# CITY OF VISTA

# Downtown/Paseo Santa Fe Connectivity Project

*Prepared for:*

Community Development Commission
of the
City of Vista
200 Civic Center Drive
Vista, CA 92084

*Prepared by:*

PMC®

860 Walnut Street, Suite B
San Luis Obispo, CA 93401-2725

MARCH 2011

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March 2011

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# Chapter I: Introduction

## Purpose of the Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study

The City of Vista is setting the stage for a dramatic transformation to meet its community's needs in the 21st century. Accelerated redevelopment activity, new civic projects, an emerging downtown, and a new light rail line are all recent, major components working to change the face of the city. For the Vista community and its stakeholders — residents, business owners, employees, customers, and visitors — these new developments aim to positively impact Vista's quality of life. The City and Community Development Commission (Redevelopment Agency) are focused on engaging Vista residents to help create a sustainable community that serves and benefits everyone.

Quality of life can be measured in several ways. Traffic and transportation, particularly in southern California, are consistently used as a measure of quality of life. The relative ease (or difficulty) in which people effectively move from one place to another without serious impediment is seen as an important aspect of how people feel about a place.

This study will serve as a vital tool for the City to develop a comprehensive framework in which to efficiently maximize linkages between Vista's new public transportation hubs, mixed-use and transit-oriented developments, pedestrian and bicycling pathways, parking, the historic downtown district, the Vista Village entertainment and retail complex, a business park, and a new civic center.

The Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study's primary purpose is to seek ways that improve all aspects of mobility in the area. The study looked at all modes of mobility throughout the area. Pedestrians, bicyclists, vehicles, and transit riders were all considered part of the total connectivity picture for the area. The study will also enhance the dissemination of information to the general public about redevelopment plans and the dramatic transformation that is envisioned for Downtown and South Santa Fe Avenue (Paseo Santa Fe) in Vista.

Funding for this project is primarily through a Community-Based Transportation Planning Grant from the California Department of Transportation (Caltrans), with required matching funds provided by the Community Development Commission.

The project's primary purpose is to seek ways that will improve all aspects of mobility in the area.

## Project Environs – What Is Paseo Santa Fe?

The project area consists primarily of the South Santa Fe Avenue corridor from Vista Village Drive on the north to Civic Center Drive (formerly Escondido Avenue) on the south. The project area lies between two light rail (Sprinter) stations. This area is now commonly referred to as Paseo Santa Fe and is depicted on Figure 1. The Redevelopment Agency has coined this new name, or brand, for this 1-mile stretch of South Santa Fe Avenue. The area is a focused area for revitalization and redevelopment.

## What Is Connectivity?

Connectivity is an indicator of a person's ability to use more than one transit system for a single trip.

The pedestrian, bicyclist, driver, or transit rider generally has one purpose in mind —getting from here to there with the greatest ease and convenience possible. The ease of getting from here to there or transferring from one mobility mode to another is referred to as connectivity. It is important to understand that connectivity is measured from the perspective of the person. While the transit operators, funding agencies, and others may have their views and measures of connectivity, the individual person's perception is the standard against which mobility quality should be determined.

Connectivity is an indicator of a person's ability to use more than one transit system for a single trip. When effective, "good" connectivity improves, an individual's travel to work, school, government service centers, a shopping district, or other destinations is easier and without barriers. By making a multi-modal trip (from bus to light rail, for example) nearly as easy as a single-mode trip, good connectivity can attract new transit riders, pedestrians, and bicyclists.

Good connectivity is reflected in a convenient and seamless transit system by reducing travel times, providing more reliable connections, and generally making it easier to get around efficiently.

Poor connectivity, on the other hand, creates barriers that impede an individual's ability to make efficient single- or multi-modal trips. When connectivity is poor, trips are frustrating, time consuming, and costly, lowering quality for users and making trips to local businesses, transit, and trails unattractive for new and existing customers.

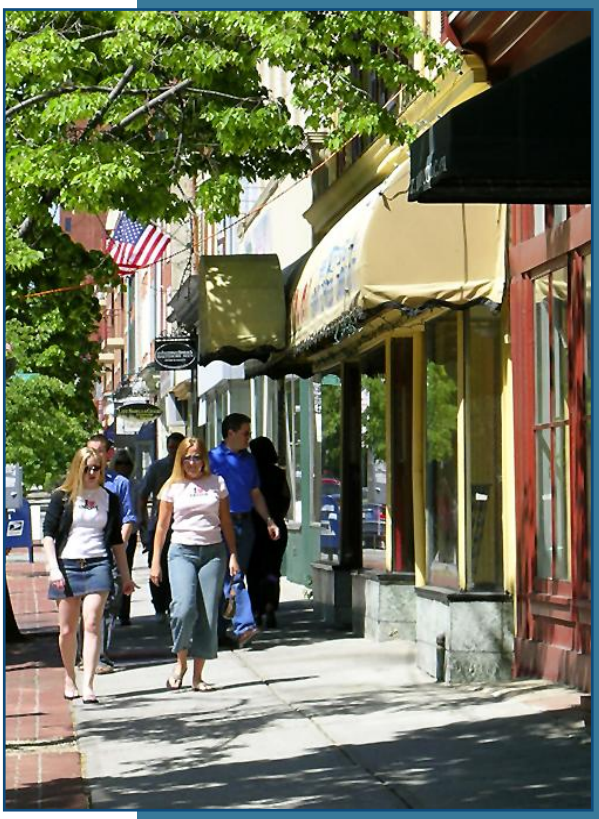
## What Is the Vision for Paseo Santa Fe?

Today, South Santa Fe Avenue is characterized as a suburban commercial corridor. It is characterized by small-lot development and a variety of commercial and semi-industrial uses. The buildings are simple one- and two-story structures without much architectural adornment. Public infrastructure is in fair to poor condition. While sidewalks and street trees are present, one would not consider this a pedestrian-friendly area, inviting one to stroll and shop at the local businesses. The automobile, not the pedestrian, rules this area.

The overall future vision for Paseo Santa Fe is an urbanized, pedestrian retail precinct.

The overall future vision for Paseo Santa Fe is an urbanized, pedestrian retail precinct. The area is very walkable and pedestrian friendly, encouraging walking, biking, and the use of nearby light rail. Anticipated uses include artistic, unique shops, art galleries, boutiques, ethnic restaurants, bakeries, and other complementary uses that foster a creative atmosphere. Also envisioned are dwelling units above shops (mixed use) in architecturally interesting buildings of two to four stories. There is plenty of activity, with the businesses doing quite well. There are no first-floor vacancies, and crime is almost nonexistent.

The area is punctuated with a central park/plaza gathering space with a heightened degree of pedestrian amenities and uses. Parking is easy to find and readily available on the street and in smaller parking structures that are evenly distributed throughout the area.



Vehicles continue to move through the corridor but at a much-reduced speed. Various traffic calming measures have been installed, and pedestrians and bicyclists feel safe to move about easily throughout the area. Wide boulevard-like sidewalks are tree-lined and provide ample opportunities for retailers and restaurateurs to move tables and goods onto the sidewalk, further activating the street and the district.

# Chapter II: Opportunities and Constraints Report

## Introduction

The Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study is aimed to further analyze connectivity along the South Santa Fe Avenue Corridor (Corridor) as the City revitalizes the area to support the vision of the Downtown Vista Specific Plan. The future South Santa Fe Avenue will be transformed into a "paseo" of quality mixed-use development, vibrancy, economic vitality, multi-modal transportation options, and a pedestrian- and bicycle-friendly atmosphere.

The purpose of this report is to generalize research, input, and findings that will outline a way to capitalize on the opportunities presented along South Santa Fe Avenue as well as a series of connectivity issues and recommendations for addressing corridor constraints.

The following evaluation of connectivity opportunities and constraints for South Santa Fe Avenue represents findings from the following methods of information gathering:

1) Review of background documents and studies
2) Site analysis
3) A custom connectivity audit
4) Stakeholder interviews
5) Project area user input
6) Staff input

The future South Santa Fe Avenue will be transformed into a "paseo" of quality mixed-use development, vibrancy, economic vitality, multi-modal transportation options, and a pedestrian- and bicycle-friendly atmosphere.

## Opportunities and Constraints Analysis

The following section outlines the chronology used in evaluating South Santa Fe Avenue opportunities and constraints as well as brief summaries of each step of the study process.

### Research

**Background Review**

Upon review of past studies and documents, the Project Team was able to understand the Corridor's historical purpose as a vital commercial corridor connecting residents to the Downtown and services as well as the transformation to

Site visits involved careful observation and documentation of the Corridor's function from a pedestrian, bicyclist, and transit rider perspective.

A custom "connectivity audit" evaluates characteristics of connectivity along the South Santa Fe Corridor, offering valuable insight into the Corridor users' experience.

its current condition. As a major through-route that still serves as a key connector, the volumes are still high but the purpose has changed from a useful destination to a key automobile route with no critical mass of uses and few reasons to stop. The City's active role in transforming the Corridor through redevelopment and a series of capital projects demonstrates a high probability for success for a timely revitalization of South Santa Fe Avenue.

**Site Analysis**

PMC conducted a series of site visits to photograph and document the existing conditions, constraints, and opportunities along South Santa Fe Avenue. Initially, City staff accompanied the Project Team to identify highlights and issue areas as well as to discuss transit options and relevant near-term City projects in or near the project area. Subsequent site visits involved careful observation and documentation of the Corridor's function from a pedestrian, bicyclist, and transit rider perspective. Detailed observation notes from the site analysis can be found in the Annotated Base Maps found in the Conclusion section of this report.

**Connectivity Audit**

PMC developed a custom "connectivity audit" to evaluate connectivity along the South Santa Fe Corridor from Vista Village Drive to Escondido Avenue (see Appendix A – Paseo Santa Fe Connectivity Checklist). The audit serves as a checklist to evaluate characteristics such as:

- General environment
- Roadway attributes
- Pedestrian & cycling environment
- Transit environment

This method of evaluation gave the Project Team valuable insight into the Corridor users' experience from all modes of transportation. The audit considers the way the Corridor functions, what is working well, and what needs to change in order to create a user-friendly South Santa Fe Avenue.

In general, the audit demonstrated the Corridor's "favoritism" to the automobile over pedestrian and bicycle users. While the public realm was maintained to a safe and reasonable standard through paving, marked crossings, and clean sidewalks, the pedestrian and bicycle realms were not inviting because of the absence of pedestrian amenities, high traffic volumes and speeds, lack of engaging development, and most importantly, wide and numerous travel lanes which can detract from the pedestrian environment as they dictate longer crossing distances and facilitate higher speeds.

**Public Outreach**

As part of the public outreach strategy for this connectivity study, the Project Team met with a broad cross section of Corridor users and project stakeholders in the form of stakeholder interviews and transit intercept surveys.

PMC worked with City staff to develop a list of valuable stakeholders that would be beneficial to interview about their experience using the South Santa Fe Avenue Corridor. The City responded with a list of 24 stakeholders representing a wide range of interests that were extremely knowledgeable and provided a wealth of insight to the Corridor's strengths and weaknesses (see Appendix B – Stakeholder Interview Summary for full report).

Stakeholders were mostly residents who have lived in Vista and used South Santa Fe Avenue for anywhere from 5 to 30 years. In general, stakeholders felt the Corridor was outdated and lacked a sense of place and a purpose, preferring more engaging and vibrant destinations and using the Corridor only as a means to get to their destinations. With poor connections to destinations, transit is not the most convenient or preferred option, and bike and pedestrian users had a low level of comfort traveling the Corridor.

In addition to stakeholder interviews, intercept surveys were conducted over a three-day period, reaching out to over 100 respondents at the Vista Business Park, Vista Courthouse, multiple commuter stops along the Sprinter line, and Cal State San Marcos. Interviewees responded that 65% relied on automobiles as their primary mode of transportation, while the remainder used the bus or the Sprinter regularly. Transit riders expressed high approval for the quality of service and convenience the bus and the Sprinter provide and felt that connections to their destinations were convenient; however, crosswalks and pedestrian safety should be improved. Few would choose to visit the South Santa Fe Avenue Corridor without a significant "draw" and hence a change to land uses, as public safety and roadway concerns act as a deterrent. For a detailed account of the Intercept Survey Summary, see Appendix C.

**Staff Input**

Throughout the study, PMC met with City staff who helped to identify issues, answer questions, and brainstorm on best approaches for outreach. City staff have contributed time to lead the Consultant Team through the project area while providing valuable insight on the Corridor's condition and working to execute the public outreach strategy in conjunction with PMC. Input from staff has been integrated into the below summary of South Santa Fe Avenue opportunities and constraints.

City staff have provided valuable insight throughout the study process.

## Opportunities & Constraints

Based on information collected through the various information gathering methods described above, the following summarizes the South Santa Fe Avenue opportunities and constraints findings.

**Opportunities**

- Location, location, location — the Corridor is a critical connector
- High volumes give the Corridor and its businesses plenty of exposure
- Proximity to bus and Sprinter provide multi-modal opportunities
- Functional transit system with high ridership
- Utility easement along Sprinter line serves as opportunity for bicycle path
- Numerous City-owned properties will expedite revitalization
- Change is wanted and eagerly anticipated by Corridor users
- Vista Village serves as an anchor/bookend
- Decent sidewalks, striped crossings, and maintained roads

**Constraints**

- Corridor has been ignored and appears “tired”
- No sense of place
- High volumes and speeds are intimidating to bicycle and pedestrian users
- No pedestrian amenities (benches, drinking fountains, shade, art, etc.)
- No landscaping improvements such as street trees, medians, etc.
- Wide cross section with up to seven lanes at some segments (long crossing distances)
- Poor lighting
- Unattractive — old development, large pylon signs, billboards, and overhead utilities
- Lack of directional signage or wayfinding
- Need safer crosswalks (LED flashers, special paving, countdown crosswalk signals, etc.)
- No restrooms at transit stops
- No bike lanes
- Poor connection to/from Civic Center Drive Sprinter station

- Buildings are set back too far from street, and development is "patchy" with no continuity
- Too many curb-cuts on South Santa Fe Avenue, posing safety issue for auto and pedestrian conflicts

# Conclusions

The following conclusions aim to capitalize on the South Santa Fe Avenue opportunities and suggest steps to overcoming the constraints.

## Recommendations

Base on the conclusions summarized above, the following capital and conceptual improvements are recommended as steps for improving connectivity to transform the South Santa Fe Avenue of today into the envisioned Paseo Santa Fe of tomorrow. For geographic context, these recommended physical improvements have been mapped by roadway segment on the following annotated base maps.

**Table II-1:** Capital Improvements

| # | Description | Priority |
|---|---|---|
| **Corridor-Wide Improvements** | | |
| A.1 | Reduce number of lanes on South Santa Fe Avenue. | TBD |
| A.2 | Repair and widen sidewalks. | |
| A.3 | Improve crossings with visible "time remaining" signals and enhanced paving at all major intersections on South Santa Fe Avenue. | |
| A.4 | Consider "pedestrian scramble" crossing at intersections. | |
| A.5 | Reduce speed to 25 mph. | |
| A.6 | Eliminate all curb cuts on South Santa Fe Avenue. Stress rear access and parking. | |
| A.7 | Add street trees and landscaping. | |
| A.8 | Implement diagonal parking with planting bays. | |
| A.9 | Underground utilities. | |
| A.10 | Add bus shelters at stops. | |
| A.11 | Provide ample seating, lighting, refuge, and other pedestrian amenities. | |
| A.12 | Install more pedestrian-level lighting along South Santa Fe Avenue. | |
| A.13 | Incorporate a public art shade structure at each intersection. | |

| # | Description | Priority |
|---|---|---|
| A.14 | Include wayfinding kiosks and signage at each intersection for auto, bike, and pedestrian users. | |
| A.15 | Install corner bump-outs/extensions at each intersection where diagonal parking is present. | |
| A.16 | Create a network of public plazas and gathering spaces with redevelopment. | |
| A.17 | Include striped bike lanes along South Santa Fe Avenue. | |
| A.18 | Implement a free district/local circulator or trolley to connect strategic users/centers to Paseo and Downtown. | |
| A.19 | Improve/study signal timing along South Santa Fe Avenue for maximum efficiency. | |
| A.20 | In addition to the planned preliminary bicycle trail parallel to the Sprinter line on the utility easement road, plan for a more permanent bicycle path using property acquired from redevelopment properties along Mercantile Street adjacent to the railway. This will allow for a more separate and comfortable trail that can be well landscaped and include amenities, unlike a trail on the utility easement. | |
| **Location-Specific Improvements** | | |
| B.1 | Install pedestrian crosswalk at the Olive Avenue and Vista Village intersection that links eastern segment of the intersection. | |
| B.2 | Consider restroom facilities at bus and transit stops where appropriate/safe. | |
| B.3 | Add a pedestrian crosswalk on north side of the Main Street and South Santa Fe Avenue intersection. | |
| B.4 | Consider a wide promenade-style sidewalk separate from the street by planted parkway along South Santa Fe Avenue adjacent to existing and proposed parking spaces south of Vista Way. | |
| B.5 | Mid-block crosswalk is needed at the end of the walkway on south side of platform. | |
| B.6 | Widen sidewalks on both sides of Civic Center Drive to 7–8 feet. | |
| B.7 | Connect the sidewalk on the west side of Civic Center Drive to the upper section of Sunset Drive and improve sidewalks on Sunset Drive to 6 feet. | |
| B.8 | More pedestrian-level lighting needed on Civic Center Drive and Sunset Drive. | |
| B.9 | Complete sidewalk segment on north side of Phillips Street to Lado de Loma Drive. | |
| B.10 | Add a bike lane on Civic Center Drive as cross section permits. | |

| # | Description | Priority |
|---|---|---|
| B.11 | Pedestrian amenities needed on Civic Center Drive, including lighting, seating, trees, and signage/wayfinding. | |
| B.12 | Civic Center Drive Sprinter station lacks immediate bus service along Civic Center Drive. Need sign to closest bus stops along South Santa Fe Avenue. | |
| B.13 | Utilize Mercantile Street for vehicular access to properties fronting on South Santa Fe Avenue versus allowing curb cuts. | |
| B.14 | Extend sidewalk on the south side of Guajome Street from Mercantile Street to the Sprinter line. | |
| B.15 | Civic Center Drive Sprinter station could use public restrooms, vending machines, and wayfinding. | |

Recommended improvements that are not necessarily public improvements or construction projects are as follows:

**Table II-2:** Other Improvements

| # | Description | Priority |
|---|---|---|
| C.1 | Program lunchtime and evening events, concerts, and street fairs along Corridor and in Vista Village Center. | TBD |
| C.2 | "Enclose" the street with a continuous street wall of private development at the back of sidewalks for a more active pedestrian environment. | |
| C.3 | Encourage buildings over one story high. | |
| C.4 | Eliminate all curb cuts on South Santa Fe Avenue. Stress rear access and parking (also listed in Capital Improvement Projects). | |
| C.5 | Remove or minimize electric substation building at northwest corner of Vista Village Drive and South Santa Fe Avenue. | |
| C.6 | Ensure storefront buildings at back of sidewalk for new building proposal at southeast corner of Vista Village Drive and South Santa Fe Avenue. Widen sidewalk to 18-foot minimum. | |
| C.7 | Increase width of sidewalk on east side of South Santa Fe Avenue between Vista Village Drive and Main Street to 18 feet. | |

**Figure II-1:** Santa Fe Avenue & Vista Village Drive Environs

**Opportunities to Improve Connectivity in the Santa Fe Avenue and Vista Village Drive Environs**

1. Enhance visibility of Pedestrian Crosswalks with enhanced paving or brightly colored Asphalt. Also consider "in-roadway" flashing warning lights in pavement/crosswalk.
2. Install visible time remaining Crosswalk signals.
3. Install flashing LED Pedestrian Crossing Sign for vehicles approaching intersection.
4. Install Street Trees for Shade and overall enhancement
5. Consider "pedestrian scrambles" at intersection.
6. Reduce number of Lanes (if possible only).
7. It would be preferable to have a pedestrian crosswalk at the Olive Drive and Vista Village Intersection that links eastern segment of the intersection.
8. More benches needed.
9. More pedestrian level lighting needed on Vista Village and N. Santa Fe Avenue.
10. Incorporate a Public Art Shade Structure at each intersection.
11. Include wayfinding kiosks and signage at each intersection for pedestrians and vehicles alike.
12. Remove or Minimize Electric Substation building at Northwest corner of Vista Village and Santa Fe.
13. Ensure storefront building at back of sidewalk for new building proposal at southeast corner of Vista Village and Santa Fe. Widen sidewalk to 18 foot minimum.
14. Increase width of sidewalk on east side of Santa Fe between Vista Village Drive and Main Street to 18 feet.
15. Add an enhanced crosswalk.

Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study

**Annotated Base Map: Santa Fe Avenue & Vista Village Drive Environs**

Scale: 1' = 50"

PMC

**Figure II-2: Santa Fe Avenue & Main Street Environs**

**Opportunities to Improve Connectivity in the Santa Fe Avenue and Main Street Environs**

1. Enhance visibility of Pedestrian Crosswalks with enhanced paving or brightly colored Asphalt. Also consider "in-roadway" flashing warning lights in pavement/crosswalk.
2. Install visible time remaining Crosswalk signals.
3. Install flashing LED Pedestrian Crossing Sign for vehicles approaching intersection.
4. Install Street Trees for Shade and overall enhancement
5. Consider "pedestrian scrambles" at intersection.
6. Reduce number of Lanes (if possible only).
7. It would be preferable to have a pedestrian crosswalk on the north side of the intersection.
8. More benches needed.
9. More pedestrian level lighting needed on Main Street and N. Santa Fe Avenue.
10. Incorporate a Public Art Shade Structure at each intersection.
11. Include wayfinding kiosks and signage at each intersection for pedestrians and vehicles alike.
12. Seek more building enclosure (buildings at back of sidewalk).
13. Underground overhead utilities.
14. Consider a wide promenade-style sidewalk seperated from the street by a planted parkway along the portion of Santa Fe Avenue adjacent to the existing and proposed parkspaces south of Vista Way.
15. Add an enhanced crosswalk.

Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study

**Annotated Base Map: Santa Fe Avenue & Main Street Environs**

Scale: 1' = 50"

PMC

**Figure II-3: Santa Fe Avenue & Guajome Street Environs**

**Opportunities to Improve Connectivity in the Santa Fe Avenue and Guajome Street Environs**

1. Reduce or eliminate all curb cuts along Santa Fe Avenue.
2. Install full crosswalk enhancements at all intersections, including enhanced crosswalks, timed pedestrian crossing signals, "in pavement" flashing lights, and LED Crosswalk warning signs for approaching vehicles.
3. Install Corner Bump Outs/extensions at each intersection where diagonal parking is present.
4. Utilize Mercantile Street for vehicular access to properties fronting on Santa Fe versus allowing curb cuts along the sidewalk on Santa Fe.
5. Repair/rebuild existing sidewalks along Santa Fe.
6. Add much needed street trees to Santa Fe.
7. Add diagonal parking with intermittent street trees.
8. Revise speed limit from 35 MPH to 25 MPH.
9. Add benches, pedestrian level lighting, and other pedestrian amenities.
10. Encourage buildings over 1-story in height.
11. Underground overhead utilities.
12. Add bus shelters at bus stops.
13. Extend sidewalk on the south side of Guajome from Mercantile Street to the light rail line.
14. Add an enhanced crosswalk.

Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study

**Annotated Base Map: Santa Fe Avenue & Guajome Street Environs**

Scale: 1' = 50"

PMC

**Figure II-4: Santa Fe Avenue & Escondido Avenue Environs**

**Opportunities to Improve Connectivity in the Santa Fe Avenue and Escondido Avenue Environs**

1. Enhance visibility of Pedestrian Crosswalks with enhanced paving or brightly colored Asphalt. Also consider "in-roadway" flashing warning lights in pavement/crosswalk.
2. Install visible "time remaining" Crosswalk signals.
3. Install flashing LED Pedestrian Crossing Sign for vehicles approaching intersection.
4. Install Street Trees for Shade and overall enhancement.
5. Consider "pedestrian scrambles" at intersection.
6. Reduce number of Lanes (if possible only).
7. More Benches needed.
8. More Pedestrian level lighting.
9. Incorporate a Public Art Shade Structure at each intersection.
10. Include wayfinding kiosks and signage at each intersection for pedestrians and vehicles alike.

Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study

**Annotated Base Map: Santa Fe Avenue & Escondido Avenue Environs**

Scale: 1' = 50"

PMC

**Figure II-5: Escondido Avenue Sprinter Station Environs**

**The Escondido Station is poorly connected to surrounding neighborhoods and walkways. The suggested improvements are designed to "connect" the Station to Santa Fe Avenue.**

1. A mid-block crosswalk is needed at the end of the walkway on the south side of the platform. Currently there is a median blocking the connection. The median has been designed to encourage unrestricted pedestrian crossing. A more formal, safe design needs to be implemented.
2. Install visible time remaining Crosswalk signals at the mid blockcrosswalk.
3. Install flashing LED Pedestrian Crossing Sign for vehicles approaching intersection.
4. Widen sidewalks on both sides of Escondido Avenue to 7-8 feet.
5. Connect the sidewalk on the west side of Escondido to the upper section of Sunset Drive and then improve sidewalks on Sunset Drive to 6 foot sidewalks.
6. More Pedestrian level lighting needed on Escondido Avenue and Sunset Drive.
7. Include wayfinding kiosks and signage at each intersection for pedestrians and vehicles alike.
8. Complete sidewalk segment on north side of Phillips to Lado de Loma Drive.
9. Add bike lane on Escondido as cross section permits. Currently no apparent bicycle facilities once you leave Station.
10. Full array of pedestrian amenities needed on Escondido including pedestrian level lighting, benches, trees, wayfinding.
11. Underground overhead utilties.
12. Seek more building enclosure (buildings at back of sidewalk).
13. Transit station lacks immediate bus service along Escondido Avenue. Need sign to closest bus stops along Santa Fe Avenue.
14. Transit stop could use Public Restrooms, Vending machines, and wayfinding.

Downtown/Paseo Santa Fe Corridor Transportation Connectivity Study

**Annotated Base Map: Escondido Avenue Sprinter Station Environs**

Scale: 1' = 50"

PMC

# CHAPTER III: INFRASTRUCTURE IMPROVEMENT ASSESSMENT

This chapter summarizes potential transportation improvements recommended as part of the Downtown/Paseo Santa Fe Connectivity Project. The travel and quality of life benefits gained through implementation of "complete streets" at the local level have been well documented in several key national and regional documents. These benefits are reviewed here with the goal of assisting the City to understand the potential outcomes associated with improvements to South Santa Fe Avenue. For each of the various mode-specific improvement types listed in the following sections, potential benefits and design considerations for South Santa Fe Avenue are reviewed.

## Pedestrian Facility Improvements

The pedestrian should function as the basic building block of transportation and land use planning. Built environments that provide high levels of comfort for pedestrians will ensure active and lively communities. Pedestrian-friendly environments will also serve an important social justice goal by allowing for the elderly, youth, and disabled to access opportunities within their communities. Intercept surveys conducted for this study indicate a generally low level of pedestrian comfort along South Santa Fe Avenue.

In terms of the overall connectivity of the pedestrian network, local governments should set minimum block length standards of approximately 300 to 600 feet. This ensures that walking connections between any origin–destination pair can be made along a route that does not require out-of-direction travel by the pedestrian. Pedestrians are perhaps the most sensitive to travel time and out-of-direction travel, as they are fully human-powered and exposed to the natural elements. Several jurisdictions across the country have adopted "connectivity codes" into their local ordinances and long-range planning documents, requiring local streets to achieve a minimum spacing in the range from 300 to 600 feet. The segment of South Santa Fe Avenue between Terrace Drive and Pala Vista Drive is over 1,000 feet and most likely causes out-of-direction travel for pedestrians and cyclists in the vicinity.

Reducing barriers to pedestrian travel is another important consideration. Typical barriers to pedestrian travel include high speed, high volume roadways. Rail transit corridors, freeways, and other regional transportation infrastructure can also pose significant barriers to walking and may cause community members to avoid making a pedestrian trip even if the destination is a short distance away.

Two critical components of roadway network connectivity, therefore, are the density of the roadway grid and the absence of barriers at any particular point along this grid.

Pedestrian facilities affect the walkability of any particular community roadway. Those facilities include sidewalks, curb or corner zones, and crosswalks. Each of these elements is discussed in detail below.

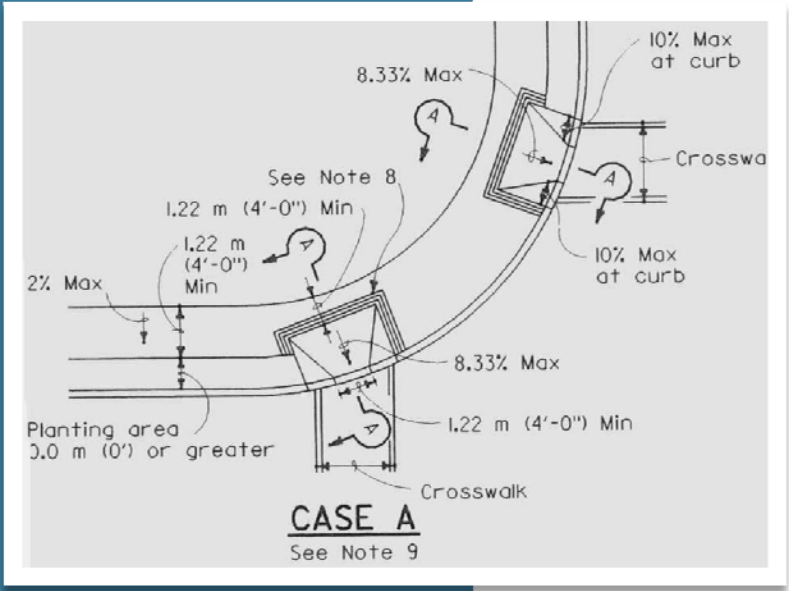
## Sidewalks

Sidewalks support both pedestrian mobility and safety. Clear sidewalk widths of 8 to 10 feet are recommended for major roadways in town centers and urban cores. This ensures compliance with the American with Disabilities Act (ADA), as well as provides for groups of people to comfortably walk side by side.

The ADA mandates a minimum sidewalk width of 4 feet. Public sidewalks that are less than 5 feet wide require a 5- by 5-foot passing zone every 200 feet. This is a minimum requirement.

On commercial streets, such as South Santa Fe Avenue, 10 feet is the desired sidewalk width. This includes a 2- to 3-foot comfort zone on either side of the pedestrian walkway, as pedestrians generally keep about 1.5 feet clear of planters, street furniture, and other obstructions near the curb. This should not prevent the City from installing wider sidewalks (up to 12 feet) in commercial districts and other locations with outdoor seating and amenities.

Landscaping separating the street from the sidewalk should be 5 feet wide. There are benefits to putting driveway cross-slopes in the landscape area rather than across the sidewalk.




Elements such as street furniture, newspaper racks, bicycle parking racks, and trash bins should be kept in the buffer zone and should not impede a straight travel path along the sidewalk. Additionally, meandering sidewalks are discouraged. They may prove challenging for visually impaired pedestrians and lengthen travel distance.

## Curb or Corner Zones

Buffers between the pedestrian travelway and vehicular travel lanes greatly enhance the comfort and perceived safety from the pedestrian's perspective. Common pedestrian buffers are landscaping strips or street furniture. In particular,

street trees have been found to slow vehicle speeds by causing the motorist to believe the travel lane is tighter and more restrictive.

Good curbs and corners have several basic attributes, as follows:

- Clear of obstructions: They have enough space to accommodate the typical number of pedestrians waiting to cross.
- Visible: Pedestrians waiting to cross the street should have an unobstructed view of approaching vehicles, and approaching motorists should be able to see waiting pedestrians easily.
- Intuitive: Symbols, marks, and signs used at corners should be universal and clear so that both motorists and pedestrians know what actions or movements to make and expect.
- Accessible: Everything at the corner, including ramps, landings, call buttons, signs, symbols, marks, and textures, must meet standards dictated by the Access Board, as required by the ADA.
- Discreet: Corners should be separate from vehicle traffic. They should have design features that disallow vehicles from encroaching.

Any future designs for South Santa Fe Avenue should pay specific attention to the corner treatments and intersections to ensure high levels of pedestrian comfort and safety.

