities. *[28 CFR 35.151, CA Gov. Code 4450]*

P102.8 Policy Application and Intent.

Provisions expressed in this Policy beyond federal and state regulatory requirements are not intended to prevent constructability of accessible facilities, but rather to provide for the greatest level of accessibility possible. Any deviation from these City standards shall provide equivalent facilitation that meets or exceeds federal law and is readily accessible to and usable by individuals with disabilities. The City Council, as the enforcing agency, designates authority to the Accessibility Coordinator and the City Engineer in tandem to render interpretations of this Policy to clarify the application and intent of its provisions. Interpretations shall be in compliance with the intent and purpose of this Policy and the Governing Standards for accessibility. No interpretation shall be made to these provisions that waives any federal or state requirements. *[28 CFR 35.151, CA Gov. Code 4451(f)]*

Additionally, the City Council specifically and expressly delegates to the Public Works Director and City Engineer, and their designees, the authority to review and approve the design of accessible facilities, elements, and features for purposes of design immunity pursuant to Government Code Section 830.6. This shall include the working details, drawings, and plans and specifications prepared for every City-accepted improvement, including emergency and change order work, which may affect the design or operation of public improvements, and which may bring into question the City's liability for dangerous conditions of public property. This section shall be cumulative with, and in addition to, any other design review authority delegated by the City Council, and nothing herein shall limit the City Council's ability to approve designs. *[CA Gov. Code 830.6]*

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P102.9 List of Governing Standards.

The Governing Standards for pedestrian accessibility are the most current edition in force as follows:

- The Americans with Disabilities Act of 1990 (ADA) including:
 - The 2010 ADA Standards for Accessible Design (ADAS)
 - The implementing regulations at 28 CFR parts 35 and 36
- California Building Code [Part 2 of Title 24] (CBC)
- California Vehicle Code (CVC)
- California Manual on Uniform Traffic Control Devices (CA-MUTCD)
- California Department of Transportation (CalTrans) Highway Design Manual (HDM)
- AASHTO Policy on Geometric Design of Highways and Streets
- City of Chino Municipal Code (CMC)
- City of Chino Policy on Accessible Pedestrian Facilities

Best Practice Guidelines:

- (Proposed) Public Rights-of-Way Accessibility Guidelines (PROWAG)
- FHWA Designing Sidewalks and Trails for Access - Part II of II: Best Practices Design Guide
- AASHTO Guide for the Development of Bicycle Facilities; Chapter 5: Design of Shared Use Paths
- Work Area Traffic Control Handbook (WATCH)

P103 DEFINITIONS

P103.1 Acronyms.

AASHTO – American Association of State Highway and Transportation Officials

ADA – Americans with Disabilities Act

ADAAG – Americans with Disabilities Act Accessibility Guidelines (2004)

ADAS – Americans with Disabilities Act Standards (2010)

APS – Accessible Pedestrian Signal

BCR – Begin Curb Return

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CA-MUTCD – California Manual on Uniform Traffic Control Devices

CBC – California Building Code

CFR – Code of Federal Regulations

CVC – California Vehicle Code

DSA-AC – Division of the State Architect, Access Compliance

ECR – End Curb Return

FHWA – Federal Highway Administration

HSC – Health and Safety Code

MUTCD – (Federal) Manual on Uniform Traffic Control Devices

PPB – Pedestrian Push Button

PROW – Public Right-of-Way

PROWAAC – Public Rights-of-Way Access Advisory Committee

PROWAG – (Proposed) Public Rights-of-Way Accessibility Guidelines

SSPWC – Standard Specifications for Public Works Construction

WATCH – Work Area Traffic Control Handbook

P103.2 Undefined Terms.

Undefined terms or words in this Policy will have the meanings assigned to them in the California Building Code, and may be amended or superseded from time to time, and, if not defined therein, will have the meaning as defined by collegiate dictionaries in the sense that the context implies.

P103.3 Defined Terms.

The terms defined herein have the indicated meaning. Words or terms used in the singular include the plural, and those used in the plural include the singular.

“ACCEPTED” means improvements that are formally accepted by City of Chino City Council.
[CMC 19.09.010-K]

“ACCESSIBILITY COORDINATOR” is the City of Chino official responsible for the oversight, interpretation, and implementation of federal, state, and local accessibility statutes, regulations, and guidelines per requirements under Title II of the Americans with Disabilities Act. *[28 CFR 35.107]*

“ACCESSIBLE PEDESTRIAN SIGNAL” is a device that communicates information about pedestrian signal timing in non-visual format such as audible tones, speech messages, and/or vibrating surfaces *[CA-MUTCD, 1A.13]*

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“ADEQUATE” means compliant with all current accessibility requirements.

“ALTERATION” is a change to an existing facility that affects or could affect the usability of all or part of the facility. *[28 CFR 35.151(b)]*

“BLENDED TRANSITION” is a raised pedestrian street crossing, depressed corner or similar connection that has a slope of 1:20 or less between a circulation path at the level of the sidewalk or walk and the level of a vehicular way. *[DSA-AC]*

“CIRCULATION PATH” is an exterior or interior way of passage provided for pedestrian travel, including but not limited to walks, sidewalks, hallways, courtyards, elevators, platform lifts, ramps, stairways, and landings. *[DSA-AC]*

“COMPLIANT” means meets all accessibility requirements in effect at the time of construction or alteration.

“CROSSWALK” is either: (a) That portion of a roadway included within the prolongation or connection of the boundary lines of sidewalks at intersections where the intersecting roadways meet at approximately right angles, except the prolongation of such lines from an alley across a street. (b) Any portion of a roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface. Notwithstanding the foregoing provisions, there shall not be a crosswalk where local authorities have placed signs indicating no crossing. *[CVC 275]*

“CROSS SLOPE” is the slope perpendicular to the direction of pedestrian travel. As the direction of pedestrian travel changes, so does the orientation of the cross slope. *[DSA-AC]*

“CURB RAMP” is a sloping prepared surface, intended for pedestrian traffic, which provides access between a walk or sidewalk and a surface located above or below an adjacent curb face. *[DSA-AC]*

“DETECTABLE WARNING” is a standardized surface feature built in or applied to walking surfaces or other elements to warn persons with visual impairments of hazards on a circulation path. *[DSA-AC]*

“DISABILITY” means (a) a physical or mental impairment that limits one or more of the major life activities of an individual, (b) a record of such an impairment, or (c) being regarded as having such an impairment. *[28 CFR 35.104]*

“EQUIVALENT FACILITATION” is the use of designs, products, or technologies as alternatives to those prescribed, resulting in substantially equivalent or greater accessibility and usability. In determining equivalent facilitation, consideration shall be given to means that provide for the maximum independence of persons with disabilities while presenting the least risk of harm, injury or other hazard to such persons or others. *[DSA-AC]*

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“EXTERIOR PEDESTRIAN CIRCULATION ELEMENTS” see definition for *Pedestrian Facility*.

“FACILITY” is all or any portion of buildings, structures, improvements, elements, and pedestrian or vehicular routes located on a site or in the public right-of-way. *[DSA-AC, PROWAG 105.5]*

“FRONTAGE” refers to the pedestrian facilities along the street front, including crosswalks, created by, extended from, or connected to any required or provided sidewalk improvements.

“GOVERNING STANDARDS” means the most current edition in force of the federal, state, and local accessibility regulations and guidelines. This Policy will be updated when relevant updates to the Governing Standards occur.

“GRADE BREAK” is the line where two surface planes with different slopes meet. *[DSA-AC]*

“HIGHWAY” is a way or place of whatever nature, publicly maintained and open to the use of the public for purposes of vehicular travel. Highway includes street. *[CVC 360]*

“INTERSECTION” is the area embraced within the prolongation of the lateral curb lines, or, if none, then the lateral boundary lines of the roadways, of two highways which join one another at approximately right angles or the area within which vehicles traveling upon different highways joining at any other angle may come in conflict. *[CVC 365]*

“MAINTENANCE” refers to activities intended to keep existing facilities in proper operating condition in a routine, scheduled, or anticipated fashion to prevent failure and or degradation. Maintenance procedures do not affect the usability of the facility.

“MANEUVERING SPACE” is the space where, because of the configuration of the physical environment or the location of accessible elements, a pedestrian is required to turn or change direction to proceed along an accessible route. Otherwise referred to as “turning space”.

“MARKINGS” are all lines, words, or symbols, except signs, officially placed within the roadway to regulate, warn, or guide traffic *[CA-MUTCD 1A.13.113a]*.

“MAY” denotes an option or alternative. *[DSA-AC]*

“NEW CONSTRUCTION” is a building or facility that has never been used or occupied for any purpose *[CBC 202 Defined Terms]*. Each building or facility constructed by, on behalf of, or for the use of a public entity shall be designed and constructed in such a manner that the building or facility is readily accessible and usable by individuals with disabilities. *[28 CFR 35.151(a)]*

“NON-COMPLIANT” means facilities or elements that do not meet all currently-in-force accessibility requirements in effect at the time of their construction.

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“PEDESTRIAN” is an individual who moves in walking areas with or without the use of walking assistive devices such as crutches, leg braces, wheelchairs, white cane, service animal, etc. [DSA-AC]

“PEDESTRIAN ACCESS ROUTE” is a continuous, unobstructed path of travel provided for pedestrians with disabilities within or coinciding with a pedestrian circulation path. [PROWAG R105.5]

“PEDESTRIAN FACILITY” includes sidewalks, crosswalks, traffic control features, and curb cuts (depressed curbs and ramped sidewalks) and ramps for the older walkers and persons with mobility impairments. Pedestrian facilities also include bus stops or other loading areas, sidewalks on grade separations, and the stairs, escalators, or elevators related to these facilities. [AASHTO - A Policy on Geometric Design of Highways and Streets (Greenbook) 2.6.1]

“PEDESTRIAN REFUGE” is a pedestrian plaza located either between the curb returns of an intersection corner which is accessible from the adjacent crosswalks and may or may not have connecting sidewalks, or median with a refuge area intended to protect pedestrians who are crossing a multilane road.

“PEDESTRIAN RIGHT OF WAY” refers to all sidewalks over which the City of Chino has responsibility or authority. It includes, but is not limited to, all curb ramps, transitions, and crosswalks (marked or unmarked) serving such sidewalks and any other pathways or elements for use by pedestrians along public rights of way, including pedestrian pathways through public facilities and parking lots. “Pedestrian Right of Way” includes “Pedestrian Route”, “Pedestrian Path”, “Pedestrian Facility”, “Accessible Route”, “Accessible Path”, “Accessible Facility”, and any variations thereof.

“PUBLIC ENTITY” is any state or local government; any department, agency, special-purpose district, or other instrumentality of a state or local government. [DSA-AC]

“PUBLIC PEDESTRIAN FACILITIES” are facilities available to the public for use by pedestrians. Public pedestrian facilities may be publicly or privately owned.

“PUBLIC USE AREAS” are interior or exterior rooms, spaces or elements that are made available to the public. Public use areas may be provided at a building or facility that is privately or publicly owned. [DSA-AC]

“ROADWAY” is that portion of a highway improved, designed, or ordinarily used for vehicular travel. [CVC 530]

“RUNNING SLOPE” is the slope that is parallel to the direction of pedestrian travel. [DSA-AC]

“SHALL” denotes a mandatory specification or requirement. [DSA-AC]

“SHARED USE PATH” is a multi-use path designed primarily for use by bicyclists and pedestrians, including pedestrians with disabilities, for transportation and recreation purposes. Shared use paths are physically separated from motor vehicle traffic by an open space or barrier and are within the highway or independent right-of-way. *[PROWAG R105.5]*

“SHOULD” denotes an advisory specification or recommendation. *[DSA-AC]*

“SIDEWALK” is that portion of a highway, other than the roadway, set apart by curbs, barriers, markings, or other delineation for pedestrian travel. *[CVC 555]*; A surfaced pedestrian way contiguous to a street *[DSA-AC]*.

“SIGNALIZED” means controlled by a traffic signal or traffic light. Does not refer to control via a stop or yield sign.

“SIGNAL CONTROLLER” means the entire controller cabinet and all equipment contained inside of the cabinet.

“STREET” is a way or place of whatever nature, publicly maintained and open to the use of the public for purposes of vehicular travel. Street includes highway. *[CVC 590]*

“TECHNICAL INFEASIBILITY” refers to an alteration that has little likelihood of being accomplished because existing structural conditions would require removing or altering a load-bearing member that is an essential part of the structural frame; or because other existing physical or site constraints prohibit modification or addition of elements, spaces, or features that are in full and strict compliance with the minimum requirements for new construction and which are necessary to provide accessibility. *[ADAS 106.5, DSA-AC]*.

“TRAFFIC” refers to pedestrians, ridden animals, vehicles, street cars, and other conveyances, either singly or together, while using any highway for purposes of travel. *[CVC 620]*

“TRANSITION” is either an accessible element or improvement that connects dissimilar elements or improvements (such as a “curb transition”), or a portion or section of a pedestrian walking surface that connects an accessible walking surface to an existing, non-compliant walking surface (such as a “transition panel”, “transition segment”, “transition section”, etc.)

“WALK” is an exterior prepared surface for pedestrian use, including pedestrian areas such as plazas and courts *[DSA-AC]*.

2 IMPROVEMENTS

P201 APPLICATION

This Policy shall apply during the design, construction, alteration, and maintenance of improvements in the public rights-of-way, exterior pedestrian circulation elements of public facilities, exterior pedestrian circulation elements of places of public accommodation, exterior pedestrian circulation elements of privately-owned facilities that are open to the public, and temporary pedestrian facilities associated with the construction or operation of the above facilities. *[28 CFR 35.151, 28 CFR 36.401 and 36.402, ADAS 201.1 and 201.3, CBC 11B-101.1, PROWAG R201.1 and 201.2]*

P201.1 Public Funds.

This Policy applies to any facility where public funds of the City, or any other government agency, are utilized for the design, construction, alteration, or maintenance of the facility. *[CA Gov. Code 4450(a)]*

P201.2 By Others.

This Policy applies to the construction, alteration, and maintenance of facilities by others where those facilities are provided for use by the public. *[HSC 19956.5]*

P201.3 Policy Effective Date.

In keeping with the effective date stated in federal and state regulations, the version of this Policy in effect “at the time construction commences” shall govern the work and improvements. The Policy will be updated whenever relevant updates to Governing Standards occur. *[28 CFR 35.151(c), 28 CFR 36.406(a), CA Gov. Code 4451(c), CBC 1.9.1.1.4].*

P202 DESIGN REQUIREMENTS

P202.1 Plan Review.

It is the responsibility of the project architect, engineer, and design professionals to ensure each project is designed to fully comply with the Governing Standards. City staff conducts a courtesy review of plans to assist in identifying deficiencies. The review is an exercise to assist the responsible designer with compliance.

P202.1.1 Mandatory Construction Note. The following language shall be on all sets of construction plans. “All design and construction activities, including those for temporary facilities, shall be completed in full compliance with federal, state, and local accessibility regulations and policies.”

P202.2 Design Tolerances.

CBC Advisory 11B-104.1.1. *An element designed to be constructed at either the maximum or minimum permitted dimensions puts the construction at risk if construction errors result in a violation of the standards. It is good practice to specify a dimension less than the required maximum (or more than the required minimum) by the amount of the expected field or manufacturing tolerance and not to state any tolerance in conjunction with the specified dimension. In other words, dimensions noted in accessibility provisions as “maximum” or “minimum” should not be considered dimensions for design, as they represent the limits of a requirement. To be sure that field tolerances result in usable construction, notes and dimensions in construction documents should anticipate expected tolerances so that a required dimensional range is not exceeded by the addition of a finish or a variation in construction practice. Specifying dimensions in design in this manner will better ensure that facilities and elements accomplish the level of accessibility intended by the provision. It will also more often produce an end result of strict and literal compliance with the stated requirements and eliminate enforcement difficulties and issues that might otherwise arise.*

Based on the above CBC advisory and dimensional tolerances for construction as noted in *The Handbook of Design Tolerances, 2nd Edition* by David Kent Ballast, the design measurement or dimension on plans shall incorporate at least the amount of the expected industry field tolerance or anticipated construction deviation. Constructed improvements will be evaluated based upon their compliance with Governing Standard dimensions and the technical specifications provided within this Policy, not with the design dimensions.

P202.2.1 City of Chino Design Tolerances.

P202.2.1.1 Minimum Clear Width. Design work shall account for the finishing and tooling practices that may reduce the usable area of a walking surface below the required clear width. Facilities constructed that do not comply with minimum clear width requirements due to finishing and tooling practices shall be remediated to comply.

P202.2.1.2 Maximum Slope. Sidewalks and walks should be designed with a maximum designed running slope no greater than 1:25 (4.0%). Curb ramp runs should be designed with a maximum designed running slope no greater than 1:14 (7.2%). Curb ramp flares should be designed with a slope no greater than 1:11 (9.0%) measured parallel to the curb line. Cross slopes and maneuvering spaces shall be designed with a slope no greater than 1:67 (1.5%). All other pedestrian walking surfaces with maximum slope requirements shall be designed with slopes at least 0.5% less than the maximum allowable slope. *[U.S. Access Board, Dimensional Tolerances in Construction, 1.1]*

Exception. If design constraints exist, design dimensions may exceed the City's maximum design slopes, however, the constructed facility shall meet the requirements of the Governing Standards. If the end result exceeds the maximum slope requirements, it shall be reconstructed prior to acceptance by City Council.

P202.3 Construction and Manufacturing Tolerances.

All dimensions are subject to conventional industry tolerances, except where the requirement is stated as a range with specific minimum and maximum end points. The range provides adequate tolerance and no tolerance outside of the range is permitted. *[ADAS 104.1.1. CBC 11B-104.1.1, PROWAG 103.1, U.S. Access Board, Dimensional Tolerances in Construction]*

P202.4 Quality Requirements.

All improvements are subject to the quality requirements of the current edition of the Standard Specifications for Public Works Construction (SSPWC).

P202.5 Measurement.

Given the high level of specificity required for achieving compliance, measurement tools that are precise, accurate, and consistent are preferred. In most circumstances, a properly calibrated four-foot smart level is sufficient for determining the slope of constructed improvements. However, where an abrupt change in level, grade break, or divot in pavement is present, a two-foot properly calibrated smart level provides the level of measurement needed.

