City of Las Cruces®
PEOPLE HELPING PEOPLE

COUNCIL WORK SESSION SUMMARY ROUTING SLIP

Meeting Date August 22, 2016

TITLE: COMPREHENSIVE PLAN UPDATE.

Are there attachments to the Council Work Session Summary?	**Yes** ☒	**No** ☐
Will there be a Video Presentation for this item?	**Yes** ☐	**No** ☒
Will there be a PowerPoint Presentation for this item?	**Yes** ☒	**No** ☐
If "yes", will a copy of the PowerPoint Presentation be included on the Council Work Session Agenda?	**Yes** ☐	**No** ☒

DEPARTMENT / ORGANIZATION	SIGNATURE	PHONE NO.	DATE
Drafter/Staff Contact		528-3079	8-8-16
Department Director		528-3067	8-9-16
Other			
Assistant City Manager/CAO (if applicable)			
Assistant City Manager/COO (if applicable)		541-2271	8-11-16
City Manager			8-11-16

City of Las Cruces®
PEOPLE HELPING PEOPLE

Council Work Session Summary

Meeting Date: **August 22, 2016**

TITLE: COMPREHENSIVE PLAN UPDATE.

PURPOSE(S) OF DISCUSSION:

☒ Inform/Update

☐ Direction/Guidance

☐ Legislative Development/Policy

BACKGROUND / KEY ISSUES / CONTRIBUTING FACTORS:

Comprehensive Plan 2040 (Plan), also known as Plan4LasCruces, is the highest level planning document for the City of Las Cruces (City). The Plan contains goals, policies and actions grouped into four major themes: Healthy Community, Economic Prosperity, Sustainable Growth and Community Character. In order to keep the Plan manageable and relevant, each theme is allocated about two years for public engagement, plan/policy drafting and the public adoption process culminating in adoption of the updated theme by resolution of the City Council.

The City is currently working on the first theme, Healthy Community. Staff will present a summary of the public engagement conducted thus far as well as the Healthy City Design report prepared by the consultant, Blue Zones, LLC.

A critical component of the policy making and implementation process is capacity building. As such, renowned experts Dr. Richard Jackson and Dr. Suzanne Lennard have been invited to present on *Designing Healthy Communities* and *Intergenerational Communities* respectively. They will talk about issues in planning and the relationship between a city's built environment and the health and well-being of its residents.

SUPPORT INFORMATION:

1. Attachment "A", Healthy City Design report.

Continue on additional sheets as required)

Healthy City Design: Healthy People, Healthy Economy

Las Cruces, New Mexico

BLUE ZONES®
Live Longer, Better™

This page is intentionally left blank.

Table of Contents

Executive Summary 4

Glossary of Key Concepts 6

Introduction 8

How to Get to Livability 12

Process of Engagement: Visioning Together 16

Policy Recommendations & Best Practices 30

Walking Audit Key Findings & Opportunities 41

Active Living, Healthy Streets Toolbox 45

Visualizing the Tools Together 56

Next Steps 67

Concluding Thoughts 68

Appendix 69

Right (Top to Bottom): Photos of daily scenes throughout Las Cruces.

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."
- Former U.S. Secretary of Transportation Ray LaHood

"The key word for transportation in the 21st century is 'choice.'"
- U.S. Secretary of Transportation Anthony Foxx

This report focuses on how to improve the livability and well-being in Las Cruces through land-use and transportation systems that better support active living through the Healthy Community element of the Plan4 Las Cruces Comprehensive Plan update.

Livability refers to the quality of life a place allows and is heavily influenced by the quality of the built environment—land-use and transportation planning choices made, especially the completeness of our transportation systems. Streets are attractive and safe for all users, or they are not. Streets encourage a variety of transportation options, including walking and bicycling, or they limit choices. Streets enable social interaction, or they do not. Streets put a person at ease, or they do not. The built environment impacts community and individual 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, shop and play.

Las Cruces, located in the Southwest setting of desert, mountains, arroyos, mesas and river valleys, is full of community assets —a treasure trove of homes, historic adobe buildings, New Mexico State University (NMSU) and other institutions including military and aerospace. As the City continues to grow, its streets need to transform over time as places for people. The current pattern of sprawl must stop if the City is to be healthy.

Dan Burden, director of innovation and inspiration and national walkability expert of Blue Zones, LLC facilitated a discovery visit (October 2015), walking audits and visioning forums (late March, early April, 2016) to build capacity and civic participation around the Healthy Communities theme of Plan4 Las Cruces update. The goals of the events were to:

- **Illustrate** how street design and existing land use development and redevelopment can support all people, not just those passing in cars;
- **Promote** a shared language among residents, business leaders, school representatives, property owners, planners, engineers, designers and elected leaders;
- **Provide** citizens, policy makers and technical practitioners an expanded toolkit to draw from in order to build healthier neighborhoods;
- **Build** 'social capital,' or collective value, over time, helping neighborhoods and city leaders in taking the next-steps to achieve built environment--street and land use-- policy transformation; and
- **Inspire** each participant in the movement towards active living and healthier community design.
- **Inform** policy updates for the Plan4 Las Cruces Healthy Community chapter.

Many positive signs and trends, including emerging neighborhood leadership, pride of place, diversity of building stock and a sense of community were found. There are many encouraging indications that people are ready to work together, towards a healthier future.

This report provides Las Cruces guidance in steps the City can take to ensure healthier city design to support improved health and well-being. It is organized around a process of engagement, from building relationships and assessing existing conditions to creating and ultimately implementing policy language. The report key findings include:

- **Introduction:** 'Why' health matters to city design. The design of the city not only affects the physical, social and financial health of residents it also affects the financial health of the city budget.

- **Process of Engagement - Visioning Together:** Overwhelmingly, residents of Las Cruces voiced the need and desire to have more daily destinations (grocery stores, schools, work, parks, restaurants and ca-

fes) within walking distance of their home and to have more housing and transportation choices.

- **Policy Recommendations & Best Practices:** The policy recommendations focus on helping the City transition back to traditional city-making principles focused on people, moving away from the sprawl and auto-driven designs of the past. Policies to achieve this, and other health outcomes, include ensuring more housing options; managing parking; encouraging sub-urban strip transformation into walkable village centers; improving street connectivity by adopting a street connectivity index for all developments; focusing transportation investments on active transportation and Complete Streets; and reducing the impact of "food deserts" by encouraging neighborhood-scale grocery stores, further improving access and equity, among other infill incentives.

- **Walking Audit Key Findings & Opportunities:** Many streets in Las Cruces are overbuilt for one mode: the automobile. Walking, biking, and transit is not convenient, comfortable, or safe in many places throughout the City. The future of transportation must build community and not solely move people and goods through a community. To this end, the City should implement strategies that include: narrowing travel lanes to ten feet, right-sizing roads (or putting overly wide roads on road diets) often by using just paint, and choosing to use safer intersection and crossing treatments, such as roundabouts.

- **Active Living, Healthy Streets Toolbox:** To illustrate and model the opportunities of implementing both transportation and land use best practices, in which the policy recommendations seek to support, three photo-visions were created for Nevada Avenue, University Avenue, and Roadrunner Parkway.

- **Next Steps:** The immediate next step is for the City to review, adapt and include policy recommendations from this report into the Healthy Community section of the Comprehensive Plan.

University Avenue, Las Cruces

Glossary of Key Concepts

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

Age-Friendly Communities: Cities that work for all generations, in which both 8-year-olds and 80-year-olds can move about and access their daily destinations safely and enjoyably. Age-friendly communities are places that provide safe and walkable streets, housing and transportation options, access to key services, and opportunities for residents to participate in community activities for all ages. (See AARP Network of Age-Friendly Communities, www.aarp.org/livable-communities)

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

Charrette: [pronounced, "shuh-RET"] A collaborative session to solve urban-design problems that usually involves a group of designers working directly with stakeholders to identify issues and solutions. It is more successful than traditional public processes because it focuses on building informed consent.

Complete Streets: Roads that are designed for everyone, including people of all ages and abilities. Complete Streets are accessible, comfortable and convenient 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)

Head-Out Angled Parking: Also called "back-in" or "reverse" angled parking, this is arguably the safest form of on-street parking. It offers multiple benefits, including creating 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, seniors or others who need extra help, the open car doors direct passengers to the safety of the sidewalk behind the car, not into traffic. 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.

Livability: In the context of community, livability refers to the factors that add up to quality of life, including the built and natural environments, economic prosperity, social stability and equity, educational opportunity, and culture, entertainment and recreation possibilities. (See Partners for Livable Communities, www.livable.org)

Median Crossing Island: A short island in the center of the road that calms traffic and provides pedestrian refuge. They can be six to 12 feet wide and 20 to 80 feet long. They should be landscaped with low, slow-growth ground cover, and tall trees without branches or leaves at ground height that help motorists see the islands well in advance but don't obstruct sight lines.

Mini Circles: Also called "mini traffic 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 sometimes called traffic circles, rotaries are a form of an intersection that navigates cars around very large circulating islands. An entire traffic circle can be as big as a football field. And can include stop signs and signals. They are not the same as roundabouts or mini circles. Rotaries are cumbersome and complicated and can induce higher speeds and crash rates. Many rotaries in North America and Europe are being removed and replaced with the preferable roundabout.

Roundabouts: Also called "modern roundabouts," they navigate cars around a circulating island, usually up to 60 feet in diameter. Roundabouts are ideal for collector and arterial roads, and at 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 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. (See Federal Highway Administration, www.safety.fhwa.dot.gov/intersection/innovative/roundabouts)

Road Diet: On an overly wide road that has too many vehicle travel lanes to be safe, lanes can be removed and converted to 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.

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)

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. EPA, www.epa.gov/smartgrowth/ and Smart Growth America, www.smartgrowthamerica.org)

Street Trees: Street trees not only provide shade and a nice environment, but also help protect 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. They also provide a physical buffer between cars and children. 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 placed between parking stalls, which further reduces travel speeds. Depending on the species, they should be spaced 15 to 25 feet apart.

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.

Village Center: Locations that provide a mix of uses, including commercial, residential, office, and recreational spaces (i.e. parks, plazas, or other open space). Walkable village centers often transform sub-urban strip centers into more livable places. (See 10 Tips for Changing a Shopping Center to a Village Center, www.commonsensecommunitydesign.org)

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 first-hand the conditions that either support or create barriers to walking and biking.

Walk Score: An algorithm that awards points based on the distance of amenities (e.g. parks, schools, grocery stores, cafes, restaurants, civic uses) to any address, providing a walkability score (0-100) to help people find a walkable place to live. (See Walk Score, www.walkscore.com)

Introduction

The health of our nation is in crisis: chronic disease is on the rise, health care costs are spiraling up and inequities are growing. More and more children are facing illnesses that have historically been associated with adults and today's young people may be the first generation of children in the United States with shorter life expectancies than their parents.[1] At the same time, we have seen a loss of active-living practices.

In the U.S., walking or biking to school used to be normal practice. In fact, in 1969, nearly 90 percent of children who lived within a one-mile radius of school walked or biked to school; more than 40 percent of all children did so. In recent years, however, "active" ways of getting to school have become the exception: now, only 42 percent of children who live within a mile of school walk or bike to school; and only 15 percent of all children do so.[2] Additionally, we face urgent environmental problems—such as climate change, water shortages, the loss of habitat and other natural resources—which will pose additional health challenges.

There is an increasing body of literature that connects the environments in which people live, work, learn and play as having a tremendous impact on their health. The Danish Twin Study established that only about 20 percent of how long the average person lives is dictated (within certain biological limits) by genes. The other 80 percent, is dictated by the environments in which we spend our time and the lifestyle choices (behaviors) those environments offer. A frequently cited statistic is that a person's zip code can be a larger determinant to his or her health than any other factor, including genetics.[3]

The type of community in which a person lives impacts his or her health in multi-layered ways, from the natural environment (the cleanliness of local air, land, and water), the built environment (the availability of local opportunities for healthy, affordable food and ways to be physically active, or move naturally) and social environment (the presences of social support systems and importunities for education and good jobs).
The design of a city places an important role in helping to address the 'upstream' social determinants of health—the social, economic and physical environment in which citizens live, work and play.

The most energy efficient and least costly mode of transportation is muscle power.

People who live in neighborhoods with sidewalks are 47% more likely than residents of areas without sidewalks to be active for at least 39 minutes a day.

Source: "Neighborhood Environments and Physical Activity among Adults in 11 countries." American Journal of Preventive Medicine

Solutions to the built environment that promote better health outcomes, livability, and overall community resiliency will require collaborative efforts across many sectors and all levels, including government agencies, citizens, businesses and other civic partners—health institutions, colleges, universities, philanthropic organizations, land trusts, arts and cultural organizations, among others.

The good news: a walking renaissance is upon us. We are walking more as a nation for fun, health and to access daily goods and services—grocery stores, coffee shops, pharmacies, friends' houses or places of worship—in our neighborhoods. Today, 79 percent of Americans want walkable neighborhoods, according to a Community and Transportation Preference Survey by the National Association of Realtors (NAR) and Portland State

1 The New England Journal of Medicine, "A Potential Decline in Life Expectancy in the 21st Century," (2005); at http://www.nejm.org doi/full/10.1056/NEJMsr043743
2 Safe Routes to School National Partnership
3 Harvard Gazette: "Zip code a better predictor of health than genetic code," (2014); at http://news.harvard.edu/gazette/story newsplus/zip-code-better-predictor-of-health-than-genetic-code/

University. In fact, demand for walkable communities is far out-pacing supply, only 14 percent of neighborhoods are walkable, meaning they have a mix of housing types and uses (or destinations) to walk to and streets (routes) that are safe and accessible to all users, but especially people on foot or bicycle, and people of all ages and abilities. The NAR study found that people with places to walk to are more satisfied with the quality of life in their community.[4] The City of Las Cruces Planning Survey (April 2015) found similar preferences and support for more walkable neighborhoods and places.

