CHAPTER ONE – HISTORY AND PLAN DEVELOPMENT

In a society that values choice and freedom, people should be able to walk safely, whether for fun and recreation, errands, getting to work or school, shopping, or other reasons. - FHWA, How to Develop A Pedestrian Safety Action Plan

Every transportation agency…has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems. -USDOT Policy Statement on Bicycle & Pedestrian Accommodation, March 2010

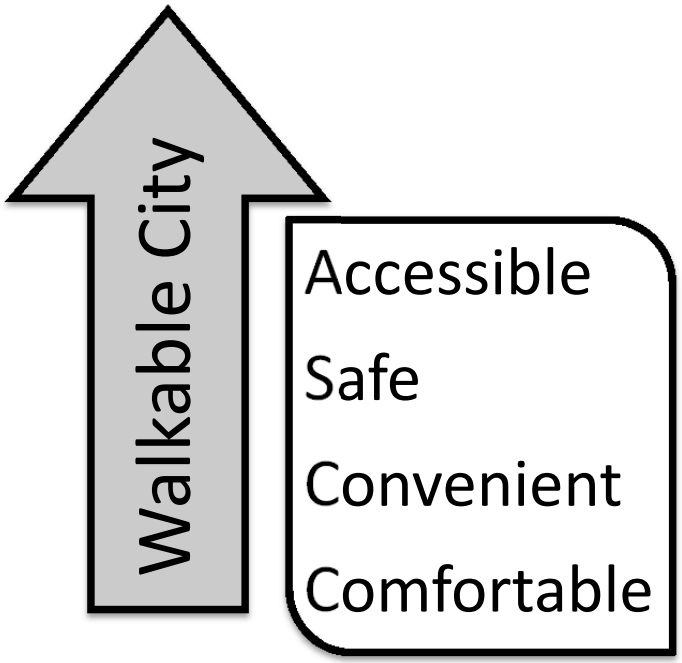
OVERVIEW

Walking is the most accessible, equitable and economical method of transportation. Since humans have occupied this earth, walking has been the primary mode of transportation. Only recently with the progress in the twentieth century, have we abandoned the ways of our ancestors in favor of wide, high speed roadways focused on convenience. In the quest for motor vehicle efficiency, sidewalks have been relegated as afterthoughts of development rather than essential components of a transportation system. The focus of the last fifty years for municipalities has generally been building streets to move the motor vehicle traffic. The result is many wide, high-speed streets that move cars efficiently, but compromise community goals and work against community needs.

Many factors contribute to the reasons walking has fallen out of favor as a form of transportation for a wide segment of the population. Driving is a more attractive method of transportation when a housing subdivision is placed too far from schools and commercial services. The recent trend of low-density population and employment has increased reliance on private vehicles for most trips - this especially has been the case in Fort Worth. Sidewalks are too often discontinuous, overgrown, and crumbling. High vehicle speeds and inattentive drivers have created safety issues.

The built environment influences how we travel to our destination, whether by driving, walking, bicycling, or public transportation. Over the past fifty years, however, walking has been engineered out of daily routine. In 1969, walking made up 40 percent of all transportation trips, but in 2008, walking trips decreased to 11 percent (2009 National Household Travel Survey). Among the 52 largest cities in the United States, Fort Worth ranks 52 for the percentage of people who walk to work.

This plan recommends creating a walking environment that is conducive to all pedestrians, regardless of physical or cognitive ability. Pedestrians are people who travel on foot, wheelchair, motorized scooter or other mobility aid. The purpose of the *Walk Fort Worth* plan is to create a framework using engineering, education, encouragement, enforcement, and evaluation to increase pedestrian transportation, safety, and physical activity within the City of Fort Worth. Creating healthy, vibrant and safe communities include building streets that accommodate all ages and abilities of road users – pedestrians, bicyclists, transit, freight, and motor vehicles. A walkable Fort Worth is the legacy we leave to future generations.