P202.6 Equivalent Facilitation.

Wherever accessible facilities or elements are required as part of new construction or alteration projects, alternate designs or elements that provide access equivalent to, or greater than, the current Governing Standards may be provided. It is the responsibility of the party proposing the equivalent facilitation to demonstrate the proposed design's compliance with all Governing Standards and its equal effectiveness to the satisfaction of the City of Chino. *[ADAS 103, CBC 11B-103, PROWAG R102]*

P203 NEW CONSTRUCTION

P203.1 Americans with Disabilities Act.

Each facility or part of a facility constructed on behalf of, or for the use of the City shall be designed and constructed in such manner that the facility or part of the facility is readily accessible to and usable by individuals with disabilities, if the construction was commenced after January 26, 1992. *[28 CFR 35.151(a)(1)]*

P203.2 California's Government Code.

All newly constructed elements shall be fully compliant with accessibility requirements in effect at the commencement of construction. *[CA Gov. Code 4451(c)]*

P203.3 Project Scope.

The scope of new construction projects shall not be structured to avoid the obligation to provide accessible pedestrian facilities. The limits of work shall include the improvement of pedestrian facilities. These improvements shall be incorporated into the scope of the project.

[28 CFR 35.101, DOJ/DOT Joint Technical Assistance Supplemental Q&A, Q3]

P203.3.1 Frontage Improvements. Any person constructing, or causing to be constructed, any building, dwelling, private, public, or semipublic parking lot, or developing any residential, commercial, or industrial areas in the City shall provide for construction, at their own cost, concrete curbs, gutters, asphalt concrete street pavement, sidewalks, and streetlights in accordance with the Governing Standards and the requirements, standards, and specifications of the City. *[CMC 12.08.020]*

P203.3.1.1 Location. Frontage improvements shall be constructed along all public street frontage adjoining the lot, unless adequate improvements already exist in accordance with the Governing Standards and streets portion of the master plan of the City. *[CMC 12.08.030]*

P203.3.1.2 Scope. The street frontage includes the pedestrian facilities created by, extended from, or connected to any required or provided sidewalk improvements. The City Engineer, Accessibility Coordinator, and the director of the project's initiating department shall determine required frontage improvements in consideration of each project's planned scope and the applicable regulations.

P203.3.2 Subdivision Improvements. Concrete sidewalks shall be installed on both sides of all public streets and sidewalk width shall not be less than five feet wide adjacent to residential and industrial zoned property. *[CMC 12.08.010, CMC 19.06.040]*

P203.3.2.1 Maximum Connectivity. Street configuration within subdivisions shall provide maximum connectivity for pedestrians through developments to arterial streets and points of interest. *[CMC 19.06.040(B)(7)]*

P203.4 Project-Specific Design.

Projects involving existing improvements that do not comply with the minimum accessibility requirements may require unique, project-specific design. The designs and solutions shall meet the requirements for equivalent facilitation and the minimum accessibility requirements of the Governing Standards in effect at the time of construction. The designs and solutions shall be approved by the Accessibility Coordinator, City Engineer, and the director of the project's initiating department prior to the commencement of construction. *[28 CFR 35.151(a)(1), CBC 11B-103]*

P204 ALTERATIONS

P204.1 Americans with Disabilities Act.

Each facility or part of a facility altered by, on behalf of, or for the use of the City in a manner that affects or could affect the usability of the facility or part of the facility shall, to the maximum extent feasible, be altered in such manner that the altered portion is readily accessible to and usable by individuals with disabilities, if the alteration was commenced after January 26, 1992. *[28 CFR 35.151(b)(1)]*

P204.1.1 Alterations of Multiple Single Elements. Alteration of multiple single elements that affect the usability of an area or facility, shall require the entire altered area or facility be made accessible and compliant with Governing Standards in effect at the commencement of construction. *[CBC 11B-202.3.3]*

P204.2 Project Scope.

The scope of alteration projects shall not be structured to avoid the obligation to provide accessible pedestrian facilities. The limits of work shall include the improvement of pedestrian facilities. These improvements shall be incorporated into the scope of the project. *[28 CFR 35.101, DOJ/DOT Joint Technical Assistance Supplemental Q&A, Q3]*

P204.2.1 Frontage Improvements. Any person constructing, or causing to be constructed, any building, dwelling, private, public, or semipublic parking lot, or developing any residential, commercial, or industrial areas in the City shall provide for construction, at their own cost, concrete curbs, gutters, asphalt concrete street pavement, sidewalks, and streetlights in accordance with the Governing Standards and the requirements, standards, and specifications of the City. *[CMC 12.08.020]*

P204.2.1.1 Location. Frontage improvements shall be constructed along all public street frontage adjoining the lot, unless adequate improvements already exist in accordance with the Governing Standards and the streets portion of the master plan of the City. *[CMC 12.08.030]*

P204.2.1.2 Scope. The street frontage includes the pedestrian facilities created by, extended from, or connected to any required or provided sidewalk improvements. The City Engineer, Accessibility Coordinator, and the director of the project's initiating department shall determine required frontage improvements in consideration of each project's planned scope and the applicable regulations.

P204.2.2 Subdivision Improvements. Concrete sidewalks shall be installed on both sides of all public streets and sidewalk width shall not be less than five feet wide adjacent to residential and industrial zoned property. *[CMC 12.08.010, CMC 19.06.040(B)(7)]*

P204.2.2.1 Maximum Connectivity. Street configuration within subdivisions shall provide maximum connectivity for pedestrians through developments to arterial streets and points of interest. *[CMC 19.06.040(B)(7)]*

P204.3 Timing of Improvements.

Where improvements to pedestrian facilities are required as part of an alteration project, the improvements to pedestrian facilities shall be completed concurrently with the alteration work. *[28 CFR 35.151(b)(1), 28 CFR 35.151(i), Kinney v. Yerusalim, 9 F.3d 1067 (3d Cir. 1993), cert denied, 511 U.S. 1033 (1994)]*

P204.4 Project-Specific Design.

Projects involving existing improvements that do not comply with the minimum accessibility requirements may require unique, project-specific design. The designs and solutions shall meet the requirements for equivalent facilitation and the minimum accessibility requirements of Governing Standards in effect at the time of construction. The designs and solutions shall be approved by the Accessibility Coordinator, City Engineer, and the director of the project's initiating department prior to the commencement of construction. *[28 CFR 35.151(b)(1), CBC 11B-103]*

P204.5 Reduction in Access.

Alterations shall not create any barriers to access, nor any conditions that provide a lesser degree of accessibility than required by the Governing Standards for new construction. *[ADAS 202.3.1, CBC 11B-202.3.1, PROWAG R202.3.3]*

P204.6 Technical Infeasibility.

Technical infeasibility refers to the alteration of a facility or element that has little likelihood of being accomplished because existing conditions would require the removal or relocation of a substantial structural component, or because other existing site constraints unquestionably preclude the modification or addition of elements, spaces, or features which are in strict compliance with Governing Standards. *[ADAAG 4.1.6(1)(j), ADAS 106.5, CBC 202]*

P204.6.1 Compliance to the Maximum Extent Feasible. If full compliance is determined to be technically infeasible, compliance with Governing Standards is required to the maximum extent feasible. *[28 CFR 35.151(b)(1), CBC 11B-202.3 Exception 2, PROWAG R202.3.1, ADAS 202.3 Exception 2]*

P204.6.1.1 Accessible to Persons with Other Disabilities. If providing accessibility to individuals with certain disabilities (e.g., wheelchair users) would be technically infeasible, accessibility shall still be ensured to persons with other types of disabilities, (e.g., those who use crutches or who have sight, hearing, or cognitive disabilities). *[28 CFR 36.402(c)]*

P204.6.2 Application for Finding of Technical Infeasibility. A finding of technical infeasibility is reserved for those circumstances where it is not structurally possible to alter a facility in compliance with minimum accessibility regulations. *[28 CFR 35.151(b)(1)]*

P204.6.2.1 Qualifications. Technical infeasibility may only apply to alterations and does not apply to new construction. Technical infeasibility is considered relative to the planned scope of work. The acquisition of right of way, relocation of existing improvements, reconstruction of existing facilities, undergrounding or relocation of utilities, or the regrading of a site or roadway do not, in themselves, qualify an improvement as technically infeasible. Additionally, cost in itself does not qualify an improvement as technically infeasible. *[ADAAG 4.1.6(1)(j), DOJ's ADA Title II Technical Assistance Manual II-6.3100(4)]*

P204.6.2.2 Review. Determining technical infeasibility requires a site-specific assessment of constraints in relation to the planned scope of work. A request for the determination of technical infeasibility, shall be submitted in writing by a licensed professional civil engineer for review by the Accessibility Coordinator, Director of Public Works, and the City Engineer.

P204.6.2.3 Determination. A ruling of technical infeasibility requires written approval by the City Engineer or their designee and final approval by City Council as the enforcing agency. Determination shall be recorded with the project file. *[CA Gov. Code 4453, CBC 11B-202.3 Exception 2]*

P204.7 Transitions to Non-Compliant Improvements.

Where altered facilities connect or abut existing adjacent improvements that are non-compliant, the connection or abutment shall be made by means of a transition segment. *[PROWAG R202.3.2]*

P204.7.1 Technical Requirements of Transition Segment. Transition segments may be warped, skewed, or otherwise configured to make a smooth transition between the compliant surface and the existing non-compliant surface. Attempting to minimize the severity of cross slope of the transition segment should be considered. For the greatest level of accessibility within the transition segment, the running slope of the transition panel should not exceed 1:20 (5.0%). Exceptions for a higher running slope for a transition panel shall be reviewed and approved by the Accessibility Coordinator and the City Engineer.

P204.8 Alteration of Accessible Routes.

The alteration of an accessible route includes any modification that changes the route's usability. Alterations of existing accessible routes include activities such as resurfacing, repaving, replacing, or widening. *[28 CFR 35.151(b)(1), ADAS 106.5, DOJ/DOT Joint Technical Assistance on Title II]*

P204.8.1 Non-Compliant Adjoining Facilities. Wherever an accessible route is altered, non-compliant facilities within the accessible route shall be made to comply with current Governing Standards. This may include, but shall not be limited to, the provision of:

P204.8.1.1 Accessible Sidewalks. Accessible sidewalks or walks between the BCR and ECR where adjoining curb transitions are altered.

P204.8.1.2 Accessible Curb Ramps. Accessible curb transitions or curb ramps where sidewalks between the BCR and ECR or crosswalks are altered.

P204.8.1.3 Accessible Crosswalks. Accessible crosswalks or crossings where curb ramps or curb transitions are altered.

Exception. Alteration of accessible routes does not apply to alterations made only to remove barriers to access or only to provide a greater degree or an enhanced level of accessibility. In those circumstances, the alterations can be limited to only those accessibility elements. *[CBC 11B-202.4 Exception 4]*

P204.9 Alteration of Roadways.

The alteration of a roadway includes any modification that changes the roadway's usability. Alterations include such activities such as reconstruction, rehabilitation, resurfacing, widening, and projects of similar scale and effect. *[DOJ/DOT Joint Technical Assistance on Title II]*

P204.9.1 Examples. The following improvements are some examples of street and roadway alterations:

- Addition of new layer of asphalt, with or without milling
- Grind (Mill) and Overlay

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- Cape Seals
- Additions/Extensions/Widening
- In-Place Recycling
- Open-graded Surface Course
- Micro-surfacing
- Thin-Lift Overlay
- Rehabilitation and Reconstruction

P204.9.2 Alteration of Crosswalks. Alterations affecting the crosswalk, even if the roadway is not otherwise altered, requires the pavement within the crosswalk and the curb transitions serving the crosswalk be made compliant with Governing Standards. *[DOJ/DOT Joint Technical Assistance on Title II, 28 CFR 35.151(i)]*

P204.9.2.1 Trench Repair. *[DOJ/DOT Joint Technical Assistance Supplemental Q&A, Q11]*

P204.9.2.1.1 Maintenance. If the area of patch or overlay for utility trench work is less than one-half of the field-measured area of the crosswalk, the work is maintenance and only the area of patch or overlay within the marked or unmarked crosswalk shall comply with Governing Standards for a pedestrian walking surface and, where applicable, maneuvering areas. When the trench is repaved, the work shall not result in a lesser level of accessibility. *[28 CFR 35.133(a)]*

P204.9.2.1.2 Alteration. If the area of patch or overlay for utility trench work is one-half, or more than one-half, of the field-measured area of the marked or unmarked crosswalk, the work is an alteration and requirements for crosswalk alterations shall be met. The entire clear width of the marked or unmarked crosswalk and the associated curb ramps shall be made compliant with Governing Standards.

P204.9.3 Provision of Pedestrian Facilities. Where a roadway or crosswalk is altered, the pedestrian facilities that provide access to, from, or across the altered roadways shall be made compliant with Governing Standards. These pedestrian facilities may include curb ramps or other transitions, pedestrian push buttons (PPB) with clear ground space, and crosswalks. *[DOJ/DOT Joint Technical Assistance on Title II]*

P204.9.3.1 Curb Ramps. Where a crosswalk is altered, existing non-compliant curb ramps shall be made compliant or replaced. Where there are no curb ramps, they shall be designed and constructed new. *[28 CFR 35.151(i)]*

P204.10 Alteration of Traffic Control Devices.

The alteration of a traffic control device is any modification that changes the usability of an intersection or street for pedestrians or vehicles. *[28 CFR 35.151(b)(1)]*

P204.10.1 Minor Alterations of Traffic Signals. Where minor alterations are made to a traffic signal only the alteration itself is required to comply with Governing Standards. *[CBC 11B-202.3, PROWAG R202.3]*

P204.10.1.1 Examples. Minor alterations include, but are not limited to, the following:

- Addition of APS only
- Replacement of pedestrian signal head
- Replacement of damaged signal pole in kind.
- Relocation of existing PPB to accommodate curb ramps
- Signal controller repair
- Addition or repair of Opticom system, LPR, or CCTV
- Addition of battery backup to an existing installation

P204.10.2 Major Alterations of Traffic Signals. Any alteration that is not minor in nature requires the pedestrian facilities at the altered intersection be made compliant with the current Governing Standards. Where a major alteration occurs to a traffic signal, accessible pedestrian signals (APS) shall be provided and the pedestrian facilities that provide access across the associated streets, roadways, or highways shall be made compliant with current accessibility standards. These pedestrian facilities may include curb ramps or other transitions, PPB with clear ground space, and crosswalks. *[CBC 11B-202.3.3]*

P204.10.2.1 Examples. Major alterations include, but are not limited to, the following:

- Addition of a new pedestrian phase
- Addition of a new vehicle phase
- Upgrade of the signal controller

P204.10.3 Emergency Traffic Signal Alterations. Nothing in this Policy shall prevent City staff from installing traffic control devices to protect vehicle and pedestrian safety in emergency situations. Should an emergency traffic situation arise, which presents significant and immediate harm to vehicular or pedestrian traffic, the traffic alteration may be completed first and the required pedestrian improvements shall be designed and constructed in a timely manner at a later date. The timeline for completion shall be documented and communicated to the City Traffic Engineer and Accessibility Coordinator.

P204.11 Alteration of Signage and Striping.

The alteration of signage and striping includes any modification that changes the usability of the subject facility. *[28 CFR 35.151(b)(1)]*

P204.11.1 Stop Sign Installation. The installation of a stop sign where one did not previously exist requires the pedestrian facilities within the intersection be made compliant with Governing Standards. *[28 CFR 35.151 (b)(1), CBC 11B-202.3.3]*

Exception. For a specific leg of an intersection, the addition of a stop sign where a yield condition is already established by signage or traffic laws does not require the associated pedestrian facilities be made compliant with Governing Standards.

P204.11.2 Addition of a Marked Crosswalk at an Intersection. The addition of a marked crosswalk at an intersection requires the pedestrian facilities serving the altered leg of the intersection be made compliant with Governing Standards. This includes, but is not limited to, the pedestrian walking surface within the roadway and the associated curb transitions. *[28 CFR 35.151 (b)(1), CBC 11B-202.2, 11B-202.3]*

P204.11.3 Addition of a Midblock Crosswalk. The addition of a midblock crosswalk requires the pedestrian facilities serving the crosswalk be made compliant with Governing Standards. This includes, but is not limited to, the pedestrian walking surface within the roadway and the associated curb transitions. *[28 CFR 35.151 (b)(1), CBC 11B-202.2, 11B-202.3]*

P204.11.4 Emergency Signage Alterations. Nothing in this Policy shall prevent City staff from installing signage or striping to protect vehicle, bicycle, and pedestrian safety in emergency situations. Should an emergency traffic situation arise, which presents significant and immediate harm to vehicular, bicycle, or pedestrian traffic, the signage alteration may be completed first and the required pedestrian improvements shall be designed and constructed in a timely manner at a later date. The timeline for completion shall be documented and communicated to the City Traffic Engineer and Accessibility Coordinator.

P205 MAINTENANCE

P205.1 Overview.

The maintenance of existing facilities involves treatments that preserve and provide upkeep to the improvement as it is constructed. Maintenance activities do not require associated pedestrian facilities be made compliant with Governing Standards. However, if the accessibility of a pedestrian facility can be reasonably improved within the limits of the maintenance work, the improvement to accessibility should be made as part of the maintenance work.

P205.2 Several Maintenance Treatments are an Alteration.

The combination of several maintenance treatments occurring at or near the same time may qualify as an alteration. If the usability of the item or facility is affected, the improvements shall comply with requirements for alterations. *[DOJ/DOT Joint Technical Assistance on Title II]*

P205.3 Street and Roadway Maintenance.

Maintenance treatments are work that preserve an element, prolong its usable life, or serve solely to seal and protect the road surface, improve friction, and control splash and spray. These treatments do not significantly affect the public's access to or usability of the road.

P205.3.1 Examples. The following common improvements are some examples of street and roadway maintenance activities:

- Re-striping or painting
- Chip seals
- Fog seals
- Scrub sealing
- Crack filling and sealing
- Joint crack seals
- Slurry seals
- Diamond grinding
- Joint repairs
- Spot high-friction treatments
- Dowel bar retrofit

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- Pavement patching
- Pothole repairs
- Surface sealing
- Trench Repair (*See Trench Repair P204.9.2.1*)

P205.4 Traffic Signal Maintenance.

