



Rancho Cucamonga PLACEMAKING TOOLKIT

This is an excerpt from General Plan: Volume 4



Placemaking Toolkit



“Every increment of construction must be made in such a way as to heal the city.”

*- Christopher Alexander
A New Theory of Urban
Design, 1987*

A PLACEMAKING TOOLKIT IS...

a set of implementation tools intended as a guide for the City, property owners, and developers, to help ensure that each new increment of private and public investment in Rancho Cucamonga contributes to the making of great places of strong and enduring value. The intention of this Toolkit is to clearly describe, diagram and illustrate the types of development patterns, forms and strategies that will result in human-scale, pedestrian-oriented places that achieve the community's vision as presented in this General Plan.

Through the extensive PlanRC community engagement process of 2020, thousands of residents shared their hopes and dreams for the future of our City. While there were many diverse points of view, it was very clear that the one thing most people want is “more nice places to go and more ways to get there.” This requires that public and private improvements work together to “make places, not just projects” and focuses attention on the streets and other public spaces of our City—the “public realm”—which is the network of spaces through which one gets around town, and in which one meets and interacts with others. The public realm is the glue that holds all the projects together and makes them into a great city.

HEART OF THE MATTER

Throughout the second half of the 20th century, conventional city planning practice was based on separating dissimilar land uses by distance and by discontinuous street networks, which required an automobile trip for every change of activity throughout the day. Public realm design valued the convenience of motorists over the safety and comfort of pedestrians and bicyclists, relegating all modes of travel other than the private automobile to the indeterminate status of “alternative modes.” Cities that were established and grew rapidly during this time period are characterized by patterns of low-density isolated housing, commercial centers with large parking lots, employment centers built as “business parks,” and wide, high-speed arterial streets. This conventional pattern of development severs neighborhood from neighborhood and commercial centers from employment districts as they prioritize long-distance vehicular throughput and results in a number of other environmental, economic, and social impacts. Such planning and mobility practices coincided with the growth of Rancho Cucamonga since its incorporation in 1978, leaving us with a range of challenging physical characteristics to address.

This Toolkit, in addition to the updated General Plan, describes a more balanced approach with tools and strategies for all-mode mobility and placemaking that ensures the vitality of the community. In planning and designing the future of Rancho Cucamonga, we must ensure that areas within the city that will be developing or redeveloping over the next several decades, are developed with urban patterns and forms that deliver more equitable and valuable results—regardless of preferred travel mode—and that they enable significant benefits for the well-being of the community, the environment, and the economy.

This General Plan is intended to define a sustainable path forward, both preserving those characteristics of the city that residents know and love, while also enabling a bright future for the generations to come. To that end, this Placemaking Toolkit provides the City, property owners, and developers with a set of tools and strategies to guide them in their mutual pursuit of that vision.



HOW TO USE THIS TOOLKIT

This Toolkit is not a regulatory document. Rather, the tools, strategies and recommendations provided herein are intended as a guide to the City, and to property owners and developers, for implementing the placemaking policies set forth in the General Plan. To do so, the Toolkit focuses on three high-priority topics related to the built environment, as described in the following sections:

- + **Part 1 | Activating the Public Realm.** Part 1 addresses the many factors that contribute to an active, comfortable, and safe network of human-scale streets and other public spaces—the “public realm”—that invite and support active mobility and the economic and social life of our community. The public realm of our City is envisioned to evolve and expand into a network of “outdoor living rooms of our community,” beyond streets simply managing automobile traffic. The appearance and function of these spaces are defined by the design of the streets and other open spaces, and by the ways in which the front yards and ground floors of buildings define, connect to, and activate, those spaces.
- + **Part 2 | Rebalancing Streets & Public Spaces.** Part 2 focuses on the design and management of streets, to equitably balance facilities to accommodate all users, regardless of travel mode, age, income, and physical capabilities. The City’s current street network strongly favors motorists, most often at the expense of pedestrians and bicyclists. This particularly and inequitably disadvantages the young, old, and poor. Rebalancing the network and creating activatable frontages requires systematic improvements, including adding on-street parking and medians, providing wider, more comfortable sidewalk, improving street tree plantings for shade/wind protection and spatial enclosure, and adding high-quality bus lanes and safe bike lanes on select streets to transform them into much safer and more pleasant spaces for our community.
- + **Part 3 | Completing the Community Fabric.** Part 3 describes and illustrates how a human scale network of multi-modal streets and other public spaces with active frontages may be systematically extended into large vacant or underutilized sites. The intended outcome is that each such site be configured and designed as an integral part of the community fabric that connects to surrounding properties and is accessible by foot, bike, transit and car—rather than just “big development projects” between which one must drive back and forth. The key to providing a network of human-scale, walkable, welcoming and active frontages is a network of balanced, complete streets and open spaces that form walkable blocks, well-connected to and integrated with the surrounding community fabric.



Part 1 of the Toolkit provides tools and strategies for making an active, safe, and equitable Public Realm throughout our City.



Part 2 of the Toolkit provides tools and strategies for systematically rebalancing our street and public spaces toward and in favor of non-motorists.



Part 3 of the Toolkit provides tools and strategies for completing unbuilt (or changing) parts of our City.

Topics and Applicability

While the Toolkit provides a comprehensive set of tools and strategies that cover a range of high-priority topics, not all topics are relevant to all users or contexts. The Matrix below provides an overview of the topics and information covered, along with a quick guide as to which topics are most relevant to public and private improvements.

○ Overview & Intent

● Design Tools & Strategies

Most Relevant To:

Page #	Toolkit Topics	Public Improvements	Private Development
308	Part 1 Activating the Public Realm	○	○
310	1A: Creating Active Frontages	○	○
312	1B: Public & Private Frontages	○	○
314	1C: Frontages: Context, Design & Calibration	○	○
314	I. Frontage Types & Contexts	○	○
315	II. Frontage Design & Calibration	○	○
316	A. Retail & Commercial Frontages	●	●
320	B. Office & Industrial Frontages	●	●
322	C. Residential Frontages	●	●
324	Part 2 Rebalancing Streets & Public Spaces	○	
326	2A: Applying Active Frontages	○	○
326	I. Retrofit Strategies	○	○
328	A. Bulb-Out Type	●	
330	B Bulb-In Type	●	●
332	C. Frontage Lane Type	●	●
334	D. Adding On-Street Parking	●	●
336	2B: Applying Additional Improvements	○	
336	I. Adding Signalized Intersections and Crosswalks	●	
338	II. Neighborhood Street Retrofit Strategies	●	
340	III. Traffic Calming & Placemaking Strategies	●	
340	A. Adding Street Trees	●	
344	B. Adding Street Lighting	●	
344	C. Adding Safe Pedestrian Crossings	●	
345	D. Adding Chicanes	●	
345	E. Adding Mini-Roundabouts	●	
346	2C: Applying Transit & Bike Improvements	○	
346	I. Transit Priority Street Retrofits	●	
352	II. Bike Priority Street Retrofits	●	
356	2D: Creating New Streets & Public Spaces	○	○
356	I. Designing New Streets	●	●
358	II. Designing New Public Spaces	●	●
360	Part 3 Completing the Community Fabric	○	○
362	3A: General Guidelines for Large Site Development	○	○
363	Case Study 1: Large Site Development	●	●
377	Case Study 2: Redevelopment of Shopping Centers	●	●
388	Case Study 3: Retrofitting Shopping Centers	●	●



PART 1. ACTIVATING THE PUBLIC REALM

To ensure an increasingly active, attractive, equitable, pedestrian-oriented environment that is comfortable and safe to navigate by foot, bicycle, or any vehicular mode, careful attention must be given to the design and connectivity of the public realm. Generally defined, the public realm is all the publicly accessible open spaces between all the buildings within the city. This begins with the truly public spaces such as public streets and public parks, but as residents experience the City day to day it also includes a great deal of publicly accessible but privately owned spaces (semi-public spaces), including but not limited to the access drives and parking lots of commercial and industrial buildings, the internal streets within many of our neighborhoods, and community parks owned and maintained by home-owners' associations. It is within this extensive network of public and semi-public shared common open spaces that our social and economic life as a community occurs.

In many communities, like Rancho Cucamonga, that have developed with predominantly suburban patterns where access to and between almost every daily activity is provided by automobile, these spaces have been designed and engineered almost exclusively to accommodate and facilitate driving and parking. The result is that most of our public and private streets, and the approaches to most of our buildings are dominated by asphalt pavement and not designed with the comfort and safety of pedestrians and bicyclists in mind. As such, they are not spaces within which people walk for enjoyment, for shopping, for dining, or for meeting friends and neighbors and socializing as a community. Through the 2020 PlanRC public engagement process it was heard loud and clear that many residents hope that in the future these spaces will be more welcoming, safe and comfortable for people, not just cars.

Accordingly, Part 1 of this Toolkit provides a set of tools for leveraging the value of our public realm, recognizing that this space (our streets alone comprising over 6,000 acres of land!) is a very significant community resource. It is intended that with these tools, over time, the value of the public realm is systematically increased through incremental enhancements that deliver a well-connected, healthy, active, safe, comfortable, equitable, and economically-viable environment that is calibrated to each unique part of our City. Specific topics in Part 1 include:

- + **1A. Creating Active Frontages**
- + **1B. Public & Private Frontages**
- + **1C. Frontages: Context, Design & Calibration**

Part 2 provides strategies and directions for applying these active frontages to our existing streets and spaces (in addition to strategies for improving the modal balance of such streets), and Part 3 provides strategies for extending this active public network into the parts of our city that are expected to change or have not yet developed.



The “Public Realm” is all of the publicly owned and publicly accessible land in a city and is traditionally where most of the social, economic and civic life of a community occurs.



A large majority of our existing streets and approaches to buildings are dominated by asphalt pavement that are not designed with the comfort, safety, or access of pedestrians and bicyclists in mind.

CREATING “LOCATION”

A common real estate aphorism states that the most important factors that determine property value are “location, location, and location.”

Location is defined fundamentally by two things. One is simply geographic—what area of what City the property is located in. Rancho Cucamonga is blessed with a good and well-deserved reputation as a community where people want to live, work, and shop, so property in our City is generally more valuable than comparable property in many other nearby cities.

The second factor defining “location” is how the area around the subject property looks, feels, and functions. If those qualities make it a place that people find attractive, pleasant, comfortable, and useful, it becomes a place where people simply want to be, because it’s nice to be there, which generates an additional premium in property value. And unlike the simple geographic factor of where the property is located—which one clearly cannot do anything to change—“type of place” qualities are subject to change, by the design of the streets and the design of buildings and site improvements.

So, in an important sense, it is possible to simply “build location”. An empty field can become the nicest new neighborhood or the most interesting shopping district in town simply by how it is designed. That is what this Toolkit is for.

1A. CREATING ACTIVE FRONTAGES



Common multi-family residential frontage in Rancho Cucamonga.



Many of our commercial frontages, while attractive, are disconnected from the public realm network by large parking lots.

Frontages are the spaces along the edges of streets and along the fronts of buildings, where the public and private realms overlap - often seamlessly - to define the look and feel and character of our community. These are the spaces in which we walk, and where we encounter and interact with family, friends and neighbors

Within our single-family neighborhoods, frontages typically include the sidewalks, street trees, front yards, and the fronts of homes. The current frontages of many of our existing large streets that provide access to our neighborhoods are generally limited to landscaping, concrete block sound walls, and the walls of homes.

In most of our multi-family communities also, apartment buildings typically back up to public streets, with resident and visitor access oriented to internal or perimeter parking lots. In both cases, the development pattern and street design does not encourage or support human activity along our main public streets, just traffic.

In most commercial and industrial development in Rancho Cucamonga, frontages are limited to sidewalks, landscaping, and parking lots. Buildings typically face parking lots, which are generally not designed to facilitate or encourage pedestrians to enter or leave each project on foot or by bicycle. In some cases, buildings are placed near the street, but where this occurs the building “fronts” typically face the parking lots, generating little human activity within the public streets.

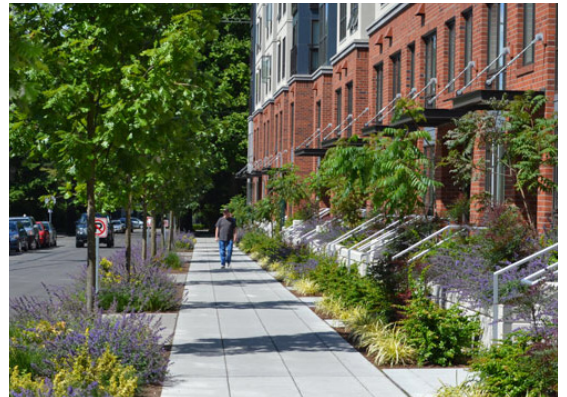


Well designed frontages can enable and cause the activation of the public realm. This activation leverages the value of our public streets and spaces, creating

Whenever one walks to visit neighbors, visit a park or school, or patronize a shop or restaurant, one is walking within and along frontages. And when one walks from a parked car into shops or restaurants or offices or public buildings, one is once again moving within and along frontages. It is the experience of being within these spaces—more than any one factor—that defines the look, the feel, and the experience of being in Rancho Cucamonga.

Accordingly, this section focuses on defining a broad and flexible palette of “**Active Frontage Types**” described further in **Section 1B - Frontages: Context, Design, & Calibration**, provides direction for making new ones, and provides tools and strategies for retrofitting existing frontages that better encourage and support activity throughout the public realm of our City and that better reflect our identity and aspirations as a community. Active frontages in each neighborhood, corridor, center and district must be designed, calibrated, and coordinated to encourage and enable active habitation of our public spaces and the buildings that front them, as well as to:

- + **Contribute to the place-making and urban design goals** for each part of town as described in this General Plan;
- + **Spatially define comfortable, safe and inviting pedestrian spaces** that offer physical and psychological buffers between pedestrians and traffic, sun, wind and other environmental factors, and provide safety through “eyes on the street” during daytime and evening hours;
- + **Enhance the appearance of the public realm** and reinforce the unique character of the city and each of its unique areas;
- + **Offer appropriate design flexibility** while promoting public realm designs that are complementary to the intended context, function, and use of the street and adjacent development.



Example of active residential frontages along an urban neighborhood street.



Example of active commercial frontages along a downtown street.



Example of active office frontages on a carless (pedestrian) street.



Courtyard as semi-public common open space for residents



A residential stoop provides a semi-private direct-entry into a ground-floor residential unit.

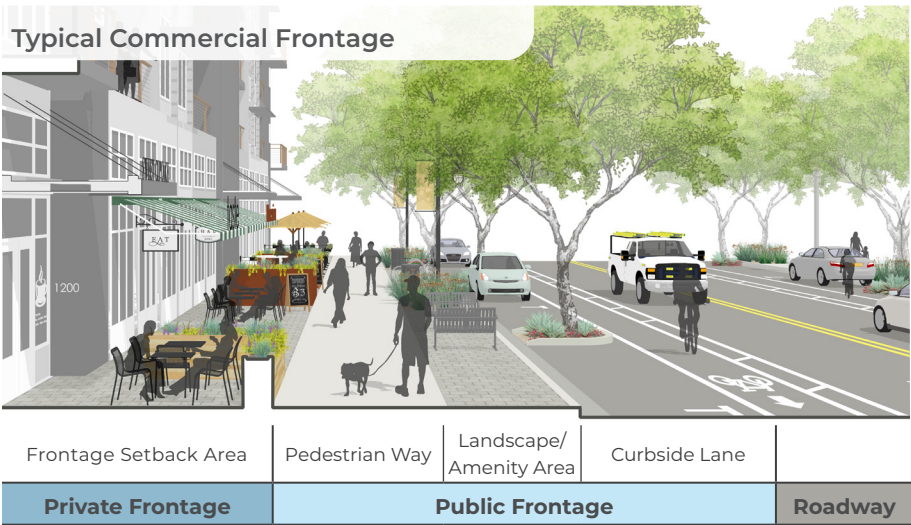
1B. PUBLIC & PRIVATE FRONTAGES

Frontages are generally organized into two areas - “Public-” and “Private-” Frontages. Public Frontage refers to the publicly-owned space between the private property and the nearest travel lane (or bike lane, where present). It typically includes a sidewalk, street trees and other landscaping, street lighting, signage and other furnishings and often on-street parking and/ or passenger loading areas. The primary function of public frontages is to enable pedestrians to safely and comfortably walk along the street and access each building or property, and to allow motorists to safely park, become pedestrians and access the buildings. The City will play a key role in determining appropriate Public Frontage elements for each segment of each street, and for coordinating the phasing and management of the public frontage, while developers will typically be responsible for financing and/or constructing such improvements.

Private Frontage refers to the privately-owned space between the Public Frontage and the building façade - also known as the “Front Setback Area.” This space is typically in the form of a semi-private landscaped “yard” or semi-public hardscape area, such as a forecourt or extension of the sidewalk, that may include furnishings. The two primary functions of this space are 1) to welcome and provide access to the pedestrian; and 2) to provide either an appropriate degree of privacy for ground floor residential or office uses, or to provide an appropriate degree of exposure to ground floor retail shops, restaurants and other commercial businesses.

The careful design and calibration of this entire frontage “assembly”—including the design of building façades and their entries—is essential to ensure that building occupants will be comfortable keeping window coverings open much of time, and in doing so, provide the “eyes on the street” that help keep our streets and other public spaces safe and comfortable places for pedestrians and bicyclists to be throughout the day and evening.

FIGURE PT-1 TYPICAL FRONTAGE ANATOMY



Frontage Assembly/Anatomy

Frontages are organized by a number of components, which can be thought of as “layers” or “bands” of the public realm, each with a specific role/function. It is important to understand the role that each of these components plays to ensure that frontages are properly designed and calibrated to their public and private context (as described further in **Section 1B - Frontage Design & Calibration**). They include:

- + **Frontage Setback Area** is the space in front of buildings that “modulates” the degree of privacy for the ground floor building occupants. Residential uses are set back, along with wall elements, landscaping and sometimes grade elevation to provide enough privacy for residents. Office and industrial frontages generally do as well for similar reasons but with different design configurations. Commercial and retail frontages may have little or no space in front of the building to expose businesses to passers-by, or conversely, may have additional space to accommodate outdoor dining.
- + **Pedestrian Way** is the clear path for pedestrian activity. The width of this space is calibrated to anticipated pedestrian volumes, generally in the range of 6 feet in neighborhoods to allow for comfortable walking side-by-side and up to 10 or 12 feet in urban corridor environments (free of any landscaping, furnishings, and dining) to allow for a combination of walking aimed at a destination and interaction with the features of the corridor.
- + **Landscape/Amenity Area** is for landscaping and furnishings adjacent to the curb. It almost always includes planter areas for street trees and other public landscape, along with streetlights and traffic signal poles. It may also include parking meters, benches and other seating, outdoor dining, and bike racks.
- + **Curbside Lane** is a flexible space that can include parallel or angled parking, biofiltration planters, tree planters, bus stops, loading areas (passengers and goods), and permanent or temporary parklets. In all cases this space, together with the Landscape/Amenity Area, provide a vitally important buffer from moving traffic to significantly enhance pedestrian safety and comfort.



Example of semi-private yards and porches within the Front Setback Zone on a neighborhood street.



Example street furnishing in the Landscape/Amenity Area, and a clearly defined Pedestrian Way.



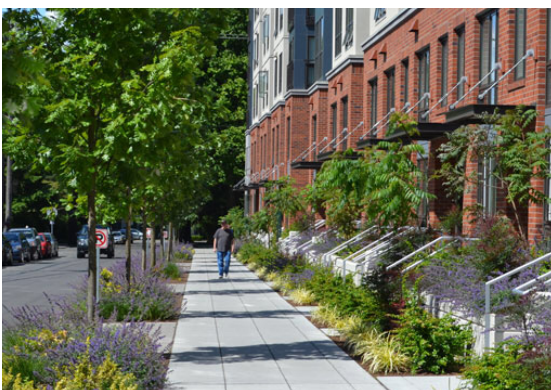
The Curbside Zone can be flexibly programmed based on the needs of the adjacent property. Pictured here, a “parklet” replaces a single curbside parking space to provide additional outdoor dining space to the merchant.



Example of retail frontage with outdoor seating, shade umbrellas, and planters.



Modern office buildings arranged around a common courtyard accessible from the street.



Multifamily residential with direct-access to ground floor units from the sidewalk via stoops. Building setback includes a high-quality, unified landscape design, and ground floor units are elevated above the sidewalk for added privacy.

1C. FRONTAGES: CONTEXT, DESIGN & CALIBRATION

I. FRONTAGE TYPES & CONTEXTS

The following is a high-level summary of the frontage types and contexts for which specific tools and strategies are described in the sections to follow:

Retail & Commercial Frontages

Retail businesses thrive when passing motorists, bicyclists and pedestrians can see their signage, display windows, and people shopping and dining inside. Unlike most other frontage types the overall design intent is exposure—not privacy—to blur the line between the interior space of the business and the public environment of the sidewalk and street.

Office & Industrial Frontages

Ground floor office uses typically require some privacy for occupants that can be provided by a combination of landscape design and elevation of the ground floor. Industrial buildings tend to have fewer windows and openings and more areas of blank wall than office buildings, due to the nature of business operations inside. While both uses tend to be “less-active,” attention to the design of their frontages will help ensure that these buildings can still do their part to activate the public realm.

Residential Frontages

Ground floor residential uses require a reasonable degree of privacy so that passersby aren’t perceived to be visually intruding into the home. This is typically accomplished by elevating the entry and/or providing some fencing and landscaping between the building and the Pedestrian Way. To ensure frontages are active, it is critically important that the main building entries are oriented to the street, not to side or rear parking areas or parking structures, such that the front door at which visitors generally arrive is oriented to and accessible from the street/sidewalk.

Non-Street Frontages

All frontage types may in some circumstances face public or common open spaces other than streets or parking lots. Retail centers and shopping districts may include pedestrian squares, courts or malls, such as in Victoria Gardens. Residential developments may include buildings that face courts and greens, as may office/industrial complexes. In most cases, such open spaces should be designed and integrated into the overall public realm as “carless streets” and gathering spaces that are interconnected with the street network so that pedestrians may move freely through and between these spaces.

