Agenda Item #:

Staff Report
City of Manhattan Beach

TO: Honorable Mayor Tell and Members of the City Council

THROUGH: David N. Carmany, City Manager

FROM: Richard Thompson, Community Development Director
Sara A. Russo, Community Development Intern

DATE: November 15, 2011

SUBJECT: Consideration to Approve the Vitality City Livability Plan

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RECOMMENDATION:
Staff recommends that the City Council approve the Vitality City Livability Plan.

FISCAL IMPLICATION:
There are no fiscal implications associated with this recommended action.

BACKGROUND:
At the May 4, 2010 City Council Meeting the City Council approved a letter of support to become a Vitality City with a goal of improving the well-being of Beach City residents and City employees.

At the October 19, 2010 City Council Meeting the City Council approved the City's participation in this program.

The Beach Cities Livability Plan provides a general assessment of existing conditions in the Beach Cities, followed by specific recommendations for improving policy and the built form to be more supportive of livability. The report outlines how Beach City leaders, residents, business operators, and employees can support the Livability Plan movement.

DISCUSSION:
Healthways | Blue Zones Vitality City initiative is a community-wide, well-being improvement program to create healthier, happier and more productive citizens using evidence-based environmental and policy changes to motivate residents to adopt and maintain healthier lifestyles.

Vitality City is a three year initiative that plans to reveal in the upcoming months certified Vitality City restaurants in the beach communities, purpose workshops, a blue zones campaign, and more engagement with community members in the Beach Cities.

As part of the Vitality City's engagement with the Beach Cities, they have developed a Livability Plan. Livability refers to the quality of life that a place allows and is heavily influenced by the land use and transportation planning decisions made by communities. The Plan outlines recommended policies and actions for implementation centered on adoption of livability policies, infrastructure and education to create and sustain a more livable environment in Manhattan Beach and the South Bay.

The City is investing time and energy into the Vitality City initiative by partaking in actions, programs and events that promote healthy lifestyle changes. The City's traffic engineer and City staff participated in the development of the Plan, staff also engaged in creating a Master Bike Plan with the South Bay Bicycle Coalition that would bring approximately 30 miles of bike ways to Manhattan Beach; Mayor Tell started a Walking Moai; and most recently City Council endorsed the "Moving Planet South Bay" event in September which encouraged sustainable solutions and improvements to the City's health, well-being and the livabiltiy of the Manhattan Beach community.

Adopting the Livability Plan would mean that Manhattan Beach would agree to adopt the four policies regarding livability, the five policies pertaining to Manhattan Beach regarding the building, creating, and replacement of infrastructure, and the policy regarding education and enforcement for pedestrian and bike safety.

The four livability policies include:

- All three cities are encouraged to direct staff to place livability principles into each city's General Plan and Municipal Codes and to provide draft policy revisions to appropriate commissions and the city councils for review and approval by February 2012.
- All three cities are encouraged to revise appropriate policies and plans to include "Complete Streets" policies and design guidelines for livable streets. Route the recommended revised policies through appropriate commissions and city councils for review and approval by April 2012.
- All three cities are encouraged to adopt the South Bay Bicycle Master Plan by December 2011.
- All three cities are encouraged to develop and adopt city and regional pedestrian plans. Cities are encouraged to direct staff to pursue funding in 2012 to begin the planning process for 2013.

The five policies pertaining to infrastructure include:

- All three cities are encouraged to identify locations and plans to install mini-circles.
- All three cities are encouraged to work cooperatively and potentially with two cities north of the beach cities to install bike lanes on Aviation Boulevard, creating connection to employment centers. This should begin in 2012 with setting up a joint staff task force and a joint community task force to complete sufficient planning to be able to apply for funding by late 2012.
- All three cities are encouraged to reset intersection signals in areas of high pedestrian counts so that the WALK phase is automatic for the pedestrian.
- All three cities are encouraged to continue efforts to secure funding to build Safe Routes to Schools improvements.

- The Cities of Hermosa Beach and Manhattan Beach are encouraged to establish a committee to plan how to restripe Valley Ardmore, converting each street to one way with bike lanes on the street.

The policy pertaining to pedestrians and bike safety:

- All three cities are encouraged to partner with the South Bay Bicycle Coalition and other stakeholders to develop plans to increase education and enforcement for pedestrian and bike safety. Education will be for all parties, not just motorists.

Attached to this report is a letter from Vitality City summarizing specific recommendations regarding livability, a presentation on the Plan and its application in Manhattan Beach, and the Beach Cities Livability Plan.

Attachments: A. Letter from Vitality City summarizing specific recommendations
B. Livability Plan PowerPoint presentation
C. Beach Cities Livability Plan

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HEALTHWAYS | BLUE ZONES
VITALITY CITY

Beach Cities Health District

Healthways | Blue Zones Vitality City®: Beach Cities Livability Plan

6 September 2011

Dear City Councils, City Manager, and Commissioners of Hermosa Beach, Manhattan Beach, and Redondo Beach:

On behalf of Healthways | Blue Zones Vitality City®, we are pleased to present to you the Healthways | Blue Zones Vitality City®: Beach Cities Livability Plan. This plan identifies key steps for taking the good work already completed in the Beach Cities and implementing policies and infrastructure improvements for even healthier communities.

The Livability Plan was created through the input of citizens, city staff, and technical experts from January through July 2011. It was researched and written by the Walkable Livable Communities Institute, led by Dan Burden. Mr. Burden has advised over 3,500 communities on how to improve their designs to create healthier citizens and more livable neighborhoods.

Below is a summary of top recommendations from the Healthways | Blue Zones Vitality City®: Beach Cities Livability Plan. These recommendations can improve not only the walkability and bikeability of the communities, but when fully implemented, can boost air quality, lessen congestion, and reduce overall automobile travel time. (For more detailed information, please refer to the full report.) Fundamentally, *livability* refers to the quality of life a place allows and is heavily influenced by the land-use and transportation planning choices made. In a livable community, people of all ages and abilities can move freely from destination to destination, and be nourished in the journey by interactions, visual stimulation, arts, and other factors. Each community defines livability differently, but it is always rooted in the core experience of daily travel.

Vitality City requests the City Councils of Hermosa Beach, Manhattan Beach, and Redondo Beach to take the following action (drafted language only for guidance) to begin the next stage of creating a policy and built environment that supports well-being:

"The City Council receives and files the Vitality City Livability Plan and directs staff to review existing city policies in comparison to the recommended policies. The Council notes the conceptual and recommended projects in chapter five but acknowledges they will need to conduct studies, including

EXHIBIT A
CC MTG 11-15-11

appropriate environmental reviews, and find appropriate funding before the Council can consider approval.

Specifically, [City Name] agrees to prioritize and create a work plan to accomplish the following. In brackets are noted the corresponding policy from the South Bay Bicycle Master Plan (SB BMP):

- Adopt Livability Policies
  - [City] directs staff to propose how to place livability principles into each city's general plan and municipal codes and provides draft policy revisions to appropriate commissions and the City Council for review and approval by February 2012. This addition provides a mission, or guiding framework, for city policies. (page 52) [Aligns with South Bay Bicycle Master Plan Policy 1.1.5 and 1.4.4]
  - [City] directs staff to revise appropriate policies and plans to include or reference Complete Streets policies and Livable Streets Design Guidelines. Staff is encouraged to route the recommended revised policies through appropriate commissions and the City Council for review and approval by April 2012. Complete Streets policies guide decisions about street and building design so that streets become safe and effective for all users, not just automobiles. (page 42-43) [Aligns with SB BMP Policy 1.2.2]
  - [City] will consider adoption of the South Bay Bicycle Master Plan by December 2011. (page 41)
  - [City] will explore development and adoption of a city and regional pedestrian plan. [City] will direct staff to pursue funding in 2012 to begin the planning process for 2013. (page 44)
- Build, Create, Replace
  - [City] will work to identify locations and plans to install mini-circles. They can improve safety and traffic flow while reducing air and noise pollution. (page 21, appendix c-f)
  - [City] agrees to work cooperatively and potentially with adjacent cities north of the Beach Cities to install bike lanes on Aviation Boulevard, creating connections to employment centers. This should begin in 2012 with setting up a joint staff task force and a joint community task force to complete sufficient planning in order to apply for funding by late 2012. (page 79, 82) [Aligns with SB BMP Policy 1.1.6 and 3.2.4]
  - [City] will consider, in high pedestrian areas, resetting signal timing so it's automatic for the pedestrian. This practice creates a pedestrian-friendly culture. (page 89)
  - [City] will continue efforts to secure funding to build Safe Routes to Schools improvements. (page 48-49) [Aligns with SB BMP Policy 3.3.1]

- The City of Redondo Beach will complete engineering studies and planning processes to install a class-one bicycle lane (a two-way bikeway separated from cars) on N. Harbor Drive by 2013. (page 86)
- The City of Redondo Beach will explore replacing signs along the North Redondo Beach Bikeway to have stops only for motorists, not cyclists or pedestrians. (page 32, 91)
- The cities of Hermosa Beach and Manhattan Beach will consider establishing a committee to plan how to re-stripe Valley Ardmore, converting each street to one-way with bike lanes on the street. (page 87)

- Educate and Enforce
  - [City] will explore partnering with the South Bay Bicycle Coalition and other stakeholders to develop plans to increase education and enforcement for pedestrian and bike safety. Education is for all parties, not just automobiles. (page 46-47)"

We thank you for your consideration of these recommendations and look forward to public discussion of these at appropriate commission and council hearings. The Vitality City team stands ready to work with you to create communities of high well-being and moving toward being Blue Zones Communities where people live longer, better.

Sincerely,

Veronica Flores
Vitality City Beach Cities Manager
514 N. Prospect Avenue – BCHD, 3rd Floor
Redondo Beach, CA 90277
888-666-0023

Copies of the Livability Plan and the executive summary can be downloaded from:

https://www.vitalitycity.com/community/bikeability

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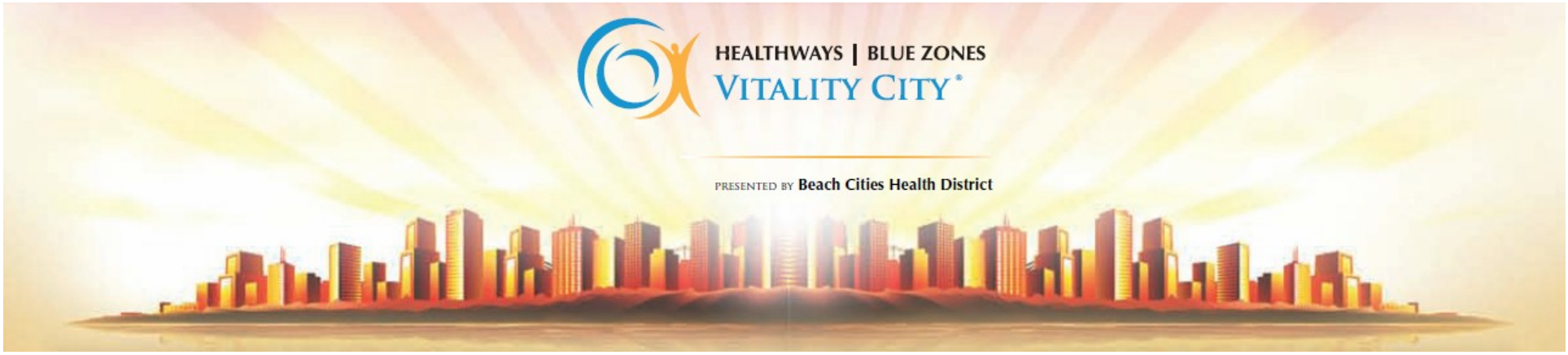

HEALTHWAYS | BLUE ZONES VITALITY CITY:

BEACH CITIES LIVABILITY PLAN

October2011

Blue Zones

+12 years


Hermosa Beach
AARON JONES
BOB

Healthways | Blue Zones Vitality City: Beach Cities Livability Plan

Walkable and Livable Communities Institute
August 2011

Recommendation: Adopt Policies

- Direct staff to propose how to place livability principles into each city's general plan and municipal codes
- Direct staff to revise appropriate policies and plans to include or reference Complete Streets policies and Livable Streets Design Guidelines
- Adopt the South Bay Bicycle Master Plan
- Explore development and adoption of a city and regional pedestrian plan

Recommendation: Build, Create, Replace

- Work to identify locations and plan to install mini-circles.
- Work cooperatively with adjacent cities to install bike lanes on Aviation Boulevard,
- Consider, in high pedestrian areas, resetting signal timing so it's automatic for the pedestrian
- Continue efforts to secure funding to build Safe Routes to Schools improvements

Recommendation: Build, Create, Replace

- Consider establishing a committee to plan how to re-stripe Valley Ardmore, converting each street to one-way with bike lanes on the street.


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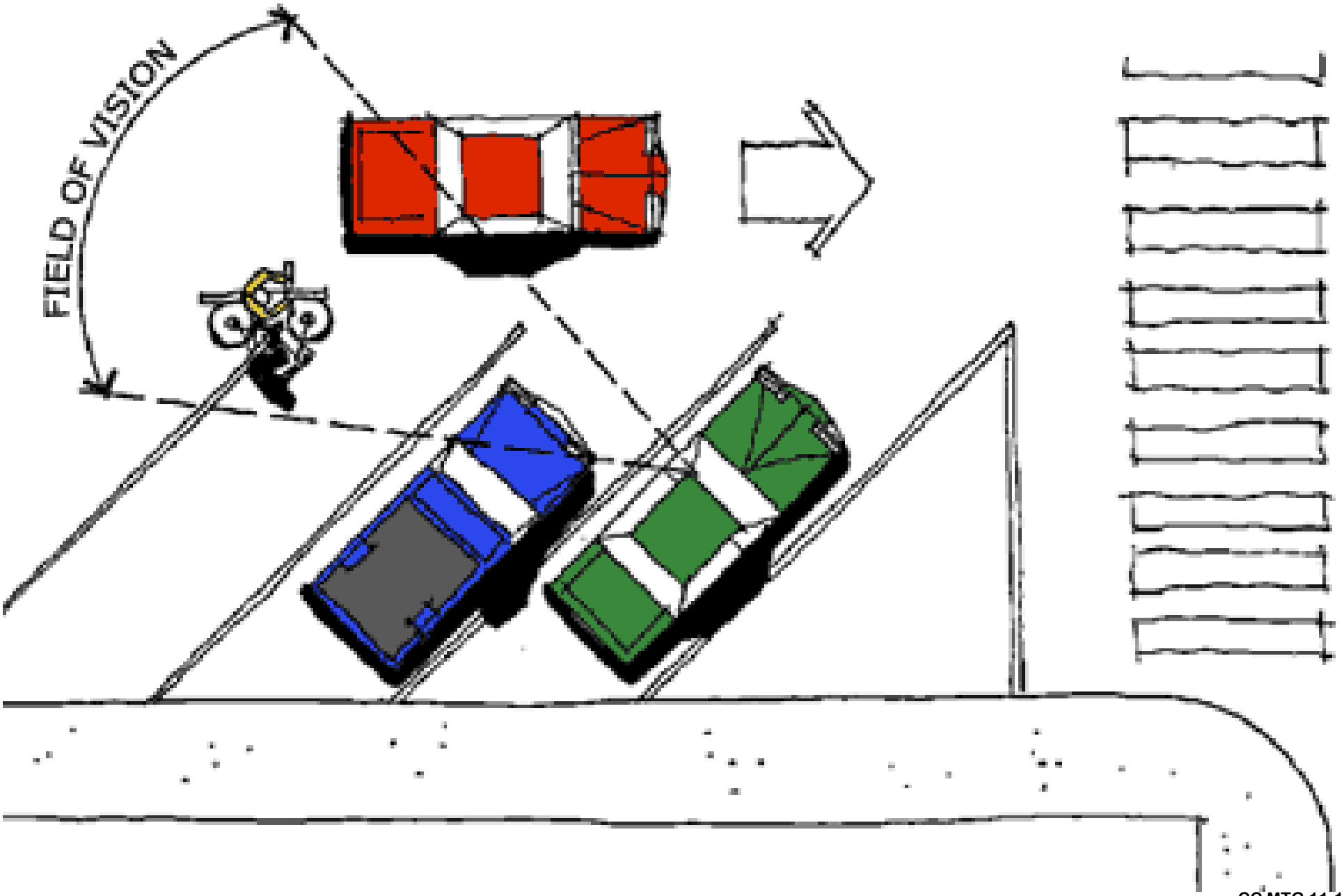
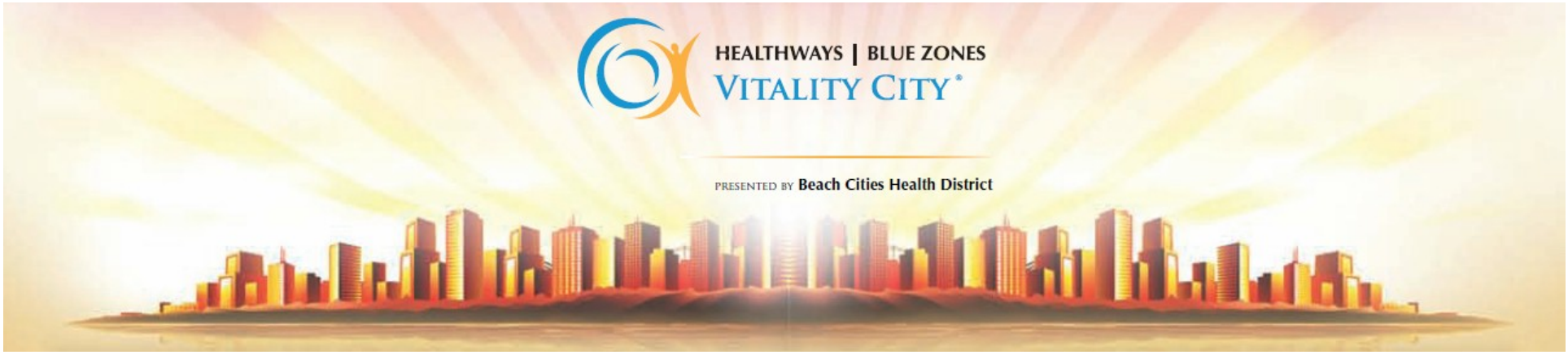

FIELD OF VISION

Recommendation: Educate and Enforce

- Explore partnering with the South Bay Bicycle Coalition and other stakeholders to develop plans to increase education and enforcement for pedestrian and bike safety. Education is for all parties, not just automobiles.

Key Recommendations

- Pursue Complete Streets and Living Streets Policies
- Work cooperatively with adjacent cities on Aviation Boulevard



Join the team creating a more walkable, bikeable, livable beach cities.

www.vitalitycity.com

Healthways | Blue Zones Vitality City: Beach Cities Livability Plan

Walkable and Livable Communities Institute
August 2011

Healthways | Blue Zones Vitality City:

Beach Cities Livability Plan

August 2011

Prepared by the Walkable and Livable Communities Institute

Dan Burden, Executive Director

Kelly Morphy, Director of Outreach and Communications

Sarah Bowman, Director of Education

HEALTHWAYS | BLUE ZONES VITALITY CITY: BEACH CITIES LIVABILITY PLAN

1 Executive Summary

"By focusing on livability, we can help transform the way transportation serves the American people—and create safer, healthier communities that provide access to economic opportunities."
– U.S. Secretary of Transportation Ray LaHood

This report focuses on how to improve livability and well-being in Hermosa Beach, Manhattan Beach and Redondo Beach – the "beach cities" – through land-use and transportation systems that better support active living.

Livability refers to the quality of life a place allows and is heavily influenced by the land-use and transportation planning choices made. The built environment impacts health, well-being and happiness – either positively or negatively. It is a reflection of the care and thoughtfulness put into creating the places where we live, go to work, attend school, and play.

Study after study shows that walkable, bikeable, and livable communities are also healthier communities, not only in terms of individual health, but also environmental and economic health. Consider that:

- A study published in the *Journal of the American Planning Association* in 2006 found that for every five-percent increase in walkability, a community could expect more than a 30-percent increase in "physically active travel" and nearly a quarter-point reduction in individual body mass index, which is a common indicator for obesity and health. The increase in walkability also was correlated with more than a five-percent reduction in air pollutants that are associated with vehicle travel.[1]

[1] Frank, L.D., Sallis, J.F., Conway, T.L., Chapman, J.E., Saelens, B.E., & Bachman, W. (2006), ". "Many pathways from land use to health: Associations between neighbourhood walkability and active transportation, body mass index, and air quality." *Journal of the American Planning Association*, 72(1). 75-87; at http://www.planning.org/library/bibliography/resource.htm?ResourceID=1167

- Analysis published in *Preventive Medicine* in 2010 indicates that installing sidewalks on all of a city's streets would increase physical activity enough to offset weight gain in about 37 percent of the population, leading to healthcare savings likely to be enough to repay the cost of installing the sidewalks.[2]
- A study published by CEOs for Cities in 2009 shows that in 13 of 15 housing markets evaluated, a one-point increase in a neighborhood's WalkScore (www.walkscore.com) increased homes values as much as $3,000.[3]

Other benefits noted through observation and reported by numerous government entities, independent researchers and non-profit organizations include:

- Protection of natural and cultural resources (http://www.epa.gov/dced/)
- Increased economic development (http://www.activelivingresearch.org/files/Synthesis_Shoup-Ewing_March2010.pdf)
- Reduction in crime and violence (http://www.cdc.gov/ViolencePrevention/youthviolence/cpted.html)
- Opportunities for social connectedness and community building (http://bowlingalone.com/)
- Reduce sprawl and infrastructure costs (http://law.wustl.edu/landuselaw/Articles/axelrad.html)
- Transportation equity (http://www.vtpi.org/equity.pdf)

Further, when cities and towns provide equitable access to a complete transportation system, they send the message that people – not just cars - belong. No matter one's age, income, ability, or mode of transport, the place works and the benefits are tremendous:

Livability is not about sacrifice. When we design our streets for well-being, we get well-being. We can turn our communities into thoroughfares or we can turn our communities into destinations. Our streets are attractive and safe for all users, or they are not. Our streets encourage a variety of transportation options, including walking and bicycling, or they limit choices. Our streets enable social interaction, or they segregate. Our streets improve individual, economic and environmental health,

Livability refers to quality of life. Livability is not about sacrifice. Livability is achieved when we set our course to complete streets and embrace well-being.

[2] Jessica Y. Guo and Sasanka Gandavarapu (2010), "An Economic Evaluation Of Health-Promotive Built Environment Changes," *Preventive Medicine*, Vol. 50, Supplement 1, January 2010, pp. S44-S49; at www.activelivingresearch.org/resourcesearch/journalspecialissues

[3] Cortright, Joe and Impresa, Inc. (2009), "Walking the Walk: How Walkability Raises Home Values in U.S. Cities." For CEOs for Cities; at http://www.ceosforcities.org/work/walkingthewalk

or they diminish these things. These are the choices we have before us. Livability is achieved when we set our course to complete streets and embrace well-being. This report outlines the ways in which our elected leaders, city staff and residents can support the livability movement.

Presently, too many of our streets prioritize vehicle mobility. Because of this, the primary role of streets is to move vehicles quickly and this deters other modes of transportation, especially transit, biking and walking. Over-reliance on one system has led to an imbalance where walking and bicycling have become challenging and unnatural activities. We have limited our choices. The results are lower levels of health, happiness and social connectedness. A focus on building livable communities recognizes the significance of streets and transportation investments in individual and community life.

Key Recommendations

Through active transportation, the beach cities can improve the health, happiness and productivity of residents. To help determine how best to go about this effort, the WALC Institute team listened to residents and local leaders, observed existing conditions, and identified context-sensitive solutions and best practices appropriate for the communities.

As a result, the Institute team suggests the following goals for the beach cities:

Goal 1: A complete network of streets and public spaces to support active living
Goal 2: Safe, natural and enjoyable walking and biking conditions
Goal 3: Sustainable transportation choices
Goal 4: Healthier, happier people

In order to achieve these goals, we have set forth the following key recommendations which are detailed in this report:

1. Adopt Complete Streets policies and incorporate Complete Streets policy language into all beach cities planning documents
2. Create and adopt street design guidelines that support livability
3. Develop a regional pedestrian master plan
4. Adopt and implement the South Bay Bicycle Master Plan
5. Increase enforcement for pedestrian safety
6. Increase education and awareness for all road users
7. Improve and enhance Safe Routes to School programs
8. Update the General Plans and Municipal Codes to include livability principles
9. Transform regional corridors, local corridors and neighborhood streets to encourage active transportation
10. Apply best practices, lessons learned and available resources to improve livability throughout the beach cities

Vitality City Top Priorities for Improving Livability in the Beach Cities

The Vitality City team worked closely with the three beach cities to review the livability plan developed by the WALC Institute and use it as a foundation to develop top priorities for improving livability in the region. The goal was to identify and prioritize efforts that will not only improve support for walking and biking in the beach cities, but when fully implemented will also improve air quality, reduce congestion, and reduce overall travel time by automobiles along corridors. Find details about Vitality City at: www.vitalitycity.com.

The top priorities, as developed by Vitality City and representatives from the beach cities, are:

- Adopt Livability Policies
    - All three cities are encouraged to direct staff to place livability principles into each city's General Plan and Municipal Codes and to provide draft policy revisions to appropriate commissions and the city councils for review and approval by February 2012. This addition provides a mission or guiding framework for city policies. (The WALC Institute analysis and recommendations that support this Vitality City priority are detailed in, "General Plan and Municipal Code Review," starting on page 54.")
    - All three cities are encouraged to revise appropriate policies and plans to include "Complete Streets" policies and design guidelines for livable streets. Route the recommended revised policies through appropriate commissions and city councils for review and approval by April 2012. (The WALC Institute recommendation that supports this Vitality City priority is detailed in, "Develop and Adopt Complete Streets Policies," starting on page 42.")
    - All three cities are encouraged to adopt the South Bay Bicycle Master Plan by December 2011. (The WALC Institute guidance and recommendations that support this Vitality City priority are referenced on pages 28, 41, 43, 76 and 82.)
    - All three cities are encouraged to develop and adopt city and regional pedestrian plans. Cities are encouraged to direct staff to pursue funding in 2012 to begin the planning process for 2013. (The WALC Institute recommendation that supports this Vitality City priority is detailed in, "Develop and Adopt a Regional Pedestrian Master Plan," starting on page 44.")
- Build Stuff
    - All three cities are encouraged to identify locations and plans to install mini-circles. They can improve safety and traffic flow while reducing air and noise pollution. (The WALC Institute guidance and recommendations that support this Vitality City priority are referenced on pages 21, 34, 87, 88, 91, and in the Appendix section, "Photo-Visualizations: Local Corridor.")
    - All three cities are encouraged to work cooperatively and potentially with two cities north of the beach cities to install bike lanes on Aviation Boulevard, creating connection to employment centers. This should begin in 2012 with setting up a joint staff task force and a joint community task force to complete sufficient planning to be able to apply for funding by late 2012. (The WALC Institute recommendations that support this Vitality City priority are on pages 79 and 82.)

  - All three cities are encouraged to reset intersection signals in areas of high pedestrian counts so that the WALK phase is automatic for the pedestrian. This helps create a pedestrian-friendly culture. (The WALC Institute guidance and recommendations that support this Vitality City priority are on pages 81, 82 and 89.)
  - All three cities are encouraged to continue efforts to secure funding to build Safe Routes to Schools improvements. (The WALC Institute guidance and recommendations that support this Vitality City priority are on pages 22, 33, 69, 71, 72, 74, and 87, as well as in the section, "Improve and Enhance Safe Routes to School Programs, starting on page 48.)
  - The City of Redondo Beach is encouraged to complete engineering studies and planning process to install a cycle-track (two-way bikeway separated from cars) on N. Harbor Drive by 2013. (The WALC Institute recommendations that support this Vitality City priority are detailed in the section, "Harbor Drive at Yacht Club Way" on page 86.)
  - The City of Redondo Beach is encouraged to replace signs along the North Redondo Beach Bikeway to have stops only for motorists, not cyclists/pedestrians. (The WALC Institute guidance and recommendations that support this Vitality City priority are on pages 32 and 91 and in the Appendix section, "Photo-Visualizations: Local Corridor.")
  - The Cities of Hermosa Beach and Manhattan Beach are encouraged to establish a committee to plan how to restripe Valley Ardmore, converting each street to one-way with bike lanes on the street. (The WALC Institute recommendations that support this Vitality City priority are detailed in the section, "Valley Dr. and Ardmore Dr." on page 87.)
- Educate and Enforce
  - All three cities are encouraged to partner with the South Bay Bicycle Coalition and other stakeholders to develop plans to increase education and enforcement for pedestrian and bike safety. Education is for all parties, not just motorists. (The WALC Institute recommendations that support this Vitality City priority are detailed in the sections, "Increase Education and Awareness for All Road Users" on page 47 and "Increase Enforcement for Pedestrian Safety" on page 46, as well as on page 93.)

How to Use This Report

This report provides a general assessment of existing conditions in the beach cities, followed by specific recommendations for improving policy and the built form to be more supportive of livability.

It includes the following:

- A personal message on livability from Dan Burden, Executive Director of the Walkable and Livable Communities Institute
- An explanation of the purpose of this livability plan and why we need a better built form
- Summary of existing conditions in the beach cities
- Policy recommendations for improved livability
- Specific actions the beach communities should take for a better built form more supportive of livability
- Photo-visualizations of a regional corridor and a local corridor to assist with visioning and capacity-building
- Best practices and resources for improving livability

See the chapter, "Changes for a Better Built Form," for specific recommendations addressing how to transform streets to be more livable, including this photo-visualization for Aviation Blvd, a major regional corridor.

This report outlines how beach cities elected leaders and city staff can support the livability movement. They should:

1. Apply their personal knowledge, skills, love and care for their communities to build places of the heart that people will cherish, enjoy and wish to spend time in.
2. Teach others about the value of Complete Streets policies and look for opportunities to incorporate Complete Streets principles into all projects.
3. Take to the street to assess the built environment with the community and to learn from residents and visitors.
4. Work with law enforcement and schools to improve pedestrian safety and to increase education and awareness for all road users.
5. Assess their General Plans and Municipal Codes for livability principles and to determine where health and well-being might be incorporated more fully.
6. Transform regional corridors, local corridors and neighborhood streets to encourage active transportation.
7. Know the best practices, lessons learned and available resources to improve livability throughout the beach cities.

Beach cities residents, business operators and employees of the area can support the livability movement too. They should:

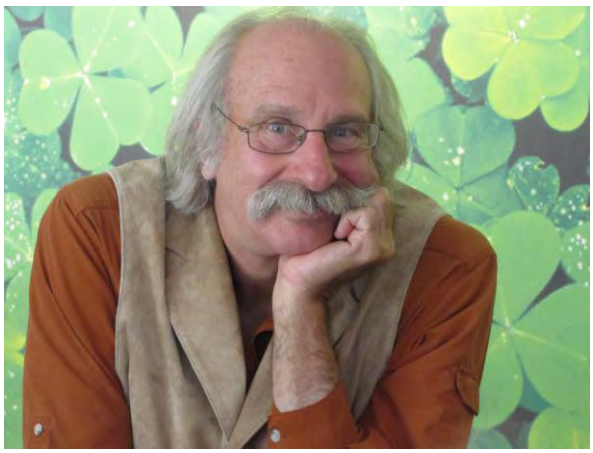
1. Become active participants in Vitality City efforts by signing up at www.vitalitycity.com.
2. Familiarize themselves with the contents of this report.
3. Contact their elected leaders and city staff and share their thoughts on the livability plan.
4. Act locally to improve livability by assessing conditions and communicating observations to city staff and elected leaders on an on-going basis.
5. Volunteer! Livability requires it.

Livable communities are destinations. These places are built with vision, patience, love, common sense, teamwork, and openness. They have a shared commitment to improving quality of life for all. They are graced with a widely held and firmly developed sense of ownership and custodianship because residents of livable communities care for their community. Livable Communities are talked about, celebrated, and loved for their uniqueness and ability to champion the natural environment and human spirit. This report provides key recommendations for improving the built environment so that we encourage greater livability in the beach cities.

A Note from Dan Burden

Executive Director, Walkable and Livable Communities Institute

I have dedicated the bulk of my life to helping the world get back on its feet by improving communities' built forms to be more walkable, livable, healthy and welcoming of people of all ages and abilities.



As executive director of the WALC Institute, I am pleased to have the opportunity to assist the beach cities as they strive to improve their built form to be more supportive of well-being.

Now is the time for unified action in the beach cities. As Johann Wolfgang von Goethe said, "Dream no small dreams for they stir not the hearts of men." Livability becomes a reality when community insights are combined and many people come together to collaborate. The beach cities – with the help of Vitality City – have a rare opportunity to adopt interventions that will significantly improve well-being.

Having met with and seen the commitment of local government and health officials, residents, business leaders, community advocates and other stakeholders, I am a believer in your future. The right people are already coming together to make walkable, livable and healthy communities a reality. There is no doubt, though: the beach cities have their fair share of challenges to achieving healthier communities, such as streets that encourage too-fast vehicle speeds and missing sidewalks and trails.

The good news is that all of these challenges can be overcome, and this report provides guidance for beginning to do just that. The task is immense, and work on it must begin now.

Wherever the communities begin their work, I and many others will be watching. And as projects get underway to place the focus back on people and health, we will share your stories and successes broadly. May the winds of change bring much good to you, and through you.

Sincerely,

2 Toward Well-Being in the Beach Cities






Purpose of the Plan

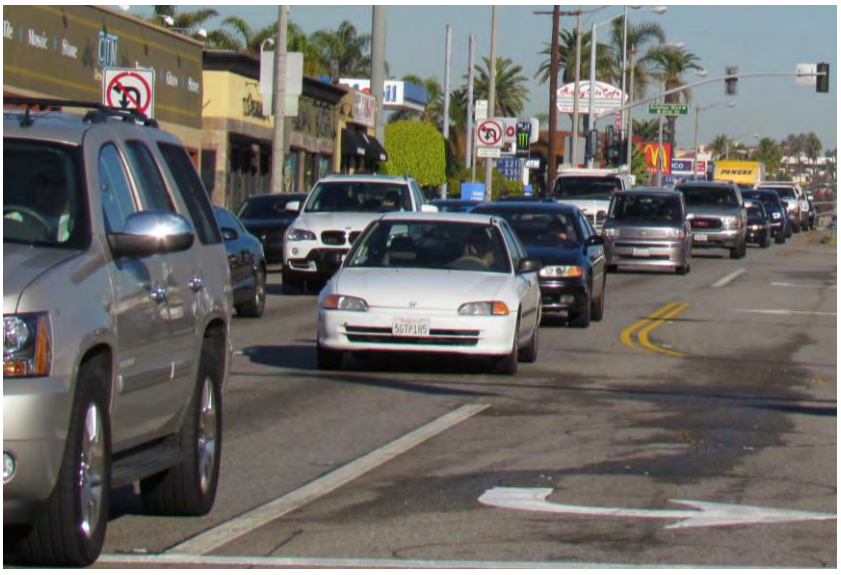
This plan advances the Healthways | Blue Zones Vitality City program in the Los Angeles-area South Bay communities of Hermosa Beach, Manhattan Beach and Redondo Beach—the "beach cities"—by analyzing the built environment and recommending strategies to return well-being to citizens through improved livability and opportunities for active living.

As we made it easier to do everything by car, we stopped accommodating other modes of transport, and thus made it necessary to do everything by car.