Traffic signal maintenance activities preserve existing signal operations or equipment. These activities do not significantly impact the public's access to or usability of the facilities.

P205.4.1 Examples. Traffic signal maintenance includes, but is not limited to, the following activities:

- Replace hardware in kind
- Software update
- Rewire in existing conduit
- Replace conduit for existing traffic signal phasing or detection system
- Change to an existing pedestrian phase
- Change to an existing vehicle phase
- Installation of new, repair, or replacement of traffic detection devices, such as video or loop detectors
- Replace luminaires or bulbs in electrified signals, streetlights, or signs

P205.4.2 Replacement of All PPB at an Intersection. Where all PPB are replaced at an intersection as part of maintenance work, the PPB shall be upgraded to APS. [*PROWAG R209.1, R209.2*]

Exception. If APS replacement is required and APS device is not available due to supply and demand availability, a temporary installation of PPB that is not APS may be used in the interim.

P205.5 Signage and Striping Maintenance.

Signage and striping maintenance activities preserve an existing signage or striping configuration. These activities do not significantly affect the public's access to or usability of the facilities.

P205.5.1 Examples. Signage and striping maintenance include, but is not limited to, the following activities:

- Realignment of existing crosswalk striping where the overall configuration of pedestrian traffic does not change
- Restriping in kind
- Stripe yellow dividing lane at knuckles
- Stripe new bike route or lane
- Stripe new scramble lane

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- Lengthen striping of turn pocket lane
- Addition of In-Roadway Warning Light to an existing marked crosswalk
- Add/remove curb paint, street maintenance signage, no stopping sign, etc.
- Replacing signage in kind

3 PEDESTRIAN ACCESS ROUTES

P301 TEMPORARY TRAFFIC CONTROL

P301.1 Safe and Accessible Pedestrian Access.

Temporary traffic control (TTC) shall provide safe, convenient, and accessible pedestrian access during any work that may disrupt or obstruct pedestrian traffic. The TTC plan should start in the planning phase and continue through the design, construction, and restoration phases. *[CA-MUTCD 6A.01-11]*

P301.2 Alternate Route.

Provisions for effective continuity of accessible circulation paths for pedestrians should be incorporated into the TTC process. Where existing pedestrian routes are blocked or detoured, information should be provided about alternative routes that are usable by pedestrians with disabilities, particularly those who have visual disabilities. Access to temporary bus stops, travel across intersections with accessible pedestrian signals, and other routing issues should be considered where temporary pedestrian routes are channelized. Barriers and channelizing devices that are detectable by people with visual disabilities should be provided. *[CA-MUTCD 6C.01]*

P301.3 Prior to the Start of Work.

Before construction begins, TTC plans, shall be submitted and approved by the City Traffic Engineer. TTC, including necessary signage for pedestrians, bicyclists, and vehicles, shall be in place prior to the start of any construction work. *[CA-MUTCD 6B.01-07 & 08]*

P301.3.1 Notification. Notification of long-term stationary sidewalk closures shall be provided in advance of the commencement of the work. *[CA-MUTCD 6D.01-03]*

P301.4 Technical Requirements.

TTC plans shall comply with the CA-MUTCD Chapters 6D, 6F.74, 6G.05 and other sections of Part 6 related to accessibility and detectability provisions in TTC zones. Additionally, all pedestrian routes for TTC shall meet ADA requirements. *[PROWAG R205]*

P301.4.1 Pedestrian Pathway Width. The TTC pathway shall be five feet wide, shall provide an 84-inch-high vertical clearance, and may be reduced to four feet wide if a 60-inch by 60-inch-wide passing area is provided every 200 feet. *[CA-MUTCD 6D.01-11D & 11G]*

P301.4.2 Pathway Surface. The TTC pathway surface shall be a smooth, continuous hard surface and shall have no vertical changes in level greater than one-half inch. If vertical changes are greater than one-half inch, the surface shall be ramped. *[CA-MUTCD 6D.01-11C]*

P301.4.3 Signs, Barriers and Barricades. Signs, barriers, and barricades for pedestrians shall follow the Governing Standards outlined in CA-MUTCD Section 6F and meet all requirements for safety and accessibility.

P301.4.4 Detectable Edging. Continuous detectable edging shall be provided at the bottom of all fencing, barricades, and barriers used in TTC for pedestrians. *[CA-MUTCD 6F.74]*

P301.4.4.1 Discontinuous Barriers. Cones, tape, and other discontinuous barriers are not cane-detectable and shall not be utilized for temporary pedestrian access routes. *[CA-MUTCD 6D.01-28]*

P301.4.5 Signage for Closures. At locations where alternate walkways cannot be provided, signs and devices shall be installed both at the limits of the activity and in advance of the closure at the nearest crosswalk or intersection. *[CA-MUTCD 6D.01-03, 6F.14]*

P301.5 Work Vehicle Movement.

Movement by work vehicles and equipment across designated pedestrian paths should be minimized and, when necessary, should be controlled by flaggers or TTC. Staging or stopping of work vehicles or equipment along the side of pedestrian paths should be avoided, since it encourages movement of workers, equipment, and materials across the pedestrian path. *[CA-MUTCD 6D.01-15]*

P302 PEDESTRIAN WALKING SURFACES

P302.1 Scoping.

Ground surfaces shall be stable, firm, and slip resistant. All pedestrian walking surfaces shall comply with Governing Standards as noted in CBC 11B-403.

P302.2 Surface Materials.

The materials used to construct the surface of a pedestrian walking surface shall meet or exceed minimum accessibility standards. *[ADAS 302.1, CBC 11B-403.1, PROWAG R302.7]*

P302.2.1 Aggregate Materials. Aggregate materials, such as decomposed granite, may be utilized as a pedestrian walking surface if the material is properly stabilized, adequately maintained, and the surface complies with the minimum accessibility standards. Proper stabilization with the use of binders, consolidants, compaction and grid forms may meet the standard of firm, stable and slip resistant, but repeated maintenance of the material shall occur to achieve the minimum requirements. Crushed miscellaneous base (CMB) shall not be used to construct a pedestrian walking surface. *[FHWA Designing Sidewalks and Trails for Access Part II of II, 4.3.1.1 & 15.4.2, U.S. Access Board Technical Guide for Floor and Ground Surfaces §302.1]*

P302.2.2 Individual Paving Units. Individual paving units or pavers shall not be utilized to construct pedestrian walking surfaces within the PROW. Pavers may be used within the pedestrian route on private property when the surface complies with the technical requirements for a pedestrian walking surface. *[CBC 11B-303, 11B-403, PROWAG R302.7.1]*

P302.2.3 Stamped Surfaces. Walking surfaces stamped to provide visual distinction and texture shall comply with the technical requirements for a pedestrian walking surface. *[CBC 11B-303, 11B-403, PROWAG R302.7.1]*

P302.3 Technical Requirements.

P302.3.1 Openings. Openings in ground surfaces shall not allow passage of a sphere more than one-half inch diameter. Elongated openings shall be placed so the long dimension is perpendicular to the dominant direction of pedestrian travel. *[ADAS 302.3, CBC 11B-302.3, PROWAG 302.7.3]*

P302.3.1.1 Pull Box Covers and Manhole Lids. Openings in pull box covers and manhole lids located within a pedestrian access route that are greater than one-half inch shall be plugged or filled.

P302.3.2 Expansion and Construction Joints. Expansion or construction joints between panels or paving units shall not be greater than one-half inch wide and shall be oriented perpendicular to the dominant direction of pedestrian travel. Existing joints greater than one-half inch shall be grouted or caulked with suitable crack filler or stabilized caulk. *[ADAS 302.3, CBC 11B-302.3, PROWAG R302.7.3]*

P302.3.2.1 Control or Weakened Plane Joints. Control and weakened plane joints shall be properly installed per SSPWC specifications, including one-eighth inch radius edges. They shall be of the minimum possible width and shall be oriented perpendicular to the predominant direction of pedestrian travel.

P302.3.3 Changes in Level. Changes in surface level less than one-quarter inch shall be permitted to be vertical and without edge treatment. Changes in level between one-quarter inch and one-half inch shall be beveled with a slope not steeper than 1:2 (50%). Changes in level greater than one-half inch shall be ramped in compliance with the Governing Standards for ramps or shall be constructed with a gradual running slope less than 1:20 (5.0%). *[ADAS 303, CBC 11B-303, PROWAG R302.7.2]*

P302.3.3.1 Warning Curbs. Abrupt changes in level exceeding four inches between walks, sidewalks, or other pedestrian ways and adjacent surfaces or features shall be identified by warning curbs at least six inches in height above the walking surface. *[CBC 11B-303.5]*

Exception. A warning curb is not required between a walk or sidewalk and an adjacent street or driveway. *[CBC 11B-303.5 Exception 1]*

P302.3.3.2 Tripping Hazard. Changes in level from vertical discontinuities in walking surfaces can create tripping hazards for pedestrians. To avoid creating a tripping hazard, warning curbs shall not be used to separate two pedestrian ways or walking surfaces *(See P307.1.2 Sides of Curb Ramps)*.

P302.3.4 Surface Grinding or Bushing. Surface grinding or bushing of pedestrian facilities is discouraged in new construction and alteration projects. Surface grinding or bushing may be utilized in maintenance work. Where grinding or bushing is used, it shall not create abrupt changes in surface level or otherwise cause a reduction in access to the facility or adjacent facilities. The surface shall be striated or be otherwise made slip resistant to comply with CBC 11B-302.1. *[CBC 11B-303]*

P303 SIDEWALKS AND WALKS

P303.1 Scoping.

All newly constructed or altered sidewalks and walks shall be readily accessible to, and usable by, pedestrians who have disabilities. *[28 CFR 35.151]*

P303.1.1 Orphaned and Discontinuous Sidewalks and Walks. Newly constructed or altered sidewalks and walks shall provide a continuous pedestrian route that connects to adjacent or nearby prepared pedestrian routes. *[Barden v. City of Sacramento, 292 F.3d 1073-9th Circuit 2002, 28 CFR 35.150]*

P303.1.1.1 Remediation. The scope of all projects, where reasonably feasible, shall be determined so it includes the remediation of orphaned or discontinuous sidewalks. Feasibility is determined on individual basis by the City Engineer and Accessibility Coordinator.

P303.1.1.2 Where There Is No Feasible Sidewalk Connection. Where there is no adjacent or nearby pedestrian route to connect to, sidewalks shall terminate in curb ramps, or other accessible transitions, to an adjacent bicycle lane or to the paved roadway. This assures that in the absence of a prepared pedestrian walkway, pedestrians may travel in bicycle lanes or on the edge of the roadway. *[CVC 21956(b)]*

P303.2 Technical Requirements.

P303.2.1 Wet Conditions. Sidewalks and walks shall be designed and constructed to prevent water from pooling or ponding on the walking surface. *[CBC 11B-302.1]*

P303.2.2 Minimum Clear Width. The minimum required clear width of a sidewalk or walk shall be maintained at all driveways, passages, obstacles, and protruding objects. The clear width of a sidewalk or walk shall be measured exclusive of the curb. *[CalTrans HDM 105.2]*

P303.2.2.1 New Construction. Sidewalks, whether privately or publicly owned, shall have a minimum continuous clear width of 60 inches. Specific project or code requirements may require a wider clear width. Nothing herein shall prevent encroachments that reduce the width below 60 inches, provided that at least 48 inches of a minimum continuous clear width is maintained *(See Passing Spaces P303.2.3)*. *[CalTrans HDM 105.2, FHWA Designing Sidewalks and Trails for Access Part II of II Ch. 4.1.2.3, CMC 19.06.040(B)(2), PROWAG R302.3]*

P303.2.2.2 Alterations. Sidewalks, whether privately or publicly owned, shall be a minimum of 60 inches wide with a minimum continuous clear width of 48 inches. Nothing herein shall prevent encroachments that reduce the width below 60 inches, provided that at least 48 inches of a minimum continuous clear width is maintained *(See Passing Spaces P303.2.3)*. *[PROWAG R302.3]*

Exception. When obstructions cannot be relocated and existing conditions prohibit compliance, the clear width of a sidewalk may be reduced to 36 inches as determined by the enforcing agency through an application and approval for technical infeasibility. *[CBC 11B-403.5.1 Exception 3]*

P303.2.2.3 Walks. Walks through unrestricted areas, whether public or privately owned, should have a minimum clear width of 60 inches, but no less than 48 inches. The minimum width of 48 inches should be reserved for entrances to private property or accessible routes within a site where design constraints exist *(See Passing Spaces P303.2.3)*. *[PROWAG R302.3, R302.4]*

P303.2.2.4 Chino Specific Plans. The width requirement of 60 inches does not apply for Chino Specific Plans that designate sidewalk widths to be 48 inches, however, the full pedestrian access route must be clear and continuous *(See Passing Spaces P303.2.3)*.

- P303.2.2.5 Paved Border Surfaces Adjacent to Vehicular Roadways.** Paved border surfaces adjacent to private residential roadways such as motor courts, alleys, drive aisles, or similar vehicular ways, shall have a width less than 18 inches.
- P303.2.3 Passing Spaces.** Sidewalks or walks with a clear width less than 60 inches shall provide passing spaces at intervals of 200 feet maximum. Passing spaces shall be either: a space 60 inches minimum by 60 inches minimum; or an intersection of two walking surfaces providing a T-shaped space where the base and arms of the T-shaped space extend 48 inches minimum beyond the intersection. *[ADAS 403.5.3, CBC 11B-403.5.3, PROWAG R302.4]*
- P303.2.3.1 Maneuvering Areas.** Passing spaces are maneuvering areas. Slopes shall not exceed 1:48 (2.083%) in any direction. *[ADAS 304.2, CBC 11B-304.2]*
- P303.2.4 Location of Obstructions.** Obstructions (utility fixtures, signposts, parking meters, streetlights, signal poles, etc.) shall be located outside of the required clear width of the sidewalk or be located completely within the landscaped portion of the parkway. *[ADAS 307.5, CBC 11B-307.5, PROWAG Advisory R210.1]*
- P303.2.5 Width Transitions.** Changes in sidewalk or walk width shall occur gradually. The panels of transition shall be constructed with a taper no less than one foot in four feet (1:4).
- P303.2.6 Slopes.** Except where required by landings, turning spaces, and maneuvering areas, the required slopes for a walking surface shall be maintained for the full clear width of an accessible route.
- P303.2.6.1 Running Slope.** The running slope of a walking surface shall not exceed 1:20 (5.0%). *[ADAS 403.3, CBC 11B-403.3]*
- P303.2.6.2 Cross Slope.** The cross slope of a walking surface shall not exceed 1:48 (2.083%). *[ADAS 403.3, CBC 11B-403.3]*
- P303.2.7 Sidewalk Across Alleys, Driveways, and Private Streets.** Sidewalks shall continue uninterrupted across alleys, driveways, and private streets. They shall be constructed in compliance with the technical requirements for a pedestrian walking surface. *[ADAS 403.1, CBC 11B-403.1]*
- P303.2.7.1 Configuration.**

- P303.2.7.1.1 Non-Curb Adjacent.** Where there is a landscaped area between the sidewalk and roadway, the sidewalk shall continue straight in line across the alley, driveway, or private street. *[City of Chino Standard Drawing No. 250 & 255]*
- P303.2.7.1.2 Curb Adjacent.** Where the sidewalk is curb adjacent, the sidewalk across the alley, driveway, or private street may be setback around the drive approach. The entire width of the sidewalk shall remain in the public right of way. *[City of Chino Standard Drawing No. 250 & 255]*
- P303.2.7.2 Width.** The required minimum clear width of the sidewalk or walk shall be maintained across alleys, driveways, and private streets.
- P303.2.7.3 Slopes.** The running slope of a walk or sidewalk shall not exceed 1:20 (5.0%). The cross slope shall not exceed 1:48 (2.083%). The required slopes for a walking surface shall be maintained for the full clear width of an accessible route. *[ADAS 403.3, CBC 11B-403.3]*
- P303.2.7.4 Maneuvering Areas.** Slopes for maneuvering areas shall not exceed 1:48 (2.083%) in any direction. *[ADAS 304.2, CBC 11B-304.2]*
- P303.2.7.5 Detectable Warnings.** Detectable warnings at alleys, driveways, and private streets shall be installed only where the vehicular traffic is controlled by a traffic signal. Detectable warnings should not be installed at alleys, driveways, and private streets where vehicular traffic is uncontrolled or is controlled by a stop or yield sign.

P304 SHARED USE PATHS AND OTHER IMPROVED PEDESTRIAN PATHS

P304.1 Scoping.

Shared use paths and other improved pedestrian paths within the City are transportation corridors that may be designed for a variety of users. Any improved pedestrian path, used by pedestrians or intended for use by pedestrians, shall comply with Governing Standards and be fully accessible. This includes, but is not limited to, Class I Bikeways, shared use paths, paseos, multipurpose trails, pedestrian/equestrian paths, and other such walking surfaces. *[PROWAG Supplemental Notice on Shared Use Paths]*

P304.2 Technical Requirements.

All shared use paths and other improved pedestrian paths shall comply with Governing Standards and be fully accessible. Other guidelines or regulations applicable to a specific type of facility (i.e., AASHTO Shared Use Paths) may be used if the condition provided therein meets or exceeds minimum accessibility requirements.