The majority of residents would like to have more of their daily needs—work, shop, school, and play—within walking or biking distance to their home. The survey found strong public sentiment for growth that enhances quality of life by directing growth towards infill and mix-use developments specifically within core areas of the City (56%) versus undeveloped areas at the edges of the City (29%).

When asked to rate the need for various businesses, stores and other amenities within walking distance to their home residents responded:

73% said more work opportunities
64% said better access to affordable healthy food
62% said more community events such as farmers markets and other types of festivals/gatherings
60% said more places to walk/bike to (in general)
56% said more pedestrian friendly streets
54% said more parks and open spaces
49% said they'd like to have access to public transportation
49% said a grocery store

A growing number of Las Cruces residents frequently walk and bike, but there are things that can be done to enhance and encourage more physical activity and improve the walking and biking experience:

68% said dedicated bike paths that are built away from the street
66% said additional trees and shade
57% said sidewalks that are set away from the street curb
51% said wider sidewalks
51% said more crosswalks
31% said lower speed limits

We have engineered natural movement out of our daily lives.

Historically, we have applied advanced engineering to move more cars and to move them faster. The result: streets that accommodate cars and deter people from active transportation. Land settlement practices—strip centers, cul-de-sacs, poorly sited schools, and single-use zoning—compound the problem, producing auto dependency. Our auto dependency is furthered by development patterns that have changed the form of communities from walkable, transit oriented, street grid systems to strip and single-family development accessed by regional automobile corridors. Level of Service (LOS) focuses on vehicle mobility at the expense of all other modes. We generally do not consider acceptable Levels of Service for pedestrians, bicyclists and transit users.

Various trends are changing the projections for future travel demands; that is, they are changing our understanding of the type of transportation systems people will want and need in the future. Aging population, rising fuel prices, growing traffic problems, increasing health and environmental concerns and changing consumer preferences are all increasing demand for walking, bicycling and transit.

The benefits of supporting active transportation (walking, biking and transit), and thus improving walkability and livability, are numerous. Active transportation improves health and reduces health-care costs, less parking is needed, and it alleviates pressure on roadways that are nearing saturation and have very little "growing room." Promoting active transportation is the lowest-cost way to reduce vehicle-miles-traveled (VMT) and thereby keep motorized traffic moving smoothly. Beyond that, more than 25 percent of all trips people take are within walking distance (20 min walk) and 60 percent are within bicycling distance (20 min bike).

4 National Association of Realtors and the Transportation Research and Education Center at Portland State University, Preference Survey; 2015.

Having the option to walk or bike – or move naturally – makes sense.

In fact, 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 one-point increase in Walk Score* is associated with a $500 to $3,000 increase in home values.[5]

- 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 is also correlated with more than a 5 percent reduction in air pollutants that are associated with vehicle travel.[6]

- 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 health-care savings that could repay the cost of installing the sidewalks.[7]

- A majority of adults view neighborhood infrastructure as highly important to physical activity.[8]

Other benefits of encouraging active transportation include:

- Protection of natural and cultural resources
- Increased economic development
- Reduction in crime and violence
- Opportunities for social connections and community building
- Reduced sprawl and infrastructure costs
- Transportation equity
- Ability to age in place

5 CEOs for Cities, 2009
6 Journal of the American Planning Association, 2006
7 Journal of Preventive Medicine, 2010
8 Journal of Physical Activity and Health, 2011

Further, when cities 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 build transportation through communities or we can build communities through transportation. The good news is that communities that choose to prioritize pedestrian safety and invest in safer street design see fewer deaths and injuries, while improving the overall health and quality of life of the community. When the needs of all users—all ages, abilities and modes of travel—are properly balanced, our streets are safer and easier to navigate for everyone.

The big dividend: if we design streets to not just be safer, but to also be more comfortable and inviting for people walking and bicycling, activity as well as business profitability, increases. The benefits should not be minimized.

These are the choices we have before us. Livability and healthy communities are achieved when we set our course to complete streets and embrace well-being.

Presently, too many of Las Cruces' streets solely prioritize vehicle movement. Because of this, the primary role of streets is to move people in vehicles quickly. This deters other modes of transportation, especially people walking, biking and using transit. Over-reliance on one system has led to an imbalance where walking and bicycling have become challenging and unnatural activities, limiting choices. A focus on building livable, healthy, better connected communities recognizes the significance of streets and transportation investments in individual and community life. It starts, first, with the policies and codes a city has in place.

By ensuring policies better support health, active living and a balanced transportation and development pattern, Las Cruces can improve the health, happiness and productivity of residents (and the City budget). To help determine how best to go about this effort, the Blue Zones team

listened to residents and local leaders and observed existing conditions by walking and biking with local experts (citizens), which helped inform the overarching policy opportunities and best practices recommended in this document.

The report outlines the ways in which elected leaders, city staff and residents can support Las Cruces' livability and healthy community goals in updating the Plan4 Las Cruces Comprehensive Plan. Las Cruces needs leaders in effecting change so that healthy transportation becomes a normal choice and routine part of every day.

Everybody has the right to walk, and the experience should be one that is safe, comfortable, and convenient.

BY THE NUMBERS

Rates of obesity and overweight remain high in the State of New Mexico

1 in 3 third grade students is overweight or obese*

1 in 4 kindergarten students is overweight or obese*

24% Adults in New Mexico are obese (2016)**

23% Adults in Dona Ana County are obese (2016)**

*New Mexico Childhood Obesity Update: 2015
**County Health Rankings & Roadmap, Robert Wood Johnson Foundation

Mode Share to Work, City of Las Cruces***

81% *Drive Alone*

2.6% Walk

2.2% Bicycle

0.7% Public Transit

***U.S. Census Bureau, 2014 American Community Survey 1-Year Estimates

AARP Livability Index****

Livability Score: City of Las Cruces

**** The Index scores the overall livability of a selected neighborhood, city, county, or state on a scale from 0 to 100. It is based on the average score of seven livability categories—housing, neighborhood, transportation, environment, health, engagement, and opportunity—which also range from 0 to 100. livabilityindex.aarp.org

It costs **$2.8M** per year for **one fire station** with two apparatus. A **well connected** system covers **4.6 times more houses**. The annual cost per household in a **well connected** neighborhood is **$159**.

Poorly connected, the annual cost per household is **$740**.

Source: Smart Growth America, "Building Better Budgets," May 2013.

How to Get to Livability

Livability calls for combining transportation with land use. People will walk when we design places and streets that make walking a natural activity again. Sidewalks, bike lanes and crosswalks are not enough. We can start by providing people with destinations within reach with both safe and comfortable routes to get them there.

Generally, people will prefer to walk five-minutes to reach a destination; this is about a quarter-mile for the average person. If the built environment is well shaded, homes watch over streets and there are decent destinations, then a 10-20-minute walk (or about one-half to a full mile) is acceptable to many people. Now, consider bicycling. A bicyclist riding a leisurely 12 mph covers a mile in eight minutes, two miles in 16 minutes and three miles in about 24 minutes. When communities make moving naturally the easy choice, a person can achieve a heart-healthy lifestyle.

Walkability and its associated placemaking is the source of future job growth. Walkability helps incentivize the placement of buildings, streets, parks and other infrastructure in ways that reduce the growth of traffic and ease congestion. In addition, walkability reduces environmental and economic costs associated with expanding roads, parking and drainage. In short, walkable communities put people in healthy motion and keep taxes low. Recent research reveals that sprawl-friendly Atlanta, Georgia had to increase its taxes 27 percent during a period where Portland, Oregon, more walkable in focus, reduced their taxes 21 percent. [1]

Street connectivity is key to the decrease of taxes. For example, a well connected street system keeps the cost of fire service down to about $159 per household, where disconnected patterns in neighborhoods force costs upwards of $740 per household.

Street layout provides the 'skeletal' form to a city, determining how the city will function and how directly one can get from point A to point B. A grid of streets with relatively small blocks (200 to 600 feet) and frequent intersections suits pedestrians, bicyclists, motorists and transit users the best because every intersection presents a choice of routes. A higher number of intersections indicates better connectivity. Where blocks are long, walkable neighborhoods feature alternative routes for pedestrians and bicyclists that offer shorter trips or quite, safe respites from traffic, which often lead through courtyards, between buildings and other public places. An example of a pedestrian-only routes are sprinkled throughout downtown Las Cruces.

In Las Cruces Current Block Patterns Reduce Walkability

Las Cruces' newer neighborhoods are mostly suburban in character, and are disconnected, isolated and sometimes walled off. Block patterns are curvilinear, often ending in loops and cul-de-sacs. Blocks are long, which often encourages high vehicle speeds. A typical walk-around-the-block in these neighborhoods is 3,000 to 3,500 feet. By comparison, block perimeters in walkable neighborhoods are about 1,000 to 1,800 feet.

Traditional development integrated our land uses, placing schools, parks, shopping and housing within walking distance. This allowed the majority of trips to be "internal" or within the community, which makes walking easier. Sprawling development patterns have changed how people access goods and services. Segregated land uses in which residential is kept apart from commercial and schools are sited on large tracks away from other uses, requires that we get into our cars and leave our

1 Smart Growth America, "Measuring Sprawl," 2014.

neighborhoods to meet our daily needs. This type of segregated design forces almost 100 percent of trips to be external, meaning that people need to leave where they live in order to access goods and services.

Congestion increases with broken connectivity and it also forces all users onto a limited network of streets, which can make walkability and active transportation challenging.

In traditional pattern, such as a grid system, which are human scale and highly walkable environments, the load each street bears is far less. Motorists have opportunities to get around obstacles and to take their preferred route. Las Cruces' historic neighborhoods and downtown have this traditional pattern.

The street x-ray, on right, shows a zoomed-in look at East Las Cruces neighborhoods' current street pattern (top image). The development of the street network is defined by curvilinear streets that often end in loops or cul-de-sacs. Today, City codes and policy permit this type of design. The bottom image shows the effective or functioning streets that define connectivity. The effective street network greatly reduces internal route options, especially compared to the more traditional grid-like pattern of the neighborhood pictured in the lower left-hand corner.

To improve livability, city financial health and ensure better health outcomes through the design of the built environment the City should ensure a street connectivity policy is integrated into the comprehensive plan update.

Specifically, to support walkability adopt a maximum block length policy (between 200 to 600 feet (max)) and a "link to node" strategy for future developments

Current Street Network

East Las Cruces Area

Effective Street Network

to insure short block lengths and intersection density (e.g. a minimum number of intersections per acre). Where long blocks occur (already exist) require mid-block crossings and pedestrian pathways every 200-300 feet to increase the areas walkability. This rewards the short trip and active transportation, maximizing the effectiveness of the network. Street connectivity supports the City by planning and requiring a robust network of streets and blocks to organize any development into a walkable and livable pattern. When it comes to laying out the 'bones' of the City, walkability makes sense, winning on almost every count.

Where to Invest First?

To shift from current sprawl and strip-inducing practices that largely characterize Las Cruces it will require a disciplined plan and program. Updating the Comprehensive Plan—the City's DNA or guiding document that provides the Vision, Goals and Policies that shape the form and function of how the City operates and grows—is an important first step.

Decisions about where to build [capital projects: school buildings, roads, highways, sewer, water facilities, libraries and utilities] will have implications for a third of a typical municipality's budget. Building a walkable community can save cities 38 percent on infrastructure costs while generating 10 times more tax revenue per acre than conventional suburban development. A study for Raleigh, N.C., concluded that a six-story building downtown produces 50 times as much property tax revenue per acre as an average Walmart store. Even a three-story residential building produces more property tax per acre than a major shopping mall.[2]

Invest from downtown out. Continue working from the downtown core out into surrounding neighborhoods (i.e. University district); the policy recommendations in this report support this direction. Implementing early wins in the downtown and close-in neighborhoods will provide sufficient added capital to invest to bring back those communities that are key to overall good housing and location—proximity to daily services.

Launch infill and connectivity projects to create the most community benefit. Attract the best developers and show investors the successes of the new model of walkability and livability.

Meanwhile, any incentives that induce inappropriate growth must be identified and revised. New policies and practices that incentivize density need to be adopted such as an urban design guide and street connectivity index for permitting developers, providing more clarity and certainty. In addition, new street design policies and practices are needed, including implementing the Complete Streets policy, making narrower—ten foot—vehicle lanes the default, adopting and adapting a street design guide manual and using safer, more efficient intersection treatments such as roundabouts. Consider adopting a "roundabouts first" policy.

Set in motion those actions that will achieve early wins. Model projects in a variety of neighborhoods are needed.

Las Cruces has many opportunities to do so. Most of them can be achieved with no other resource than paint and signage. Others enable youth, adults and seniors to make their own commitment, get their hands dirty and engage in helping to make their community, their city even better.

Blue Zones' principles for building walkable, livable, healthy communities:

1: Build Multi-Modal Communities

Prioritize development of multi-modal communities that provide residents of all ages and abilities and all economic levels with safe, reliable, comfortable and economical transportation choices.

2: Promote Safety

Design streets where people walking, parking, shopping, bicycling, working and driving can cross paths safely, reducing serious injuries, decreasing crime and ensuring accessibility for all.

3: Design for Health

Design, operate and manage streetscapes and public spaces as

2 Smart Growth America, "Building Better Budgets," 2013.

ecosystems. From previous pavements to street trees that provide shade and are critical to the health of cities, these all promote active living by lessening the exposure to sun, air and noise pollution and water and soil contamination.

4: Invest in Great Streets, They Mean Business

Streets are an economic asset as much as they are a functional element. Invest in transportation improvements, including operational improvements that support the economic health and competitiveness of the City's businesses and general welfare of its residents. People-friendly streets generate higher revenues for businesses and higher values for homeowners.

5: Integrate Transportation and Land Use, Reward Short Trips

Cities and regions should coordinate transportation infrastructure with land use and development, reducing Vehicle Miles Traveled (VMT) and rewarding short trips.

6: Embrace Streets as Civic and Social Space

City streets should be regarded as important spaces for civic and social engagement and will be developed to promote health, economic vitality and well-being while reflecting a city's unique character and maintaining movement.