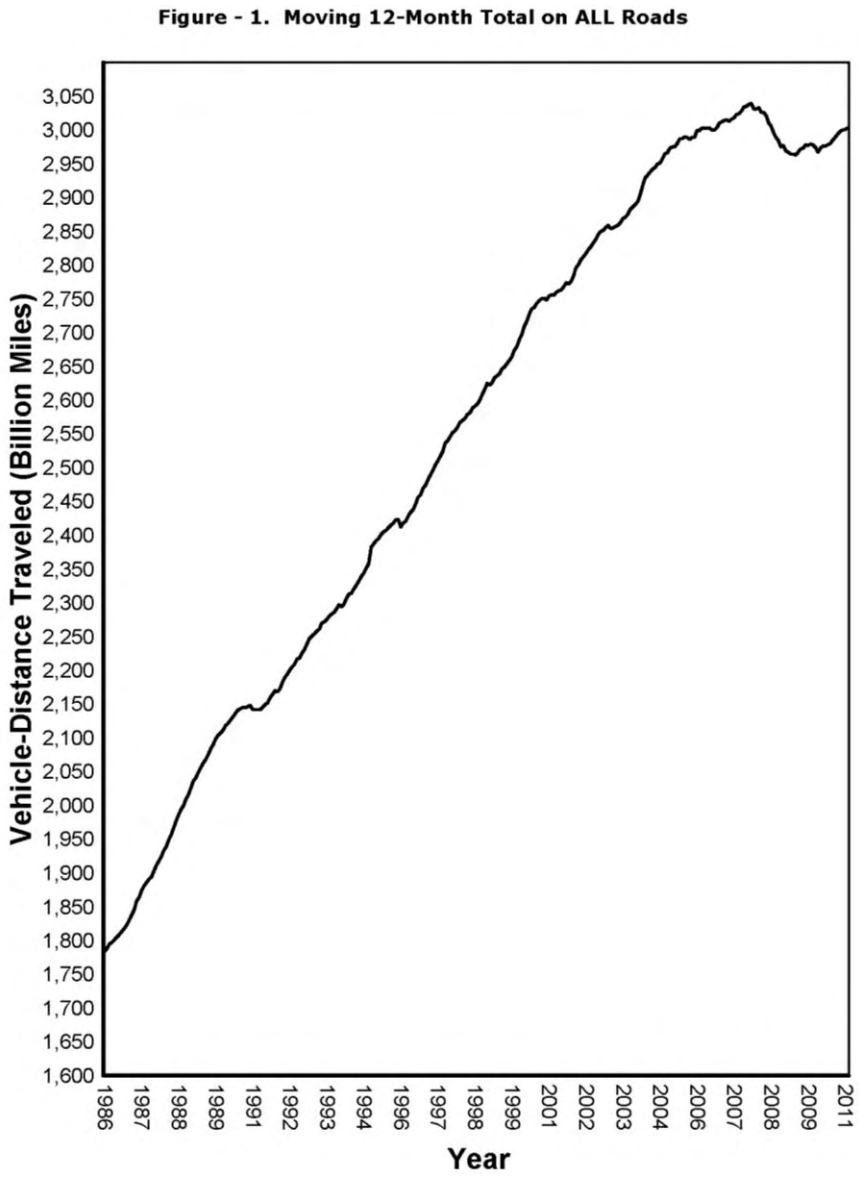
In recent decades, the beach cities have done what many other communities throughout the country have done: made walking and active transportation unnatural and difficult. Structural changes to our built environment were made to favor the car over other forms of getting to and from the places we like and need to go. As a result, the nation has seen declines in public health, social engagement and access to healthy food.

Dependence on the car keeps many people confined in their vehicles for long periods each day. It may have been unintended, but as we made it *easier* to do everything by car, we stopped accommodating other modes of transport, and thus made it *necessary* to do everything by car.

As travel by car increased, the distances between the places people travel also increased. In time, many people found that even if they wanted to walk to a destination, it was too far and they would have to get in the car. In fact, between 1982 and 1997, these effects became very pronounced. During this period, the urbanized land area in the U.S. rose 47 percent while the population grew only 17 percent, for a net decrease of more than 20 percent in urban density. During the same period, vehicle miles traveled increased 55 percent. People now spend more time sitting in cars while getting to destinations that are further apart.



Traffic backs up on Pacific Coast Highway in Hermosa Beach in December 2010.



Data from the U.S. Department of Transportation illustrates the dramatic growth the past two decades in distances Americans travel in their vehicles. These distances strongly correlate to the amount of sedentary time spent in cars.

Vitality City for Longer, Happier, Healthier Lives

Healthways | Blue Zones Vitality City is a community-wide well-being improvement initiative to create healthier, happier and more productive citizens. It uses permanent, evidence-based environmental and policy changes to help people adopt and maintain healthier lifestyles.

The Vitality City initiative includes ten strategies to improve well-being—a combination of physical, social and emotional health. This roadmap for livability is one strategy which aims to increase well-being in the beach cities in part by helping to make streets and neighborhoods more supportive of walking and bicycling, and by allowing residents and visitors to choose active modes of transportation.

WALC Institute for Livability and a Better Built Form

The Walkable and Livable Communities Institute is a non-profit, educational organization that works throughout the country and the world to create healthy, connected communities that are supportive of active living and that advance opportunities for all people through walkable streets, livable cities and better built environments.

The Institute joins the Vitality City initiative with a goal to build capacity by promoting a shared language among residents, government staff and elected officials; illustrating through examples and audits how walkability and livability benefit a community and how they can be achieved; and inspiring everyone to become involved in the movement toward active living. The focus is on significant enhancements being implemented and on-the-ground within six months to one year, and many other enhancements well into implementation within three years.

The WALC Institute team—led by Executive Director Dan Burden, Director of Outreach and Communications Kelly Morphy and Director of Education Sarah Bowman—is assisting the Vitality City project in three phases to address the beach cities' built environment and guiding documents, how they affect active living and ways to improve upon existing conditions.

These "sharrows" on Hermosa Ave. in Hermosa Beach are a good example of low-cost tools being used appropriately to enhance livability. This report explains and illustrates many additional ways the beach cities can improve well-being through livability and better built form. See the glossary for more about sharrows.

Process and Schedule for Community Engagement

During the first phase of the WALC Institute's involvement, launched in December 2010, the Institute team conducted a walking audit and a bicycle audit to experience firsthand the conditions that create barriers to active living in the beach cities.

Also during the first phase, the Institute team held stakeholder interviews and delivered training to city staff from all three communities on best practices in traffic calming, creating complete streets and otherwise providing a built environment that supports active living and active transportation. The team also took part in the Vitality City media launch, which garnered local, regional and national coverage.

During the second phase, the WALC Institute team conducted four public workshops and walking audits.

During the second phase, which began in January 2011, the Institute team conducted four public workshops and walking audits (three of them in conjunction with the public process for developing a regional bicycle master plan), evaluated existing conditions throughout the cities, identified opportunities for improvements, led a visioning and design session with city staff from all three communities and participated in other public outreach efforts.

The third phase of work, beginning in February 2011, includes development of this report, delivering the team's findings and recommendations to the communities, and continuing to support Vitality City outreach efforts.

Why a Better Built Form?

The benefits of livability and walkability are numerous, and are particularly important in places like the beach cities where, according to the Beach Cities Vitality City Blueprint, nearly 60 percent of residents are either overweight or obese and 16 percent experience significant anger.

In fact, study after study shows additional benefits of livable communities, not only in terms of individual health, but also environmental and economic health. Consider that:

- For every five-percent increase in walkability, a community can expect more than a 30-percent increase in "physically active travel" and nearly a quarter-point reduction in individual body mass index, which is a common indicator for obesity and health. The increase in walkability also is correlated with more than a five-percent reduction in air pollutants that are associated with vehicle travel.[4]
- Installing sidewalks on all of a city's streets can increase physical activity enough to offset weight gain in about 37 percent of the population, leading to healthcare savings likely to be enough to repay the cost of installing the sidewalks.[5]
- In 13 of 15 housing markets evaluated, a one-point increase in a neighborhood's WalkScore (www.walkscore.com) increased homes values as much as $3,000.[6]

In addition to the individual health improvements that can be achieved when people opt for active modes of transportation, changing the built form to be more supportive of walking, biking, transit and other active alternatives also benefits communities through:

- Protection of natural and cultural resources (http://www.epa.gov/dced/)
- Increased economic development (http://www.activelivingresearch.org/files/Synthesis_Shoup-Ewing_March2010.pdf)
- Reduction in crime and violence (http://www.cdc.gov/ViolencePrevention/youthviolence/cpted.html)
- Opportunities for social connectedness and community building (http://bowlingalone.com/)
- Reduce sprawl and infrastructure costs (http://law.wustl.edu/landuselaw/Articles/axelrad.html)
- Transportation equity, such as options for people who don't drive, including children, senior citizens, and those who don't have or can't afford cars. (http://www.vtpi.org/equity.pdf)
- Improved mood and decrease anxiety (http://www.sciencedirect.com/science/article/pii/S0272494409000838).

[4] Sallis, et al.

[5] Guo and Gandavarapu

[6] Cortright and Impresa, Inc.

Key Tools and Terms for a Better Built Form

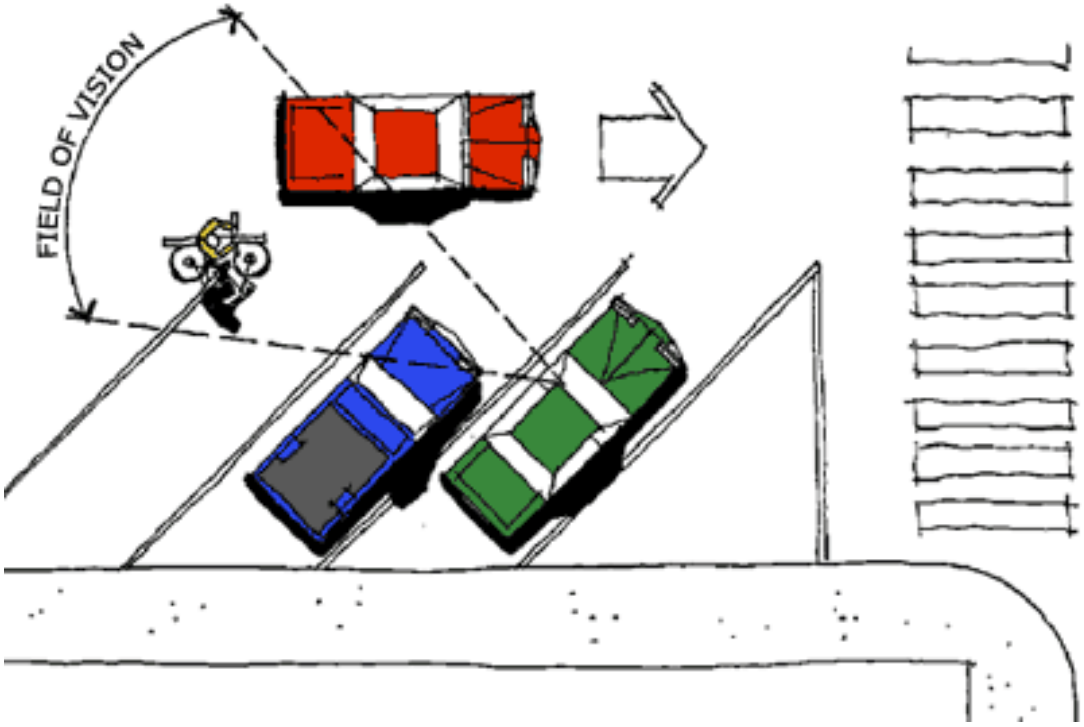
Active Transportation: Also known as non-motorized transportation, this includes walking, bicycling, using a wheelchair or using "small-wheeled transport" such as skates, a skateboard or scooter. Active modes of transportation offer a combination of recreation, exercise and transportation. (*See Victoria Transport Policy Institute, www.vtpi.org.*)

Aging in Place: The ability to continue to live in one's home safely, independently and comfortably, regardless of age, income or ability level. It means living in a familiar environment, and being able to participate in family and other community activities. Also sometimes called, "Living in Place." (See *National Aging in Place Council, www.ageinplace.org.*)

Charrette: [pronounced, "shuh-RET"] A collaborative session to solve urban-design problems. It usually involves a group of designers working directly with stakeholders or residents to identify issues and solutions. It is a much more successful form of public process than traditional public hearings, as it focuses on building informed consent. A charrette can last only a day, several days, or weeks. (*See Walkable and Livable Communities Institute, www.walklive.org.*)

Complete Streets: Roads that are designed for everyone, including people of all ages and abilities. Complete Streets are accessible, have vehicle speeds appropriate for the area, are comfortable for walking and biking, and include sidewalks, street trees and other amenities that make them feel "complete." (See National Complete Streets Coalition, www.completestreets.org.) Further, according to California Department of Transportation (Caltrans) Deputy Directive 64-R1, a Complete Street is a transportation facility that is planned, designed, operated and maintained to provide safe mobility for all users, including bicyclists, pedestrians, transit riders and motorists, appropriate to the function and context of the facility. Complete Street concepts apply to rural, suburban and urban areas.

Head-Out Angled Parking: Also called "back-in" or "reverse" angled parking, this is arguably the safest form of on-street parking. A driver "backs in" to the angled parking spot, which is easier than parallel parking because it is basically only the first maneuver of parallel parking. Head-out parking creates a sight line between the driver and other road users when pulling out. Additionally, head-out parking allows the driver to load their trunk from the curb, instead of adjacent to the travel lane. And for drivers with young children, when parked in a head-out spot, the open car doors guide passengers toward the sidewalks, reducing the chance of a child stepping into the vehicle travel lane. (*See appendix, How to Do It: Parking.*)



This diagram from the City of Northampton, Massachusetts illustrates one of the benefits of head-out angled parking: a driver's ability to see oncoming traffic as they pull onto the street from their parking spot. The process of parking in a head-out angled spot is simple – a driver signals their intention, slows, pulls past the spot and then backs into it, which is roughly equivalent to making only the first maneuver of parallel parking.

Joint Powers Authority: Also called "JPA," this is an entity permitted under the law, whereby two or more public authorities (e.g. local government agencies or utility or transport districts) can operate collectively.

Level of Service: Also called "LOS," this is a qualitative measure describing the flow of traffic on a roadway. It generally describes these conditions in terms of speed, travel time, freedom to maneuver, traffic interruptions, safety and the perceived comfort and convenience of the driver. The interruptions to other modes are not generally considered.

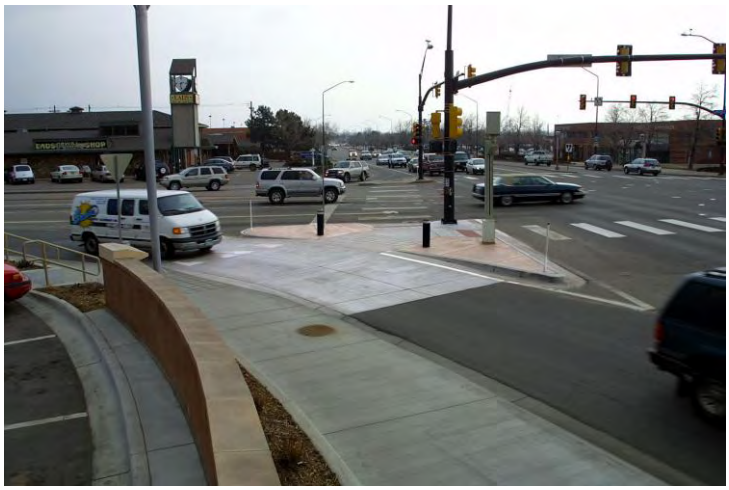
Livability: In the context of community environments and quality of life, this refers to all of the factors that add up to a community's quality of life, including the built and natural environments. (*See Partners for Livable Communities, www.livable.org.*)

Moai: A term from the Blue Zone of Okinawa, Japan, referring to small groups of friends who regularly meet.

Median Crossing Islands: A short island, about 40 to 80 feet long, in the center of the roadway, serves as a traffic-calming device or a pedestrian refuge. Islands are generally eight to 12 feet wide, but narrower island can achieve their purpose, as well. Islands should be landscaped with low, slow-growth ground cover, and tall trees without branches or leaves at ground height—such as palm trees—that help motorists see the islands well in advance but don't obstruct sight lines.

Pedestrian Yield Paddles: Flexible, high-visibility vertical signs placed in the center of streets with lower speeds (30 mph or less) to heighten awareness of marked pedestrian crossings.

Pork Chop Islands: A special intersection island that separates right-turning vehicles from other traffic movement and creates a refuge for pedestrians crossing wider streets. From above, pork chop islands look like pork chops.



Road Diet: When a road is overly wide or has more vehicle travel lanes than are needed or safe, travel lanes can be removed and the extra width used to add bike lanes, sidewalks, a buffer between the travel lanes and sidewalks, on-street parking, a landscaped median or some combination thereof. A common road diet transforms a four-lane road without bike lanes into a three-lane road (one travel lane in each direction with a center turn lane or median) with bike lanes and street trees. (See *Walkable and Livable Communities Institute, www.walklive.org. Also see appendix, How to Do It: Road Diets.)*

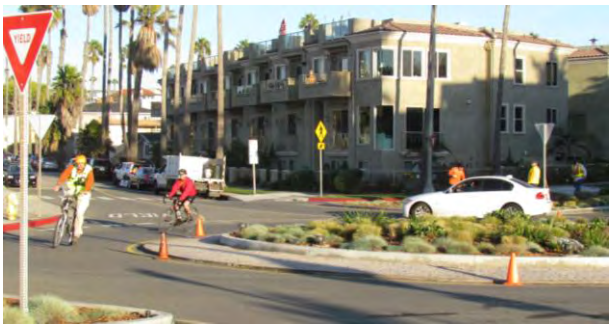
This road diet on Grant Ave. in Redondo Beach, done in 1989, removed one vehicle lane in each direction and added bike lanes and a left-turn lane. Road diets help calm traffic while providing better support for people walking and biking.

MINI TRAFFIC CIRCLES, ROTARIES AND ROUNDABOUTS

Mini Traffic Circles: Also called "mini circles," these are intersections that navigate vehicles around a small island about eight to 15 feet in diameter that is either lightly domed or raised. When raised, a mini traffic circle should be visible from hundreds of feet away, creating the feeling of a small park in the neighborhood. The circles should be designed to reduce speeds to 15 to 18 mph at each intersection. A proper number of them will reduce vehicle speeds to 22 to 25 mph along the corridor while helping traffic flow more smoothly due to the decreased number of complete stops.

Rotaries: Also called traffic circles, rotaries are intersections that navigate cars around very large circulating islands, as big as a football fields in some cases. Rotaries can be cumbersome and can induce higher crash rates. Many rotaries are being replaced with roundabouts.

Roundabouts: Also called "modern roundabouts," they navigate cars around a circulating island, usually about 60 feet in diameter. Roundabouts are ideal for collector and arterial roads, and around freeway on-off ramps. They eliminate the need for cars to make left turns, which are particularly dangerous for pedestrians and bicyclists. Properly designed, roundabouts hold vehicles speeds to 15 to 20 mph. They can reduce injury crashes by 76 percent and reduce fatal crashes by 90 percent. (See the Insurance Institute for Highway Safety's website: http://www.iihs.org/research/topics/roundabouts.html.) Roundabouts also can increase capacity by 30 percent by keeping vehicles moving. When installing roundabouts in a community for the first time, care should be taken to make roadway users comfortable with the new traffic pattern and to educate them about how to navigate roundabouts properly and to yield as appropriate. For more information about roundabouts, see the Federal Highway Administration's educational video about roundabouts, at http://safety.fhwa.dot.gov/intersection/roundabouts/fhwasa10023/wmv_cc_final/10-2124_Roundabouts.wmv.



Roundabouts in Redondo Beach (top) and Davidson, NC (bottom) help to calm traffic, accommodate all street users—motorists, pedestrians and bicyclists—and keep traffic flowing smoothly. (See appendix, How to Do It: Traffic-Calming Roundabouts.)

Safe Routes to School: A national program to improve safety and encourage more children, including children with disabilities, to walk, bike and roll to school. The program focuses on improvements through the five E's: engineering, education, enforcement, encouragement and evaluation. *(See National Center for Safe Routes to School, www.saferoutesinfo.org.)*

Sharrows: A "shared roadway marking"—usually paint—placed in the center of a travel lane to alert motorists and bicyclists alike to the shared use of the lane. They help position bicyclists away from the opening doors of cars parked on the street, encourage safety when vehicles pass bicyclists and reduce the incidence of wrong-way bicycling.

Smart Growth: Growing in a way that expands economic opportunity, protects public health and the environment and creates and enhances places that people love. (See *U.S. Environmental Protection Agency, www.epa.gov/smartgrowth/.)*

Traffic Calming: Using traffic engineering and other tools designed to control traffic speeds and encourage driving behavior appropriate to the environment. Examples include street trees, bulb outs, medians, curb extensions, signage, road diets and roundabouts. Traffic calming should encourage mobility for all modes.

Walk Streets: Streets intended and designed to provide local access solely for pedestrians and cyclists.

Walking Audit: Also called a "walking workshop," this is a review of walking conditions along specified streets conducted with a diverse group of community members. Participants experience firsthand the conditions that either support or create barriers to walking and biking. (See more about walking audits: *Walkable and Livable Communities Institute, www.walklive.org.*)

Walking School Bus: Often organized as part of a Safe Routes to School program, a walking school bus involves children walking along a set route, at set times, to and from school, with an adult chaperone. Many parent organizations and neighborhoods develop informal walking school buses that are as effective and organized as those created as part of a Safe Routes program.

Key Principles and Concepts for a Better Built Form

Why do people walk, bike, blade, board or scoot in some parts of the beach cities, and not in other parts? Why are some communities throughout the country considered very walkable, and others hardly walkable at all?

Near the beaches and along streets that have been designed to support beachgoers, people are seen arriving in cars, by bike, on foot and via other modes of active transportation. People also are seen walking, biking, rollerblading, skateboarding and scooting along the fun, vibrant trails in the region. These are hot spots and they help illustrate that walkable, livable places really do work. But why do they work? And how can the beach cities change their built forms to be more supportive of active living in places further from the beaches?

The Greenbelt serving Hermosa Beach and Manhattan Beach is a vibrant trail and key community asset. The beach cities have an opportunity to improve connections to the trail, intersection crossings for trail users and bicycle access adjacent to the trail.

Walkability

Walkability is the measure of the overall walking, bicycling and living conditions in an area, defined as the extent to which the built environment is friendly to the presence of people, and not just cars. Walkable streets may teem with people shopping, commuting by foot, or simply enjoying recreation and exercise. Factors improving walkability include:

- Nearby land uses, such as retail shops located near offices and housing, and schools located within neighborhoods.
- Street connectivity, ideally in a fine-grain grid without unnecessary cul-de-sacs or one-way streets, which tend to contribute to higher and unsafe vehicle speeds.
- Residential areas that are "denser" than the suburban format that has proliferated in some areas. In most residential areas of the beach cities, neighborhoods already provide good density and potential for active transportation, but are in need of enhancements to the streets to become truly walkable places.
- Road widths that contribute to slower vehicle speeds. Vehicle speeds affect walkability and livability: the wider a road or a vehicle travel lane is (or appears to the driver to be), the faster the driver tends to travel. The faster cars are traveling, the less safe and comfortable a person feels walking or bicycling next to them.
- A sense of security and "eyes on the street." This feeling of comfort is created by orienting the homes and buildings toward the street, and providing transparency—occupied buildings and homes with windows and doors at the street level—so occupants can watch over the street.

Best Practice: Eyes on the Street. Along this stretch of The Strand that leads from Redondo Beach into Hermosa Beach, housing adjacent to the trail allows residents to watch over the trail, creating a sense of security that is important to people walking and bicycling. "Eyes on the street" also are important in retail areas, downtowns and neighborhoods.

Quality place-making contributes to improved walkability. Streets that are laid out well, public squares, plazas and small parks create a human scale and a sense of enclosure to the street, helping to keep vehicle speeds low. Lower vehicle speeds contribute to safety and security for motorists, pedestrians and cyclists.

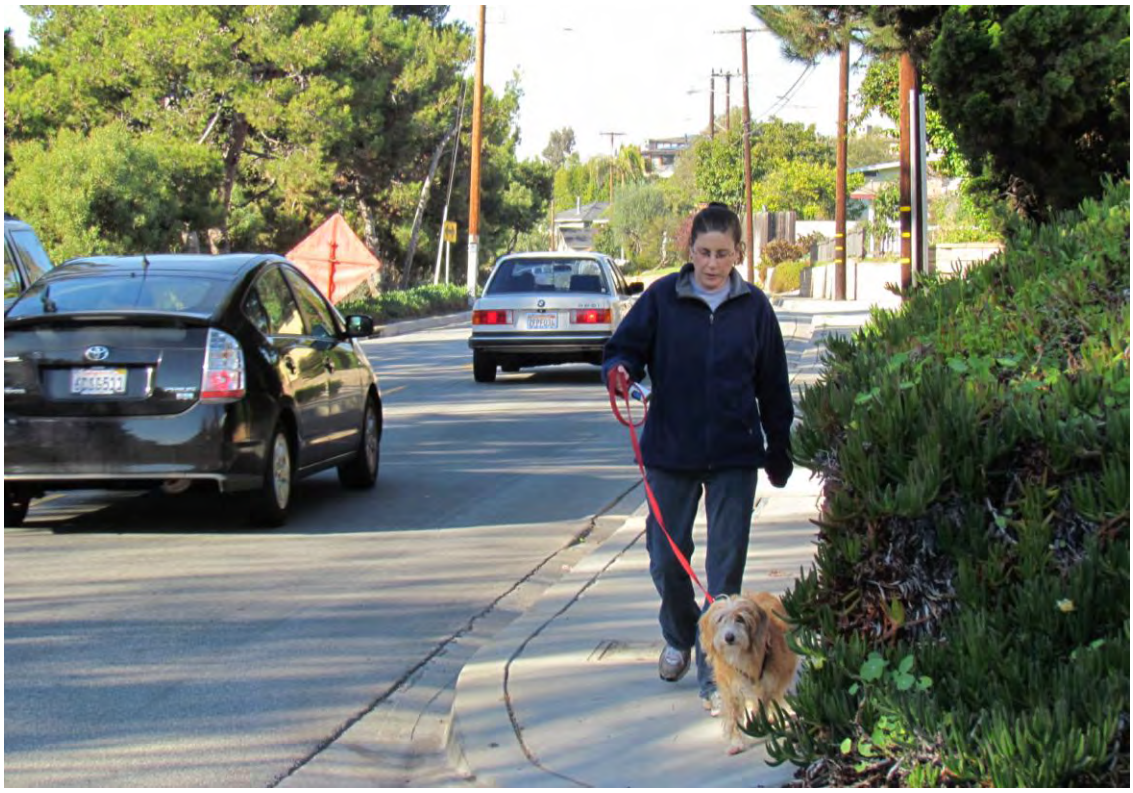
Table 1. Probability of pedestrian death resulting from various vehicle impact speeds.

Vehicle speed (mph)	Probability of pedestrian fatality (%)*	Probability of pedestrian fatality age 14 and under (%)**	Probability of pedestrian fatality age 15 to 59 (%)**	Probability of pedestrian fatality age 60 and older (%)**
20	5	1	1	3
30	45	5	7	62
40	85	16	22	92

* Source: Ref (3); ** Source: Ref (4)

The table above, from the USDOT Federal Highway Administration's 2009 report, *Speed Concepts: Informational Guide,* describes the relationship between a vehicle's speed and the likelihood of a pedestrian death in the event of a collision.

The WALC Institute recommends streets be designed or redesigned to keep vehicle speeds low where pedestrians are to be expected, such as near schools, around medical facilities and senior centers, in shopping districts, and in residential areas, such as along Ardmore, below.



Walkability is improved as an area takes on its own charm and sense of place and is further enhanced when walkway environments are rich and complex, with many things to do, see and experience.

Perhaps most importantly, walkability is greatly affected by the behavior of cars. In areas where vehicle speeds are too high for the street's adjacent land uses, traveling by any mode other than a car can feel very uncomfortable and, in some cases, is downright dangerous.

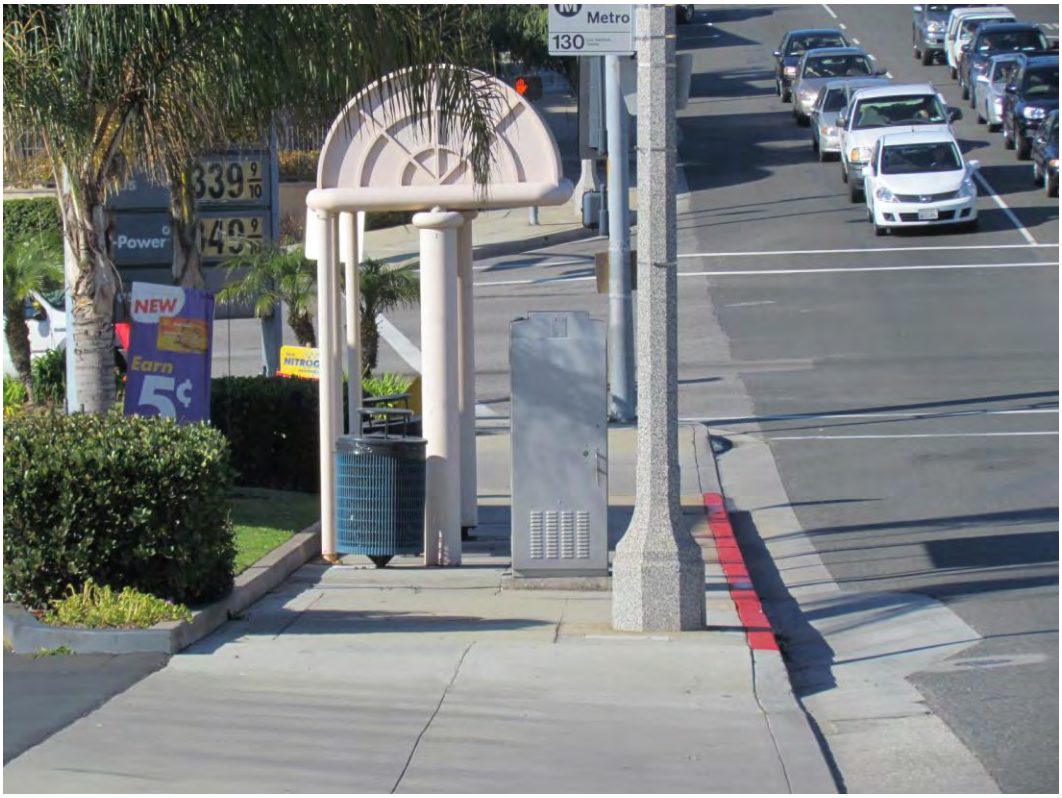
Specific engineering considerations that affect walkability include sidewalks, crossings and bikeways.

In many parts of the beach cities, streets encourage high vehicles speeds that aren't safe for pedestrians. The high speeds, combined with the lack of buffer between the vehicle travel lane and the sidewalk, likely make people feel unsafe walking here.

Sidewalks

Sidewalks are often built too narrow, with poles obstructing travel, driveway ramps that are too steep for crossing and inadequate bus stops. Communities should correct these and other problems to build sidewalks that support active living:

- The pedestrian environment should be safe, inviting and accessible to people of all ages and physical abilities. It should connect people to places and be easy to understand.
- All sidewalks should adhere to Americans with Disability Act standards.
- Driveway aprons should be confined to the Furniture and Curb Zones.
- Landscaped buffers or fences should separate sidewalks from parking.
- Sidewalk surfaces should be stable, firm, smooth and slip-resistant.
- Pedestrian and driver sight distances should be maintained near driveways.
- Regulations regarding walls, fencing and foliage near the intersection of sidewalks and driveways should ensure adequate sight distances as vehicles enter or exit.



Sidewalks need to be wide enough to accommodate multiple users and need to be free of obstructions. This sidewalk at the intersection of Aviation Blvd. and Artesia Blvd. on the border of Redondo Beach and Manhattan Beach is difficult and uncomfortable for an average pedestrian to navigate, but may be nearly impossible for someone in a wheelchair, on crutches or pushing a double stroller.

Bikeways

People riding bikes should have safe, convenient and comfortable access to all destinations. In fact, every street is a bicycle street, regardless of whether it includes a designated bikeway or trail or not. Street designs should accommodate all types, levels and ages of bicyclists. Also, bicyclists should be separated from pedestrians.

Bikeway facilities should take into account vehicle speeds and volumes. For example, on streets with low vehicle volumes and low vehicle speeds, the travel lanes can be shared between bicyclists and motorists. Where higher vehicles volumes and speeds are present, the two types of street users should be separated.

For specific guidance on bikeway design and locations, consult the South Bay Bicycle Master Plan. In general terms, bikeway treatments should provide clear guidance to enhance the safety of all roadway users. Bike lanes are needed most on higher speed and higher volume roadways. When bike lanes are added to principal roadways, they should be at least five feet wide.

Bike lanes provide more than 30 benefits to a community and only a few are specifically for bicyclists. Benefits to motorists include extending sight lines to make it easier to pull out from driveways; increasing the turning radius at intersections, which allows larger vehicles to make turns without "riding the curb"; and creating a buffer between travel lanes and parked cars, which makes it easier to park, un-park, and get in and out of the car.

In urban areas, the addition of bike lanes is one of the greatest new safety benefits for all roadway users, including motorists, bus users, freight truck operators and pedestrians. Bike lanes provide more than 30 benefits to a community, and only a few are specifically for bicyclists.

Bike lane benefits to motorists include extending sight lines to make it easier to pull out from driveways; increasing the turning radius at intersections, which allows larger vehicles to make turns without "riding the curb"; and creating a buffer between travel lanes and parked cars, which makes it easier to park, un-park, and get in and out of the car.

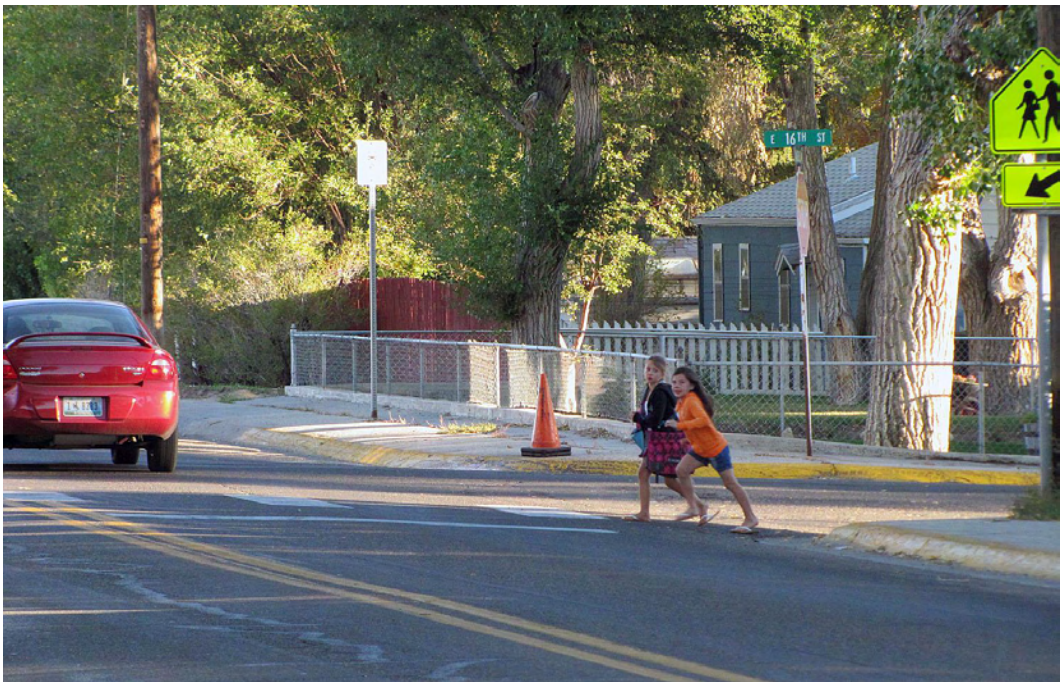
Additionally, bike lanes can serve as a temporary space for broken-down cars, make mail deliveries easier and aid in emergency responses.

Crossings

Crossing a street should not be difficult. The experience comes down to the behavior of the person walking and the behavior of the person driving, combined with the design of the intersection or crossing. A variety of factors influence whether a person driving will stop for a person attempting to cross the street, including vehicle speed. A driver going slowly has time to see, react to and stop for the pedestrian. The number of pedestrians present also influences drivers: in general, more people walking raises drivers' awareness of the likelihood of pedestrians crossing the street.

Effective traffic management can address concerns about traffic speed and volume. Most tools addressing crossing challenges are engineering treatments, but tools from the enforcement, education and planning toolboxes are also important in developing effective and successful crossings.

