Black Hawk County Metropolitan Area

PEDESTRIAN MASTER PLAN

Adopted February 10, 2022

INRCOG
Iowa Northland Regional Council of Governments

This page intentionally left blank

RESOLUTION OF THE BLACK HAWK COUNTY METROPOLITAN AREA TRANSPORTATION POLICY BOARD ADOPTING THE *PEDESTRIAN MASTER PLAN*

WHEREAS, the Black Hawk County Metropolitan Area Transportation Policy Board has been designated as the Metropolitan Planning Organization (MPO) for the Black Hawk County urbanized area; and

WHEREAS, the Policy Board in cooperation with the state is conducting a continuing, cooperative, and comprehensive (3-C) transportation planning process pursuant to 23 CFR 450 (c); and

WHEREAS, according to Section 217 in Title 23 of the U.S. Code, bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, and transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians; and

WHEREAS, the U.S. Department of Transportation issued a Policy Statement outlining that every transportation agency has the responsibility to improve conditions and opportunities for walking and bicycling and to integrate walking and bicycling into their transportation systems; and

WHEREAS, the Pedestrian Master Plan (PMP) was drafted by the MPO through an extensive public planning and outreach process that engaged citizens, stakeholders, and elected officials; and

WHEREAS, the PMP will serve as a guide for the ongoing development of pedestrian related investments in the MPO with the goal of creating a safe, well-connected, and attractive pedestrian environment for all members of the community; and

WHEREAS, the PMP will help City staff and elected officials develop Capital Improvement Projects to improve safety, connectivity, wellness, and design of the pedestrian-built environment.

NOW, THEREFORE BE IT RESOLVED that the Black Hawk County Metropolitan Area Transportation Policy Board hereby approves the *Pedestrian Master Plan* for the Black Hawk County urbanized area; and

BE IT FURTHER RESOLVED that the Black Hawk County Metropolitan Area Transportation Policy Board certifies that the *Pedestrian Master Plan* is consistent with the metropolitan transportation planning process as described in 23 CFR 450 (c).

Passed and adopted this 10th day of February, 2022.

Rob Green, Chair

ATTEST:

Carter Baldwin, Director of Transportation, INRCOG

This page intentionally left blank

TABLE OF CONTENTS

Section One: Introduction

Section Two: Planning Context

Section Three: Existing Conditions

Section Four: Public Input

Section Five: Recommendations

Appendices

Section One: Introduction

The Pedestrian Master Plan serves as a guide for the ongoing development of pedestrian related investments in the Black Hawk County Metropolitan Planning Organization (MPO). The MPO area includes the cities of Waterloo, Cedar Falls, Evansdale, Hudson, Elk Run Heights, Raymond, and Gilbertville, as well as the unincorporated area of Black Hawk County within the MPO boundary (see Map 3-1).

The planning process for the Pedestrian Master Plan included a robust and statistically-significant public input process to solicit and incorporate the perspectives of multiple stakeholders throughout the Black Hawk County MPO area. Data received from this public input process has also been used to develop baseline performance measures which can be used to track the plan's progress. The development of this process was guided by a steering committee made up of community leaders, public officials, and local stakeholders.

WHAT IS AN MPO?

A metropolitan planning organization, or MPO, is a transportation policy-making organization required by federal law for urban areas with a population greater than 50,000. The Transportation Policy Board is the decision-making body of the Black Hawk County MPO. Voting members of the Policy Board include one elected official from Waterloo, Cedar Falls, Evansdale, Hudson, Elk Run Heights, Raymond, Gilbertville, and Black Hawk County, as well as a representative from MET Transit and the Waterloo Regional Airport.

The Iowa Northland Regional Council of Governments (INRCOG) provides staff and technical support to the MPO. A portion of the federal transportation funding INRCOG receives is allocated for long-range planning, which is the funding source used to develop this plan.

BLUE ZONES AND HEALTHY HOMETOWN

Interest in developing the Pedestrian Master Plan began in 2013 as part of the Blue Zones Project by Healthways. The Blue Zones Project focuses on improving the health and quality of life of U.S. communities based on areas of the world where people reach age 100 at an exceptional rate. Former Iowa Governor, Terry Branstad, launched the statewide Blue Zones initiative in 2011. Since then, the cities of Waterloo and Cedar Falls have become Blue Zones certified communities by meeting several specific criteria. The Blue Zones project focuses on four main environments that influence our health and well-being: our community, our social networks, our habitat, and our inner self. The overall goal is to change our environment to make the healthy choice the easy choice.

"The Blue Zones project is based on the idea that if surroundings lead to healthy behaviors, and healthy behaviors lead to longer better lives, then by optimizing the surroundings of any community it's possible to create a Blue Zones community where all citizens and neighbors live happier, healthier, and longer lives."

- John Bachman, Wellmark Spokesperson

In 2018, cities across Iowa transitioned from the Blue Zones Project to Healthy Hometown powered by Wellmark. Healthy Hometown carries forward the goals of the Blue Zones Project including the Healthiest State Initiative in Iowa. Healthy Hometown also organizes walkability audits to help communities identify strengths and weaknesses in their pedestrian infrastructure and related policies and programs (Appendix E).

STEERING COMMITTEE

Regular meetings of the Pedestrian Master Plan steering committee began in September 2014. The steering committee was made up of community leaders, public officials, and other local stakeholders. 23 individuals participated in at least three steering committee meetings. The following table lists organizations with participants in at least three steering committee meetings:

Figure 1-1: Pedestrian Master Plan Steering Committee

Organization
Black Hawk County
Black Hawk Grundy Mental Health
Cedar Falls Community School District
City of Cedar Falls
City of Cedar Falls Bicycle and Pedestrian Advisory Committee
City of Raymond
City of Waterloo
City of Waterloo Complete Streets Advisory Committee
Grout Museum District
Grow Cedar Valley
Hawkeye Community College Metro Center
Healthy Cedar Valley Coalition
INRCOG
Love INC of the Cedar Valley
MET Transit
MSA Professional Services
Operation Threshold
University of Northern Iowa
Waterloo Community School District

Other organizations with some level of participation with the steering committee include Community Housing Initiatives, Cedar Valley Refugee Newcomer Services, and Tyson Fresh Meats.

PLAN COMPONENTS

The Pedestrian Master Plan consists of the following five components:

Section One: Introduction defines the goals, objectives, and performance indicators used as the basis of this plan.

Section Two: Planning Context lists a variety of existing Federal, State, and Local resources developed to guide the development of pedestrian infrastructure.

Section Three: Existing Conditions uses a variety of data to describe the geography, demographics, and existing pedestrian infrastructure in the Black Hawk County MPO area.

Section Four: Public Input describes the four methods used to garner public input throughout this process: (1) A statistically-significant survey sent by mail to residents in the MPO planning area in 2015, (2) a special outreach survey to non-English speaking and homeless residents in Waterloo in 2015, (3) six public input forums in Waterloo and Cedar Falls and an online survey in 2016, and (4) the statistically-significant National Household Travel Survey (NHTS) Add-on for the Black Hawk County metropolitan area from 2016 to 2017.

Section Five: Recommendations identifies two types of recommendations: (1) priority sidewalk infill areas to be used in conjunction with local sidewalk infill ordinances, and (2) policy recommendations.

GOALS AND OBJECTIVES

The Black Hawk County Metropolitan Area Pedestrian Master Plan identifies steps toward creating a safe, well-connected, and attractive pedestrian environment for all members of the community.

The Pedestrian Master Plan aims to promote four basic goals related to the built environment: safety, connectivity, wellness, and design. While each of these goals addresses a specific planning topic, their associated objectives may overlap and apply to multiple goals. Each objective can be measured on an ongoing basis to track the plan's progress.

1) Safety

Pedestrian crossing near Poyner Elementary, Evansdale

Perhaps the most fundamental consideration in planning and designing pedestrian accommodations is safety. For this plan, every roadway in the Black Hawk County MPO area is regarded as a pedestrian route unless specifically designated otherwise. Accordingly, any existing infrastructure which is dangerous for pedestrians could be regarded as an ongoing safety risk for the public.

In addition, lack of pedestrian infrastructure and existing infrastructure that is unsafe can have a negative impact on the public perception of walking, which, in turn, can have a negative impact on

public health overall. The goal of safety is to create a physical environment conducive to walking for people of all ages and abilities, so that pedestrians don't find themselves in dangerous and uncomfortable situations.

Six objectives were developed by the *Pedestrian Master Plan* steering committee to address safety:

- **1.1** Traffic accidents involving pedestrians are reduced
- **1.2** All major pedestrian crosswalks are safe and clearly marked
- **1.3** Areas around schools are safe and encourage students to walk to school
- **1.4** Sidewalks are in safe walking condition
- **1.5** Lighting along walkways meets public demand
- **1.6** Walking in the MPO area is regarded as safe from criminal activity

Objective 1.1, reducing traffic accidents involving pedestrians, can be achieved by meeting objectives 1.2 through 1.5. Objective 1.6 addresses safety concerns specifically relating to perceived threats from other individuals such as intimidation, robbery, and assault.

Elected officials as well as city and county staff are strongly encouraged to promote and develop the safest possible design for pedestrians in all road reconstruction and new construction projects. The performance indicators associated with each objective are listed later in this section.

2) Connectivity

In broad terms, the term connectivity is used throughout this plan to refer to the principle of connecting people to places. More specifically, this goal aims to ensure that residential neighborhoods have adequate pedestrian access to nearby destination areas. A destination area is an area with a specific land use that functions as a destination. Examples include downtown areas, retail districts, business parks, and colleges. Parks, museums, and other cultural amenities can also be considered destinations for pedestrians.

Sidewalks in Thunder Ridge, Cedar Falls

Sidewalks near Unity Square Townhomes, Waterloo

The Pedestrian Master Plan aims to provide recommendations by targeting areas with the greatest need and identifying projects that would better connect the people in those neighborhoods to nearby destinations.

Many of the recommendations presented in this plan will focus on improvements to priority sidewalk infill areas identified in Section Five. These are defined by planners as areas with the greatest need for pedestrian improvements.

Four objectives were developed by the Pedestrian Master Plan steering committee to address connectivity:

2.1 Infrastructure exists to provide pedestrians easy access to commercial districts

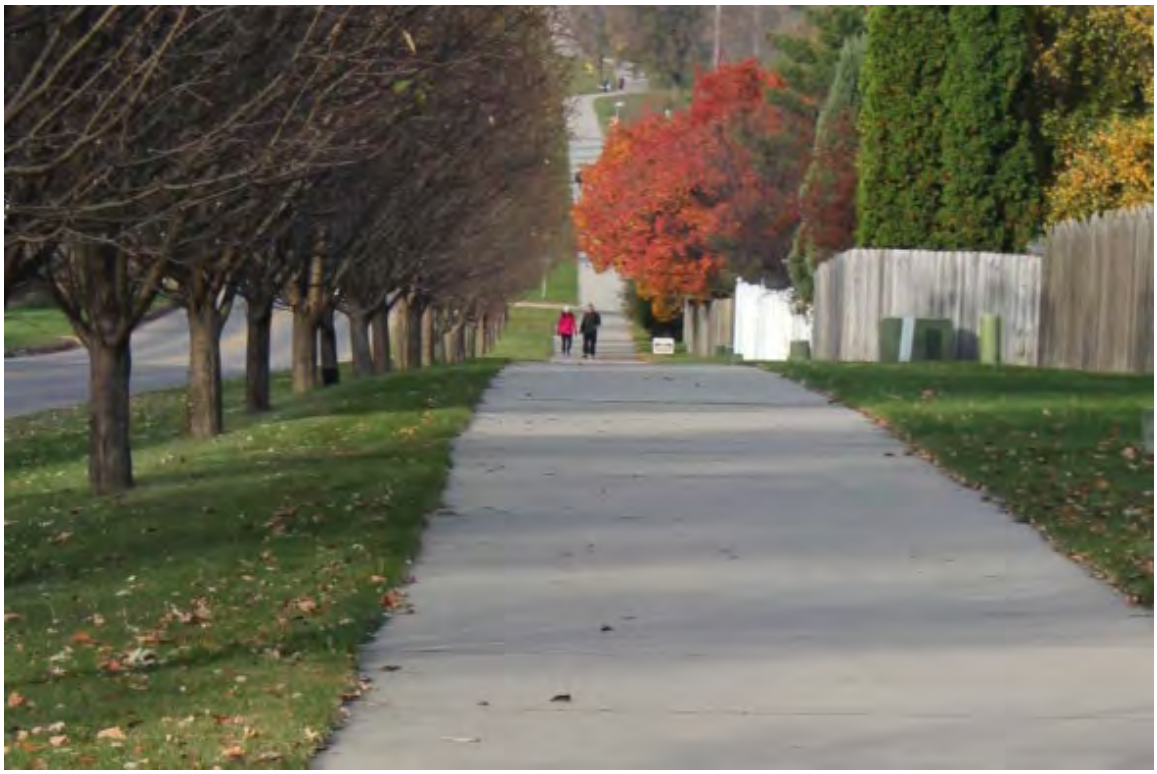
2.2 Infrastructure exists to provide pedestrians easy access to other modes of transportation

2.3 Parks and cultural amenities have good pedestrian connectivity

2.4 Gaps are filled in the existing sidewalk network

Sidewalk access to a commercial business in North Cedar, Cedar Falls

3) Wellness



Couple walking along W 12th St Trail, Cedar Falls

The goal of improving wellness involves a broad cultural change created by incremental improvements to the pedestrian infrastructure. To this extent, improving wellness is the most longstanding goal out of the four.

Rising childhood obesity rates are a clear outcome of the rise in sedentary lifestyles in Iowa and throughout the world. The body mass index (BMI) data of K-8 students in Waterloo and Cedar Falls schools collected from 2010 to 2015 show the share of participating students who were overweight or obese ranged from 26 percent to 39 percent. Providing safe routes to school and other pedestrian infrastructure can encourage walking as a physical activity which can improve public health outcomes as a result.

Six objectives were developed by the Pedestrian Master Plan steering committee to address wellness:

- **3.1** A greater percentage of trips are made by foot
- **3.2** Childhood obesity is reduced
- **3.3** Adult obesity is reduced
- **3.4** A lower percentage of adults are physically inactive
- **3.5** A greater percentage of people walk for wellness
- **3.6** The public is interested in creating a walkable community

4) Design

Curb extensions at pedestrian crossings along 5th St, Hudson

The design of adequate pedestrian accommodations varies widely and depends on several factors including roadway width, traffic volumes, and surrounding land uses. While priority sidewalk infill areas in Section 5 focus on sidewalks, the Pedestrian Master Plan also aims to encourage best practices for pedestrian facilities in other contexts as well. Common design improvements include curb extensions (pictured above), shorter crosswalk lengths, tighter curb radii to reduce vehicle turning speeds, and various traffic calming measures. Section Two describes several guidance documents with information on pedestrian and street design improvements.

Traffic calming measures are one of the most important considerations in areas with high levels of pedestrian activity. Currently, the downtown areas in Waterloo, Cedar Falls, and Hudson all incorporate some sort of traffic calming features. In Waterloo and Hudson, curb extensions (or "bulb-outs") have been installed at some downtown intersections. In Cedar Falls, chicanes are incorporated into the design of Main Street from 1st Street to 6th Street. In each of these settings, the design of the roadway improves the public space for pedestrians and reduces the length of crosswalks, thereby reducing the amount of time pedestrians must spend in the street. Extending these traffic calming designs to other destination areas in the MPO area is one way to create a safer environment for pedestrians.

Design improvements for pedestrians must also extend beyond the public right-of-way for walkways to function adequately. Section 5 of this plan includes policy-related recommendations that promote the types of development that support pedestrian activity. These recommendations include updates to zoning ordinances, subdivision regulations, and overall planning considerations.

In general, the goal of design has two primary functions: to create places that *function* well, and to create places that *feel* well. These two qualities are not mutually exclusive. In other words, an improvement to a walkway may improve functionality and safety while also enhancing the aesthetic appeal of the area. One example would be a pedestrian refuge on an arterial roadway which provides a break in the crosswalk for pedestrians and a median space for trees and decorative plantings.

Two objectives were developed by the Pedestrian Master Plan steering committee to address design:

4.1 Sidewalks and other walking paths are accessible to pedestrians of all ages and abilities

4.2 Pedestrian traffic is a strong consideration in street design

PERFORMANCE INDICATORS

As stated previously, each objective identified in this plan is tied to a performance indicator. With each update to the Pedestrian Master Plan, measurements of these performance indicators will track the progress of each objective and, more broadly, the progress of each goal.

Most of the performance indicators are based on a statistically-significant public input survey of households in the MPO area. 344 households were surveyed altogether in 2015. Section Four of this plan describes the public input process in greater detail. Other performance indicators are based on U.S. Census data, Black Hawk County crash data, and Centers for Disease data. The table on the next page illustrates the connection between the goals, objectives, and performance indicators:

Sidewalks near Highland Square Park, Waterloo

Figure 1-2: Master Plan Goals, Objectives, and Performance Indicators

Goal	Objective	Performance Indicators
1) Safety	**1.1** Traffic accidents involving pedestrians are reduced	• **Iowa DOT data:** Total number of crashes involving pedestrians
	1.2 All major pedestrian crosswalks are safe and clearly marked	• **Survey results:** Percent of people who rate crosswalk safety* as "excellent" or "good"
	1.3 Areas around schools are safe and encourage students to walk to school	• **Survey results:** Percent of parents with school-age children whose children walk to school on a regular basis
	1.4 Sidewalks are in safe walking condition	• **Survey results:** Percent of people who rate sidewalk conditions* as "excellent" or "good"
	1.5 Lighting along walkways meets public demand	• **Survey results:** Percent of people who rate lighting at night* as "excellent" or "good"
	1.6 Walking in the MPO area is regarded as safe from criminal activity	• **Survey results:** Percent of people who rate safety from street crime (e.g. theft, assault) * as "excellent" or "good"
2) Connectivity	**2.1** Infrastructure exists to provide pedestrians easy access to commercial districts	• **Focus area studies:** Total length of public sidewalks and crosswalks in focus areas • **Survey results:** Percent of people who rate the directness of walkways* as "excellent" or "good"
	2.2 Infrastructure exists to provide pedestrians easy access to other modes of transportation	• **Survey results:** Percent of people who indicate all their bus stops have usable sidewalk access
	2.3 Parks and cultural amenities have good pedestrian connectivity	• **Survey results:** Percent of people who describe parks and cultural amenities as "very connected"
	2.4 Gaps are filled in the existing sidewalk network	• **Survey results:** Percent of people who rate the continuity of walkways* as "excellent" or "good"
3) Wellness	**3.1** A greater percentage of trips are made by foot	• **Census data:** Percent of workers who walk to work • **Survey results:** Percent of people who walk at least two blocks daily or almost daily • **Survey results:** Percent of commuters who regularly walk to work • **Survey results:** Percent of people who regularly walk to shopping and dining
	3.2 Childhood obesity is reduced	• **SuccessLink data:** Percent of Waterloo students grades K-8 who are overweight or obese • **SuccessLink data:** Percent of Cedar Falls students grades K-8 who are overweight or obese
	3.3 Adult obesity is reduced	• **CDC data:** Percent of adults who report a BMI of 30 or higher
	3.4 A lower percentage of adults are physically inactive	• **CDC data:** Percent of adults who report no leisure-time physical activity
	3.5 A greater percentage of people walk for wellness	• **Survey results:** Percent of people who indicate they walk for wellness
	3.6 The public is interested in creating a walkable community	• **Survey results:** Percent of people who indicate that creating a walkable community is "very important"
4) Design	**4.1** Sidewalks and other walking paths are accessible to pedestrians of all ages and abilities	• **Survey results:** Percent of people who rate the safety of walkways for the elderly, disabled, and children* as "excellent" or "good"
	4.2 Pedestrian traffic is a strong consideration in street design	• **Survey results:** Percent of people who rate the quality of design for pedestrians* as "excellent" or "good"

Performance indicators with an asterisk (*) stipulate that the indicator is based on each survey respondent's choice of the area they wish to see pedestrian improvements focused on the most. In effect, these are not measurements of recent pedestrian improvements but rather measurements of the areas with the greatest need for improvements.