7: Act Now!

Implementing projects quickly, using low-cost materials, helps inform public decision-making. Cities across the U.S. have been paving the way using a phased approach to major redesigns, with temporary or semi-permanent materials used in the short-term and later replaced by permanent materials once funding is available and the design has been tested. Implementing model projects helps community members share in built environment transformation, and see policy in action.

The following pages outline the process to engage community members to create more informed policy recommendations and best practices in active living and street design. The report should be used as a guide as the City works to update the Comprehensive Plan and other technical plans.

> *"Never again should we think of a healthy community without thinking of how that community is linked to transportation choices, educational opportunities, safe neighborhoods, a vibrant ecology and economy, healthy food choices, affordability and access to arts and humanities. And never again should we sit back and let a zip code be the determinant of health and well-being of a child."*
>
> - Ron Sims, Former U.S. Deputy Secretary of Housing and Urban Development (HUD)

Process of Engagement: Visioning Together

Successful projects need local government and community stakeholders to work together, collaborate in planning and decision-making, and share responsibility for bringing a policy or project to implementation.

Blue Zones places community at the center of a policy, street-making or city planning process, leading to better answers and a deeper public ownership of the future—after all, what is a city, but its people? Policy and technical solutions can be easily developed. However, community acceptance is the key to being able to transform the ideas to reality.

The Blue Zones team and City staff listened to community wisdom through:

1. Focus group meetings, which included:
    - Community advocates and non-profits
    - Business and development community
    - NM State University students and administration
    - Planning and Zoning Commission and other advisory board members
    - Regional partners - County, State, BLM, MPO
    - Health professionals
    - School leaders and administration
2. Walking audits - or on-street mobile workshops
3. Bike audit
4. Staff training
5. Visioning Fiesta, held during the Saturday Farmers' Market

Issues and opportunities were identified and potential solutions were discussed and agreed upon—consensus built —during these events that inform policy recommendations and next steps for the Healthy Communities element of Plan4 Las Cruces.

What We Heard - Focus Groups:

Safer streets for all people and users, especially people walking and biking. Let's change the mode share.
– Chair Pedestrian & Bicycle Committee

Ideal climate for biking, but it's a horrible town to bike in. Ideal climate for walking, but it's a horrible town to walk in.
– Community Advocate

Strengthen and build social connectivity.

– Community Advocate

There are food 'deserts' in many places of our community. We need to foster and build a healthy, equitable, accessible and sustainable food system.

– Staff, La Semilla

Certainty for developers; public-private partnerships; flexibility in designs and code. – Developer

Our hope is to establish a community where healthy behaviors are supported and learned early in life in order to reduce the burdens of obesity and chronic disease occurring in our community through the Healthy Kids Las Cruces initiative.

– Staff, New Mexico Department of Health

The School District recently adopted policy to have Safe Routes to School (SRTS) programs in all school.

– School Advocate

I hope Las Cruces finds new ways to fund infrastructure revitalizations that are bike-friendly; this is important if we want to attract and retain young professionals.
– Local Realtor

What We Heard - Walking Audits:

Pioneered by Dan Burden, a walking audit is a powerful educational tool that lets participants see, feel and hear the treatments and principles of walkability in action on their streets.

Walking audits encourage a community-based approach to city planning. Since the people who live, go to school, work and play around a site already know what issues and strengths the area is dealing with. They are the experts, and their knowledge is heard and seen as the most important resource for determining how a policy or site—street, trail, school, or neighborhood—will be shaped.

Six walking audits were held throughout the City. Representing each of the six Council Districts, elected leaders, residents, City staff, school leaders, and business leaders came together to identify conditions that affect walkability, active living, social connectivity and access to daily needs at six specific locations. A seventh walking audit was held with the Mayor.

The walking audits helped to illustrate how Complete Streets treatments, traffic-calming tools, and other national best practices in street design could be applied to existing streets and intersections, while educating and beginning to build social capital—community buy-in and ownership— in potential solutions that help inform policy recommendations.

> "When people walk together, they are not only in step with one another, they discover, dream and achieve together."
>
> - Dan Burden

Walking audit participants created a "human" mini circle, modeling the tool.

A mini circle in Phoenix, AZ acts as a neighborhood traffic calming tool, slowing motorists and improving neighborhood safety while celebrating local character.

Walking audit participants.

What We Heard - District 1 Walking Audit:

Place: **Branigan Library**
March 30, 2016

The 'Litmus Test' is how well we treat our children and elderly. My hope is that we can continue to engage community to truly build community.

– Council member Gandara

Places to walk to with safe, well marked crossings.

– Resident

Preserve and enhance the adobe, Southwest, style and character of buildings within the community.

– Community Advocate

More choice (e.g. transportation, housing, food)!

– Resident

What We Heard - District 2 Walking Audit:

Place: **Convention Center**
March 30, 2016

More community-connectedness with everyday destinations within safe walking distances.

– NMSU Student

More attractive outdoor spaces and more healthy eating destinations.

– NMSU Student

Safe, friendly and accessible to all bike riders and pedestrians, improving our lifestyle and making Las Cruces a destination– boosting our economy.

– SRTS Coordinator

Connect Downtown to the Convention Center/ University area, by transportation options that gives people a reason to get out of their cars

– Council member Smith

Uniform code that encourages the urban form versus suburban form.

– Resident and Local Developer

A network of vibrant neighborhoods that connect with central gathering places like NMSU, downtown, schools, major parks. – Resident

A school, park, grocery store, and restaurant within walking distance of every residence. – Resident

Walking audit participants walk-talk University Avenue, better understanding the pedestrian, bicycle and transit experience.

What We Heard - District 3 Walking Audit:

Place: **Hermosa Heights Elementary**
March 31, 2016

Access [with transportation choices] to grocery stores, schools, and doctors for all people and all ages.

– Council member Pedroza

We would like to see the ability to walk safely from South Navarez across Lohman to the park. Right now the six lanes [on Lohman] is just too scary. In my opinion this is the most dangerous corridor for pedestrians; you just don't see any pedestrian support.

– Assistant Principal, Hermosa Heights

Community connectivity.

– Resident

Safer, more supportive crossings on Lohman, especially to help kids across the street, maintaining their independence.

– Teacher

Images from the walking audit in District 3.

What We Heard - District 4 Walking Audit:

Place: **Railroad Museum**
March 31, 2016

More trails and protected bike lanes. It is very difficult to get across Picacho, for example, on a bicycle, especially if you don't feel comfortable riding with traffic.
– Resident

A walkable and bikeable community where all generations interact on a daily basis and where you feel safe in your neighborhood.

– Resident and City Pedestrian and Bicycle Committee Member

Gardens in people's front yards...bus service that is actually usable--current service is too infrequent and too far in between stops..small food stores in the neighborhoods; big box stores do not encourage fresh foods on a regular, easy basis.
– Resident

A sense of pride and ownership. Residents and business owners landscape and pick up their trash; streets in good repair; bike lanes; a thriving downtown with shops and restaurants; more parks, especially pocket parks; vacant lots with new business, community centers; better bus services; and dogs allowed everywhere. *– Resident*

More traffic calming, clear crosswalks, more trees, and other ways to shrink the streets to make them feel smaller. *– Resident*

Images from the walking audit in District 4.

Images from the walking audit in District 5.

What We Heard - District 5 Walking Audit:

Place: **Cesar Chavez Elementary School**
March 29, 2016

More infill instead of sprawl; support for local of business, not just chains; all the quality of life aspects --protect beautiful views, mountains, expanded recreational opportunities, etc.

–State Senator Soules

More places, such as walking and biking paths, that allow us to live more of a healthy lifestyle and rely less on automobiles; it's a safety issue all around.

–Vice Principal, Cesar Chavez Elementary School

More convenience– to stores and business– while preserving the safety of the community.

– East Mesa Resident

Easier to get around for kids and families. To give them more opportunities to be active and health conscious to prevent long-term effects caused by sedentary [inactive] lifestyles.

- Student, NMSU

Everyone can walk or bike to school, work, shop, play, and visit with friends, and we only drive on the weekends (for the most part). And everyone knows this.

– Council Member Sorg

What We Heard - District 6 Walking Audit:

Place: **Desert Hills Elementary**
April 1, 2016

More community-connectedness with everyday destinations within safe walking distances.

– NMSU Student

Preserve and protect open spaces and agricultural areas.

– Resident

Continue to work together to create a City that works for all of us.

– Resident

More bike lanes, sidewalks and walking areas. A large part of the City does not have sidewalks or safe places to walk and bike. That needs to change, helping to encourage more healthy exercise and commuting.

– Resident and NMSU Student

Interconnected communities each with its own unique character, culture and amenities.

– Resident & City Staff

More destinations within walking distance - little micro communities within Las Cruces where you can do a lot of things. *– Resident*

All residents have the ability to access their needs without automobiles.

– Resident

Images from the walking audit in District 6.

What We Heard - Bike Audit:

Safer crossings at intersections and to/from existing trails.

Lack of well-marked crossing at Triviz Drive and Hadley Avenue.

More bicycle and pedestrian support on University Avenue, making walking and biking a priority mode.

University Avenue is a people rich area. Many people were observed darting across the street.

Bicycle Boulevards! Utilize streets with low motorized traffic and speeds by designating and designing them to give bicycle travel priority. The Mesquite neighborhood is a great place to start.

Bike audit participants share their vision for a bicycle priority route through the Mesquite District.

We need a better connected network of bike lanes and pathways. When on-street we should strive for protected bike lanes because we now know that people who would like to bike (families and older adults) don't right now. They are concerned about safety when riding in the road with only a painted line, at best, to separate them from moving traffic.

Wish for Las Cruces

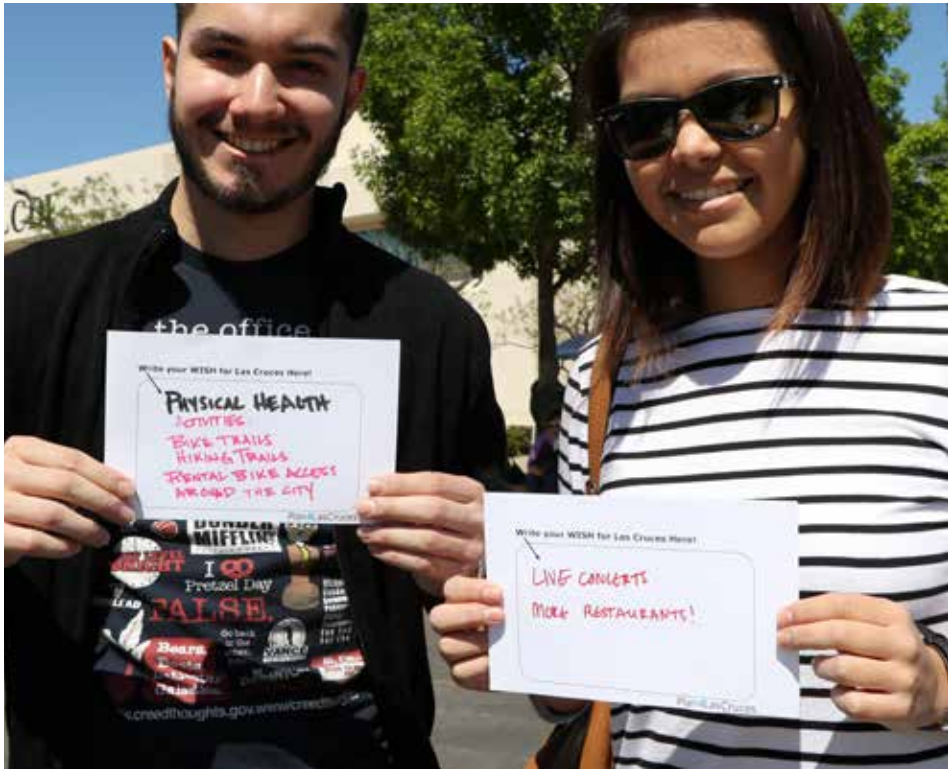
Local mural of young girl blowing bubbles.

It's Our Canvas; Our Community!

During the Saturday Farmers Market Visioning Fiesta, market goers were invited to write down their "wish for Las Cruces." Over 112 people participated sharing their wish: safer streets for people walking and biking, more destinations to walk to within neighborhoods, smarter growth (less sprawl), and preservation and protection of green and open space.

In addition, people were given sticky dots to rank their healthy community priorities. Ranking results (in order of most to least votes):

1. **Transportation Choice and Safe Routes to School (combined)**
2. **Nature**
3. **Education**
4. **Access to Healthy Foods**
5. **Environmental Stewardship, Sustainability**
6. **Health and Wellness**
7. **Arts and Entertainment**



Write your WISH for Las Cruces Here!

Complete Communities

Plan4LasCruces

I see Las Cruces growing up beautifully, with vistas of the Organ Mountains free from telephone wires. Walkable, bikeable, shopable, livable, true neighborhoods open to access, exchange, and entertainment. Green areas and parks dot the town equally. Cars are not the #1 priority. We focus on sustainable, enjoyable quality of life.

Plan4LasCruces

A healthy, safe, vibrant community that is inviting and beautifully unique in expressing our heritage and sustainable vision. Input from all to create this economically successful exchange.

Plan4LasCruces

- MORE IN-FILL INSTEAD OF SPRAWL.
- SUPPORT FOR LOCAL BUSINESSES NOT JUST "CHAINS".
- QUALITY OF LIFE
- FULL SIZE POOL & AQUATIC CENTER.
- EXPANDED RECREATIONAL OPPORTUNITIES ON EAST MESA; GYMS, FIELDS, TRAILS-

Plan4LasCruces

MORE CONNECTIVITY TO GREENSPACES, SCHOOLS, LOCAL GROCERS, ETC. WITH MIXED USE DEVELOPMENTS AND STRESS ON SMALLER MAYBE MORE LOCAL BUSINESSES. MICRO COMMUNITIES.