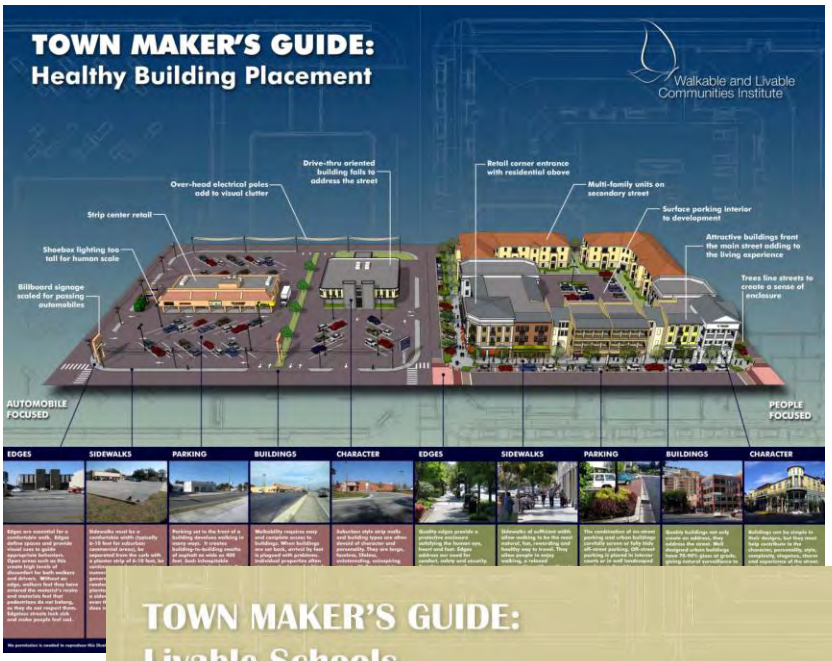
Providing marked crosswalks is only one of the many possible engineering measures. Thus, when considering how to provide safer convenient crossings for pedestrians, the question should not simply be: "Should we provide a marked crosswalk or not?" but instead, "What are the most effective measures that can be used to help people cross this street safely and conveniently?" Deciding where to mark or not mark crosswalks is only one consideration in meeting the objective to create safe pedestrian crossings.

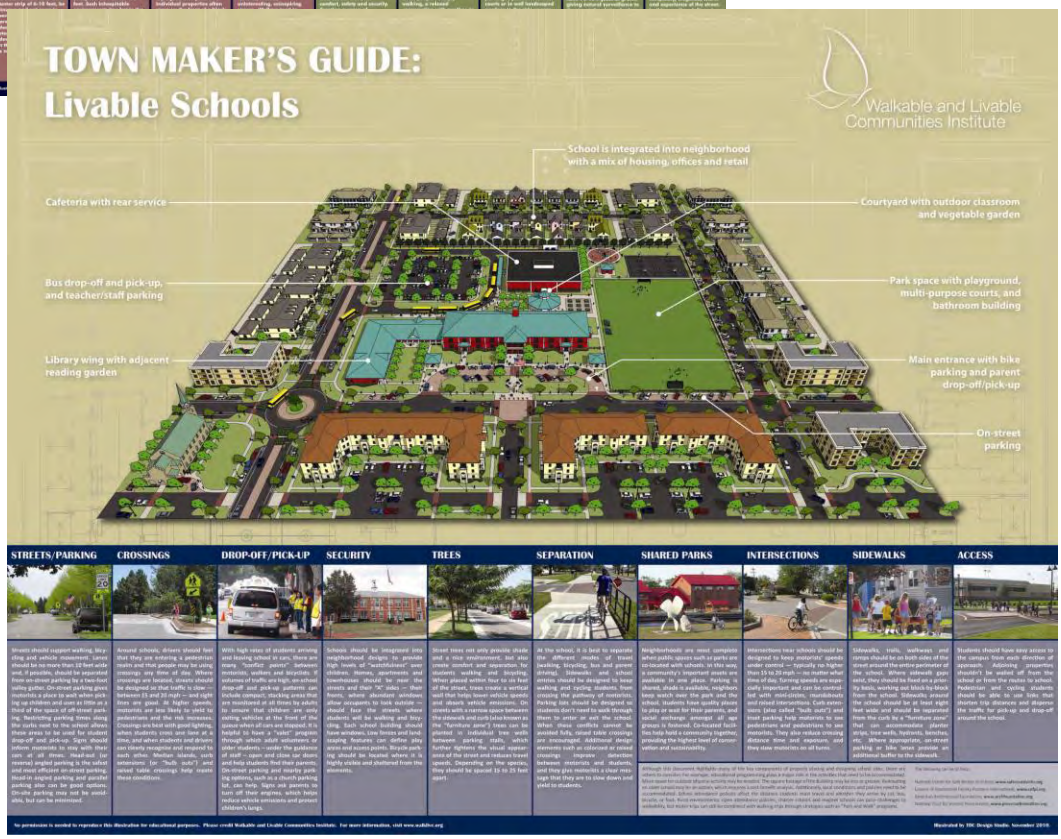


The image above from Casper, Wyoming helps to illustrate what happens when vehicle speeds aren't properly controlled near intersections and crossings. Despite the crosswalk markings and signage, vehicles aren't yielding to pedestrians, forcing people like these two young girls to dart in between cars. When cars are going at slower and safer speeds, drivers are more likely to yield when they're supposed to.

Town Maker's Guides

In the beach cities, land uses and the design of the street, site and building are critically important to ensuring that coherent, safe, functional and valuable places result. See the following two town-maker's guides—which are also provided as electronic attachments to this report—for general guidance. These posters are especially helpful when printed or displayed at full poster size—24 inches by 36 inches—to illustrate many of the key concepts of livability, walkability and better built form.





See the appendix and electronic attachments to this report for full-sized versions of these guides.

3 Existing Conditions

The WALC Institute team evaluated existing conditions in the beach cities during two multiple-day site visits, one in December 2010 and one in January 2011. During these visits, the team conducted public workshops and walking audits, traveled beach cities streets and visited neighborhoods to document existing conditions through field notes and photography. It is important to point out that this analysis of existing conditions doesn't draw on any studies conducted specifically for this project, such as traffic studies or detailed analyses of pedestrian networks and street connectivity. Rather, the existing conditions described below represent key findings from the team's on-site observations.

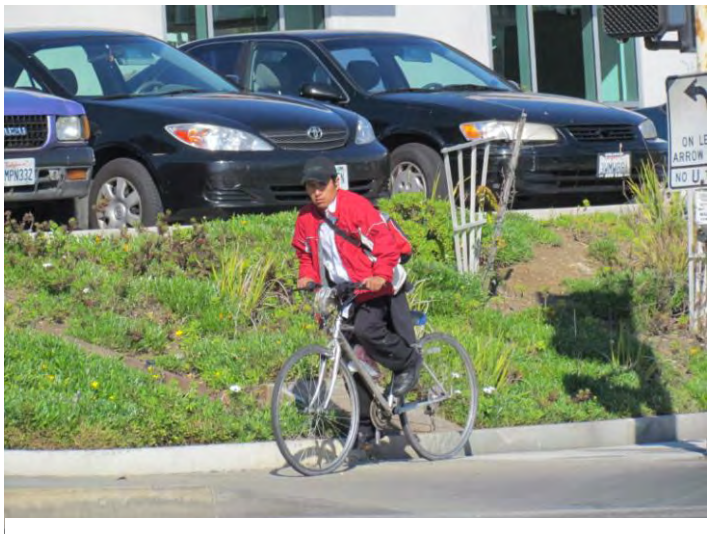
What We Heard: Feedback and Input from the Community, City Staff and Stakeholders

Over the course of four public workshops and two technical training sessions, the WALC Institute team heard from a broad cross-section of community members, business operators, educators, city staff and elected leaders about the changes they deem important for improving well-being through livability and better built form in the beach cities. The key feedback provided includes:

- Most beach cities residents really believe in walkability and livability and would support efforts to make their communities more walkable and livable.
- The beach community character is important to many people, and residents understand that it relates well to the principles of livability and the qualities of a built form that supports active transportation.

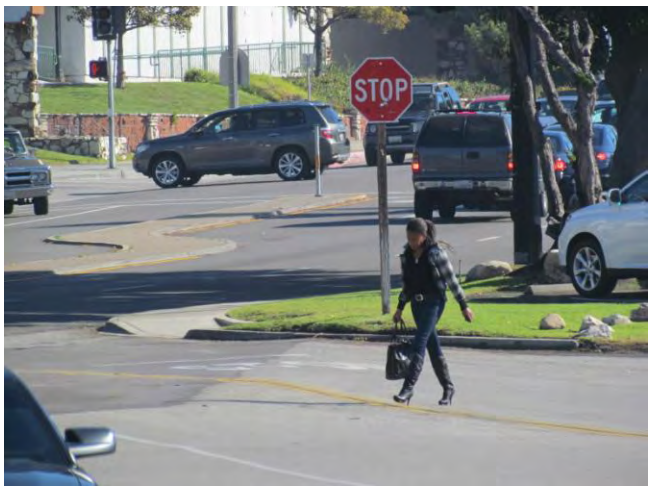
The gateway entrance to Hermosa Beach Pier creates a strong sense of place that supports the local beach community character and creates opportunities for social interaction.

- Commuting by bicycle is difficult along many east-west routes due to hills. It would be helpful to have climbing lanes for bicyclists and reduce the frequency of stop signs, allowing cyclists to maintain momentum.
- Despite high vehicle speeds of more than 40 mph during weekdays and as high as 65 mph at times, Pacific Coast Highway—which becomes Sepulveda Blvd. in Manhattan Beach—is reported by many commuters to harbor nearly unbearable stop-and-go traffic, which is a common problem along commute corridors.



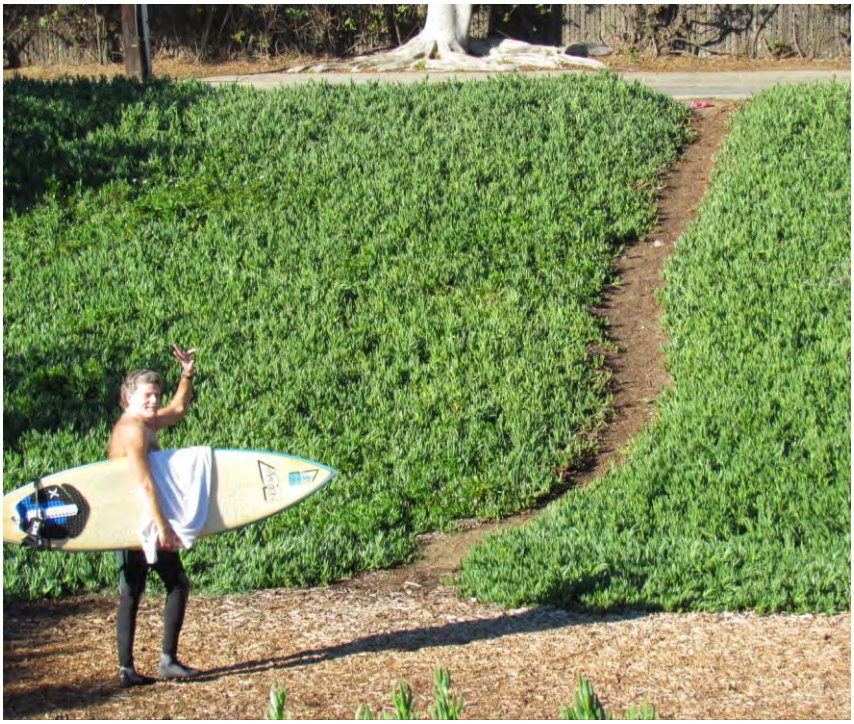
Bicycle communiting can be difficult on east-west routes in the beach cities due to hills and the freqeuncy of stops. This bicyclist near the intersection of Artesia Blvd. and Aviation Blvd. is getting ready to rebuild momentum for his east-west ride.

- The difficulty of crossing key streets such as Pacific Coast Highway, Aviation Boulevard, Manhattan Beach Boulevard and other multi-lane roadways divides the community and dampens the desire to walk to common destinations. Addressing these unsafe and inconvenient crossings is important.
- In some areas, distances to a designated place to cross streets are too far to make walking convenient, and sidewalk gaps prevent pedestrians from getting to the crossings easily.



This pedestrian in Redondo Beach may have chosen to use the designated crossing if the sidewalk on which she approached had connected to the crossing. Sidwalk gaps such as these are common in communities throughout the country, as well as in the beach cities, and impact the ability and desire of people to walk instead of drive to their destinations.

- There are too few places throughout the beach cities to safely and conveniently park bicycles.
- People seek more destinations in their neighborhoods, or within walking distance of where they live. Eateries, pocket parks and commercial or retail destinations are as important to residents as the beaches themselves.
- The Valley-Ardmore streets and Greenbelt through Hermosa Beach and Manhattan Beach are key community assets that aren't currently fulfilling their potential. Many vehicle commuters use the section to bypass Pacific Coast Highway and Sepulveda Blvd. and travel at speeds making the sections uncomfortable for pedestrians and cyclists. Additionally, where the Greenbelt crosses streets, pedestrians don't feel safe and comfortable.
- Safe Routes to School programs are in various stages of planning and implementation in the beach cities. Despite several successful efforts on the part of the beach cities, there still is concern, for example, that more emphasis is needed on education and encouragement. In particular, more awareness is needed amongst parents and students about the benefits of active commuting to and from school and resources available to support their efforts to use an active form of transportation.



Good news: people in the beach cities believe in walkability and do generally support a movement toward livability. This surfer crossing the Greenbelt in Hermosa Beach stopped to talk with the Institute team about the importance of the area's beach community character.

What We Saw: Observations about the Beach Cities' Built Environment

The WALC Institute team traveled the beach cities' streets and observed how intersections and roadways function in general. The following assessment of existing conditions is a summary of findings and includes general statements about the communities that don't necessarily apply to every neighborhood or every street. They are important, though, for each community to address, because they affect residents' and visitors' ability to choose active modes of transportation and enjoy active living. Additionally, it is important to note that several of the solutions proposed in this plan would require studies or evaluations to be conducted prior to implementing them.

Successes

- The one-way travel lanes on Valley and Ardmore in Manhattan Beach make the best of a difficult situation. The right-of-way is very narrow and is bordered by key community assets – on one side, the Greenbelt and on the other side, residences, schools and other important public facilities. Thus, it is not possible to widen the roadway to add typical "complete streets" accommodations such as bike lanes, wider sidewalks, landscaped buffer zones and two-way vehicle travel lanes. Generally, one-way travel lanes are discouraged because they often contribute to faster – and less safe – vehicle speeds and reduced connectivity. In this case, though, the one-way travel lanes allow the city to better accommodate the other street uses. They would benefit, however, from a few enhancements such as added bike lanes and mini traffic circles that would help calm traffic, better accommodate bicyclists and pedestrians and provide a stronger sense of place and community in this thriving residential area. Sharrows and colorized bike lanes also should be considered as options in this area.

- Many parts of the beach cities already have good "density" that keeps land uses compact and that reduces travel distances. Even these compact areas, though, would benefit from improvements to the built form, such as better sidewalks and intersection crossings.

- The sharrows in Hermosa Beach represent an emerging best practice that indicates to motorists and bicyclists alike that they are to share the road.

- Several mixed-use developments have been created that are illustrating how streets with a strong sense of place and high walkability can thrive. Examples include the area of Manhattan Beach Blvd. and Manhattan Beach Ave. in Manhattan Beach, among others.

- The traffic circle at the intersection of Esplanade, Paseo de la Playa and Calle Miramar in Redondo Beach helps calm traffic in an area where pedestrian and bicycling activities are high.

- Along the Esplanade, pictured below, a recent streetscaping project has greatly enhanced walkability and livability with improvements that make people feel comfortable using active forms of transportation and recreation in the area. The project added bulb-outs, added bike lanes separated from the parking lane by a 3-foot buffer and narrowed the vehicle travel lanes.

A streetscaping project on the Esplanade has improved walkability and livability along this important community facility and connector.

Room for Improvement

Road Widths, Intersections and Vehicle Speeds

Regional roads throughout the beach cities have become so wide that they discourage active living. Many streets, such as sections of Sepulveda Blvd., Aviation Blvd., Artesia Blvd., Prospect Ave. and Manhattan Beach Blvd. are dominated by fast-moving vehicles most hours of the day.

Overly wide roads, such as this section of Manhattan Beach Blvd. in Manhattan Beach, induce high vehicle speeds and create excessively long crossings for pedestrians, which increases the amount of time they are exposed to collision risks. The beach cities should consider narrowing the standard width of vehicle travel lanes to as little as 10 feet, but still allow for wider lanes where needed.

The Pacific Coast Highway, which becomes Sepulveda Blvd. in Manhattan Beach, serves all three beach cities. It is quite uncomfortable to walk or bicycle along. Much of this discomfort is a result of high vehicle speeds, often faster than 40 mph—the speed at which a collision is almost guaranteed to be fatal for a pedestrian. In fact, one taxi carrying a WALC Institute team member went through an intersection along PCH at 65 mph. Despite the vehicle speeds, many commuters report unbearable stop-and-go traffic during peak travel periods, which is a common problem along commute corridors.

Some intersections seem to have become less efficient for all users as they have grown wider. The combination of higher speeds and high traffic volumes for most hours of the day has created

conditions that impact surrounding properties and are depressing the opportunities for retail, social life and active living.

Additionally, in many areas traffic signals are spaced far apart, which further supports high vehicle speeds.

The Valley-Ardmore streets through both Hermosa and Manhattan harbor vehicle speeds inappropriate for the context. The streets serve residential neighborhoods, schools and the Greenbelt, yet vehicle speeds in some sections were documented by radar gun in excess of 35 mph and at other times cars appeared to be traveling even faster, near 40 mph.

Crossings

Failure to provide crosswalk markings on one or more legs of key intersections is noted in parts of the beach cities. When a crosswalk marking is missing, the number of points of potential conflict between a pedestrian and a vehicle increases from six points to eighteen, which in effect triples the risk of a collision. The amount of time it takes to cross also increases, lengthening the pedestrian's exposure time.

This is of special concern on arterials that carry higher traffic volumes. But it also presents a real concern on smaller streets with special circumstances, such as places where vehicles tend to speed through the same areas where people on foot and bike really want to cross to access the beach, schools and other amenities. Examples of this are found along parts of Valley and Ardmore. Additionally, most places where the Greenbelt crosses streets in Hermosa Beach and Manhattan Beach don't adequately accommodate pedestrians.

Further, in many parts of the beach cities, continuous right-turn lanes and other means to maximize the number of vehicles that can get through a signalized intersection make crossings too wide for people wanting to cross.

It is important to note that removing or failing to place crossings in order to try to force pedestrians to take an alternate route can be very risky. "Desire lines," or places where people naturally want to cross a street, develop for a reason, whether because it's the most convenient place to cross or because particularly significant services or amenities can be accessed there. If a desire line exists, care should be taken to accommodate all street users – not just cars – and provide appropriate treatments for accessibility and safety for all.

Transparency

Transparency refers to the amount of visibility between a pedestrian and the interior of buildings that line the street. It is affected by how far back the building sits from the sidewalk, how much of the front of the building is window as opposed to wall, how much glazing or reflective material is used and where the door is placed. Transparency contributes to safety and security. In fact, motorists tend to drive slower when buildings are correctly set toward the street, and when windows are watching over the street. Many well-developed entryways to homes or other properties contribute to the perception of human activity beyond the street, while those with blank walls and garages suggest that people are far away. Neighborhoods with blank "snout" garages are less supportive of walkability, whereas neighborhoods with a variety of homes that face the street tend to make a person feel watched over and more comfortable walking.

Most of the neighborhood streets in the beach cities have good transparency. Suburban and strip areas of important streets like Sepulveda, Aviation and Manhattan Beach Boulevard lack adequate transparency and would benefit from clusters of buildings brought toward the street to help "hold" the street and create pockets of settlement.

The ultimate in transparency is when internal activities are "externalized" or brought out to the sidewalk. Outdoor dining and outdoor merchandising are examples. For this reason, efforts to create one, then another, and then another outdoor eating experience at places such as Eat at Joe's in Redondo Beach will become important.

Outdoor eating at cafes and diners like Eat at Joe's in Redondo Beach would help contribute to "transparency," an important component of livability.

Security

People want and need to feel that personal harm from others, including motorists, is not likely. In many parts of the beach cities, people seem to feel free of harm most of the time. In some portions, though, there are too many dark places, and too few people walking, which make those lone pedestrians feel unsafe. For example, despite being amidst areas of high activity, Harbor Drive between Beryl St. and Herondo St. feels secluded and unsafe at night. Other examples include several of the intersections that link the Greenbelt and Valley-Ardmore with east-west streets, S. Camino Real near the Alta Vista Community Center, and many stretches of the Pacific Coast Highway.

Complexity

Complexity refers to the visual richness of a place and depends on the variety of the physical environment, the variety of buildings, architectural diversity and ornamentation, landscape elements, street furniture, signage and human activity. Motorists also tend to respond to areas of great complexity by driving more slowly through them.

Most parts of the beach cities have built-in complexity on neighborhood streets. Some are much richer than others, especially areas in Manhattan Beach designed to be pedestrian streets. The great variety in size, scale and richness of homes makes walks up and down many streets not just pleasant, but a chance to constantly see and experience new things. Some portions of the greenway trails, Strand path and the bikeway along the beach have such a great kaleidoscope of human activity that the people alone can make walking or bicycling rich and rewarding. Future zoning and code language should encourage this diversity of housing type.

Human scale

Communities that are built to a human scale accommodate the size, proportions and walking speed of people. Building details, pavement texture, street trees and street furniture are all physical elements contributing to human scale. Another impact of designing roadways only for cars—and this doesn't apply to freeways, but rather to community streets, collector streets, town centers and neighborhoods—has been that travel speeds of 60 mph are encouraged, when human scale calls for 30 mph. For example, large signage and lettering meant to be read by a motorist passing at 60 mph is completely disorienting and confusing to a person approaching on foot or bicycle. For pedestrians, small signs with small lettering are much more comfortable.

There are many places in the beach cities where moderate-sized buildings, narrow streets and small spaces can create human-scale environments. As an example, the strip center across from the Redondo Beach city hall—between N. Elena and Pacific Coast Highway—could one day become a nicely scaled "village" that is in an urban form and accommodates people, not just cars.

Vast parts of each of the beach cities' main streets—Aviation, Sepulveda and Manhattan Beach Boulevard, for example—lack a human scale. It may not be possible to recapture all of these areas, but over time it will be essential for each of the three communities to create "village-like" spaces through the careful placement of buildings and trees.

Legibility and "Wayfinding"

People will walk more when they can easily navigate and have a sense of where they are at all times. The more "legible" or understandable a place is, the easier it is to navigate. This is improved by a street or pedestrian network that provides travelers with a sense of orientation and relative location and by physical elements that serve as reference points.

Complementary to legibility, wayfinding is a system of signage and visual cues that help people move successfully to reach a destination. Places with strong edges, distinct landmarks, busy nodes and effective wayfinding systems allow people to form detailed and relatively accurate mental maps. Conversely, a city that has no definite edges, nodes, or visually interesting features, will be difficult to make sense of and to remember.

Portions of the beach cities, such as on Pier Ave. and on the Strand, have very high legibility. Other areas around the Strand and beach environments have adequate wayfinding. The beach cities in general, however, lack legibility and effective wayfinding. Indeed, outside of a few welcoming signs and some unique street signing, bicycle rides through the area remain confusing to someone not familiar with the streets.

4 Policy for Livable Beach Cities

A policy-based approach to transportation investments allows livability to come to the forefront. It sets a critical path for improving conditions that will foster the well-being of residents and visitors, and allows agencies to set direction and prioritize projects based on their effect on quality of life. Policy helps designate where new growth, infill development and redevelopment will occur, and moves communities away from piecemeal projects that fail to reinforce the community's planning principles.

The vision of this report is livability for the beach cities. Strong first steps toward improving livability in the beach cities have included the cities' commitment to participating in, supporting and adopting recommendations of Vitality City and the South Bay Bicycle Master Plan. The cities should continue to do so. Further, the WALC Institute team suggests the following goals for the beach cities:

Goal 1: A complete network of pedestrian-friendly streets and public spaces
Goal 2: Safe, natural and enjoyable walking conditions
Goal 3: Sustainable transportation choices
Goal 4: Healthier, happier people

The first section of this chapter presents recommendations for accomplishing these goals:

1. Adopt Complete Streets policies and incorporate Complete Streets policy language into all beach cities planning documents
2. Create and adopt Livable Street Design Guidelines
3. Develop a Regional Pedestrian Master Plan
4. Increase enforcement for pedestrian safety
5. Increase education and awareness for all road users
6. Improve and enhance Safe Routes to School Programs

Additionally, it is recommended that the beach cities adopt and implement the South Bay Bicycle Master Plan.

The second section of this chapter focuses on bridging the gap between the goals and recommendations, and the guidance found in the cities' municipal codes and general plan land-use and circulation elements. Quite simply: the values of a culture are expressed in the planning and design of its cities. Cities that accommodate walkers, bicyclists, transit, and automobiles support the core role of cities: to maximize exchange. By allowing individuals to travel safely via inviting and diverse transportation modes, we create a place where we are more likely to move in harmony with others. Streets either enforce good behaviors or bad behaviors. Bad design leads to bad behaviors; good design leads to good behaviors. Where a city has multiple accidents or pedestrian fatalities, congestion and demonstrated bad behaviors, the corridor must be assessed and improved. With a solid street network and improved design, our cities become world-class destinations—attracting people, businesses and creating opportunities.

Policy to Achieve Livability Goals in the Beach Cities

Develop and Adopt Complete Streets Policies

The beach cities should require a complete transportation network that meets the needs of all users. In order for this to happen, the beach cities must prioritize the development of Complete Streets. The beach cities should adopt Complete Streets policies into all planning documents by action of their city councils, and then incorporate the policy language as appropriate into planning documents as they are updated.

Adopting Complete Streets policy language into all planning documents ensures that projects are designed with all users in mind. This leads to improved well-being for residents and visitors. In fact, the Federal Highway Administration identified three areas where exceptions to Complete Streets policies are acceptable: accommodation is not necessary on corridors where 1) non-motorized use is prohibited; 2) the cost of accommodation is excessively disproportionate to the need or probable use; or 3) a documented absence of current or future need is present. For the most part, these exemptions do not apply to the beach cities, except in a few minor locations (i.e. such as a sidewalk on the same side of the street as a railroad track).

Best Practice: La Jolla Blvd. in the Bird Rock neighborhood of San Diego, CA has been transformed from an overly wide roadway into a livable, "complete street" that now offers healthier lifestyles and improved economic opportunity.

A Complete Streets policy ensures that we offer choices to the community by making walking, bicycling and taking public transportation convenient, easy and safe. A Complete Streets policy also assures transportation equity. Changing policy so that our transportation system considers the needs of pedestrians, bicyclists and transit users means that people of all ages and abilities are included in planning and design processes. Complete Streets policies benefit the entire community by improving individual and community health, improving the efficiency and capacity of existing roads, and reducing congestion and vehicle miles traveled. Complete Streets policies also can address how eco-friendly practices such as "bio swales" can be incorporated into street designs to maximize their benefits.

The National Complete Streets Coalition has identified ten elements of an ideal Complete Streets policy. See: http://www.completestreets.org/webdocs/policy/cs-policyelements.pdf.

Developing and adopting a Complete Streets policy doesn't need to be a lengthy process, but it does require the commitment and understanding on the part of elected leaders. In Winter Park, FL, the city commission adopted a Complete Streets policy in early 2011 and is building upon the effort to adjust transportation approaches and the capital improvement budget. See: http://www.cityofwinterpark.org/Docs/Government/meeting_agendas/agd_05_9_11rs.pdf.

The South Bay Bicycle Master Plan, once adopted, will also offer language appropriate to incorporate into Complete Streets policies.

Create and Adopt Livable Streets Design Guidelines

Faced with the challenges of meeting transportation demand while preserving the character of the community, municipalities are creating and adopting street design guidelines to support livability.

Street design guidelines will allow the beach cities to bring land use and transportation planning together so that level-of-service for cars is no longer the sole criterion for street design. Design guidelines set forth standards and provide guidance as the cities design and improve streets. The guidelines provide new metrics for measuring the success of a street, provide an assessment of local street types and highlight traffic calming features that have a history of success locally.

When crafting street designgGuidelines, communities should look to the following documents to ensure the guidelines fall within the acceptable standard:

- American Association of State Highway Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets ("The Green Book")
- Institute of Transportation Engineers (ITE) Traditional Neighborhood Development Street Design Guidelines
- ITE's Traffic Engineering Handbook

Additional recommended reading includes Randall Arendt's *Rural by Design*, Christopher Alexander's *The Timeless Way of Building* and *A Pattern Language*, and Galina Tachieva's *Sprawl Repair Manual*. Los Angeles County is scheduled to release the *Model Design Manual for Living Streets* in Fall 2011, which will serve as a good example for the beach communities.

Develop and Adopt a Regional Pedestrian Master Plan

In order to develop a complete network of pedestrian-friendly streets and public spaces, the beach cities should develop a regional pedestrian master plan. At a regional level, this would allow the beach cities to identify gaps and deficiencies in the pedestrian network and to evaluate continuity of facilities across borders. Those areas where municipalities bump up against each other can show a visible seam due to differences in vision, prioritization and implementation of pedestrian infrastructure improvements. Specifically, a regional pedestrian master plan will allow the beach cities to:

- Review existing plans, policies, guidelines and codes to determine whether inherent conflicts exist within these documents that might impact the continuity of pedestrian infrastructure across the cities' borders.
- Build a toolbox and best practices guide that informs pedestrian planning at a regional level. Tools can include performance methods and monitoring that functions across borders.
- Propose and refine treatments to ensure the integrity of the pedestrian network regionally, and to provide clear messaging to users that traverses geographical borders.
- Perform field research to identify conflicts at a regional level, especially noting conditions at shared borders, such as network gaps, and the geographic distribution of existing pedestrian facilities which will aid in the development of regional amenities such as trails.
- Conduct civic engagement that brings local partners together, thereby building capacity for walkability at both a local and a regional level.
- Analyze needs and demand based on information gathered regionally, allowing the beach cities to understand patterns, behaviors, origins and destinations at a regional level.
- Conduct a destination analysis. When people are too far from parks, plazas, places to eat healthy food, retail or other useful and fun destinations, they will not walk, or even eat well. "Destination deserts" can be quickly mapped in a community within the plan.
- Perform a security analysis. People will not walk if they feel that they must navigate a void in watchfulness or activity. These are easily mapped through a civic engagement process during the regional planning efforts.
- Develop criteria for ranking, prioritizing and implementing projects regionally for maximum impact and to better support one another's initiatives.
- Develop funding strategies that may reduce the burden to any one community and allow the beach cities to show regional support of one another's initiatives. This may provide the opportunity for the beach cities to leverage regional resources for funding opportunities.
- Allow the beach cities' City Councils, Planning Commissions, school boards, utility boards, library boards, fire boards and Staffs to work together, to share common problems, programs, lessons learned and best practices, and to establish partnerships. A monthly meeting of representatives can increase cohesion and collaboration and facilitate the establishment of common and shared goals.

- Identify planned improvements to determine whether they support or conflict with other regional initiatives.

Regional master plans are somewhat challenging to find, so this would place the beach cities at the forefront of smart planning. The following pathways master plan provides a good example of regional planning: http://www.meridiancity.org/parks_rec.aspx?id=2667.

In order to fund the development of the pedestrian master plan or to fund a regional bicycle and pedestrian coordinator position, the beach cities might consider forming a Joint Powers Authority (JPA). The JPA would allow the beach cities to prioritize improvements to close gaps and fix deficiencies in the pedestrian network. The JPA would foster a collaborative discussion among the beach cities to coordinate pedestrian planning and implementation activities, with an emphasis on improving the pedestrian network across jurisdictions.

To learn more about how JPAs can fund transportation improvement projects in California, see: http://www.leginfo.ca.gov/cgibin/displaycode?section=gov&group=06001-07000&file=6500-6536

To learn more about a specific JPA transportation project in San Francisco, see: http://transbaycenter.org/tjpa/about-the-tjpa and http://www.sdrp.org/jpa.htm.

Additionally, the Congestion Mitigation and Air Quality (CMAQ) Improvement Program can be used to fund transportation related projects that are designed to reduce traffic congestion and improve air quality. CMAQ has seven major project categories, including pedestrian and bicycle improvement projects. Pedestrian and bicycle projects comprise approximately 13 percent of CMAQ projects. This funding can be used for constructing bicycle and pedestrian facilities that are not exclusively recreational and that reduce vehicle trips. The program funds one full-time position per state and it can also be used to fund bicycle parking, pedestrian and bicycling promotion, sidewalk or pedestrian improvements and enhancements, bike maps and planning, and educational efforts. To learn more, visit: http://www.walkinginfo.org/faqs/answer.cfm?id=4274.

If undertaking a regional pedestrian planning effort is not feasible, the three beach cities should create citywide pedestrians plans that are developed in coordination with each other and that are complementary in supporting all people in the beach cities.

Increase Enforcement for Pedestrian Safety

One of the most critical factors in street safety is enforcement that concentrates on intersections and corridors with high crash rates. An enforcement program for pedestrian safety should include an evaluation of motorist, bicyclist, pedestrian and transit users to determine whether we are anticipating and accommodating one another appropriately. For instance, an enforcement program will look at whether motorists yield the right-of-way to pedestrians in crosswalks and should address some of the more critical problems such as speeding, shortcuts through neighborhoods, red light running and obstructions to the pedestrian right of way such as parking. An enforcement program will look at pedestrian behaviors, too, and whether pedestrians are engaging in aggressive or dangerous activities such as walking into a stream of traffic, or crossing intersections against the signal and thereby disrupting the flow for other modes. It should also include bicyclist enforcement programs aimed at curtailing problematic behaviors such as riding the wrong way in a traffic lane, riding at night without lights or required reflectors, or bicycle parking that impedes other modes.

Compliance and enforcement activities are most often overseen by the police. In order to improve safety, health and livability for the beach cities, the beach cities should increase enforcement activities around school zones and other critical areas where vehicle-pedestrian conflicts have been high or where poor yielding behaviors by motorists have been observed. To aid in enforcing the rights of all street users, the beach cities should increase the number of police officers walking and biking in the community. Additionally, the municipalities should survey the built environment and the community to determine whether streets are in compliance with 2010 ADA Standards for Accessible Design. See: http://www.ada.gov/regs2010/2010ADAStandards/2010ADAStandards.htm.

To collect information about problematic areas, the beach cities should provide a system for recording pedestrian safety concerns such as poor lighting, broken sidewalks, obstructions, perceived sense of danger or gaps in the pedestrian network. This may be a website or a display at libraries and schools.

Many drivers ignore the pedestrian's right-of-way. One extremely dangerous situation happens when there are multiple travel lanes and one vehicle stops for the pedestrian crossing, and another overtakes and passes the stopped car, striking the pedestrian. The Uniform Vehicle Code (UVC) is a set of traffic laws prepared by the National Committee on Uniform Traffic Laws and Ordinances which serves as a model in most states. See http://www.ncutlo.org.

Pedestrians, too, have duties to ensure the safety and comfort of other road users. There are places where they are prohibited (interstates, for example) and they must comply with traffic signals. For more information on pedestrian and bicycle safety enforcement, see: http://www.mwcog.org/uploads/committeedocuments/b15cXFxa20090311142525.pdf.

Increase Education and Awareness for All Road Users

An educational and awareness campaign can take the guesswork out of navigating our streets. In order to improve safety and enjoyment of using streets, the beach cities should:

- Develop culturally sensitive messaging for all pedestrian safety programs and information. For an example or an outreach brochure for education and awareness, see: http://www.metroplanorlando.com/files/view/10_things_motorists_should_know_about_bicycling.pdf.

  An example of a Pedestrian and Bicycle Safety Public Awareness campaign can be found here: http://www.bestreetsmart.net/resources/2010/SS10_Summary_v1.pdf.

- Train city staff on planning and designing roadways for pedestrians through walking audits. A walking audit, also known as a "walking workshop," is conducted with residents, officials, city staff, community groups and other stakeholders of an area. These walks can take from sixty minutes to two or more hours.