HISTORY OF FORT WORTH SIDEWALKS

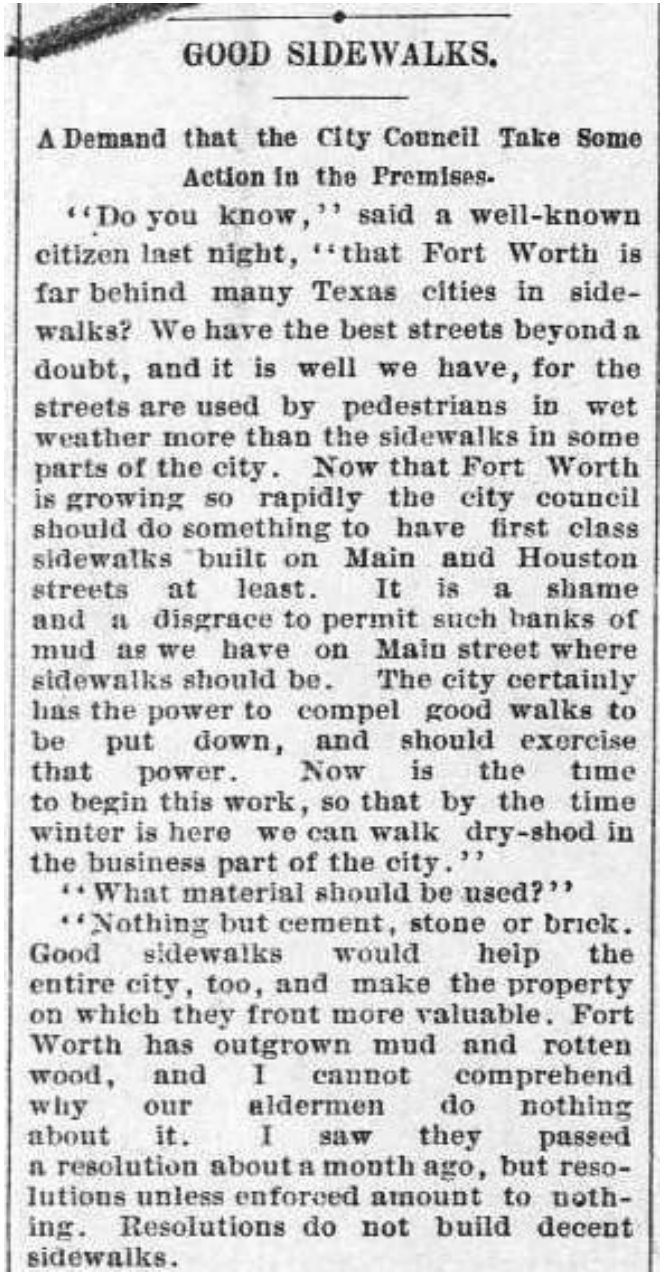
The citizens of Fort Worth have long been talking about the value of improvements to the pedestrian environment. A Fort Worth newspaper reported in 1889 on just such a conversation. "Do you know," said a well-known citizen, "that Fort Worth is far behind many Texas cities in sidewalks? We have the best streets beyond a doubt…Now that Fort Worth is growing so rapidly the city council should do something to have first class sidewalks built on Main and Houston Street at least. It is a shame and a disgrace to permit such banks of mud as we have on Main Street where sidewalks should be." (Fort Worth Daily Gazette, 1889)

Throughout Fort Worth's history, varying policies regarding the installation of sidewalks have been in place. As one travels through neighborhoods of Fort Worth this is apparent. As auto-dependence increased, sidewalks ceased to be routinely constructed on streets. Many neighborhoods in Fort Worth developed during the second half of the 20th century do not currently have sidewalks due to a long-standing ordinance only requiring sidewalks on streets wider than 42 feet. This excluded residential and collector streets from having sidewalks installed with their housing development. In 2000, the City of Fort Worth re-initiated the requirement that sidewalks be installed along all public roadways during development.

BENEFITS OF WALKING

The benefits derived from walking can go far beyond the most obvious health benefit. Various studies have shown that investments in walkability benefit the economy, community and increase equality among ages, races, and incomes.

Walking and bicycling for daily transportation are important ways for everyone to get regular physical activity. Investing transportation funds in sidewalks, traffic-calming devices, greenways, trails and public transit makes it easier for people to walk and bike to destinations. Designing communities that support walking and biking for transportation creates recreational opportunities, promotes health, and can even lower health care costs.



GOOD SIDEWALKS.