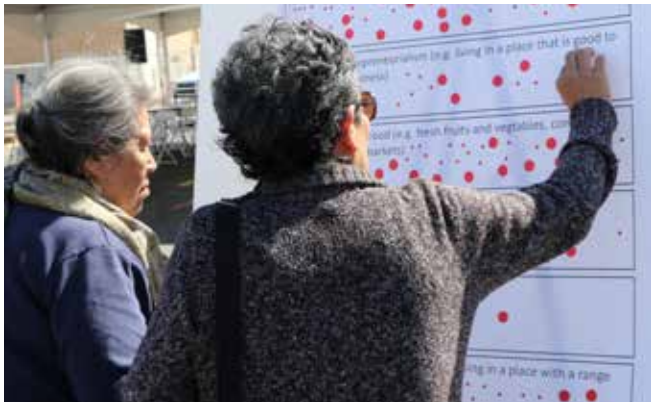
SAFER WALKING & BIKING.

Plan4LasCruces

MORE WAYS TO GET AROUND SAFELY ON THE ROADS BY BIKE & FOOT!

Plan4LasCruces

Response cards for "Wish for Las Cruces" Visioning Fiesta engagement.



Pictured are images showcasing the Community Visioning Fiesta. Together, citizens shared their vision, voted for their healthy community priority areas and wish for their City.

Policy Recommendations & Best Practices for Healthy Communities

Las Cruces looks to continue to promote citizen and community health through local planning and development by updating the "Healthy Community" chapter of Plan4 Las Cruces (Comprehensive Plan). This approach acknowledges that public policy can shape social, economic, and physical environments in ways that are more conducive to health.

Decisions that local governments make about many issues including location of buildings, housing, transportation, food access, public safety, education, sustainability, resiliency, parks, air and water quality, and economic development should be directed toward improving health outcomes.

The social determinants of health—those conditions in the environments in which people are born, live, learn, work, play and age—have a profound effect on how healthy we (and our communities) will be over the course of our lives. Comprehensive plans affect many of the social determinants of health:

- Access to clean air, water, and soil
- Access to parks and open space
- Access to healthy food
- Preservation of agricultural land
- Access to good jobs and economic opportunity
- Access to healthy and affordable housing
- Safe, convenient, comfortable, and accessible transportation systems
- Sustainable development and climate resiliency
- Social connection and community engagement

Las Cruces is committed to promoting health and well-being of all its residents. The City should continue to strive to be an active, inclusive, balanced, and responsive City where healthy habits are encouraged rather than discouraged by the environments we build. Achieving this requires acknowledging previously ignored links between built environments and health, particularly the influence of land use, density, transportation strategies, and street design have on chronic disease and health disparities. Quite simply, the values of a culture are expressed in the planning and design of its city.

The following are policy recommendations (model language) that are national best practices. The recommendations seek to support the City in strengthening existing policy statements, as well as, provide new policy language to strengthen the need (as heard by the community) for mixed-use, neighborhood commercial, transformation of suburban-oriented corridors and centers to walkable villages, improved access to parks, fresh food, transportation choice, design flexibility, and equity. The policy recommendations on the following pages will need to be further vetted through the Comprehensive Plan update process.

SUB-THEME: Balanced Development

Includes:
Mixed-Use
Complete Neighborhoods
Housing
Healthy Design

RATIONALE: Ensuring balanced development through safe, attractive mixed-use, and complete and connected neighborhoods support health not only by allowing residents to be physically active through daily activity, such as walking to school, work, play and shopping, but also by increasing access to other health-related infrastructure– everything from medical facilities to fresh food. Research suggests that greater land use mix is correlated with lower obesity.[1]

In addition, balanced development supports health through housing design and housing diversity, ensuring Las Cruces has a range of housing types for the future.

1 McCormack G, Giles-Corti B, Bulsara M. The relationship between destination proximity, destination mix and physical activity behaviors. Preventive Medicine, 2008; p. 33–40.

Policy 1 Urban Design Guide. Establish an "Urban Design Framework" as a guide to create inclusive and enduring places, while providing flexibility for implementation at the local scale to meet the needs of local communities. Include form-based codes, focusing on form of building, relationship to street and public spaces, density (often measured by floor area ratio and dwelling units per acre).

Policy 2 Growth and stability. Direct the majority of growth and change to key centers (i.e. Downtown and Convention Center), corridors (i.e. University Ave), and future transit station/hub areas.

Policy 3 Equitable development. Guide development, growth, and public facility investment to reduce disparities; encourage equitable access to opportunities, mitigate the impacts of development on income disparity, displacement and housing affordability.

Policy 4 All ages and abilities. Strive for a built environment that provides a safe, healthful, and attractive environment for people of all ages and abilities.

Policy 5 Land efficiency. Provide strategic investments and incentives to leverage infill, redevelopment, and promote density, maximizing urban land while protecting natural, agricultural and open spaces, and overall environmental quality.

Policy 6 Integrate nature. Integrate nature and use green infrastructure throughout Las Cruces, with an emphasis on native plant species that are drought tolerant.

Policy 7 Mixed-use. Mixed-use development benefits public health by promoting walking and social interaction and will be given priority for application processing.

Policy 8 Mixed-Use locations. Encourage mixed-use, pedestrian-, and transit-oriented development. Focus on major corridors and key intersections. Provide a concentration of neighborhood, community, and retail amenities and services in close proximity to residential neighborhoods. Identify mixed-use nodes and promote walkable village development through means of including the following:

a. Amend Development Code Rezoning to allow residential and/or mixed-use in commercial districts
b. Expand zoning for multifamily housing
c. Flexible parking and building height limitations
d. Density bonus programs
e. Design guidelines for private and public spaces
f. Incentives for infill and redevelopment of underutilized areas, such as surface parking lots

Policy 9 Pedestrian-oriented design. Enhance the pedestrian experience throughout Las Cruces through public and private development that creates accessible, safe, convenient, and attractive places for all walking and/or use wheelchairs or other mobility device trips.

Policy 10 Street orientation. Promote building and site designs that enhance the pedestrian experience with windows, entrances, pathways, and other features that provide connections to the street environment.

Policy 11 Street pattern and network. Encourage short block lengths of approximately 250 to 400 feet, featuring more compact intersections, which provides more developable land (corner lots), route options for people walking and driving improving traffic circulation, slower vehicle speeds, increased efficiency, and reduced strain on major roads.

Policy 12 Street environment. Encourage development to include amenities that create a people-oriented environment, providing places for people to sit, spend time, socialize, and gather.

Policy 13 Development and public spaces. Guide development to help create high-quality public places and street environments while considering the role of adjacent development in framing, shaping, and activating the public space of streets and urban parks.

Policy 14 Active gathering places. Locate public squares, plazas, pesaos, and other gathering places in neighborhoods, village centers and corridors to provide places for community activity and social connections. Encourage location of businesses, services, and art adjacent to these spaces that relate to and promote use of the space throughout the day.

Policy 15 Alleys. Encourage use of alleys for parking access, while preserving pedestrian access. Expand the number of alley-facing accessory dwelling units.

Policy 16 Design for pedestrian and bicycle access. Provide accessible sidewalks, high-quality bicycle access, and frequent street connections and crossings.

Policy 17 Deign for transit access. Locate buildings and building entrances near transit stops and along transit routes.

Policy 18 Transitional urbanism. Encourage temporary activities and structures, such as liner buildings, in places that are transitioning to urban areas to promote job creation, entrepreneurship, active streets, and human interaction.

Policy 19 Drive-through facilities. Prohibit drive-through facilities in the downtown and central part of the City, and limit development of new ones throughout the City in order to support a people-oriented environment.

Policy 20 Design for active living. Encourage development and building site design that promotes a healthy level of physical activity in daily life.

Policy 21 Crime-preventive design. Encourage building, site, and public infrastructure design approaches that help prevent crime.

Policy 22 Design with nature. Encourage design and site development practices that enhance, and avoid the degradation of, watershed health and ecosystem services and that incorporate native, drought tolerant trees and vegetation.

Policy 23 Street trees. Ensure street trees (native) are planted on the street-side of developments, providing an edge and buffer to the sidewalk and street.

Policy 24 Impervious surfaces. Limit use or and strive to reduce impervious surfaces and associated impacts on water function, air and water quality, habitat, tree canopy, and urban heat island effects.

Policy 25 Access to nature. Promote equitable, safe, and well-designed physical and visual access to nature for all Las Cruces residents, while also maintaining the functions and values of significant natural resources and wildlife.

Policy 26 Neighborhoods. Strive to maintain and create livable, vibrant neighborhoods and districts that provide proximity to daily goods and services within walking distance of homes and a setting for building community cohesion.

Policy 27 Promote neighborhood retail and community nodes in residential areas, within walking distance.

Policy 28 Small, independent businesses. Facilitate the retention and growth of small and locally-owned businesses.

Policy 29 Enhance opportunities for services and activities in neighborhood centers that are responsive to the needs of the populations and cultural groups of the surrounding area.

Policy 30 Housing types. Encourage new and innovative housing types that meet the evolving needs of Las Cruces households, and expand housing choices in all neighborhoods. These housing types include but are not limited to single- dwelling units; multi-dwelling units; accessory dwelling units; small units; per-fabricated homes such as manufactured, modular, and mobile homes; co-housing; and clustered housing/clustered services.

Policy 31 Compact single-family options. Encourage development and preservation of small resource-efficient and affordable single-family homes in all areas of the City.

Policy 32 Aging in place. Encourage a range of housing options and supportive environments to enable older adults to remain in their communities as their needs change.

Policy 33 Gentrification/displacement risk. Evaluate plans and investments, significant new infrastructure, and significant new development for the potential to increase housing costs for, or cause displacement of communities of color, low- and moderate-income households, and renters. Identify and implement strategies to mitigate the anticipated impacts.

Policy 34 Impact of housing on schools. Evaluate plans and investments for the effect of housing development on school enrollment, financial stability, and student mobility. Coordinate with school districts to ensure plans are aligned with school facility plans.

Policy 35 Higher-density housing. Locate higher-density housing, including units that are affordable and accessible, in and around downtown and village centers to take advantage of the access to active transportation, jobs, open spaces, schools, and various services and amenities.

Policy 36 Access to opportunities. Improve equitable access to active transportation, jobs, open spaces, housing, high-quality schools, and supportive services and amenities in areas with high concentrations of under-served and under- represented populations and an existing supply of affordable housing.

Policy 37 Healthy housing. Encourage development and maintenance of all housing, especially multi-dwelling housing that protects the health and safety of residents and encourages healthy lifestyles and active living.

Policy 38 Housing quality. Encourage housing that provides high indoor air quality, access to sunlight and outdoor spaces, and is protected from excessive noise, pests, and hazardous environmental conditions.

Policy 39 High-performance housing. Encourage energy efficiency, green building practices, materials, and design to produce healthy, efficient, durable, and adaptable homes that are affordable or reasonably priced.

Policy 40 Healthy and active living. Encourage housing that provides features supportive of healthy eating and active living such as usable open areas, recreation areas, community gardens, crime-preventive design, and community kitchens in multifamily housing.

Policy 41 Walkable surroundings. Encourage active transportation in residential areas through the development of

pathways, sidewalks, and high-quality onsite amenities such as secure bicycle parking.

Policy 42 Responding to social isolation. Encourage site designs and relationship to adjacent developments that reduce social isolation for groups that often experience it, such as older adults, people with disabilities, communities of color, and immigrant communities.

SUB-THEME: Great Parks & Recreation

Includes:
Parks, Open Space, Recreation
Access, Safety and Security

RATIONALE: People with nearby access to parks are more likely to attain higher levels of physical activity.[2] Living near green—parks, trees, etc.—may help a person live longer.[3] The following recommendations focus on equitable distribution of parks and open space and connectivity to parks and recreation to ensure easy access for most people, improving individual and community health outcomes.

Policy 43 (update to 4.5): Location and size of parks. Locate public parks and open spaces within a maximum of a quarter (1/4) mile, or 5 minute walking distance, from residents/ dwellings.

a. Provide large local parks (2.5 acre minimum) within a quarter (1/4) mile safe walking distance from all dwellings.

b. Provide small pocket pocks within an eighth (1/8) of a mile safe walking distance from all dwellings (update code).

Policy 44 Connectivity. Ensure parks connect to broader walking and bicycling network.

Policy 45 Street Crossings. Ensure parks that are located on high-volume and high automobile speed roads can be accessed via safe, highly visible, at-grade pedestrian crossings that lead to or near park entrances.

Policy 46 Park pathways. Design pathways that allow recreational walking around parks and/or direct passage through parks.

Policy 47 Public space amenities. Landscape open space and other public places (e.g. parks, squares, plazas, and pesaos) to provide pleasant places for people to sit, meet and talk.

Policy 48 Nature integration. Plant tall trunk, broad leaf, and broad canopy trees to provide useful shade for park users. Avoid planting trees that require frequent watering and pruning; promote drought resistant shade-producing trees.

Policy 49 Maintenance. Maintain parks and open space to a high standard to ensure natural surveillance, cleanliness and usability.

Policy 50 Natural surveillance. Ensure homes and development watch over the street and parks/open space, by providing a lot layout that contributes to community social interactions, personal safety and property security by avoiding sides, rears and garage loaded (snout garages) along public open spaces, including streets.

Policy 51 Edges. Avoid solid fencing or walls along park perimeters.

2 Giles-Corti B, et al. Increasing walking: how important is distance to, attractiveness, and size of public open space? American Journal of Preventive Medicine. 2005; p. 169–176.

3 James, Perter, et al. Exposure to Greenness and Mortality in a Nationwide Prospective CoHort Study of Women. Environmental Health Perspectives; 2016.

Policy 52 Park access. Plan multiple entry and exit points.

Policy 53 Public space activation. Encourage the location of clustered activities (e.g. cafés, restaurants, recreational, libraries) within or on the edge of parks or open space.