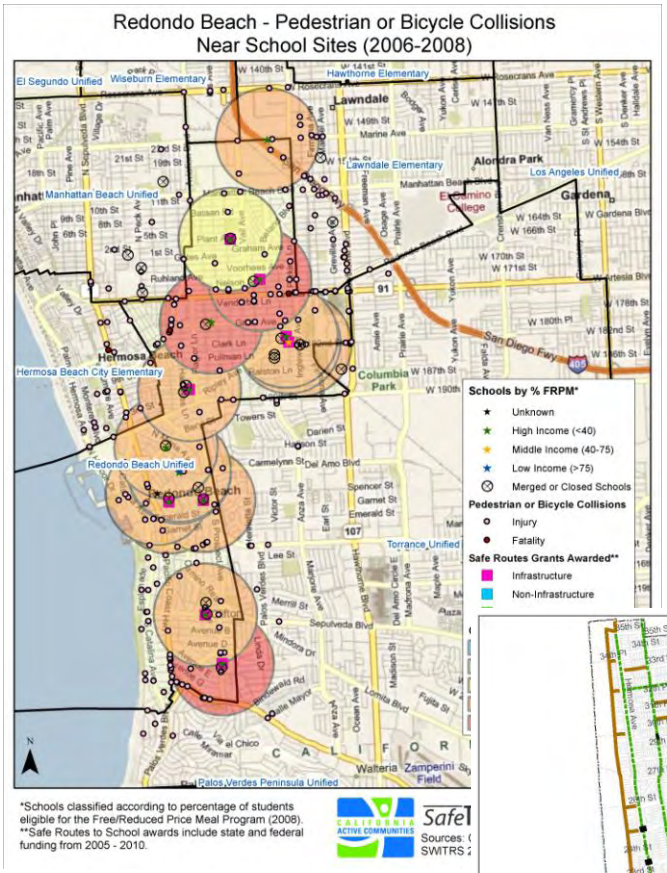
  Diverse groups of people, including city and county officials, planners, engineers, emergency responders, neighborhood leaders, community groups and residents see, feel and hear problems up close. Dan Burden leads the walk and asks those taking part to explain "what is working here or what is not working here" each time the group stops. When groups are diverse, many insights and options are discovered.

  Walking audits are one of the most powerful tools for people to discuss common issues of interest or concern related to the design, operation of streets, parks and open spaces, as well as a way to discuss security, safety and other features of their community. In many cases, complex and challenging issues are addressed and solved right in the field. This initiative would allow the beach cities to assess and document existing conditions, while building local partnerships at the local level. The walking audit is a community engagement tool as much as it is a community assessment tool.

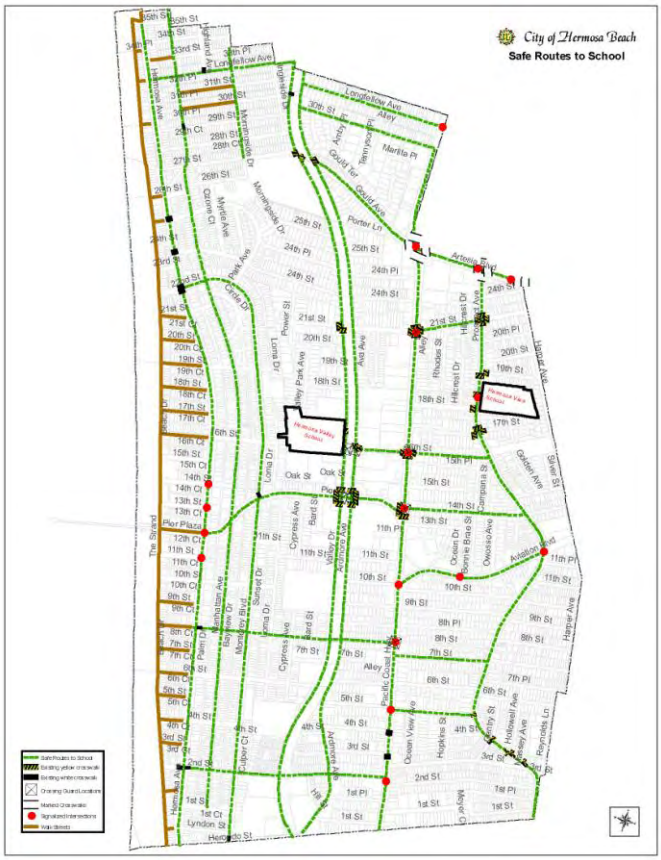
- Develop safety tips for motorists, pedestrians, bicyclists and transit users based on critical local issues. New York City's Department of Transportation noted that although older adults make up only 13 percent of the city's population, they make up 33 percent of pedestrian deaths. Educational and enforcement campaigns remind drivers that older adults or others with special needs may need more time crossing at an intersection. Additionally, they look at areas around schools and parks where children may dart out from between parked cars. They recognized that one-third of all pedestrian injuries happen after dark and so they include this information in their outreach campaigns along with a dusk-to-dawn headlight reminder. Safety tips remind pedestrians that a vehicle traveling at 30 mph may need 125 feet to come to a complete stop. The city's outreach materials focus on walking under the influence in addition to the dangers of driving under the influence of drugs or alcohol. Their materials state that in 1998, one of every 10 pedestrians killed was under the influence of alcohol, other drugs (including prescription medication), or a combination of both. To see their educational campaign, go to: http://www.nyc.gov/html/safety/safetyedu.shtml.

Improve and Enhance Safe Routes to School Programs

The beach cities should continue Safe Routes to School programs and projects to improve safety for students. The WALC Institute notes that the cities have developed programs in the past and grant funding recently has been secured for additional Safe Routes work. This is good news.



Work has begun in the beach cities to develop and implement Safe Routes to School programs. The beach cities should continue these efforts and take additional steps to ensure children have the ability – and knowledge – to use active modes of transportation to get to and from school.



Where the following actions haven't already been taken by the beach cities, they should:

- Apply for Safe Routes to School funds and work with agencies, governments, organizations, residents, students, the School Board and others to encourage active transportation for students.
- Encourage the development of walking school buses for students and encourage walking Moai Teams within neighborhoods to provide local support, opportunities for friendships and on-going review of existing conditions, in addition to placing "eyes on children" as they walk or bicycle to and from school.
- Implement both classroom and active/hands-on learning. Lessons should focus on basic pedestrian, bicycle and motor-vehicle occupant safety and encourage children to walk and ride bicycles as a regular means of transportation.
- Identify school trip management techniques to encourage parents, students and staff to reduce automobile trips and to use alternative modes for travel to and from schools. This can support community livability objectives including transportation choice, accessibility, walkability, affordability, community interaction and reduced traffic on local streets.
- Ensure that local Safe Routes to School committees have members with experience in the areas of health, engineering, education, disadvantaged communities, law enforcement, planning and recreation.
- Assist Safe Routes to School grant recipients in preparing before and after surveys to capture desired outcomes and metrics for project success.
- Publicize local resources and website content addressing Safe Routes to School.
- Identify low-income communities and schools to improve participation in Safe Routes to School programs. The beach cities should conduct a special outreach campaign to ensure that communities are aware of Safe Routes to School opportunities and available technical assistance in the application process.
- Create culturally sensitive materials that highlight Safe Routes to School opportunities for the beach cities.

Sample Safe Routes to Schools Programs from the Safe Routes to School National Partnership are found here:
http://www.saferoutespartnership.org/local/4233.

Parent surveys about walking and biking to school from the National Center for Safe Routes to School are here:
http://www.saferoutesinfo.org/resources/collateral/Parent_Survey_English_Scan2009.pdf.

Additionally, in June 2011, the Safe Routes to School National Partnership released a publication entitled *Safe Routes to School Local Policy Guide* to help local communities and schools create, enact and implement policies which will support active and healthy community environments that encourage safe walking and bicycling and physical activity by children through a "Health in All Policies" approach. See:
http://www.saferoutespartnership.org/media/file/Local_Policy_Guide_2011.pdf.

Provide Sustainable Transportation Choices

Encouraging multi-modal and active transportation helps reduce "vehicle miles traveled", or VMT. According to the Brooking Institute, the U. S. is experiencing its longest and steepest drop in driving, signaling a permanent shift away from reliance on the car to other modes of transportation. Their report, *The Road...Less Traveled: An Analysis of Vehicle Miles Traveled Trends in the U.S.*, shows that national VMT began to plateau as far back as 2004 and dropped in 2007 for the first time since 1980.

Per capita driving showed slowed growth after 2000 and rates have fallen since 2005. These recent declines in driving predated the rising gas prices during 2007 and 2008. Recent drops in VMT (90 billion miles) and VMT per capita (388 miles) are the largest annualized drops since World War II, according to this report.

Additionally, the report states that from October 2007 to September 2008, Americans drove 90 billion fewer miles than the same time period the year before. Transit use is at its highest level since the 1950's, and Amtrak set a ridership record in 2009. While total driving in both rural and urban areas grew between January 1991 and September 2008, rural and urban VMT have been declining since 2004. The report also presents a survey which ranks all 50 states and the nation's 100 largest metro areas for their "driving footprint" and shows who drives the most, who drives the least, and where driving is declining the fastest.

To review the report, see:
http://www.brookings.edu/reports/2008/~/media/Files/rc/reports/2008/1216_transportation_tomer_puentes/vehicle_miles_traveled_report.pdf

Focus on Healthier, Happier People

When streets emphasize an inviting, people-first approach to design, automobile and freight movement are well supported. The design of corridors and intersections should focus on promoting people and businesses first through a complete network that accommodates all modes of transportation. This approach is the oldest way of building a city or town; it is an approach that honors the great city making art and science known throughout human history. It is only in recent years that street making practices have led to an erosion of social space and living space through an over emphasis on single occupant automobiles. The consequences of this are social isolation, less daily physical activity and lower volunteerism rates. Returning to the time honored way of building streets to accommodate all users will help improve the quality of life, restore social and economic opportunity, and lead to a more sustainable pattern of city making and city life.

The following resources speak to the benefits of active transportation:

> Healthy, Active & Vibrant Community 2009 Toolkit, from Trailnet:
> http://www.trailnet.org/HAVC_Toolkit.php
>
> Healthy Kids, Healthy Communities, from the Local Government Commission:
> http://www.lgc.org/freepub/docs/community_design/fact_sheets/Healthy_Kids_Healthy_Communities.pdf

Walking and Biking to School, Physical Activity and Health Outcomes, from Active Living Research:
http://www.activelivingresearch.org/files/ALR_Brief_ActiveTransport.pdf

Active Education: Physical Education, Physical Activity and Academic Performance, from Active Living Research:
http://www.activelivingresearch.org/files/Active_Ed_Summer2009.pdf

Growing Demand for Communities that Promote Health, from Active Living Research:
http://www.activelivingresearch.org/files/ALR_Brief_WalkableCommunities.pdf

At the Intersection of Public Health and Transportation: Promoting Healthy Transportation Policy, from the American Public Health Association:
http://www.apha.org/NR/rdonlyres/43F10382-FB68-4112-8C75-49DCB10F8ECF/0/TransportationBrief.pdf

General Plan and Municipal Code Review

All cities are required by California law to prepare and adopt a General Plan, which establishes the long-range goals for the physical development of the community. Manhattan Beach refers to the General Plan as the "constitution" for development in the city, reflecting the long-term vision of the community through its goals, policies and objectives.

A General Plan also reflects the community's concerns. In each of the beach cities, concern about mixed-use development and its impact on residential uses exists. Traffic congestion, parking, parking management and parking requirements are also main concerns, along with overflow traffic into residential neighborhoods. Maintaining a sense of place is identified as important and in some cases, development is seen as a threat to maintaining charm and the overall aesthetic. While Manhattan Beach explicitly states the correlation between livability, quality of life and the built environment, the beach cities should consider how their guiding principles can be broadened, so that implementable policies and actionable strategies follow. This ensures the community vision is documented first and then policies and strategies implement it.

As policy documents, General Plans are just that—general in nature— and rely on the Municipal Code to provide specificity for enforcement. In all three communities, the Municipal Code could tie better to the General Plan. Enforcement activities and ordinances don't provide the framework or the vision. The purpose of Municipal Code is to promote and protect public peace, health, safety and welfare, and to guide growth and development in keeping with the vision set for by the community in their General Plan.

Livability is, in large part, determined by the physical form of the city. The built form either encourages well-being through healthy choices or it makes unhealthy choices easiest and common. The following principles may eventually be included in the guiding documents of all three beach cities for improved well-being:

- Provide a mix of land uses
- Build compact design and increase density, where possible
- Prioritize walkable communities and active transportation
- Foster distinctive, attractive neighborhoods with a strong sense of place
- Preserve open space, natural beauty, and critical environmental areas
- Strengthen and direct development toward existing communities
- Provide a variety of transportation and housing opportunities and choices
- Encourage community and stakeholder collaboration in development decisions

Against this backdrop of livability principles, the WALC Institute team reviewed the Land Use and Circulation Elements of the beach cities' General Plans and their Municipal Codes. The Institute team has identified areas where livability principles could be better integrated into their guiding documents. Those areas are described in the sections that follow.

Note that resources are provided at the end of this chapter to help the cities in developing updated language, policies and practices to support livability.

City of Redondo Beach

Land Use Element

The Land Use Element of the General Plan states that its intent is to establish the goals, objectives, policies and implementation programs to guide the manner in which new development will occur and to conserve existing uses. The Land Use Element aims at addressing nine fundamental issues for the City:

- What types of land uses should be permitted in the City of Redondo Beach?
- How should the land uses be distributed throughout the City?
- In each of the City's land use districts, what should be their functional role, what uses should be permitted, and what should be their physical form and character?
- What mechanisms can be used to increase the supply of housing units affordable for very low, low and moderate income households?
- How should existing uses which are inconsistent with an area's objectives be maintained or replaced?
- How can the City's properties, structures and public open spaces be designed to provide a high quality image and character for the City?
- How can compatibility be ensured between land uses characterized by differing functions and intensities?
- What mechanisms can be used to maintain the quality of the City's built environment?
- What mechanisms can be used to ensure the maintenance of environmental quality in the City?

The policy set forth addresses these questions and provides direction to:

- Retain existing residential neighborhoods and principal commercial districts, allowing for infill development and uses that are comparable in function and scale to existing development.
- Allow for the modest intensification of selected key sites which are economically underutilized or contain marginal uses, have the potential for achieving significant benefits to the City, and can be designed to be compatible with adjacent uses.
- Allow for a change of use on selected sites to improve the economic viability and compatibility with adjacent uses.

Because the Land Use policy provides the pattern and form of development, it is central that livability principles are included in this part of the General Plan. For example, the City identifies a "hodge-podge" of existing development along the City's arterial corridors (Pacific Coast Highway, Artesia Boulevard and Aviation Boulevard) and that viable and healthy commercial development needs to be in definable and focused clusters, rather than spread continuously along corridors.

The Plan provides two polices mechanisms to address this:

1. Re-differentiation of the corridors into pedestrian-oriented, mixed-use, high activity, and general automobile oriented segments.

2. Recycling of selected properties for residential development. To stimulate the latter, residential densities are permitted which are somewhat higher than those allowed in other areas of the City.

The City recognizes the value of mixed use development to:

- Reduce vehicular trips and associated air pollution by providing housing opportunities in proximity to jobs
- Establish active, pedestrian-oriented districts which enhance the quality of life and vitality of the city
- Increase the supply of moderately priced and affordable housing without increasing the densities of traditional residential neighborhoods.

The General Plan does not mandate the development of mixed-use structures, but it does permit them in a number of key activity areas of the City: the western segment of Artesia Boulevard; the Torrance Boulevard and Pacific Coast Highway intersection; and the southern segment of Pacific Coast Highway.

Recommendation:

Within the General Plan, the City of Redondo Beach has the opportunity to recognize the impact of transportation corridors on community well-being. The beach cities should set the vision for how transportation corridors function for the beach cities and indicate the guiding principles, implementable policies and actionable strategies for moving towards the vision.

An example of this follows:

Guiding Principle: Foster the redevelopment of key corridors as vital spines with nodes of mixed-use and higher density development to bring services closer to people, with street designs that encourage active transportation.

Implementable Policy: Adopt Complete Streets policies into all planning documents by action of the city council.

Actionable Strategies:

- Include Complete Street language in all planning documents.
- Update the General Plan to include a focus on livability and well-being through Complete Streets and active transportation.
- Review the Minimum Standards for Street Widths provided in the Municipal Code. Presently, the Municipal Code uses a functional classification that is formula driven and generic. The existing lane widths favor speed, and do not encourage walkability or livability. Additionally, the minimum standards for curbs, sidewalks and pedestrian widths at 4 feet (residential) and 5 - 12 feet (elsewhere) are too narrow. The requirement that sidewalks "are located within the street right-of-way not closer than six (6) inches from the dedicated boundary of the street" does not speak to improving the pedestrian experience or buffering the pedestrian from moving vehicles.

- Prioritize Capital Improvement Projects based on Complete Streets and/or Livability criteria.
- Utilize Transportation Demand Management (TDM) techniques to alter travel behavior through programs, incentives, services, and policies. Carpooling and vanpooling, changes in work schedules, and home-office incentives can move trips out of the peak period or eliminate them.

The following objectives and policies related to transportation improvements appear in the Land Use Element section:

> It shall be the objective of the City of Redondo Beach to commit lands for the continued operation of public infrastructure which supports residents, businesses and visitors and protects them from environmental hazards.
>
> It shall be the policy of the City of Redondo Beach to:
>
> - Allocate lands for the continuation and expansion of public streets and highways in accordance with the Master Plan of Streets and Highways, as defined in the Transportation and Circulation section of the General Plan (I1.1, I1.2).
> - Allow for the continuation of utility corridors, easements, and facilities (sewer, water, energy, storm drainage, telecommunications, and other) to provide for existing and future land use development in areas classified as Public ("P") on the Land Use Plan map (I1.1).
> - Provide lands for the expansion of public infrastructure as necessary to maintain the level of service for the City's residents and accommodate future development (I1.1).
> - Develop plans and programs for the reuse of infrastructure and utility properties and easements should they no longer be required for their intended operations (I1.1).

Recommendation:

> The Objective could speak to supporting and protecting users, while encouraging well-being. The Policies speak to the expansion of public streets but do not speak to the significant impact that streets have on place and placemaking. Policies should speak to preserving and protecting rights of way as a community resource. Additionally, expansion of the public infrastructure to maintain current levels of service may run counter to livability measures. The community should consider what level of service means for pedestrians, bicyclists and transit users.

The City of Redondo Beach sets for the following Objective in its General Plan:

> Establish and implement a comprehensive plan for the upgrade of Pacific Coast Highway's streetscape to incorporate street trees, landscape (planters), street furniture (benches, trash receptacles, news racks, etc.), street and crosswalk paving, lighting, public signage, and other appropriate elements, as permitted by Caltrans (I1.17).

Recommendation:

> Complete Streets elements and language that supports biking, walking and transit should be included in the upgrade of Pacific Coast Highway. In the Land Use Element, the City points to Pacific Coast Highway as a potential location for housing based on RH

designation. Streetscape improvements, like those noted above, appear in many of the corridor plans yet they do not speak to intended outcomes: livability, improved well-being, aging/living in place, increased civic engagement and safety. Guiding Principles are notably absent from the General Plan's Land Use Element and so the Plan Objectives and Policies may point to the desire for a healthy, active community, but this is not an organizing theme.

The City of Redondo Beach sets forth the following Objective in its General Plan:

> Examine the feasibility of re-routing North Catalina Avenue coincident with the railroad right-of-way from approximately North Broadway Avenue to Herondo Street; concurrently implementing traffic control mechanisms to reduce the speed of traffic (e.g., angled parking, additional signalization or stop signs, widened sidewalks, and limited access to and from Pacific Coast Highway) (I 1.19).

Recommendation:

The General Plan Land Use Element could speak to traffic control mechanisms and traffic calming features and their desired outcomes for pedestrians and bicycles. The General Plan should speak to why the community needs to calm traffic and behaviors of concern versus desired behaviors. This is an opportunity to speak to the community's vision when it comes to transportation corridors and user rights and responsibilities.

Circulation Element

The Circulation Element does a nice job of assessing existing conditions in Redondo Beach and outlining opportunities to improve Level of Service for vehicles. The Element provides the regulatory issues affecting transportation improvements in Redondo Beach, which should be noted for this project:

- Measure DD – Requires voter consent for major changes in the City's General Plan or Zoning Ordinances
- AB 1358 – Complete Streets Act – It requires circulation elements to address the transportation system from a multi-modal perspective. Streets must meet the needs of all users.
- AB 32 – Global Warming Solutions Act – The State of California is committed to reducing greenhouse gas (GHG) emissions to 1990 levels by 2020.
- SB375 – Adopted to achieve regional GHG targets, it requires Metropolitan Planning Organizations to create a "Sustainable Communities Strategy" to meet regional targets. It also requires that housing elements and transportation plans be synchronized on eight year schedules and it allows for streamlining incentives for preferred development types.

The Circulation Element outlines bicycle and pedestrian facilities and opportunities to reduce gaps in network and to create linkages to existing and proposed facilities. The following existing Goals and Policies for bicyclists and pedestrians have been identified and should be recognized as part of the Vitality City project.

Goal: Pursue Bicycle and Pedestrian Priorities

Policies:

- Link Existing and Proposed Facilities.

- Connect North Redondo Beach and South Redondo Beach with bike facilities.
- Focus on access at transit stations, the waterfront, South Bay Galleria, Artesia Boulevard, Riviera Village, Pacific Coast Highway retail zones and school zones.
- Reduce travel vehicle lanes and create minimum 5' bike lanes.

Goal: Enhance Bicycle Infrastructure

Policy:

- Increase the provision of bike lockers, bike racks and lighting for bike facilities.

Goal: Create Opportunities for Physical Activity

Policies:

- Ensure that residents will be able to walk or bicycle to destinations such as the beach, the Civic Center, Redondo Beach Pier, Riviera Village and other activity centers.
- Conduct walkability and bikability audits.
- Work with Redondo Beach Unified School District to create Safe Routes to School.
- Time signals to allow adequate crossing time for pedestrians and install pedestrian islands or bulb-outs on wide streets to shorten crossing distances.
- Close existing gaps in sidewalk infrastructure, maintain sidewalks and require sidewalks with all new development.
- Provide climate appropriate landscaping, adequate lighting and street amenities to make walking safe, interesting and enjoyable.
- Promote the use of alternative transportation for short trips and conduct periodic bicycle and pedestrian counts to assess whether alternative mode use is increasing.

Recommendation:

The Circulation Element does not speak to the community's vision for active transportation, active living or livability. While the Goal may be to "Create Opportunities for Physical Activity," this should be in support of a community vision of health, well-being, active living or quality of life. Additionally, the Vitality City project leaders should review the plans and policies established by the community within the Circulation Element for an update on progress and prioritization since adoption. This would indicate support of and resistance to policies.

Municipal Code

The Municipal Code provides instruction for what one may or may not do. The following topics speak to pedestrian transportation:

1. *Pedestrian Safety* - Ordinance 4-22.08 and 9-1.22: Protection of Pedestrians - Pedestrian safety refers to construction. Nothing speaks to creating a safe pedestrian environment.

2. *Crosswalks* - Ordinance 3.7.1001 provides for the establishment of crosswalks and gives authorization to the City Manager to establish and mark crosswalks in cases where the Council determines that there is exceptional hazard to pedestrians crossing the roadway in any of the following places:

At any intersection;
a) Near the mid-block point in any block in the Central Traffic District which exceeds 400 feet in length;
b) Near the mid-block point in any block outside the Central Traffic District which exceeds 400 feet in length provided the volume of vehicular traffic and the volume of pedestrian travel indicate a special need for such crosswalk as defined in the Traffic Manual; and
c) At any loading platform on a private right-of-way of any common passenger carrier. (§ 39, Ord. 1539)

This does not speak to utilizing context sensitive design solutions. Other ordinances speak to limiting pedestrian crossings to crosswalks within the Central Traffic District and requiring pedestrians to cross a roadway "at right angles to the curb, or by the shortest route to the opposite curb, except in a marked crosswalk (§ 41, Ord. 1539). The Code states "no person shall stop or stand on a sidewalk except as near as is physically possible to the building line or the curb line at any place in the Central Traffic District or any business district (§ 43, Ord. 1539). This goes against livability principles and it is not clear what this Ordinance is in support of.

3. *Wayfinding* - In terms of pedestrian scaled wayfinding, Ordinance 3-7.1006 Signs states that pedestrian scaled signage will alert pedestrians to street closures. It does not speak to pedestrian scaled signage and wayfinding otherwise.

4. *Safety* - Bicycle safety focuses on licenses and fees, and outlines the prohibitions for bicycles on sidewalks, ramps and in parking structures. Interestingly, Code 3-1.03 to 3-1.07 prohibits skateboards and roller skates from streets, bike paths and alleys, as well as limits their usage on sidewalks—so it is not clear where they are desired within the City.

5. *Transportation Demand Management* - Ordinance 10-2.2406 sets forth requirements for new applicable developments to provide facilities and/or programs that encourage and accommodate the use of ridesharing, transit, pedestrian and bicycle commuting as alternatives to single-occupant motor vehicle trips. Under the Purpose, it states "A reduction in such trips can be expected to assist in reduced traffic congestion, air pollution and energy consumption impacts related to employment growth generated by new development. Further, it is the intent of this article to comply with the requirements of the Los Angeles County Congestion Management Plan (CMP)." (§ 1, Ord. 2905 c.s., eff. August 5, 2003)

6. *Bicycle Parking* - Bicycle parking requirement of four spots per 50,000 square feet is low. New York City places their requirement at one spot per 7, 500 square feet for commercial uses.

The WALC Institute team acknowledges that the Redondo Beach Sustainable City Plan includes some recommendations related to those described in this livability report. The Institute team was introduced to the Sustainable City Plan toward the close of the livability project and thus, it wasn't reviewed as part of this effort. It is referenced here as a possible resource document.

City of Hermosa Beach

Land Use Element

The City includes the following Goals in its General Plan:

> Goal 1: Protect and maintain the small town beach community atmosphere of Hermosa Beach.
>
> Goal 2: Accommodate existing and future commercial land uses to provide service to both local residents and regional shoppers.
>
> Goal 3: Encourage land uses which enhance and promote the City's coastal environment.
>
> Goal 4: Provide for the development and maintenance of public infrastructure to adequately serve the needs of residents and permitted land uses.
>
> Goal 5: Provide community resource facilities which will adequately support the needs of local residents and businesses.
>
> Goal 6: Maintain existing land use standards and controls for the commercial and industrial districts.

One of the Goals for the City of Hermosa Beach should be the creation of community conditions that positively affect quality of life, health and well-being. Nothing in the goals speaks to these things. There is an opportunity here to speak to the protection of natural resources; access to healthy foods; safe streets, neighborhoods and parks providing better living, working and playing environments; or better health outcomes.

Recommendation:

The City of Hermosa should consider including a Health and Wellness Chapter in its General Plan. This would allow the community to accomplish the following:

- Document the status of health and wellness today, including a review of current conditions relative to healthy living determinants.
- Highlight key findings and recommendations based on an existing conditions analysis to improve quality of life, health and well-being.
- Define goals for promoting healthy living.
- Identify policies and implementable actions to address challenges and opportunities to foster health and wellness community-wide.

Including well-being as a critical path for improving conditions within the community is central to long-term success and sustainability. Although a Community Health and Wellness Element is not a state-mandated element, its inclusion in the General Plan ensures that public health and wellness remains a city priority. The Element is consistent with Section 65303 of the State of California Government Code, which authorizes local jurisdictions to adopt additional elements to those required by state law when they relate to the physical development of the jurisdiction.

General Plan Goals, Objectives and Implementation Policies: Hermosa Beach's present policies in support of the City's Goals and Objectives may run counter to livability principles. Of concern are the following policies:

- Restriction on land uses is based on compatibility, with no explanation or establishment of compatibility/incompatibility guidelines.
- Adequate separation from the lot line of residential and nonresidential uses; setback requirements.
- Pedestrian oriented design is limited to specific commercial areas as opposed to a city-wide initiative.
- Mitigation of impacts of commercial development on adjacent residential land uses.
- Commercial corridor limitations on residential land uses for Pacific Coast Highway.
- Landscape buffering speaks to an interface between residential development and the Pacific Coast Highway, but nothing speaks to buffering pedestrians from traffic or providing drought-resistant landscaping treatments for water reduction, pedestrian comfort or to improve sight lines.
- Maximizing the use of public and private parking, and private downtown parking structures.
- Consideration of existing rights of way but no discussion of long term protection of existing rights of way as green spaces or multi-use trails or for transit. No discussion of the City's plan for engaging the public when it comes to preserving the right of way.
- There is no explanation of the Downtown Business Enhancement Commission – who they are, their role and why they will review major development plans.

It is noted here that the City is collecting a General Plan Maintenance Fee to fund the General Plan update. Additionally, due to compact form, scale and density, we should note that Hermosa Beach does provide a horizontally mixed use form, where commercial and residential uses are in close proximity to one another within much of the City. The City's high parking standards, however, run counter to livability at 2 plus 1 guest space required.

Recommendation:

Hermosa Beach has the opportunity to update its General Plan to include livability, active living and green principles for improved community well-being.

Hermosa Beach should consider rewriting its Goals for improved well-being by adding:

Goal 1: Improve Access to Parks, Recreation and Open Space

Goal 2: Expand Healthy Food and Nutrition Choices

Goal 3: Ensure Access to Critical Services, such as Hospitals and Schools

Goal 4: Encourage Safe and Convenient Public Transit and Active Circulation Options

Goal 5: Provide a Range of Quality and Affordable Housing

Goal 6: Expand Economic Opportunity

Goal 7: Develop Complete Streets and Neighborhoods

Goal 8: Improve Safety in Neighborhoods and Public Spaces

Goal 9: Improve Environmental Quality

Goal 10: Promote Green and Sustainable Development Practices

Goal 11: Become a Leader in Building Healthy Communities

The opportunity to speak to appropriate, compatible Land Uses could fall under a number of these goals, but would frame the discussion with the community's well-being at the center so that the policies are in support. Within the General Plan, the City of Hermosa Beach should frame the Vision with policies and strategies to assist with prioritizing and implementing recommendations.

Recommendation:

The following examples provide a guiding principle, followed by policies and strategies that support.

1. **Guiding Principle:** Improve Access to Parks, Recreation and Open Space

   Implementable Policies:
   - Provide a comprehensive and interconnected system of parks, plaza, playgrounds and open space.
   - Expand and tailor recreational programs and services to meet the community's needs.
   - Enhance and protect the community's access to the shoreline.

   Actionable Strategies:
   - Parks Master Plan Update
   - Expand the Parkland Dedication Ordinance
   - Park Dedication Incentive Program
   - Joint-Use Agreements for private use of public facilities.
   - City-Wide Recreation Program Update

2. **Guiding Principle:** Expand Healthy Food and Nutrition Choices

   Implementable Policies:
   - Promote the availability of fresh fruits and vegetables.
   - Support community gardens, urban agriculture and local farmers.
   - Require restaurants to provide nutritional information to customers.
   - Begin Farm to School Programs.

   Actionable Strategies:
   - Create a Healthy Food Incentives Program.
   - Undertake a Sustainable Urban Agriculture Assessment.
   - Provide nutrition information display guidelines.
   - Create a Healthy Food Task Force with the School Board to bring fresh fruits, vegetables and local foods into schools.

3. **Guiding Principle: Adopt Safe and Convenient Public Transit and Active Circulation Options**

   Implementable Policies:
   - Support an enhanced public transportation system to improve access for all residents and visitors.
   - Provide a comprehensive para-transit service within the City.
   - Promote walking and biking as safe, convenient modes of transportation.

- Create a safety campaign for pedestrians, bicyclists and transit users.
- Promote mixed-use development.

Actionable Strategies:

- Update the Community's Access and Mobility Criteria.
- Update the City's Traffic Calming Program.
- Update the Streetscape Improvement Plan with Complete Streets policies.
- Street Design Guidelines Update.
- Green Streets Program Update.

4. **Guiding Principle: Develop Complete Streets and Neighborhoods**

Implementable Policies:

- Encourage dense, mixed-use infill development.
- Identify community needs by neighborhood through walking and bike audits.
- Build Complete Streets and incorporate Complete Streets language into all planning documents.

Actionable Strategies:

- Update the Corridor Improvement Plan.
- Update/Create the Neighborhood Revitalization Plan.
- Integrate Complete Streets and Complete Neighborhoods policy language in all guiding documents and internal communications.

5. **Guiding Principle: Become a Leader in Building Healthy Communities**

Implementable Policies:

- Strengthen the City's internal capacity to support and implement health-related policies and programs.
- Support Health and well-being monitoring and tracking of health outcomes identified by the Health Department.
- Kick off a "Healthy Choices" Information Campaign.
- Create a Healthy Development Recognition Program.

Actionable Strategies:

- Form a Healthy Development Task Force.
- Create a Healthy Development Checklist. See http://www.walkable.org/assets/downloads/healthy_development_checklist.pdf
- Review the County's RENEW program and its goals.

Hermosa Beach may also wish to include principles, policies and strategies related to sustainability and improving environmental quality. Current initiatives that could be framed for improved well-being through transportation improvements follow:

- Air Pollution Reduction Strategies
- Indoor and Outdoor Air Quality Guidelines
- Sensitive Use Location Guidelines (Habitat Protection Guidelines)
- Truck Routes Study

- Site Remediation Strategies
- Renewable Energy Program
- Waste Reduction and Recycling Programs
- Water Conservation and Recycling Programs
- City Vehicle Transition Program (green technologies)

The City of Hermosa Beach has a strong background in Green Initiatives. Tying transportation improvements to conservation, resource protection and green living might be a good strategy for the City. Those Green Initiatives taken by the City of Hermosa Beach to date follow. There is greater opportunity for green initiatives through transportation improvements, and this should be a focus for the City.

1970-1999

- Street sweeping weekly city-wide (10 tons/week removed from streets that won't reach ocean).
- Adopted 4/10 (M-Th) work week schedule to conserve fuel for employee commutes and energy use in facilities.
- Adopted stormwater ordinance to implement NPDES regulations.
- Use reclaimed water for 75% of parks, greenbelt and medians.
- Employee Ride Share: City financial incentive to employees to ride share or use transit.
- Initiated city annual Household Hazardous Waste collection day.
- Instituted annual beach clean-up day.
- Banned use of pesticides or herbicides on city parks and open spaces.

2000-2007

- Installed catch basin filters in downtown area (before most cities).
- All green waste (grass and tree trimmings) from city facilities recycled. Plastics and paper are recycled.
- 50% construction debris recycling required (500 sf + construction and demolition projects).
- Participate in Adopt-A-Storm-Drain Program (corporate sponsorship of BMPs).
- Initiated program to replace gas vehicles with alternate fuels (CNG, propane, electric) (6-7 in 2001).
- Began installation of infiltration basins to reduce pollutants reaching ocean.
- No smoking on public beaches.
- All custodial supplies are green (toilet paper, cleaning agents, etc.).
- Green building checklist adopted by Planning Commission applicable to new residential condominiums.
- Rain gage control of majority of park areas to minimize water use.
- Waterless and ultra-low flow urinals and tankless water heaters installed at city facilities.
- Solar powered flashing red beacons at 8 stop locations.
- Waive portion of plan check fees for solar energy systems.

2008

- Amended zoning code to facilitate solar energy systems consistent with state law.
- Created green webpage on City website (www.hermosabch.org).

- City Monthly E-newsletter informs people about Green Task Force and also includes The Green Corner.
- Clean Beach Restaurant Program initiated – 1st in L.A. County.
- Replaced +- 900 lighting fixtures in City buildings with energy efficient fixtures.
- Converted all traffic signals to LED.
- Installed controllers of various types to reduce electric use at city facilities.

2009

- City Council created city's Green Task Force to advise on green initiatives and prepare a climate action plan.
- Received CBI Grant to construct stormwater infiltration trench on beach for Pier Avenue Drain.
- Placed 'Sharrow' (share the lane) markings on Hermosa Avenue (Pier Avenue to follow after reconstruction).
- Municipal Greenhouse Gases Inventory completed.
- Updated Energy Audit for City facilities (ARRA funding opportunities).
- Adopted form-based zoning to make Pier Avenue more desirable for walking and environmentally sustainable.
- Submitted ARRA application to retrofit lighting at CITY parking garage and courts.
- Amended zoning code to allow small wind energy systems throughout city.
- City is testing LED street lights in select locations.

2010

- Selected to participate in Local Use Vehicle (net zero) Demonstration Program (SBCCOG).
- Pier Avenue project reconstruction: stormwater infiltration and other storm water controls, ocean-friendly landscape, recycled water, efficient lighting. Wins EPA and American Public Works Association awards.
- Adopted water conservation and drought management ordinance (Green Task Force initiative).
- Adopted water efficient landscape ordinance that exceeds state requirements (Green Task Force initiative).
- City offers compost and worm bin at discounted price (Green Task Force initiative).
- City distributes recycling guide to every house and business (Green Task Force initiative).
- Instituted power management features on computers and monitors (EPA Low Carbon IT campaign).
- Instituted Special Events sustainability requirements (Green Task Force initiative).
- Ocean Friendly Garden demonstration project installed at 22nd St. and The Strand. ('Grades of Green' school program).
- Community Greenhouse Gases Inventory completed.
- City declares its goal to become a carbon neutral/green idea city.
- Adopts Cal Green building code that exceeds state requirements (Green Task Force initiative).