P304.2.1 Surface. Pedestrian paths shall comply with Governing Standards for pedestrian walking surfaces. *[CBC 11B-403.1]*

P304.2.1.1 Aggregate Materials. Shared use paths may be comprised of aggregate material, such as decomposed granite, only where it is properly stabilized, regularly maintained, and complies with Governing Standards for pedestrian walking surfaces and, if applicable, the requirements for bikeway surfacing. Proper stabilization with the use of binders, consolidants, compaction and grid forms may meet the standard of firm, stable and slip resistant, but repeated maintenance of the material must occur to achieve the minimum requirements. *[FHWA Designing Sidewalks and Trails for Access Part II of II, 4.3.1.1 & 15.4.2, U.S. Access Board Technical Guide for Floor and Ground Surfaces §302.1]*

P304.2.1.2 Crushed Miscellaneous Base. Crushed miscellaneous base (CMB), or similar material, is expressly prohibited from being used as the surface material for a shared use path or any other pedestrian path. *[National Trail Surfaces Study, US Access Board and National Center on Accessibility, 2014]*

P304.2.2 Width. The entire clear width of a shared use path or other improved pedestrian path shall comply with Governing Standards. *[PROWAG R302.3.2]*

P304.2.3 Slopes. The running slope of shared use paths or other improved pedestrian paths shall not exceed 1:20 (5.0%). The cross slope of shared use paths or other improved pedestrian paths shall not exceed 1:48 (2.083%). *[ADAS 403.3, CBC 11B-403.3]*

P304.2.4 Signage and Markings. Traffic control signage and markings should be installed for shared use paths when appropriate and shall conform to the CA-MUTCD guidelines for the specific type of facility. *[CA-MUTCD 9B and 9C]*

P305 OBSTRUCTIONS AND PROTRUDING OBJECTS

P305.1 Scoping.

Objects and protruding objects shall not reduce the required clear width of pedestrian routes. *[ADAS 307.5, CBC 11B-307.5]*

P305.1.1 Location of Elements. Objects in sidewalks, walks, and other improved pedestrian paths shall be located outside the minimum clear width of the pedestrian facility. This includes, but shall not be limited to, utility fixtures, street furniture, fire hydrants, signposts, streetlights, signal poles, mailboxes, guy wires, and similar elements. *[PROWAG Advisory R210.1]*

P305.1.2 Landscaped Areas. Where landscaped areas are provided between the curb and the sidewalk, all obstructions shall be placed in the landscaped portion, and they shall not protrude into the sidewalk clear width. *[CBC 11B-307.5]*

Exception. Where existing sidewalk is curb adjacent, there is no landscaped area, and there are existing right-of-way restrictions to obtaining the full clear width requirements for location of elements, clear width may be reduced from 60 inches to no less than 48 inches to accommodate the obstruction.

P305.2 Technical Requirements.

Objects that protrude into or over a pedestrian route shall comply with Governing Standards.

P305.2.1 Horizontal Clearance. Protruding objects shall not reduce the minimum required clear width of walks or sidewalks. *[CBC 11B-307.5, PROWAG R210.2]*

P305.2.1.1 Undetectable Projections. Objects located between 27 inches and 80 inches above the ground are not detectable by white cane users. These objects shall protrude no more than four inches into a sidewalk or walk. Objects more than 84 inches above the ground are unregulated, except where they are installed on shared use paths or parking stalls. *[ADAS 307.2, CBC 11B-307.2, CA-MUTCD 2A.18-07]*

P305.2.1.2 Detectable Projections. Objects located less than 27 inches above the ground are detectable by white cane users and may protrude more than four inches into a sidewalk or walk. *[ADAS 307.2, CBC 11B-307.2]*

P305.2.2 Vertical Clearance.

- P305.2.2.1 Pedestrian Routes.** Objects located within or over a pedestrian route other than shared use paths shall provide a minimum vertical clearance of 84 inches. *[CA-MUTCD 2A.18-07]*
- P305.2.2.2 Shared Use Paths.** Objects shall not overhang or protrude into any portion of a shared use path at or below 96 inches measured from the finish surface. *[PROWAG R210.3]*
- P305.2.2.3 Accessible Parking.** Signs and elements within or over accessible parking stalls and access aisles shall provide a minimum vertical clearance of 98 inches. *[ADAS 502.5, CBC 11B-502.5]*
- P305.2.2.4 When Minimum Clearance is Not Provided.** Where vertical clearance is less than the required minimum, guardrails or other barriers complying with Governing Standards shall be provided. *[ADAS 307.4, CBC 11B-307.4, PROWAG R402.4]*

P305.2.3 Specific Obstructions.

- P305.2.3.1 Guy Wires and Braces.** Guy wires and braces shall provide a minimum vertical clearance of 84 inches above pedestrian walking surfaces. Guy wires and braces shall not reduce the minimum clear width of a pedestrian route. *[CBC 11B-307.4, 11B-307.5, CA-MUTCD 2A.18-07]*
 - P305.2.3.1.1 Angled Guy Supports.** Angled guy supports shall not be located within the pedestrian route or within 24 inches of the pedestrian route. Angled guy supports may be used if they are located 24 inches or more outside the pedestrian route and provide the required minimum vertical clearances. *[CBC 11B-307.4.1]*
 - P305.2.3.1.1.1 Remediation.** Non-compliant angled guy supports shall be remediated as part of any alteration or new construction project. Angled guy supports located within the pedestrian route or within 24 inches of the pedestrian route shall be relocated a minimum of 24 inches outside the sidewalk; or the angled support shall be replaced with a vertical brace that provides a minimum vertical clearance of 84 inches. *[CBC 11B-307.4.1, 11B-202.3.1]*
 - P305.2.3.1.2 Vertical Guy Braces.** A vertical guy brace, sidewalk guy, or other similar device that meets or exceeds the minimum clear width and vertical clearance requirements may be used within a pedestrian route or within 24 inches of the route's edges. *[CBC 11B-307.4.1]*

P305.2.3.2 Mailboxes. Individual mailboxes shall not reduce the minimum required clear width of a pedestrian route. Mailboxes shall comply with the accessibility requirements for protruding objects. *[CBC 11B-307]*

P305.2.3.2.1 Cluster Mailboxes. Multi-box units or cluster mailboxes shall not protrude into or obstruct a pedestrian route. A minimum clear ground space of 30 inches by 48 inches shall be provided and positioned to serve the mailboxes' operable parts. Except for in unusual conditions, the clear ground space shall be positioned for a parallel (side) approach and shall comply with the regulations for side reach. *[CBC 11B-308.3, 11B-309.2]*

P306 MANEUVERING AREAS

P306.1 Scoping.

A maneuvering area, or turning space, is where a pedestrian is required to turn, maneuver, or change direction to proceed along a pedestrian route. Maneuvering areas are typically located where two or more paths meet, overlap, or intersect, where a path changes direction, or where an accessible route ends, and the pedestrian must turn around. *[PROWAG Advisory R302.3]*

P306.1.1 Intersection Corners. The paved pedestrian plaza located at the corners of intersections, where the sidewalk expands into a wide circular segment between the curb radius and the corner cutoff line, may require pedestrians to travel in multiple directions to utilize the pedestrian facilities. These areas are maneuvering areas if there are any pedestrian amenities or facilities that a person may need to access, such as trash cans, benches, informational signs, PPB, etc.

P306.1.2 Crosswalks. The portion of the roadway where a pedestrian is required to maneuver to stay safely within the limits of the crosswalk is a maneuvering area. Diagonal and skewed perpendicular curb ramp designs create maneuvering areas in the crosswalk and, at times, in the gutter. Curb ramps that provide a truly directional route, where the direction of travel down the curb ramp run is parallel with the direction of travel within the crosswalk, do not have a maneuvering area within the gutter or crosswalk.

P306.1.2.1 Gutters. When the portion of the gutter is included within a maneuvering area, such as with diagonal and skewed perpendicular curb ramps, it shall be designed and constructed to comply with requirements for a maneuvering area.

P306.1.3 Passing Spaces. Passing spaces provided along a pedestrian route are maneuvering areas.

P306.1.4 Intersecting Sidewalks or Walks. Where sidewalks or walks overlap or intersect, they create an area where a pedestrian changes direction. The portion of the sidewalk or walk that intersects is a maneuvering area.

P306.1.5 Setbacks at Driveway, Alley, and Private Street Crossings. The portion of a sidewalk or walk that changes direction around a driveway, alley, or private street approach is a maneuvering area.

P306.1.6 Bus Stops and Loading Zones. Bus stops and loading zones located on, or contiguous to, sidewalks or walks create a pedestrian plaza with multiple accessible routes and differing pedestrian directions of travel. The plaza area of bus stops and loading zones is a maneuvering area.

P306.1.7 Meandering Sidewalks. When built according to Governing Standards, the curves in meandering sidewalks or walks typically do not have excessive cross-slopes and therefore shall not be considered maneuvering areas. These facilities shall meet the requirements for a pedestrian walking surface.

P306.2 Technical Requirements.

As pedestrians maneuver and change direction, so does the orientation of the pedestrians' cross slope. The cross slope is perpendicular to the direction of travel which means it changes as the direction of travel changes. *[ADAS 106.5, CBC 202, PROWAG R105.5]*

P306.2.1 Location and Configuration of Maneuvering Areas. The boundaries of a maneuvering area are delineated by the extension of the boundaries of the walking surfaces that enter it.

P306.2.1.1 Crosswalks. The location of any maneuvering area within a crosswalk shall extend to the boundary of the crosswalk in relation to the curb ramp run and shall be a minimum of 48 inches long.

P306.2.1.1.1 Gutters. A maneuvering area adjacent to a skewed or diagonal/shared curb ramp may include the gutter.

P306.2.2 Size. A maneuvering area shall be no less than 48 inches long and 48 inches wide. The width of any side of a maneuvering area shall be at least as wide as the adjoining pedestrian ways that create it. *[CBC 11B-403.5.1 Exception 3, PROWAG R302.3]*

P306.2.3 Slopes. The slopes in a maneuvering area shall not exceed 1:48 (2.083%) in any direction. *[ADAS 304.2, CBC 11B-304.2, PROWAG R304.3.2]*

P307 CURB RAMPS AND TRANSITIONS

P307.1 Scoping.

Curb ramps, blended transitions, or a combination of curb ramps and blended transitions are required wherever a prepared pedestrian surface crosses a curb. Where each marked or unmarked crosswalk connects to a prepared pedestrian surface, a curb ramp or curb transition shall be installed. Curb ramps or curb transitions shall be provided at any intersection of newly constructed or altered streets where there are barriers to enter the pedestrian walkway. [28 CFR 35.151(i), CA Gov. Code 4450(a), PROWAG R207.1, CBC 11B-206.2.19]

P307.1.1 Curb Transitions at Unprepared Surfaces. Where the boundaries of sidewalks extend across an intersection and create a crosswalk, curb ramps shall be provided where the sidewalk or walk crosses the curb on the initiating side of the crosswalk. Curb ramps may be required on the receiving side of a crosswalk where there is no prepared pedestrian walking surface. [28 CFR 35.151(i), CVC 275]

P307.1.1.1 Signalized Intersection. If the intersection is signalized, a curb ramp and pedestrian refuge shall be provided on the receiving side of the crosswalk where there is no prepared pedestrian surface. This curb ramp and pedestrian refuge shall provide access to pedestrian push buttons. [CA-MUTCD 4E.08-03 & 04]

P307.1.1.2 Unsignalized Intersection. If the intersection is unsignalized, curb ramps are not required on the receiving side of the crosswalk where there is no prepared pedestrian surface. [DOJ/DOT Joint Technical Assistance on Title II]

P307.1.2 Sides of Curb Ramps. Where a pedestrian circulation path crosses the curb ramp, it shall have flared sides. Curb ramps with vertical curbs may be used where pedestrians would not normally walk across the ramp or where existing conditions prevent the use of a flare. When a curb ramp is bordered by a curb, there shall be a non-walkable surface adjacent to the vertical curb (such as landscape, cobble, etc.). [ADAAG 4.7.5, PROWAG R304.2.3]

P307.1.2.1 Non-walkable Surfaces. Landscape material or cobblestones per the City Standards should be used for surfaces adjacent to curb ramps with vertical curbs. The width of the non-walkable surface shall be a minimum of 24 inches.

P307.2 Curb Ramp Orientation.

When curb ramps are constructed or reconstructed, one curb ramp should be provided for each pedestrian street crossing. [HDM 105.5(2), PROWAG R207.1, CBC 11B-206.2.19]

- P307.2.1 Directional Curb Ramp.** Directional curb ramps are aligned parallel with the crosswalk so there is a straight path of travel from the top of the curb ramp to the center of the crosswalk, to the top of the curb ramp on the other side. Aligning curb ramps directionally is preferred for pedestrians and is the most direct path of travel across the roadway. *[PROWAAC Special Report, Ch. 4]*
- P307.2.2 Shared Curb Ramps.** Shared curb ramps are placed on the apex of a corner of an intersection and shares multiple crosswalks. These ramp orientations should be avoided as they put pedestrians at risk by forcing them to maneuver within an area exposed to vehicular traffic and predicting pedestrian movements becomes questionable for motorists. *[PROWAAC Special Report, Ch. 4]*

P307.3 Types of Curb Ramps and Transitions.

Curb ramps may be perpendicular, parallel, or a combination of parallel and perpendicular. Blended transitions can also be combined with curb ramps to connect pedestrian access routes at each crosswalk. *[CBC 11B-406.1, PROWAG R105.5, R207.1]*

P307.3.1 Perpendicular Curb Ramps. Perpendicular curb ramps have a ramp run that cuts through or is built up to the curb at right angles or meets the gutter break at right angles where the curb is curved. Alignment is perpendicular to the curb. *[PROWAG R304.1]*

P307.3.1.1 Directional Perpendicular Curb Ramps. Curb ramps aligned parallel with the crosswalk and perpendicular to the curb.

P307.3.1.2 Directional Non-Perpendicular Curb Ramps. Curb ramps aligned parallel with the crosswalk but that do not meet the curb perpendicularly.

P307.3.1.3 Skewed Perpendicular Curb Ramps. Curb ramps that are not aligned parallel with the crosswalk but do meet the curb perpendicularly. A maneuvering area shall be provided at the bottom of these curb ramps and within the crosswalk to align the pedestrian in the direction of travel through the crosswalk.

P307.3.2 Parallel Curb Ramps. Parallel curb ramps have a ramp run that is in-line with the direction of sidewalk travel and lower the sidewalk to a maneuvering space where a turn is made to enter the pedestrian street crossing. A parallel curb ramp may be provided with one sloping segment or two opposing sloping segments. *[PROWAG R304.1, CBC 11B-406.3]*

P307.3.3 Diagonal or Shared Curb Ramps. Diagonal or corner type curb ramps are perpendicular or parallel curb ramps that are oriented diagonally at an intersection and serve more than one street crossing. Shared or diagonal curb ramps are discouraged in new construction and alteration projects and shall not be utilized if another design option is feasible. The below exceptions may apply to alterations, provided that the resulting shared or diagonal curb ramp complies with the Governing Standards. For clarification, the exceptions below are exceptions to the City Policy discouraging the use of shared or diagonal curb ramps and are not exceptions to the Governing Standards or other site standards that may necessitate a different design option. *[CBC 11B-206.2.19, PROWAG R207.1, R207.2]*

Exception 1. In an alteration project that involves replacement or alteration of a shared or diagonal ramp, the replacement or altered ramp may be shared or diagonal if other transition designs are technically infeasible. Application for technical infeasibility shall be submitted and approved prior to construction of diagonal ramps justifying why other ramp designs are not feasible (*See Technical Infeasibility P204.6*). [*PROWAG R207.2*]

Exception 2. Where the purpose of a project is limited to improving the accessibility of an existing shared or diagonal curb ramp, or any of its individual components (ramp run, landing, detectable warnings, flares, or gutter) or the crosswalk it serves, the curb ramp may continue to be a shared or diagonal curb ramp. [*28 CFR 35.133, CBC 11B-108*]

Exception 3. Where a project involves alteration to an adjoining crosswalk or other pedestrian access route but does not alter or replace an existing shared or diagonal curb ramp, the existing ramp does not have to be modified if it is in compliance with the applicable ADA standards at the time it was last constructed or altered. [*28 CFR 35.150(b)(i), DOJ/DOT Joint Technical Assistance Supplemental Q&A, Q1*]

P307.3.4 Blended Transitions. A blended transition is where the sidewalk is lowered, or the pedestrian crossing is raised to create a flush transition from one to the other. A blended transition that spans the curb return across both pedestrian crossings serves the purpose of two curb ramps. [*PROWAG R304.1, HDM 105.5(2)*]

P307.3.5 Center Medians and Islands. Where a pedestrian route intersects a center median or curbed island, a cut-through at the same level as the surface of the roadway within the crosswalk shall be provided for a continuous pedestrian route. [*CBC 11B-406.6*]

P307.4 Technical Requirements.

P307.4.1 Wet Conditions. Curb ramps shall be designed and constructed to prevent water from pooling or ponding on the walking surface. [*ADAS 406.1, CBC 11B-406.5.5, PROWAG R302.7*]

P307.4.2 Location. Curb ramps shall be located so the ramp run is directional to the crosswalk it serves. Curb ramps at marked crossings shall be wholly contained within the markings, excluding flared sides (where provided). [*ADAS 406.5, CBC 11B-206.2.19, 11B-406.5.1, PROWAG R207.1*]

Exception. Parallel curb ramp runs shall be parallel with the direction of sidewalk travel and the turning space shall be perpendicular to the crosswalk it serves. *[PROWAG Advisory R304.1]*

P307.4.3 Landing. A landing is a turning space that shall be provided at the top of perpendicular curb ramps and blended transitions. *[ADAS 406.4, CBC 11B-406.5.3, PROWAG R304.2.1]*

P307.4.3.1 Depth and Width. The clear depth of a landing shall be a minimum of 48 inches. The clear width of a landing shall be at least as wide as the width of the curb ramp run or transition. *[CBC 11B-406.5.3, PROWAG R304.2.1]*

P307.4.3.2 Slopes. The slopes of the landing shall not exceed 1:48 (2.083%) in any direction. *[CBC 11B-406.5.3, PROWAG R304.2.2]*

P307.4.4 Turning Space. A turning space shall be provided at the bottom of parallel curb ramps. *[PROWAG R304.3.1, CBC 11B-406.3.2]*

P307.4.4.1 Depth and Width. The clear depth of the turning space at the bottom of a parallel ramp shall be as deep as the size of the adjoining walking surface. Providing for the detectable warnings, the depth of the turning space shall be 72 inches. The clear width of the turning space shall be a minimum of 48 inches. *[PROWAG R304.3.1, CBC 11B-406.3.2, 11B-705.1.2.2.2.1]*

Exception. Where the turning space is constrained at the back-of-sidewalk, the clear width shall be no less than 60 inches in the direction of the pedestrian street crossing. *[PROWAG R304.3.1]*

P307.4.4.2 Slopes. The slopes of the turning space shall not exceed 1:48 (2.083%) in any direction. *[CBC 11B-304.2, PROWAG R304.3.2]*

P307.4.5 Ramp Run.