SUB-THEME: Wide-Ranging Community Services & Facilities

Includes:
Active Transportation
Improved Delivery of Services - Emergency Response

RATIONALE: Police departments all over the world are adding bicycles to their community policing programs, increasing community engagement, communication and safety as cops on bikes are often seen by community members as being more approachable than when in a car.[4] Additionally, street network—highly connected streets and short blocks—offer emergency responders more route options, shorter response time, and is more cost effective to the City.[5]

Policy 54 Active and engaged community police. Establish cops on bikes to community policing and neighborhood watch programs.

Policy 55 Street network. Encourage street connectivity —short block lengths—as it relates to fire and police response time.

SUB-THEME: Multiple Mobility Options & Connections

Includes:
Transportation (e.g. strategy, safety, choice, access)
Active Transportation (walking, biking and transit)
Trails
Streets as Public Places

RATIONALE: Increasing active transportation —walking, biking and transit—is a key strategy to creating healthy communities. It promotes physical activity through daily exercise, reduces air pollution by encouraging mode choice, and connects residents to the community and daily services. Research links increased physical activity with access and use of transit, since transit use typically involves walking to and from a bus stop.[6]

The following policies help set the framework for the City in order to make the shift to more healthy, equitable and sustainable modes of transportation, including traffic-reduction policies such as traffic calming measures and measures to reduce Vehicle Miles Traveled (VMT).[7] Additionally, recommendations look to ensure transportation choice by integrating land-use and transportation. Many of the policies outlined here should be used as guidance in updating other chapters of Plan4 Las Cruces and Municipal Code. For example, street classifications and standards (10.6 Community Character: Flexible Design Section and Municipal Code) still direct function and design based solely on automobile capacity and efficiency, which does not promote healthy, connected, walkable communities.

Lastly, an overarching recommendation is to change “alternative modes” to “active modes” (e.g. 10.3, 10.8).

4 Kariya, M. “How to start a bicycle patrol unit” 2004 <https://www.policeone.com/police-products/bicycles/artcles/88357-How-to-start-a-bicycle-patrol-unit/> Retrieved May 2016.

5 Snyder, R., et. al Best practices emergency access in healthy streets; March 2013. <https://www.cnu.org/sites/default/files/Best-Practices-Emergency-Access-in-Healthy-Streets.pdf> Retrieved May 2016.

6 Ewing R. Pedestrian- and Transit-Friendly Design. Urban Land Institute/ American Planning Association; 2009.

7 Schmitt, A. The Feds Want to Reform the Cult of “Level of Service,” Streetsblog. Thursday, January 28, 2016. <http://usa.streetsblog.org/2016/01/28/the-feds-want-to-reform-the-cult-of-level-of-service/> Retrieved May 2016.

Policy 56 Mode share goals and Vehicle Miles Traveled (VMT) reduction. Increase the share of trips made using active transportation modes. Reduce VMT.

Policy 57 Transportation strategy for people movement. Implement a prioritization of modes for people movement by making transportation system decisions according to the following ordered list:

1. Walking / Fire response
2. Bicycling
3. Transit
4. Taxi / commercial transit / shared vehicles
5. Zero emission vehicles
6. Other single-occupant vehicles

When implementing this prioritization, ensure that:

a. The needs and safety of each group of users are considered, and changes do not make existing conditions worse for the most vulnerable users higher on the ordered list.
b. All users' needs are balanced with the intent of optimizing the right of way for multiple modes on the same street.
c. When necessary to ensure safety, accommodate some users on parallel streets as part of a multi-street corridor.
d. Land use and system plans, network functionality for all modes, other street functions, and complete street policies, are maintained.
e. Policy-based rationale is provided if modes lower in the ordered list are prioritized.

Policy 58 Design flexibility and innovation. Update and implement transportation design guidelines to ensure the City has access to industry tools and best practices that are proven safety countermeasures and increase physical activity and promote mode share/shift and reduce VMT.

Policy 59 Affordability and Choice. Improve and maintain the transportation system to increase access to convenient and affordable transportation options for all Las Cruces citizens, especially those who have traditionally been under-served or under-represented or have historically borne unequal burdens.

Policy 60 Accessible and age-friendly transportation system. Ensure that transportation facilities are accessible to people of all ages and abilities, and that all improvements to the transportation system (traffic, transit, bicycle, and pedestrian) in the public right-of-way comply with the Americans with Disabilities Act. Improve and adapt the transportation system to better meet the needs of the most vulnerable users, including the young, older adults, and people with different abilities.

Policy 61 Land use and transportation coordination. Ensure that street policy and design classifications and land uses complement one another.

Policy 62 Development and street design. Evaluate adjacent land uses to help inform street classifications in framing, shaping, and activating the public space of streets. Guide development and land use to create the kind of places and street environments intended for different types of streets.

Policy 63 Streets for transportation and public places. Integrate both placemaking and transportation functions when designing and managing streets by encouraging design, development, and operation of streets to enhance opportunities for them to serve as places for community interaction, environmental function, open space, tree canopy, recreation, and other community purposes.

Policy 64 Re-purposing street space. Encourage re-purposing street segments that are not critical for transportation connectivity to other community purposes (e.g. pavement to parks).

Policy 65 Design with nature. Promote street and trail alignments and designs that respond to topography and natural features, when feasible, and protect streams, wildlife habitat, and native trees.

Policy 66 Pedestrian transportation. Encourage walking as the most attractive mode of transportation for most short trips, within neighborhoods and to village centers, corridors, and major destinations, and as a means for accessing transit.

Policy 67 Pedestrian networks. Create more complete networks of pedestrian facilities, and improve the quality of the pedestrian environment.

Policy 68 Pedestrian safety and accessibility. Improve pedestrian safety, accessibility, and convenience for people of all ages and abilities.

Policy 69 Bicycle transportation. Create conditions that make bicycling more attractive than driving for most trips of approximately three miles or less.

Policy 70 Accessible bicycle system. Create a bicycle transportation system that is safe, comfortable, convenient, and accessible to people of all ages and abilities.

Policy 71 Multi-modal safety. Use traffic calming tools and techniques (e.g. medians, refuges, raised table crossing, mini-circles, street trees, on-street parking) to improve street safety and access for all users.

Policy 72 Intersection safety. Implement a roundabout first approach to intersection design and repair.

Policy 73 Achieve desired target speeds appropriate to business and social life. Set the default travel lane width to 10 feet for all urban roads posted 35 mph or less, with permission to increase lane width when heavy volumes of transit or freight are present.

Policy 74 Sidewalk design. Set the minimum width for sidewalks to 5 feet in residential and 8 to 10 feet in commercial areas or near schools. Set the default sidewalk design to include a landscaped buffer with street trees. When right-of-way constraints exist ensure other buffer treatments are present, such as on-street parking and/or bike lanes. Update Municipal and Development Code.

Policy 75 Active transportation funding. Require a dedicated portion of the transportation budget to go to pedestrian and bicyclist amenities.

Policy 76 Prioritize Safe Routes to School. Prioritize attention to transportation traffic and safety around schools, with a goal of increasing percent of kids who walk and bike to school.

a. Leverage Safe Routes to School state, regional and local funding.
b. Supplement funding for “Complete Streets” or Safe Routes to School program(s) with additional funding mechanism (e.g. portion of Gross Receipts Tax).

Policy 77 Encourage transit use. Prioritize transit stops, making them more friendly to users, including (1) making sidewalks wide enough to comfortably accommodate pedestrians, including those with disabilities; (2) provide additional space for passengers to wait by adding bus

bulbs (curb extensions); (3) provide bus stop shelters that protect users from sun, wind, and rain; (4) furnish bus stop shelters with seating and places to lean.

Policy 78 Transit Equity. In partnership with RoadRUNNER Transit, develop a public transportation system that conveniently, safely, comfortably, and equitably serves residents and workers 24 hours a day, 7 days a week.

a. In partnership, maintain and expand high-quality frequent transit service to downtown, NMSU, neighborhood centers, and other major concentrations of employment and health services, improving service areas with high concentrations of poverty and historically under-served and under-represented communities.

Policy 79 Transportation to job centers. Promote and enhance transit to be more convenient and economical than the automobile for people traveling more than three miles to and from downtown, NMSU, and other key job centers. Enhance regional access.

Policy 80 Transit funding. Use transit investments as a means to shape the City's growth and increase transit use. Consider funding strategies and partnership opportunities that improve access to, frequency, and equity in transit service, such as raising city- wide funding to improve service.

Policy 81 Automobile transportation. Maintain acceptable levels of mobility and access for private automobiles while reducing overall vehicle miles traveled (VMT) and negative impacts of private automobiles on the environment and human health.

Policy 82 Emergency response. Maintain a network of accessible emergency response streets to facilitate safe and expedient emergency response and evacuation. Ensure that police, fire, ambulance, and other emergency providers can reach their destinations in a timely fashion, without negatively impacting traffic calming and other measures intended to reduce crashes and improve safety.

Policy 83 New developments. Require developers to build facilities for people walking, bicycling, and using wheelchairs in all new developments (e.g. sidewalks, ramps, bicycle racks, showers).

(NEW) SUB-THEME: Parking Management

RATIONALE: Vibrant urban places link people and activities. As Las Cruces grows, the City must manage both the demand and supply of parking to achieve climate, health, livability, and prosperity goals. Providing too much and/or under-priced parking can lead to more driving and less walking, bicycling, and transit use; inefficient land use patterns; and sprawl. On-street parking is more efficient and can be a revenue generator. If a single on-street parking space turns over frequently — about 12 to 15 uses a day — it brings in as much as $300,000 in revenues to nearby businesses.[8] Insufficient parking can negatively affect neighborhood livability and economic vitality. These policies provide guidance to manage parking demand and supply to meet a variety of public objectives, including achieving compact walkable communities, reducing (or not growing) overall vehicle use, enhancing livability, reducing pollution, and expanding economic opportunity.

Policy 84 Parking management. Reduce parking demand and manage supply to improve pedestrian, bicycle and transit mode share, neighborhood livability, safety, business

8 Shoup, Donald. Instead of Free Parking. < http://shoup.bol.ucla.edu/InsteadOfFreeParking.pdf> Retrieved May 2016.

district vitality, vehicle miles traveled (VMT) reduction, and air quality. Implement strategies that reduce demand for new parking and private vehicle ownership, and that help maintain optimal parking occupancy and availability.

Policy 85 On-street parking. Manage parking demand, supply, and operations in the public right of way to achieve active transportation (multi-modal) objectives, and to encourage safety, economic vitality, and livability. Use transportation demand management and pricing of parking in areas with high parking demand.

Policy 86 Parking requirements. Establish parking maximum (rather than minimum) requirements. Update Municipal Code (sec 38-58).

Policy 87 Parking flexibility and equity. Encourage developers to unbundle parking.

Policy 88 Off-street parking. Limit the development of new parking spaces to achieve land use, transportation, health and environmental goals, especially in locations with frequent transit service. Regulate off-street parking to achieve active transportation (multi-modal) objectives, promote compact and walkable urban form, encourage lower rates of drive-alone use, and promote the vitality of commercial and employment areas. Use transportation demand management and pricing of parking in areas with high parking demand. Strive to provide adequate but not excessive off-street parking where needed, consistent with the preceding practices.

Policy 89 Share space and resources. Encourage the shared use of parking and vehicles to maximize the efficient use of limited urban space.

***(NEW) SUB-THEME*: Healthy Food**
Includes:
Food Access
Encouraging Health Food Options and Economic Development
Equity

RATIONAL: Access to healthy food is important for many reasons. A nourishing diet is critical to maintaining good health and avoiding chronic disease. This leads to better long-term public health outcomes and lower healthcare costs. Food behaviors are shaped at an early age. Children who are exposed to healthy foods and eating are more likely to develop healthful food behaviors than those who are not. In spite of these benefits, many residents of Las Cruces do not have good access to healthy food. These policies promote a range of approaches for improving access to healthy food through buying and growing. People choose among foods that are readily available; healthy options should be at least as available and accessible as unhealthy options. For example, community gardens help increase the availability and appreciation for fresh fruits and vegetable, in addition to providing an opportunity for exercise, green space, and a place for community gatherings.[9]

Policy 90 Food access. Ensure all residents live within a half-mile of a store or market that sells fresh produce, healthy food.

Policy 91 Food and transportation access. Work with RoadRUNNER Transit to ensure that bus routes provide efficient, timely and convenient service from under-served neighborhood to healthy food retail/service outlets.

Policy 92 Grocery stores and markets. Encourage the establishment of small to mid-size grocery stores, neighborhood-markets,and farmers markets that offer fresh produce as a priority for economic development by providing adequate land supply to accommodate a full spectrum of grocery stores catering to all socioeconomic

9 Community Gardens, County Health Rankings and Roadmap <http://www.countyhealthrankings.org/policies/community-gardens> Retrieved July 2016.

groups and providing groceries at all levels of affordability.

a. Utilize economic development incentives to encourage stores to sell fresh, healthy foods such as produce, especially in under served areas.
b. Create new incentives to encourage stores to sell fresh, healthy foods such as produce, especially in under-served areas.
c. Provide fast-track permitting for grocery stores in under-served areas.
d. Prevent restrictive covenants that keep grocery stores from using a competitor's abandoned site.

Policy 93 Neighborhood food access. Encourage small, neighborhood-based retail food opportunities, such as corner markets, food co-ops, food buying clubs, and community-supported agriculture pickup/drop-off sites, to fill in service gaps in food access across the city.

Policy 94 Healthy food development. Prioritize healthy food development in areas with a high ratio of convenience, fast food and liquor stores:

a. Ban or limit drive-through food outlets (especially around schools)
b. Identify fast food restaurants, liquor and convenience stores as "conditional uses" only; instate conditional use review upon lease renewal or at point of business sale.

Policy 95 Growing food. Increase opportunities to grow food for personal consumption, donation, sales, and educational purposes.

a. Encourage use of vacant lots for community gardens
b. Identify and inventory potential community garden/urban farm sites on existing parks, public easements and right-of-ways and schoolyards, and prioritize use for growing food in appropriate locations.