II. FRONTAGE DESIGN & CALIBRATION

This section provides a Toolkit of design metrics and guidelines for properly designing and calibrating frontages to their “context,” to ensure that the public realm network in our city is beautiful, active and safe, and a reflection of our community identity and values.

For the purposes of this Toolkit, frontages are organized into three high-level categories or “types,” based on the predominant ground floor use of the building that is providing the frontage. These include Retail & Commercial Ground Floors, Office & Industrial Ground Floors, and Residential Ground Floors.

To ensure that all frontages contribute (in appropriate measure) to the type of public realm environment envisioned within each part of our city, each of these three types must be further calibrated to their “context”—based on considerations such as the size and type of street or space the property is fronting, the scale and intensity of development providing the frontage, and the Place Type or Focus Area in which it is located.

As such, this section—in the pages to follow—provides tools and instructions for designing and calibrating frontages within/to the following contexts:

A. Retail & Commercial Ground Floors

- + Facing Streets in Corridors, Centers and Districts
- + Along the Edges of Residential Neighborhoods
- + Facing Non-Vehicular Open Spaces or Parking Lots

B. Office & Industrial Ground Floors

- + Facing Streets in Corridors, Centers and Districts
- + Facing Non-Vehicular Open Spaces or Parking Lots

C. Residential Ground Floors

- + Facing Streets in Corridors, Centers and Districts
- + Facing Streets in Neighborhoods
- + Facing Pedestrian Open Spaces



Example of an amenity-rich commercial/retail frontage in a mixed-use district.



Clearly defined primary (common) building entry directly accessible from the street/sidewalk..



Multifamily residential building with ground floor units oriented toward a shared courtyard directly accessible from the street/sidewalk.

A. RETAIL & COMMERCIAL FRONTAGES



Example of retail frontages in Victoria Gardens, with street trees and awnings shading the street;

Within mixed-use Corridors, Centers, and Districts, frontages are intended to make commercial activity visible to and accessible by passing pedestrians and motorists. They are characterized by commercial businesses (typically shopfronts) located at or very near the back of amply wide sidewalks, generating amenity-rich pedestrian environments that accommodate and encourage high levels of foot-traffic, and a wide range of activities. The essential characteristics of all retail and commercial frontages in this context include:

- + Ground floor façades of buildings are in the form of retail shopfronts that are at or close to the sidewalk edge directly facing streets, and accessed directly from the sidewalk with little to no elevation difference to the private entry;
- + Designed and sized to accommodate a flexible range of activities and facilities in support of adjacent businesses and create a vibrant commercial environment;
- + Provide a safe, comfortable, shaded environment for pedestrians to walk and shop, buffered from traffic by street trees, street furnishings, and parked cars;
- + Provide convenient, safe, on-street customer parking in front of (or very close to) the adjacent businesses;
- + Provide regularly spaced street tree species that help define the space and shade pedestrians while maintaining good visibility for the buildings and signage due to a relatively high and/or open canopy.

FIGURE PT-2 RETAIL & COMMERCIAL FRONTAGE

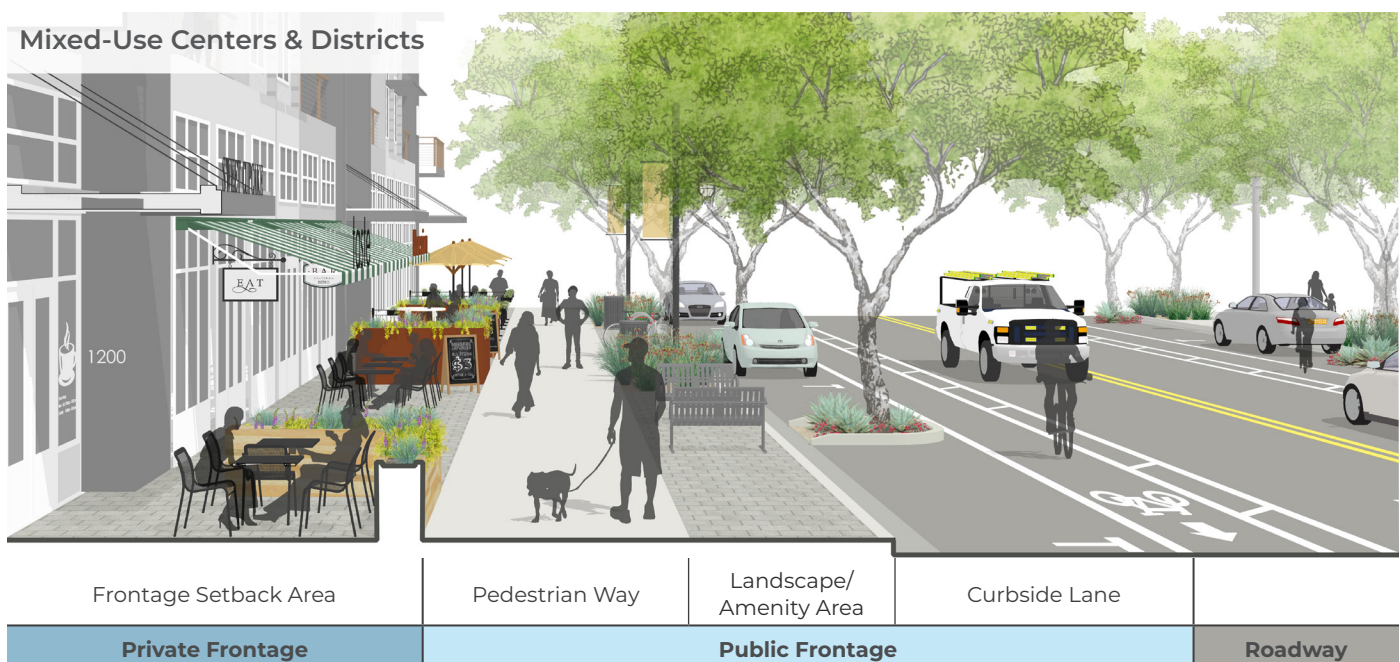


TABLE PT-1 RETAIL & COMMERCIAL FRONTAGES

FRONTAGE	DIMENSIONS*	NOTES
Frontage Setback Area <i>(the space from the building façade to the pedestrian way)</i>	Typical Depth: 15 ft max; 6 ft min. for outdoor dining Ground Floor Ceiling Height: 12 to 15 ft Regularity of Entrances: Every 25 to 50 ft in active Districts & Corridors	<ul style="list-style-type: none"> Ground floor ceilings are high to provide a generous sense of space inside and allow natural light deep into the space. Frequent entrances, and large, clear glass shopfront windows, with some degree of sun-shading, are provided so that approaching customers see into the store rather than their own reflection and street glare. Along mixed-use Corridors, “Retail-Ready” or “Flex Frontages”—frontages that are designed ultimately to accommodate retail/commercial businesses, but in advance of the market supporting such uses at a given location—may be utilized for residential or office use for an indefinite period of time. See following page. Where there is space between the Pedestrian Way and the building façade (whether within the public right-of-way or within the private property), this area may offer space for better pedestrian access and/or outdoor dining. Any landscaping in this space does not interfere with pedestrian access to or views of the shopfronts.
Pedestrian Way <i>(the clear path for pedestrian activity)</i>	Typical Width: 6 to 8 ft 8 to 10 ft for highly-active Districts/Corridors	<ul style="list-style-type: none"> This is a clear path for pedestrian access and is not interrupted by fixed objects (street lights, power poles, driveway ramps, street furnishings) or objects associated with adjacent uses (dining furniture, signage, etc...). Width of this space allows pairs of pedestrians walking side by side to pass comfortably, and pedestrians to stop and look in shopfront windows without feeling they are blocking the walk. In some contexts, the pathway may be covered / enclosed by an arcade or gallery, providing additional enclosure and protection from the elements.
Landscape/ Amenity Area <i>(the space between the curb and the pedestrian way)</i>	Typical Depth: 6 to 10 ft Tree Spacing: Every 25 to 50 ft Canopy Height: 10 to 15 ft Planter Size: 6 ft x 8 ft min.	<ul style="list-style-type: none"> This area is sized and programmed based on the needs of the business or district, and typically provides: street furniture, transit stops, street trees and landscaping, pedestrian-scale lighting fixtures, district branding and wayfinding signage, and short-term bike parking. Street trees are provided in generously-sized landscaped planters and spaced to provide a well-shaded pedestrian environment, with relatively tall/open canopies that maintain good visibility of the building and its signage. Planters and landscaping that provide stormwater management are recommended, per NACTO’s Urban Street Stormwater Guide.
Curbside Lane <i>(the space between travel lanes and the curb)</i>	Typical Width: 7 to 18 ft	<ul style="list-style-type: none"> This space can be flexibly programmed based on the needs of the business or district, and may include parking, passenger and commercial loading zones, transit stops, parklets, and street trees. Where appropriate, parklets and/or bike corrals are provided in lieu of a parking space, based on the needs of the business or district. In some cases street trees are provided within the Curbside Lane in “parking-lane planters” instead of, or in addition to providing such in the Landscape/Amenity Area.

*Dimensions provided in this table are typical ranges for this frontage type and are provided herein as reference only. See the Municipal Development Code for applicable required standards.



Neighborhood-serving commercial that could fit seamlessly with the scale and character of a residential neighborhood.

Retail & Commercial Frontage Variations (By Context)

Other common contexts in our city within which variations of the retail/commercial frontage are necessary include:

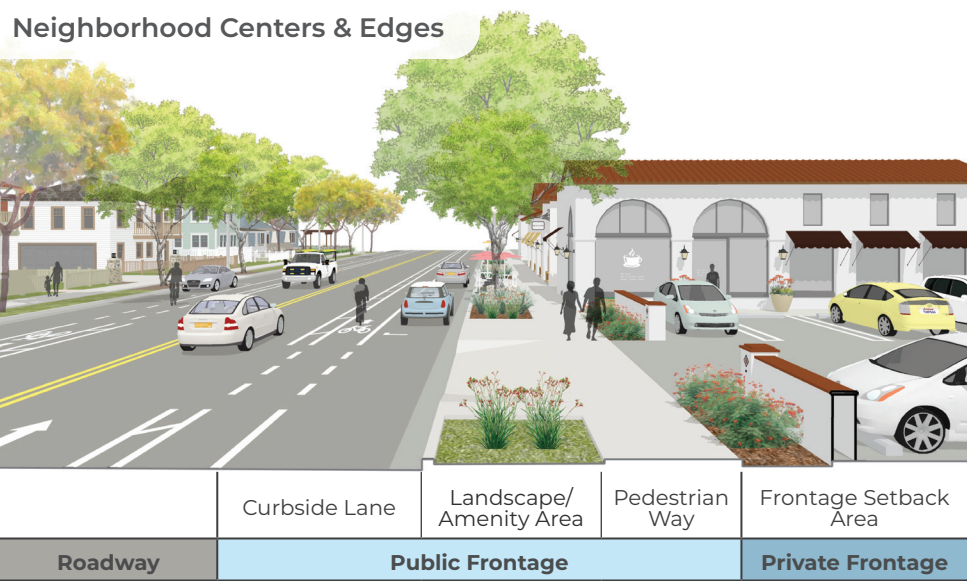
Along the edges of residential Neighborhoods

Along the edges of our residential Neighborhoods—typically at intersections of less-intense/secondary residential corridors—nodes of neighborhood-serving retail and commercial uses may be appropriate. All of the same characteristics of retail and commercial frontages in more intense Districts and Corridors generally apply, however, these elements occur at the scale of the neighborhood the node is serving.

Along more “suburban” Corridors

Along some of our more “suburban” Corridors, the priority of commercial frontages is to make commercial activity visible to and accessible by passing pedestrians, bicyclist and motorists. These environments tend to have lower development intensities and higher parking ratios than urban commercial environments, so more of the frontages are devoted to customer parking. Commercial shopfronts—some built at or near the back of the sidewalk and others visible through well-designed parking areas—are served by a mix of convenient on-site and on-street customer parking. High priorities include defining the street edge with comfortable sidewalks, steady rows of street trees and plantings buffering pedestrians from higher-volume/speed traffic. The spatial boundary of the public realm—or “streetwall”— can be maintained in such environments by placing pad or liner buildings at or near the back of the sidewalk, bringing commercial activity to the street. Where there is no building lining the public realm, low walls and landscape walls can screen the parking and maintain the urban “streetwall.”

FIGURE PT-3 RETAIL & COMMERCIAL FRONTAGE



“Retail-Ready” Frontages

“Retail Ready Frontages” are ground floor spaces that are constructed with design characteristics to provide flexibility with regard to ground-floor use. Specifically, in locations/along streets where a highly-active (commercial) ground-floor environment is a desired long-term outcome, but the market is not yet ready to provide such, the ground floors of these buildings may be occupied with residential or office space until the market is ready to accommodate retail uses. The important design characteristics that make this possible are the traditional rhythm of shopfront bays, ADA compliance, and ground-floor height. Elevated entries, low-fencing, and landscaping may be provided for necessary privacy in the short-term. The illustrations below show how these frontages can transform with relatively simple retrofits to the public and private frontage.

FIGURE PT-4 RETAIL READY FRONTAGES





Modern office buildings with generous, well-designed public frontage assembly.

B. OFFICE & INDUSTRIAL FRONTAGES

Within mixed-use Corridors, Centers & Districts, office and industrial frontages must provide a safe, comfortable, and attractive public realm environment despite the “less-active” nature of these uses. Office and industrial buildings typically provide off-street parking for visitors and customers, however some on-street parking and the formal front entry are necessary for such buildings to contribute to the active public realm of each employment district; such front entries encourage employees and others to walk out to the street and walk to lunch or dinner nearby (assuming such amenities are present within walking distance), rather than simply exiting to the parking lot, getting in their car and driving to lunch. And if arriving to work by transit, one simply enters the lobby via the front door, rather than walking around through the parking lot. Similarly, locating and orienting the most active spaces (conference rooms, employee break rooms, entry lobbies, courtyards, etc.) toward the street can help activate the public realm. Common characteristics of office and industrial frontages in this context include:

- + Buildings are typically set back (modestly) from the sidewalk to provide adequate privacy to ground-floor spaces, and designed so that the most active and public spaces are oriented toward the street frontage;
- + Primary entries are oriented to and accessible from the street/sidewalk;
- + Sidewalk and ground-floor spaces are buffered from the street by a generous landscaped Landscape/Amenity Area (including regularly-spaced canopy trees that shade the sidewalk and building) and curbside parking;
- + Convenient on-street visitor/customer parking, is provided near the primary entry.

FIGURE PT-4 OFFICE & INDUSTRIAL FRONTAGES

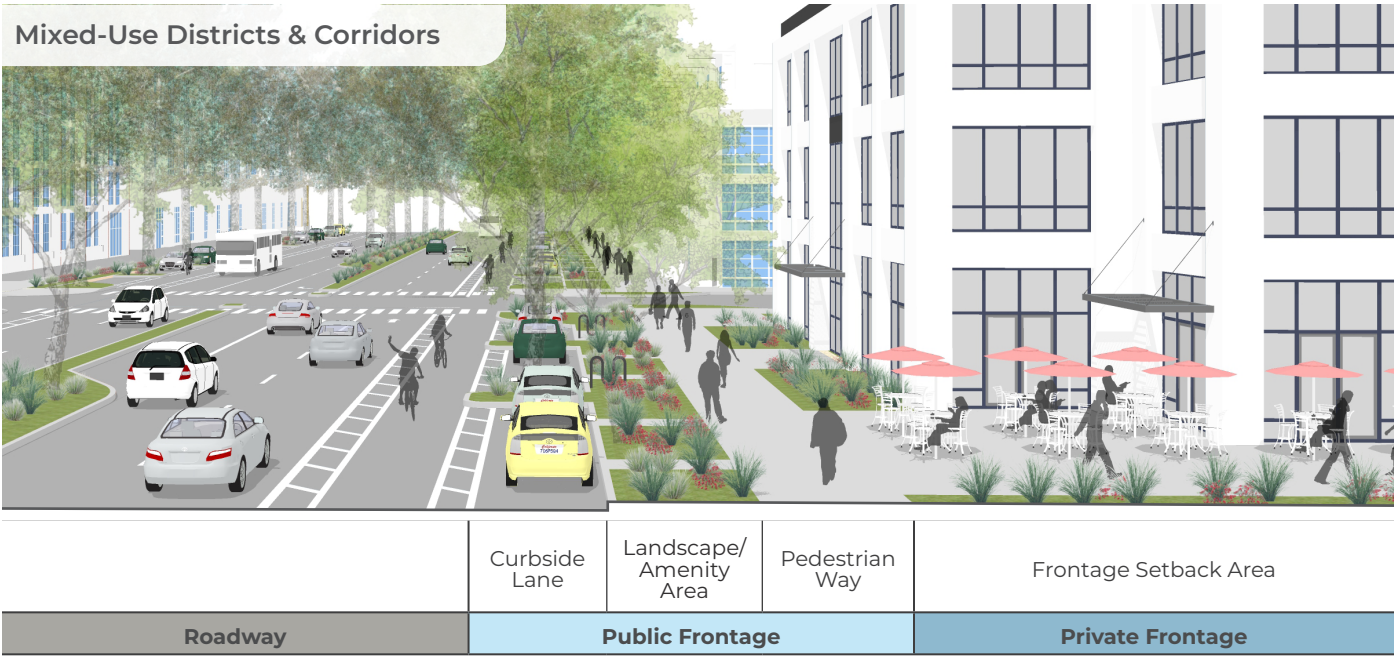


TABLE PT-2 OFFICE & INDUSTRIAL FRONTAGES

FRONTAGE	DIMENSIONS*	NOTES
Frontage Setback Area <i>(the space from the building façade to the pedestrian way)</i>	Typical Width: 10 to 20 ft Ground Floor Ceiling Height: 12' to 20 ft Regularity of Entrances: Every 100 to 200 ft in active Districts & Corridors	<ul style="list-style-type: none"> Primary entrances of buildings are clearly defined, oriented toward and accessible from the street/pedestrian path or a open space with direct-access to/from the street/pedestrian path. Façades are activated by large, minimally-shaded windows into the most active interior spaces such as lobbies or shared work spaces. Where portions of the street-fronting façade are “blank” (typical of industrial uses), landscaping, public art, or other features that create interest in the visual aesthetic of the building can be provided in this area to soften the appearance from the street. Ground floor ceilings are high to allow natural light deep into the space. Parking lots, areas of truck activity, or outdoor storage and operations are well-screened from street views by walls and landscaping. Common outdoor areas (such as courtyards, outdoor lunch areas, etc...) are oriented to and accessible from the street. Employee-serving amenities (i.e. outdoor furniture, secured bike parking, etc.) provided within this space are located near a common entry and accessible from the street/sidewalk or common open space. Front yard landscaping is provided to soften the view of the building from the street and create a comfortable environment for workers and visitors. Landscaping should not obstruct clear access to the building entry.
Pedestrian Way <i>(the clear path for pedestrian activity)</i>	Typical Width: 6 to 8 ft 8 to 10 ft for highly-active Districts/Corridors	<ul style="list-style-type: none"> This is a “clear zone” for pedestrian access and is not interrupted by fixed objects (street lights, power poles, driveway ramps, street furnishings); Width of this space allows pairs of pedestrians walking side by side to pass comfortably.
Landscape/ Amenity Area <i>(the space between the curb and the pedestrian way)</i>	Typical Depth: 6 to 10 ft Tree Spacing: Every 25 to 100 ft Planter Width: 6 ft min.; equal-to or greater-than width of Pedestrian Way recommended.	<ul style="list-style-type: none"> This area typically includes: street furniture, space for transit stops, street trees and landscaping, pedestrian-scale lighting fixtures, district branding & wayfinding signage, and short-term bike parking; Street trees are provided in generously-sized landscaped planters and spaced to provide a well-shaded pedestrian environment, with relatively tall canopies that maintain good visibility of the building and its signage; Planters and landscaping that provide stormwater management are recommended, per NACTO's Urban Street Stormwater Guide.
Curbside Lane <i>(the space between travel lanes and the curb)</i>	Typical Width: 7 to 18 ft'	<ul style="list-style-type: none"> This space can be flexibly programmed based on the needs of the business or district, and may include parking, passenger and commercial loading zones, transit stops, bike corrals, parklets, and street trees. In some cases street trees may be provided within the Curbside Lane in “parking-lane planters” instead of, or in addition to providing such in the Landscape/amenity Area.

*Dimensions provided in this table are typical ranges for this frontage type and are provided herein as reference only. See the Municipal Development Code for applicable required standards.



Multifamily residential building with private terraces behind landscaping and balconies along the façade to activate the frontage.

C. RESIDENTIAL FRONTAGES

Residential frontages must be designed to balance the need to provide ground floor residential units with a reasonable degree of privacy (so that passing pedestrians and motorists aren't perceived to be visually intruding into the home) with the requirement that these frontages provide activity and safety to the public realm environment they are fronting. Within mixed-use Centers, Districts and Corridors—where pedestrian and vehicular traffic is much higher, and front setbacks are much shallower than in residential neighborhoods—these frontages must be carefully designed and calibrated to achieve this balance. Essential characteristics of all residential frontages in this context include:

- + The primary entries of buildings (and in some cases, ground-floor units) are oriented to, and directly accessed from the street/sidewalk (or in some cases, a common space that is accesses directly from the street/sidewalk), and building façades are well fenestrated with windows and openings providing “eyes on the street.”
- + Buildings are set back to provide a comfortable transition between the street/sidewalk and private dwelling, often including low fences, walls and plantings—and in many cases the ground floor is somewhat elevated above the sidewalk—to provide residents with a sense of privacy while enabling them to overlook the street.
- + Provision of on-street guest parking allows visitors arriving on foot, by bike, by transit or by car to be welcomed at the front door.