A Demand that the City Council Take Some Action in the Premises.

"Do you know," said a well-known citizen last night, "that Fort Worth is far behind many Texas cities in sidewalks? We have the best streets beyond a doubt, and it is well we have, for the streets are used by pedestrians in wet weather more than the sidewalks in some parts of the city. Now that Fort Worth is growing so rapidly the city council should do something to have first class sidewalks built on Main and Houston streets at least. It is a shame and a disgrace to permit such banks of mud as we have on Main street where sidewalks should be. The city certainly has the power to compel good walks to be put down, and should exercise that power. Now is the time to begin this work, so that by the time winter is here we can walk dry-shod in the business part of the city."

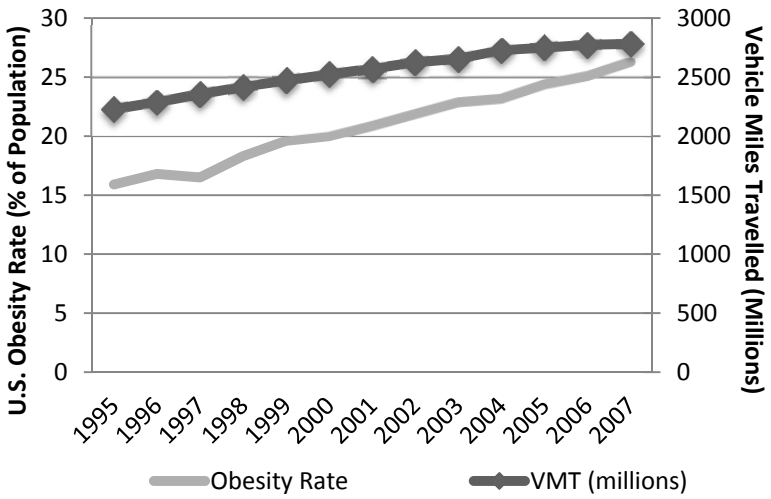
"What material should be used?"

"Nothing but cement, stone or brick. Good sidewalks would help the entire city, too, and make the property on which they front more valuable. Fort Worth has outgrown mud and rotten wood, and I cannot comprehend why our aldermen do nothing about it. I saw they passed a resolution about a month ago, but resolutions unless enforced amount to nothing. Resolutions do not build decent sidewalks.

FORT WORTH DAILY GAZETTE, 1889

HEALTH

Studies demonstrate that total physical activity is substantially higher among people living in highly walkable communities, compared to those living in less walkable communities. (Frank LD, 2005) (Saelens BE, 2003). In Texas, two-thirds of the population is overweight or clinically obese. Providing accommodations for active and multimodal transportation is critical in reducing the negative consequences of our rapid growth. Research has shown the number of people who exercise is substantially higher in areas that are easy to get around by walking, bicycling, or public transportation. The Texas auto-oriented development has made getting regular physical activity more difficult for many residents. An American Journal of Preventative Medicine article found the average resident of a walkable neighborhood weighs 6-10 pounds less than someone who lives in a sprawling neighborhood. (Ken R. Smith, 2008)



RISING TREND OF HIGH OBESITY AND MILES TRAVELLED (JACOBSON, 2011)

The rising cost of treating obesity-related diseases and an aging population with higher rates of obesity also have increased the Comptroller's estimate of obesity costs to Texas businesses. Obesity-related costs also contribute to rising health care and insurance costs that have forced some Texas employers to reduce insurance coverage. (Combs, 2011) Physical activity helps control weight, but it has other benefits. Physical activity such as walking can help improve health even without weight loss. Physically active people live longer have a lower risk for heart disease, stroke, type 2 diabetes, depression, and some cancers. (Centers for Disease Control and Prevention)

Walking is the least expensive and most broadly accessible forms of physical activity. It is rarely associated with physical injury and can easily be adopted by people of all ages, including those who have never participated in physical activity. Studies have shown that walking has higher levels of adherence than other forms of physical activity, possibly, because it is convenient and overcomes many of the commonly perceived barriers to physical activity: lack of time, lack of fitness or lack of skill.

ENVIRONMENT

Increasing the number of walking trips can be an important means of reducing air pollution. Walking relies on human power and has negligible environmental impact. Well-designed pedestrian environments and a culture of walking help to make transit a viable choice, improve air quality, and provide healthy trees and quality green spaces.