P307.4.5.1 Width. The clear width of a curb ramp run or blended transition shall be a minimum of 48 inches. Curb ramp width should match the width of the facility it serves. *[CBC 11B-406.5.2, PROWAG R304.5.1.1]*

P307.4.5.1.1 Shared Use Path. In shared use paths, the width of curb ramp run or blended transition shall be equal to the width of the shared use path. *[PROWAG R304.5.1.2, AASHTO Guide for the Development of Bicycle Facilities 5.3.5]*

P307.4.5.1.2 Other Improved Pedestrian Paths. For widened sidewalks or improved paths other than shared use paths, the curb ramp run or blended transition will be assessed for geometrics, purpose and other criteria on a case-by-case basis to determine the best width of the facility as determined by the Accessibility Coordinator and the City Traffic Engineer.

P307.4.5.1.3 Bordered by a Curb. A curb ramp or transition that is constrained by a curb, on one or both sides, shall have a minimum width of 60 inches. Curbs shall run parallel to the direction of the ramp run. *[PROWAG Advisory R304.2.3]*

P307.4.5.2 Running Slope. The running slope of a ramp run for perpendicular or parallel curb ramps shall not exceed 1:12 (8.33%). The running slope for a blended transition shall not exceed 1:20 (5.0%). *[ADAS 406.1, CBC 11B-406.2.1, 11B-406.3.1, 11B-406.4.1. PROWAG R304.2.2, R304.3.2, R304.4.1]*

P307.4.5.3 Cross Slope. The cross slope of a ramp run, or blended transition shall not exceed 1:48 (2.083%). *[ADAS 406.1, CBC 11B-406.5.7, PROWAG R304.5.3]*

P307.4.6 Grade Breaks. Grade breaks shall not be located on ramp runs, landings, or turning spaces. Grade breaks shall only be located at the top and bottom of a ramp run and shall be oriented perpendicular to the direction of the ramp run. Surface slopes that meet at grade breaks shall be flush. *[PROWAG R304.5.2, CBC 11B-406.5.6]*

P307.4.6.1 Grade Breaks on Directional Non-Perpendicular Curb Ramps. Directional curb ramps that are not truly perpendicular to the curb face shall have the bottom perpendicular grade break behind the curb face. The grade break shall be located at the bottom end of the shorter side of the ramp run. This results in a triangular walking surface between the lower grade break and the curb face. The running slope of this triangular segment shall not exceed 1:20 (5.0%). The cross slope of this triangular segment shall not exceed 1:48 (2.083%).

P307.4.7 Flares.

P307.4.7.1 Location. The flared sides of curb ramps or blended transitions shall be located so they do not project into vehicular lanes, parking spaces, or parking access aisles. *[CBC 11B-406.5.1]*

P307.4.7.2 Slopes. Where provided, curb ramp flares shall not exceed 1:10 (10.0%) measured parallel to the curb line. *[ADAS 406.3, CBC 406.2.2, PROWAG R304.2.3]*

P307.4.8 Gutters.

P307.4.8.1 Slopes. The counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches of the curb ramp run, shall not exceed 1:20 (5.0%). Where a gutter is part of a maneuvering area, such as with skewed perpendicular or diagonal curb ramps, it shall comply with technical requirements for a maneuvering area. *[ADAS 406.2, CBC 11B-406.5.8, PROWAG R304.5.4]*

P307.4.8.2 Adjacent Surfaces at Transitions. The adjacent surfaces at curb transitions or curb ramps to sidewalks, walks, gutters, and roadways shall be flush. *[ADAS 406.2, CBC 11B-406.5.8, PROWAG R302.7.1]*

P307.4.9 Clear Space.

P307.4.9.1 Curb Ramps. Beyond the bottom grade break of a curb ramp, a clear space of 48 inches minimum by 48 inches minimum shall be provided within the width of the pedestrian street crossing and wholly outside the parallel vehicle travel lane. The clear space should be the width of the curb ramp run. *[PROWAG R304.5.5]*

P307.4.9.1.1 Diagonal or Shared Curb Ramps. The bottom of diagonal curb ramps shall have a clear space 48 inches minimum outside active traffic lanes of the roadway. At marked crosswalks, the 48 inches minimum clear space shall be within the markings. This clear space at diagonal or shared curb ramps requires pedestrians to turn to access crosswalks, therefore, this space is a maneuvering area and shall not exceed 2.083% slope in any direction. *[ADAS 406.6, CBC 11B-406.5.9, 11B-304.2]*

P307.4.10 Center Medians and Islands.

P307.4.10.1 Width. The clear width of the accessible route at center medians and islands shall be 60 inches or the same width as the crosswalk, whichever is greater. *[CBC 11B-406.6, PROWAG R302.3.1]*

P307.4.10.2 Slopes. The running slope shall not exceed 1:20 (5.0%) and the cross slope shall not exceed 1:48 (2.083%). *[CBC 11B-403.3, PROWAG R302.5.3, R302.6]*

P307.4.11 Detectable Warnings. Detectable warnings are required at curb ramps, transitions, and islands *[CBC 11B-406.5.12 & PROWAG R208.1]*. See section on Detectable Warnings for scoping and technical requirements.

P308 DETECTABLE WARNINGS

P308.1 Scoping.

Detectable warnings are used to communicate information to pedestrians with visual disabilities to identify the transition between the sidewalk and the street or other vehicular way such as a parking lot or controlled driveway. Detectable warnings shall meet the scoping requirements of CBC 11B-247.1

P308.1.1 Location. Detectable warnings are required at all curb ramps, blended transitions, islands, and cut-through medians, as well as alleys, driveways, and private streets where the vehicular traffic is controlled by a traffic signal. *[CBC 11B-247.1.2, PROWAG R208.1]*

Exception 1. Detectable warnings shall not be placed at alleys, driveways, and private streets where vehicular traffic is uncontrolled or is controlled by a stop or yield sign.

Exception 2. Detectable warnings shall not be placed on medians or islands less than 72 inches wide, as measured parallel to the direction of pedestrian travel from face of curb to face of curb. *[PROWAG R208.2]*

P308.2 Technical Requirements.

Detectable warnings shall meet the technical requirements of CBC 11B-705.1

P308.2.1 Type. Detectable warnings may be cast-in-place plates or panels, mortar-set paving units or tiles, or surface applied systems that are liquid resin or acrylic based with a base layer of minimal thickness. Detectable warning surfaces should be vehicle-load rated. All detectable warnings shall be installed as provided in the California Code of Regulations. *[CBC 11B-705.3]*

P308.2.2 Color and Contrast. Detectable warning surfaces shall provide a visual contrast with adjacent walking surfaces and shall be yellow and approximate FS 33538 of SAE AMS-STD-595A. *[CBC 11B-705.1.1.3.1]*

P308.2.3 Location.

P308.2.3.1 Perpendicular Curb Ramps. Detectable warnings at perpendicular curb ramps shall extend 36 inches in the direction of travel. Detectable warnings shall extend the full width of the ramp run less 2 inches maximum on each side, excluding any flared sides. Detectable warnings shall be located so the edge nearest the curb is 6 inches minimum and 8 inches maximum from the demarcation line at the face of the curb between the curb and the gutter, street, or highway. *[CBC 11B-705.1.2.2.1]*

P308.2.3.1.1 Directional Non-Perpendicular Curb Ramps. Detectable warnings shall also be placed on the triangular area between the lower grade break and the back of curb on directional non-perpendicular curb ramps. The 36 inches shall be measured where the lower grade break meets the zero-curb face. *[CBC 11B-705.1.2.2.1]*

P308.2.3.2 Parallel Curb Ramps. Detectable warnings at parallel curb ramps shall be in the turning space so the edge nearest the curb is 6 inches minimum to 8 inches maximum from the demarcation line at the face of the curb between the curb and the gutter, street, or highway. Detectable warnings shall extend the full width of flush transition of the turning space less 2 inches maximum on each side. *[CBC 11B-705.1.2.2.2]*

P308.2.3.2.1 One entrance/exit point. Where the turning space of a parallel curb ramp has one entrance/exit point other than the sloped ramp segments, detectable warnings shall be 36 inches deep, as measured perpendicular to the curb, and the turning space shall provide minimum 36 inches wide portion without detectable warnings to allow pedestrian travel in the direction of the sidewalk without traveling over detectable warnings. *[CBC 11B-705.1.2.2.2.1]*

Exception. Where it is technically infeasible to provide a minimum 72 inches wide turning space, as measured perpendicular to the curb, the depth of detectable warnings may be reduced to 24 inches minimum. Application for technical infeasibility must be submitted and approved (*See Technical Infeasibility P204.6*). *[CBC 11B-705.1.2.2.2.1]*

P308.2.3.2.2 Two entrance/exit points. Where the turning space of a parallel curb ramp has two entrance/exit points other than the sloped ramp segments detectable warnings shall be 36 inches deep at both entrance/exit points, as measured perpendicular to the curb, and the turning space shall provide a minimum 36 inches wide portion without detectable warnings to allow pedestrian travel in the direction of the sidewalk without traveling over the detectable warnings. *[CBC 11B-705.1.2.2.2.2]*

Exception. Where it is technically infeasible to provide a minimum 108 inches wide turning space, as measured perpendicular to the curb, the depth of detectable warnings may be reduced to 24 inches minimum. Application for technical infeasibility must be submitted and approved (See *Technical Infeasibility P204.6*). *[CBC 11B-705.1.2.2.2.2]*

P308.2.3.3 Blended Transitions. Detectable warnings at blended transitions shall be placed at the flush transition to the roadway (face of the zero curb). Detectable warnings shall extend the full length of the flush transition less 2 inches maximum on each side and shall have a minimum depth of 36 inches in the direction of travel, as measured perpendicular to the face of the curb. *[CBC 11B-705.1.2.5]*

P308.2.3.4 Center Medians and Islands. Pedestrian islands or cut-through medians greater than 72 inches in length measured in the direction of pedestrian travel shall have detectable warnings 36 inches in depth extending the full width of the pedestrian path or cut-through less 2 inches maximum on each side. Detectable warnings shall be placed at the edges of the pedestrian island or cut-through median and shall be separated by 24 inches minimum of walking surface without detectable warnings. *[CBC 11B-705.1.2.3]*

Exception. Where pedestrian islands or cut-through medians are less than 96 inches in length measured in the direction of pedestrian travel, detectable warnings shall be equally reduced from 36 inches to no less than 24 inches in depth to provide a clear space of 24 inches between the detectable warning surfaces. *[CBC 11B-705.1.2.3 Exception]*

P308.2.4 Clear Ground Space. Detectable warning surfaces shall not be permitted within clear ground spaces, such as adjacent to pedestrian push buttons and other maneuvering spaces along a circulation path. *[CBC 11B-304.2]*

P309 CROSSINGS AND CROSSWALKS

P309.1 Overview.

The portion of the roadway included within a crosswalk is a pedestrian facility that shall comply with the Governing Standards applicable to pedestrian walking surfaces. Per the CBC 11B-206.2.19, pedestrian street crossings shall comply with accessible routes (11B-206.1) and pedestrian walking surfaces as noted in Division 4, section 11B-403.

P309.2 Scoping.

Streets, intersections, and sidewalks shall be configured and designed for maximum connectivity for safe and convenient pedestrian travel. New crosswalks may be controlled through the design of streets, intersections, and sidewalks if all other requirements and guidelines for the provision of pedestrian facilities have been satisfied. It is the responsibility of the proposing party to demonstrate sufficient pedestrian access and connectivity to the satisfaction of the City of Chino. This determination shall be made by the Accessibility Coordinator and City Engineer. *[CMC 19.06.040(B)(7), CVC 21949(a)]*

P309.3 Crosswalks at Intersections.

Crosswalks are created at intersections by the connection of sidewalks across roadways or as marked by crosswalk markings. Crosswalks at intersections may be unmarked or marked. Intersections such as four-legged ("X") and three-legged ("T") configurations, shall have crosswalks at all legs of the intersection. City may prohibit crossing at a legal crosswalk in accordance with applicable law. *[CVC 275]*

P309.3.1 Crosswalks Leading to Unprepared Surfaces. Where the boundaries of sidewalks extend across an intersection and create a crosswalk, curb ramps shall be provided where the sidewalk or walk crosses the curb on the initiating side of the crosswalk. Curb ramps may also be required on the receiving side of a crosswalk where there is no prepared pedestrian walking surface. *[28 CFR 35.151(i), CVC 275]*

P309.3.1.1 Signalized Intersection. If the intersection is signalized, a curb ramp and pedestrian refuge shall be provided on the receiving side of the crosswalk, where there is no prepared pedestrian surface. This curb ramp and pedestrian refuge shall provide access to pedestrian push buttons. *[CA-MUTCD 4E.08-03 & 04]*

P309.3.1.2 Unsignalized Intersection. If the intersection is unsignalized, curb ramps are not required on the receiving side of the crosswalk where there is no prepared pedestrian surface. *[DOJ/DOT Joint Technical Assistance on Title II]*

P309.4 Crosswalks at Midblock.

Any portion of the roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface that is not located at an intersection is a midblock crossing. Crosswalks located at midblock shall be marked. *[CA-MUTCD 3B.18-03]*

P309.5 Pedestrian Crossing Restrictions.

Pedestrian crossing restrictions shall not be used to circumvent the requirement to provide accessible features in the PROW and shall not result in discrimination against the disabled community. If crossing is prohibited, “No Pedestrian Crossing” signs shall be provided along with detectable features and physical barriers. *[28 CFR 35.101(a), CVC 275, PROWAG R206 Advisory]*

P309.6 Technical Requirements.

P309.6.1 Width. The full width of all crosswalks shall comply with the accessibility requirements for pedestrian walking surfaces.

P309.6.1.1 Marked Crosswalks. Marked crosswalks shall be a minimum of six feet wide inside the markings but are preferred to be marked at 10 feet wide. The full clear width inside the crosswalk shall comply with all accessibility requirements. Design, location, and layout of marked crosswalks shall be approved by the City Traffic Engineer prior to installation. *[CA-MUTCD 3B.18-05 & 07]*

Exception. In alterations, if there are areas within the marked crosswalk that are outside the direct path of travel of the ramp run width that are not able to comply with the accessibility requirements for pedestrian walking surfaces, a determination of the usability of the facility may be made by the Accessibility Coordinator and the City Engineer. This exception does not apply to alterations of crosswalks of shared use paths.

P309.6.1.2 Unmarked Crosswalks. Unmarked crosswalks shall have a minimum clear width of the sidewalk or walk that created it that complies with accessibility requirements. *[CVC 275]*

P309.6.1.3 Crosswalks at Shared Use Paths. Crosswalks that serve shared use paths shall be the full width of the path leading to it. *[PROWAG Supplemental R304.5.1.2]*

P309.6.2 Slopes. All crosswalks shall comply with the accessibility requirements for slopes of pedestrian walking surfaces. *[CBC 11B-403.3]*

P309.6.2.1 Running Slope. The maximum running slope of a crosswalk, as measured in the direction of pedestrian travel, shall not exceed 1:20 (5.0%). *[CBC 11B-403.3]*

P309.6.2.2 Cross Slope. The maximum cross-slope of a crosswalk, as measured perpendicular to the direction of pedestrian travel, shall not exceed 1:48 (2.083%). *[CBC 11B-403.3]*

P309.6.2.2.1 Maneuvering Areas within Crosswalks. The portion of the roadway where a pedestrian is required to maneuver or turn to stay safely within the crosswalk is a maneuvering area. *See Technical Requirements for Maneuvering Areas*

P309.6.2.2.2 Marked Crosswalks with Changes in Directions. Marked crosswalks that change directions contain maneuvering areas. *See Technical Requirements for Maneuvering Areas*

P309.6.3 Striping. The clear width of the crosswalk shall have no conflicting traffic control markings within it, other than the markings identifying the crosswalk itself. *[CA-MUTCD 3A.02-04]*

P309.6.3.1 Crosswalks at Intersections. Crosswalks at intersections may be marked or unmarked. Unmarked crosswalks shall not have changes in direction. *[CVC 275]*

P309.6.3.2 Marked Crosswalks. Marked crosswalks shall follow the Governing Standards in CA-MUTCD Section 3B.18. Crosswalks at midblock locations shall be marked. *[CVC 275]*

P309.6.4 Obstructions. The full width of the crosswalks shall have no obstructions lower than 84 inches for its full length. *[CBC 11B-307.4, CA-MUTCD 2A.18-07]*

P309.7 Pedestrian Push Buttons and Accessible Pedestrian Signals.

Pedestrian push buttons (PPB) and accessible pedestrian signals (APS) shall be accessible for all users and shall comply with the requirements of the CA-MUTCD Sections 4E.08 through 4E.13, CBC 11B-309 and PROWAG R403, R404 and R406.

P309.7.1 Operation. PPB installed as part of a new construction, alteration, or maintenance project shall be capable of being operated with a closed fist, without grasping or twisting. *[CBC 11B-309.4, PROWAG R403.4]*

P309.7.1.1 Remediation of Non-Compliant PPB. “Thumb” buttons that require a pedestrian to use a fingertip to activate the button shall be replaced with an accessible PPB whenever maintenance, alterations, or repairs are performed that affect the PPB or its support pole. *[CBC 11B-202.3.1, 11B-309.4]*

P309.7.2 Height. PPB shall be installed so the top of the button is between 36 inches and 48 inches above the adjacent finished ground surface. *[CBC 11B-309.3, 11B-308.2.1, 11B-308.3.1]*

P309.7.3 Location.

P309.7.3.1 PPB Distance from Curb Face. The PPB shall be located between three feet and six feet from the edge of the curb. *[CA-MUTCD 4E.08-04D]*

Exception. Where the configuration of the existing improvements prevents the PPB from being installed within six feet of the edge of the curb, the PPB should not be located farther than 10 feet from the edge of the curb, shoulder, or pavement. *[CA-MUTCD 4E.08-06]*

P309.7.3.2 PPB Distance from Crosswalk. The PPB shall be located no further than 5 feet from the extension of the crosswalk line, or the longitudinal boundary of the crosswalk, that is located farthest from the center of the intersection. *[CA-MUTCD 4E.08-04C]*

P309.7.3.2.1 Mid-Block Crosswalks. At mid-block crossings, the PPB should be located on the right-hand side of the crosswalk as oriented in the direction of pedestrian travel.