FIGURE PT-5 MIXED-USE - RESIDENTIAL GROUND FLOOR

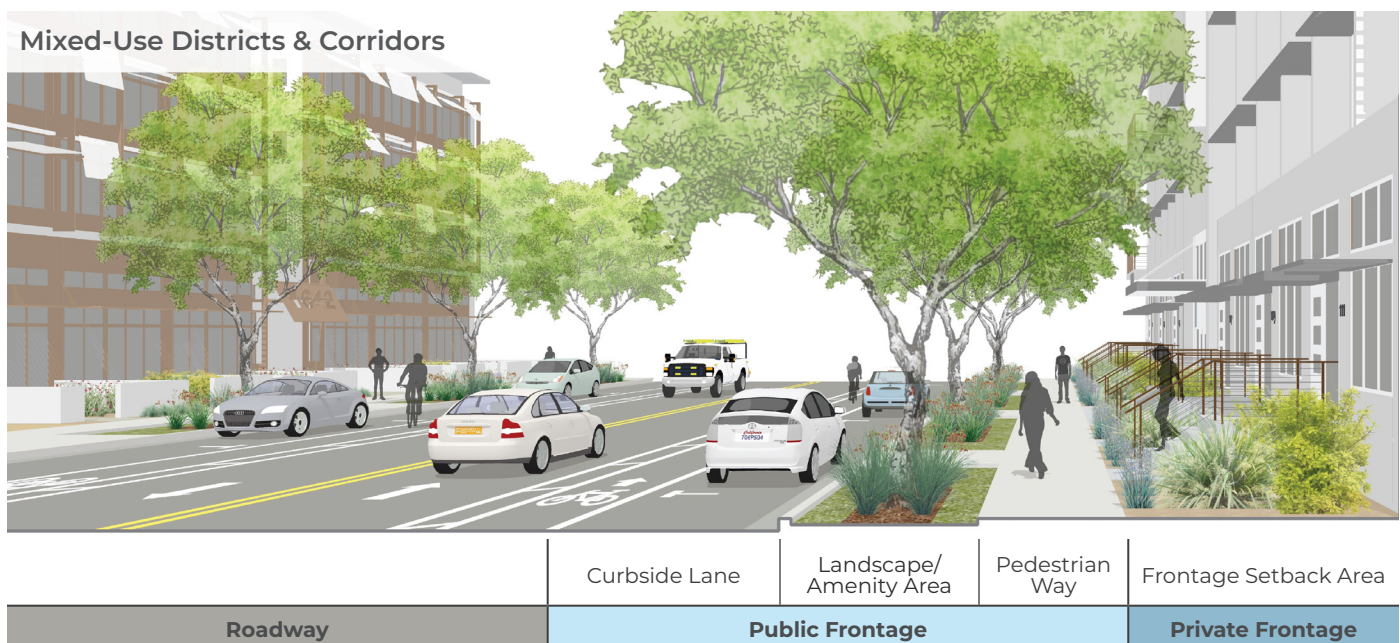


TABLE PT-3 RESIDENTIAL FRONTAGES

FRONTAGE	DIMENSIONS*	NOTES
Frontage Setback Area <i>(the space from the building façade to the pedestrian way)</i>	Typical Depth: 5 to 15 ft Ground Floor Ceiling Height: 8 to 15 ft Regularity of Entrances: 1 per 100 feet min. recommended for common entry buildings (will be less if ground floor units are accessed directly from street/sidewalk)	<ul style="list-style-type: none"> Primary entrances of buildings (and in some cases ground-floor units) are clearly defined and oriented toward/accessible from the street/pedestrian path or a common court or open space with direct-access to/from the street/pedestrian path. In configurations where ground floor units are accessed via a common entry/internal corridor, or common court/open space, building façades are well fenestrated by windows and openings, and terraces and balconies are recommended in such cases, where appropriate, to further activate the public realm. Buildings and units are configured with the more social rooms and spaces (kitchen, living, dining, or sales office and community rooms in multi-family buildings) oriented along the frontage. Taller ground floor ceilings heights are recommended to allow natural light deep into the unit. Ground floor units are typically be elevated (1' - 3') above sidewalk level for additional privacy. Landscaping is high-quality and appropriate to the style/architecture of the building. In highly active mixed-use environments, added layers of privacy may be appropriate/needed, such as a low wall or fence (3' max) or plantings that provide a similar physical barrier between the unit and sidewalk. A clear comfortable transition between the public realm and primary building/unit entry is provided.
Pedestrian Way <i>(the clear path for pedestrian activity)</i>	Typical Width: 6 to 8 ft 8 to 10 ft for highly-active Districts/Corridors	<ul style="list-style-type: none"> This is a clear path for pedestrian access and is not interrupted by, or have to weave-around fixed objects (street lights, power poles, driveway ramps, street furnishings). Width of this path allows pairs of pedestrians walking side by side to pass comfortably.
Landscape/ Amenity Area <i>(the space between the curb and the pedestrian way)</i>	Typical Depth: 6 to 10 ft Tree Spacing: Every 25 to 100 ft Planter Width: 6 ft min.; equal-to or greater-than width of pedestrian path recommended.	<ul style="list-style-type: none"> This area typically includes street furniture, space for transit stops, street trees and landscaping, pedestrian-scale lighting fixtures, and short-term bike parking. Street trees are typically provided in wide, continuous Landscape/ Amenity Areas (or generously-sized landscaped planters in very urban environments) and spaced to provide a well-shaded pedestrian environment, with relatively tall canopies that maintain good visibility between the street and building. Planters and landscaping that provide stormwater management are recommended, per NACTO's Urban Street Stormwater Guide.
Curbside Lane <i>(the space between travel lanes and the curb)</i>	Typical Width: 7 to 18 ft	<ul style="list-style-type: none"> This space can be flexibly programmed based on the needs of the business or district, and may include visitor parking, passenger and commercial loading zones, transit stops, and bike corrals. In some cases street trees may be provided within the Curbside Lane in "parking-lane planters" instead of, or in addition to providing such in the Landscape/Amenity Area.

*Dimensions provided in this table are typical ranges for this frontage type and are provided herein as reference only. See the Municipal Development Code for applicable required standards.



PART 2. REBALANCING STREETS & PUBLIC SPACES

The public realm of a city comprises streets, parks, and other permanent open spaces that form the network of community public spaces within which much of the active life of a community occurs. The community's vision for Rancho Cucamonga's public realm is one that will afford people of all ages, abilities and incomes the opportunity to move safely and comfortably throughout the city by foot, bicycle, transit, and automobile, providing equitable access to lively, beautiful public places for shopping, dining, socializing, and gathering as a community.

Historically, Rancho Cucamonga's street network—which comprises the majority of the City's public realm—was designed based on the Federal Highway Administration's (FHWA) functional classification system. This system is increasingly considered an automobile-centric method of planning and does not typically consider multimodal priorities and surrounding context. The Mobility chapter acknowledges the traditional road classifications but establishes policies that go well beyond maintaining this outdated system to expand opportunities for connections and mode choices throughout the city, implement complete streets, and support the context of the land use environment. The strategies and tools herein support the intent and policies of the Mobility chapter by illustrating how to rebalance and create active multimodal streets.

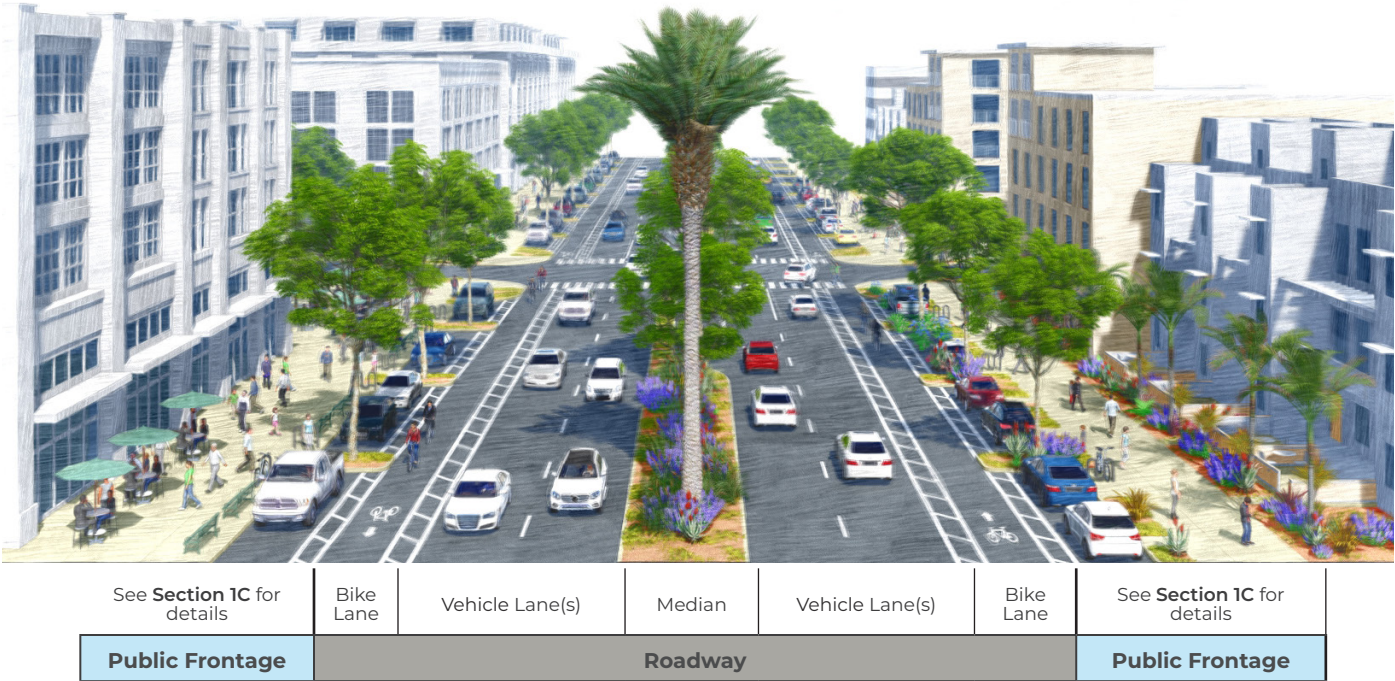
Active Streets & Public Spaces

As described in Part 1, the overarching goal of creating active frontages is to provide a comfortable, attractive, human-scale pedestrian environment along the edges of streets, parking lots and other public open spaces. This section describes how our streets and other public spaces may be systematically rebalanced toward and in favor of non-motorists. To help guide this effort, this section includes tools and strategies for:

- + Applying the active frontages described in Part 1 of this Toolkit to existing public streets and private properties;
- + Applying additional streetscape, pedestrian-facility, and traffic calming improvements;
- + Applying bicycle and transit improvements to select streets;
- + Designing new, balanced, "activatable" streets and public spaces as development occurs in new parts of our city or areas that redevelop significantly.

Collectively, these tools and strategies are designed to help ensure that Rancho Cucamonga's network of streets and public spaces are comfortable and attractive places for pedestrians to walk, to access the buildings, and to support community activity.

FIGURE PT-6 STREET RIGHT-OF-WAY COMPOSITION



KEY STRATEGIES DESCRIBED IN PART 2

Key strategies—listed briefly below and illustrated in detail in the sections to follow—may be employed individually and in combinations, in all cases calibrated to and integrated with adjacent private frontages as described in Section 1C Frontage Types: Context, Design & Calibration.

All Streets: *(And in some cases parking lots or other open spaces)*

- + Providing comfortable sidewalks as part of a calibrated public/private frontage assembly (see **Part 1**)
- + Providing a Landscape/Amenity Area between pedestrians and the street, to include street trees and landscaping to buffer and shade pedestrians and support active use of the public realm.

Designated Streets: *(As determined by the City)*

- + Adding dedicated transit lanes or transit-priority lanes
- + Adding bike lanes of various types
- + Adjusting travel lane widths to enable the above and to help moderate vehicular speeds
- + Adding new medians and intersection controls, such as roundabouts and signals, to strategically provide safe pedestrian crossings and better all-mode access to adjacent properties
- + Providing a Curbside Lane between pedestrians and moving traffic lanes for parking and/or other vehicular access

Implementation. The provision of active private frontages will be primarily the responsibility of developers, business owners, and property owners. The provision of active public frontages will be a collaborative effort of those parties and the City. The City will be primarily responsible for planning, approving, designing and implementing new “activatable” streets and public spaces. All such improvements will be financed primarily by developers, but will include support from the City in many cases. Through a rigorously coordinated combination of public and private improvements, Rancho Cucamonga can systematically realize the community’s vision, and establish a new direction for the 21st century.



Generous sidewalk space amply sized to accommodate pedestrians and amenities;



Active street frontages enable social and economic activity.



Dining parklet added into the Curbside Zone of a local street to provide an enlarged amenity zone for the adjacent business.

2A. APPLYING ACTIVE FRONTAGES

Almost all of Rancho Cucamonga's activity centers—our shopping centers, community centers, major parks and civic facilities—are located along arterial or collector streets, and most are separated from the street by parking lots. Most of the public frontages of these streets have relatively minimal sidewalks (if any at all) immediately adjacent to vehicular lanes that traffic moving at 35 MPH or more. In very few cases are there rows of street trees, curbside parking/access lanes, and/or bike lanes to buffer pedestrians from passing traffic.

To realize the community's vision for active frontages, in addition to providing very comfortable places for pedestrians to walk, public frontages must also enable motorists, bicyclists and transit riders to safely and comfortably arrive and become pedestrians along the private frontages of shops, restaurants, community facilities, office or industrial buildings, and residential buildings.

I. RETROFIT STRATEGIES

Applying this active frontage environment to our public streets will, in most cases, require specific design retrofits to either the street itself or to the front of the private property, or both.

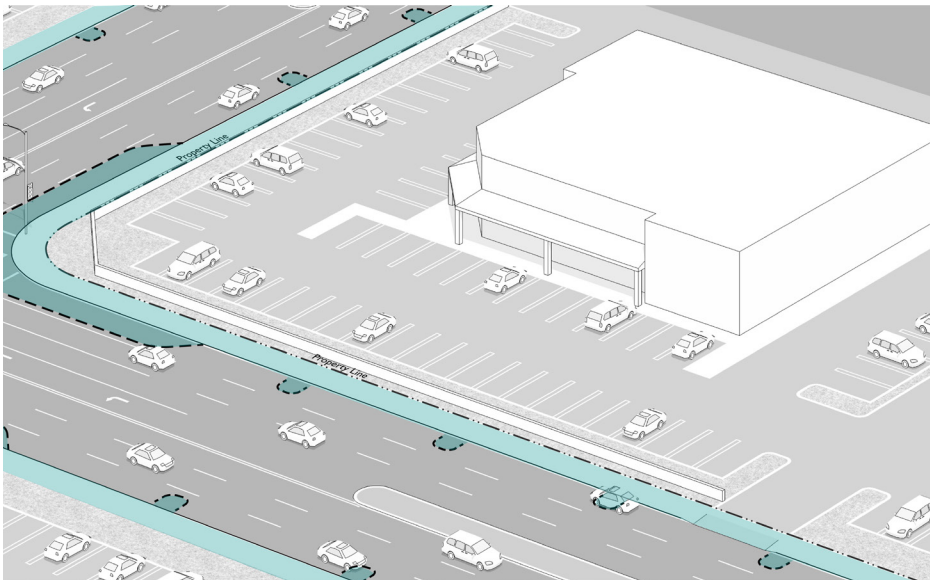
For Local Streets with only one lane of traffic each direction, and vehicular speeds in the 25 to 35 MPH range, creating high quality, human-scale, active frontages is relatively simple. New streets can of course simply be constructed per the guidelines shown in the private and public frontage type examples in Part 1 and the public frontages of existing streets can be retrofitted utilizing strategies that include:

- + **Pedestrian Way:** On any street where there is no sidewalk or the sidewalk is too narrow, a new or wider sidewalk can be provided within the front of the private parcel when that property is developed or redeveloped.
- + **Landscape/Amenity Area:** On existing streets that already have curbside parking and good sidewalks, but which might lack street trees, new street tree planters may be added within the curbside lane, in lieu of or in addition to adding a landscape/amenity area inside the curb. In addition to adding much-needed spatial definition of the pedestrian space of the frontage, street tree rows can help calm traffic speeds and offer opportunities for stormwater management facilities within such planters. See examples on the pages to follow.
- + **Curbside Lane:** Where no curbside space currently exists, one may be added by reconfiguring travel lanes with restriping—where street width allows to provide “bulb-out parking”—or by moving the curb in with “bulb-in” parking, a new sidewalk, and a landscape/amenity area. See B. Bulb-In Type on the pages to follow.

For Arterial or Major Collector Streets that have 2 or 3 travel lanes each direction, and vehicular speeds in the 35 to 50 MPH range, additional strategies and improvements are needed to create safe, comfortable, useful active frontages. The private frontages of retail, residential or office frontages are essentially the same as they are on smaller local streets, but the public frontages must be more extensively retrofitted and recalibrated to render them “activatable.”

To achieve this environment, three broad “types” of retrofits are described on the pages to follow, those retrofit types include:

- I. **“Bulb-Out” Curbside and Landscape/Amenity Area:** Where lane reductions in some form can make a curbside lane for parking possible, it is often a good design strategy to add curb extensions—or bulb-outs—to add landscaped areas at the ends of new parking lanes to alert motorists to the presence of on-street parking and provide a degree of protection for parked cars. Bulb-out parking is created by converting a travel lane into on-street parking and extending curbs in key locations to define and protect the parking lane from moving traffic. In some cases—due to the great width of some existing thoroughfares—it is also possible to add a buffered bike lane between the parking lane and moving traffic. With or without a bike lane, such a reconfiguration reduces the effective street width, visually and physically narrowing the roadway, which helps to moderate driving speeds and to reduce pedestrian crossing distances and times at intersections. Parking can be parallel or angled depending on traffic speed and volume. See I. Bulb-Out Type on the pages to follow.



Bulb-out parking extends the curb into a travel lane, thereby reducing a lane to create on-street parking



Tree planter in Curbside between on-street parking



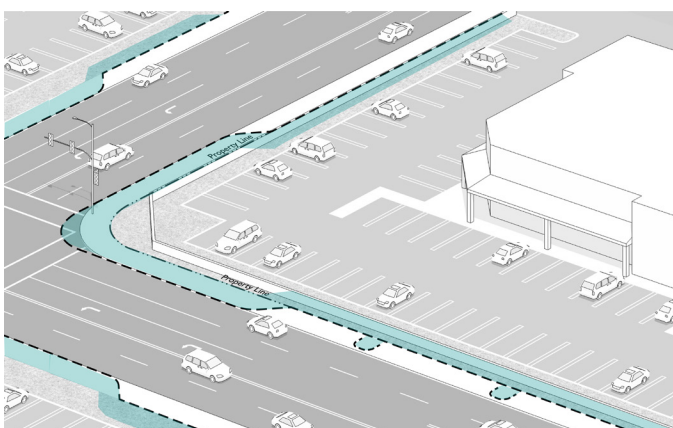
"Clear-View" (back-in) angled parking



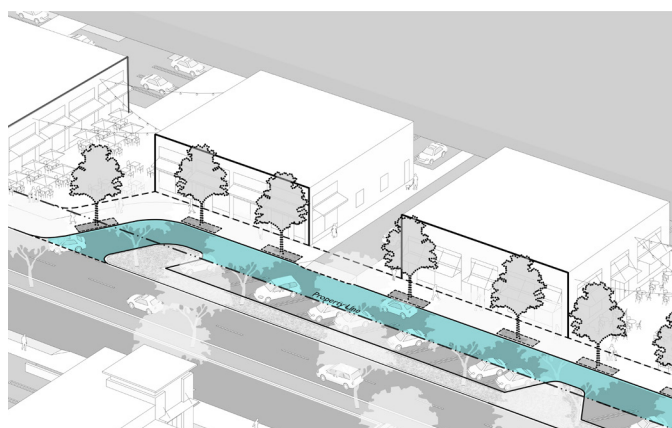
Parking lane planter and permeable paving

II. "Bulb-In" Curbside and Landscape/Amenity Area: On streets where lane reductions to free up land for curbside space are not practical, the curbs can be moved toward the building frontage to provide such a space, along with a sidewalk and potentially also a landscape/amenity area. There is typically no reduction in travel lanes. This strategy can be applied where vacant parcels or large parking lots are being repurposed, and can also be applied where there are existing "pad buildings" near the street. In the latter case, the new on-street parking and pedestrian access can provide new opportunities for such buildings and businesses to face and take access from the major street rather than parking lots. The new streetscape provides improved access and visibility which can provide significant new value to property owners. Parking can be parallel or angled depending on traffic speed and volume. See II. Bulb-In Type on the pages to follow.

III. Frontage Lane: Also referred to as a side access lane, a frontage lane is a one-way travel lane that runs parallel to a higher-speed road. In some cases, a new frontage-lane may be added to the edge of a high-volume street/corridor to provide a highly-valuable public frontage environment that is attractive to and appropriate to the intended ground floor use of the buildings fronting it. Frontage lanes are most appropriate for major mixed-use corridors with higher traffic volumes. Storefronts along frontage lanes can benefit from excellent visibility and access from the street. Parking can be parallel or angled on one or both sides of the frontage lane. The street parking, trees, and slower speed along the frontage lane provide for a more comfortable and safer pedestrian environment. The design and configuration of a frontage lane will depend on the available space, terrain, and traffic conditions at entry and exit points. See III. Frontage Lane Type on the pages to follow.



Bulb-in parking cuts into the existing sidewalk to create parking and may extend the sidewalk into private property



A frontage lane provides convenient parking and access to shops and businesses along highly trafficked major corridors

Depending on context, curbside parking—recommended for most active frontages—may be added to existing streets via any of the three strategies above. On-street parking provides motorists with convenient access to street adjacent uses, valuable convenient parking for local businesses, and visitor parking for residences. Such parking—whether on the street itself, or in frontage lanes—is also critically important to supporting development that face new buildings toward the street rather than toward parking lots in rear.

