



City of Carlsbad Livable Streets Assessment

FEHR & PEERS

February 2013

Table of Contents

- Foreword 1**

- Background 5**
 - Best Practices 5
 - City Department Leadership Meetings..... 5
 - Performance Measurement 6
 - Actions 6

- Livable Streets Best Practices..... 7**
 - Best Practice Implementation Categories 8
 - Best Practices in Legal & Policy 10
 - Design Innovations 16
 - Best Practices in Funding..... 21
 - Best Practices in Maintenance & Operations..... 24

- City Department Leadership Meetings 27**
 - Overview of Meetings..... 27
 - Defining Livable Streets 30
 - Livable Streets Success Stories..... 37
 - Livable Streets Challenges 49
 - Desired Outcomes of Livable Streets 56

- Performance Measurement 60**
 - Legal & Policy..... 60
 - Design Innovations 62
 - Funding 64
 - Maintenance & Operations..... 66

- Actions 68**



Foreword

The City of Carlsbad, located along the Pacific Coast in northern San Diego County, attracts residents and employees looking to live and work in a city with a high quality of life. The City is home to a major employment center in San Diego County, has a variety of housing, a scenic Village area, recreational facilities including golf courses, an extensive open space system including three lagoons, nearly 4,000 hotel rooms for guests, and beautiful beaches. So why is the City now shifting its focus to livable streets in Carlsbad?

Are today's community situations, challenges, values, needs, and wants the same as the 1940's to 1960's? Or the 1970's to 1990's? Have you truly asked your community what their situations, challenges, values, needs and wants are today, and more importantly, for tomorrow? The City of Carlsbad has done just that as part of the Envision Carlsbad General Plan Update process.

For the past 15 years, Carlsbad has been growing and developing under the guidance of a plan established a generation ago in 1994. Additionally, in 1986, the community voted to pass Proposition E which is now commonly referred to as the "Growth Management Plan". It helped assure that the infrastructure based on the needs and standards at that time were implemented in a systematic fashion as the city grew and developed. It also identified the number of homes that could be developed in the community and helped preserve nearly 40% of the community as open space. Today, Carlsbad is at a new crossroads which creates an opportunity to make mid-course adjustments. The city is moving closer to build out of its residential homes, and the remaining undeveloped and redeveloping areas present new challenges, which can also be viewed as opportunities.



The issues facing the future of Carlsbad are no longer focused on guiding development of large land areas, but are related more to protecting and enhancing the quality of life that the community has worked hard to create. There are different choices to be made, new priorities to be set. Through an extensive public outreach process the city heard what the residents and business owner’s highest priorities are for Carlsbad’s future. Nine core values were identified:

- Small town feel, beach community character and connectedness
- Open space and the natural environment
- Access to recreation and active, healthy lifestyles
- The local economy, business diversity, and tourism
- Walking, biking, public transportation, and connectivity
- Sustainability
- History, the arts, and cultural resources
- High quality education and community services
- Neighborhood revitalization, community design, and livability

When reviewing the values identified by the community, it does not appear that increasing speed, convenience, or adding more highways are their greatest desire but rather “connecting” with each other, the environment, arts, culture, education, a healthy lifestyle and businesses are what the community views as most important. The livability of our community is what is important to enhancing the quality of our community. These values are a fundamental change from speed, convenience, and safety of highways within just a lifetime. The City is supportive of the I-5



freeway widening with managed lanes. The City is working closely with its regional and state transportation partners to substantially enhance the connections over and under the freeway for local roadway users in the community to benefit both regionally and locally. The City is also enhancing trail connectivity.

As a result, in January 2012 the Carlsbad City Council identified Complete and Livable Streets as a top strategic focus area for the city. This Livable Streets Assessment helps reframe potential challenges into opportunities for the City of Carlsbad based on some of the best practices in other local jurisdictions that are experiencing success with implementation of change and a transformation in how we in America perceive and use transportation. People's values, needs, and wants change throughout their lifetime, and the composition of Carlsbad residents has changed over time as well.

This Carlsbad Livable Streets assessment was an opportunity to bring all twelve departments together in the city to change the language and conversations that are occurring and as a result change our culture. This assessment also highlights and amplifies what the City of Carlsbad is doing well in each department to already implement complete and livable streets. Additionally, it identifies opportunities for enhanced focus to increase the strategic synergy between departments, funding, resources, plans, policies, procedures and decision making.

Now, communities are implementing traffic calming programs (like the Carlsbad Residential Traffic Management Program) to bring "livability" back into the residential neighborhood and calm vehicle traffic speeds. Now, communities are looking to create streets that are welcoming and inviting to all roadway users of all ages and abilities including motorists, pedestrians, and bike riders. The State of California also adopted Assembly Bill 1358 Complete Streets Act and



AB 32/SB 375 Green House Gas/Air Quality Act to correct the impacts from this built environment based on the highway and freeways.

This discussion is intended to inspire you to be part of the solution to help the City better experience their community values, needs, and wants.



Background

As of 2012, Livable Streets is a Carlsbad City Council priority and strategic focus area for further enhancing Carlsbad’s outstanding quality of life. Since the annual goal setting workshop in January 2012, Carlsbad has successfully implemented several livable streets projects. With the City gaining momentum in becoming a leader in livable streets implementation, the Transportation Department wanted to identify additional livable streets best practices from other communities and what they City could continue to do to improve upon the existing practices. This report addresses these questions in four chapters.

Best Practices

“What can we apply from other communities with Livable Streets?”

This section describes national examples of Best Practices in Livable Streets that are relevant to Carlsbad. Twelve cities and jurisdictions were identified for their award-winning livable streets projects, with research focused on four implementation categories: Legal & Policy, Design Innovations, Funding, and Maintenance & Operations.

City Department Leadership Meetings

“How well are Livable Streets working in Carlsbad?”

Meetings with managers and directors from twelve City departments and three affiliate organizations involved in livable

Complete Streets - Begin adapting Carlsbad streets to accommodate all modes of transportation, not just cars. Use street design to create a sense of place and community through green spaces, medians and signage. Complete traffic signal technology upgrades to improve traffic flow.

- City of Carlsbad Council 2012-2013 Strategic Focus Areas



streets were held in May and August 2012. During each meeting, department leaders were asked to define livable streets, identify department successes and challenges, and describe their desired outcomes related to livable streets.

Performance Measurement

“How should we measure progress?”

In this chapter, Carlsbad practices and projects are compared to the best practice examples presented in the report. This chapter highlights the key strengths of Carlsbad’s work and presents opportunities for enhancing livable streets implementation.

Actions

“What should we do next?”

This chapter provides a set of immediate and mid-term action items to further develop Carlsbad into a livable streets community. This chapter also provides an interim guide for City staff and developers seeking to add livable streets elements to their projects, which includes questions that can be considered in developing infrastructure and development projects.



Livable Streets Best Practices

The livable streets concept is gaining popularity across the nation as a way to improve quality of life in communities and bring activity beyond vehicular traffic back onto the streets. Several jurisdictions have come to the forefront as leaders in innovative approaches towards implementation. Twelve of these jurisdictions are highlighted in this chapter as providing examples of best practices that are relevant to implementation in the City of Carlsbad. The best practices are separated into four categories:



Legal & Policy



Design Innovations



Funding



Maintenance & Operations

The aforementioned categories, when combined, make up all of the elements necessary to implement a strong network of livable streets. Policies that support a multi-modal approach to streets or flexibility in design standards enhance a jurisdiction's ability to develop a livable streets program. Implementing roadway designs or developing new standards beyond generally



accepted ones can yield innovative solutions for making streets more livable, particularly in areas where there already is a developed roadway network. Implementing new streets projects – particularly projects that go beyond maintaining existing roadways – require funding, so finding novel ways to fund these projects is essential. Lastly, developing an approach to maintain livable streets is important at the forefront of the project, so that the roads stay livable.

Best Practice Implementation Categories

The best practices discussed in this chapter provide examples of novel and successful approaches towards livable streets implementation and are separated into four distinct categories:



Legal & Policy



Design Innovations



Funding



Maintenance & Operations



Legal & Policy



The best practices provided in this section represent changes to policies and legal documents pertaining to livable streets in award-winning communities. In our meetings with city staff, we learned that some policies can be barriers to fully implementing a livable streets program in the City. How other cities have overcome similar concerns by developing new policies or guidelines is discussed in this section.

Design Innovations



This section describes physical changes to the public realm that communities have implemented as part of their livable streets framework. These include changes that go beyond traditional roadway designs and improve streets for multiple modes.

Funding



Cost is a major component of program implementation. Several award-winning communities succeeded in securing funding using unconventional approaches. These include partnerships, revising local spending, tax levies, and securing commitments for ongoing maintenance.

Maintenance & Operations



Maintenance & Operations includes partnerships, coordination, and routine accommodation involved in implementing livable streets. Best Practice cities have begun to address how to tie in routine maintenance projects with livable streets



goals. Successful examples of this process are provided in the Maintenance & Operations section.

The communities selected for inclusion in this Best Practices review include the following:



Arlington, VA, Redwood City, CA, Fort Collins, CO,
Minneapolis, MN



Charlotte, NC, New York, NY



Boulder, CO, Washington, DC, Austin, TX



Denver, CO, San Francisco, CA, Seattle, WA

While the novel and successful approaches have worked in one or more communities, it is important to note that these best practices may not be appropriate for all communities. The community values, context, and environment all have to be taken into consideration to select an appropriate approach. All of these approaches can be modified to fit the culture and desired outcomes of the community.