Ground-level ozone forms when nitrogen oxides (NOx) and/or volatile organic compounds (VOCs) combine with sunlight and intense heat. Primary emissions sources include on-road vehicles such as cars, trucks, and buses. Inhaling ground-level ozone is especially dangerous for people who have asthma or respiratory problems and who may experience increased frequency of asthma attacks and resulting health care costs.

During the last decade, studies have documented the effects of air pollutants on children, who are more susceptible than adults to the adverse effects of air pollution. Children breathe more air relative to their body weight and lung surface area than do adults; consequently, they also receive proportionately higher doses of air pollutants. (US Department of Health and Human Services, 2012) Unfortunately, the concentration of air pollutants near schools often significantly exceeds levels in the community as idling school buses and parent vehicles are present.

EQUITY

Walking is the only mode of transportation universally affordable to everyone, but it is not always accessible due to lack of appropriate infrastructure. It is particularly important to Fort Worth residents who do not drive, including children, many people with disabilities, many senior citizens, and people who cannot afford to own and operate a car. Equity issues such as populations dependent on walking must be considered when making funding decisions. Fort Worth's demographics indicate a need for transportation alternatives due to the rising cost of vehicle ownership, coupled with a significant local population without access to a vehicle or who are unable to drive.

The American Community Survey estimates 224,570 residents of Fort Worth are under the age of 17. For young people, walking affords a sense of independence that is not possible with other modes. Children are able to walk to school, to friend's house, and for recreation where driving or bicycling may not be available.

For the elderly, walking is an effective means to stay active, both physically and socially. The American Community Survey estimates over 67,000 Fort Worth residents are over the age of 65, with approximately 37 percent having a disability.

For persons with disabilities, having safe, predictable, and convenient pedestrian facilities is a necessity to live an independent lifestyle. The American Community Survey estimates 73,000 residents of Fort Worth over the age of 16 have a disability. (American Community Survey, 2012)

COMMUNITY

People want to live in neighborhoods that are safe and walkable. Streets and neighborhoods feel safer and are safer when people are out walking. People who walk get to know their neighbors. A 2003 study sought to examine whether pedestrian-oriented, mixed-use neighborhoods encourage enhanced levels of social and community engagement (social capital). The analyses indicated that persons living in pedestrian friendly neighborhoods have higher levels of social capital compared with those living in car-oriented suburbs. Respondents living in walkable neighborhoods were more likely to know their neighbors, trust others, and be socially engaged. Neighborhoods that allow for easy and safe walking are better equipped to provide a sense of community. (Kevin M. Leyden, September 2003)

ECONOMY

Walking and walkable environments support the local economy. The most successful districts in Fort Worth rely on high levels of foot traffic. Vibrant public spaces are attractive to both employers and employees when choosing where to locate. Pedestrians support local businesses while en-route to other destinations. Cities with vibrant walkable places attract tourists as well as visitors from nearby communities.

A recent survey by the National Association of Realtors found that when considering a home purchase, 77 percent Americans would look for