The presence of on-street parking also tends to reduce traffic speeds and provides a valuable buffer between the car traffic and pedestrians. On-street parking is particularly advantageous in corridor environments with ground-floor retail as it creates a more comfortable and safer environment for walking, dining, and shopping, thereby encouraging active use of the public realm and adding value to the street adjacent properties.

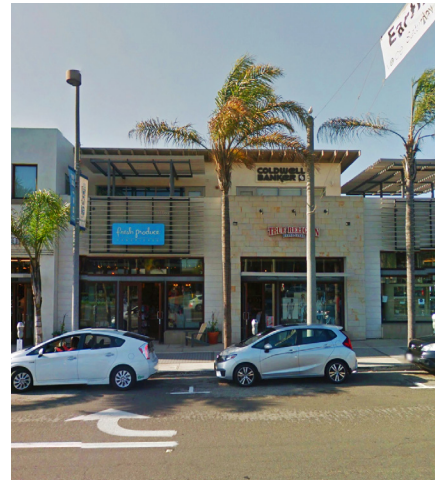
Key Considerations for On-Street Parking

- + Depending on traffic speeds and volumes, allowing for a “car door buffer” between the parked car and moving traffic can be very useful. While on-street parking spaces are nominally 7-8 feet wide, it may be appropriate to provide a striped buffer of 2 to 3 feet as well.
- + Where angled parking is feasible, reverse-angled design (or “clear-view parking”) is proven to be much safer than conventional head-in parking, especially on streets where bicyclists are expected.
- + In retail environments, on-street parking must be managed so that there is always a space or two open per block. If managed by pricing, revenue can be used for improvements and maintenance in that area.
- + Permeable pavement in the parking spaces can provide a visual distinction from travel lanes and reduce stormwater runoff.
- + Planters at intervals between 2 to 4 parking spaces can be used to accommodate utility poles, trees, and additional stormwater facilities.
- + Accommodations for bikes should be provided wherever possible. These may be buffered/protected lanes or, in some cases, in shared vehicular and bike lanes (sharrows) where vehicular speeds are low.

For Parking Lots, Part 3 of this Toolkit provides additional strategies for improved activation of many of our existing (suburban) shopping centers where shops are disconnected from the street/public realm by large surface parking lots. In these cases, strategies for extending the public realm environment into the site to reconnect building frontages to pedestrians not arriving by car are provided. See Section 3C. “Parking Lot Retrofits.”



Frontage lane provides a high-quality and safe public frontage off of a busy corridor.



Convenient curbside customer parking is a valuable amenity for businesses.

A. BULB-OUT TYPE

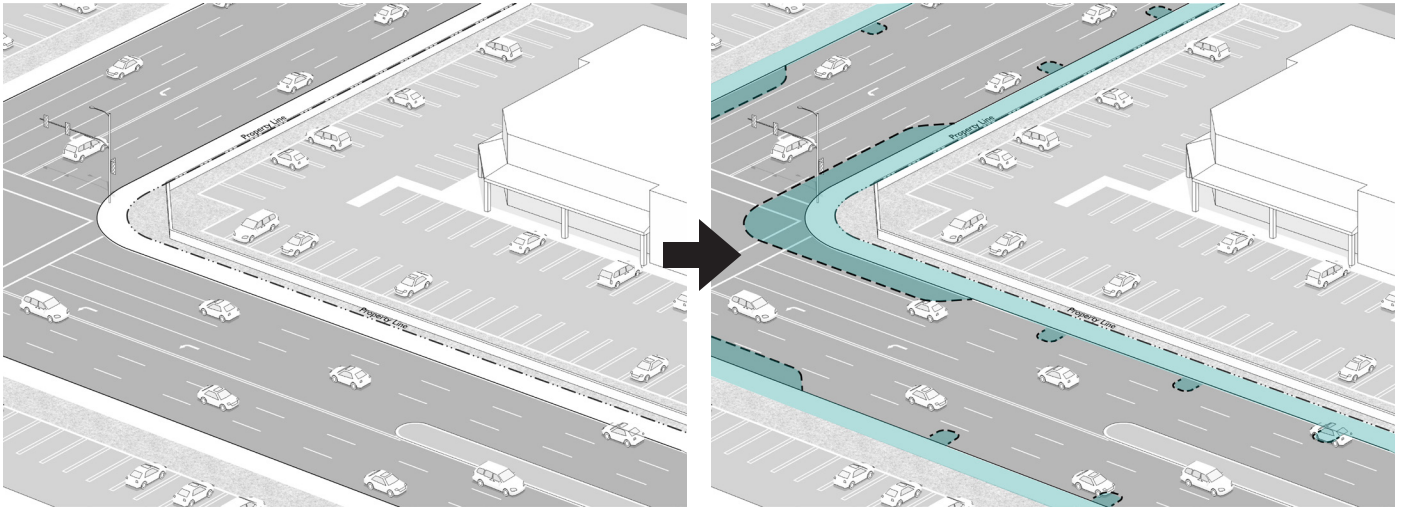
Based as they were on prevailing auto-centric engineering standards of the mid to late 20th century, the curb-to-curb vehicular way within many of Rancho Cucamonga's streets are wider than necessary to accommodate existing and projected vehicular volumes. In some cases, an entire travel lane may be repurposed as space for curbside parking, bike lane or transit lane, and on streets where the number of vehicular travel lanes must be retained to ensure adequate traffic flows, the widths of many lanes may be reduced somewhat, which has been shown in many cases to moderate vehicular speeds with little or no reduction (and in some cases, counter-intuitively, an increase) in its capacity as measured in vehicles per hour.

Based on the time-tested value of efficiency and thrift, the preferred strategy is to simply re-allocate existing built streets to rebalance modes to favor active frontage wherever possible. Key considerations in implementing the strategy include:

Through consultation with a developer proposing new buildings along an existing street, the City will determine whether it is possible and desirable to reconfigure existing lanes within a sufficient segment of that street to make available space for curbside space.

- + In reaching such a determination, the City will consider whether that street has been designated as a Transit-Priority or Bicycle-Priority Street, and/or whether improved medians related to potential new signalized intersections may be desirable. The provision of such facilities of corridor-wide value and significance would take priority over assigning existing public right-of-way or use as a bulb-out curbside space for any one property.
- + Working with the developer, the City will determine the appropriate location and extent and depth of the bulb-outs, in relation to proposed development, existing and proposed cross-streets, potential new transit stops, and access to existing and potential future development on adjoining parcels.
- + In some cases, in order to provide an adequate landscape/amenity area and tree plantings, the developer may be required to reconstruct the sidewalk partially or entirely within the front strip of the private parcel, and/or to construct tree planters within the bulb-out curbside space.
- + In some cases, the Bulb-Out Curbside space may be made deep enough to accommodate a bus stop, in which case it would also be deep enough to provide a car door buffer between parking spaces and vehicular travel lanes. Such a buffer may also be required regardless of the presence of a potential bus stop, based on the City's assessment of vehicular speeds and volumes and hence the reality and perception of safety in parking along that street.

► “Bulb-Out” Frontage Improvements



Bulb-out parking extends the curb into a travel lane, thereby reducing a lane to create on-street parking



On-street parking can be angled or parallel



Bulbed extensions at mid-block crossing



Parking lane planter



Parking lane planter and permeable paving in parking lane

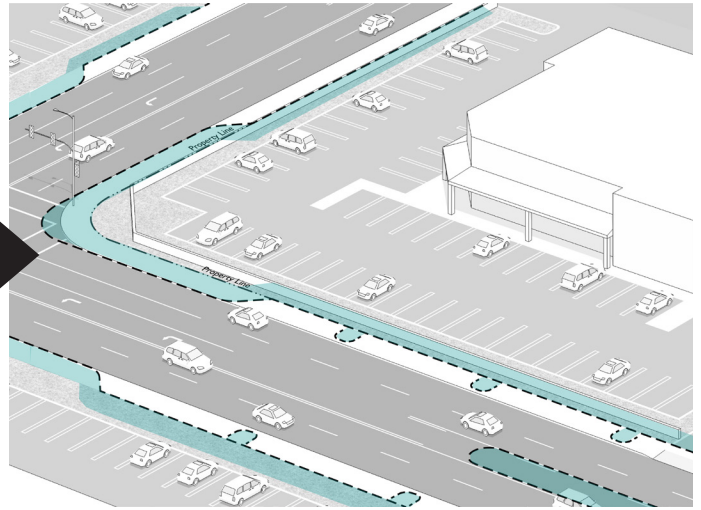
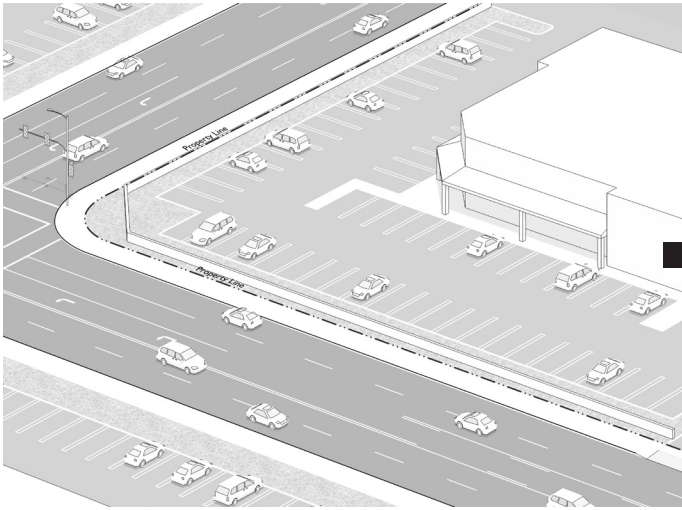
B. BULB-IN TYPE

On streets where no curbside lane is present, where the City has determined that the number and widths of travel lanes cannot be reduced to free up enough space for curbside space, the curbline may be “bulbed-in” toward the adjoining property to provide space for a curb side lane, landscape/amenity area and pedestrian way at the time of its development or redevelopment.

In most cases, the entire new public frontage assembly will be constructed behind the existing curb toward the building frontage, thus providing new and enhanced access and visibility to the property owner. Key considerations in implementing this strategy include:

- + Working with the developer, the City will determine the appropriate location, extent and depth of the bulb-in curbside lane assembly, in relation to proposed development, to existing and proposed cross-streets, and to potential new transit stops. Access to existing and potential future development on adjoining parcels may also be taken into account.
- + In some cases, the City may require that bulb-in curbside lane be made deep enough to accommodate a bus stop, in which case it would also be deep enough to provide a car door buffer between parking spaces and vehicular travel lanes. Such a buffer may also be required regardless of the presence of a potential bus stop, based on the City's assessment of vehicular speeds and volumes and hence the reality and perception of safety in parking along that street.
- + In order to provide an adequate landscape/amenity area and tree plantings, the developer may be required to reconstruct the sidewalk partially or entirely within the front strip of the private parcel, and/or to construct tree planters within the bulb-out curbside lane.

► “Bulb-In” Frontage Improvements



Bulb-in parking cuts into the existing sidewalk to create on-street parking and may extend the sidewalk toward the building



Transit stop at bulbed corner



Parallel parking in front of shops



Bulbed corners improve crossings for pedestrians



Storm infiltration system in bulbed corner

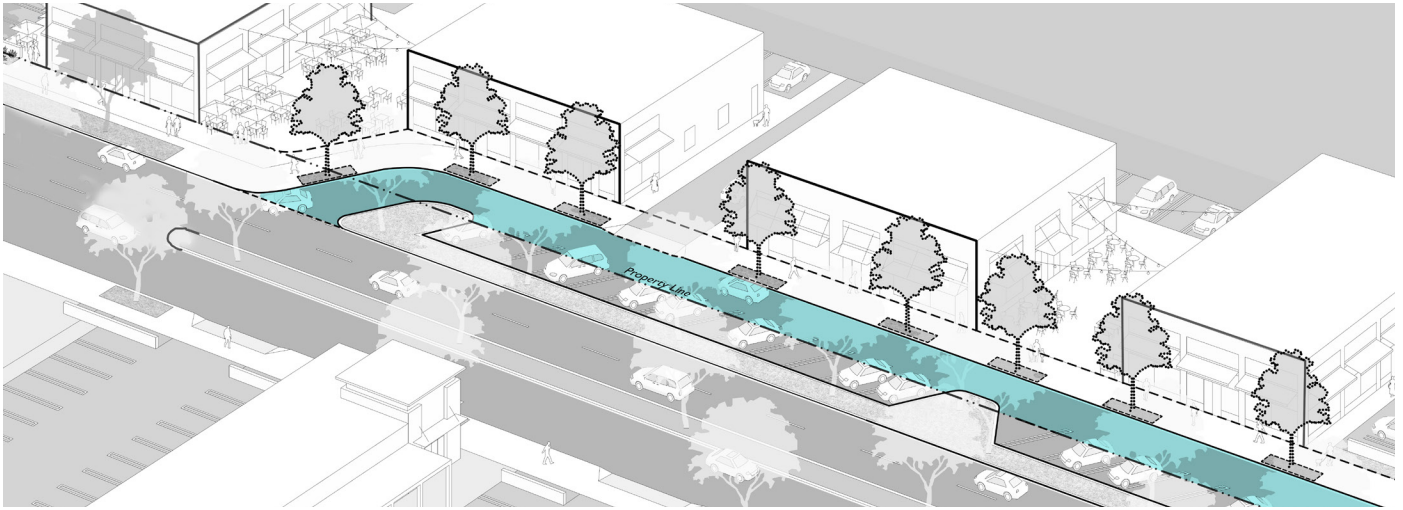
C. FRONTAGE LANE TYPE

On streets where no curbside lane is present, where the City has determined that the number and widths of travel lanes cannot be reduced to free up space for curbside space, and where the City determines that due to vehicular speeds and volumes on that street a safe and comfortable curbside lane cannot be provided immediately adjacent to vehicular travel lanes, a frontage lane—also known as a side access lane—may provide low speed vehicular access and parking along the building frontages. Side access lanes were, and are, common along the edges of the classic “boulevards” of great American and European cities, providing a comfortable pedestrian environment adjacent to major crosstown thoroughfares. They may equally be seen as “front parking lots” that look more like part of an important street than “parking lots” in front of the buildings.

As illustrated to the right, a frontage lane is a low-speed, one-way roadway, separated from the main thoroughfare by a median/planting strip, with parking on one or both sides. Parking may be parallel or angled, up to 90 degrees, both head-in and back-in. As with all other active public frontage types, the frontage lane is adjoined by a landscape/amenity area and comfortable sidewalks. Key considerations in implementing this strategy include:

- + Street tree rows are within the landscape/amenity area and the median/planting strip.
- + In many cases a bike lane or transit lane may run adjacent to the curbline of the primary thoroughfare, since the curbside lane and pedestrian way functions are accommodated within the frontage lane.
- + This configuration requires that buildings be set back farther from the main thoroughfare than in the case of bulb-in parking, but the ground floor uses within those buildings are provided with a higher quality parking and pedestrian experience, and in many cases would be set back no more than existing buildings.
- + In select cases where the City determines that the number and width of travel lanes may be reduced, it may prove possible to construct frontage lanes outward into the existing streets, encroaching less or not at all into the private properties adjacent.
- + Where frontage lanes are constructed along Transit-Priority Streets, the City—in coordination with developers and Omnitrans—may incorporate bus stops into the median/planting strip or along the curbs within the frontage lane to provide very convenient rider access to a high-quality, active pedestrian environment and adjoining businesses and other uses.

► Frontage Lane Improvements



A frontage lane provides convenient parking and access to shops and businesses along highly trafficked major corridors.



Frontage lane with angled parking adjacent to sidewalk



Transit stop in median between frontage lane and travel lanes



Street trees and parked cars provide physical and visual buffer from vehicular traffic for pedestrians



Frontage lane with raised crosswalk slows traffic, especially at intersections

2B. APPLYING ADDITIONAL IMPROVEMENTS

I. ADDING CROSSWALKS AND CONTROLLED INTERSECTIONS

Crosswalks are important elements of complete pedestrian networks and should be located at major street intersections and, where safe and appropriate, at certain mid-block locations. Many major streets—designed to carry large volumes of vehicles at relatively high speeds to “connect” the community—end up being barriers to active transportation and to convenient access to many parcels because of the wide spacing of intersections and consequent scarcity of safe, convenient, and comfortable pedestrian crossings.

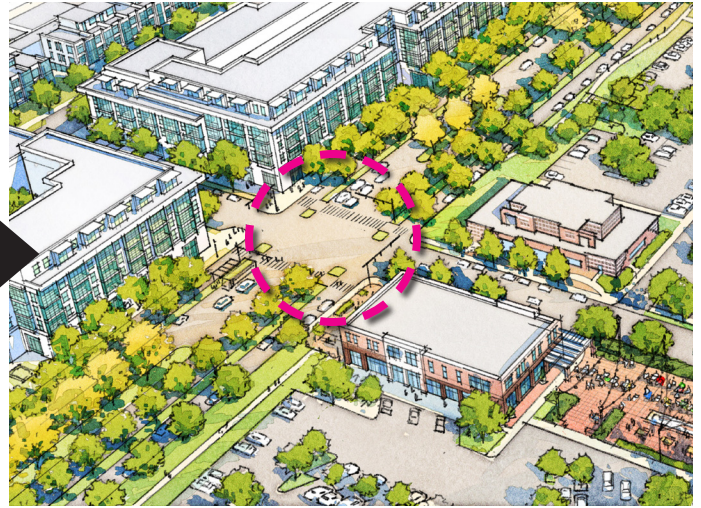
As many of the city’s corridors evolve toward places where people walk, bike, shop, and gather as a community, it is critically important that these large streets become much more “crossable” by pedestrians, bicyclists, and even motorists who simply want to go a short distance to a destination on the other side of the street. Accordingly, as large parcels of land along major streets are subdivided into smaller blocks accessed by new streets, many of the new streets of this more complete network must cross existing arterials and large collector streets to enable all-mode connectivity between Neighborhoods, Centers and Districts.

More closely spaced intersections will also help moderate the average speed of car traffic, while drastically increasing the effective connectivity of a place for those who seek to access amenities and visit friends along the corridor rather than just driving by. Strategies that can contribute to improved “crossability” as new intersections are created include:

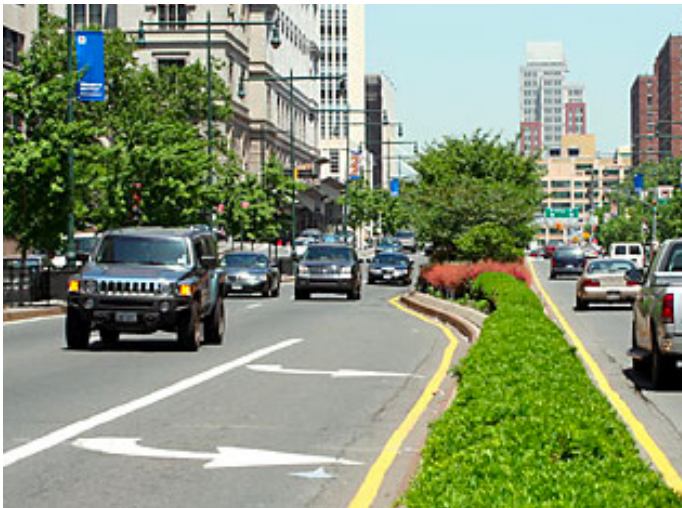
- + Insert landscape medians with low shrubs near crossings.
- + Introduce “medianettes” with pedestrian refuges at selected crossings.
- + Extend (bulb-out) corners of intersection sidewalks to reduce pedestrian crossing distance and accommodate access ramps.
- + Design crosswalks with high visibility enhancements, including advance or in-street warning signage, overhead lighting, refuge island, high-visibility markings, such as zebra style crosswalks, and raised or tabletop design.
- + Restrict parking on the crosswalk approach.
- + Plant strong street tree rows within medians to further define and shade the space of wide streets, along with pedestrian crossing refuges where appropriate.
- + Within Transit-Priority Streets, dedicated bus rapid transit (BRT) or light rail transit (LRT) guideways and tracks may be located within medians.



New signalized intersection needed



New signalized intersection added



Landscaped median with shorter left turn pockets



Bulbed-out corners



Mid-block crossing with zebra style crosswalk



Crosswalk with median refuge



Neighborhood streets provide opportunities for circulation and recreation to residents.

II. NEIGHBORHOOD STREET RETROFITS

Neighborhood streets are spaces of the public realm that residents experience most frequently. They also define the “location” and “curb appeal” of each residence and are thus foundational to property value and neighborhood lifestyle.

It is of course vitally important that neighborhood streets provide safe mobility and access for people of all ages, physical abilities, and modes of travel. In addition to providing safe and comfortable all-mode access to homes, neighborhood streets should be designed as places where children play, and neighbors meet and interact as a community. As has become even more evident during the pandemic, the opportunity to walk out of one's front door and immediately enter a comfortable and attractive walking, biking and socializing environment is an invaluable amenity.

The following sections present design strategies that can improve the safety, comfort, appearance, and usability of any street, and all can be applied to neighborhood streets. Many of these strategies help to calm traffic, improve walking and biking routes, and help make these streets very attractive and useful public spaces. Implementation of the design strategies presented in this section will require careful consideration of physical constraints, street function, safety, and of course engagement with neighborhood residents and property owners.



Neighborhood streets vary in size, traffic volumes and speeds, and curbside parking needs; improvements will also vary.



With slower vehicular traffic speeds, comfortable walking and biking routes, and nice landscaping, neighborhood streets can become “the living rooms of the neighborhood”, providing places for social interaction, play and recreation..



Buffered bike lane next to curbside parking.



Existing bike lane on Highland Avenue is not well protected from vehicular traffic and could be improved with a buffer.