## Curb Ramps

The ADA defines two types of curb ramp systems: perpendicular ramps and parallel ramps. Every ramp must have:

- A landing at the top and at the bottom
- A maximum ramp slope in the right-of-way of 1:12
- A cross slope of no more than 1:50
- A minimum width of 915 mm (3'0")
- A landing at the top least 1220 mm (4'0") long and at least the same width as the ramp itself
- A slope no more than 1:50 in any direction

If the ramp runs directly into a crosswalk, the landing at the bottom will be in the roadway. The landing, 1,220 mm (4'0") long, should be:

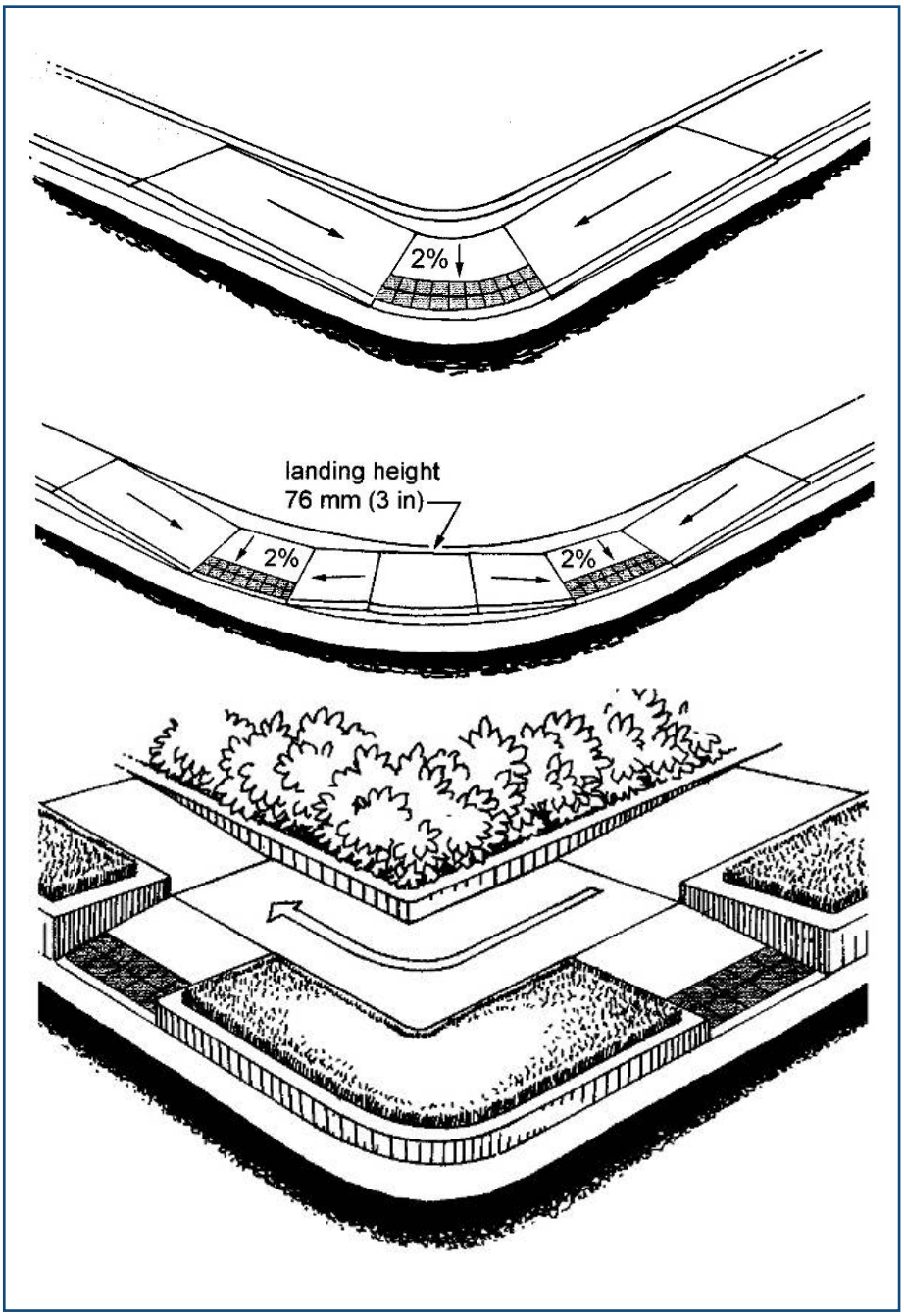
- Completely contained within the crosswalk
- Have a running slope no greater than 1:20

If the ramp lands on a dropped landing within the sidewalk or corner area where someone in a wheelchair may have to change direction, the landing must:

- Be a minimum of 1,525 mm (5'0") long
- Be at least as wide as the ramp
- Have a slope no greater than 1:50 in any direction

It is desirable to have directional ramps or dual curb ramps that point the pedestrian toward the crosswalk. Most of the curb ramps along South Santa Fe Avenue are single rather than dual. For curb retrofits, it is not always feasible to allow for dual curb ramps. It may be cost prohibitive due to utility relocation or curb reconstruction. However, wherever possible, each crosswalk at a given corner should have a curb ramp, similar to the figures on the following pages, taken from the U.S. Department of Transportation's document, *Designing Sidewalks and Trails for Access*. Dual curb ramps are especially desirable at locations with narrow sidewalks and a wide corner radius (see Figure III-1). At locations with narrow sidewalks and a tight corner radius, a single curb ramp is appropriate. Ramps and dropped landings that end directly in the roadway should have a truncated dome tactile surface.

**Figure III-1:** Typical Single and Dual Curb Ramps




## Pedestrian Area at Corners

The pedestrian area is defined as usable space for pedestrians. Corners must be functional and must accommodate those waiting to cross the street, those traveling along the sidewalk, and those who stop to congregate on the corner. The greater the number of expected pedestrians, the larger the pedestrian area should be.

Other considerations sometimes erode the amount of usable space and hence the functionality of corners. Several strategies exist for expanding the pedestrian area at corners. Small corner radii generally provide the most usable space and the shortest crossing distances for pedestrians. Designers may also consider curb extensions, right-of-way acquisition, or granting public easements across private property to expand the pedestrian area.

The pedestrian area should be clear of obstructions, especially immediately adjacent to the corner. This area is the triangle created by extending the property lines to the face of curb. Where existing obstructions such as utility poles or newspaper racks are removed, they should not be relocated such that they obstruct a pedestrian's line of travel.

## Corner Radii

The general rule for choosing a corner radius should be to choose the smallest possible, acknowledging that each location has a unique set of factors that determine the appropriate radius (see Figure III-2).

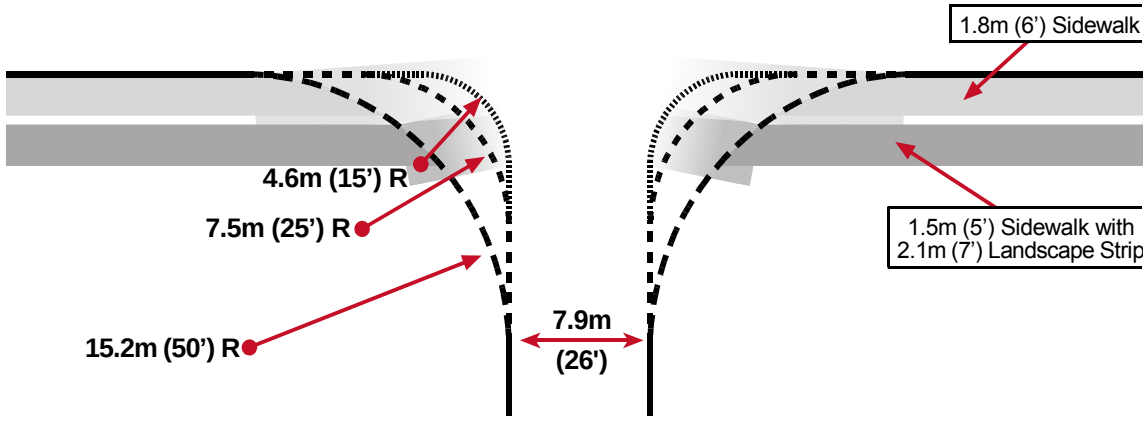
Small corner radii improve comfort and create a more enjoyable walking environment because they create more usable space for pedestrians at the corner. They improve safety because they slow vehicle speeds and shorten the crossing distance for pedestrians and improve sightlines. Smaller corner radii are also beneficial for street-sweeping operations.

While corner radii may be as small as 1'6", locations with any amount of turning traffic cannot accommodate a radius this tight. At locations with curbside parking, a 10-foot radius is recommended. At locations with no parking lane, a 20-foot maximum is recommended. Locations with heavy truck or transit traffic may also require a wider turning radius.

**Table III-1:** Table 1: Recommended Curb Radii

| Street Type | Recommended Curb Radius |
|---|---|
| Residential | 15 feet |
| Local/Collector | 20–30 feet |
| Arterial | 30 feet |
| Industrial | Up to 50 feet |

**Figure III-2:** Effects of Curb Radii on Crossing Distance




**Sidewalk at back of Curb**

| Radius | Average Vehicle Speed in Corner | Crossing Distance | Increased Crossing | Percent Increase |
|---|---|---|---|---|
| 4.6m (15') | 5 mph | 7.9m (26') | +0m (0') | 0% |
| 7.5m (25') | 10 mph | 10.0m (36') | +3.0m (10') | 38% |
| 15.2m (50') | 15mph | 19.8m (65') | +11.4m (39') | 150% |

**Sidewalk with Nature Strip**

| Radius | Average Vehicle Speed in Corner | Crossing Distance | Increased Crossing | Percent Increase |
|---|---|---|---|---|
| 4.6m (15') | 5 mph | 11.3m (37') | +3.3m (11') | 42% |
| 7.5m (25') | 10 mph | 15.2m (50') | +7.3m (24') | 92% |
| 15.2m (50') | 15mph | 27.1m (89') | +16.2m (53') | 203% |

## Curb Extensions

Consider curb extensions at intersections of three or more lanes or at uncontrolled crossings where they may improve safety. Generally, curb extensions should extend a minimum of 6 feet into the street adjacent to parallel parking, or 12 feet adjacent to diagonal parking, and no further than the edge of the travel lane or bicycle lane. Designers should exercise special care not to create conflicts between bicyclists and pedestrians and not to design the curb extension such that cyclists are forced to "take the lane" at intersections where it is not appropriate (see Figures III-3 and III-4). Curb extensions can potentially be employed at several locations along this corridor to shorten pedestrian crossing distances and enhance the visibility between pedestrians and drivers.

**Figure III-3:** Medians and Curb Extensions Create Shorter Pedestrian Crossings

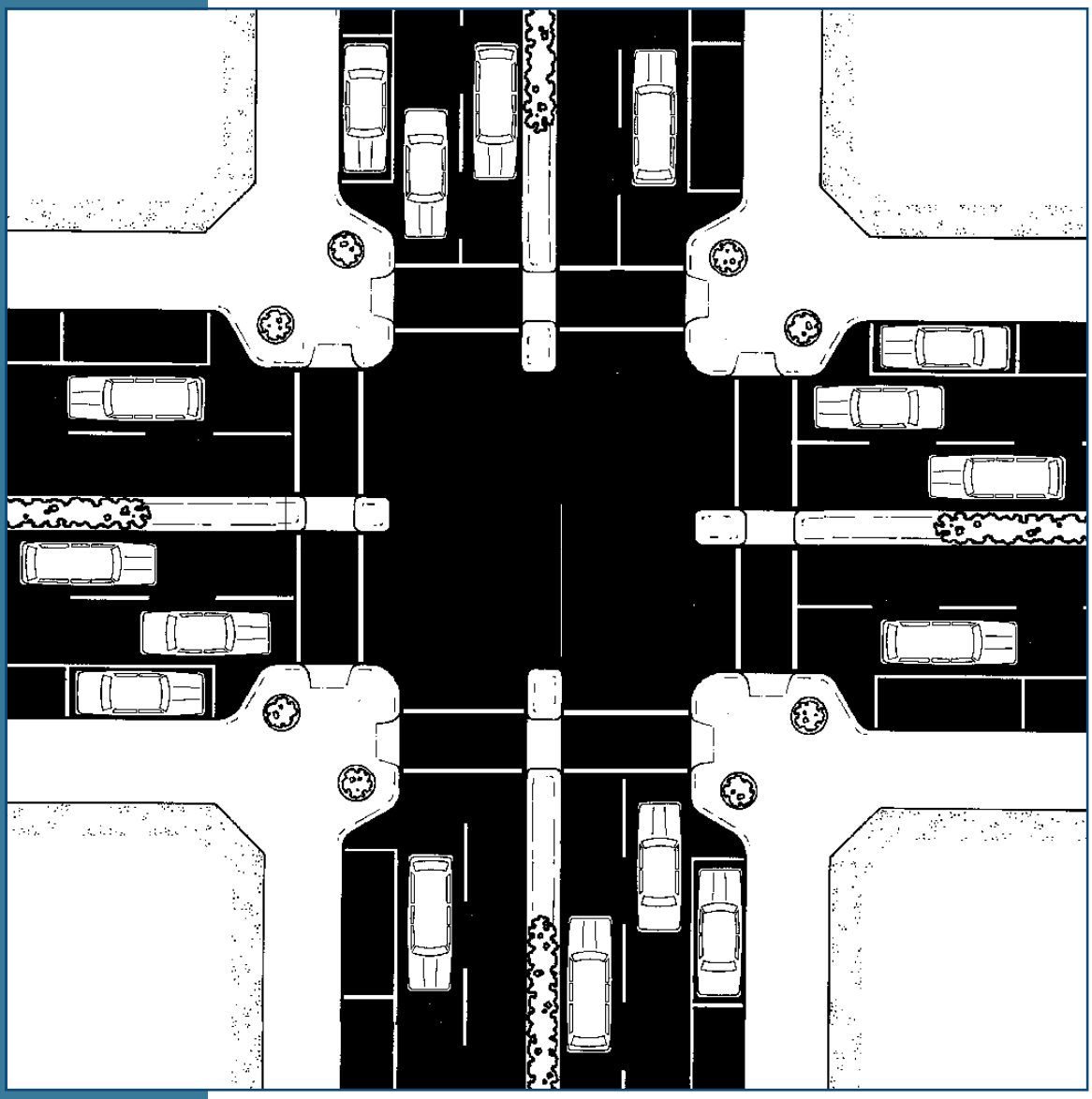
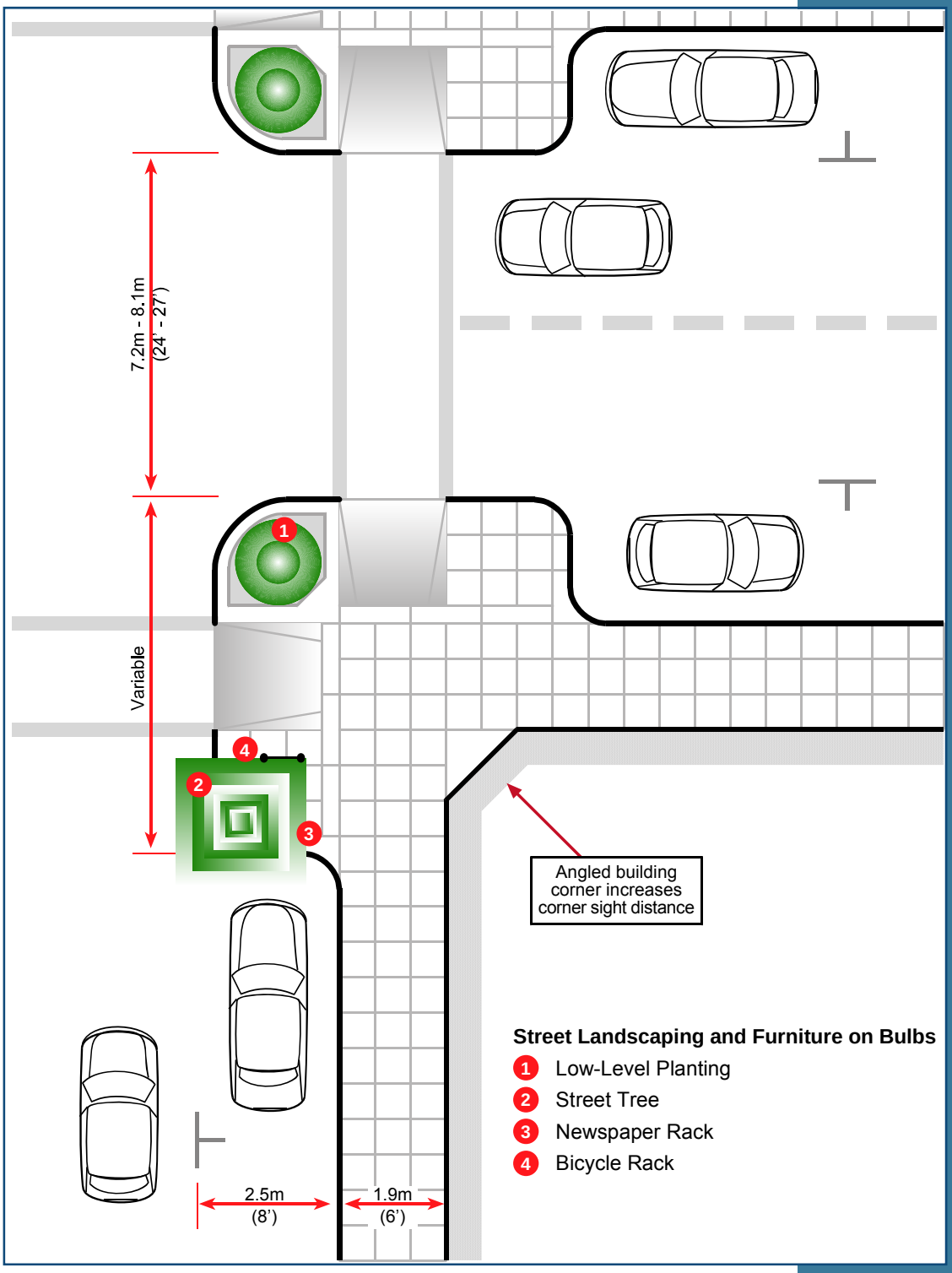


**Figure III-4:** Effective Use of Space at Curb Extensions Near Parallel Parking



## Pedestrian Refuge Islands

Pedestrian refuge islands allow crossings in two stages: to medians and to the far side of the street. Refuges can be lower cost because no curb (drainage) modifications are normally required.

Pedestrian refuge islands should extend through the crosswalk, with a curb cut for wheelchair accessibility. Refuge islands should be clear of obstructions and have adequate drainage. They should be at least 12 feet long or the width of the crosswalk (whichever is greater) and 60 feet square. At actuated pedestrian signals, an accessible pedestrian push button should also be located in the median.

Recommended refuge island widths are shown in Table III-2 below.

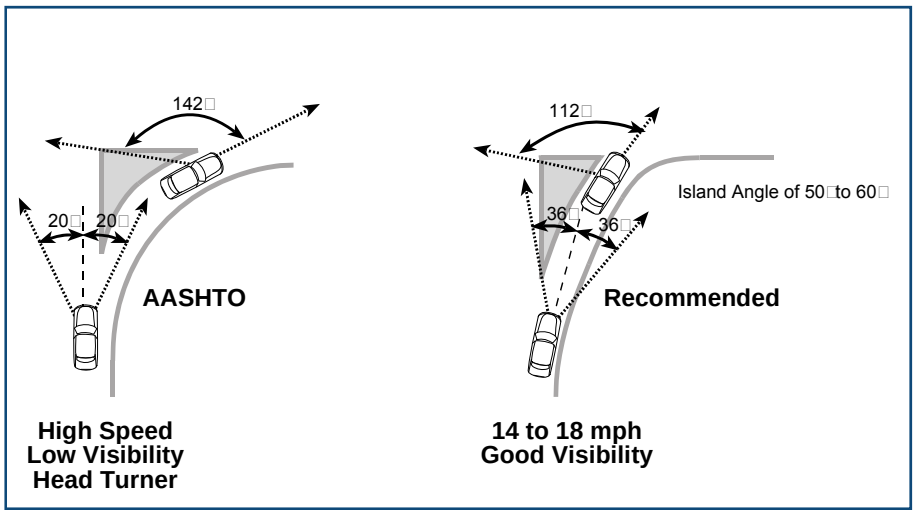
**Table III-2:** Table 2: Recommended Refuge Island Widths

| Speed | Minimum Width* |
|---|---|
| 25–30 mph | 5 feet |
| 30–35 mph | 6 feet |
| 35–45 mph | 8 feet |

**Where bikes are expected to use the crosswalk, medians should be at least 6 feet wide, the length of an average bike.*

Whenever possible, especially at locations adjacent to pedestrian generators, intersections should be designed without "free rights" for vehicles. When free rights are necessary, pedestrian islands should be designed to maximize visibility of pedestrians and slow vehicle speeds (see Figure III-5).

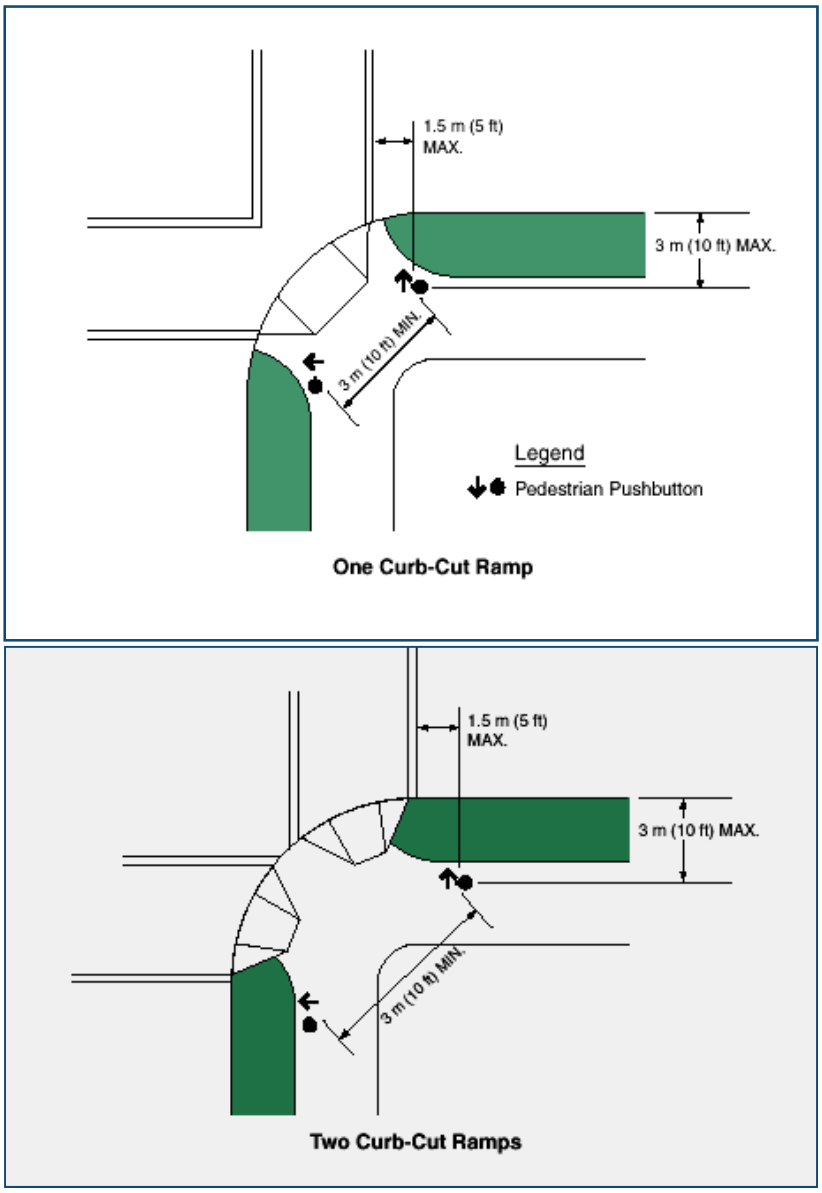
**Figure III-5:** Right-Turn Slip Lane Design Options



## Push Buttons

When pedestrian push buttons are used, they should be well marked, visible, and accessible to all pedestrians from a flat surface consistent with recommendations from the U.S. Department of Transportation's *Designing Sidewalks and Trails for Access* (see Figure III-6). They should be located within 5 feet of the crosswalk and not further than 10 feet from the curb.

**Figure III-6:** Push-Button Locations for Accessible Pedestrian Signals at Dual Ramps and Single Ramps




*Source: Gibbens 2003*

At actuated signals where pedestrian activation is registered for greater than 75% of the peak hour signal cycles, signals should accommodate pedestrian crossings in every peak period cycle.

At locations that are not on a direct path to a generator with low side-street volumes, signals should be partially actuated, meaning that pedestrians crossing the side streets get a "WALK" signal on every cycle, but pedestrians crossing the main street must use the pedestrian push button.

Where needed, pedestrian call buttons should be located to meet the following criteria:

- The closest push button to a crosswalk should call the pedestrian signal for that crosswalk.
- An arrow indicator should show which crosswalk the button will affect.
- The push button should be visible to a pedestrian facing the crosswalk, unless space constraints dictate another button placement.
- The push button must be accessible from the level landing at the top of the curb ramp, or from the dropped landing of a parallel curb ramp.
- Where audible pedestrian signals are installed, audible push buttons should also be used. Audible signs are being installed as part of all new signals and signal modifications by several California jurisdictions due to recent settlements. Newer audible signals have the sound coming from the push button and automatically adjust to background noise. This combination addresses neighborhood concerns about the noise associated with audible signals.
- Tactile symbols may also be installed for visually impaired persons.
- At locations where pedestrian refuge islands or medians are located and the crossing is greater than 60 feet, pedestrian push buttons should be installed in the median.

## Other Corner Zone Issues

Various elements may create obstructions in the corner zone. There are several means of reducing the number and size of the obstructions. Items such as newspaper racks, trash bins, signal boxes, and street furniture may be consolidated and, where appropriate, regulated through City ordinances. Maintaining sight distance for both pedestrians and motorists is critical, especially at intersection locations. When designing new intersections or driveway locations, it is important to measure the pedestrian's sight lines as well as those of the vehicle. Standard

stopping distances from the American Association of State Highway and Transportation Officials (AASHTO) are appropriate.

## Crosswalks

Crosswalks should be provided on all legs at signalized intersections, unless hazardous conditions make one or two legs unsuitable for installation. Mid-block crosswalks are only installed in locations where there are a substantial number of mid-block crossings, the distance to the nearest intersection is greater than 300 feet, and the spacing between intersections is greater than 660 feet. There may be several opportunities for mid-block crossing along the South Santa Fe Avenue Corridor, especially to enhance pedestrian access along the long block between Terrace Drive and Pala Vista Drive.

Pedestrian crossings generally fall into two categories: controlled and uncontrolled. Controlled crossings include signalized locations and stop-controlled crossings (both all-way stops and stop-controlled approaches on two- and three-way stops). Uncontrolled crossings include both intersection and mid-block locations.

Pedestrian-friendly crossings are:

- **Compact:** A good rule to follow is to never design more than you need. Keep turning radii tight, discourage free-right turns, and include pedestrian refuge islands or other special devices at especially wide crossings.
- **Visible:** The pedestrian crossing should be clearly marked. Maintaining a high-visibility crossing creates an intuitive and safe environment for all users. Visibility also applies to sight distance. Pedestrians should be clearly visible by motorists up to 250 feet away.
- **Useful:** One of the first steps in creating an uncontrolled crossing, especially for mid-block locations, is to determine need and location. While identifying pedestrian “desire lines,” or the places where the most pedestrians want to cross, can present special challenges, it is essential in order to ensure a cost-effective and well-used crossing.
- **Safe:** A common misperception about marked uncontrolled crossings is that they give pedestrians a false sense of security. Recent research has concluded that not all marked uncontrolled crossings are less safe than uncontrolled crossings.

The following pages contain a toolbox of devices for use in various situations. The first toolbox applies to controlled crossings, and the second applies to uncontrolled crossing locations.

## Controlled Crossings

Controlled crossings should be timed for a maximum walking speed of 3.0 feet per second of "WALK" and flashing "DON'T WALK" time, measured from the top of the curb ramp on one side of the street to the top of the curb ramp on the opposite side of the street per the ADA Accessibility Guidelines. The flashing "DON'T WALK," or pedestrian clearance interval, should be timed to a maximum walking speed of 3.5 feet per second. These crossing times have has been approved by the National Committee on Uniform Traffic Control Devices and will be included in the 2009 version of the *Manual on Uniform Traffic Control Devices* (MUTCD). For other guidelines concerning push buttons and actuated pedestrian signals, see Section I Corner Zone.

The table below summarizes the standard treatment for controlled crossings:

**Table III-3:** Standard Treatment – Controlled Crossings

| Control Type | Standard Treatment | Enhancements | Do Not Mark |
|---|---|---|---|
| Signal | Advance 24-inch limit line 4 to 7 feet before the crosswalk<br>Dual white lines | Pedestrian refuge island<br>Curb extensions<br>Signal phasing treatments:<br>- Early release<br>- Scramble<br>Right turn on red restrictions | Inadequate sight distance |
| Stop sign | Dual white lines<br>Advanced unit line for stop approaches<br>Advanced yield line for uncontrolled approaches<br>In-street YIELD TO PEDESTRIANS signs | Triple-four or other high-visibility stencil<br>Pedestrian refuge island<br>Curb extensions | Inadequate sight distance |

There are a number of innovative treatments for pedestrians at signalized intersections, mostly related to pedestrian signals. At locations with high pedestrian volumes and pedestrian-vehicle conflicts, the following measures are means to enhance the safety of pedestrian crossings:

- Early release, or pedestrian lead-time, allows pedestrians to establish themselves in the crosswalk, reducing conflicts between pedestrians and turning vehicles.
- Special pavement stencils, such as "Pedestrians Look Left" or "Watch Turning Vehicles" stencils, are used in Salt Lake City, Halifax, N.S., Canada, and the UK to remind pedestrians to be watchful. These stencils, used in conjunction with special signage, significantly reduced the number of

pedestrians not looking for threats at intersections.[1] Additionally, high-visibility crosswalks help channelize pedestrians.

- Other special treatments include "Yield to Pedestrians" signs and reduced corner radii to slow the speeds of right-turning vehicles. The curb radius should accommodate the expected amount and type of traffic for safe turning speeds. As the curb radius increases, incomplete stops become more frequent and drivers make turns at higher speeds.[2] Recommended ranges for curb radii are as follows:
- Pedestrian scramble phases, so called because pedestrians have a walk signal in every direction while vehicles have a red light on all approaches. This treatment is appropriate in central business districts where pedestrian volumes are exceptionally high.
- "No Right Turn on Red" restrictions for vehicles reduce pedestrian-vehicle conflicts at locations with high numbers of pedestrians, but make vehicle circulation less convenient and may cause traffic diversions. This type of treatment needs to be considered on a case-by-case basis.
- Advance stop lines or yield lines are stop or yield bars placed 4 feet in advance of the crosswalk. Advance stop lines or yield bars should be considered based on pedestrian volumes, generators, and safety concerns relevant to a specific crossing.

## Wide Intersections

Countdown signals are useful at signalized locations. At wide streets with long clearance intervals, the countdown signal effectively communicates the amount of time left to cross the street. At streets with medians, there should be adequate crossing time for the pedestrian to traverse the entire distance and countdown signals should be used as a default.

## Exceptions

The following situations are exceptions to the practice of marking crosswalks on all controlled approaches:

- Crossing locations with heavy right- or left-turn volumes that occur at the same time as pedestrians cross the path of the turning vehicle where

[1] Van Houten, Ron et al. "Special Signs and Pavement Markings Improve Pedestrian Safety," *ITE Journal*, December 1996.

[2] Kulash, William M. *Residential Streets.* Urban Land Institute, 2001.

protected signal phasing (such as left-turn arrows) or other solutions outlined above are infeasible.[3]

- Intersections with inadequate sight distances for pedestrians.[4] Elimination of crosswalks in these instances should only occur after other solutions have been deemed infeasible.
- Heavy or light rail crossings. The California Public Utilities Commission (CPUC) is responsible for regulating at-grade crossings. The CPUC no longer allows new at-grade crossings (pedestrians and cars crossing rail tracks) unless there are extraordinary circumstances.

## Uncontrolled Crossings

The following treatments are appropriate at uncontrolled locations that may need small adjustments to ensure that a marked crossing will be as safe as an unmarked crossing. These recommendations are all minimums, and they are specifically to improve safety. They should not preclude the City from installing them in other locations to improve walkability. They are listed in order of intensity.

**Level One**

- Install pedestrian refuge islands on multi-lane streets with average daily traffic (ADT) of less than 15,000 and 85th percentile speeds of less than 35 miles per hour.
- Curb extensions (see Section I Corner Zone).

**Level Two**

- Overhead signs and flashing beacons showing the universal pedestrian symbol, including both standard yellow, fluorescent yellow, and LED displays, hang from a mast arm that extends over the street. Flashing red or yellow beacons enhance overhead signs.
- Using special pavers, concrete, or asphalt, create a raised crosswalk (similar to a speed table).
- In-pavement flashers accompanied by a flashing sign at the crosswalk and advanced flashing sign increase the number of vehicles yielding to pedestrians.

[3] Alternative pedestrian crossings should be identified, and it may be necessary to install barrier treatments to reinforce that pedestrians should not cross at the location without a marked crosswalk.

[4] Unrestricted sight distance of pedestrians by motorists should be at least ten times the speed limit (for example, 250 feet for a street with a speed limit of 25 miles per hour).

**Level Three**

- Red indication devices are also active lights, but with a red indication. Similar to traffic signals, these devices stop motor vehicles to allow pedestrians to cross. But unlike a typical pedestrian signal, the motor vehicle signal operates in a flashing red during the pedestrian clearance interval, allowing motorists to proceed through the crossing after stopping when no pedestrians are present.
- The 2009 MUTCD will likely include HAWK (High Intensity Activated Crosswalk) signals, which have already been installed at about 70 locations in Tucson, Arizona. When not activated, the HAWK signal is blanked out. A pedestrian push button activates an overhead signal to begin flashing yellow and then solid yellow, advising drivers to prepare to stop. The signal then displays a solid red and shows the pedestrian a "WALK" indication. Finally, a flashing red signal indicates that motorists may proceed when safe, after coming to a full stop. The pedestrian is shown a flashing "DON'T WALK" with a countdown indicating the time left to cross. HAWKS are appropriate at mid-block locations. This type of signal is likely to be the red indication device of choice in coming years.

**Level Four**

- Pedestrian-actuated signals should be used where other methods are infeasible or ineffective.

## Bicycle Facility Improvements

This section identifies guidelines for the design of potential bikeway and bicycle parking facilities along South Santa Fe Avenue. The appropriate design of bicycle facilities is an integral component of encouraging the public to bicycle for commuting and recreational purposes. Good design affects the experience, enjoyment, and comfort for bicyclists and should ultimately provide the highest level of safety possible for all road and shared-use path users.