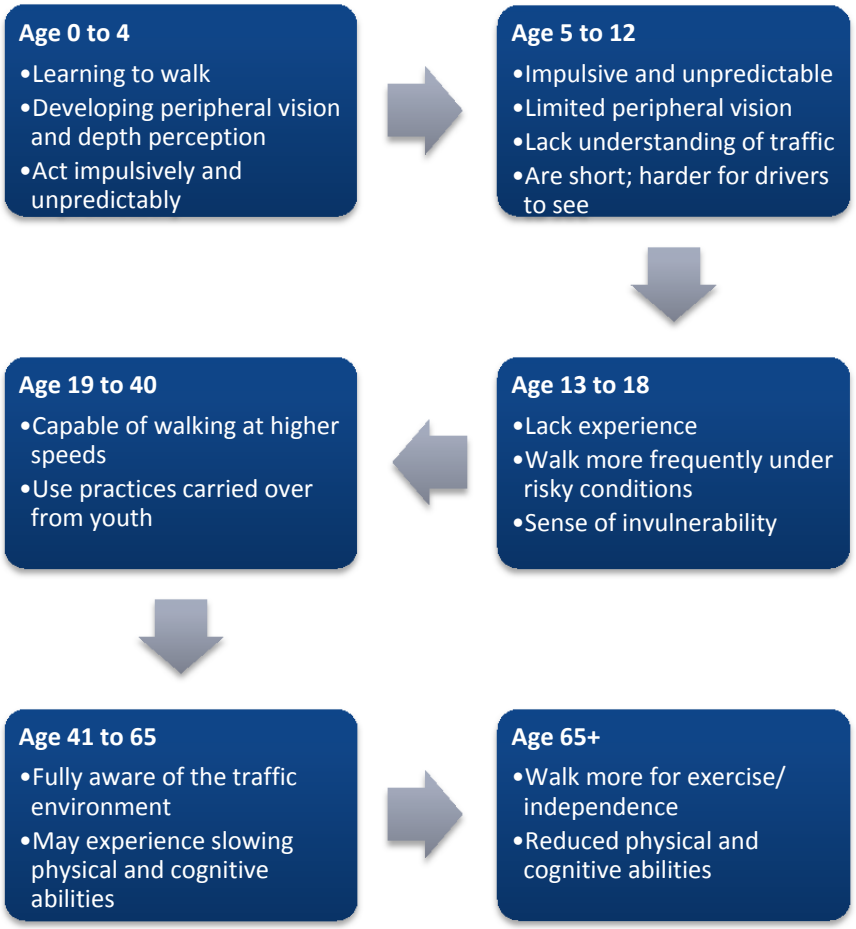
neighborhoods with abundant sidewalks and other pedestrian-friendly features, and 50 percent would like to see improvements to existing public transportation rather than initiatives to build new roads and developments. (National Association of Realtors, 2011)

A report released by CEOs for Cities found that homes located in more walkable neighborhoods — those with a mix of common daily shopping and social destinations within a short distance — command a price premium over otherwise similar homes in less walkable areas. Houses with above average walkability command a premium of about $4,000 to $34,000 over houses with just average levels of walkability in the typical metropolitan areas studied. (Cortright, 2009) Similarly, an analysis of office, retail, apartment, and industrial properties found higher values for properties in more walkable areas.

Another study, prepared by the Brookings Institution in the Washington, DC metropolitan area, found that more walkable places perform better economically – office, residential, retail rents, retail revenues, and for-sale residential values were all found to increase as the number of features that facilitates walkability and attract pedestrians increase. Neighborhoods with poor walkability are generally less affluent and have lower educational attainment than places with good walkability. (Alfonzo, 2012) The study recommended that local planning agencies incorporate assessments of walkability into strategic economic development plans and they reduce barriers to walkable development.

TYPES OF PEDESTRIANS

Pedestrians have different needs based on age and mobility based on the physical and mental developmental needs associated with aging. Each type of pedestrian has different needs; however, all users can be accommodated with a few additions to the sidewalk and curb ramp standards.



PEDESTRIAN CHARACTERISTICS BY AGE (US DEPARTMENT OF TRANSPORTATION)

CHILDREN

Being struck by a car is a leading cause of death and injury to children. Children are particularly vulnerable to pedestrian injuries because they are exposed to traffic threats that exceed their cognitive, developmental, behavioral, physical, and sensory abilities. Children are impulsive and have not yet developed the skills to analyze traffic characteristics. These skills develop gradually and are usually not fully mastered until at least age 10. (Safe Kids, 2007) Statistically, in 2008, one out of every five children

between the ages of five and nine who were killed in traffic crashes was a pedestrian. (Centers for Disease Control and Prevention, 2013)

PERSONS WITH DISABILITIES

An estimated 85 percent of Americans living to full life expectancy will experience some sort of permanent disability sometime in their lifetime. The Americans with Disabilities Act (ADA) signed into law on July 26, 1990, created mandates that disabled persons have full access to all public facilities in the United States.

The built environment can create challenges for persons with disabilities navigating the City. Providing curb ramps is only one part of creating a more accessible environment. Installing tactile warning strips or truncated domes at street crossings, audible pedestrian signals, increasing pedestrian crossing time, and standardization of the location and design of traffic signals are some of the improvements that can create a safer pedestrian experience.