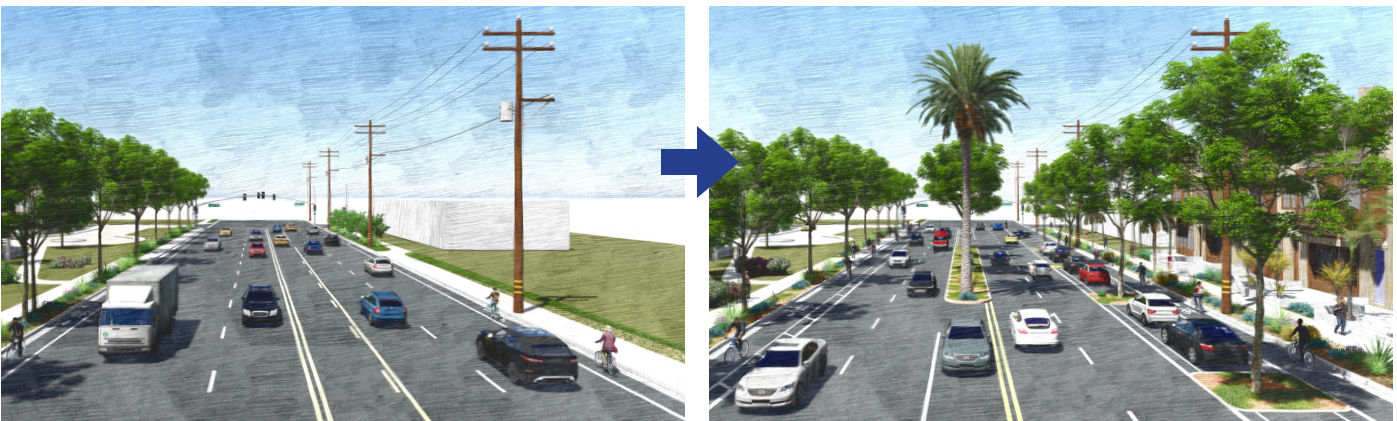
III. TRAFFIC CALMING & PLACE MAKING

The urban design strategies presented in this Toolkit—noted above and described and illustrated in a bit more detail here—are applicable throughout Rancho Cucamonga’s street network and public realm, some particularly suitable for improving the safety, comfort and appearance of neighborhood streets.

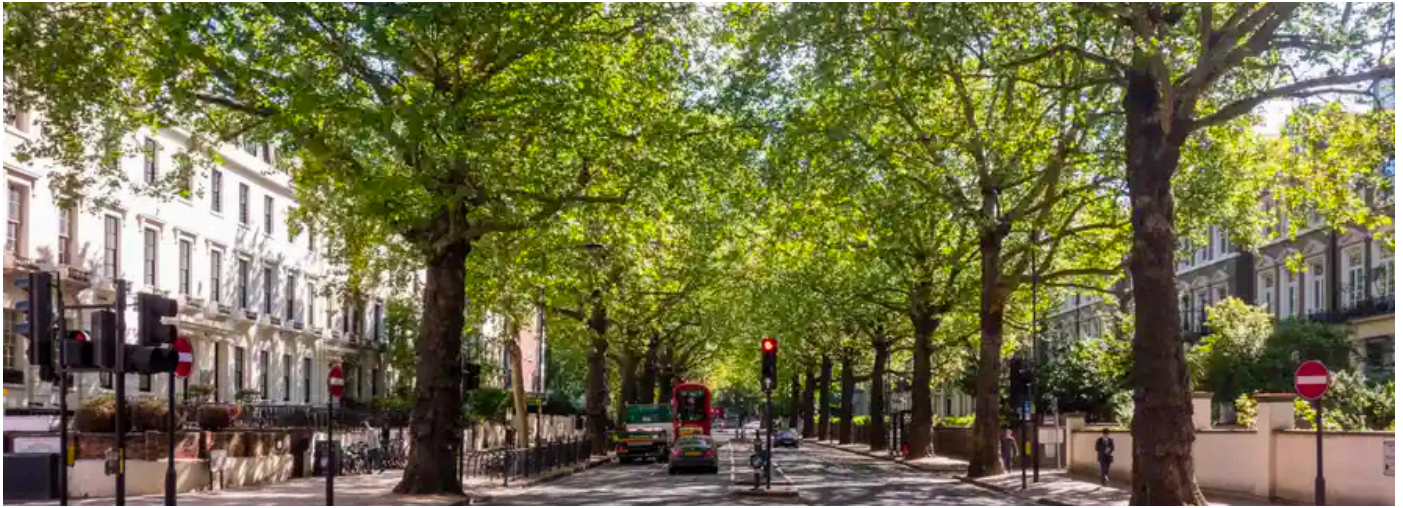
A. ADDING STREET TREES

Planting strong rows of street trees is perhaps the simplest way to improve the quality of the environment on any street. Street trees help to define the space of the street as an “outdoor room of the community”, and have a “visual narrowing” effect, which increases pedestrian comfort and moderates driving speeds. In Rancho Cucamonga’s increasingly hot, dry, windy and unpredictable climate, the shading and wind-buffering effect of a robust urban tree canopy can radically transform the microclimates and human comfort of our streets. Not to mention the beauty of trees themselves, and the filtered sunlight beneath them that generates pleasant places for people to walk, shop, and just spend time out in public with friends and family. The principles below should be followed when adding trees in medians and along the edge of streets.

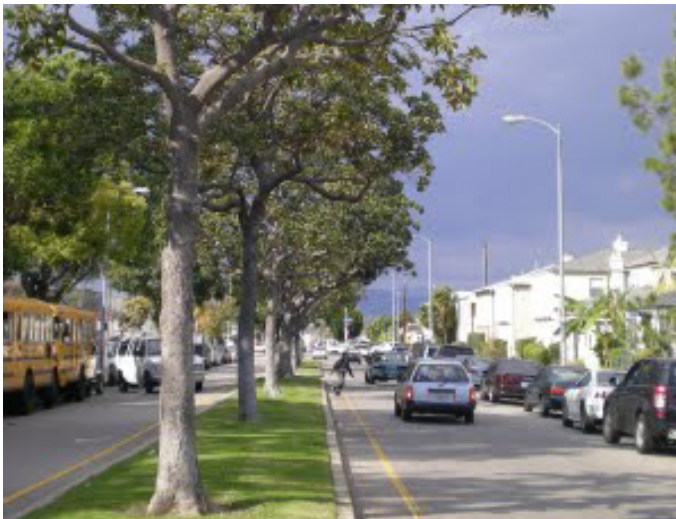
- + Design the landscape/amenity area with sufficient width for the desired tree type—not the other way around.
- + Although there are many considerations on tree types that depend on the specific context, they should generally be as tall and full as possible.
- + Street trees in the amenity zone should be distanced far enough away from the building to shape an open and comfortable pedestrian space. This also visually “narrows” streets that feel too wide and exposed. Additional trees in a center median may be needed to achieve this on especially-wide streets.
- + To the extent possible, each street, or segment of street, should be consistent in its regularity and species of trees.



Improved street environment with the addition of street trees in median, parking lane planters, and along sidewalk



Large canopy trees provide shade and frame the streetscape



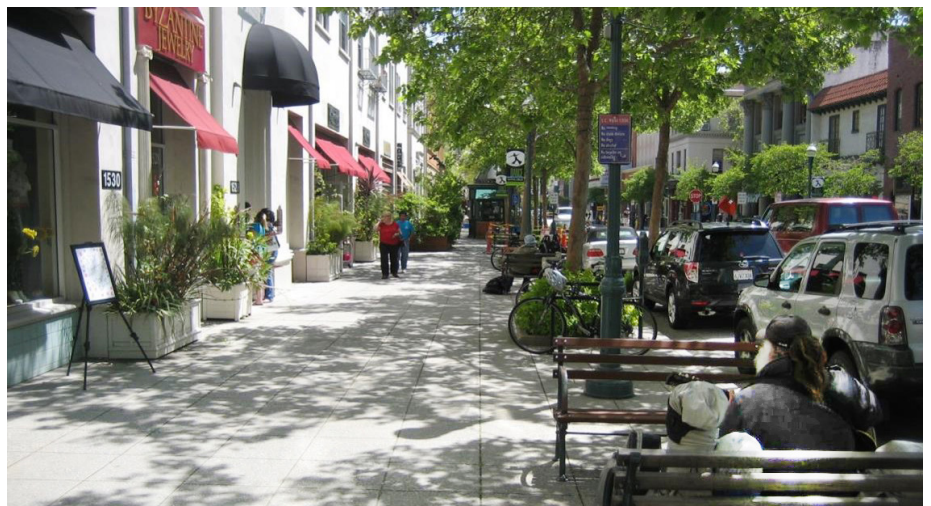
Center median with strong tree rows



Parking lane planter



Regularly spaced trees contribute to an attractive streetscape



Shade provided by street trees helps create a more comfortable pedestrian environment

Add Trees Along Street Edges

Adding trees to streets contributes both to traffic calming and to improving the look and comfort of walking environments in and around neighborhoods. Trees can be added to various locations within the streetscape to visually narrow the roadway, which moderates driving speeds, and, if the canopies are large enough, they can provide shade and wind protection on sidewalks.

- + **Parking Lane Planters.** Where there is on-street parking, small planters with or without curbs can be constructed in between parking spaces. In addition to providing shade to the parking lane and sidewalk, this reduces the wide appearance of streets that have on-street parking.
- + **Continuous Planting Strip.** A four- to six-foot-wide planting strip between the sidewalk and the street provides space for trees that can shade the sidewalk and part of the roadway. Where possible, instead of creating street tree square planters, as is often done in urban locations, allowing the planting strip to continue uninterrupted is advantageous in neighborhoods because it provides more space for landscaping and is better for stormwater management.
- + **Add Medianettes.** Trees can also be added into the roadway in medianettes. See the next section.



Parking lane planters bring trees closer into the roadway, narrowing the look of the street, encouraging drivers to move at more careful speeds.



Parking lane planters can be a continuation of the sidewalk curb, or be constructed separate from the curb.



Wide, continuous planting strip allows for frequently spaced large trees with large canopies, providing lots of shade.

Add Trees in Medianettes

Small medians can be added to calm traffic and provide another location for landscaping and street trees. The ability to add medianettes will depend on the width of the roadway and travel lanes. Where there are already center turn lanes, medianettes can be added in a manner that still allows adequate spacing for required left turn access. However, even streets with no center turn lane can often be reconfigured by narrowing lanes to host 5-foot wide medianettes (large enough for trees).

- + **Collector Streets.** Collector streets tend to have high speed traffic, and often do not require curbside parking. Where roadway width allows, medians could calm traffic. This would be especially important on collector streets that have bike lanes.
- + **House-Fronting Streets.** Streets with house fronts benefit from the medianette's ability to slow down traffic and add trees to streetscape.



Where there are large roadways and curbside parking, medianettes can be designed in conjunction with parking lane planters.



Lemon Avenue, which has house fronts, is a wide roadway, allowing cars to speed freely. Introducing medianettes is one way to encourage cars to drive more slowly and carefully through this neighborhood, in addition to improving the environmental quality.



Street Retrofit: Lanes are narrowed and reconfigured, where street width allows, to accommodate the installation of medianettes with street trees and landscaping. This contributes to a more comfortable and attractive environment for all users—pedestrians, cyclists, and motorists.

B. ADD LIGHTING

Lighting is an important part of pedestrian safety and comfort. Well-placed and well designed lighting ensures that public areas are still accessible after dark and that motorists can see pedestrians on sidewalks and at intersections while at the same time minimizing light pollution. This is most important on collector streets that are not fronted by houses, where residential lights do not provide any illumination, and wherever there are potential traffic conflicts between pedestrians, bikes, and cars, such as at crosswalks. The appropriateness of lighting on streets is also determined by neighborhood character—some rural streets may not require pedestrian lighting. It is essential that lighting produces a minimum amount of glare and light pollution as well as creating an inviting environment.

- + **Pedestrian Scale.** In addition to lighting oriented to the roadway, lighting should be oriented toward sidewalks, illuminating walking paths. Pedestrian scale lights can be added to street lights, lighting patterns can be selected that focus adequate light onto the sidewalk, or shorter luminaires can be provided near sidewalks within landscaping.
- + **Intersection Corners and Crosswalks.** Providing lighting at the arrival points of crosswalks creates safer conditions because cars can see pedestrians approaching sidewalks and bicycles approaching intersections.



Pedestrian scale lights as freestanding or part of street lights.



Mid-block crossing with a medianette pedestrian refuge.



A mid-block bulb-out protecting a pedestrian crossing.

C. ADD SAFE CROSSINGS

In neighborhood streets with wider crossings (generally > 40 feet), or higher traffic volumes and speeds (generally > 25 mph), the following are examples of strategies for enhancing the safety and comfort of pedestrian crosswalks.

- + **Curb Extensions.** Wherever there is on-street parking, the curbs at intersections (where parking is no longer allowed) can be extended to provide a shorter crossing distance for pedestrians.
- + **Mid-Block Bulb-outs.** In the same manner as curb extensions, bulb-outs can be constructed around crosswalks to shorten crossing distances. These also visually narrow the roadway and provide better visibility of pedestrians waiting to cross.
- + **Raised Crosswalks/Speed Tables.** Raising a crosswalk at an intersection necessarily slows vehicle speeds.

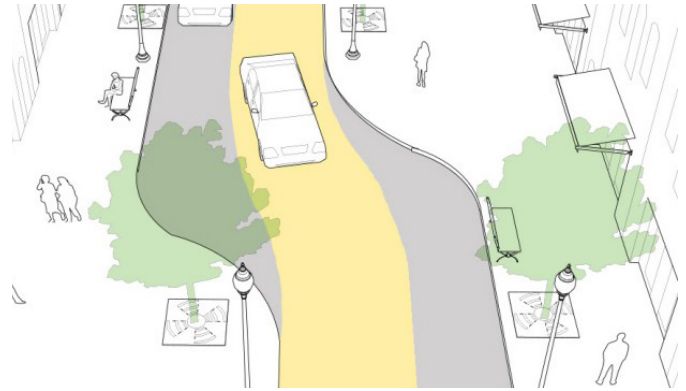


A raised crosswalk, also known as a speed table.

D. ADD CHICANES

Chicanes are a form of traffic calming that utilize offset curb extensions or other barriers to vehicular travel to redirect lanes. These can be used on neighborhood streets with a variety of widths to significantly slow traffic speeds. Chicanes can also be created by alternating on-street parking.

- + **Alternating Curb Extensions.** Medianettes can be added on the sides of street as curb extensions, providing more room for landscaping on neighborhood streets. When constructed as a retrofit, these medianettes are often separated from the gutter to allow drainage. Where there are bike lanes, medianettes can be separated from the sidewalk curb with enough distance to allow a bike to pass, improving safe passage for bikes.
- + **Alternating Parking.** On streets with some on-street parking, the parking provided can switch from one side to the other, shifting travel lanes. This can be reinforced with some physical barriers such as curbs and landscaping.



Chicane (NACTO)



Chicane on a neighborhood street



Chicane with medianettes.



Mini Roundabout



Mini Roundabout

2C. APPLYING TRANSIT & BIKE IMPROVEMENTS

I. TRANSIT PRIORITY STREET RETROFITS

Providing safe, convenient and comfortable access to transit is essential to rebalancing travel modes and creating a street environment that equitably serves the needs of users of all ages and abilities. The Vision Diagram, shown in Volumes 1 & 2 of this Plan, illustrates a framework for multi-modal access throughout the city and identifies “Transit Priority Streets” to enhance transit mobility and access. In particular, Foothill Boulevard and Haven Avenue are identified in the Mobility Chapter, in Volume 2, as boulevards “that promote economic development around high-quality transit service, including light rail (LRT), streetcar, and bus rapid transit (BRT), while fostering a pedestrian scale environment in which walking and biking actively complement public transit.”

This section provides design strategies for transit priority streets to better accommodate transit service and provide high-quality amenities and improved streetscape for people who walk and take transit. Implementation of the design strategies presented in this section will require thoughtful consideration of surrounding land use context and characteristics—both current and expected. It will also require coordination with adjacent development as well as collaboration and coordination between City departments and relevant transit agencies, especially when designing within a limited right-of-way.

There are generally three broad strategies for integrating transit, whether as improvements to streets with existing transit or as a new major infrastructure improvement. The following options for adding high-quality transit are described in detail on the following pages.

- + Peak-Hour Bus Lane
- + Bus-Priority Frontage Lane
- + Center-Running Transit Lane

In conjunction with the improvements for the options above, transit stop location should consider the physical and operational context of the street and transit route. In general, transit stops can be located on the near side or far side of the intersection, or at midblock. Far side stops improve pedestrian safety when riders use the crosswalk behind the bus and allows other cars to use the right lane at intersection approaches. Midblock stops can help to avoid vehicle queuing that may occur at intersections but tend to make for longer walks to the stop from side streets. Far side stops are the most common but near side and midblock stop locations may also be considered based on site conditions and other transit criteria.

► Peak-Hour Bus Lane

A peak-hour bus lane provides a dedicated lane for bus travel during peak hours, typically between 7am-9am and 4pm-7pm, thereby increasing the efficiency of transit service during peak travel times. Peak-hour bus lanes are typically placed in the outer travel lane on major streets with heavy transit ridership.

Peak-hour bus lanes should be installed with bus pads, appropriate signage, and pavement markings. If the appropriate width for a bicycle lane is not feasible alongside a peak-hour bus lane, the lane may be designed as a shared bike-bus lane.

On-street parking, where available, is prohibited during peak hours. Where possible, the bus lane may be “offset” by a parking lane so that on-street parking is not restricted. Bus bulbs, where the sidewalk is extended to accommodate a curbside bus stop, should be installed in conjunction with offset lanes.



Peak-hour bus lanes may be integrated in streets with or without frontage lanes.



Red paint delineates and reinforces the lane for bus use only



Bus bulb with transit shelter and amenities



Bus lane signage



Shared bus-bike lane



Shared bus-bike lane

► Bus-Priority Frontage Lane

Where frontage lanes are present, the bus may enter it via slip lanes from the main travel-way to access bus stops on the sidewalk. For that segment of the frontage lane, the bus takes priority. A bus-priority frontage lane avoids having passengers cross the frontage lane when getting to/from a median boarding island. It also preserves roadway traffic capacity as the bus does not stop in a primary travel lane. A slight variation of this option is to locate the bus stop before the entry to a frontage lane so the bus does not travel in the frontage lane.

Bus pads, appropriate signage, and pavement markings should be installed for bus-priority segments. Entry slip lanes should be limited access for buses only and, where possible, be of sufficient width to accommodate a bus waiting to slip into the frontage lane.



Bus stop in frontage lane



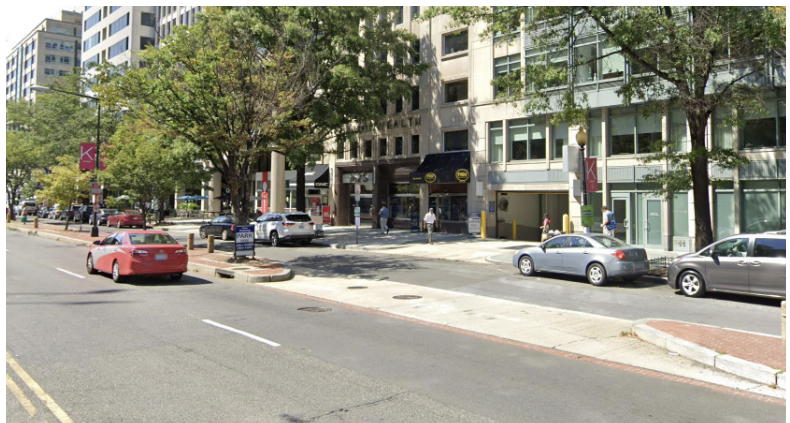
Bus traveling along frontage lane



Wide median between frontage lane and travel lanes



Entry to frontage lane



Midblock entry to frontage lane

► Center-Running Transit Lane

Dedicated lanes down the center of streets enhance efficiency for bus travel along major corridors and may also accommodate bus rapid transit (BRT), streetcar, and light rail (LRT). Transit lanes can be separated from other travel lanes by striping or a median. In either case, transit stops are located on median boarding islands. Left turn lanes can also be accommodated in the median and should be provided with a protected turn signal.

Center-running transit lanes should be installed with bus pads, appropriate signage, and pavement markings. Median boarding islands should be placed in close proximity to safe, signalized crosswalks and with sufficient queuing space for buses. Boarding islands should be a raised platform with a ramp for greater accessibility and include an enclosure or barrier separating waiting passengers from moving traffic.



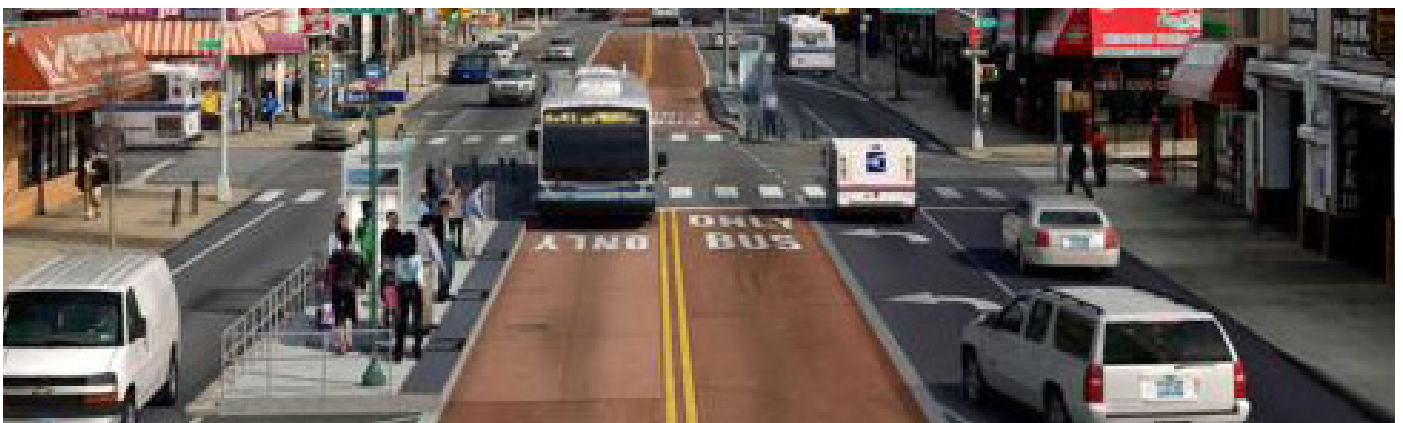
Center-running bus lanes with medians that accommodate transit stops and left turn lanes.