Policy 96 Access to community gardens. Ensure that community gardens are allowed in areas close to or accessible via transit to people living in areas zoned for mixed-use or multi-dwelling development, where residents have few opportunities to grow food in yards. Consider setting a community garden standard.

Policy 97 Farmers' markets. Support the ongoing establishment of farmers' markets. Encourage farmers' markets to accept credit and food stamp Electronic Benefit Transfer (EBT) cards; Women, Infants and Children (WIC) benefits; and Senior Farmers' Market Nutrition Program (SFMNP) benefits.

Policy 98 Agricultural land. Protect agricultural land from urban development, except where the land use map has designated the land for urban areas:

a. Establish green belts or agricultural buffers around urban land.
b. Require developers to place lands within a buffer into permanent agricultural land trusts or other easements.

Walking Audit Key Findings & Opportunities

As explored during the walking audit, there are many "low hanging fruit" to long-term traffic calming and active transportation opportunities that can be done for little to moderate cost that will help make streets safer for all users, people of all ages and abilities. An overarching observation was that the paint mix currently being used in Las Cruces appears to be fading due to leaching asphalt oil due to the heat. Other hot climate cities, like Phoenix, AZ, are finding ways to ensure paint remains visible, especially at intersections and other crossing locations. The City should consider interviewing the Phoenix Public Works Department to learn more.

The following key findings and opportunities are listed per each district/ walking audit location. These findings help memorialize the walking audits and should be used as a guide to the City as it prioritizes future investments and implementation next steps. Tools and treatments are further explained in the Active Living, Healthy Streets Toolbox.

District 1: Branigan Library:

- **Enhance Sense of Place and Walking and Bicycle Connections within the Historic Mesquite Neighborhood and to/from the Downtown.** Short block lengths with frequent intersections makes the street connectivity very high in the Mesquite District, providing many route options for all users. Identify and dedicate a people-friendly route or neighborhood "greenway" which prioritizes people choosing to walk or bike. A neighborhood greenway is a low-speed street designed to prioritize bicycle and foot traffic. Neighborhood greenways discourage cut-through motor-vehicle traffic, but allow local motor-vehicle traffic. They are intended to improve the comfort and safety of people bicycling.

- **Choose and Build Safer Intersection Treatments.** Mini circles can help calm traffic and enhance the sense of place in neighborhood locations and along smaller streets. Consider replacing stop signs with mini circles in important places like at the intersection of Mesquite and Augustine Avenue.

- **Choose and Apply Proven Safety Counter Measures to Overbuilt Roads.** Picacho/Spruce Avenue, a four- to five- lane road, is overbuilt solely for one mode—the automobile. It does not honor children, elders, or families from the neighborhood who have to cross the street to get to the park, Library, or shopping destinations such as the CVS. At just over 11,600 vehicles a day Picacho Avenue is an ideal candidate for a road diet or 4/5-lane to 3-lane conversion. U.S. Department of Transportation and the Federal Highway Administration (FHWA) recognize road diets, along with eight other treatments, including roundabouts and pedestrian crossing islands as "proven safety countermeasures." When done properly and with the right combination of intersection and crossing tools, a road diet on Picacho can help the neighborhood become a more inviting place to live, work, shop, and play, boosting business and property values.

- **Preserve and Protect Affordability While Providing More Living Options.** Las Cruces needs a wider range of housing options and mix of housing. Like many cities, Las Cruces is missing a middle range of housing types including multi-unit—duplex, fourplex, and small multiplex —and clustered housing types—bungalow courts or accessory dwelling units— compatible in scale with single-family homes. A mix of housing within neighborhoods helps meet the growing demand for active living. "Well-designed 'missing middle' buildings unify the walkable streetscape as they greatly diversify the choices available for households of different ages, incomes, and sizes. To this end, continue to encourage Accessory Dwelling Units (ADUs). This technique would be an ideal way to keep the historic district character and affordability, while providing options for people to aging-in place, or rental spots for college students.

District 2: Convention Center/ University Avenue

- **Enhance the 'Town-Gown' Connection.** It should be a priority to strengthen the 'town-gown' connection where the City (town) and University (gown) work together to create safer, more comfortable and convenient connections from the University to/from Downtown. Include in the Comprehensive Plan update the goal to develop a active transportation concept that provides key corridors that link the Downtown and University. This, in combination with form-based code overlay zones, will catalyze mixed-use development. It will also improve the City's potential for building social capital —the connection between people that tends to be correlated with better public health, engagement, educational performance, and improved public safety.

- **Right-size University Avenue.** University Avenue, a five-lane road, is a classic arterial road, built solely for the automobile. In turn, this has divided NMSU campus from the restaurants, shops, and housing on the other side. Many students both on foot and bike were observed crossing along all sections of University, often mid-block due to long block sizes. Given the proximity to the University, this area is screaming to become a more people-rich and supportive environment. University Avenue is another candidate for a road diet. Combined with additional intersection tools, like roundabouts, on-street parking can be placed back on the street, priming vacant or suburban-style lots for redevelopment. Revitalizing University Avenue should be a top priority for the City, but there needs to be a strong partnership with the NMSU. A full charrette process should be established to build community and stakeholder buy-in and consensus in the designs.

- **Improve Street Connectivity.** As University Avenue transforms, and new development comes into place, look for opportunities to add to the street network, providing more connectivity for all users.

- **Choose and Build Safer Intersection Treatments.** Modern roundabouts should be considered at a number of intersections along the University corridor, including University and El Paseo. This will create a gateway for both the Convention Center, soon-to-be hotel, and NMSU, creating place and a sense of welcome or arrival.

- **Remove Conflicts for People Walking and Bicycling Along University Avenue on NMSU Side.** Las Cruces' only "protected bike lane," or cycle track, is along University Avenue. However, an early design, the protected bike lane should be adjacent to the road (flipped with the sidewalk). Many people walking choose to walk on the bike path because it is further away from moving traffic. There should also be a landscaping buffer between the cycle track and road. This allows for a space to place street signage. Today, the signage interrupts the path, causing many obstacles and potential conflict points.

- **Transform Strip into Mixed-Use Village with Liner Buildings.** Short-term, liner buildings—shallow-depth buildings typically 20 to 24 feet deep, built on the edge of parking lots—can transform setback commercial areas along the corridor into more walkable mixed-use villages.

District 3: Hermosa Heights Elementary

- **Design for Target Speed.** The design of the road should ensure 24 hour speeds of 15 mph around schools, especially on neighborhood level streets. Short term, around the school, paint bold edge stripes, 18 feet apart, to narrow the travel-way.

- **Improve Neighborhood Streets with Traffic Calming Tools.** Further quiet the neighborhood and help make walking and bicycling more accessible to children, and residents by building mini-circles at neighborhood intersections. Residents and the school can adopt the mini-circle and plant neighborhood gardens in the center.

- **Install a Raised Table Crossing.** Raised table crossings have many advantages, especially due to their ability to maintain speeds at 15-20mph 24 hours a day. Raised crossings can be used in all climates, including snow country. Consider prioritizing a Safe Routes to School model project by installing a raised table crossing at the entrance of Hermosa Heights, connecting to the park, on Amador Avenue. A more-visible crossing will send a message that pedestrians should be expected here, while creating a gateway to the school.

- **Address Lohman Avenue.** Lohman Avenue, a six-lane road, is one of the most dangerous roads in the City. Short term, the crossing at Lohman and Del Monte Street needs to be addressed. This is a wicked crossing due to poor sightlines, high vehicle speeds, multiple-threat crash potential, lack of stop bar, and poorly positioned crosswalk marking. If this is indeed a needed crossing location, consider placing more support tools like a half-signal. A half-signalized intersection has a standard red-yellow-green traffic signal for automobiles on the major road, a stop sign for motorists on the minor road, and a pedestrian signal with actuation for pedestrians and/or bicyclists on the minor road. Although prevalent in Canada, this type of intersection control is not typically found in the United States because the MUTCD explicitly prohibits its use, although new rules are being written. Half-signal use is limited; Seattle has over 100 intersections with half-signals and installs these in new locations where warranted. As speed increases on roads more support is needed for people on foot. Additionally it should be studied if there is a better crossing location of Lohman, such as Garcia Street where better sightlines may exist.

District 4: Railroad Museum

- **Improve Neighborhood Streets with Traffic Calming Tool.** Further quiet the neighborhood and help make walking and bicycling more accessible to residents (even before sidewalks gaps are filled) by building mini-circles at neighborhood intersections. Residents can adopt the mini-circle and plant neighborhood gardens in the center, greening the street.

- **Improve Pedestrian Access and Safety with High-Visibility Marked Crossings.** Marked crosswalks are an essential part of the pedestrian realm that enable safe and convenient pedestrian travel across streets. Ensure all intersection legs are marked with ladder-style crosswalk markings, especially near key destinations and higher volume roads.

- **Install Curb Extensions.** The length of a corner curb radius, known also as a curb return radius, has a significant effect on the overall operation and safety of an intersection. Smaller turning radii increase pedestrian safety by shortening crossing distances, increasing pedestrian visibility, and decreasing vehicle turning speed, all of which provide a visual cue to drivers that it is a pedestrian-oriented street and people are more likely to be present. Throughout the neighborhood there are opportunities to shorten the crossing distance on all four corners of streets by installing curb extensions, or bulb-outs. Curb extensions inset parking, reduce the crossing distance and exposure time for a person on foot. They also provide neighborhood placemaking and greening opportunities for benches, street trees, and/or rain gardens.

District 5: Cesar Chavez Elementary

- **Improve Crossing.** Create a median crossing island to reduce crossing distance for children and families on foot. Create a raised table crossing to improve safe speeds around the school, 24 hours a day.

- **Address Pedestrian Access.** There is a lack of sidewalks along Holman Road, adjacent to the school. This minimizes the desire for walking to school or the playground after school hours. Prioritize sidewalks surrounding the school, to start.

- **Narrow School Driveways.** The school driveways are overbuilt. Narrow driveways. One-way driveways should be no wider than 14 feet and two-way driveways should be no wider than 28 feet across.

District 6: Desert Hills Elementary

The following opportunities will continue to support Safe Routes to School best practices for Desert Hills and the City at large.

- **Narrow Travel Lanes.** All travel lanes should be narrowed to 10 feet. Short-term, re-stripe Roadrunner Parkway to include 10-foot travel and turn lanes. The remaining space can be used to add bike lanes (both sides), giving bicyclist a space to ride while improving turning radius for motorists, reducing speeds, and adding a buffer to sidewalks.

- **Enhance Mid-Block Crossings on Roadrunner Parkway, at the Bus-Only Driveway.** Today the marked school crossing on Roadrunner is overly wide. A child or adult on foot needs to cross over 90 feet. Reduce risk of exposure by extending the median nose and including a ‘z’ crossing. A ‘z’ crossing in the median breaks up the crossing into two sections; allows for more space for people on bikes; and ensures that people crossing make eye contact with motorists. The addition of a half-signal that is pedestrian activated should also be studied at this crossing to improve safety.

- **Complete Multi-Use Path.** Complete the missing connection of the multi-use path along Roadrunner. This project would make a great model Safe Routes to School project.

- **Create a Neighborhood Walking/Biking Connections to the School.** Provide walking and biking connections with wayfinding into the school from the Sonoma Ranch development.

Treatments to Encourage Health and Active Living by Design

Transforming neighborhoods, cities, towns, and even regions into more active and healthy places for people to live is not only about good policy, but also good design and the empowerment of people in the city-making process.

Model projects provide a way to move policy into practice; best practices in healthy built environment design that promote and encourage healthy behaviors are demonstrated in model projects. Often many solutions can be done just with paint! For example, communities can get started by simply relocating the paint (or in some places removing the paint) on existing streets, narrowing the travel lanes to include bike lanes, which encourages more people to bike. Many of these opportunities for Las Cruces were discovered during the walking audits (as detailed in the walking audit key findings and opportunities section of this report).

Street repaving or repair projects make often provide the platform for modeling change by implementing short-term and low-cost improvements. Short-term tools and strategies include:

Using Paint:

- *Narrow Travel Lanes*
- *On-Street Parking (Including Head-Out Angled Parking)*
- *Centerline Removal*
- *Bike Lanes (Including Protected Bike Lanes)*
- *Sharrows*

Enhancing Crossings:

- *High Visibility Marked Crossings*
- Curb Extensions
- Crossing Islands
- Mini Circles
- Signalized Intersections (Including Roundabouts)

Greening the Street:

- Rain Gardens
- Street Trees

Placemaking:

- Bicycle or Pedestrian Wayfinding
- Parklets, Plazas, Paseos and Pocket Parks
- Community Gardens

Looking for opportunities to modify the designs of projects already in the City's funding pipeline (existing projects) to include more people-friendly features such as ones found in the list below is a great way to address higher-cost infrastructure treatments. In addition, these treatments can, or may need to be, proposed and designed as part of new plans. These tools include:

- Road Diets
- Modern Roundabouts
- Short Medians
- Intersection Chicane
- Shared Use Paths
- Neighborhood Greenways
- Raised Intersections
- Bus Shelters
- One-Way to Two-Way Street Conversions

Long-term transformation tend to happen after several short-term to mid-range treatments are on-the-ground, the area becomes safer and more attractive to residents and land owners alike. With the right land-use policies in place, such as mixed-use development, a street or entire neighborhood can transform into a more healthy, livable, resilient and prosperous place. To this end, the following tools help model suburban to walkable village or urban transformation by creating destinations for people to walk to. These tools include:

- Linear Buildings
- Mix-Use Development
- Mixed-Income and Green Development

Route 62 (Main Street), Hamburg, NY

Double Sign with flashing beacon, crossing island, and visible crosswalk markings make help reinforce this important crossing.

Narrow Travel Lanes

Many vehicle travel lanes are unnecessarily wide, which encourages high vehicle speeds and increases the chance and severity of collisions. Narrowing travel lanes to 10 feet encourages lower, safer vehicle speeds and increases safety for all users — especially for people who are walking and bicycling. The narrowing of lanes rarely disrupts the normal traffic flow, even for trucks and emergency vehicles, in fact when paired with other tools, like curb extensions, efficiency is often improved for people driving.