Best Practices in Legal & Policy

The communities discussed in this section have developed innovative approaches to policy and legislation to aid in implementing livable streets. These cities include: Arlington, VA; Redwood City, CA; Fort Collins, Colorado; and Minneapolis, MN.



Arlington County, VA serves as a popular bedroom community to Washington, D.C. Developed areas in the County include both historic areas and rapidly growing communities, particularly along the Metro corridors. However, there was one particular area, known as Columbia Pike, that did not see the same improvements to the built environment and tax base that its surrounding areas did. In addition to serving as the area’s namesake, Columbia Pike is the community’s “main street” and a historic thoroughfare connecting Washington, D.C. to the Arlington/Fairfax County Line. Land uses along this roadway comprise a mix of strip malls, parking lots, car dealerships, and apartment complexes. The County initiated a revitalization effort along the 3.5-mile urban corridor to both encourage redevelopment and to create a mixed-use, pedestrian-oriented environment with the potential for light rail or bus rapid transit (BRT) access. Through a process including extensive public outreach and the development of a quasi-public project team, the County developed a Form-Based Code to improve the quality of development along this roadway and especially its relationship and orientation to the street. The new code replaces the old Euclidean Zoning, a practice in which all land uses are segregated from one another. Form-Based Zoning is developed such that planning controls are on building form, with broad parameters and flexibility on specific building use. In doing so, the public space can be better shaped to meet the community’s design principles and Complete Streets objectives, and as a result the “life” of a building can be extended and repurposed over and over.

Nonetheless, a policy is just a policy without impetus for change. The County made form-based zoning optional for development on Columbia Pike, primarily to avoid potential legal “takings” issues. However, they also provided incentives for developers to adopt this new approach to planning. One of the notable features of the process was streamlining the approval process for Columbia Pike Form Based Code (CP-FBC) projects. Prior to developing a form-based code, it was difficult to develop many parcels along Columbia Pike due to development guidelines and



existing zoning. For parcels choosing to adopt the CP-FBC, the County streamlined the approval process. Small projects (under 40,000 square feet) could develop as a by-right option with approvals handled administratively by county staff within one month. Larger projects could proceed under an expedited special exception use permit process provided they followed the Form-Based Code, with approval within 60 days. Under either case, approval was based on an objective set of parameters instead of a subjective decision-making group.

Since implementation, there have been several mixed-use redevelopment projects undertaken. These include both improvements made by existing property owners and new developments by new owners. The County has also seen an uptick in development in the periphery of the Columbia Pike district due to support in the area for the form-based code. This uptick has improved the liveliness of the streets and the activity along the corridor.

The City of **Redwood City, CA** included Complete Streets section and a series of supporting policies within its 2010 General Plan. Instead of differentiating different roadways as arterials or collector streets, the City opted to develop a new set of street typologies based on the function and purpose of roadways, such as a transit street or bicycle boulevard. Additionally, the policies and implementation programs in the Circulation Element were updated to support Complete Streets values.

There are seven policies in the Redwood City Circulation Element that explicitly note Complete Streets. Some of the policies are more general, such as supporting the concept of complete streets (BE-25.3) and considering impacts on overall mobility (BE-25.4). Others note implementation mechanisms such as Pedestrian Enhanced Designs (BE-25.5) or taking a multi-modal approach to the transportation impact fee program (BE-25.6). Finally, some policies provide guidance moving forward, such as encouraging citizen participation in improving



complete streets and supporting the re-evaluation of level of service (LOS) policies to include multiple modes of transportation.

The Redwood City Circulation Element also identifies several implementation actions regarding Complete Streets. These include hiring a Complete Streets Coordinator, implementing the new street standards, re-evaluating the existing Level of Service Policy and developing and adopting multi-modal LOS standards.

The City of **Fort Collins, CO** has been a frontrunner in implementing Multi-Modal Level of Service (MMLOS) standards. The City created MMLOS standards for its streets in the late 1990s and has continued to refine them since then. The standards consider both route characteristics and land use characteristics – high-priority land uses, such as schools, require higher pedestrian and bicycle LOS. The City has also developed context-sensitive LOS standards for vehicles, allowing worse automobile LOS grades along commercial corridors and in mixed-use districts than in low-density residential areas. The Pedestrian LOS in the City is scored along five criteria: directness of pedestrian trip, sidewalk continuity and width, quality and frequency of street crossings, visual interest and amenities, and security features. MMLOS analysis is required in the City’s transportation impact study guidelines for arterial improvements and all public and private development in the City. The City’s 2011 Pedestrian Plan also uses the City’s MMLOS standards to establish policies and design guidelines for pedestrian infrastructure improvement.



The City of Fort Collins has also directly linked their Comprehensive Plan and Transportation Master Plan policies to their Capital Improvement Program (CIP). A direct connection exists between Complete Streets policies in the Transportation Master Plan and the CIP ensures implementation and progress toward the desired outcomes over time. This award winning approach is consistent with the City’s overall commitment to a performance-based investment strategy known as “Budgeting for Outcomes.”



Transportation Master Plan February 15, 2011



innovate · sustain · connect

A direct connection exists between Complete Streets policies in the City of Fort Collins’ Transportation Master Plan and the CIP.



Planning and Funding

What Needs To Be Done	Responsibility Area	Deliverable/Outcome	Expected Completion Date
1. Review and revise transportation plans to include Complete Streets goals and objectives	Planning and Programming	Facilitate effective implementation of Complete Streets and associated goals and objectives	Ongoing
<ul style="list-style-type: none"> ▪ Integrate multimodal planning in Minnesota GO ▪ Incorporate pedestrian and bicycle system planning into state transportation plans including: <ul style="list-style-type: none"> - statewide transportation policy plan - state and district investment plans - strategic highway safety plan - corridor plans - highway systems operations plans 	Planning and Programming	50 year vision for transportation that includes all modes, ages and abilities	March 2010 Completed
2. Review and revise 2012-2021 MnDOT Highway Investment Plan	Planning and Programming	Incorporate Complete Streets goals and objectives	
3. Work with regional planning agencies (Met Council, Area Transportation Partnerships) to align goals and include Complete Streets in regional planning	Planning and Programming	Complete Streets integrated into regional planning processes	
4. Establish a program for the development of bikeways primarily on existing road rights-of-way to be established, developed maintained by MnDOT		Provide a program for bikeway facility development	

As part of their Complete Streets legislation, Mn/DOT has to report every 1-2 years on the status of implementation of the Complete Streets policy.

The legislation defines livable streets, requires Minnesota Department of Transportation (Mn/DOT) to implement a statewide Complete Streets policy on state-aid streets, establishes stakeholder consultation proceedings, encourages local governments to adopt their own policies, and ensures that any local government seeking to implement a Complete Streets project may

The City of Minneapolis, MN has been lauded as a progressive multi-modal city. Despite winters colder than most other cities in the US, Minneapolis enjoys a 3.5% bicycle commuter mode split year-round. It holds a Gold designation for being a Bicycle Friendly City. It also successfully operates a seasonal bike share program – one of the first in the US. But the City is not the only jurisdiction in Minnesota to be looked upon as a livable streets leader. Several Minnesota cities have adopted policies or legislation surrounding livable streets. Furthermore, the State of Minnesota enacted a statewide Complete Streets policy, joining 13 other states with Complete Streets laws in place.



request a variance for this purpose. As part of the legislation, Mn/DOT has to report every one to two years on the implementation status of the Complete Streets policy, including identification of barriers and changes to the variance process, development of performance indicators, and identification of statutory recommendations.

Key Takeaways

The legislation and policies described above have some common threads while being unique. In most of these highlights, stakeholder participation guided the implementation of livable streets. Additionally, there is flexibility in the language provided in policies and legislation. In Arlington, the use of form-based zoning is not a requirement but comes with developer incentives, while in Minnesota, the state provides regulations allowing local governments to adopt own policies with variances. Finally, the examples include regulations regarding monitoring or indicators to track the success of these new policies.

Design Innovations

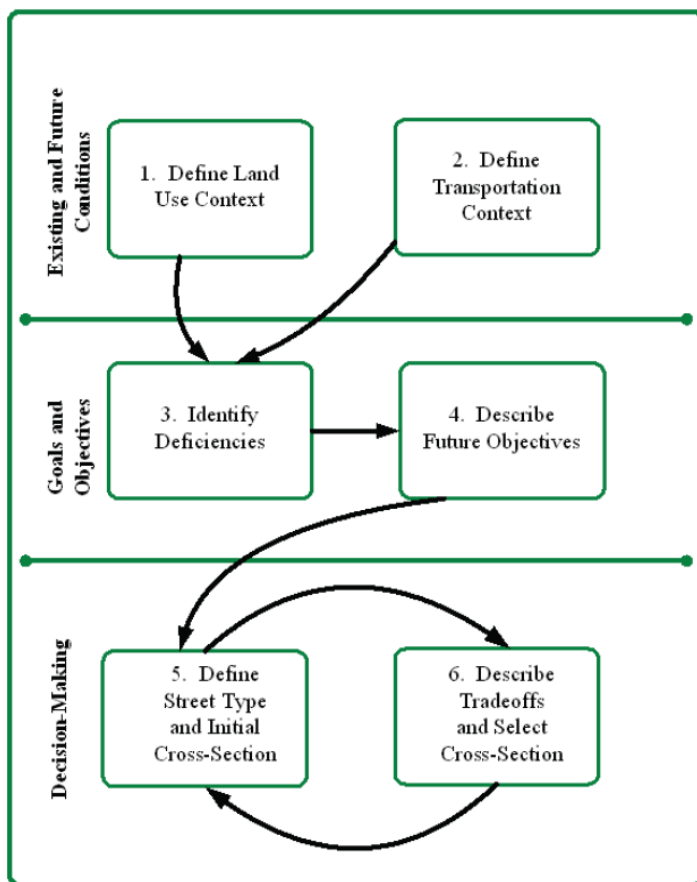
Communities discussed in this section have developed design manuals that promote livable streets or have implemented unique or innovative design elements on their streets. While many cities have developed new Complete Streets guidelines, two of the best known examples in the country are Charlotte, NC, and New York, NY.



Charlotte, NC developed a new street classification system, as an overlay to federal classifications as part of its 2006 Transportation Action Plan (TAP). This work was predominantly developed by the Charlotte Department of Transportation (CDOT) as a change in its approach to streets – the engineers and planners wanted to start creating a street network designed for people using various modes of transportation. The Urban Street Design Guidelines

(USDG), an outcome of the TAP, was developed through stakeholder outreach with city staff taking primary ownership of the project.

CDOT classified a network of streets in the urban core under five typologies: main streets, avenues, boulevard, parkways, and local streets. The new street types fall along a continuum, with some being more oriented towards pedestrians and others to vehicles. These do not replace the standard federal street classifications, but instead serve as an overlay, with sample cross-sections of each type illustrated in the design guidelines. Rather than showing right-of-way



There are several feedback loops in the street typology process, with stakeholder involvement throughout.



widths or standard drawings, the cross-sections display different public realms: pedestrian zones, green zones, motorist zones and the like.

The new street typology was developed in a six-step process, including: defining land use context, defining transportation context, identifying deficiencies, describing future objectives, defining the street type and initial cross-section, and describing tradeoffs for each mode and selecting the cross-section. There are several feedback loops in the process, and stakeholders are involved throughout. In developing new street guidelines, CDOT also developed a new MMLOS methodology that evaluates facilities over a longer period than the standard 60-minute interval, and incorporates design features such as crossing-distance, corner radii, and bicycle facilities. CDOT also evaluates vehicle flow as it pertains to road diet projects to ensure that vehicular flow does not worsen by reducing the amount of vehicular travel space. One barrier that the department has had to cross on many an occasion is the inclusion of roadways in Charlotte's growth boundary but outside of its jurisdiction. In these areas, the lead agency, North Carolina Department of Transportation (NCDOT) standards for elements like lane-width and non-motorized facilities can contradict the elements of the USDG that CDOT is trying to implement. CDOT has learned to negotiate with NCDOT, but ultimately NCDOT adopted a complete streets policy that should help the two agencies align.

New York City has adopted several sustainable streets initiatives over the last five years, but one great example of an innovative program with noticeable results is the City's Plaza Program. The crux of this program is to convert underutilized rights-of-way into thriving public space. This can include expanding a median refuge island at its flanks to accommodate street furniture or a pocket park, or reducing a lane of traffic or removing a cut-through turn lane to develop more public space. The Plaza Program seeks to develop opportunities for open space for all residents within a 10-minute walking radius. Priority areas include neighborhoods lacking open space and



lower income areas. Non-profit organizations, such as Business Improvement Districts and community redevelopment organizations, apply for a plaza to the City’s Department of Transportation. They must also demonstrate local support from stakeholders and the local Community Board. The Department of Transportation considers the site context of a proposed plaza to ensure that the travel lanes that are reduced or removed will not create permanent traffic impacts. The applicant organization is ultimately responsible for operations and maintenance of the plaza, so part of the evaluation process is ensuring that they can undertake that responsibility and also that there has been advance community initiative. If approved, the organization enters into an agreement with DOT for plaza maintenance, programs, and ongoing funding. DOT then uses professional designers to design the plaza concept and funds the design and construction of the project. The concept design is discussed at community outreach meetings. Existing conditions such as vehicular traffic, access points, and parking are discussed to determine appropriateness of location and potential impacts. In many cases the initial plaza is temporary.





Many of the plazas that have been implemented in the City merely consist of paint on the pavement, bollards, and some street furniture. The use of the plaza and the effects on traffic are then monitored, with new traffic and pedestrian counts collected, to determine whether it should be considered for permanent installation. This is an example of a public-private partnership that is relatively quick and inexpensive to implement, but has had a noticeable impact.

Key Takeaways

In both of the aforementioned examples, there are common threads: community participation, a feedback system, the use of regular monitoring, keeping the automobile in mind, and the use of innovative approaches. Both CDOT and NYCDOT involve the community early and often in their project, with CDOT involving stakeholders through several feedback loops of the Urban Street Design Guidelines and NYCDOT having community-led organizations come to them for the initial project. The feedback system during the design process for both ensures that all modes of transportation are being considered. Likewise, both projects include monitoring to track the success of the project, with New York installing plazas first as a temporary demonstration and speed monitoring in Charlotte. One frequent concern about livable streets is the exclusion of the car, but both of these examples show that livable streets can be developed without creating unacceptable automobile impacts, while enhancing the sense of place and creating a balanced transportation system where people want to be. In Charlotte, the typology system provides for auto-oriented streets along with pedestrian-oriented streets, but regular monitoring is also used to determine whether automotive delay is deteriorating with new implementation. In New York, plazas are focused on locations with underutilized vehicular right-of-way to avoid additional traffic delays. With regard to innovative approaches, New York – a very built-out city – is developing open space areas in otherwise underutilized locations, in a manner outside of the general mindset of how to build public space. Charlotte decided to



analyze locations using a methodology different from most jurisdictions and in a context sensitive to their goals to develop livable streets.

Best Practices in Funding

Communities discussed in this section have found innovative approaches to funding livable streets implementation. These communities include Boulder, CO, Washington, D.C., and Austin, TX.

Boulder, CO allocates most of its Capital Improvement Program budget for transportation towards alternative transportation modes – 63% of investment is allocated for bicycle and pedestrian improvements, and 11% is allocated for transit improvements. The City is a leader among cities dedicated to open government and transparency around city expenditures. Specifically for transportation funding, they developed a reporting approach based on direct input from stakeholder groups including bicycle activists, the University of Colorado, and environmental groups, in addition to an advisory board and city staff. The primary purpose of the report is to identify potential sources of local funding for transportation projects in Boulder, and to review their viability and legality. This work stemmed from the 2008 Transportation Master Plan and reflects their progress on a specific action item in that plan. The Master Plan included three future networks, based on current funding availability, the action plan, and the vision plan for the area. The 2008 plan included a plan for Complete Streets investments that totaled \$115.8 million. With only \$3 million in secured funding, it was necessary to explore other sources of funding to generate revenue of roughly \$7 million per year.

The advisory board and stakeholders considered various funding sources, discussed each one, and decided which they felt were viable. Groups could then give a “thumbs up” or “thumbs down” for a particular approach.



The task force developed a cut-sheet for each funding source, identifying potential revenues, feedback from stakeholders, examples of how it was applied elsewhere, and any constraints. The task force provided estimates of the amount of revenue that each source could raise, and the benefits and limitations of the source.

Through this process, the task force identified transportation maintenance fees, development excise taxes (DET) and market-based revenue opportunities (i.e., advertising) as the most viable revenue sources for the City at that time. Other potential sources explored included a transportation fee assessed on parking spaces, a vehicle miles traveled tax, and a local option gas



tax. Each group then considered what mix of the aforementioned funding sources could be used to “fill the pothole” of \$7 million per year.

In **Washington, D.C.**, the Great Streets Initiative is a multi-agency effort between the Deputy Mayor for Planning & Economic Development, the Department of Transportation, and the Office of Planning, and is strongly geared towards economic development. The District identified nine underdeveloped corridors for the Great Streets Initiative. In each corridor, the District is using tax increment financing to support grants for small businesses. The grant funding will provide storefront improvements and help to redevelop underutilized corridors into thriving environments.

The City of **Austin, TX** has been funding part of its Great Streets Initiative through a public/private partnership. Their Great Streets Development Program includes a mechanism for financial assistance to private developers to implement streetscape standards that go beyond the City’s minimum requirements. The City established locational program boundaries and Great Streets standards, including turning radii, street lighting, street furniture, and greenery. If a developer wants to improve the streetscape in their right-of-way, they can meet with Urban Design staff to review their streetscape improvements and draft a plan, with a reimbursement cap established at the forefront of the project. Once the improvements are constructed, the developer is partially reimbursed for the project. Depending on the priority of the improvements, reimbursement ranges from \$10 to 18 per square foot. The funding for the reimbursement program comes from the Great Streets Parking Meter fund, which sets aside 30% of parking revenues collected within the program’s boundaries to implement these standards. This program provides a novel

Austin’s Great Streets Parking Meter Funds sets aside 30% of parking revenues to implement the new standards.



approach to developing livable streets, as the City is not responsible for the full cost of implementing improvements, but has sufficiently incentivized the process to entice developers through partial reimbursement.

Key Takeaways

Funding is consistently cited as being a barrier to livable streets implementation, especially when the development of new alternative mode facilities requires additional funding. With many cities having limited additional funds, the aforementioned cities have found unique ways to implement livable streets. In all three scenarios, the community reached out to others, be it business owners or residents, to either help fund projects or provide input on how to fund projects. In the case of Austin, the City needs to front less of its own money to improve streets through public/private partnerships, while in Boulder, by soliciting input on how to fund streets projects at the forefront of the process, the City is more likely to develop funding sources that will be well received by the community.

Best Practices in Maintenance & Operations

Communities discussed in this section have developed maintenance and operation programs that help promote livable streets in their jurisdictions. These communities include Seattle, WA, Denver, CO, and San Francisco, CA.

Beginning in 2006, **Seattle, WA** has been leveraging a \$365 million, nine-year, transportation levy (Bridging the Gap) to implement complete streets. The tax levy was approved to reduce the backlog of transportation projects. With the program, all CIP projects have to undergo complete streets review including review by bicycle and pedestrian program staff, to see if there is right-of-way available for non-motorized transportation improvements. With this program in place, planning for projects begins nine years before implementation, which allows SDOT staff to



prioritize the projects being planned and allowing adjacent projects to be grouped together to decrease cost and increase efficiency. In the 2010 annual report, the City included accomplishments such as installing pedestrian countdown signals, building new sidewalk block faces, remarking crosswalks, striping and restriping bicycle lanes and sharrows, and building and improving bicycle trails. Other accomplishments include street use, urban forestry, and transit improvements. In 2007, as part of the project, the City established the Bridging the Gap Oversight Committee to provide accountability on how the levy was being used. The committee focuses on how the program and its associated funding is being integrated into other SDOT planning, and has looked into and commented on programs including the Complete Streets and Bicycle & Pedestrian Master Plans. This system of checks and balances allows the City to approach streets as a single entity and implement key points from a multitude of plans and programs in tandem and systematically.

Denver, CO has a comprehensive approach to Living Streets that considers input from all City departments in roadway changes. The effort to establish the framework included department heads from the Office of Economic Development, Parks and Recreation, Public Works, Development Services, and Community Planning & Development to ensure an interdepartmental approach. The project also considered the multiple interests and departmental responsibilities for the various elements of the street, with special focus on the maintenance and operations process responsibilities and needs. One key finding of the effort was a lack of coordination on day to day decisions such as roadway repaving and restriping. The City therefore established a new process to include review by staff in the Public Works Planning group for all repaving and restriping projects. The intention is for these staff members, including the City's bicycle planner to identify additional opportunities for including alternative mode facilities in planned projects. This coordinated interdepartmental approach, which has also been implemented in Seattle,



ensures that an opportunity for a multi-modal facility is not overlooked during roadway reconstruction.

In **San Francisco, CA**, the Better Streets Plan provides design guidance and outlines both existing challenges and solutions. Beyond standard components of a livable streets document, the City provides an organization matrix of what department is responsible for a given element of the livable streets work and the design process. In their Better Streets Plan, the City addresses the challenge to efficient design, namely a patchwork financing and shared responsibilities for a single streetscape project across several departments. The subsequent plan addresses how to coordinate securing full funding for a project and identifies a framework and process for implementing livable streets. By explicitly stating the responsibilities of each department in the process, while also coordinating the implementation, the Plan provides a more streamlined and efficient means to develop livable streets.

Key Takeaways

In Seattle, San Francisco, and Denver, there are different departments responsible for different portions of the right-of-way. In all three cases, however, the cities have developed a method to articulate the departmental responsibilities more clearly, add accountability, and provide a feedback loop to avoid missing opportunities to implement livable streets.



City Department Leadership Meetings

This chapter summarizes a series of meetings that were held with departmental leadership in May and August 2012. Managers and directors from twelve of the City’s departments that have responsibilities related to streets participated in these meetings. Each meeting consisted of a conversation about:

- defining livable streets
- local livable streets success stories
- challenges in implementing livable streets
- desired outcomes for the department

Leadership from twelve of the City’s departments participated in these meetings.

This chapter discusses the outcomes of the meetings, synthesizing the key themes of the four questions.

Overview of Meetings

Carlsbad departmental leaders participated in meetings held over the course of three days in May and August 2012. Each meeting was a minimum of one hour and included managers and directors of one or two departments. The following groups participated in the meetings:



Attorney's Office

Ron Kemp

City Manager

Lisa Hildabrand, John Coates, Cynthia Haas

Communications

Kristina Ray

Community & Economic Development

Gary Barberio, David de Cordova, Chris DeCerbo, Kathy Dodson, Will Foss, Van Lynch, Don Neu, Mike Peterson, Glen Van Peski, Christer Westman

Fire

Chief Kevin Crawford

Housing & Neighborhood Services

Debbie Fountain, Courtney Enriquez

Library & Cultural Arts

Heather Pizzuto, Peter Gordon

Parks & Recreation

Chris Hazeltine, Mike Calarco, Kyle Lancaster, Sue Spikard

Police

Captain Neil Gallucci

Property & Environmental Management

David Hauser

Transportation

Skip Hammann, Bryan Jones, Doug Bilse, John Kim, Jim Murray, Marshall Plantz, Patrick Vaughan



Utilities

Glenn Pruim

Affiliates

Kathleen Ferrier (Walk San Diego), Andy Hanshaw (San Diego County Bicycle Coalition), Ashley Westman (Urban Place)

During each meeting we asked the following four sets of prompts to facilitate the discussion:

What is a livable street? What does a livable street mean to your department? What are some examples of livable streets in your community?

What are your department's biggest livable streets accomplishments? Why do you consider some streets to be more livable than others? How has your department been involved in livable streets implementation?

What barriers to livable streets do you face in your department? Are there any departmental policies or procedures that conflict with livable streets implementation? Are there any legal, design, funding, or maintenance concerns that affect your department?

What are the most important livable streets outcomes to your department? What indicators would your department most like to see with regard to livable streets implementation?

Each department had the opportunity to engage in a discussion, and different departments opted to focus on different elements of the prompts. During each of the meetings, one facilitator led the discussion, a second facilitator recorded meeting notes, and a Transportation Department representative provided context and city-specific examples for discussion.



Defining Livable Streets

At the beginning of each meeting, each department defined what livable streets meant to them and their departments. This open-ended question allowed for maximum flexibility in response. Some departments focused on the physical characteristics while others focused on function or feel. Most responses fell into three categories:

- physical characteristics
- functional characteristics
- experiential characteristics



Each department identified what livable streets meant to them. The word cloud above illustrates which descriptions of livable streets were mentioned, with larger words representing terms that were identified multiple times.



Physical Characteristics of Livable Streets

There were many physical characteristics that were identified in defining livable streets. These are elements of the street that departmental leadership envisioned to be present on a livable street:

Sidewalks	Sidewalks are present on the street to provide a pedestrian realm
Crosswalks	Crosswalks (and other traffic calming measures) provide pedestrian accessibility
Trees/Landscaping	Livable streets have trees and/or landscaping to enhance the built environment
Orientation to the Street	Homes and retail face the street; benches are oriented such that users face storefronts instead of the roadway
Mixed Use	Livable streets have a mix of commercial & retail uses and the <i>right</i> mix of uses
Smaller	Livable streets are narrower than typical streets
Colorful	Livable streets have lots of physical vibrancy and color

These physical elements are concrete examples of what one would envision on a livable street. Many of these descriptions are static and discrete. One could take these descriptions and draw a cross-section of a “livable street.” Likewise, these descriptions are easily quantifiable.

Functional Characteristics of Livable Streets

Many departments defined livable streets by their functional qualities. These terms describe how a street would operate:

Connectivity	Livable streets are a network where you can get from Point A to Point B and have multiple options to go from A to B
---------------------	---



Balance	Livable streets are a network where some roads are more automobile oriented while others are more pedestrian oriented
Context-Specific	Livable streets are a network in which the type of street is appropriate for its context; a wide arterial should be used for vehicle throughput while a narrower downtown roadway should be geared towards pedestrians and cyclists
Multi-Modal	Livable streets serve multiple modes of transportation and dedicate space to the various ways that people can travel in the street

These descriptive terms have many commonalities. In these descriptions, a livable street is not being viewed as a standalone street, but rather as a network of streets with consideration to the purpose assigned to each type of street. Additionally, a livable street is not being defined as necessarily having all of the physical qualities described above, but rather within a larger network where all of those qualities exist. Not all streets have the same purpose, are created equal, or should be considered equal. For example, one street would have mixed commercial and residential land uses with narrow roadways, trees, and crosswalks. But an adjacent street would be geared more towards vehicle throughput and have wider streets to offset the speed reductions on the first one. With connections between pedestrian-oriented streets or vehicle-oriented streets, a whole area would be considered “livable” even if a standalone street may not have every physical element.

Experiential Characteristics of Livable Streets

The third set of terms that were used to describe livable streets was predominantly experiential. Many department leaders described how a livable street would “feel” to them or what things would define their experience:



Sense of Place A place that is memorable and that you can identify with; shifting the perspective away from transportation and towards other activities that occur on the street

Activity Center A place that does more than take you from Point A to Point B; a place where you can stop and consume

Safe A place that people perceive to be safe and where they want to stay in the environment

Universal A place that a mother can push a stroller, a motorist can drive, a cyclist can ride a bike, and a transit user can wait for and ride the bus

These definitions describe an environment that again conjures up a network or distinct place as opposed to one overriding design approach for all streets. These qualities build off of the physical and functional definitions to describe the atmosphere of a livable street and the activity that takes place there. These experiential characteristics are the human scale and are not easily measured. The feelings are often difficult to describe.

“Value is perception, not a calculation. It is something a customer feels, not something a company proves.” – Simon Sinek, Author of “Start with Why”

Local Examples of Livable Streets

After defining a livable street, departmental leaders identified examples of livable streets within Carlsbad. Bressi Ranch, Carlsbad Village, and La Costa Avenue were identified several times. Each of these places is distinct – one is a master planned community, one is a downtown area, and one is a street with new traffic calming treatments. Thus, the departments provided examples of both standalone streets and networks as livable. Additionally, while these areas all



have mixes of use, Bressi Ranch is predominantly residential with an adjacent walkable retail center while Carlsbad Village is predominantly commercial with residential surrounding it. A livable street is therefore not being pegged into one context but is instead viewed with flexibility on the design, land use, and magnitude.

Bressi Ranch was identified as a livable street by the Transportation, Housing & Neighborhood Services, Fire, Community & Economic Development, and Property & Environmental Services Departments. Bressi Ranch is a master-planned development that was designed by Peter Calthorpe. Characteristics used to describe Bressi Ranch included: mixed-use, retail oriented toward the neighborhood and street instead of the parking lot, lots of traffic calming measures, narrow streets, and housing oriented to the street. Departments identified this development as “distinct” from many other communities in Carlsbad; the Fire Chief noted that when his staff enters the community, you have to view it differently (in terms of how it functions), but said that it still functions well for their needs. He went on to say that the more access points they have to an area the better they can respond, especially when streets are narrower. Narrow roadways can be offset by multiple access points and increased connectivity. Emergency access and narrower streets do not have to be mutually exclusive. It is also about safety and quality of life in a neighborhood and community.





Carlsbad Village was also described as a successful example of a livable street. Departments including the Housing & Neighborhood Services, Police, Transportation, Library & Cultural Services, and Property & Environmental Management departments described the high activity in the area as a identified as a livable component of this place. There is a lot of commercial activity on the roadways and a “multi-modal feel.” The City has improved the Village by introducing a pedestrian scramble at the intersection of Carlsbad Boulevard & Carlsbad Village Drive and deploying a pilot custom “Bike the Village” bike rack program. In addition, many benches that used to face the street now face shops, and usage of these benches has since increased. While vehicle parking and congestion issues in the Village are a perception and perceived as a negative by many business owners in the village, in reality they are both a measure of economic success. In addition, bicycle and foot traffic are great indicators of the vitality of the area. There are a lot





of eyes on the street and a feeling of safety with all of the pedestrian oriented shops, sidewalk cafes, and patios in the Village.



The City Manager identified the La Costa Avenue Road Diet as a cost-effective and innovative solution to address community and neighborhood values.



Lastly, **La Costa Avenue** was identified as a livable street by the Fire and Transportation Departments and by the City Manager’s office. The City recently implemented a road diet on La Costa Avenue, which has been viewed as a success for reducing speeds on the roadway while not increasing the emergency response travel time. The City Manager pointed out that La Costa was not intended to be a “livable street,” but rather there was a problem that needed a solution. Implementing a traffic calming countermeasure brought attention to the road, and the initial solution, while billed as a temporary treatment, has received positive feedback from the community. The perceived fear of congestion from the road diet never materialized and while the travel speeds were reduced by 3-5 miles per hour, the time to traverse the two mile corridor remained similar, with no deviation of traffic volumes to other corridors.

Livable Streets Success Stories

Although the City Council Strategic Focus Area directive on Livable Streets is in its early stages within the City of Carlsbad (identified in January 2012), there have been several examples of livable streets and successful projects highlighting them within the City. Organized by the four implementation categories, these successes include:



Carlsbad Residential Traffic Management Program; Enforcement through Education



Bressi Ranch Master Plan; Engineering Countermeasures; Village Redevelopment; Improving Trails Connectivity; Improving Curb Lane Depressions; Dual Right Turn Lanes



Storefront Improvement Grant; In-Lieu Parking;
Budget Autonomy; Street Maintenance



Ongoing Monitoring Efforts; Speed Feedback
Signs; Video Detection

Legal & Policy

Two programs falling under the “legal and policy” umbrella were identified as departmental successes from our meetings.

The Transportation Department discussed the **Carlsbad Residential Traffic Management Program**. The Manual of Uniform Traffic Control Devices (MUTCD) provides warrants for stop signs. However, the department noticed that residents feel an increased sense of safety with stop signs on some residential streets where they may not be quantitatively warranted. The department established a program by which residents can identify locations where they believe a stop sign should be installed, provided that the observed 85th percentile speed of the residential roadway is 32 miles per hour or greater. The department then assesses the location to identify the appropriateness. In many cases, these residential streets have low or no collision history, so the need for stop signs is based mostly on the citizen’s perspective. The program has had very

The stop sign program has had very positive feedback from the community and the department is currently working on installing stop signs at the locations that met the critical speed threshold.



positive feedback from the community and the department is currently working on installing stop signs at the locations that met the critical speed threshold.

With several engineering countermeasures being implemented in Carlsbad, the Police Department has asked staff to **Enforce through Education**, when possible, around innovative treatments, while the community learns and experiences innovations for the first time. As an example, Carlsbad installed a pedestrian scramble (all pedestrian phase diagonal crossing) at the intersection of Carlsbad Boulevard & Carlsbad Village Drive, which has been branded as the Carlsbad Scramble. Some residents are unfamiliar with the innovative treatments and, as a



result, could incur a moving violation such as making a right turn on red during the pedestrian-only scramble phase. While the Police Department could ticket the offender, officers initially educated those who violate the right-of-way with a warning and an explanation of the treatment. Through this approach they have seen much improved compliance. The Department sees this as a way to improve acceptance of innovative treatments and to improve long-term safety at these locations.



The La Costa Avenue road diet has slowed traffic without affecting emergency response times.

Design Innovations

Several design projects were identified by department leaders. These include: Bressi Ranch, Roadway Design Innovations, Village Redevelopment, Improving Trails Connectivity, and Improving Storm Drain Depressions in bicycle lanes, and the re-evaluation of capacity enhancing projects in the context of Envision Carlsbad community values.



Bressi Ranch, as previously described, is a master-planned community designed by Peter Calthorpe. It consists of detached and attached homes, parks, and neighborhood-serving retail. The streets are narrow and have traffic calming measures such as chicanes and bulb-outs. Additionally, the garages are oriented to the back of the homes and accessed through alleyways. Bressi Ranch was identified as a success by the Community & Economic Development Department, Parks and Recreation, and the Police Department. Reasons cited for its success were that it contained the elements of a livable community, connected the roadways to parks, and provide the perception of safety. The Fire Department also noted that while Bressi Ranch on its face may seem in conflict with Departmental ideals, fire engines have been able to successfully respond to this community.

The city has implemented several physical **roadway design innovations**. Two notable successes have been the road diet on La Costa Avenue and the State Street Roundabout, which is currently in progress, with design planned for implementation in 2013. The City Manager views the La Costa Avenue road diet as a solution that successfully addressed the problem of a too-fast roadway causing public safety issues. The Fire Department acknowledged that even though traffic is slowed by the road diet, it has not affected its department's response times to emergencies. The roadway pavement widths are the same and allow motorists to move to the right for emergency vehicles. The project has been well received by the City and is a demonstration project towards livable streets that has received clout. The State Street roundabout is still in its design phases but is intended to improve operations and safety. The Fire Department has been a proponent of the roundabout, noting that it should enhance responsiveness as fire engines can easily maneuver through a roundabout. The Police Department noted improved safety with this planned roundabout improvement as well.



The Housing & Neighborhood Services, Property & Environmental Management, and Parks & Recreation departments highlighted the Village Redevelopment efforts as an example of success.

Countermeasures such as the pedestrian scramble are one element towards these improvements. In the Village, the City has also been installing more bicycle parking, orienting benches and street furniture towards the storefronts, rather than the street, and improving landscaping.



Other improvements further illustrate how all departments can make streets more livable. The Parks & Recreation Department described a situation in which a bicycle lane did not properly connect to the park by Calavera Lake. They addressed this issue by increasing the parking supply for the park and extend the bike lane until it reached a better connection point. In addition, the Property & Environmental Management Department identified that the roadway



adjacent to the new Alga Norte Park that connects the park to Bressi Ranch was fast and did not have bicycle lanes. The Transportation Department redesigned the striping to add a two-way left turn lane and bicycle lanes to narrow 20' wide travel lanes with a center stripe. This illustrates that livable streets and provision of vehicular facilities do not necessarily conflict and that innovative solutions can often enhance the connectivity for multiple modes.

The Utilities Department discussed their **reduced drain inlet standards** as another example of a livable streets success. The City revised their standards a few years ago so that the drain inlet depressions followed the gutter line 18" from the curb rather than protruding into the roadway travel lane and bicycle lanes. The protrusion into the roadway created potential conflicts for bicyclists, so reducing this protrusion improved bicyclist comfort. Some of the storm drains have been retrofit through pilot projects while others are being replaced when maintenance requires it. Larger local depressions that have yet to be replaced are well marked with a concrete gutter to be more visible to cyclists.

The Transportation Department identified that they recently developed and adopted an initiative to **Re-evaluate Capacity Enhancing Capital Projects**. This initiative was developed to balance pedestrian and vehicular signals. Previously, roadway projects were designed and constructed to enhance vehicular capacity. Usually this was done by adding lanes at the intersection, such as a double left- or right-turn. From an intersection analysis perspective, an extra lane would improve the intersection's level of service. However, some of these intersection improvements were constructed to mitigate a potential issue that would not arise for 10-20 years, if it were to arise. Wider intersections are more difficult for pedestrians and bicyclists to cross, and new ADA guidelines require signalized intersections to provide pedestrian walk times consistent with a stride of 3.5 feet per second. This means that an intersection that is 50 feet wide would previously have a mandatory minimum of 12 seconds of



The Public Utilities Department reduced the grade of storm drain depressions to increase comfort for cyclists.

pedestrian walk time, but would now require 14.5 seconds. As a result, pedestrian crossing times are often controlling cycle lengths on major synchronized corridors. There are also increased stormwater regulations that require extensive filtration systems for storm water runoff from additional pavement. To approach the issues that have arisen from adding dual left- and right-turn lanes, the Transportation Department is taking a more comprehensive and multi-faceted approach to evaluating the true need and cost of capacity enhancing projects beyond the automobile level of service or vehicular traffic volume.

Funding

There are three success stories that were highlighted regarding funding: the Village Storefront Improvement Grant, the In-Lieu Parking Program, and citywide budget autonomy.



The Carlsbad Redevelopment Agency undertook the **Village Storefront Improvement** program, offering grants up to \$15,000 per building for businesses to enhance facades including improving lighting and window displays. The purpose of the program was to create a “more attractive and unique structure” for businesses and to improve their “public face”. The Housing & Neighborhood Services Department noted that some of the businesses used the grant funding to improve the lighting in front of their businesses, which resulted in an improved pedestrian environment, particularly during the night hours.

The Housing & Neighborhood Services Department noted that the City has two zones for an **In-Lieu Fee Parking Program**. In the Village, rather than requiring each business to develop separate parking facilities, businesses pay in-lieu fees of \$11,240/space. This cost is the amalgamation of 1/3 of the cost of building plus 30 years of maintenance of a parking space in

The City implements an In-Lieu Fee Parking Program in Carlsbad Village to promote a “park once” atmosphere, and regularly monitors utilization.

an above-ground structure. This promotes a “park once” atmosphere, where users can park their vehicle and then walk throughout the Village. As part of the in-lieu fee program, the City periodically conducts weekday parking utilization counts to ensure that the utilization of the shared parking facilities does not exceed 85%, which is necessary to continue to allow the in-lieu fees.

Finally, the Transportation Department noted that the City has adopted a **block budget** operating budget, which gives the City Manager and directors the ability to streamline implementing Council and operating objectives under \$100,000. With this budget program, projects are able to be implemented fairly quickly and efficiently.



Maintenance & Operations

The City has been successfully maintaining and operating its roadways, and has enhanced some locations through Maintenance & Operations efforts. These examples include: ongoing monitoring efforts, implementing speed feedback signs, video detection, pedestrian countdown heads, and pedestrian push buttons, and the Street Maintenance Program to “resurface and repurpose.”

Several departments cited **monitoring efforts** that the City has proactively implemented to maintain a certain level of service in the city. Housing & Neighborhood Services noted the parking utilization that occurs in the Village. Urban Place also mentioned that they will be adding bicycle and pedestrian counts to vehicular monitoring efforts along Carlsbad Boulevard and Coast Highway for the shoulder (between peak- and off-peak seasons), peak, and winter seasons. The Transportation Department also identified the regular traffic counts that are collected as part of the City’s Traffic Monitoring program along with bicycle counts.

The City has been proactive in monitoring many elements of roadway operations, including intersection operations, maintenance, vehicular traffic, and bicycle & pedestrian activity.

The City has installed **Speed Feedback signs** along some of the higher high-speed corridors within the City, such as Aviara Parkway. These signs show drivers how fast they are driving, and tend to slow traffic as a driver becomes aware if he or she is traveling above the speed limit. These were touted by the Fire, Police, and Transportation Departments as having an immediate and positive impact on the roadways.



The Transportation Department also noted that they have been making enhancements to existing signals in the City by adding bicycle **video detection**, pedestrian push buttons, and pedestrian head countdowns at signalized intersections. These elements can have the opportunity to improve operations for both motorized and non-motorized modes by enhancing signal timing.



The City has also developed a Bicycle Lane Widening Policy, which allows the Transportation Department to utilize the robust **Street Maintenance Program** to “Resurface and Repurpose” the right-of-way to give more space to bicycle riders. While streets are being routinely resurfaced, bicycle lane striping is moved outward to provide a wider bicycle lane. In doing so, travel comfort for bicyclists is enhanced within the budget and funding set aside for routine maintenance.





Key Takeaways

The department leaders throughout the city were able to provide several examples of successful livable streets implementation. These examples fit within each implementation category. It is noteworthy that many of these successes were first identified prior to the livable streets City Council Strategic Focus Area directive. As the City manager noted, when there has been a problem, there has been an effort made to address it. In some instances, this meant a livable streets outcome even though the project was not slated as a livable streets effort. Ultimately, the breadth of these success stories identifies that the City’s ideals align well with livable streets initiatives.

Livable Streets Challenges

Department leaders were asked to identify challenges that their department faces in implementing livable streets. The prompts were open-ended so that respondents could identify anything from a physical challenge to a political challenge. Most responses fell into the livable streets implementation categories:



Public Approval; Conflicts with Existing Policies & Plans; Enforcement Issues



Safety by Design; Physical Barriers; Types of Countermeasures



Funding Shortfalls



Cross-Departmental/Agency Collaboration

Legal & Policy

The three legal & policy barriers consistently raised by department leaders were: public approval, conflicts with existing policies & plans, and enforcement issues.

Most department leaders noted that the City prides itself in being very customer-service oriented. The City is responsive to public concerns and strives to provide a high quality of life and emphasis in listening to its residents. As such, implementing a livable streets program can only be possible if residents are on board. The City was initially developed as a bedroom community to San



The City prides itself in being very customer-service oriented. The City is responsive to public concerns and strives to provide a high quality of life.

Diego, so vehicle accessibility was essential. There are several residents who moved into the City with the thought that vehicles drive roadway work and that streets are oriented to the car. Residents have also noted that they appreciate the rural character of some streets in Northwest



Carlsbad, and do not want to modify the roadways to include pedestrian facilities, curbs, and gutters. The City has to be sensitive to the concerns of these residents, which can create a challenge in implementing projects in certain areas or of a larger magnitude.

Along those lines, there are existing policies that are relics of the bedroom-community era of Carlsbad's development, in addition to other plans and policies that do not acknowledge or may conflict with livable streets improvements. The City is now an employment center for the North County region, with more than 65,000 jobs. The Transportation Department noted that the method for analysis in the Growth Management Program does not account for needed bicycle and pedestrian facility improvements. Thus, they show more success in catering towards the automobile. The Community & Economic Development Department noted that older ordinances and plans can make it difficult to deviate from standard zoning, and that there are previous policies that preclude developing pedestrian facilities in certain areas. The Community & Economic Development Department also noted that the current permitting in the city favors separate land use and the suburban planning model.

The Transportation and Police Departments also identified the challenge of enforcing speed limits in the city. Along some of the thoroughfares, the 85th percentile speed exceeds the posted speed limit, design speed, or the speed supported by the adjacent residential community.

Design Innovations

In terms of design, barriers to implementing livable streets are: safety by design, physical barriers, and engineering design challenges.

The Housing & Neighborhood Services and Police Departments both described the importance of a perceived sense of safety and an attractive atmosphere. Both departments noted that if an



area is not physically engaging or perceived as safe, it's less likely that people will try to use the area. Housing & Neighborhood Services noted that although there is sufficient Village parking in surface lots near downtown, the walk between the parking lot and most of the activity in the Village is not particularly welcoming or there is a perceived safety issue. As a result of the mismatch, many believe that the Village lacks parking and the surface lots are underutilized. Physically enhancing the connections between parking and the activity centers would be necessary to improve the environment. The Police Department noted that even if there's not a quantifiable safety concern – be it crime or vehicular collisions – if there's a perception of safety



The Police Department highlighted the importance of perception of safety. Though it is more difficult to quantify, it directly affects how streets are used.



then an area may become underutilized. The Police Department noted that it is more difficult to quantify areas where the perception of safety is lacking, but is a challenge in developing livable streets.

Several departments identified physical barriers in Carlsbad as a challenge in implementing livable streets. The City has several natural barriers, including varied topography and three large lagoons. Additionally, there are man-made barriers in the city, such as Interstate 5 (I-5) and railroad tracks. All of these barriers can make it difficult to connect alternative mode facilities in an efficient way. While a vehicle may have to extend its path to circumvent a physical barrier, the distance necessary to do so may extend a walking trip by too far a distance to make it feasible. The Library & Cultural Arts Department noted that the locations of some of its facilities are not pedestrian-friendly for the service area as they lack connections or pedestrians have to cross a physical barrier. Others noted that the topography limits some connections, particularly for pedestrian paths. The rails-to-trails program that runs parallel to the railroad tracks provided for a mixed-use path, but has limited connections to other facilities due to regulations on at-grade crossings. Ultimately, most comments regarding barriers identified connectivity as an important challenge that needs to be addressed in implementing complete streets. Making a bicycle & pedestrian connection across the railroad tracks at Chestnut Avenue would be a great connectivity solution if the CPUC would approve of the crossing.

There are many engineering design decisions that affect livable street outcomes. Both the Utilities and Fire departments cautioned implementing improvements that would affect their departments' ability to conduct work. The Utilities department mentioned that stamped concrete and other decorative enhancements can look nice, but if they need to dig up a roadway for maintenance, replacement of the non-standard treatments can be problematic. The Fire Department focused on some traffic calming measures, such as gates and speed bumps, which



increase their response times as the engines have to avoid or slow down for these countermeasures when responding to an emergency.

Funding

Funding shortfalls were identified as a challenge, but many departments acknowledged that the City has found funding sources to overcome shortfalls in order to maintain a high quality of life in the City. Key funding challenges were noted around maintenance and ongoing costs components rather than the initial capital costs.

There are two assessment districts in the City for maintaining landscaping along the streets. Homeowners Associations (HOAs) can recuse themselves from entering into an assessment district provided that they – at a minimum – independently fund and maintain the quality of landscaping that the City provides. The assessment district that encompasses the older portions of Carlsbad, however, has a funding shortfall of \$250,000 per year. The Parks & Recreation department receives budget from the City to fund the shortfall, but this shortfall is nonetheless a challenge in providing additional services as part of developing livable streets.

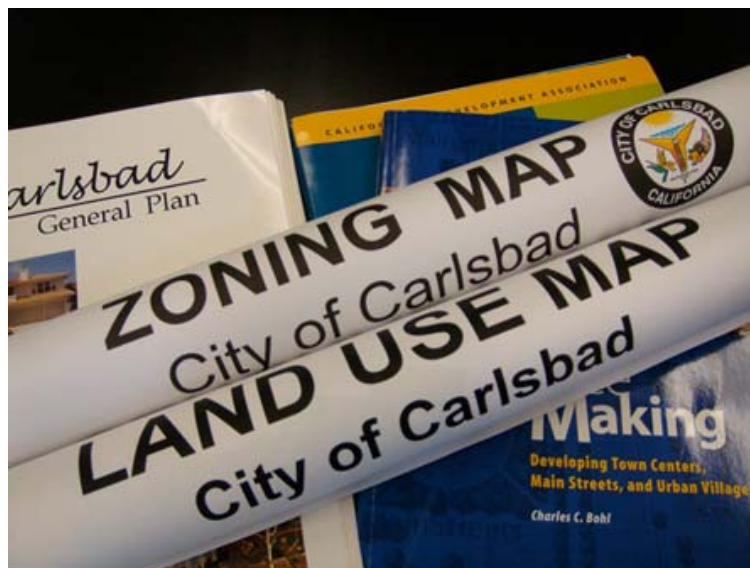
The City Attorney also noted that another assessment for roadway improvements such as sidewalks had been implemented in the 1950s-1960s that has created a challenge in implementing sidewalks in portions of the City. During this time, property owners were given two options by which to pay for the assessment – they could pay the cost upfront or pay their share once the project was conditioned for implementation. Over time, many of the properties that took the latter option changed ownership, and it is difficult to collect these funds from current property owners. However, because these agreements had been made and recorded, the City cannot add improvements at the locations that are funded through another source without a policy change.



Other departments mentioned that while funding is not necessarily a challenge to fulfill existing projects, the City is cautious about increasing future operating & maintenance costs, and considers these costs in approving projects.

Maintenance & Operations

Within the Maintenance & Operations category, most of the challenges that were discussed related to cross-departmental and cross-agency protocol. Different departments' policies can conflict with one another, and different departments are responsible for different components of the street. We heard from several departments that the lack of coordination between departments can create challenges in implementing projects. In some instances, an opportunity to add a livable streets element is lost because a particular department was not consulted earlier in the process. In other cases, the best overall solution has not been implemented due to lack of coordination between agencies. The Utilities Department also noted that different agencies within the region sometimes have to engage in reviewing projects. This can result in a lengthy review process, and in some cases, once all of the designs are approved the initial spirit of the project is lost.



Different departments' policies and plans can conflict with one another.



Key Takeaways

Many of the departments responded similarly when asked about the challenges in implementing livable streets. Frequent challenges cited had to deal with relic policies and programs, which can stunt departmental operations from both a legal and funding perspective. The City is also at times hindered by the lack of transparent coordination protocol for implementing projects, and have seen opportunities lost or projects implemented that can be challenging for one or more departments. The physical barriers in the City were also identified as features that make Carlsbad unique, yet create challenges in establishing a connected network for bicyclists and pedestrians. Although in this past year many successful livable streets efforts were implemented, these may be a result of focusing on what the City “can” do rather than “can’t” do, but are being initiated to drive momentum for more challenging projects in the future.

Desired Outcomes of Livable Streets

The department leaders identified the outcomes that they would like to see implemented for livable streets to be successful in Carlsbad. These answers included the development of programs & protocol, functional indicators, and experiential indicators.

Programs & Protocol

Many departments identified the importance of having an established protocol on how various departments should coordinate with one another on livable streets projects. This could take shape as an organization chart or matrix. The City has several smaller departments with different responsibilities. In some cases, there is overlap in an area of responsibility between two departments, and the City is making an effort to work out who is responsible or accountable,

A frequently requested outcome was improved coordination between departments in the City.



and how to coordinate. Developing a method by which departments are responsible for coordinating early and often on livable streets projects was a desired outcome that was emphasized throughout the meetings.

With funding for projects being a constant issue, many departments were interested in identifying outside sources to obtain or stretch funding. This could include fund matching through grants from regional, state, and national agencies. Departments were interested in establishing a program or method to effectively grow their funding sources by accessing outside funds. There are not a lot of experienced grant resources internally.

There was also interest in developing an education program about safety. Both the Fire and Police departments emphasized education and expressed their desire to establish programs to educate both children and adults about safety on the streets.

Functional Indicators

There were some desired outcomes described in meetings that could be measured through quantitative or qualitative means, and ultimately measured the functionality of livable streets.

The Property & Environmental Management Department noted that they are developing a Greenhouse Gas Emissions inventory and developing a way to quantify the Greenhouse Gas effects of livable streets projects would allow their department to measure its success.

There were some outcomes that are measurable through a mix of quantitative and qualitative methods. Several departments emphasized that a desired outcome would be increased connectivity for all modes, and a balanced network of automobile-oriented and pedestrian-oriented streets. Housing & Neighborhood Services also voiced their desire to see more people on the streets and utilizing the downtown. For both of these indicators, a combination of



quantitative data, such as pedestrian counts and mapping, could be coupled with qualitative indicators about activity levels.

Experiential Indicators

The third set of desired outcomes is qualitative in nature, and addresses some of the experiential qualities that were identified in the meetings with department leaders.

An increased perception of safety was described as a desired outcome by Housing & Neighborhood Services, Parks & Recreation, and the Police departments. Carlsbad, according to statistical data, is one of the safest cities in the region, but many areas of the built environment are not as welcoming or inviting as statistics show. These departments mentioned that the desired outcome is to have fewer collisions or crimes, but even more so, to have people feel comfortable and safe on the street.





An increased quality of life was another outcome described by several departments including Fire and Transportation. The City takes pride in providing a high quality of life for its residents, and further enhancing the quality of life would indicate success for livable streets. In that vein, most departments pointed to their emphasis on customer service, and noted that a successful livable streets project would be one in which residents were happy with the outcome.

Key Takeaways

Many of the desired outcomes of livable streets projects relate to how departments define livable streets. At the forefront, they would like to see satisfaction from residents, pointing to the City's emphasis on customer service. They would also like to have streamlined protocol for developing projects and coordinating, funding projects through the CIP process, and for securing and growing funding through external sources. The departments identified indicators that could be measureable, such as Greenhouse Gas reductions, increased connections, and increased pedestrian activity. Other outcomes relate to the feel of the streets, such as improved safety and quality of life.



Performance Measurement

The City of Carlsbad is making progress towards being a leader in livable streets implementation. This chapter provides an evaluation of how the City is performing, including key highlights and areas for enhancement. This chapter compares some of the key themes in the best practices from national leaders in livable streets to the work that Carlsbad has been doing in an effort to develop a benchmark for the City. This chapter also highlights areas of strengths and opportunities for enhancement.

Legal & Policy

The jurisdictions of Arlington County, VA, Redwood City, CA, Fort Collins, CO, and Minneapolis, MN were identified as leaders in livable streets policies and legislation. Key highlights among these examples have included stakeholder involvement, flexibility in policies and legislation, linkages between policy & project, and regular monitoring of progress.

Key Highlights in Carlsbad

Although the City of Carlsbad has not yet adopted a livable streets policy, they have been proactive in implementing livable streets in the City. The City regularly monitors traffic, growth, and downtown activity. They have also been at the forefront of involving stakeholders in their planning processes. The City has active committees including the Traffic Safety Commission and Planning Commission. They have consistently been conducting extensive public outreach as part of plan developments, including Envision Carlsbad, the Pedestrian and Bicycle Master Plans, and the ADA (Americans with Disabilities Act) Plan. The City has also shown flexibility in policies by developing programs such as the Carlsbad Residential Traffic Management Program, in which stop signs are being constructed at beneficial locations that may



otherwise not meet a warrant analysis. Additionally, the City has been implementing new policies that incorporate livable streets principles, including a reevaluation of capacity enhancing capital projects to reduce pedestrian crossing distance, and a Bicycle Lane Widening policy to improve the cycling realm during routine maintenance. With these foundations already in place, a policy that links to these foundations can be effective in implementing livable streets.

Opportunities for Enhancement

The City has not yet adopted a livable streets policy. National groups, such as the National Complete Streets Coalition generally seek such a policy in identifying best practice examples. The National Complete Streets Coalition has developed a workbook to assist cities in developing livable streets policies, and has prepared a policy analysis document that evaluates livable streets policies. At a local level, Walk San Diego has prepared a report on developing livable streets policies in the region that can be successfully implemented. All of these documents emphasize the use of strong language, a clear intent, design flexibility, performance monitoring, and implementation next steps. Carlsbad should strive to develop a policy that includes these elements and sets itself up to develop a robust livable streets program with tangible results. The City could

Policy Development Resources

From Policy to Pavement: Implementing Complete Streets in the San Diego Region. Walk San Diego & American Planning Association (California Chapter, San Diego Region), 2012. Available at: www.walksandiego.org/download_file/view/312/1/

Complete Streets Policy Analysis 2011. National Complete Streets Coalition & Smart Growth America, 2012. Available at: <http://www.completestreets.org/webdocs/resources/cs-policyanalysis.pdf>

Complete Streets Local Policy Workbook. National Complete Streets Coalition & Smart Growth America, 2012. Available at: <http://www.smartgrowthamerica.org/documents/cs-local-policy-workbook.pdf>



be further enhanced by evaluating and synthesizing existing plans and legislations to develop synergy between various documents.

Design Innovations

The jurisdictions of Charlotte, NC and New York, NY have provided design innovations relating to livable streets. Key highlights among these examples have included community participation, feedback loops built into project implementation, modal balance, regular monitoring, and innovative approaches.

Key Highlights in Carlsbad

The City of Carlsbad has several successful examples of livable streets design innovations. The City has been implementing the building blocks highlighted by best practice cities in implementing these projects. The La Costa Avenue road diet was first developed as a temporary solution, and has since resulted in a positive impact on travel behavior and support from the City & residents. La Costa Avenue and other demonstration projects have provided innovative solutions to problems. The Calavera Lake bike connection, for example, was innovative in that it provided solutions for both motorists and bicyclists by providing more parking supply while concurrently enhancing a connection for cyclists. The City is currently designing a roundabout on State Street and recently implemented a pedestrian scramble in Carlsbad Village – two more examples of design innovations. As previously noted, the City has also been conducting regular monitoring efforts and community outreach efforts, such as Envision Carlsbad. The City has kept residents aware of the livable streets improvements, with media releases, videos, and social media outreach to create interest for its livable streets initiatives.



The State Street/Carlsbad Boulevard Roundabout is one of the innovative roadway improvements being implemented by the City.

Opportunities for Enhancement

The City has been very successful in providing a solutions-oriented approach to project development. Carlsbad has implemented several projects that have elements of livable streets. The City is already gaining attention for all of their progress on this front by highlighting and promote their efforts under the livable streets umbrella. The City can further enhance their efforts by developing a livable streets priority program for implementing projects and tying these projects to the Capital Improvements Program. In doing so, the individual projects will be seen as a cohesive and larger improvement for the City in furthering its livable streets directive, and there will be a mechanism in place for developing and funding projects.



Funding

Boulder, CO, Washington, D.C., and Austin, TX have received attention in implementing innovative approaches to livable streets funding. Each of these cities looked beyond their city's general fund to develop mechanisms for implementing livable streets. Key highlights include public/private partnerships, community participation in identifying funding sources, and identifying sources outside of the City.

Key Highlights in Carlsbad

The City of Carlsbad has had recent successes in funding for livable streets improvements. The former Carlsbad Redevelopment Agency established a Storefront Improvement Grant for Carlsbad Village, which provided grant funding to small businesses in the Village to enhance their businesses. When implemented, improvements included increased lighting in the Village and an improved pedestrian realm. The City has also allowed private developers to develop their own landscaping on new roads in lieu of paying into a maintenance assessment district, provided that the private landscaping meets or exceeds the quality of the assessment district landscaping. Some developers have opted to enhance the streetscape on roadways, such as Aviara Parkway, which has improved the aesthetics of the roadway network. Carlsbad also successfully applied for and was awarded nearly \$1.25 million in grant funding through the San Diego Association of Governments (SANDAG) Active Transportation Grant Program. For these grants, the City proposed Capital and Non-Capital improvements, with Carlsbad leveraging \$600,000 of local money to create \$1.85 million in funding for active transportation improvements.

Opportunities for Enhancement

The funding successes that Carlsbad has already achieved can be further enhanced by developing clear programs to secure future funding. The Storefront Improvement Grant was a successful



example of a public-private partnership in the Village, but the dissolution of redevelopment agencies in California has halted this program. Fund matching through a program similar to Austin’s Great Streets Development Program can build momentum for funding and implementing livable streets, as the cost of improvements is shared between the City and developers, with tangible benefits for both parties. Similar to the success in Boulder, if Carlsbad reviews the ultimate goals of their livable streets program and secured local funding, and then



creates mechanisms to secure funding from other sources, they can establish a solid framework to implement projects. Developing shelf-ready or concept designs for livable streets projects can also help in being prepared for funding opportunities.

Maintenance & Operations

Seattle, WA, Denver, CO and San Francisco, CA have been forerunners in livable streets operations and maintenance by developing a method to articulate departmental responsibilities more clearly, add accountability, and provide a feedback loop to avoid missing opportunities to implement livable streets.

Key Highlights in Carlsbad

Many City departments have already been developing and implementing livable streets projects, and monitoring their successes regularly. Department leaders have been taking the initiative to improve coordination between departments as these projects gain momentum. The City has also found ways to enhance routine maintenance projects with livable streets elements. A key example of this is the bridge barrier rail project, which the City is currently working on. The City is removing a median over a bridge to add sidewalk and widen bicycle lanes. The median needed to be removed as part of traffic control and project implementation. City staff has been working with Caltrans to change the right-of-way at a lower cost than maintaining the median.

Opportunities for Enhancement

The desired outcome of several department leaders was to improve coordination between departments. In the national best practice examples, the key innovations were streamlining the roles of the streets and developing a clear set of responsibilities to increase coordination. Carlsbad can develop an organizational approach to increase coordination at the onset of projects



to enhance livable streets opportunities. Additionally, the City should develop a livable streets review for CIP projects to identify opportunities to make slated streets projects more livable.



Actions

This chapter presents a series of immediate and mid-term action items that the City can consider undertaking to establish itself as a national leader in livable streets. In addition to these action items, an interim guide for City Staff and Developers to use in Capital Improvement and development projects is provided in the appendix to this report.

Action Item	Projected Completion Date
Prepare five Priority Projects for 2014/2015 Capital Improvement Program	June 2013
Develop Priority Demonstration Project Program	September 2013
Implement 5 New Demonstration Projects	November 2013
Develop Livable Streets Implementation Strategy	January 2014
Develop and adopt Livable Streets Guidelines and Policies	January 2014
Develop Multi-Modal Level of Service Strategies	June 2014
Create state-of-the-practice Livable Streets Design Standards	June 2014

Appendix A – Interim Project Checklist

Carlsbad Livable Streets Checklist

This checklist is designed to guide City staff and developers in enhancing streets projects so that they can include more livable streets elements. For CIP infrastructure projects and private development projects, read through the guide, checking off elements that apply to the project. Tally the number of livable streets elements at the bottom of the checklist.

Example:

Has the project location been identified in the City's Bicycle Master Plan as a planned facility?

If yes, is this project consistent with the plans?

Policy/Plan Consistency (CIP and Development Projects)

Has the project location been identified in the City's Bicycle Master Plan as a planned facility?

If yes, is this project consistent with the plans?

Has the project location been identified in the City's Pedestrian Master Plan as a planned facility?

If yes, is this project consistent with the plans?

Is the project located next to any planned facilities identified in the Bicycle or Pedestrian Master Plan?

If yes, is this project consistent with the plans?

Project Design (CIP and Development Projects)

Does the project provide pedestrian crossings every 300-500'?

Does the project provide continuous sidewalks on both sides of the street?

Does the project provide ADA compliant curb ramps?

Do proposed bicycle facilities connect to local bicycle and transit networks?

Does the project have any traffic calming components?

Does the project provide a buffer between traffic and pedestrians?

Does the project include street furniture?

If yes, is street furniture oriented to the street?

If yes, is there a minimum 5' width of uninterrupted walkway?

Does the project incorporate appropriate stormwater management and drainage features?

Is the roadway design speed appropriate for the street type?

Is the roadway wide enough to maintain emergency vehicle access?

Does the intersection design reduce conflicts between modes?

Funding, Maintenance & Operations (CIP Projects)

Have you coordinated with other City departments on the project?

Are there any other CIP projects planned for this facility?

If yes, can this project be combined with the planned project?

Has funding been allocated for maintenance of the project?

If the project is at an intersection, can signal timing be modified to reduce pedestrian wait time?

TOTAL LIVABLE STREETS ELEMENTS: _____