Barrier and shade structure at median boarding island

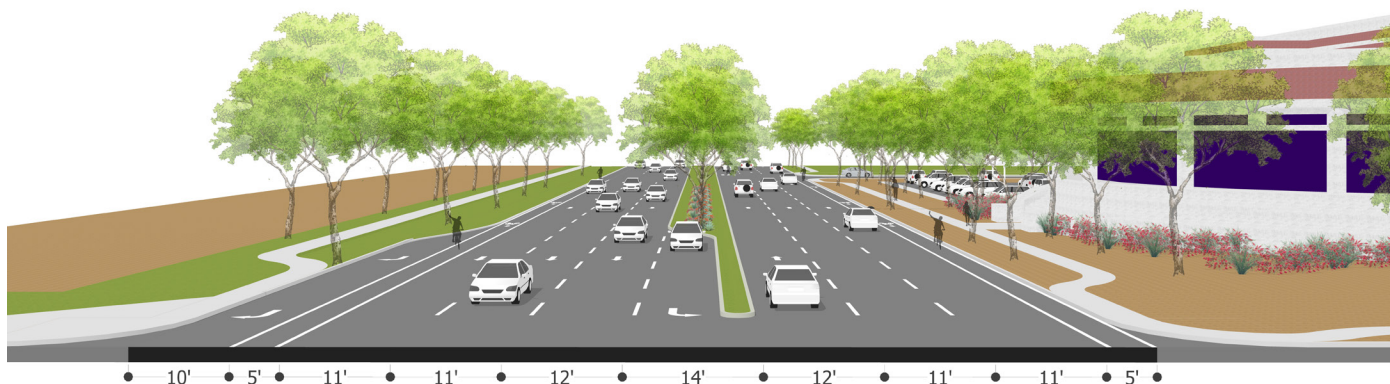


Center-running bus lanes

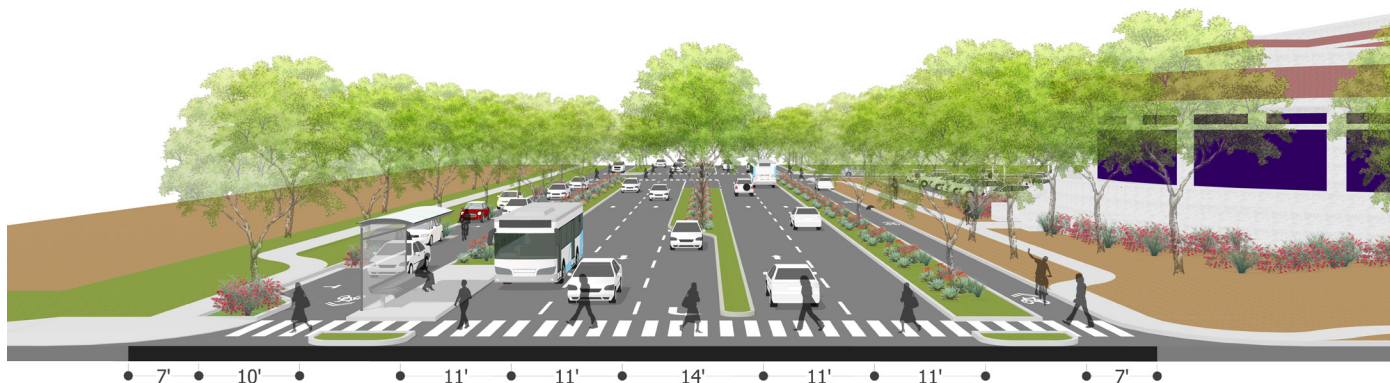


Striped median busway with raised platform bus stop

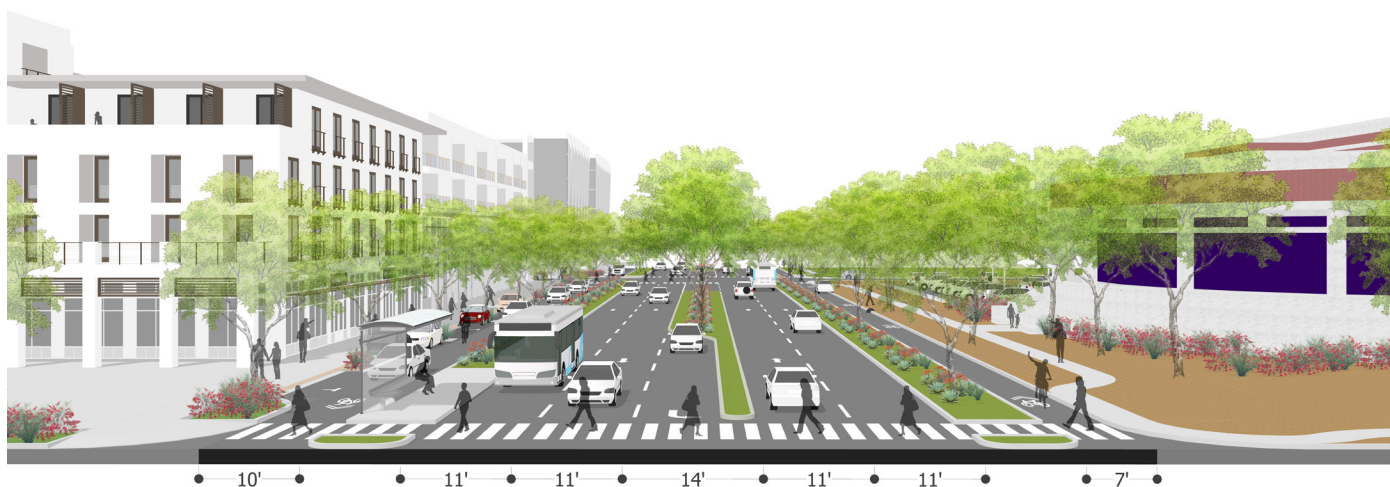
FIGURE PT-7 EXAMPLE SCENARIO: HAVEN AVENUE TRANSFORMATION



Typical Existing Condition: Narrow sidewalk directly lining 7-lane street with existing buildings set far back.



Phase 1: Reconfigure existing street, either by reducing travel lane widths or the number of travel lanes, to accommodate appropriate public realm dimensions. Introduce frontage lane with on-street parking where adjacent development is expected. Provide protected bike lane in-lieu of frontage lane in the short term.



Phase 2: Enhance existing sidewalk and provide new street trees and landscaping, if not already installed, to create an appropriately, safe, attractive and comfortable public frontage environment to support new street fronting commercial buildings.

FIGURE PT-7 EXAMPLE SCENARIO: HAVEN AVENUE TRANSFORMATION (cont'd)

Phase 3: Convert protected bike lane into frontage lane with new curbside parking, street trees, landscaping, and enhanced sidewalk with the development of new street fronting commercial buildings.



Alternative Frontage Lane Configuration: Curbside parking may be placed along the median to allow bulb-outs near intersections. The bulb-outs provide additional space for median refuge and for transit stops at median boarding islands.



Bikers cycling along protected bikeway

II. BIKE PRIORITY STREET RETROFITS

As illustrated in the Vision Diagram of this General Plan, shown in Volumes 1 & 2, “Bike Priority Streets” are identified throughout the city as part of the framework for multi-modal network connectivity. This section provides design strategies for bike priority streets to better accommodate bicyclists with improved bicycle infrastructure and amenities. Implementation of the design strategies presented in this section will require careful consideration of physical constraints, street configuration, and design speed.

Bike priority streets should be designed to encourage safer vehicle speeds, fewer collisions, and a pedestrian- and bicycle-friendly environment. Adding dedicated bike lanes is a simple way to slow traffic while providing cyclists with a safe space for travel between destinations as they allow riders to travel at speeds appropriate to bicyclists rather than moving traffic.

There are generally two strategies for retrofitting streets to accommodate bike lanes of various types. The two strategies can be used in conjunction to optimize the use of the street right-of-way and create a more safe, comfortable, and attractive environment for all users—pedestrians, cyclists, and motorists.

- + **Lane Reconfiguration.** Streets can be reconfigured to accommodate a bike lane and other pedestrian- and bicycle-friendly street improvements, such as on-street parking and wider sidewalks, by restriping the roadway. This typically involves reduction in the number of lanes either by converting the outer travel lane or by introducing a center-turn lane.
- + **Lane Narrowing.** Narrowing the width of wider travel lanes (12 feet or wider) can provide space for bike lanes as well as other beneficial street improvements, such as wider sidewalks and landscaped medians and Landscape/Amenity Areas, within existing right-of-way. Narrower lanes provide traffic calming by encouraging slower speeds and reduce the risk of collisions.

In general, travel lanes may be narrowed to 10-11 feet depending on target operating speeds and street context and characteristics. Streets with frequent volumes of larger vehicles, such as trucks and buses should have at minimum one 11-foot-wide travel lane in each direction.

The following are some key considerations when adding bike lanes to existing streets through the reallocation of existing street space.

- + Wider bicycle lanes (greater than the required minimum width of 5 feet but less than the width of a vehicular travel lane) should be considered on streets with heavy bicycle traffic and on streets with steep inclines to allow faster moving cyclists to pass one another.
- + Left-side bike lanes should be considered on one-way arterial streets if significant transit service is present on the right-most travel lane.

- + Wider bike lanes should be considered on streets with steep inclines
- + On streets with bike lanes, consider using parallel parking spaces as buffer to protect the bike lanes.
- + Consider painting a striped buffer between the bike lane and parking lane to reduce the risk of conflict and “dooring” collisions with bicyclists.



Typical Existing Condition: Wide travel lanes, especially the outer lane, with minimal bike lane space



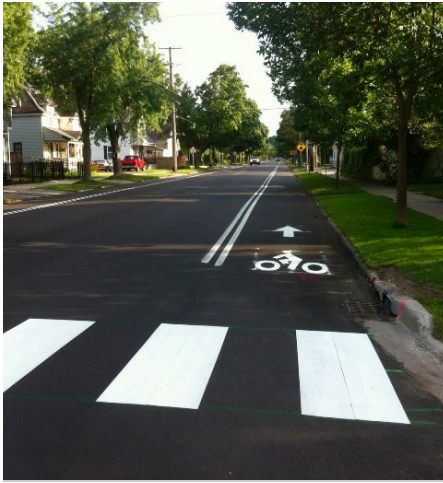
Street Retrofit: Lanes are narrowed and reconfigured to accommodate protected bike lanes and on-street parking. The installation of parklets and median with street trees and landscaping further improves the streetscape to create a comfortable and attractive environment for all users—pedestrians, cyclists, and motorists.

Bike Lane Types and Applications

In a city as large as Rancho Cucamonga, and with mild year-round climate, extending safe and comfortable bike routes into as many streets, neighborhoods, corridors, centers and districts as possible will be a very high value amenity for residents, workers, and the environment.

Bicycle facility types and the recommended applications and contexts for each are described in detail in the standards and guidelines promulgated by the National Association of City Transportation Officials (NACTO), and the Mobility chapter of this Plan further addresses the future bicycle network within the City's street network. The City's Trails Master Plan defines the currently planned off-street facilities throughout the city and should be updated based on the policies of this Plan. Accordingly, this discussion focuses on recommendations for integrating NACTO-compliance facilities into the Street Types and Place Types of the General Plan.

- + **Off-Street Lanes (NACTO Class 1)** are provided within public open spaces, include broad greenways along selected street and within the City's extensive, and growing, network of trails and greenways within public utility easements.
- + **Striped Lanes (NACTO Class 2)** are dedicated one-way bike lanes, marked with painted striping to the right of the rightmost vehicular lane. Such lanes are provided where Class 3 lanes are deemed to be unsafe and/or where street width allows. Where on-street parking is provided, car door buffers are recommended.
- + **Striped Buffered Lanes (NACTO Class 2)** are dedicated one-way bike lanes, with striped buffers on one or both sides. Buffers to the left of the cyclists help improved cyclist safety and comfort (although by State law motorists must provide cyclists with 3 feet of clearance when passing) and are recommended on higher-speed, higher-volume streets where roadway width allows. As noted above, car door buffers are also recommended where bike lanes are adjacent to curbsides with on-street parking.
- + **Shared Lanes (NACTO Class 3)** are bicycle "routes", marked with signage and pavement markings, in which bicycles share lanes with motorized vehicles. Such routes are limited to relatively low speed, low volume streets, including most neighborhood streets as well as many local streets within Centers, Corridors and some Districts.
- + **Protected Lanes (NACTO Class 4)**, sometimes also referred to as "cycle tracks," are a newer type in which a physical barrier—curbs and/or bollards—separate a bike lane from vehicular lanes. Such facilities are ideal for higher-speed, higher-volume major thoroughfares, and may be one-way or two-way, depending on the street and Place Type context.



Striped bike lane



Buffered bike lane



Protected bike lane



Typical right turn lane transitions



Bike boxes at intersections (NACTO)



Bike lane between curb and parking



Bike lane along walk zone

2D. CREATING NEW STREETS & PUBLIC SPACES

I. CREATING NEW STREETS



As large vacant parcels along major corridors are developed and redeveloped, a more complete network of balanced, all-mode streets will be extended into them. This new network will provide high quality all-mode access to new higher intensity, more active, mixed-use development, all of which will have the types of Active Frontages defined and detailed in Section 1C, above.

These new streets will almost invariably have one travel lane in each direction—with or without center turn lanes and medians—providing them with comfortable Curbside Lanes, Landscape/Amenity Areas and Pedestrian Ways that are appropriate to their ground floor uses. Key attributes of such streets include:

- + **One Travel Lane Each Direction.** This manages vehicular speeds, moderates pedestrian crossing distances, and helps to make the width of the street space—as measured from building face to building face—a reasonably human scale “outdoor room”. In some cases, medians are helpful to control left turn movements as one exits a major corridor, and to provide left turn lanes where needed.
- + **Curbside Lane Parking.** Along commercial/retail frontages, customer parking —parallel or angled—is very important in enabling some customers to park right in front of shops and restaurants and gracefully become pedestrians within the public realm. Parallel guest parking along residential frontages is a valuable amenity and convenience. In all cases the parking provides an important buffer between pedestrians and moving traffic, although some Curbside Lane space may be reserved for pick-up and drop-off functions.
- + **Landscape/Amenity Area and Street Trees.** The Landscape/Amenity Area provides valuable opportunities for street trees and other landscaping, for bike racks, trash receptacles, street lights and perhaps parking meters, and in some cases for other furniture to make spaces in which it is comfortable to linger and spend time with friends and family. Landscaping is prioritized along residential frontages to provide another layer of privacy for residents.
- + **Pedestrian Way.** Described in some detail in Part 1; in general sidewalks along commercial frontages are wider than along residential frontages.
- + **Intersections and Crosswalks.** New intersections should have very comfortable wide, short crosswalks, and in certain environments mid-block crosswalks may be both desirable and quite practical.

FIGURE PT-8 COMMERCIAL STREET WITH DIAGONAL PARKING

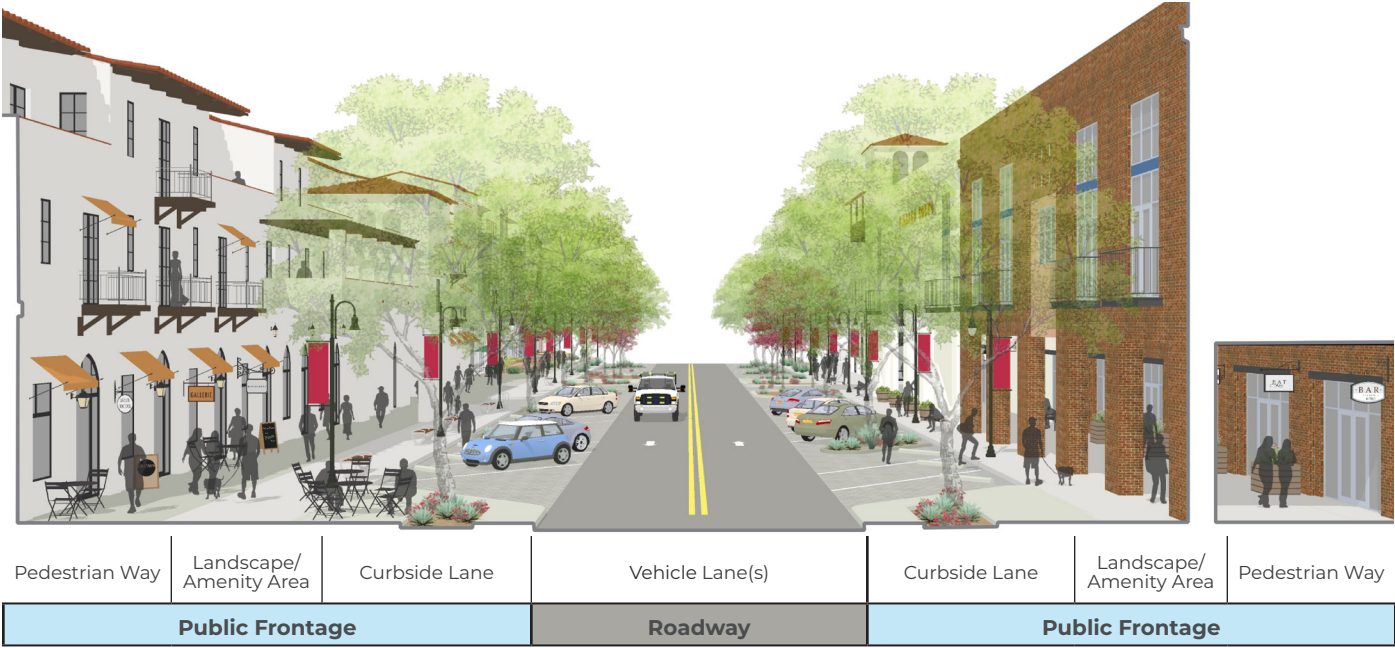
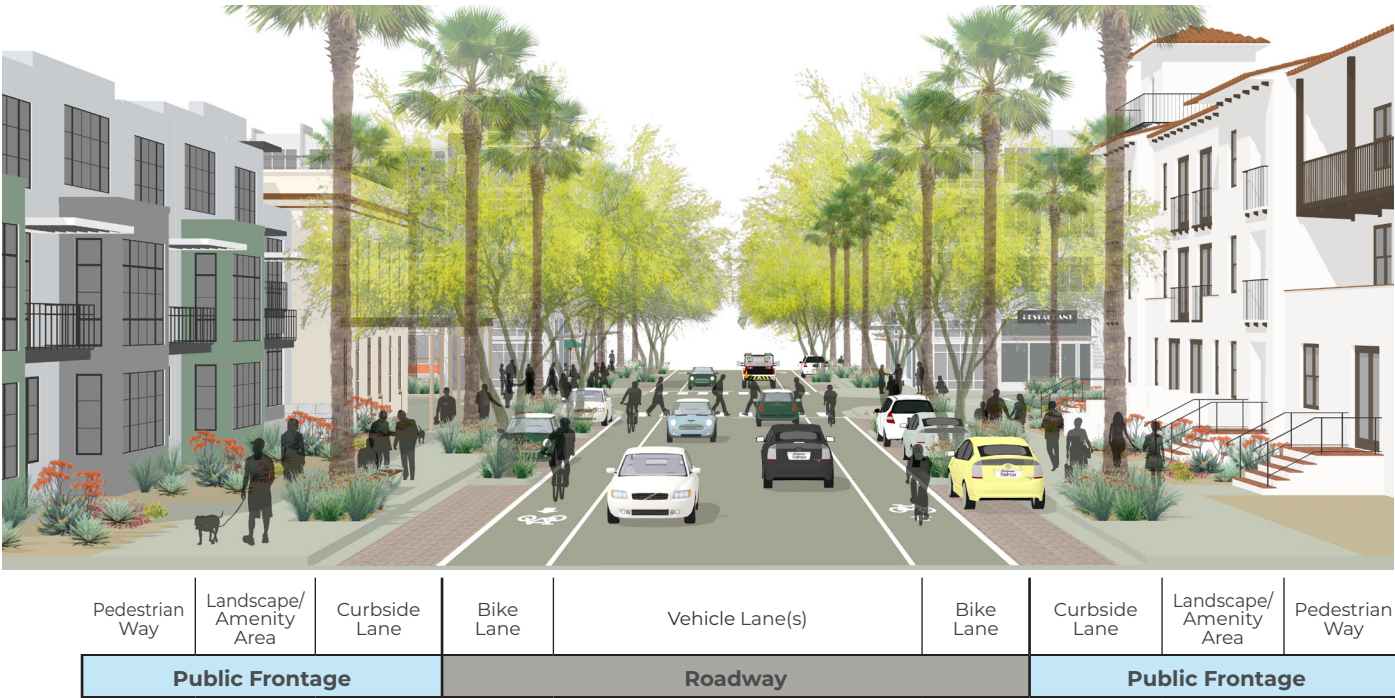


FIGURE PT-9 RESIDENTIAL STREET WITH BIKE LANE AND PARALLEL PARKING



II. CREATING NEW PUBLIC SPACES

As described and illustrated in Section 3, below, the public realm network within new and redeveloping corridors, centers and districts is comprised of the street network and also non-vehicular open spaces in the form of plazas, courts, squares, greens and parks.