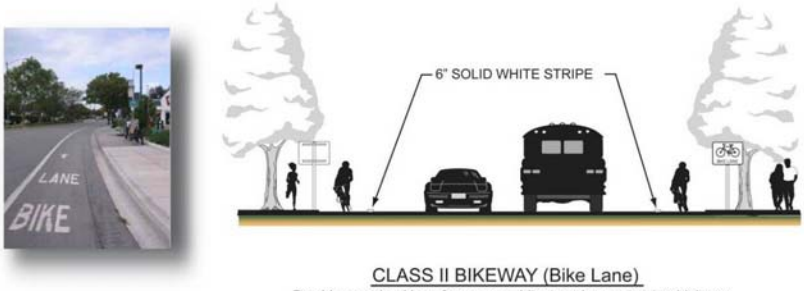
Bikeway planning and design in California typically relies on the guidelines and design standards established by Caltrans and documented in Chapter 1000: Bikeway Planning and Design of the Highway Design Manual (California Department of Transportation 2006). Chapter 1000 follows standards developed by the American Association of State Highway and Transportation Officials (AASHTO) and the Federal Highway Administration (FHWA) and identifies specific design standards for various conditions and bikeway-to-roadway relationships. These standards provide a good framework for future implementation but depending on the circumstances, may not always be feasible given specific constraints. Likewise, these standards can often be expanded. Whatever the case may be, local jurisdictions must be protected from liability concerns so most agencies adopt the

Caltrans or AASHTO standards as a minimum. Caltrans standards provide for three distinct types of bikeway facilities, as generally described below.

**Table III-4:** Types of Bicycle Facilities

| Class I: Bike Path/Shared-Use Path |
|---|
| These facilities provide a completely separate right-of-way and are designated for the exclusive use of bicycles and pedestrians with vehicle cross-flow minimized. |
| **Class II: Bike Lane** |
| Bike lanes provide a restricted right-of-way and are designated for the use of bicycles with a striped lane on a street or highway. Bicycle lanes are generally 5 feet wide. Vehicle parking and vehicle/pedestrian cross-flow are permitted. |
| **Class III: Bike Route** |
| These bikeways provide a right-of-way designated by signs or pavement markings for shared use with pedestrians or motor vehicles. |

CLASS I BIKEWAY (Bike Path)
Provides a completely separated right-of-way for the exclusive use of bicycles and pedestrians with crossflow minimized.




CLASS II BIKEWAY (Bike Lane)
Provides a striped lane for one-way bike travel on a street or highway.

CLASS III BIKEWAY (Bike Route)
Provides for shared use with pedestrian or motor vehicle traffic.

## Class I Shared-Use Path

Class I bikeways are typically called bike paths or multi-use or shared-use paths and are completely separated from roads by a buffers (5 feet or more) or barriers. Cross traffic by motor vehicles should be minimized along bike paths to avoid conflicts. Bike paths can offer opportunities not provided by the road system by serving as both recreational areas and/or desirable commuter routes.

According to the AASHTO standards, two-way bicycle paths should be 10 feet wide under most conditions, with a minimum 2-foot-wide graded area on both sides. In constrained areas, an 8-foot-wide path may be adequate. Bike paths are usually shared with pedestrians and if pedestrian use is expected to be significant, the path should be greater than 10 feet, preferably 12 feet wide.

Where possible, bike paths should have an adjacent 4-foot-wide unpaved area to accommodate joggers. This jogging path should be placed on the side with the best view, such as adjacent to the waterfront or other vista. Where equestrians are expected, a separate facility should be provided.

Decomposed granite, which is a better running surface for preventing injuries, is the preferred surface type for side areas and jogging paths, while asphaltic concrete or Portland cement concrete should be used for the bike path. A yellow centerline stripe may be used to separate opposite directions of travel. A centerline strip is particularly beneficial to bicycle commuters who may use unlighted bike paths after dark.

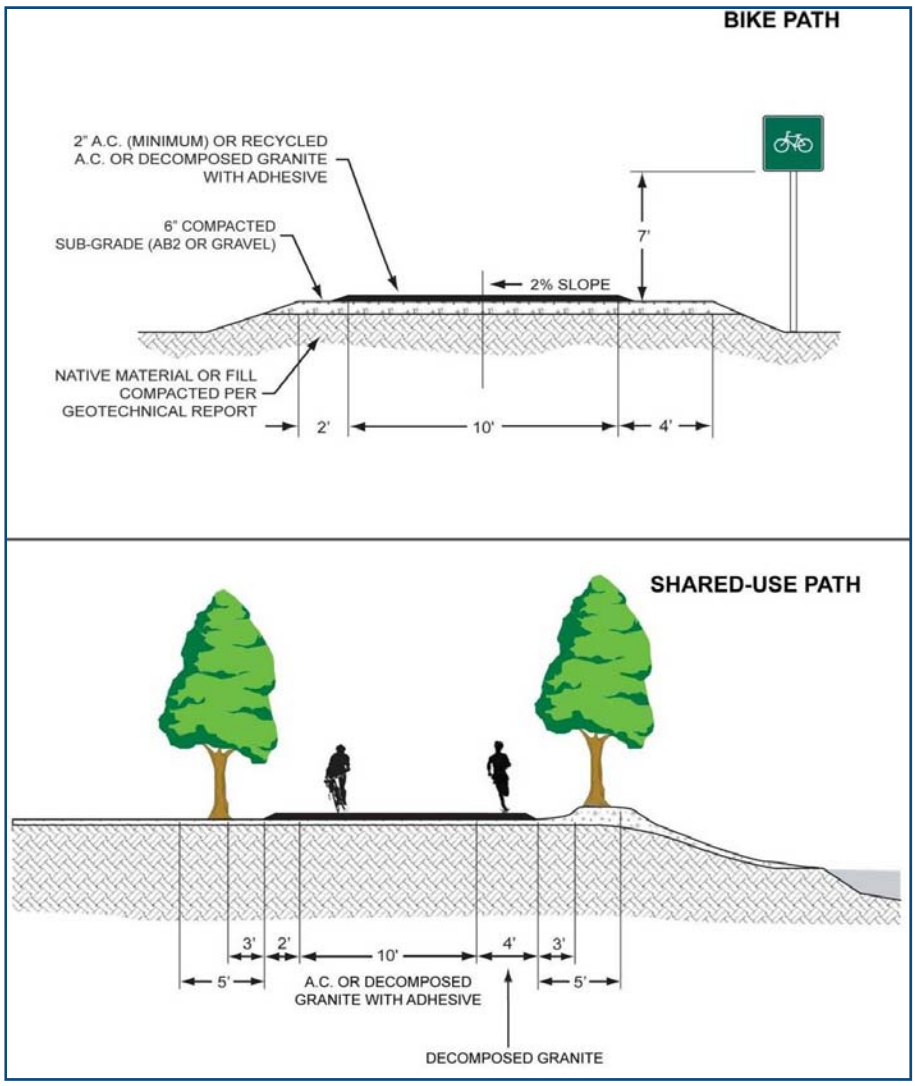
Sidewalks and meandering paths are usually not appropriate to serve as bike paths because they are primarily intended to serve pedestrians, generally do not meet Caltrans' design standards, and do not minimize motor vehicle cross flows. Where a shared use path is parallel and adjacent to a roadway, there should be a 5-foot or greater width separating the path from the edge of roadway, or a physical barrier of sufficient height should be installed.

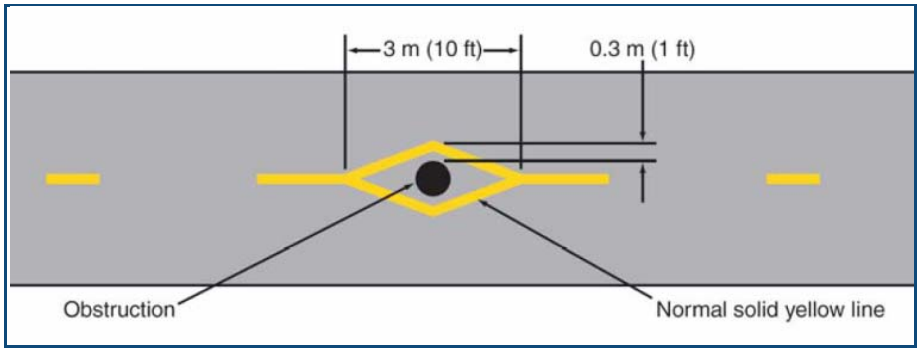
**Table III-5:** Standards for Class I Facilities

| | AASHTO Standards | Preferred Standards** |
|---|---|---|
| Minimum Width | 8.0 feet | 10.0 feet |
| Vertical Clearance | 8.0 feet | 8.0 feet |
| Horizontal Clearance | 2.0 feet | 3.0 feet |
| Maximum Cross Slope | 2.0% | 2.0% |

***The City of Vista should decide on its preferred minimum standards and whether they should exceed AASHTO standards.*

**Typical Class I Path**



The following sections present typical design features found on Class I facilities.

## Bollards

Bollards can be placed at bike path access points to separate the path from motor vehicles and to warn and slow bicyclists as they approach street crossings. The diagonal layout of bollards will make the space between the bollards appear narrower, slowing bicyclists and deterring motorcyclists from entering the trail. The bollards are spaced to provide access by people using wheelchairs (generally 5 feet apart). A trail sign post can be incorporated into the bollard layout. The image below shows the recommended striping and placement for bollards on shared-use paths. Careful consideration should be taken before installing bollards, as they can become obstacles for bicycles and result in fixed-object collisions. Where the need for bollards is a possibility, but uncertain, install bollard-ready infrastructure. However, delay installation of the bollards until a need is demonstrated.

## Split Trailway

New 2009 California MUTCD standards discourage the use of bollards if other options are practical. If feasible, the path should be split by direction to go around a small center landscape feature. Rather than one 8- or 10-foot trail, the trail would be split into two 4- or 5-foot paths. This feature not only narrows the trail and prevent vehicles from entering, but also introduces a lateral shift for cyclists, encouraging slower speeds in conflict zones.

## Bridges

Bridges will be required wherever bike paths cross creeks and drainages. Crossings can utilize prefabricated bridges made from self-weathering steel with wood decks. Bridges should be a minimum of 8 feet wide (between handrails) and preferably as wide as the approaching trails. Openings between railings should be 4 inches maximum. Railing height should be a minimum of 42 inches high.

## Fencing

Fencing may be necessary on some bike paths to prevent path users from trespassing on adjacent lands, or to protect the user from dangerous areas. In areas near railway lines, safety may be a concern. Fencing should maintain safety without compromising security. Fences should be tall enough to prevent trespassing, but they should maintain clear sight lights from the trail to the adjacent land uses. In areas where private residences are passed, privacy may be a concern. Screen fences should be used to maintain privacy of residents. Screen fences can be made of wood, concrete block, or chain link if combined with vine planting. However, if fencing is used, there must be at least 2 feet of lateral clearance from the edge of the bike path.

SIGNS ON PATHS

Some jurisdictions have used stop signs and "Bikes Must Dismount" signs to regulate bike traffic on shared-use paths. These signs are generally ineffective and result in frequent violations and disregard for other types of path signage.

## Curb Ramps

Where curbs are present, curb ramps should be provided and be as wide as the entire path.

## Crossing Treatments

The following guidance is derived from the AASHTO Guide to the Development of Bicycle Facilities, the City of Seattle's Bicycle Master Plan, and the City of San Francisco's Supplemental Bicycle Design Guidelines.

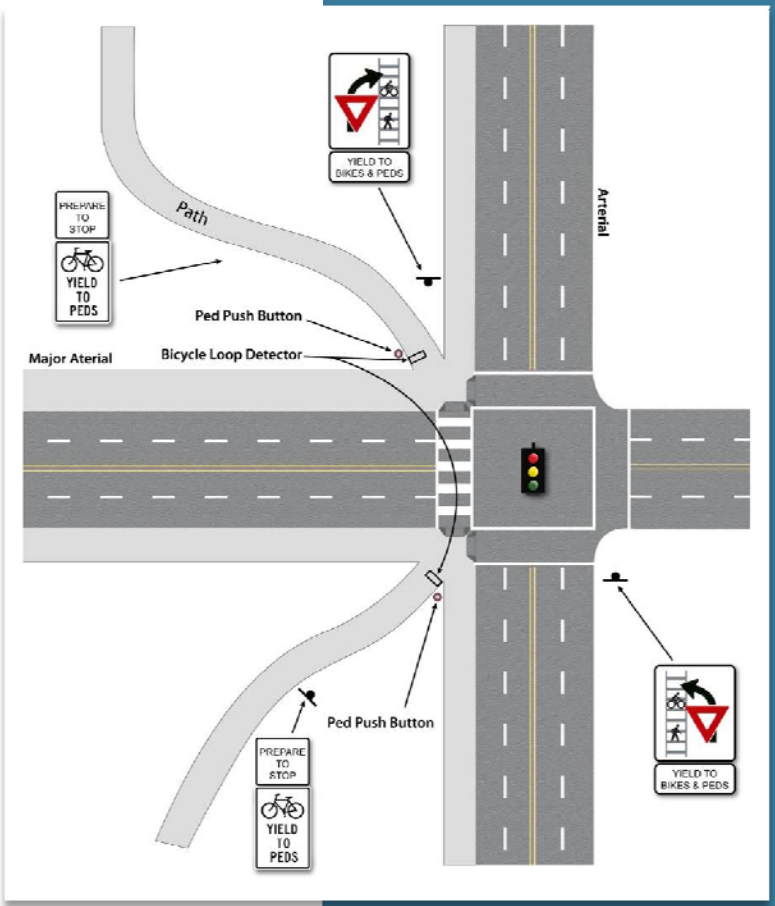
Shared-use path crossings come in many configurations, with many variables: the number of roadway lanes to be crossed, divided or undivided roadways, number of approach legs, the speeds and volumes of traffic, and traffic controls that range from uncontrolled to yield, stop or signal controlled. Each intersection is unique and requires engineering judgment to determine the appropriate intersection treatment. The safe and convenient passage of all modes through the intersection is the primary design objective. Regardless of whether a pathway crosses a roadway at an existing roadway intersection, or at a new mid-block location, the principles that apply to general pedestrian safety at crossings (controlled and uncontrolled) are transferable to pathway intersection design.

When shared-use paths cross roadways at intersections, the path should generally be assigned the same traffic control as the parallel roadway (i.e., if the adjacent roadway has a green signal, the path should also have a green/walk signal, or if the parallel roadway is assigned the right-of-way with a stop or yield sign for the intersecting street, the path should also be given priority). At signalized intersections, if the parallel roadway has signals that are set to recall to green every cycle, the pedestrian signal heads for the path should generally be set to recall to "WALK." Countdown pedestrian signals should be installed at all signalized path crossings as signal heads are replaced. As required by the Manual on Uniform Traffic Control Devices, the walk signal for any path shall not conflict with a protected left- or right-turn interval. Bicyclists benefit from the safe passage that pedestrian signals provide by having a dedicated time during which to cross a roadway without having to yield to oncoming vehicle traffic.

Consideration should be given to providing a leading pedestrian interval at path crossings (i.e., three seconds of green/walk signal time are given to path users before any potentially conflicting motor vehicle movements are given a green signal). This allows pedestrians and bicyclists to have a head start into the roadway to become more visible to turning traffic.

Where the signals for the parallel roadway are actuated, the path crossing will also need to be actuated. For shared-use path crossings, the minimum walk interval may

be 9–12 seconds to accommodate increased flow. The "USE PED SIGNAL" sign should be used at shared-use path crossings at signalized intersections. Pedestrian push buttons should be located within easy reach of both pedestrians and bicyclists, who should not have to dismount to reach the pushbutton.




The adjacent figure illustrates the preferred approach for a shared-use path at a controlled intersection. Paths should cross at the intersection to encourage use of the intersection crossing and have path users in the location where they are most anticipated. In many cases, a path will be separated from a roadway by between 20 and 50 feet. Locating path crossings along these alignments (that is, 20 to 50 feet away from the intersection) creates a condition where vehicles do not expect to encounter a path crossing and vehicles leaving the intersection are accelerating away from it when they cross the path crossing. For signalized trail crossings, an advance loop detector within 100 feet of the intersection should be considered, so bicyclists can approach the intersection slowly but without having to stop.

## Unsignalized Intersections

At unsignalized or stop-controlled locations, an engineering study should be conducted to determine an appropriate way to control cross bike and pedestrian traffic. The following are general guidelines that can be used for these locations:

- If paths cross at intersections with all-way stops, stop signs should be placed at each path approach.
- Consideration should be given to removing stop signs along continuous paths and their parallel roadways and controlling intersecting roadways with stop signs. An engineering study should be conducted before removing or adding any stop signs.
- At intersections with stop signs controlling only one of the approaches, the trail should be assigned the same right-of-way as the parallel street. Stop signs should not be placed on the path approaches to the intersecting roadway if the parallel street has no stop signs.
- If the two streets have the same roadway classification, and the stop signs face the intersecting street that is parallel to the path, consideration

should be given to reversing the stop sign placement, giving the right-of-way to the path and the parallel street. An engineering study should be conducted before reversing the stop sign placement.

- The decision of whether to use a traffic signal at a mid-block crossing should be primarily based on the latest version of the MUTCD pedestrian signal warrants.

At mid-block crossings, all path users (including bicyclists) should be included in calculating the "pedestrian volume" for the warrant procedure. While the California MUTCD has not yet been updated with revised pedestrian-related signal warrants, the 2009 national MUTCD contains these revised warrants and should be used. When a path crossing meets the warrants, there may be other reasons why a signal is not necessary at the crossing. Where a decision has been made not to install a traffic signal at a mid-block path crossing, stop or yield signs should be used to assign the right-of-way to the path or the roadway. The assignment of priority at a shared-use path/roadway intersection should be assigned with consideration of the relative importance of the path and the roadway, the relative volumes of path and roadway traffic, and the relative speeds of path and roadway users.

The planned Inland Rail Trail runs parallel to South Santa Fe Avenue and is included as part of the San Diego Regional Bicycle Plan adopted by SANDAG in June 2010. As part of the redesign of South Santa Fe Avenue, strong consideration should be given to enhancing the number of connections between South Santa Fe Avenue and the Inland Rail Trail. These connections will provide for high levels of local and regional access to this corridor by bicycle, thereby reducing the potential future automobile volumes accessing this corridor.

## Bicycle Signal Heads

Bicycle signal heads permit an exclusive bicycle-only signal phase and movement at signalized intersections. This takes the form of a new signal head installed with red, amber, and green bicycle indications. Bicycle signals can be actuated with bicycle sensitive loop detectors, video detection, or push buttons. Bicycle signals are an approved traffic control device in California, described in Part 4 and 9 of the California MUTCD. The City of Vista may install bike signals at intersections with heavy bike volumes, on bike paths adjacent to intersections where heavy bike traffic in the crosswalk may conflict with turning vehicles, or at three-legged intersections where bikes may enter or exit a bike path at the intersection. Bike signal warrants could be considered when bike volumes exceed 50 bicycles per hour and vehicle volumes are greater than 1,000 vehicles per hour, or in locations that have a history of bicycle vehicle collisions (>2 in one calendar year), or in locations where a multi-use path intersects a roadway.

## Shared-Use Path Amenities

Furnishings along a shared-use path should be concentrated at specific points to form gathering nodes. These nodes occur at intersections between different path types, at special viewpoints, or at distinctive landscape features. Shared-use path support facilities consist of staging areas, seating and tables, weather-protection structures, drinking fountains, waste receptacles, fencing, bike racks, interpretive and directional signage, and restrooms.

## Staging Areas

Staging areas should be provided at path entrances. These areas should include basic information such as directional information and signage, bicycle parking, seating, and waste receptacles. Restrooms, water fountains, and weather structures should be provided where practical and feasible. At path entrances where a substantial number of users are likely to drive, a parking lot should be provided; however, vehicle parking should be minimized to encourage non-motorized access to recreational facilities.

## Rest Areas

Rest areas are portions of paths that are wide enough to provide wheelchair users and others a place to rest while on trails without blocking continuing traffic. Rest areas are more effective when placed at intermediate points, at scenic lookouts, or near other trail amenities. Most rest areas will have seating, shade, a place to rest bicycles, and waste receptacles. On longer paths, restrooms and/or water fountains may be desirable where feasible. The California State Parks Accessibility Guidelines call for rest areas every 200 feet on outdoor recreational routes with grades of no steeper than 8.3%. Accessible paths at steeper grades may require resting areas at greater frequency.

## Seating

Benches provide people of all ages and abilities a place to site and rest along trails. Seating should be placed away from the path, at least 3 feet from the trail edge, to allow room for people to sit with outstretched legs. An area adjacent to the bench should be able to accommodate a wheelchair.

## Waste

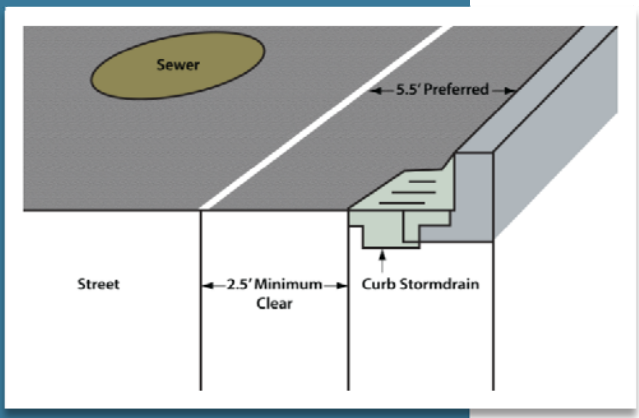
Trash receptacles should be installed along bike paths at regular intervals, as well as at rest areas, path entrances, and seating areas, to encourage proper waste disposal and discourage littering.

# Class II Bicycle Lanes

This section includes guidelines for Class II bicycle lanes along roadways and at intersections. Most riders benefit by having a lane that is separate from motor vehicle traffic, and bicycle lanes are typically used on streets with higher traffic volumes or greater speeds.

The figures on the following pages illustrate the preferred widths for bicycle lanes in the following situations:

- Figure III-7: Next to Parallel Parking
- Figure III-8: Next to Back In Angled Parking
- Figure III-9: Without Parking
- Figure III-10: Buffered Bike Lane




## Standard Bike Lane

Bike lanes should be designed to meet Caltrans standards, which require a minimum width of 5 feet. The preferred bike lane width is 6 feet. The preferred vehicle travel lane width is 10 feet; however, transit agencies generally prefer that any roadway with bus routes have 11-foot travel lanes. Signs that say “Bikes Wrong Way” may be used on the back of bike lane signs or on separate posts to discourage wrong-way riding.

## Shared Bike/Parking Lane

If a bike lane is shared with a parking lane, the combined lane should be a minimum of 12.5 feet, with 13 feet desirable. This minimum combined lane should be striped with a 6-foot bicycle lane and 7-foot parking lane. The optimum combined lane should be a 6-foot bike lane and a 7-foot parking lane.

## Bike Lane without Parking

In places where there is no on-street parking, the 6-foot preferred width applies. In exceptional circumstances where no other reasonable options or retrofit situations exist, a 4-foot minimum is allowed as long as there is no on-street parking.

**Figure III-7:** Bike Lanes Adjacent to Parallel Parking

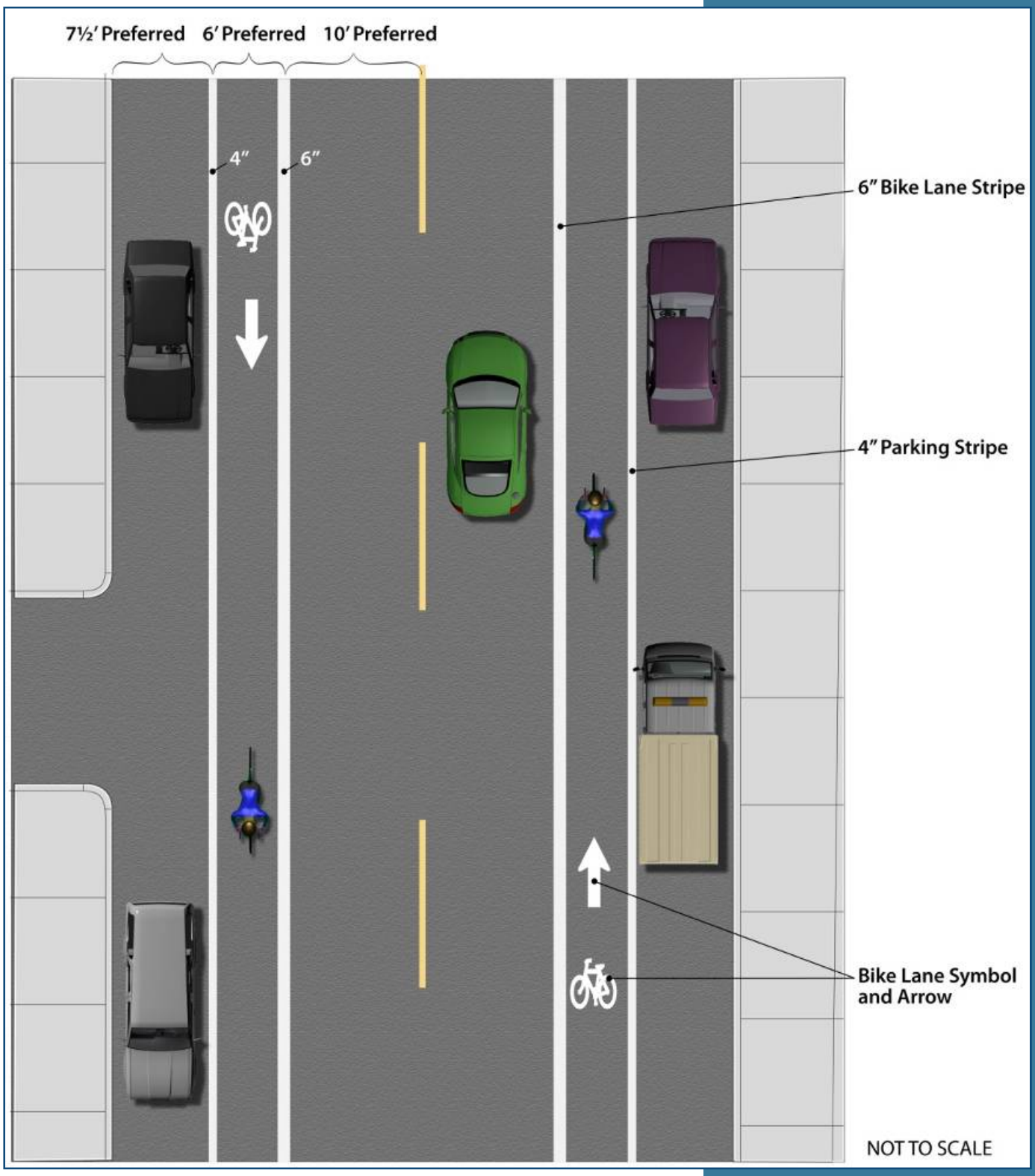


**Figure III-8:** Bicycle Lanes Adjacent to Back-In Angled Parking

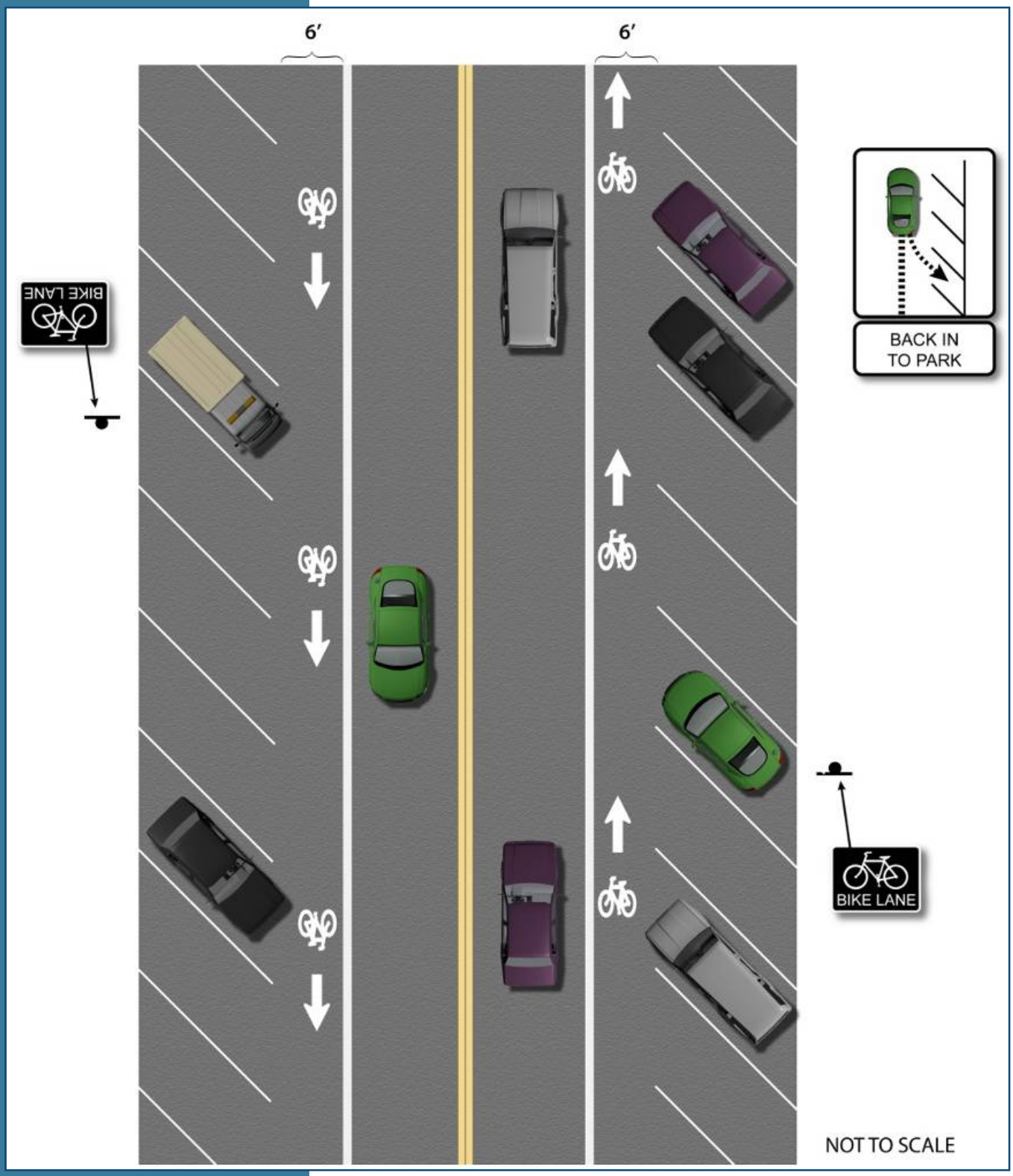


**Figure III-9:** Bicycle Lanes Without Parking

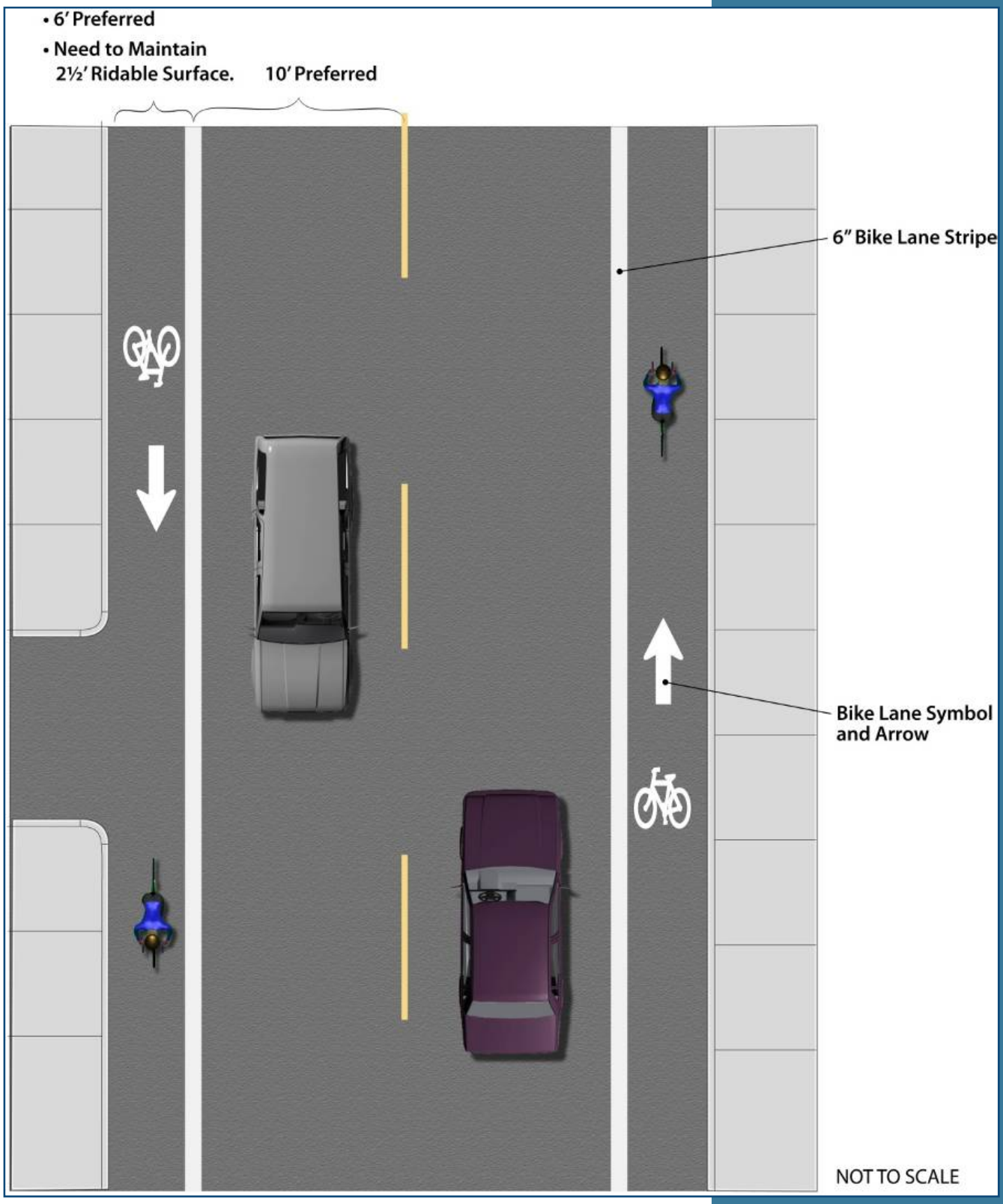
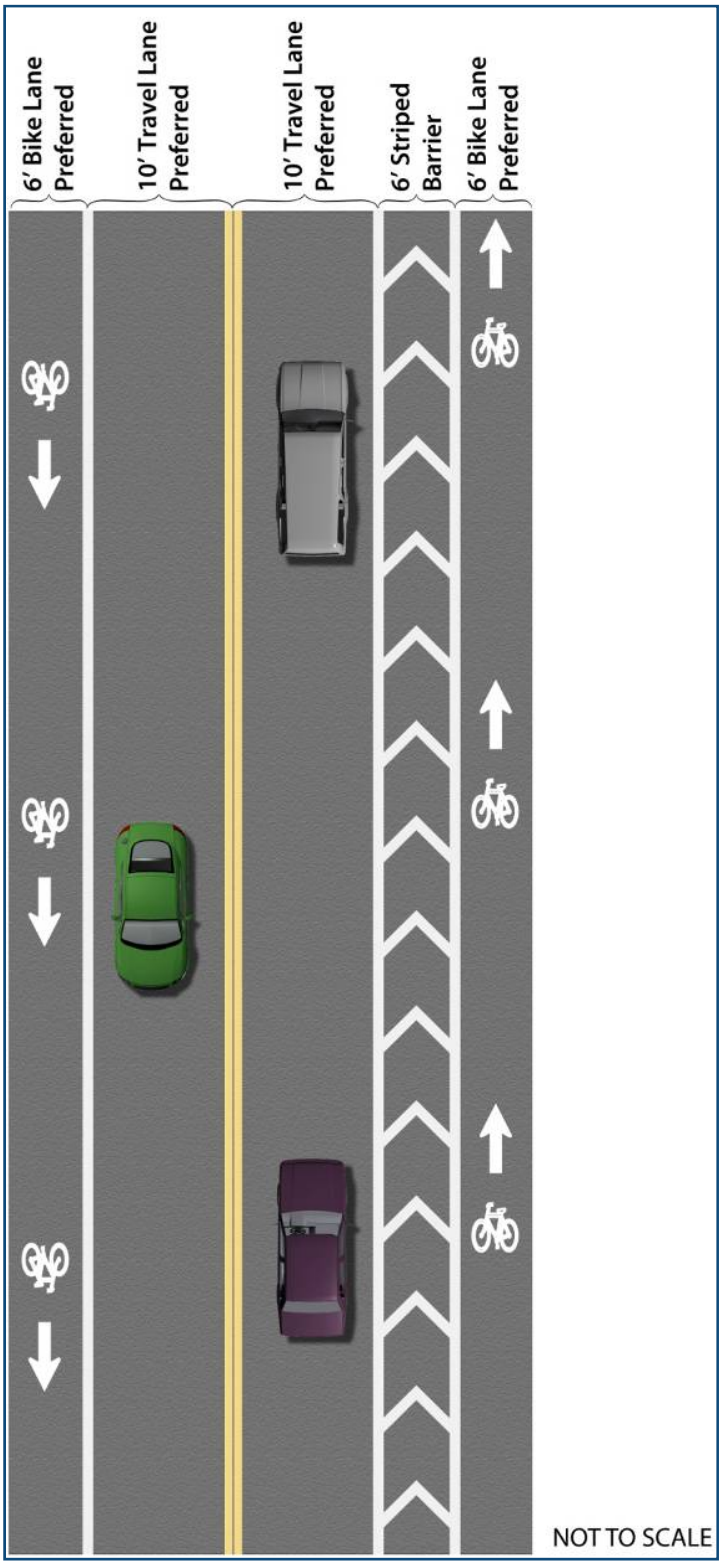