2011

- Recommends ban on polystyrene take-out food containers (est. Completion June 2011) (Green Task Force initiative)

- Sustainability Plan (Green Task Force)

Initiatives that address the built environment and its impacts on well-being and sustainability could be furthered. Active Transportation initiatives and a focus on improving individual and community health are hopefully part of the City's Sustainability Plan.

Pedestrian Safety Assessment - In 2008, the City of Hermosa completed a Pedestrian Safety Assessment which noted areas for Enhancement and Opportunity for pedestrian travel. It noted the following areas for enhancement:

- ADA Transition Plan for Streets and Sidewalks
- Bicycle Parking Requirements
- Collision History and Collision Reports
- Design Policies and Development Standards
- Institutional Obstacles
- Open Space Requirements
- Pedestrian Safety Education
- Pedestrian Safety Program
- Need for Walking Audits
- Pedestrian traffic control devices (Signs, Markings, and Signals)
- Pedestrian/Bicycle Coordinator Needed
- Public Involvement and Feedback Process
- Safe Routes to School Program and Grant Funding
- Speed Limits and Speed Surveys
- Street Furniture Requirements
- Traffic Calming Programs
- Transportation Demand Management Programs
- Crosswalk Installation, Removal and Enhancement Policy
- Economic Vitality
- Historic Sites Protection
- Health Agencies Integration
- Inventory of sidewalks, informal pathways and key pedestrian opportunity areas
- Leading Pedestrian Intervals
- Pedestrian Crossings
- Pedestrian Volumes
- Pedestrian Master Plan
- Routine Accommodations in New Development

The report provides pedestrian improvement measures, their benefits and appropriate applications for the community—a great resource—and an update that speaks to the specific policies and strategies used to address these measures would be useful. An update on the progress since plan adoption would speak to community support or resistance to active transportation initiatives.

Circulation Element

The Circulation, Transportation and Parking Element was updated in 1990 and supersedes the 1978 Element. The introduction acknowledges the need for alternative modes of transportation and decreasing reliance on the single occupant automobile. There are a number of policy recommendations within this document that should be considered in terms of livability, including street designation; one-way streets; turning prohibitions; walk streets; a pedestrian and jogging path within the railroad right of way; bike lanes; mid-block barriers for automobiles and thru lanes for bikes and walkers; minimum set back requirements; and parking requirements. This document needs to be updated to comply with State requirements.

Municipal Code

There are opportunities within the Municipal Code to speak to pedestrian rights and responsibilities. Pedestrians are not included within the Vehicle and Traffic section, aside from the following:

0.20.010 - Establishment and designation of crosswalks.
10.20.020 - Crossing roadways in certain districts to be only at crosswalks.
10.20.030 - Obeying pedestrian traffic signals.

Overall, the guiding documents for Hermosa Beach speak to concerns about land use designations. Specifically, concerns about the City's ability to ensure greater predictability of existing and future land uses exists. Secondly, concerns about negative external impacts from incompatible uses also exist. Additionally, parking is a major concern to Hermosa Beach and should be addressed in terms of land value. Maintaining an appropriate scale is also mentioned in the Urban Design Element, and the Municipal Code offers opportunities for inclusion of pedestrian, bicyclist and motorist rights and responsibilities.

City of Manhattan Beach

Land Use Element

The Introduction to the General Plan states, "The Manhattan Beach General Plan describes how residents will work to retain the small-town atmosphere that makes our City unique, but at the same time, responds to the dynamics of regional traffic issues and meets changing community needs. The General Plan serves as a policy guide, balancing these interrelated factors to Manhattan Beach's community vision." The vision for Manhattan Beach is set forth as follows in the Land Use Element. It states, "As we look to the future, we envision Manhattan Beach continuing to be a community of high quality, both functionally and visually. We see distinctive residential neighborhoods that accommodate the varied needs of our diverse residents. Our vibrant Downtown enhances the small-town character and caters to both residents and visitors. Commercial districts meet our shopping needs and provide employment. Open space is well landscaped and maintained, and offers a range of recreational opportunities. We envision a place where new uses blend with established development. We envision Manhattan Beach where quality development remains a high priority."

The vision set forth in the General Plan speaks to a robust public process that led to the creation of the following overarching principles:

- Maintain a small-town-community feel that preserves the unique characteristics of individual neighborhoods.
- Provide a balanced transportation system that minimizes cut-through traffic in residential neighborhoods and provides adequate parking in all areas of the City.
- Maintain vibrant commercial areas throughout the City with businesses that meet the desired needs of the community.
- Provide a high level of public safety, ensuring a strong sense of protection for all those who live and visit the City.
- Safeguard picturesque vistas of the ocean, and protect existing trees and landscape resources that add value to the City.
- Create a sense of community that bonds residents together, making a stronger, better Manhattan Beach.
- Provide a variety of parks and recreation facilities that meet the diverse needs and interests of the community.

Recommendation:

This is a very thoughtful vision that is supported by seven overarching principles but it does not speak to community health or well-being through livability. The seven overarching principles form the foundation of the General Plan and are embodied in every goal and policy of this Plan. Including language that speaks to the community's vision for individual and community health is an important step towards livability.

The Plan outlines those regulatory issues affecting transportation improvements in Manhattan Beach:

- California Coastal Act of 1976
- Manhattan Beach Local Coastal Program
- California Environmental Quality Act (CEQA)
- SCAG Regional Comprehensive Plan and Guide
- Congestion Management Plan

- Air Quality Management Plan
- California Noise Insulation Standards (Title 24)
- National Pollution Discharge Elimination System (NPDES)
- South Bay Cities Council of Governments

The WALC Institute team notes the levels of regulation surrounding transportation improvements in the beach cities. Interestingly, it is the SCAG Regional Comprehensive Plan and the Congestion Management Plan that focus on regional priority issues such as mobility, economic development and overall quality of life in the region. The SCAG Regional Comprehensive Plan focuses on developing regional strategies to minimize traffic congestion, protect environmental quality, and provide adequate housing. The Regional Comprehensive Plan and Guide sets forth broad goals intended to be implemented by participating local and regional jurisdictions and the South Coast Air Quality Management District. The Congestion Management Plan aims to link land use, transportation and air quality decisions; to develop a partnership among transportation decision makers on devising appropriate transportation solutions that include all modes of travel; and to propose transportation projects that are eligible to compete for state gas tax funds.

The Land Use Element introduces the following neighborhoods in Manhattan Beach and provides some vision for development:

- Sand Section (Beach Area) – A Local Coastal Plan has been prepared.
- Downtown – Downtown Manhattan Beach Guidelines were adopted in 1998 and establish three themes for Downtown:
    - Preserve the small-town village character of downtown Manhattan Beach.
    - Preserve and enhance the pedestrian orientation of downtown Manhattan Beach.
    - Protect and encourage streetscape amenities.
- North End – Limited Parking and Streetscape beautification listed as key concerns.
- Tree Section – The Tree Protection Ordinance of 2003 was adopted to protect front yard trees in this neighborhood and was eventually expanded City-wide, except to the Sand Section.
- Sepulveda Boulevard – As the only State highway in Manhattan Beach, it serves as a major transportation corridor and commercial corridor. The City adopted the Sepulveda Boulevard Design Guide to provide a framework for acceptable development along this corridor.
- Hill Section – Contains mostly single family residences, with some commercial uses along Manhattan Beach Boulevard. This neighborhood is home to large lots, large homes and the highest real estate prices in the City.
- Manhattan Village – This area used to be home to the Chevron Oil field. This area has a diverse mix of uses, including high density apartments, commercial uses, schools and recreational features.
- Eastside – Home to 1940's and 1950's post World War II tract homes and higher density and commercial uses on Manhattan Beach Boulevard, Artesia Boulevard and Aviation Boulevard. Five schools are located in this area, including the City's only public high school and the only middle school.

Recommendation:

Consider including a vision for each of these neighborhoods that speaks to health, well-being and quality of life for residents and visitors. Given the concentration of schools

within the Eastside neighborhood, consideration of Safe Routes to School, walkability and active transportation should be emphasized. The Land Use section provides an existing conditions/historic report of Manhattan Beach. Part II of the Land Use Element speaks to Neighborhood Character. There is an opportunity between these two sections to speak to a vision on a neighborhood level and to tie this to the community's overall vision for livability. Neither area speaks to health, well-being, living in place, active living, quality of life or active transportation as organizing principles.

Small Town Character - Within the General Plan, Manhattan Beach notes "Small Town Character" as a value. The policy they set forth is low-profile development. The strategy is to limit the height of new development to three stories where the height limit is 30 feet or to two stories where the height limit is 26 feet.

Recommendation:

The height requirements aim at protecting privacy, reducing shading, protecting vistas of the ocean and preserving the low profile image of the community to reinforce small-town character. While building height may be regulated by a number of plans, justifications are mainly aesthetic and the community should consider how to tie aesthetic regulations to other regulatory requirements. For instance, low profile development might also support Green Initiatives through ventilating breezes, solar energy or fall in line with SEPA requirements. The City could also speak to the desired outcomes of low-profile development as it relates to livability, walkability, Smart Growth, placemaking, active living and crime prevention through environmental design.

Open Space Requirements - Open Space requirements set forth in the General Plan for Manhattan Beach are at 5.0 acres per 1,000 residents. While the City met open space requirements at the time of Plan adoption, it noted that open spaces were concentrated in the Sand Section and Manhattan Village Area. To address this, the City encourages mature trees on streets and private landscaped open areas as a means for increasing open space. The City recognizes that residents in the Tree Section, Hill Section and Eastside use school grounds for recreational activities. Within the General Plan, Open Space requirements require the provision and retention of private landscaped areas to give the impression of public open space. The City should determine whether public-private agreements might formalize these Open Spaces during development so that they are considered part of an Open Space network. The only other actionable strategy for Open Spaces focuses on protecting existing mature trees throughout the City and replacing them with specimen trees whenever lost or removed.

Community Aesthetics - The General Plan points to the pride Manhattan Beach residents show in the quality of the built environment. An aesthetic, well-kept Manhattan Beach is a principle. The General Plan speaks to establishing and implementing consistent design standards for aesthetics and includes the promotion of adopted design guidelines within the Downtown, Sepulveda Boulevard and in other areas where guidelines apply. The Vitality City project team should review these design guidelines for compatibility with livability principles.

Recommendation:

The community speaks to minimizing ugliness by using stealth design for telecommunications antenna and related facilities; creating standards for public signage and City street signage; and the beautification of streets through landscaping. Other issues such as garbage or debris removal; crime prevention through environmental design; and storage are as important as vegetation in terms of aesthetics. Aesthetic regulations can balance the burdens they impose on

property owners by showing the health and safety justifications that complement the regulation. For instance, regulations on signage might speak to pedestrian scaled signage; maintaining sight lines; travel lanes versus furniture lanes on sidewalks; in addition to the aesthetic they support.

Neighborhood Character & Economic Viability - The community provides the vision for each of the neighborhoods identified earlier (Part I of the Land Use Element). Within these sections, the following are stated as Goals:
Preserve the features of each community neighborhood, and develop solutions tailored to each neighborhood's unique characteristics.
Protect residential neighborhoods from the intrusion of inappropriate and incompatible uses.
Maintain the viability of the commercial areas of Manhattan Beach.

Recommendation:

The goals set forth by the City for neighborhood character and economic vitality could be strengthened by defining context sensitive design and the vision neighborhood residents have for maintaining place. Images specific to each neighborhood for what is desired and what is not desired help in localizing street treatments, while maintaining a sense of connectivity and continuity within the community. The City should include images of what is prioritized and what is undesirable in their neighborhood section.

The Design Overlay District was established in 1991 by Ordinance 1382. The City should determine whether these standards are still applicable and supportive of livability. The document speaks to noise, incompatible uses and design standards that are meant to limit commercial uses adjacent to residential uses. It would be interesting to learn how "walk streets" have evolved since 1991.

The goals speak to supporting and encouraging small businesses; a diverse mix of business to support the local tax base and that benefit residents; a variety of commercial development types; and the need to balance the needs of commercial and residential uses in mixed-use areas. Inclusion of livability, quality of life, active living and smart growth could frame this discussion as opposed to the potential negative impacts of mixed uses on residents. There is a fear of the impacts commercial uses might have on residential neighborhoods, which may be exacerbated by commuter traffic currently flooding residential neighborhoods.

Circulation Element

The Circulation Element of Manhattan Beach recognizes that quality of life and livability are impacted by infrastructure. It states:

Infrastructure forms the backbone of our community. Our streets connect our neighborhoods, schools, business districts, and parks. The water storage and delivery system and wastewater collection lines are critical to urban living. Storm drains protect our properties from flooding. Electric power, natural gas, and telecommunications facilities help us live in comfort. These systems all support the quality of life in Manhattan Beach.

How will our infrastructure continue to contribute to and enhance the livability of our community? As a community, we envision local streets as truly neighborhood streets, with cut through automobile traffic and its associated noise in our neighborhoods reduced. We look to increase parking opportunities in Downtown and the beach areas to minimize parking impacts in residential neighborhoods. We see water used efficiently so

> that demands today do not compromise the needs of tomorrow. We expect our storm drain system to collect rainwater in a manner that reduces pollutant loads entering the ocean and that addresses localized flooding concerns. We look for telecommunications infrastructure to continue to be state-of-the-art, connecting us to the world around us. As a community conscientious about the sustainability of our environment, we envision Manhattan Beach continuing to function effectively and efficiently, providing all infrastructure necessary to improve our lives and grow our economy.

In 2002, the City of Manhattan Beach completed a community survey in which the community was asked to define the most significant issue in Manhattan Beach other than traffic and parking. In response to this survey, residents overwhelming responded with traffic and parking as the main concern. Residents were vocal in their unhappiness that significant traffic loads were overflowing into adjoining neighborhood streets, causing noise, traffic, and safety impacts during peak periods of the day.

Manhattan Beach recognizes that their local circulation is linked with the regional system. Therefore, policies in their Circulation Element highlight Manhattan Beach's continued need to participate in regional programs to alleviate traffic congestion through capacity enhancements and trip reduction.

In order to deal with traffic and congestion, the City identified two primary courses of action to improve congestion:

1. Focused physical improvements for enhanced function of intersections, which function as the control points in the circulation network.
2. Creative, technological solutions to improve mobility.

Unfortunately, examples of the proposed physical improvements listed in the General Plan focus on street widenings, and do not speak to Complete Streets or encouraging active transportation. The list includes:

- Widening the bridge on Sepulveda Boulevard between Rosecrans Avenue and Marine Avenue
- Widening of Rosecrans Avenue between Douglas Street and Aviation Boulevard
- Widening of Aviation Boulevard between Rosecrans Avenue and Marine Avenue
- Intersection improvements at Manhattan Beach Boulevard/Sepulveda Boulevard and Marine Avenue/Sepulveda Boulevard
- Intersection improvements at Manhattan Beach Boulevard/Redondo Avenue

Safe Routes to School - Safe Routes to School are mentioned as a challenge. The Circulation Element states:

> One demographic group continually challenged to find public transit is school children. When the State budget is unable to assist with school bus funding, the Manhattan Beach Unified School District cannot bear the cost of providing bus service to its schools. Traffic congestion around schools, particularly in the morning, creates not only delays but safety risks to Manhattan Beach's younger residents. Working cooperatively with the District, the City may be able to find new ways to provide safe routes to school.

It is the WALC Institute's understanding that the City has developed plans to implement Safe Routes to School programs. This is good news. An example of a Safe Routes to School Report can be found here:
http://dl.dropbox.com/u/17132277/CasperWY_SafeRoutesToSchool_1_Report_FinalWithAppendix_WALC-Institute_2011-05_SmallFile.pdf.

Because the City recognizes that traffic and congestion impact quality of life and livability, emphasis should be placed on encouraging active living and active transportation, with greater integration of transit. The Circulation Element includes a section on Expanding Mobility Options through:

- Enhancing Transit Services
- Incorporating Transportation Demand Management
- Maintaining Truck Routes

Recommendation:

Greater emphasis on multi-modal transportation, Complete Streets policies and educational/outreach campaigns to encourage active living are needed. The City does a nice job of introducing existing conditions. Specific policy recommendations to relieve traffic and congestion through active transportation and better integration of transit services are not provided. An explanation of Level of Service as it applies to all modes is needed. Intersection and roadway treatments other than widenings are not examined. If these widenings are to provide pedestrian, bicycle or transit facilities, this is not mentioned.

Municipal Code

The Municipal Code provides those regulations specific to pedestrians:

14.32.010 - Traffic engineer to establish marked crosswalks.
14.32.020 - When pedestrians must use crosswalks.
14.32.030 - Pedestrians to obey special pedestrian traffic signals.
14.32.040 - Pedestrians prohibited from standing on divisional island.
14.32.010 - Traffic engineer to establish marked crosswalks.

If the City chooses to implement pedestrian refuge islands, it may need to look at the wording of the following ordinance and its intent:

> 14.32.040 - Pedestrians prohibited from standing on a divisional island. No pedestrian shall stand on any divisional island as defined in Section 14.01.060 of this Code, or delay their movement upon any divisional island longer than is necessary to avoid conflict with traffic when entering or crossing a divided street or roadway. Nothing in this section prevents a City employee or City contractor from being on a divisional island for the purpose of carrying on construction or maintenance activities.

Livability principles favor integration of modes, and the following Ordinances speak to segregating the modes. Additionally, there is recognition that the bicycle path may become too congested for cyclists:

14.28.130 - Beach bicycle path.
14.28.140 - Bicycle path hazard.
14.28.130 - Beach bicycle path.

Beach Bicycle Path: That facility designed, constructed and designated as the beach bicycle path, including all ingress or egress ramps thereto, as shown on the map on file in

the City Engineer's office, shall be used exclusively for the riding or propelling of bicycles by human power. The bicycle path shall not be used by pedestrians or animals of any kind, except that pedestrians may cross the same at right angles in a manner so as not to interfere with any bicycles on the bicycle path when necessary to do so to gain access to or from the beach. (§ 1, Ord. 1351, eff. February 7, 1974)

Bicycle Path Hazard: Any Public Safety Officer (Police Officer, Lifeguard or Firefighter) may declare that the number of pedestrians and bicyclists is sufficient so as to create an undue hazard upon the bicycle path. When such conditions exist, a "Walk Only" zone may be created to require the walking of bicycles in the designated area of the bicycle path. When signs are erected declaring a "Walk Only" zone, it shall be unlawful for anyone to ride a bicycle in the area designated by signs. (§ 1, Ord. 1801, eff. June 1, 1989)

Recommendation:

Consider integrating the modes by providing slow-moving lanes and fast-moving lanes on the bicycle path. Knowing how the "Walk Only" zone is enforced on the bike path would help in understanding mobility and accessibility concerns for all modes.

Walk Streets: "Walk streets" are not codified aside from design standards. so setting or enforcing acceptable behaviors may be challenging. The definition within the Code is "A dedicated public street which has been closed to vehicular traffic." Whether this is temporary or permanent, seasonal, or based on time of day is not specified.

The WALC Institute team acknowledges that the City of Manhattan Beach's Community Development Department created two guidance documents – "Construction and Landscaping on Public Property" in 2004, and "Neighborhood Traffic Management Program Handbook" in 2005 – that may address certain recommendations in this report. The Institute team was introduced to these documents toward the close of the livability project and thus, they weren't reviewed as part of this effort. They are referenced here as possible resource documents.

Livable Communities and Transportation Policy: Concluding Thoughts

Transportation policy that supports livable communities calls for changing the way we approach transportation to ensure our communities are desirable places to live, work and play. This vision contrasts with current transportation trends, which focus narrowly on congestion and our deteriorating transportation systems. A focus on livability assesses transportation projects based on how they will improve quality of life and livability in communities.

Obstacles to achieving transportation policy that supports livable communities include:

- Traditionally, Departments of Transportation and municipalities have focused on programming standards that favor the single occupant automobile. Livability is not included in the criteria. The impacts of transportation planning and land use decisions on quality of life are absent from most planning documents.
- Auto-oriented development patterns have changed the form of communities from walkable, transit oriented, street grid systems to strip and single-family development accessed by regional automobile corridors.
- Communities have not focused on integrating transportation and land use planning to protect rural resource lands from the impacts of development.
- Livability requires context-sensitive design solutions that address the needs of rural, urban and suburban areas. Communities must develop and localize those acceptable street treatments that support livability.
- Level of Service focuses mainly on vehicle mobility at the expense of all other modes. Acceptable Levels of Service for pedestrians, bicyclists and transit users are almost never considered and the impact from vehicular traffic on other modes is often ignored.

A community's General Plan memorializes the community's desired development goals and embodies public policy relative to present and future land use decisions. The General Plan serves to:

- Identify the community's land use, circulation, environmental, economic and social goals and policies as they relate to land use and development.
- Provide a basis for local government decision-making, including decisions on development approvals and exactions.
- Provide citizens with opportunities to participate in the planning and decision-making processes of their communities.
- Inform citizens, developers, decision-makers and other cities and counties of the ground rules that guide development within a particular community.

All recommendations must fall in line with the vision set forth by the community in their guiding document. Each of the beach cities has indicated concerns and reservations about the following:

- Mixed-use development and its impacts on residential uses
- Traffic and congestion, especially overflow commuter traffic in residential neighborhoods
- Parking and parking management
- The community aesthetic and preserving their historic sense of place
- Development as a potential threat to place-making
- Conservation and protection of resources
- Access to natural resources
- Safe Routes to School

As we address these concerns over the course of the Vitality City project, there is an opportunity to include livability, well-being and quality of life as guiding principles for each of the beach cities. Transportation policies that support livable communities will provide the following benefits to the beach communities:

- Sustainable, cost-effective land use and transportation patterns.
- Reduced infrastructure costs.
- Localized transportation investments.
- Transportation choices for children, teens, adults and senior citizens to encourage healthier lifestyles and active living for life.
- Protection of natural and cultural resources.
- Opportunities for residents to interact to create a vibrant community.
- Healthy people in healthy environments.

Resources

Many models exist in California that the beach cities can look to for sample language and inspiration as they undertake efforts to update their General Plans and Municipal Code to be more supportive of livability, health and well-being.

One wonderful resource is the Healthy Eating Active Living Cities Campaign, online at www.healcitiescampaign.org. The Campaign's website includes many links to examples of city policies, land-use plans, general plans and other guiding documents from cities throughout California that are becoming more supportive of active living.

For example, the Campaign's page, "Healthy Zoning Regulations" includes links to city policies. See:
http://healcitiescampaign.org/healthy_zone.html

The "General Plan Update" page includes links to Health Elements, General Plans and a Model General Plan Policy that illustrate how communities can incorporate health and well-being into their guiding documents. See:
http://healcitiescampaign.org/general_plan.html

5 Changes for a Better Built Form

To improve well-being and to ensure that future development patterns support active living, careful planning and execution are required. Immediate action is also needed, however, and the beach cities are full of opportunities to make immediate improvements with tools as simple as paint, in addition to infrastructure changes that can take between one and five years to fully implement.

Don't delay in making the changes that can be made immediately. For example, an intersection may require significant work that takes more than a year to install, but repainting the crosswalks with high-emphasis markings can be done in a matter of weeks.

In addition to adopting the recommendations of Vitality City and the South Bay Bicycle Master Plan, the beach cities should consider the following recommendations that build upon the previous section on policies. They are organized as transformations that can be made on regional and local corridors, as well as general guidance for all beach cities streets.

Although some recommendations will require studies, robust public processes and possibly several years to fully implement, the effort can begin now.

Don't delay in making the changes that can be made immediately. For example, certain intersections may require significant improvements such as adding a median that takes more than a year to plan, fund and install, but it is completely reasonable to expect to be able to repaint the crossings with high-emphasis markings within a matter of weeks.

Needed: Flexibility, Creativity and Courage

This report encapsulates the WALC Institute team's key findings and recommendations based on the team members' observations of existing conditions, interaction with the public during workshops, interviews with stakeholders, design and training sessions with city staff and knowledge of best practices from throughout the country acquired during more than 40 years of combined work experience in active living, walkability, livability, civic engagement, education and community outreach.

The recommendations of this report were developed with a goal of improving well-being in the beach cities through changes to the built environment that will better support active living and active transportation. Each of the recommendations represents a broad set of expectations that traffic speeds should be brought under control in areas where walking, bicycling and active living are to be encouraged. Through the mix of proposed treatments, vehicles will be slowed to appropriate speeds in appropriate areas, people driving cars will be more likely to yield to people on foot and all modes of transport will work better together. The urgency of this balance is driven by the aging population that will in time be limited in their use of automobiles. When factoring in aging and youth populations, the appropriate speed is about providing freedom for all residents to travel throughout a community.

Many of these recommendations represent best practices from throughout the country, including many that are not conventional in their approach. They will require flexibility and creativity on the part of the government staff developing them and considerable outreach to the people most affected by the changes. As they are implemented, some residents or business operators may at first express concern or resistance. Bring them into the process and help them understand the value of the effort. Be assured throughout that these recommendations are based on extensive knowledge of tools that are working in other places in the country and even in Southern California, and can work in the beach cities.

In some cases, commute times in vehicles will be slightly longer, although usually by a matter of seconds or mere minutes. But community members can—and should—adapt to slight reductions in vehicle speeds by leaving a minute or two earlier for their combined trip, so that they are not late for work and don't feel compelled to drive fast near schools or other places where people should be walking and biking.

Some residents may at first express concern. But community members can—and should—adapt to slight reductions in vehicle speeds.
Consider the main goal: to improve well-being through streets that support walkability and livability, making the active way the easy way.

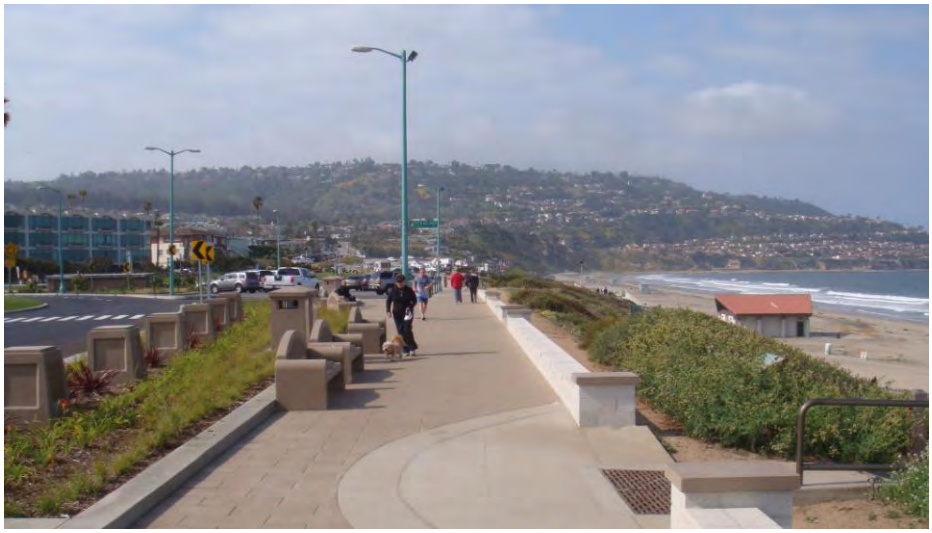
By adopting and implementing these recommendations, the beach cities will be joining hundreds of communities throughout the country that concede a marginal reduction in roadway efficiency in select places in exchange for livability and supporting children, beachgoers, seniors and others who want or need to walk and bike for transport.

It won't be only commuters who need to adjust. In fact, some of the recommendations will require drivers of delivery trucks, buses, fire trucks and other machinery to adapt to the new road designs. They will do so successfully and the combined system will work for all.

Consider the main goal of this effort: to improve well-being through streets that support walkability and livability, making the active way the easy way. Envision the recommended changes and you will see how they will help.

Most of the recommendations that follow can be implemented and on-the-ground within weeks or months, not years. It is important to emphasize that the beach cities won't in most cases be the first to carry out many of these recommendations, and they can draw on other communities for support and guidance. Be assured throughout that these recommendations are based on extensive knowledge of tools that are working in other places in the country and even in Southern California, and can work in the beach cities.

The beach cities all have great natural assets and a community spirit that make them well-suited to take actions to improve well-being through livability and better built form. Left, a family enjoys Redondo Beach barefoot while a pedestrian-improvement project is underway. Below, the project after completion.



Transform Regional Corridors

Photo-Visualization: Regional Corridor

This section of Aviation Blvd. is representative of conditions along this major regional corridor through all three beach cities.

Vehicle travel lanes are overly wide, the sidewalks are narrow, there aren't adequate mid-block crossings and the conditions don't support walking, biking or transit use.

See the appendix for a full set of transition images.

This photo-visualization illustrates how the beach cities can transform sections of Aviation and similar regional corridors to be more supportive of active commuting. Narrow the vehicle travel lanes, widen the sidewalks, upgrade landscaping, and add colorized bike lanes, seating and shelter at the transit stop, and a mid-block crossing with high-emphasis markings.

Pacific Coast Highway/Sepulveda Blvd.

Currently, unlike Aviation and many of the east-west streets, all available right-of-way for the Pacific Coast Highway is consumed by vehicle travel lanes and parking at certain times. However, the WALC Institute team understands that two of the three beach cities are working out a program to inherit this corridor from Caltrans. Once ownership is taken, it will be possible to use the corridor to build value and help shape land use. The third city should work closely with Caltrans and with the other two cities to make appropriate changes to the built form of PCH in support of active living.

Pacific Coast Highway/Sepulveda is a major arterial with high traffic volumes that serves multiple cities. Where it passes through the beach cities, it represents a great opportunity to build their community through this transportation investment as opposed to dividing and devaluing the land uses adjacent to it.

A realistic and appropriate goal would be to amend the roadway design to better accommodate walking and biking, and to slow vehicle speeds while also keeping traffic moving. Such transformations have been achieved on Wilshire Blvd. in Santa Monica in a relatively short period of time. Traffic numbers and rights-of-way on Wilshire are similar to Pacific Coast Highway, so Wilshire would be a good model to study.

Based upon the results of traffic studies and a strong vision for the area's livability, consider adding additional signalized intersections and setting "progression speeds" between 27 mph and 33 mph. In fact, the ideal speed in many sections likely is 30 mph. Most portions of the Pacific Coast Highway have attached sidewalks and four to seven lanes for vehicle travel.

Mid-block crossings without medians or other appropriate treatments create multiple-threat exposure for pedestrians. At a minimum, raised median islands and pedestrian-activated signals are needed for many crossings, such as those found on Sepulveda in Manhattan Beach. Mid-block crossings are placed toward the center of a block, away from the turning conflicts found at intersections. They are most often placed where "desire lines" between two important points are found, such as near a beach, a park or civic building.

Due to the regional significance and high traffic volumes of this corridor, it likely will be best to select a half-mile or one-mile section to create a model project. The city in which this occurs first will need to be fully committed to the idea that they are building their community through a transportation investment, instead of allowing a regional transportation corridor to determine the character of their community. See the section above, "Needed: Flexibility, Creativity and Courage."

Pacific Coast Hwy and Carnelian St.

At the corner of Pacific Coast Highway and Carnelian St. sits a neighborhood treasure—Eat at Joe's. Based on the volume of people observed throughout the day, this is a very popular site with locals and visitors alike. The location is a great place to start a livability project: it's located within a neighborhood, near retail, near the city seat and along a stretch of road with high visibility to passerby. Additionally, the owner of Eat at Joe's is very interested in investing in outdoor seating, and the leadership of Redondo Beach is interested in engineering treatments that would turn this section of the corridor into a people-friendly place. Thus, the corner of Pacific Coast Highway and Carnelian has strong potential to become a true catalyst for similar improvements all throughout the three beach cities.

Depending on studies to be done, the following key recommendations and phases should be considered:

Year One

- Repaint the vehicle travel lanes on Pacific Coast Highway to be narrower. This will help slow vehicle speeds slightly and provide additional right-of-way for other uses, such as providing more buffer between cars and people on foot. On Carnelian, consider removing the center line altogether; many communities have found that vehicles slow down and drivers operate in a more cautious manner when the center lines are removed. (See appendix. How to Do It: Road Diets)
- Install high-emphasis crosswalk markings. (See appendix. How to Do It: Crossings.)
- Adjust crosswalk signals to recall to "WALK." Set signal timing for the walk interval to be as long as feasible during the green time in the concurrent vehicle phase. Unless push buttons activate the signal on a recall demand, remove them.
- Eliminate the right-turn-on-red from Carnelian onto Pacific Coast Highway. Doing so better supports pedestrians.
- Add head-out angled on-street parking and curb extensions on Carnelian. (See appendix. How to Do It: Parking and How to Do It: Curb Extensions.)
- "Green" the street with landscaping. Create art-on-the-corner projects at intersections and provide informational kiosks or bulletin boards.
- Develop and adopt policies that support outdoor seating for restaurants.
- At Carnelian and Ave. N, install a mini-circle to enhance accessibility into and from the neighborhood and to keep traffic in this residential area calm.

Year Two

- Add curb extensions on all appropriate side streets.
- Conduct a community redevelopment study with a radius of a quarter-mile or half-mile from the intersection of Pacific Coast Highway and Carnelian to develop a reinvestment strategy. Although the Pacific Coast Highway corridor has high traffic volume, it is still a great candidate for a village reinvestment. (See appendix. How to Do It: Convert Suburban Strips to Village Centers.)

Years Three to Five

- Depending on the results of studies, convert the intersection of Pacific Coast Highway and Carnelian to a modern roundabout with two lanes entering from each side of PCH and single lanes entering from each side of Carnelian. Following the anticipated success of this roundabout, study additional intersections and add others. (See appendix. How to Do It: Traffic-Calming Roundabouts.)

Aviation Blvd. and Manhattan Beach Blvd.

Aviation Blvd. and Manhattan Beach Blvd. are heavily used by both commuters and visitors to the beach cities, but they don't adequately support active living. The cities can make the following changes to create a more livable environment:

- Adopt the recommendations of the South Bay Bicycle Master Plan as they relate to Aviation Blvd. and Manhattan Beach Blvd. In general, streets like these benefit from restriping the road to allow five-foot bike lanes. The stripe should be wide and bold at eight to 10 inches or more.
- Place median crossing islands and rapid-flash beacon treatment near transit stops. Start with one location on each roadway, as model projects, and over time increase the number of these crossings.
- Upgrade transit stops to be welcoming and comfortable.
- Mark all intersections with high-emphasis crosswalks. These crosswalks should be at least 12 feet deep.
- Signal cycles should rest on "walk" and hold the walk phase as long as practicable. Install countdown crossing signals as soon as equipment rotation permits.

Aviation Blvd. and 12th St. near Manhattan Beach Blvd.

Provide strong support of pedestrians by adding a crosswalk and a crossing island that reduces the amount of time and distance over which pedestrians are exposed to traffic, and allows them to cross only a couple of lanes of traffic at once. This image illustrates one possible solution that seeks to accommodate people from the residential areas on the west side of the street who want to access the transit center and shopping amenities to the north, on the east side of the street.

Artesia Ave. and Prospect Ave.

Depending on the results of an engineering study, this intersection might be a prime candidate for a hybrid roundabout, with an extra leg coming in from the northbound lane of Prospect, turning right onto Artesia. An approximate "shadow fit" is shown in the illustration. This assists with a reduction of vehicles speeds on Prospect and Artesia.

Short-term and low-cost changes to support active living.

A vision for conditions more supportive of active living.

Sepulveda Blvd. and Rosecrans Ave.

Place high-emphasis crossings on all legs. Place stop lines on all legs. Northeast and southeast intersections should be considered for raised "pork chop islands." Move crossing islands to locations where pedestrians do not have their back to traffic.

Existing conditions.

Short-term and low-cost changes to support active living.

Transform Local Corridors and Neighborhood Streets

Photo-Visualization: Local Corridor or Neighborhood Street

This section of Prospect Ave. is representative of conditions in many parts of the three beach cities.