These spaces are to be measured more in terms of quality than quantity. Most are not intended to function as typical suburban parks do, accommodating sports activities as well as “passive” recreation. Rather, they are conceived as “the finest outdoor rooms” in the city, with active frontages and human activity lining their edges, as they line the streets, but without the constraints on human activity that streets must impose as they also accommodate cars. All of the Frontage Types defined in Section 1 may directly front such open spaces, with the exact type of open space calibrated to the adjacent ground floor uses. Examples of such fine community open spaces—several of which are already present in Victoria Gardens—include:

- + **Plazas** are small to moderately sized active open spaces best faced by commercial frontages on 2 or more sides. Ground surfaces are predominantly hardscape, tree canopy is provided for shade and spatial definition, and water features and public art are welcome focal points and enhancements. Plazas are ideal for outdoor dining, performances, and special events such as farmers markets.
- + **Squares** are typically larger than plazas, usually surrounded on 3 or 4 sides by buildings, including commercial and residential frontages. These frontages typically open directly to the square on 2 or 3 sides, and across small, very crossable streets on the other sides. The ground surfaces of squares are typically a combination of hardscape and landscape, often including areas of turf or other soft surfaces. Some areas and edges may be designed for outdoor dining or other commercial activity, while others may be designed for informal play and just spending quiet time outdoors.
- + **Greens** are small parks, mostly landscaped with some areas of hardscape or soft non-plant ground surface material. In centers and higher intensity neighborhoods, greens provide ideal play areas for children, sometimes with play equipment and sometimes just with interesting places for them to run around, play hide and seek, and have a picnic with their friends and family. Greens may be surrounding by small, easily crossable streets on 1 to 4 sides.
- + **Paseos/Malls** are linear open spaces acting in large measure as “car-less streets.” In most cases, they are lined with commercial or residential active frontages, but some narrow paseos may simply provide a pedestrian passage/shortcut between the sides of buildings. The design of these narrow paseos needs to provide for human-scale comfortable spaces that incorporate CPTED principles to avoid the creation of “dark alleys.”



Plazas and squares can feature shade and water elements.



A mixed use building fronts this plaza, which has seating, retail kiosks, and a fountain.



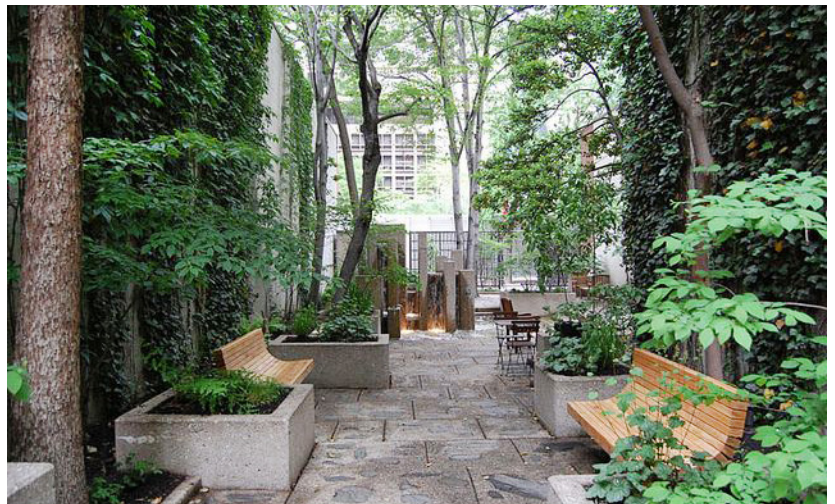
Greens can offer a place to sit and picnic.



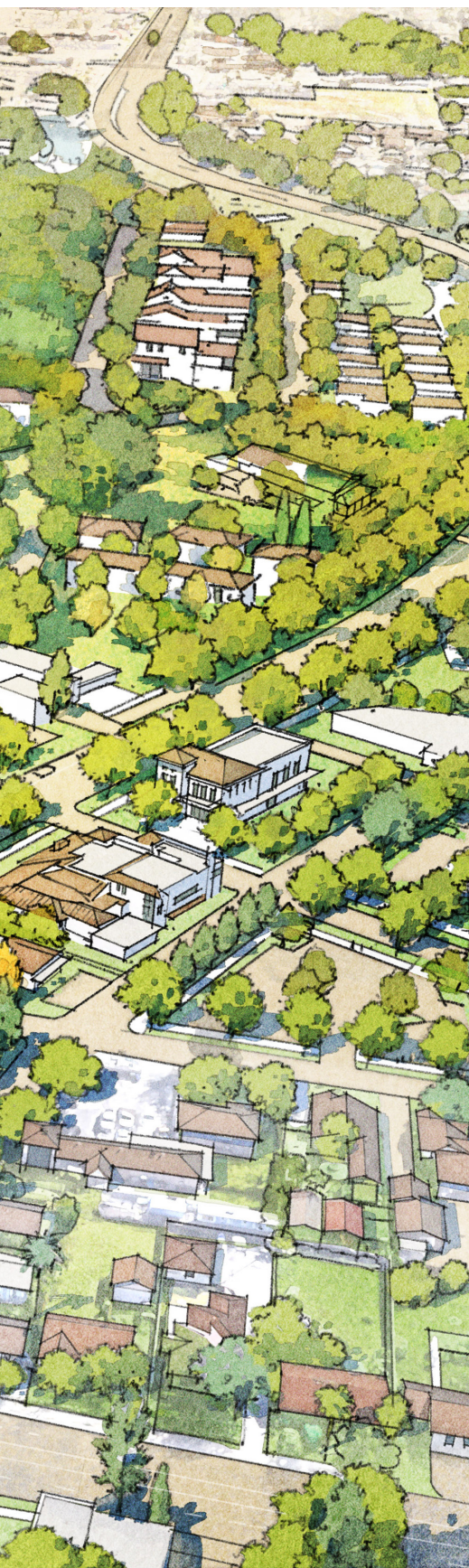
Larger greens can host programmed activities or performances.



This paseo is fronted by residences.



Some paseos provide access between buildings and space to gather.



PART 3. COMPLETING THE COMMUNITY FABRIC

Part 3 of this Toolkit defines and illustrates strategies for extending the active, human-scale public realm network of Rancho Cucamonga—as described in Parts 1 and 2—into large development sites and areas that have not yet been developed or are undergoing significant market-based change. A central and over-arching intent of the General Plan—as described throughout the Plan, and as implemented through the use of this Toolkit—is that the city’s street and open space network seamlessly connect people by all travel modes within and between our City’s neighborhoods, centers, corridors and districts. A closely related intention is that all buildings, businesses and residences be provided with active frontages, equitable all-mode access, and unique and valuable addresses that make them an integral and well-connected part of our city.

+ Regulation of Large Sites

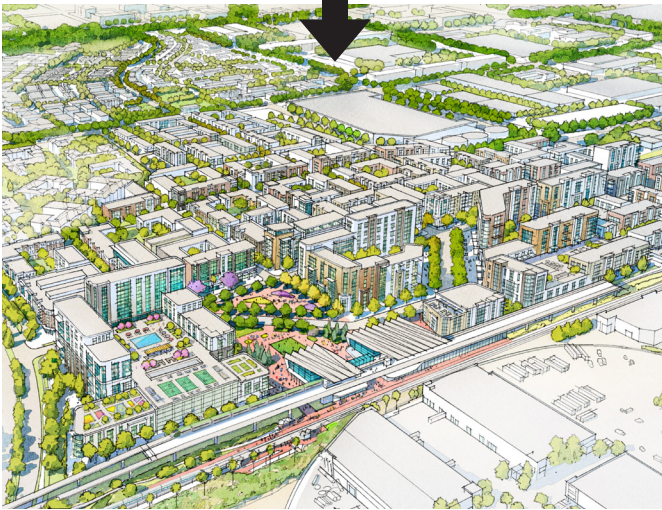
Large sites—generally defined as 3 acres and more—that are being developed for the first time or substantially redeveloped present unusual opportunities to extend new active frontages and all-mode access into areas within which these are currently lacking. Many such sites also provide once-in-a-generation opportunities to establish new connections between existing adjoining development and existing major streets, providing current residents with new and expanded mobility choices and multi-modal access to new amenities. Accordingly, such large sites will be subject to a permit, with specific submittal requirements and required findings of consistency with the applicable Place Type Designations, Focus Area Plans, zoning standards, and public realm design standards.

+ Large Site Planning Process and Case Studies

Accordingly, this section describes the process by which developers will collaborate with the City to define master plans for large sites that meet the intentions of the applicable Place Type Designation(s), and connect it to the existing street network and adjoining development. Two case studies are provided to illustrate this process as applied to prototypical large sites. Case Study #1 addresses the planning of a large, undeveloped piece of land, while Case Study #2 illustrates the potential redevelopment of one of the oldest shopping centers in Rancho Cucamonga. The basic patterns and methodologies outlined in these case studies are exemplary of both centers and corridors and can be implemented at various scales throughout the city.

+ Parking Lot Retrofits

While the case studies demonstrate the steps for development or redevelopment of large sites, many existing shopping centers and other commercial uses with large parking lots may be unlikely to change significantly in the near term. Therefore, this final section makes general recommendations for relatively simple enhancements that can improve the appearance and performance of existing shopping centers and the businesses within them.



New development must create new places, based on the General Plan Place Types. The illustrative example above accomplishes this and is further described in **Volume 2, Chapter 2, Focus Area 3.**

New development must create new places, based on the General Plan Place Types. The illustrative example above accomplishes this and is further described in **Volume 2, Chapter 2, Focus Area 4.**

3A. GENERAL GUIDELINES FOR LARGE SITE DEVELOPMENT

Whenever developing/redeveloping large vacant, or underutilized sites within our City, the following priorities should be considered, as reflected in the Case Studies to follow:

1. **Appropriately address context and edge conditions.** First assess the Site, its edge conditions, and the development form and character of those contexts. Determine how new development must relate to each edge, consistent with the Place-Type-based intent for the site per Volume 1, Chapter 2 of the General Plan.
2. **Establish points of connection.** Provide connections to existing streets at regular intervals - and to adjoining existing development wherever possible - to ensure robust all-mode access to and through the site. The minimum intersection density shall be determined according to Policy LC-4.7 of the General Plan, generally including at least 2 intersections per quarter mile along the length of a major corridor, with closer spacings within the site.
3. **Connect new streets through the site.** Lay out a network of new streets - which may be public or private - linking the points of connection established in Step 2. These primary connections through the site serve to complete and enhance the multi-modal network of the site and context. Their alignment can be configured in a variety of ways to create a beautiful and active public realm network and all-mode access to the planned new development, however a traditional grid pattern or variation of such a pattern will be the most effective in meeting the connectivity envisioned in the General Plan.
4. **Create walkable blocks for the planned development types.** Complete the public realm network with additional streets, paseos, and open spaces to define blocks that are sized and shaped for walkability and to generate active frontages for all new buildings. In general, blocks should have a perimeter less than 1,500 feet, and not exceeding 2,000 feet. The completed public realm network shall be comprised of public space types per Toolkit Part 2 and beautiful, active, well-calibrated frontages per Toolkit Part 1.
5. **Provide alleys within blocks to support the development types and public realm quality.** Alleys provide vehicular access for parking and services, enabling streets to be free of garages, driveways, utility equipment and trash collection, allowing the fronts of buildings to be scaled to and welcoming to pedestrians. Alleys carry far less traffic than streets - and at much lower speeds - so they can also provide safe play areas for kids and families to enjoy. Alleys enable a single block to accommodate multiple building types, and to evolve over time without deforming street frontages with additional, redundant vehicular access points.
6. **Introduce development that benefits from and supports the public realm framework.** New development must activate the established public realm framework in conformance with the intended Place Type and surrounding context. This includes calibrating building forms, frontages, and ground floor uses as described in Part 1. Generally, the most active non-residential frontages—like retail—and the most intense development should be located along and near to major streets, while development of lower scales and intensities should abut existing lower-intensity neighborhoods to generate seamless transitions.

CASE STUDY #1 LARGE UNDEVELOPED SITE

Case Study #1 is a large, undeveloped site at the southwest corner of Foothill Boulevard and Hermosa Avenue. It is located within the “City Corridor - Moderate” General Plan designation. The following page spreads illustrate the process of defining a plan for this site that meets the intent of its designation and connects it appropriately to the surrounding context. The illustrations herein are conceptual steps for design and planning only and should not be interpreted as project site design layouts.



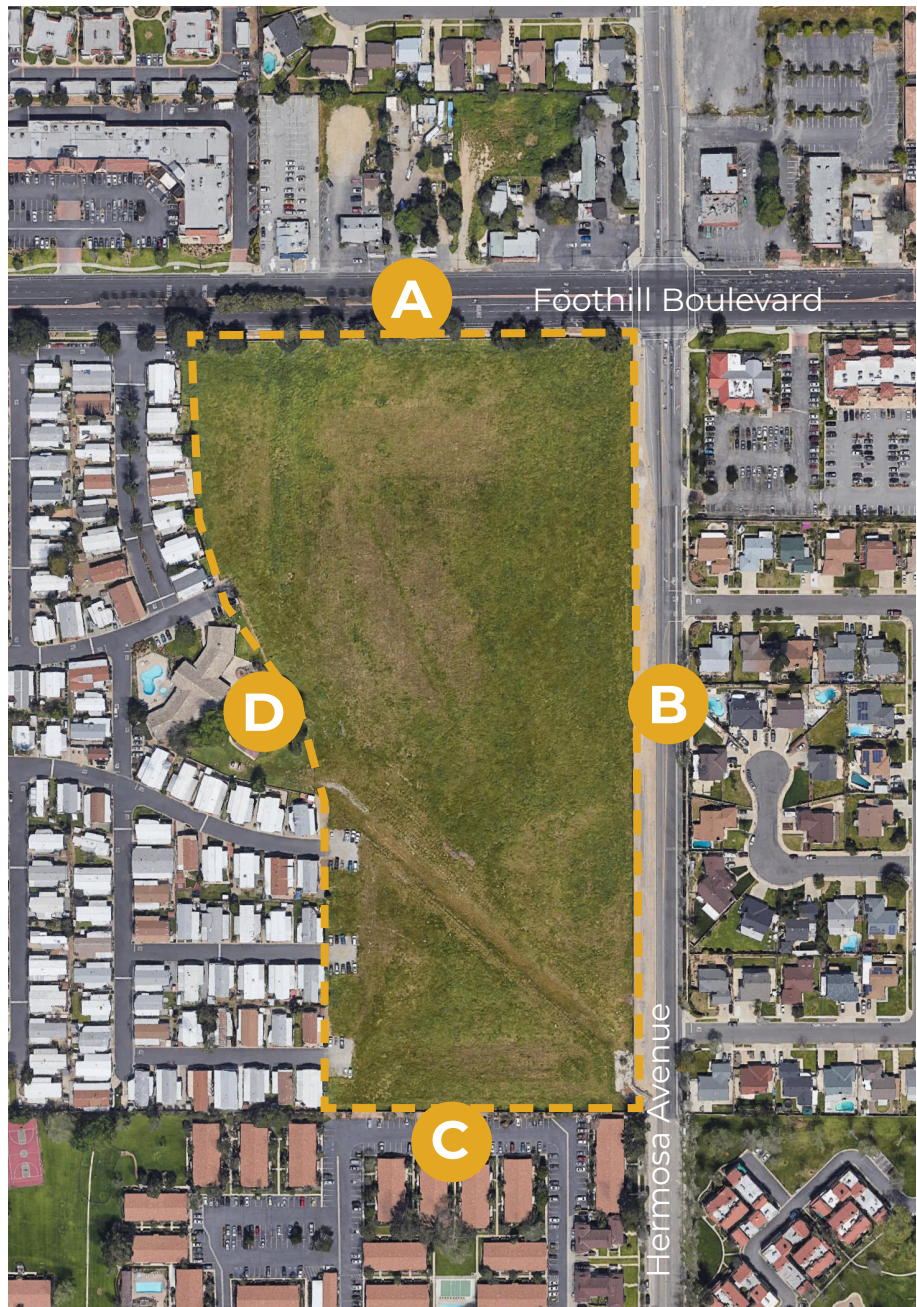
Case Study #1 Site seen from the southwest

STEP 1

APPROPRIATELY ADDRESS THE CONTEXT AND EDGE CONDITIONS

This site (See Figure 4.3.1) is an undeveloped piece of land bounded by multi-modal corridors to the north and east (A and B), and primarily by existing residential neighborhoods along the west and south edges (C and D).

FIGURE PT-10 CASE STUDY #1 SITE CONTEXT AND EDGE CONDITIONS



 Site Boundary



A. Foothill Boulevard

Foothill Boulevard is designated as a multi-modal corridor featuring bike lanes and bus transit. Improvements to the street should be calibrated to the intended development types and per Toolkit Part 2. Based on consultation with City staff, these will likely include improving bike lanes, narrowing excessively wide vehicular lanes, and adding parking on the street or in a frontage lane to support new development.



B. Hermosa Avenue

The east edge is Hermosa Avenue, which has no public frontage on its west side. Improvements to that street should be made per Toolkit Part 2, likely including new bike lanes, narrowing unnecessarily wide vehicular lanes, and an entirely new public frontage from the travel lanes to new development, including Curbside parking, Landscape/Amenity Area with street trees, and a comfortably wide sidewalk.



C. Parking lots of adjacent housing

The south edge of the site is lined by a parking lot and the side of one multifamily residential building. New development should treat this as a rear or side condition, and accordingly line it with building sides, backs, and/or alleys.



D. Mobile home park

The west edge comprises sides and backs of mobile homes and private streets/drives that dead end at the site edge. Development should present sides or backs to this edge and make connections—which may be variously pedestrian and bike only or all-mode connections—to most dead ends in order to provide a more complete the (see following spread) and direct access from existing residences to the new neighborhood and its amenities.

STEP 2

ESTABLISH POINTS OF CONNECTION TO THE CONTEXT

Define connections to the context at regular intervals. Minimum intersection density shall be determined according to Policy LC-4.7 of the General Plan. Generally, there be at least 2 intersections per quarter mile along the length of a corridor.

FIGURE PT-11 CASE STUDY #1 NEW POINTS OF CONNECTION





A. Connect to major corridors.

Connections can be made to major corridors either directly or via frontage roads (see Toolkit Part 2). Where a new street connection is close to an intersection, especially on major corridors such as Foothill Boulevard, new connections may provide only right-in, right-out vehicular access.



B. Connect to existing neighborhoods.

Where a high degree of continuity is desired, connect at existing T intersections to create new 4-way intersections. Where a less direct—although still connected—route is appropriate, new streets can be offset from T intersections. Along this Hermosa Avenue edge a combination of aligned, 4-way intersections and offset connections may be appropriate.



C. Not all edges warrant street connections.

Parking lots dominate the short south edge of the site. New street connections are not necessary here. Alleys can connect to parking drives to reduce gaps in the street wall if this can be arranged with adjacent development. Pedestrian/bike connections can also be made here to support the active mobility network.



D. Connect to dead ends.

It is typically desirable to connect to streets and paseos that currently form dead ends at the edge of the site. Where vehicular connections are not desired, new connections can be pedestrian paseos with bike access where appropriate. The type and design of such will be planned and designed in coordination with City staff and with the owners and residents of adjoining properties.

STEP 3

CONNECT NEW STREETS THROUGH THE SITE

Within this site, new streets should link the points of connection established in Step 2 in a very straightforward manner. These will be pedestrian-oriented neighborhood streets that provide very safe, comfortable pedestrian routes, and also safe bike routes within shared lanes due to low vehicular speeds.

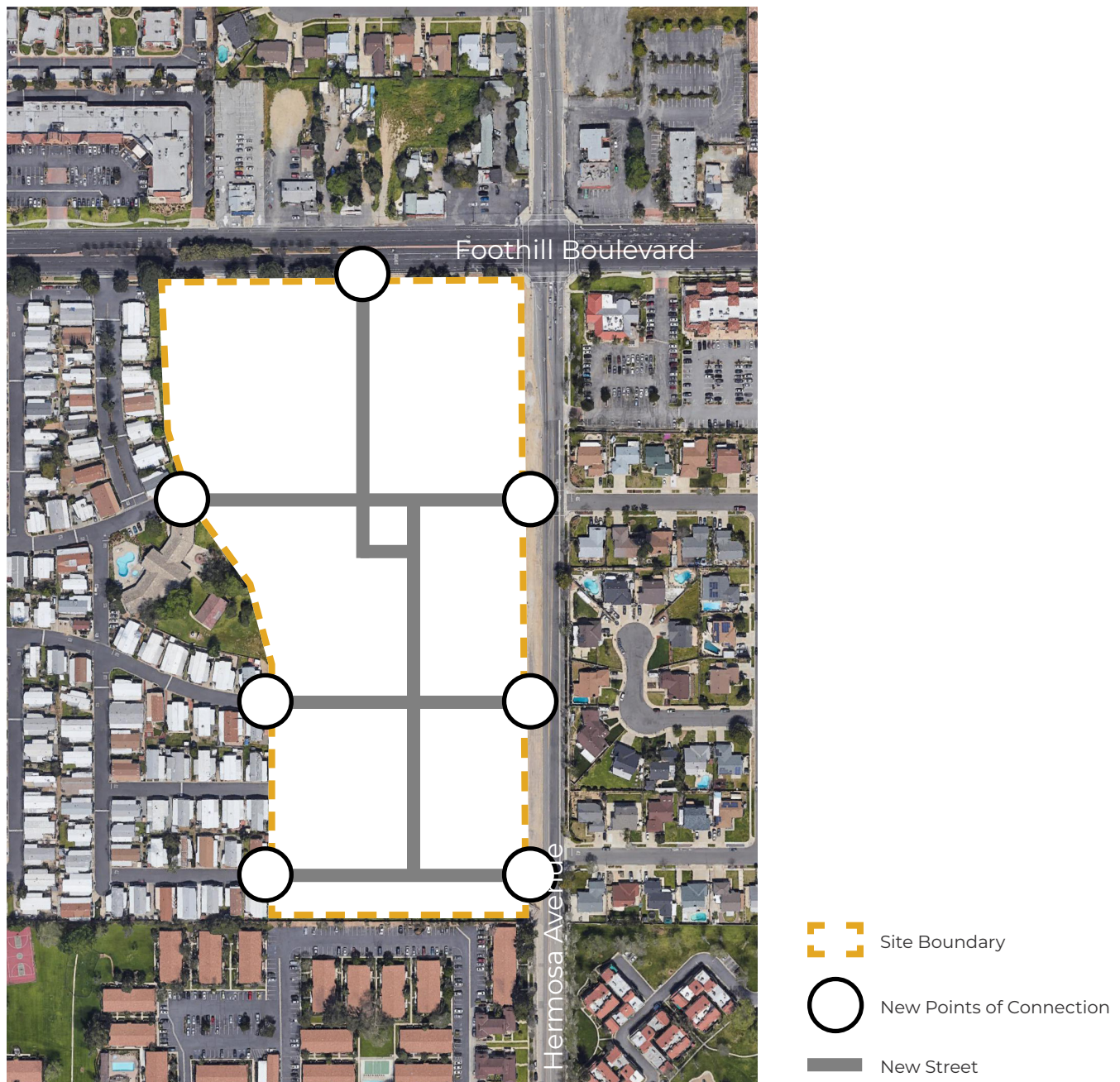
FIGURE PT-12 CASE STUDY #1 STREETS CONNECT THROUGH THE SITE



Flexibility of street alignment

These primary street connections through the site can be configured in a variety of ways. For example, the north-south route could be offset in order to create a 'pin-wheel' plaza, as shown below, creating a focal point of neighborhood activity, potentially better accommodating the intended development types, while calming traffic and reducing vehicular speeds.