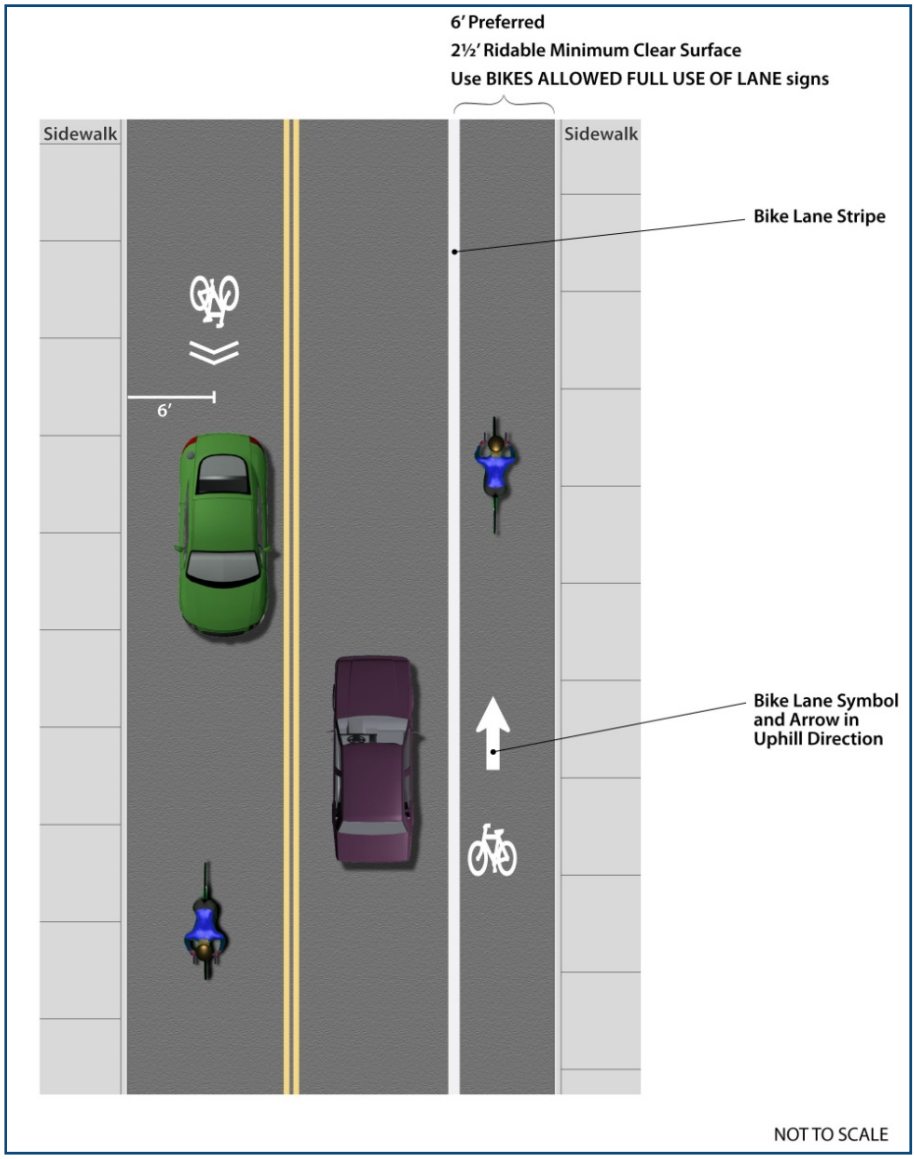
**Figure III-10:** Buffered Bike Lanes



## Bike Lanes on Hills

In most cases, bike lanes should be provided on both sides of a two-way street; however, in cases where roadways have steep grades, a bike lane in the uphill direction and shared lane markings (sharrows) in the downhill direction would be considered acceptable (AASHTO 2010). On narrower roadways, sharrows may be placed in the center of the lane to discourage vehicles from passing cyclists. "Bikes Allowed Full Use of Lane" signage may be appropriate on downhill segments. Posted speed limits of 25 mph or lower are preferred.

**Figure III-11:** Climbing Lanes



ON THE HORIZON:
BIKE BOXES

Bicycle boxes are used at signalized intersections to create a dedicated space for cyclists while waiting for a green light. They offer the cyclist a head start and allow cyclists to position themselves for various movements (left turns, for instance). They also allow cyclists to avoid conflicts with right-turning vehicles.
Bike boxes have been used in New York; Tucson, Arizona; Portland and Eugene, Oregon; and recently in San Francisco. Bike boxes work best at locations where they are self-enforced, that is, where there is a cyclist in the bike box during the red phase for a majority of the time. Therefore, a good baseline for a bike box would be a location with 90–120 bicycles or more per hour.

## Bike Lanes at Intersections

Nationally, the majority of collisions between motorists and bicyclists occur at intersections. While design guidance for bike lanes acknowledges that intersections are often constrained by the desire for addition turn lanes for autos and allows engineers to drop bike lanes at intersections, this practice is not recommended. There are several engineering treatments to significantly reduce conflicts at intersections.

Caltrans provides recommended intersection treatments in Chapter 1000 of the Highway Design Manual including bike lane "pockets" and loop detectors. Bike lane pockets between right-turn lanes and through lanes should be provided where available lane width allows. Where there is inadequate space for a separate bicycle lane and right-turn lane, the designer should consider the use of a combined lane, shown in the figure on the following page. The City of Eugene, Oregon, evaluated this design and concluded that it was easy for cyclists to use. A majority of the cyclists using the facility felt that it was no different from a standard right-turn lane and bicycle lane.[5] An alternate treatment is a sharrow, or shared right-of-way marking, in the through lane adjacent to the right-turn lane.

Figure III-13 presents several options for the treatment of Class II lanes approaching intersections with right-turn lanes.

## Bike Lane Markings

Pavement stencils should be reflectorized and be capable of maintaining an appropriate skid resistance under rainy or wet conditions to maximize safety for bicyclists. The minimum coefficient of friction should be 0.30. Thermoplastic can meet all of these requirements. It is optimized when the composition has been modified with crushed glass to increase the coefficient of friction and the maximum thickness is no larger than 100 mls (2.5 mm).

The Caltrans standard for placement of bicycle lane stencils states that markings should be on the far side of each intersection and at other locations as desired. Generally, bicycle lane markings should be provided at transition points, particularly where the bicycle lane disappears and reappears, as it transitions from curb side to the left side of the right-turn lane. Otherwise, place them at least every 500 feet or once per block. Symbols shown in the figures are for illustration purposes and should not be used as spacing or placement guidelines.

[5] Federal Highway Administration. 2000. *Evaluation of a Combined Bicycle Lane/Right Turn Lane in Eugene, Oregon.*

**Figure III-12:** Bike Lanes Adjacent to Parallel Parking and at Intersections

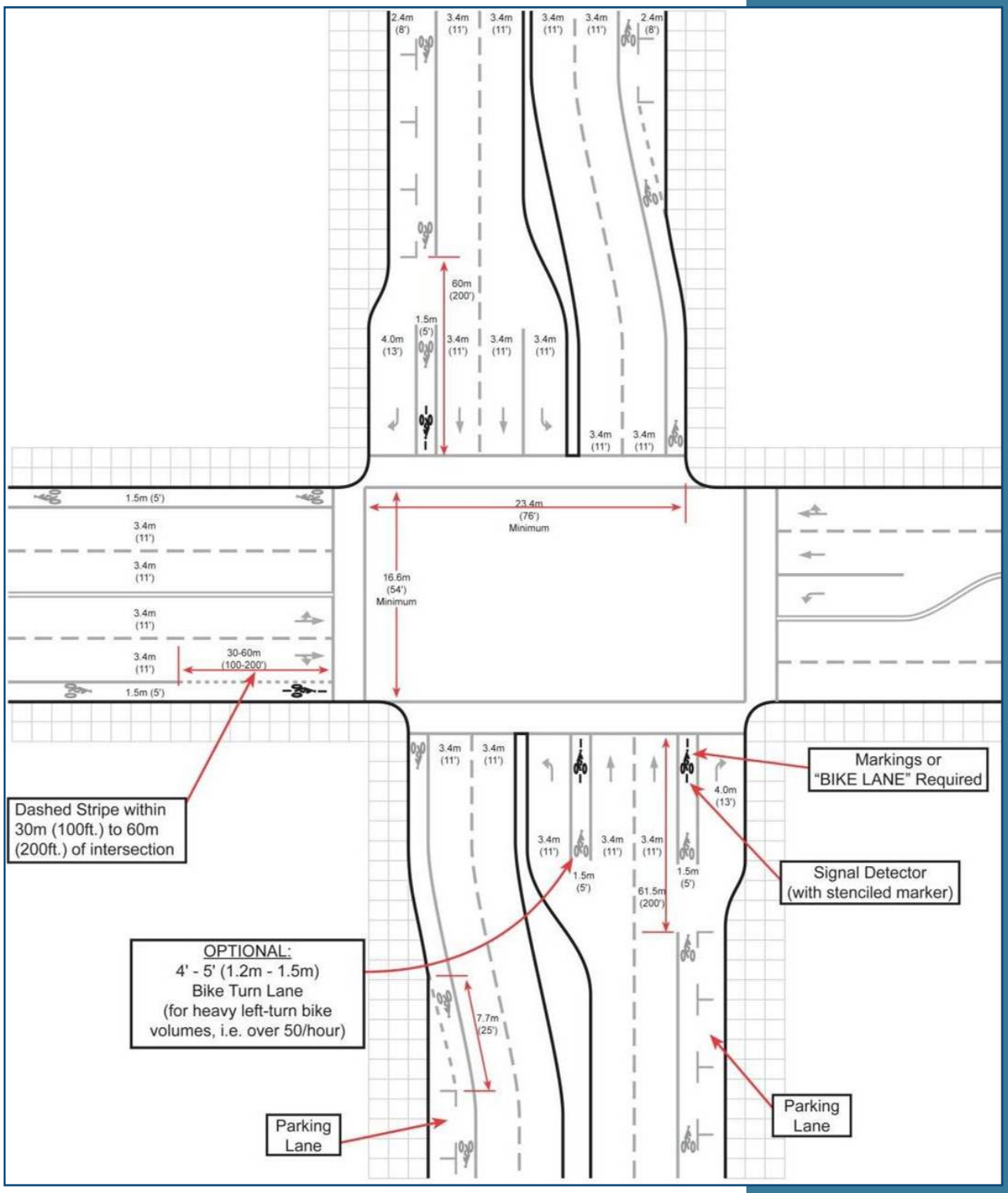
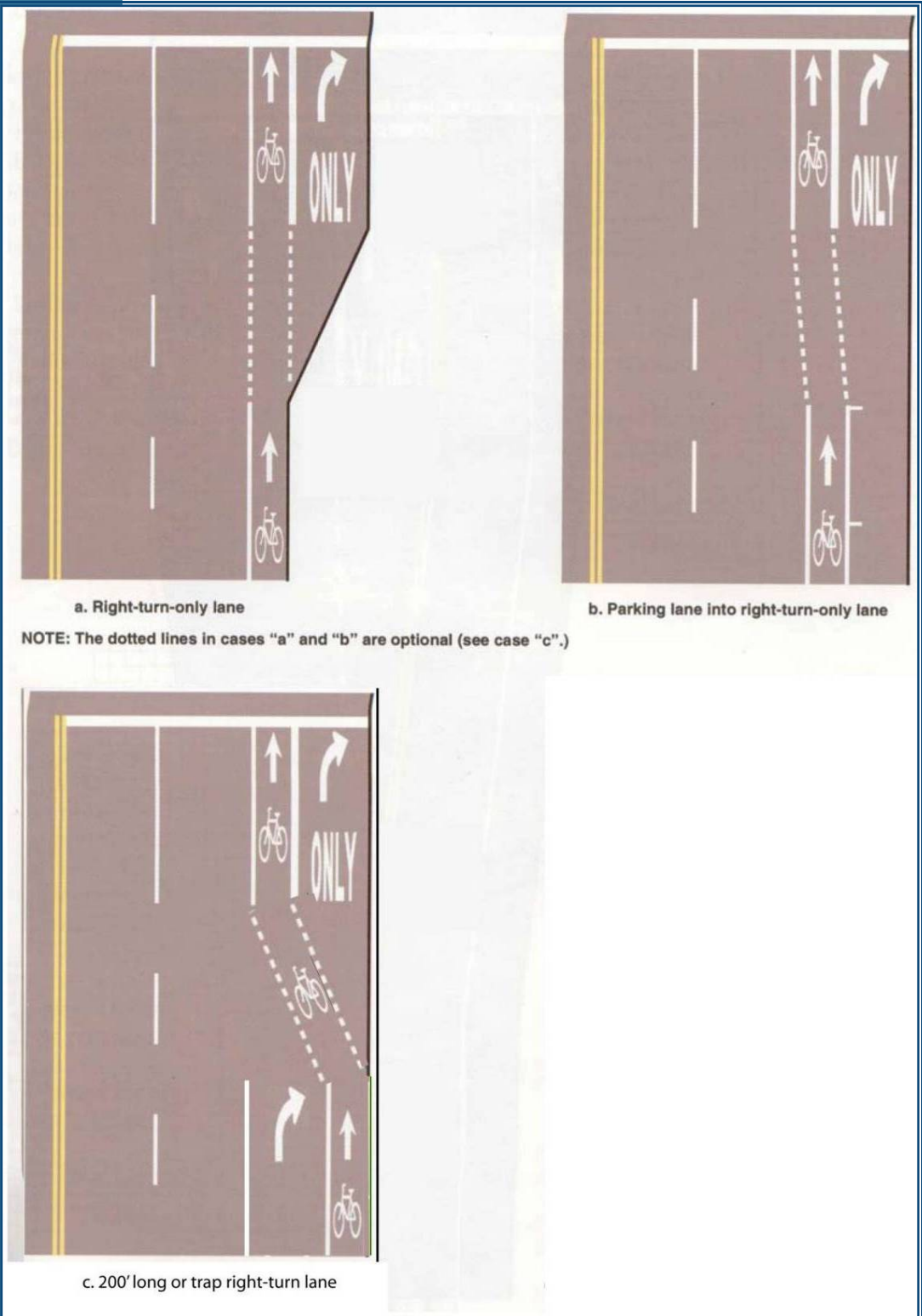


**Figure III-13:** Bike Lanes at Right Turns




a. Right-turn-only lane

b. Parking lane into right-turn-only lane

NOTE: The dotted lines in cases "a" and "b" are optional (see case "c".)

c. 200' long or trap right-turn lane

## Colored Bicycle Lanes

Colored bike lanes can be used in high-conflict areas to alert motorists to the presence of bicyclists and bike lanes. Cities including Portland, Oregon, and New York City have successfully experimented with colored bike lanes at highway interchanges and locations where drivers have otherwise encroached on bicycle lanes. These lanes can be painted or treated with thermoplastic. The City of Vista may consider installing a trial colored bike lane before expanding the use of the treatment throughout the city.

## Skip Stripe

At intersections with moderate to high bicycle volumes, or at intersections where bicyclists may need to reposition themselves to continue on the bike lane, it may be advisable to stripe the bike lane through the intersection using dashed lines. This "skip striping" directs cyclists to the bike lane and increases the visibility of cyclists to motorists traveling through the intersection. To identify that the markings are for bicyclists, the City of Vista may consider striping chevrons or sharrows through the intersection as well.

## Treatments at Highway Interchanges

Bicycle and pedestrian routes at highway interchanges require special treatment to ensure the safety and comfort for all road users. Fast-moving traffic, highway on- and off-ramps, and wide travel lanes make interchanges difficult areas for bicyclists and pedestrians to navigate. The guidance below can be used for retrofit projects or new interchange designs.

- Travel lanes should be reduced from 12 feet to 10 or 11 feet to slow motor vehicle speeds and provide additional space for bicycle lanes and sidewalks.
- Class II bike lanes should be striped continuously across overpasses and underpasses wherever feasible.
- Minimize distances in which bicyclists are required to travel between two moving traffic lanes.
- Use skip stripes to delineate bicycle path travel through conflict zones.
- Consider colored bike lanes in conflict areas.
- Avoid high-speed, uncontrolled movements. A tight diamond configuration with square off- and on-ramps to encourage slower motor vehicle speeds is recommended.
- Avoid multiple right-turn lanes on cross-street. Dedicated right-turn lanes create a conflict for cyclists traveling through an intersection that must

cross the right-turn lane to continue to ride straight. Where possible, retain single right-turn lanes, even if greater than 200 feet. Where possible, avoid right-turn lanes greater than 200 feet.

ON THE HORIZON: SEPARATED BIKEWAYS

Separated on-street bike lanes provide a buffer between bikes and cars. These facilities are useful along streets with moderate to high bicycle volumes and relatively few driveways or intersections. New York City has recently and extensively used separated on-street bikeways to improve bicycling conditions on several key corridors.

The New York Department of Transportation has experimented with two forms of separated bikeways. The first physically separates the bike lane from vehicle traffic, and the bike lane is positioned between the sidewalk and the parking lane. At intersections, bikes receive a signal that allows cyclists to proceed without conflicting with turning vehicles. The second treatment positions the bike lane between the travel lane and the parking lane; however, a striped painted median separates the travel lane from the bike lane. The New York Street Design Manual recommends allowing at least 8 feet of space to accommodate the separated bike lane and the adjacent separation marking or structure.

Images:
(top) 9th Avenue, New York City (RL Layman); (bottom) Greenwich Street (L Alter)

## Treatments at Bridges and Tunnels

Bicycle connections to bridges and tunnels require special treatment to ensure the safety and comfort for all road users. Fast-moving traffic, transitions between the roadway and the structure, and wide travel lanes often make approaches to bridges and tunnels difficult areas for bicyclists and pedestrians to navigate.

Appropriate measures to improve bicycle safety at bridge and tunnel approaches include:

- Reduce travel lanes from 12 feet to 10 or 11 feet to slow motor vehicle speeds and provide additional space for bicycle lanes and sidewalks.

- Stripe Class II bike lanes continuously across bridges and through tunnels wherever feasible.
- Minimize distances in which bicyclists are required to travel between two moving traffic lanes.
- Use skip stripes to delineate bicycle path travel through conflict zones.
- Consider colored bike lanes in conflict areas.

## Bike Loop Detectors and Push Buttons

As new signals are installed or major updates occur to existing signalized locations, bicycle loop detectors should be installed on the bikeway system at the stop bar for all actuated movements of the signal. It is suggested that loop detectors be installed in the approach bike lane 100 feet in advance of the intersection as well as at the intersection itself. The upstream loop should not be used when it would be triggered by right-turning vehicles. When the upstream loop is triggered, the green time should be extended for the cyclist to reach the loop at the stop bar, at which point the signal should allow the cyclist to clear the intersection. The time that a bicycle needs to cross an intersection is longer than the time needed for vehicles, but shorter than the time needed for pedestrians. The AASHTO Guide for the Development of Bicycle Facilities includes detailed equations for bicycle signal timing. In general, while the normal yellow interval is usually adequate for bikes, an adjustment to the minimum green should be considered.

Stencils indicating the loop detector should be marked on the roadway at the intersection where a bicyclist may not be positioned correctly over a loop. The figure on the following page shows the appropriate location and use of loop detector stencils at intersections.

Push buttons are appropriate when other methods of detection are not feasible, particularly at narrow tunnels or where multi-use paths cross signalized intersections. A bicycle push button/pad/bar is similar to those used for pedestrians, but installed in a location most convenient for bicycles, and actuates a signal timing most appropriate for bicyclists. The sign plate located above the push button/pad/bar indicates that it is for use by bicyclists. The larger the surface of the button, the easier it is for cyclists to use, thus a push pad is preferential to a push button, and a push bar is preferential to a push pad, as it can be actuated without removing one's hands from the handlebars. Advantages of the push button are that it is typically less expensive than other means of detection, and it allows for different signal timing for different user needs. The disadvantages of the push button are that the location of the push button usually does not allow the cyclist to prepare for through or left-turning movements at the intersection and that it forces the bicyclist to stop completely in order to actuate the signal.

CALTRANS POLICY DIRECTIVE 09-06

Caltrans recently modified its policy on bicycle detection at new and modified approaches to traffic-actuated signals. The California Manual on Uniform Traffic Control Devices (MUTCD) was amended to require that in-pavement bike detectors or push buttons be placed on approaches to signalized intersections. If more than 50% of limit line vehicle detectors need to be replaced, then an entire intersection should be upgraded so that every lane has limit line detection. The signal timing guidance was also updated to reflect a bike speed of 10 mph (14.7 ft/sec) with 6 seconds of startup time based on current research.

## Class III Bicycle Routes

**Table III-6:** Recommended Guidelines for Class III Facilities

| Curb Lane Width (in feet) | Average Daily Traffic (ADT) | Travel Speed |
|---|---|---|
| 12 feet (arterial)<br>11 feet (collector)<br>no minimum on local street | Under 5,000 vehicles | Under 25 mph |
| 14 feet | 5,000–20,000 | 25–35 mph |
| 15 feet | Over 20,000 | Over 35 mph |

*Source: Fehr & Peers*

Class III bike routes are intended to provide continuity throughout a bikeway network and are primarily identified with signage. Bike routes can be used to connect discontinuous segments of a Class I or Class II bikeway. Bike routes are shared facilities either with motorists on roadways or with pedestrians on sidewalks (not desirable).

Minimum widths for bike routes are not presented in the Highway Design Manual, as the acceptable width is dependent on many factors. The following table presents recommended average daily traffic (ADT) and speed thresholds for bike routes.

### Share the Road Markings

Share the road markings, or sharrows, are a newer design application used in California and have been tentatively approved for the 2009 update to the California MUTCD standards. Sharrows are on-street stencils that reinforce that bicyclists are legitimate road users and are helpful connectors between Class I or Class II facilities when roadway widths are too narrow for a bike lane. Sharrows are suitable for streets with posted speeds below 35 mph, preferably with on-street parking.

Another potential application for sharrows is in high-conflict zones. Some cities are experimenting with colored bicycle lanes for this purpose; however, sharrows are more immediately understood by motorists and cyclists as a bicycle facility. New York City is the latest American city to use sharrows this way, although they have long been used in Paris to raise the visibility of cyclists through complex intersections and to clearly indicate the best path of travel for cyclists. The sharrow with colorized lane within the travel lane may be an excellent treatment for South Santa Fe Avenue combined with rear-in diagonal parking. This ensures adequate capacity for both automobiles and cyclists.

**Guidance for Sharrow Placement (from Section 9C.07 of the 2009 MUTCD)**

If used in a shared lane with on-street parallel parking, shared lane markings should be placed so that the centers of the markings are at least 11 feet from the face of the curb, or from the edge of the pavement where there is no curb.

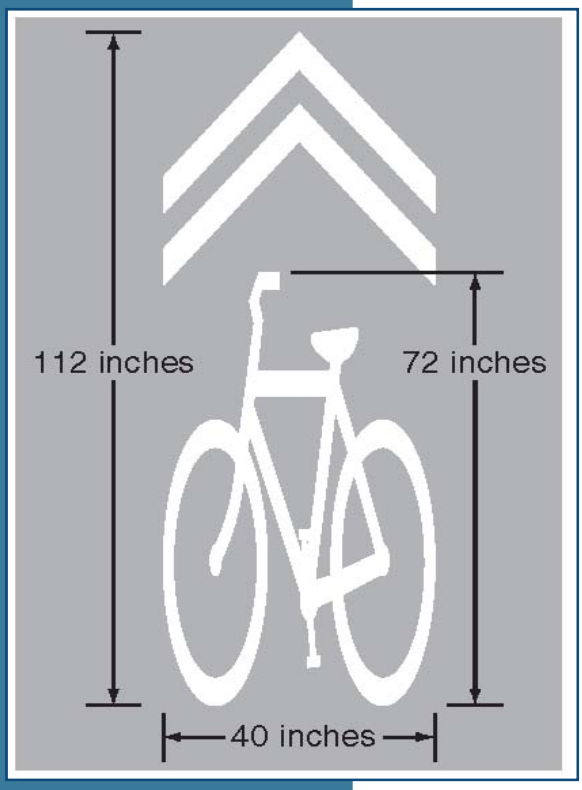
If used on a street without on-street parking that has an outside travel lane that is less than 14 feet wide, the centers of the shared lane markings should be at least 4 feet from the face of the curb, or from the edge of the pavement where there is no curb.

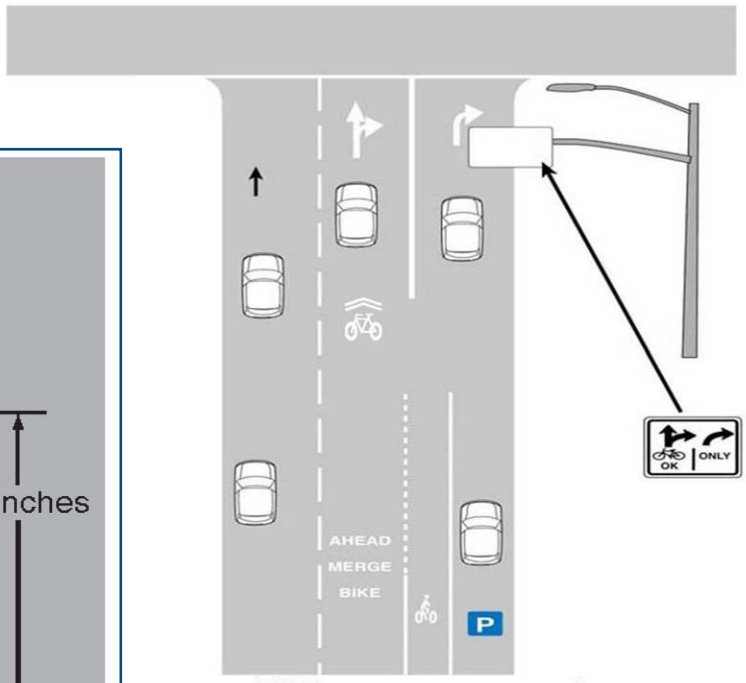
If used, the shared lane marking should be placed immediately after an intersection and spaced at intervals not greater than 250 feet thereafter.

**Option**

A “Bicycles May Use Full Lane” sign that may be used in addition to the shared lane marking to inform road users that bicyclists might occupy the travel lane.

