Chapter 3: Public Realm Guidelines
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A. Introduction

From an urban design perspective, the fabric of the Central Core is composed of two distinct, yet highly inter-related components: the “public” realm and the “private” realm. The “public realm” consists primarily of the publicly-owned street rights-of-way and other publicly accessible open spaces such as parks, squares, plazas, courtyards, and alleys. The “private realm,” which is addressed in Chapter 4, is the area occupied by buildings and associated improvements and is generally more limited in its accessibility to the public. Together, the public and private realms create a three-dimensional space defined by street wall heights within streets and plazas, and provide a sense of scale and place that is defined and strengthened by the articulation of each realm.

Although it occupies the smaller proportion of the Central Core (35-40%), the public realm plays a critical role in the district’s function, serving several inter-related and overlapping roles, including the following elements:

Circulation and Access. The public rights-of-way provide for circulation within and through the Central Core, and access to individual buildings and sites. The public realm accommodates numerous travel modes—not just automobiles, but also delivery trucks, buses, trains, street cars, bicycles, and pedestrians.

Development Framework. Using the fabric analogy, the public realm is the warp and weft that gives structure to the Central Core and provides the framework that contains and organizes individual developments into a cohesive whole. It also serves as the entry to the private realm, a sort of public “forecourt” to individual buildings and developments.

Public Open Space. Within the densely developed Central Core, the public realm plays an important role as public open space—allowing for light, air, and landscaping and a respite from the enclosure of buildings. The public parks, plazas and streetscapes also serve as the “living room” for community life—the places where the public can meet, interact, and linger.

Visual Character. While buildings are important visual elements, the design of the public realm is critical in establishing the Central Core’s visual context and overall character. The physical design and character of the public realm contributes a great deal to its perceived unity, its quality, and its identity as a unique place.

In order to accommodate such diverse and sometimes competing functions, the public realm is generally understood to be made up of two distinct zones, each related to its primary function: the “Travelway” zone, whose primary function is to accommodate vehicular circulation, and the “Pedestrian” zone, whose primary function is to accommodate pedestrian circulation.

The Travelway zone generally includes the area of the public right-of-way within the curb-to-curb cross-section of the street that is occupied by travel lanes, parking lanes, and any medians, traffic circles, etc. that occur between the curbs (see diagram). The Pedestrian zone generally includes the outer portions of the right-of-way that flank the street, including sidewalks and any adjoining plazas and parks. While the character and function of these two zones are inextricably connected, the guidelines in this chapter have been organized by zone to facilitate their use.
B. Travelway Realm

The Travelway Realm guidelines in this document are quite focused in scope. They focus primarily on how to better and more safely integrate motor vehicles, bicycles and pedestrians in the Central Core. The intent is not to provide a revised vehicular circulation plan for the Central Core or to address the integration of multiple travel modes within the vehicular travelway, but to provide guidelines for the design of City streets that will accommodate effective circulation of automobiles and bicycles while also promoting a more walkable downtown that is safe, convenient, and comfortable for pedestrians.

As a result, the guidelines tend to focus on how to structure aspects of the travelway to promote a better pedestrian environment, with the emphasis being on those changes that will enhance the pedestrian’s sense of well-being. This includes reducing the speed of moving vehicles, creating buffers between pedestrians and moving vehicles, and clearly delineating zones that vehicles share with people.

The guidelines are intended to reduce the conflict between people, bicycles and cars, while also acknowledging the functional requirements of public streets to provide access to and between destinations within the Central Core. The guidelines recommend some re-structuring of the travelway both to calm traffic and to balance the area of public right-of-way committed solely to motor vehicles.

A premise underlying the guidelines is the City’s commitment to making decisions and taking actions that will contribute to making Sacramento the most livable city in America. One key element in that quest will be creating a more pedestrian, bicycle and transit-oriented Central City and ensuring that this objective is reflected in the public right-of-way assigned to each of these travel modes. The following guidelines explore a number of options for restructuring the street cross-section including reducing lanes, adding diagonal parking, widening sidewalks, adding medians, and necking down intersections.
Chapter 3. Public Realm Guidelines

B. Travelway Realm

1. Street Types

**PRINCIPLE:** The design of the public street rights-of-way shall balance vehicular circulation with all modes of transportation to create a safe, comfortable, attractive and robust pedestrian and bicycle environment.

**Rationale:**
The Central City street system is characterized by a grid of 80-foot wide street rights-of-way set on 400 x 420-foot centers. Although some variety in street design exists, the prevalent street cross-section consists of a 48-foot curb-to-curb dimension that includes two 7-foot parking lanes three travel lanes (12 ft.—10 ft.—12 ft.) flanked by two 16-foot sidewalks (see Corridor Street type). The function of the street system however, is clearly more varied than the design of the streets. Some streets, such as I and J, 9th and 10th, and 15th and 16th streets function as major through vehicular travel corridors that provide primary access to and from the downtown. Others serve primarily as local streets that provide access to residential neighborhoods and shopping districts and carry much lower volumes of traffic.

Sacramento's city-wide street grid can be repetitive, whereas other cities enjoy more variety. Re-thinking the design of the street cross-section can provide stimulating variety and character to offset tedium of the uniform grid, and enhance and reflect the function of the street from both a circulation and urban design perspective. Potential opportunities include: calming vehicular traffic, enhancing transit service, accommodating bicycle movement, increasing on-street parking, expanding the pedestrian zone, enhancing the urban forest, accommodating stormwater management features, and differentiating neighborhoods.

This section provides a number of possible scenarios for altering the design of street cross-sections within the existing right-of-way to achieve one or more of the City's multiple objectives for the downtown. In some instances, the recommendation is specific to a particular street, but more often the design is descriptive of a condition. The intent is not to comprehensively re-configure the streets of the Central City, but to provide a menu of design options that will introduce variety to the downtown. Over time, they can be implemented incrementally as conditions warrant and circumstances permit, or provide the formal basis for more comprehensive street improvement programs in the future, including the relationship of street trees in urban streets.
Corridor Streets
Corridor Streets serve as the major circulation routes connecting to freeways and state regional highways. They allow efficient circulation in and out of the Central Business District. Corridor streets often function as one-way pairs, or couplets, with three lanes of vehicular traffic and on-street parking on both sides. Examples of Corridor Street couplets in downtown Sacramento include I and J Street, P and Q Streets, 15th and 16th Streets, and 12th and 16th Street. N Street has been converted to 2-way traffic east of 16th Street.

Transit Streets
Transit Streets are designed to improve the speed and efficiency of transit routes in dedicated or shared lanes. They accommodate either fixed-route dedicated transit service or bus transit service in downtown Sacramento. Examples of Transit Streets in downtown Sacramento include K Street, 7th Street, 8th Street, and 12th Street.

Retail Streets (Downtown and Neighborhood)
Retail Streets support neighborhood retail by providing low-speed access to commercial and mixed-use buildings. A good retail street is pedestrian-friendly, with wide sidewalks, pedestrian amenities such as seating, parallel or angled on-street parking, and a limited number of travel lanes. A narrow street width creates spatial enclosure, and sidewalk bulb-outs allow short pedestrian crossing distances. Planting strips are replaced with planting wells. Sacramento has yet to develop a successful retail street. However, development plans for K Street seek to return this street to its former retail prominence.

Residential Neighborhood Streets
Residential Streets serve two major purposes in Sacramento’s downtown neighborhoods. As arterials, residential streets balance transportation choices with land access, without sacrificing auto mobility. As collectors and local streets, residential streets are designed to emphasize walking, bicycling and land access over auto mobility. In both cases, residential streets tend to be more pedestrian-oriented than corridor streets, giving a higher priority to landscaped medians, tree lawns, sidewalks, on-street parking and bicycle lanes. Residential streets in the downtown generally contain two to three travel lanes in one direction. Some of these streets are being converted into 2-way streets through the City’s two-way conversion program.

Bicycle Streets
Bicycle streets emphasize bicycle mobility by providing dedicated bicycle lanes. These bicycle lanes form the primary bicycle commuter system, connecting to other bicycle facilities (i.e., Class I Bike Trails and Class III Bike Routes) to provide comprehensive and integrated bicycle access throughout the Central City.

Alleys
Alleys provide access to properties that is separate from the primary street system. They are not intended to accommodate through-traffic. Sacramento’s alleys are valuable assets—they supplement the pedestrian network in the existing vehicular realm and increase vehicular accessibility. Alleys provide access to interior parking and to the service areas of individual parcels in high density mixed-use and commercial districts, and can serve as narrow, pedestrian-scaled streets for secondary residential units. Utilities may be located in alleys to provide service connections to rear elevations. The pedestrian network of alleys within the commercial core of J,K and L street identified in the 1987 Urban Design Plan never evolved. However, the importance of alleys is in the public consciousness and the development of pedestrian alleys is underway.
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B. Travelway Realm

One-way Corridor Street

**PRINCIPLE:** Limit the use of one-way corridor streets to corridors where they are necessary to accommodate high traffic volumes, and introduce sidewalk extensions (i.e., bulb-outs) at street intersections to calm traffic and reduce pedestrian crossing distances.

Historically, the Central City has included numerous one-way corridor streets. Typically these streets include three lanes of traffic, on-street parking on both sides of the street, and bicyclists typically share travel lanes with automobile traffic. Some of these streets are aligned with freeway on- and off-ramps, such as I and J Streets and P and Q Streets. Designed to efficiently carry heavy peak hour traffic, these streets are not the most pedestrian or bicycle friendly due to the speed and volume of traffic and street widths. While accommodating large volumes of traffic, they also need to be made hospitable to pedestrian activity with sidewalk bulb-outs at the intersections.

These one-way corridor streets are appropriate where they are critical to accommodate heavy peak hour traffic. Otherwise, it is recommended that other street designs be used that calm traffic and are more suited for bicycles and pedestrians. Many one-way corridor streets have been reconfigured over the years by introducing two-way traffic or converting a travel lane to a bicycle lane.

The vehicular zone is generally flanked with street trees on both sides (except in the most urban areas) and generous sidewalk areas. Trees should be accommodated where feasible. In the Central Core, because of the relatively narrow sidewalks and buildings built up to the property line, street trees will need to be vertical growing types in contrast to the full canopy trees preferred in residential neighborhoods.

**Recommendations**
1. Provide sidewalk bulb-outs at street intersections.
2. Permit parallel on-street parking on both sides of the street.
3. Where bicycle lanes cannot be accommodated and bicyclists must ride in travel lane with vehicular traffic, the addition of ‘sharrows’ (i.e., pavement markings that indicate that vehicles must share the lane with bicyclists) should be considered.
Corridor Street with Widened Sidewalk (one side only)

**PRINCIPLE:** Widened sidewalks should be planned for selected Central City locations to accommodate increasingly active pedestrian streetlife.

Wide sidewalks provide more space for pedestrians, and for uses such as sidewalk cafes that contribute to an active and engaging streetlife. The increased sidewalk width could also be used to provide additional public amenities. 9th Street opposite Cesar Chavez Park is an example of where the sidewalk has been widened by eliminating the parking lane. The existing street trees are in their current location so as not to interfere with underground utilities and services. It would be desirable to have the trees align with the light standards to increase the effective dimension of the pedestrian zone.

**Recommendations**

1. Extend the sidewalk by eliminating the parking lane on one side.
2. Permit off-peak metered parking in one of the travel lanes.
3. Bicyclists ride in travel lane with automobile traffic.

9th Street between I & J Streets.
One-way Transit Street (7th & 8th Streets)

PRINCIPLE: Dedicate one lane of traffic to transit-preferential use.

Portions of certain downtown streets can accommodate light-rail transit within the existing right-of-way. One of the travel lanes is shared with the light-rail tracks, while the other two carry vehicular traffic. On-street parking is restricted to the side opposite the light-rail tracks.

Recommendations
1. Ensure that the sidewalk adjacent to the tracks is wide enough to accommodate a station stop with disabled access ramps.
2. On-street parallel parking is restricted to the side of the street opposite the light-rail tracks.
K Street: Retail / Transit Street

**PRINCIPLE:** Allow vehicular traffic to share street space with light-rail track lines, and create short-term metered parallel parking.