FIGURE PT-13 CASE STUDY #1 FLEXIBILITY OF STREET ALIGNMENT



STEP 4

CREATE WALKABLE BLOCKS THAT SUPPORT THE INTENDED DEVELOPMENT TYPES

In this development example, the block sizes for the intended building types are smaller than the basic connectivity framework—the block perimeters of most are significantly less than 1,500 feet—and the additional access routes and frontages are provided with non-vehicular paseos and green open spaces rather than vehicular streets.

FIGURE PT-14 CASE STUDY #1 WALKABLE BLOCKS





Blocks throughout the site establish a walkable framework for multi-family residential types.



Longer blocks abut Foothill Boulevard, accommodating commercial buildings with parking lots within the block.



Paseos provide pedestrian connectivity and a pleasant home for residential frontages.

A. Streets, paseos, and open spaces define walkable blocks.

The streets, alleys, and open spaces of this framework define very walkable blocks with a maximum block perimeter of 1,300 feet. The blocks are generally rectangular in shape, allowing them to accommodate a variety of development types now and in the future.

B. Longer blocks to accommodate internal parking for commercial.

The blocks along Foothill Boulevard are longer in order to accommodate parking for commercial uses lining the corridor within the block.

C. Extending the public realm into the block.

The largest block in this framework abuts a large adjacent block of the mobile home park. In order to provide access into the heart of the block, the public realm is extended from the street into the site as a forecourt. This forecourt provides active frontages for buildings within the center of this relatively large block. Additionally, this forecourt serves as a pedestrian destination that terminates views from the paseo to the east.

D. Paseos for residential frontages.

In the heart of the new neighborhood fabric, paseos provide pedestrian connectivity and a pleasant, quiet space for residential frontages, away from vehicular traffic. Where buildings front onto paseos, visitor parking must still be nearby, and vehicular access must be provided to each lot via alleys (see Step 5).

STEP 5

USE ALLEYS WITHIN BLOCKS TO SUPPORT THE DEVELOPMENT TYPES AND PUBLIC REALM

Alleys are threaded through the blocks within this public realm framework to provide vehicular access to commercial parking lots and to the rear of residential properties. This is critically important where buildings front onto paseos, as the alley serves as the only vehicular access to each residence.

FIGURE PT-15 CASE STUDY #1 ALLEYS WITHIN BLOCKS



Alley Orientation Allows Buildings to Front onto Major Corridors.

The alleys are oriented to allow development to face Foothill Boulevard and Hermosa Avenue. Although most alleys run north-south along the lengths of blocks in this framework, east-west alleys are provided in the north to minimize the number of alleys exposed to Foothill Boulevard. T alleys are also used in southern portion of the site to create continuous frontages along southernmost east-west street, which terminates the north-south streets and paseos.

Relationship to the Context

On the west edge of the site, alleys create a buffer against existing sides and backs. On the southern portion of the site, alleys can connect to existing parking lot drives if that configuration proves beneficial and the adjacent property owners agree.

Such connections will help to realize two of the main goals of the General Plan: 1) providing equitable access to those who choose to drive, and to those who cannot or prefer not to, and 2) reducing vehicle miles traveled and greenhouse gas emissions per person. A pattern that forced residents of the apartments to the south to walk a long distance out to Hermosa Avenue and along Hermosa Avenue and then back into the new neighborhood—or more likely to drive that route—would fail in many ways to meet the intent of the General Plan, particularly where a short, safe and pleasant walking route can so simply be provided.



STEP 6

INTRODUCE DEVELOPMENT THAT BENEFITS FROM AND SUPPORTS THE FRAMEWORK

As described in Step 1, two sides of the site abut existing residential, while two sides abut corridors. Building form and frontages must be calibrated accordingly, as described in Figure 4.3.6B of the General Plan.

FIGURE PT-16 CASE STUDY #1 DEVELOPED SITE



FIGURE PT-17 CASE STUDY #1 DEVELOPED SITE SEEN FROM THE NORTHEAST

A. Retail Frontage on Foothill Boulevard. Foothill Boulevard is a major multimodal corridor that provides good access and exposure for retail uses to succeed. Here, retail and other commercial uses are accessible to citywide customers via Foothill Boulevard, and to nearby customers via new neighborhood streets. As noted in Step 1, a frontage lane could be added to Foothill Boulevard to provide easy parking and pick-up/drop-off access for new shops, restaurants or offices.

B. Retail-Ready Frontage along Hermosa Avenue. Retail-ready ground floors should be located along secondary corridors, ready to transition to retail use in the future if the near-term demand for retail is not adequate to fill those spaces at the time of initial development. Such frontages could line the first block of Hermosa Avenue south of Foothill Boulevard, while simple residential frontages could line the remainder of Hermosa Avenue. Where residential ground floors front onto corridors, on-street visitor parking is typically necessary to support real, functional front entries.

C. Residential Neighborhood. The heart of this infill site may be entirely residential, according to housing needs and the local context. Building forms that provide a consistent—although not continuous—“wall” of building façade s should line a linear park in the center of the site to clearly define it as an “outdoor room” for neighborhood activity.

D. Neighborhood Edge. New townhouse building forms can smoothly transition to existing neighborhoods. With relatively small façade increments and regularly-spaced front doors on the street, they can step down in height adjacent to the existing neighborhoods to provide a seamless transition to existing housing. As noted in Step 1, the adjacent neighborhoods present their backs and sides to this site, so new development should likewise present sides and backs in a manner which completes blocks and provides new connections.

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CASE STUDY #2 EXISTING SHOPPING CENTER

The second case study is an aging shopping center at the southwest corner of Base Line Road and Carnelian Street. It is located within the “Neighborhood Center” General Plan designation. Carefully planned, such large shopping centers may ultimately be significantly transformed, but such transformations are likely to occur incrementally in phases. It is important that a master plan guide each increment of development and prepare the way for subsequent increments or phases. Such master plans must be flexible enough to respond to changing economic conditions but must lock in key characteristics that matter most to making a comfortable and walkable environment, namely that streets and spaces are designed for people and framed by active, human-scale frontages. The following page spreads illustrate how a development framework could be defined for the above shopping center site to evolve it toward a new, more active Place Type-based portion of the city. The illustrations herein are conceptual steps for design and planning only and should not be interpreted as project site design layouts.

Further Resources

Retrofitting Suburbia, by Ellen Dunham Jones and June Williamson, and *Sprawl Repair Manual*, by Galina Tachieva, are excellent resources on the topic of parking lot infill and shopping center redevelopment. They contain helpful discussion, techniques, and case studies for the successful implementation of this strategy.



Case Study #2 Site seen from the southwest

STEP 1

APPROPRIATELY ADDRESS THE CONTEXT AND EDGE CONDITIONS

It is first necessary to assess the site, its edge conditions, and the development form and character of the context. Determine how new development will relate to that context.

FIGURE PT-18 CASE STUDY #2 THE SITE CONTEXT AND EDGE CONDITIONS

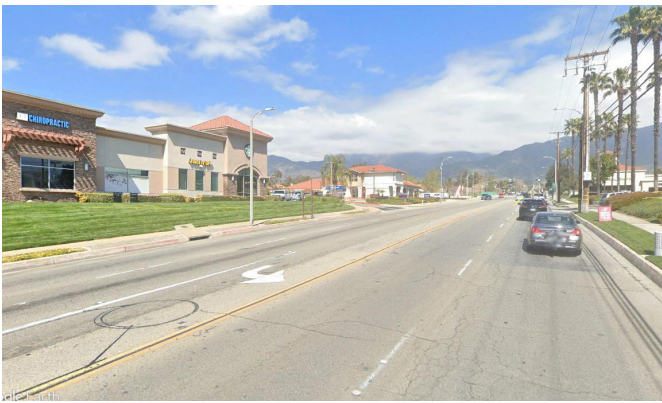


 Site Boundary



A. Base Line Road

Base Line Road is designated as an auto-priority street, planned to have much improved pedestrian and bicycle facilities and to support bus transit. Active frontages, as illustrated in Toolkit Parts 1 and 2, are required. The existing trees can be preserved, and bulb-in street parking between the trees may be introduced to support these new active fronts.



B. Carnelian Street

Similar to Base Line Road, Carnelian Street is designated as an auto-priority street and is to receive improved pedestrian and bicycle facilities, support bus transit, and be provided with active frontages at all new development.



C. Existing medical center and neighborhood

The southerly edge of the subject site abuts the sides of multi-family housing and a medical center. New development should treat this edge as a rear or side condition, and line it with building sides, backs, and/or alleys.



D. Cucamonga Creek Channel and Trail

The western edge of the site abuts the Cucamonga Creek channel and open space easement, which the General Plan recommends be further enhanced as a linear green open space connecting from Cucamonga northward through Alta Loma, to the natural and rural open spaces of the foothills above. Accordingly, this edge presents a fine opportunity to provide direct physical and visual access from this Center to an important community open space and the citywide trail network.

STEP 2

ESTABLISH POINTS OF CONNECTION TO THE CONTEXT

Form connections to the context at regular intervals. Minimum intersection density shall be determined according to Policy LC-4.7 of the General Plan. Generally, there should be at least 2 intersections per quarter mile along the length of a corridor.

FIGURE PT-19 CASE STUDY #2 NEW POINTS OF CONNECTION





A. Connect to Base Line Road

A new street can be introduced to align with Topaz Street and form a new 4-way intersection. This would better link new development with existing neighborhoods and create an opportunity for pedestrians to cross Base Line Road. A second street can take the place of the existing shopping center entry drive, forming a T intersection with Base Line Road.



B. Connect to Carnelian Street

Similar to the entry drive on Base Line Road, the entry drive on Carnelian Street can be transformed into a new street connection.



C. Connect to dead ends

Napa Court terminates in a cul-de-sac south of the site. A non-vehicular connection here could link between existing residential to the south and new shops and amenities. One possibility is that this paseo connect through the existing building via a new entry or arcade. This would require coordination with City staff, property owners, and residents of adjoining properties.



D. Connect to the trail network

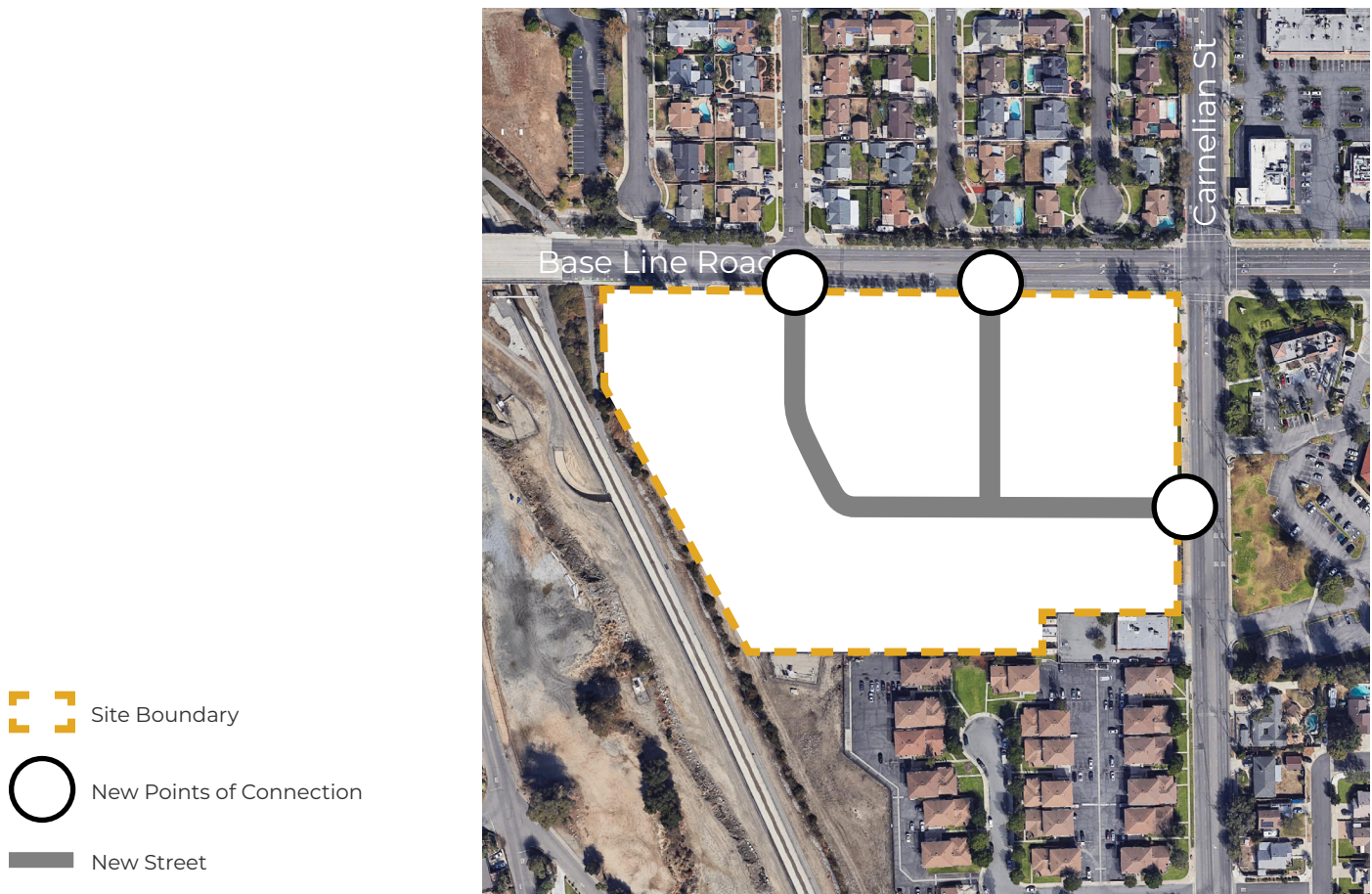
As described in Step 1, a new active mobility connection to the Cucamonga Creek Trail would provide access from this Center to an important community open space and the citywide trail network. This connection would need to deal with existing topography in an accessible manner.

STEP 3

CONNECT NEW STREETS THROUGH THE SITE

Streets, created in accordance with Toolkit Section 2, can link the points of street connection established in Step 2 in a straightforward fashion. Some of these new street alignments may correspond to existing drive lanes. Where development is not expected in the near term, those drive lanes can already be designed as streets.

FIGURE PT-20 CASE STUDY #2 STREETS CONNECT THROUGH THE SITE



STEP 4

CREATE WALKABLE BLOCKS WHICH ACCOMMODATE DESIRED DEVELOPMENT TYPES

Paseos linking to the neighborhood to the south and the trail network to the west (as described in Step 2) complete the public realm network in order to define walkable blocks which accommodate the development

A rectangular plaza is shown at the nexus of multiple streets and paseos in the site. This plaza can accommodate parking and offer a new active space for existing commercial and new development types desired on the site.

FIGURE PT-21 CASE STUDY #2 WALKABLE BLOCKS



STEP 5

LOCATE ALLEYS AND PARKING WITHIN BLOCKS TO SUPPORT THE DEVELOPMENT TYPES AND PUBLIC REALM.

Alleys in this framework configuration access structured and surface parking within blocks.

FIGURE PT-22 CASE STUDY #2 ALLEYS WITHIN BLOCKS





A. Southern service access remains.

Service and employee parking access remains behind the southern portion of the existing commercial center. This functions as the inside of the block and this southern side of the existing building can continue to function as a rear.



B. Structured parking within the block

Structured parking within blocks supports more intense development types and can also be shared with some existing retail. Such structures can be topped with solar panels.



C. Share parking access between existing and new uses

The parking lot and drives of the existing restaurant on Carnelian St can remain in the mid-term while providing access to tuck-under or structured parking of new development to the west.

STEP 6

INTRODUCE DEVELOPMENT WHICH BENEFITS FROM AND SUPPORTS THE FRAMEWORK

Development should fill the established framework according to the context.

FIGURE PT-23 CASE STUDY #2 DEVELOPED SITE



FIGURE PT-24 CASE STUDY #2 DEVELOPED SITE SEEN FROM THE NORTHWEST

A. Base Line Road Frontage. More intense development and some retail and retail-ready frontage should line Base Line Road while still presenting a façade rhythm and massing which relates to the neighborhood scale of the context. The existing site level is much lower than Base Line Road, so subterranean parking could be located under the first inhabitable level without much, if any, excavation. The first inhabitable level should be at or slightly above the existing ground level of Base Line Road. A new sidewalk can be built behind the preserved existing trees, and street parking can be introduced to support these new frontages.

B. Some Existing Commercial Remains. The site can be redeveloped without replacing all of the existing commercial. In this case, the gas station and commercial at the corner of Base Line Road and Carmelien Street is preserved. The portion of the shopping center which lines the southern portion of the site can also remain.

C. Cucamonga Creek Trail and Linear Park. An architectural gateway can invite pedestrians and cyclists into the trail network. A linear park can be developed along this edge, and new residences can overlook this improved open space.



Active fronts can line parking lots and dining can extend into parking spaces.

PARKING LOT RETROFITS

As with Case Study #2, most of the existing retail shopfronts and restaurants in Rancho Cucamonga currently face parking lots. Case Study #2 expresses the long-term vision of this Plan for typical future commercial and residential frontages that directly front and engage streets rather than surface parking lots. However, it is not anticipated nor intended that existing shopping centers, shops, and restaurants will go away any time soon, or in many cases ever. Accordingly, this section presents general recommendations for simple enhancements that can improve the appearance and performance of existing shopping centers and the businesses within them. The following spread illustrates such enhancements implemented on a prototypical shopping center site.

As a result of the COVID-19 pandemic, restaurant businesses have experimented in unprecedented ways with the possibilities of repurposing existing sidewalks and parking spaces along their frontages in new and creative ways. This experimentation has led to indoor/outdoor dining environments and experiences that were not widely contemplated previously, resembling in fascinating ways the indoor/outdoor environments that have been present for decades in many American cities, and for centuries in European and other international cities.

- + **Dining Parklets.** In the same way that many California downtowns have redeployed on-street parking spaces as “sidewalk expansions” to create new outdoor dining areas, restaurants in shopping centers throughout the country—and in Rancho Cucamonga—have been “camping out” in their parking spaces adjacent to existing shopfronts.. Barriers between cars and diners are necessary, of course, and can take many forms, including fences, planters, wine barrels, beer kegs, or any other objects that are attractive, about 3 feet tall, and reasonably heavy. Overhead tents and canopies are possible, but tend to block visibility for other businesses, so simple umbrellas and space heaters are recommended in the long term. Parklets can be rather temporary and relocatable, or a permanent part of the landscape/hardscape.
- + **Dining Islands.** In addition to redeploying a few parking spaces immediately adjacent to existing shopfronts, a block of spaces across a drive aisle may also be converted—temporarily or permanently—to a small “plaza” or “square” within a larger parking lot.
- + **Arcades.** Deep arcades are a classic solution too making comfortable shaded spaces for shoppers to stroll in, and may be deep enough to also accommodate some outdoor dining. Arcades are also a relatively simple way to put a new face on an old shopping center.
- + **Courts.** Some shopping centers already have courtyards or plazas or other pedestrian-only open spaces. But enhancing those, and in some cases creating new or updated shopfronts opening into them, they can become higher quality and more valuable activity spaces within existing shopping centers.



A parklet can take the place of a couple parking spaces alongside an arcade.



Parklets can be implemented simply with planters, barrels, and tables.



Pedestrian courts can host dining and gathering.



Dining parklets can extend into parking spaces.



Arcade



Arcade



Prototypical shopping center

ACTIVATING EXISTING COMMERCIAL CENTERS AND THEIR PARKING LOTS

The following spread illustrates how the enhancements described on the previous pages implemented on a prototypical shopping center site. This prototypical shopping center, like various shopping centers throughout the city, privilege private automobile transport over all other forms of mobility. Such shopping centers are typically set behind large parking lots and do not present active frontages to the public street. As previously stated, many of these sites are not likely to be redeveloped in the near term. In such cases, strategic frontage and public realm interventions can activate these old car-oriented shopping centers for the mutual benefit of the city and the businesses themselves.



Prototypical existing car-oriented shopping center



Potential public realm and frontage improvements

► Extend the public realm into the site



The public realm network can be extended into the site to connect previously disconnected uses. One example is shown here in which a pedestrian Pedestrian Way extends from the sidewalk to a prominent, central entrance of the shopping center. The Pedestrian Way and prominent entry tower are flanked dining and gathering islands and landscaping.

► Activate frontages along drive lanes within the site



Frontages can be activated even where shops and restaurants front onto parking lots or internal drives. As illustrated here, a dining or gathering parklet can be created in the place of parking spaces. Here, the court replaces only one parking space and also takes advantage of the corner of the lot which would otherwise be underutilized.

► Activate frontages along the street



As with other commercial ground floors, as described in Toolkit Part 1, portions of shopping centers which abut the street should have calibrated frontages which add value to the business and life to the street. The dining terrace shown here illustrates one example of such frontage. A pergola holds retractable canvas awnings and string lights, while new landscaping provides a beautiful buffer and transition between diners and the rest of the public frontage.