**Figure III-14:** 2009 MUTCD and Caltrans Shared Roadway Marking Guidance for Installation



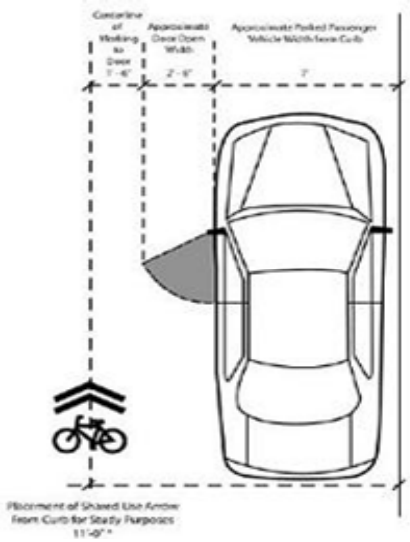
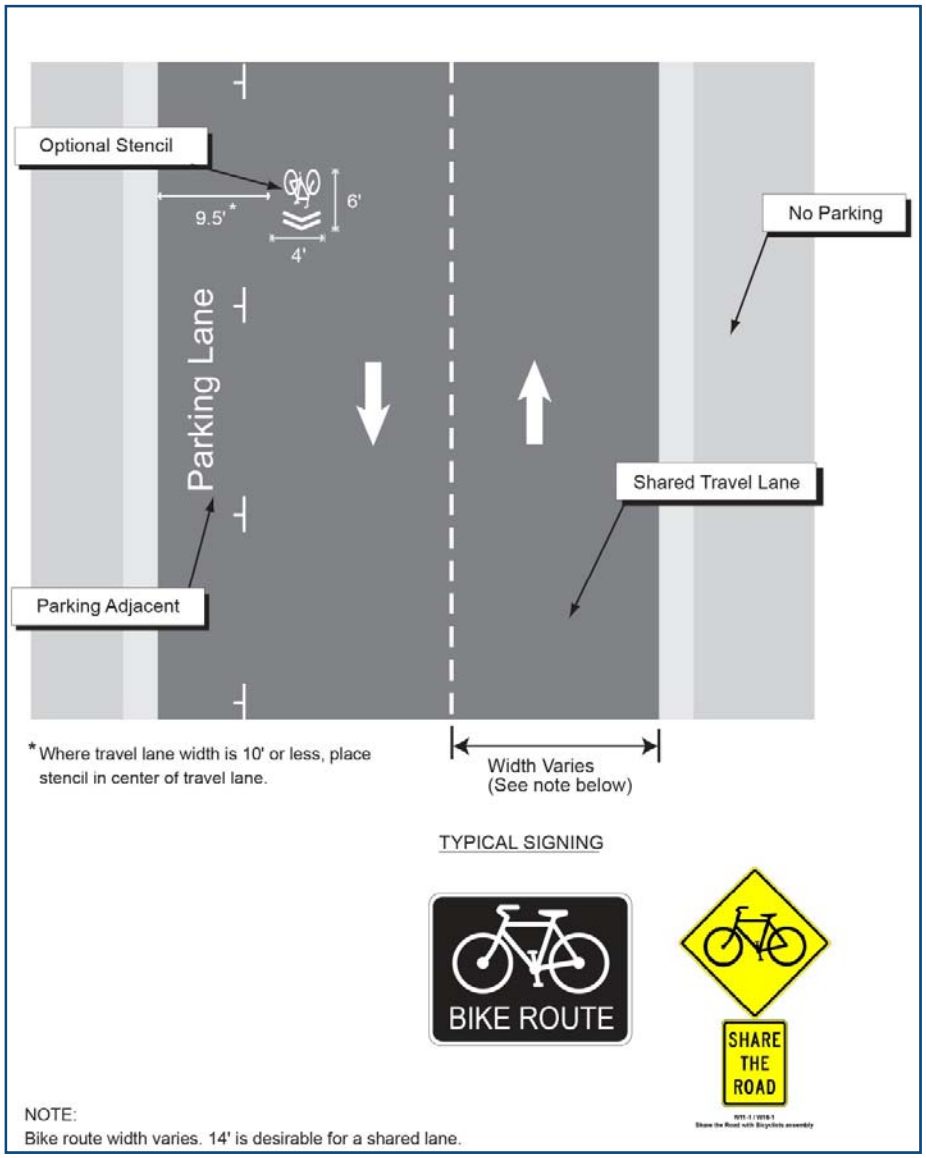



**Figure III-15:** Typical Class III Bike Routes

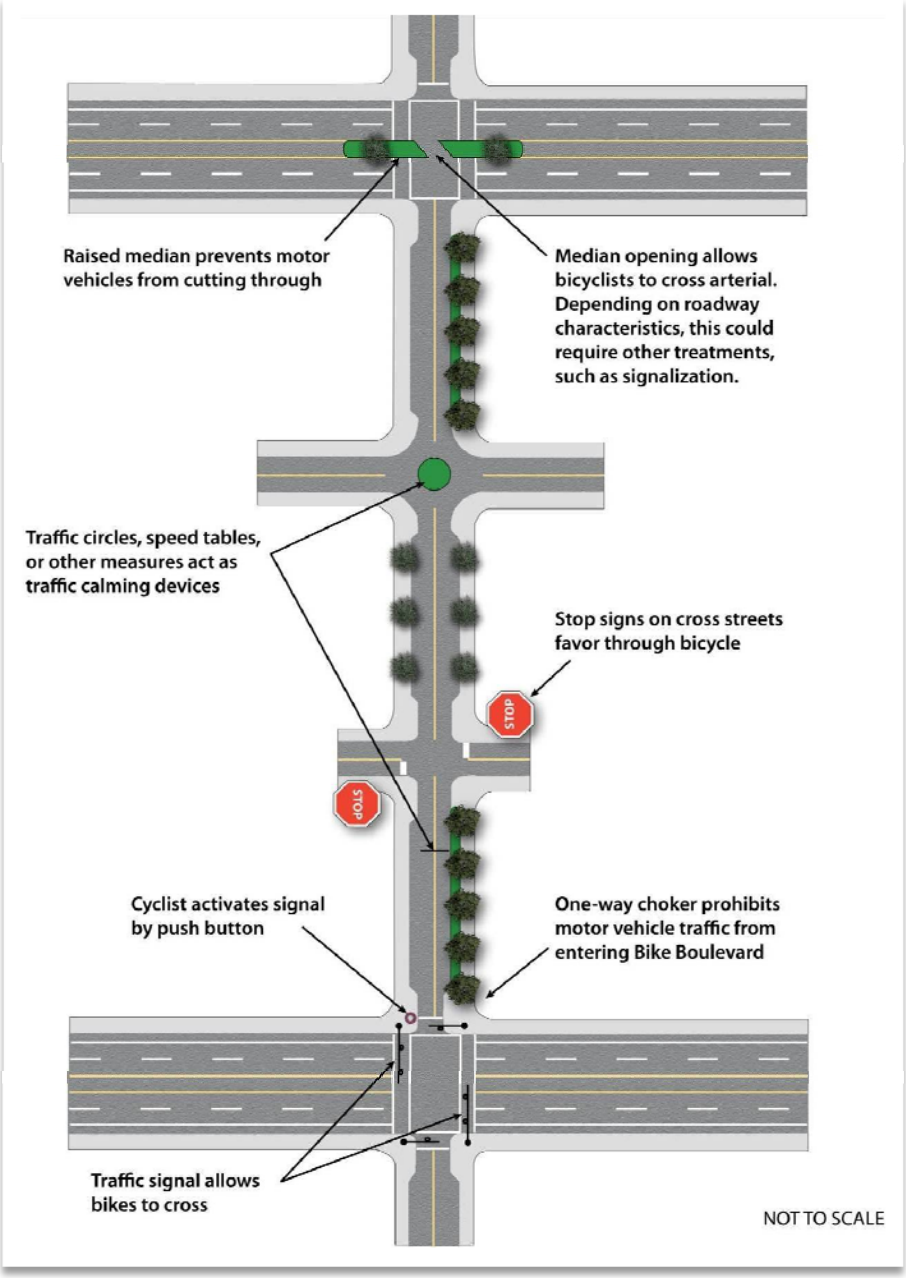



## Bicycle Boulevards

An additional type of Class III facility is the bicycle boulevard. Typically, bicycle boulevards are on low-volume streets adjacent to higher-volume arterials where bicycles have priority and have a relatively stop-free, low-conflict route to their destinations. Traffic calming treatments such as traffic circles, chokers, and medians are often used on bicycle boulevards to calm traffic.

There are six general issues to address during bicycle boulevard implementation, as shown in the table below. These issues relate to bicycle and pedestrian safety and traffic circulation. There are two categories of tools that can help address these

issues. The first category is called Basic Tools. These strategies are appropriate for all bicycle boulevards. The second category is called Site-Specific Tools, which are used to varying degrees on a bicycle boulevard to respond to a specific issue. They require more analysis and stakeholder involvement.



## Bicycle Parking

Every bicycle trip has two main components: the route selected by the bicyclist and the "end-of-trip" facilities at the destinations, such as safe and secure bicycle parking. This section provides guidance on the provision and placement of bicycle parking facilities. The provision of convenient bicycle parking is often overlooked but can have a dramatic effect on the cyclist's decision to make a trip via bicycle. If there is no convenient, safe, clearly dedicated parking for cyclists, the trip in question may revert to an automobile trip.

As the Vista bicycle network grows, so will the population that chooses to ride a bike. The availability of secure and convenient parking is as critical to bicyclists as it is for motorists. The availability of short- and long-term bicycle parking at key destinations such as parks, schools, community facilities, transit stations, shopping areas, and Downtown is a vital part of a complete bicycle network.

Parking should be highly visible, accessible, and easy to use. Facilities should be located in well-lit areas and covered where possible. Installation is equally important; for example, a rack that is too close to a wall or other obstruction will not be effectively utilized. See the figures on the following pages for design specifications.

**Table III-7:** Bicycle Parking

| In-Street/Sidewalk Parking | | |
|---|---|---|
| Inverted U-rack<br>In-street bicycle corral<br>Covered bicycle parking facilities<br>Surface parking lot conversion | Appropriate in areas with pedestrian activity and commercial areas. In-street facilities are ideal for areas with constrained sidewalk space. | Ideal for short-term parking needs (2–3 hours). |
| **Lockers** | | |
| Key lockers<br>Electronic lockers | Appropriate for areas with low street activity or isolated areas. | Provide a high level of security. Useful for long-term parking needs (>3 hours). |
| **Enclosed Facilities** | | |
| Bicycle cage<br>Bicycle room<br>Bicycle station | Ideal for major transit hubs and areas with high bike volumes. Enclosed facilities can also be located in residential, commercial, or employment centers with indoor space. | Provide the highest level of security, particularly when parking is attended. Ideal for long-term and overnight parking needs. |

There are different types of parking facilities, just as there are different levels of bikeway facilities. Parking facilities fall into one of three main categories.

## In-Street/Sidewalk Parking

This section describes several types of typical in-street and sidewalk parking techniques.

## Inverted U-Racks

Bicycle racks are low-cost devices that provide a location to secure a bicycle. Ideally, bicyclists can lock both their frame and wheels. The bicycle rack should be in a highly visible location secured to the ground, preferably within 50 feet of a main entrance to a building or facility. Whenever possible, the racks should be visible from the doorways and/or windows of buildings and not in an out-of-the-way location, such as an alley. Short-term bicycle parking is commonly used for short trips, when cyclists are planning to leave their bicycles for a few hours.

### BICYCLE RACK MATERIALS & COATINGS

A variety of materials and coatings are available for steel bicycle racks. Individual choices may vary depending on the available budget and aesthetic preferences, but the main options include the following:

- Stainless steel is the recommended choice because it is attractive and relatively maintenance free, but it is also typically the most expensive.
- Galvanized coatings are durable and much cheaper than stainless steel, but galvanized racks are not typically considered as attractive as other options. The low price and easy maintenance make galvanized racks one of the mostly popular options.
- Vinyl coating is a good option when aesthetics and durability are considered. Vinyl requires minimal maintenance. More importantly, vinyl coatings are the most user-friendly of all the options because they will not scratch bicycles the way harder coatings will.
- Powder coating provides the best color coating option and is highly durable. It is more resistant to wear than regular paint and can easily be touched up if needed. Powder coating is usually the same cost as galvanized.
- Paint is not as durable as some of the other options. Paint chips, wears off quickly, and requires regular repainting and maintenance to keep a reasonable appearance.

The most common mistake in installing bike racks is placing them too close to a wall or fence, or orienting them the wrong way, rendering the rack unusable. Nor should bike racks impede pedestrians. In addition, in order to accommodate a range of bicycle styles and sizes, racks must be installed to allow sufficient space between bicycles and between racks.

If there is space for two or more bikes on a single rack, there must be a minimum of 30 inches center to center between bicycle tires when bicycles are locked side to side; otherwise, the handlebars of one bicycle can prevent another bicycle from parking in the adjacent space.

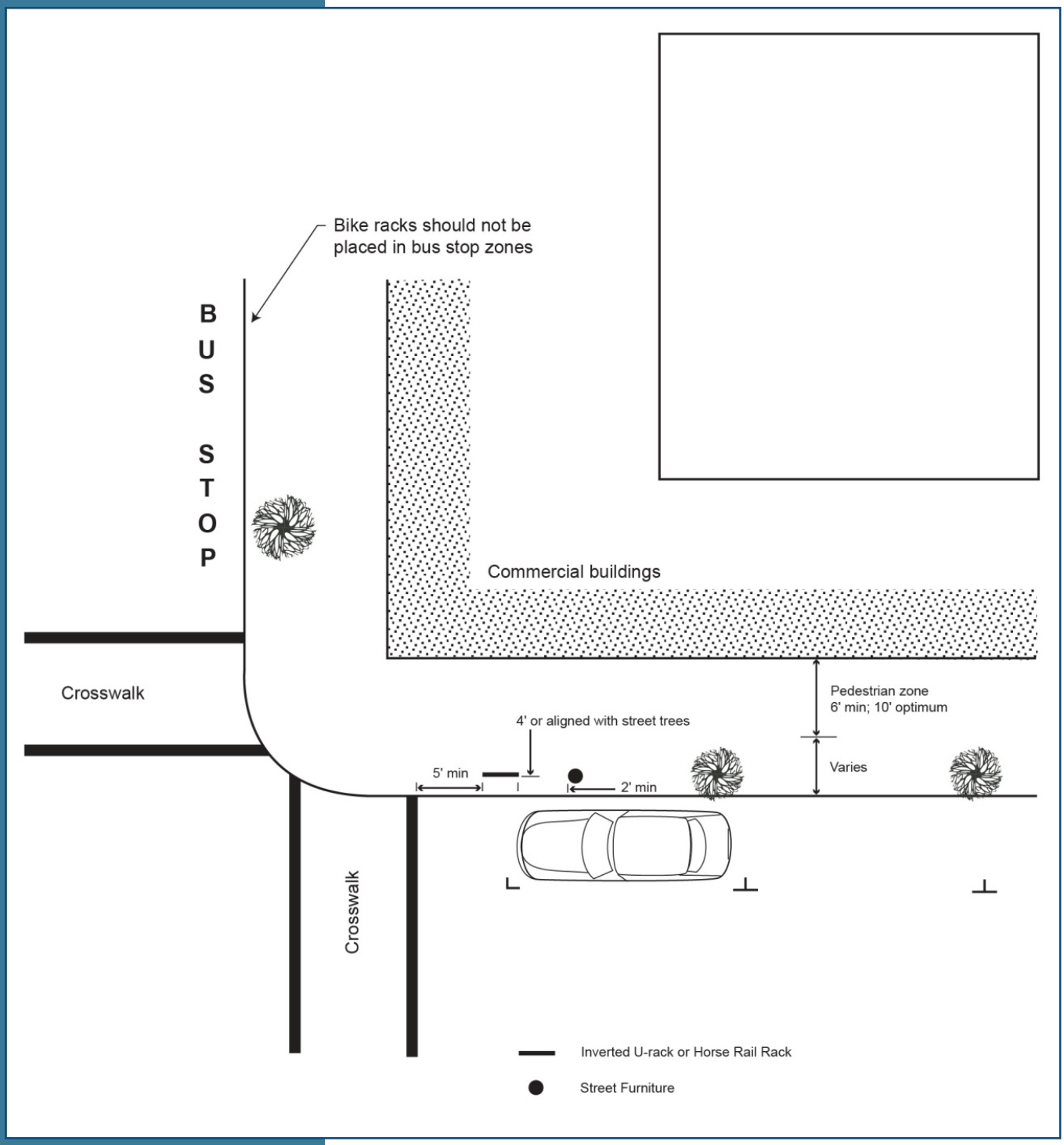
In addition to optimizing space by situating adjacent bicycles a sufficient distance apart, bicycle racks must be installed to allow sufficient space for bicyclists and their bicycles to move about between racks. In most cases, a standard bicycle footprint is 6 feet long. Aisles between rows of racks must be a minimum of 4 feet wide.

## Other Considerations

There are two primary types of rack installation: surface mount and cast in place. Surface mount is preferred; however, racks are designed for only one or the other installation type. In all cases, racks should be installed in concrete, never in soil and rarely in asphalt. There are issues to consider with each type of installation, detailed below.

- **Surface mount:** For installation after the substrate is in place (e.g., concrete slabs). For many rack types, this is the only option, but care should be taken in choosing the installation hardware. A technique among bicycle thieves is to steal a whole rack and load it into a truck, so only anti-tampering bolts and other hardware should be used. Surface-mounted bicycle racks should only be mounted in concrete — asphalt will not securely hold the mounting hardware. If an asphalt substrate is all that is available, concrete footings should be poured. Multiple loop racks on flanges may in installed in asphalt, which can be useful for in-street bike corrals. For a more secure rack installation, perpendicular bars could be installed under the surface to prevent the rack from being pulled directly from the concrete. See illustration, below.

**Figure III-16:** Bike Parking on Sidewalks



## In-Street Bicycle Corral

This option is ideal for locations with a high parking demand and insufficient sidewalk space. Bike corrals have been used in Portland, San Francisco, and Berkeley and involve replacement of parking spaces with inverted U-racks. Bollard installation is recommended to protect cyclists and bicycles from adjacent vehicles. Two vehicle parking spaces can accommodate a corral with 10–12 racks for 20–24 bikes. Costs vary depending on the choice of materials, but can range from $3,000 for a multiple loop rack and flexible bollards to $45,000 for a poured concrete pad, stainless steel bollards, and custom racks. Corrals are a relatively low-cost option that reduce sidewalk clutter and do not obstruct the public right-of-way. Corrals can be placed in red zones, but frequently vehicle parking may be removed. If parking is a priority in a given area, local jurisdictions should decide whether bike corrals are appropriate.

## Covered Facilities

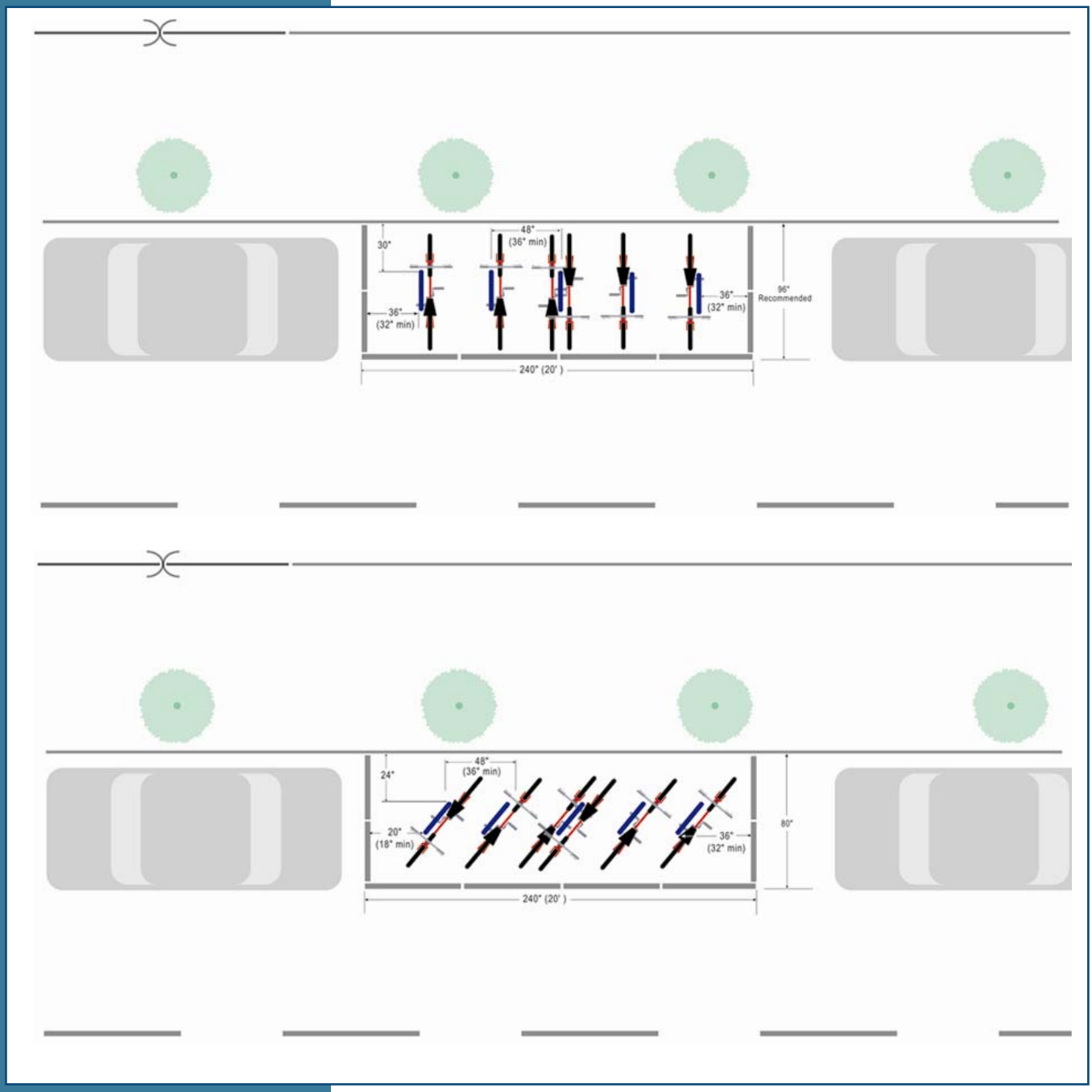
Covered bicycle racks, also referred to as a “bicycle oasis,” provide shelter from weather conditions. Constant rain in the winter takes its toll on bicycles causing a bike’s metal frames to rust, but constant sunlight all summer can be worse with ultraviolet rays deteriorating seats and tires. Covered bicycle parking has also been proven to increase cyclists’ willingness to park their bicycles for longer periods of time. In order to provide secure coverage from rainfall and clearance for cyclists, the cover should be at least 7 feet above the ground. Existing covers such as overhangs or awnings are a low-cost way of incorporating covered parking.

New York City and Portland have begun to implement covered bicycle parking. These designs provide shelter, map, and advertisement capabilities (see photo to the left). Covered racks do not necessarily deter theft any more than uncovered racks, and partial cover or cover that is too high does not protect against weather conditions and thus defeats the purpose.

## Surface Parking Lot Conversion

Parking lots near key destinations are ideal places for converting a few parking spaces into short- or long-term bicycle parking. Six racks can fit into the space occupied by one car. Adding U-racks with bollards and a covered or fenced area designates bicycle parking from vehicle parking. Bike cages can also be used in parking lots and provide security access through electric pass key systems. Simpler, less expensive modifications of surface lot parking spaces, such as a bike corral, may be considered.

**Figure III-17:** Bicycle Parking Layout for an In-Street Parking Space



This section describes several types of typical off-street and enclosed parking facilities.

## Bicycle Cage

Bike cages are shared access storage areas in which cyclists lock their own bikes. Bike cages are often used by transit centers and large employers or universities to provide an extra layer of security for long-term bike parking. Cages are a popular option for bike commuters because they provide a high degree of security and they protect bikes. Bike cages can be accessed by registered users at any time, and with unlimited ins and outs.

While cages provide additional security over U-racks or other on-street parking facilities, many people may have access to the facility. Small cages are preferred to limit the number of people with access to any single cage. Security may be bolstered by surveillance cameras and monitoring. A single cage of 18 feet by 20 feet occupies the same footprint as two standard parking stalls (or 9 feet by 20 feet each).

Cyclists gain access to the bike cage by signing up in advance for a key or a key code. Historically, bike cages have used conventional lock-and-key systems, but these have proved cumbersome from an administrative standpoint. Magnetic pass keys also allow parking managers to monitor who goes in and out of the bike cages. Local jurisdictions or local nonprofit organizations are typically responsible for implementing and maintaining this type of facility.

## Bicycle Rooms

Bike rooms provide enclosed and sheltered parking and protection from theft. A bike room is an excellent option for a transit terminal, but any available building floor space can be converted into a bike room. Bike rooms may have wall racks or floor racks, and should allow easy access by elevator or ramp to the ground level. Adding self-serve features such as bike pumps, bike stands, and basic tools creates extra amenities for cyclists. They also require little maintenance, and an attendant is not needed because users are provided with an access code to enter facility.

Bike rooms are ideal in business parks or apartment or condominium complexes. Individual businesses or apartment complexes would be responsible for providing bike room facilities.

### Bicycle Station

The ultimate safety and security option for bike commuters and their bikes is the bike station, which combines all the safety features of good racks, the security of a bike cage, and attended parking; typically only the staff person may check bikes in and out. Users may or may not have to pre-register. In addition to high security bike parking, most bike stations also sell basic bike accessories, some sell bikes, and the majority provide basic bike repair while the cyclist is at work. These extra repair and retail services generate revenue to offset staffing costs and provide additional services for users. All of these options provide further incentives for cyclists to leave their bikes at the station. However, the hours of operation can be limited by funding constraints. Cyclists who want to retrieve their parked bike after hours can only do so by prior arrangement with the staff operator. There is usually no charge for regular day or overnight parking in the first few years of operation, since there are usually grant subsidies for operations. Bike stations would be appropriate at major transit hubs such as a ferry terminal.

Bicycle stations have high capital and operating costs and may not be feasible unless co-located with other attractors such as major transit hubs, high-density housing, and retail. A short- to medium-range improvement for bicycle parking would be an unstaffed high capacity bicycle cage(s). The Sprinter Vista Transit Center at Vista Village Drive and North Santa Fe Avenue would be an ideal location for a bicycle station and would send a strong signal to Vista residents that cycling is a well-supported form of travel.

## Bicycle Signage

Several new bicycle guide signs, along with information on their use, will be added to the 2009 California MUTCD guidelines. These signs provide flexibility and may reduce costs for signing bicycle routes in urban areas where multiple routes intersect or overlap.

### Wayfinding and Destination Signage

Among these signs are a new alternative bike route guide sign and new bicycle destination signs, which indicate direction, distance in miles, and destinations along bicycle routes.

In July 2009, the City of Oakland adopted a new system for bicycle wayfinding signage based on these new MUTCD sign standards, with the addition of the City of Oakland logo (see image to the left).[6] The City of Vista should consider adopting a similar system and should consider a logo or City seal that reflects local qualities.

[6] The City of Oakland's Design Guidelines for Bicycle Wayfinding Signage can be found at http://www.oaklandpw.com/AssetFactory.aspx?did=3528.

The green sign system includes three sign types:

- **Confirmation Signs:** Confirm that a cyclist is on a designated bikeway. Confirmation signs are located mid-block or on the far side of intersections and include destinations and distances
- **Turn Signs:** Indicate where a bikeway turns from one street on to another street. Turn signs are located on the near side of intersections and include directional arrows.
- **Decision Signs:** Mark the junction of two or more bikeways. Decision signs are located on the near side of intersections and include destinations and directional arrows.

Destination symbols, such as to the Sprinter Vista Transit Center and other community destinations, may be used. The figure on the next page illustrates these sign types.

## Share the Road Signage

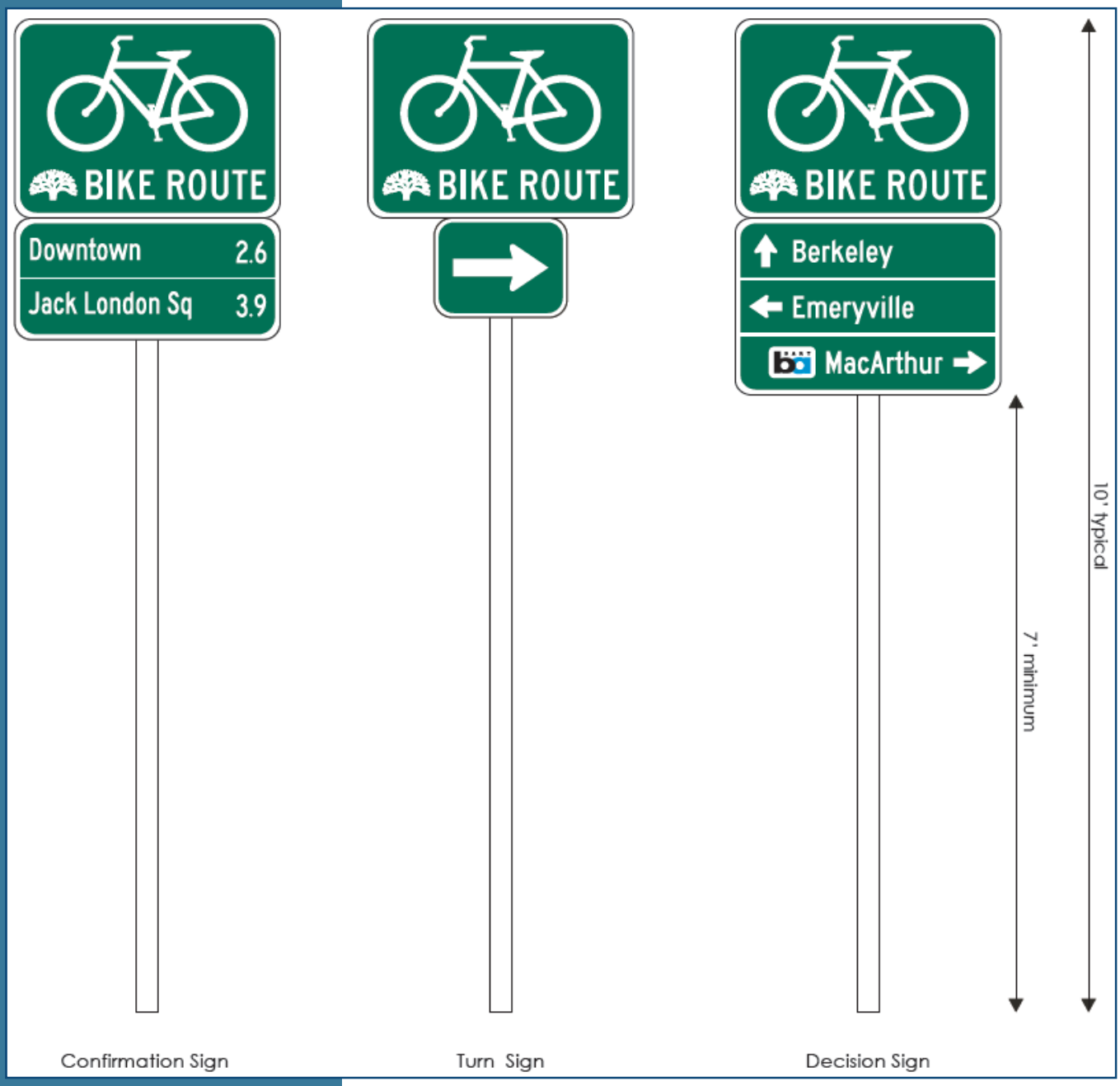
A "Share the Road" sign assembly (W11-1 + W16-1P) is intended to alert motorists that bicyclists may be encountered and that they should be mindful and respectful of them. However, the sign is not a substitute for appropriate geometric design measures that are needed to accommodate bicyclists. The sign should not be used to address reported operational issues, as the addition of this warning sign will not significantly improve bicycling conditions. The sign may be useful under certain limited conditions, such as at the end of a bike lane, or where a shared-use path ends and bicyclists must share a lane with traffic. The sign may also be useful during construction operations, when bicyclists may need to share a narrower space than usual on a travelway. This sign should not be used to indicate a bike route. A fluorescent yellow-green background can be used for this sign.

Another sign that may be used in shared lane conditions is the "Bicycles May Use Full Lane" sign (R4-31 11). This sign may be used on roadways without bike lanes or usable shoulders where travel lanes are too narrow for cyclists and motorists to operate side by side within a lane.

## Wrong-Way Riding

Where wrong-way riding by cyclists is a frequent problem, the MUTCD provides a bicycle "Wrong Way" sign and "Ride with Traffic" plaque (R5-1b and R9-3cP) that can be mounted back to back with other roadway signs (such as parking signs) to reduce sign clutter and minimize visibility to other traffic. This sign assembly can be used in shared lane situations, as well as on streets with bike lanes and paved shoulders.

**Figure III-18:** Bicycle Sign Types for the City of Oakland




*Source: Oakland, City of, 2009*

# Street/Traffic Calming Components

Traffic calming is generally defined as a combination of design approaches that serve to reduce motor vehicle speeds and improve conditions for non-motorized street users. Physical design, complementary road striping, and other strategies can be employed to slow motorists to speeds that are appropriate to their context and increase the safety and comfort of pedestrian and cyclists. Typical traffic calming measures include reductions in lane widths, reductions in the number of lanes, adding textures to travel lanes, sidewalks, or crosswalks, adding raised or landscaped medians, edge treatments, street trees, or curb extensions, widening sidewalks, and adding on-street parking. Before-and-after studies in the U.S. and Europe have shown significant reductions in the number and severity of collisions associated with locations where traffic calming measures have been implemented. Traffic calming measures are especially effective in locations where the roadway transitions from rural/suburban environments to more densely developed adjacent land uses, such as in a town center or urban core.

The vision of turning the South Santa Fe Avenue Corridor from a major automobile through-route to a place that serves as an extension of Downtown would require a number of traffic calming measures to be implemented along the Corridor. More detailed discussions are included in the following sections.

## Road Diets

A road diet involves narrowing or eliminating travel lanes on a roadway to make more room for pedestrians and bicyclists. This is one of the most common traffic calming practices and is very applicable to the Corridor. A road diet could convert this four-lane, undivided road into three lanes with two through lanes plus a center turn lane or a median. The freed-up space may be converted to a bicycle lane, sidewalk, and/or angled on-street parking.

Road diets can offer benefits to both drivers and pedestrians. On a four-lane street, speeds can vary between lanes, and drivers must slow or change lanes due to slower vehicles (e.g., vehicles stopped in the left lane waiting to make a left turn). In contrast, on streets with two through lanes plus a center turn lane or median, drivers' speeds are limited by the speed of the lead vehicle in the through lanes, and through vehicles are separated from left-turning vehicles. Thus, road diets may reduce

vehicle speeds and vehicle interactions, which could potentially reduce the number and severity of vehicle-to-vehicle crashes. Road diets can also help pedestrians by creating fewer lanes of traffic to cross and by reducing vehicle speeds. A 2001 study found a reduction in pedestrian crash risk when crossing two- and three-lane roads compared to roads with four or more lanes.[7]

Under most annual average daily traffic (AADT) conditions tested, road diets appeared to have minimal effects on vehicle capacity because left-turning vehicles were moved into a common two-way left-turn lane (TWLTL).[8] [9] Road diets with AADTs above approximately 20,000 vehicles could result in the potential for traffic congestion; additional operational analyses should be performed.

## Roundabouts

A number of roundabouts are envisioned along the Paseo Santa Fe Corridor. Roundabouts are classified as traffic calming measures because of their horizontal curvature and associated speed control. They force incoming traffic to wait for gaps in the counterclockwise circulating flow, enter the intersection at low speeds (maximum entry speeds of 15–20 mph for urban compact or single-lane roundabouts), and circulate at moderate speeds (25–30 mph).

The Federal Highway Administration (FHWA) has published a document titled *Roundabouts: An Informational Guide* that provides guidelines for the planning, design, and operational analysis of modern roundabouts. The guide was developed based on research of global applications and input from transportation practitioners and researchers from around the world. The overarching requirement for the design and operation of modern roundabouts, as described by the FHWA guide, is to slow entering traffic at each approach leg and for all entering traffic to yield to vehicles traveling within the roundabout.

The FHWA guide provides general guidelines for the design of single- and double-lane roundabouts, including requirements for entry widths, inscribed circle diameters, and operational speeds. The basic geometric design elements are shown in Figure III-19.

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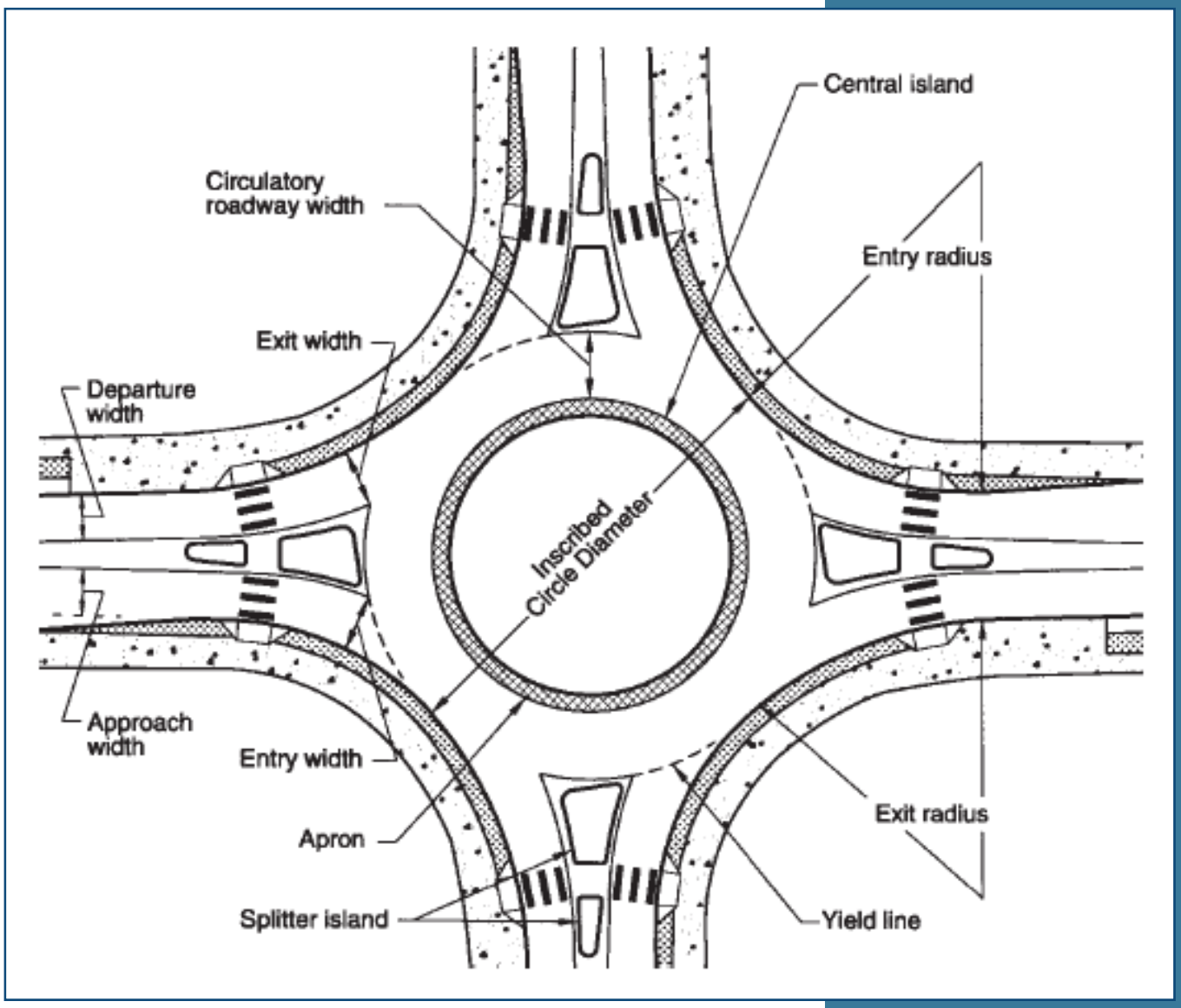
[7] Zegeer, C.V., Stewart, J.R., Huang, H.F., and Lagerwey, P. 2001. *Safety Effects of Marked vs. Unmarked Crosswalks at Uncontrolled Locations: Executive Summary and Recommended Guidelines*. FHWA-RD-01-075. Washington, DC: Federal Highway Administration.

[8] Burden, D. and Lagerwey, P. 1999. *Road Diets: Fixing the Big Roads*.

[9] Welch, T. 1999. *The Conversion of Four-Lane Undivided Urban Roadways to Three-Lane Facilities*. Presented at the Transportation Research Board/Institute of Transportation Engineers Urban Street Symposium, Dallas, TX.

**Figure III-19:** Basic Geometric Elements of a Roundabout




*Source: FHWA 2000b*

- **Inscribed Circle Diameter:** The inscribed circle diameter is the distance across the circle inscribed by the outer curb (or edge) of the circulatory roadway. It is the sum of the central island diameter (which includes the apron, if present) and twice the circulatory roadway. In general, the inscribed circle diameter should be a minimum of 100 feet to accommodate a WB-50 design vehicle.
- **Entry Width:** The entry width defines the width of the entry where it meets the inscribed circle. It is measured perpendicularly from the right

*Picture of La Jolla Blvd Roundabout*

edge of the entry to the intersection point of the left edge line and the inscribed circle. Entry width is the largest determinant of a roundabout's capacity. To maximize the roundabout's safety, entry widths should be kept to a minimum.

- **Circulatory Roadway Width:** The required width of the circulatory roadway is determined from the width of the entries and the turning requirements of the design vehicle. In general, it should always be at least as wide as the maximum entry width (up to 120% of the maximum entry width) and should remain constant throughout the roundabout.
- **Central Island:** The central island of a roundabout is the raised, non-traversable area encompassed by the circulatory roadway; this area may also include a traversable apron. The island is typically landscaped for aesthetic reasons and to enhance driver recognition of the roundabout upon approach. Central islands should always be raised, not depressed, as depressed islands are difficult for approaching drivers to recognize.
- **Splitter Islands:** Splitter islands (also called separator islands or median islands) should be provided on all roundabouts, except those with very small diameters at which the splitter island would obstruct the visibility of the central island. Their purpose is to provide shelter for pedestrians (including wheelchairs, bicycles, and baby strollers), assist in controlling speeds, guide traffic into the roundabout, physically separate entering and exiting traffic streams, and deter wrong-way movements. Additionally, splitter islands can be used as a place for mounting signs.
- **Pedestrian Crossings:** Pedestrian crossing locations at roundabouts are a balance among pedestrian convenience, pedestrian safety, and roundabout operations. The pedestrian crossing should be set back one car length (20–25 feet) from the yield line so pedestrians can cross behind waiting cars. Crossing distance should be minimized to reduce exposure of pedestrian-vehicle conflicts. The pedestrian refuge should be a minimum width of 6 feet. The pedestrian crossing should be marked as a crosswalk, and it is recommended that a detectable warning surface (as in the Americans with Disabilities Act Accessibility Guidelines) be applied to the surface of the refuge within the splitter.
- **Bicycle Provisions:** With regard to bicycle treatments, the designer should strive to provide bicyclists the choice of proceeding through the roundabout as either a vehicle or a pedestrian. In general, bicyclists are better served by treating them as vehicles. However, the best design provides both options to allow cyclists of varying degrees of skill to choose their more comfortable method of navigating the roundabout. To accommodate bicyclists traveling as vehicles, bike lanes should be

terminated in advance of the roundabout to encourage cyclists to mix with vehicle traffic.

- **Parking Considerations:** Parking or stopping in the circulatory roadway is not conducive to proper roundabout operations and should be prohibited. Parking on entries and exits should also be set back as far as possible so as not to hinder roundabout operations or to impair the visibility of pedestrians. AASHTO recommends that parking should end at least 20 feet from the crosswalk of an intersection. Curb extensions or bulbouts can be used to clearly mark the limit of permitted parking and reduce the width of the entries and exits.

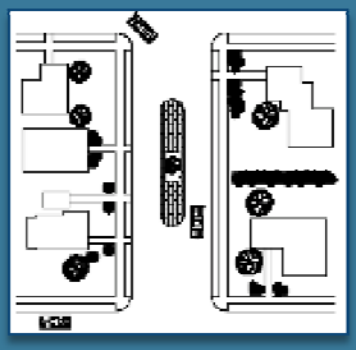
The FHWA guide also discusses the safety benefits of modern roundabouts, noting that research data suggests that the frequency of vehicle collisions for roundabouts can be less than those associated with standard signalized intersections. Based on the Bird Rock La Jolla Boulevard (carries approximately 22,000 AADT) Roundabouts case study by the City of San Diego, the number of collisions along the corridor in a three-year span has decreased from 22 (2001–2003 before roundabouts) to 14 (2007–2009 after roundabouts) representing a 57% reduction, with injury/fatal collisions decreased by 157% and pedestrian-related collisions reduced to zero.

Either urban compact or urban single-lane roundabouts would be recommended for South Santa Fe Avenue. An urban compact roundabout is a small roundabout (80–100 feet inscribed circle diameter) with a raised central island and splitter islands, with perpendicular approaches that require vehicles to make a distinct right turn into the circulatory roadway. An urban single-lane roundabout is a roundabout with single-lane entries on all legs and one circulatory lane, with the inscribed circle diameter ranging between 100 and 130 feet. Entries are less perpendicular that the urban compact roundabout, allowing somewhat higher speeds with higher capacities.

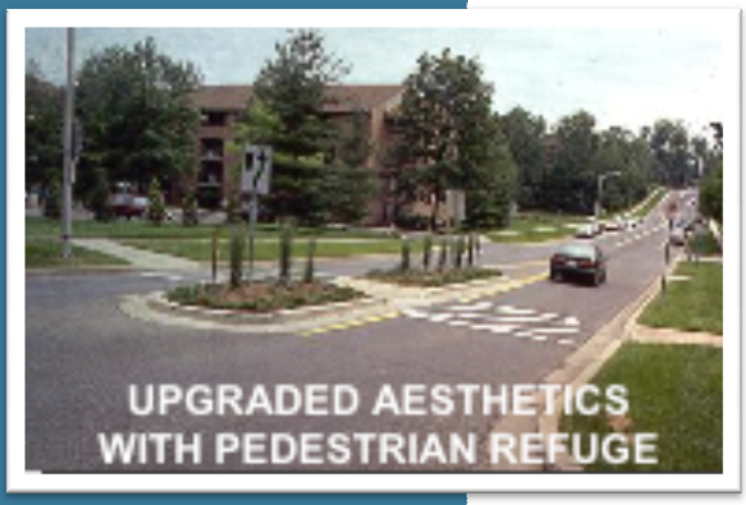
Roundabouts would improve the efficiency of traffic flow along the Paseo Santa Fe Corridor and thus reduce vehicle emissions and fuel consumption. By providing landscaping opportunities, these potential roundabouts could also enhance the aesthetics along the Corridor and make it a more inviting place for pedestrians and bicyclists.

## Center Island Narrowings

Center island narrowings are raised islands, located along the centerline of a street, that narrow the street. Straddling the centerline, they may introduce slight deflection into travel paths on otherwise straight streets. Placed at the entrance to a neighborhood or corridor, often with textured paving on either side, they create gateways.



Center islands are the most effective in reducing speeds when they are short interruptions to an otherwise open street section, rather than long median islands that channel traffic and separate opposing flows. Short islands have the added advantage of keeping driveway access open in both directions. Center islands can be fitted with a gap to allow pedestrians to walk through at a crosswalk; they are often called "pedestrian refuges." They can also be landscaped to increase visual aesthetics. The magnitude of reduction in speed is dependent on the spacing of center island narrowings between points that require drivers to slow. On average, center island narrowings achieve a 7% reduction in speeds.




In addition to possible center islands, a landscaped linear park with trees, shades, seating areas, a coffee shop, art displays, etc., in the center median could also be provided. A linear park would create a place along the Corridor for people to rest, relax, and socialize.

## Neckdowns/Bulbouts

Neckdowns/bulbouts are curb extensions at the intersections that reduce roadway width from curb to curb. They are often combined with on-street parking to create protected parking bays and considered as a standard treatment on commercial main streets. Neckdowns/bulbouts at intersections along the Paseo Santa Fe Corridor would serve great benefits to pedestrians as they "pedestrianize" intersections by shortening pedestrian crossing distances, increasing pedestrian visibility, and decreasing curb radii, thus reducing turning vehicle speeds.

## Landscaping

Landscaping contributes to the visibility of traffic calming measures and hence to their effectiveness and safety. Any vertical elements, such as trees, shrubs, planters, bollards, and signage, draw attention to traffic calming measures. Adequate landscaping is desired along the Corridor to calm traffic and to provide a pedestrian-friendly environment.

## Transit Infrastructure

One of the most important facets to creating lively, walkable community spaces is the provision of public transit so that pedestrians and cyclists have an alternative to driving in situations where longer trips are required. Transit stations should be located in areas that attract shoppers, visitors, and workers, and in areas with nearby amenities, such as child care, restaurants, and drug stores, that can benefit transit users. They should also be located near major trip generators or attractors such as schools, offices, shopping centers, and recreational facilities.

Many transit users need to transfer between buses, light rail, or shuttles. Ensuring that transfers are as simple as possible will benefit the transit user. Walking distances between transfer points should be minimized. Forcing pedestrians to walk through large parking lots should be avoided.

It is critical to design station areas with the pedestrian and bicyclist in mind, since these modes are often utilized to access transit. Pedestrian and bicycle connections between the station and nearby land uses should be clear and safe. Secure bicycle parking should be provided at transit stations in case buses or trains do not have the capacity or do not allow cyclists to bring their bikes on board. Bicycle parking should be provided in high traffic areas so that natural surveillance by pedestrians and drivers is in place.

Station areas should feel safe and comfortable for waiting passengers, including adequate shelter from rain and intense sunshine. Transit schedules are informative for riders, along with real-time arrival and departure information, if possible.

Two Sprinter stations (at Vista Village Drive and Cicic Center Drive) are closely located at either end of the Corridor. It is critical to provide comfortable and convenient ways for transit users to be able to access the Corridor and all its amenities. A local bus circulator or a localized trolley system between these Sprinter stations and the heart of the Corridor would provide essential connectivity for transit users.

## Parking Alternatives

Parking enhances the accessibility of drivers to nearby land use opportunities. On-street parking can also serve as a buffer between the pedestrian and moving vehicles, thereby enhancing the pedestrian's comfort.

A parallel parking space is typically 8 feet wide and 22 feet to 24 feet in length. Angled parking is applicable on wider roadways with sufficient right-of-way. Angled parking can provide up to 50% to 75% more spaces than parallel parking. Angled parking stalls are typically 8.5 feet, and the angle of the stall determines the stall

length, which typically ranges from 17 feet to 19 feet. In the case where angled parking is implemented, there should be a wide outside, adjacent lane, ranging from 13 feet to 16 feet. Angled parking can be head-in or back-in. Head-in angled parking is more common and requires motorists to back out into the travel lane when leaving the space, often with limited visibility. Travel speeds should be less than 30 mph when head-in angled parking is employed.

Back-in angled parking has increased steadily in recent years in cities across North America. It is similar to both parallel and standard angled parking. As with parallel parking, the driver enters the stall by stopping and backing, but need not maneuver the front of the vehicle against the curb. The photo to the left is a traffic sign showing the three steps of back-in angle parking in Kelowna, B.C., Canada. When leaving the stall, the driver can simply pull out of the stall and has a better view of oncoming traffic.

This type of parking provides a safer environment for bicyclists using the roadways. The driver is able to see the cyclist easily when exiting the stall. Several cities where back-in angled parking has been implemented have seen a reduction in number of collisions compared to the number of collisions in regular parallel parking schemes. In contrast to standard angled parking, the visibility while exiting a back-in angled parking space into traffic is much improved. In addition, back-in parking puts most cargo loading (into trunks, tailgates) on the curb, rather than in the street.

*Source: T. Boulanger, Transportation Services, City of Vancouver, WA*

Parallel on-street parking exists on both sides of the Santa Fe Avenue Corridor today. However, with the planned land uses being higher density along the Corridor, it is recommended that angled parking (either head-in or back-in) be provided to accommodate the future demand. An off-site (within close walking distance) parking facility could also be provided to help alleviate the potential parking demand for the Corridor.

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# Chapter IV: Public Input Regarding Connectivity

In an effort to receive thorough public input from a broad cross section of the community, PMC engaged the public in mulitple outreach efforts. These public outreach efforts include intercept surveys, stakeholder interviews, and an electronic survey. The purpose of this chapter is to identify the methods utilized to gather public input and to summarize the input received from these varied outreach efforts. The details provided in each of the summaries below provide valuable insight into the connectivity opportunities and challenges, perceptions, values, and desires of the local community and the vision for the future Paseo Santa Fe.

Public outreach efforts included intercept surveys, stakeholder interviews, and an electronic survey, providing valuable insight into the connectivity opportunities and challenges, perceptions, values, and desires of the local community and the vision for the future Paseo Santa Fe.

## Intercept Surveys

This section provides the City of Vista with information obtained through a series of intercept surveys conducted by PMC. Surveys took place in two rounds in and around the City of Vista. The first round of surveys took place from May 4 through May 6, 2010, and the second round took place from November 16 through November 18, 2010.

Intercept interviews are seen as a means of bringing an issue to target audiences that may not respond to the idea of attending a traditional community meeting or workshop. In both the May and November survey rounds, interview respondents were asked a series of questions, divided among three categories (transportation, Paseo Santa Fe project, and Santa Fe Avenue/Downtown Vista). These questions were asked at four locations throughout the Vista area. An additional category of questions (transit stations) was asked at multiple stops along the North County Transit District's Sprinter line.

Survey locations included **California State University, San Marcos** (25 people polled on May 4; 15 people polled on November 16), **Vista Business Park** (20 people polled on May 5; 21 people polled on November 18), multiple commuter stops along the **Sprinter line** (30 people polled on May 6; 20 people polled on November 17), and the **Vista Courthouse** (25 people polled on May 6; 15 people polled on November 17). Interviews averaged three to five minutes in length.

A total of 130 surveys were conducted at various locations including California State University, San Marcos, Vista Business Park, multiple stops along the Sprinter line, and the Vista Courthouse.

Information on the questions asked and the data provided is included below.

## Transportation

PMC surveyed approximately 100 respondents in May of 2010 regarding what modes of transportation they regularly use to get to Vista Village/Downtown Vista/ Courthouse/College. Of those surveyed, 64% indicated that their primary mode of transportation is a private automobile, followed by bus travel at 15% and rail at 12%. Out of the 71 respondents in November, a majority (67%) indicated that their primary mode of transportation is a private automobile, followed by bus travel at 14% and rail travel at 10%.

For those surveyed who did not use bus/train, PMC asked why and searched for further information on safety, frequency, cost, and proximity issues. Below are results from the survey participants based on the geographic area surveyed.

> Convenience and access to a private car or to someone who is able to drive are primary reasons for not using public transportation.
> *– Intercept Survey Respondent*

> Public transportation is one of the best-kept secrets in the area because it's rarely crowded but always dependable.
> *– Intercept Survey Respondent*

**Cal State San Marcos**

In both the May and November surveys, students at Cal State San Marcos said they primarily drive to school or have a friend/family member drop them off. Although a few of the respondents stated that they utilize public transportation, many of them said that they didn't need to because they almost always had access to a car or someone who would be able to drive them. Others said that the buses and trains are dirty or did not feel safe. None of the respondents interviewed cited cost or location as a reason for not utilizing public transit.

**Vista Business Park**

In both the May and November surveys, all respondents stated that they drive to work in their private automobiles. Almost all of these people cited convenience and the fact that there is plenty of parking at the business park.

**Sprinter Line**

In both the May and November surveys, most of the people surveyed at the Sprinter stations stated that they utilize public transportation. Many of the people who were interviewed at the Sprinter station use public transportation on a regular basis, particularly the city buses. None of the people interviewed at the station indicated that they had any problems with public transit in the area. One person interviewed in November said that public transportation was one of the best-kept secrets in the area because it's rarely crowded but always dependable.

**Courthouse**

During the May interviews, most of the people interviewed at the courthouse were jurors who were on a lunch break. All of them had driven to this location, and the majority indicated that they drive their own cars regularly because of convenience. Two of the people interviewed said that they ride the bus regularly, but both stated that this is because they are currently without a personal automobile. November surveys, which were taken later in the day than the May surveys, reached the same conclusions. Many people interviewed said public transportation was too difficult in this area and not worth the hassle for people who own their own automobiles.

> Public transportation is too difficult in this area and not worth the hassle for people who own their own automobiles.
> *– Intercept Survey Respondent*

## Paseo Santa Fe Project

In the locations mentioned above, PMC surveyed people on their awareness of the Paseo Santa Fe project currently being led by the City of Vista.

In all of the survey locations during the May interviews, only 2% of the respondents had ever heard of the Paseo Santa Fe project, and both of these people were located at the Vista Courthouse.

> In May 2010, only 2% of those interviewed were aware of the Paseo Santa Fe project. In November 2010 20% of those surveyed were aware of the project.

Although knowledge of the Paseo Santa Fe project in the November interviews had increased substantially compared to the May interviews, knowledge of the project was still low. Approximately 20% of all of the people surveyed were aware of the project.

For those respondents who did know of the project, none of them knew much about it other than its existence. In May, one person said he thought it was a project to improve the look and remove the blight in the area. The other said he only knew the name but did not know any details.

In November, most of the people who had heard of the project said they had read about it in the newspaper but were not able to remember many specifics. One of the people stated that he had read that the project would tear down all of the old businesses so the City could build a bunch of new businesses, whether the old business owners wanted to sell or not.

## Santa Fe Avenue/Downtown Vista

When asked how survey participants would describe the crosswalks on South Santa Fe Boulevard, the majority of the people interviewed were not able to comment on those crosswalks, as most stated that they do not know the area very well. In May, of the 100 respondents interviewed, eight had an opinion about the crosswalks, with seven of these opinions categorized as negative. These respondents stated that it is difficult to cross South Santa Fe Avenue due to a deficiency of crosswalks and short crossing time.

> There are few reasons to visit the project area because it seems run down. The area does not seem safe, particularly after dark, mainly because of vacant lots, minimal street lighting, and a fear of gang activity. A dramatic change is necessary to make the area more appealing.
> – *Intercept Survey Respondent*

November's results were a slightly better, with 22 of the 71 respondents interviewed having an opinion about the area. Of that number, 19 described the crosswalks in a negative light due to insufficient numbers.

When asked how they would describe parking along South Santa Fe Avenue, as with crosswalks, the majority of the respondents interviewed were not able to comment on parking in the area. In May, the same eight who had an opinion about the crosswalks were able to provide information on this question. Six of these people stated that parking wasn't a problem in this area, but also said there weren't many things which bring them to the area. Two people stated that parking was worse in this area than in other areas of Vista.

November's survey results were basically the same. Eight people commented that parking was fine. Ten people said that parking was deficient in this area.

PMC asked interviewees what improvements/enhancements would make them more likely to visit the project area. In May, the majority of the respondents surveyed who were familiar with the South Santa Fe Avenue area (32 total people) stated that there were few reasons to visit the area because it seemed run down. Nine of these respondents said that the area does not seem safe, particularly after dark. It was stated that the vacant lots and minimal street lighting were the main reasons they felt unsafe in this area. Eight of these respondents indicated that the area would need a dramatic change in almost every way to make them more likely to visit this area, as there is currently nothing of interest for them there.

In November, answers were essentially the same. Most of the people who were familiar with the area said they had seen some good changes recently in the area. Most said they enjoy going to the Sonic Burger and the theater. But there was still a general consensus that the area is unsafe. Specifically, people said that gang activity is a worry in this area and that they rarely go into this part of town at night unless absolutely necessary.

The people surveyed were asked whether they come to the Downtown area/Vista Village for lunch. Of the respondents surveyed in May, 19% said that they come to this area for lunch and only when they are already in the area. Of the respondents surveyed in November, 23% said they come to this area for lunch.

When asked whether or not they visit Vista Village for shopping, 22% indicated that they came to this area for shopping. Of the respondents surveyed in November, 15% indicated that they came to this area for shopping.

For those who did not, the consensus was that the only thing that brought them into the Downtown area/Vista Village was the Krikorian Metroplex Theater, which several people described as the best in the area. Many people who visit the theater

on a regular basis said that they would have lunch and occasionally shop in the area, but it was rarely a destination for any other reason.

To find out more about how to attract users to this area, 100 respondents were surveyed in May. Of these, 48% stated that improved shopping opportunities would be the biggest reason to visit this area. Better restaurants would bring 22% of respondents to the area, and 16% said nightlife businesses, such as a good dance club, would attract them to the area. Eight percent (8%) said that it didn't matter what services were offered; they would not visit the area under any circumstances.

Of the 71 respondents surveyed in November, 32% stated that improved shopping would bring them to the area. Better restaurants would bring 43% of respondents to the area, 8% said a better nightlife would make it a destination, but only if it was in a safe and well-lit area, and 17% said they don't have any reason to ever visit this area.

Improved shopping areas, better restaurants, nightlife, and improvements to ensure a safer environment would bring more people to the Santa Fe Avenue corridor.
*– Intercept Survey Respondents*

## Transit Stations

Surveys were conducted at four different transit stations along the Sprinter line. Discussions with respondents focused on transit station amenities, connections upon their arrival at the transit station, crosswalks, and suggested improvements.

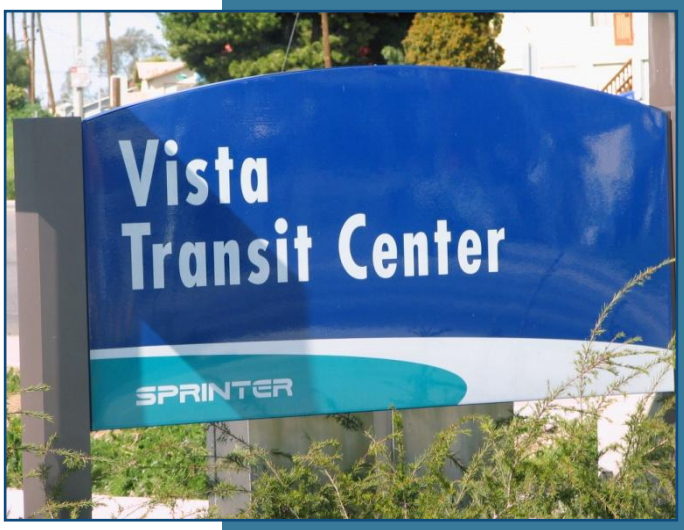
A high majority of survey respondents were satisfied with transit station amenities. Suggested improvements include additional bathrooms, enhanced security to improve safety while waiting for trains, and an increase in the frequency of trains.

**Transit Station Amenities**

People were asked whether the transit station they were boarding or arriving at had all the desired amenities. Of the 30 respondents interviewed in May, 27 people (90%) stated that they are very happy with the transit stations and that the stations have all of the necessary amenities.

Of the 20 respondents interviewed in November, 17 people (85%) stated that they are very happy with the transit stations and that the stations have all of the necessary amenities.

Because 90% of the respondents interviewed in both survey sessions stated they were very happy with the transit stations, not many improvements were suggested. Three people respondent suggested that there is a lack of restroom facilities at transit stations and additional bathrooms would be nice. Four stated that security could be improved, as they don't always feel safe waiting for the trains. Approximately 22% of respondents stated that the frequency of trains should be increased.



**Ease of Connections upon Transit Station Arrival**

Of the 30 respondents interviewed in May, 22 people (73%) stated that it is very easy to get to their location once they depart the trains. The remaining eight respondents (27%) stated that getting around town could be improved if there were more buses and bus stops throughout the area.

Of the 20 respondents interviewed in November, 14 people (70%) stated that it is very easy to get to their location once they depart the trains. The remaining six respondents (30%) stated that getting around town could be improved if there were more buses and bus stops throughout the area.

Discussions with stakeholders focused on the stakeholders' experience using the Santa Fe Avenue Corridor, modes of transportation, user patterns, visual preferences, and ideas for improvement.

**Pedestrian Crosswalks**

Of the 30 respondents interviewed in May, 13 people (43%) did not feel that crosswalks were adequate in the area. Most of these respondents stated that crosswalks were often very far apart and that the traffic lights did not allow ample time to cross the streets.

Of the 20 respondents interviewed in November, 11 people (55%) did not feel that crosswalks were adequate in the area. As with the May survey, most of these respondents stated that crosswalks were often very far apart and that the traffic lights did not allow ample time to cross the streets.

## Stakeholder Interviews

Stakeholder interviews are a valuable public outreach tool that allow vested community members or affected parties to voice their opinions on issues and provide input in an intimate and confidential setting. Twenty-four stakeholders were identified by the City to cover a wide range of interests that were extremely knowledgeable and provided a wealth of insight on the Corridor's strengths and weaknesses. Interviewees included individuals who were long-time residents, business owners, bicycle enthusiasts, transit users, outside agencies, advisory committee members for related or concurrent projects, youths, seniors, minorities, religious leaders, and public safety representatives who are all connected to South Santa Fe Avenue.

Interviews with the stakeholders were conducted May 4 through May 31. The majority of the interviews were conducted in person. A couple of interviews were conducted via telephone for stakeholder convenience. Stakeholders were asked a series of questions related to their impressions of South Santa Fe Avenue as it currently exists and suggested improvements to resolve issues for the future Paseo

Santa Fe. Discussions with stakeholders focused on the stakeholders' experience using the South Santa Fe Avenue Corridor, modes of transportation, user patterns, visual preferences, and ideas for improvement.

## Santa Fe Avenue Use Patterns

In general, stakeholders were primarily Vista residents who have lived in the city ranging from 5 to 30 years. Of the non-residents interviewed, some stakeholders commuted between 8 and 30 miles (one way) to Vista for work on a daily basis from surrounding communities. Stakeholders indicated that they traveled to the Corridor for both personal and business purposes between two and five times per week. Stakeholders who seldom traveled to South Santa Fe Avenue would do so primarily for business purposes. Stakeholders would frequently travel to the Corridor to drop off kids at the Sprinter for their commute to high school, for work and business meetings, to attend meetings at City Hall, or to run errands. Typical errands that brought stakeholders to South Santa Fe Avenue include the library, Hanna Plumbing, the lawnmower shop, bank, pharmacy, post office, lumber supply, and auto parts store. Stakeholders traveling through the Corridor were often driving to the theaters at Vista Village, shopping at Frazier Farms, on their way to Highway 76, and to the Shadowridge residential neighborhood. Cyclists would recreationally travel South Santa Fe Avenue en route to the coast. One resident shared the reason for not traveling to South Santa Fe Avenue is that the Corridor is not on the route for typical destinations.

Overwhelmingly, the stakeholders' primary mode of transportation is their private vehicles, although some prefer to bike, walk, or take public transit on occasion. One stakeholder noted that her children travel daily using the Breeze bus and Sprinter to travel to college in Oceanside, but the adults in the household regularly commute using private vehicles as a matter of convenience.

Several stakeholders indicated that they have previously ridden the Sprinter and that they utilized free passes to initially try the Sprinter, but most do not ride it on a regular basis. One stakeholder identified that her objective in riding the Sprinter is to inspect and report graffiti along the line. Another stakeholder shared that the commute from the Civic Center Drive Station to Vista Village is preferred, but the bus connection is often missed from the Vista Village station, so the Sprinter is not used regularly due to the lack of coordination between multiple modes of transit. Several interviewees indicated that the lack of sufficient connections to desirable destinations, including Encinitas, is a primary reason for not using public transit. One stakeholder identified that many people take the Sprinter to the Vista Village station regularly to attend church on the weekends, but that there is a lack of connectivity from the station to the church location; a connection would be especially helpful for the senior population.

A reason for not traveling to Santa Fe Avenue is that the Corridor is not on the route for typical destinations.
*– Stakeholder Interview*

My first time using the Sprinter was on a one-way trip to San Diego, which took three hours, door to door. The freeway is more convenient for that route.
*– Stakeholder Interview*

> There is potential to use public transit to commute between Vista and San Diego for work. It is important to have connections at the end destination to bring riders to places of interest.
> *– Stakeholder Interview*

> The Sprinter is not accessible from Shadowridge. There are no buses that pick up from the senior community, and steep hills preclude walking or biking to the Sprinter as an alternative to driving.
> *– Stakeholder Interview*

Of the stakeholders who have not ridden the Sprinter, it was identified that there are not sufficient bus connections to bring people to the Sprinter; for example, there are no district buses for the 6th through 12th grade, and it is important to have connections at end destinations to bring riders to places of interest. Another stakeholder identified that a one-way trip to San Diego took a total of three hours; driving is more convenient and takes less time.

Stakeholders expressed a mixed response regarding the feasibility of using public transportation, walking, or cycling to get to Downtown. Of the interested stakeholders, they indicated there is a need for connections to be improved. Stakeholders who were not interested in using public transportation, walking, or cycling cited that the Sprinter does not have any destination along the line that is necessary, it is not accessible, and they agreed that better connections are essential. Specifically, one interviewee noted that the Sprinter is not accessible from Shadowridge. There are no buses that pick up from the senior community, and steep hills preclude walking or biking to the Sprinter as an alternative to driving. For stakeholders with fairly short commutes, biking or walking is more convenient than taking the Sprinter. One stakeholder identified that, as a working parent, it is too difficult to coordinate public transit with the family's daily routine.

## Perceptions of Santa Fe Avenue

Stakeholders voiced that the Corridor was outdated and lacked a sense of place and a purpose, preferring more engaging and vibrant destinations and using the Corridor only as a means to get to their destinations. With poor connections to destinations, transit is not the most convenient or preferred option, and bike and pedestrian users had a low level of comfort traveling the Corridor. Stakeholders identified that South Santa Fe Avenue is not currently a pedestrian-friendly route; the Vista Village Creekwalk is more inviting. On average, interviewees indicated that they were much less comfortable walking or biking from the Sprinter station to Downtown at nighttime, as compared to daytime. The perception of the Corridor as being blighted is a challenge for South Santa Fe Avenue. The lack of marketing to meet the needs of the local community and demographics serves as an obstacle in creating a more vibrant and attractive corridor.

## General Improvements

Stakeholders demonstrated an overwhelming desire to improve the blighted conditions along South Santa Fe Avenue and develop the streetscape into a more vibrant destination that serves the needs of the community and creates an identity for the City of Vista.

The Corridor will benefit from coordinated and informative signage for all modes of transportation, including public transit, vehicles, pedestrians, and cyclists.

Stakeholders identified a need for coordinated signals and crosswalks with timed counters at traffic lights for pedestrians and cyclists (especially at Eucalyptus Avenue and South Santa Fe Avenue) in order to improve a sense of security while crossing intersections. Improvements that would make stakeholders feel more comfortable walking or biking and enhance the pedestrian experience include smooth even sidewalks, benches and seating, awnings, tree canopies, landscaping (with a preference for native plants), better drainage (at Mercantile Street, in particular), striped bicycle lanes, a pedestrian trail along the Corridor, bike racks, removal of billboards throughout the Corridor, public plazas, covered bus shelters, synchronized green lights, and off-street parking.

One stakeholder mentioned the availability of the San Diego Association of Governments' (SANDAG) programs such as the Smart Growth Incentive Program and the Active Transportation/Bicycle and Pedestrian Program that might benefit from improvements along the South Santa Fe Avenue Corridor.

Be cautious of too much on-street parking in the Santa Fe Corridor. Excessive parking suppresses development.
*– Stakeholder Interview*

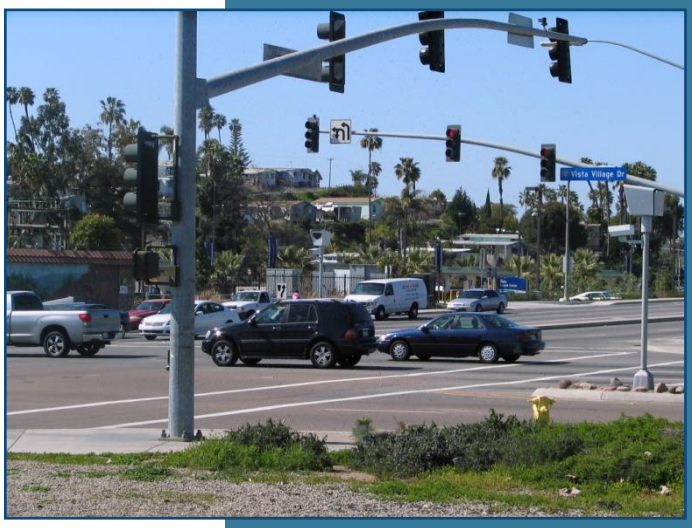
Design Guidelines should reflect Smart Growth principles and priorities for pedestrians and cyclists.
*– Stakeholder Interview*

## Land Use Improvements

Stakeholders indicated an objective to concentrate uses around transit stations to promote walking from the station. Mid-distance between stations should focus on residential, office, and resident-oriented retail and services to encourage vibrancy and a sustainable balance of uses along the Corridor and to create vibrant nodes along the extended length of the Corridor. A mix of desirable and synergistic uses along the Corridor should be established in order to spark developer interest. Stakeholders identified a need to address the city's varied demographics, including seniors, youth, working professionals, families, and minorities. A stakeholder advocating for the community's youth opined that finding a safe location for a skate park is an opportunity for improvements along South Santa Fe Avenue.

## Vehicular and Parking Improvements

Stakeholders noted that there is a lack of convenient parking along the Corridor, but an excess of parking is not preferred, as it would serve as an obstacle to creating a successful and vibrant corridor. Traffic along Vista Village Drive tends to be bumper to bumper from Highway 78, and there is a need for routes in and around the city.




Additionally, stakeholders identified a desire to resolve the unprotected left turns from Vista Village. It was noted that traffic signal synchronization is an important consideration for traffic improvements along South Santa Fe Avenue and throughout the city. Several stakeholders were interested in the opportunity to incorporate roundabouts along the Corridor to

> The courthouse parking lot can be utilized for shared parking during the weekends because it currently is almost exclusively utilized during the workweek.
> *– Stakeholder Interview*

> Bike lanes are needed to accommodate recreational and commuter cyclists. Bike routes need to be an integral and well-planned feature, rather than an afterthought.
> *– Stakeholder Interview*

> Traffic islands restrict mobility for cyclists and eliminate the space required for cyclists to travel safely. Push buttons for traffic signals need to be located so that the buttons can be accessed by cyclists on the road.
> *– Stakeholder Interview*

improve traffic flow and create a sense of identity for the South Santa Fe Avenue Corridor. Several stakeholders also expressed an interest in the reduction of traffic lanes on Melrose Drive and South Santa Fe Avenue to one lane; it is understood that traffic would be displaced, and stakeholders requested that this alternative be studied for impact and feasibility.

The courthouse in Vista draws a significant number of employees, citizens, and jurors on a daily basis Monday through Friday; however, the parking lot sits empty on the weekends. It was recognized that the parking lot can be utilized for shared parking for local festivals, overflow parking for the future Paseo Santa Fe, and other community events on the weekends. Scheduled connections on a shuttle or trolley service would be required to provide connectivity from the courthouse to the desired destinations.

## Pedestrian and Cyclist Improvements

Interviewees identified that transit stations are not currently placed at intervals conducive to walking, especially since the uses along South Santa Fe Avenue do not contribute to a pleasant pedestrian experience. Stakeholders noted that there is an overall lack of sidewalks, and the sidewalks that do exist are in poor condition and need to be wider. Only one crosswalk currently exists and it lacks a signal for pedestrian crossing. Additionally, stakeholders noted that traffic along Melrose Drive is dangerous for pedestrians, which makes walking to the transit station an unattractive option. It was stated that drivers do not watch for pedestrians at crosswalks, especially at the freeway access ramps; pedestrian improvements are desired to enhance safety. Pedestrian and cyclist paths are preferred along the Corridor; one stakeholder noted that a path would be beneficial specifically from Shadowridge to the Melrose station.

Stakeholders also expressed that South Santa Fe Avenue is hazardous for cyclists. Continuous bike lanes are lacking; specifically, there is a disconnected bike lane from Hacienda Drive to Melrose Drive. There was a consensus among stakeholders that bike lanes are needed to accommodate recreational and commuter cyclists. Bike routes need to be an integral and well-planned feature, rather than an afterthought.

Interviewees shared a desire to resolve the vehicular/cyclist conflicts created by the traffic islands along Civic Center Drive and North Santa Fe Avenue, where bike lanes are abruptly lost due to the increase in traffic lanes and the location of the islands. Traffic islands restrict mobility for cyclists and eliminate the space required for cyclists to travel safely. Maintenance of paving and infrastructure is also important for the safety of cyclists; for example, potholes should be repaired. Further, interviewees advised that push buttons on stoplights that are located on the

sidewalks are not accessible for cyclists. The push buttons need to be located so that the buttons can be accessed by cyclists on the road.

The majority of stakeholders indicated that they would be more likely to ride a bike if a separate and distinct bike trail ran alongside the Sprinter route and that it is essential to design the trail to minimize vehicular, pedestrian, and cyclist conflicts. Further, it is important to consider the trail connectivity to residences, businesses, restaurants, services, recreation, and places of employment. One stakeholder noted that the connection from Brengle Terrace Park to Wildwood Park is an important consideration. Rest stops, playground equipment, and physical connectivity to the Santa Fe Avenue Corridor are desired along the trail. Visual connectivity to the Corridor to enhance safety and to encourage attraction of customers to the Corridor is important as well. Stakeholders identified the need for the City to consider the implementation of a proposed trail on the existing maintenance road along the Sprinter route. Stakeholders also noted a desire for illustrated schematics of the plan to be prepared to entice the development of pedestrian-friendly uses along the South Santa Fe Avenue Corridor.

Stakeholders recognized an opportunity to connect a multi-use trail to the existing regional trail along the San Luis Ray River in Oceanside. Additionally, there is potential to connect to the Vista Village Creekwalk; the waterway currently makes this connection inaccessible.

## Public Transit Improvements

Stakeholders identified a need for the general public to be educated on the availability and use of public transit options. People can be attracted to riding public transit, not just by education alone, but it is essential to provide better connections between different modes of transporation and get people to experience public transit. One suggestion was to offer free passes and education on how to use transit for personal routes, from door to door. One stakeholder identified that Vista is the third largest boarding point of the 15 total Sprinter stations.

Multiple stakeholders noted that connections at the Sprinter's end destinations (outside of the City of Vista) need to be improved; for example, there are no transportation options to get to downtown Escondido when arriving by the Sprinter, and it's too far and not convenient for many people to walk. One interviewee voiced the opinion that pedi-cabs are a viable alternative to taxis or bus service. Stakeholders also noted that bus and Sprinter hours are too restrictive for the enjoyment of evening activities such as movies, restaurants, and retail. People can take public transit to their destination, but the schedule ends too early in the evening to make using public transit a practical alternative. Stakeholders shared that the business park needs a means to access the South Santa Fe Avenue and

There are a significant number of cyclists who utilize the San Luis Ray River trail in Oceanside, and it would be great to have a local connection to bring people to and from Vista. A connection from Santa Fe Avenue to the Buena Vista Creek walk is a great opportunity to connect with the pathway along Mercantile.
*– Stakeholder Interview*

The majority of stakeholders indicated that they would be more likely to ride a bike if a separate and distinct bike trail ran alongside the Sprinter route and that it is essential to design the trail to minimize vehicular, pedestrian, and cyclist conflicts.
*– Stakeholder Interview*

Vista is the third largest boarding point of the 15 total Sprinter stations. It is essential to provide better connections between different modes of transportation and get people to experience public transit. Offerfree passes and education on how to use transit for personal routes, from door to door.
*– Stakeholder Interview*

The courthouse is no longer offering passes to jurors; there is a lost opportunity for businesses along the Santa Fe Avenue corridor.
*– Stakeholder Interview*

Main Street corridors to run errands on the lunch break without concern for time. The demand is there, but it is not being served.

Approximately 1,000 people (employees/jurors/citizens) are at the courthouse on a daily basis. There is a great opportunity to make a connection for this population to the Corridor for lunch, dinner, errands, etc. Transportation to and from the courthouse was identified as time-consuming and not reliable, and coordination between modes of transportation needs to be improved. Specifically, at the Oceanside Transit Center, the Coaster train arrives as the Sprinter is departing, which requires transferring passengers to wait an additional 30 minutes for the next connection. Connection times at the City of Del Mar, San Diego's Golden Triangle area, and Downtown are not reasonable. Further, the bus for the 8:00 a.m. – 5:00 p.m. shift at the courthouse is too crowded in the morning with high school students, leaving the court employees to walk to the courthouse. Specifically, the 7:33 a.m. Sprinter is typically full. If employees/jurors do not get on this train, they will be late to work. Employees tend to drive to avoid being late to work/jury duty. The 5:00 p.m. bus from the nearest courthouse stop to the Vista Transit Center is also not reliable, and employees are often left to walk. Additionally, jurors would benefit from an announcement or sign that explains the transit schedules and routes or from a dedicated bus or shuttle to the courthouse. The courthouse is no longer offering transit passes to jurors; there is a lost opportunity for businesses along the Santa Fe Avenue Corridor. A stakeholder representing the interests of the courthouse indicated that there is a need for a shuttle service to the courthouse, especially for those that ride the Sprinter to Vista. The commute from the courthouse to the South Santa Fe Avenue Corridor should not be longer than seven minutes to allow adequate time for the commute and lunch or errands and the return commute to the courthouse.

Funding for a trolley is a significant consideration, and it will only be successful if first there is a demand for a trolley and the users already exist. The demand must come first.
*– Stakeholder Interview*

Stakeholders shared mixed opinions on the inclusion of a trolley along the South Santa Fe Avenue Corridor. Supporters of a trolley service indicated that the trolley would need to meet the user demands and be an efficient mode of transportation; offering the transportation service as a free amenity would be desirable. Stakeholders noted that the trolley could be used to bridge missed transit connections, should be comfortable and fit within the character theme of the Paseo Santa Fe Corridor, should have scheduled stops, and should cover long distances across the Corridor to allow access to places that are too far to walk such as the Rancho Buena Vista Adobe Museum, downtown loop, and community festivals. Supporters acknowledged a concern for the trolley's funding impact on the City and transportation district.

Stakeholders who did not support a trolley circulating along South Santa Fe Avenue indicated that it is essential that incentives for bringing people to the Corridor are in place before a transportation service is offered. Funding for a trolley is a significant consideration, and it will only be successful if first there is a demand for a trolley and the users already exist. The demand must come first. Further, business parking on the Corridor is currently underserved. Creating vibrancy and success in the South Santa Fe Avenue Corridor is a more pressing issue than a trolley circulating along the Corridor.

## Paseo Santa Fe Inspiration

Stakeholders identified various locations, near and far, that feature desirable elements for the future Paseo Santa Fe Corridor. These include:

1. San Diego's downtown, Little Italy, Horton Plaza, Seaport Village, and Gaslamp District
2. San Marcos' Restaurant Row and shopping
3. Carlsbad's Ocean House and downtown (particularly the downtown location at Jefferson Street)
4. Old Town Temecula
5. Laguna Beach's Pageant of the Masters, art community, and downtown
6. German Village in Columbus, Ohio (sustainable reuse project)
7. Solana Beach's landscaped beach trail
8. Escondido's Grand Avenue
9. Orange Circle in downtown Orange
10. Downtown San Luis Obispo
11. Downtown Oceanside pedestrian improvements
12. Connection of public spaces in traditional European and Asian cities

## The Future Paseo Santa Fe

Stakeholders were asked to imagine what the future Paseo Santa Fe will look like and what would make the pedestrian experience along South Santa Fe Avenue especially inviting. An overwhelming response was to provide more mixed use and interactive uses, with purposeful destinations that meet the needs of the

> Provide more mixed use and interactive uses, with purposeful destinations that meet the needs of the community.
> *– Stakeholder Interview*

Integrate and leverage theaters, coffee shops, and other local businesses and destinations that are located on streets adjacent to Paseo Santa Fe. People need to know what is in the area so that they will patronize local businesses.
*– Stakeholder Interview*

There is an opportunity to promote community events along the Sprinter line to encourage public transit ridership and bring the community together.
*– Stakeholder Interview*

Consider establishing a "Taste of Main Street" for the community to promote businesses in the Downtown and Main Street area and the use of public transit to attend the event.
*– Stakeholder Interview*

Consider locating the Vista Historic Society Museum on Paseo Santa Fe. There are so many existing artistic resources within our community.
*– Stakeholder Interview*

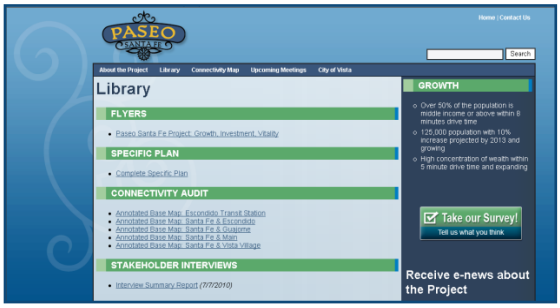
community. Stakeholders expanded on this concept by indicating that they prefer to see the elements listed below incorporated along South Santa Fe Avenue and that they would be more likely to visit the Corridor with these types of improvements.

- Residential options including live/work lofts for artists, vertical mixed use with upper-level residences, affordable housing that offers a community center (multi-family housing should be near transit, child care, medical clinics, and stores)
- Retail uses including antique stores, bookstores, movie rentals, and interesting boutique shops that meet the needs of the projected population and demographics
- Entertainment uses including arcades, movie rentals, and the integration of the existing movie theaters to the South Santa Fe Avenue Corridor
- Recreational elements such as pocket parks, landscaped areas, gazebos, and interactive public spaces — these areas can serve as desirable places for cyclists and pedestrians to rest
- Commercial destinations including cafés, restaurants, outdoor dining, coffee and smoothie shops, core businesses to anchor the Corridor, and businesses to serve the senior population
- Integrate and leverage theaters, coffee shops, and other local businesses and destinations that are located on adjacent streets
- Community events such as the Farmers Market, "Taste of Main Street," free public outdoor concerts, and Art Traxx, an annual community event featuring art along the Sprinter rail line
- Promotion of concerts at the Moonlight Amphitheatre and other arts and culture in the City of Vista
- Promotion of the annual Strawberry Festival, which has ambition to create a signature multi-day athletic event that draws people from outside the local community
- Hotels and lodging that are accessible to the South Santa Fe Avenue Corridor to support Vista businesses and community events
- Cultural destinations such as art galleries and museums — consider locating the Vista Historic Society Museum on Paseo Santa Fe

- Professional office space including small working studios for art and music professionals
- Vibrant and interactive street scene that is unique to Vista and will attract customers to local businesses
- Pedestrian-friendly environment with an enhanced streetscape that incorporates landscaping, underground utilities, street furniture, gateway signage, and desirable places to stop to rest, eat, shop, and socialize for pedestrians and cyclists
- Architectural character that is desirable and creates an identity for Vista and is enhanced by varied texture in building and landscape materials, enhanced landscaping, aesthetic lighting fixtures, window boxes on buildings along streetscape, shaded areas, awnings, fountains, public art, street furniture, and murals
- Inclusion of the kite art theme (that is currently along the creekwalk) along the Sprinter line
- Infrastructure improvements including roundabouts at major intersections (in place of traffic signals), wide sidewalks, multi-use trail for pedestrians and cyclists, minimized cement and enhanced landscape areas, reduced traffic lanes with a low speed limit through the Corridor and synchronized traffic signals, convenient parking, diagonal parking, and new development

## Paseo Santa Fe Electronic Survey

A Paseo Santa Fe project website was established which featured an online survey that allowed public input to be tabulated. An email was send to over 16,000 email addresses in Vista that provided instruction on responding to the project survey.




Three hundred and thirty-two (332) Vista residents participated in the online survey regarding the Paseo Santa Fe project. Although the participants were self-selected as opposed to randomly selected as in a telephone poll, the size of the sample, the consistency of responses, and the demographic variables give the City an excellent view of its residents' opinions and ideas regarding the project.

Landscaping, seating areas, restaurants, and shopping are desired. Establish a sense of center – a lot more trees, a sense of procession. Need visual focal points.
*- Electronic Survey Respondent*

Santa Fe Avenue is not appealing to the eye at all. There are many old buildings. I would remodel and update the whole street.
*- Electronic Survey Respondent*

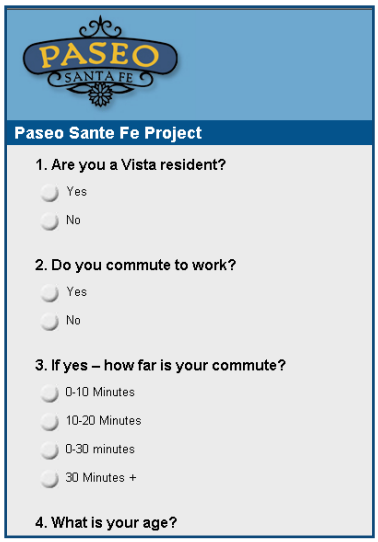
I would like to see Vista complete its part of the bike trail along the railroad. I would like to see more artists and professionals in the area.
*- Electronic Survey Respondent*

A more elegant and uniform appearance would be nice.
*- Electronic Survey Respondent*

More than half of respondents, 53%, were unaware of the City's plans to improve the area; however, despite that percentage, the vast majority of respondents were consistent in identifying the challenges and opportunities in the area.

An overwhelming majority of people said they preferred using their personal vehicles to drive to the Corridor, citing inconvenience and schedule as the two largest barriers to using public transportation (77.9% and 33.7%, respectively). Several expressed concerns regarding safety ,which was echoed in other comments about the Corridor as a whole. Residents clearly expressed a desire for better parking, lighting, and access to the area.

Existing infrastructure drew criticism, with 84% of respondents describing sidewalks as fair or poor; 83.7% describing parking as fair or poor; and 79% describing crosswalks as fair or poor. Residents felt that upgrading, enhancing, and beautifying the area should be a priority.




Most people are looking for more options for dining and shopping and the development of a more safe, pedestrian-friendly corridor appropriate for families during daytime hours, but well suited to a lively adult-oriented district in the evening.

The results of the survey and the comments received support a re-imaging of Paseo Santa Fe as a vibrant, pedestrian-friendly district populated by unique shops, eclectic dining options, live music, art, and parks, with a combination of landscaped walkways, bike trails, and amenities. Residents are seeking a place to stroll, play with their kids, walk their dogs, and share a sense of community in a safe environment.

# Chapter V: Assessment of Existing Physical Connectivity-Walkability

In order to improve connectivity along Paseo Santa Fe (South Santa Fe Avenue), numerous improvements are needed. Most of the improvements are related to public infrastructure. Improvements to roadways, sidewalks, bike trails, transit stops, and signage (wayfinding) are all invoked as appropriate circulation improvements to improve connectivity in this area.

There is an existing legacy of planning to improve the economic, social, environmental, and urban design aspects of South Santa Fe Avenue. The project area was part of a comprehensive planning effort entitled the Downtown Vista Specific Plan. This plan encompassed a greater geographic scope than this study, yet much of what is recommended for South Santa Fe Avenue is relevant today. The Downtown Vista Specific Plan articulated certain specific physical design improvements to South Santa Fe Avenue, which are further endorsed by this planning effort to improve area connectivity.

The Downtown Vista Specific Plan articulated certain specific physical design improvements to South Santa Fe Avenue, which are further endorsed by this planning effort to improve area connectivity.

## Recommendations

The following are the primary recommendations to improve connectivity along Paseo Santa Fe.

### Major Recommendation #1 – Lane Reduction to South Santa Fe Avenue

The most significant suggested design modification to South Santa Fe Avenue is to reduce the total number of travel lanes from four to two. This act alone will be one of the most powerful design changes to connectivity in the area. Reducing the number of lanes produces a series of ripple effects in the improvement of connectivity. Slower traffic, safer pedestrian crossings, and wider sidewalks are just a few of the many benefits brought about by reducing the number of travel lanes.

Reducing the total number of traffic lanes will be one of the most powerful design changes to connectivity in the area. Some benefits include slower traffic, safer pedestrian crossings, and wider sidewalks.

### Major Recommendation #2 – Street Intersection Upgrades

The installation of several pedestrian safety elements at every intersection will vastly improve walkability in the area. These recommendations were discussed in Chapter 2 of this study. Elements such as enhanced crosswalk paving, pedestrian-activated signals, pedestrian refuge islands, curb ramps, pedestrian areas, and bulbouts all improve area-wide walkability and connectivity.

## Major Recommendation #3 – Sidewalk Improvements

On Paseo Santa Fe, sidewalks should be widened to 10 feet. The sidewalks should contain street trees and a smooth uninterrupted surface and should not be sloped/pitched to accommodate driveways to the extent possible. Landscaping separating the street from the sidewalk should be 5 feet wide. There are benefits to putting driveway cross-slopes in the landscape area rather than across the sidewalk.

## Major Recommendation #4 – Pedestrian Amenities

On Paseo Santa Fe, a full complement of pedestrian amenities should be implemented. These amenities are commonly called streetscape furniture and may contain elements such as pedestrian-scaled streetlights, benches, tree plantings, enhanced paving, bike racks, newspaper racks, trash receptacles, and public art. Inclusion of these elements along a sidewalk goes a long way in improving the comfort of walking, thus enhancing overall connectivity.

## Major Recommendation #5 – On-Street Parking

Incorporating on-street parking will have a profound impact on pedestrian impressions of safety.

Perhaps no other change will have a greater impact on pedestrian impressions of safety than reintroducing on-street parking against every curb in the Paseo Santa Fe area. We have already documented how this is possible; given current volumes, travel lanes converted to parking lanes will not be missed. Once the number of lanes is right-sized, the remaining width of South Santa Fe Avenue should be absorbed by parking. In some cases, this change will require that one or both sides of the street receive angle parking.

## Major Recommendation #6 – Trolley

As a long-range goal, the City of Vista should study and consider the implementation of a small, energy-efficient trolley that can circumnavigate the Paseo Santa Fe project area and beyond. At this time, the need for the trolley is limited. As the area redevelops, the idea should be revisited.

## Major Recommendation #7 – Build Public Parking Lots

One larger, central site should be acquired by the City of Vista in order to construct a small to medium-sized parking structure.

As a long-range goal, the City of Vista should be actively gaining control of key sites within the Paseo Santa Fe project area. One larger, central site should be acquired in order to construct a small to medium-sized parking structure. The structure will permit more sidewalk-adjacent storefronts to be built, increasing the quality of the built environment and the “enclosure” from buildings that is a highly sought-after pedestrian element in improving walkability.

Smaller lots should be acquired every two to three blocks so that walking distances are kept manageable for people arriving by vehicle.

## Major Recommendation #8 – Branding and Publicity

In order for Paseo Santa Fe to be truly connected to the city and to the region, a significant effort should be placed on branding the area and developing the right message for the area. A new, user-friendly website should be developed to promote Paseo Santa Fe.

A significant effort should be placed on branding the area and developing the right message for the area.

## Major Recommendation #9 – Enhance Bicycle Facilities

There are plans for a regional bike trail through the project area. The trail will be located primarily along the rail right-of-way. Plans for the trail should be completed and the trail constructed when funding becomes available.

While the Specific Plan permits mixed-use development in the project area, Paseo Santa Fe connectivity would be enhanced if more mixed use were developed along South Santa Fe Avenue. The Redevelopment Agency and the City Planning Department should jointly develop financial and regulatory incentives to see mixed-use development occur at a faster rate than market-rate housing in the area.

The Redevelopment Agency and the City Planning Department should jointly develop financial and regulatory incentives to see mixed-use development occur at a faster rate than market-rate housing in the area.

# APPENDIX A – PASEO SANTA FE CONNECTIVITY CHECKLIST

# Paseo Santa Fe Connectivity Checklist

**Name:** mark brodeur **Date:** March 24, 2010

**Segment Description:** Santa Fe Avenue and Vista Village Way

**Weather:** Sunny. Cool. Clear. **Time of Day:** 9:55am

## A. SEGMENT TYPE

**1. Segment Type**
- a. Low Volume Roadway ☐
- b. High Volume Road ☒
- c. Transit Station ☒
- d. Bike or Pedestrian Path/Trail ☐

**Other Comments** Intersections complicated by railroad crossing and second "close" intersection.

## B. ENVIRONMENT

**2. Land Uses in Segment**
- a. Housing, Single Family Detached ☐
- b. Commercial Corridor ☒
- c. Business Park ☐
- d. Vacant/Undeveloped ☒

**3. Slope**
- a. Flat ☒
- b. Slight Hill ☐
- c. Steep Hill ☐

**4. Segment Intersections**
- a. 3-Way Intersection No Signalization ☐
- b. 3-Way Intersection Signalized ☒
- c. 4-Way Intersection No Signalization ☐
- d. 4-Way Intersection Signalized ☒
- e. Dead-End ☐
- f. No Intersections ☐

**5. How Many Roadway Intersections**
- a. One ☐
- b. Two ☒
- c. Three or more ☐

**Other Comments**

## C. PEDESTRIAN SEGMENT (sidewalk/path/trail)

**6. Type of Pedestrian Segment**
- a. Sidewalk, Public, Curb Adjacent ☒
- b. On street Shoulder ☐
- c. Intersection Crosswalks ☒
- d. Sidewalk, Facility, Not Curb Adjacent ☐
- e. Paved Trail ☐

**7. Segment Material**
- a. Concrete ☒
- b. Asphalt ☐
- c. Other ☒

**8. Segment Condition**
- a. Good (very few bumps, cracks, holes) ☒
- b. Fair (some bumps, cracks, holes) ☐
- c. Poor (many bumps, cracks, holes) ☐

**9. Segment Obstacles**
- a. Poles, Signs, ☒
- b. Parked Cars ☐
- c. Landscaping ☐
- d. Rail Crossing ☒
- e. Driveways/curb cuts/intersecting streets ☐
- f. Median ☐
- g. Other ☐

**10. Segment Completeness/Continuity**
- a. Sidewalk is complete network ☒
- b. Segments of sidewalk Missing ☐
- c. Sidewalk is very incomplete ☐

**11. Connectivity with Other Sidewalks/Trails/Paths**
- a. Many Connections (over 4) ☐
- b. Some Connections (2-3) ☒
- c. Minimal Connections (0-1) ☐

**Other Comments**

## D. ROADWAY ATTRIBUTES

**12. Condition of Road**
- a. Good ☒
- b. Fair ☐
- c. Poor ☐

**13. Number of Lanes**
- a. Minimum Number of Lanes To Cross 5 ☐
- b. Maximum Number of Lanes To Cross 7 ☐

**14. Posted Speed Limit**
- a. None ☐
- b. (MPH) 35/40 ☐

**15. On-Street Parking**
- a. Yes ☐
- b. No ☒

**16. Must You Walk Through a Parking Lot to get to most buildings?**
- a. Yes ☐
- b. No ☒

**17. Traffic Control Devices**
- a. Traffic Light ☒
- b. Stop Signs ☐
- c. Traffic Circle ☐
- d. Speed Humps ☐

**18. Crosswalks**
- a. 4 at each intersection ☒
- b. 2 at each intersection ☐
- c. One ☐
- d. None ☐

**19. Crossing Aids**
- a. Button Activated Pedestrian Crossing ☒
- b. Walk (hand) signal that flashes as walk time ending ☐
- c. Audible crossing signal ☐
- d. "Time Left" countdown signal ☐
- e. Median Traffic Island ☐
- f. Overpass/Underpass ☐
- g. Curb Extensions ☐

**20. Bicycle Facilities**
- a. Bike Route Signs ☒
- b. Striped Bike Lane Designation ☐
- c. Bike Lane/Route Signs ☐
- d. Visible Bike Parking Facilities ☐
- e. Bike Crossing Warning ☐
- f. No Apparent Bike Facilities ☐

**21. Crosswalk Length**
- a. Two Lanes of Traffic without Parking ☐
- b. Two Lanes of Traffic with Parking ☐
- c. Four Lanes of Traffic without Parking ☐
- d. Four Lanes of Traffic with Parking ☐
- e. More ☒
- f. Less ☐

**22. Crosswalk Time To Cross**
- a. 15 Seconds ☐
- b. 20 Seconds ☒ 26
- c. 30 or more Seconds ☐

**23. Time for Next Crosswalk Opportunity**
- a. One Minute ☒ 1:18
- b. Two Minutes ☐
- c. 3 Minutes ☐
- d. 4 Minutes ☐
- e. Longer than 4 minutes ☐

**24. ADA Compliant Ramps to Crosswalk**
- a. Sloped Concrete with Pattern ☒
- b. Yellow dots, contrasting color ☐
- c. No ADA compliance ☐

**Other Comments**

## E. WALKING/CYCLING ENVIRONMENT

**25. Roadway Lighting**
- a. Road-Oriented Lighting ☒
- b. Pedestrian-Scaled Lighting ☐
- c. Other Lighting ☐
- d. No Lighting ☐

**26. Amenities (all that apply)**
- a. Trash Receptacles ☐
- b. Benches ☐
- c. Water Fountain ☐
- d. Street/Vending Machines ☐
- e. Shade/weather protection structure(s) ☐
- f. No Amenities ☒

**27. Wayfinding**
- a. Public Street Names Signs ☒
- b. Public Parking Signs ☐
- c. Pedestrian/cycling directional Signs ☐
- d. Bike Route Signs ☒
- e. No Signs ☐

**28. Street Trees**
- a. Shade Trees over walking cycling route ☐
- b. Few Trees of any kind ☐
- c. No trees ☒

**29. Degree of Building/Structure Enclosure**
- a. Little to No Enclosure ☒
- b. Some Limited Enclosure ☐
- c. Highly Enclosed ☐

**30. Overhead Powerlines**
- a. High Voltage Wires Overhead ☐
- b. Low Voltage Wires Overhead ☐
- c. No Wires ☒



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# Paseo Santa Fe Connectivity Checklist

**Name:**_____ **Date:**_____

**Segment Description:** _____

**Weather:**_____ **Time of Day:**_____

**31. Building Setbacks from Sidewalk**
- a. At Edge of Sidewalk ☐
- b. Within 20 feet of Sidewalk ☐
- c. More than 20 Feet From Sidewalk ☐
- d. No Building ☒

**32. Building Height**
- a. One to Two Story Building ☐
- b. Three to Four Story Building ☐
- c. Over Four Story Building ☐
- d. No Building. ☒

**33. Bus Stops**
- a. Bus Stops with Shelter ☐
- b. Bus Stops with Bench ☐
- c. Bus Stop with Signage Only ☒
- d. No Bus Stops ☐

**34. Was it Easy to Cross Streets?**
- a. Yes ☒
- b. Somewhat ☐
- c. Not At All ☐

**35. Was the Walk Pleasant?**
- a. Yes ☐
- b. Somewhat ☐
- c. No ☒

**36. Did you feel safe?**
- a. Yes ☒
- b. Somewhat ☐
- c. No ☐

**Other Comments**_____
_____
_____

## F. TRANSIT ENVIRONMENT

**37. Comprehension**
- a. I understood how to catch the train and ride it to my destination ☒
- b. It took me a while to understand the train schedule/destinations ☐
- c. I had to ask for help. ☐

**38. Comfort**
- a. The train was comfortable and clean ☒
- b. The train was somewhat comfortable and clean ☐
- c. The train was very uncomfortable. ☐
- d. I felt unsafe on the train. ☐

**39. Convenience**
- a. The train was super convenient to my travel ☐
- b. The train was somewhat inconvenient ☒
- c. I will take my car next time. ☐

**40. Cost**
- a. The cost of the train is low. ☒
- b. The cost of the train is somewhat pricey. ☐
- c. The train is too expensive to ride on a regular basis. ☐

**41. Station Location**
- a. The train station location is excellent ☐
- b. The Train station location is somewhat troublesome ☒
- c. The Train station location is horrible to access ☐
- d. The Train station location is unsafe and needs police surveillance ☐

**42. Facilities (all that apply)**
- a. The Transit Station needs public restrooms ☒
- b. The Transit Station needs more parking ☐
- c. The Transit Station needs vending machines and telephones ☒
- d. The Transit Station needs better all weather shelter. ☐
- e. The Transit Center needs signs to show you where things are. ☒

**43. Is the nearest crossing opportunity free of pedestrian hazards**
- a. Yes, the design is very good ☐
- b. The nearest crossing could be designed better ☒
- c. The nearest crossing is not very pedestrian friendly ☐
- d. The nearest crossing is poorly designed and dangerous. ☐

**Other Comments**_____
_____
_____



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# APPENDIX B – STAKEHOLDER INTERVIEW SUMMARY

# MEMO

**To:** Bill Crane, Management Analyst
**CITY OF VISTA, CA**
600 Eucalyptus Avenue
Vista, CA 92084

**From:** Mark Brodeur, Project Manager

Loreli Cappel, Project Team

**Date:** June 7, 2010

**Re:** Paseo Santa Fe Corridor Study – Stakeholder Interview Summary

The purpose of this document is to provide the City of Vista with information which was obtained through a series of stakeholder interviews conducted by PMC from May 4 though May 31, 2010.

## STAKEHOLDER INTERVIEWS

Stakeholder Interviews are a valuable public outreach tool that allow vested community members or affected parties to voice their opinions on issues and provide input in an intimate and confidential setting. PMC worked with City staff to develop a list of valuable Stakeholders that would be beneficial to interview about their experience using the Santa Fe Avenue corridor. The City responded with a list of 24 stakeholders that covered a wide representation of interests that were extremely knowledgeable and provided a wealth of insight to the corridor's strengths and weaknesses. Interviewees included individuals that were long-time residents, business owners, bicycle enthusiasts, transit users, outside agencies, advisory committee members for related or concurrent projects, youth, seniors, minorities, religious leaders, and public safety representatives who are all somehow connected to Santa Fe Avenue.

Stakeholders were asked a series of questions related to their impressions of Santa Fe Avenue today and improvements to resolve issues for the Paseo Santa Fe of the future. Included in these questions were modes of transportation, user patterns, visual preferences and ideas for improvement.

In general, stakeholders were mostly residents who have lived in Vista and used Santa Fe Avenue for anywhere from 5-30 years. Stakeholders voiced that the corridor was outdated and lacked a sense of place and a purpose, preferring more engaging and vibrant destinations and using the corridor only as a means to get to their destinations. With poor connections to destinations, transit is not the most convenient or preferred option and bike and pedestrian users had a low level of comfort traveling the corridor. A detailed account of responses to Stakeholder questions follows.

Note: duplicative answers are indicated in parenthesis (X)

1. *Are you a Vista resident, and if so, for how long?*

   **Vista Residents** (average residency: 26 years)

   20 yrs; 30 yrs; 4 yrs; 40 yrs; 39 yrs; 54 yrs (Live ½ time in Vista and ½ time in San Diego); 10 yrs; 15 yrs; 21 yrs

   **Non-Residents**

   - Work in Vista– commute from Murrieta
   - Work in Vista– commute from Temecula
   - (2) No, just visit for work, if and when necessary
   - Courthouse employees
     - Approximately 65% from Vista/San Marcos
     - Approximately 10-15% from Temecula
     - Approximately 10% from communities south of Vista

2. *How often to you travel Santa Fe Avenue?*

   **Daily**

   - (3) Resident; for personal and business purposes

   **Weekly**

   - Resident; At least 2x/week for personal purposes
   - Resident; At least 2x/week for personal purposes and business commute purposes
   - Resident; For personal purposes

   **Monthly**

   - Non-resident; For business purposes, occasionally for personal reasons

   **Seldom**

   - Resident; Rides bike along coast, not really along the Santa Fe corridor
   - Non-resident; For business purposes, approximately 6-12 times per year

   **Never**

   - Resident; Not on the route for typical destinations

3. *If and when you use it, where are you traveling to and from?* (draw on map)
   - From Escondido Ave to Vista Village – to drop off kids at Sprinter for their commute to high school
   - (3) To run errands
     - Library
     - Hannah's Plumbing
     - Lawnmower shop
     - bank
     - pharmacy
     - post office
     - lumber
     - auto parts store
   - (3) To work or for business meetings
   - Through corridor to:
     - Vista Village (theatres)
     - shopping at Vista Farms
     - Highway 76
     - Shadow Ridge
   - Recreational rides along corridor to get to the coast

- Business meetings at City Hall
- Business meetings at Sprinter Station (transit related)

4. *If and when you use it, what mode of transport do you use*?(circle one) **auto / bus / Sprinter/ bike / walk**
   - (4) Auto
     - One resident's child uses the Breeze/Sprinter daily to travel to college in Oceanside, but resident exclusively uses auto to commute to work/errands
   - Mostly Auto, but sometimes bike to work
   - Mostly auto, but sometimes walk
   - Bike, recreational
   - Bus/Sprinter

5. *Give or provide your overall impressions of Santa Fe Avenue and list some key words would you use to describe the corridor.*
   - (7) Run down/outdated
   - (5) Purpose-less, no destination
   - (3) Uninviting
   - (3) Good potential/framework for Crowded, short-cut
   - (2) Safety issues Noisy
   - (2) Not conducive to cyclists, needs bike lanes
   - (2) Crime
   - Organic/not planned
   - Clean sidewalks, not as bad as expected
   - Small businesses
   - future transit oriented development
   - Good street grid
   - Not currently serving transit stations effectively
   - Dirty
   - Ugly
   - Overlooked/forgotten

6. *What connectivity challenges/barriers do you perceive along the corridor? (from any mode of transport)*

**General**

- (5) Not a destination – just for services, no draw, need a purpose, obsolete uses
  - Services need to meet the needs of corridor users
  - Marketing not geared to target the Latino base – there are a lot of opportunities for stay at home moms without cars in walking distance
- (3) The corridor is fighting the perception of blight, even if there is a good business
- Language barrier at businesses
- Infrastructure/Landscaping must be improved

**Vehicular & Parking**

- Lack of convenient parking
  - Need parking that adequately meets needs of development
  - Don't have excessive parking, it won't allow for a successful/vibrant corridor
- Traffic
  - Need routes in and around the city
  - Main Street is bumper to bumper from 78

**Pedestrian/Cyclist Improvements & Trails**

- (3) Santa Fe Avenue is hazardous for cyclists
    - Lack of continuous bike lines
    - Disconnected bike lane from Hacienda to Melrose
- Lack of sidewalks
    - Where sidewalks do exist they are in poor condition
- Walking between the two stations is too far
- Only one crossing with no signal across Santa Fe Avenue
- Traffic is dangerous on Melrose, making it difficult to walk to the transit station
- Cars don't watch for pedestrians at crosswalks, especially at freeway on/off ramps. Need pedestrian improvements to enhance safety.
- Need safe/separate walking paths
- Need safe/separate bike paths
- Need bike/walking path from Shadow Ridge down Melrose to station, Melrose has heavy traffic and is dangerous

**Public Transit**

- Need lane width for busses
- (2) Poor multi-modal connections (rail/bus)/not reliable
- (2) Transportation to/from court is time consuming/not reliable
    - Coaster arrives as Sprinter is leaving, there is no way to make the connection and the next connection is 30 minutes later. Need to improve coordination.
    - Connection times at Del Mar, Golden Triangle, and downtown are not reasonable.
    - Two hours from RB to Vista by bus/Sprinter
    - Easy connections near the I-15 would ease traffic. Current transit connects doesn't allow for to get to work on time.
- The bus for the 8-5 shift at courthouse is too crowded in the morning with high school kids, court employees are left to walk to the courthouse
- 5 PM bus from the Islands to the Transit Center is not reliable/employees are left to walk
- There is no announcement to explain transit schedule/routes to jurors. Too confusing.
- Jurors would like to use a dedicated bus or van to the court

7. *Have you seen elements you've liked in other cities that are lacking here?*

**Example Destinations**

- (2) Little Italy
- (3) San Marcos
    - (2) Restaurant Row
    - Shopping
- (2) Downtown Carlsbad
    - Downtown @ Jefferson
    - Ocean House
- Downtown Temecula
- Downtown Laguna Beach
    - Pageant of the Masters
    - Art community
- Gas Lamp District - small scale version

- Horton Plaza
- Seaport Village
- German Village (near High St. in Columbus OH) – good example of clever/sustainable reuse project
    - Bookstore, gift shops, card/jewelry shops
- Solana Beach trail (landscaping)
- Escondido/Grand Avenue
- Orange Circle in Downtown Orange
- Downtown San Luis Obispo
- Downtown Oceanside
    - The Wave – pedestrian improvements
- Downtown San Diego
    - Wide sidewalks
- Traditional European or Asian cities
    - Connection of public spaces, as in Granada, Spain

**Desirable Elements**

- (3) Need destinations
- (3) Roundabouts (remove signalization at major intersections)
- Pedestrian friendly
    - minimize traffic lanes
    - outdoor dining /curbside café
- Bring core businesses, such as a bookstore, coffee shops, café seating
- Underground utilities
- Places to stop/turn around/ eat/rest for cyclists
- Landscaping
- Gateway signage
- Diagonal parking

8. *Imagine for a moment what PASEO SANTA FE will look like (describe future Paseo vision). What would make walking along Santa Fe Avenue especially inviting?*

- (8) More mixed use/interactive uses – "useful uses/destinations"
    - (2) Vertical mixed use - upper level residential
    - (2) Hotels/Lodging needed in Vista, accessible to Santa Fe corridor to support Vista business and community events. Lodging should be located at core destinations
    - (2) Need interesting boutique shops (that meet needs of projected population/demographics)
    - Café's/coffee/smoothie shops
    - Outdoor dining
    - Book stores
    - Restaurants
    - Art galleries
    - Museums
    - Antique stores
    - Live/work lofts for artists
    - Small working studios (art, music, other)
    - Bring in core/anchor businesses
    - More Senior serving uses – currently vital atmospheres cater to youth population
    - Important to create interactive environment in front of stores/restaurants to promote local

businesses
    - Arcades
    - Movie rentals
    - Affordable housing needs: community center, multi-family housing near transit, child care, grocery, hardware store, clinic, etc.
    - Upscale community needs: boutiques, restaurants, artisan lofts, etc
- Desirable architectural character and streetscape,
    - Make sure it has character and creates an appropriate identity for Vista, consider an arts theme to highlight Vista's art/theatre
    - Should be a unique experience, identifying Vista as a destination
- Infrastructure Improvements
    - (3)Roundabouts
    - (2) Widened sidewalks
    - (2) Reduced traffic lanes
    - Convenient parking
    - Convenient utilities
    - All new development
- Low speed limit within corridor
- Smooth traffic flow, synchronized green lights
- (3) Outdoor seating/gathering places
    - Events
    - Farmer's markets
    - Lunch time or evening concerts/live music
- Landscaping/fountains/sculpture/art
- Art
    - Continue art theme of kites (currently along creek walk) along the Sprinter line
    - Murals – artists can create mural for free in blighted areas
- Use features/art/improvements or building form to integrating theatres/uses off Santa Fe
- (2) Recreational Elements
    - Pocket parks/grassy tree areas/gazebos
- Turnaround point for cyclists (place to stop/rest/eat/use restrooms)

9. *Would you be more likely to walk around the newly improved Paseo Santa Fe (new future district) if a series of pedestrian and landscape improvements were made? Why or Why not?*
    - (6) Yes
    - Need:
        - (4) Minimize cement, add landscaping (including window boxes)
        - (2) shade/refuge/awnings
        - (2) character, attractive streetscape, architectural detail, texture
        - Lighting
        - Seating
        - Window shopping opportunities
        - Pleasant/pedestrian-friendly, wide, multi-use trail or sidewalk

10. *Would a trolley circulating through the entire Paseo District make you more likely to shop, live, work in the area? What if it were free?*
    **Yes**

- (6) Yes!!!
    - Need to bridge missed transit connections
    - Trolley should be comfortable and fit within the theme of the Paseo Santa Fe corridor, not just a bus
    - Should cover long distance across the corridor with scheduled stops
    - Trolley would need to go places that are too far to walk, such as Adobe museum, downtown loop, festivals, etc.
    - Depends on timing of route, needs to meet user demands and be efficient
    - Absolutely, a great idea. Free is good!!! Would be better than $30-60 for bus pass.
    - Doesn't matter if it's free or not, it's a good idea.
- Yes, there is a need to connect to Sycamore
- (2) Yes, but funding for the transportation system is a significant concern (not the ridership fare, but cost to the City/transportation district)
- Great for promoting use of entire corridor, as it is a long distance between the stations. Uses should be planned/grouped/spread out carefully throughout the corridor to promote vibrancy.

**No**

- No, Trolley is not a concern

**General**

- It is essential that there are incentives for bringing people to the corridor. Funding for a trolley is a significant consideration and it will only be successful if first there is a demand for a trolley and the users already exist. The demand must come first.
- Business parking and town site is underserved, this is a more pressing issue than a trolley circulating the Santa Fe corridor.

11. *Would you ride your bike more if a separate and distinct bike trail ran alongside the Sprinter route?*

**Yes**

- (2) It would help
- (2) This is a great plan. Important to minimize the pedestrian/cyclist interaction/conflict
- (2) Route must be separated from vehicular traffic, cycling is too dangerous on street
- Yes, some local employees would use it if it were convenient to their place of employment
- Yes, resident is a proponent of recreational opportunities within the city, safety is first concern

**No**

- No, the context is not conducive to cycling

**Important Considerations**

- Important to consider how the trail connects to businesses/restaurants/services along the route. For example, if businesses are separated from the trail by the Sprinter line or other barrier and people have to ride extended distances, cross the Sprinter line and retrace their route to reach their destination, it is unlikely they will use the route regularly.
- Important to have access (visual and physical) to businesses/restaurants/services from trail to promote local economy.
- Important to provide rest stops/places for seating along trail for pedestrians/cyclists
- Area needs to remain as an easement, no built structures permitted
- Constraint: the bike path must be on the maintenance road, because a minimum 15'
- Connection from Brengle Park to Wildwood is important consideration
- Implementation:
    a. Temporary Bike Trail on maintenance road: 5- 10 years, will return to maintenance road
    b. Permanent Bike Trail behind development: 5 - 20 years, connects to

businesses/restaurants/services at rear of building (there should be guidelines for 4-sided architecture, to ensure an enhanced streetscape along trail as well as along Santa Fe Avenue).

c. Prepare graphics (cross sections, 3D models, plans/sketches)of what permanent trail will look like to market/entice developers
   i. Nodes with stopping points/amenities
   ii. Playground equipment
   iii. Open view from Vista Village to Station

12. *Where do you currently take visitors from out of town to eat when you want to impress them a bit? What is that area like? Is it a pedestrian area (like a downtown) or shopping center type venue?*

**Restaurants**

- Hennessy's
- Yellow House
- (2) Famous Dave's
- Urban Pizza
- Vista is currently missing a good steak and fish place – would be great to include in this corridor
- (2) Restaurant Row in San Marcos
- Ocean House in Carlsbad
- Polly's Pie Shop
- Chilies
- John's Grill on East Vista Way
- La Paloma
- Panera at Vista Village
- Ciao
- Curbside Café
- (2)Vista Village
- Downtown Vista
- Casa Linda (owned by Councilman Lopez)

**Shopping**

- not too many shopping options in Vista
- JCPenny
- Wal-Mart
- Sears
- Bonworth @ Viejas

**Other Destinations/Attractions**

- Carlsbad
- Temecula
- Outdoor areas/parks
- (3) Moonlight Amphitheatre
- Theatre in downtown Vista
- San Marcos Theatre
- Antique stores
- Gas/Steam Engine Museum
- Water park
- Alta Vista Gardens @ Brengle Terrace Park
- Senior Center
- New Civic Center
- Parks at Shadow Ridge - Walk/hike/bike/golf
- UC San Marcos

13. *Have you ever ridden the Sprinter? Why/Why not? If so, what station did you use....Vista Village or Escondido Stations?*

**Yes**

- Yes. Mostly drops off kids at Vista Village Station to ride to high school in Escondido
- Yes, every six weeks to inspect the graffiti along the line and report for clean up.
- Yes, Escondido Station to Vista Village to the bus… timing is a challenge, so Sprinter is not used

regularly.

- Only once using a free pass, there are no busses that pick up from the senior community and there are steep hills, so walking to get to the Sprinter is not an option.
- Only once, the total commute to final destination in San Diego (Sprinter/Coaster/Trolley) took a total of three hours. Too long, it was faster to drive.
- Only once, not sufficient connections to downtown Escondido on that trip. Connections are essential to making the transit accessible and desirable.

**No**

- No, there are not sufficient bus connections to bring people to the Sprinter
- No, but many people take it to Church, arriving at the Vista Village Station
- No, no reason to ride the Sprinter, resident tends to ride the bus. There are no district busses for 6th grade through 12th grade.
- No, it doesn't go to Encinitas. May ride it to Oceanside in the future. Freeway is much more convenient. The Sprinter doesn't go where resident needs to go and there are no connections at end destination.

14. *If you live/work in Vista, would it be feasible for you to use public transportation, walk, or bike to get to Downtown? How or why not?*

**Yes**

- Potential to commute back and forth to San Diego
- Yes, if connections were improved.
- Yes, biking is a daily option for work commute (as an alternative to driving)
- Yes, public transit (except Sprinter), walk and bike
- 60% of courthouse employees surveyed would use public transit

**No**

- No, the Sprinter doesn't have any destination along the line that is necessary, it's not accessible and we need better connections. Educating the public on transit is not enough.
- No, commute to work is only two miles, doesn't make sense to use transit. Driving or biking is more appropriate.
- Not very feasible or efficient. As a working mom it's too difficult to coordinate with daily routine.
- No, not accessible from Shadow Ridge.

15. *On a scale of 1-10 (10 being extremely comfortable), based on current conditions, how comfortable would or do you feel:*
    a. Walking from the Sprinter Station to Downtown?
    b. Bicycling from the Sprinter Station to Downtown?
    c. Crossing Santa Fe Avenue?

- Santa Fe Avenue is not a pedestrian route as it currently exists, the Vista Village river walk is more inviting
- On average, interviewees indicated that they were much less comfortable walking or biking from the Sprinter Station to Downtown at night time, as compared to the day time.

16. *What infrastructure improvements would make you feel more comfortable walking, biking and crossing?*

- (4) Benches/seating
- (3) Signals at crossings/Improved coordination of signals for pedestrians and vehicles

    a. Timers/counters at traffic lights for pedestrians/cyclists (especially @ Eucalyptus & Santa Fe)
- (2) Awnings/shade
- Better drainage (Merchant Street, in particular)
- (2) Striped cycling lanes
- Trail along corridor
- Bike racks
- Remove the billboards from corridor
- Plazas
- Covered bus shelters
- Landscaping/native plants
- Synchronized green lights (pretty good right now, make sure it continues)
- Off-street parking
- Smooth, even sidewalks (of particular concern to the senior population for safety and accessibility reasons)

17. *Do you have any additional suggestions for improving connectivity along, to or from the corridor?*

**General**

- Improve blighted conditions, improve streetscape
- Landscaping is important
- (3) Corridor needs good signage for vehicles/pedestrians/cyclists
- Promote Art Traxx event along Sprinter line to encourage ridership and bring community together
- Paseos/connected public places are important
- (3) Good signage is required for vehicles when you get off the freeway, at public transit stations, and for pedestrians along the corridor.
- Consider SANDAG programs:
    a. Smart Growth Incentive Program projects from 2009/10 funding cycle (for reference of recent projects): http://www.sandag.org/index.asp?projectid=362&fuseaction=projects.detail
    b. Smart Growth Incentive Program information: SANDAG contact is Stephan Vance http://www.sandag.org/index.asp?projectid=340&fuseaction=projects.detail1
    c. Active Transportation/Bicycle and Pedestrian Program: SANDAG contact is Chris Kluth

**Land Use**

- Concentrate uses around stations to promote walking from station. Mid-distance between stations should be focused on residential/office/resident oriented retail and services.
- Establish a mix of desirable uses for the corridor to spark developer interest, make sure that selected uses are complementary/synergistic
- (2) Need to find a location for skate park that is safe and will be well-maintained

**Vehicular & Parking**

- Resolve the unprotected left turns from Vista Village
- The islands in Escondido & North Santa Fe make it three lanes and bike lanes are lost. The islands make mobility too difficult and adequate space for cyclists is needed.
- Maintenance of paving and infrastructure is important for cyclist. Make sure potholes, especially along bike route are repaired.
- Important to coordinate signalization.
- The courthouse has a huge parking lot that is empty on the weekends. This can be used as shared

parking for local festivals and other events or general shopping along corridor. Shuttle/Trolley service would be required to provide scheduled connections.
- (3) Roundabouts
- Reduce traffic on Melrose/Santa Fe to one lane. Traffic will be displaced, make sure this is considered/addressed.

**Pedestrian/Cyclist Improvements & Trails**
- Connect to the regional trail along San Luis Ray River in Oceanside. There are a lot of cyclists that utilize this trail and it would be great to have a local connection to bring people to/from Vista.
- (3) Connect to the Buena Vista Creek walk (Brengle Terrace Park to Wildwood. The waterway currently makes this connection inaccessible. This is a great opportunity to connect with the pathway along Mercantile.
- Push buttons on stoplights that are located on the sidewalks are not accessible for cyclists. These need to be located so the buttons can be pushed by cyclists on the road.
- (2) Design Guidelines should reflect Smart Growth and priorities for pedestrians/cyclists
- Bike routes need to be an integral and well planned feature/amenity, not an afterthought
- Need to accommodate commuter cyclists
- Wider sidewalks needed
- (3) Bike lanes needed
- Off street parking needed
- Seating is needed

**Public Transit**
- (3)Improve connections at the end destinations of the Sprinter
    a. For example, there are no transportation options to get to downtown Escondido when arriving by the Sprinter and it's too far to walk for many people.
    b. Consider pedi-cabs as alternative to taxis or bus service
- (2) Business Park needs a means to access Paseo Santa Fe/Main Street and run errands on their lunch break without concern for time, the demand is there but not being served. Consider a shuttle service.
- Bus and Sprinter hours are a constraint for evening activities such as movies, restaurants, retail. People can take public transit to their destination, but the schedule ends too early in the evening to make using public transit a desirable alternative.
- There is a need for a shuttle/trolley/circulator service from the Sprinter station to the church to serve those using public transit, especially the senior population.
- Trolley service
- There is a need for a shuttle/circulator service to the court house, especially for those that ride the Sprinter to Vista.
- Approximately 1,000 people (employees/jurors/citizens) are at the courthouse on a daily basis, there is a great opportunity to make a connection for this population to the Santa Fe corridor for lunch, dinner, errands, etc.
- The 7:33 am Sprinter is typically full, if employees/jurors do not get on this train, they will be late to work. Employees tend to drive to avoid being late to work/jury duty.
- Need to connect to Melrose
- Commute from the Courthouse to the Santa Fe corridor should not be longer than seven minutes, to allow adequate time for commute/lunch or errands and return commute to the courthouse
- Need covered bus shelters

*18. If stakeholder is a ped/bike user of corridor, Please identify specific conditions or*

*constraints that should be addressed to improve circulation on the corridor. (draw on map)*

- Bike lanes should be wide enough for two bikes to ride side by side
- There are conflicts between seniors and teens/kids, especially when walking in a crowd or when there are skateboarders on the sidewalk. Consider improvements so that there is room for both with minimized conflicts

**Other Miscellaneous comments:**

- Vista is the 'natural greenhouse' of the area, and San Diego County is the horticultural mecca of the state/nation.
- Integrate/leverage theatres/coffee shops on adjacent streets, people need to know what is in the area so they will patronize local businesses
- Consider establishing a "Taste of Main Street" for the community to promote businesses in the downtown/Main Street area. Event should be hosted at the actual businesses, not in a separate location, to encourage community to gather in downtown/Main Street area.
- Promote annual Strawberry Festival and associated events – goal is to create a signature athletic event/multi-day event that draws people from outside local community.
- Promote concerts at the moonlight amphitheatre.
- Promote arts/culture in Vista, there are so many artistic resources within community
- Need more museums, consider locating Historic Society on Paseo Santa Fe
- You can attract people to riding public transit, not just by education alone, but you must get people to experience public transit. Offering free passes and educating on how to use transit for their personal routes (door to door).
- Vista is the 3rd largest boarding point of the 15 total Sprinter stations
- Be cautious of too much parking in the Santa Fe corridor. Excessive parking suppresses development.
- The courthouse is no longer offering passes to jurors; there is a lost opportunity for shoppers in the Santa Fe area.
- SANDAG supports and is funding the Rail/Trail project, so it will be implemented. It is part of the Regional Transportation Plan.

# APPENDIX C – INTERCEPT SURVEY SUMMARY

# MEMO

**To:** Bill Crane, Management Analyst
**CITY OF VISTA, CA**
600 Eucalyptus Avenue
Vista, CA 92084

**From:** Kendall Flint, Director of Strategic Planning

Nate Anderson, Project Team

**Cc:** Mark Brodeur, FIUD

**Date:** June 7, 2010

**Re:** Paseo Santa Fe Corridor Progress Report

The purpose of this document is to provide the City of Vista with information which was obtained through a series of intercept surveys conducted by PMC from May 4 though May 6, 2010.

## INTERCEPT SURVEYS

Intercept interviews are seen as a means of bringing an issue to target audiences that may not respond to the idea of attending a traditional community meeting or workshop. Over a three-day period, 100 interview respondents were asked a series of questions, divided amongst three categories (transportation, Paseo Santa Fe project, and Santa Fe Boulevard/Downtown Vista). These questions were asked at four locations throughout the Vista area. An additional category of questions (transit stations) was asked at four stops along the North County Transit District's Sprinter line.

Survey locations included California State University, San Marcos on May 4 (25 people polled), Vista Business Park on May 5 (20 people polled), multiple commuter stops along the Sprinter line on May 6 (30 people polled), and the Vista Courthouse on May 6 (25 people polled). Interviews averaged three minutes to five minutes.

Questions asked and the data provided is included below:

### TRANSPORTATION

1. *What modes of transportation do you regularly use to Vista Village/Downtown Vista/Courthouse/College?*

Out of the 100 respondents, a majority (64 percent) surveyed indicated that their primary mode of transportation is a private automobile, followed by bus travel at 15 percent and rail at 12 percent.

**Cal State San Marcos**

| Response | Number |
|---|---|
| a) Car | 14 |
| b) Bus | 3 |
| c) Train | 4 |
| d) Walk | 4 |
| e) Other | 0 |

**Sprinter Line**

| Response | Number |
|---|---|
| a) Car | 7 |
| b) Bus | 10 |
| c) Train | 8 |
| d) Walk | 5 |
| e) Other | 0 |

**Vista Business Park**

| Response | Number |
|---|---|
| a) Car | 20 |
| b) Bus | 0 |
| c) Train | 0 |
| d) Walk | 0 |
| e) Other | 0 |

**Vista Courthouse**

| Response | Number |
|---|---|
| a) Car | 23 |
| b) Bus | 2 |
| c) Train | 0 |
| d) Walk | 0 |
| e) Other | 0 |

2. *If you do not use the bus/train – why? (Safety? Frequency? Cost? Location?)*

**Cal State San Marcos**

Students at Cal State San Marcos primarily drive to school or have a friend/family member drop them off. Although a few of the respondents stated that they utilize public transportation, many of them said that they didn't need to because they almost always had access to a car or someone who would be able to drive them. Others said that the buses and trains are dirty or did not feel safe. None of the respondents interviewed cited cost or location as being a reason for not utilizing public transit.

**Vista Business Park**

Every person who responded stated that they drive to work in their private automobiles. Almost all of these people cited convenience and the fact that there is plenty of parking at the business park.

**Sprinter Line**

Many of the people who were interviewed at the Sprinter station use public transportation on a regular basis, particularly the city buses. None of the people interviewed at the station indicated that they had any problems with public transit in the area.

**Courthouse**

Many of the people interviewed at the courthouse were jurors who were on a lunch break. All of them had driven to this location, and the majority indicated that they drive their own cars

regularly because of convenience. Two of the people interviewed said that they ride the bus regularly, but both stated that this is because they are currently without a personal automobile.

## PASEO SANTA FE PROJECT

1. *Are you aware of the Paseo Santa Fe project the City of Vista is working on?*

In all of the survey locations, only 2 percent of the respondents had ever heard of the Paseo Santa Fe project, and both of these people were located at the Vista Courthouse.

**Cal State San Marcos**

| Response | Number |
|---|---|
| a) Yes | 0 |
| b) No | 25 |

**Sprinter Line**

| Response | Number |
|---|---|
| a) Yes | 0 |
| b) No | 30 |

**Vista Business Park**

| Response | Number |
|---|---|
| a) Yes | 0 |
| b) No | 20 |

**Vista Courthouse**

| Response | Number |
|---|---|
| a) Yes | 2 |
| b) No | 23 |

2. *If yes – What do you know about it?*

Neither of the two people who stated they had heard of the project knew much about it. One person said he thought it was a project to improve the look and remove the blight in the area. The other said he only knew the name, but did not know any details.

## SANTA FE BOULEVARD/DOWNTOWN VISTA

1. *How would you describe the crosswalks on Santa Fe Boulevard?*

The majority of the people interviewed were not able to comment on the crosswalks on Santa Fe Boulevard, as most stated that they do not know the area very well. However, of the 100 respondents interviewed, 8 had an opinion about the crosswalks, with 7 of these opinions categorized as negative. These respondents stated that it is difficult to cross Santa Fe Boulevard due to a deficiency of crosswalks and short light time.

2. *How would you describe parking?*

As with crosswalks, the majority of the respondents interviewed were not able to comment on parking in the area. However, the same eight who had an opinion about the crosswalks were able to provide information on this question. Six of these people stated that parking wasn't a

problem in this area, but also said there weren't many things which bring them to the area. Two people stated that parking was worse in this area than in other areas of Vista.

3. *What improvements/enhancements would make you more likely to come here?*

The majority of the respondents surveyed who were familiar with the Santa Fe Boulevard area (32 total people) stated that there were few reasons to visit the area because it seemed run down. Nine of these respondents said that the area does not seem safe, particularly after dark. It was stated that the vacant lots and minimal street lighting were the main reasons they felt unsafe in this area. Eight of these respondents indicated that the area would need a dramatic change in almost every way to make them more likely to visit this area, as there is currently nothing of interest for them there.

4. *Do you come to the Downtown area/Vista Village for lunch?*

Of the respondents surveyed, 19 percent said that they come to this area for lunch and only when they are already in the area.

**Cal State San Marcos**

| Response | Number |
|---|---|
| a) Yes | 2 |
| b) No | 23 |

**Vista Business Park**

| Response | Number |
|---|---|
| a) Yes | 3 |
| b) No | 17 |

**Sprinter Line**

| Response | Number |
|---|---|
| a) Yes | 9 |
| b) No | 21 |

**Vista Courthouse**

| Response | Number |
|---|---|
| a) Yes | 5 |
| b) No | 20 |

5. *Do you come to the Downtown area/Vista Village for shopping?*

Of the respondents surveyed, 22 percent indicated that they came to this area for shopping.

**Cal State San Marcos**

| Response | Number |
|---|---|
| a) Yes | 1 |
| b) No | 24 |

**Vista Business Park**

| Response | Number |
|---|---|
| a) Yes | 3 |
| b) No | 17 |

**Sprinter Line**

| Response | Number |
|---|---|
| a) Yes | 11 |
| b) No | 19 |

**Vista Courthouse**

| Response | Number |
|---|---|
| a) Yes | 7 |
| b) No | 13 |

6. *If no – Why not?*

Most of the respondents surveyed stated that the only thing that brought them into the Downtown area/Vista Village was the Krikorian Metroplex Theater, which several people described as the best in the area. Many people who visit the theater on a regular basis said that they would have lunch and occasionally shop in the area, but it was rarely a destination for any other reason.

7. *What would attract you to this area?*

Of the 100 respondents surveyed, 48 percent stated that improved shopping opportunities would be the biggest reason to visit this area. Twenty-two (22) percent stated that better restaurants would bring them to the area and 16 percent said nightlife businesses, such as a good dance club, would attract them to the area. Eight (8) percent said that it didn't matter what services were offered; they would not visit the area under any circumstances.

## TRANSIT STATIONS

The following questions were asked at four different transit stations along the Sprinter line.

1. *Does the transit station you are boarding/arriving at have all the amenities you would like?*

Of the 30 respondents interviewed, 27 people (90 percent) stated that they are very happy with the transit stations and that the stations have all of the necessary amenities.

2. *What improvements would you suggest?*

Because 90 percent of the respondents interviewed stated they were very happy with the transit stations, not many improvements were suggested. One respondent suggested that additional bathrooms would be nice. Two stated that security could be improved, as they don't always feel safe waiting for the trains. Approximately 20 percent of respondents stated that the frequency of trains should be increased.

3. *When you arrive, how easy is it for you to get to your location?*

Of the 30 respondents interviewed, 22 people (73 percent) stated that it is very easy to get to their location once they depart the trains. The remaining 8 respondents (27 percent) stated that getting around town could be improved if there were more buses and bus stops throughout the area.

4. *Are the crosswalks adequate?*

Of the 30 respondents interviewed, 13 people (43 percent) did not feel that crosswalks were adequate in the area. Most of these respondents stated that crosswalks were often very far apart and that the traffic lights did not allow ample time to cross the streets.