In the photo of Route 62, Hamburg, NY (left), vehicle lanes are made narrower (10 ft) and a colorized "door-zone" buffer helps separate moving vehicles from people exiting/entering a parked car. Route 62 is a major truck route for the State of New York. In addition, on-street parking creates eye friction which helps to naturally slow down people driving, creating a safety buffer between moving vehicles and people walking, increasing livability. Due to lower resulting speeds, streets with on-street parking are marginally safer than those lacking packing, and are more people- and business-friendly.

Enhanced and High Visibility Marked Crossings

Crossings should be well placed and located where there is a strong desire to cross, sight distances are good, and speeds are low. The use of materials to create attractive streetscape features can add beauty, function and a sense of place. Cities must maintain crossings and note when they become faded. Volunteers can help in this surveying effort. Ladder-style crosswalk markings are the most visible. Other crosswalk enhancements include:

- "Double sign" school signs on all approaches and other places where appropriate.
- Advance stop (or yield) lines at uncontrolled marked crossings can reduce the incidence of multiple threat crashes.
- Flashing warning beacons are a common application to add a flashing amber signal to the top of a standard pedestrian sign to provide warning of a pedestrian crossing.
- Raised crossings are designed to restrict all through speeds to 15-20 mph. Raised crossings at intersections can be used in snow country.

Curb Extensions

In transforming overly wide streets, curb extensions (also known as bulb outs) bring down right turning speeds by extending the sidewalk to the edge of the vehicle travel lane, often insetting on-street parking. Doing this improves visibility, making it much easier for people driving to see the most vulnerable roadway users, including children, elders, and people with disabilities. Curb extensions are great locations for rain gardens, street trees, signs, seating, bicycle racks and other gateway tools to distinguish entry to a neighborhood.

Curb extensions can be done low cost with paint or other material like in Buffalo, NY (above left) to a fully raised and attached to sidewalks as found in Fairhope, AL (above right).

Crossing Islands

Crossing islands are one of the best tools for simplifying the crossing of wide streets. Also called a pedestrian refuge island or median island. Used with curb extensions, they get pedestrians out beyond parked cars and other visual obstructions. Crossing islands are used on all categories of streets, and they have their highest return on investment when they create more courteous yielding behaviors by motorists. Well designed crossing islands achieve yielding rates above 80 percent. Many other tools, like Rapid Flash Beacons, or raised crossings, are used when it is necessary to increase yielding behavior.

Crossing islands that features a “Z” crossing, help ensure that pedestrians are looking in the direction of oncoming traffic as they prepare to step into the vehicle lane. By reducing the crossing distance, an island also increases pedestrian visibility and safety.

Mid-block crossing island in Asheville, NC.

Bicycle or Pedestrian Wayfinding (directional signage)

Add way-finding signs along bicycle (or walking) routes to help bicyclists (or pedestrians) navigate safely and quickly. Sidewalk kiosks and posted maps are also important point-of-decision tools to help users learn about the walking and biking network (i.e. distances and travel time between locations, connections to transit, bicycle parking availability). If the community has a destination brand, incorporate it into the way-finding.

Example of wayfinding from Davis, CA.

Bike Lanes

One of the most cost effective ways to reduce speed while improving overall vehicular flow and creating improved conditions for bicycling and walking, is the conversion of overly wide roads to bike lanes. Generally, travel lanes can be reduced to 10 feet. Narrower travel and storage lanes are proving to be slightly safer. Motorists appear to become more attentive when lanes are narrowed from 11-12 feet to 10 foot travel lanes. Bike lanes should be at least 5 feet wide (6 feet is ideal) and seamless. Thick striping and regular markings remind drivers to anticipate bicyclists. Bike lanes have an added benefit to pedestrians in that they provide a buffer to moving traffic.

Protected Bike Lanes

A protected bike lane (or cycle track) is a bikeway alongside a road that is separated from motor vehicle traffic by physical barriers such as parked cars, landscaped islands, or posts/bollards. Cycle tracks may be one-way or two-way paths that are placed at street level, at sidewalk level or at an intermediate level. Protected bike lanes are helping cities across the world increase bicycle use, especially among women, families, and older adults. More info: http://www.peopleforbikes.org/green-lane-project/pages/protected-bike-lanes-101

Sharrows

For lower speed main roads, 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.

Protected Bike Lanes, Portland, OR (top image) Beach Cities, CA (middle image) Winter Park, FL (bottom image)

Signalized Intersections

Intersection control devices are critical if walking, bicycling and motoring are to work, and work together. People who cross at intersections, when they are signaled to do so, are most predictable. Drivers appreciate predictable and compliant behavior. Signal timing should be automated for inclusion of walking cycles. Signal timing should be adjusted so that signals recall to WALK during the cycle, minus the clearance interval. A large proportion of vehicle/pedestrian collisions at signalized intersections involve left- and right-turning vehicles. One phasing strategy to improve pedestrian safety in locations with heavy volumes of turning traffic and frequent pedestrian crossings is to provide a leading pedestrian interval (LPI.) During the leading interval, all motor vehicle flows are stopped for 2-4 seconds while pedestrians are given the WALK signal. This enables pedestrians to begin crossing in advance of vehicular turning movements.

On-Street Parking

On-street and inset parking visually narrows streets and brings down traffic speeds, while providing the most sustainable and affordable parking. Speeds are brought down even more when tree wells are used to provide a canopy to the street. Since it already has its own turn radii into each spot and access, on-street parking only takes up one-third of the land of off-street parking. But the primary reason for maximizing parking on street is to help civilize streets that were overbuilt for speed. On-street parking belongs on center city streets, serving as a buffer between pedestrians and moving cars as a natural traffic

On-street parking both head-in and head-out, Ventura, CA.

Head-Out Angled Parking

Head-out angled parking maximizes use of adjacent land, since off-street parking takes up three times more space than on-street parking. It also takes up less road space since adjacent lanes can be 10 to 11 feet wide. 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 for the parking bay. Parking bay depths should be 15 feet. An added two foot of space is picked up when valley gutters are used. In addition, head out angled parking places the trunk closest to the curb and the car doors open to shepherd children away from the road and towards the curb.

Head-Out Angled Parking, Des Moines, IA.

Centerline Removal

Street paint can be one of the most cost-effective traffic-calming tools available. On neighborhood streets that are overly wide or streets where a centerline exists and traffic volumes are under 6,000 vehicles a day, consider removing the yellow centerline and instead paint bold edge stripes (8-10 inches) 18 feet apart. Use of bold edge stripes preserves the life of the road and provides cues to the motorist to drive more cautiously since visually they feel the road is narrower.

Centerline removal, Fairhope, AL.

Parklets Plazas, Paseos, and Pocket Parks

Transforming a street, sidewalk, plaza, square, paseo, open lot, waterfront or other space into a community source of distinction brings joy to the community, while slowing traffic speeds. Good places make good experiences possible and they have consequences in our lives. People want to be in attractive, well designed and cared for public places. Investment in streets and other public spaces brings added value to all buildings and homes in an area. A compelling sense of place allows the time spent there to be rewarding and memorable. Converting alleys, sidewalks and streets into pocket parks, plazas and paseos creates lively places for people to gather, celebrate, eat and enjoy being together.

A parklet is a small space serving as an extension of the sidewalk to provide amenities and green space for people using the street. It is a mini urban park that offers a place for people to sit and rest while they take in the sights of the street. Prioritize locations where there is currently little access to green space or where sidewalks are not wide enough to accommodate vibrant street life activities like outdoor dining.

Rain Gardens

Rain Gardens can be designed to allow stormwater to percolate through the soil, cleaning rain water before discharging into sewers or bodies of water. Rain gardens can be formal or natural in appearance, depending on the local context. In the images below, naturalistic plantings and permeable parking green streets. Formal plantings provide stormwater management in Birmingham, Alabama's Railroad Park. Incentivizing rain gardens and permeable parking, in addition to ground cover, potted plants or other planters can add to a neighborhood's reputation as a garden district.

Community Gardens

Community gardens, rooftop gardens and urban agriculture provide opportunities to green and provide food access to communities. They also improve community pride and cohesion, while improving access to food. Work with a local gardening group or other stakeholder group to identify a good location for a community garden and establish a plan for building and management of the garden plots. Allocate funding and establish the garden.

Parklet come in all shapes and sizes, Muscatine, IA.

An example of one, of many, rain garden designs.

A community garden at a local school in Tucson, AZ.

Street Trees and Tree Wells

Trees provide shade, safety, greenery, storm mitigation, energy savings, fresh air, and a haven for birds and other animals. As a general rule, retailers earn an extra 12 cents on the dollar when people shop under a full canopy (Main Street, USA). Trees can be planted between sidewalks and streets, in curb extensions, crossing islands, and when the right-of-way is too tight to plant trees in sidewalk areas they can go in tree wells. Use of in-street tree wells can allow the street to be "greened" and often without removal of parking.

Mini Circles

Identify neighborhood intersections and streets where speeding, non-compliance with stop signs, or intersection conflicts are a concern. Convert the intersections to mini-circles, or neighborhood traffic circles. Mini Circles are one of the most popular and effective tools for calming traffic in neighborhoods. Seattle has 1,200 Mini Circles and this has led to a reduction in intersection crashes by 90 percent. They are the best neighborhood safety feature of any treatment type. These inexpensive features do not interrupt drainage. Mini Circles work outward from intersections on all three or all four legs of approaching traffic. Mini Circles bring speeds down to levels where motorists are more courteous to pedestrians, they allow all types of turns, including U-turns, which can assist with school area traffic management. A common engineering mistake is to put in four way stops around a mini circle.

Examples of tree wells and street trees planted in landscape zone.

Examples of a mini-circle, Seattle, WA.

Road Diets

A road diet involves eliminating travel lanes to improve safety for pedestrians, bicyclists and motorists. Motorist crashes are typically reduced 12 to 30 percent, with some drops as high as 70 percent. High end speeds, especially, are reduced. 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 bicycle lanes, sidewalks, planter strips for street trees, a bus stop, a separated multi-use trail, a wider outside lane or for on-street parking.

Roundabouts

Roundabouts facilitate through-traffic and turning movements without requiring a signal control. Roundabouts allow vehicles to circulate around an island that is often used for landscaping, a gateway or for other decorative features, like artwork. 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 carrying capacity by up to 30 percent, helping reducing crossing distances for people on foot keeping the walking (and driving) environment more compact and efficient. As the only requirement for yielding the right-of-way is to traffic already in the circulating roadway, roundabouts also reduce delays for everyone. Roundabouts reduce personal injury crashes by 90-percent.

A road diet on Edgewater Drive, FL.

BENEFITS OF ROAD DIETS TO DRIVERS

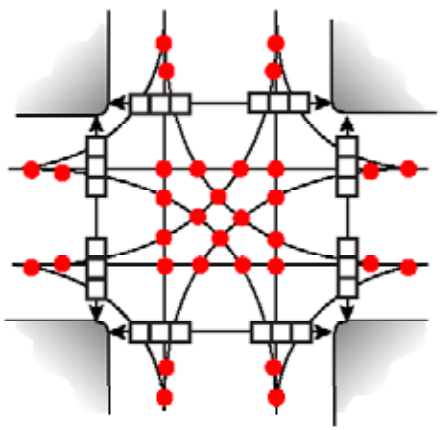
- Reduce: risk of rear end and sideswipe crashes. When crashes do occur, after a road diet they are less severe.
- Reduce: vehicle speeds by 3-5 mph.
- Reduce: number of vehicles traveling more than 5 mph over the posted speed limit by 70 percent.

TO PEDESTRIANS

- Reduce: distance pedestrians need to cross, which reduces the amount of time they are exposed to the risk of being hit.
- Reduce: risk of multiple-threat crashes, in which one vehicle screens the pedestrian.

TO BUSINESSES

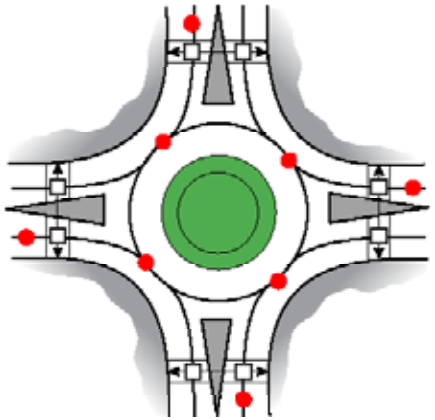
- Increase: business activity by slowing traffic speeds and adding more on-street parking (which helps motorists notice shops, eateries they're driving alongside).



Conflicts at a conventional intersection with single lanes in each direction

- ● 32 vehicle-to-vehicle conflicts
- □ 24 vehicle-to-person conflicts

The Walkable and Livable Communities Institute and Alternate Street Design



Conflicts at a single-lane, modern roundabout

- ● 8 vehicle-to-vehicle conflicts
- □ 8 vehicle-to-person conflicts

The Walkable and Livable Communities Institute and Alternate Street Design

Intersection Chicane

Intersection chicanes involve curb extensions on one side of the intersection, and a median on the opposite side. This combination of treatments brings the motorist toward the center, then brings them back toward the side. This deflection path bring speeds down to the desired level. All raised areas become gardens for the neighborhood. Both sides of the intersection are narrowed, minimizing crossing distance and time. Chicanes can be used on streets with volumes as high as 12,000 daily trips. Emergency responders and transit providers prefer chicanes to more intrusive four-way stops and raised crossings.

A large vehicle being deflected through a neighborhood Intersection Chicane, Santa Barbara, CA

Shared Use Paths

An off-street shared-use trail for bicyclists and pedestrians connects two or more points of interest. It is a paved or natural surface that is fully separated from motor vehicles. A shared-use path can be as narrow as 6 feet wide, but ideally is 12-feet wide for people walking in both directions, plus a striped or separated path that is 12 feet wide for biking in both directions. Painted stripes and other wayfaring indicate type of and direction of travel.