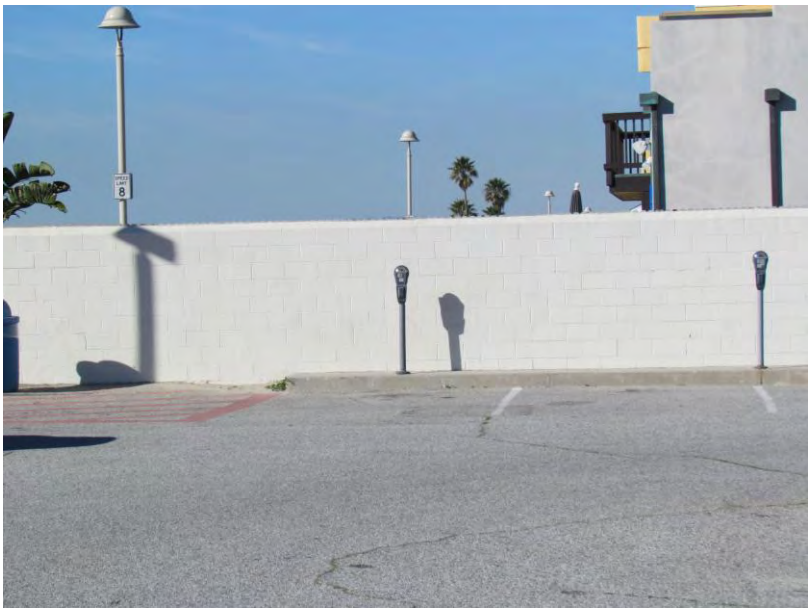
Vehicle travel lanes are overly wide, crossings aren't marked in some places, utilities, vehicles and signs obstruct sidewalks, and stop signs prevent bicyclists from maintaining momentum needed when cycling in hilly areas.

See the appendix for a full set of transition images.

This photo-visualization illustrates how the beach cities can transform local corridors and neighborhood streets such as this section of Prospect. Install a mini circle and move the crosswalks back from the intersection. Add "sharrows," remove obstructions from the sidewalks, add a "furniture zone" between the street and sidewalks, enhance landscaping with drought-tolerant species and provide energy-efficient lighting.

Harbor Drive at Yacht Club Way

At the intersection of Redondo Beach and Hermosa Beach, where The Strand trail merges with Harbor Drive, there is much confusion and there are many conflict points between cars, bicyclists and pedestrians. Additionally, The Strand makes an awkward 90-degree turn, which is difficult for bicyclists to maneuver through, especially if pedestrians are present. On Harbor Drive, it isn't clear to bicyclists traveling north on the east side of the street how they should cross to get to The Strand.



To alleviate this confusion, reduce the number of conflict points and create better connectivity for the trail through this area, while also improving livability along Harbor Drive, the communities should consider the following:

- Remove a section of the wall that separates The Strand from the adjacent parking lot and run the trail along the west side of the lot.
- Connect the trail to Harbor Drive via a new path through the city parking lot.
- Add head-out angled parking and widen the sidewalks along Herondo St.
- Consider replacing the signalized intersection at Harbor and Herondo with a roundabout.
- Create a Class I bicycle facility on Harbor Dr.
- Where possible, limit or eliminate driveway entries on Harbor Dr.

Valley Dr. and Ardmore Ave.

Running along each side of the Greenbelt through Hermosa Beach and Manhattan Beach, these two streets would be ideal for both walking and bicycling if vehicle speeds were kept reasonable and if many of the stop controls were removed. Constant starting and stopping along this corridor makes drivers want to speed between stops. It also makes bicycling inefficient and uncomfortable. In fact, during the WALC Institute's site visits, a radar gun found cars traveling at 35 mph, which is unacceptable on these narrow residential streets.

Mini traffic circles can bring down vehicle speeds and allow a smooth and efficient blending of bicycling, driving and walking. Residents would find it safer and easier to get into and out of driveways.

Due to the very narrow right-of-way and the strong desire for this corridor to support people walking and biking, one-way couplets could be a good solution here. The communities should consider removing one vehicle travel lane and making each segment one-way, as exists in Manhattan Beach, for the sections of Valley and Ardmore that bound the Greenbelt. Removing a vehicle lane would allow the addition of a bike lane. The bike lane would be placed between the vehicle travel lane and the on-street parking. Care would need to be taken to ensure conflict points are properly managed at the mini circles.

These changes would help to calm traffic and make it easier and safer to park and un-park, to get in and out of driveways, and to make entries from side roads. Public safety members also believe that creating a one way corridor could allow faster response times for fire services, when PCH is congested. Due to fire truck sizes, at this time there is not an alternate route for a large truck heading to a fire in Hermosa Beach and Manhattan Beach.

It is important to note that for some motorists, the one-way couplets would add slightly to their drive times. In particular, one area of concern raised is along Valley and Ardmore from Gould/Artesia to Pier. As noted in the section, "Needed: Flexibility, Creativity and Courage," in some cases commute times will be slightly longer, but community members should consider the goal: to improve well-being through streets that support walkability and livability, making the active way the easy way. Additionally, strong civic engagement should be achieved to build capacity and support for such a change.

Along this corridor, an area for creative thinking is at Hermosa Valley Elementary School, to help alleviate confusion during drop-off and pick-up periods. An additional Safe Routes to School effort could be undertaken to clarify how to approach drop-off and pick-up in this area if the streets become one-way couplets. This could become a model project for the broader community.

Catalina Ave.

North and South Catalina lack adequate pedestrian crossings. Travel lanes are wider than necessary in many locations, and could be narrowed to widen bike lanes. Catalina parallels the Pacific Coast Highway, and major portions appear to be good candidates for road diets. Road diets help calm traffic, keep vehicle speeds down, simplify crossings, improve sight lines and improve signal efficiency, all while increasing support for active modes of travel such as biking and walking. In order for a road diet strategy to work fully, however, it would be important to consider roundabouts or mini-circles at several key intersections, such as Topaz, Sapphire and Knob Hill, and avenues B, D, E, G and I. Roundabouts can reduce injury crashes by 76 percent and reduce fatal crashes by 90 percent. (See the section, "Key Tools and Terms for a Better Built Form," on page 21 and the Best Practices section of the appendix for more details.)

Roundabouts can reduce injury crashes by 76 percent and reduce fatal crashes by 90 percent. See the section, "Key Tools and Terms for a Better Built Form," and the appendix for more details.

A continuous median could also be placed, helping green the area and directing motorists seeking access to the opposite side of the road to travel to the next mini-circle.

In the image below, which is not to scale, the bike lanes and parking lanes are each nine feet wide, leaving about ten feet for the median.

General Guidance

In addition to the specific recommendations above, the WALC Institute suggests the beach cities consider the following guidelines. Some of these already are being applied at many intersections in the beach cities, but they should be applied to the extent possible in all locations in the beach cities:

Intersections and Crossings

- Set walk signals for crossing minor streets to always default to or begin with "WALK." In addition, set signal timing so that the walk interval is as long as feasible for the green time in the concurrent vehicle phase. In areas where pedestrians should be fully supported, remove push button controls and allow the signal to default to the "WALK" phase. Generally, strive to recall signals on a frequent basis to minimize wait times for pedestrians. Full cycle lengths of 60 to 90 seconds are best. In people-rich areas, note that seniors, who need the most time, may be the last to leave the curb, and that it may take three to five seconds for them to get into the street.
- Use countdown signals on a soft replacement basis when other changes are budgeted and implemented. Start with high priority walking locations, such as near and around schools, important transit stops, plazas, parks, medical centers, senior centers and town centers.
- Consider eliminating Right-Turn-On-Red if motorists aren't showing the appropriate level of caution for the area.
- Consider adopting Leading Pedestrian Interval (LPI) to step pedestrians out first, when there are high pedestrian counts or when problems with turning motorists or other conditions warrant this phase. The interval is typically three to six seconds. Use enhanced crosswalk markings and bold stop bars to better identify crossings and to keep motorists out of crossing areas.
- Evaluate or audit all crosswalks. Repaint and increase visibility of crosswalks. Start this process in each downtown and near schools.
- Place "yield paddles" at non-signalized crosswalks without adequate signage where pedestrian crossing volumes are high or should be. Plan on replacing these paddles every other month initially.
- See the Transportation Research Board of the National Academies' report, "Improving Pedestrian Safety at Unsignalized Crossings" for more information: http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_562.pdf

Sidewalk Gaps

Identify sidewalk gaps, especially near schools, major transit stops and large parks and prioritize their construction. Sidewalks are needed to support children walking to school, in and around all senior centers and as approaches to all retail centers, transit stops and parks or plazas. Highest-priority sidewalks should include filling gaps along principal roadways (arterials and collectors).

Bike Lanes

Identify locations for bike lanes and restripe these roadways. The regional bike master plan which is underway will identify those areas most important for bike travel.

Add bike lanes in accordance with the South Bay Bicycle Master Plan. Often, bicyslists need "climbing lanes" on hilly roads. This photo-visualization shows a climbing lane and a traffic circle added to Beryl St.

Bike Racks

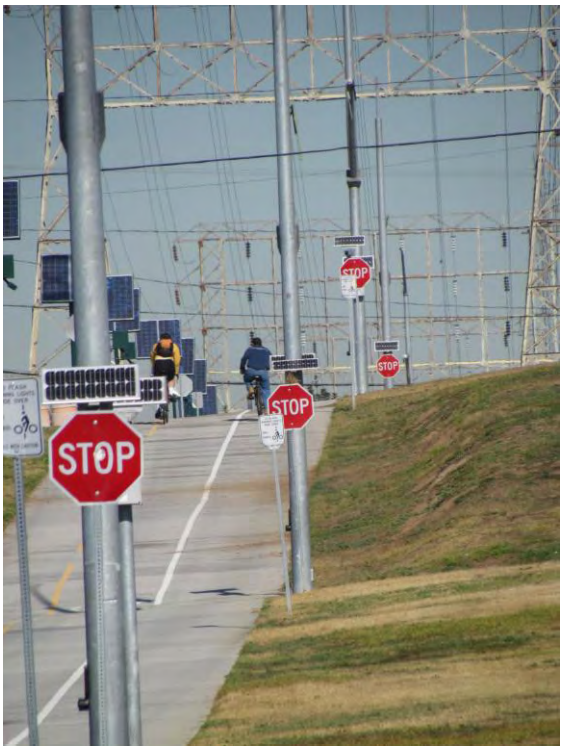
Attractive, functional bike racks should be provided at all destinations. An excellent model location is at the beach cities Health District. Bike storage can also include indoor parking, bike lockers or sheltered parking. Locate bike parking where there are many "eyes" on the bikes to reduce theft. The WALC Institute team understands that Manhattan Beach recently installed 39 new bike racks throughout the community; such efforts should be celebrated and continued.

Seating

Provide attractive seating, benches, ledges and even garbage cans throughout each town center and other popular walking locations in neighborhoods. Avoid use of commercial ad seating, when possible; sponsor memorial benches and seats and other innovations for seating.

Stop Signs

An abundance of stop signs makes bicycling difficult. Especially in hilly areas, some bicyclists will treat stop signs as yields in order to maintain their momentum. In fact, to accommodate bicyclists' unique needs, the state of Idaho has adopted a stop-as-yield law that allows cyclists to proceed through a sign-controlled intersection without stopping. Other solutions that may be more viable in the beach cities and don't require changing a law: (1) change stop signs where appropriate, such as those along trails, to require vehicles—instead of people walking or biking—to stop, and (2) install mini circles where feasible throughout the cities, but especially along portions of Prospect, Valley-Ardmore and east-west routes like Manhattan Beach Blvd. and Marine Ave. This will bring traffic on neighborhood streets to safer speeds while letting bicyclists and motorists stay in motion.



An abundance of stop signs in the beach cities makes bicycling difficult. One solution is to replace stop signs, such as those along trails, to require vehicles to stop, but not people walking and biking. Another solution is install mini circles instead of stop signs in appropriate locations, such as in the Bird Rock neighborhood of San Diego, CA, left.

Scale Streets and Consider Road Diets

Oversized roads are a major problem in each of the beach cities. Efforts are needed to reduce the size, scale and complexity of intersections. Most principle roads have speeds much higher than are safe or comfortable for walking and bicycling. Use bike lanes, tree plantings and other visual and actual narrowing of through lanes to bring speeds back down to desired levels. This recommendation is listed as a potential "immediate gain" because a road diet can sometimes be achieved simply by moving the paint striping of the vehicle travel lanes to make them narrower.

Wayfinding and Signage Plan

The beach cities each should develop comprehensive wayfinding programs that help people who live in, shop in or visit the area find ease in navigation. Wayfinding signs also establish the character and charm of the town. Once the plans and designs are developed, the effort can be aided by local industrial schools or others that can manufacture signs. At a minimum, priorities for wayfinding should include all areas near civic centers, popular or desired approaches to the Greenbelt, beach areas, prime commercial districts, transit centers and historic or scenic areas.

Wayfinding in Vail, Colorado.

Active Transportation Work Day

Start an "active transportation" work day. Encourage all public servants, employees and elected leaders to park their car for a full day and to use feet and wheels to commute, conduct errands and get to all their daily needs. This process will help focus attention on how to emphasize healthy transportation. Events such as active transportation work days create positive publicity for the movement toward walkability, livability and improved well-being.

Bike Cafes

Start "bicycle cafes" where the cities, the county, bike shops or other specialists provide free bike repairs, a bicycling clinic and otherwise support biking as a lifestyle.

Celebrate Successes

When projects are completed and the new facility or amenity is ready for public use, celebrate the success. Hold a ribbon cutting, post an announcement online, issue a news release or utilize whatever channel is available to broadly disseminate the importance and value of the improvement. This helps not only publicize that the amenity is now available, but it also can be

an important way to educate people about how to use it (for example, a roundabout) and it helps engender support for future projects.

Street Connectivity

Look for early opportunities to complete missing street connections other than those specifically identified in this report. With the energy of the Vitality City project, it is likely that some unusual partnering for "missing link" streets can be agreed upon and built. For example, just south and west of the intersection of Prospect Ave. and Diamond St. in Redondo Beach—just south of the beach cities Health District—Diamond St. dead-ends into a fenced-off trail and then opens up again one-tenth of a mile northeast as Flagler Lane. Completing street connections such as this one would provide better access between the adjacent neighborhood, the high school, the nearby sports complexes and parks, and services in the area including the Health District.

Encourage Active Commuting

The beach cities have an opportunity to capitalize on Vitality City's efforts to work toward getting even more employers to support and promote active commuting. For example, the cities can create incentives for employers of a certain size—say, with 10 or more employees—to get at least 40 percent of workers to no longer drive to work on a regular basis. The South Coast Air Quality Management District could be a good additional partner in such an effort.

To encourage active commuting, employers—including the cities themselves—need to provide showers as part of building renovations. Employers with 25 or more employees can be encouraged to build this into future building leases as a requirement. Each of the beach cities should study code language adopted in Palo Alto, California for replacement of parking requirements through alternatives that include quality bike parking.

Police and EMS on Bikes

Where they don't already exist, start cops-on-bikes programs and bicycle rescue teams. The WALC Institute team saw several law enforcement officers on bikes and on foot during the site visits, but not nearly as many as one should expect for a beach context. Expand existing programs to give residents and visitors as strong sense of police surveillance and more direct engagement and involvement. Having officers and EMS "on the ground" also puts them in a good position to report needed maintenance or improvements to the public works departments.

6 Appendix

Town Maker's Guide to Healthy Building Placement

Town Maker's Guide to Livable Schools

Photo-Visualization: Regional Corridor in the Beach Cities

Photo-Visualization: Local Corridor in the Beach Cities

Best Practices

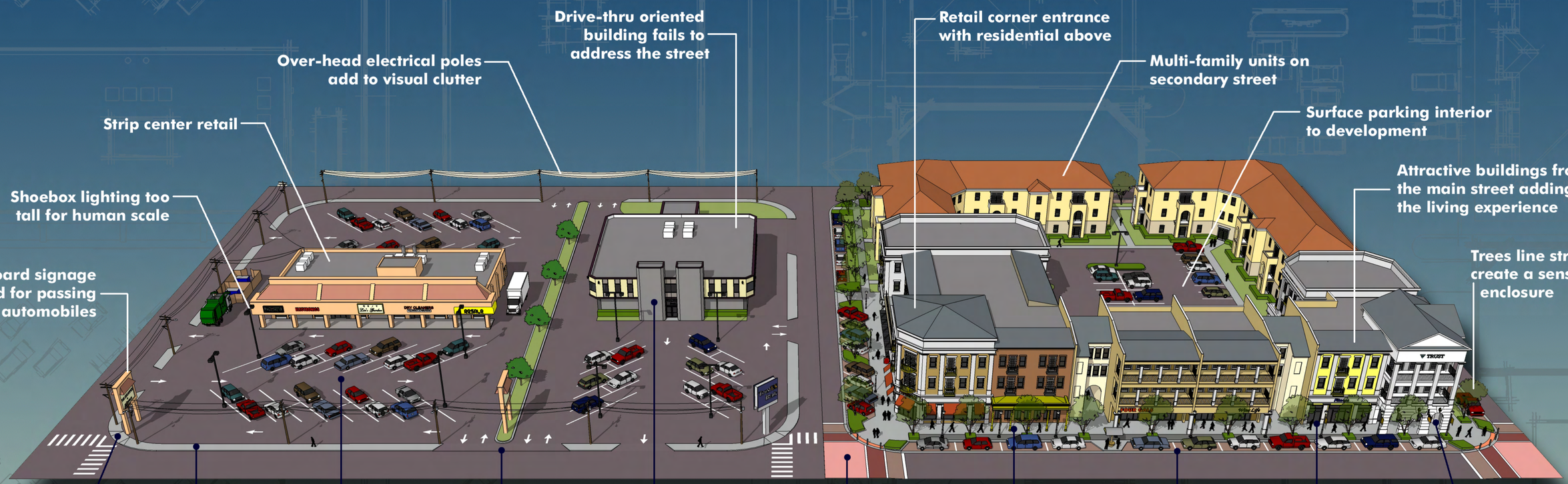
Additional Resources

Town Maker's Guide:
Healthy Building Placement

Walkable and Livable Communities Institute for Healthways | Blue Zones Vitality City

TOWN MAKER'S GUIDE:
Healthy Building Placement

Walkable and Livable Communities Institute



EDGES

Edges are essential for a comfortable walk. Edges define spaces and provide visual cues to guide appropriate behaviors. Open areas such as this create high levels of discomfort for both walkers and drivers. Without an edge, walkers feel they have entered the motorist's realm and motorists feel that pedestrians do not belong, so they do not respect them. Edgeless streets look sick and make people feel sad.

SIDEWALKS

Sidewalks must be a comfortable width (typically 6-10 feet for suburban commercial areas), be separated from the curb with a planter strip of 6-10 feet, be continuous and not open to numerous driveways. In general, the higher the roadway speed the wider the planter strip. This space lacks a sidewalk completely, but even the portion with a walk does not "invite" walking.

PARKING

Parking set to the front of a building devalues walking in many ways. It creates building-to-building swaths of asphalt as wide as 400 feet. Such inhospitable environments (too hot in the summer, too cold in the winter and lonely all the time) do not honor walking, bicycling, transit, or even auto arrivals. Off-street parking takes three times as much land as on-street parking.

BUILDINGS

Walkability requires easy and complete access to buildings. When buildings are set back, arrival by foot is plagued with problems. Individual properties often carve up the front of a block into independent parking lots and this fractionalizing of land creates ugly and unpleasant spaces to traverse. It devalues the overall experience and also the overall land value. Property owners rarely take care of these spaces, investing instead in large signs advertising to drivers.

CHARACTER

Suburban style strip malls and building types are often devoid of character and personality. They are large, faceless, lifeless, uninteresting, uninspiring spaces. Walkers tend to shun such "voids" and motorists tend to speed up when they come across them. These spaces can be anywhere - they have a universal ugliness. Health studies reveal that people in ugly places have elevated blood pressure. Road rage also increases.

EDGES

Quality edges provide a protective enclosure satisfying the human eye, heart and foot. Edges address our need for comfort, safety and security. Creating a sense of enclosure usually requires building to the interior edge of walkways, planting ground cover and trees, and including on-street parking to buffer the pedestrian from moving traffic. Edges are essential to an enjoyable walking experience.

SIDEWALKS

Sidewalks of sufficient width allow walking to be the most natural, fun, rewarding and healthy way to travel. They allow people to enjoy walking, a relaxed conversation with another, to linger or sit outdoors at a café, and they encourage people to stay and socialize. Although sidewalks can be made of a number of materials from concrete to pavers, the most pleasant walkways have a simple elegance—they are well constructed and maintained.

PARKING

The combination of on-street parking and urban buildings carefully screen or fully hide off-street parking. Off-street parking is placed in interior courts or in well landscaped gardens to the side or rear of the building. Thriving downtowns or pleasant villages rarely require off-street parking minimums. In many cases today, municipalities prescribe maximum number of spaces that are allowed, which makes better use of limited space.

BUILDINGS

Quality buildings not only create an address, they address the street. Well designed urban buildings have 70-90% glass at grade, giving natural surveillance to the street. A palette of colors, shapes, tones, textures, window styles add predictability, authority and dignity to a street. In order to improve mobility and accessibility, buildings need to have convenient breaks and pauses, certainly every 400 feet and sometimes less.

CHARACTER

Buildings can be simple in their designs, but they must help contribute to the character, personality, style, complexity, elegance, charm and experience of the street. In this way, they define where we are. We want to play in our environment, celebrate great artistry and cultural achievements, and create a place that is always fun to come back to, enjoy and protect. A great street is also great theatre.

Poster Illustrated by TDC Design Studio

Town Maker's Guide:
Livable Schools

Walkable and Livable Communities Institute for Healthways | Blue Zones Vitality City

TOWN MAKER'S GUIDE:
Livable Schools

Walkable and Livable Communities Institute

STREETS/PARKING

Streets should support walking, bicycling and vehicle movement. Lanes should be no more than 10 feet wide and, if possible, should be separated from on-street parking by a two-foot valley gutter. On-street parking gives motorists a place to wait when picking up children and uses as little as a third of the space of off-street parking. Restricting parking times along the curbs next to the school allows these areas to be used for student drop-off and pick-up. Signs should inform motorists to stay with their cars at all times. Head-out (or reverse) angled parking is the safest and most efficient on-street parking. Head-in angled parking and parallel parking also can be good options. On-site parking may not be avoidable, but can be minimized.

CROSSINGS

Around schools, drivers should feel that they are entering a pedestrian realm and that people may be using crossings any time of day. Where crossings are located, streets should be designed so that traffic is slow — between 15 and 20 mph — and sight lines are good. At higher speeds, motorists are less likely to yield to pedestrians and the risk increases. Crossings are best with good lighting, when students cross one lane at a time, and when students and drivers can clearly recognize and respond to each other. Median islands, curb extensions (or "bulb outs") and raised table crossings help create these conditions.

DROP-OFF/PICK-UP

With high rates of students arriving and leaving school in cars, there are many "conflict points" between motorists, walkers and bicyclists. If volumes of traffic are high, on-school drop-off and pick-up patterns can include compact, stacking areas that are monitored at all times by adults to ensure that children are only exiting vehicles at the front of the queue when all cars are stopped. It is helpful to have a "valet" program through which adult volunteers or older students – under the guidance of staff – open and close car doors and help students find their parents. On-street parking and nearby parking options, such as a church parking lot, can help. Signs ask parents to turn off their engines, which helps reduce vehicle emissions and protect children's lungs.

SECURITY

Schools should be integrated into neighborhood designs to provide high levels of "watchfulness" over children. Homes, apartments and townhouses should be near the streets and their "A" sides — their fronts, where abundant windows allow occupants to look outside — should face the streets where students will be walking and bicycling. Each school building should have windows. Low fences and landscaping features can define play areas and access points. Bicycle parking should be located where it is highly visible and sheltered from the elements.

TREES

Street trees not only provide shade and a nice environment, but also create comfort and separation for students walking and bicycling. When placed within four to six feet of the street, trees create a vertical wall that helps lower vehicle speeds and absorb vehicle emissions. On streets with a narrow space between the sidewalk and curb (also known as the "furniture zone") trees can be planted in individual tree wells between parking stalls, which further tightens the visual appearance of the street and reduces travel speeds. Depending on the species, they should be spaced 15 to 25 feet apart.

SEPARATION

At the school, it is best to separate the different modes of travel (walking, bicycling, bus and parent driving). Sidewalks and school entries should be designed to keep walking and cycling students from crossing the pathway of motorists. Parking lots should be designed so students don't need to walk through them to enter or exit the school. When these conflicts cannot be avoided fully, raised table crossings are encouraged. Additional design elements such as colorized or raised crossings improve detection between motorists and students, and they give motorists a clear message that they are to slow down and yield to students.

SHARED PARKS

Neighborhoods are most complete when public spaces such as parks are co-located with schools. In this way, a community's important assets are available in one place. Parking is shared, shade is available, neighbors keep watch over the park and the school, students have quality places to play or wait for their parents, and social exchange amongst all age groups is fostered. Co-located facilities help hold a community together, providing the highest level of conservation and sustainability.

INTERSECTIONS

Intersections near schools should be designed to keep motorists' speeds under control — typically no higher than 15 to 20 mph — no matter what time of day. Turning speeds are especially important and can be controlled with mini-circles, roundabouts and raised intersections. Curb extensions (also called "bulb outs") and inset parking help motorists to see pedestrians and pedestrians to see motorists. They also reduce crossing distance time and exposure, and they slow motorists on all turns.

SIDEWALKS

Sidewalks, trails, walkways and ramps should be on both sides of the street around the entire perimeter of the school. Where sidewalk gaps exist, they should be fixed on a priority basis, working out block-by-block from the school. Sidewalks around the school should be at least eight feet wide and should be separated from the curb by a "furniture zone" that can accommodate planter strips, tree wells, hydrants, benches, etc. Where appropriate, on-street parking or bike lanes provide an additional buffer to the sidewalk.

ACCESS

Students should have easy access to the campus from each direction of approach. Adjoining properties shouldn't be walled off from the school or from the routes to school. Pedestrian and cycling students should be able to use links that shorten trip distances and disperse the traffic for pick-up and drop-off around the school.

Although this document highlights many of the key components of properly placing and designing school sites, there are others to consider. For example, educational programming plays a major role in the activities that need to be accommodated. More space for outdoor physical activity may be needed. The square footage of the building may be less or greater. Renovating an older school may be an option, which requires a cost-benefit analysis. Additionally, local conditions and policies need to be accommodated. School attendance policies affect the distance students must travel and whether they arrive by car, bus, bicycle, or foot. Rural environments, open attendance policies, charter schools and magnet schools can pose challenges to walkability, but motor trips can still be combined with walking trips through strategies such as "Park and Walk" programs.

The following can be of help:

National Center for Safe Routes to School, **www.saferoutesinfo.org**
Council of Educational Facility Planners International, **www.cefpi.org**
American Architectural Foundation, **www.archfoundation.org**
National Trust for Historic Preservation, **www.preservationnation.org**

Illustrated by TDC Design Studio. November 2010.

Photo-Visualization:
Regional Corridor

Walkable and Livable Communities Institute for Healthways | Blue Zones Vitality City


Metro
574
BUS STOP


Metro
574
BUS STOP


Metro
574
BUS STOP


Metro
574
BUS STOP


Metro
574
BUS STOP
BCT
Beach Cities Transit

Photo-Visualization:
Local Corridor

Walkable and Livable Communities Institute for Healthways | Blue Zones Vitality City


YIELD


ONE WAY
YIELD

Best Practices

Walkable and Livable Communities Institute for Healthways | Blue Zones Vitality City

How to Do It: Codes to Create Traditional, Walkable Communities

Most land-use codes were written at a time when U.S. cities had an abundance of land, water, clean air and other resources. We assumed continued availability of these resources, as well as financing, which led communities to construct poorly connected and outwardly expanding light-density development, street networks and other inefficient infrastructure. As a result, land uses were separated – sometimes by miles – and urban areas were allowed to decay.

Today, we have a better understanding of the limitations of our available resources. Roads, bridges, sewers and water lines that are now failing, need to be replaced or refurbished. Doing so will be two to eight times more expensive than if we had stayed current with maintenance.

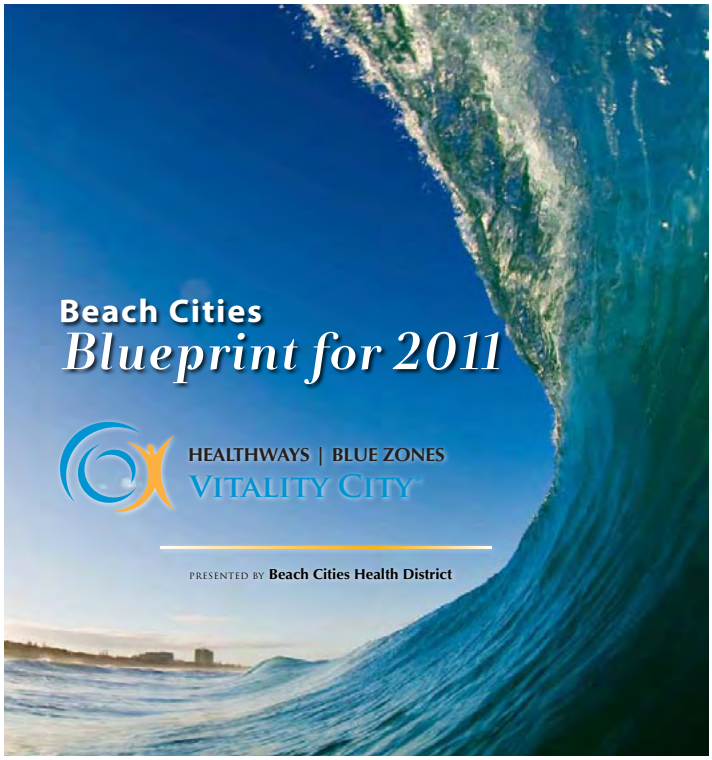
As we make "brick and mortar" changes to the physical infrastructure, we also should update the policy infrastructure, including land-use codes, to foster more livable, walkable communities. Existing codes promote poor connectivity, which leads to higher dependence on cars – and even greater strain on infrastructure. Facing high gas and energy costs, residents are ready for change. But it will require more than Band-Aid solutions. Metaphorically speaking, we're talking surgery and radical changes to get our towns back to good health.

Toward Change: Mix Uses and Connect Streets

Walkable and livable communities can't develop without transit, dense development, mixed land uses and strong street connectivity. Most existing codes do not tolerate - let alone encourage - such forward-thinking development. Instead, codes have generated misplaced development, forcing residents to get into their cars and leave their neighborhoods to access basic services. Progressive developers, planning board members, architects and others have seen the need to embrace a better system, one that promotes sustainability, eco-friendly practices, walkability and transit-friendly design.

Unfortunately, their efforts have been slowed by outdated code and regulations. A number of cities throughout the country have even drafted visionary plans. However, too often these plans are relegated to back shelves as leaders and planners grapple with code-related challenges. The question is: How can we shape codes to encourage better development? The first step is to develop a process that is inclusive, comprehensive and clear.

1. Fully engage all stakeholders to develop a vision. Enlist both the general public and the development community in the process of creating new code that supports smart, complete and predictable standards for development. Include stakeholders with differing opinions to help create a vision that is holistic, practical and collaborative. Broad support will provide the necessary political shield for leaders to write, adopt and enforce new codes that promote sustainability, green design, active living and livable communities.



***Engage in Vitality City**: The communities of Hermosa Beach, Manhattan Beach and Redondo Beach have a unique opportunity to improve livability with the help of Healthways | Blue Zones Vitality City. The cities should utilize resources made available to them to engage stake-holders and develop community vision plans where they don't already exist.*

2. Understand that many factors affect the built environment. New proposals should address all of the factors that can influence design standards, not just the obvious ones. For example, tenant expectations shouldn't be an afterthought.

3. Create a master plan that clearly communicates the development expectations. Standards that are clear, concise and predictable are more likely to be accepted and to succeed. In fact, predictability is the developer's friend. Standards must be highly graphical and easy to understand for both builders and regulators. Programs should be reviewed and evaluated yearly, and amended as appropriate.

Seek Examples of Success

A municipality doesn't need to change its entire book of codes overnight. In fact, it's probably smarter to make changes incrementally.

For example, the central Florida city of Eustis, like many small towns, has taken the time during this latest market lull to "right the ship." While reviewing the city's land-development regulations, city leaders recognized the need for a downtown vision and began a concurrent vision plan driven by the public. They have found a common language in creating walkable streets, balancing automobiles with pedestrians and alternative modes of transport, and melding land-use decisions with transportation goals. They have adopted new form-based codes with district design standards, block developments, typical streetscapes and a vision plan to focus future development.

When the market recovers, Eustis will be prepared to receive development as part of a community vision that will result in a more sustainable, vibrant and livable city.

It is admirable that so many communities throughout the country want to promote walkable, livable communities. The next step is for governments, residents, developers and planners to work together to make this a reality. It's time to throw out archaic codes and create new rules that foster smarter - and healthier - growth.

Over time, buildings in town centers should front the streets, such as these retail shops in Hermosa Beach, CA. New buildings, or adapted buildings, can provide important added presence of people in the downtown.

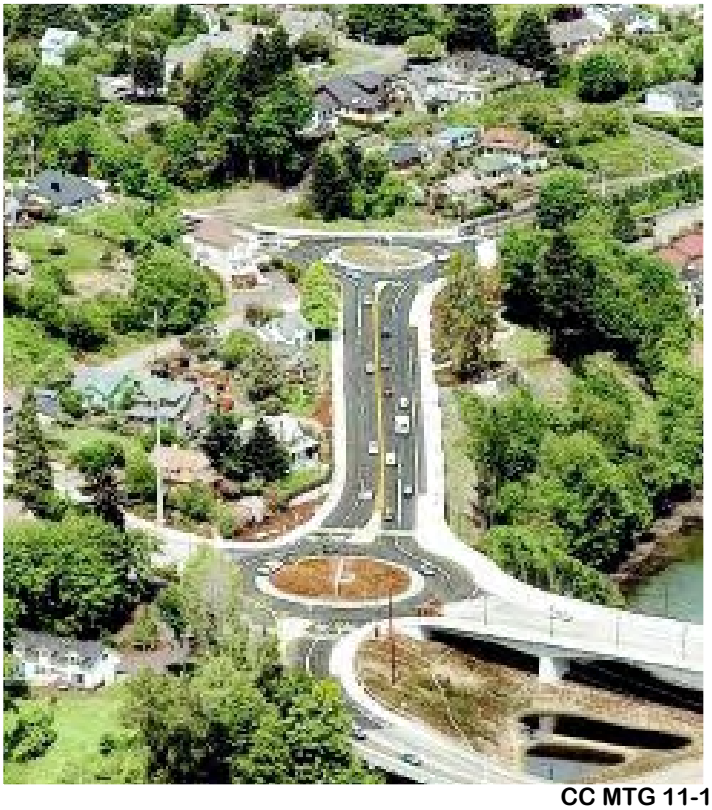
How to Do It: Traffic-Calming Roundabouts

Roundabouts facilitate through-traffic and turning movements without requiring signal control. Roundabouts are made up of a circulating roadway with an island that is often used for landscaping or other decorative features. The circulating roadway is typically wider than the approach roadways and features an additional 'apron' against the edges of the island; both of these features allow for fire trucks, ambulances and other large vehicles. Roundabouts increase intersection volume by up to 30 percent. As the only requirement for yielding the right-of-way is to traffic already in the circulating roadway, vehicles can continue moving through intersections carrying a light volume, requiring no queue at the approach roadways and potentially allowing all intersecting streets to use the intersection at once. Due to their low speed and the reduced points of potential conflict, roundabouts also can reduce injury crashes by 76 percent and fatal crashes by 90 percent. See the Insurance Institute for Highway Safety's website: www.iihs.org/research/topics/roundabouts.html.

Due to their low speed and the reduced points of potential conflict, roundabouts can reduce injury crashes by 76 percent and fatal crashes by 90 percent.

Roundabouts reduce delay, which reduces idling engines, air pollution, noise and lost time. Roundabouts provide safer and more comfortable pedestrian crossings. Splitter islands serve as a pedestrian refuge. Allowing one car length between the crossing and circulating lane(s) optimizes roundabout efficiency for vehicles. Roundabouts reduce conflicts in multiple ways: when crossing, pedestrians face only one potential conflict (traffic either entering or exiting the roundabout, divided by the splitter island), and not the six conflicts per crossing leg in full-crossing intersections. In properly designed roundabouts, all conflicts are at low speeds for both entering and exiting traffic. Roundabouts also create the least delay to pedestrians wishing to cross a street. Instead of waiting for up to two minutes to cross (common with a signal), the pedestrian reaching a roundabout rarely has more than a two- to eight-second delay for each leg that they cross. Most bicyclists circulate easily with traffic, since traffic is now going their speed.

For more information about roundabouts, see the Federal Highway Administration's educational video about roundabouts, at http://safety.fhwa.dot.gov/intersection/roundabouts/fhwasa10023/wmv_cc_final/10-2124_Roundabouts.wmv.



By helping re-scale a roadway, roundabouts help set the stage for more successful retail trade and social life. The roundabout below transformed an ugly strip street in Golden, Colorado, into a much better proportioned street. Four roundabouts were built; all signals were removed. One surprising result: retail trade in the corridor outperformed all other streets in Colorado during the last recession.

Top photo, Holland, Michigan.
Bottom photo, Orlando, Florida. Both mini-circles manage traffic quietly, maximize on street parking by bringing speeds down, and offer attractive corners in the commercial districts they occupy. A mini-circle or two on key streets on gateway approaches to town, in downtowns and other locations will add charm, beauty and movement. Mini-circles are low cost and attractive traffic management tools that can be easily designed and installed. Although costs can be as low as $15-25k, much more attractive circles are recommended for a number of historic roads where speeds are too high. A cost range of $75-125k would be appropriate for central locations, while modest price circles can be used elsewhere in the community. Mini-circles reduce the potential for crashes by 90%. Yield controls are used on all approaches. Seattle, Washington has placed over 1,000 mini-circles.

Roundabouts with Right-Turn Bypass Lanes

The addition of street network and roundabouts help to keep traffic flowing, but keep it flowing slowly, which creates a better environment for pedestrians and cyclists. In some areas, roundabouts should have right-turn bypass lanes, as illustrated below.

The top images are of a roundabout in Boulder, CO and the bottom image is of a roundabout leading to the Charlottesville, VA airport.

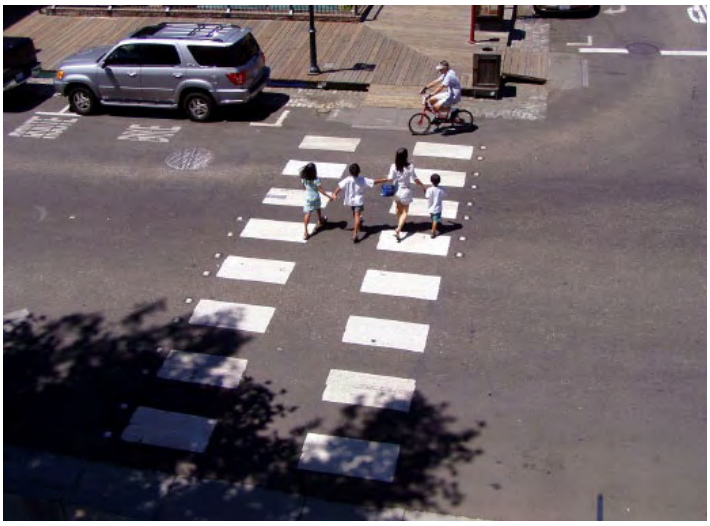
Success Story: Roundabouts and Crossings

Communities can draw inspiration from Bradenton Beach, Florida, where this state road previously exposed pedestrians to high speeds at this crossing. On average, one pedestrian was killed each year. Walking for exercise, pleasure or transportation was suppressed. Following the construction of the roundabout, all crashes disappeared, and a new stage was set for mixed use development

After 14 years of operation, there had been no reported crashes of any type. New economic life has set a mood of prosperity to the entire shopping district. Today, there is an abundance of pedestrian life.

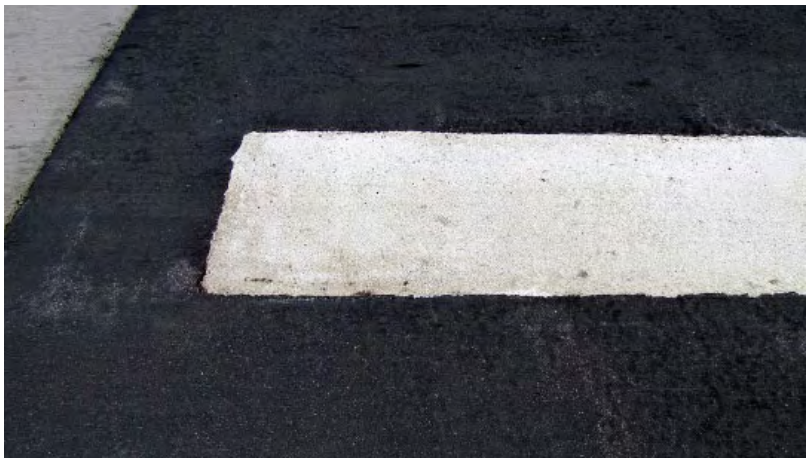
How to Do It: Crossings

Crossings should be located where there is a strong desire to cross, where sight distances are good and where vehicle speeds are low or can be lowered through design and treatments. Shown on these pages, the use of materials to create attractive streetscape features add beauty, function and place. Each functional part (i.e. parking, crossings, curb extensions, lane narrowing) should be designed to add to effectiveness of the crossing. Properly designed, crossings will "read" correctly, sending messages to drivers as they approach that they are to slow down and that pedestrians should be expected. For more information on the safety impacts of crossings, see the Transportation Research Board of the National Academies' report, "Improving Pedestrian Safety and Unsignalized Crossings," available online at http://onlinepubs.trb.org/onlinepubs/nchrp/nchrp_rpt_562.pdf.



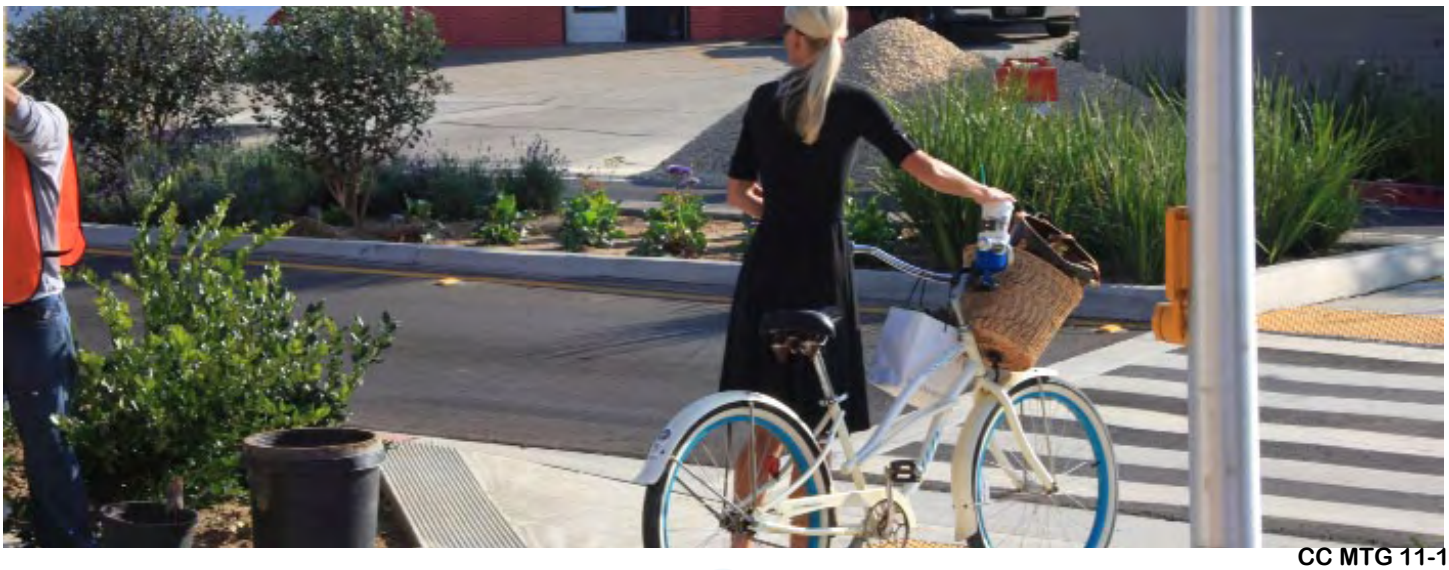
This Golden, Colorado crossing makes use of several important principles, the street is narrowed (to sixteen feet of asphalt, with another 2 feet in each valley gutter).Growth of ground cover (keep trimmed to 20-28 inches) and tall vertical trees, in time, will complete this crossing. This road was once 40 feet wide. Today parents feel comfortable having their children make crossings along a popular park and trail.

Use high-emphasis markings. A new approach is being used with paving ground down about 1/3rd of an inch. A hot ceramic mix is poured in, then reflective glass beads are settled on top. This anti-slip design is expected to wear well and outlast the life of the road surface. If desired, crossings can also be raised. This raised table has a 1:16 gradient change.



Tools used to slow traffic and help people cross streets.

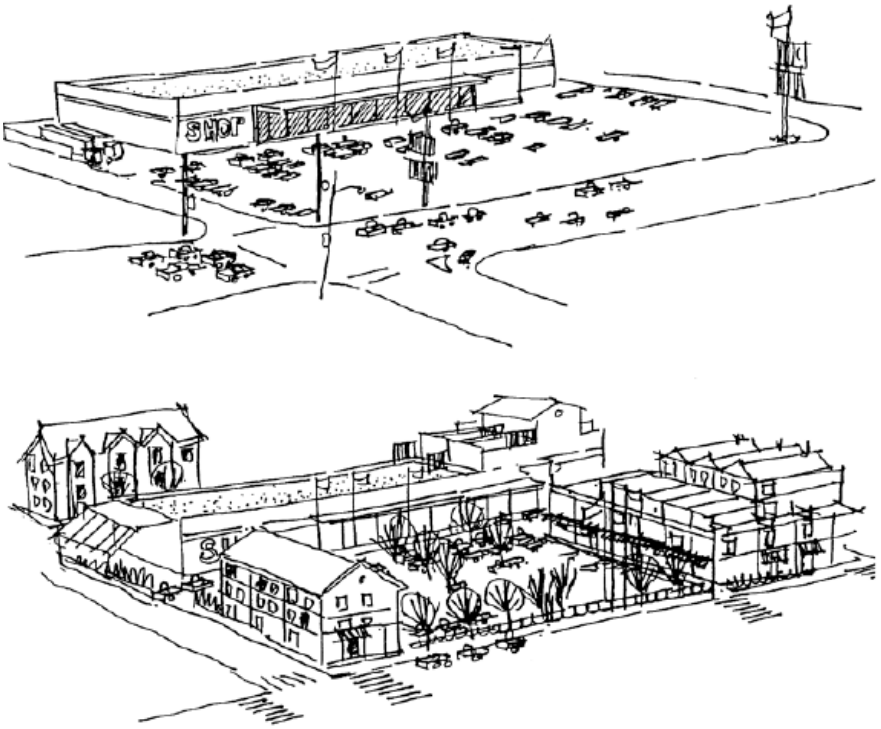
If space exists where some crossings will be warranted, then a median island can be added. This is a former four-lane road, in Olympia, Washington. With medians, pedestrians are only exposed to one direction of moving traffic at a time. Medians should have both ground cover and trees to make them more noticeable to motorists from greater distances. Use of these features slows speed, then draws attention to the crossing.



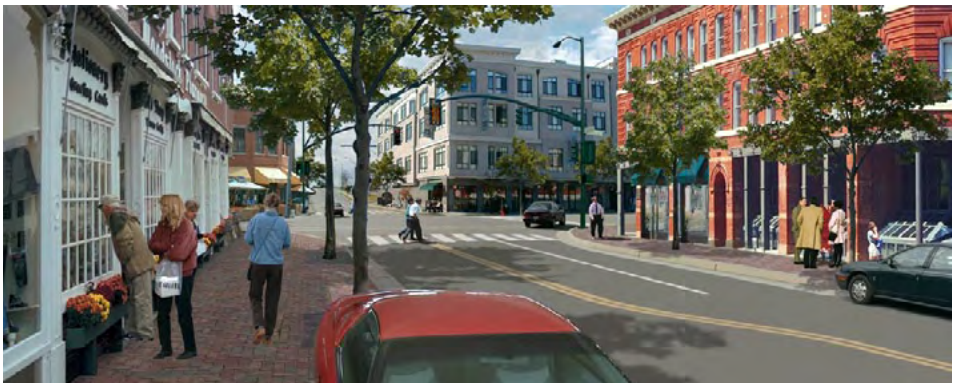
Additional tools can be used to aid pedestrians in crossing streets safely. Curb extensions reduce crossing distances. Landscaping helps channel pedestrians to ramps. Using two ramps per corner simplifies crossings. Color contrast is an aid for older pedestrians and pedestrians with visual problems. Count down timers are now recommended as a soft replacement for all urban area signalized crossings.

How to Do It: Convert Suburban Strips to Village Centers

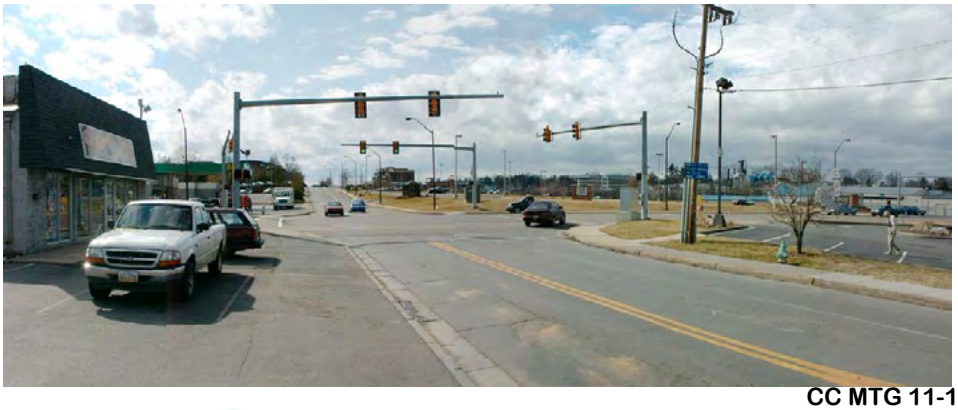
The conversion of a strip to a village center starts with taking critical corners and placing urban buildings there. These new buildings help size and shape the importance of the corner and the corridor. In time, well placed buildings are joined together to create vertical walls that provide character and community. This works in small scale hamlets to larger scale shopping districts. Illustrations here show how the new visual qualities help dampen traffic speeds. Buildings start the critical process of "enclosing" streets, giving them a feel of "place" and importance. The two photos below illustrate the importance of architecture and town form in controlling the speed of roadways. There is little more than engineers can do in the bottom image to control speed. Meanwhile, careful, thoughtful, placement of buildings and placemaking brings speeds, and therefore development opportunities alive.



Shown to the right is a correctly assembled urban block, and below it a conventional suburban block. Note how the suburban strip image is unappealing for walking (or even driving), and hastens motorists through a space. This increases the potential for speeding. Thus, poorly designed buildings and block patterns impact business life and people multiple ways.



Correctly designed and placed urban form is necessary to help heal downtowns or other places where people are to spend time and money. Unless code calls for an urban form, do not expect such development. It costs more, but it produces more. Urban mixed-use development typically yields $25-60/square foot, while single-use commercial zoning built to suburban models yields only $5-15/ square foot.



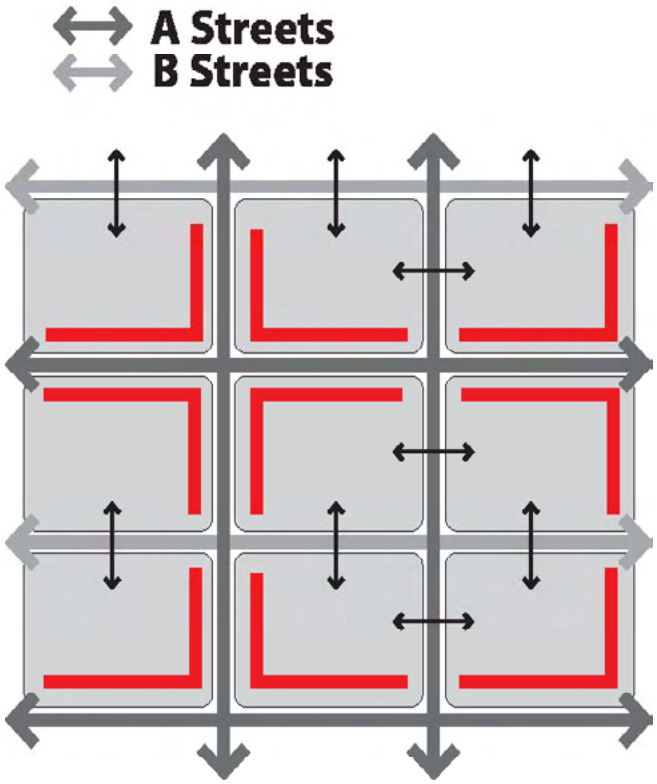
Suburban influences in town centers can be replaced over time. A partnership between private and public land holders can result in scenes that look much like these, and even better.

Public streets form and frame so much of our public realm that by emphasizing speed of cars, we destroy character and sense of community. Once streets are rebuilt for lower, but steady, speeds, it is possible to provide new, mixed use buildings that create a sense of place, character and arrival.

As these transitions occur land can increase in value from $5-15/sq ft to $35-60/ sq ft. Scene to the right: In time either the entire mall can be replaced, or a portion in the middle can be taken down to create an attractive pathway that invites a direct route to street shops.

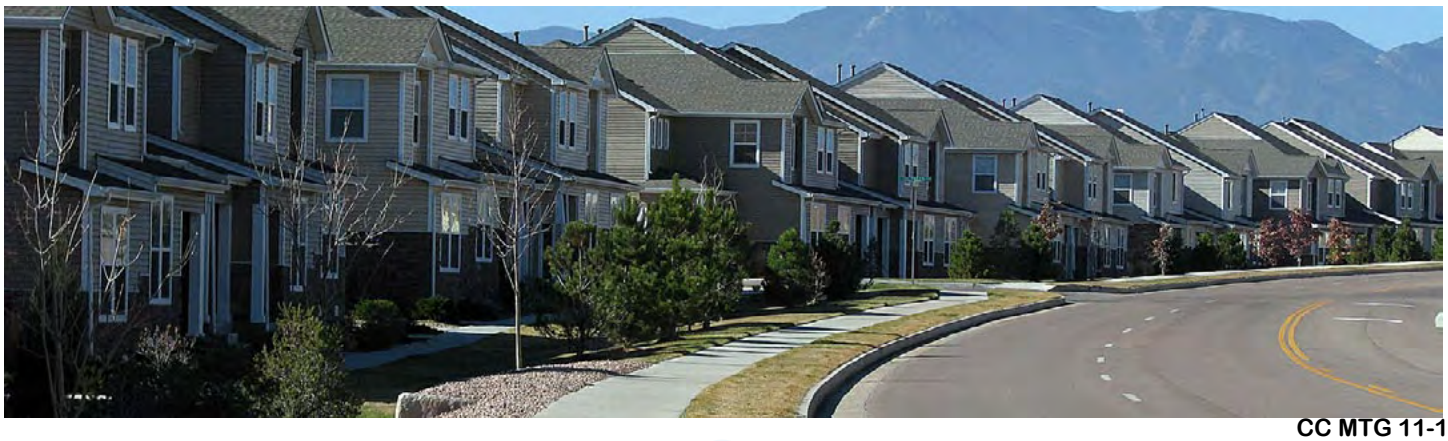
How to Do It: From Placeless to Place, Convert "B" Streets to "A"

The illustration to the right emphasizes those streets (outlined in red) that are "A" Streets. "B" Streets in the illustration are not highlighted with red. These can be alleys, or any type of a utility street.



In the two photos at the bottom of the page, it is clear that two developers were involved. To the right, the developer privatized the neighborhood. Even though the developer was required to install sidewalks, the wall ("B" treatment) assures that no one will walk here. In contrast, across the street, another developer "honored the street" by placing "eyes" to the street. In this case the street is being treated as an "A" street. Town codes must stress that if people are to walk to destinations, a series of "A" streets must be created, and developers cannot put back yards to these important streets.

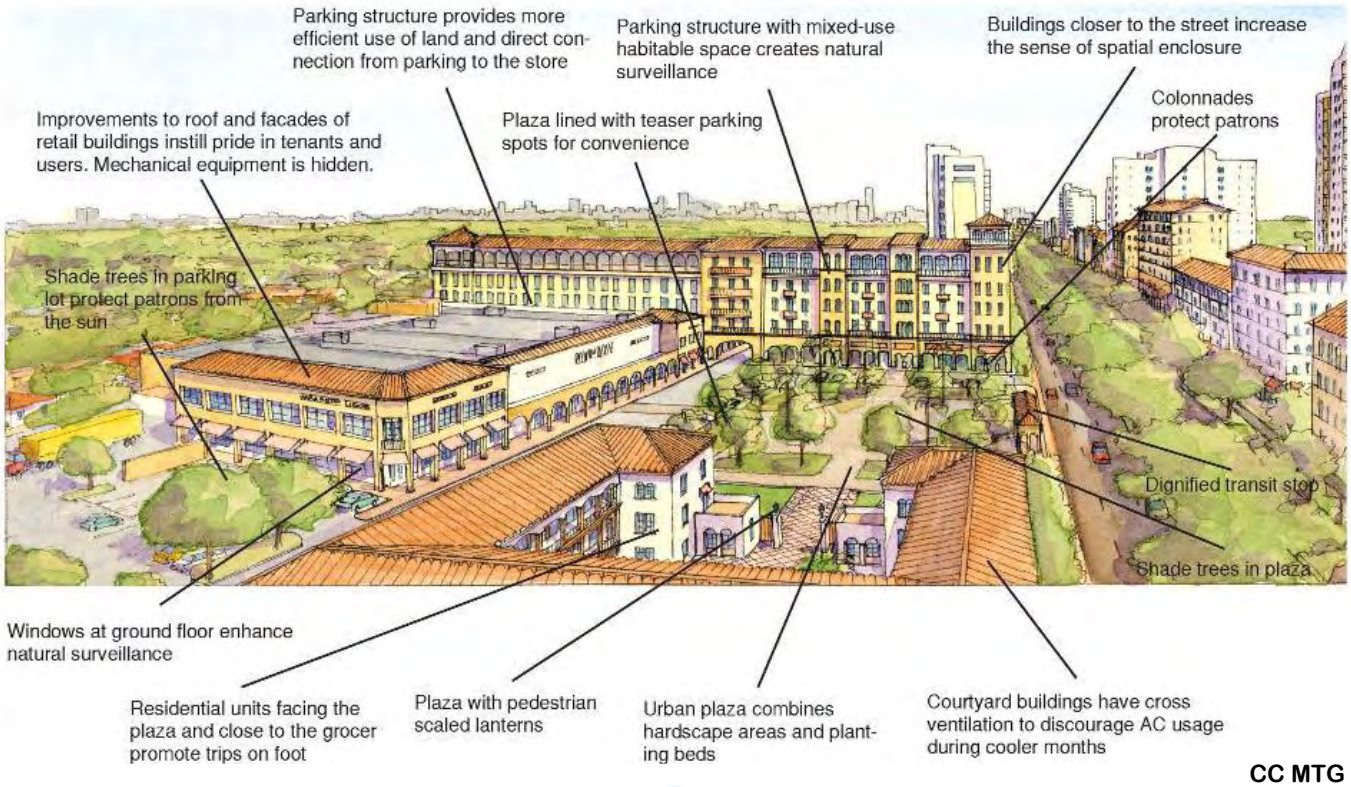
Of course, it is more complicated than that. If the city, or state wants to use the collector as a higher speed conduit, void of trees and other place, developers will find it hard to sell homes along the street. The street is the core tool for creating successful neighborhoods, security and a desire to walk.



In the photograph above, the functional use of a street is defined. Places where people want to walk are "A" streets (where buildings are designed to watch over the street. Meanwhile a series of "B" streets are needed to provide for utilities, deliveries and other internal functions. For the most part, people will not walk along "B" corridors.

Meanwhile, the above "B" street performs quite well for people who live here or make deliveries here. In the next row of images, a street not designed for walking (middle left) can be transformed into an "A" street which watches over parks, schools or corridors where continuous walking trips are important.

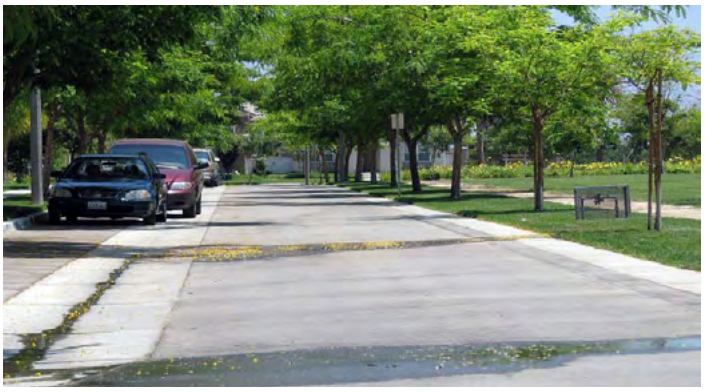
Right and above photos: This suburban style "B" street is transformed into the image below, changing the function of the street into an "A" category. In recent years, teams of planners, engineers, architects and landscape architects have made transitions allowing areas to become alive and active. It often takes more than one discipline to do this. Indeed, those areas that do not transform well are areas where people do not understood multiple functions needed in corridors.

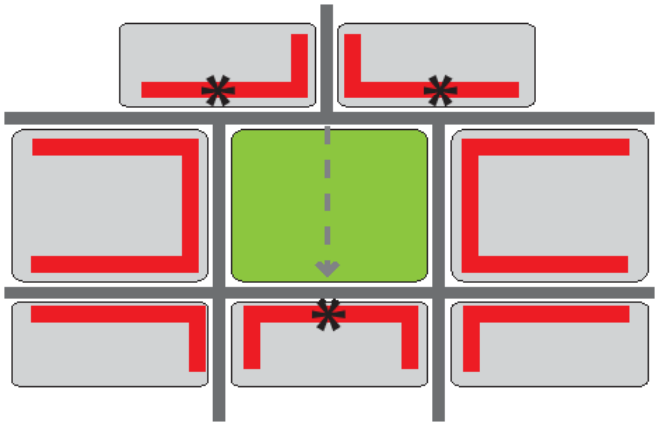


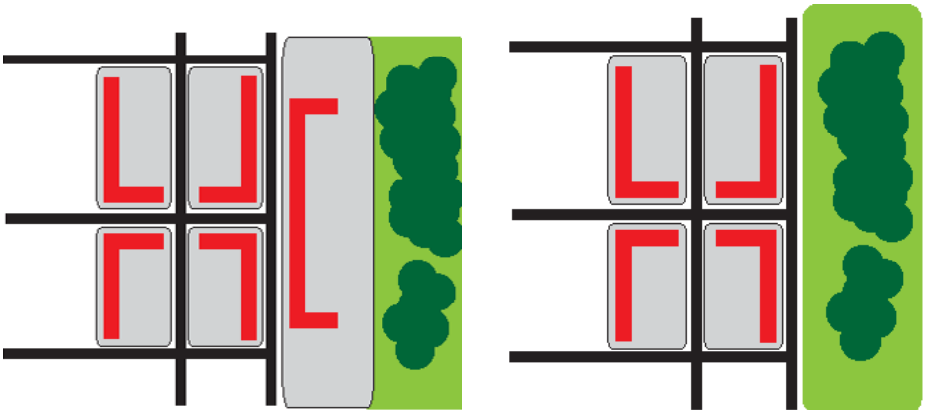
Optimizing Your View and Increasing Social Interaction and Social Equity

When terminating views guide the human eye down a street, several important things happen. The iconic building, mountain or lake vista provides an attraction that draws the person toward the destination, just as an anchor store does in a mall. The terminal point also reduces the tendency to speed, since motorists realize their journey will be interrupted. The terminating vista also acts as a navigational aid.

To maximize the value of land, the destination property (park, lake, plaza) should have a well designed, quiet and attractive street running parallel to it. The more sides that have access, the more valuable the land becomes. Other streets need to lead up to this perimeter street and connect with it. In some cases, a well designed trail acts as the "street" enabling people to walk or bicycle comfortably along the water's edge. In no case should a stream, river, lake, park or even school yard feel privatized through absence of access.



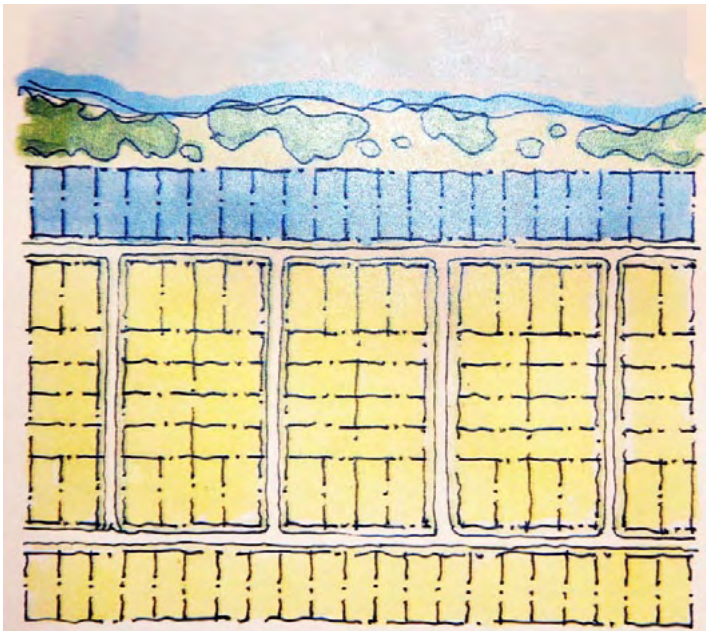




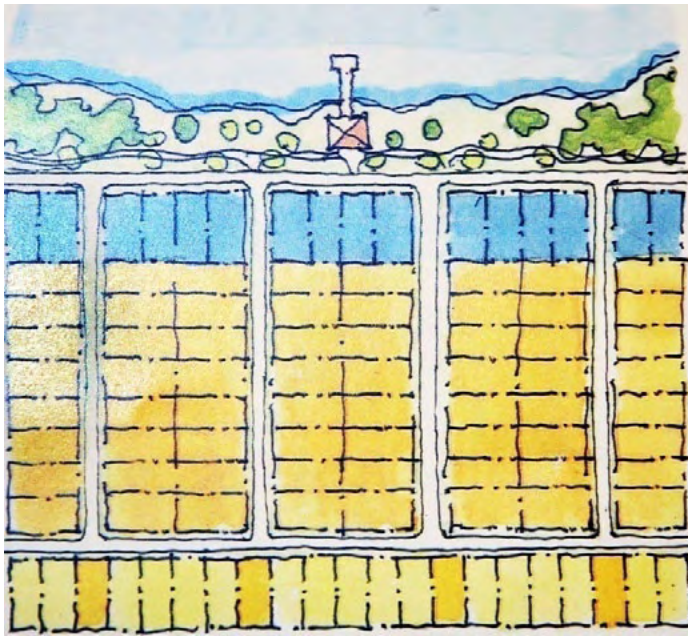
In these illustrations, the red lines represent the edges of adjacent properties that have access to the amenity.

On top, connected streets provide the highest access to the amenity, support social exchange, reduce crime rates, and increase land values.

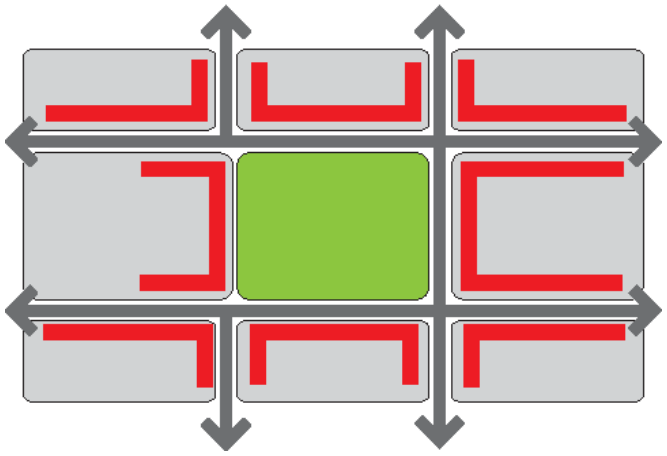
Below, disconnected streets privatize the amenity, decrease walking, and increase potential for property and personal crime.



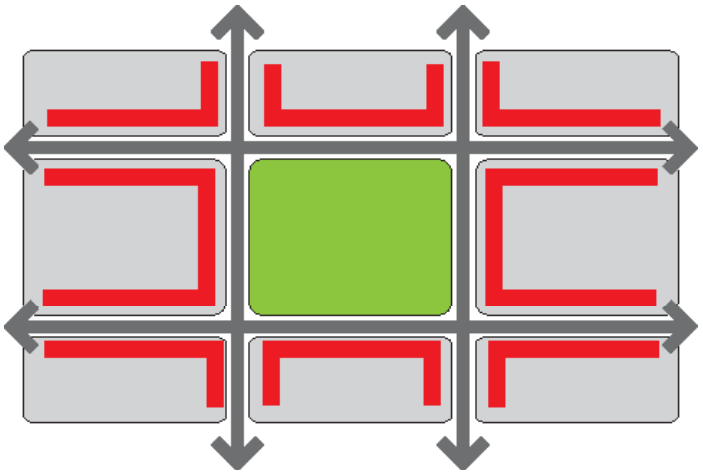
Privatized -- Wrong Way. *The above layout of streets privatizes the lake. Although homes along the shoreline may hold a 10% higher sale and resale value, the amenity, which should belong to the entire community, is now inaccessible to others. Even if a small beach front is accessible at some point, the overall value of homes going 2 to 10 blocks deep are devalued. The developer makes less money on total property values, and the community suffers from reduced social interaction.*



Public Access -- Right Way. *This alternative design maximizes access to the neighborhood feature (lake, park, school). As access is increased, the number of walking and bicycling trips increase, there is less need for expensive and environmentally damaging parking lots, and the development community makes a greater return on investment. In the scene to the left, the project may not "pencil out" once all associated utilities, street and other costs are worked out. With higher values, the project is more likely to be viable.*



Wrong Way. *Streets do not connect on the left hand side. The above layout of streets breaks street connectivity and privatizes the park. This reduces access to the park. In a small park, this gives the park user the feeling that they are in someone's yard. Since the property often has its back to the park, it reduces the "eyes" on the park and creates an increasing risk that the park will not be used fully. Reduced park use, in turn, invites crime in the park and to adjacent property owners. Low park use also reduces property values.*



Right Way. *This design maximizes connectivity and access to the park, square or plaza. By placing more activity along the park (walking, bicycling and driving) the park becomes more interactive and better used. Ideally, all streets surrounding the park will have either parallel or angled parking, thus minimizing the amount of park land that must be devoted to parking. This also lightens the environmental damage, since on-street parking takes up only 1/3rd the amount of space as off-street parking.*

How to Do It: Complete Streets

Major streets with moderate to high volumes of traffic should be transformed into "Complete Streets." Bike lanes, bike trails, sidewalks, streetscaping, curb extensions, mid-block crossings and other tools are applied.

Traffic calming and traffic management techniques should be used. On-street parking can be striped, and curb extensions, tree wells and medians can be added. Such improvements not only bring down speeds, they improve town centers and connect streets by reducing noise and perceived danger.

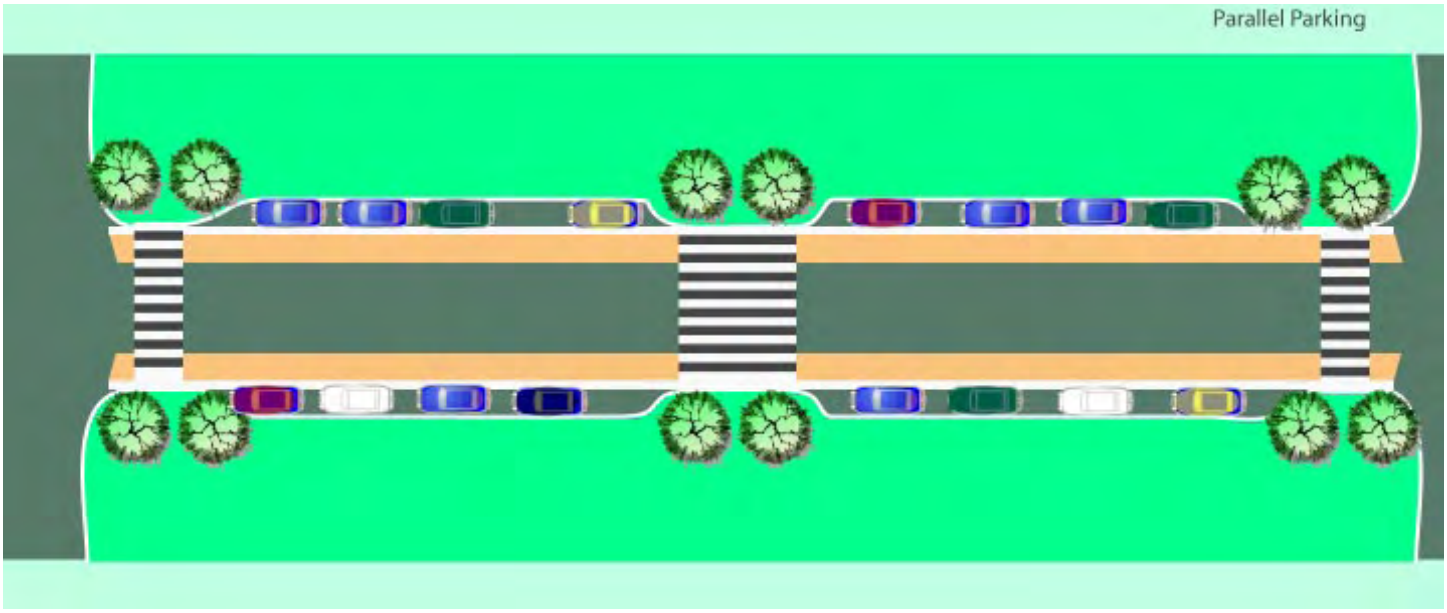
Most principal streets should have lanes narrower than today, especially when combined with bike lanes. Bike lanes add a buffer to parking and sidewalks.

Sidewalk construction and maintenance should be a priority, especially within a quarter-mile or half-mile of town centers and schools.

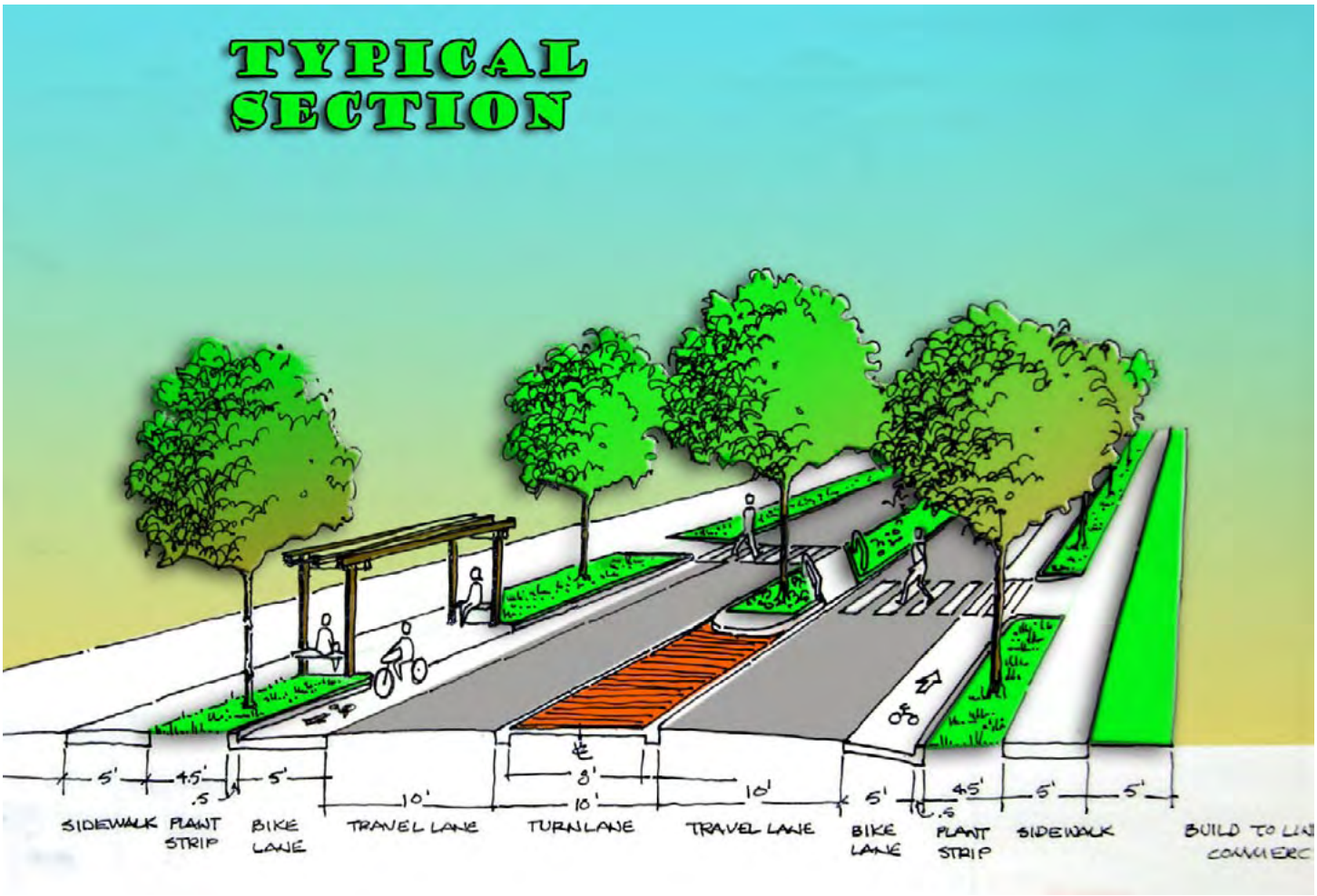
Ramps should comply with the Americans with Disabilities Act and "universal design" standards.

Above and below: Example of a two-lane road with a median, inset parking, one ten foot wide lane in each direction and bike lanes. A roadway based on these concepts can move up to 20,000 ADT (if used with roundabouts at key intersections). If roundabouts are not used, more lanes are added at intersections for storage and turns at key intersections -- not the entire section.

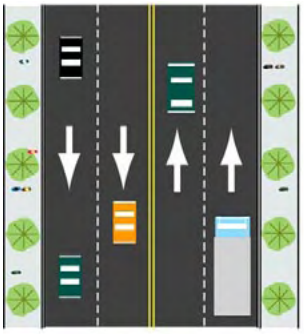
(Photo: Issaquah Highlands, Issaquah, Washington)



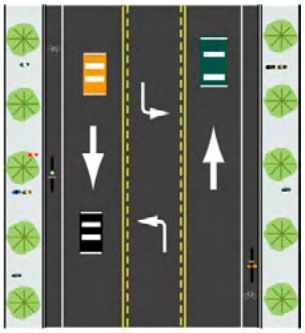
Complete Streets vary in design based on the type of street involved, speed and volume, block form, whether parking is needed or not, climate, demographics and other factors. These sections illustrate a number of desired features, including support for walking and bicycling along streets, and the ability to cross over. Trees are generally spaced each 15 to 30 feet. Minimum dimensions for an environmentally friendly street are provided in the bottom illustration. A center turn storage lane of ten feet, two travel lanes of ten feet each, two five foot bike lanes (using an extended gutter pan that is saw cut for joints, two planter strips of 5 feet each and two sidewalks of five feet each can fit inside a 60 foot right-of-way.



How to Do It: Road Diets



BEFORE
Road Diet Conversion



AFTER
Road Diet Conversion

WHO

Typically implemented by city, county or state transportation agencies, road diets help achieve the policies advocated for by Complete Streets (www.completestreets.org), Smart Growth America (www.smartgrowthamerica.org), and many other national, state and local groups seeking a safer, more walkable and livable community for road users of all ages and abilities.

WHAT

A road diet involves eliminating travel lanes on a roadway to improve safety for pedestrians and bicyclists. While there can be more than four travel lanes before treatment, road diets are generally conversions of four-lane, undivided roads into three lanes—two through lanes plus a center turn lane or median island. The fourth lane may be converted into a bicycle lane, sidewalk, planter strip for street trees, a bus stop, a separated multi-use trail, a wider outside lane and/or for on-street parking. Rural areas might add wider shoulders for bicyclists, roundabouts near a town – especially as a gateway treatment - or separated multi-use trails. In other words, based on the surrounding land use and travel speeds or context of the road, the street cross section is reallocated.

WHERE

Lane and Road Diets can be successfully implemented on collector and arterial streets, main streets, commercial corridors, or town centers; on any street that is over-designed to give priority to the motor vehicle; and in areas where there is greater need to provide for multi-modal travel.

WHEN

Context is the key to a successful lane or road diet, Complete Streets, and Smart Growth. The objective of any design change should be to match the roadway environment with the actual roadway function.

Candidate roads will usually have an ADT (Average Daily Trips) of less than 20,000 to ensure minimal effects on vehicle capacity, although successful road diets have been performed with volumes reaching 30,000 ADT and the roadway did not reach the most congested condition of LOS F (a level-of-service failing grade.) Ideal roads are in need of mitigation to reduce traffic conflict, crashes, and to slow down vehicles, and are in

areas that wish to encourage economic development, address parking circulation, improve streetscapes, and create safer roads.

WHY

The benefits of road diets are numerous: they improve road safety for users of all ages and abilities, whether they travel by foot, wheelchair, bicycle, stroller, or motor vehicle; create a welcoming community environment; and help to solve some of our more pressing public health issues such as reducing obesity, and rates of heart disease, diabetes, and high blood pressure by encouraging active living. Other benefits can include: economic development, increased property values, improved streetscape, better parking circulation, reduced vehicle speeds, improved mobility and more efficient land uses - mixed uses that offer affordable housing, retail, restaurant, and/or office options.

Anecdotal case study results support the conclusion that pedestrians, bicyclists, and adjacent landowners typically prefer the corridor environment of a road diet, especially a two-lane cross section with median islands. When people are the priority, a true livable community and sense of place exist.

Many American towns have the potential to go from having too many lanes for storing cars, to fewer lanes which then build place and the local economy. After the 1989 Loma Prieta earthquake, Pacific Ave. in Santa Cruz, CA was rebuilt to the scene below. Now with narrower street widths and a sense of place, the street teems with life and vitality and generates revenue.

HOW

Conduct a traffic study, and before/after traffic counts of all road users; understand the limitations of traffic modeling; consider special bus designs such as bus pull-outs. Engage the community, educating residents and local leaders on why lane/road diets are a good idea. Survey affected merchants and residents along the corridor to learn what the expectations and objections of a road diet might be. Garner local political support from elected leaders, leverage financial resources from various sources. Funding for road diets can often come from economic development programs, state and local transportation departments, regional metropolitan transportation planning organizations, state and county health departments, main street programs, tree planting or green-up programs. There are many funding sources that can be explored to create significant change.

How to Do It: Parking

The retail life of a town center is supported best by having sufficient on-street parking. Many towns fail to use their streets wisely. They induce speeding by having too much space for vehicular flow, and not enough for car storage.

On-street parking only takes one third as much land as off street parking. On-street parking belongs on center city streets, serving as a buffer to moving cars and a natural traffic calming tool. When used in conjunction with curb extensions (bump outs) and tree wells, parking is said to be inset, narrowing streets, making pedestrian crossings easier, more comfortable and safe.

In time, to achieve compact town center form, where more people can live and help activate the town center, it will be necessary to move away from most off-street parking. Once a full and vibrant retail life is achieved, each parking space becomes worth $200,000 per year. Thus, attention to using town center streets to maximize convenient parking, is urgent and paramount.

If head-out angled parking is used, which is highly recommended, the entire curb to curb dimension can be 54-56'. When head-out angled parking is used, lane widths can be much narrower, since back out "discovery time" is not needed. Also, the back end of vehicles have more overhang, so less space is used.

Parking bay depths should be 15 feet. An added two foot of space is picked up when valley gutters are used (highly recommended). See valley gutter in photos.

Keep travel lanes to a combined with of 20-22 feet. A center line is not used. This tight driving space helps keep speeds low, which reduces the chance of vehicle crashes.

Head-Out Angled Parking

There are multiple benefits to head-out angled parking. It is the safest way to park a vehicle and it increases the amount of on-street parking that can be made available. Depending on the angle, head-out parking can increase the number of parking spaces that will fit on a street by 30 to 110 percent over parallel parking. Also, head-out angled parking reduces the amount of off-street parking - and related infrastructure needed. In fact, it can take up as little as one-third of the space of off-street parking.

Head-out angled parking is easier to do than parallel parking because the driver essentially is only making the first maneuver of parallel parking -- the backing-in maneuver. Once in the space, the driver has many benefits over parallel or front-IN parking.

For example, when in a head-out space and the doors are opened, passengers are directed away from passing traffic and toward the sidewalk. The trunk is accessible from the sidewalk. And when pulling out, the driver can see oncoming vehicles and bicyclists.

To install it well, keep sidewalks wide and comfortable. Depending on the angle, head-out parking allows cars' trunks to overhang more than front-in parking, so set all fixtures (lamps, hydrants, signs, trees) at least 24 to 30 inches from the edge of the curb. Also, be careful to develop robust and effective educational programs to help all roadway users become comfortable with the practice, especially if it is new in the community.

With front-in angled parking many communities max out their parking gain by using 60 degrees. With head-out angled parking (also called "back-in angled parking), the "yield" is reduced when a 45-degree angle is used. Either angle is possible, but with head-out, 45 degrees is more common, since it is easier to park. It is generally recommended that parking bays be no more than fifteen feet deep (perpendicular measurement). With a two-foot-wide valley gutter, bringing the full depth to 17 feet, all conventional and many oversized vehicles fit in this space. Omit center lane lines when using on street parking to allow motorists to go around a car in the process of parking when there is no opposing traffic. Removal of center lane lines has been shown to reduce traffic speeds and crashes.

How to Do It: Tree Wells

Sometimes a building-to-building right-of-way is too tight to plant trees in sidewalk areas. Use of in-street tree wells can allow the street to be "greened" and often without removal of parking. Tree wells can either be installed to allow water to flow naturally in existing channels, or, if a complete reconstruction is needed, to insert drainage in a pattern that supports these green innovations. Tree wells are used on many local streets, but can also be used, along with curb extensions on roads like SR 70 and SR 17, in Florida. A number of state roads apply tree wells in a variety of states and provinces (including snow country, such as Boise, Idaho and Columbus, Ohio) in urban areas. Use of tree wells and curb extensions, in combination, help bring speeds to more appropriate urban levels.

How to Do It: Paseos and Plazas that Create a Sense of Place

Placemaking: The transforming of a street, sidewalk, plaza, square, paseo, open lot, waterfront or other space to be attractive, rewarding and a community source of distinction and pride. Good places make good experiences possible and have consequences in our lives. People want to share experiences and ideas on common ground, in attractive, well designed and cared for public places.

Principles: Reinvestment in streets, between buildings, and in other well located public spaces brings added value to all buildings and homes in a town center. A front porch storing last decades sofa and washing machine detracts. Placemaking, like interior decorating, must create a strong, compelling sense of place that makes time spent in these spaces rewarding and memorable. Consider the public and private realm of a town center as a public/private partnership. Consider the greater town center as a canvas waiting for rich, vibrant tones, textures and colors that honor existing or adapted buildings and streets. Nothing should be ho-hum. Places can be funky and relaxed, but they must be thoughtful, sensitive to place, and cared for.

Streetscapes help create character and charm. In many towns, many decades of deterioration must be attended to. The town center is a fine home for things waiting to happen, but many existing furnishings, old facades, litter cans, upheaved sidewalks, detract.

The waiting plaza space shown in the upper corner is truly the opportunity that can be the "tipping point" to all other investments.

Plaza spaces must be carefully crafted to bring about proper levels of enclosure, transparency, human scale, complexity, "imageability" and comfort.

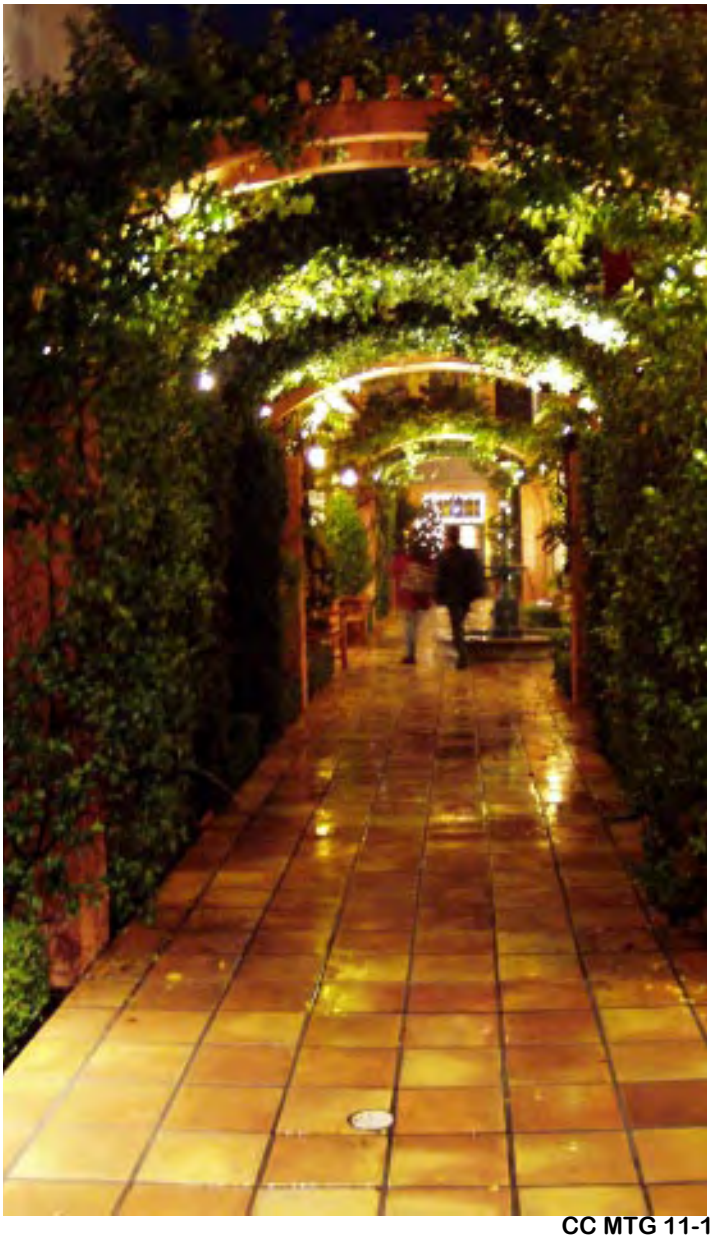
Even small public spaces need a minimum of ten different treats or activities or points of interest for the public to become fully engaged. Don't overlook the needs of seniors, and the drawing power of children to come to these places.

***Not ready for prime time**: Above is an example of a physical space that can become an important plaza, outdoor room and connector.*

Below: Adapted into public space.

Placemaking includes outdoor "rooms."

Just as with a home environment, cities have the opportunity to draw in visitors and residents to special "rooms" created for social exchange or instead a chance to relax, read, or simply hang out. These are examples of paseos and other spaces between buildings that take on a unique life. Common to all, plenty of design, "eyes on the realm" and comfort.



How to Do It: Sidewalks

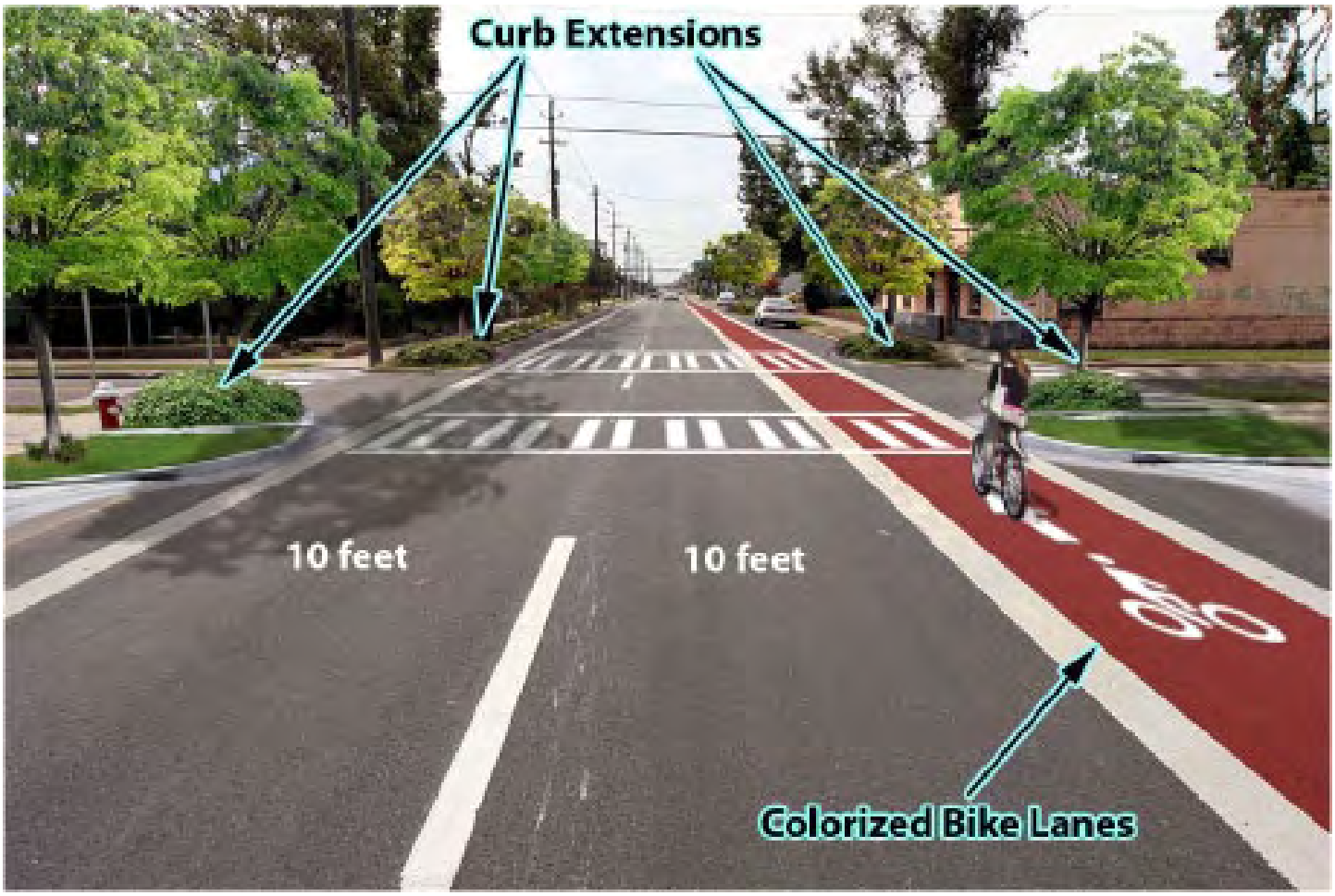
Principles: Sidewalks in a town center require high levels of design and care. It is within the protected spaces of a sidewalk where people move freely, but also spend time engaging others and spending time to enjoy the beauty of their public space. Sidewalks work best when they are fully buffered from moving traffic. The following considerations should be provided when laying out sidewalks.

Use color, texture, street furniture and other materials to distinguish functional areas of walkways. Sidewalks have three parts (shy zone, furniture zone and the walk/talk zone). See illustration to the right.

If driveways must interrupt, keep these to minimal widths (14 foot for one way, 26-28 for two way). Use contrasting colors and materials, and keep sidewalks fully flat across driveways.

Sidewalk widths may need to vary, according to existing building placement, and other constraints. Try to keep town center sidewalks to 12-16 feet, when practicable, but be willing to narrow when constraints exist.

How to Do It: Curb Extensions



Curb extensions help transform a place into a more attractive, natural, functional and prosperous town and center. Curb extensions capture all space not used by autos. By adding curb extensions, towns turn these vital spaces into civic and retail uses. All construction should be done in a way that it least disrupts local businesses. Winter Park, and Sanford, Florida replaced sewers, water lines and other infrastructure as part of its reconstruction. Streets were worked on at night, then covered during the day to maximize retail success.

Checklist: Moving Toward Change

Nearly every community in the country could benefit from some sort of change or improvement to the built environment to create or support walkability and livability. As groups of residents, leaders or organizations come together to create momentum for those changes, consideration should be given to which projects or interventions have the greatest chance of succeeding and which will have the greatest benefit. The scoring system below, created by Ontario, Canada's Ministry of Health Promotion as part of the Community Physical Activity Planning resource manual, provides a good starting point for prioritizing efforts.

This checklist identifies a number of criteria that can be used to select projects for your plan. Not all criterion will be applicable to every project. Your committee may identify other criteria relevant to your plan. Rank proposed projects on a scale of 1-5 depending on how well they fulfill each criterion.

Criteria	Not applicable	Proposed Projects Fulfills Criterion				
		Completely		Satifactorily	Not at all	
		5	4	3	2	1
Will achieve the goals and objectives of the plan						
Will addresses the needs of segments of the community targeted in our plan						
Will produce the desired results in the desired timeframe						
Will be supported by the parties responsible for implementation						
Has an existing agency prepared to assume responsibility for implementation						
Will be supported by the community						
Will be supported by community and external funding agencies						
Will not conflict with or duplicate existing projects in the community						
Takes full advantage of existing resources in the community						
Can realistically be implemented within the plan's timeframe						
Can be implemented with available financial resources						
Can be implemented with available staff resources						
Is financially viable and sustainable over the long term						
Other Criteria:						

Checklist: Moving Toward Change

Just as with the checklist on the previous page, groups of people or organizations coming together to improve the built environment to support walkability and livability should assess any potential projects for existing shortcomings or opportunities for improvement. The checklist below, developed by WALC Institute team members, provides a list of qualities that should be assessed as a first step in evaluating an effort's viability.

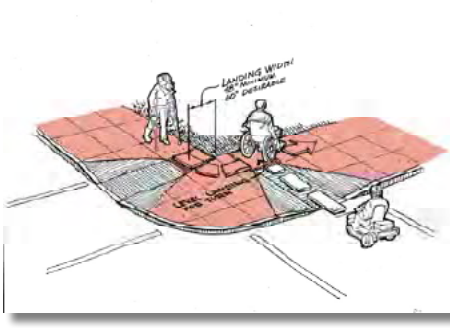
TYPE OF PROJECT: ☐ Residential ☐ Mixed ☐ Commercial ☐ Office ☐ Civic

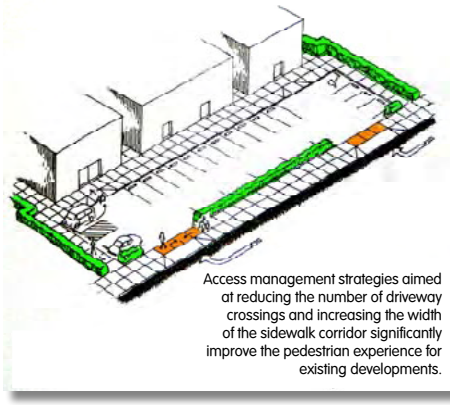
LAND USE

YES	NO	
☐	☐	Does the project/development promote interaction between neighbors? If YES please list: _____
☐	☐	Is the physical design of the project harmonious with the overall neighborhood?
☐	☐	Is this development adjacent to existing development and connecting to the development with pedestrian links and roadway connections?
☐	☐	Is there an adequate mix of land uses that provide a variety of housing choices?
☐	☐	Do these mixes provide for a great diversity in incomes, and especially provide for affordability?
☐	☐	Are there locations for non residential land uses that are integrated with the residential?
☐	☐	Is the land use configured around a walkable block size (¼ mile perimeter)?
☐	☐	Is there a range of density permitted in the neighborhood?
☐	☐	Are fronts of homes properly placed and have windows watching over schools, parks, streets, trails and other public places?
☐	☐	Is the architecture of buildings attractive and supportive of life on the street, park, school?
☐	☐	Are there provisions eliminating garages from "mooning" the street (i.e. required garage setbacks, lot frontage percentage)?
☐	☐	Are public buildings, parks and other common destinations properly placed to maximize the number of people that can walk to them?
☐	☐	Can the majority of people walk safely and comfortably in ten minutes (2500 feet), and without crossing dangerous intersections to an elementary school?
☐	☐	Can the majority of people walk safely and comfortably in twenty minutes (5000 feet), and without crossing dangerous intersections to a high school?
☐	☐	Is there too much emphasis on providing large amounts of off-street parking (relates to affordability, density)?

TRANSPORTATION, STREETSCAPING, & STREET DESIGN

YES	NO	
☐	☐	Does the project/development achieve a connectivity index of 1.4? The index is calculated by dividing the number of street links (street sections between intersections, including cul-de-sacs) by the number of street nodes (intersections and cul-de-sacs). A grid street network would yield an index of 2.0.
☐	☐	Does the project/development provide mobility options for those who cannot drive?
☐	☐	Does the project/development have a well connected sidewalk system that lead to local destinations? If YES what is the proposed width of the sidewalks (5.0 foot minimum recommended)? _____
☐	☐	Are sidewalks detached from the curb allowing planter strips to take up driveway elevation changes?
☐	☐	Do all corners have ADA accessible ramps (2 ramps per corner preferred)?
☐	☐	Do planter strips offer canopy street trees (each 15-30 feet recommended)?
☐	☐	If median tree plantings are preferred, are plantings adequate for canopy development (each 15-30 feet recommended)?
☐	☐	Are there adequate provisions made for proper care and maintenance of canopy trees?
☐	☐	Do building practices eliminate privacy fences (above 4.0 feet) toward the public side of properties?
☐	☐	Are there specifications that public facing fencing be attractive and transparent above 4.0 feet?
☐	☐	Do curbs, swales, curb extensions, or other designs keep cars parked in correct locations (no rollover curbs)?
☐	☐	Does the project/development have, or connect to, a trail system for walking or biking?
☐	☐	Does the project/development contain elements that enhance the feeling of neighborhood security and safety?
☐	☐	Are local streetlights provided?
☐	☐	Are houses oriented toward the street to provide "eyes on the street?"
☐	☐	Are the buildings addressing the street? (i.e. front doors)
☐	☐	Is there parking between the building and the street?
☐	☐	Can a child walk safely, comfortably, and feel watched over enroute to school?
☐	☐	Are there sidewalks/pathways along the route to the school(s)?
		What is the walking distance to the area's schools? _____
☐	☐	Is the visibility at intersections good? Can drivers see short children, physically handicapped?
☐	☐	Does the route contain known dangerous intersections? If YES please list _____
☐	☐	Are there crossing guards at these intersections?
☐	☐	Will the project/development contain a significant elderly population?
☐	☐	Can the elderly walk to important destinations (i.e. banks, post office community centers, and library)? What is the walking distance to these destinations? _____





Access management strategies aimed at reducing the number of driveway crossings and increasing the width of the sidewalk corridor significantly improve the pedestrian experience for existing developments.

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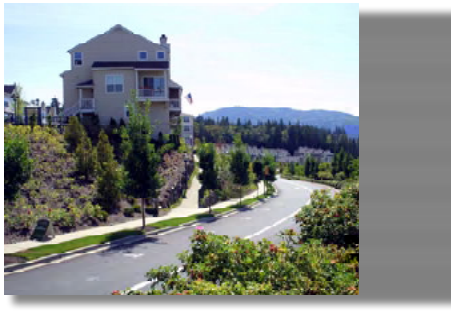
TRANSPORTATION, STREETSCAPING, & STREET DESIGN CONTINUED

YES	NO	
☐	☐	Are there sidewalks/pathways along the routes to these destinations?
☐	☐	Is the overall speed at or below 25 mph for all local streets?
☐	☐	Is the overall speed at or below 30 mph for all collector streets?
☐	☐	Does the project contain design elements to calm traffic such as curb extensions, mini-circles, parking chicanes, roundabouts, medians, raised street crossings, or similar features? If YES please list _____
☐	☐	Does the project/development present unsafe conditions or deter access and free mobility for the physically handicapped?
☐	☐	For projects/development on arterial streets, does the plan include pedestrian crossing signals and/or mid-block crossing islands?
☐	☐	Is public transportation available? If YES, where and how close is the nearest bus/train stop? _____ _____
☐	☐	Does the nearest bus/train stop have a shelter?
☐	☐	Does the nearest the bus/train stop have a bench and litter can?
☐	☐	Do curb extensions or other treatments prevent motorists from parking too close to corners?
☐	☐	If narrow streets are used, do streets provide a physical space (20 feet wide) every 200 feet for emergency response operations?
☐	☐	If alleys are used, is there high transparency (surveillance) in the alley?
☐	☐	If paseos (connectors or links) are used, is there high transparency (surveillance) to the paseo?
☐	☐	Do schools, parks, and other public destinations have adequate well located and secure bike parking?

PARKS & OPEN SPACE



YES	NO	
☐	☐	Can the majority of people walk safely and comfortably in five minutes (1500 feet) to a public gathering place, park, plaza, or community center?
☐	☐	Are there an adequate number of parks provided within walking distance (1/8 — ¼ mile) from every residence?
☐	☐	Are there sidewalks/pathways, ADA ramps along the route to the above services?
☐	☐	What is the walking distance to the area's amenities? _____
☐	☐	Is the size of parks and open space adequate for the amount of potential residents?
☐	☐	Are there a number of buildings/houses that watch over parks, trails, and open space?
☐	☐	Are these parks well used? If not yet built, are there a number of things to discover and do in these parks?
☐	☐	Do parks have appropriate on-street parking, or is there too much off-street parking?

Additional Resources

Healthy Development Checklist, from Walkable Communities:
http://www.walkable.org/assets/downloads/healthy_development_checklist.pdf

Active School Neighborhood Checklist, from the Arizona Department of Transportation:
http://www.azdot.gov/Highways/swprojmgmt/Enhancement_Scenic/saferoutes/SafeRoutes_Common/Apply_Active_School_Neighborhood_Checklist.asp

Healthy, Active & Vibrant Community 2009 Toolkit, from Trailnet:
http://www.trailnet.org/HAVC_Toolkit.php

Growing Demand for Communities that Promote Health, from Active Living Research:
http://www.activelivingresearch.org/files/ALR_Brief_WalkableCommunities.pdf

At the Intersection of Public Health and Transportation: Promoting Healthy Transportation Policy, from the American Public Health Association:
http://www.apha.org/NR/rdonlyres/43F10382-FB68-4112-8C75-49DCB10F8ECF/0/TransportationBrief.pdf

Healthy Kids, Healthy Communities, from the Local Government Commission:
http://www.lgc.org/freepub/docs/community_design/fact_sheets/Healthy_Kids_Healthy_Communities.pdf

Walking and Biking to School, Physical Activity and Health Outcomes, from Active Living Research:
http://www.activelivingresearch.org/files/ALR_Brief_ActiveTransport.pdf

Active Education: Physical Education, Physical Activity and Academic Performance, from Active Living Research:
http://www.activelivingresearch.org/files/Active_Ed_Summer2009.pdf

Additional Resources

Safe Routes to School

Sample Safe Routes to Schools Programs, from the Safe Routes to School National Partnership:
http://www.saferoutespartnership.org/local/4233

Parent Survey about Walking and Biking to School, from the National Center for Safe Routes:
http://www.saferoutesinfo.org/resources/collateral/Parent_Survey_English_Scan2009.pdf

Teaching Children to Walk Safely as They Grow and Develop: A guide for parents/caregivers
http://www.saferoutesinfo.org/guide/graduated_walking/index.cfm

Adult School Crossing Guard Guidelines
http://www.saferoutesinfo.org/guide/crossing_guard/index.cfm

The Walking School Bus: Combining safety, fun and the walk to school
http://www.saferoutesinfo.org/guide/walking_school_bus/index.cfm

Student Drop-off and Pick-up
http://www.saferoutesinfo.org/guide/pdf/SRTS-Guide_Dropoff-Pickup.pdf

Media and Visibility
http://www.saferoutesinfo.org/guide/media/index.cfm

Education
http://www.saferoutesinfo.org/guide/pdf/SRTS-Guide_Education.pdf

Enforcement
http://www.saferoutesinfo.org/guide/pdf/SRTS-Guide_Enforcement.pdf

Evaluation Guide for Community Safe Routes to School Programs
http://www.saferoutesinfo.org/guide/pdf/SRTS-Guide_Evaluation.pdf

Many more Safe Routes to School guides and tools are available at www.saferoutesinfo.org.

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