The following table shows the baseline measurements for each performance indicator:

Figure 1-3: Master Plan Baseline Performance Measurements

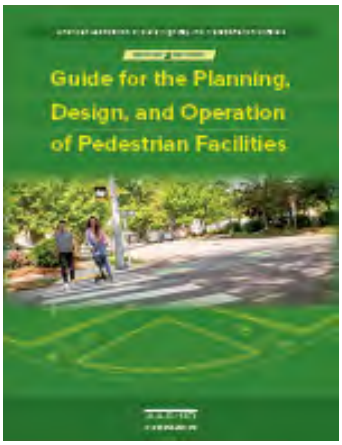
Goal	Obj.	Performance Indicator	Baseline Measurement	Target
1) Safety	1.1	**Iowa DOT data:** Total number of crashes involving pedestrians	**18.9 crashes / year**	▼
	1.2	**Survey results:** Percent of people who rate crosswalk safety* as "excellent" or "good"	**25.4 % "excellent" or "good" crosswalks***	▲
	1.3	**Survey results:** Percent of parents with school-age children whose children walk to school on a regular basis	**12.5 % walk to school**	▲
	1.4	**Survey results:** Percent of people who rate sidewalk conditions* as "excellent" or "good"	**28.3 % "excellent" or "good" sidewalks***	▲
	1.5	**Survey results:** Percent of people who rate lighting at night* as "excellent" or "good"	**28.9 % "excellent" or "good" lighting***	▲
	1.6	**Survey results:** Percent of people who rate safety from street crime (e.g. theft, assault) * as "excellent" or "good"	**45.0 % "excellent" or "good" safety from crime***	▲
2) Connectivity	2.1	**Focus area studies:** Total length of public sidewalks and crosswalks in focus areas	**282.6 miles**	▲
	2.1	**Survey results:** Percent of people who rate the directness of walkways* as "excellent" or "good"	**30.7 % "excellent" or "good"***	▲
	2.2	**Survey results:** Percent of people who indicate all their bus stops have usable sidewalk access	**70.8 % have usable sidewalks**	▲
	2.3	**Survey results:** Percent of people who describe parks and cultural amenities as "very connected"	**32.4 % "very connected"**	▲
	2.4	**Survey results:** Percent of people who rate the continuity of walkways* as "excellent" or "good"	**20.0 % "excellent" or "good" continuity of walkways***	▲
3) Wellness	3.1	**Census data:** Percent of workers who walk to work	**3.3 % walk to work**	▲
	3.1	**Survey results:** Percent of people who walk at least two blocks daily or almost daily	**49.3 % walk daily or almost daily**	▲
	3.1	**Survey results:** Percent of commuters who regularly walk to work	**0.0 % regularly walk to work**	▲
	3.1	**Survey results:** Percent of people who regularly walk to shopping and dining	**0.6 % regularly walk to shopping and dining**	▲
	3.2	**SuccessLink data:** Percent of Waterloo students grades K-8 who are overweight or obese	**39 % overweight or obese**	▼
	3.2	**SuccessLink data:** Percent of Cedar Falls students grades K-8 who are overweight or obese	**26 % overweight or obese**	▼
	3.3	**CDC data:** Percent of adults who report a BMI of 30 or higher	**31.0 % obese**	▼
	3.4	**CDC data:** Percent of adults who report no leisure-time physical activity	**22.0 % inactive**	▼
	3.5	**Survey results:** Percent of people who indicate they walk for wellness	**68.3 % walk for wellness**	▲
	3.6	**Survey results:** Percent of people who indicate that creating a walkable community is "very important"	**46.6 % "very important"**	▲
4) Design	4.1	**Survey results:** Percent of people who rate the safety of walkways for the elderly, disabled, and children* as "excellent" or "good"	**11.9 % "excellent" or "good" safety of walkways**	▲
	4.2	**Survey results:** Percent of people who rate the quality of design for pedestrians* as "excellent" or "good"	**17.2 % "excellent" or "good" quality of design**	▲

Section Two: Planning Context

Section Two of this plan describes a variety of planning resources and initiatives and how they relate to pedestrian planning in the Black Hawk County metropolitan area. There are numerous documents at the federal, state, and local levels that address pedestrian planning. The cities of Waterloo and Cedar Falls have also adopted Complete Streets policy resolutions, and both cities have active committees working toward implementing pedestrian improvements locally. This section serves to provide a more complete understanding of the considerations of pedestrian planning and how they shape the Pedestrian Master Plan's recommendations. This section is not intended to serve as a comprehensive list of materials related to pedestrian planning.

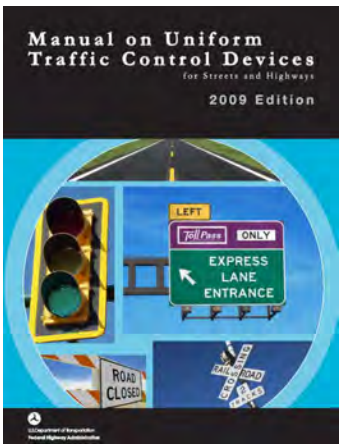
NATIONAL

Guide for the Planning, Design, and Operation of Pedestrian Facilities
American Association of State Highway and Transportation Officials (AASHTO)
December 2021

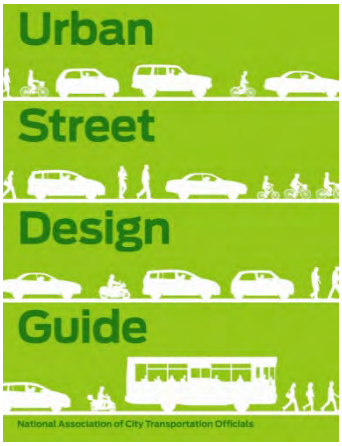


The *Guide for the Planning, Design, and Operation of Pedestrian Facilities* is among the most comprehensive guides for pedestrian planning and engineering currently available in the United States. Not to be confused with the AASHTO "Green Book", which focuses on highways and roads, this guide provides detailed information on a variety of pedestrian-specific topics including planning strategies, school site planning and design, intersection design, pedestrian signals, sidewalk maintenance, and more. It is highly recommended that local planners and engineers reference this guide during the early stages of any major transportation project in the metropolitan area. **All measures identified in this guide shall be considered supported by the Pedestrian Master Plan.**

Manual on Uniform Traffic Control Devices (MUTCD)
U.S. Department of Transportation, Federal Highway Administration
May 2012 (revised)

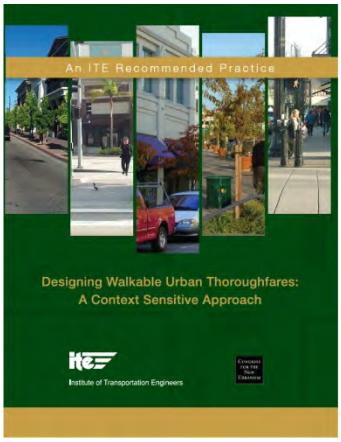


The State of Iowa uses standards set forth in the national *Manual on Uniform Traffic Control Devices* to determine the design, installation, and function of traffic signs, traffic signals, and road surface markings. This manual includes standards for a wide range of different settings related to pedestrians including crosswalks, school zones, transit stops, rail crossings, and more. While primarily an engineering document, this manual can be referenced by anyone interested in learning more about national design standards. **All guidance and standards identified in this manual shall be considered supported by the Pedestrian Master Plan.**



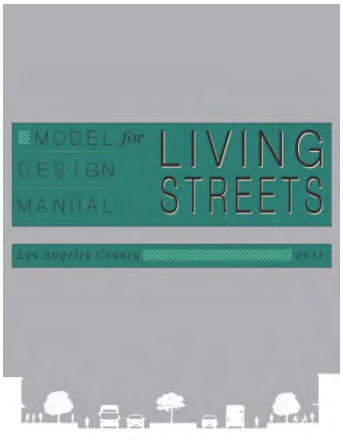
Urban Street Design Guide
National Association of City Transportation Officials (NACTO)
September 2013

The *Urban Street Design Guide* focuses on the design of city streets and public spaces. Unlike other manuals on pedestrian facilities, this guide emphasizes the principle that urban streets are public spaces and have a larger role to play in communities than solely being conduits for traffic. This guide is supported by the Federal Highway Administration (FHWA), and NACTO urges municipalities to use it as a basis for the creation of local standards. This guide links to specific case studies of design elements implemented throughout the United States, and it includes a robust section on stormwater management treatments including bioswales, flow-through planters, and pervious strips. **All treatments identified in this guide shall be considered supported by the Pedestrian Master Plan.**



Designing Walkable Urban Thoroughfares:
A Context Sensitive Approach
Institute of Transportation Engineers and The Congress for New Urbanism
March 2010

This report, like the NACTO guide, serves as a complement to existing AASHTO guidelines. Also supported by FHWA, this manual sets itself apart by focusing exclusively on urban thoroughfares, or roadways commonly designated as arterials and collectors. Freeways, expressways, and local streets are not covered in this report. *Designing Walkable Urban Thoroughfares* provides criteria for specific thoroughfare elements, and describes the relationship, compatibility, and trade-offs involved with balancing the needs of all users. **All concepts and principles identified in this report shall be considered supported by the Pedestrian Master Plan.**

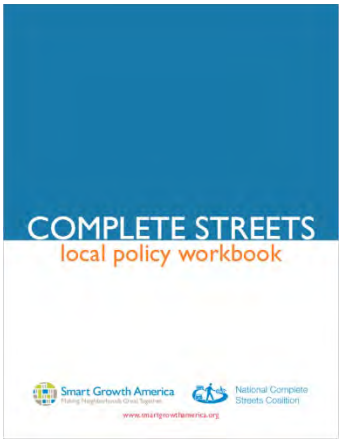


Model Design Manual for Living Streets
Los Angeles County, Department of Public Health and UCLA, Luskin Center for Innovation
October 2011

The *Model Design Manual for Living Streets* seeks to achieve balanced street design for cars, pedestrians, cyclists, and transit users, and incorporates features to make streets lively, beautiful, and economically vibrant. Cities may use this manual in any way that helps update their current practices including adopting part or all the manual. Editable versions of this document are available for jurisdictions to download and customize to suit their needs. **All content presented in this manual shall be considered supported by the Pedestrian Master Plan.**

Complete Streets Local Policy Workbook
Smart Growth America
August 2012

This document serves as a guide for developing a city or county Complete Streets policy based on existing examples from around the country. The *Local Policy Workbook* was written by Smart Growth America to be used in conjunction with the organization's *Complete Streets Policy Analysis*. The cities of Waterloo and Cedar Falls have already adopted Complete Streets resolutions.

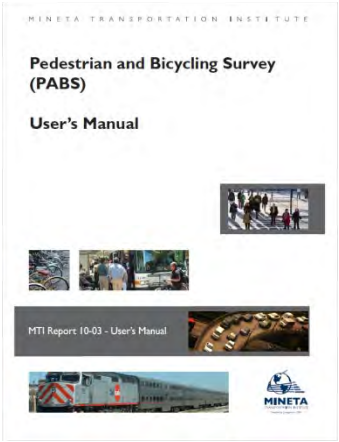


Smart Growth and Economic Success: Strategies for Local Governments
U.S. Environmental Protection Agency, Office of Sustainable Communities
March 2014

Many local governments are struggling financially as municipal revenues have failed to keep pace with rising costs of government operations. This document reviews the latest evidence of the connection between smart growth approaches and the fiscal strength of local governments to help them make decisions about where and how to grow.

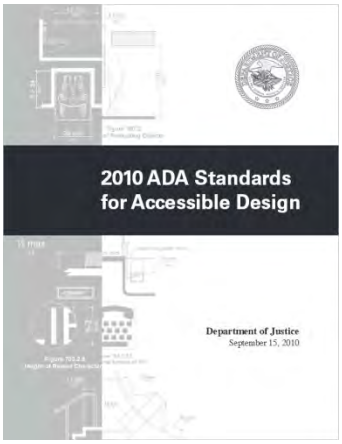
Evaluating Complete Streets Projects: A guide for practitioners
AARP Government Affairs, State Advocacy & Strategic Integration
April 2015

This toolkit features several lists of measures and metrics that cities can use to evaluate their complete streets projects. These measures are sorted by goal: access, economy, environment, place, safety, equity, and public health. Some metrics apply to a specific project, while others measure the entire transportation network in a given area.



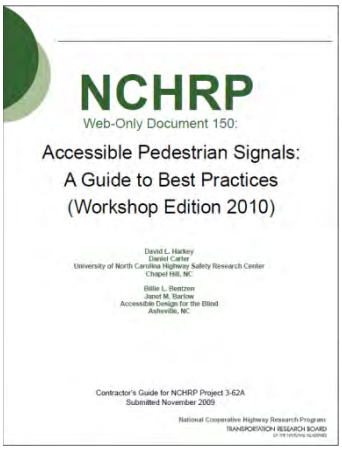
Pedestrian and Bicycling Survey (PABS) User's Manual
San Jose State University, Mineta Transportation Institute
December 2010

The statistically-significant survey conducted for the Pedestrian Master Plan used the PABS survey methodology to collect high-quality data at a relatively low cost. PABS is a mail-out-mail-back survey with a possible internet option that is distributed to a random sample of residents, designed to be used by local government transportation planners. Section Four of this document describes in detail the methodology and results of the survey conducted in the Black Hawk County metropolitan area.



Americans with Disabilities Act Standards for Accessible Design
U.S. Department of Justice, Civil Rights Division
September 2010

In September 2010, the U.S. Department of Justice revised regulations for Titles II and III of the Americans with Disabilities Act of 1990 (ADA). These regulations adopted revised, enforceable accessibility standards called the *2010 ADA Standards for Accessible Design*. As of March 2012, these standards are required for new construction and alterations under Titles II and III. Of greatest relevance to pedestrian planning are the specifications for curb ramps, bus shelters, and boarding and alighting areas.



Accessible Pedestrian Signals: A Guide to Best Practices
National Cooperative Highway Research Program (NCHRP), Transportation Research Board
November 2009

The *NCHRP Guide to Best Practices* describes in detail the best practices for placement of pedestrian actuated signals at a variety of different intersection types.

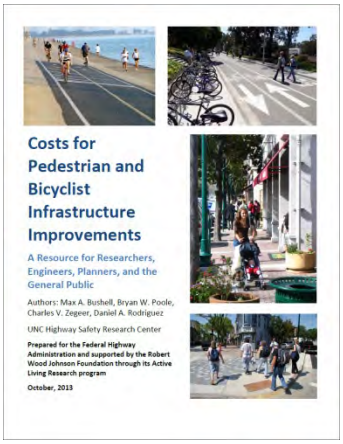
However, the NACTO Urban Street Design Guide states that fixed-time signals are preferable to actuated signals because of maintenance and upkeep.

Sidewalk Repair Funding Guide
Minnesota Walks
May 2018

The Sidewalk Repair Funding Guide provides several examples of methods City governments use to fund the reconstruction of public sidewalks. The guide offers examples from comparable small-to-medium sized cities including La Crosse, Owatonna, Ithaca, and Topeka. Funding models fall into three general categories: individual property owner funded, community-funded repairs, and hybrid approaches. Some cities provide additional resources to low-to-moderate income households, select high-demand areas of the city, or sidewalks in the worst condition.

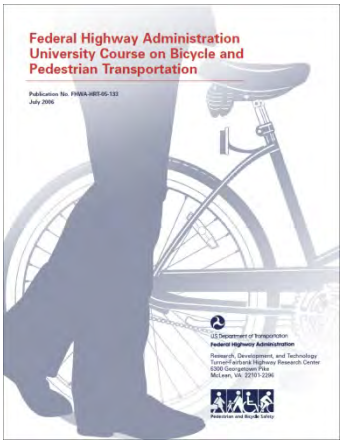
Cost for Pedestrian and Bicyclist Infrastructure Improvements
University of North Carolina, Highway Safety Research Center
October 2013

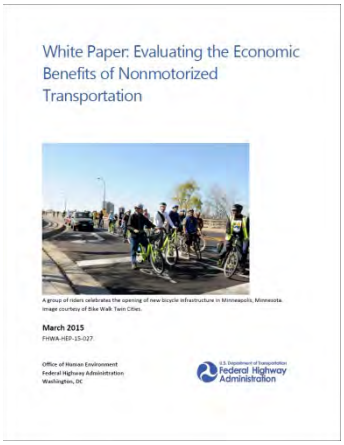
This guide includes the mean, median, minimum, and maximum cost of installing a wide range of pedestrian and bicyclist infrastructure improvements based on real-life examples. These improvements include traffic calming measures, signals, and other pedestrian accommodations. This guide is a good resource for planners and other community stakeholders to compare the probable costs of various improvements when addressing pedestrian needs.



University Course on Bicycle and Pedestrian Transportation
U.S. Department of Transportation, Federal Highway Administration
July 2006

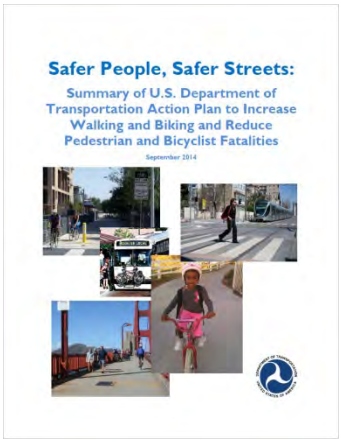
This document of over 400 pages covers 24 lessons addressing different elements of bicycle and pedestrian infrastructure. Lessons include safety, planning, signing and pavement markings, intersection design, midblock crossings, connections to transit, traffic calming, tort liability, and more.





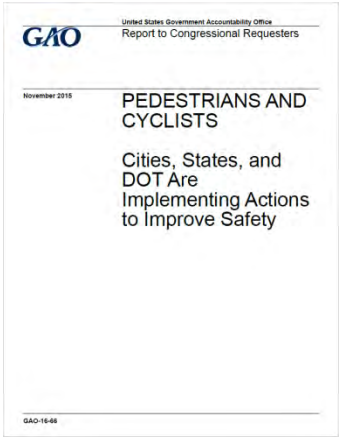
White Paper: Evaluating the Benefits of Nonmotorized Transportation
U.S. Department of Transportation, Federal Highway Administration
March 2015

This report provides information on the types of economic benefits cities have realized from investing in nonmotorized transportation infrastructure. The goal of this document is to provide a technical resource for communities seeking to measure the economic impacts of pedestrian and bicycle transportation projects in the future.



Safer People, Safer Streets
U.S. Department of Transportation, Federal Highway Administration
September 2014

This document outlines nearly two dozen projects undertaken by the U.S. DOT to promote infrastructure and design improvements and improve data collection and analysis of these modes of transportation.



Pedestrians and Cyclists: Cities, States, and DOT Are Implementing Actions to Improve Safety
U.S. Government Accountability Office
November 2015

This document states, among other things, that from 2004 to 2013 pedestrian fatalities have increased as a percentage of all traffic fatalities. It also covers key challenges to addressing pedestrian and bicyclist safety, as well as actions the U.S. DOT is implementing to address these challenges. Perhaps most useful to local jurisdictions is a table that includes U.S. DOT funding programs that can be used for a wide variety of pedestrian and bicycle related activities.

National Complete Streets Coalition
Smart Growth America

The term “complete streets” refers to streets that are designed to accommodate all users of the roadway including automobiles, pedestrians, bicyclists, and transit. The mission of the National Complete Streets Coalition is to promote the development and implementation of policies and professional practices that ensure streets are safe for people of all ages and abilities, balance the needs of different modes, and support local land uses, economies, cultures, and natural environments

National Center for Safe Routes to School
University of North Carolina Highway Safety Research Center

Safe Routes to School (SRTS) programs are sustained efforts by parents, schools, and governments to improve the health and well-being of children by enabling and encouraging them to walk and bicycle to schools. The National Center for SRTS was established in May 2006 to serve as the information clearinghouse for the federal SRTS program, provide technical support and resources, and coordinate the National Walk to School Day.

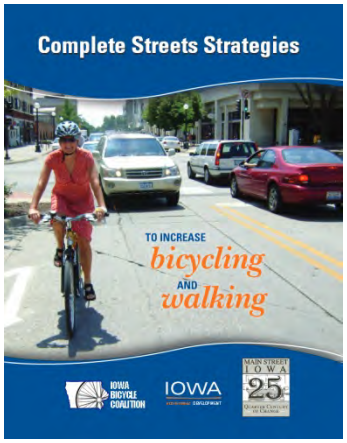
STATE

Iowa in Motion 2045 State Transportation Plan
Iowa Department of Transportation
May 2017 (revised February 2020)

The State of Iowa is required to develop a long-range plan to serve as a transportation investment guide for a minimum of 20 years. The plan forecasts the demand for transportation infrastructure and services based on social and economic changes likely to occur during this time. Statewide bicycle and pedestrian trails are one of the components in this plan, along with other planning considerations including land use and livability, demographic trends, safety, and passenger transportation.

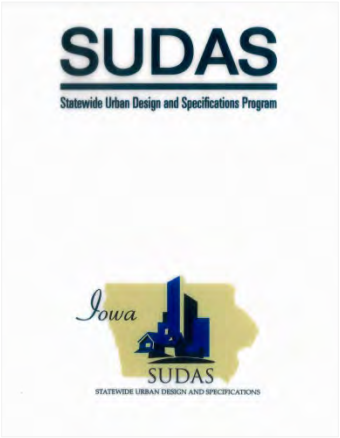
Iowa Bicycle and Pedestrian Long-Range Plan
Iowa Department of Transportation
December 2018

This plan builds upon the State Transportation Plan which identifies comprehensive transportation objectives as well as specific needs and recommendations for non-motorized transportation. The document serves as the primary guide for Iowa DOT decision-making regarding bicycle and pedestrian programs and facilities. It also has applicability for regional, county, and city plans and programs, helping to achieve a better level of statewide coordination and continuity for all levels of bicycle and pedestrian mobility.



Complete Streets Strategies to Increase Bicycling and Walking
Iowa Department of Economic Development, Main Street Iowa
July 2014

This publication provides examples of strategies that increase walking and bicycling within a community and highlights unique considerations for historic commercial districts. Local examples of sidewalks, crosswalks, signage, traffic calming measures, and programs are described in this document to provide an overview of strategies Iowa cities can use to promote walking as well as bicycling.



Statewide Urban Design and Specifications (SUDAS) Design Manual
Iowa SUDAS Corporation
2021

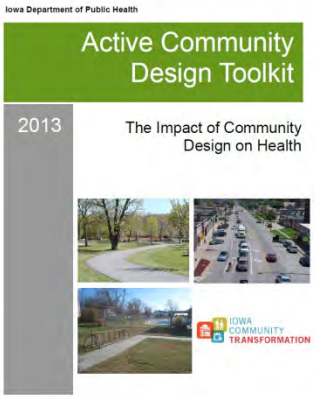
SUDAS manuals are revised once per year. The design manual is to be used in conjunction with the SUDAS Standard Specifications. Chapter 12 in the design manual addresses sidewalks and bicycle facilities by listing standards for sidewalks, curb ramps, crosswalks, and other engineering considerations. This section is the standard for use by all government entities in the State of Iowa.

Complete Streets Benefits, Design Elements, Community Resources
Iowa Department of Public Health
January 2014

This four-page document outlines a variety of statistics for justifying the development of Complete Streets based on four criteria: health, safety, the economy, and equity. It also identifies examples of Complete Streets elements in Iowa and provides links to additional Complete Streets resources.

Active Community Design Toolkit
Iowa Department of Public Health
October 2013

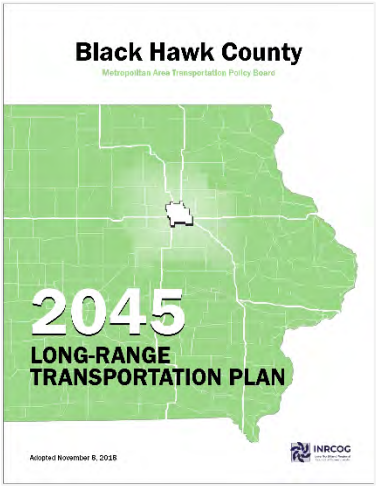
The activities laid out in this workbook are rooted in the Community Change Process, which provides a framework for community leaders to successfully implement strategies that support physical activity. The document includes three teamwork activities with the goal of implementation and evaluating an action plan for addressing community needs as it relates to promoting active living.



I-WALK (Iowans Walking Assessment Logistics Kit)
Iowa Department of Public Health and ISU Extension and Outreach
2010-2015

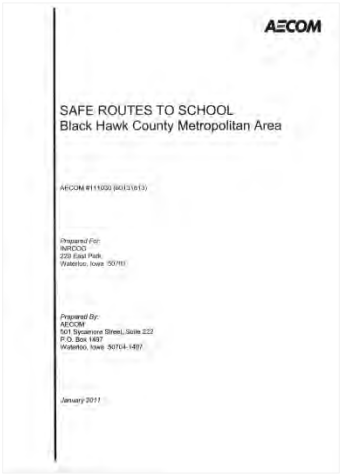
I-WALK used web mapping technologies and GPS to map routes around schools and other community destinations to identify barriers and solutions to make walking safer for people of all ages. In July 2012, I-WALK piloted its first project specifically focusing on the aging adult population in Cedar Falls. Studies related to Safe Routes to School have since been completed for Lincoln Elementary in Cedar Falls and Cunningham School in Waterloo.

LOCAL



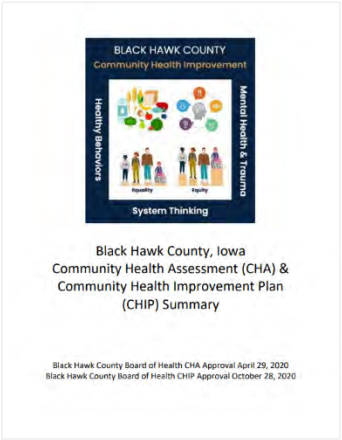
Black Hawk County Metropolitan Area 2045 Long-Range Transportation Plan
Iowa Northland Regional Council of Governments
November 2018

The *Long-Range Transportation Plan* (LRTP) documents the present state of transportation patterns and infrastructure in the Black Hawk County metropolitan area across all modes and guides the maintenance and improvement of each mode based on anticipated needs and revenues. The plan provides a framework for project selection during the annual federal funds programming process.



Safe Routes to School, Black Hawk County Metropolitan Area
AECOM
January 2011

The Safe Routes to School study conducted by AECOM evaluates each school within the metropolitan area to determine the deficiencies regarding pedestrian safety and infrastructure. The study provides in-depth analysis and recommendations for each school including engineering-level cost estimates for recommended projects. Recommendations were developed in large part based on parent and student surveys as well as principal interviews at each school. **All recommendations identified in this document shall be considered supported by the Pedestrian Master Plan.**

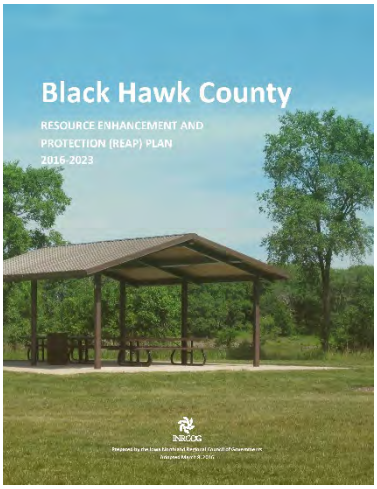


Black Hawk County Community Health Improvement Plan
Black Hawk County Public Health Department
October 2020

The *Black Hawk County Community Health Improvement Plan* (CHIP) outlines the objectives and strategies for addressing six public health related goals. The vision of the plan is for the community to work together so all people have equitable opportunities and resources to lead healthier, more fulfilled lives.

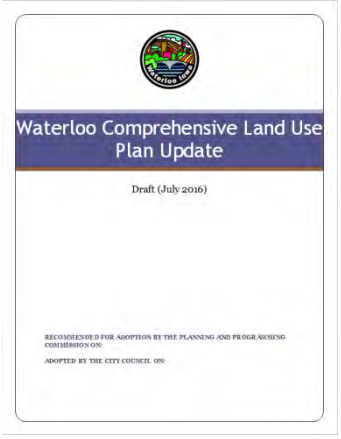
Black Hawk County REAP Plan, 2016-2023
Iowa Northland Regional Council of Governments
March 2016 (revised January 2021)

In 1989, the Iowa Legislature approved the Resource Enhancement and Protection (REAP) Act. To be eligible for REAP grant funding, each county in Iowa is required to have an active REAP Committee. The *Black Hawk County REAP Plan* identifies objectives and projects consistent with the goals of the REAP Act and the REAP Committee. These projects include the expansion and development of numerous parks, trails, and open spaces which create and enhance the environment for pedestrians. Likewise, pedestrian connectivity to these destinations was considered in the *Pedestrian Master Plan* focus area studies.



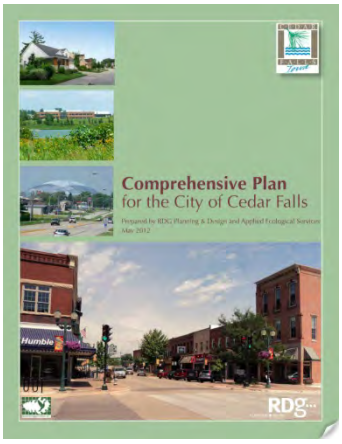
Waterloo Comprehensive Land Use Plan Update
City of Waterloo
In development

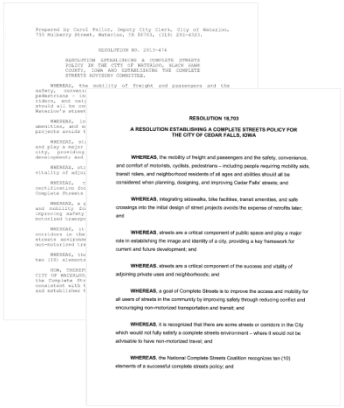
The City of Waterloo is currently in the process of updating their Comprehensive Land Use Plan. This is a long-range plan that will serve as a policy instrument for future development. The Plan will be the foundation for the City's land use management program. Considerations for pedestrians and other modes of non-motorized transportation will be included as part of the plan update.



Comprehensive Plan for the City of Cedar Falls
City of Cedar Falls
May 2012

The City of Cedar Falls completed its current comprehensive plan in 2012. This document provides a legal basis for land use regulations and presents a unified and compelling vision for the community. Land use is the central element of this plan. As noted in the plan, Cedar Falls has a relatively high walking rate among commuters (10.7%). The *Comprehensive Plan* recommends pedestrian connectivity in areas of new growth as well as land use patterns and new investments that promote active transportation.





RESOLUTION 18,703

A RESOLUTION ESTABLISHING A COMPLETE STREETS POLICY FOR THE CITY OF CEDAR FALLS, IOWA

Complete Streets Resolutions

City of Waterloo and City of Cedar Falls
June, July 2013

Both Waterloo and Cedar Falls adopted Complete Streets policy resolutions in 2013 largely as part of the Blue Zones initiative. The goal of these policies is to integrate pedestrian, bicycle, and transit needs as part of the initial design of street projects. The complete streets policies are consistent with the National Complete Streets Coalition guidance, and both policies were ranked among the top 10 complete streets policies in 2013 by Smart Growth America.

Waterloo Complete Streets Advisory Committee

The Waterloo Complete Streets Advisory Committee focuses on advancing the implementation of complete streets in Waterloo. The committee is comprised of city planners, city engineers, and community stakeholders, and provides recommendations for sidewalks to be included as part of the city's annual road reconstruction list.

Cedar Falls Bike & Ped Advisory Committee

The Cedar Falls Bicycle and Pedestrian Advisory Committee provides recommendations to city staff regarding projects, policies, and programming. The committee is comprised of business owners, school district representatives, cycling enthusiasts, and other community stakeholders. In 2014, the committee conducted a survey of workers in the Cedar Falls Industrial Park regarding walking and bicycling to work.

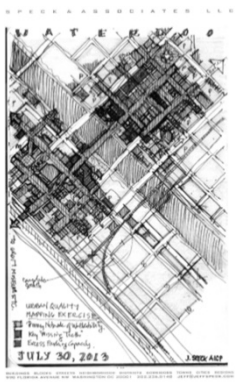
BLUE ZONES PROJECT™
by HEALTHWAYS
Sponsored by
Wellmark.

Blue Zones

The Blue Zones Project focused on improving the health and quality of life of U.S. communities, based on areas of the world where people reach age 100 at an exceptional rate. Waterloo and Cedar Falls have become Blue Zones certified communities by meeting several public health related criteria. One of the policy pledges of Blue Zones communities is the adoption of a pedestrian master plan.

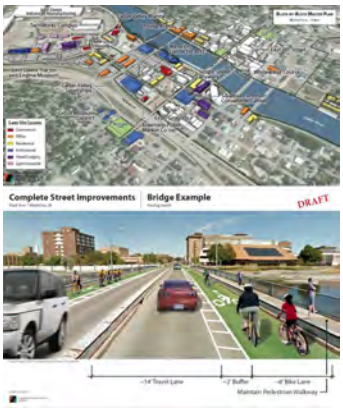
Recommendations for Downtown Waterloo study area
Speck & Associates, LLC
August 2013

In 2013, author and urban design expert Jeff Speck visited Waterloo and provided a list of recommendations for improving walkability downtown. The Pedestrian Master Plan borrows from these recommendations for both downtown Waterloo and throughout the metropolitan area. Speck's recommendations extend beyond sidewalks and focus largely on land use improvements that improve the pedestrian environment. **All recommendations identified in this memo shall be considered supported by the Pedestrian Master Plan.**



Downtown Waterloo Master Planning
Vandewalle & Associates Inc.
Ongoing

Vandewalle & Associates has worked with the City of Waterloo since 1999 to provide guidance and develop a master plan for downtown redevelopment. This planning has resulted in development of the riverfront trail, amphitheater, and pedestrian mall. Future planned developments include complete streets treatments to Park Avenue and mixed-use infill development throughout downtown. The *Pedestrian Master Plan* recommendations for downtown Waterloo were developed in line with this planning effort. **All planned improvements identified by Vandewalle & Associates shall be considered supported by the Pedestrian Master Plan.**

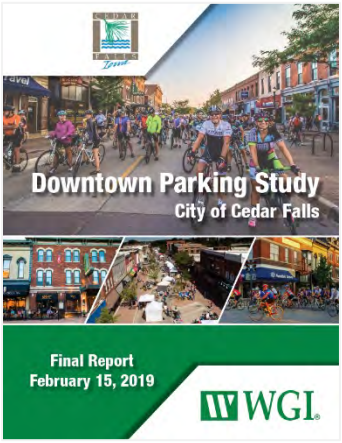


University Avenue Corridor Study
AECOM
August 2010

The University Avenue Corridor Study was initiated in July 2008 to investigate future needs along University Avenue between Iowa Highway 58 in Cedar Falls and U.S. Highway 63 in Waterloo. The study examines the road's needs and functions and presents feasible alternatives for reconstruction. The entire corridor in Waterloo and Cedar Falls has been reconstructed.

Waterloo 5-2-1-0 Stakeholder Committee
July 2019-present

Waterloo was one of 14 communities across the state to receive 5-2-1-0 Healthy Choices Count! Funds. This program focuses on creating environments that support healthy choices. 5-2-1-0 is a nationally recognized childhood obesity prevention program that focuses on the importance of four simple daily health habits. The stakeholder committee has been meeting since 2019 to identify and implement projects to make the community an even better place to live, work, and play.



Cedar Falls Downtown Parking Study
WGI
February 2019

In response to concerns raised by downtown businesses and property owners, the City of Cedar Falls hired a consultant to conduct a comprehensive parking study for the downtown area. The effort included significant stakeholder outreach including an online survey.

Iowa Initiative for Sustainable Communities (IISC)
University of Iowa
July 2021

IISC is an engaged-learning program at the University of Iowa. The initiative partners faculty, staff, and students with urban and rural communities to complete projects that enhance the sustainability of Iowa's communities, while transforming teaching and learning at the university. For the 2020-2021 academic year, IISC partnered with the City of Waterloo on over 20 projects including a pedestrian overpass for the 4th Street rail crossing, Church Row Neighborhood plan, and downtown Waterloo parking study.

Section Three: Existing Conditions

Black Hawk County has a population of 131,144 according to 2020 U.S. Census data making it the fifth most populous county in Iowa. The county's largest employers are John Deere, Tyson Fresh Meats, UnityPoint Health, and MercyOne. Black Hawk County is also home to the University of Northern Iowa (UNI) which had a total enrollment of 10,497 students in fall 2019.

For the purposes of this document, the term "metropolitan area" refers specifically to the area defined by the MPO boundary (see Map 3-1). The cities of Waterloo and Cedar Falls anchor the metropolitan area and make up about 90 percent of its total population

Figure 3-1: Population estimates in the MPO area, 2010 and 2020

City	2010 Census	2020 Census	Net
Waterloo	68,406	67,314	-1,092
Cedar Falls	39,260	40,713	1,453
Evansdale	4,751	4,561	-190
Hudson	2,282	2,546	264
Elk Run Heights	1,117	1,069	-48
Raymond	788	759	-29
Gilbertville	712	794	82

Area	2010 Census	2020 Census	Net
Black Hawk County total	131,090	131,144	54
Black Hawk County metropolitan area cities	117,316	117,756	440
Black Hawk County excluding metropolitan area cities	13,774	13,388	-386

NEIGHBORHOODS

The physical landscape of the Black Hawk County metropolitan area is shaped predominantly by single-family residential neighborhoods. The presence or absence of sidewalks in each neighborhood largely depends on when it was originally built:

- **1930s and earlier:** Residential neighborhoods in or before the early 1930s were built almost exclusively with sidewalks on both sides of the street. These neighborhoods were constructed at a time when streetcars and rail transit were still widely used, prior to the mass production of automobiles. Examples include East Waterloo, Church Row in Waterloo, and Overman Park in Cedar Falls.
- **1930s to 1970s:** Neighborhoods without sidewalks began appearing in the late 1930s, though exact dates vary. The population growth rate in the Black Hawk County metropolitan area peaked during the 1940s and 1950s, and several new neighborhoods were built as a result. Most of these were built with a sidewalk along only one street, such as Rainbow Drive and Valley Park Drive, or in many cases no sidewalks at all. In addition, streets platted in these neighborhoods have formed large, non-rectangular blocks which reduce pedestrian connectivity and increase travel distance. Examples include Cedar Heights, North Cedar, and Evansdale.
- **1970s to present:** From the 1970s onward, sidewalk requirements were established throughout the metropolitan area. New subdivisions were built with sidewalks adjacent to existing mid-century neighborhoods without sidewalks. This has resulted in many incomplete and isolated sidewalks scattered throughout the metropolitan area. In addition, while sidewalks have become standard with new developments, other factors including lot sizes,

street configurations e.g., cul-de-sacs, and proximity to services have further increased travel distances. Examples include Thunder Ridge in Cedar Falls and Audubon Park in Waterloo.

- **2000s to present:** In recent years, a few new subdivisions in Cedar Falls have integrated multi-use trails into the subdivision plat itself, specifically Greenhill Village, Viking Hills, and Western Home Communities. These neighborhoods benefit from improved connectivity and access to the trails system. However, like other newer neighborhoods, factors including lot sizes, street configuration, and proximity to services limit the practicality of walking for most purposes other than recreation.

Map 3-2 shows the location of existing sidewalks in Waterloo and Cedar Falls. Areas with sidewalks arranged in a grid pattern were originally built in the 1930s or earlier. Areas with sidewalks along larger blocks, non-rectangular blocks, and curved roads were largely built in the 1970s or later. These newer neighborhoods are situated predominantly to the south of the original neighborhoods in both Waterloo and Cedar Falls. Between these two areas, in both cities, are neighborhoods built between the 1930s and 1970s which lack sidewalks. The neighborhoods near the city limits of Waterloo and Cedar Falls were also built between the 1930s and 1970s, particularly around Rainbow Drive and University Avenue.

BUSINESSES

The layout of business districts in the metropolitan area shares a similar history. However, unlike new single-family neighborhoods, new commercial developments are not always required to build sidewalks alongside adjacent roads. Business districts developed after the 1930s typically face a main arterial roadway to attract automobile traffic, and often face away from the surrounding neighborhoods. Coupled with a lack of sidewalks, several areas in effect discourage walking trips to neighborhood businesses. Figure 3-2 shows two examples of this development pattern, with existing sidewalks shown in green:

Figure 3-2: Examples of business districts without neighborhood pedestrian connectivity

McClain Drive in Cedar Falls, 2019

University Avenue in Waterloo, 2019

As a result of this development pattern, pedestrians often use improvised means to access businesses, including walking in the grass, walking on the road, crossing roads mid-block, walking

through parking lots, and in some cases trespassing. As a rule of thumb, these behaviors should be regarded as a sign of poor pedestrian connectivity, rather than bad behavior.

SCHOOLS

Like businesses, many schools have also become less pedestrian oriented over the past several decades. This is largely due to school consolidations, particularly elementary schools, as well as low-density housing developments located far from existing schools.

For the purposes of this plan, one-half (½) mile or less is considered a practical walking distance to school. Map 3-3 shows residential properties situated within one-half mile of a public elementary school, and Map 3-4 shows residential properties situated within one-half mile of a public middle school (including Hudson High School). As of February 2017, there are a total of 38,632 parcels with dwellings in the metropolitan area. About 39 percent of these parcels are within one-half mile of their respective elementary school, and 13 percent are within one-half mile of a middle school. These distances are calculated "as the crow flies", so these percentages are lower if measuring actual walking distance.

In addition, several newer schools are situated in areas that do not have the sidewalk infrastructure to support walking to school, despite being close to residential neighborhoods. These schools typically have some sidewalk access in one or two directions, but not in all directions. One of the goals of the Safe Routes to School initiative is to improve sidewalk connectivity to schools, thereby increasing the number of students who have a route to walk or bicycle to school separated from automobile traffic. Cities should prioritize Safe Routes to School sidewalk infill projects in a way that maximizes the number of students who would gain a safe route to their elementary or middle school. Safe Routes to School initiatives can be used alongside a comprehensive active transportation plan to increase the physical, social, and mental health for students. Safe Routes to School offers safety practices, education, and encouragement programs to increase the number of students choosing to walk or bike to school.

Public health officials maintain that the decrease in children walking to school has resulted in an increase in childhood obesity. According to the Centers for Disease Control and Prevention (CDC), body mass index (BMI) is used to determine childhood overweight and obesity. The term "overweight" is defined as a BMI at or above the 85th percentile, and obesity is defined as a BMI at or above the 95th percentile for children and teens of the same age and gender. In the 2014-2015 academic year, 39 percent of students surveyed at the Waterloo Community School District and 26 percent of students surveyed at the Cedar Falls Community School District were considered overweight or obese.

26 to 39% of K-8 students surveyed in Waterloo and Cedar Falls schools were considered overweight or obese.

SuccessLink, 2015-16 School Year

AUTOMOBILE OWNERSHIP

Automobile ownership for many people is simply a part of life. However, variables like the cost of ownership, physical disabilities, and age can prohibit some from owning a car. The website Edmunds.com features a tool called "True Cost to Own®" to compare the average cost of automobile ownership for different vehicles. This tool takes into consideration the indirect costs associated with automobile ownership: maintenance, repairs, insurance, fuel, financing, vehicle registration, and depreciation. The tool concludes that an economy car, for example a 2021 Chevrolet Spark LS Hatchback, is expected to cost about $16,000 with an additional $10,000 over five years for indirect costs. Depreciation is the highest cost, followed by fuel, insurance, and maintenance. Assuming a buyer finances the vehicle with a five-year loan, their total monthly cost is an average of $432 for one economy car. Multiply that amount by two adults, and it becomes clear that the monthly cost to own and maintain a reliable automobile is out of reach for many households. This compels many to carpool, take the bus, or use some other mode of transportation to meet their daily needs.

Several factors determine why a person chooses a certain mode of transportation to get to work. Not having a vehicle available is certainly one factor. However, proximity to work, the availability of transit, the perceived safety of walking and bicycling, and other factors also influence one's decision to use a particular mode. Most workers in the metropolitan area drive to work alone. Figure 3-3 shows the percentage of workers in each jurisdiction by mode of transportation based on U.S. Census data. Figures in bold show the jurisdiction with the highest share of workers who use a particular mode. Cedar Falls has the highest percentage of workers who walk to work.

Figure 3-3: Percentage of workers by mode of transportation, 2019

Jurisdiction	Drove alone	Carpool	Transit	Walk	Bike	Other	Work at home
State of Iowa (total)	81.1	8.3	**1.1**	3.3	0.5	0.9	4.9
Black Hawk Co (total)	80.9	9.5	0.5	3.7	0.4	0.8	4.2
Waterloo	80.0	13.6	0.8	1.5	0.1	1.2	2.7
Cedar Falls	79.8	5.9	0.2	**7.8**	**1.0**	0.3	5.0
Evansdale	**90.0**	4.1	0.0	0.0	0.8	0.4	4.7
Hudson	86.7	2.6	0.0	2.4	0.0	0.9	7.3
Elk Run Heights	77.4	**18.2**	0.0	0.0	0.5	0.5	3.4
Raymond	86.9	4.3	0.0	0.0	0.0	0.9	**8.0**
Gilbertville	84.3	5.6	0.5	1.2	0.0	**1.6**	6.8

Larger U.S. cities have more extensive public transportation systems than smaller cities, and a smaller proportion of their residents rely on automobiles. In Des Moines, 3.6 percent of workers have no vehicle available; in Minneapolis, 8.7 percent; and in Chicago, 16.2 percent. This is according to 2015-2019 American Community Survey 5-Year Estimates. For more information about public transportation in Black Hawk County and its history, see Public Transportation later in this section.

In Black Hawk County, an estimated 2.6 percent of workers have no vehicles available to them. Based on an estimated total of 65,380 workers, it follows that approximately 1,700 working-age people in Black Hawk County do not have a vehicle available. The number of workers without a vehicle varies significantly based on geography within the county, ranging from zero percent to 40 percent depending on the Census tract. Map 3-5 shows the percent of workers with no vehicle available in each Census tract. These rates are notably higher than average in downtown Waterloo and adjacent neighborhoods.

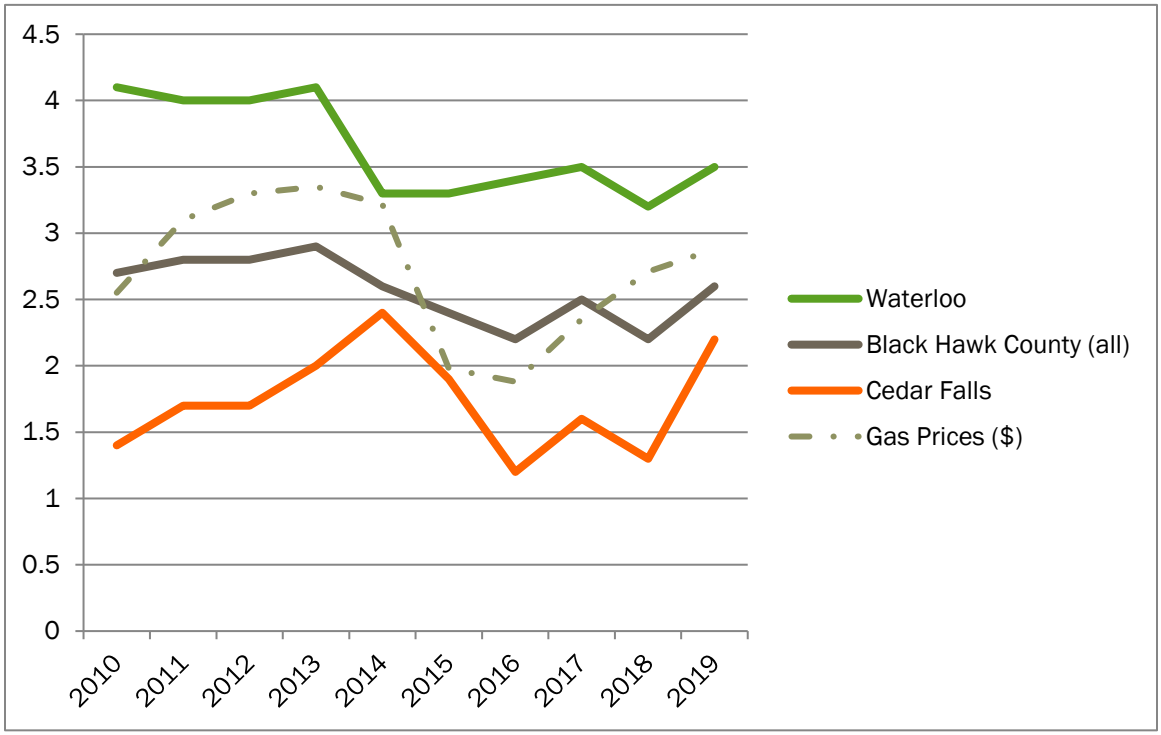
The rates of automobile ownership vary between cities, too. In Waterloo, an estimated 3.5 percent of workers had no vehicle available in 2019. This estimate is 2.2 percent in Cedar Falls, 1.1 percent in Elk Run Heights, 0.8 percent in Hudson, 0.7 percent in Evansdale, and zero percent in Raymond and Gilbertville.

Approximately 1,700 working-age people in Black Hawk County do not have a vehicle available.

Based on U.S. Census 2019 ACS 5-Year Estimates

Based on data from the website iowastategasprices.com, there appears to be a correlation between vehicle availability and gas prices. The following chart shows vehicle availability estimates for select jurisdictions and average gas prices per gallon each year in Iowa since 2010:

Figure 3-4: Percent of workers with no vehicles available and average gas prices, 2010-2019



WALKING TO WORK

While rates of automobile ownership tell part of the story, the number of people who walk to work (see Map 3-6) is an equally if not more important measurement for understanding pedestrian behavior and patterns. Perhaps surprisingly, the number of people who walk to work is almost completely unrelated to the number of people without a vehicle. In fact, there are some instances where the two are inversely related. For example, the Census tract with the highest percentage of workers who walk to work, at 37.8 percent, is estimated to have almost zero workers with no vehicles available. This Census tract covers the UNI campus and is evidence that people will choose to walk to work if the land use and infrastructure support walking, even if they have access to an automobile.

Other areas with large percentages of people who walk to work include downtown Waterloo, downtown Cedar Falls, and the College Square Mall area in Cedar Falls.

While most workers drive to work alone, the second largest share carpools to work. As shown in Map 3-7, upward of 34 percent of workers in each area are estimated to carpool to work. There are several Census tracts where over 20 percent of workers carpool.

WALK SCORE

One value widely used to measure walkability is provided by the company Walk Score. A value between zero and 100 is assigned to a neighborhood or specific address based on the distance to nearby amenities. Scores between 90 and 100 are considered a "walker's paradise" where daily errands do not require a car. In contract, scores between 0 and 49 are considered "car-dependent" where almost all errands require a car.

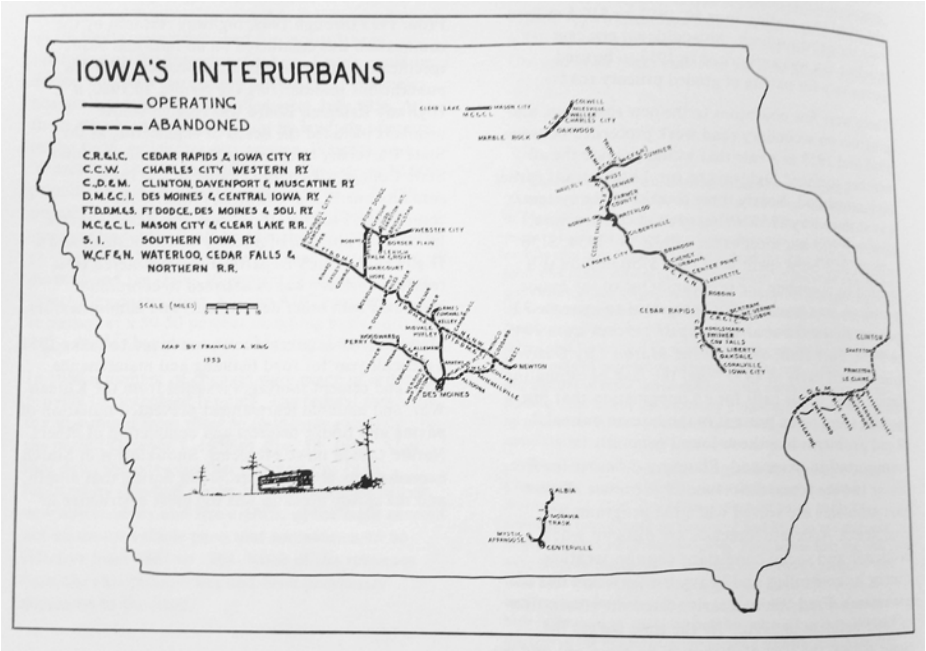
Waterloo has an average Walk Score of 37. The most walkable neighborhoods in Waterloo are Downtown (75), Franklin Gateway (59), and Church Row Historic (66). Cedar Falls has an average Walk Score of 38. The Walk Score website does not provide walk scores for individual neighborhoods within Cedar Falls. The scores for the smaller cities are based on a single point within each city: Hudson (50), Evansdale (35), Gilbertville (26), Elk Run Heights (19), and Raymond (9).

PUBLIC TRANSPORTATION

Pedestrian planning and public transportation are inextricably linked. Reliable and frequent public transportation is an essential part of a pedestrian-oriented lifestyle. Map 3-8 shows the existing MET Transit bus routes as of 2017. Due to the low volume of transit use, accurate estimates are not available at the Census block group or tract level. Only four Census tracts have an estimated share of workers greater than two percent who ride the bus to work. Rates of bicycling to work are similarly low. Accordingly, this document does not include maps for bus or bike ridership to work.

Black Hawk County has a long history of public transportation. For decades, the area boasted one of the largest interurban rail systems in the state. In the early 1900s, it was possible to take a train from Sumner to Waverly, through Black Hawk County, and onto Cedar Rapids and Iowa City.

Figure 3-5: Map of Iowa's interurban rail lines by Franklin A. King, 1953



Source: The Palimpsest Publication Vol. XXXV No. 5 by Frank P. Donovan Jr., May 1954 as found in *Transportation in Iowa, A Historical Summary* by William H. Thompson (Courtesy: Grout Museum District)

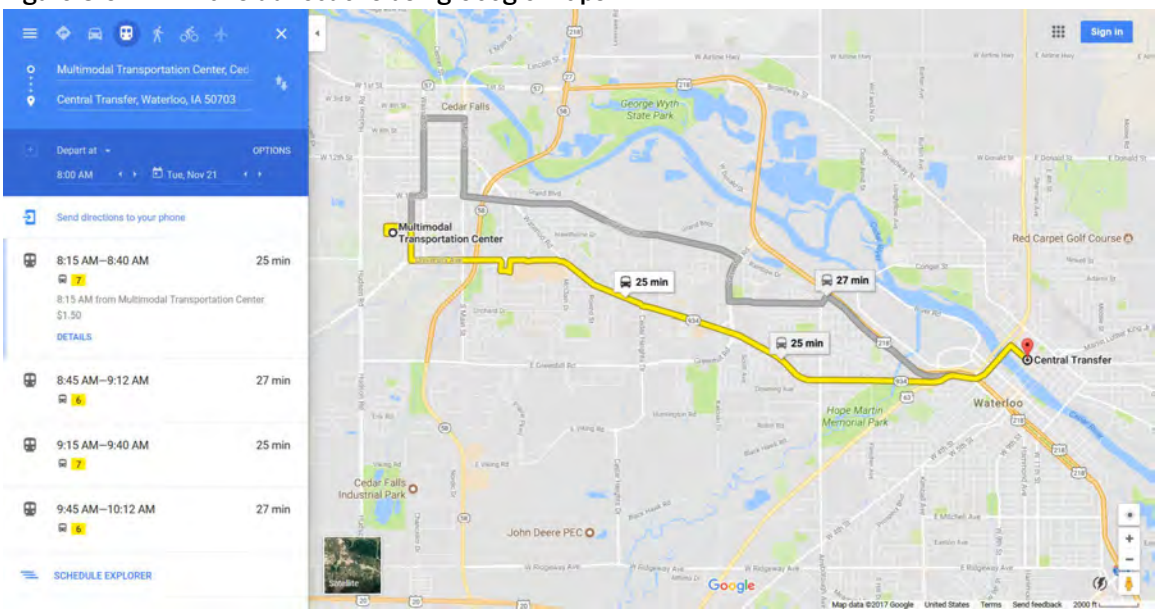
In addition to interurban lines, the City of Waterloo also had an extensive network of streetcars during this time. Map 3-9 shows the streetcar network as it existed in 1935, including the electric interurban lines that connected Waterloo to Cedar Falls, Waverly, and Cedar Rapids. There were several streetcar lines within Waterloo: Sans Souci, Litchfield, Galloway, Cottage, Highland, Linden, West Ninth Line, and Prospect. A significant benefit of Waterloo's streetcar lines was a "Loop" which provided direct access to over 20 industrial sites.

By 1940, streetcar service within Waterloo was phased out entirely and replaced by buses. In the 1950s, the interurban lines followed suit. While all the city's streetcar lines have since been removed or paved over, the former system provides a real-life example of a pedestrian-oriented public transportation system in Black Hawk County.

Today, fixed route and paratransit services within the Black Hawk County metropolitan area are provided by MET Transit. Transit service is available Monday through Friday from 5:45 a.m. to 6:35 p.m. and on Saturdays from 7:15 a.m. to 6:00 p.m. There is no bus service on Sundays or the following holidays: New Year's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, or Christmas Day. Routes operate in loops and are typically one-directional. Most buses reconvene at Central Transfer in downtown Waterloo at either quarter after (:15) or quarter to (:45) each hour to let passengers transfer to another bus if needed. Buses have one-hour headways along most routes.

In 2015, MET Transit became Iowa's third transit agency to integrate its routes and schedule into Google Maps. Riders can now enter their origin and destination into Google Maps and the next available bus route is shown with an estimated arrival time and an estimated total travel time. MET Transit also has GPS on all buses which allows riders to track a bus online. GPS technology can also allow real-time information to be displayed on television screens or tickers to provide information directly to passengers at central locations.

Figure 3-6: MET Transit directions using Google Maps



In 2016, the City of Waterloo approved a contract to design concrete improvements necessary to make the city's bus stops accessible to people with disabilities. As of 2021, multiple bus stops have been reconstructed to comply with Americans with Disabilities Act standards (see Section Two). A complaint filed by MET Transit riders prompted the City to develop an action plan to address the problem and replace the non-compliant stops.

In 2017, MET Transit purchased a three-year license of the transit planning software Remix. This software allows users to develop and analyze alternative routes to determine how to maximize use of available funds. Analyses can also compare the existing fixed route system with hypothetical new fixed route systems to identify the effectiveness of changes on a systemwide scale. MET Transit is working with MPO staff to restructure the fixed-route system. Public input meetings and implementation are planned for 2021 and 2022.

Enhancements including trees, benches, and shelters are an important part of promoting the use of public transit and improving the experience for current users. A study by the University of Minnesota (Lagune-Reutler et al., 2015) has shown that the presence of trees around bus stops can make waiting for the bus feel shorter. A ten-minute wait at a bus stop with lots of tree cover felt like seven minutes on average according to survey respondents. Conversely, the same ten-minute wait felt more like 12 minutes in areas with lots of air pollution and car traffic. Tree plantings can be paired with resurfacing and reconstruction projects along bus routes to improve the transit experience and improve the area's overall quality of life.

INCOME AND POVERTY

There are several ways of measuring income and poverty: median household income, median income per capita, percent of individuals in poverty, and more. Map 3-10 shows the percent of family households in poverty by Census tract. Family households are defined as households consisting of two or more related individuals. This measurement does not include non-family households such as people in senior housing, people living alone, most college students, and transient populations.

Instead, this measurement broadly reflects more established and invested households, including married couples and most households with children.

Income and poverty levels do not necessarily indicate whether a person is more or less likely to walk. However, there may be a correlation between income levels and the purpose of walking trips. The mail-out survey described later in Section Four revealed some of these correlations. Compared to those earning above the median income, survey respondents in households earning below the median income were more likely to walk to visit friends or family (28.0% vs. 15.5%), walk to a place of worship (9.6% vs. 3.9%), walk to shops and businesses (34.4% vs. 29.0%), and walk to the MET Transit bus stop (5.6% vs. 0.5%).

Conversely, respondents in households earning above the median income were more likely to walk their dog (29.5% vs. 20.0%), walk to school (2.4% vs. 0.8%), walk for wellness (71.5% vs. 64.0%), and walk for fun (55.6% vs. 43.2%) compared to those earning below the median income.

In 2019, the estimated median household income in Black Hawk County was $53,539, which is approximately 13 percent below the statewide average.

Figure 3-7: Median household income and percentage of all people whose income is below the poverty level, 2010-2019

Jurisdiction	2010 Income	2010 Poverty	2019 Income	2019 Poverty
State of Iowa (total)	$ 48,872	11.6 %	$ 60,523	11.2 %
Black Hawk Co (total)	$ 44,178	16.9 %	$ 53,539	13.3 %
Waterloo	$ 40,517	17.9 %	$ 47,327	16.3 %
Cedar Falls	$ 47,339	21.0 %	$ 61,420	18.0 %
Evansdale	$ 39,412	15.8 %	$ 49,786	12.3 %
Hudson	$ 72,000	3.4 %	$ 88,347	5.7 %
Elk Run Heights	$ 54,712	4.6 %	$ 60,156	4.7 %
Raymond	$ 58,125	2.6 %	$ 70,156	5.6 %
Gilbertville	$ 39,583	5.9 %	$ 61,528	9.5 %

CRASHES INVOLVING PEDESTRIANS

The total number of pedestrian fatalities in the United States has increased steadily over the past several years, from 4,109 in 2009 to 6,283 in 2018, based on crash data from the National Highway Traffic Safety Administration (NHTSA). Most pedestrian fatalities in 2018 occurred at non-intersections, as shown in Figure 3-8.

Around half of all pedestrian fatalities occurred between 6:00 p.m. and midnight. 35 percent of people killed were between the age of 45 and 64.

In 2016, an estimated 9.6 percent of pedestrians killed had a blood alcohol content (BAC) of .08 g/dL or higher. Drivers with a BAC of .08 g/dL or higher accounted for an estimated 15 percent of all pedestrian fatalities.

Figure 3-8: Location of pedestrian fatalities in the United States, 2018

Location	Percent of total
Non-intersections	**72 %**
Intersections	**16 %**
Roadsides, shoulders	**12 %**

Map 3-11 shows every documented crash involving pedestrians between 2011 and 2020 in the Black Hawk County metropolitan area. This information is also shown in Figure 3-9. Between 2011 and 2020, there were a total of 189 crashes involving pedestrians, or an average of 19 crashes per year. Put another way, there is one crash every 19 days involving a pedestrian on average. These values do not include near-misses, undocumented crashes, and bicycles.

Of these crashes, 46 crashes (24.3%) involved pedestrians younger than 16 years old. The majority of these (34 of 46 crashes, or 73.9%) were in Waterloo including three crashes near Lowell Elementary, two near Cunningham Elementary, one near Irving Elementary, one near Kittrell Elementary, one near Orange Elementary, and one near Highland Elementary. During this period, there were also 15 crashes (7.9%) involving pedestrians 65 years and over. These crashes were spread more evenly across the MPO area. Map 3-12 shows all crashes involving children and seniors from 2011-2020 in the MPO area. Crashes involving children and seniors are notable because these groups are generally more vulnerable in environments with heavy vehicle traffic.

There is on average one crash every 19 days involving a pedestrian in the Black Hawk County metropolitan area.

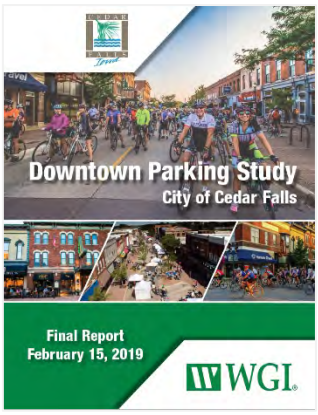
Iowa DOT crash data

Figure 3-9: Crashes involving pedestrians in the MPO area by injury type, 2011-2020

Injury Status	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	Total
Fatality	2	1	0	0	1	0	2	1	1	2	**10**
Serious Injury	4	2	2	3	6	6	2	3	4	2	**34**
Minor Injury	14	4	8	5	11	8	11	5	4	5	**75**
Possible Injury	7	15	6	6	8	4	4	5	5	8	**68**
Property Damage Only	0	1	0	0	0	0	0	1	0	0	**2**

WILLINGNESS TO WALK

While driving an automobile is the predominant mode of transportation in the MPO area, everybody becomes a pedestrian as soon as they leave their car and walk to their destination. Community Main Street in Cedar Falls conducted a comprehensive parking study for the downtown area in 2019. The effort included significant stakeholder outreach in the form of an online survey. A total of 2,678 completed surveys were received. Customers, employees, and owners were asked to indicate the furthest distance from their destination they are willing to park their car. In other words, how far they are willing to walk to their destination. Altogether, 31 percent of customers, 29 percent of employees, and 31 percent of owners said they are willing to walk more than two blocks to their destination.



While these results show the cultural norms in this area, they also highlight the continued challenge of balancing parking demand and pedestrian demand in each city's downtown areas. For example, construction of a new parking lot may address the demand for parking but would come at the expense of the pedestrian environment. City officials should carefully weigh the benefits and drawbacks of such developments to ensure that any trade-offs are in line with the goals of the City and its respective Main Street organization.

RIDESHARING AND CAR SHARING

In early 2017, two ridesharing services were launched in the MPO area: Uber and Lyft. Use of these services should be expected to grow over time, as awareness of their availability increases and as a greater share of adults embrace smartphone technology.

In addition, car sharing services currently available in many larger metropolitan areas may eventually be deployed in Black Hawk County as well. Car sharing is a short-term car rental service, usually charged by the hour. The car sharing service Zipcar is currently available in Iowa City and Omaha. Zipcars are available for pick-up and drop-off at designated locations throughout a city, especially around college campuses and central business districts. The service Car2go operates differently by letting drivers drop off their car at any legal parking space in the city. GPS technology allows app users to look up the location of available rental cars in real time.

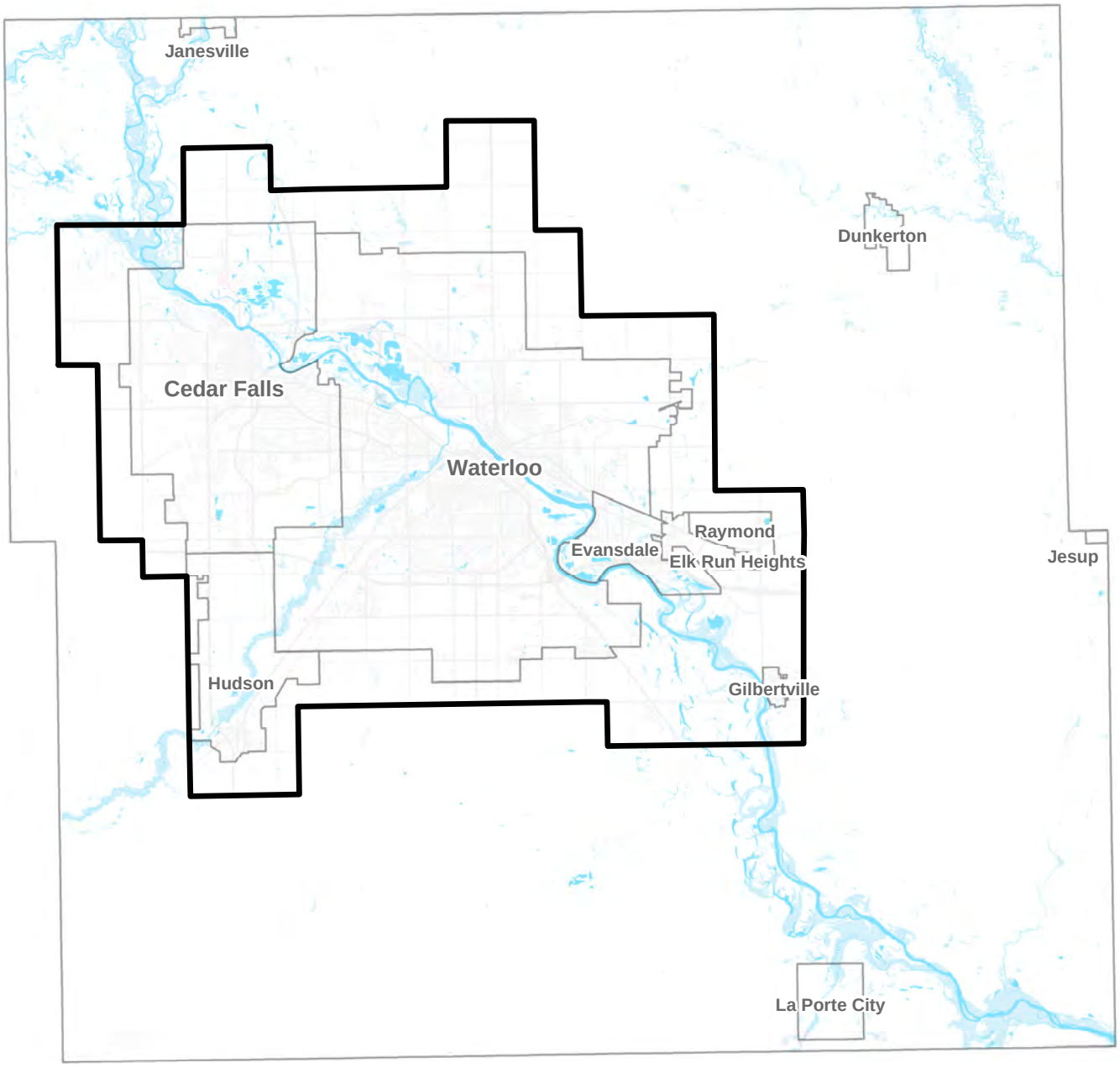
City officials should plan for the increasing usage of these services, particularly as they relate to pedestrians. Designated parking spots for Zipcars and short-term parking for taxis and ridesharing services can be optimized by incorporating accessible curb ramps, pavement markings, signage, and other treatments suitable for each specific location. Designing spaces for these services in areas with high pedestrian traffic can reduce traffic conflicts, reduce the likelihood of crashes involving pedestrians, and improve accessibility to these services.

AUTOMATED AND CONNECTED VEHICLES

In addition to new ridesharing and car sharing technologies, automakers are incorporating automated and connected technologies into new vehicles. One of the earliest forms of vehicle automation is cruise control, which has been available in vehicles for decades. Newer technologies including collision avoidance systems and automatic parking are becoming increasingly standard on new cars.

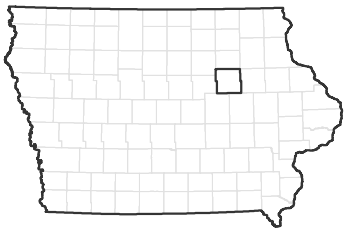
Connected technologies largely refer to vehicle-to-vehicle communication and vehicle-to-infrastructure communication. Vehicle-to-vehicle communication can reduce car crashes and improve traffic efficiency. Vehicle-to-infrastructure communication refers to the transfer of information between cars and traffic control devices. The term vehicle-to-everything (V2X) is increasingly used to refer to communication between a vehicle and any entity that could affect the vehicle, including other vehicles, infrastructure, pedestrians, mobile devices, and even the electric grid.

These technologies relate to pedestrians in a couple of ways. First and most importantly, these technologies aim to improve safety by preventing crashes involving pedestrians. Second, once fully automated vehicles become available for ridesharing, rates of automobile ownership could decline considerably over time. The need for additional parking spaces or additional driving lanes could be negated by efficiencies from these technologies. This could theoretically create excess space in the right-of-way that could be reclaimed for pedestrian use. However, total vehicle trips could increase with this technology, as separate trips (to and from parking ramps for example) without a human driver will become possible, resulting in higher traffic volumes. The large-scale deployment of on-demand automated vehicles could change pedestrian behavior, patterns, and volumes in ways we cannot yet predict.



Black Hawk County MPO Area

Including location within State of Iowa



MPO Boundary

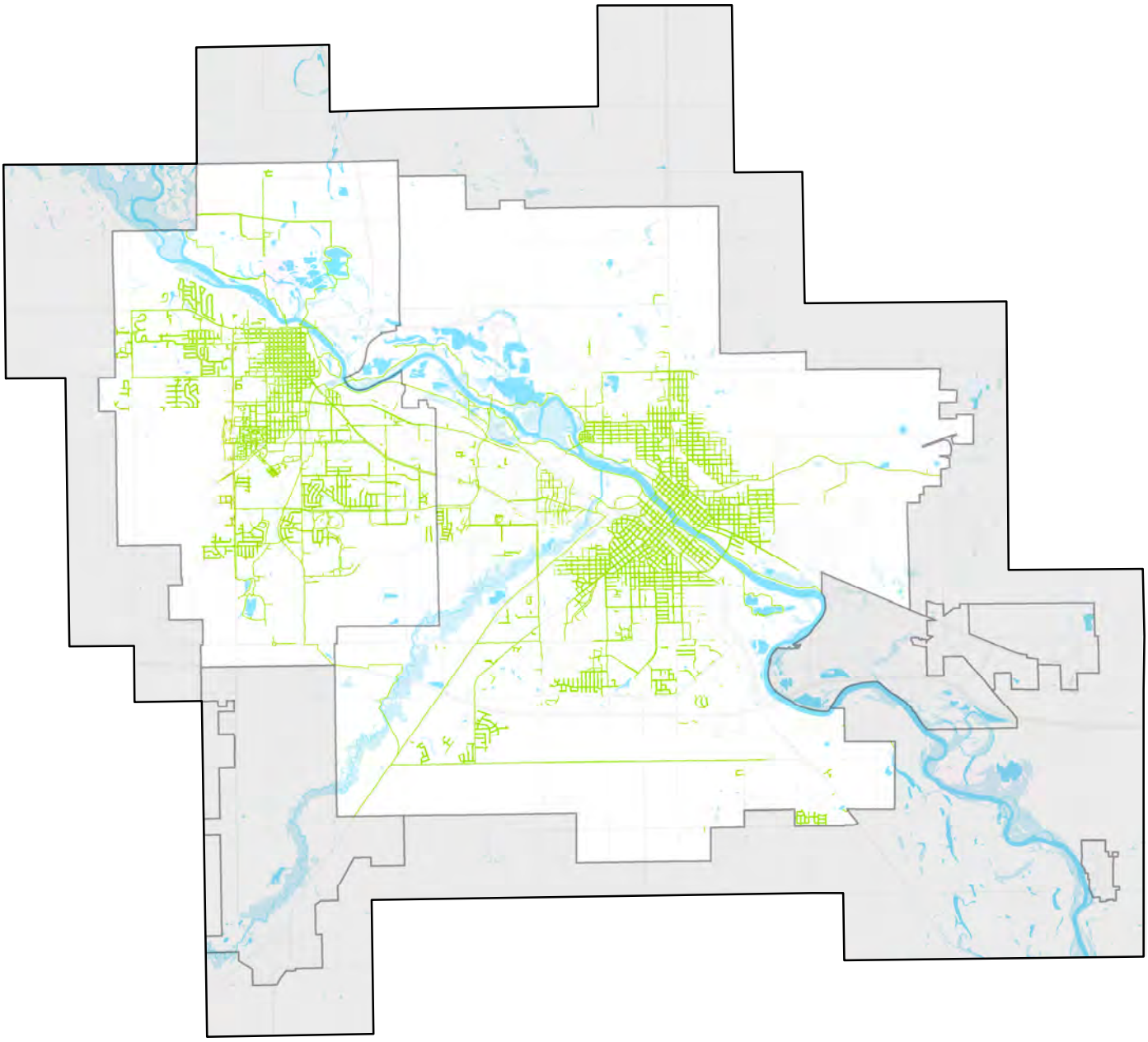
City and County Boundaries

N

0 0.75 1.5 3 4.5 6 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-1



Existing sidewalks in Waterloo and Cedar Falls

Based on most recent INRCOG data as of April 2017

Sidewalk or Trail

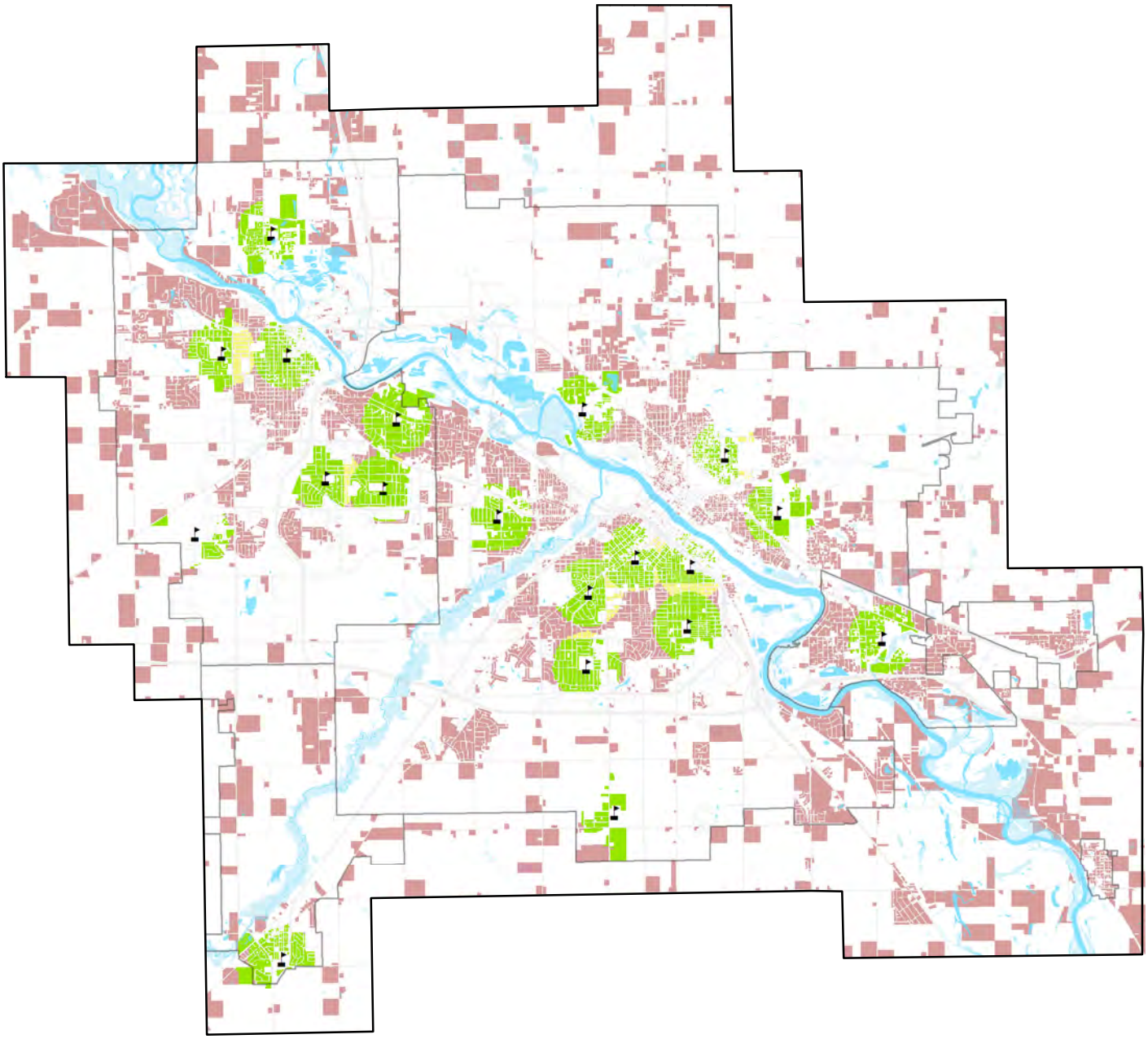
City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG
Iowa Northland Regional Council of Governments

Map 3-2



Dwellings by Distance to Nearest Elementary School

Based on February 2017 Parcels with Dwellings and Public Elementary Schools Only

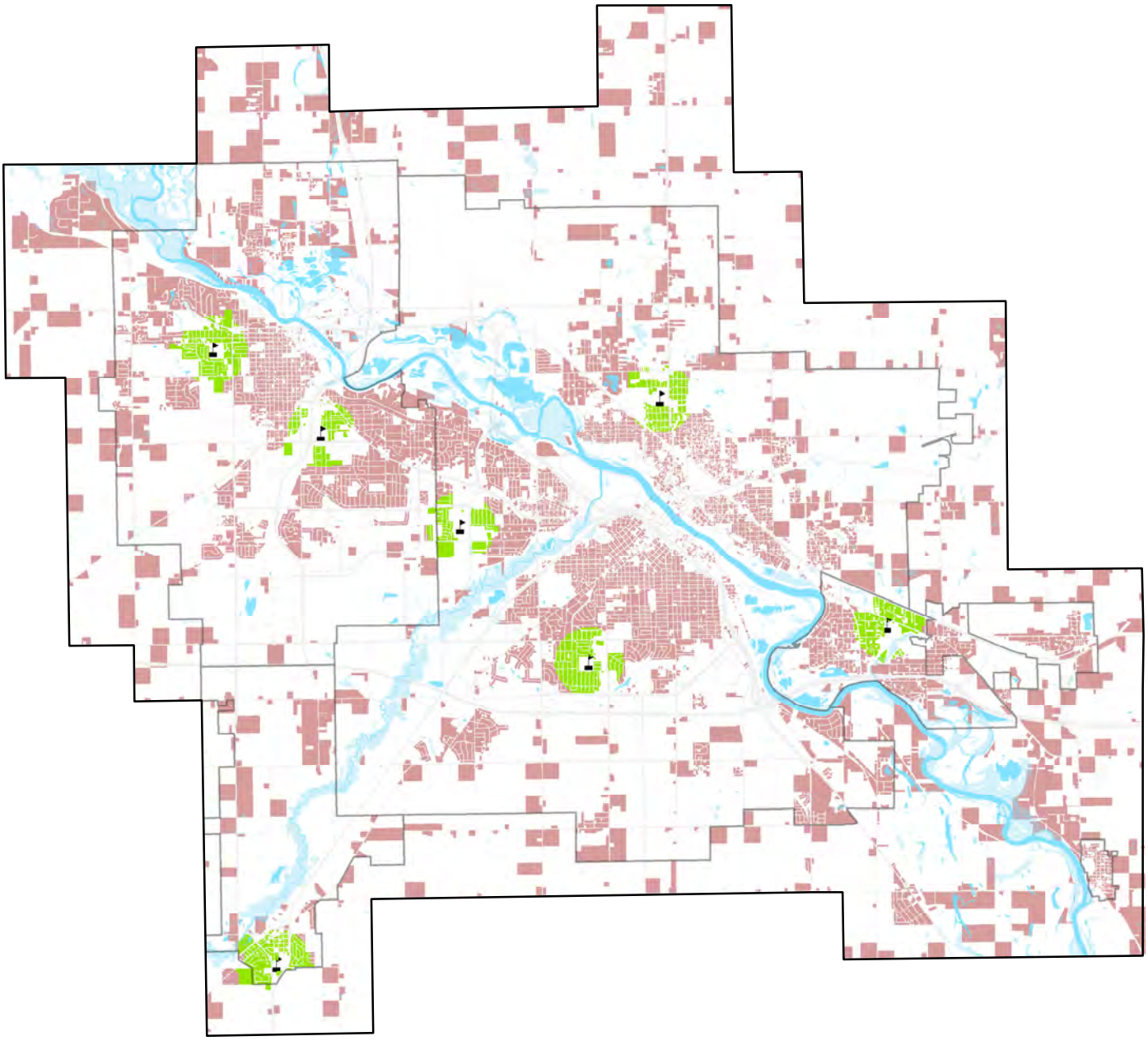
- 1/2 mile or less from school
- 1/2 mile or less from school in different attendence area
- Over 1/2 mile from school
- City Boundaries
- Elementary School

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-3



Dwellings by distance to nearest middle school

Based on February 2017 parcels with dwellings and public middle schools and equivalent only

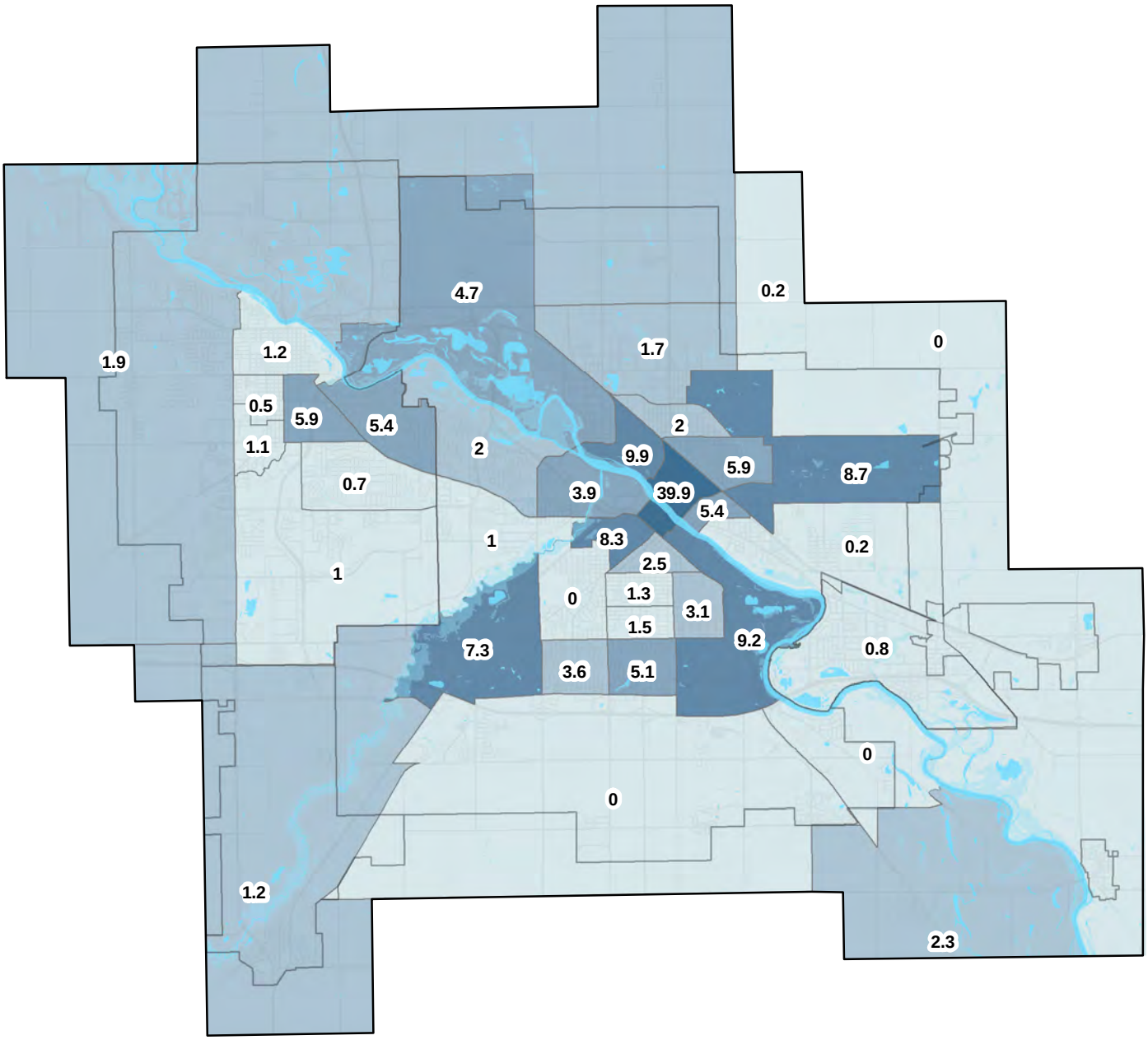
- 1/2 Mile or Less
- Over 1/2 Mile
- City Boundaries
- Elementary School