LACK OF SIDEWALKS CAN CREATE DANGERSOUS CONDITIONS
PHOTO CREDIT DR. SCOTT CRAWFORD

OLDER PEDESTRIANS

The number of older Americans (ages 65 and up) is expected to increase significantly over the coming decades. Estimates from the U.S. Census Bureau indicate older adults represented 12 percent of the total population in 2005. By 2025, this number will more than double to about 62 million, or 18 percent of the population (nearly one in five Americans). According the American Journal of Public Health, both men and women are likely to live beyond the time that they can drive safely, as much as seven years for men and about ten for women (Foley, 2002). During that period, they could lose the independence of the personal automobile and become dependent on alternative transportation. Having fewer, opportunities to walk on a daily basis can make it more difficult for older adults to remain active, and having to give up driving puts a great strain on their ability to live independently. (AARP Public Policy Institute, 2009)

The analysis of Texas Department of Transportation data on older residents from 2002 to 2005 found that although Texans aged 55 and older comprise only 16 percent of the state's population, they make more than 25 percent of all Texas' walking trips. In fact, they made more walking trips than Texas children ages 5-15. Additionally, the pedestrian fatality rate among this age group most dependent on walking is 35 percent higher than that of the general population of Texas. (WalkWell Texas)

ADULT PEDESTRIANS

The average adult is generally served by minimum pedestrian standards of sidewalks and average pedestrian signal timing. However, adult pedestrians can benefit from accommodations that increase safety and efficiency.

TYPES OF TRIPS

People choose non-motorized vehicle trips every day, either out of convenience, necessity, or recreation. Pedestrian trips can serve varied purposes, and the needs for each user will be different. It is often difficult to differentiate between utilitarian and recreational trips, because the same transportation system is generally used for both.

CLEARFORK MAIN BRIDGE WITH BICYCLE AND PEDESTRIAN ACCESS
PHOTO CREDIT: STEVE REISMAN

Pedestrian transportation trips are utilitarian in nature, generally taking the most direct path to a destination. These trips can also include using multiple modes of transportation such as bicycle and public transportation. Sidewalks along major roadways are generally favored over meandering paths. Needs are especially high around transit stops and schools, as each involves people moving around without automobiles. National data show that 28 percent of all automobile trips in metropolitan areas are less than one mile (less than a 20-minute walk) in length. (National Complete Streets Coalition, 2012) This statistic is promising in that if pedestrian facilities are significantly improved, there is a potential for an increase in pedestrian trips and decrease in automobile trips that contribute to local roadway congestion and poor air quality.

Recreational pedestrian trips can include a level of utility. However, these trips are more casual and generally focus on exercise, sightseeing, or shopping. Recreational pedestrians can be accommodated through various means, such as trails, sidewalks, or streets. These trips can range from short trips within a neighborhood to longer trips on trails made for exercise. The new Clearfork Main Street Bridge (connecting Hulen and Bryant Irvin over the Trinity River) accommodates both recreational and utilitarian trips along the Trinity Trails and into the adjacent neighborhoods.

PLAN DEVELOPMENT

Background information was gathered for this plan from previous planning efforts and existing data, aerial photography and maps. In order to receive the most thorough information, a technical committee was formed of City staff and public and private stakeholders in the community and encompassing all areas of pedestrian safety, planning and engineering. This committee provided technical and procedural support for the planning process, and reviewed and provided comments on plan materials.

PUBLIC INVOLVEMENT

Public involvement was a central part of the development of the Walk Fort Worth plan. Residents provided input to City staff through public meetings, online surveys, and through emails. Efforts to encourage participation were accomplished through email blasts to stakeholders and neighborhood groups, and seat drops on busses. Complete results of the online survey and public meetings can be found in Appendix F.