Shared-use path-the Midtown Greenway--in Minneapolis, MN.

Neighborhood Greenways

A neighborhood greenway (or bicycle boulevard) is a low-speed street designed to prioritize bicycle traffic. Neighborhood greenways discourage cut-through motor-vehicle traffic, but allow local motor-vehicle traffic. They are intended to improve the comfort and/or safety of bicyclists.

Raised Intersection

Raised intersections are used at intersections where roundabouts or mini-circles are not functional or practical, and where speeds need to be brought under control. They are different from raised intersection crossings, since they cover the entire intersection. This raises their value and cost considerably. Raised intersections are best constructed as new schools are built, but they can be applied to existing street sections. Raised intersections can be expensive, due to their potential to interrupt drainage. Meanwhile, they have many advantages to maintain speeds 24 hours a day. Raised intersections can be used in snow country.

Raised intersection examples: Boulder, CO (top) and Cambridge, MA (bottom)

Short Medians

Short medians help bring down speeds near schools and other places where people should be expected. Short medians are placed away from intersections, but they can be located near driveways. These inexpensive features do not interrupt drainage and they have many other advantages. They bring speeds down to levels where motorists are more courteous to pedestrians and they allow U-turns, which can assist with area traffic management. Short medians also serve as gateways, where they announce arrival at an important location, such as a school. They help put motorists on greater alert. They work well in snow cities, as well as temperate climates.

Bike Share

Work with a bike-share company to establish a bike-share program in your community. To supplement city funding, explore state or federal grants available for active transportation projects and seek local business sponsorship to help offset costs.

Transit Stop Locations

Where possible, bus stops should be located on the far-side of intersections and at controlled crossings when located on higher volume multi-lane arterials. Far-side bus stops encourage pedestrians to cross behind the bus which improves visibility to other motorists. Bus stops located on the far side of signalized intersections also improve transit efficiency and minimize parking loss to neighborhoods. In rare cases where most destinations are on the near side of the street, then bus stops should be located on the near side.

One-way to Two-way Street Conversions

One-way streets were often added to downtowns to move traffic more efficiently. The result: higher vehicle speeds, more circulating to find parking or destination, and higher noise. Many towns and cities, including Cedar Rapids, IA, are converting one-way streets back to two-way streets to bring back the social life to their downtown and neighborhoods. Even when one-way streets serve a purpose such added parking, non-essential lanes can be dropped to allow more parking or space for bike lanes as seen in Portland, OR (bottom right).

Oregon Health Sciences University bike share.

Example transit stop shelter.

Non-essential lanes can be dropped to allow more parking or space for bike lanes as seen in Portland, OR

Liner Buildings

The use of "liner" buildings—shallow-depth buildings typically 20 to 24 feet deep, built on the edge of parking lots—can transform setback commercial districts that have come to define areas with city's downtowns or town centers. Liner buildings can re-activate both the street and community, infusing the street with pedestrian activity and incubator spaces that allow for "mom and pop" shops that create jobs and diversify the retail market.

Mix-Use Buildings/Development

A neighborhood should endeavor to include a balanced mix of housing, working, shopping, recreation and civic uses. To encourage mixed uses, cities can grant financial incentives to well-balanced neighborhoods, since they reduce traffic impact as well as infrastructure and service costs. Special consideration should also be provided to new development that re-balances adjacent areas of single use.

Mixed-Income and Green Development

The High Point community in West Seattle Washington was designed as a model of green development and sustainable living. Residents enjoy reduced costs to heat and cool; overall lower energy use; reduced water use; and homes are built to have longer life-cycles and low maintenance costs. High Point is a 120-acre HOPE VI redevelopment that replaces 716 subsidized housing units with three-star houses, town houses, apartments and parks for more than 4,000 people. 50 percent of the units are home to low-income residents with 350 units designated for very low income residents.

Liner buildings transform a setback to a village in Kingston, WA.

Mixed-use neighborhood center, Oak Park, IL.

High Point neighborhood in West Seattle was designated as a model of green development and sustainable living.

Visualizing the Tools Together

The following photo visions were created for Las Cruces to conceptually illustrate how streets of different sizes can transform overtime when new tools are used to promote multi-modal transportation goals and land use and transportation patterns are integrated.

Before **After**

Before **After**

Visualizing Best Practices in Street Design: University Avenue, Existing Conditions

STREET IS OVERBUILT FOR ONE MODE: THE AUTOMOBILE, NEED FOR RIGHT-SIZED TRAVEL LANES

University Avenue is overbuilt with four-travel lanes and a center turn lane. The corridor carries just over 13,800 vehicles a day. A single lane can carry 18,000 cars a day, if uninterrupted. In addition, travel lanes are 12 feet wide, which are highway ribbon size.

LACK OF ON-STREET PARKING

On-street parking visually narrows streets and brings down traffic speeds, while providing the most sustainable and affordable parking.

NEED FOR SAFER, MORE EFFICIENT INTERSECTION TREATMENTS

The intersection of University Avenue and El Paseo is overbuilt, safer intersection treatments should be applied, especially near schools. Today, the University lacks a gateway, which provides a sense of welcome and arrival to students and visitors alike.

OVERLY WIDE SIDEWALK; LACK OF BICYCLE NETWORK

The newly designed Convention Center missed the opportunity to include an extension of the protected bike lane (cycle track).

A Photo-Vision Illustrating A Complete Street: University Avenue (After)

A COMPLETE STREET

University Avenue becomes a complete street by going on a road diet. The street is right-sized, meeting the desired target speed of 20 to 25 mph with narrowed travel lanes, allowing the additional space to be used for on-street parking (near side), a bike lane (far side), and colorized center turn lane.

SAFER INTERSECTION TREATMENT IS BUILT

A single lane roundabout at the intersection of El Paseo and University Avenue allows this area to move more traffic than there is today, while honoring place —students and families walking and bicycling to school and shops. (Note: this is conceptual and an engineering study needs to be done to confirm the number of lanes needed for the roundabout)

PROTECTED BIKE LANE; A PEOPLE- SCALE ENVIRONMENT

Street treatments such as the two-way protected bike lane, along with planters and other street furniture help create a sense of place. The protected bike lane also promotes and encourages people to bike to/from campus and other nearby destinations. National Institute for Transportation and Communities research has found that the average protected bike lane sees bike counts increase 75 percent in its first year alone.

Visualizing Best Practices in Street Design: Roadrunner Parkway, Existing Conditions

GAP IN MULTI-USE PATHWAY

Today, a gap exists with the multi-use path along the school property.

DRIVEWAY IS OVERBUILT

This is a bus-only driveway. The crossing is overly-wide at 42 feet. If this is to remain a two-way entrance/exit the driveway should be narrowed to no more than 20-24 feet.

NEED FOR RIGHT-SIZED TRAVEL LANES

Roadrunner Parkway is overbuilt for one mode with two-travel lanes in each direction plus a long storage lane for left turns. Speeds are higher than the posted speed, which is 25 mph during school hours.

NEED FOR SAFER MID BLOCK CROSSING

The mid block crossing offers little to no support for people crossing, let alone children. Roadrunner divides the school from neighborhoods and a beloved park. Today people on foot have to cross over 90 feet, risking their lives due to a higher amount of exposure to potential conflict due to long crossing distance.

A Photo-Vision Illustrating A Complete Street: Roadrunner Parkway (After)

MULTI-USE PATHWAY

The multi-use pathway is completed, supporting people walking and biking to school or for recreation. Comfort is increased with a landscaped buffer, separating path users from moving vehicles.

DRIVEWAY CROSSING IMPROVED

The driveway is narrowed, and high visibility crosswalk markings are included, sending a message to all users that they are crossing another users path.

TRAVEL LANES ARE NARROWED

By just moving paint to narrow travel lanes and turn lane to 10 feet, a 5 foot bike lane can be included. In addition to providing space for people to bike, the bike lane also provides a more effective turning radius to motorists, traffic calming, and an additional buffer to sidewalk.

SAFER MID-BLOCK CROSSING

This crossing becomes safer for all people, especially those on foot. The median is extended, providing a 'z' median crossing. Pedestrians now have greater crossing support with the half-signal, which is pedestrian activated with a standard red-yellow-green traffic programming. A person crossing only stops one direction of traffic, getting to the median crossing for refuge, before activating the next crossing leg.

Treatments Further Illustrated:

Below are examples of colorized bike lanes and a 'z' crossing to provide further illustration of the treatments visualized for Roadrunner Parkway.

Colorized bike lane, West Sacramento, CA

Z-crossing, West Sacramento, CA

Visualizing Best Practices in Street Design: Nevada Avenue, Existing Conditions

During a walking audit with the Mayor, it was shared that the City has funding to address speeding, and the need for traffic calming, along Nevada Avenue. During the City staff training, staff enhanced existing Nevada Avenue concept plans to include additional traffic calming treatments illustrated in the photo visions.

TRAVEL SPEEDS ARE HIGHER THAN POSTED SPEED

Speeding is an issue on Nevada Avenue due to long, straight, and overly-wide street which creates a “shot-gun” effect, inducing motorists speeds. A lack of vertical height, sense of enclosure and other visual cues also contribute to induced speeds on this neighborhood street.

WIDE TURNING RADII

Wide turning radii encourages high-speed turns, increasing the risk of injury crashes and conflicts.

A Photo-Vision Illustrating A Complete Street: Nevada Avenue (After, Short-Term)

NEVADA AVENUE IS TRAFFIC CALMED

Chicanes— curb extensions positioned catty-corner from one another— slow people driving. The geometry brings the motorist towards the center, then brings them back toward their side. The deflection path sets the speed, bringing speeds down to a desired neighborhood target speed of 15 to 20 mph. The raised areas (curb extensions) become gardens for the neighborhood— planted with trees and other native landscaping material. They do not interrupt drainage, saving on construction cost. Chicanes can be used on streets with traffic volumes as high as 12,000 vehicles a day. Emergency responders and transit providers prefer chicanes to more intrusive four-way stops.

INTERSECTION BECOMES MORE COMPACT

A curb extension, or bulb out, reduces the overly-wide turn radii, reduces crossing distance for people on foot, improves sightlines and overall provides a huge safety gain while greening the street and adding a placemaking element to the neighborhood.

Visualizing Best Practices in Street Design: Nevada Avenue, Existing Conditions

From this...

A Photo-Vision Illustrating A Complete Street: Nevada Avenue (After, Short- to Long-Term)

To this. Long-term the sidewalk gaps along Nevada Avenue are completed (as seen in the background on the far left). Sidewalks in the future should include, as space allows, a buffered or landscaped edge to the street. Sidewalks add value to all surrounding homes. Chicanes calm traffic to the desired neighborhood speed, making the area safer for children at play, reducing unpredictable behavior, and making the street and intersection quieter. Neighborhood place and identity is created.

Next Steps:

- ☐ Share report with City staff and elected officials, along with other community partners.

- ☐ Work with City staff and elected officials to adapt, as needed, policy language recommendations; begin to include new policy language in the draft update of Plan4 Las Cruces.

- ☐ Identify potential projects from the walking audit key findings and opportunities that would make model Complete Street and/or Safe Route to School projects that can be integrated as implementation strategies, helping move policy (paper) into practice.

- ☐ In addition to integrating policy recommendations that foster healthier communities by promoting active transportation and active living into the comprehensive plan, some policies require additional City plans and technical support. The City should actively pursue:
  - Creating an Active Transportation Plan
  - Updating street design standards by adopting and then adapting a Street Design Guideline Manual, such as the Living Streets Design Guide, which is an open source document created by 40 of the Nation's top transportation experts. Adopting a modern street-design guide provides guidance on new tools and better protects local engineers and engineering firms working to improve the quality of streets for all users.
  - Endorsing the use of National Association of City Transportation Officials (NACTO), Urban Street Design Guide and NACTO Urban Bikeway Design Guide. The Federal Highway Administration endorses NACTO Urban Street Design Guide.
  - Creating an Urban Design Guideline Manual or Framework Manual

- ☐ Develop an inclusive inter-discipline and inter-department review and decision-making process both for permitting review and transportation projects. Consider creating a Complete Streets Checklist and development review process—the best example is the six-step process created by the Charlotte Department of Transportation.[1]

- ☐ Keep the community engaged!

---

1 Charlotte Department of Transportation, Urban Street Design Guidelines: http://charmeck.org/city/charlotte/transportation/plansprojects/pages/urban%20street%20design%20guidelines.aspx

Concluding Thoughts

We must change the way we approach transportation planning to ensure our communities are desirable places to live, learn, work, and play. Many parts of Las Cruces are still over-built for cars and under-built for people. Some streets have unnecessary or overly wide vehicle travel lanes, to the detriment of adjacent businesses and people using other modes of travel. Additionally, many sidewalks have no buffer between people walking and the cars passing by them and have been poorly maintained, or are absent altogether. Land-use and transportation decisions appear in many places to be out of sync with each other. We can, and we need, to do better.

Our future planning needs to recognize the significance of moving away from a car-centered way of planning. Residents and stakeholders in all six of the focus sites recognize that integrating transportation and land use planning improves safety, protects resources, improves health, encourages living in place, and provides opportunities for residents to interact.

The good news is that the challenges we face are opportunities. It is critical to remember that our communities are incredibly dynamic and ever changing, so this work takes patience, collaboration and vision. The City of Las Cruces staff, Mayor, Council members, and other community partners, are teaming to work with residents to do just that. Together, the updated Plan4 Las Cruces will provide the City with the right "DNA" or guiding principles, vision, goals and policies to implement model Complete Streets, infill, and other development projects.

The City is embarking on historic change by setting new policies, and then modeling how policy, when acted upon, does support and spur change. This will shape the future land-use and transportation planning for the entire City. This document provides guidance as the City takes steps towards a walkable, livable, healthier, happier and more complete communities. It also means continuing to keep the community engaged to support implementation, moving policy into practice.

Las Cruces resident shared her hope to seeing more walkable places within the City during her lifetime.

X-Ray of Existing Street Network:

X-Ray of Effective (Connected) Street Network: