



# TOPEKA PEDESTRIAN MASTER PLAN





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This plan could not have been completed without the valuable input of hundreds of Topekans. Community members and government employees provided the planning team with unique insight into the walking environment of the Capital City: where they like to walk, how existing infrastructure should be improved, and their ideas for how the City and the Metropolitan Topeka Planning Organization (MTPO) should work to create a quality pedestrian network.

In addition to the community's input received through surveys, as well as neighborhood meetings and listening sessions, the time and energy of the Pedestrian Plan Stakeholder Committee was particularly appreciated:

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**Action 3c** Continue to remove obstructions that impede motorists' view of pedestrians.

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# Executive Summary

## Introduction

The Vision and Plan for Walking in Topeka

## The Vision & Plan for Walking in Topeka

The purpose of the Topeka Pedestrian Master Plan is to fill a gap in planning for the city's multi-modal transportation system. Like most American cities, Topeka has focused on planning for motorized travel for decades, and the city has a well-developed roadway system as a result. Metro buses have been running for forty years in Topeka, undergoing modernization efforts in 2015 including a new route system.

In regards to non-motorized travel, the recently adopted Bikeways Master Plan outlines the development of the area's future bikeways. However, Topeka's pedestrian network has not been carefully thought-out for decades, even though pedestrian pathways have been part of the city since its inception.

Quality of life can be greatly improved by making improvements to Topeka's walking environment, leading to better safety and health amongst its residents, as well as community-building within neighborhoods and across the city. Even though walking can be a benefit to all Topekans, improving the atmosphere for pedestrians especially helps children, senior citizens, and people with disabilities. It can also help attract young adults to make Topeka their home.

The vision and goals put forth in this Pedestrian Master Plan were derived from extensive community engagement that occurred during the master planning process.

# Vision

*“Topeka is a walkable city where people of all ages and abilities can safely and comfortably travel on foot.”*

# Goals

## **A Complete Pedestrian Network**

Prioritize sidewalks to schools, bus routes, community centers, senior centers, and park/trails, and ensure that Topeka’s neighborhoods are connected.

## **Maintained Sidewalks**

Repair existing sidewalks and maintain new sidewalks so that they are safe for travel at all times.

## **Safety and Comfort**

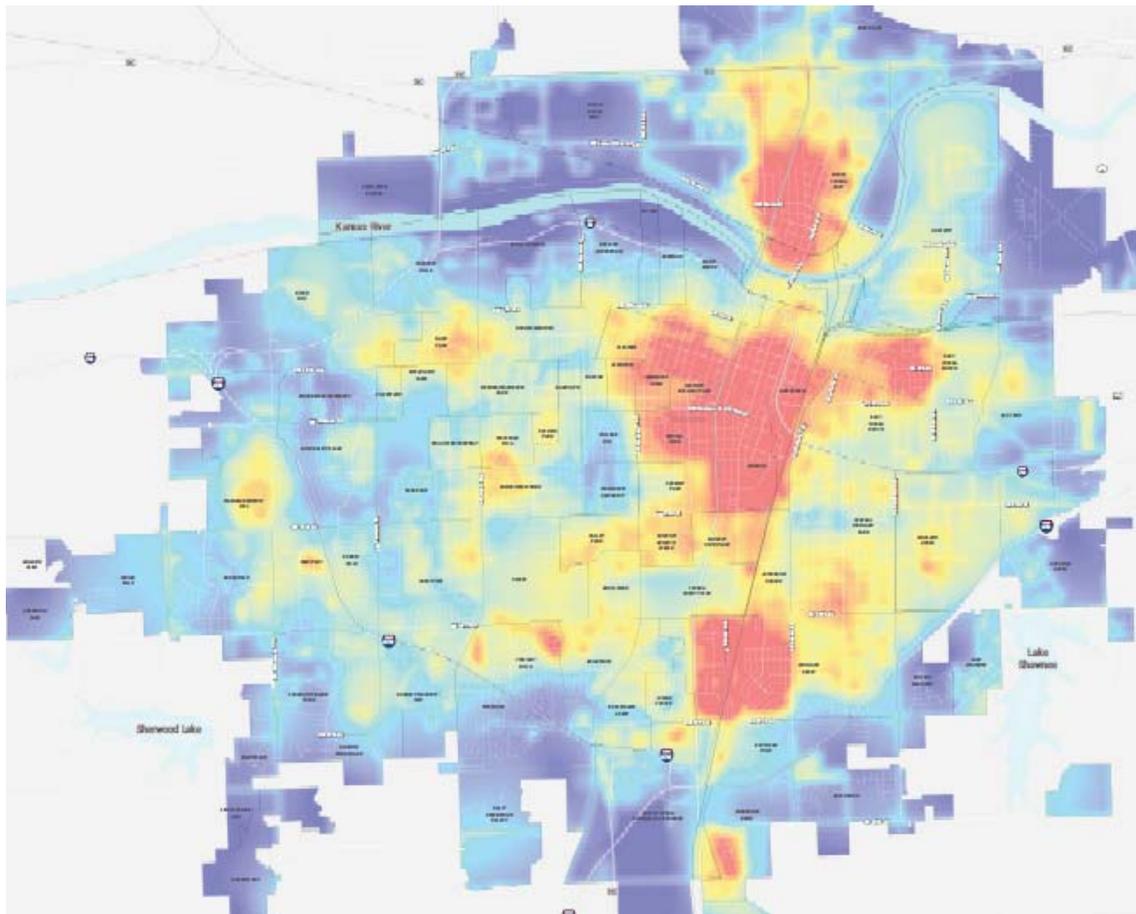
Improve sidewalks and intersections with infrastructure that will keep pedestrians safe and comfortable.

## **A Culture of Walking**

Make walking a normal part of everyday life.

## **Priority Projects**

Focus resources on neighborhoods where the demand for walking is highest.



*Demand map for Topeka’s pedestrian network (For a larger map, reference Figure 5.1 on pg. 60)*

# Learning from community engagement

The City of Topeka worked actively to engage the community in the development of this plan. Staff led outreach through the Pedestrian Plan Stakeholder Committee, which met four times over the course of a year. Two community workshops were held and 379

people filled out surveys. City staff attended fifteen neighborhood meetings, and the consultant team held six listening sessions with key stakeholders. The following are key findings reached through the community engagement process:

## Key Finding 1

The top three priorities for an improved walking environment are smoother sidewalk surfaces, more sidewalks, and improved street lighting at night.

Pedestrians use sidewalks to connect to destinations within and across neighborhood boundaries. When sidewalks aren't maintained in a safe manner, or when they don't exist at all, residents are discouraged from walking the dog, to school, or to a neighborhood park.

## Key Finding 2

People love walking to the city's parks, but they would walk to them (and other destinations) more often, if problem spots were fixed.

The most popular types of walking trips are looping around neighborhoods, through parks, and along trails. But people would walk to more destinations like stores, businesses, restaurants, and schools if the pedestrian network was improved.

## Key Finding 3

There is a higher demand for walking in certain neighborhoods, but it is important to have a pedestrian network across all neighborhoods.

The greatest need for a pedestrian network overlaps with the density of parks, schools, bus routes, and low car ownership neighborhoods in the city's core area. But there is demand for walking all across the city.

# A Developed Pedestrian Network

Topeka has an extensive network of sidewalks in the middle of the city and on its outskirts, but there are large gaps in areas of the city built after World War II and before the 1980s. Even within the areas where sidewalk networks were built, there are many “on again, off again” sidewalks.

Particular attention needs to be paid toward the development of the pedestrian network in neighborhoods where residents are more reliant on walking. It is not realistic to expect that every street in Topeka will have sidewalks in thirty years, so routes to schools, bus stops, community centers, and parks should have higher priority. Major thoroughfares should also be of higher importance, since these are the locations where pedestrians oftentimes walk: busy streets have popular destinations, and they connect neighborhoods to each other.

Topeka adopted a “complete streets” policy in 2011, and this requires the consideration of pedestrians in all road reconstruction projects. There will be exceptions to installing sidewalks and crossings in locations where, for example, low pedestrian

traffic is expected. New developments also require careful consideration when developing the sidewalk network, and the process to improve the rollout of sidewalks in these areas is ongoing.

**Action 1A** Encourage pedestrian-friendly streets in all neighborhoods, especially those that are classified as “at risk” and “intensive care.”

**Action 1B** Continue to improve complete street policies, adding sidewalks during infill developments and all road rebuilding projects.

**Action 1C** Ensure that all geographic sectors of the city are connected with a continuous sidewalk network along and near major thoroughfares.

**Action 1D** Require connected sidewalks in new developments.

**Action 1E** Expand the walkable sidewalk network radiating out from schools, bus routes, community centers, senior centers, business districts, and parks/trails.

## Maintained Sidewalks

By City Code, all sidewalks in public streets out of repair are required to be repaired by the abutting land owners. There is an abundance of needed sidewalk repair in Topeka, with surface inconsistencies occurring on a block-by-block and property-by-property basis. The current complaint-based system for sidewalk problems does not allow maintenance to happen in a prioritized manner or before problems become severe. The current private and public funding mechanisms for sidewalk repair are not adequate to address today’s maintenance needs. The City’s 50/50 cost share program for sidewalk repair needs to be altered so that it is more flexible. It is also in need of more funding.

Topeka ordinance already requires that property owners clear sidewalks of snow and ice within twenty-four to forty-eight hours of the end of a weather event.

Many people are not aware of these requirements, and even more people are unaware of the need for winter maintenance. A positive marketing campaign should encourage neighborly clearing of snow and ice in order to help children, seniors, people with disabilities and people without access to a car.

**Action 2A** Continue the citywide compliance-based program for sidewalk surface repair, and expand its affordability for people in need of assistances.

**Action 2B** Initiate a Proactive Sidewalk Repair Program for the highest priority areas.

**Action 2C** Conduct an awareness campaign to educate property owners about the requirements for sidewalk snow removal.

# A Safe and Comfortable Walking Environment

The pedestrian network is about more than sidewalks. A variety of physical features accompany them – things like crosswalks, street lights, benches, and curb ramps. Topeka already installs and maintains a robust network of pedestrian street crossings, and uses signs, marked crosswalks, pedestrian warning lights, medians, and bump outs. Traffic engineers in the Topeka Public Works Department evaluate the merits of each possible crossing, and install pedestrian features when warranted and safety can be improved.

The need for pedestrian-focused lighting at night is a high priority for Topekans. Street lights can be placed in ways that illuminate pedestrians better, keeping them more visible for motorists. Obstructions at intersections can also make pedestrians less easy to see, and efforts to remove them should continue.

Wider buffer spaces between the sidewalk and the street translate to higher degrees of comfort for pedestrians, and making larger buffers increases the safety of pedestrians. Benches on the street are also helpful for people who cannot walk or stand for great

lengths of time, and their proper placement improves street life. Finally, features like curb ramps, truncated domes, and audible walk signals make it possible for people with disabilities to use the pedestrian network.

**Action 3A** Continue to add and maintain warranted crosswalks, lights, refuge medians, and bump outs at pedestrian street crossings.

**Action 3B** Increase pedestrian-focused lighting to improve nighttime visibility.

**Action 3C** Continue to remove obstructions that impede motorists' view of pedestrians.

**Action 3D** Expand buffers between pedestrians and motorists, and install benches where practical.

**Action 3E** Continue implementing ADA improvements such as intersection curb ramps, audible pedestrian signals, and appropriate sidewalk grades and cross slopes.

## A Culture of Walking

Topekans already love to walk around the city – in its Downtown and through its neighborhoods and parks. But more can be done to improve the culture of walking, in order to make it a normal part of everyday life.

Programming should be created for each elementary and middle school in the city, so that children can safely and comfortably walk to school. The Public Works Department already supports walking to school through the publication of maps. Detailed planning documents should be completed for each school, based upon the model of Quincy Elementary, and “walking school buses” should be featured as part of these plans.

An advisory committee for walking should be combined with the existing efforts of the Bikeways Advisory

Committee. The membership of this committee should include a variety of community members with an interest in walking, so that pedestrians can advise City staff on the implementation of this plan.

The development of neighborhood destinations also needs to be encouraged, so that Topekans have places to walk to, including stores, businesses, and restaurants.

**Action 4A** Implement programming that encourages children to walk at every school.

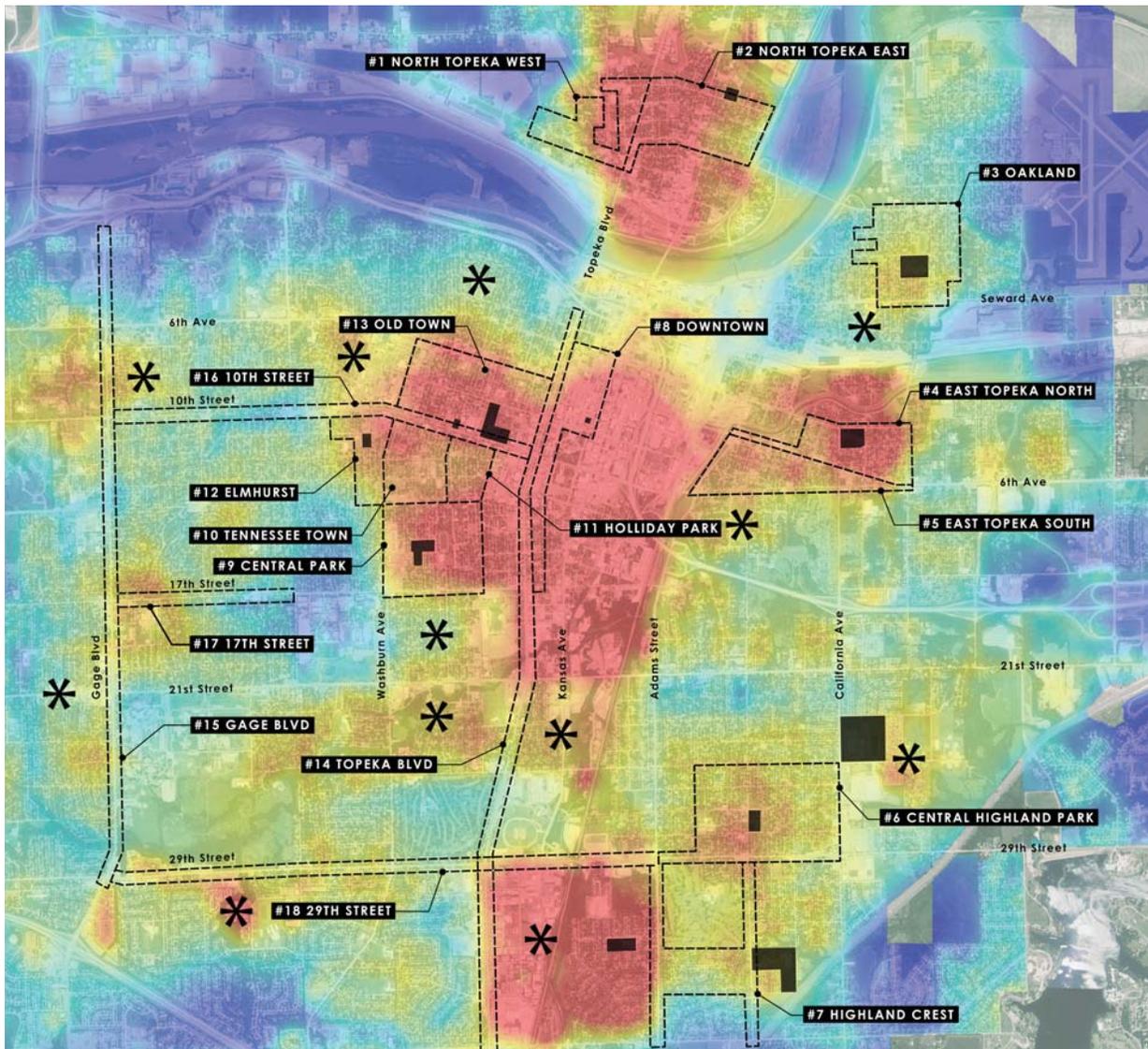
**Action 4B** Establish a complete streets advisory committee.

**Action 4C** Promote walking in neighborhoods through mixed use development and redevelopment along neighborhood corridors.

# Priority Projects

In order to focus limited resources on the most important areas for pedestrians, a list of priority projects was generated. Informed by the community engagement process, the project team chose locations in the city where demand for walking is highest. A field inventory examined the presence of sidewalks and their surface condition, the quality of corner curb ramps, and the need for crosswalks across busy streets. Preliminary planning has been completed for eighteen focus areas, and the following results summarize the findings:

- Improvements are needed along approximately forty-seven miles of sidewalks, and at 1,800 curb ramps and 350 crossings.
- For a total of approximately \$7 million, pedestrian improvements could be completed in the highest demand areas over a 4-year period.
- Funding for pedestrian improvement projects is currently \$0.7 million per year. At this rate, it would take thirty years to complete all priority projects.
- The overall estimated cost to complete all priority pedestrian projects is \$20.8 million.
- With an increase of \$300,000 per year, all priority projects could be completed in twenty years.



Priority projects are located within eighteen areas in the center of Topeka. (For larger map, reference Figure 5.2 pg. 61)



# The Capital City's Plan

How the Public Shaped this Document

# Public Input

The purpose of engaging the community throughout a planning process is to better understand the community's values and priorities for improvements. A significant number of Topekans were involved in the crafting of this plan. Community engagement was critical in identifying the problems everyday pedestrians face, and the public was also the key toward setting realistic priorities.



In the initial stages of this planning effort, a community workshop was held with twenty-three people who helped to show how Topekans use the existing pedestrian network today, and where they hope it will be in the future.



Participants arrive to the initial community planning workshop for the Pedestrian Master Plan.

Many lessons were learned at this meeting:

- Topeka has many locations where people love to walk, such as Shunga Trail, downtown, neighborhoods, parks, and cemeteries.
- There are also places where people would love to walk, such as Gage Park, Lake Shawnee, busy streets, and neighborhoods without sidewalks.
- There is a desire for walking to be safer, easier, and more connected: no more ditch walking, well repaired walking surfaces, and sidewalks which don't abruptly come to a confusing halt.

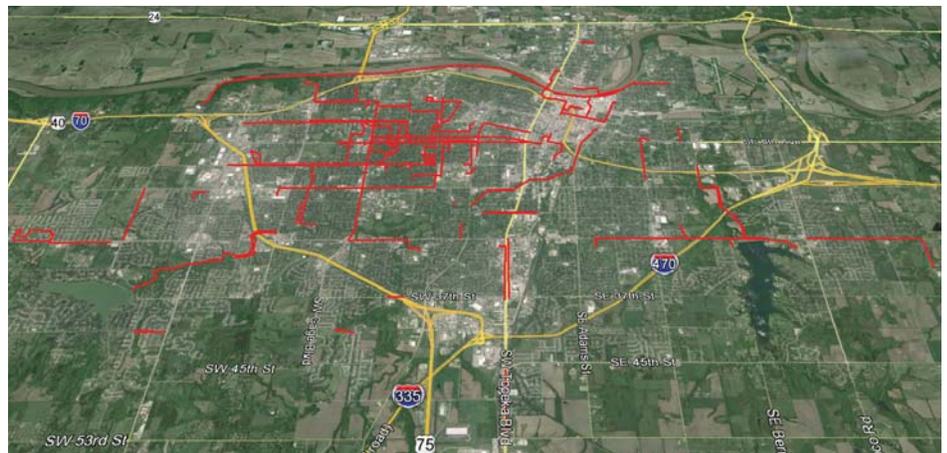
For a full report on the findings of the initial community workshop, see Appendix A.

At the same time, listening sessions were held with seven groups (and sixteen people) ranging from a group of young Topeka professionals to the Mayor and representatives of the Topeka Public Schools, to ask about the challenges and opportunities for improving the walking environment in Topeka. See Appendix B for a complete list of listening sessions.

Immediately afterward, online and paper surveys were distributed to the wider community, through four websites: surveygizmo.com, wikimapping.com, mindmixer.com, and nextdoor.com. 379 people responded in this manner. More detailed discoveries were made in the survey phase of this plan:

- The top 3 priorities for improving the Topeka walking environment were:
  - 1) Smoother sidewalk surfaces,
  - 2) More sidewalks, and
  - 3) Improved street lighting at night.
- The level of satisfaction with walking in Topeka has room for improvement: 51% of respondents thought that walking in Topeka has relatively equal numbers of bright spots and problem spots, and 31% said that Topeka is, "Mostly not a nice place to walk, with a few exceptions."
- The most popular walking trips today involve loop walking (e.g. dog walking), going to a park, and walking to or from home.
- Respondents most desired being able to walk to stores and businesses.
- The three biggest problems people reported on their existing strolls were:
  - 1) A lack of sidewalks,
  - 2) Difficult street crossings, and
  - 3) Bumpy sidewalk surfaces.

For more detailed findings, please refer to Appendix C.



This map shows routes that respondents would like to walk along, if the pedestrian environment was improved.

During these beginning phases of the planning process, a Pedestrian Plan Stakeholder Committee was organized. This group consisted of eighteen people from the community, including neighborhood, government, and non-profit representatives. The group met four times over the course of the plan's development. The Stakeholder Committee was responsible for guiding the detailed development of the Topeka Pedestrian Plan. Amongst other things, the group:

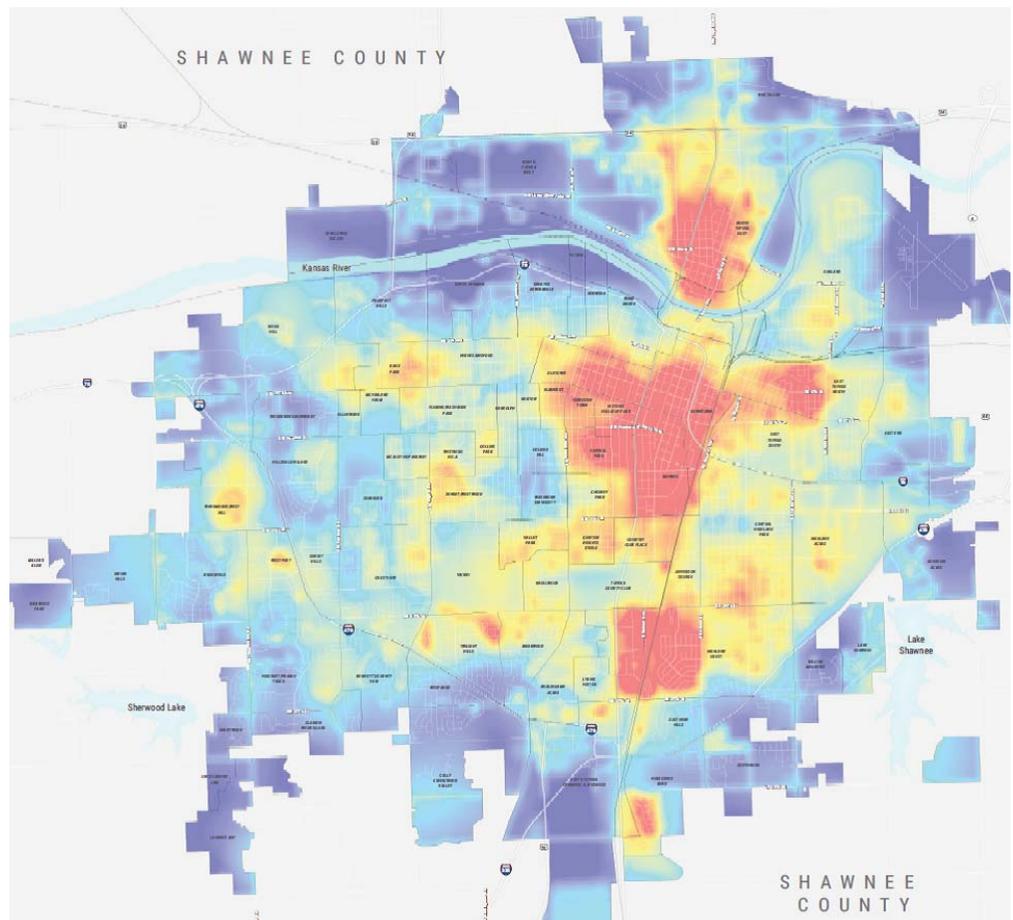
- Gave advice about the root causes of some of the poor walking environments in Topeka (i.e. existing policies, private-public partnerships).
- Shaped the plan Vision (see the Introduction) and the Goals and Actions (see Chapters Two through Five).
- Suggested locations for field inventory work.

Through the input gained at the community workshop, surveys, listening sessions and stakeholder committee meetings a Pedestrian Demand Heat Map was created. The following features were mapped (see Figure 1), and each was given a relative weight based upon what Topekans determined to be most important to the community: (A larger reference map of Figure 5.1 can be found on pg. 60.

### Key for Pedestrian Priority Areas

Feature	Weight	How it is Represented
Bus Routes	High	1/2 mile buffer
Neighborhoods (Intensive Care)	High	within polygons only
Parks & Trails	High	1/2 mile buffer
Schools (Elementary and Middle, Public and Private)	High	1/2 mile radius
Streets with no Sidewalks	High	500' buffer
Busy Streets (i.e. Arterials and Collectors)	Low	1/2 mile buffer
Commercial Parcels	Low	within polygons only
Community Centers (including Senior Centers)	Low	1/2 mile radius
High Density Residential Properties (4+ units)	Low	within polygons only
Major Destinations	Low	1/2 mile radius
Neighborhoods (At Risk)	Low	within polygons only

See Appendix D for detailed notes on the work of the Pedestrian Plan Stakeholder Committee.



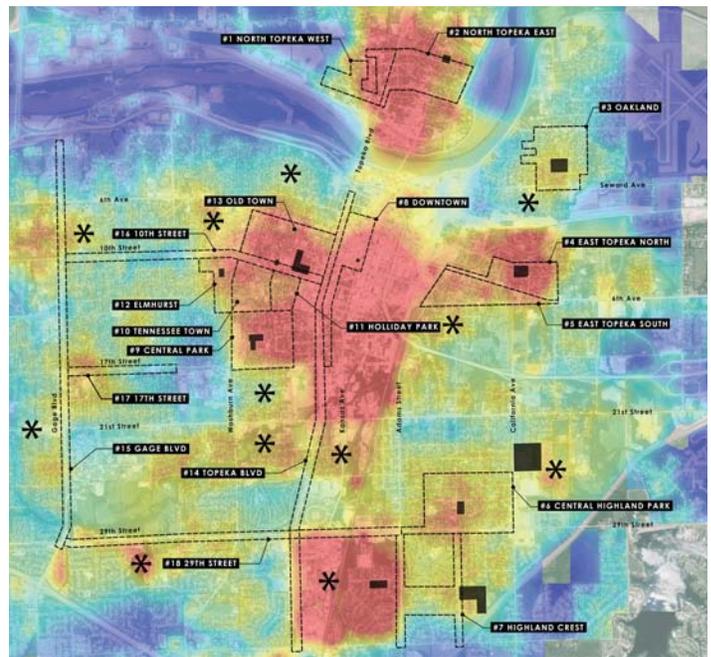
**Figure 1**

The Pedestrian Demand Heat Map shows where the demand for walking in Topeka is the highest (in reds and oranges) and the lowest (in yellows and blues). Larger map found on pg. 60)

The Pedestrian Demand Heat Map served as the starting point in deciding which streets needed to be the focus of a field inventory. Staff on the planning team visited fifteen neighborhood groups (see Appendix E), and asked attendees at each meeting to suggest locations where making improvements for pedestrians would be most important. These areas outlined in Figure 2 have been analyzed in detail in Chapter Five and Appendix I-A. A larger reference map of Figure 5.2 can be found on pg. 61.

A second community meeting was held during January 2016 to review the master plan's recommendations with the community. Meeting with the community, attendees discussed its goals, action steps, maps, and priority improvement projects plus associated planning-level (pre-engineering) cost estimates. Overall, they were supportive of the master plan and commented that regular evaluation of priority projects and their locations will be essential as the plan is implemented and funding is identified. For a full report on the findings of the second community workshop see Appendix A.

Throughout the creation of this plan, the community has helped to guide its work. This relationship has resulted in a realistic and focused plan which will undoubtedly improve the Capital City's pedestrian environment for decades to come.



**Figure 2** Members of the public guided the focus for field inventory work in neighborhoods (seen in dashed outlines) where pedestrian demand is the highest. Larger map found on pg. 61.



*At the second community planning workshop, participants discuss goal, actions, maps and priority improvement projects for the Pedestrian Master Plan.*





# Chapter 1

## A Pedestrian Network

A complete pedestrian network connecting all neighborhoods

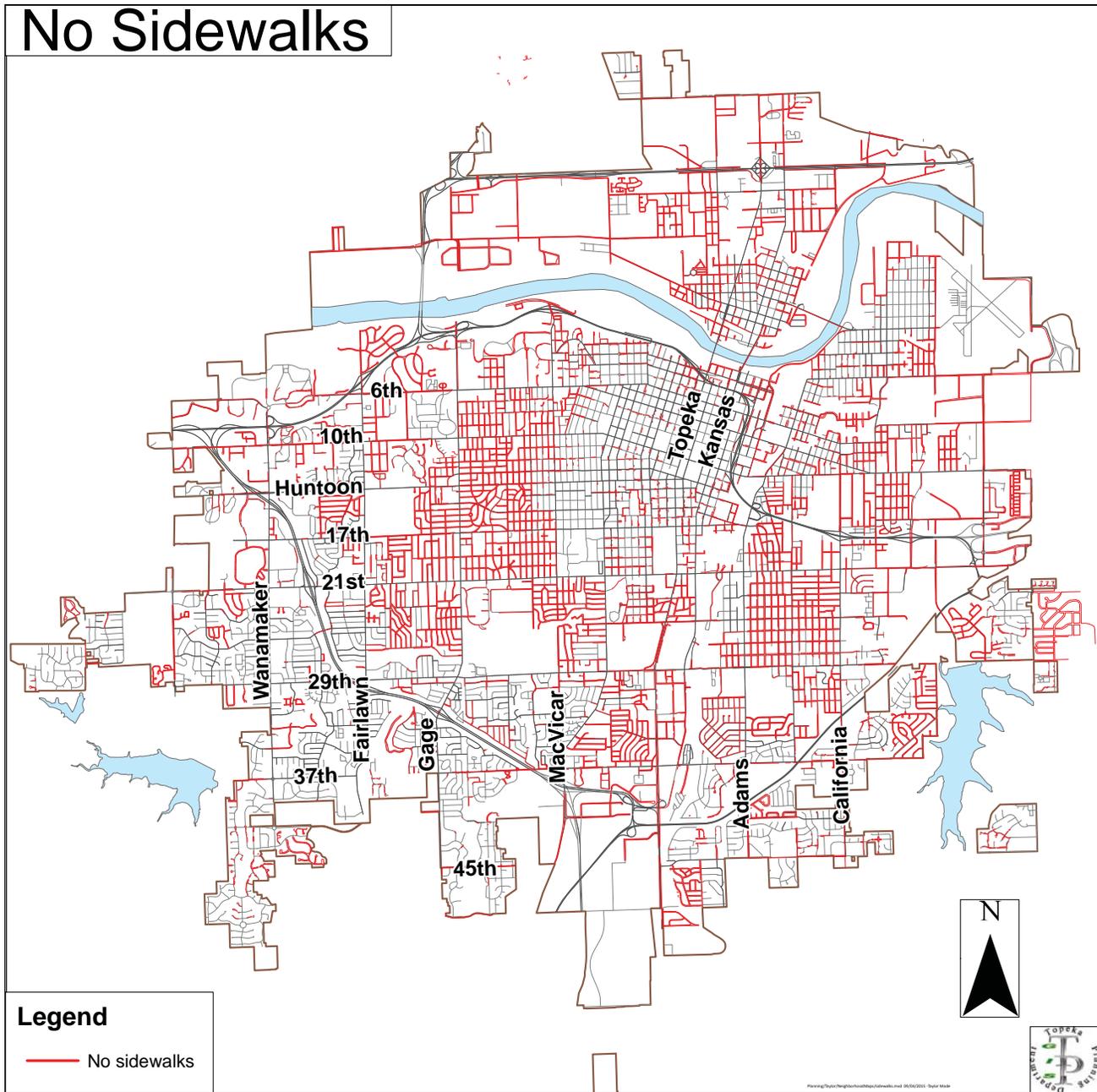
## **A Complete Pedestrian Network Connecting all Neighborhoods**

Topeka residents and visitors walk for many reasons. Whether it's taking the family dog for a stroll to Shunga Creek, walking to a Metro bus stop to catch a ride to the store, or heading out for lunch Downtown, walking gives people the personal freedom to go where they choose. Sidewalks are a proven measure to improve the safety and comfort of Topekans who walk, and a complete pedestrian network connecting all parts of the city will better facilitate the ability of people to travel by foot.

# **ACTION 1A** *Encourage pedestrian-friendly streets in all neighborhoods, especially those that are classified as “at risk” and “intensive care.”*

The presence of a sidewalk helps make a street more pedestrian friendly. In an online survey conducted for the Pedestrian Master Plan in the spring of 2015, the top problem spot Topekans identified was the lack of sidewalks. A 2015 sidewalk inventory of Topeka found

that 37% of streets in Topeka have sidewalks on both sides, 22% have a sidewalk on at least one side of the street, and 41% have no sidewalk. See Figure 1.1 which illustrates the locations without sidewalks on the city’s street network.



**Figure 1.1** Streets in red do not have sidewalks on one or both of the streets, as of a 2015 inventory.

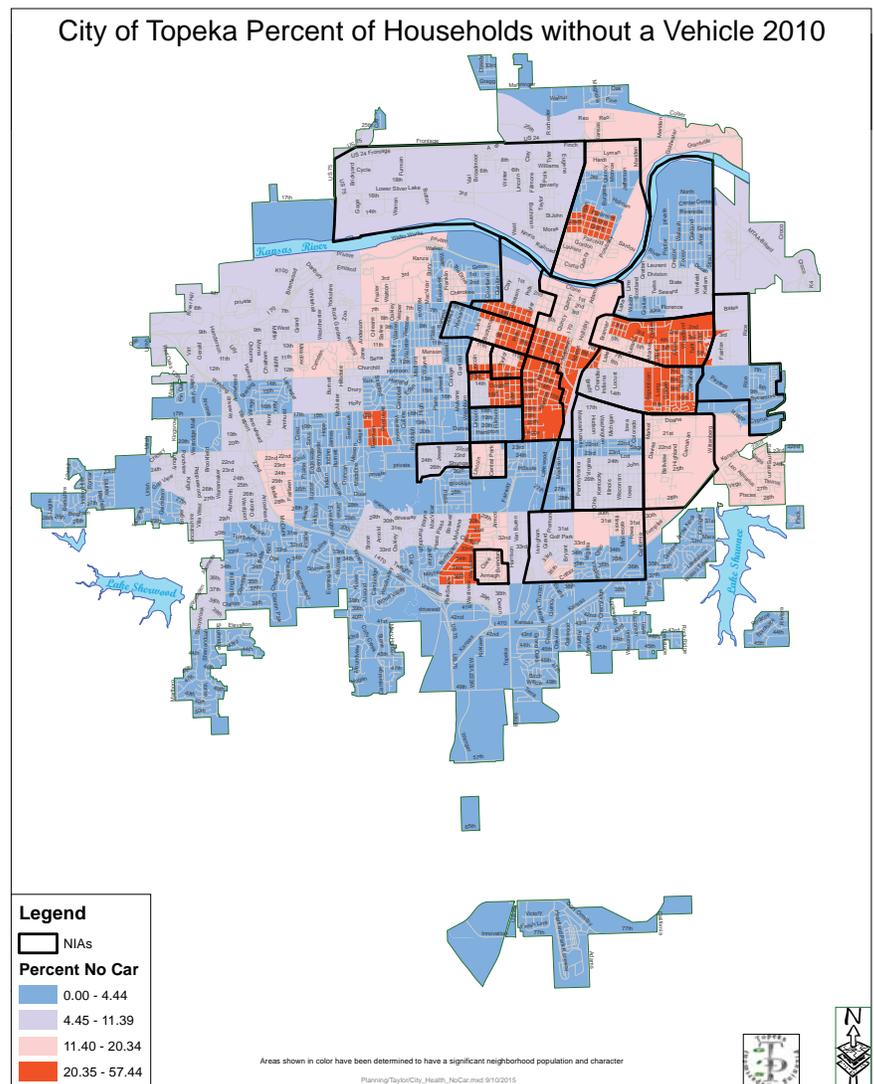
Why do some neighborhoods have sidewalks and others do not? Neighborhoods in the core, older sections of Topeka, built before World War II, were generally constructed with sidewalks before auto ownership became commonplace. Generally, neighborhoods built around the core from the 1950's to the 1970's did not include sidewalks, reflecting the desire for a more car-focused and suburban lifestyle. The revival of sidewalk construction since the 1980's on the outer areas of Topeka reflects a return to more traditional views about the importance of walking for transportation, and also the growing desire to walk for recreation and health.

People walk in every neighborhood in Topeka, but some people in certain parts of the city are more reliant on walking than others, especially in the urban core. The Topeka Comprehensive Plan examined five vital signs of neighborhoods, including poverty, public safety, residential property values, single-family home ownership, and boarded houses. Challenged neighborhoods identified as at risk and intensive care are in particular need of sidewalks, because residents in these areas are less likely to own automobiles (see Figure 1.2). In addition to giving greater mobility, sidewalks help to satisfy the need for basic urban services, which were oftentimes not in place when developed rural areas were annexed into the city.



An historic brick sidewalk in the Potwin neighborhood, built in the late 1800's and early 1900's.

The expansion or rehabilitation of the sidewalk network is encouraged in every neighborhood. While it may not be feasible to build sidewalks on every street in Topeka, the expectation is that pedestrian-friendly streets will be in every neighborhood, and that they will coincide with major thoroughfares and be in close proximity to schools, bus routes, community centers, senior centers, supermarkets and parks/trails. See Actions 1C and 1E for further details.



**Figure 1.2** Areas with low car ownership (in red) largely overlap with challenged neighborhoods.

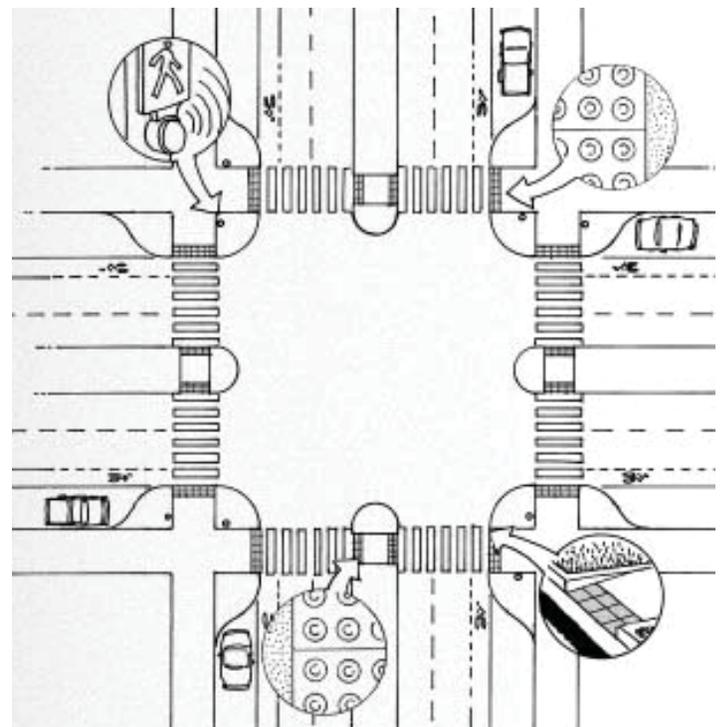
## **ACTION 1B** *Continue to improve complete street policies, adding sidewalks during infill developments and all road rebuilding projects.*

The term “Complete Streets” defines a philosophical concept rather than a specific design standard or criterion. Topeka’s implementation of its Complete Streets Policy will require somewhat of a paradigm shift as provisions for all road users including pedestrians and bicyclists are incorporated into street projects.

All infrastructure construction within the Topeka must be designed in accordance with The City of Topeka Design Criteria and Drafting Standards. The City Engineer, in conjunction with the City Traffic Engineer should review and appropriately update the City’s design criterion to more fully define and embrace complete street and pedestrian elements. These updates will make certain that pedestrian friendliness is a major consideration in the design and construction of city infrastructure projects. The City Engineer might also incorporate other regional or national design guides into these documents. An example would be the AASHTO Guide for the Planning, Design, and Operations of Pedestrian Facilities. It is very important that the City’s design criterion be compatible with the policies of the Federal Highway Administration and the Kansas Department of Transportation as compliance with their policies is often a condition of funding.

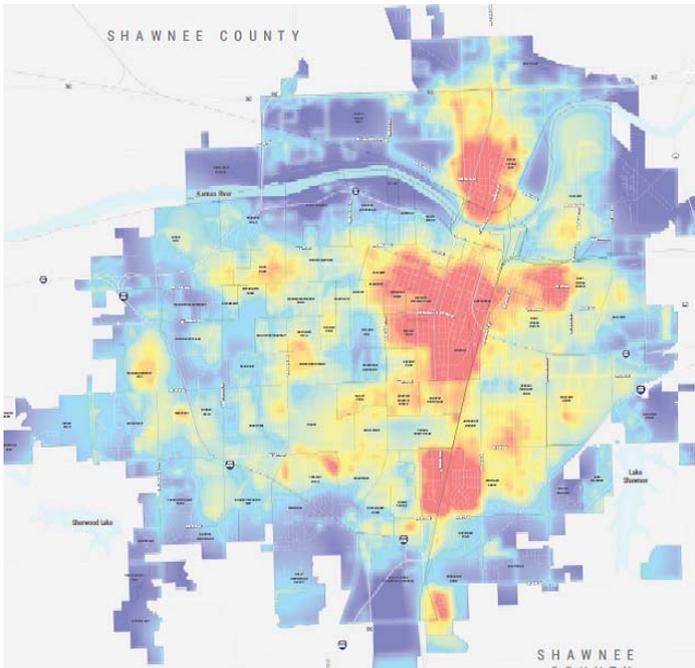
The updated design criterion should address in detail many of the topics covered in Goal 3 of this plan, including safe crossings, buffers between sidewalks and curbs, ADA improvements, refuge medians, sidewalk bump outs, nighttime lighting, and benches. See Figure 1.3 for an example of pedestrian improvements at an intersection, which illustrate the many considerations of a complete streets policy

Heartland Healthy Neighborhoods is currently drafting a revised Complete Streets policy for Topeka. This proposal should be furthered by a future Complete Streets Advisory Committee (CSAC) in combination with the City Engineer and City Traffic Engineer as they work to update the City of Topeka Design Criterion and Drafting Standards to more fully define design standards for complete streets. It is imperative that the establishment of local engineering design criterion and the adoption national or regional design guidelines remain the responsibility of design professionals educated and licensed to practice engineering in the State of Kansas. It is the role of the advisory committee to advise in regards to what complete street elements are needed and where.



**Figure 1.3** This drawing illustrates several pedestrian improvements which can be made at a busy intersection (clockwise, from the upper left): accessible pedestrian signals, detectable warnings, bump outs with landscaping, medians, and ladder style crosswalks (illustration courtesy of FHWA).

A robust complete streets policy needs performance measures to communicate progress. For example, increasing the percentage of Topeka streets with sidewalks by one percentage point annually would translate to 41 additional miles of streets with sidewalks over a ten-year period. A policy needs to give extra attention to neighborhoods where the demand for walking is highest. See Figure 1.4 (also found on pg. 60) for a map showing composite pedestrian demand throughout the city.



**Figure 1.4** This pedestrian demand map shows in reds and oranges where a Complete Street policy should be especially robust, based upon the density of Topeka’s pedestrian destinations, such as parks, schools, and bus routes.

The current review process for Complete Streets in Topeka incorporates the Bikeways Master Plan and the Bikeways Advisory Committee. This pedestrian master plan recommends several changes to the current process. In Step 1b, it is recommended that the Technical Review Team consults the Bikeways and Pedestrian Master Plans before public review. In Step 1c, renaming the Bikeways Advisory Committee to the Complete Streets Advisory Committee will incorporate pedestrian issues. See Action 4B for more information about the proposed Complete Streets Advisory Committee. And in Steps 2, 3, and 4, renaming the City working group from the Complete Streets Committee to the Internal Design Committee will avoid confusion with the developing citizen/government Complete Streets Advisory Committee.

## 1. Initial Assessment

- a. Prior to design work being initiated, the city Engineer submits the street segment proposed for construction or reconstruction to the Technical Review Team.
- b. The Technical Review Team (TRT), consisting of the Traffic Engineer and City Planner, makes an initial assessment of the street segment for complete streets issues, based on the checklist, (see Appendix F) the Bikeways Master Plan and Pedestrian Master Plan.
- c. Recommendations for complete street elements to be incorporated into the street projects submitted by the Technical Review Team to the Complete Streets Advisory Committee for comments and suggestions.

## 2. Complete Streets Committee

- a. TRT submits recommendations to the Internal Design Committee (IDC), which consists of: Public Works Director, Planning Director, City Engineer, Director of Housing and Neighborhood Development, ½ Cent Sales Tax Manager, Topeka Metro Transit Authority representative and other staff as appropriate.
- b. IDC determines complete streets components to be included in preliminary street design.

## 3. Design Consultant

- a. City Engineer submits instructions to design consultant for incorporation of recommended complete streets components into preliminary street design.
- b. Consultant:
  - i. Completes an independent complete streets assessment for recommendations,
  - ii. Reviews IDC’s instructions, and
  - iii. Develops cost estimates.

## 4. Final Design

- a. City Engineer directs final design changes, in consultation with the IDC.
- b. Final design completed by consultant.
- c. Engineering will update the Complete Streets Committee.

When designing a new or substantially altered house, apartment building, or commercial property in an area without sidewalks, it is always important to keep a potential future sidewalk alignment clear of buildings, fences, and trees or shrubs, in the event that a sidewalk is installed at a future date. The building code should be updated accordingly, and the decision tree below (Figure 1.5) should also be used therein to grant waivers for sidewalk construction which takes place concurrently with building construction:

The installation of a sidewalk may look like a sidewalk to nowhere if it does not immediately connect to another sidewalk. But, the installation of a disconnected sidewalk may be the most cost effective solution to a long-term plan of installing sidewalks along a street or in a neighborhood. In this instance, it is important to tell the story of Topeka’s developing sidewalk network, and its importance for improved safety for children and seniors, and a better quality of life for all Topekans.

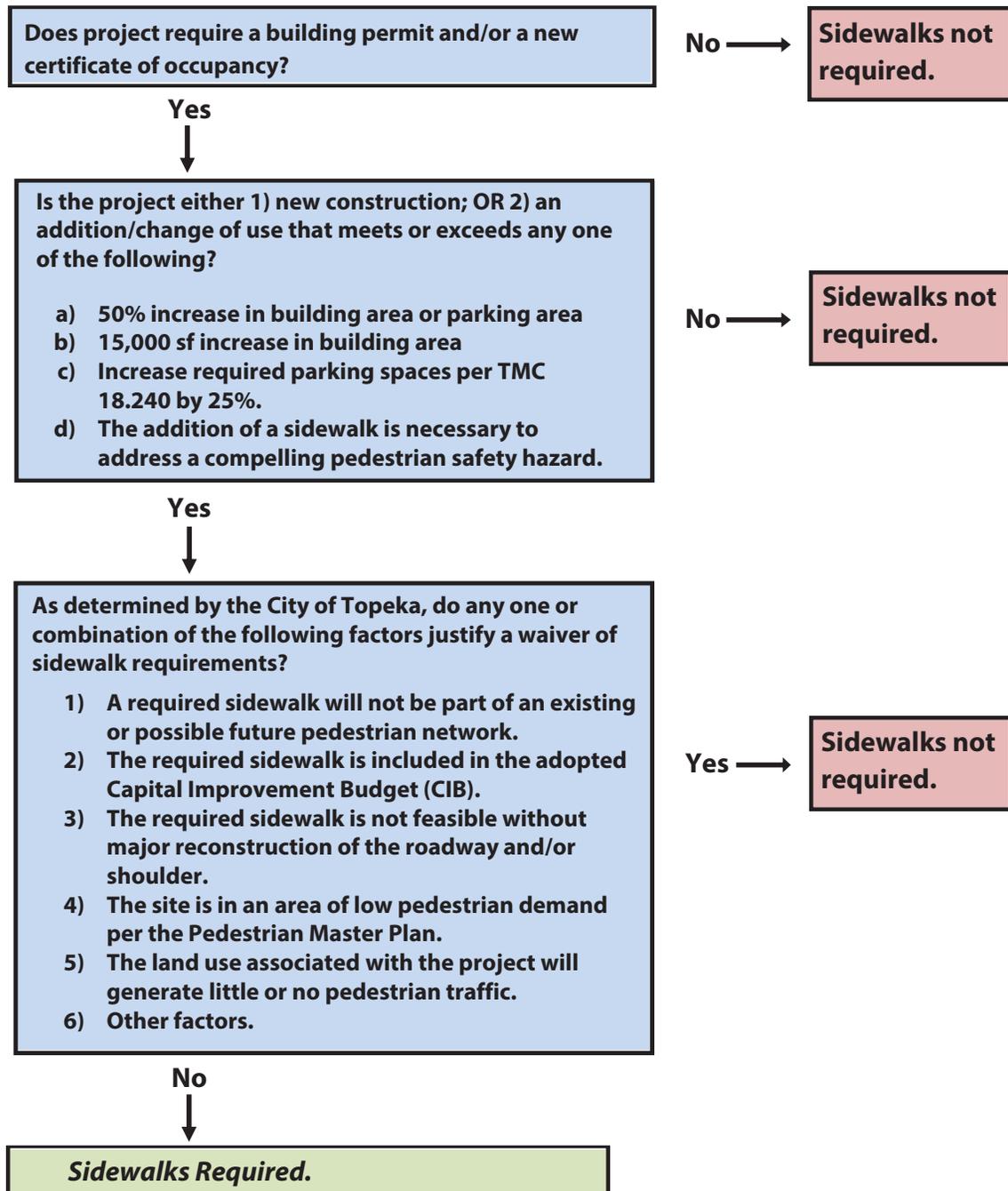


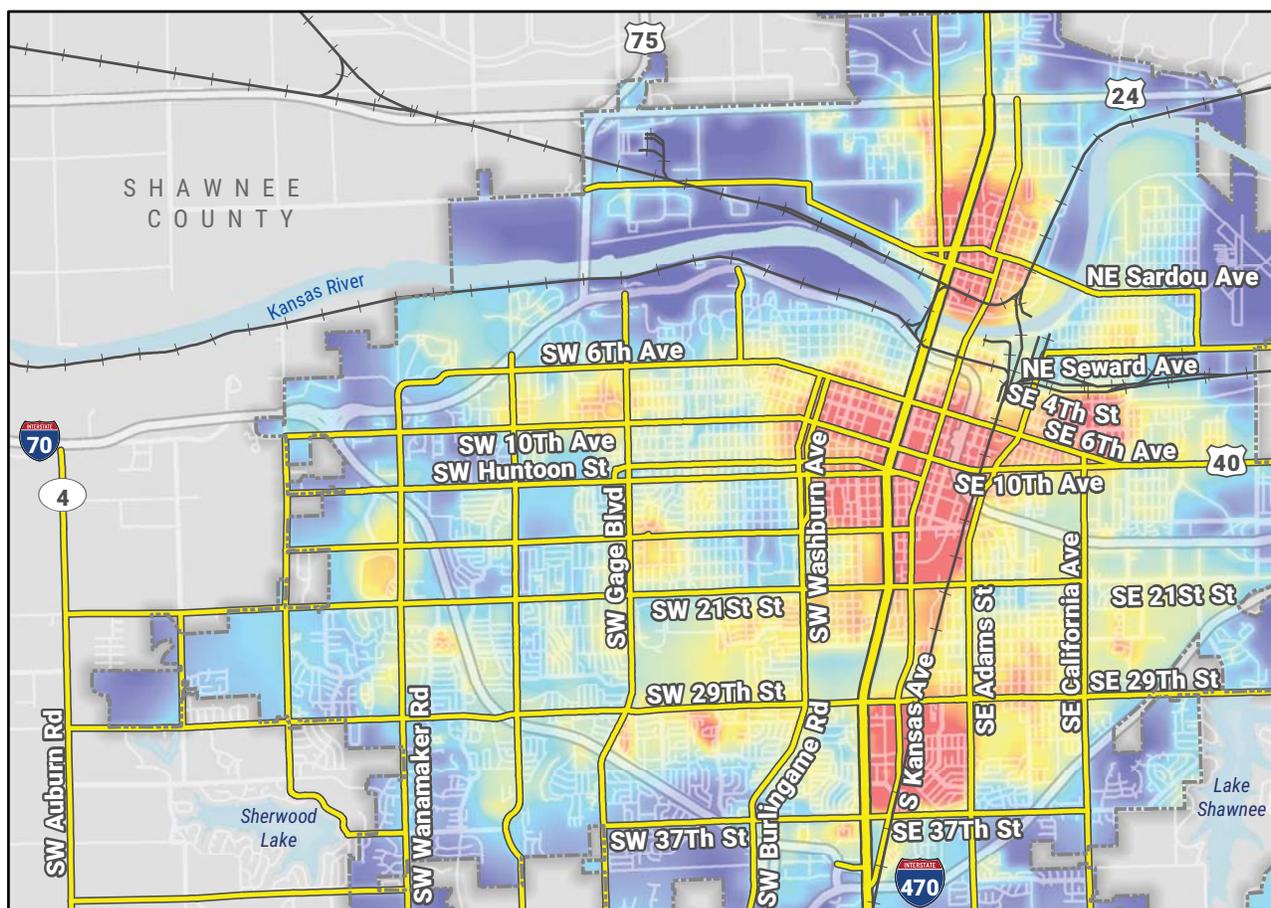
Figure 1.5 City of Topeka Planning Department Sidewalk Requirement Decision Tree Draft

## **ACTION 1C** *Ensure that all geographic sectors of the city are connected with a continuous sidewalk network along and near major thoroughfares.*

Sidewalks along major thoroughfares are important for the following reasons:

- Busy streets are oftentimes popular with pedestrians for the same reason they are with motorists – a higher number of business and social destinations attract customers and visitors.
- Bus routes run along major thoroughfares, so bus users need to walk to, from, and along these streets.
- Busy streets connect neighborhoods, whereas local streets are often interrupted by freeways, heavy traffic, railroads, parks, and water features.
- Heavy volumes of automobile traffic may result in a greater number of pedestrian-vehicle conflicts.
- Higher auto speeds are more likely to result in severe injuries and fatalities of pedestrians.

Figure 1.6 shows the network of major thoroughfares in Topeka, overlaid on the composite pedestrian demand map. The major thoroughfare street network is currently 109 miles, or a capacity of 218 sidewalk miles to meet the city standards of sidewalks on both sides of the street.



**Figure 1.6** The network of major thoroughfares in Topeka, in relation to pedestrian demand (areas with red and orange have the highest pedestrian demand).

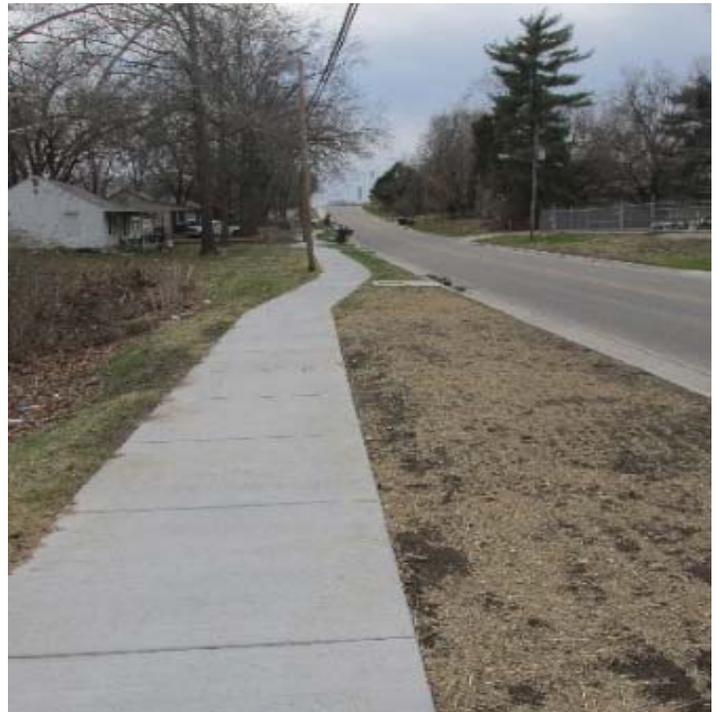
Currently, major thoroughfares are at 69% (150 miles) of sidewalk capacity. The long term goal is to have sidewalks at 95% of major thoroughfares, achieving an approximate 1-mile spacing across the city while leaving 5% unbuilt due to cost effectiveness (eg. topography, physical constraint). That means another 57.2 miles of sidewalks are needed to reach that 95% goal. (See Figure 1.7a)

One of the most cost effective ways of installing new sidewalks on major thoroughfares to increase sidewalk capacity is by constructing them during road rebuilding projects. Currently, there are 38.6 potential sidewalk miles of future road reconstruction projects planned through 2031. (See Appendix G for a map and list of projects)

Some of these locations are merely reconstruction of existing sidewalks and could not be added as additional sidewalk miles. We have calculated that there will be approximately 19.4 new sidewalk miles added citywide due to the proposed projects. Additionally, another 3.2 new sidewalk miles will be added within the plan’s priority areas. Beyond these projects, another 34.6 miles are needed to reach the 95% long-term capacity goal.



*Metro bus routes attract pedestrians to walk along major streets, such as this bus shelter on SW 8th Avenue in Downtown.*



*This new sidewalk was constructed as part of a recent road rebuilding project.*

	Existing Major Thoroughfares	Future Road Projects, Major Thoroughfares	New Future Sidewalk Projects, Major Thoroughfares	Existing & Future, Major Thoroughfares	GOAL
<b>Total Sidewalks</b>	150	19.4	3.2	172.6	<b>207.2</b>
<b>Total Sidewalk Capacity %</b>	69%	9%	1%	79%	<b>95%</b>

**Figure 1.7a** Existing and projected sidewalk miles on major thoroughfares to achieve sidewalks on both sides of the street to reach 95% capacity.

	Existing All Streets	Future Major Thoroughfares	Future Other Streets	Existing & Future, All Streets
<b>Total Sidewalks</b>	669	22.6	22.3	713.9
<b>Total Sidewalk Capacity %</b>	48%	1.5%	1.5%	51%

**Figure 1.7b** Existing and projected sidewalk miles on all city streets as recommended within Plan and CIP/ Sales Tax Projects.

## **ACTION 1D** *Require connected sidewalks in new developments.*

When new developments are built in Topeka, there are 2 phases:

1. The developer installs water and sewer mains, the street, and curbs and gutters. Sidewalks are not included.
2. Homebuilders construct houses, and in order to obtain a Building Certificate of Occupancy, city ordinance requires that the homebuilder install sidewalks.

City policy was changed over a decade ago to allow

sidewalks in new residential subdivisions to be constructed by the homebuilder at the time of home construction (not street construction). However, all lots are not necessarily developed in a timely manner within residential subdivisions, leaving gaps of missing sidewalks. This creates an “incomplete” sidewalk/street network which is inconsistent with the City’s “complete street” policies, undermining the walkability of a neighborhood. The result is illustrated in Figure 1.8



**Figure 1.8** Missing sidewalks in a new development result in a disconnected sidewalk system.

In order to remedy this situation, City policy should be altered to be more similar to the previously existing City policy which required sidewalks to be installed by the developer when streets were constructed as part of a street benefit district. The main reason for the original policy change was to prevent sidewalks from unnecessarily being removed and replaced for driveway cuts or being damaged by heavy vehicles during home construction. Using boards to drive over the sidewalks, or laying 6” instead 4” sidewalks, could prevent this damage. Another known challenge is connecting sewer and water main lines to a new house, which if not designed and phased correctly, can damage sidewalks which have already been built. It is possible that alternatives to putting sidewalks in with the street could be looked at through approved development agreements, by making their installation a necessary condition. Regardless of the ultimate solution, the objective of the proposed policy is to ensure a complete sidewalk network is built, even if all lots have not been developed. The additional cost assessed to the homeowner over a 20-year period for a typical 75’ wide lot is estimated to be less than \$10 per month (this estimate will vary depending upon the ultimate solution).

While the building code currently requires sidewalk installation prior to the issuance of a Building Certificate of Occupancy (see Step #2 above), in practice, there are instances where occupancy occurs before sidewalks have been built. Currently, staff in the City’s Development Services Department perform a final inspection prior to building occupancy. Staff in the City’s Planning Department should be given the opportunity to inspect the site and landscape plan. Furthermore, Development Services staff currently only issues letters for residential homes instead of a Certificate of Occupancy. Development Services should issue Certificates of Occupancy for all new





# Chapter 2

## Maintenance

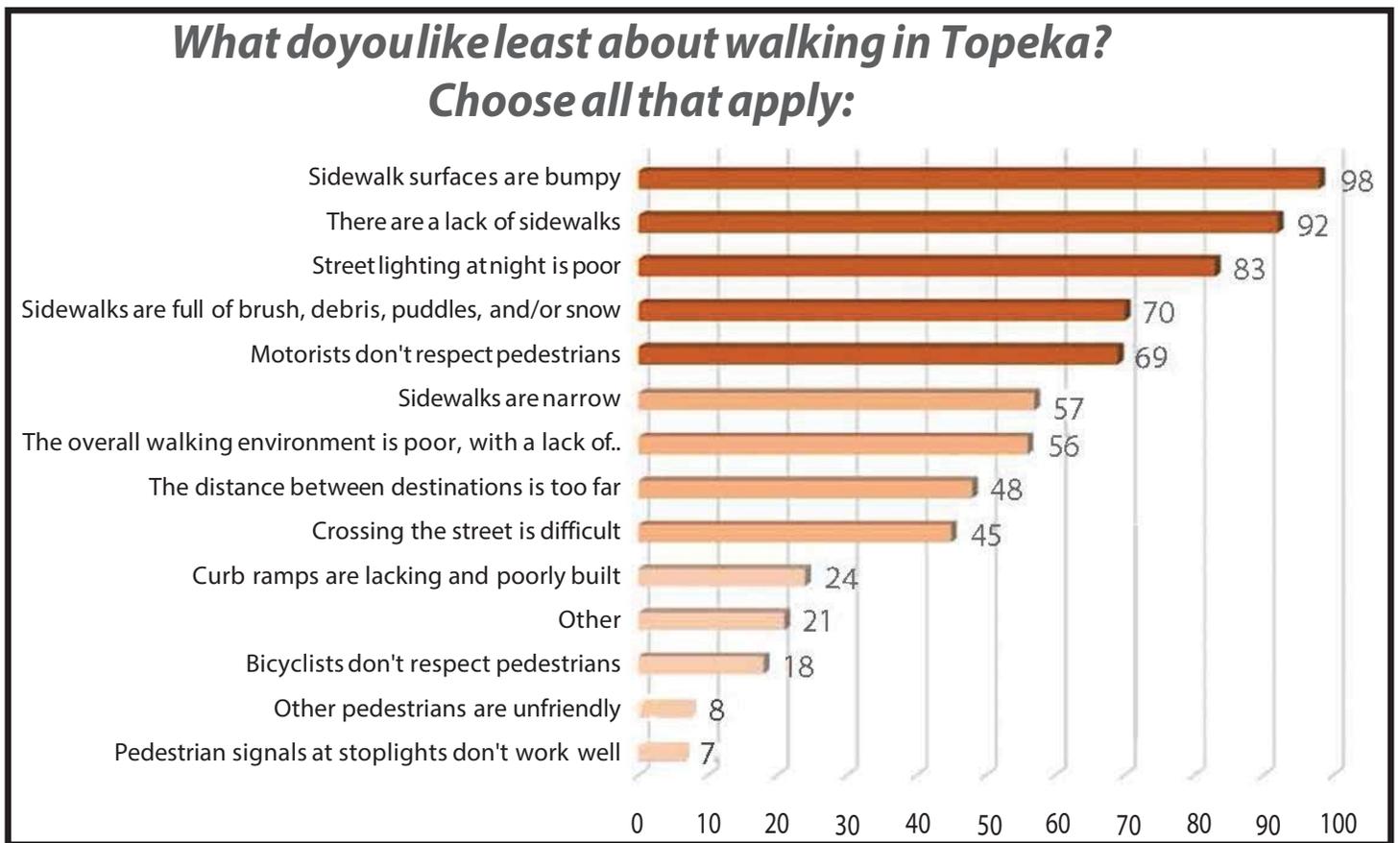
# GOAL 2

## **Maintained Sidewalks for Safe Travel at all Times**

Sidewalks are a major infrastructure investment in Topeka. Sidewalks can last 50 years if properly maintained, and maintenance can prevent rebuilding if problems are caught early on. Maintained sidewalks also facilitate the safe mobility of pedestrians. Smooth and clear sidewalk surfaces allow children to get to school after a snowstorm, the elderly to get to the store without a fear of falling, and people using an assistive device the ability to travel away from traffic. Maintained sidewalks also reduce the risk of liability for property owners (who are responsible for sidewalk maintenance) and the City of Topeka (which oversees sidewalk repairs).

## **ACTION 2A** *Continue the citywide compliance-based program for sidewalk surface repair, and expand its affordability for people in need of assistance.*

Smooth sidewalks are a high priority for pedestrians in Topeka. In an online survey conducted for the Pedestrian Master Plan in the spring of 2015, bumpy sidewalks were the number one problem respondents identified. See Figure 2.1 for the results of this survey question.



**Figure 2.1** Bumpy sidewalk surfaces were the number one item that respondents least like about walking in the city.

Sidewalk surface repairs are currently the responsibility of Topeka property owners. The public may suggest these repairs by submitting a sidewalk complaint, if a property owner has not kept their sidewalk in good repair. The Topeka Public Works Department evaluates the merits of each complaint by visiting the sidewalk in question, and evaluating its condition using a set of established criteria. An example of a criteria is the trip hazard, which is defined as a height differential greater than one inch. If the sidewalk surface is found to be deficient based on the criteria, the property owner is ordered to perform the repairs..

In Topeka, a combination of these methods is used. The city's voter-approved sales tax designated for street repairs includes the 50/50 Sidewalk Cost Share Program. Each year, \$60,000 is set aside to match the cost of sidewalk repairs made by property owners. Whenever a sidewalk in disrepair is the subject of a citizen complaint, the City notifies the property owner and provides information on eligibility for the Sidewalk Cost Share Program. Funding for this program needs to be increased to at least \$100,000 per year.

Currently, a property owner may participate in the 50/50 Sidewalk Cost Share Program regardless of their annual income. A sliding scale adjustment based on income, where the City would pay anywhere from 50% to 100% of the sidewalk repair, would better suit the needs of low and moderate income residents.

Sidewalks with brick surfaces pose a unique challenge compared to concrete, due to their higher density of cracks. Topeka has a policy for the preservation of brick sidewalks. If one of the following five criteria are met, repair of the sidewalk is to be in brick:

1. Located on a block within the vicinity of a state or national designated historic property,
2. Located within or adjacent to a Historic District or designated Local Landmark,
3. A neighborhood plan calls for preservation of the brick sidewalk,
4. Located on a block where at least 60% of the sidewalk on one side of the street is brick, and is maintained in a level condition, or
5. The property owner does not agree to replace it with concrete.

Since most brick sidewalks needing repair will fall into low and moderate income areas of the city, funding should be designated to hire a qualified construction supervisor through the Kansas Department of



*This sidewalk is in disrepair, and does not meet the sidewalk criteria established by the Topeka Public Works Department.*

Communities generally fund sidewalk repairs in two ways:

1. Monies are set aside in the municipal budget from a variety of local and federal sources (e.g. general fund, sales tax, grants).
2. Owners fund the repairs for sidewalks which run along their property.

Corrections so inmate crews can also make brick repairs. Additionally, the City should explore producing or promoting DIY classes or videos on brick sidewalk repairs so residents can be encouraged to undertake repairs on their own. DIY projects would require a city permit and inspection. Property owners with brick sidewalks should be eligible for the 50/50 Cost Share Program, provided the cost of repairs does not exceed the typical cost of concrete sidewalk repairs. See Figure 2.2 for an example of a brick sidewalk in need of repair.

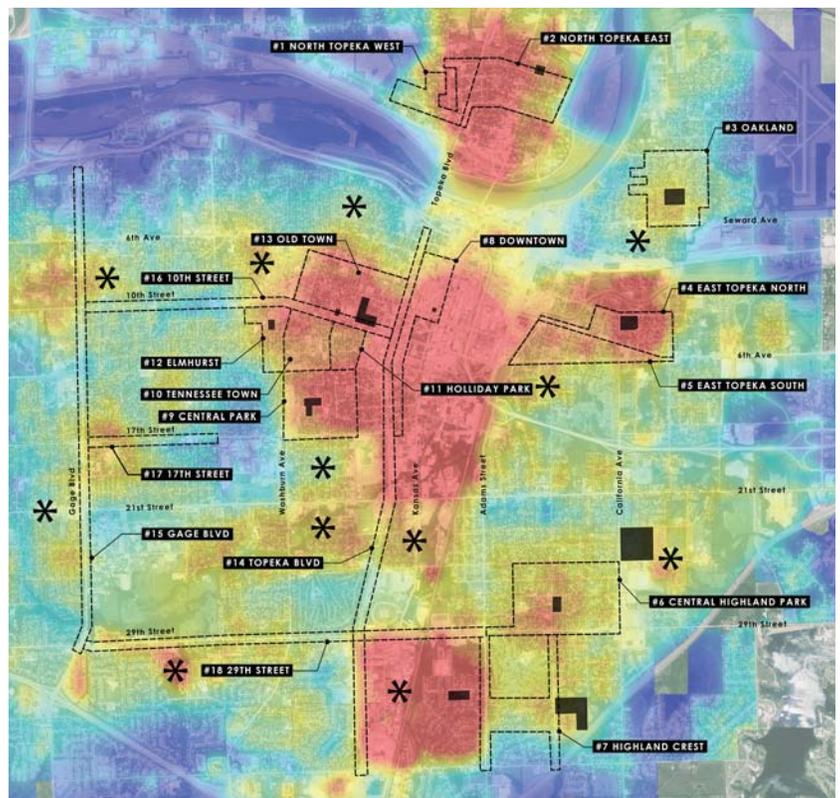


**Figure 2.2** This brick sidewalk, in addition to having an uneven surface, has become overgrown by grass and filled with soil.

## **ACTION 2B** *Initiate a Proactive Sidewalk Repair Program for the highest priority areas.*

In order to focus resources on the areas of greatest pedestrian need, a proactive sidewalk repair program needs to be implemented in the highest priority areas. Using the Pedestrian Demand Map (Figure 5.1 on page 60), as well as input provided through the neighborhood review process, eighteen focus areas were determined to be the highest priority areas for Topeka. See Figure 2.3 (and Figure 5.2 on page 61) for a map of areas.

In these focus areas 100% of the cost of sidewalk repair should be funded through municipal, federal, and other sources of



**Figure 2.3** The highest priority areas, overlaid with the 18 focus areas (outline in black) for the new Proactive Sidewalk Repair Program.

public funding. Most of the neighborhoods which are high demand pedestrian areas are also low-income areas. Walking is vital to the livelihood of people in these neighborhoods, since many low income Topekans do not have access to automobiles. Inmate labor can possibly be used for sidewalk repairs in low and moderate income areas, through efforts by the Topeka Department of Neighborhood Relations.



*A broken sidewalk near high density housing. Low income residents often rely heavily on walking for transportation.*

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## **ACTION 2C** *Conduct an awareness campaign to educate property owners about the requirements for sidewalk snow removal.*

Keeping sidewalks reasonably clear of snow and ice is important for pedestrian safety and mobility. The Americans with Disabilities Act requires that discrimination be eliminated against individuals with disabilities, including in the area of transportation. The Federal Highway Administration issued a memo in 2008 saying that all federally funded transportation projects are required to have snow removed on sidewalks, in a manner similar to how streets are

maintained. Only isolated or temporary interruptions are allowed. These federal requirements highlight the necessity of sidewalk snow removal efforts.

Topeka city ordinance requires that property owners clear snow and ice from sidewalks within a 24 to 48 hour timeframe. See Figure 2.4 for the detailed ordinance requirements.

Type of Property	Timeframe for removal (after the end of a snow or ice event)	Penalties
Multifamily, commercial, nonresidential	24 hours	\$50 (1st violation) \$100 (for each subsequent violation within a 12-month period)
Residential	48 hours	\$20 (1st violation) \$50 (for each subsequent violation within a 12-month period)

**Figure 2.4** The timeframe and associated penalties related to snow and ice removal vary by property type.

Many property owners are not aware of the city requirements to clear snow and ice from sidewalks. This is evident in situations where driveways are cleared, but sidewalks are not. A marketing campaign needs to be multi-faceted, taking place on social media, in the news (via press releases), on the telephone, and in print. The message should be primarily positive. See Figure 2.5 for an example of how the theme of being neighborly is sometimes stressed in awareness campaigns. The reasons for keeping sidewalks clear also need to be communicated (i.e. helping kids get to school, allowing people with disabilities to travel during the winter. It is recommended that the highest priority locations on the Pedestrian Demand Heat Map (shown on page 60) be the first to receive marketing campaign information. These should also be the city's first priority areas for clearance of sidewalk snow and ice.

Many Topeka residents do not have the physical means to clear snow and ice from sidewalks. The Snow Relief Team, a partnership between the City of Topeka, the Jayhawk Agency on Aging, and the Topeka Independent Living Resource Center, provides assistance to people in need. Inmates remove sidewalk snow for qualifying Topekans, who must be aged 55 or older or have a disability. As of 2013, income must be no more than \$21,750 for one-person households, and no more than \$24,850 for two-person households.

In addition to an increased focus on private property owners, the City of Topeka and Shawnee County should institute a comprehensive snow and ice clearance program in parks and on bikeways. Parks often include popular multi-use paths and sidewalks used by pedestrians. Winter maintenance of bikeways along roads, particularly parallel side paths, will benefit all non-motorized users.



**Figure 2.5** The Montgomery County, Maryland snow removal awareness campaign stresses the theme of being neighborly.



# Chapter 3

## Safety and Comfort

# GOAL 3

## **A Safe and Comfortable Walking Environment**

Sidewalks are greatly enhanced by features which improve the safety and comfort of pedestrians. Whether it's a crosswalk, a bench, or a curb ramp, the details matter. A crosswalk can make the difference between someone letting their child walk to the pool, or giving them a ride in the family vehicle. A bench can allow an elderly man to make it to the bus stop, rather than being confined to his home. And a curb ramp can give a young woman in a motorized scooter the freedom to travel to work, without having to wait for a ride from a friend. These and other sidewalk features often reduce the occurrence of pedestrian injuries, by raising awareness with motorists and/or making sidewalks friendly to everyone.

## **ACTION 3A** *Continue to add and maintain warranted crosswalks, lights, refuge medians, and bump outs at pedestrian street crossings.*

Visible crossings provide for the safety and mobility of pedestrians traveling across streets. Warranted crossings can be marked with a combination of signs, crosswalks, flashing warning lights, refuge medians, and/or bump outs. See Figures 3.1 and 3.3 for examples of these measures.



**Figure 3.1** This school crossing sign and transverse crosswalk marking is near Downtown.

At certain times however, it is unwarranted to mark a street crossing. In order to make this determination, Topeka's traffic engineers evaluate crossings before they are marked. The Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) is the national standard for the installation of marked crosswalks on public streets. The City of Topeka has adopted the MUTCD, and adherence to its contents is required by Topeka's Municipal Code.

In order to understand the MUTCD process for warranting crosswalks, it is helpful to know the definition of a crosswalk. In Kansas, the legal meaning consists of two parts:

1. "That part of a roadway at an intersection included within the connections of the lateral lines of sidewalks on opposite sides of the highway measured from the curbs or, in the absence of curbs, from the edges of the traversable roadway," or

2. "Any portion of a roadway at an intersection or elsewhere distinctly indicated for pedestrian crossing by lines or other markings on the surface."

A less complex definition is simply "where sidewalks cross street intersections, and/or wherever pedestrian markings are on the street." According to Kansas state law, drivers are required to yield to pedestrians in crosswalks at intersections, regardless of whether they are marked or not.

As a result, unmarked crosswalks are at every Topeka intersection with connecting sidewalks, but marked crosswalks have been installed and maintained at a more limited subset of locations. The Topeka Public Works Department paints each marked crosswalk annually, using a two-person crew over an approximate two-month period.

If every intersection in Topeka had marked crosswalks, they would become ubiquitous, ineffective, and resource inefficient. Yet it is obvious that pedestrians greatly value marked crossings, since they give a visual cue to motorists that they should yield the right-of-way to pedestrians. Marked crosswalks also provide greater predictability for motorists, since they encourage pedestrians to use a centralized location to cross the street.

Traffic engineering guidance from the MUTCD plays a significant role in determining whether or not a marked crosswalk is warranted:

*"Crosswalk lines should not be used indiscriminately. An engineering study should be performed before a marked crosswalk is installed at a location away from a traffic control signal or an approach controlled by a STOP or YIELD sign. The engineering study should consider the number of lanes, the presence of a median, the distance from adjacent signalized intersections, the pedestrian volumes and delays, the average daily traffic (ADT), the posted or statutory speed limit or 85th-percentile speed, the geometry of the location, the possible consolidation of multiple crossing points, the availability of street lighting, and other appropriate factors."*

The MUTCD also indicates that marked crosswalks should not be installed on certain roadways where speeds are forty miles per hour or greater, there are four or more travel lanes, and traffic volume is greater than 12,000 vehicles per day. This prohibition resulted from research showing higher rates of motorist-pedestrian crashes in similar situations.

However, the MUTCD does allow marked crosswalks to be added on these roadways if other measures are taken to reduce traffic speeds or increase driver awareness of these crossings (such as medians, bump outs, and flashing pedestrian lights). In these instances it is Topeka's practice to install a pedestrian actuated yellow flashing beacon at the crosswalk to increase driver awareness. See figure 3.2 for an example of a Topeka location where marking a crosswalk alone would not be appropriate.

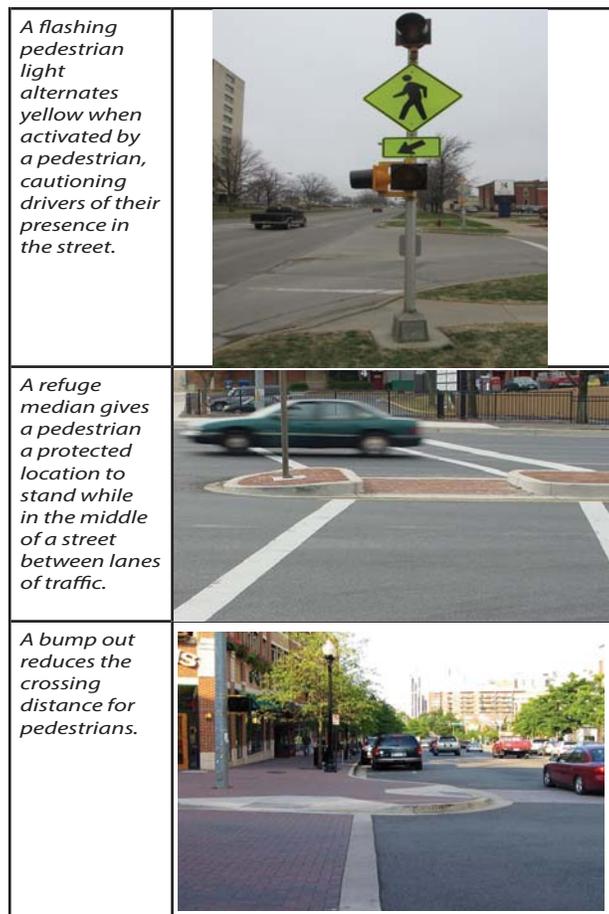


**Figure 3.2** Wanamaker Road, with five lanes and more than 12,000 daily vehicle trips, is an example of a street where traffic engineering rules do not permit crosswalks alone.

In Topeka, marked crosswalks consist of either transverse, longitudinal, or diagonal white pavement marking lines. See Figure 3.4 for an illustration of these crosswalk markings. At less common mid-block locations, where crosswalks must be marked in order for them to be considered legal, warning signs and flashing beacons are often used to heighten driver awareness.



**Figure 3.4** Topeka uses three types of crosswalks (from left to right): transverse, longitudinal and diagonal. Courtesy to the Institute of Transportation Engineers, *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach*.



*A flashing pedestrian light alternates yellow when activated by a pedestrian, cautioning drivers of their presence in the street.*

*A refuge median gives a pedestrian a protected location to stand while in the middle of a street between lanes of traffic.*

*A bump out reduces the crossing distance for pedestrians.*

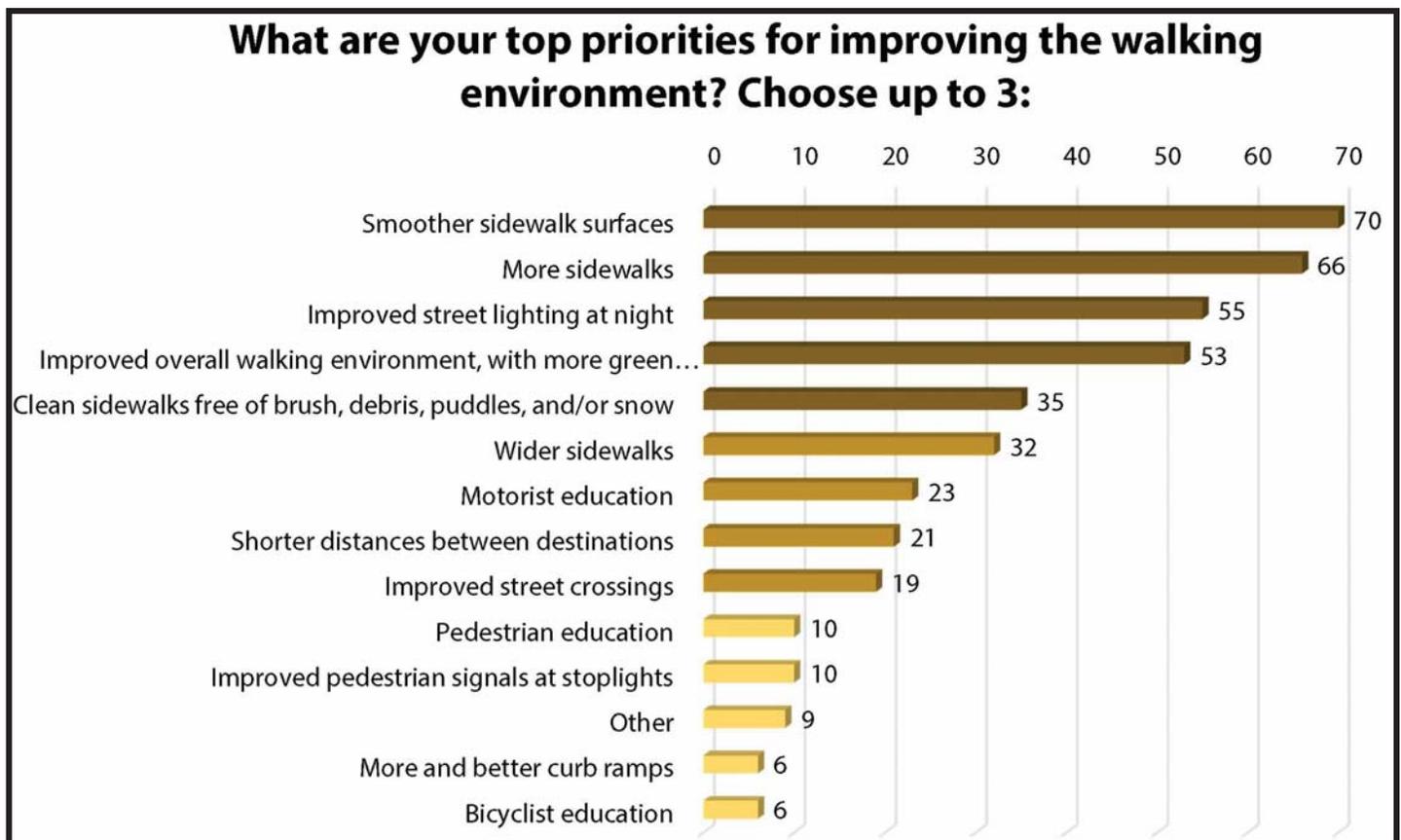
**Figure 3.3** Other physical features often markedly improve the safety of a painted crosswalk.

Color contrasted and textured crosswalk design treatments may also be used to improve the visibility of crosswalks, as well as enhance their aesthetic nature. In these situations, care should be taken to ensure that the material be textured enough to reduce falls, but also smooth enough to reduce vibrations in wheelchair caster or drive wheels. See figure 3.5 for an example of a concrete sidewalk which has been carried across an asphalt driveway to improve visibility.



**Figure 3.5** The concrete surface of this sidewalk has been carried across an asphalt driveway, providing color contrast visibility, as well as eliminating the need for annual repainting.

## **ACTION 3B** *Increase pedestrian-focused lighting to improve nighttime visibility.*



**Figure 3.6** Improved Street Lighting at Night is a high priority, placing third behind the priorities of Smoother Sidewalk Surfaces and More Sidewalks.

Improved street lighting is a high priority for Topekans who use sidewalks at night. In an online survey conducted for the Pedestrian Master Plan in the spring of 2015, street lighting was the third highest priority for improvement. See Figure 3.6 for the results of this survey question.

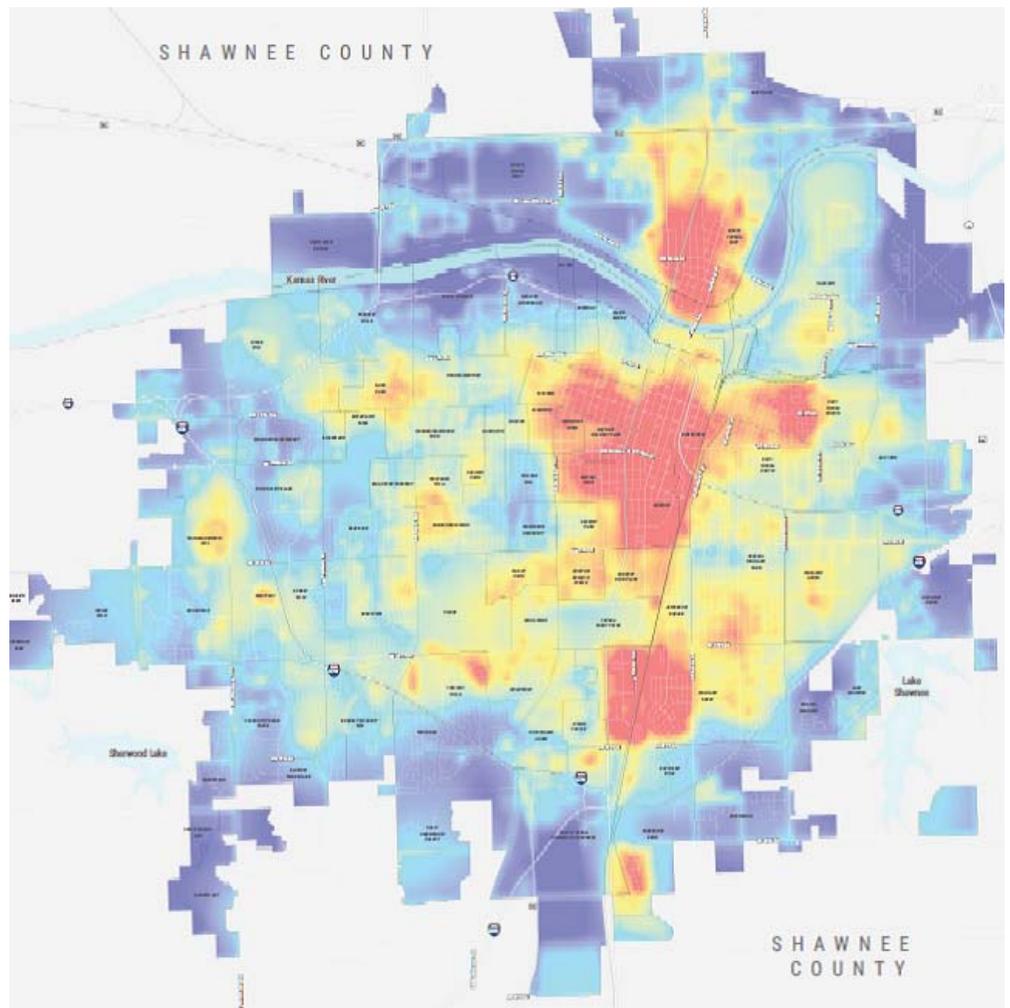
Topeka has street lights at every intersection in the city, but as a general practice does not have lighting between intersections on residential streets. Arterial streets have lighting between intersections. Street lighting has many advantages. It can lend ambiance to a street (depending upon the design of the light

fixture). Lighting creates a sense of community pride, higher use by pedestrians (when the sidewalks are also lit), and a perception of security amongst people who are otherwise fearful to be on a dark street at night. On the other hand, lighting can be expensive to install and maintain. Street lighting which lights both the street and the sidewalks needs to be employed, but its judicious use will mitigate the cost.

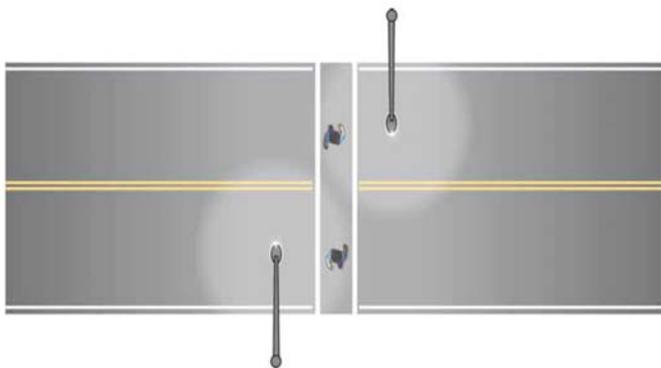
In locations where more street lighting is desired, it is important to prioritize each location based upon the likelihood that people will travel on the lit sidewalk at night. Figure 3.7 (see a larger map

on page 60) illustrates the locations where the highest number pedestrian-related destinations intersect.

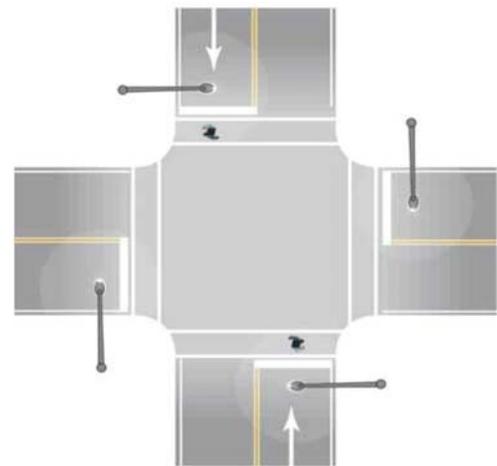
At locations where pedestrians are crossing the street, horizontal lighting helps to illuminate the vertical nature of a pedestrian. A light directly over the head of a pedestrian illuminates only their head and shoulders, while a horizontal light shows an entire side of a person. For that reason, the Federal Highway Administration recommends that street lighting be placed slightly in advance of a pedestrian crossing, as is illustrated in Figures 3.8 and 3.9.



**Figure 3.7** This pedestrian demand map shows in reds and oranges where pedestrian lighting should be prioritized, based upon the density of destinations people walk to, such as parks, schools, and bus routes.



**Figure 3.8** The street lighting recommendation for a mid-block crossing is to place a street light slightly in advance of the crosswalk, in advance of the direction of approaching motorists (Courtesy of Informational Report on Lighting Design for Mid-block Crosswalks).



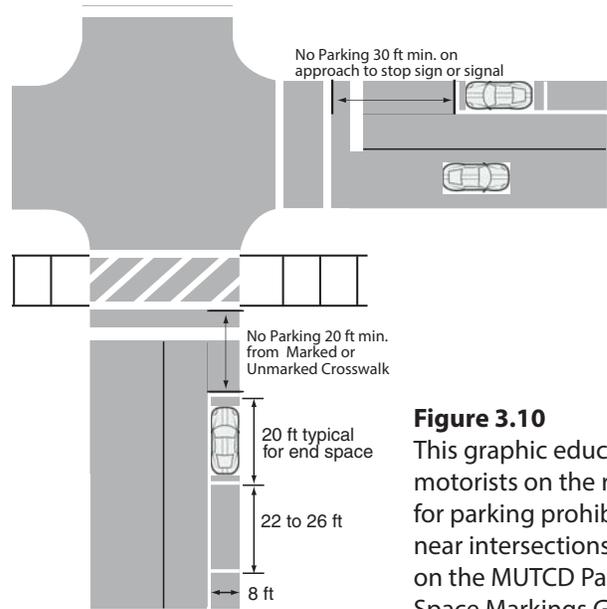
**Figure 3.9** The street lighting recommendation for an intersection is to place street lights slightly in advance of each crosswalk, to better illuminate the vertical nature of a pedestrian, using a horizontal cast of light (Courtesy of Informational Report on Lighting Design for Mid-block Crosswalks).

## **ACTION 3C** *Continue to remove obstructions that impede motorists' view of pedestrians.*

Objects such as parked vehicles, plantings, signs, poorly located benches, and fences oftentimes hide pedestrians from the view of a motorist. Removing these objects gives road users a better opportunity to see one another. This is most important when a pedestrian is preparing to leave an area behind the curb, stepping into the street, or when traveling across an alley or driveway on a sidewalk. In areas where cars are habitually parking too close to an intersection or crosswalk, signs may be posted to prohibit parking.

Kansas state statute already prohibits parking within twenty feet of crosswalks. No parking signs should only be installed when parked vehicles are consistently in violation of this statute. Unneeded signs cause visual clutter for drivers, provide for poor aesthetics, and are an unnecessary installation and maintenance cost. However, it is very important that vehicles do not park too close to crosswalks. To this end, Topeka Public Works staff and Topeka Police Department enforcement officers should monitor crosswalk locations for adherence to traffic laws with focus on high demand pedestrian areas. If parking adjacent to a crosswalk is a habitual problem, appropriate signing can be installed or drivers ticketed. Additionally, some communities create educational materials notifying drivers of these rules. See Figure 3.10 for an example graphic.

Objects which block the view of pedestrians are often under the purview of private property owners. Plantings, signing, poorly located benches, and fences at intersections and driveways can block the view of both pedestrians and motorists. See Photo 3.11 for an example. The Topeka Municipal Code establishes a forty feet "sight triangle" at intersections and commercial entrances. This area is required to be clear of objects that might obstruct the view of drivers and pedestrians. These objects may also not be over thirty inches higher than the adjacent roadway pavement.



**Figure 3.10**  
This graphic educates motorists on the rules for parking prohibitions near intersections. Based on the MUTCD Parking Space Markings Graphic.

Bump outs are an effective tool for mitigating the presence of obstructions. Extended curbs bring pedestrians closer to traffic without placing them in the street. They also reduce the necessity of altering plantings and fencing on private property. Bump outs are most appropriate on roadways with cutback parking or a parking lane.

**Photo 3.11**  
This hedgerow of bushes can block the view of both pedestrians and motorists who are approaching this intersection.



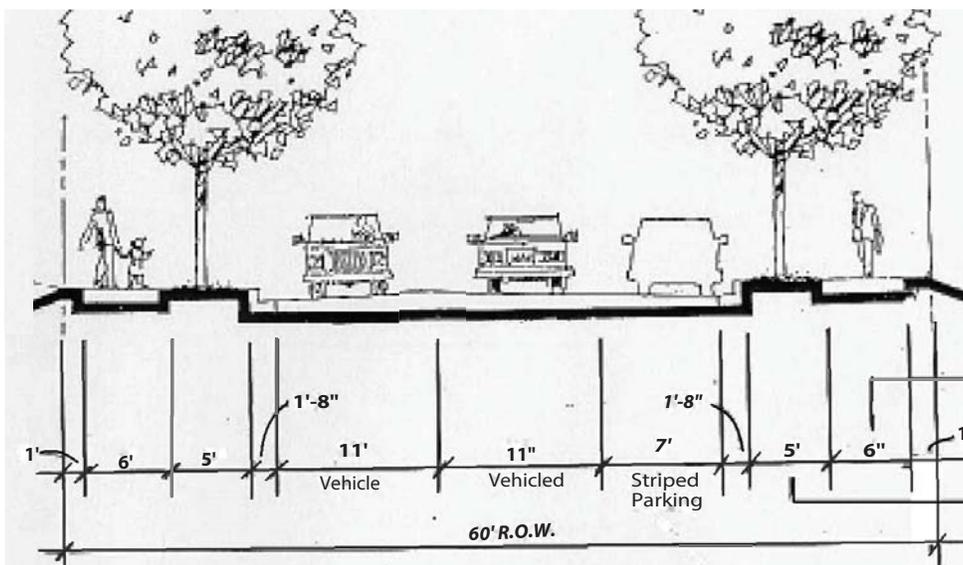
## **ACTION 3D** *Expand buffers between pedestrians and motorists, and install benches where practical.*

A buffer between the sidewalk and travel lanes (also sometimes referred to as the furniture or planting zone) increases the safety and comfort of pedestrians. Buffers can be built with grassy lawns, flower beds, trees, pavers, and concrete. Sometimes parked vehicles and bicycle lanes are considered to be a buffer between sidewalks and traffic. Buffers serve as protection from out of control vehicles, as well as providing an area for light poles, sign posts, newspaper stands, and parking meters, as well as snow storage in the winter. Their recommended minimum width is five feet, as shown in Figure 3.12, but widths of ten to twelve feet are desired to achieve their purpose.

Pedestrians desire to walk on streets with adequate buffers, which when combined with calmed traffic, create a comfortable environment. This provides the opportunity to walk side-by-side with a companion, provided the sidewalk is five feet or greater in width. See Figure 3.13 for an example.



**Figure 3.13** This group of pedestrians is able to walk side-by-side on Kansas Avenue, because the sidewalk is approximately ten feet wide. The landscaping and furniture zone between the sidewalk and parked vehicles results in a buffer space of approximately ten feet. This buffer width is characteristic of the Downtown area, which has high pedestrian activity.



**Figure 3.12**

The recommended minimum width for buffers between the sidewalk and traffic is 5'. Illustration based on a graphic from the FHWA Courses on Bicycle and Pedestrian Transportation.

Bridges are an area of special concern for pedestrians. Vehicle speeds can be higher on bridges. Here, it is important to create buffers or barriers since pedestrians tend to shy away from bridge traffic. Vertical barriers can also prevent a pedestrian from falling into lanes of traffic. See Figure 3.14 for an example of a poor bridge walking environment.

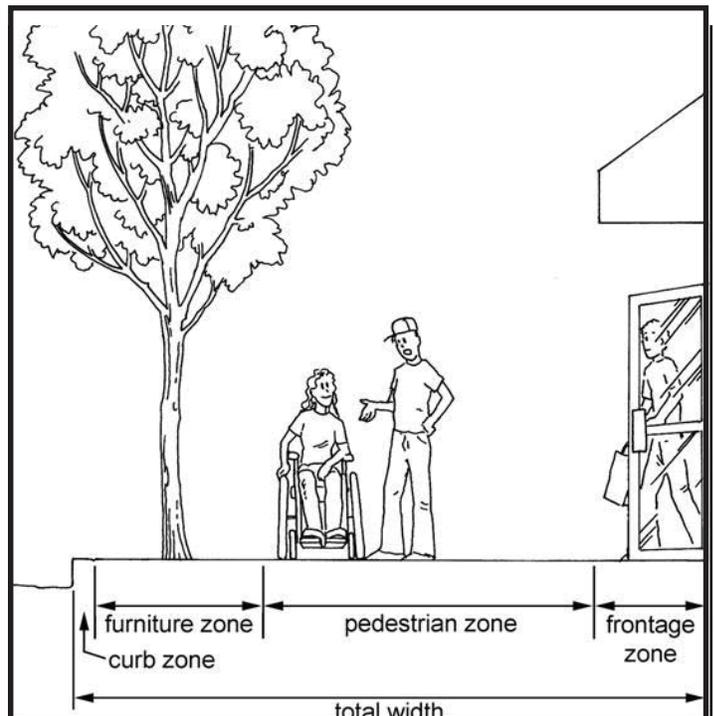


**Photo 3.14** This sidewalk on the 8th Avenue bridge over I-70 does not provide for the separation of pedestrians from traffic. Ideally the bridge would include a safety barrier to separate pedestrians from 8th Street vehicular traffic and a taller fence on the outside of the bridge to protect pedestrians from falling.

Benches are essential for older people who cannot walk or stand for great lengths of time. They also provide a place to socialize and watch street life, as well as a spot for people to wait for a bus or companion. Benches can be installed and maintained in City right-of-way if approved by Topeka’s Development Services Division and the City Traffic Engineer. Their orientation should depend upon their purpose, and the space that is available for placement. A bench against the wall of a commercial building in a low speed commercial areas is appealing because people generally like to watch street life go by. Benches sitting perpendicular to the street can also accomplish this

purpose. But in general, people sitting on a bench do not like to be sitting so close to other bench sitters that they appear to be staring. People on benches also do not usually like people walking behind them, or to be faced toward a building wall. Benches should also not be placed in the sidewalk zone – rather they should be situated along the building frontage zone, or within the furniture zone between the curb and the sidewalk but only in low speed commercial areas. See Figure 3.15.

On roadways with speeds greater than twenty-five mph, benches should be placed as far from the roadway as practical. Benches must be located so that they do not create sight restrictions at intersections and driveways. Benches are often placed by the Topeka Metropolitan Transit Authority along bus routes but are also sometimes installed as part of road reconstruction projects, where ten foot multi-use paths are built. These benches are set back from the street for the added comfort of pedestrians and bicyclists.



**Figure 3.15** In commercial areas with a wide sidewalk surface, benches should be placed within the furniture zone or the frontage zone, not in the pedestrian zone, so as not interfere with the predictably of a through path for people with visual disabilities (drawing courtesy of the Federal Highway Administration).

## **ACTION 3E** *Continue implementing ADA improvements such as intersection curb ramps, audible pedestrian signals, and appropriate sidewalk grades and cross slopes.*

The Americans with Disabilities Act (ADA) became federal law in 1990. The ADA is civil rights legislation that guarantees that people with disabilities have the same opportunities as everyone else to participate in life and have access to facilities. The ADA in its original form focused primarily on accessibility at sites and in facilities but was rather nebulous in regards to accessibility in public right-of-ways. The United States Access Board (an independent federal agency) has drafted the Public Right-of-Way Accessibility Guidelines (PROWAG) to more clearly define accessibility requirements on our streets and highways. These guidelines have yet to be adopted by the Department of Justice and are referred to as “proposed” guidelines. However, the Federal Highway Administration and the Kansas Department of Transportation have adopted the proposed guidelines as a mandatory policy and any projects funded by these agencies must adhere to the PROWAG guidelines. Topeka’s Department of Public Works has adopted PROWAG as a mandatory “best practice”. Topeka has been implementing improvements to benefit people with disabilities for many years as part of street construction, and in some cases, stand-alone projects.

Sidewalk curb ramps are an essential piece of infrastructure for people with disabilities. Ramps allow someone to travel between a sidewalk and the vehicle portion of the street, without stepping vertically. Topeka has a robust ramp replacement program, which is currently funded at \$300,000 annually. The design of curb ramps is important due to the requirements people using wheelchairs and scooters have for staying upright and making turns at corners.



*Topeka’s efforts to improve accessibility for people who use assistive devices allow for greater freedom to travel.*



*This curb ramp on Gage Street allows people with disabilities to move between the sidewalk and vehicle area. Truncated domes are located within the pink rectangle.*

Truncated domes are raised bumps on a sidewalk ramp which give a detectable warning to people with visual impairments as they are transitioning between a pedestrian and vehicle space. Domes are visually contrasting in color from the surrounding surface so that people with partial visual impairment can have a visual cue. This feature is also used at all crosswalks and in pedestrian refuge medians greater than six feet in width, as well as at railroad crossings. Topeka's Design Criteria and Drafting Standards include these requirements and also specify the use of ramps at commercial entrances and at alleys where significant grade changes are present.

All new traffic signals installed in Topeka include pedestrian signals and MUTCD/PROWAG compliant accessible push buttons that include an audible signal. These signals allow people with visual impairments to know when the signal is indicating "Walk" or "Don't Walk". MUTCD and PROWAG standards include accessibility requirements for the location of pushbutton actuators. Topeka also adds or updates accessible pedestrian features to existing traffic signals in conjunction with major street maintenance projects and when signals are otherwise modified. See Figure 3.16 for an example.

Pedestrian access routes during sidewalk closures due to road or utility construction or repairs are also addressed in the MUTCD and PROWAG guidelines. The City of Topeka and Shawnee County Standard Technical Specifications require that pedestrian detours be provided when sidewalks are closed.



**Figure 3.16** The speaker mounted to the left of this pedestrian signal emits an audible signal to assist people with visual impairments.



*This brick sidewalk can pose challenges for the 5.8% of the U.S. population who use a cane, crutches, walker, or wheeled mobility device, if it is not properly maintained.*



# Chapter 4

## Walking Culture

## A Culture of Walking

The relative value that a community places on walking plays a large role in determining how likely it is someone will travel as a pedestrian. One way to understand a community's values around walking is to examine how its children are being raised. Are youth walking with their families, friends, and educators? The organizational makeup of community members who promote walking is another important factor. Is there a voice at the decision making table that speaks to the needs of pedestrians? Finally, the importance of destinations is an oftentimes overlooked, but obvious factor. Are there places close by that people can walk to in their neighborhood?

## **ACTION 4A** *Implement programming that encourages children to walk at every school.*

Walking to and from school is an everyday possibility for many children. Approximately one-third of children live within a mile of school, but far fewer walk to school. Physical activity has been associated with higher grades and test scores, as well as a greater ability to concentrate on a particular task. The Centers for Disease Control and Prevention currently recommend that children get 60 minutes of physical activity each day. Many children do not receive that much daily exercise between P.E., Recess, and extracurricular activities. Walking to school can augment those other daily activities, in order to reach that goal.

The national program “Safe Routes to School” was created in 2005. This program funnels federal transportation funding to schools and local governments to make physical and non-infrastructure improvements for children walking to school. The four main elements of a Safe Routes to School program include:

**Education:** Teaching parents and children about the importance of yielding to pedestrians, and how to stay safe when walking.

**Encouragement:** Carrying out activities like “walking school buses” and events like International Walk to School Day.

**Enforcement:** Following laws such as school speed limit zones and yielding at crosswalks.

**Engineering:** Improving the built environment with items such as sidewalks, curb ramps, curb cuts, and pedestrian warning lights.

The Topeka Public Works Department developed Safe Routes to School maps for 14 of the city’s USD 501 elementary schools in 2008:

- Highland Park Central
- Lowman Hill
- McCarter
- McClure
- McEachron
- Meadows
- Quincy
- Randolph
- Ross
- Scott Dual Language Magnet
- State Street
- Stout
- Whitson
- William Science/Fine Arts Magnet

USD 501’s six middle schools do not yet have Safe Routes to School maps:

- Chase
- Eisenhower
- French
- Jardine
- Landon
- Robinson

These maps are important because they designate main routes for children walking to school. Sidewalk installation and repair, crossing improvements, and snow clearing efforts should be focused on these routes. The Department of Public Works should continually update these maps to reflect changes in the schools attendance boundaries. See figure 4.1 for an example map, and Appendix H for the 14 completed elementary school maps.



Plans should be completed for each school, and these criteria along with the pedestrian demand map can be used to select priority schools. These plans will help guide funding: in some cases, lower cost pedestrian improvements near schools may be implemented with existing city funds, and in other cases a higher level funding may be needed from federal sources, such as the Transportation Alternatives program (which funnels federal Safe Routes to School funding to local governments).

One of the biggest impediments of children walking to school is parental safety concerns. It is important to acknowledge these safety concerns, and to create programming that provides for greater safety. One programmatic option is the “walking school bus,” which is an organized walk led by an adults. A leader picks up and drops off children before and after school, along a designated walking route on a predetermined schedule, much like a school bus. See Figure 4.3 for an example. Another option is the “Bus

Stop & Walk,” which gives children who are bused to school the opportunity to walk. Children are dropped off at predetermined walk-friendly location near the school, and educators walk with the children to school.



**Figure 4.3** This walking school bus in Montgomery County, Maryland picks up children on the way to school, much like a school bus.

## **ACTION 4B** *Establish a complete streets advisory committee.*

Advisory committees are created by elected officials and government agency staff to lend insight into the issues that affect a particular group of people. In this instance, a Topeka Complete Streets Advisory Committee is needed to advise elected officials about how to best improve Topeka’s transportation system for pedestrians and bicyclists.

The Complete Streets Advisory Committee (CSAC) should combine the existing Bikeways Advisory Committee, Pedestrian Plan Stakeholder Committee, and the Heartland Healthy Neighborhoods (HHN) Complete Streets Committee into a formal stakeholder and citizen-based CSAC. The Metropolitan Topeka Planning Organization (MTPO) Policy Board should pass a resolution adopting the formation of the CSAC as a subcommittee of the MTPO. The role of the new combined committee will be to:

- Advise staff/MTPO on implementation of the Pedestrian Master Plan including application of Walk Friendly status for Topeka .
- Advise staff/MTPO on implementation of the Bikeways Master Plan including application of Bike Friendly status for Topeka.
- Advise staff/MTPO on implementation of the MTPO’s and City’s complete streets policy including any design standards and street projects.
- Advise staff/MTPO on other multi-modal issues as they arise.
- Provide a public forum for citizens to provide feedback on complete street implementation and the above projects.

Committee members at a minimum should include representatives of the following organizations below.

- School Districts including USD 501
- Topeka Metro
- Shawnee County Health Agency
- Shawnee County Parks & Recreation
- Heartland Healthy Neighborhoods
- ADA/Paratransit Organization
- Citizen Advisory Council (neighborhoods)
- Topeka Bikeways
- Topeka Community Cycle Project
- Bikeways Advisory Committee
- Kaw Valley Bike Club
- At large

According to the Alliance for Biking & Walking and the League of American Bicyclists (who have created a best practices guide for pedestrian and bicycle advisory committees), it will be important for the CSAC to regularly include both pedestrian and bicycle items on the agenda, as well as have a membership that is balanced with both interests. Government agencies charged with implementing the above plans and policies should attend to provide information as requested. MTPO, City, and County staff will provide necessary technical support to the CSAC when requested, but the committee members themselves should set their own agendas and record minutes. The MTPO/City Planning Department should provide a staff liaison to coordinate informational requests to/from the CSAC. Any other stakeholders should be invited to meetings regularly including Technical Advisory Committee (TAC) members.

It is also recommended that the committee creates a set of bylaws, with predetermined terms of service. The bylaws of a complete streets committee also needs to address the inherent challenge of the intersection of government and advocacy. Change may come slowly for advocates, and listening to strong opinions may be taxing for agency staff, but the importance of relationship building is paramount to facilitating change. A work plan and long-term goals can also be difficult to agree upon, but they are important so that the committee does not merely listen to presentations.



*Members of a stakeholder committee discuss the draft goals of Topeka's developing Pedestrian Master Plan.*

The Topeka Complete Streets Advisory Committee should continue to have significant input from neighborhoods, advocacy groups, business groups, schools and citizens. The Complete Streets Advisory Committee should provide input as to the type of complete street and pedestrian elements that are needed or desired and at what locations these elements should be prioritized. However, the establishment of detailed design criterion and construction methods should remain the responsibility of the City's design professionals educated and licensed to practice engineering in Kansas.

## **ACTION 4C** *Promote walking in neighborhoods through mixed use development and redevelopment along neighborhood corridors.*

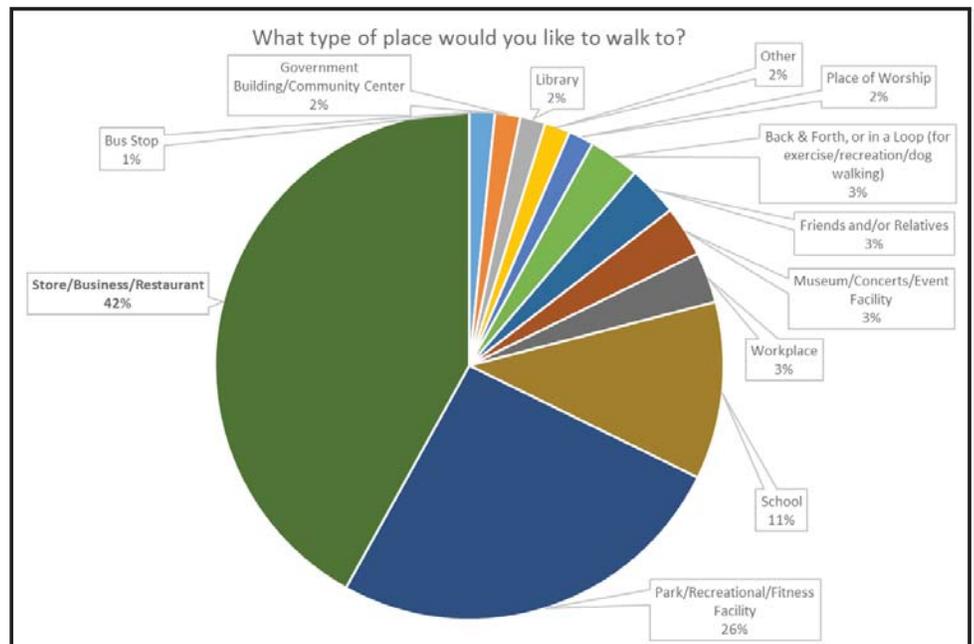
One of the most obvious but often understated influences on the culture of walking is the ability residents have to walk to neighborhood destinations. When people can walk to a nearby grocery store, restaurant, or convenience store, they are more likely to do so. Walking in neighborhoods needs to be promoted by developing and redeveloping neighborhood corridors with destinations that appeal to Topekan.

In a survey of 3,000 adults conducted across the country in the 50 largest metropolitan areas, not having places to walk was the number one barrier against walking. Additional barriers that followed included: needing a vehicle for work, poor weather, too few sidewalks, poor health, fear of traffic, and fear of crime. People with places to walk to were also found to be the most satisfied with the quality of life in their community. The millennial generation (adults born after 1980) had the highest rate of walking for running errands, shopping, or eating out (62% in the past previous 30 days), illustrating the importance of destinations for attracting young adults to a neighborhood. See Figure 4.4 for the type of atmosphere that attracts millennials.

Finally, in an online survey conducted for the Pedestrian Master Plan in the spring of 2015, respondents reported that the top destination type they wanted to be able to walk to in Topeka were stores/businesses/restaurants. See Figure 4.5 for more details. Walkable, mixed use and commercial development in Topeka's densest neighborhoods should be promoted. This can be emphasized in the City's comprehensive plan, zoning code and building/site plan requirements that promote good walkability.



**Figure 4.4** Young adults are the most likely age group to walk to shopping and restaurant destinations, making neighborhood destinations important to the promotion of walking.



**Figure 4.5** Stores/businesses/restaurants were the top choice for the type of place Topeka pedestrians want to walk to, followed by park/recreational/fitness facilities and schools.



# Chapter 5

## Project Implementation Plan

## Period: September and October 2015

During September and October of 2015, employees from the Metropolitan Topeka Planning Organization (MTPO) and Vireo used SiteCapture, an internet-based mobile application, to conduct a block-by-block field inventory of a combination of 18 Topeka neighborhoods and/or corridors with high levels of pedestrian demand. Focus areas were determined based on a combination of stakeholder feedback, GIS data, and Google Map analysis. As part of the inventory process, they referenced the map(s) of targeted areas that MTPO developed (Phase 1, 2, and 3 Inventory Maps), reviewed feedback from public and stakeholder meetings, referred to annotated input from recent MTPO presentations to targeted neighborhoods, and considered adopted capital improvement projects as they inventoried the following information for each block:

- Sidewalk conditions (new and repair)
- Curb ramps conditions
- Need for crosswalks improvements

Specifically, staffers used Google Maps to complete a virtual, in-house inventory of the sidewalks and then entered the field with cameras and mobile devices to verify their findings. Once in the field, staffers:

- Selected a starting point within a designated inventory area
- Stood mid-block on the sidewalk, analyzing both side of the block and its intersections
- Answered SiteCapture's inventory questions
- Took photos as necessary
- Repeated the aforementioned steps

All in all, a total of 2,090 data points were collected (mid-block and intersection combined). Vireo organized them into the following three project types: sidewalks, curb ramps, and crosswalks as shown in Tables 1-3 on page 58 of this report. Detailed inventory mapping is attached to this report as Figures 1-6. The overall estimated improvement cost is \$21.2 million, which consists of 46.88 miles of sidewalk improvements, a total of 1,832 curb ramp improvements, and 349 crosswalk improvements. Priority improvements could be completed in all areas of high pedestrian demand with schools for approximately \$7 million over the course of four years. **Cost estimates and improvements are for planning purposes only and must be further approved to meet Traffic Engineering standards by the City or County.**

# Funding Assumptions of Priority Areas

## Funding Priorities (2016-2025)\*

- 2016-2020 – Group A + E
- 2021-2023 – Group B + E
- 2023-2025 – Group C + E
- 2025 – Group D + E

Total Improvement Costs = \$21.2 Million

Completion GOAL= 10 years

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## Current Sources Proposed (CIP) = \$0.8 million/year

- Infill Sidewalk = \$600k
- ADA ramps = \$100k
- Complete Streets = \$100k

## Potential Other Sources

- Renewed city-wide ½-cent sale tax 2020-2025 = \$1.5 million/year (10% of revenue)
- SORT/Grants\* = \$0.45 million/year

## Potential Savings for Future/Other Areas

- Exclude “Minor Disrepair” = \$3.2 million
- 17<sup>th</sup> and Topeka Blvd projects in County-wide 1/2- cent sales tax (2017-2031) = \$0.3 million

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## Completion GOAL = 10 years

@ \$17.7 million for Priority Areas

@ \$3.5 million for Future/Other Areas

2016-2019 = \$2.9 million (CIP)

2020-2025 = \$4.8 million (CIP) + \$9 million (renewed sales tax)

2016-2025 = \$4.5 million (SORT/Grants)

*\*SORT/Grant neighborhoods may take precedence regardless of priority year to align with their funding year*

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## Other/Future Areas ✱

It is recognized that beyond the 18 inventoried neighborhood/corridor focus areas, there remains a number of potential other areas that have been identified on the heat map as “Future Focus Areas”. These signify areas that have higher than average demand but still need inventoried for cost estimates. These include areas such as Ward Meade, 21st and Gage, 10th and Gage, Highland Acres, Chesney Park, etc. Future Focus Areas should be inventoried by MTPO staff for cost purposes after consulting with any impacted neighborhood groups.

In addition, under Group E there are a number of “Other” complete street linkages, infill opportunities w/ development, business/bus stop linkages, mid-block crosswalks, etc. both known and unknown that still need to be assessed by staff and prioritized for funding. These include linkages to Lake Shawnee and SE 29th, SW 15th and Kansas, SW 10 and Cappers Foundation, Brewster Place and SW 29th, etc.

It is recommended that a combined list of warranted “Other/Future Areas” be maintained by MTPO and Engineering staff with input from the Complete Streets Advisory Committee (CSAC) annually or as needed to help determine priorities for any funding available in this category. Funding for these projects is recommended to be \$3.5 million IF additional funding sources are approved through the city-wide ½ sales tax renewal from 2020-25. However, if “Other” projects become critical to implement upon recommendation of staff and the CSAC between 2016-19 then their funding should be considered under the \$100,000 CIP/Complete Streets allocation.

## Summary of Improvements (10-Year Period)

Table 1: Sidewalks Improvements				
Project Type	Total Points	Linear Feet	Miles	Cost
No sidewalk present	386	117,700	22.30	\$8,474,400
No repairs needed	315	126,000	23.86	\$0
Moderate disrepair	189	41,500	7.88	\$2,988,000
Severe disrepair	137	43,600	8.26	\$3,139,200
<b>Total</b>	<b>1,370</b>	<b>373,400</b>	<b>70.74</b>	<b>\$14,601,600</b>
Savings (minor disrepair)	343	44,600	8.44	\$3,211,200

Table 2: Curb Ramp Improvements			
Project Type	Total Points	Number of Ramps	Cost
No improvement needed	80	320	\$0
Good repair but truncated domes are needed	170	680	\$340,000
Disrepair	99	396	\$792,000
No ramp	189	756	\$1,512,000
<b>Total</b>	<b>538</b>	<b>2,152</b>	<b>\$2,644,000</b>

Table 3: Crosswalk Improvements			
Project Type	Total Points	Number of Crosswalks	Cost
Painted crosswalks needed	138	276	\$138,000
Pedestrian refuge island needed	24	48	\$192,000
School crosswalk needed	18	18	\$18,000
Flashing warning signs needed	7	7	\$175,000
<b>Total</b>	<b>187</b>	<b>349</b>	<b>\$523,000</b>

**10-Year Total Improvement Cost = \$17,768,600**

# Priority Improvement Locations

Based on levels of pedestrian demand, proximity of schools, corridors and complete streets linkages plus magnitude of needed improvements and anticipated funding (see page 165 for assumptions), the top ranked improvement locations include those shown in Table 4 below. Appendix I-A (pg. 165-196) includes detailed project and cost estimate information and locational map by neighborhood. Appendix I-B (pg. 197-198) lists the inventory questions.

<b>Table 4 – Priorities</b>	
<b>GROUP A - High Areas of Pedestrian Demand WITH Schools</b>	
<b>Area</b>	<b>Priority Years*</b>
North Topeka East (Quincy)	2016-2020
Central Park (Robinson)	2017-2020
East Topeka North (Scott Magnet)	2018-2020
Elmhurst (Lowman Hill)	2019-2020
Old Town (Topeka High)	2019-2020
<b>GROUP B - High Areas of Pedestrian Demand WITHOUT Schools</b>	
<b>Area</b>	<b>Priority Years*</b>
North Topeka West	2021-2022
Downtown	2021-2022
Historic Holliday Park	2022-2023
Tennessee Town	2022-2023
<b>GROUP C - Lower Areas of Pedestrian Demand WITH Schools</b>	
<b>Area</b>	<b>Priority Years*</b>
Central Highland Park (Highland Park Central)	2023-2024
Oakland (State Street / Chase)	2023-2024
Highland Crest (Eisenhower/ Ross)	2024-2025
<b>GROUP D - Lower Areas of Pedestrian Demand WITHOUT Schools</b>	
<b>Area</b>	<b>Priority Years*</b>
East Topeka South	2024-2025
<b>GROUP E - Corridors/ Complete Street Linkages/ Future Areas</b>	
<b>Area</b>	<b>Priority Years*</b>
29 <sup>th</sup> Street	2016 - 2025
Topeka Boulevard	2016 - 2025
Gage Boulevard	2016 - 2025
SW 10 <sup>th</sup> Street	2016 - 2025
SW 17 <sup>th</sup> Street	2016 - 2025
Jardine MS/ES	2016 - 2025
Other/Future Areas	2016 - 2025

\*Impacted by funding availability

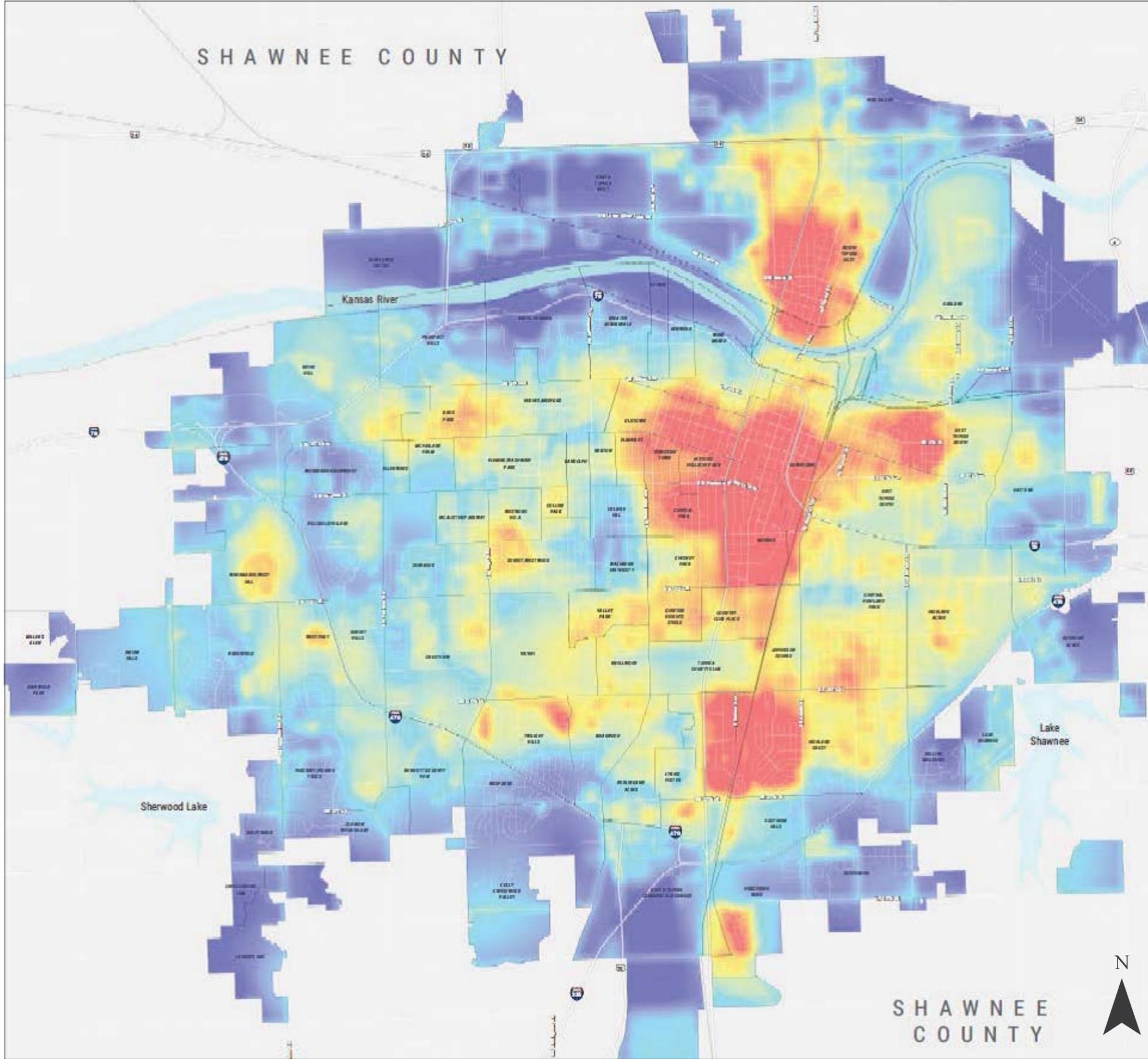
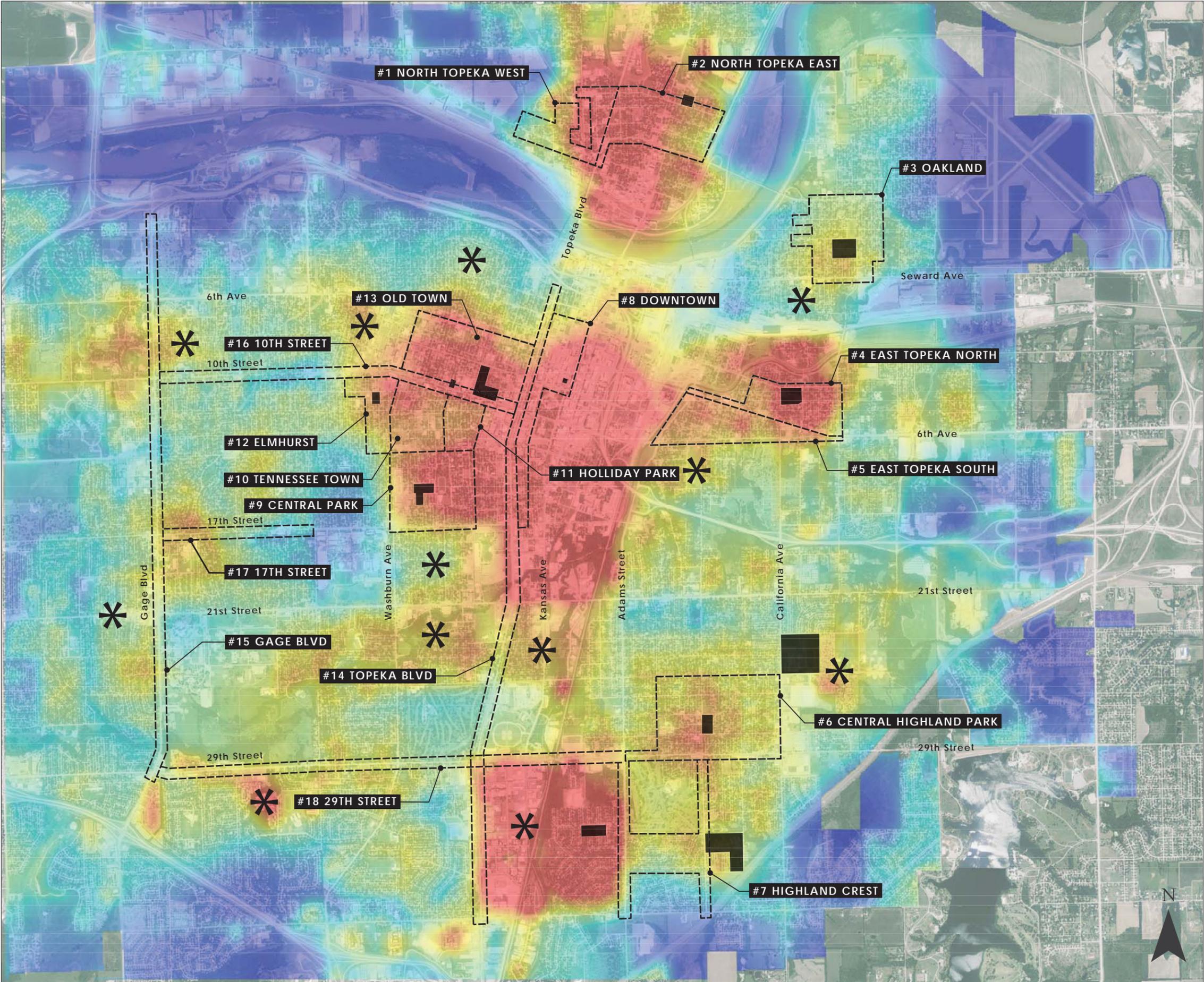


FIGURE 5.1:  
HEAT MAP AND  
INVENTORY AREAS

**Key for Pedestrian Priority Areas**

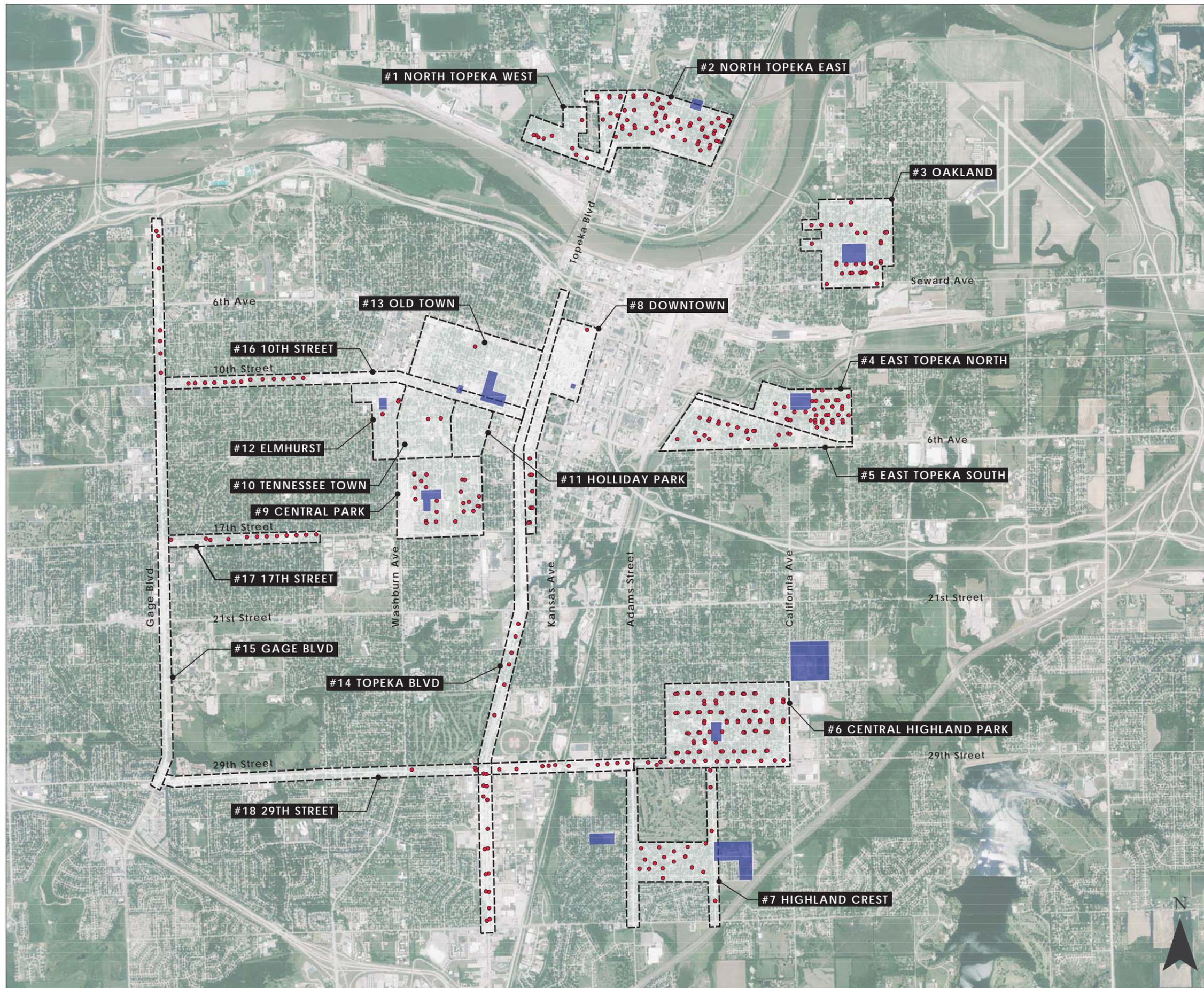
Feature	Weight	How it is Represented
Bus Routes	High	1/2 mile buffer
Neighborhoods (Intensive Care)	High	within polygons only
Parks & Trails	High	1/2 mile buffer
Schools (Elementary and Middle, Public and Private)	High	1/2 mile radius
Streets with no Sidewalks	High	500' buffer
Busy Streets (i.e. Arterials and Collectors)	Low	1/2 mile buffer
Commercial Parcels	Low	within polygons only
Community Centers (including Senior Centers)	Low	1/2 mile radius
High Density Residential Properties (4+ units)	Low	within polygons only
Major Destinations	Low	1/2 mile radius
Neighborhoods (At Risk)	Low	within polygons only

FIGURE 5.2:  
HEAT MAP AND  
INVENTORY AREAS



- LEGEND
- Neighborhood Focus Area
  - School
  - ✱ Future Focus Areas

FIGURE 5.3:  
NEW SIDEWALKS

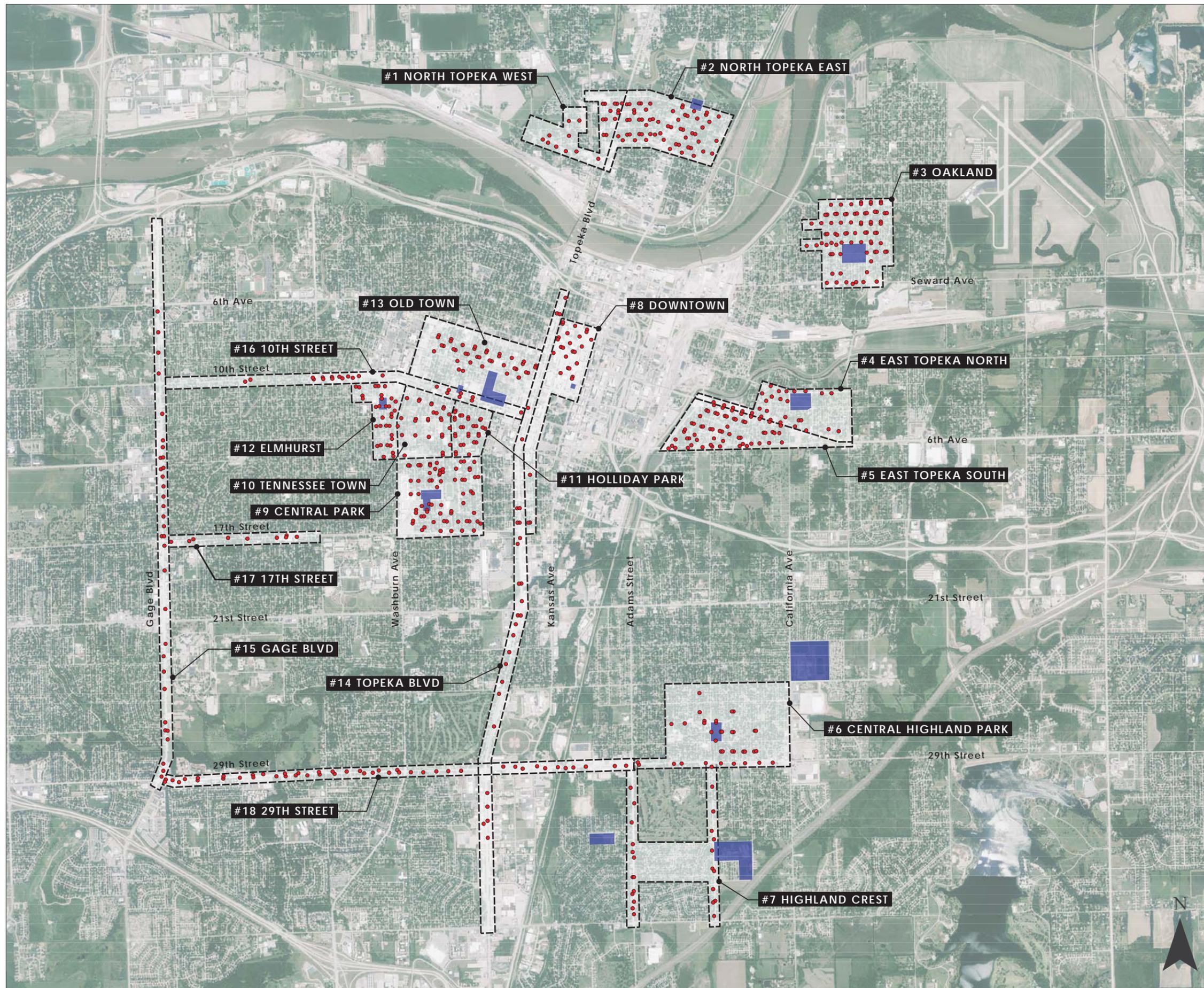


LEGEND

- Neighborhood Focus Area
- School
- New Sidewalk  
(No Existing Sidewalk)



FIGURE 5.4:  
REPAIR SIDEWALKS

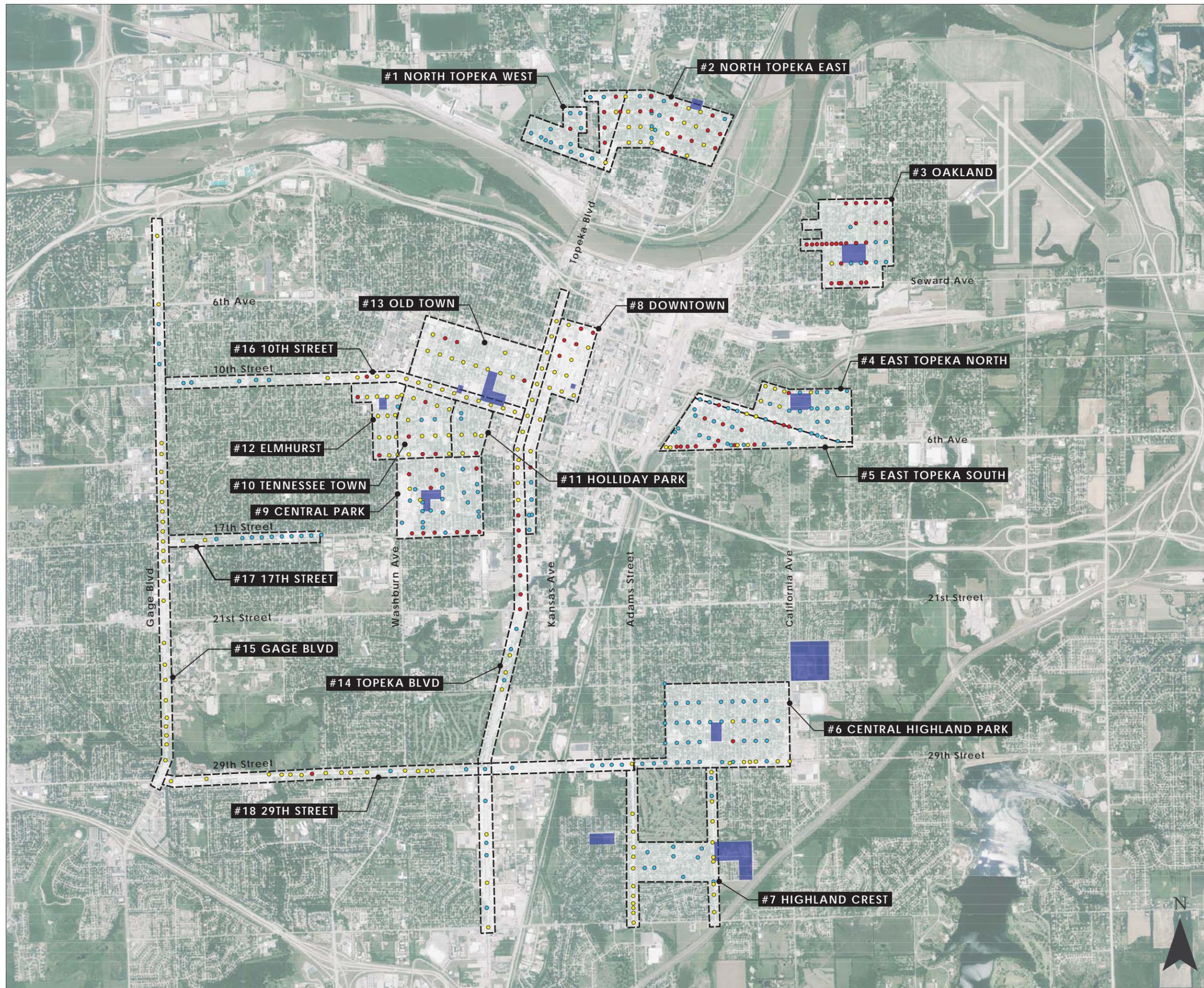


**LEGEND**

- Neighborhood Focus Area
- School
- Sidewalk in Disrepair



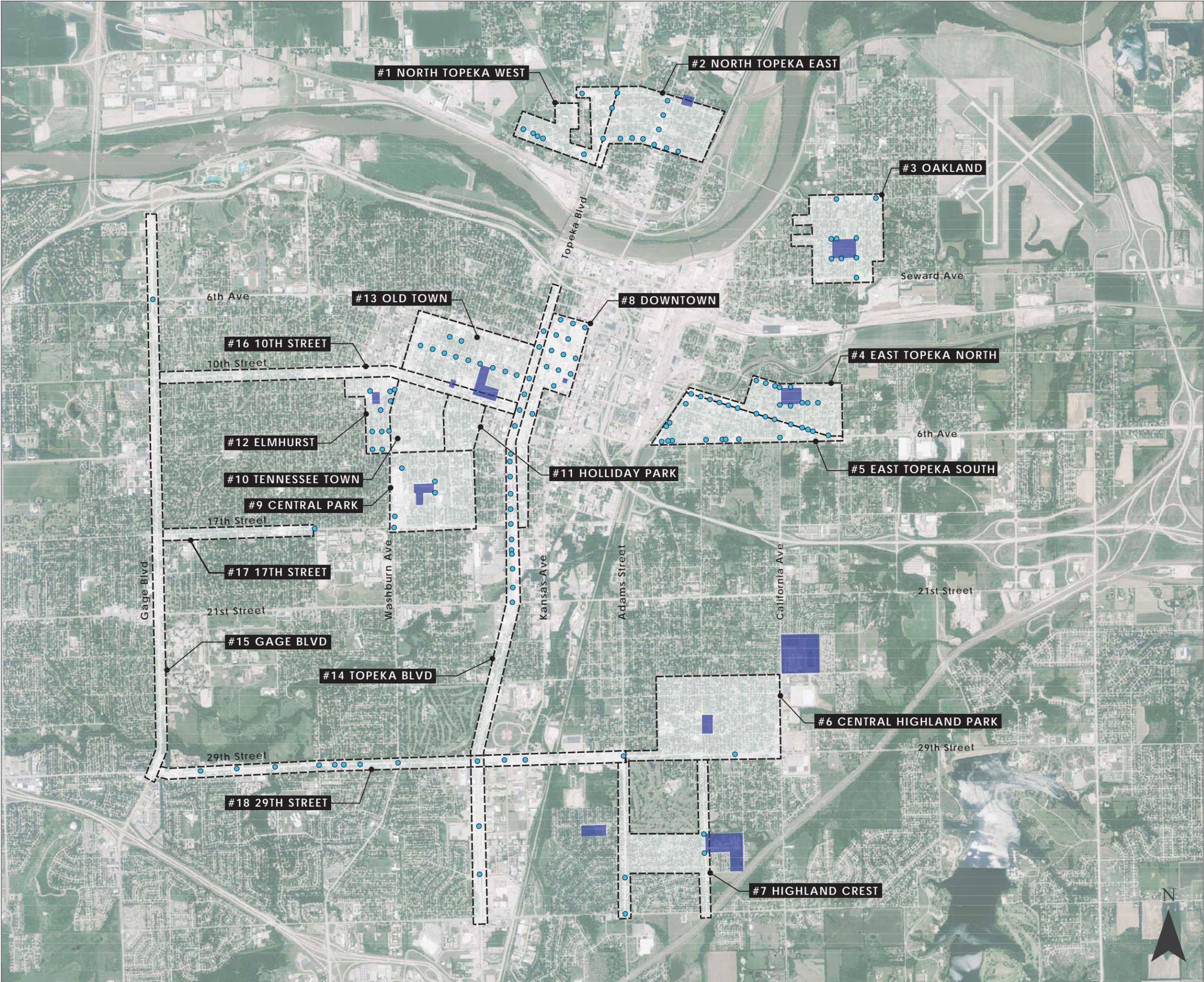
FIGURE 5.5:  
CURB RAMP IMPROVEMENTS



LEGEND

- Neighborhood Focus Area
- School
- Curb Ramp in Good Repair, but truncated domes are needed
- Curb Ramp in Disrepair
- No Existing Ramp

FIGURE 5.6:  
CROSSWALK IMPROVEMENTS



**LEGEND**

- Neighborhood Focus Area
- School
- Crosswalk Improvement