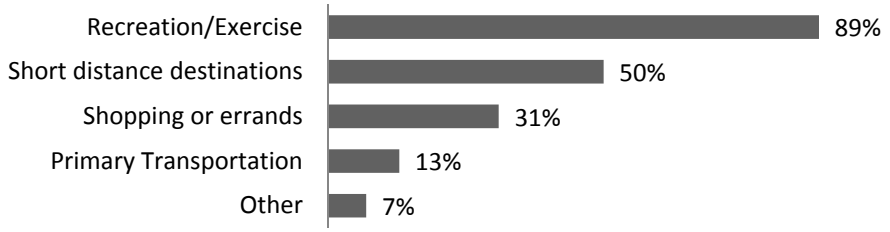
ONLINE SURVEY

The City of Fort Worth conducted an online survey from May 2011 - July 2011, in which 1,633 people participated. Notable findings from the online survey include the following:

- No existing sidewalks and/or poor sidewalk conditions were the number one reason cited for not making more walking trips. This seems to indicate the need for better sidewalk maintenance and increased sidewalk infrastructure

- The second barrier cited was that destinations are beyond walking distance. This suggests a need to reduce land use segregation and greater pedestrian connectivity in order to bring services closer to where people live
- The areas in Fort Worth that respondents identified as having the most significant need for improved pedestrian connectivity along major corridors, roadways, and bridges

When selecting the types of walking trips survey respondents took, recreation and short distance destination trips topped the list. Multiple selections were allowed.



RESPONSES FROM 2011 CITY OF FORT WORTH SURVEY – TYPES OF PEDESTRIAN TRIPS

PUBLIC MEETINGS

In January and February of 2012, eight public meetings were held in each of the City Council districts. Participants of the eight public workshops were asked to respond to a brief summary following the presentations. In response to question asking participants to rank from 1 to 4 their preference for prioritizing spending, facilities around schools came in first, around transit stops/lines second, in areas with high safety concerns third, and areas around parks and public recreation areas fourth. See Appendix G for full results on the public meeting.

PLAN TECHNICAL COMMITTEE

The Walk Fort Worth Plan Technical Committee was comprised of city stakeholders and policy makers including the Fort Worth Independent School District, Tarrant County Public Health, Fort Worth Transportation Authority, and City of Fort Worth departments. A full list of members can be found in Appendix E. The Walk Fort Worth technical committee members were responsible for:

- Guiding progress of study, development of plan, and sign-off on final products
- Reviewing and commenting on proposed policies and draft chapters of the plan
- Providing relevant data or other information on policies and programs

2012 WALK FORT WORTH PUBLIC MEETINGS

OTHER PUBLIC INVOLVEMENT

Public information and input was also gathered through:

- Electronic news updates to interested parties;
- Updates via the City of Fort Worth website and social media
- Presentations to stakeholder, neighborhood, and other interested community groups

DATA COLLECTION

- **Sidewalk and Trail Inventory.** A partial inventory of sidewalk facilities was collected through previous plans, electronic data, and printed maps. Sidewalk inventory was limited to arterials and collectors. Some residential streets were included due to location of schools, bus lines, parks and other services.
- **Field Analysis.** Staff conducted field inspections of existing pedestrian conditions in areas of dense crash rates. The condition of the existing public right-of-way, including sidewalk condition, crosswalk markings, signage, needed repairs, and other relevant information. Walking audits were completed in each City Council District in coordination with the Blue Zones Project.
- **Pedestrian Counts.** To this point, Fort Worth has not conducted pedestrian counts. Data gathered for pedestrian counts are very limited throughout the region. Data was gathered from the U.S. Census American Community Survey, which has a limited sample size. The data available only covers walking to work, so the frequency of walking as a proportion of all trips is unknown.
- **Pedestrian-Related Crash Data.** The Texas Department of Transportation maintains an incident report database of reportable crashes. Pedestrian/Motorist crashes during 2005-2010 were analyzed to identify trends. Additionally, MedStar provided location data of pedestrian crashes from 2003-2011.
- **Health Indicators.** Tarrant County Public Health conducts a Behavioral Risk Factor Surveillance System, which surveys county residents to determine health indicators including obesity, amount of exercise, and fruit intake.
- **Comparable Pedestrian Plans, Policies, and Programs.** Staff reviewed pedestrian plans from cities of similar size from all over the United States, regional planning organizations, and state governments.
- **Pedestrian/ADA Design Standards.** Staff reviewed existing design and engineering standards developed at the city, regional, state and national level. The City is required to use the most current ADA design standards relating to the installation of ADA accessible pedestrian facilities.