K Street between 9th and 12th Streets is currently a pedestrian- and transit-only street. As experienced in many examples throughout the country, reintroducing limited vehicular traffic has proved a successful strategy to revitalize downtown retail neighborhoods. It is recommended that vehicular traffic be permitted to return to this portion of K Street with on-street parallel parking and drop-off facilities. Vehicular access is intended to permit local access and drop-off—clear of the transit route—so as not to impede the flow of light-rail transit.

**Recommendations**

1. Allow vehicular traffic to share the light-rail track lanes.
2. Create short-term metered parallel parking on both sides.
K Street - Future Option 1: Portland Retail/Transit Street

**PRINCIPLE:** Coupled with L Street, create a one-way traffic and transit pattern, similar to that found in Portland, Oregon, that permits auto traffic to share the transit travel lane & allows on-street parking on both sides of the street.

The Portland model would allow auto traffic back onto K Street and reduce potential conflict with light rail and streetcar vehicles by introducing a one-way street couplet with L Street between 9th and 12th Streets. As in Portland, auto traffic would be allowed to share the travel lane with the streetcar and light rail tracks, providing access to on-street parking on both sides of the street.

Light rail transit street, Portland, OR

Note visual contrast of white truncated domes against brick pavers.
K Street - Future Option 2: San Jose Option Retail/Transit Street

**PRINCIPLE:** Coupled with L Street, create a one-way traffic and transit pattern, similar to that found in San Jose, California, that creates a dedicated transit lane and allows on-street parking on one side of the street only.

The San Jose model proposes a one-way couplet with L Street between 9th and 12th Streets and provides a dedicated one-way transit lane adjacent to the sidewalk, while allowing one-way auto traffic to use a parallel travel lane alongside. On-street parking would be limited to one side of the street only.
Neighborhood Retail Street

**PRINCIPLE:** Provide ample on-street parking, including angled parking, to support pedestrian-friendly retail activity. Enable the growth of full tree canopy by placing trees beyond the sidewalk into the parking areas.

The diagram shows a two-way neighborhood retail street with back-in angled parking on one side and parallel parking on the other. Front-in angled parking can also be accommodated.

**Recommendations**

1. Back-in angled parking should be used rather than front-in angled parking. It offers many benefits. It is safer for pedestrians and cyclists. There is less danger to traffic when maneuvering, it is easier for truck and rear door loading, and passengers can enter and leave the vehicle without danger from traffic.

2. Introduce angled parking where possible to provide more on-street parking than parallel parking.

3. Differentiate parking zones from the travel lanes by special paving materials or permeable concrete. These zones can be part of a ‘green-street’ program of storm-water management.

4. Reduce the width of travel lanes to reduce traffic speeds and create a safer pedestrian environment.

5. Consider locating street trees within parking zones, enabling trees to have full tree canopies without requiring building setbacks from the 80’ right-of-way. Thus, street-walls can follow the build-to-lines at the edge of the right-of-way and maintain a well defined pedestrian-oriented environment.

Back-in angled parking
Slow Street (with angled parking on one side and additional street trees)

**PRINCIPLE:** Remove one travel lane to accommodate angled parking.

Residential streets in the Central Core often experience excessive speeding, creating a dangerous, pedestrian unfriendly street condition. One method of creating Slow Streets, or traffic-calmed residential streets, is to eliminate one of the three travel lanes and install angled on-street parking on one side. New street trees can be introduced in planters between the parking bays to supplement the existing full canopy street trees.

**Recommendations**

1. Provide angled parking on one side and parallel parking on the other side within the existing curb-to-curb dimension. Back-in angled parking is a viable alternative.
2. Introduce new street trees between the existing full canopy street trees.
3. Provide sidewalk bulb-outs at the street intersections.
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Two-way Slow Street with New Median

**PRINCIPLE:** Introduce traffic-calming elements to create safer, pedestrian-friendly slow streets in residential areas of the Central Core.

Residential streets in the Central Core often experience excessive speeding, creating a dangerous, pedestrian-unfriendly street condition. One way to create Slow Streets in residential neighborhoods is to introduce traffic calming elements such as new center medians and pedestrian bulb-outs at intersections, such as in Boulevard Park in Midtown just outside of the Central Core. A center median eliminates one of the travel lanes and can be the location for new street trees.

**Recommendations**

1. Create new 8’ center medians in the center of the street.
2. Plant new street trees that contrast in scale and character with the side street trees.
3. Provide sidewalk bulb-outs at the street intersections.
4. Allow bicycles to share the road with vehicle traffic.
5. Consider use of permeable pavement or pavers where appropriate.

Boulevard Park is an existing example in Midtown that could be replicated in neighborhoods such as Alkali Flats within the Central Core boundaries.
Two-way Street with New Median

PRINCIPLE: Introduce central medians for large trees as traffic-calming elements to create safer, pedestrian-friendly streets, while retaining easy traffic flow.

As an alternate to the two-way slow street, this street type adds a central median for large trees. The center median eliminates one of the travel lanes and can be the location for new large street trees. Omitting sidewalk bulb-outs at the street intersections allows the traffic to flow easier, and may be a sensible strategy for higher capacity streets like N, Q and S Streets. Smaller trees along the sidewalk reduce canopy and root conflicts with zero-setback buildings, while the large trees in the center median create the large canopy cover consistent with the Central Core streets.

Recommendations
1. Create new 10’ center medians in the center of the street.
2. Plant new street trees that contrast in scale and character with the side street trees.
3. Consider use of permeable pavement or pavers where appropriate.
4. Bicycles should share the road with vehicle traffic.
The 2003 Sacramento Riverfront master plan recommended creating Greenway Streets to link the various neighborhoods with the riverfront parks. These streets will have a second row of street trees along side the existing tree canopy. The extra row of trees can be located within the side parking zones.

Recommendations
1. Plant two rows of street trees, one on each side
2. Utilize park strips for residential streets, tree grates for commercial streets.

University Avenue, Palo Alto, CA
Second row of trees planted in curb extension in parking zone.

Pacific Avenue, Santa Cruz, CA
Tree wells in parking zone.
Two-way ‘Green’ Residential Street

**PRINCIPLE:** Manage stormwater run-off using “green streets” that incorporate rain water retention gardens or bio-swales.

The central core area of Sacramento has a combined sewer system that is subject to capacity problems during winter storms. Large overflow reservoirs, such as one in the Docks Area next to Pioneer Bridge, are necessary to hold overflow water from the sewers after winter storms and on rare occasion untreated sewage has to be dumped into the Sacramento River. In order to improve water quality and reduce the amount of storm-water run-off carried in sewers, it is desirable to slow the peak flow of rain water run-off from the streets and filter pollutants through the use of bio-swales and permeable paving. These are suitable in residential neighborhoods.

**Recommendations**

1. Use permeable paving material such as unit pavers without mortar joints for the parking zones on either side of the asphalt travel lanes.

2. Design bio-swales within the planting strip between the curb and sidewalk.

3. Provide a 3’ wide unloading zone, such as the cobbled material shown in the diagram for passengers to enter and exit cars parked on the parking zone.

Stormwater management: rain gardens
Bicycle Street (one-way)

**PRINCIPLE:** Introduce dedicated bicycle lanes on residential neighborhood streets.

The diagram shows a typical one-way residential neighborhood street with two travel lanes, a dedicated bicycle lane and parallel on-street parking on both sides. The photo below shows a similar treatment for a two-way street.

**Recommendations**

1. The bicycle lane should be 6’ wide.
2. Sidewalks should be 11’ wide.
3. Planting strips should be 8’ wide to meet the recommendations of Friends of the Urban Forest standards for adequate irrigation of the existing mature street trees.
4. Consider expanded planting strips/bulb-outs at intersections.
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**Alleys: Commercial District Service Alleys**

**PRINCIPLE:** In commercial districts, alleys should provide access to parking and service areas for commercial buildings to reduce street traffic and pedestrian/vehicle conflicts along the sidewalks.

Alleys in commercial districts should be used to provide access to parking and service areas for commercial buildings, reducing the need for garage entrances and curb cuts along the street frontages.

The accompanying drawing shows two potential conditions for a commercial district alley. On the left is an example of a loading dock and on the right a structured parking garage.

**Recommendations**

1. All loading and service areas must be screened and gated for security, and should be on-parcel, keeping the right-of-way (r.o.w.) clear.

2. Trash bins and skips must be screened from view at all times and may not intrude into the alley right-of-way (r.o.w.).

3. Angled loading docks are recommended because the 20’ width of existing alley rights-of-way is too narrow for large vehicle turning.

4. Alleys should have one-way vehicle circulation.

5. Sidewalks are not required in alleys.

6. In the case of a new parking access, a 5’ setback from the property line is required to provide clearance for vehicle turning.

7. Where possible, alleys should have paving strategies designed to attenuate stormwater flows, e.g. with the use of porous paving materials and retention systems.
Alleys: Shared-Use Alleys

**PRINCIPLE:** In certain locations, alleys can function as shared-use environments that are primarily pedestrian in character, but where cars are tolerated.

At locations in the city where urban life and intensity are high, alleys can function as shared-use environments that are more pedestrian than vehicular in character. Similar to Dutch “woonervfs,” these alleys are designed as shared environments—primarily for pedestrian activity and children’s play areas, but also accommodating limited car use and access. The detailing and materials used in the alley right-of-way should clearly signify the space as more “paseo” than “street.” These shared-use alleys can accommodate outdoor cafés and vendors, possibly for limited hours of the day or evening.

The accompanying drawing shows a mid-block alley with cafés and studio spaces on either side. Removable bollards are shown to define the end of the vehicle access zone. Garage access would need to be from the rear of any buildings facing the alley, with access provided from the alley near the street.

**Recommendations**

1. Trash bins and skips must be screened from view at all times and may not intrude into the alley right of way.
2. Alleys should have one-way vehicle circulation, due to their narrow r.o.w. width.
3. In the case of a new parking access, a 5’ setback from the property line is required to provide clearance for vehicle turning.
4. Alleys should have paving materials that are conducive for both vehicular and pedestrian activity. Where possible, the paving should be designed to attenuate stormwater flows, e.g. with the use of porous paving material and retention systems.
Alleys: Commercial District Pedestrian Alleys

**PRINCIPLE:** Some alleys in the commercial district shall be redesigned as retail-lined passages - areas of intense pedestrian use and activity—with only limited service and emergency vehicle use.

In the Central Core, there is an opportunity for some alleys in the commercial district to be redeveloped as passages, suitable for pedestrian and retail activity. They should support mid-block pedestrian paths and the potential for small-scale retail activity such as cafes, bars and coffee shops with outdoor seating. Limited vehicle and service activities would be allowed during off-peak hours. These alleys must provide access for emergency vehicles and not exceed ADA cross slope maximums.

The accompanying drawing at right shows two potential conditions for a commercial district pedestrian alley:

The alley is shown at a lower elevation than the adjoining street level, recognizing the historic condition found between L and I Streets due to the raising the street levels in the late 19th century.

On the left is a commercial building, with ground floor retail at the corner and a service/loading area facing the adjoining numbered-street.

On the right are commercial buildings with upper level and basement parking and the potential of a ground level retail/bar or café space facing the alley. Garage access would need to be from the numbered streets only in order to avoid conflict with pedestrian activities on the alley. In some instances where strong North/South vehicular movement occurs, garage access from the lettered streets may be allowed.

Existing Central Core Alley (between 10th, 11th, L & K Streets)

Hardware Lane, Melbourne. Retail uses front onto this narrow pedestrian lane, a model for the redevelopment of Sacramento’s center city alleys.
In both cases, in order to minimize the impact of loading and service areas and garage entrances facing the street, the maximum width of opening would be limited to 24’. Three curb cuts would be the maximum allowed for the block.

The alley should be paved as a pedestrian space with unit pavers from building face to building face without curbs. Area drains should be located in the center of the alley.

**Recommendations**

1. All loading and service areas must be screened and gated for security, and should be on-parcel, keeping the right-of-way (r.o.w.) clear.

2. Sidewalks and curbs are not recommended, unless verified per current regulations.

3. Alleys should have paving materials that are conducive to both pedestrian and vehicular activity, e.g. unit pavers, from building face to building face. Where possible, the paving should be designed to attenuate stormwater flows, e.g. with the use of porous paving material and retention systems.

4. Area drains should be located in the center of the alley.

5. The maximum width of opening of loading/service areas and garage entrances facing the street should be limited to 24’, with a maximum of three curb cuts per side of block.

6. The alley should have retractable bollards to prevent service vehicle access during hours of retail/restaurant use.

7. Cross-slopes of paving should be ADA compliant

8. Garbage locations and collection should be coordinated to eliminate nuisances of smell and unsightliness.
Alleys: Residential District Alleys

**PRINCIPLE:** Alleys in residential districts should perform as minor streets, providing a traffic-calmed, pedestrian scaled environment providing frontage access to residential units and vehicle access to garages and service areas.

In residential districts alleys can perform the functions of a minor street, providing a pedestrian scaled environment for both secondary residential units and mid-block facing units. In addition, alleys can provide a traffic-calmed environment for vehicle access to garages and service areas.

The accompanying drawing shows two potential conditions for a residential alley:

On the left of the alley is an example of front-loaded townhouses with their garages facing the alley. The townhouses are required to be set back 5’ from the alley right-of-way in order to permit adequate turning space for vehicles entering the individual garages.

On the right of the alley is an example of rear-loaded townhouses with their garages accessed from a shared garage at the rear. The townhouses face the alley with their open space on the second level above the podium level. They too require a 5’ setback in order to allow adequate daylighting to both sides of the alley and to allow a planting zone in the setback.
Recommendations

1. Residential development along alleys should be set back 5’ from the r.o.w., to facilitate the provision of adequate daylighting, landscaping, and privacy.

2. In the case of a new parking access, a 5’ setback from the property line is required to provide clearance for vehicle turning.

3. Alleys should have paving materials that are conducive for both vehicular and pedestrian activity. Rougher paving texture should be used to slow vehicle speeds. Where possible, the paving should be designed to attenuate stormwater flows, e.g. with the use of porous paving material and retention systems.

4. Trash bins must be screened from view and may not intrude into the alley right of way.

5. Alleys should have one-way vehicle circulation.

6. Sidewalks are not necessary. However, a 4-inch curb can be used to delineate the pedestrian realm.

7. Cross-slopes of paving should be ADA compliant.

8. Landscape elements should be encouraged within private property adjacent to alley right-of-way.

9. Parcels with units extending from street to alley should have their vehicular access from the alley, in order to minimize the number of curb-cuts along the street and reduce conflicts in the pedestrian zone.
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B. Travelway Realm

2. On-Street Parking

PRINCIPLE: Provide on-street parking as a means of enhancing access to adjacent uses, buffering pedestrians from moving traffic, and increasing activity on the street.

Rationale:
On-street parking is an important component of a successful Central Core that offers benefits to visitors, merchants, and residents, including:

A. Supports local economic activity of merchants by providing convenient customer access to storefronts;
B. Supports residential neighborhoods by providing convenient guest parking;
C. Accommodates on-street loading and unloading of delivery trucks to local commercial retail uses and residential uses;
D. Reduces development costs for small businesses by decreasing demand for onsite parking;
E. Enhances pedestrian comfort by providing a physical buffer between public sidewalks and moving vehicular traffic;
F. Calms (i.e., slows) traffic by alerting motorists that driving speeds should be reduced, in response to increased street-side activity related to on-street parking (e.g., vehicle turning movements, opening car doors, etc.);
G. Enhances pedestrian activity on the street by creating foot traffic between parked cars and commercial destinations.

On-street parking can be developed in different configurations, including parallel or angled parking, and angled parking can assume several configurations including “head in” and “back in” type spaces. Both parallel and angled parking are good solutions in the right context. Generally, parallel parking is better for higher volume streets with faster moving traffic and limited right-of-way width. Angled parking works better on slower, lower-volume streets that have ample right-of-way.

Generally, the advantage of angled parking is that it can provide more on-street parking than parallel parking can within the same length of curb. This is particularly desirable in retail areas that have “main street” type storefronts and want to generate as much streetside activity as possible. The disadvantages of angled parking are that it requires more street width to accommodate the angled spaces (i.e., either narrower vehicular travelway or narrower pedestrian zone), it can create sight distance problems associated with cars backing out of parking spaces, and can slow traffic flow.

The use of back-in (reverse) angled parking can overcome the sight distance concerns, and because of this is considered a safer solution for streets with bicyclists traveling adjacent to angled parking. However, it is not a configuration that many drivers are familiar with so it requires some education and time for people to understand how it works. With the success of recent pilot projects, the City will look to expand the use of back-in angled parking.

Guidelines
1. On-street Parking. To the extent feasible, on-street parking should be provided on all streets to support adjacent uses and enhance pedestrian safety and activity.
2. Curb Cuts. Curb cuts should be avoided to the extent possible, and the use of alleys to access on-site parking promoted in order to maximize the curb side available for on-street parking,
3. Intermittent Parking Zones. Where traffic capacity needs to be balanced with on-street parking, consider using the curb lane for parking during off-peak periods and for traffic during peak periods. This strategy may allow for the narrowing of some arterial and collector street cross-sections (i.e., lane removal) where it is desirable to provide wider pedestrian zones and off-peak traffic volumes do not require three travel lanes.
4. Parking Orientation. On-street parking should be primarily parallel parking on high-volume arterial and collector streets. Angled parking may be used on lower-speed and lower-volume commercially-oriented collector and local streets, particularly on retail main streets.
5. Back-in Angled Parking. Back-in angled parking is generally more favorable for bicyclists, easier for loading of packages, and can provide a traffic-calming effect. Reverse (back-in) angled parking requires a wider edge zone in the roadside due to the longer overhang at the rear of most vehicles. This extra width can be compensated by the narrow travel lane needed adjacent to parking for maneuvering.

6. Bicycles and Angled Parking. Avoid marking bicycle lanes in conjunction with front-in angled parking. Rather, provide a striped area, without bike lane markings, six feet in width between angled parking and the travel lane on streets heavily used by bicyclists. Bicycle lane markings may be used in conjunction with back-in angled parking.

7. Metered Parking. Use metered parking to provide reasonable short-term parking for retail customers and visitors while discouraging long-term resident and employee parking. Restrict time limits of 30 minutes or less to areas reserved for special, short-term, high-turnover parking such as passenger loading, convenience stores, dry cleaners, etc. Maximum time limits should not exceed 2 hours where turnover of parking spaces is important to support nearby retail business.

8. Parking Space Widths. Parking space widths should be dependent on the land use context and thoroughfare type, and the anticipated frequency of parking turnover. The preferred width of a parallel on-street parking lane is 7 feet.

9. Parking Restrictions. Parking should be prohibited within 20 feet of either side of fire hydrants (or per local code), at least 20 to 50 feet from mid-block crosswalks and at least 20 feet from the curb return of intersections (30 feet from an approach to a signalized intersection) or as required to maintain a proper sight distance triangle depending on speed and roadway geometrics.

10. Taxi-Cab Stands. Locate taxi-cab curb space in strategic high-use areas (e.g. hotels, convention center, Sacramento Valley Station). Taxi queue areas could have synergy with transit services.

11. Motorcycle and Scooter Parking. Convenient on-street motorcycle parking should be provided to encourage motorcycle and scooter use. Ample on-street motorcycle and scooter parking should be provided within the Central Core in prominent, well-lit locations as close as possible to main entrances of buildings. Motorcycle parking bays should be striped perpendicular to the sidewalk in the on-street vehicular parking zone.
Chapter 3. Public Realm Guidelines

B. Travelway Realm

3. Intersections

PRINCIPLE: Design streets to accommodate safe and convenient pedestrian crossings.

Rationale
Street intersections are the places in the Central Core where the Travelway and Pedestrian Realms overlap. As these areas are shared by pedestrian, vehicular and in many areas, bicycle traffic, intersections have the potential for conflict. In order to reduce potential conflict and ensure pedestrian safety, it is important that pedestrian crossings be designed as an integral and critical component of the street system that accommodates vehicular, bicycle and pedestrian circulation.

The design of pedestrian crossings should announce to motorists the potential presence of pedestrians in the travelway, and acknowledge their right to be there. Free movement of pedestrians from block to block is an essential element of all successful downtown areas and should be supported by the design of safe and attractive pedestrian crossings. Pedestrian crossings are sectors of the public right-of-way that are intended to be shared by vehicles and pedestrians, and need to be designed as such, not treated as unwelcome impediments to the free flow of vehicular traffic.

Generally, the design of pedestrian crossings should achieve at least four objectives:

A. announce the presence of a crossing zone;
B. slow vehicular traffic as it passes through the crossing zone;
C. minimize the crossing time/distance for pedestrians; and
D. demarcate a clear and unambiguous zone for pedestrians.

Numerous strategies can be employed to achieve these objectives—some addressing the physical design of the street and crossing, others addressing traffic control. The appropriate mix of strategies in designing pedestrian crossings will be determined by factors such as the size of the street, the volume of traffic, and the level of pedestrian activity, with crossings of higher-volume commercial streets typically requiring more design intervention than lower-volume residential streets.

Strategies for creating safe, well-marked pedestrian crossings may include, but are not limited to, features such as sidewalk extensions (or “bulb-outs”) to reduce crossing distances, alternative paving materials at crosswalks, enhanced lighting, pedestrian-controlled signals, and re-timing of signals to increase crossing times. The Sacramento Pedestrian Master Plan (2006) and its appendices should be referenced for further guidance. Any crosswalk application should comply with the City’s Pedestrian Safety Guidelines.

Guidelines
1. Crossing Distance
   A. Curb-to-curb Distance. Where feasible, the curb-to-curb distance that pedestrians need to cross a street should be minimized. Minimizing pedestrian exposure to traffic improves pedestrian safety and comfort while also minimizing the time traffic flow must stop to accommodate crossing pedestrians, Design strategies to reduce crossing distances include reducing the number and/or width of approach lanes to an intersection, eliminating turn lanes, and reducing the radius of the intersection curb returns.

   B. Turn Lanes. Unless absolutely necessary to accommodate the safe flow of vehicular traffic, turn lanes are generally discouraged because they increase

Traffic calming measures, such as crosswalk refuges, make streets more pedestrian friendly.
the width of the pedestrian crossing and increase the potential for pedestrian/vehicle conflict.

C. Curb Extensions. Curb extensions—often called “bulb-outs” or “neckdowns”—are recommended where feasible in order to reduce the crossing distance for pedestrians and to slow traffic speeds. Curb extensions also provide the space for pedestrians to wait before crossing and space to introduce pedestrian amenities, such as landscaping, lighting, water features, and street furniture that help distinguish the pedestrian crossing as special zones.

» Curb extensions can also be installed at intersections as well as at mid-block crosswalks.

» Curb extensions should not be used at intersections where there are: no on-street parking lanes, exclusive right-turn lanes adjacent to the curb, or high volumes of right-turning trucks or buses turning into narrow cross streets.

E. Reduced Corner Radii. Reducing corner radii at intersections provides the dual benefit of reducing the crossing distance for pedestrians and slowing traffic. Reducing corner radii is a particularly important strategy at intersections that do not have curb extensions, since smaller curb radii slow traffic.

» In urban areas where pedestrian activity is intensive, curb return radii should be as small as possible—typically less than 25 feet, with a 10- to 15-foot minimum radius. Refer to Pedestrian Master Plan and Appendices for further guidance.

» Smaller corner radii are appropriate where the volume of large turning vehicles (buses, trucks, etc.) is low, where the occasional turn made by large vehicles can be accommodated with slower speeds, where on-street parking and bicycle lanes provide a greater effective turning radius, and where some encroachment into the opposing traffic lanes is deemed acceptable.

2. Crossing Time

A. Walking Speed. Set pedestrian crossing times for walking speeds appropriate for the type of pedestrian using the intersection. Accepted timings for children and the elderly are 3.5 feet per second, which is being considered for the standard at the national level in the MUTCD (Manual of Uniform Traffic Control Devices).

B. Pedestrian Countdown Signals. Consider installing “countdown” pedestrian signals to all signalized intersections to improve pedestrian comfort, especially at wide intersections and those with high pedestrian volumes. Countdown pedestrian signals, indicating how many seconds remain to cross the street, are particularly valuable to the young and the elderly.

C. Leading Pedestrian Interval. Consider re-timing lights to dedicate a few seconds at the beginning of a green light to pedestrians only. This gives pedestrians a head start into the intersection and makes it less likely that they will be hit by vehicles turning into the crosswalk.

3. Crosswalks

A. Crosswalk Markings.

I. High visibility markings should be used to delineate pedestrian crosswalks, both to alert drivers of the potential presence of pedestrians and to guide pedestrians to use only designated crossing points.

II. Marked crosswalks should be provided for all legs of signalized intersections, and across ‘STOP’ sign controlled intersections where there is significant pedestrian activity.

III. At unsignalized or uncontrolled crossings, high visibility materials should be used to increase pedestrian awareness and make crossings safer.
visibility of pedestrian crossings. High-contrast
markings also are recommended to aid people with
vision impairments.

B. At all signalized intersections, provide a limit line 7 feet
in advance of crosswalks to reduce encroachment of
vehicles and to increase visibility of crossing pedestrians.

C. Crosswalk Materials. Special paving treatments, such
as brick, colored concrete, and pavers, should be
considered in conjunction with crosswalk markings to
enhance the visibility of crosswalks, improve aesthetics,
and serve as a visual and tactile cue to drivers that there
is pedestrian activity. All crosswalk materials should be
durable, safe for pedestrian use, and stable enough to
accommodate vehicle traffic without shifting or settling.

D. Crosswalk Lighting. Pedestrian-scaled lighting should
be used in conjunction with traffic safety lighting at
crosswalks to better illuminate pedestrians to drivers.
Special lighting, such as flashing pavement markings,
can be used to further enhance pedestrian visibility
during evening hours.

E. Mid-block Crosswalks.
   » Mid-block pedestrian crossings generally are not
recommended, particularly in the historic core
areas where intersections are relatively closely
spaced. Because mid-block crossings are not
generally expected by motorists, they should be
used only where truly needed, there is appropriate
sight distance, and crossings are appropriately
signed, marked and illuminated.
   » Mid-block crossings may be considered when
there is significant pedestrian demand to cross a
street between intersections, such as to connect
two major mid-block destinations.

F. Accessibility. Curb ramps shall be provided at all
intersections to ensure accessibility.

4. Visibility
A. Pedestrian-scaled lighting should be used in conjunction
with traffic safety lighting at crosswalks to better
illuminate pedestrians to drivers.
Chapter 3. Public Realm Guidelines

B. Travelway Realm

3. Protected View Corridors

PRINCIPLE: View corridors and spatial continuity of streets should be protected by avoiding obstructions over the public rights-of-way.

Rationale
Sacramento, with its beautiful landscaping and landmark buildings, offers a variety of views and vistas. Protecting views of landmarks and the spatial continuity of streets is essential. Second level walkways, construction over streets, and lowering of roadways damage streets in a variety of ways. Besides disturbing retail continuity by not supporting street-level activities, they block views that make Sacramento unique among California cities.

Guidelines
1. Second level pedestrian bridges across public streets should not be allowed unless for very special circumstances.

2. Construction or intrusion of private or public development over public streets and rights-of-way should not be permitted.

The pedestrian bridge at 10th and L St. blocks views and detracts from ground-floor pedestrian activity.
C. Pedestrian Realm

The Pedestrian Realm guidelines are intended to promote a more walkable downtown by improving pedestrian safety, convenience, and comfort. The guidelines build upon recent city efforts, including the City’s Pedestrian-Friendly Street Design Standards (2004) and Pedestrian Master Plan (2006), that strive to make Sacramento a model pedestrian-friendly city—in short, the “Walking Capital.” These guidelines enhance the recommendations of these two pedestrian documents.

The guidelines focus on improving the attractiveness and effectiveness of the pedestrian network in order to encourage walking as a realistic mode of transportation. As such, they recommend design strategies for enhancing the physical safety, comfort, and convenience of the pedestrian environment as well as the aesthetic character and quality of the pedestrian experience.

The guidelines are intended to reclaim City streets for pedestrians, creating true multi-modal transportation routes that safely and effectively balance the circulation needs of vehicular and pedestrian traffic, while also acknowledging the public streetscape’s role as the “stage” or “living room” on which the life of the community plays out.

The pedestrian realm serves several functions—circulation facility, social space, and amenity zone—and must accommodate numerous features and facilities to support these functions. For purposes of these guidelines, the pedestrian realm has been subdivided into three zones: the pedestrian zone, the amenity zone, and the frontage zone (see diagram). Each zone plays a slightly different role in the pedestrian realm and has different design requirements. The following discussion further describes each zone and the guidelines have been organized by zone to clarify the differences.

The three zones generally occur on both sides of the street. The pedestrian zone is the middle zone and primarily accommodates pedestrian circulation. The amenity zone generally is adjacent to the street and accommodates public facilities and street furnishings. The frontage zone is adjacent to building frontages and serves as a transition area. These zones are conceptual, and while they may be clearly represented and delineated on some streets, on other streets they may be missing or weakly defined.

The pedestrian realm serves several functions: circulation, social space, and public amenities.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

1.a Sidewalks - Widths

**PRINCIPLE:** Dedicate adequate space within the public street right-of-way to support a safe, comfortable, attractive, and robust pedestrian environment sufficient in width for the desired level of pedestrian activity.

Rationale

Sidewalks are the primary areas within the public street right-of-way that are reserved specifically for pedestrian use. They also serve as the interface between buildings and uses of the private realm and the vehicular travelway, providing both connections and buffers. As such, the design of the sidewalk and the elements within it are critical to the creation of an active, pedestrian-friendly environment, which in turn is essential to establishing and maintaining the Central Core as a successful commercial and cultural center and vibrant residential neighborhood.

As part of the “public” right-of-way, sidewalk widths can be read as a statement about the relative status given to pedestrians versus automobiles in the Central Core. When the majority of the street right-of-way is given over to the automobile, and pedestrians are relegated to narrow sidewalks on either side of the travelway the implicit message, whether intentional or not, is that the pedestrian is not as important as the automobile.

Generally, the space allocated to the pedestrian and the automobile needs to be better balanced to reflect the City's commitment to establishing a walkable Central Core. Safe, comfortable pedestrian environments will only occur where the design of the public realm balances the concerns for automobile efficiency with those for a high quality pedestrian environment.

Historically, the regularity of the Central City's street grid has resulted in substantial uniformity in the design of the standard street cross-section. The typical 80-foot wide public street right-of-way in the Central Core can accommodate much more variety in design, including variation in the relative emphasis (i.e., space) given to pedestrians versus automobiles.

Sidewalk widths of 14 feet or greater generally provide space for pedestrian amenities, for local business activity to spill out onto the sidewalk, and for a leisurely walking pace without vehicle traffic dominating the pedestrian realm. However, in many areas in a vibrant urban center, sidewalks may be wider to accommodate increased types and amounts of activity.
1. Sidewalks - Widths (continued)

Guidelines

1. Sidewalk Widths. Sidewalk widths shall be commensurate with the level of pedestrian activity desired for the specific street frontage. Whereas sixteen (16) feet is the typical sidewalk width in the CBD, high activity areas should have sidewalk widths of 20 feet or more. Sidewalk widths in the CBD should not be less than 14 feet.

2. Curb Extensions. Curb extensions at “necked-downed” intersections are encouraged as a means of expanding the pedestrian zone where pedestrians are likely to congregate while waiting for transit or to cross the street.

3. Functional Zone Priorities. The widths of the sidewalk functional zones should vary in response to context, but sidewalk width should be distributed amongst the 3 zones according to the following priorities: pedestrian (highest), amenity (middle), frontage (lowest). See guidelines for each zone for minimum allowable widths.

Retail streets should maintain sufficient clearance for comfortable walking.
Rationale
The character and consistency of the paving of public sidewalks contributes greatly to streetscape identity and the quality of the pedestrian realm. Inconsistent use of paving materials and patterns becomes a source of visual clutter and reveals a lack of pride and clarity about the role of the public realm, and a lack of commitment to a quality pedestrian environment. A coordinated, high quality paving scheme can introduce pedestrian-friendly qualities such as human scale, connectivity, and coherence to the public realm. A consistent use of paving material, color, pattern and finish, provides visual cues that help define the public realm and contribute to ease of pedestrian access and safety.

While paving can be a highly distinctive design element, the first priority should be on establishing a consistent design vocabulary that visually unifies Central City streets and establishes a pleasing and interconnected pedestrian realm. Only secondarily should paving be used to distinguish individual uses and sites, or establish a specific theme.

1. Materials. Sidewalks generally should be paved with grey Portland concrete with a broom, or light sand-blasted, finish.

2. Dimensions. Sacramento’s Central Core has long used a 2-foot paving grid. Sidewalk paving should be divided into a grid of 2-foot squares that fits within the typical 16-foot wide sidewalk. The 2-foot dimension is nominal and can be adjusted in equal measurements either up or down.

3. Decorative Paving -- Restrictions. In order to maintain a consistent character to the streetscape, decorative paving for building entrances, plazas, etc., generally should be restricted to the private realm, and not extend across the public sidewalk. The pedestrian K Street is an exception.

4. Decorative Paving -- Allowances. Limited decorative paving or elements will be allowed within the frontage and walkway zones as long as such improvements:
   - Are less than 16 square feet in area (i.e., less than one 4’ x 4’ pavement module);
   - Are unique elements that contribute to the character and identity of the streetscape (e.g., private identity logos/emblems, historical plaques/markers, public art, etc.); and
   - Have design review approval.

5. Alternative Paving Materials. Alternative paving materials (e.g., unit pavers, porous pavement, etc.) may be allowed in the amenity zone, particularly if they reduce stormwater runoff and enhance street tree health and viability. Such materials will still be required to conform to the paving pattern established by the 2-foot grid.

6. Special Districts. In instances where there is a desire to establish a distinct identity for a street or district, other higher quality paving materials, such as stone pavers, may be used for the public sidewalk as long as there is consistent application for no less than the perimeter of a half block (i.e., the paving treatment should wrap around the block from alley to alley).
1.b Sidewalks - Paving (continued)

7. Accessibility and Safety. The design and composition of sidewalk paving must maintain smooth and level surfaces that meet universal accessibility requirements, and have a non-slippery surface when wet.

8. Sustainable Materials. Using quality materials and installation to ensure long use and avoid frequent replacement is the most sustainable practice. Recycled and/or locally-sourced paving materials should be specified whenever feasible in order to minimize resource depletion and energy to transport. For example, using fly ash - a material that is pre-consumer recycled content - as a substitute for portland cement in concrete.

9. Stormwater Management. The use of permeable or porous pavement in the amenity zone is encouraged whenever feasible as a means of reducing stormwater runoff rates and volumes and increasing water volume to the root zone of street trees.

10. Granite Curbs. Existing granite curbing shall be retained and replaced when disturbed by construction or repair work. On blocks where sections of granite curbing are missing, new granite curbs should be re-introduced in conjunction with new development or sidewalk repair to create a consistent, high-quality street edge.

11. Coordination with Public Facility Placement. The siting and design of public facilities such as street lights, tree wells, utility vaults, etc. should be coordinated with and responsive to the standard paving module, and not simply ignore the established ground plane pattern.

12. Historic Sidewalks. Historic sidewalks should be maintained (for historic and sustainability reasons). Adjacent sidewalk should match pattern and color.

13. Hollow sidewalks. The City is currently undertaking a historic resources survey of the downtown hollow sidewalks/raised streets area. The survey results may be used to establish protocols and guidelines for their rehabilitation, reconstruction or adaptive reuse, since they involve public right-of-way.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

2. Functional Zones

PRINCIPLE: The elements that occupy the public sidewalk shall be organized into three distinct zones that: facilitate safe, comfortable pedestrian movement (Pedestrian Zone); support the vitality & function of adjoining uses (Frontage Zone); and provide the amenities & facilities that promote social interaction (Public Amenity Zone).

Rationale
As the transitional zone between the vehicular travelway and developed parcels, the public sidewalk serves several functions. It provides for pedestrian circulation both parallel and perpendicular to building facades, accommodating movement from one end of the block to the other, as well as from on-street parking to storefronts. Sidewalks also serve as an important social space for the community, where people meet, stroll together, window shop, sit and chat, dine in open air cafes, and people watch. They also accommodate important public facilities such as transit stops, bicycle parking, directional signs, and street lights that support transit and bicycling as well as walking.

As a circulation facility, the public sidewalk needs to provide for ease of access and free flow of pedestrian traffic. As a public space, the sidewalk needs to also provide a comfortable and attractive setting. To effectively accommodate active pedestrian use, the design of public sidewalk areas generally should be organized into three zones relating to their primary function: the frontage zone, the pedestrian zone, and the public amenities zone.

Pedestrian Zone
The pedestrian zone is the middle section of the sidewalk, and is flanked by the frontage zone and the public amenity zone. Its primary function is to accommodate the efficient movement of pedestrians. As such, it needs to provide an unobstructed, linear sidewalk space that is free of street furniture, street trees, planters, and other vertical elements such as light poles, fire hydrants and transit facilities, and be wide enough to accommodate projected volumes of pedestrian traffic.

Public Amenity Zone
The public amenity zone is the section of sidewalk that adjoins the street and buffers pedestrians from the adjacent roadway. This zone is the appropriate location for the majority of the public facilities and streetscape amenities that enhance and serve the pedestrian zone, including features such as street trees, landscaping, street lights, transit stops, parking meters, fire hydrants, benches, news racks, and other street furniture and amenities.

Frontage Zone
The frontage zone forms the outer edge of the public right-of-way and typically is defined by a building façade, landscaping, fence, wall, plaza, or park (or, in less desirable, interim conditions, a surface parking lot). It functions as the interface between the public right-of-way and adjoining uses. As such, the design of this zone should be responsive to and support the adjoining use, which, depending on context, may mean providing a clear zone for store entrances, a “slow” zone for retail displays and window shopping, or a furnished zone for outdoor dining.

Three functional zones of public sidewalks: Public Amenity Zone, Pedestrian Zone, and Frontage Zone.
Guidelines

1. Accessibility. Public sidewalks should provide a direct and continuous pedestrian network that connects blocks and buildings to each other with a clear, unobstructed pedestrian travelway that is designed to accommodate the needs of a broad range of users, including the elderly, those with disabilities, and young children.

2. Amenities. Sidewalks should be richly appointed with improvements and facilities that enhance the pedestrian experience, but should avoid clutter and congestion.

3. Seating. In addition to accommodating pedestrian circulation, public sidewalks should provide spaces for more passive or sedentary activities, where people can linger to observe or participate in public outdoor activities. Seating can be either formal (e.g., chairs and benches, such as that found at a café or a transit stop) or informal (e.g., low walls, steps, fountain edges).

4. Landscape. Landscaping of the public sidewalk through street trees and other vegetation is encouraged as a means of adding color and visual interest, softening the urban edges, providing shade, and assisting with air quality and stormwater management. Landscaping generally should be located in the amenity and frontage zones and should not obstruct through pedestrian traffic or access to the street.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

2.a Functional Zones - Pedestrian Zone

PRINCIPLE: Public sidewalks shall provide adequate horizontal and vertical clearance to accommodate convenient and comfortable pedestrian circulation, with sidewalk designs proportional to pedestrian traffic levels.

Rationale

Sidewalks function as critical transportation routes within the Central Core and are the one section of the public street right-of-way that is reserved for exclusively for pedestrian circulation. In addition to providing physical access to land uses and transit facilities along a corridor, the sidewalk also serves as an important social space, where people interact, stroll together, wait for transit, window shop, share a meal, grab a cup of coffee, and access adjoining uses.

As a rule, sidewalk widths should be proportional to the level of activity and pedestrian use along a street. Similarly, the width of the pedestrian zone should be proportional to the amount of pedestrian traffic it needs to accommodate. Sidewalks that maintain minimum sidewalk widths often become crowded with public utilities, transit facilities, street furnishings, and landscaping that can constrict pedestrian movement. High pedestrian activity locations such as the Central City should have wider sidewalks to ensure adequate walkway clearance and access and to allow for additional activities which support the intensity of land use.

The pedestrian zone needs to be large enough to accommodate pedestrian circulation.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

2.a Functional Zones - Pedestrian Zone (continued)

Guidelines
1. Clearance. Ensure that a minimum sidewalk width for pedestrian through-traffic is not obstructed with street furniture, utility poles, traffic signs, trees, etc. Streetscape amenities generally should be located in the Public Amenity Zone to maintain a clear walking zone.

2. Width Proportions. The Pedestrian Zone should comprise at least 50% of the sidewalk width (i.e., 8 feet for the standard 16-foot sidewalk), but never be less than 6 feet, whichever is greater.

3. Minimum Vertical Clearance. The Pedestrian Zone should maintain a minimum vertical height clearance of 96” (i.e., 8’0”), clear of overhanging tree limbs, protruding fixtures such as awnings, signs, or other horizontal obstruction.

4. Transitions. To ensure pedestrian safety and smooth flow of traffic, transitions in the width of the Pedestrian Zone should not be abrupt and should be signaled by some sort of transitional element.

Umbrellas, awnings and trees should maintain vertical clearance above the pedestrian zone.

Ideally, the pedestrian zone will comprise at least 50% of the sidewalk width.

Figure 1: Plan diagram of sidewalk, with Pedestrian Zone highlighted
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

2.b Functional Zones - Public Amenity Zone

PRINCIPLE: A public amenity zone shall be provided, where sidewalk widths allow, within the pedestrian realm that provides space and amenities within the public sidewalk that contribute to pedestrian comfort, convenience, safety and interest, and support positive social interaction.

Rationale

The Public Amenity Zone serves several important functions. As the section of the pedestrian realm that adjoins the street, it serves as both a transition area and buffer between pedestrian circulation and vehicular circulation. It provides both a physical and psychological buffer that contributes to pedestrian comfort and well-being, and allows those who have parked on-street to conveniently access adjoining businesses.

In addition to buffering pedestrians from vehicular traffic, amenities located in this zone provide comfort and interest for pedestrians, improve the visual appearance of the street, and add to its utility as a functional space. Streetscape amenities that enhance and serve the pedestrian zone include features such as street trees, landscaping, seating, news racks, public art, and public restrooms. Additional features such as streetlights with banners, informational signage, planters, etc. add color and festivity to the street and further enhance the pedestrian experience. The Public Amenity Zone is also the appropriate location for most utilities and service facilities, such as street lights, parking meters, fire hydrants, and transit facilities.

Maintaining consistent standards for the design and placement of public amenities helps to define the identity of the Central City and enhance its function. Design and placement of public amenities such as street furniture along a corridor should be well coordinated to ensure that all improvements contribute to a coherent design treatment for a given thoroughfare and avoid conflict with other streetscape elements.

If not appropriately sited, street furniture can clutter the sidewalk, interfering with travel, and stifling, rather than supporting, active street life. Keeping street furniture, such as newspaper stands, orderly and compact helps to increase the amount of space for pedestrian movement, especially on narrower sidewalks.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

2.b Functional Zones - Public Amenity Zone (continued)

Guidelines

1. Location. Public utilities and street furniture generally should be consolidated in the Public Amenities Zone to keep them from becoming obstacles in the Pedestrian Zone. This includes, but is not limited to street trees, planting strips, street furniture, bicycle parking, utility poles, signal poles, signal and electrical cabinets, signs, fire hydrants, etc.

2. Width Proportions. The Public Amenity Zone should comprise at least 35% of the sidewalk width (i.e., 6.5 feet for the standard 16-foot sidewalk), but never be less than 30%, or 4 feet, whichever is greater.

3. Distribution and Concentration. Whereas the function of features such as light standards, street trees, and parking meters requires an even distribution along the length of a street, street furniture should generally be located in high activity areas where people can be expected to congregate, such as transit stops, major building entrances, plazas, and retail and entertainment zones.

4. Opportunities at Intersections. The Public Amenity Zones at intersections, particularly where they have been expanded by necked down intersections, are ideal locations for streetscape elements that serve high levels of pedestrian traffic, such as transit shelters, informational kiosks, and news racks. Benches and seating areas should typically be located in mid-block locations where there is less potential conflict with pedestrian traffic flow.

5. Consolidate Parking Meters and News Racks. In order to reduce clutter within the amenity zone, facilitate on-street parking, and increase parking revenues, the City continue to install multi-space and pay-and-display parking meters that require one meter for every 3 to 4 parking spaces. Currently, such a system is used in Old Sacramento and near Cesar Chavez Park. The consolidation of newspaper racks is discussed under Street Furnishing guidance.

6. Setback from Curb. To the degree feasible, elements within the Public Amenity Zone generally should be setback at least 3 feet from the face of the street curb to avoid conflict with on-street parking (e.g. car doors, passenger loading, etc.), but no less that 1.5 feet.

7. Location of Utilities. Where practical, handholes, vaults, and other utility access points should be located out of the sidewalk area, and in the private parcel area. Above ground utility boxes, control panels, etc. should be discouraged or located outside of the pedestrian realm of the sidewalk zone, and should have a standardized color where possible.

8. Undergrounding of Utilities. In order to reduce conflict with pedestrian movement and improve the aesthetic character of the public realm, utilities should be undergrounded whenever feasible, particularly on major and commercial streets. Undergrounding projects should maximize space available for street tree planting.

9. Unified Design Identity. Provide a continuity of streetscape features along the length of a street. At a district scale, coordinated design, type, color and material of street furniture and utility boxes contribute to a sense of community identity, and reflect and strengthen the local character.
2.b Functional Zones - Public Amenity Zone (continued)

10. Stormwater Management. The use of permeable or porous pavement and landscape designed to treat and attenuate stormwater flow in the amenity zone is encouraged whenever feasible as a means of reducing stormwater runoff rates and volumes.

11. ADA Clearance at Bus Stops. Maintain 5 ft. x 8 ft. clear areas at bus stops for boarding of wheelchair users.

12. Tree Planting. See City tree planting guidelines for additional information and guidance on street tree planting.

13. See Street Furnishings and Amenities section for additional information and guidance.

Urban stormwater management strategies such as these planters and permeable pavement attenuate and treat stormwater flow.
C. Pedestrian Realm

2.c Functional Zones - Frontage Zone

PRINCIPLE: A frontage zone shall be provided, where sidewalk widths allow, within the pedestrian realm that supports adjoining commercial uses by accommodating private elements, features, and activities within the public right-of-way.

Rationale

The frontage zone represents the outer edge of the public right-of-way and is typically defined by a building façade, and less frequently by landscaping, a fence, wall, a plaza or surface parking. This zone provides the interface between the circulation on the public sidewalk and the interior of adjoining buildings. As such, businesses are allowed to extend uses, displays, street furniture, and other elements into the frontage zone as a means of engaging passersby and activating the public streetscape.

In addition, pedestrians generally are less comfortable moving at a full pace directly along a building façade or wall, so the frontage zone provides some setback that allows for people to move out of the flow of traffic, to window shop, and to enter and exit buildings easily. Typically, the width of the frontage zone will vary with the nature of adjoining uses, with retail and entertainment districts having larger frontage zones than districts that have predominantly office and residential uses at the street level.

Guidelines

1. Private Furnishings. Private furnishings permitted in the frontage zone may include seating and tables, merchandise displays, planters, art, and portable signage (e.g., menu stand).

2. Decorative Elements. On streets with commercial frontages, businesses are encouraged to provide decorative elements (e.g., landscaping, potted plants, etc) that activate the public streetscape, visually enhance the building frontage, identify building entrances, and generally engage the public realm, without constricting the flow of pedestrian traffic.

3. Sidewalk Cafes. Sidewalk cafes are encouraged within the frontage zone as a use that activates and energizes the public realm.

4. Extension into Amenity Zone. In certain situations sidewalk cafes and other commercial activities may be allowed to extend into the amenity zone rather than the frontage zone, or where extra wide sidewalks occur in both the frontage and amenity zones. Such use will require special findings to ensure such use and facilities enhance the overall quality of the public realm and do not impede pedestrian traffic or conflict with access to on-street parking.

5. Vertical Clearance. Awnings, canopies, and umbrellas used within the frontage zone should provide adequate vertical clearance so they do not infringe upon the pedestrian travel zone.

6. Delineating Sidewalk Cafes. Sidewalk cafes that have more formal dining facilities (i.e., offer waiter service to their tables) or more than a single row of tables should provide a decorative element, such as a railing, rope divider, etc., that delineates the café from pedestrian travel zone. (This is a state requirement for serving alcohol.) Such delineation is not required for less formal eateries such as cafes, coffee shops, and sandwich shops that have a single row of chairs and tables.
7. Permitting. All private use of the frontage zone should be required to obtain an encroachment permit and be maintained to established standards.

8. Width. The minimum frontage zone width is 1.5 feet. A frontage zone is not needed if the sidewalk corridor is adjacent to a landscaped space.

9. Constrained Frontage Zones. In the event there is insufficient right-of-way width, the frontage zone can be reduced to augment widths of the walkway and amenity zones. If there is insufficient frontage zone space to accommodate private uses such as cafes and sidewalk displays, additional area should be taken from the private realm rather than constrain the function or character of the walkway and amenity zones. In all cases, a direct path should be provided for pedestrians and the disabled.

10. Plumbing and Mechanical Utilities of Buildings. Buildings should be designed to minimize the occurrence and mitigate the visual impact of plumbing and mechanical utilities within the Public Realm.

Deeper frontage zones can accommodate landscaping and seating.

In cases where tree plantings are infeasible within the public amenity zone, planters within the frontage zone can provide a landscape element to the streetscape.
3.a Street Furnishings and Amenities - General Guidelines

PRINCIPLE: Public street life shall be supported by providing quality facilities and amenities in the public streetscape that are an attractive and comfortable environment for people to congregate.

Rationale
As the “living room” for community life in the Central Core, it is important that the pedestrian realm be appropriately furnished. In order to transform the public streetscape from mere transportation facility to vibrant public open space it is important to add facilities and amenities that: allow people to stop and linger, provide services and information, and engage and delight the senses.

Streetscape amenities such as benches and seating areas, kiosks, news stands, news racks, drinking fountains, water features, bike racks, transit facilities, rest rooms, trash receptacles, and public art all help to animate the pedestrian realm, support public use, and contribute to the social and economic vitality of the Central Core.

Streetscape furnishings also have much to do with establishing the character and identity of an area. Their quality, durability, and location all influence the perception and use of an area. Streetscape furniture also includes both public and private furnishings. The public furnishings are the elements that provide continuity and predictability from block to block, while private furnishings are generally contribute variety to the streetscape with their focus being on enriching and enlivening a particular building or use.

1. General Guidelines
A. Variety. Public streetscape furnishings should include a variety of amenities and selection of materials that add to the excitement and vitality of Central Core.

B. Unified Design Identity. Street furnishings should provide a continuity of streetscape features along the length of a street. At a district scale, coordinated design, type, color and material of street furniture contributes to a sense of community identity, and reflects and strengthens the local character of the Central Core.

C. Context. Street furniture should strengthen sense of place by utilizing design, materials, and colors that best complement the context of existing buildings and landscape.

D. Accessibility. Street furniture needs to be designed for universal access and to facilitate use by those of all ages and abilities.

E. Seating. As much formal and informal seating as possible should be provided to increase the number of opportunities for people to socialize and spend leisure time outdoors along public streets.

F. See Public Amenity Zone section for additional information.

2. Location
A. Pedestrian Activity Areas. Street furniture and other amenities such as trash receptacles, kiosks, public telephones, newsstands, should be located in conjunction with active pedestrian areas such as intersections, key building entries, public parks and plazas, bus stops, important intersections and pedestrian streets.

B. Public Amenity Zone. Street furniture and other amenities will be located predominantly in the public amenity zone to unambiguously indicate public use and maintain a clear zone for walking. If public amenities are located in the frontage zone adjacent to private property, they should be designed in such a way that they do not preclude public use.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

3.b - Street Furnishings and Amenities - Bicycle Racks

PRINCIPLE: Bicycle use shall be supported by providing ample bicycle parking that is both secure and conveniently located.

Rationale

Bicycle use is a convenient, non-polluting means of transportation that can play a significant role in creating a less automobile-dependent Central City. The flatness of Sacramento’s terrain and the highly inter-connected street system both support cycling as a viable way to move around the city.

However, bicycles, like cars and people, need to have facilities that support them if they are going to be widely used. Such facilities include travelway realm facilities such as bike lanes, pedestrian realm facilities such as bicycle parking, and private realm facilities such as indoor showers and changing rooms. Of the three, provision of secure bicycle parking may be the most critical factor in supporting bicycle travel. Once cyclists reach their destination, they must be able to leave their bicycles without fear of theft. Similarly, bicycle parking needs to be convenient to cyclists’ destinations or it will discourage use.

While a good percentage of parking for regular bicycle commuters should be provided in buildings and parking structures (see Private Realm parking guidelines), it is also important to provide short-term bicycle parking in the public right-of-way. The design of the public realm should consider bicycle parking a fundamental design element that needs to be integrated with those needed for pedestrians, cars, and transit. While in some instances it may be appropriate to locate bicycle parking in the parking lane of the street, in most instances bicycle parking should be located within the public amenity zone of the sidewalk.

Bicycles, however, by their nature, are somewhat awkward elements, physically and visually, to integrate into the limited space provided in the public amenity zone. If poorly located, bicycle parking can interfere with pedestrians, clutter the sidewalk, detract visually, or simply not be used.

Guidelines

1. Distribution. Bicycle parking within the public sidewalk generally should be accommodated with a number of smaller racks distributed along the length of a block, rather than one or two large concentrations of bike racks.

2. Adequate Clearance. Bicycle racks should be located so that parked bicycles do not block the travel path of pedestrians or infringe upon seating areas. In addition, racks should be located at least 24’ to 30’ from the curb to accommodate ingress and egress to parked vehicles.

3. Convenience. Ideally, short-term bicycle parking should be located within 50 feet of building entrances. Where a building has more than one main entrance, the parking must be distributed to serve all buildings or main entrances.

4. Weather Protection. Shelters should be considered for larger parking areas where long-term bicycle parking is expected (e.g. Sacramento Valley Station). If more than 10 short-term spaces are required, at least 50% should be covered.

5. Visibility. Bicycle racks should be located in prominent locations within the public amenity zone that are clearly visible to cyclists from the street and from adjoining

Expanded sidewalk with bicycle parking.
buildings and public spaces. Placement in view of doors and windows will ensure adequate surveillance from building occupants and visitors. Avoid locating bicycle parking in isolated areas, dark locations, or garage recesses.

6. Traffic Calming. Due to the space required for bicycle parking, curb extensions are good locations to site bicycle racks, as long as the facilities do not interfere with pedestrian circulation. Providing space for bicycle parking should be considered a design criterion when designing curb extensions.

7. On-Street Parking. As cycling popularity increases in the future, on-street vehicle parking spaces may be converted to bicycle parking in locations where space in the public amenity/furnishings zone of the sidewalk is crowded or insufficient to meet demand.

8. Secure Rack Design. Bike racks should be designed to allow the bicyclist to secure the bicycle frame to the device at two points of contact. Appropriate bicycle rack designs include the inverted U, the ribbon type rack, or the corkscrew.

9. Bicycle Cargo. At destinations where people may anticipate carrying more items, such as public libraries, grocery stores and train stations, consider space needs for recumbant bicycles and bikes with trailers.
PRINCIPLE: The use of transit shall be supported by providing attractive, comfortable, and highly functional transit stops.

Rationale
In order to encourage and support community use of transit, it is imperative that transit service and facilities reflect a care and quality that conveys its importance to implementing the vision for the Central City and the City’s Smart Growth and Sustainability goals. People will only leave their cars for transit if the experience is a pleasant and rewarding one.

To date, RT facilities, including transit furniture such as shelters, trash receptacles, maps and schedules, etc. do not always convey the desired character or quality envisioned. As major elements of the public streetscape there is the opportunity for transit stops to become more than just utilitarian infrastructure. Instead, they can become symbols and attractive physical manifestations of Sacramento’s commitment to a more sustainable, transit-friendly future.

Guidelines:
1. Schedule Information. All transit stops should be prominently signed and all pertinent route and schedule information, including major connecting services, should be posted.

2. Shelters and Seating. Transit shelters should be provided at heavily used transit stops; all stops should provide seating and shade.

3. Shade. Adequate shade must be provided to protect transit user from the sun. This can be achieved with either trees or a shelter, or at heavily used stops, both.

4. Architectural Design. Transit shelters should be designed to provide protection from sun, wind, and rain. Transit shelters and other amenities should be distinctive through strong architectural design that reflects the character of the district.

5. Amenities. Amenities such as Global Positioning System (GPS)-based real-time arrival information, ticket machines, nighttime lighting, and trash receptacles should be provided.

6. Sustainability. Transit shelters should be designed to promote transit and energy efficiency by incorporating features such as solar panels, LED lights, etc.

7. At-Grade Access. Ultimately the City and RT should transition to low-boarding trains and replace all of the existing ramps and raised platforms with at-grade stops.
**Rationale**
Frequently, street lighting is designed to prevent certain adverse situations (e.g., crime, accidents, etc.) from occurring, rather than to create an attractive and inviting public environment. The tendency is for lighting design of the public realm to be influenced more by fiscal expediency and vehicular circulation issues than by a clear vision for a high quality pedestrian environment. As a result, street lighting too often consists of tall, widely spaced light standards that are out of scale with the pedestrian environment, and produce a uniform, overly bright illumination that drains the public realm of visual interest and drama. Typical of this type of lighting is the ubiquitous “cobra head” style light standard. At 28 feet – 6 inches in height, these light standards indiscriminately illuminate the public realm, typically with more emphasis on lighting the street than the sidewalk.

Ideally, street lighting needs to meet multiple objectives. In addition to ensuring that public safety and security criteria are met, street lighting should be designed to create a comfortable and attractive pedestrian environment. To this end, street lighting should be scaled to the pedestrian, with light fixtures that are more closely spaced and mounted closer to the sidewalk. Such lighting contributes to a human-scaled spatial definition of the streetscape, separating pedestrians from street traffic and providing for increased security and visibility. Pedestrian-scaled lighting can act both as a functional deterrent to unwanted activity and also as a stimulus to extend the active hours of street use. The design of light fixtures and the quality of the illumination add visual interest to the streetscape and contribute to the overall character of the street.

**Guidelines**

1. Light Standards/Poles and Fixtures
   A. Unified Design Identity. A single consistent style and size of pole and fixture should be used within a given district or street to create a unifying scheme of illumination that is appropriate to the scale of the street and the level and character of nighttime activity. Pole and fixture design should be coordinated with other street furniture and amenities to establish an attractive and unified design character.

   B. Armature for Banners and Other Features. Light poles should include armature that allows for the hanging of banners or other amenities (e.g., hanging flower baskets, artwork, etc.)

   C. Height of Light Fixtures. The height of light fixtures generally should be kept low to promote a pedestrian scale to the public realm and to minimize light spill to adjoining properties. In active and more intimately scaled pedestrian zones pole-mounted fixtures should not exceed twelve (12) to fifteen (15) feet in height from grade to light source. On larger streets, at major intersections, a mounting height of up to eighteen (18) feet may be acceptable.

   D. Spacing. Generally, shorter light standards should be more closely spaced to provide appropriate levels of illumination. Although in lower activity areas where lower lighting levels are acceptable, closer spacing may not be necessary.
C. Pedestrian Realm

3.d Street Furnishings and Amenities - Street Lighting (continued)

E. Location in the Amenity Zone. Light standards should be located in the amenity zone of the sidewalk (i.e., area closest to curb) and should not interfere with pedestrian circulation.

2. Levels, Direction, and Quality of Illumination

A. Limit Light Pollution. Illumination generally should be focused down toward the ground, avoiding all unnecessary lighting of the night sky. In addition to standard street light poles, light sources that are mounted closer to and focus illumination directly onto the ground plane, such as bollard-mounted lighting, stair lighting, and wall- and bench-mounted down-lighting, are desirable. Light fixtures should include internal reflector caps, refractors, or shields that provide an efficient and focused distribution of light and avoid glare or reflection into upper stories of adjacent buildings.

B. Levels of Activity and Illumination. Levels of illumination should be responsive to the type and level of anticipated activity, without over-illuminating the area (i.e., bright, uniform lighting of all public right-of-ways is not desirable). The level of illumination for pedestrian areas generally should range from 0.5 foot candles in lower activity areas up to 2.0 foot candles in more critical areas (A foot candle is a unit of illumination, measured at the distance of one foot from the source of light.)

C. Illumination of Pedestrian Realm. Street lighting should focus on illuminating the pedestrian zone (e.g., sidewalks, paseos, plazas, alleys, transit stops), rather than the vehicular zone (i.e., the street).

D. Illumination of Conflict Areas. Higher lighting levels should be provided in areas where there is potential for conflict between pedestrians and vehicles, such as intersections and crosswalks, changes of grade, and areas with high levels of nighttime activity. Thus, commercial shopping streets should have higher levels of illumination than side streets that are more residential in character and have lower levels of nighttime activity.

E. Color Balance. Color-balanced lamps that provide a warm white illumination and realistic color rendition are recommended.

F. Energy Efficiency. In order to conserve energy and reduce long-term costs, energy-efficient, Energy Star-certified lamps should be used for all public realm lighting, and hours of operation should be monitored and limited to avoid waste.
Chapter 3. Public Realm Guidelines

C. Pedestrian Realm

3.e Street Furnishings and Amenities - Other

1. Drinking Water Fountains
   A. Drinking water fountains should be “high-low” type to provide comfort and accessibility for tall people or those who have difficulty bending, as well as for children, short people, or those in wheelchairs. The city should choose one standard type if possible.
   B. Consider the need to provide bollards or other detectable barriers for the blind as the ends of protruding drinking fountain arms.

2. News Racks
   A. Consolidate newspaper racks into consistently designed newspaper boxes to reduce the physical and visual clutter of individually placed newspaper boxes.
   B. Prohibit the clustering and chaining of news boxes to trees, street signs, and utility poles.
   C. Newspaper racks generally should be located at intersections, and where possible, co-located with transit stops, to provide an amenity to transit riders.

3. Wayfinding Signage
   A. The City’s existing wayfinding system should be expanded and enhanced to serve both the needs of out-of-town visitors as well as citizens of Sacramento.
   B. The Central City wayfinding system should:
      I. Provide directional and information signs that are attractive, clear and consistent in theme, location, and design.
      II. Identify key historic, cultural, civic, and shopping destinations and facilities, e.g., public parking structures, parks and open space areas, transit routes and stops, etc.
      III. Be co-located with other streetscape furniture (e.g., light standards, transit shelters) where possible to reduce visual clutter in the public realm.
      IV. Be expanded to cover the entire Central City, including redevelopment areas.
4. Kiosks and Rest Rooms

A. Kiosks and rest rooms should be located in high-activity areas such as public plazas and intersections. They should be constructed of durable materials that can be easily maintained.

B. Kiosks are places for both permanent and temporary signs. The kiosks should be designed with permanent signage in mind that ties into the wayfinding system; surfaces should be provided for taped or stapled temporary signs. Temporary signs should be removed regularly (e.g. monthly) to avoid clutter.

C. Design systems should be explored that combine rest rooms and kiosks into a single structure.

5. Seating

A. Benches and other forms of seating (e.g., low walls, planter edges, wide steps, etc.) should be provided throughout the Central Core, with more seating provided in areas with ground-level retail frontages and at entrances to major employers.

B. Attractively designed City benches should be provided in sidewalks, plazas, parks and other high pedestrian use areas to further promote pedestrian use. These benches should be fixed in place and constructed of durable and low-maintenance materials. Benches at bus stops should be incorporated into the design of the bus shelter.

C. Use of individual, movable chairs is encouraged where there is an organization which is willing to manage their use (e.g., secure the seats at night). Such seating provides appealing flexibility that can enhance public use.

D. The creation of seat walls, steps, and planters that can serve as informal seating areas is encouraged as a means of expanding the seating potential and providing diverse opportunities for social interaction.
6. Trash and Recycling Receptacles
A. Separate trash and recycling receptacles should be located regularly at intersections, near major building entrances, near bus stops and light rail stations, and adjacent to outdoor seating areas.
B. Each receptacle should accommodate recycling, prevent wind and rain from entering the container, facilitate convenient access to the liner, and have the option of being anchored to the pavement.
C. The style and color of the City's trash receptacles should be coordinated with the selected bench design and be consistent throughout a district or the Central City.

7. Bollards
A. Where necessary, bollards with should be used to prevent vehicles from entering pedestrian zones.
B. Bollards may also be used to mark pathway entries at public-private interfaces.
C. Bollard placement and design should be coordinated with emergency vehicle access; in certain locations, removable bollards may be appropriate to balance pedestrian protection with emergency access.
D. Bollard style and color should match the selected bench and be consistent throughout a corridor or district.

8. Tree Grates
A. Tree grates should be used in commercial districts and areas with high pedestrian activity to protect trees and reduce safety hazards.
B. Tree grates should be used in all tree wells that are surrounded by paving, unless the wells are specifically designed for accent planting. In areas with lower levels of pedestrian activity, decomposed granite or gravel instead of tree grates may be permitted.
C. Grates that allow for integrated tree guards, decorative lighting, electrical fixtures and auxiliary power (for special events, holiday lighting, or maintenance) are encouraged.

9. Parking Meters
The City should move toward installing pay-and-display solar powered parking meters throughout the Central City. These meters are well-designed, reduce clutter in the pedestrian realm, conserve energy, increase revenues, and are customer friendly.
Rationale
Traditionally, as core centers became denser and more urban, they also tended to eliminate or severely reduce the amount of greenery in the urban environment. While sustaining plants in an urban environment is more challenging, urban environments need not be devoid of plant materials. Growing plants are one of the most important elements in creating a humane streetscape and attractive public realm. For this reason, Sacramento’s reputation as the “City of Trees” is a key component in its desire to be America’s most livable city.

Trees and plants soften the city’s hard surfaces and sharp edges, not just by screening but also by adding organic forms, colors, textures, and movement to the urban setting. They also add scale to the Central Core environment that people can readily relate to, and, as living organisms that grow and change with the seasons, introduce a dynamic quality that mitigates the largely inanimate character of the built environment. Of course, coordinated selection and spacing of tree species and other plantings also can help to establish a distinctive identity for a corridor or district.

While creating a more attractive environment is important, it is only one of the benefits gained from maintaining a well-landscaped urban area. Landscaping also contributes to creating a healthier and more sustainable environment. A diverse and healthy urban forest provides many environmental benefits, including enhanced energy efficiency, stormwater management, air quality, and wildlife habitat.

Trees provide an inexpensive form of “air-conditioning” by contributing to micro-climate control during the hot summer months. The shade provided by a mature tree canopy reduces the build up of surface temperatures in paving and buildings (i.e., the “urban heat island effect”*). This, in turn, makes streets more comfortable for pedestrians and reduces air conditioning required for buildings, both of which result in reduced energy consumption and improved air quality. A more comfortable pedestrian environment means fewer vehicle trips, less gas consumption, and fewer carbon emissions. Reduced air conditioning means less electricity used and less air pollution related to power generation.

The combination of foliage cover, pervious surfaces, and evapotranspiration provided by trees and other vegetation contribute to improved stormwater management and water quality, and reduced demand on City infrastructure. The combination of foliage cover and pervious soil slows stormwater runoff and increases groundwater infiltration. By
doing so, it also reduces peak storm flows that periodically contribute to exceedances in the capacity of the City's combined sewer system and the resulting overflow of untreated water onto streets and into the river. The City's Stormwater Quality Design Manual should be consulted for planning and design guidance and requirements.

The urban forest also helps battle climate change, by removing carbon, a major contributor to the "greenhouse effect", from the atmosphere. Through the process of photosynthesis, trees remove carbon dioxide (CO2) from the atmosphere and store it in their cellulose. Tree and other plant foliage also absorb other gaseous pollutants through their leaf surfaces and can remove up to 60% of the particulate matter from the atmosphere.

Clearly Sacramento's robust urban forest is a significant amenity and asset. The mature tree canopy that graces the Central Core streets and parks leaves an indelible impression on those who visit Sacramento and engenders great pride for Sacramentans. Maintaining and expanding that urban forest represents an ongoing challenge. There has been increasing concern about the potential implications for the health of the urban forest as taller buildings with subsurface garages are built to right-of-way lines, occupying space previously available for tree canopies and roots. With redevelopment, there is an opportunity to ensure that future development reserves the space needed for a healthy urban forest.

The very maturity of the City's urban forest raises another challenge, which is how to maintain its health as existing trees reach an age at which they naturally begin to decline. Finally, today's urban forest was planted primarily to provide shade and enhance neighborhood aesthetics. As the City embarks on an agenda to become more sustainable, a more comprehensive strategy for landscaping the urban environment is needed that more fully engages the urban forest's environmental function and optimizes its role as part of Sacramento's green infrastructure.

*The term “heat island” refers to urban air and surface temperatures that are higher than in nearby rural areas due to decreased vegetation, reduced air flow due to buildings, and waste heat from cars, air conditioners, and other forms of energy consumption. Concrete and masonry materials store heat during the day and re-radiate it at night.

Large expanses of pavement should be broken up with landscape elements.

Permeable pavement and rain gardens provide stormwater management benefits (Portland, OR).
Chapter 3. Public Realm Guidelines

D. Landscape

1. General Landscaping Guidelines

A. Comfort and Interest. Landscaping shall be introduced to the public realm to contribute to the quality of the pedestrian experience by adding color, texture, and form that add visual interest, and providing scale, shade, and buffering that contribute to the sense of comfort.

B. Planters. In order to provide variety and visual interest, public realm landscaping may include permanent above-grade planters, movable pots and planters, and hanging planters in addition to tree wells and planting strips.

C. Location. Typically, the Public Amenity Zone separating the sidewalk from the street will be the primary landscape zone, although landscaping can be introduced to all sidewalk zones as long as adequate clearance is maintained.

D. Urban Context. Plant materials should be in scale and compatible with the adjacent land uses and buildings. Plant materials and landscaped areas should be used to enhance the appearance of structures, define site functions and edges, and screen undesirable views.

E. Local Climate and Ecology. Plant species should be selected that are suited to climatic conditions in Sacramento, including native or naturalized species that provide potential habitat for local wildlife.

F. Reduction of Water Consumption. To minimize maintenance and water consumption, emphasis should be placed on the selection of native, drought-tolerant species, and all landscape areas should be irrigated with high-efficiency automatic drip and low-flow watering systems.

G. Water Reuse. To minimize water consumption associated with public realm landscaping, the use of rainwater harvesting and recycled water for irrigation purposes should be encouraged and expanded.

H. Planting Conditions. When selecting trees and planting material, consideration should be given to their compatibility with the physical conditions of the urban setting, such as limited space for roots and canopies, limited soil fertility, impervious coverage of the root zone, heat build up, increased urban pollution, and compatibility with adjacent uses.
1. General Landscaping Guidelines (continued)

I. Plant Selection. Plant species should be responsive to climate, existing species and planting patterns, although planting diversity is allowed where it complements and does not detract from a prevailing planting theme or pattern.

J. Plant Selection for District/Corridor Identity. Species selection should include one or two species that are repeated regularly over the length of a block) or throughout a district to provide visual continuity.

K. Maintenance. Landscaped areas should be properly maintained, which includes watering, removing debris and litter, modifying tree grates, and pruning and replacing plants when necessary. Adjacent private property owners are required to maintain the grounds and trees on any unpaved portion of the adjacent public street right-of-way where space is provided for a city street tree or other planting, regardless of whether the adjacent property is developed.

L. Vertical Clearance. To maintain proper clearance:
   - Shrubs should be trimmed to three (3) feet or less in height above the grade of the sidewalk.
   - Tree canopies should be trimmed up to at least eight (8) feet over the sidewalk and fourteen (14) feet above the street.

M. Seating. Permanent above-ground planters should be designed so that the height and width of planter walls create suitable opportunities to double as informal seating areas.

N. Stormwater Management. Wherever feasible, landscaped areas should incorporate permeable or unpaved surfaces to reduce the “heat island effect,” aid in stormwater management, and supply water to the root system of adjacent plants. The Stormwater Quality Design manual for Sacramento and South Placer county should be referenced for further guidance.

O. Applicable city standards for sightlines should be consulted.
D. Landscape

2. Street Tree Guidelines

A. General. In addition to playing important aesthetic and pedestrian comfort functions, the urban forest is also a vital component of the city's sustainability strategy. Street tree issues should be coordinated with the Urban Forest Manager and reference the Sacramento Urban Forest Management Plan (Chapter 6: Downtown).

B. Tree Protection. Maintain and protect existing mature trees wherever possible, including notching or stepping back of buildings where trees are deemed to be of significance (refer to Private Realm guidelines for more discussion of building adjustments to pre-existing street trees).

C. New Tree Plantings. New and/or replacement street trees should conform to the predominant existing planting pattern with respect to species, spacing, and alignment. Species may need to be changed to reflect current horticultural best practices and site conditions.

D. Trees in New Development Areas. Street trees represent a critical framework element and piece of green infrastructure within the public right-of-way. In newly developing and/or redeveloping areas such as the Railyards, River District, and Docks Area, street tree design, including species selection, tree spacing, and planter dimensions, should occur concurrently with the development's build-to lines & setbacks. Street tree design should occur concurrently with, and guide, the selection and placement of public facilities such as street lights and signage, rather than being treated as an afterthought.

E. Horizontal Clearance. Appropriate horizontal clearance is dependant upon species and subject to approval. Chapter 12 of the Municipal Code and the DOT Design and Procedures Manual should be referenced. Generally, to maintain proper clearance and sight lines, street tree centerlines should be located no closer than:

- I. 10-20 feet from a building façade, depending upon tree form,
- II. 25 feet from the curb line of an intersection,
- III. 5 feet from a driveway or alley,
- IV. 5 feet from fire hydrants, underground utilities, utility poles, and parking meters
- V. 3 feet from sidewalk furniture,
- VI. 3 feet from curb adjacent to parallel parking; 4 feet from curb for perpendicular and diagonal parking,
- VII. 15 feet from street lights.

F. Canopy Cover. Street tree spacing should support the City goal of achieving at least 50% shade coverage of streets and paved areas. While canopy coverage will be less in higher-intensity, urban areas, the level of canopy coverage of the public realm (i.e., public rights-of-way, parks, and plazas) in the Central City's established neighborhoods suggest that the following guidelines should be used:

- I. 35% coverage in the Central Core,
- II. 50% coverage in transition areas within the Central Core

G. Tree Spacing. The maximum spacing for street trees should not exceed 40 feet on center. The minimum spacing for street trees is 12 feet for trees with small mature size. The optimum spacing should be responsive to species type and canopy characteristics. As a general rule, the following spacing should be used:

- I. Large canopy trees: 30 to 40 feet on center
- II. Medium canopy trees: 20 to 30 feet on center
- III. Small canopy trees: 15 to 20 feet on center.

Sacramento is renowned for its street trees. Preserving and enhancing the existing canopy is a top priority.
H. New Space for Additional Trees and Plantings. In order to achieve the City’s objectives for canopy coverage and enhance its identity as the City of Trees even as development intensities in the Central Core become more urban, alternative tree planting configurations should be pursued that allow for more trees of all sizes to be planted, including more large canopy trees. Changes in the public right-of-way that could accommodate additional and more sustainable tree planting include: narrowing streets (i.e., removing and narrowing lanes), adding medians and bumped out planting bulbs within the parking lane, and widening sidewalks and parkways. Corner sightlines should be taken into consideration. Such actions require reconsideration of the design of the public right-of-way, and can only be done with full consideration of the implications for the circulation function of the street (see guidelines in Section B. Travelway Realm).

I. Double Rows of Trees. Generally, the Public Amenity Zone serves as the primary location for street trees in order to keep the pedestrian thoroughfare clear and to provide maximum space for tree canopies. However, on wide sidewalks a second row of trees may be planted interior to the amenity zone as long as adequate pedestrian way clearances are maintained. Similarly, additional rows of trees can also be added within the curb-to-curb street cross-section within the parking zone or in a center median.

J. Unified Tree Planting Scheme. To optimize the beneficial effects of street trees, both aesthetic and as green infrastructure, emphasis should be placed on establishing and maintaining a consistent and well-coordinated planting scheme within a district or along a specific corridor. A formal planting scheme that uses a single, regularly spaced dominant species is appropriate for street trees in the Central Core Area. This should be done intermittently on a block basis to alleviate host-specific diseases. Accent species that highlight special features or uses should be interspersed with the primary species, rather than replacing it.

K. Pruning. To maintain health of tree (e.g. safety, longevity) and provide a pleasing form, existing street trees should be pruned per ANSI standards, and not be topped.

L. Vertical Tree Clearance. Street trees should be selected that have a branching pattern and bottom canopy height at maturity—generally fourteen (14) feet or higher—that will not obscure commercial signage and storefront windows or conflict with truck access. Lower branching heights may be appropriate in plazas or other open spaces.

Where sidewalks are wide enough, a second row of trees can be added for variety.

Continuous planting trenches covered with permeable pavers provide for healthier trees.
3. Tree Planting Guidelines

A. Planting Conditions. The urban environment is not the ideal setting for growing trees. Thus, it is critical that efforts be made to provide the best possible conditions for proper tree growth when planting new street trees, including ample soil planting depth, subsurface preparation, aeration, root protection, irrigation, and drainage. Newly planted street trees will need supplemental irrigation until they are established.

B. Planting Trees in-ground v. in planters. Primary street trees should be planted directly in the ground. The use of above-grade pots or raised planters for primary street trees is discouraged. The use of above-grade pots or raised planters may be appropriate for smaller accent trees.

C. Tree Wells. Trees can be planted in parkway planting strips or in individual tree wells. Tree wells are preferred in higher intensity areas with high levels of pedestrian activity, particularly cross-traffic between on-street parking and adjoining buildings (e.g., retail districts, sidewalk cafes, etc.).

D. Tree Well Dimensions. In order to promote tree health, tree wells should generally be 6 feet by 6 feet or larger. In constrained areas, the minimum acceptable tree well is 4 feet by 6 feet. As existing trees are replaced, existing tree wells should be expanded wherever possible.

E. Tree Grates. In areas with high pedestrian activity, metal tree grates and tree guards may be used on all tree wells to protect trees, and allow for aeration and surface water collection. In areas with lower pedestrian traffic, decomposed granite in addition to park strips may be used. See expanded tree grate guidelines in Street Furnishings and Amenities section.

F. Continuous Planting Trenches. Even where tree wells are used, continuous planting trenches parallel to the curb should be installed, where possible, to provide maximum soil area for roots to spread. Trench areas should be filled with structural soil that prevents compaction and allows for better tree health, and is recommended for any tree planted in a sidewalk or hardscape plaza. The sections of trench between tree wells may be covered with steel grating, cantilevered concrete, or pavers to create additional space for pedestrian amenities while also allowing air and water to penetrate.

G. Parkway Planting Strips. Where appropriate, new parkway planting strips ideally should be 8 feet wide, and a minimum of 6 feet wide. Planting strip widths of 4 to 5 feet are acceptable in very constrained conditions, but are the absolute minimum width needed for most trees to survive. In areas where sidewalk zones are widened, existing narrow parkway planting strips should be widened to 6 or 8 feet, whichever is feasible. An increased distance from building façade will maximize the space available for tree branching, canopy cover, and root zones.

H. Protecting Tree Roots. In order to avoid damage to pavement, appropriate, deep-rooted trees should be selected, and root barriers should be installed as necessary.
Chapter 3. Public Realm Guidelines

E. Small Public Places

**PRINCIPLE:** Small Public Places shall be provided throughout the central city, supplementing the main civic-scaled park system.

**Rationale**

The Sutter Plan called for a large park surrounding the Capitol, and a grid of full-block parks at regular intervals. The opportunity to add large parks in the Central Core has passed. However, the provision of additional park space at the neighborhood level and scale can supplement these civic-scaled open spaces. Small Public Places can provide needed open space for surrounding residences, offices, and commercial buildings, especially when larger land parcels are not available, as is the case in most of the Central Core. Small Public Places will help fill any park deficiency gaps and help to create public gathering places that will foster a sense of community. The scale and features of these small public places should be consistent with its context.

The inclusion of small parks and plazas is also intended to provide needed relief from the hardscape and intensity of the denser land use patterns within the Central Core. Small Public Places will serve as visible and positive places to gather and recreate for persons living, working or visiting nearby. The intent is that Small Public Places will help create a sense of community and provide both passive and recreational facilities and experiences through facility alternatives less available in the past. They should be easily accessed by the surrounding neighborhood, so as to become a community meeting place and neighborhood focus at a very local level. Their central location facilitates the good casual surveillance typical of local, community-vested amenities.

Their smaller size generally limits their use to casual and passive recreation (i.e. no ball-games), dog walking, etc. Their layout may include seating areas and sometimes children’s play areas, often combining hardscaped and landscaped spaces with features like water fountains or raised stage areas.

Although there is no minimum size, an example would be a small public space that fits on a single 40’ x 80’ lot. Small Public Places in many urban centers, like Paley Park (Figure 2) in New York City - at just 1/10 of an acre - can provide valued respite from the city despite being small in size.
Small Public Places can contribute to local stormwater management strategies, serving as a storage area for run-off, with swales that may connect to larger systems, and through the provision of permeable areas.

Small Public Places may be public, private, or any form of partnership. They are often created on abandoned inner-neighborhood parcels. Many neighborhood groups provide the labor for implementation (Figure 3) and maintenance, while in some cases the City may want to perform this role.

Figure 3 is a project from Keep Indianapolis Beautiful Inc., a 30-year-old program aiming “to unite people to beautify the city, improve the environment, and foster pride in the community.”

Guidelines

1. The Parks and Recreation Master Plan should be referenced for policies and further guidelines for Small Public Places.

2. Design all new Small Public Places parks around a “purpose.” Applicants or Property Owners should identify an appropriate purpose for each of their proposed parks, preferably by meeting with the neighborhood and/or community to determine the most appropriate purpose of the future park, before it is designed. Categories of purposes could include Education; Socializing; Exercise; and Relaxation.

3. Small Public Places shall be designed to be accessible to the highest possible amount of users. They should be accessible from a public sidewalk and be inviting to the public.

4. Layout should include seating areas and central design features. The design should combine hard and soft landscape.

5. There is no minimum size for a Small Public Place, although established guidelines should be followed for a minimum size dependent upon the purpose of the park.

6. Encourage Small Public Places to contribute to local stormwater management strategies.
F. Public Art

**PRINCIPLE:** Public art shall be incorporated into the public realm to add visual interest for pedestrians and foster a distinct identity for individual districts and corridors.

**Rationale**
Public art encourages pedestrian travel by adding visual interest to the public streetscape that enriches the pedestrian experience. Adding elements that visually and intellectually engage the community can be an effective means of encouraging pedestrian activity and fostering community identity. On a large scale, public art has the ability to enhance a district’s identity, contribute to the creation of a new identity, or reinforce a design theme.

Consideration should be given to the integration of public art into all aspects of the public and private realm. However, given the competition for space in the pedestrian realm, it is important to move beyond the concept of public art as discrete elements such as statues or sculpture that occupy their own space. Instead, public art should be conceived of as something that is integral to the design of the many elements that occupy the public streetscape—making them more interesting, but not necessarily requiring more space. Thus, the design of all streetscape elements, including pavement treatments, street furniture, transit stops, light fixtures, etc., should consider the potential to incorporate public art.

The Sacramento Metropolitan Arts Commission (SMAC) is the coordinating body for public art in the Sacramento region, and should be consulted in coordinating public art at the beginning stages of projects.

**Guidelines**

1. **Capital Improvements and Development Projects.** All capital improvement and development projects, should explore the integration of public art into the design of public streetscape elements (e.g., paving, street furniture, transit shelters, lighting, etc.).

2. **Location.** Public art should be located where it can be enjoyed by a large number of people, including sidewalks, intersections, plazas, and medians.
3. Enhance Challenging Pedestrian Areas. Public art should be incorporated into difficult pedestrian transition zones, such as the connections over and under the rail lines to the Railyards and below the freeway to the River, to facilitate pedestrian use by enhancing and animating these spaces.

4. Interactive Art. Interactive art is encouraged; examples include pieces that either invite user participation or provide sensory stimulation through touch, movement, or sound.

5. Educative and Interpretive Art. Public art should be used as a means of enhancing community understanding of Sacramento’s history and unique cultural assets and appreciation for local artists.

6. Permanent and Temporary. Public art may consist of both permanent and temporary installations.

7. Unified Design Identity. The design and placement of public art should enhance and be coordinated with other streetscape improvements to ensure a coherent character for a given district or corridor.

8. Driver Safety. Placement of public art and monuments should not obstruct drivers’ view of traffic control devices, be a distraction, or be located in a manner that could create a roadside hazard to motorists.

Tree grates with artistic flourishes add visual interest to the streetscape.

Sculptural elements can double as seating.

Water fountains provide relief during Sacramento summers.

Prominently located public sculpture by R. Arneson is enjoyed by many.
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