P309.7.3.3 PPB Spacing from Other PPB.

P309.7.3.3.1 Duplicate and Redundant PPB. Only one PPB per user group and per direction of travel shall be mounted on a single pole. *[CA-MUTCD 4E.08-07]*

P309.7.3.3.2 PPB for Different Directions of Travel. Multiple PPB that activate pedestrian phases in different directions at a single corner or location shall have a minimum separation distance of 10 feet. PPB for different directions of travel shall not be placed on a single pole. *[CA-MUTCD 4E.08-07]*

Exception 1. If physical constraints that make it impractical to provide 10 feet separation between two PPB, the pushbuttons may be placed closer together or on the same pole. *[CA-MUTCD 4E.08-08]*.

Exception 2. If APS is closer than 10 feet or located on the same pole, requirements for tone, tactile arrows, and verbal messages shall comply with CA-MUTCD Sections 4E.11 through 4E.13. *[CA-MUTCD 4E.10-03]*

P309.7.3.3 PPB for Different User Groups. Multiple PPB that activate the traffic signal for different users (bicycle, equestrian), are not required to comply with the requirement for minimum separation distances and may be mounted on a common pole. This applies to the same or different crossing directions.

P309.7.4 Orientation. The operable face of the PPB shall be oriented parallel to the crosswalk direction-of-travel which the PPB serves. *[CA-MUTCD 4E.08-04]*

P309.7.5 Clear Ground Space. A clear ground space shall be provided at each PPB. *[CBC 11B-205.1, 11B-309.2, PROWAG R404.1]*

P309.7.5.1 Dimensions. The clear ground space shall be no less than 30 inches by 48 inches in size. Clear ground spaces may overlap landings, maneuvering spaces, and accessible routes. *[CBC 11B-305.3, 11B-305.6, PROWAG R404.3]*

P309.7.5.2 Slopes. Clear ground spaces shall have slopes less than 2.083% (1:48) in all directions. *[CBC 11B-305.2]*

P309.7.5.3 Surface. Changes in level are prohibited on the surface of the clear ground space. *[CBC 11B-305.2]*

P309.7.5.3.1 Overlap with Detectable Warnings. Clear ground spaces shall not overlap or contain a detectable warning surface. *[CBC 11B-305.2]*

P309.7.5.4 Approach. The clear ground space may be positioned for either a forward approach to the face of the PPB, or for a parallel (side) approach to the face of the PPB. *[CBC 11B-305.5, PROWAG R404.5]*

P309.7.5.4.1 Forward Approach. The 30-inch-wide leading edge of the clear space at a forward approach shall abut the face of the PPB. *[CBC 11B-308.2]*

P309.7.5.4.1.1 Distance Between PPB and Clear Ground Space. No obstruction or distance between the edge of the clear space at a forward approach and the operable portion of the PPB is permitted. *[CBC 11B-308.2.1, PROWAG R406.2]*

P309.7.5.4.1.2 Position of PPB to Clear Ground Space. The PPB may be located anywhere within the 30-inch leading edge of the clear space at the forward approach. The clear ground space is not required to be on the curb ramp side of the pole.

P309.7.5.4.2 Parallel or Side Approach. The 48-inch side of the clear ground space at a parallel, or side, approach shall be parallel to the face of the PPB. *[CBC 11B-308.3]*

P309.7.5.4.2.1 Distance Between PPB and Clear Ground Space. An obstruction less than 10 inches in depth and less than 34 inches in height, is permitted between the 48-inch side of the clear space at a side approach and the face of the PPB. A PPB may be placed within a non-walking surface or curb ramp flare or be separated from the clear space by a curb if the distance between the face of the PPB and the clear space is less than 10 inches. *[CBC 11B-308.3.1 Exception 1, 11B-308.3.2, PROWAG R406.3]*

P309.7.5.4.2.2 Position of PPB to Clear Ground Space. The PPB may be located anywhere within the 48-inch side of the clear space of a parallel approach; however, it should be located within the forward 36-inches of the space for ease of use. The clear ground space is not required to be on the curb ramp side of the pole.

P309.8 Pedestrian Crossing Time.

Pedestrian crossing time shall be calculated by the walk and pedestrian change intervals in accordance with CA-MUTCD Section 4E.06 and shall be based on a pedestrian clearance time that is calculated using a pedestrian walking speed of 3.5 feet per second or less *[PROWAG R306.2]*.

APPENDIX A: EXHIBITS

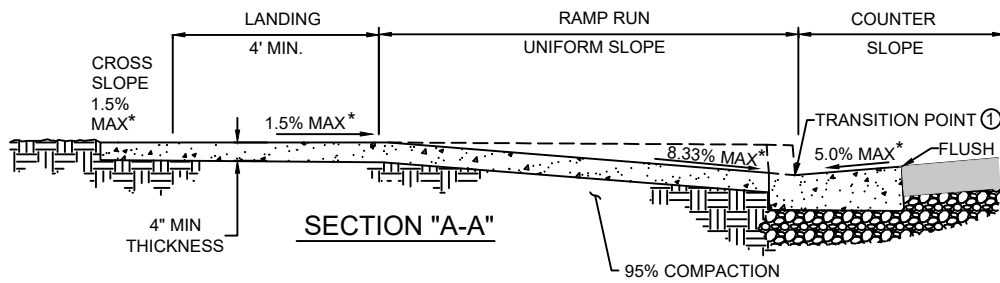
Curb Ramps and Accessibility Exhibits. Curb ramp standard drawings are directly from the most recent update of the City of Chino Standard Specifications and Standard Drawings. Accessibility exhibits are provided as a visual reference and guide for technical specifications of certain accessibility components. Updates to these exhibits may be made as needed to illustrate specifications more clearly.

1. Curb Ramp Notes
2. Curb Ramp Directional Perpendicular
3. Curb Ramp Directional Non-Perpendicular
4. Curb Ramp Parallel
5. Curb Ramp Blended Transition
6. Curb Ramp Skewed Perpendicular
7. Curb Ramp Diagonal
8. ADA Exhibit – Maneuvering Space Curb Ramps, Intersection Corners and Crosswalks
9. ADA Exhibit – Pedestrian Push Button Locations
10. ADA Exhibit – Clear Ground Space at Pedestrian Push Buttons
11. ADA Exhibit – Accessible On-Street Parking – Parallel Car Space
12. ADA Exhibit – Accessible On-Street Parking – Parallel Van Space

GENERAL CURB RAMP NOTES

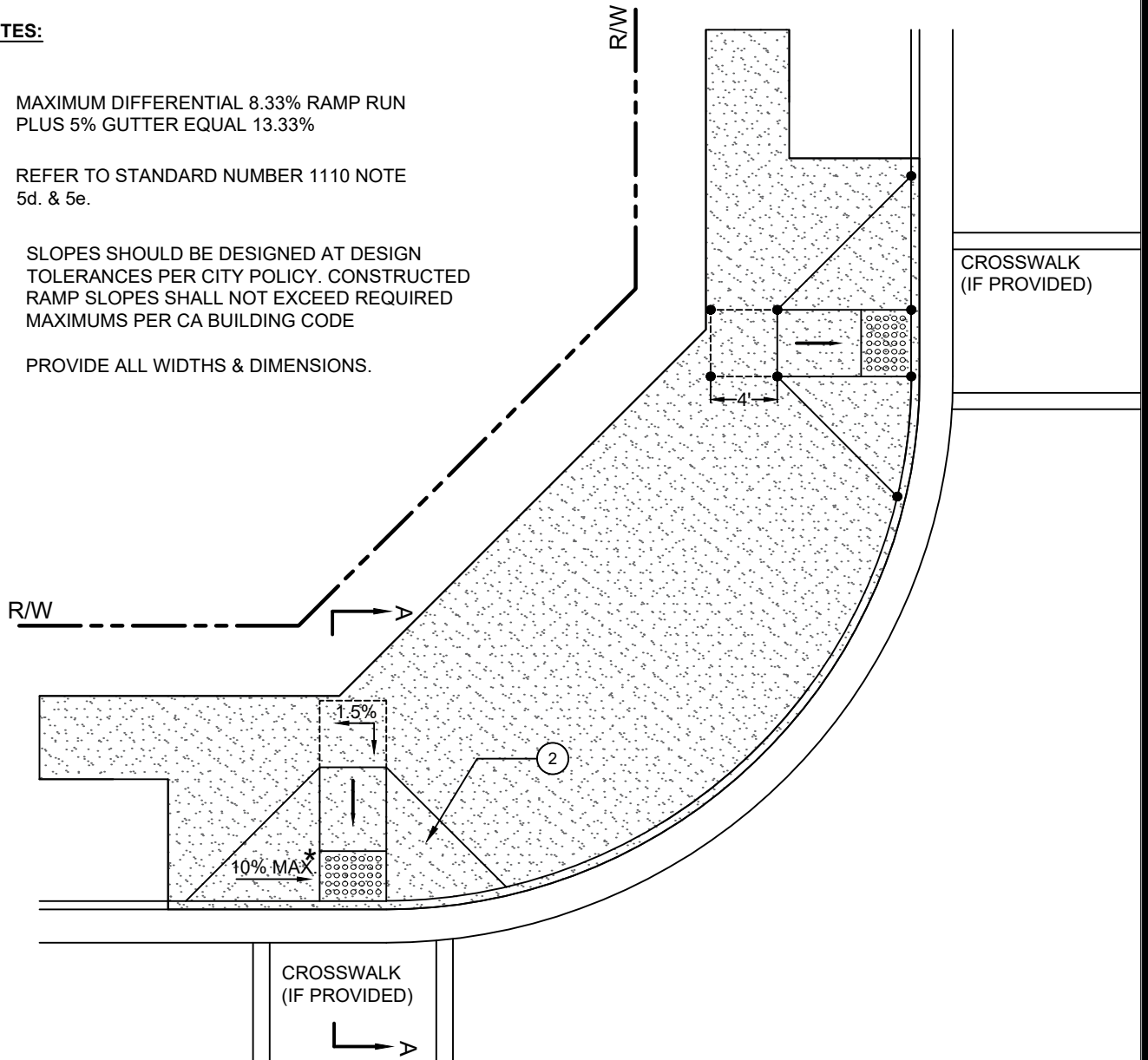
1. A CURB RAMP IS REQUIRED FOR EACH CROSSWALK AT AN INTERSECTION, WHETHER MARKED OR UNMARKED, AS WELL AS MID-BLOCK CROSSWALKS.
2. OPPOSING CURB RAMPS AT A SINGLE CROSSING SHOULD LINE UP TO THE MAXIMUM EXTENT FEASIBLE. ALIGN THE CURB RAMP WITH THE CROSSWALK SO THERE IS A STRAIGHT PATH OF TRAVEL FROM THE TOP OF THE RAMP TO THE CURB RAMP ON THE OTHER SIDE.
3. PULL BOXES, MANHOLES, VAULTS, AND OTHER UTILITIES SHALL BE RELOCATED OUTSIDE OF CURB RAMP RUN AND MANEUVERING AREAS.
4. UTILITY POLES MAY BE INCORPORATED INTO THE FLARES OF THE CURB RAMP PROVIDED THAT THE REQUIRED ACCESSIBLE ROUTE WIDTH IS COMPLIANT.
5. RETAINING CURBS:
 - a. THE ENTIRE PORTION OF THE RETAINING CURB SHALL BE IN THE PUBLIC R.O.W OR IN THE PEDESTRIAN EASEMENT.
 - b. INSTALL A RETAINING CURB AT THE BACK OF THE CURB RAMP IF NOT ABLE TO GRADE EXISTING SLOPE AT A 3:1 RATIO OR FLATTER WITHIN THE R.O.W.
 - c. THE FRONT OF THE RETAINING CURB SHALL BE IN LINE WITH THE BACK OF THE SIDEWALK. TAPER THE BACK OF THE SIDEWALK WITHIN THE TRANSITION AREA OR TO THE NEXT JOINT, WHICHEVER IS GREATER.
 - d. IN LIEU OF A FLARE, A VERTICAL CURB MAY BE USED ADJACENT TO THE CURB RAMP WHERE PEDESTRIANS WOULD NOT NORMALLY WALK ACROSS THE RAMP.
 - e. WHEN A CURB RAMP IS BORDERED BY A CURB, THERE SHALL BE A NON-WALKABLE SURFACE ADJACENT TO THE RETURN CURB, SUCH AS LANDSCAPE OR COBBLE. THE NON-WALKABLE SURFACE SHALL BE 2' WIDE SO IT DOES NOT CREATE A TRIPPING HAZARD IN THE CIRCULATION PATH.
6. GRADE BREAKS AT THE TOP AND BOTTOM OF THE CURB RAMPS SHALL BE PERPENDICULAR TO THE DIRECTION OF THE RAMP RUN. GRADE BREAKS SHALL NOT BE PERMITTED ON THE SURFACE OF RAMP RUNS AND TURNING SPACES. SURFACE SLOPES THAT MEET AT GRADE BREAKS SHALL BE FLUSH.
7. PONDING IS NOT ALLOWED WITHIN THE CURB RAMP LIMITS, AND THE DRAINAGE PATTERN SHALL NOT BE ALTERED. REFER TO HYDROLOGY DESIGN GUIDELINES.
8. THE ADJUSTMENT OF THE CROSS SLOPE AT THE RAMP OPENING SHALL NOT CAUSE GUTTER TRICKLE FLOW TO SPILL ONTO TRAVELLED LANES OR PONDING ANYWHERE. REFER TO HYDROLOGY DESIGN GUIDELINES.
9. TRANSITIONS FROM RAMPS TO WALKS AND SIDEWALK GUTTER OR STREET SURFACE SHALL BE FLUSH AND AT THE SAME LEVEL. PAVEMENT AT THE STREET SURFACE SHALL BE MILLED TO ACHIEVE A FLUSH CONDITION.
10. CURB RAMPS WITH MANEUVERING SPACE AT THE BOTTOM (SKEWED PERPENDICULAR AND DIAGONAL CURB RAMPS) SHALL HAVE A 4' MINIMUM CLEAR SPACE BEYOND THE BOTTOM OF THE GRADE BREAK WITHIN THE PEDESTRIAN STREET CROSSING AND WHOLLY OUTSIDE THE TRAFFIC LANES OF THE ROADWAY (BOTH VEHICULAR AND BICYCLE LANES).
11. CURB RAMP AND FORM WORK SLOPES SHALL BE CHECKED WITH A PROPERLY CALIBRATED DIGITAL LEVEL OF AN APPROPRIATE LENGTH (FOUR-FOOT OR TWO-FOOT). NO PORTION OF A RAMP RUN SHALL EXCEED THE MAXIMUM SLOPE REQUIREMENT.
12. THE SLOPE OF THE RAMP SHALL BE UNIFORM ALONG EACH RAMP RUN. SLOPES GREATER THAN 1:20 (5%) SHALL COMPLY WITH REQUIREMENTS FOR RAMPS PER ADAAG, 4.3.7.
13. THE CROSS SLOPE OF THE RAMP SHALL BE MEASURED PERPENDICULARLY TO THE DIRECTION OF TRAVEL.
14. RAMP FLARES SHALL BE MEASURED PARALLEL TO THE CURB OR PERPENDICULAR TO THE RAMP RUN.
15. THE EXISTING CONCRETE SPANDREL OF A CROSS GUTTER SHALL BE REMOVED AND REPLACED IN ITS ENTIRETY AS PART OF THE CURB RAMP INSTALLATION SHOULD IT BE NON-COMPLIANT WITH ACCESSIBILITY REQUIREMENTS AND/OR REQUIRE RECONSTRUCTION BASED ON ITS CONDITION AS DETERMINED BY THE CITY ENGINEER.
16. DETECTABLE WARNING TILES SHALL BE LOCATED SO THE EDGE NEAREST THE CURB IS 6" MINIMUM AND 8" MAXIMUM FROM THE LINE AT THE FACE OF THE CURB AND SHALL BE 3' DEEP. DETECTABLE WARNING SHALL NOT INTERFERE OR OVERLAP WITH ANY CLEAR GROUND SPACE.

APPROVED <u>Amel Olher</u> 07-21-2022			CITY OF CHINO	
CITY ENGINEER			ENGINEERING DIVISION	
DATE	REVISION	BY	STANDARD DRAWING	NO.
			CURB RAMP NOTES	1110

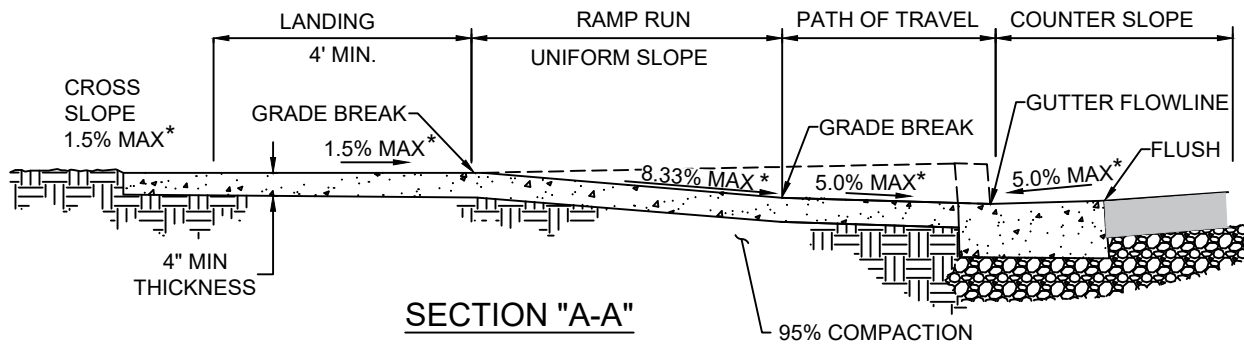


NOTES:

- ① MAXIMUM DIFFERENTIAL 8.33% RAMP RUN PLUS 5% GUTTER EQUAL 13.33%
- ② REFER TO STANDARD NUMBER 1110 NOTE 5d. & 5e.
- * SLOPES SHOULD BE DESIGNED AT DESIGN TOLERANCES PER CITY POLICY. CONSTRUCTED RAMP SLOPES SHALL NOT EXCEED REQUIRED MAXIMUMS PER CA BUILDING CODE
- PROVIDE ALL WIDTHS & DIMENSIONS.

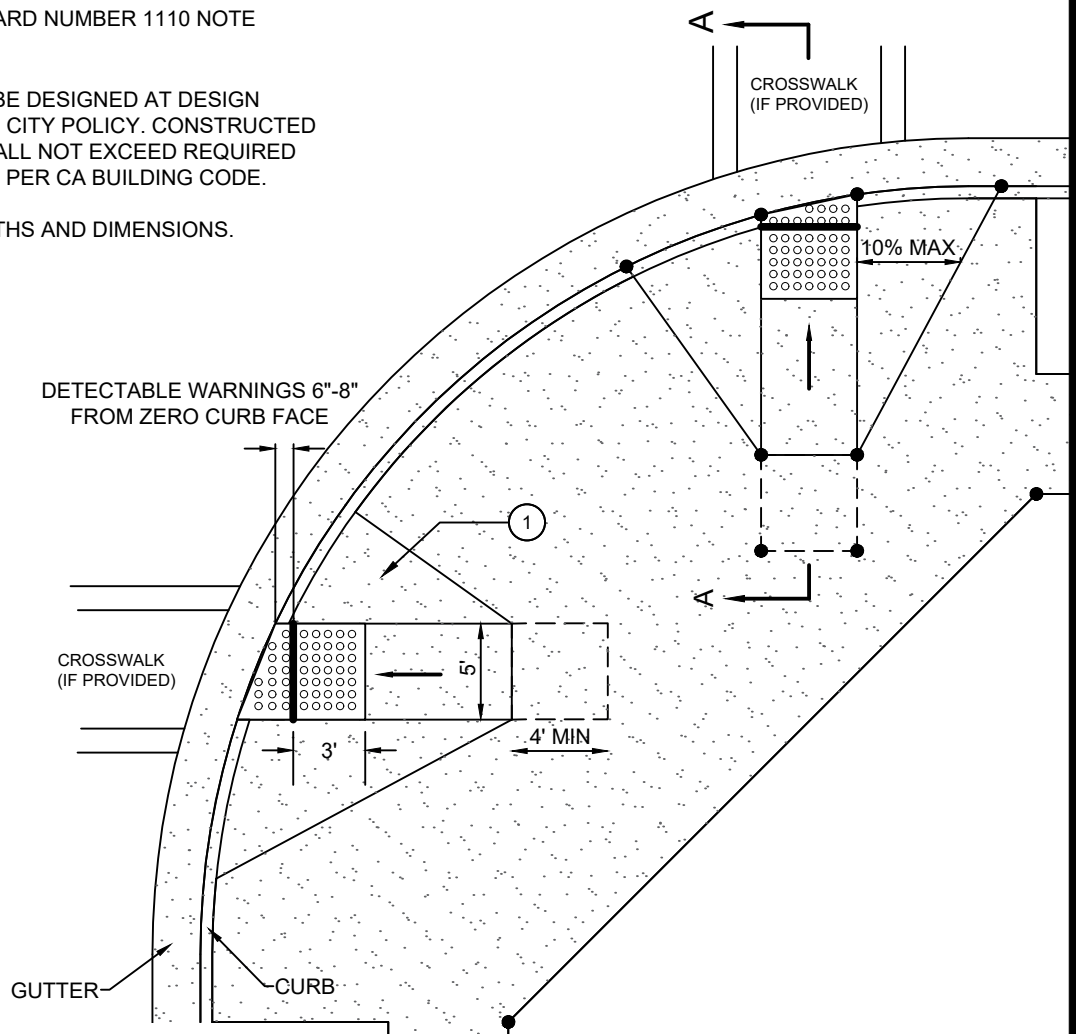


APPROVED <u>Amel Olher 07-21-2022</u>			CITY OF CHINO	
CITY ENGINEER DATE			ENGINEERING DIVISION	
DATE	REVISION	BY	STANDARD DRAWING	NO.
			CURB RAMP DIRECTIONAL PERPENDICULAR	1111



NOTES:

- ① REFER TO STANDARD NUMBER 1110 NOTE 5D. & 5E.
- * SLOPES SHOULD BE DESIGNED AT DESIGN TOLERANCES PER CITY POLICY. CONSTRUCTED RAMP SLOPES SHALL NOT EXCEED REQUIRED SLOPE MAXIMUMS PER CA BUILDING CODE.
- PROVIDE ALL WIDTHS AND DIMENSIONS.
- ▬ GRADE BREAK.



APPROVED *Amel Olher* 07-21-2022
CITY ENGINEER DATE

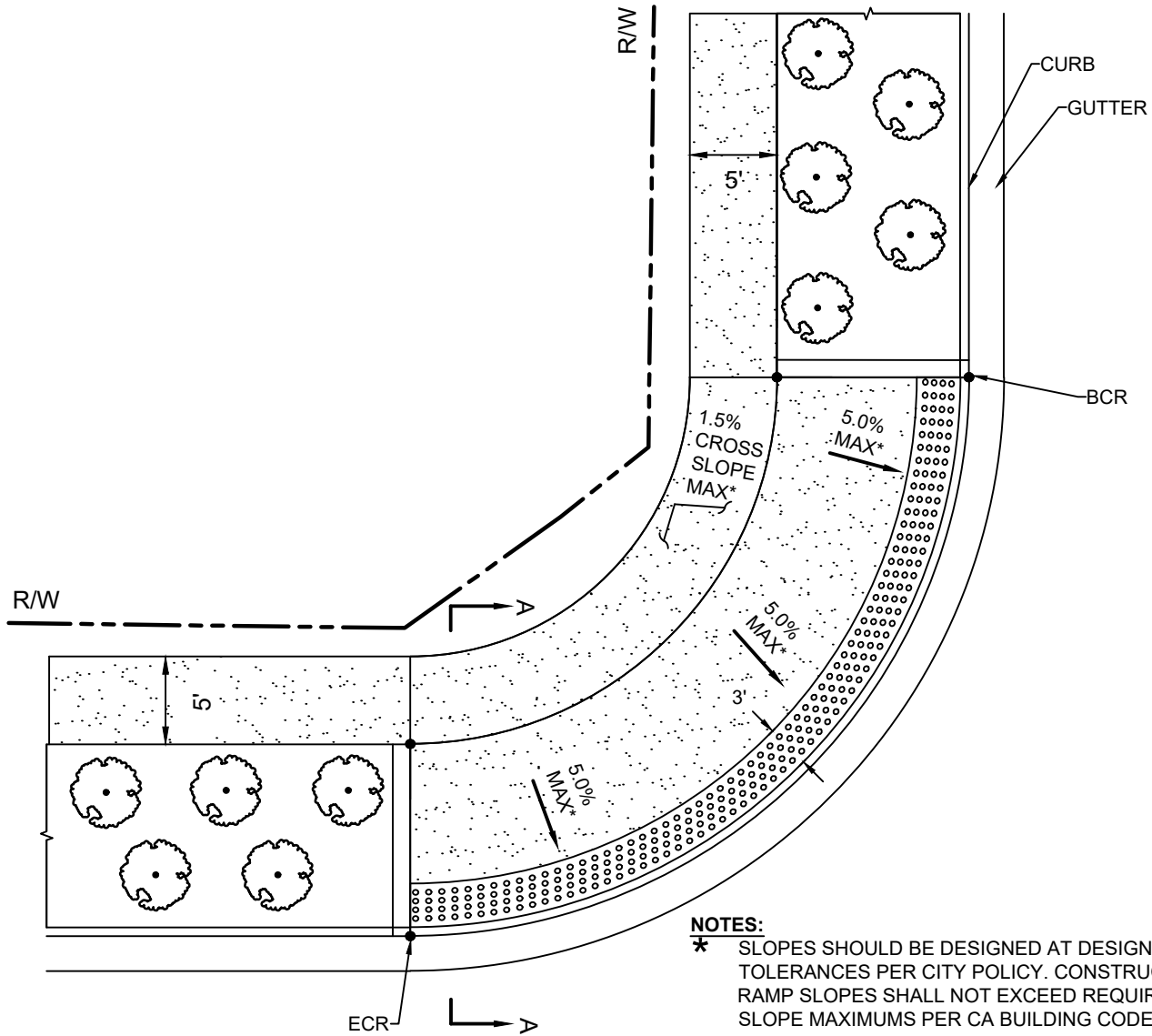
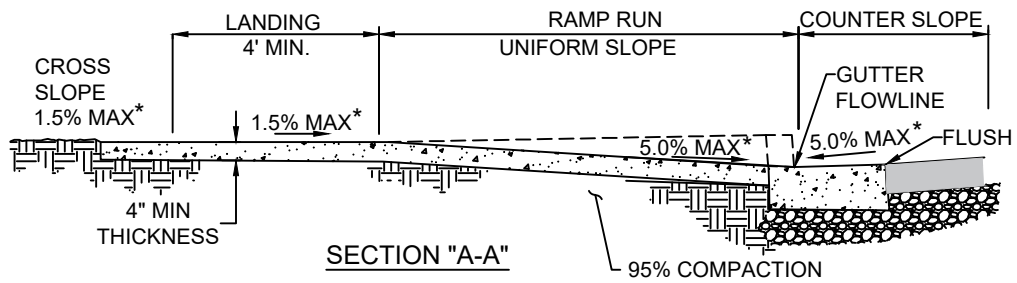
**CITY OF CHINO
ENGINEERING DIVISION**

DATE	REVISION	BY

STANDARD DRAWING	NO.
CURB RAMP DIRECTIONAL NON- PERPENDICULAR	1112



APPROVED <u>Amel Wilher</u> <u>07-21-2022</u> CITY ENGINEER DATE			CITY OF CHINO ENGINEERING DIVISION	
DATE	REVISION	BY	STANDARD DRAWING	NO.
			CURB RAMP PARALLEL	1113



NOTES:

* SLOPES SHOULD BE DESIGNED AT DESIGN TOLERANCES PER CITY POLICY. CONSTRUCTED RAMP SLOPES SHALL NOT EXCEED REQUIRED SLOPE MAXIMUMS PER CA BUILDING CODE.

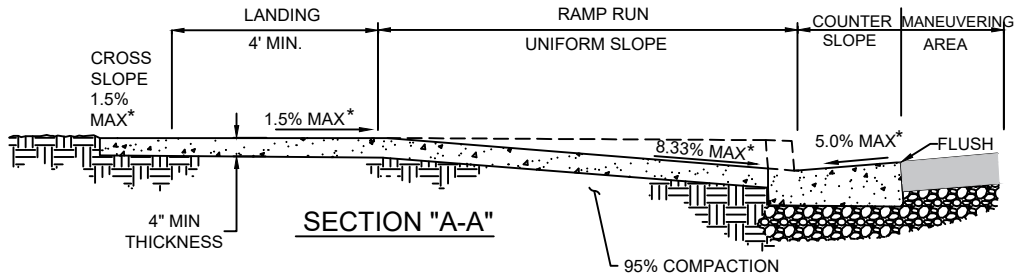
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APPROVED *Amel Olher* 07-21-2022
CITY ENGINEER DATE

**CITY OF CHINO
ENGINEERING DIVISION**

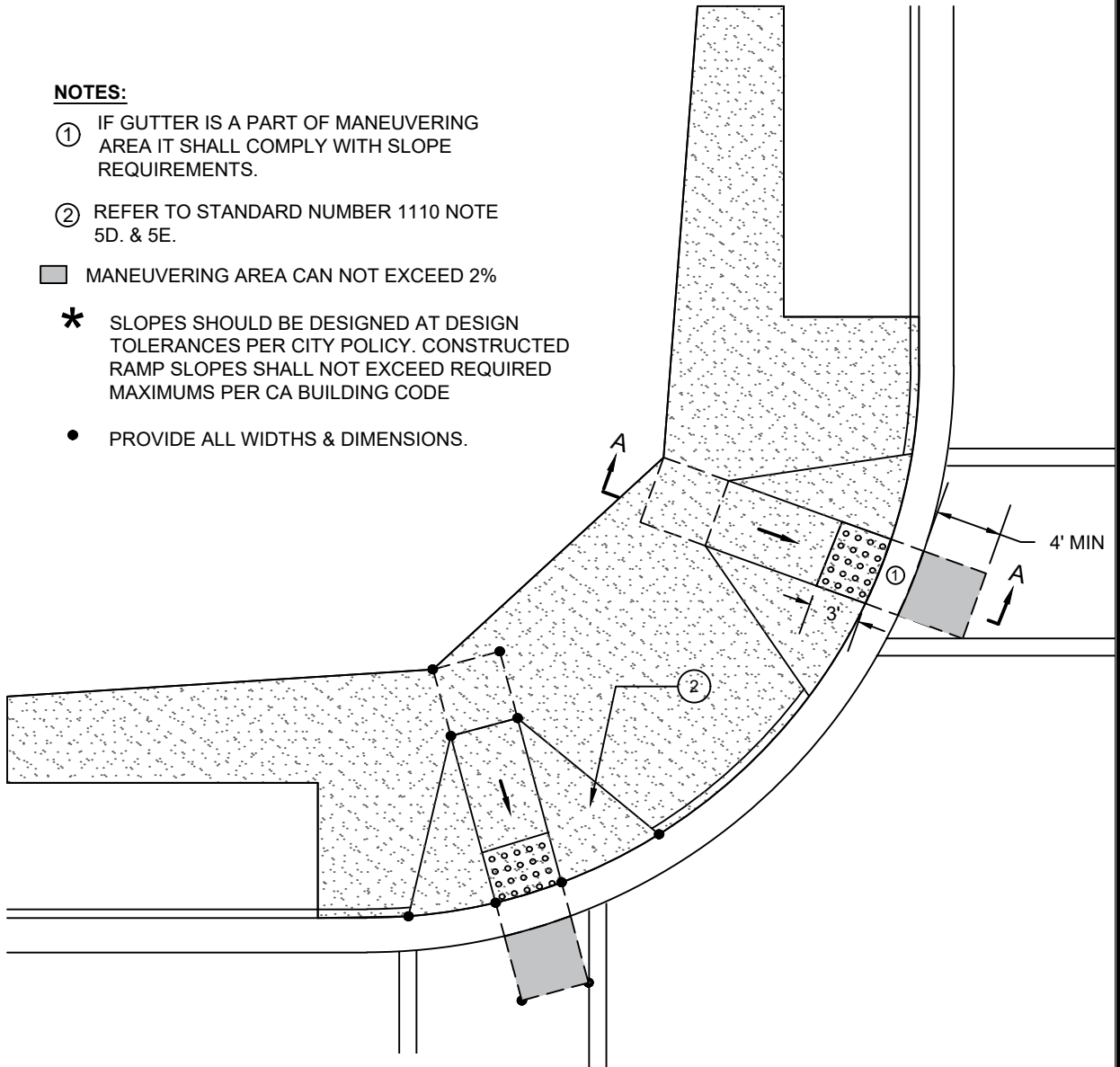
DATE	REVISION	BY

STANDARD DRAWING	NO.
CURB RAMP BLENDED TRANSITION	1114

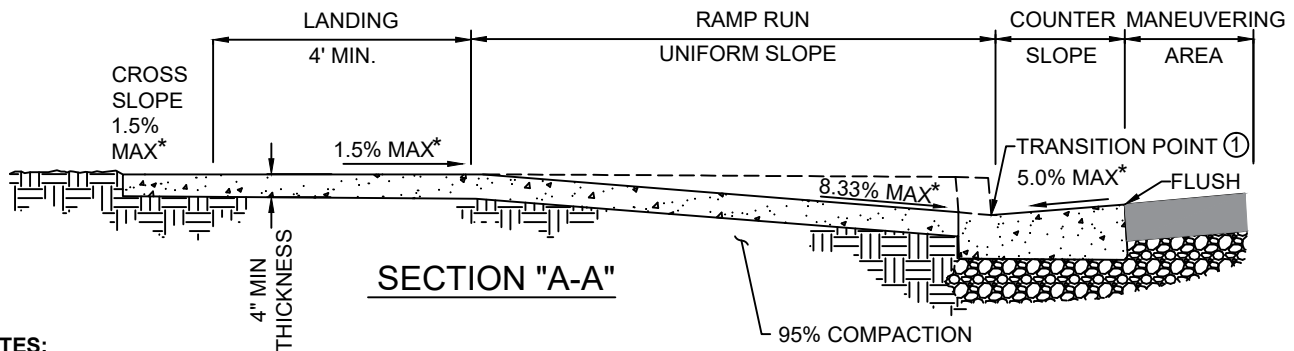


NOTES:

- ① IF GUTTER IS A PART OF MANEUVERING AREA IT SHALL COMPLY WITH SLOPE REQUIREMENTS.
 - ② REFER TO STANDARD NUMBER 1110 NOTE 5D. & 5E.
- MANEUVERING AREA CAN NOT EXCEED 2%
- * SLOPES SHOULD BE DESIGNED AT DESIGN TOLERANCES PER CITY POLICY. CONSTRUCTED RAMP SLOPES SHALL NOT EXCEED REQUIRED MAXIMUMS PER CA BUILDING CODE
- PROVIDE ALL WIDTHS & DIMENSIONS.

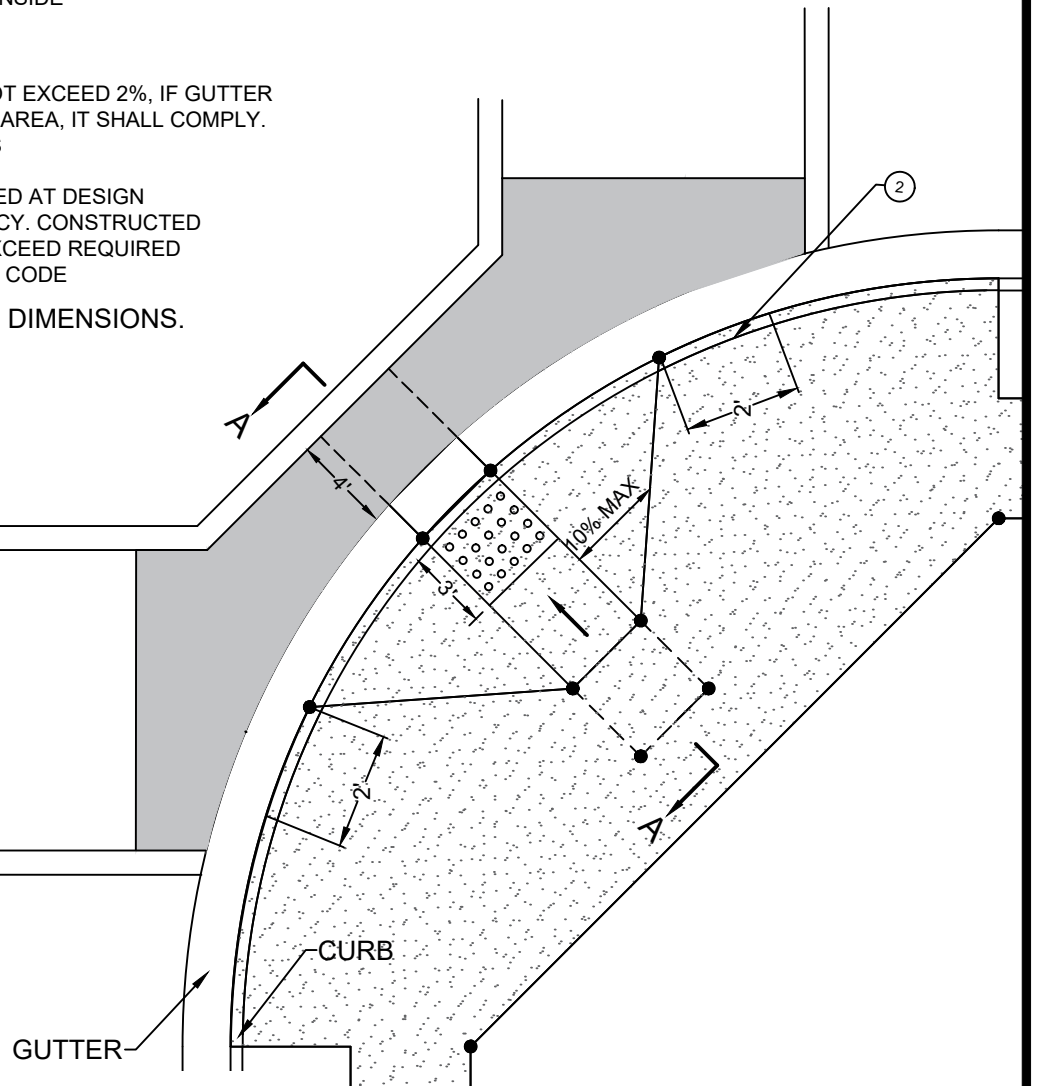


APPROVED <i>Amel Olher</i> 07-21-2022			CITY OF CHINO ENGINEERING DIVISION	
CITY ENGINEER DATE				
DATE	REVISION	BY	STANDARD DRAWING	NO.
			CURB RAMP SKEWED PERPENDICULAR	1115



NOTES:

- ① MAXIMUM DIFFERENTIAL 8% RAMP RUN PLUS 5% GUTTER EQUAL 13%
- ② SHALL HAVE 2-FT. STEP OFF INSIDE MARKED CROSSING.
- MANEUVERING AREA CAN NOT EXCEED 2%, IF GUTTER IS A PART OF MANEUVERING AREA, IT SHALL COMPLY WITH SLOPE REQUIREMENTS
- * SLOPES SHOULD BE DESIGNED AT DESIGN TOLERANCES PER CITY POLICY. CONSTRUCTED RAMP SLOPES SHALL NOT EXCEED REQUIRED MAXIMUMS PER CA BUILDING CODE
- PROVIDE ALL WIDTHS & DIMENSIONS.

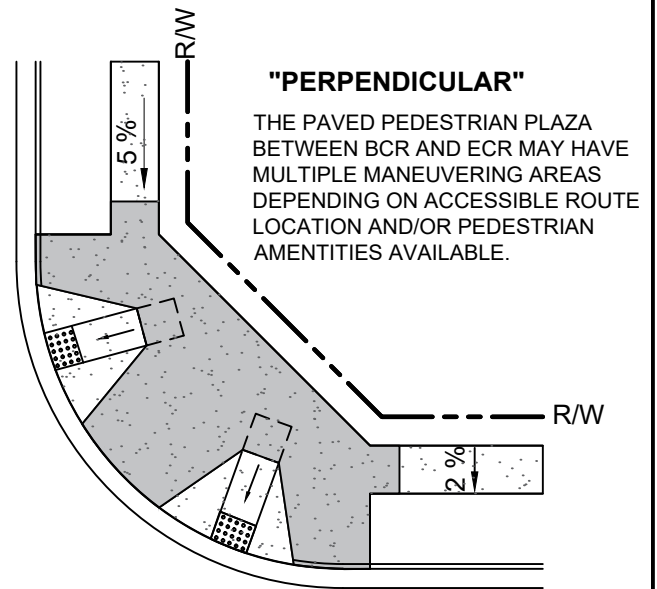
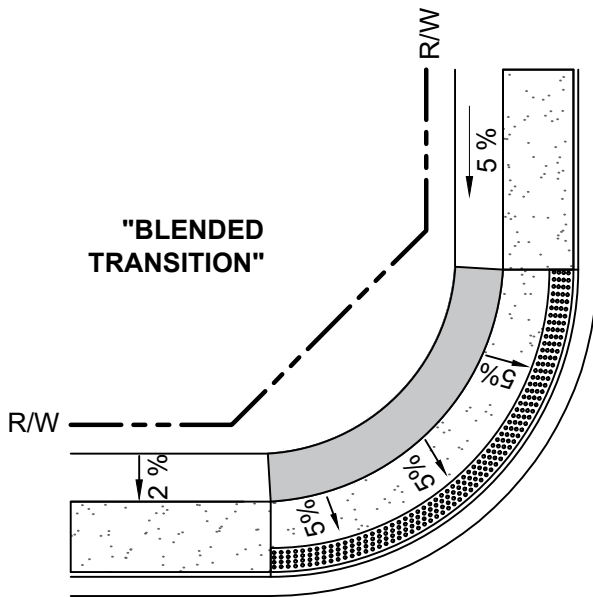


APPROVED *Anna Olher* 07-21-2022
CITY ENGINEER DATE

**CITY OF CHINO
ENGINEERING DIVISION**

DATE	REVISION	BY

STANDARD DRAWING	NO.
CURB RAMP DIAGONAL	1116

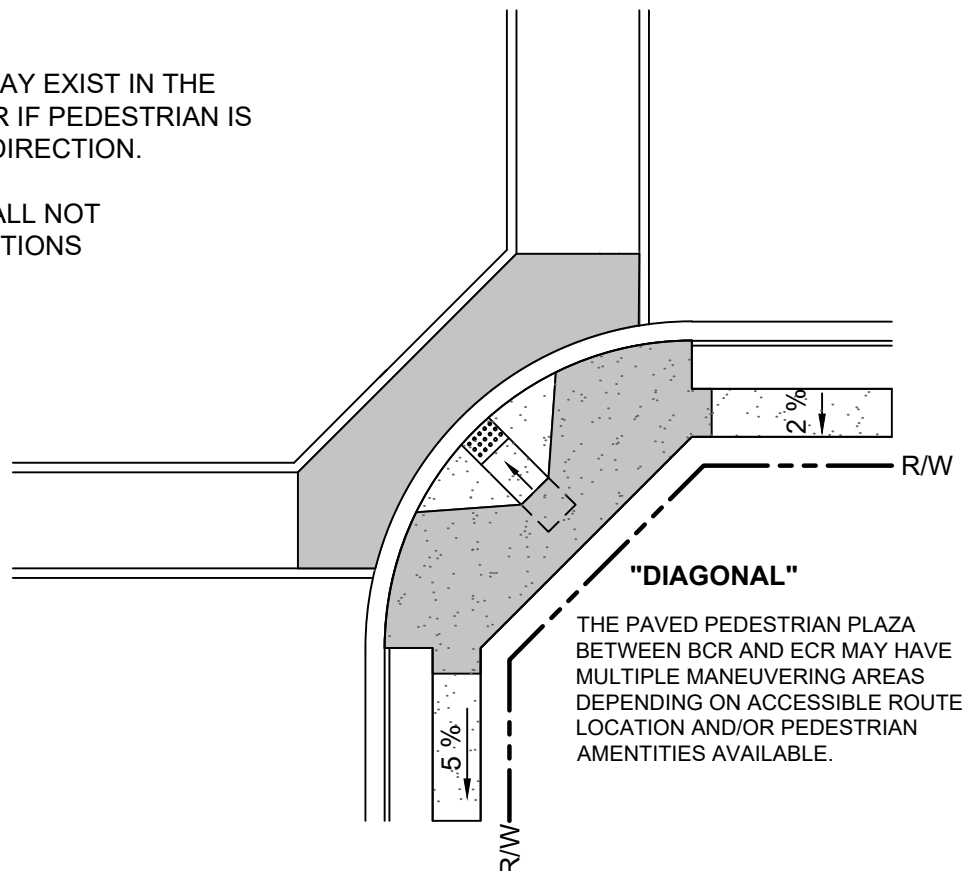
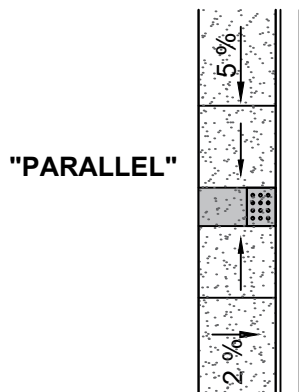


NOTE:

- * MANEUVERING AREAS MAY EXIST IN THE CROSSWALK OR GUTTER IF PEDESTRIAN IS REQUIRED TO CHANGE DIRECTION.

MANEUVERING AREA SHALL NOT EXCEED 2% IN ALL DIRECTIONS

CONCRETE

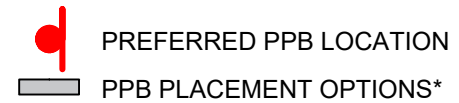


CITY OF CHINO
ADA EXHIBIT

**MANEUVERING SPACE CURB RAMPS,
INTERSECTION CORNERS & CROSSWALKS**

NOTES:

1. PPB SHALL BE NO FURTHER THAN 5 FT. FROM THE EXTENSION OF THE CROSSWALK LINE.
2. PPB SHALL BE LOCATED 3 FT. TO 6 FT. FROM CURB FACE
3. IF CONSTRAINTS EXIST, DISTANCE FROM CURB FACE CAN BE EXTENDED TO 10 FT.
4. DISTANCE BETWEEN PPB SHOULD BE A MINIMUM OF 10 FT. FROM EACH OTHER IF NOT APS.
5. PPB SHALL BE ORIENTED PARALLEL TO THE CROSSWALK DIRECTION OF TRAVEL.
6. PPB SHOULD BE MOUNTED APPROXIMATELY 42" ABOVE CLEAR GROUND SPACE (36" MIN TO 48" MAX) TO TOP OF THE BUTTON.
7. CLEAR SPACE ADJACENT TO PPB SHALL BE 30" x 48" AND <2.0% IN ALL DIRECTIONS AND SHALL NOT OVERLAP DETECTABLE WARNINGS



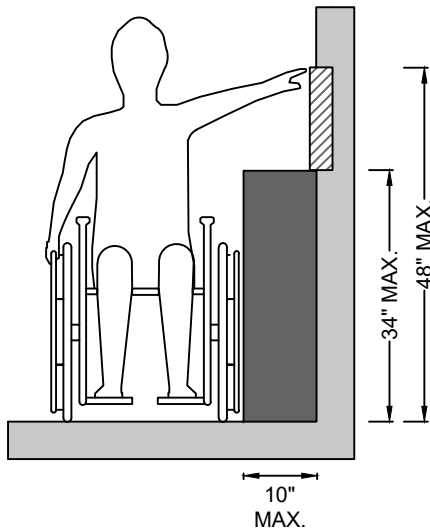
*DRAWING NOT TO SCALE

EACH LOCATION IN THE FIELD WILL PRESENT DIFFERENT LAYOUTS. THIS EXHIBIT IS TO BE USED FOR GUIDANCE ONLY.

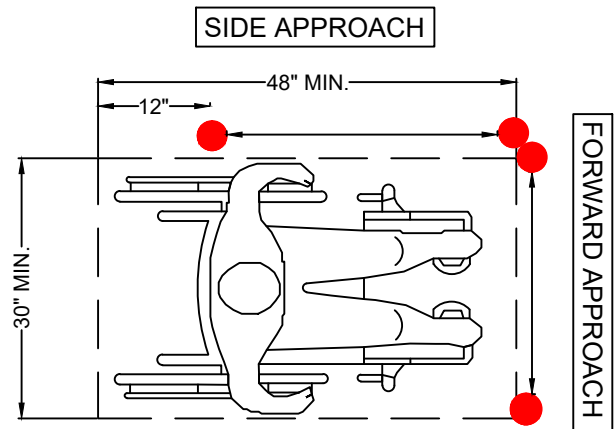
FINAL LOCATION TO BE APPROVED BY THE CITY ENGINEER PRIOR TO CONSTRUCTION.

CITY OF CHINO
ADA EXHIBIT

PEDESTRIAN PUSH BUTTON LOCATIONS



OBSTRUCTED SIDE REACH



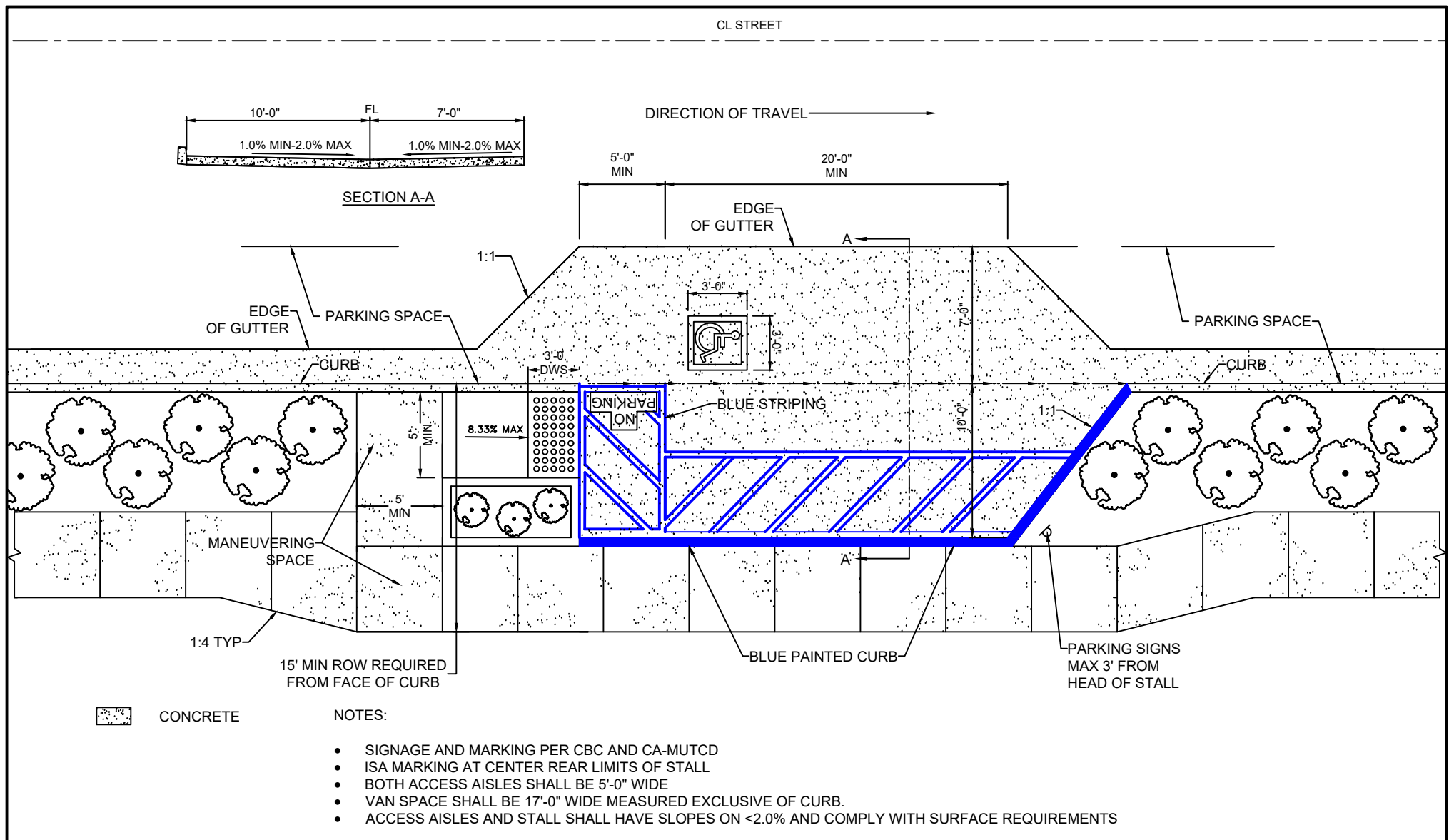
PPB PLACEMENT

NOTES:

1. CLEAR SPACE ADJACENT TO PPB SHALL BE 30" x 48" AND <2.0% IN ALL DIRECTIONS AND SHALL NOT OVERLAP DETECTABLE WARNINGS. NO GRADE BREAKS ARE PERMITTED.
2. CLEAR SPACE ON FORWARD APPROACH - NO OBSTRUCTIONS ARE PERMITTED.
3. CLEAR SPACE ON SIDE APPROACH - LESS THAN 10" DEEP AND LESS THAN 34" HIGH OBSTRUCTION IS PERMITTED.

CITY OF CHINO
ADA EXHIBIT

CLEAR GROUND SPACE AT PEDESTRIAN PUSH BUTTONS



CITY OF CHINO
ADA EXHIBIT

ACCESSIBLE ON-STREET PARKING PARALLEL VAN SPACE