RELATED PLANNING EFFORTS

Pedestrian Safety Action Plan. This document was created in coordination with the Federal Highway Administration, local stakeholder agencies, and the City of Fort Worth. The goal of the Pedestrian Safety Action Plan is to reduce the citywide per capita rate of pedestrian crashes, injuries and fatalities while encouraging walkability. The plan builds on existing efforts to improve the pedestrian environment. The aim of the plan is to increase safety and quality of life for all users of Fort Worth's streets. This plan was completed April 17, 2012 and can be found in Appendix C.

Fort Worth Comprehensive Plan. The Comprehensive Plan is the City of Fort Worth's official guide for making decisions about growth and development. The Plan is a summary of the goals, objectives, policies, strategies, programs, and projects that will enable the City to achieve its mission of focusing on the future, working together to build strong neighborhoods, develop a sound economy, and provide a safe community. The most recent full update of the Comprehensive Plan was adopted by City Council on March 6, 2012.

Fort Worth Bicycle Transportation Plan. Bike Fort Worth is the City's comprehensive bicycle transportation plan for developing a friendlier bicycle environment. Recommendations for supportive policies, programs, and facilities are included to increase bicycle transportation within the City of Fort Worth. Implementation of this plan provides a safe and attractive alternative mode of transportation. The Bike Fort Worth plan was adopted on February 9, 2010.

Master Thoroughfare Plan (MTP) and Street Development Standards. These standards guide roadway network decisions in planning and development of the City's infrastructure. These major corridors not only provide transportation for automobiles, but also pedestrians, bicyclists and transit services. The policies contained in the MTP and Street Development Standards dictate the physical characteristics of roadway such as travel lane configurations, parkway size and sidewalk width. The most recent update was adopted by City Council on March 10, 2009. A new Master Thoroughfare Plan is expected to be complete by 2016.

The Mobility and Air Quality (MAQ) Plan. Fort Worth's anticipated growth brings opportunities to improve the economy, residents' quality of life, and challenges in meeting increasing transportation demands. The Plan encourages, through policy modifications, land uses that support multimodal and sustainable transportation options. The MAQ plan is a blueprint for transportation investments and planning policies. Implementation of this plan is a step towards Fort Worth's vision is to be the "most livable city" and transportation is critical in achieving this goal. The MAQ Plan identified $154 million in necessary pedestrian improvements. The MAQ Plan was adopted by City Council on January 13, 2009.

2008 ADA Compliant Pedestrian Curb Ramp Improvement Program Study. The Americans with Disabilities Act (ADA) of 1990 requires public entities to prepare self-evaluations and accessibility transition plans by creating a detailed inventory of curb ramp and sidewalk conditions that may impede pedestrian mobility, especially for those pedestrians with physical impairments. Prior to this study, the City of Fort Worth had little available information on non-compliant ramp locations or a process to identify non-compliant locations. Due to limited funding under this initial phase, only a handful of high-priority study areas were chosen along high-volume Fort transit routes, areas with high pedestrian activity, and citizen requests. Citywide needs were extrapolated from this data. To bring the City's curb ramps into compliance is estimated at $66.5 million. The final report was presented to the Infrastructure and Transportation Committee on July 8, 2008. See Appendix A-2 for the study.

City of Fort Worth 2008 Sidewalk Survey. In order to plan for future sidewalk improvements, the City commissioned a survey to identify deficiencies in Fort Worth sidewalks (gaps and repairs). The conclusion of the study was that much of the study area was without sidewalks. The estimated cost to install new sidewalks and/or repair existing sidewalks within the study area exceeds $180 million. If improvements are limited to only arterial projects, these costs may be reduced to approximately $22 million. While some neighborhoods may elect not to install sidewalks, the cost to provide sidewalks throughout the City will be significant. The final report was presented to the Infrastructure and Transportation Committee on July 8, 2008. See Appendix B for the study.

Fort Worth ADA Transition Plan. The Americans with Disabilities Act (ADA) requires the development of a Transition Plan to make public buildings and facilities accessible to individuals with disabilities. The plan was formulated in accordance with the 1990 ADA requirement that local governments outline structural changes to facilities required to make programs accessible to persons with disabilities. The Plan also included a schedule for the provision of curb ramps. This plan was adopted on July 21, 1992 and can be found in Appendix A-1.