N

0 0.5 1 2 3 4 Miles

INRCOG
Iowa Northland Regional Council of Governments

Map 3-4



Percent of Workers with No Vehicle Available

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

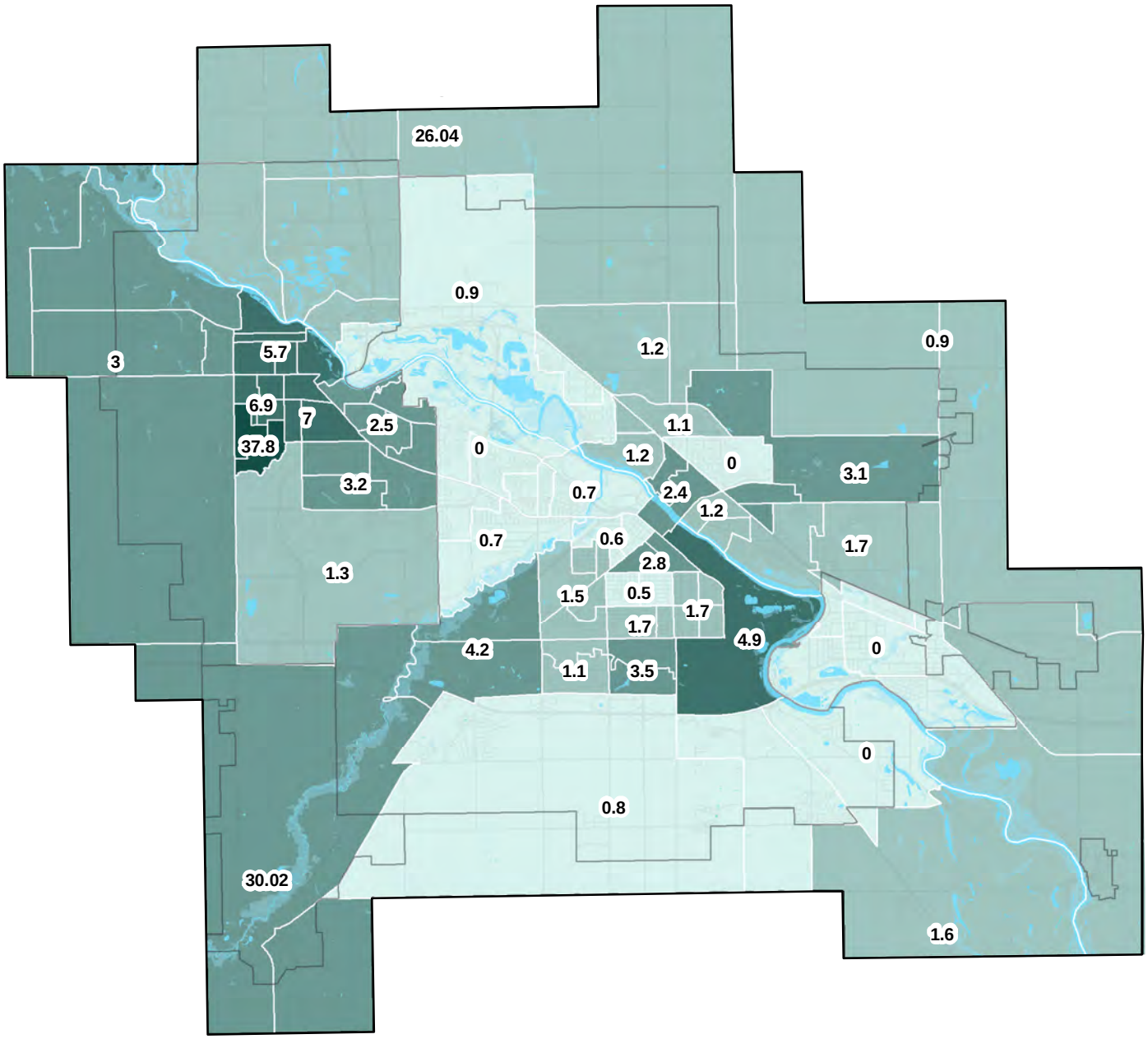
- 10.0 - 39.9
- 6.0 - 9.9
- 3.7 - 5.9
- 1.6 - 3.6
- 0.0 - 1.5
- City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-5



Percent of Workers Who Walk to Work

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

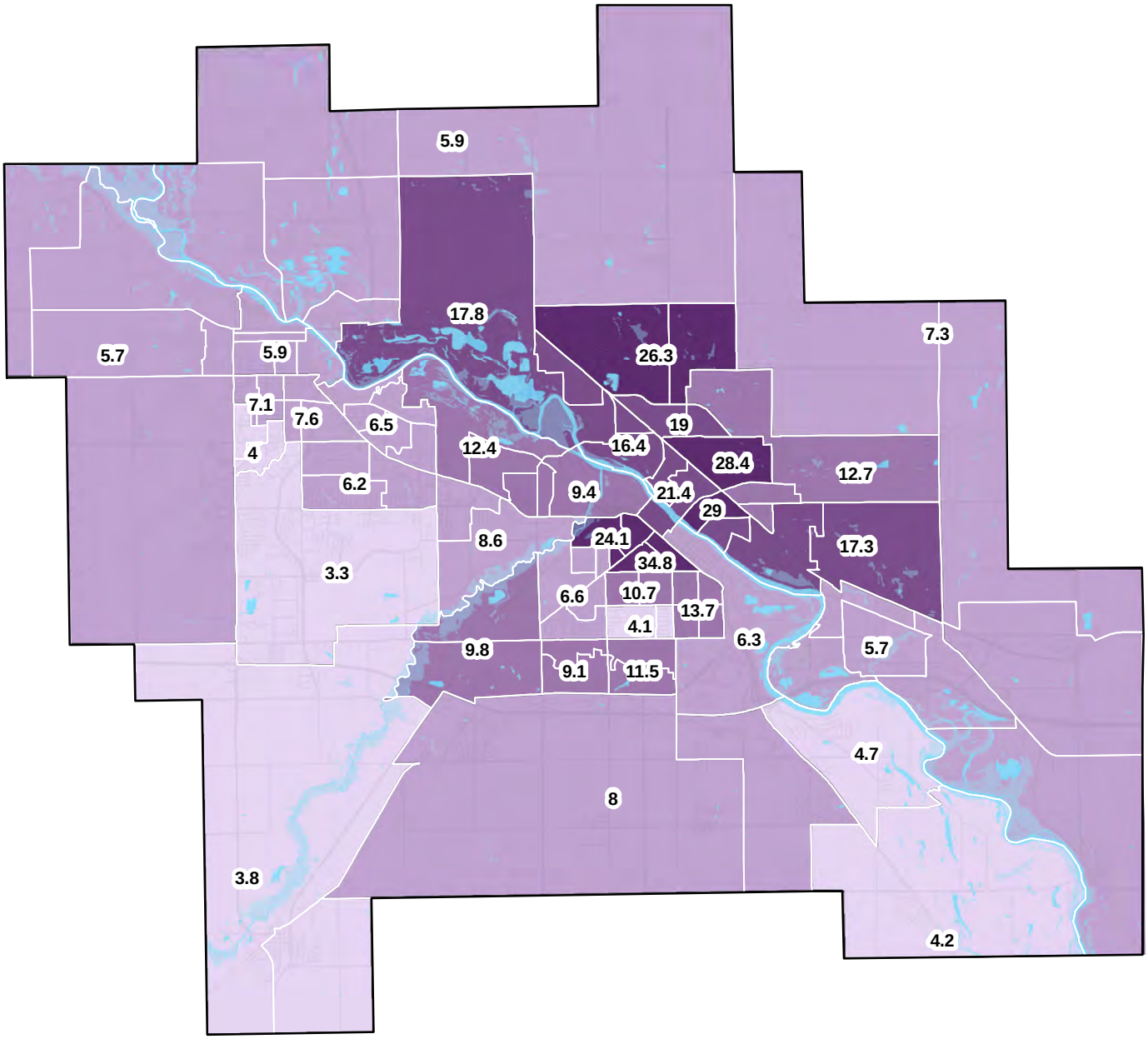
- 7.1 - 37.8
- 4.3 - 7.0
- 1.8 - 4.2
- 1.0 - 1.7
- 0.0 - 0.9
- City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-6



Percent of Workers Who Carpool to Work

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

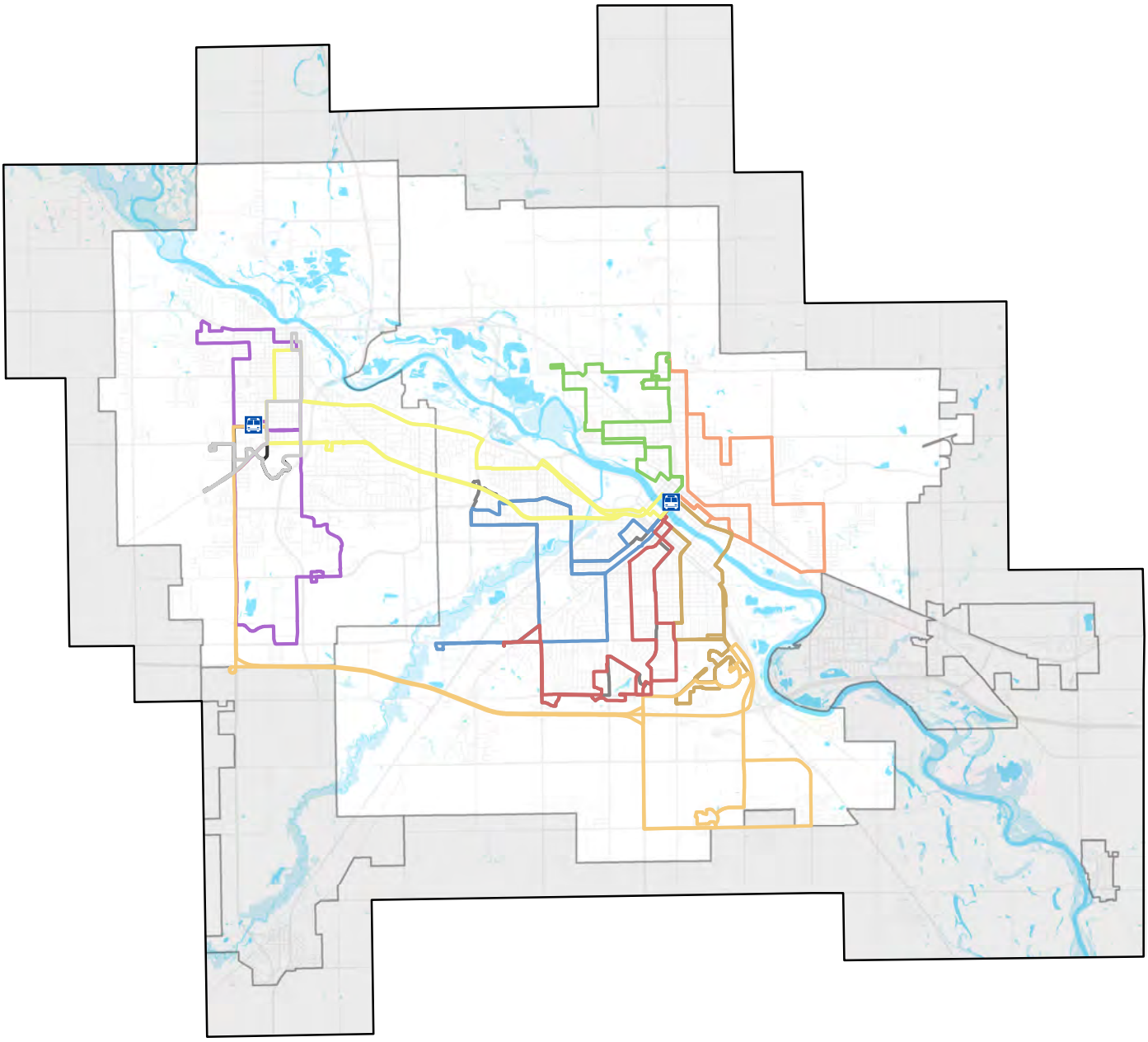
- 21.5 - 34.8
- 13.8 - 21.4
- 8.7 - 13.7
- 4.8 - 8.6
- 3.3 - 4.7
- City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-7



MET Transit bus routes, 2017

Some routes overlap and are not shown in their entirety

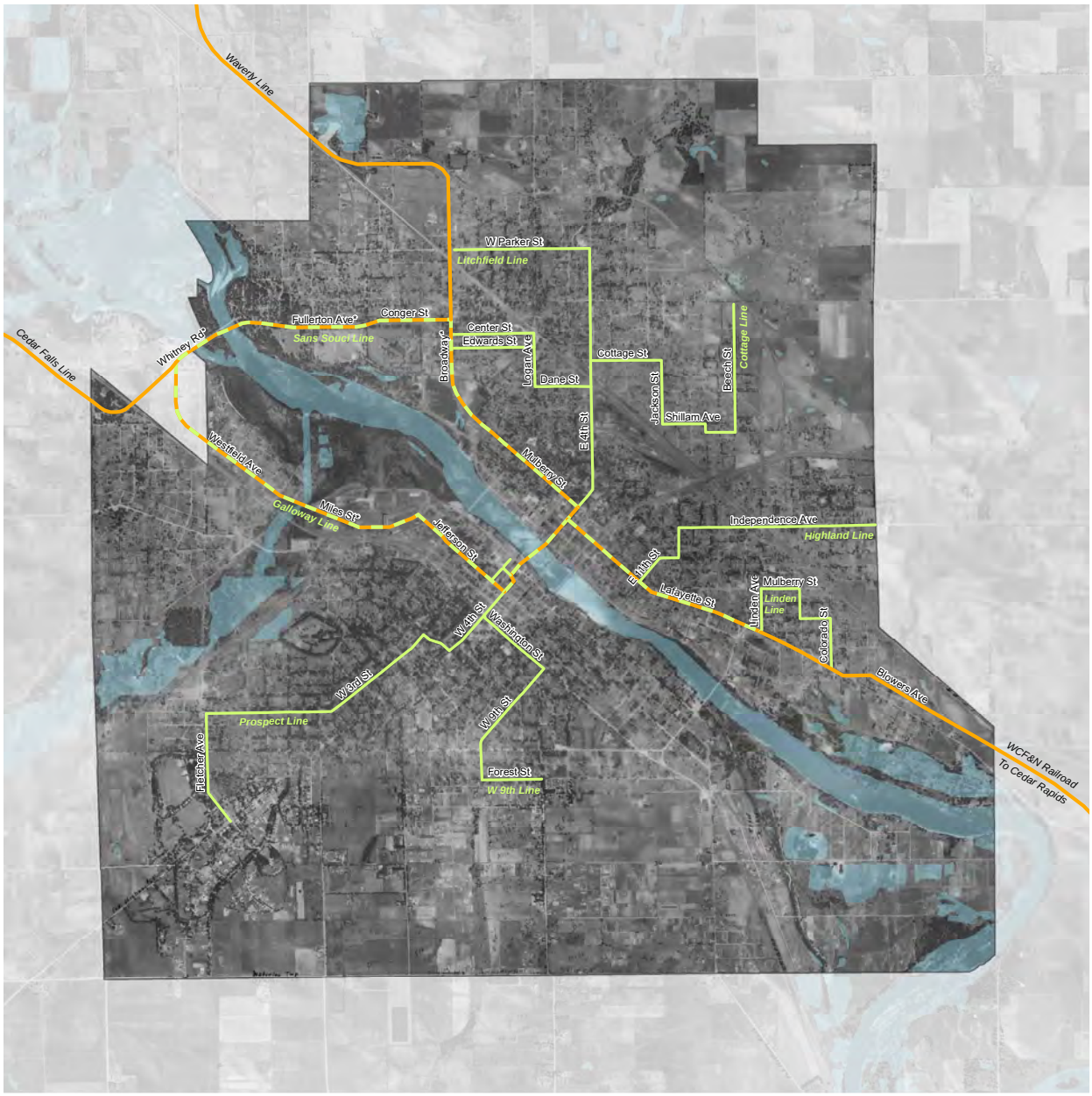
- Route 1 West
- Route 2 West
- Route 3 East
- Route 4 East
- Route 5 Crossroads
- Routes 6 & 7 Cedar Falls
- Route 8 West Loop
- Route 9 Cedar Falls Loop
- Route 10 HCC
- Route 11 Panther Shuttle
- Route 12 Weekend SafeRide
- Transit Centers
- City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG
Iowa Northland Regional Council of Governments

Map 3-8



Former Streetcar Routes in Waterloo, 1935

Based on Northland Map of Waterloo by Argus Map Company, 1935, and The Story of the Cedar Valley Road by Westinghouse Electric and Manufacturing Company, 1917 (courtesy of Grout Museum District)
Aerial photograph: Iowa DNR Digital Georectified Image, late 1930s and early 1940s

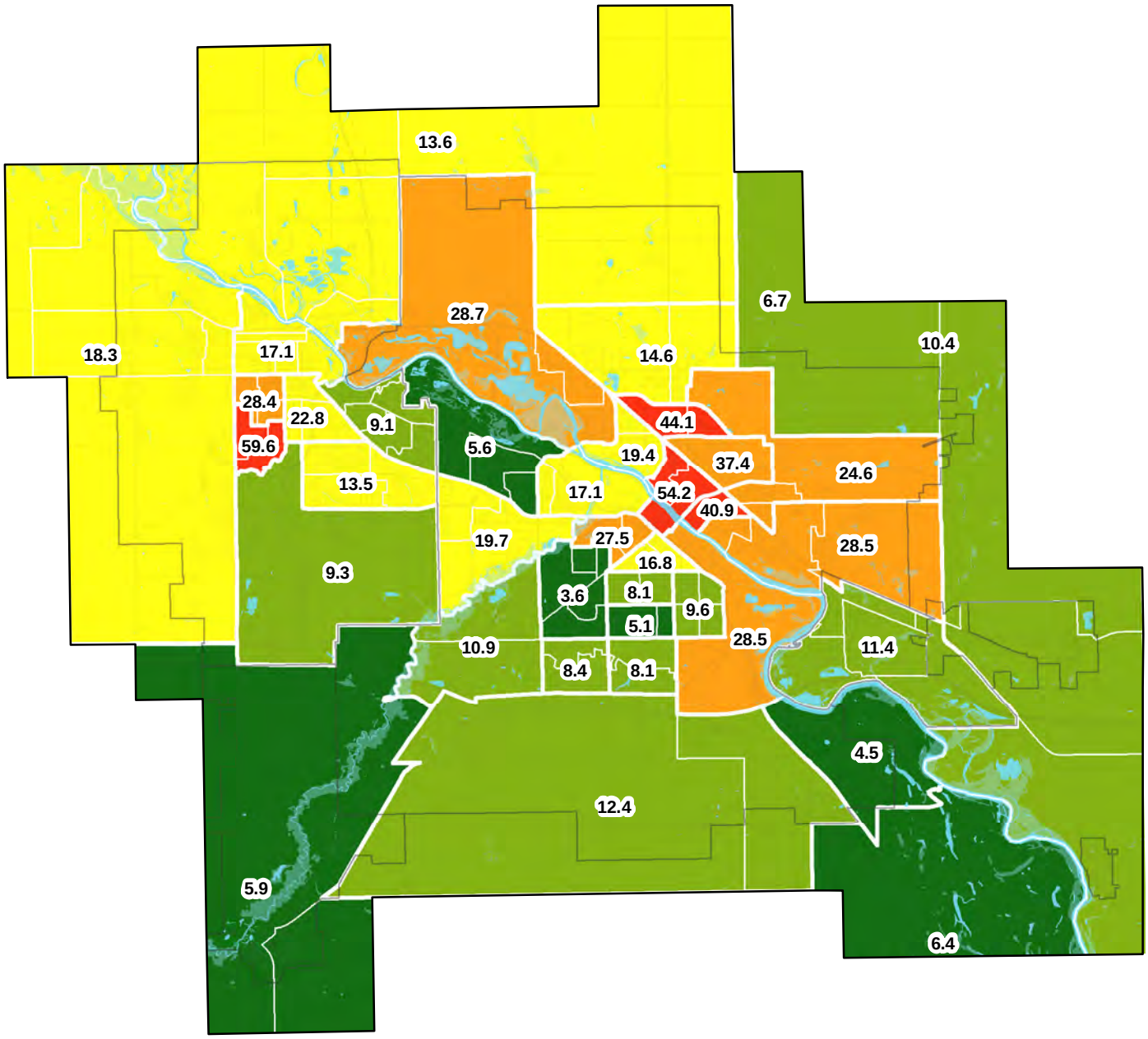
- Street Car Lines
- Electric Interurban Lines
- Street Car and Interurban Lines
- Waterloo City Limits, 1935
- * Street name in 1935, since changed

N

0 0.25 0.5 1 1.5 2 Miles

INRCOG
Iowa Northland Regional Council of Governments

Map 3-9



Percent of Residents in Family Households Whose Income is Below the Poverty Level

Based on U.S. Census 2015-2019 American Community Survey 5-Year Estimates by Census Tract

- 37.5 - 59.6
- 22.9 - 37.4
- 12.5 - 22.8
- 6.75 - 12.4
- 3.57 - 6.74

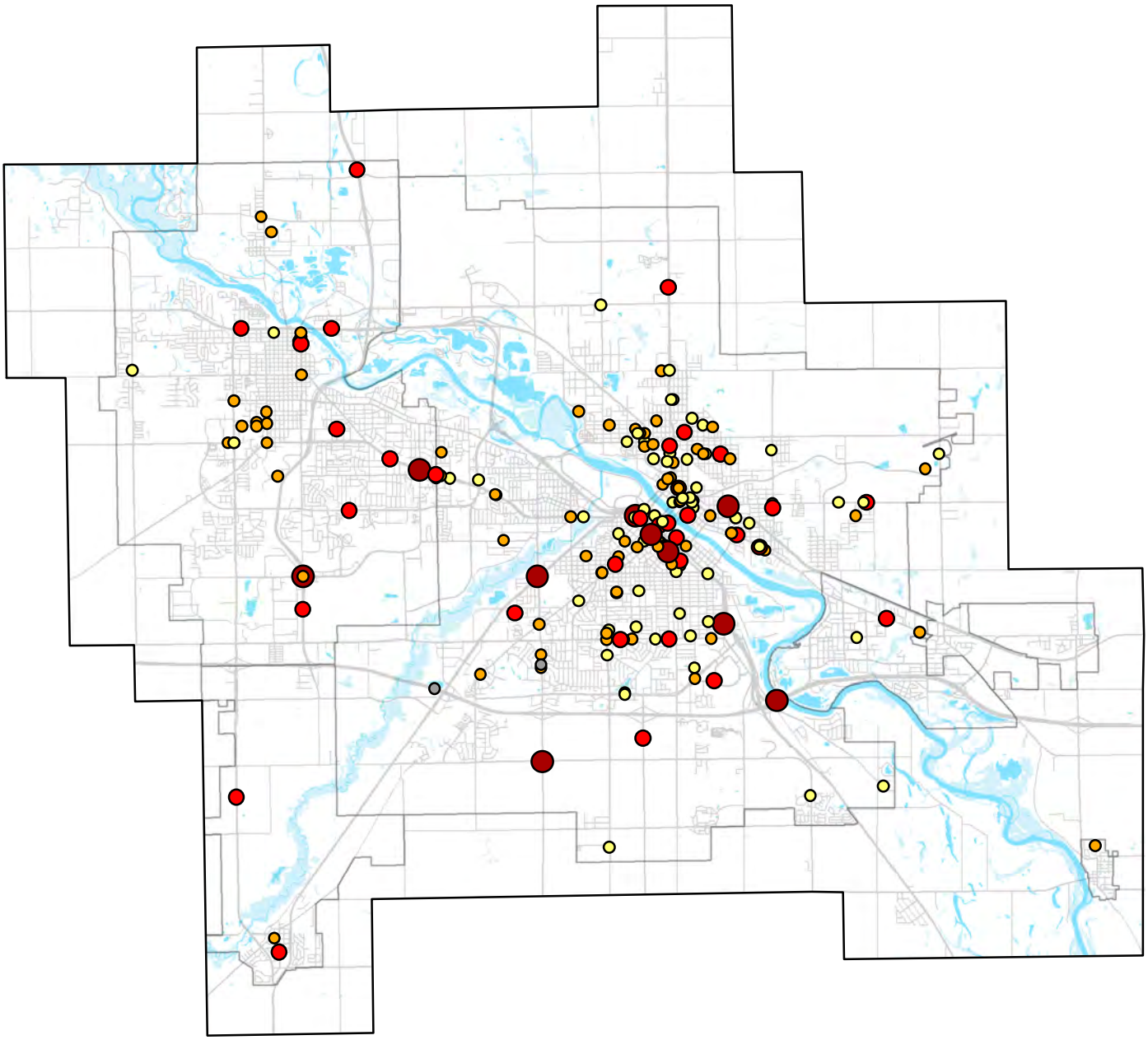
City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-10



Crashes Involving Pedestrians from 2011-2020

Based on Iowa Crash Analysis Tool (ICAT)

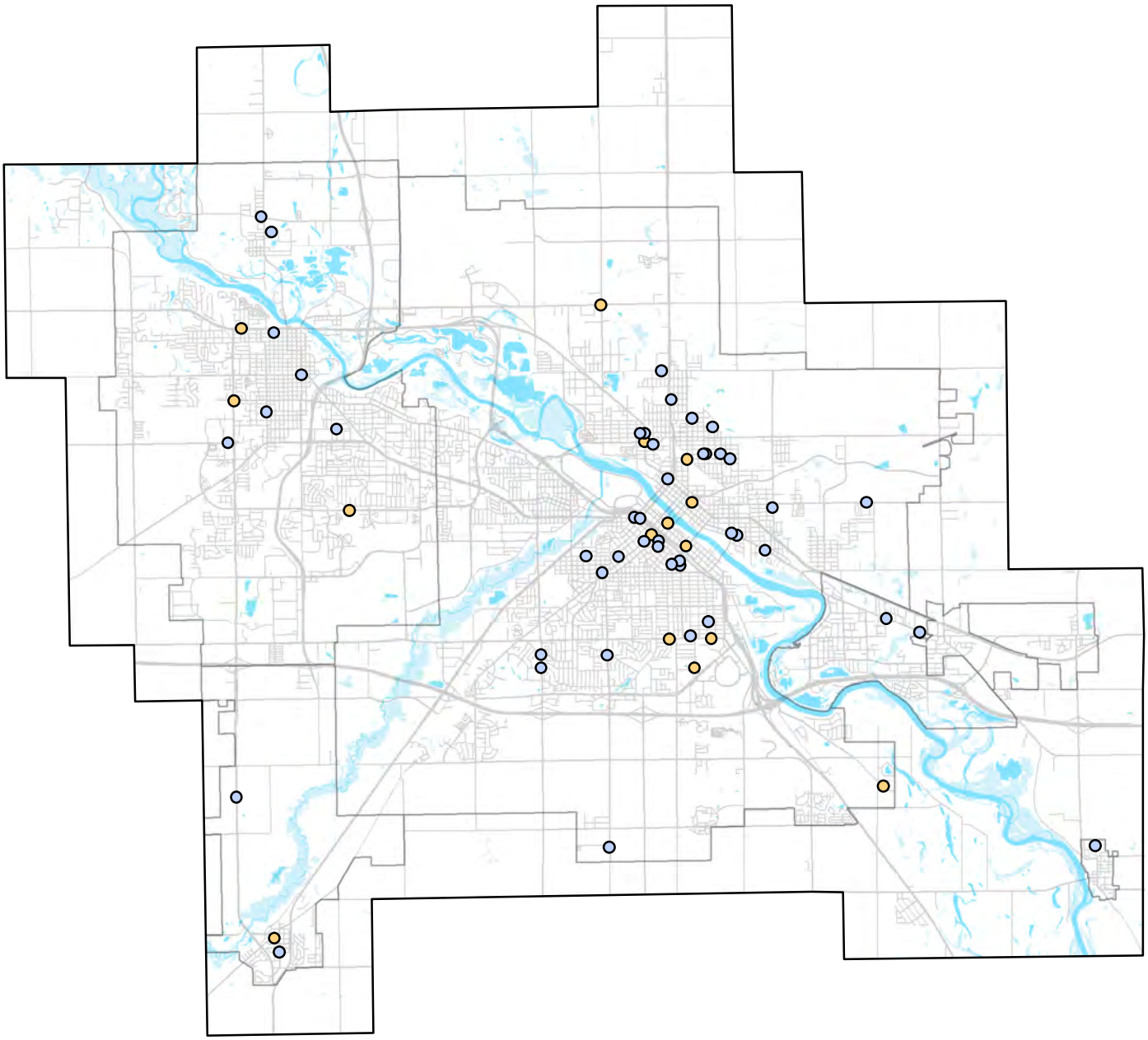
- Fatality
- Serious Injury
- Minor Injury
- Possible/Unknown Injury
- Property Damage Only
- City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-11



Crashes Involving Children and Seniors from 2011-2020

Based on Iowa Crash Analysis Tool (ICAT)

- Pedestrians under 16 years old
- Pedestrians 65 and over
- City Boundaries

N

0 0.5 1 2 3 4 Miles

INRCOG Iowa Northland Regional Council of Governments

Map 3-12

Section Four: Public Input

To gain a better understanding of pedestrian needs, an extensive public input effort was conducted in the Black Hawk County metropolitan area. Public input was collected through four different outreach efforts from 2015 to 2017:

1. Statistically significant mail-out surveys using the PABS approach (344 responses)
2. Special outreach surveys to non-English speaking and homeless residents (207 responses)
3. Six public input meetings and online survey (92 responses)
4. National Household Travel Survey Add-on (1,221 responses)

STATISTICALLY SIGNIFICANT MAIL-OUT SURVEYS

The first public input survey was conducted by INRCOG staff from May to July 2015 (Appendix B). A total of 2,000 survey forms were mailed to randomly selected households in the Black Hawk County metropolitan area. The survey was conducted using the Pedestrian and Bicycle Survey (PABS) method. Developed by researchers at Cornell University, San Jose State University, and the University of Colorado, and funded by the Mineta Transportation Institute, PABS was developed to achieve four goals:

- Produce highly reliable data
- Produce data that can be generalized to the population at large
- Be inexpensive and simple to administer
- Identify the proportion of people who are walking and cycling, the purposes and frequencies of those trips, and some characteristics of those populations

A random sample of household mailing addresses was obtained from LeadsPlease. Advance postcards were sent to each household about one week prior to the survey itself. A cover letter, survey form, and a map of the metropolitan area were mailed to each household along with a paid return envelope. Follow-up postcards were sent about two weeks later to households that had not responded yet.

Households who completed the survey were eligible to win one of five prizes worth up to $50 each. This prize contest was offered as an incentive for survey recipients to complete the survey. Each cover letter included a unique four-digit survey code which respondents could include on their survey form to enter the drawing. Prize winners were drawn at random on July 31, 2015.

Survey recipients were also given the option to complete the survey online. A total of 39 respondents completed the survey online. Respondents were instructed in the cover letter to only take the survey once to ensure data integrity. The average age of online survey respondents was younger than the overall sample. Over half of the online survey respondents were under 45 years old, and only two were 60 or over.

Many of the mailings were unable to be delivered to their intended recipient. A total of 156 advance postcards, 162 survey mailings, and 76 follow-up postcards were undeliverable. Postcards and surveys were sent on a rolling basis, and invalid addresses were removed from the mailing list as undeliverable mailings were returned. In some cases, prepaid envelopes were recovered from undeliverable survey mailings and reused to reduce postage costs.

Representation

All survey questions were developed by the Pedestrian Master Plan steering committee (see Section One). Several different questions were asked to determine how representative the survey sample is to the overall population. In the tables below, results from the metropolitan area survey are compared with County Census estimates. The total population of Black Hawk County is only slightly larger than the metropolitan area population.

The following tables compare figures from U.S. Census American Community Survey 5-Year Estimates (2011-2015) and responses from the mail-out surveys. Non-responses were excluded from these calculations. Individual and household level questions were both included in the survey.

Compared to Census data for Black Hawk County, the following groups were overrepresented in the mail-out survey results beyond the margin of error: adults 60-74 years old, whites, males, homeowners, households with one or two vehicles available, and households earning more than the median income.

The following groups were underrepresented in the mail-out survey results: adults 18 to 29 years old, females, renters, one-person households, households with three or more vehicles available, and households earning less than the median income.

Also shown in the following tables are the response rates, the number of non-responses (NR), and the margin of error for each question. Percentages shown are based on valid responses only.

Figure 4-1: Mail-out survey representation, by age

	Census	Survey
18-29 years old	**28.5 %**	9.1 %
30-44 years old	22.2 %	21.9 %
45-59 years old	23.1 %	24.6 %
60-74 years old	17.4 %	**33.0 %**
75+ years old	8.9 %	11.4 %
Total	100.0%	100.0%
Response rate		99.4 %
NR		2
Margin of error		+/- 5.3 %
Adult population only. Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-2: Mail-out survey representation, by race

	Census	Survey
White	85.2 %	**90.9 %**
Black	9.2 %	5.0 %
Asian	1.7 %	0.9 %
American Indian and Alaska Native	0.2 %	0.0 %
Native Hawaiian and other Pacific Islander	0.0 %	0.0 %
Some other race	1.5 %	1.8 %
Two or more races	2.2 %	1.5 %
Total	100.0%	100.0%
Response rate		99.4%
NR		2
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-3: Mail-out survey representation, by Hispanic or Latino

	Census	Survey
Hispanic or Latino	4.0 %	3.2 %
Not Hispanic or Latino	96.0 %	96.8 %
Total	100.0%	100.0%
Response rate		99.1 %
NR		3
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-4: Mail-out survey representation, by gender

	Census	Survey
Female	**51.2 %**	37.8 %
Male	48.8 %	**62.2 %**
Total	100.0%	100.0%
Response rate		99.1 %
NR		3
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-5: Mail-out survey representation, by household size

	Census	Survey
One-person household	**32.0 %**	24.6 %
Two-person household	36.2 %	**44.9 %**
Three-person household	13.9 %	13.1 %
Four-or-more-person household	17.9 %	17.4 %
Total	100.0%	100.0%
Response rate		88.7 %
NR		39
Margin of error		+/- 5.6 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-6: Mail-out survey representation, by number of vehicles available

	Census	Survey
No vehicles available	2.4 %	3.2 %
One vehicle available	18.7 %	**24.4 %**
Two vehicles available	43.9 %	**49.4 %**
Three or more vehicles available	**35.0 %**	22.9 %
Total	100.0%	100.0%
Response rate		98.8 %
NR		4
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-7: Mail-out survey representation, by owner occupancy

	Census	Survey
Own	67.5 %	**84.8 %**
Rent	**32.5 %**	15.2 %
Total	100.0%	100.0%
Response rate		99.4 %
NR		2
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-8: Mail-out survey representation, by household income

	Census	Survey
Above median income	50.0 %	**62.3 %**
Below median income	**50.0 %**	37.7 %
Total	100.0%	100.0%
Response rate		96.5 %
NR		12
Margin of error		+/- 5.4 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Two additional questions were asked to better understand the overall survey sample, though responses cannot be compared to Census data or any other known data source. As shown, about two-thirds of respondents have lived in the Black Hawk County metropolitan area for 20 years or more. About 15 percent of households surveyed have at least one person with a disability that limits their mobility.

Figure 4-9: Mail-out survey representation, by years lived in Black Hawk County metropolitan area

	Survey
Two years or less	3.0 %
Two to five years	4.7 %
Five to 10 years	10.1 %
10 to 20 years	15.7 %
20 years or more	**66.5 %**
Total	100.0 %
Response rate	98.0 %
NR	7
Margin of error	+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.	

Figure 4-10: Mail-out survey representation, by disability that limits their mobility

	Survey
No disability	84.7 %
Survey respondent has disability	8.3 %
Other person in household has disability	5.3 %
Survey respondent and other person has disability	1.8 %
Total	100.0 %
Response rate	98.5 %
NR	5
Margin of error	+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.	

Results

The results from the mail-out surveys serve as the basis for the project recommendations identified in Section 5. Survey results were not weighted to adjust for any of the variables described above. Nevertheless, the demographic makeup of the survey sample should be noted when referencing these survey results.

The following survey questions are related specifically to walking and transportation. No project recommendations had been drafted at the time the mail-out surveys were conducted. Instead, the surveys were intended to identify needs and geographic areas to be addressed early in the planning process.

Respondents were asked several questions about their personal behaviors and observations, as shown in Figures 4-11 through 4-19. Then respondents were asked to choose only one of 24 areas within the MPO planning area (Appendix B) they would improve for pedestrians. Figures 4-20 through 4-22 show the results of these questions. The last two questions, shown in Figure 4-23 and 4-24 were asked in order to better understand public opinion on creating a walkable community and the use of public funds on pedestrian infrastructure.

Figure 4-11 shows the frequency that respondents walk more than two blocks. The number of people who walk "daily or almost daily" aligns with Objective 3.1 of the Pedestrian Master Plan, a greater percentage of trips are made by foot. Plan goals, objectives, and performance measurements are described in Section 1. About half of respondents indicate they walk daily or almost daily. Nearly one-quarter of respondents indicated they walk less than once per week.

Figure 4-11: On average, how often do you walk more than two blocks?

	Responses	Percent
Daily or almost daily	169	49.3 %
Around 1-4 times per week	97	28.3 %
Around 1-4 times per month	38	11.1 %
Never or less than once per month	39	11.4 %
Total	343	100.0 %
Response rate		99.7 %
NR		1
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

The following table shows reasons respondents indicated they walk. The number of people who walk "for wellness" aligns with Objective 3.5, a greater percentage of people walk for wellness. The most common destinations respondents walk to are shops and other businesses (32.1 percent) and their friends and family (20.7 percent).

Figure 4-12: Generally speaking, what reason(s) do you walk?

	Responses	Percent
To get to shops and other businesses	107	32.1 %
To get to work	31	9.3 %
To get to school	6	1.8 %
To get to a place of worship	20	6.0 %
To visit friends or family	69	20.7 %
To get to the MET bus	9	2.7 %
To walk my dog	87	26.1 %
For wellness	235	70.6 %
For fun	173	52.0 %
Total	333	100.0 %
Response rate		96.8 %
NR		11
Margin of error		+/- 5.4 %
Percentages shown do not add up to 100 percent because this is a multiple answer question.		

Figure 4-13 shows the number of respondents who rode on a MET Transit bus in the past year. These results can be cross-tabulated with other questions in this survey for more detailed analysis. For example, 24.0 percent of renters surveyed have ridden a MET Transit bus in the past year, compared to just 5.1 percent of homeowners. A similar comparison can be made between the ridership of respondents who earn below the median income (14.9 percent) and above the median income (4.0 percent).

Figure 4-13: Have you ridden on a MET Transit bus in the past year?

	Responses	Percent
Yes	26	8.0 %
No	299	92.0 %
Total	325	100.0 %
Response rate		94.5 %
NR		19
Margin of error		+/- 5.4 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Respondents who answered “yes” were also asked “Do your bus stops all have usable sidewalks?” The intent of this question was to identify bus stops without adequate sidewalk access. The results of this question align with Objective 2.2, infrastructure exists to provide pedestrians easy access to other modes of transportation.

Figure 4-14: Do your bus stops all have usable sidewalks?

	Responses	Percent
Yes	17	65.4 %
No	7	26.9 %
I don’t remember	2	7.7 %
Total		100.0 %
Response rate		7.6 %
NR		318
Margin of error		+/- 19.2 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Of the seven respondents who answered "no", four provided a written response to the follow-up question, "Where? Which intersections?"

- At Deery Center – Hobby Lobby no sidewalk
- Crossroads – only 1 time 6/9/2015
- Don't remember
- Non sidewalks

The lack of responses suggests this is not an adequate survey of bus riders in the metropolitan area. Further study should be conducted to assess site-specific bus stop locations.

Figure 4-15 shows the modes of transportation used by survey respondents to get to work. These results cannot be compared with U.S. Census data directly, because of differences in the questioning. According to Census data, an estimated 4.6 percent of workers in Black Hawk County walked to work as their primary means of transportation. The majority (72.3 percent) of these workers were Cedar Falls residents. Comparatively, none of the respondents to the Pedestrian Master Plan mail-out surveys walked to work as their primary means of transportation. This may be a result of the disproportionately low number of survey respondents who were 18 to 29 years old, renters, in one-person households, and in households below the median income.

The results of the following two questions align with Objective 3.1, a greater percentage of trips are made by foot.

Figure 4-15: Which mode of transportation do you use most frequently to get to work?

	Responses	Percent (all)	Percent (commuters)
Car, alone	215	65.3 %	91.9 %
Car, carpool	9	2.7 %	3.8 %
Bus	4	1.2 %	1.7 %
Bicycle	4	1.2 %	1.7 %
Motorcycle or scooter	2	0.6 %	0.9 %
Walk	0	0.0 %	0.0 %
This doesn't apply to me (retired, etc.)	95	28.9 %	-
Total		100.0 %	100.0 %
Response rate		95.6 %	68.0 %
NR		15	110
Margin of error		+/- 5.4 %	+/- 6.4 %
Percentages shown may not add up to exactly 100 percent due to rounding.			

Figure 4-16: Which mode of transportation do you use most frequently to get to shopping and dining?

	Responses	Percent
Car, alone	278	83.5 %
Car, carpool	44	13.2 %
Bus	4	1.2 %
Bicycle	1	0.3 %
Motorcycle or scooter	0	0.0 %
Walk	2	0.6 %
This doesn't apply to me	4	1.2 %
Total		100.0 %
Response rate		96.8 %
NR		11
Margin of error		+/- 5.4 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

The following question in Figure 4-17 does not directly relate to a specific objective. Rather, the intent of the question was to identify areas with an unmet demand for pedestrian infrastructure.

Figure 4-17: Is there anywhere you or someone in your household would like to walk but currently don't because of inadequate or unsafe infrastructure?

	Responses	Percent
Yes	58	17.1 %
No	282	82.9 %
Total		100.0 %
Response rate		98.8 %
NR		4
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

A total of 53 respondents provided a written response describing where they would walk but currently don't because of inadequate or unsafe infrastructure. The responses are listed below:

- Black Hawk Village & College Square shopping in winter & after dark when not safe to walk in streets (no sidewalks).
- Businesses along Fletcher Ave.
- By HyVee, Panera, Pancheros in Cedar Falls
- By old Logan Jr. High
- By the Falls aquatic center. South along Main Street on the west side of the street sidewalks too close to road. By the church on east side of street.
- Can't cross University Ave. most places safely.
- Cedar Heights from Rainbow to Greenhill bike path
- College Square area
- Crossroads shopping mall
- Dysart Rd. to Orange Rd., Orange Rd.from Hwy 218 to Hwy 21.
- East end of Ridgeway Ave. and Zone 22
- From our neighborhood to downtown. Hudson - to cross Hwy. 63
- Greenhill
- Greenwood Rd. to access Hartman Reserve
- Hammond
- Hwy 63 North
- Hwy 63 to Hwy 58
- I have to cross Greencreek Rd. amid traffic because there is about 1/4 mile of sidewalk missing on the south side between Oster Blvd. & Pinnacle Prairie. Our whole housing district is cut off from the trail infrastructure.
- I wish it were safer to cross Viking Road near the Target area. I wish there were sidewalks along Viking Road between Hwy 58 and Cedar Heights Drive, then along Cedar Heights Drive to the John Deere Product Engineering Center. I would probably consider walking to work.
- I'm not a big walker, but I am an avid cyclist & would love safer infrastructure for bikes/pedestrians.
- In Raymond
- It would be great to be connected to bike or trail path. To get to one we have to walk along a busy road to connect to one from our neighborhood.
- John Deere on Cedar Heights
- LaPorte Rd. from San Marnan North
- Live 1 block off Broadway
- Logan Ave Veterinary Hospital
- Many areas do not have sidewalks. Intersections to business do not have sidewalks for example Kimball and San Marnan, Crossroads Shopping Center.
- Nearby shopping centers and restaurants.
- Need sidewalk from Sonoma to 12th Street on Union Rd.
- No bike trail/sidewalk from Cedar Hills Rd. to Greenhill. Corner of Greenhill is unsafe to walk across.
- No sidewalks
- no sidewalks
- No sidewalks in my neighborhood (Greenbriar)
- Not having sidewalks on both sides of Hudson Rd, all the way from Prairie Lakes to First street is inconvenient. Also, it would be nice if there were sidewalks in the industrial park in CF, start with both sides of Viking Rd. and build up to the surrounding streets.
- On Lafayette and Gilbertville Rd. and near the truck stops.
- Our neighborhood has no sidewalks Brenton Dr./Delta Dr./Linden Ave. & Alden Ave.
- Parks lack of hard surface for wheelchair

- Raymond
- Raymond
- School
- Schrock Rd. to Shaulis via Kimball - no sidewalk
- Section 3 on map along Hwy 63
- Sherwood Park - loose dogs
- Some of the shootings in Waterloo are not far from where I live or would walk.
- The park Dale St. and Mildred
- To downtown Cedar Falls
- To San Marnan shops (HyVee, Target, etc.) (Crossroads)
- To shops at corner of W. 4th & Ansborough
- To the park because there is no sidewalk on the street
- Underpass on Independence Ave. it used to be lit up, but lights no longer there???
- Veralta Dr. CF from Uni Ave. to Orchard Dr.
- Walking or bike trail
- Yes. No sidewalk on Hammond from Maxhelen to San Marnan to Crossroads shop.

Written responses to this question have helped develop the project recommendations identified in Section Five. These responses are also consistent with the areas identified later in Figure 4-20.

Figure 4-18 shows the number of respondents who are parents of a school-aged child or children, and whether their children walk to school. The results of this question align with Objective 1.3, areas around schools are safe and encourage students to walk to school. The question is also related to Objective 3.2, childhood obesity is reduced.

Figure 4-18: Are you the parent of a school aged child/children? If so, do they typically walk to school?

	Responses	Percent
Yes, and they (all) walk to school	7	2.1 %
Yes, but they don't (all) walk to school	49	14.5 %
No, I am not a parent of a school aged child	283	83.5 %
Total		100.0 %
Response rate		98.5 %
NR		5
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

A total of 45 parents with school-aged children explained why their children do not walk to school. Their responses are listed below:

- Almost 2 miles from school
- Because he is 6 years old
- Bussed
- Distance
- Distance
- Distance
- Distance and safety
- Divorced - daughter attends CF Schools - I live in Waterloo
- Early practice and late practice (athletics/band) has created a need to transport them.
- Good weather, one walks, especially home, but carpools in morning; other is farther from school
- Have car drive to school
- Have driver's license (17 yr. old)
- He drives (17)
- Homeschool
- I take him
- Live too far & bad neighborhood
- Live too far to walk
- Must cross major highway
- My child rides the bus

- No sidewalk by our house on Veralta
- Not safe
- Old enough to drive
- One child walks, one is bussed
- Potential safety concerns
- Ride bus
- Ride the school bus
- Safety
- Safety - I don't feel it's safe.
- Scared of strangers
- School bus
- School bus
- School too far away to walk to
- Take bus
- Take the school bus.
- They ride the bus
- They ride the bus. One child will walk to school next year
- To close to school plus I don't feel safe with their age walking alone
- Too many dangerous people
- Too young
- Too young
- Walk only in good weather
- We homeschool
- We homeschool
- We live 6 miles away from the school and he rides a bus
- Weather

The table below shows how respondents described the pedestrian connectivity to parks, trails, and cultural amenities. A narrow majority (52.1 percent) described the pedestrian connectivity as "moderately connected". The results of this question align with Objective 2.3, parks and cultural amenities have good pedestrian connectivity.

Figure 4-19: Overall, how would you describe the pedestrian connectivity to parks, trails, and cultural amenities in the Waterloo-Cedar Falls area?

	Responses	Percent
Very connected	109	32.4 %
Moderately connected	175	52.1 %
Slightly connected	40	11.9 %
Not connected at all	12	3.6 %
Total		100.0 %
Response rate		97.7 %
NR		8
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

Figure 4-20 corresponds to the map in Appendix B. Respondents were instructed to look at the map and choose just one area they would improve for pedestrian accommodations. The area selected most frequently was "Crossroads Shopping Center, La Porte Rd" (area 22 in Appendix B), which was chosen 39 times. The next most frequently selected area was "College Square Mall, Peet Jr. High" which was chosen 27 times. The areas of "Kimball Ave, West High, Hoover Middle School" and "Gilbertville, Cedar Knoll, Hawkeye College, Isle Casino" were each chosen 25 times.

Figure 4-20: If you could improve pedestrian accommodations in just one area, which area would you choose?

	Responses	Percent
1.) Thunder Ridge, Holmes Jr High...	17	5.5 %
2.) North Cedar, Black Hawk Park...	3	1.0 %
3.) Airport, Airline Highway	8	2.6 %
4.) Downtown Cedar Falls, CF High School	3	1.0 %
5.) George Wyth State Park, Hartman...	4	1.3 %
6.) Broadway St, Riverfront Stadium...	11	3.5 %
7.) Allen Hospital, Logan Plaza, Carver...	9	2.9 %
8.) East High, Cunningham Elementary	6	1.9 %
9.) Tyson, John Deere Tractor Cab...	2	0.6 %
10.) UNI, College Hill	14	4.5 %
11.) College Square Mall, Peet Jr. High	27	8.7 %
12.) Cedar Heights, Central Middle School	23	7.4 %
13.) Falls Ave, Fred Becker Elementary...	10	3.2 %
14.) Church Row, Six Corners, Irving...	10	3.2 %
15.) Downtown Waterloo, Grout...	10	3.2 %
16.) Southeast riverfront, Crystal Dist...	3	1.0 %
17.) Evansdale, Bunger Middle School...	6	1.9 %
18.) East Evansdale, Elk Run Heights...	11	3.5 %
19.) Viking Plaza, CF Industrial Park	18	5.8 %
20.) Audubon Park, UnityPoint Clinic...	11	3.5 %
21.) Kimball Ave, West High, Hoover...	25	8.1 %
22.) Crossroads Shopping, La Porte Rd	39	12.6 %
23.) Hudson, Orange Elementary	15	4.8 %
24.) Gilbertville, Cedar Knoll, Isle Casino...	25	8.1 %
Total		100.0 %
Response rate		90.1 %
NR		34
Margin of error		+/- 5.6 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

This question included two follow-up questions. The first, as shown in Figure 4-21, asked respondents what type of destinations within their chosen area would they like pedestrian improvements focused on. The intent of the question was to identify specific destinations with an unmet demand for pedestrian infrastructure. These results were considered in the development of the project recommendations identified in Section Five.

Figure 4-21: Within the area you selected, where specifically would you like to see pedestrian improvements focused on most?	Schools	Parks, trails, etc.	Neighbor-hoods	Shopping, restaurants	Office, industry	Other
1.) Thunder Ridge, Holmes Jr High...	2	7	5	3	-	-
2.) North Cedar, Black Hawk Park...	1	-	2	-	-	-
3.) Airport, Airline Highway	-	4	1	-	-	-
4.) Downtown Cedar Falls, CF High School	-	1	-	1	-	-
5.) George Wyth State Park, Hartman...	-	1	1	1	-	-
6.) Broadway St, Riverfront Stadium...	-	3	5	-	-	-
7.) Allen Hospital, Logan Plaza, Carver...	2	2	2	3	-	-
8.) East High, Cunningham Elementary	1	1	3	-	-	-
9.) Tyson, John Deere Tractor Cab...	-	1	-	-	-	-
10.) UNI, College Hill	2	6	3	-	-	-
11.) College Square Mall, Peet Jr. High	**6**	5	3	10	-	1
12.) Cedar Heights, Central Middle School	1	6	**13**	3	-	-
13.) Falls Ave, Fred Becker Elementary...	1	2	1	3	1	-
14.) Church Row, Six Corners, Irving...	1	2	6	-	-	-
15.) Downtown Waterloo, Grout...	1	2	2	5	-	-
16.) Southeast riverfront, Crystal Dist...	-	1	2	-	-	-
17.) Evansdale, Bunger Middle School...	-	2	3	1	-	-
18.) East Evansdale, Elk Run Heights...	-	4	4	1	1	-
19.) Viking Plaza, CF Industrial Park	-	4	-	10	**3**	1
20.) Audubon Park, UnityPoint Clinic...	-	3	7	-	-	-
21.) Kimball Ave, West High, Hoover...	4	5	8	6	-	1
22.) Crossroads Shopping, La Porte Rd	1	6	3	**27**	-	-
23.) Hudson, Orange Elementary	3	6	3	1	-	1
24.) Gilbertville, Cedar Knoll, Isle Casino...	2	**13**	4	2	-	-
Total	28	91	81	77	5	4
Response rate						88.4 %
NR						40
Margin of error						N/A

Respondents were then instructed to select one word to describe various characteristics of pedestrian infrastructure. Respondents could select “none”, “poor”, “fair”, “good”, “excellent”, or “N/A or Unsure” for each characteristic. Figure 4-22 shows the results of this exercise. It is important to note that some areas were only selected by a few respondents, and the results in these areas are much more affected by outliers than areas selected by many respondents. For example, the lowest rating in the entire exercise is in an industrial area selected by only two respondents. A more focused survey or a larger sample size would likely improve these results.

Figure 4-22: Within the area you selected, describe the following (5=excellent, 4=good, 3=fair, 2=poor, 1=none)	Sidewalk condition	Crosswalk safety	Lighting at night	Directness of walkways	Continuity of walkways	Safety for the elderly, disabled, and children	Safety from street crime	Quality of design for pedestrians
1.) Thunder Ridge, Holmes Jr High...	3.2	3.2	3.0	3.4	2.8	2.8	3.5	3.1
2.) North Cedar, Black Hawk Park...	1.5	3.5	3.5	3.0	3.0	3.0	4.0	3.0
3.) Airport, Airline Highway	1.4	1.8	2.8	1.4	1.7	1.7	2.6	2.0
4.) Downtown Cedar Falls, CF High School	3.3	3.0	3.0	3.3	2.7	2.7	3.7	3.0
5.) George Wyth State Park, Hartman...	2.5	3.5	3.5	2.3	3.0	2.3	3.0	3.5
6.) Broadway St, Riverfront Stadium...	3.3	3.4	3.3	4.0	3.3	2.7	2.0	3.1
7.) Allen Hospital, Logan Plaza, Carver...	2.5	2.9	2.8	2.1	2.1	2.4	2.6	2.5
8.) East High, Cunningham Elementary	2.8	3.0	3.0	2.7	3.0	2.6	2.0	2.8
9.) Tyson, John Deere Tractor Cab...	3.0	4.0	3.0	4.0	1.0	3.0	3.0	-
10.) UNI, College Hill	2.9	3.2	2.9	3.2	2.9	2.5	4.2	2.6
11.) College Square Mall, Peet Jr. High	2.4	2.3	3.3	2.6	2.4	2.3	3.8	2.4
12.) Cedar Heights, Central Middle School	2.7	2.8	2.9	2.9	2.8	2.7	3.5	2.8
13.) Falls Ave, Fred Becker Elementary...	3.1	3.0	3.3	3.1	2.7	2.3	3.2	2.9
14.) Church Row, Six Corners, Irving...	3.2	3.1	3.1	3.8	3.2	2.8	2.5	2.9
15.) Downtown Waterloo, Grout...	3.1	3.0	3.1	3.4	3.7	2.7	2.7	3.1
16.) Southeast Riverfront, Crystal Dist...	3.0	2.7	2.7	3.0	2.5	2.5	3.0	3.3
17.) Evansdale, Bunger Middle School...	3.0	3.0	3.0	3.3	3.0	2.8	3.0	2.8
18.) East Evansdale, Elk Run Heights...	1.3	1.8	2.3	1.8	1.8	1.8	3.2	2.0
19.) Viking Plaza, CF Industrial Park	2.9	2.0	2.5	2.5	2.3	2.0	3.2	2.2
20.) Audubon Park, UnityPoint Clinic...	2.1	2.9	2.9	1.7	1.5	2.4	3.8	1.8
21.) Kimball Ave, West High, Hoover...	2.4	2.9	3.2	2.3	2.1	2.3	3.6	2.5
22.) Crossroads Shopping, La Porte Rd	2.1	2.5	3.3	2.2	2.2	2.0	2.8	2.2
23.) Hudson, Orange Elementary	3.1	3.1	3.4	3.0	2.8	3.1	4.4	3.3
24.) Gilbertville, Cedar Knoll, Isle Casino...	2.0	2.6	2.5	2.3	2.1	2.2	3.3	2.1
Average	**2.6**	**2.9**	**3.0**	**2.8**	**2.5**	**2.5**	**3.2**	**2.7**
Response rate	84.3 %	82.3 %	80.5 %	79.7 %	81.4 %	85.2 %	78.2 %	82.8 %
NR	54	61	67	70	64	51	75	59
Margin of error	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

The results in Figure 4-22 are aligned with several objectives:

- **Sidewalk condition**
  Objective 1.4, sidewalks are in safe walking condition
- **Crosswalk safety**
  Objective 1.2, all major pedestrian crosswalks are safe and clearly marked
- **Lighting at night**
  Objective 1.5, lighting along walkways meets public demand
- **Directness of walkways**
  Objective 2.1, infrastructure exists to provide pedestrian easy access to commercial areas
- **Continuity of walkways**
  Objective 2.4, gaps are filled in the existing sidewalk network
- **Safety for the elderly, disabled, and children**
  Objective 4.1, sidewalks and other walking paths are accessible to pedestrians of all ages and abilities
- **Safety from street crime**
  Objective 1.6, walking in the MPO area is regarded as safe from criminal activity
- **Quality of design for pedestrians**
  Objective 4.2, pedestrian traffic is a strong consideration in street design

The following table shows the results of a more broad-based question, "How important to you is the goal of creating a walkable community?" The intent of this question is to gauge public opinion on the value of future pedestrian improvements. The results of this question align with Objective 3.6, the public is interested in creating a walkable community.

Figure 4-23: How important to you is the goal of creating a walkable community?

	Responses	Percent
Very important	158	46.6 %
Moderately important	127	37.5 %
Slightly Important	38	11.2 %
Not important at all	16	4.7 %
Total		100.0 %
Response rate		98.5 %
NR		5
Margin of error		+/- 5.3 %
Percentages shown may not add up to exactly 100 percent due to rounding.		

The final multiple-choice question asked which funding strategies each respondent would support to improve pedestrian facilities. About 60 percent of respondents support grant funding, and nearly half support a dedicated funding source in the City budget. The least popular funding strategy was billing adjacent property owners.

Figure 4-24: What strategies would you support using to develop and improve pedestrian facilities in the Waterloo-Cedar Falls area?

	Responses	Percent
Dedicated funding sources in the City budget	155	46.0 %
Bonds, i.e. borrowing	50	14.8 %
Grants, i.e. competitive State and Federal funds	203	60.2 %
Partnering with major retailers	113	33.5 %
Billing adjacent property owners	33	9.8 %
None	17	5.0 %
I don't know	72	21.4 %
Total		100.0 %
Response rate		98.0 %
NR		7
Margin of error		+/- 5.3 %
Percentages shown do not add up to 100 percent because this is a multiple-choice question.		

Respondents were also given an opportunity to provide additional comments. These comments are listed below:

- I see people either riding their bike or walking day or night in the turning lane from Logan HyVee to as far north on Hwy 63 as Garden of Memories Cemetery.
- I live in an area which is very walk-friendly (23). I do very little walking because of arthritis, but I have friends who come over from CF and north W'loo just to walk to Hudson and E. on Shaulis.
- Bicycling is more important than walking to me.
- Gang and crime activity Logan shopping Allen Hospital block south
- I really only walk in my general part of town, so I don't feel informed to answer #20. It would be nice if there was an educational component to raise awareness for motorists of pedestrians. People here (in cars) are pretty rude to those of us trying to walk!
- I believe we need to improve safety/accessibility for those who already walk.
- I often see kids walking/biking to school through yards and on the road aside Ridgeway Ave. This is very unsafe. Sidewalk often ends between Kimball and Ansborough which is inconvenient when trying to get to an actual bike trail.
- I don't see a code!! Found it. Sorry.

- We live in the Wild Horse subdivision. We aren't safely connected to a bike path or trail system from our neighborhood. It would be great if we could get connected to the bike path off of 12th St.
- I ride my bicycle or car. But my daughter rides the bus. She is challenged with learning disabilities. Main Street is busy and it is difficult to cross the street. Traffic doesn't yield to pedestrians without lights or stop signs.
- Don't shop or go to downtown Waterloo much. Too much crime and gang activity.
- MLK Trail and Bishop do not connect with my other trails.
- Evansdale, Elk Run area parks need more places for elderly to sit and enjoy nature in our parks, places to sit while watching our grandkids at play, for safety, near play centers in the parks.
- More than anything this city needs to have a leash law for all the aggressive dogs (pit bulls) that now run free and make it dangerous for us to walk in our neighborhood. Also more police presence would be nice. Lighting is non existent in most areas where we live.
- There are some really dangerous crossing areas like out on Ridgeway-Ansborough-58 and Viking for bicyclists and skaters. It would be nice to have simple bridge structure for crossing or underneath road tunnels. Thanks.
- No sidewalks along Huntington or bike trails. Cross Greenhill by foot is hit & miss. Outside of one park there isn't much out here in Waterloo - stop dumping along Katoski. When I see development in Cedar Falls makes me wonder where Waterloo missed the boat. Can't walk to these places. Where we live - where would you walk. Can't take in downtown activities unless you drive.
- The sections I have walked are in good shape thanks to the maintenance by the City.
- Community is too spread out/sprawling to be truly "walkable", esp. without a strong public transportation system. Very concerned about kids crossing University Ave. to get to Peet. Roundabout plan does nothing to alleviate this concern.
- Raymond needs to be connected to the bike trail at Elk Run. Raymond needs a bike/walking trail on Lafayette Rd.
- Rebuild of Cedar Heights Rd. is planned. Consider connection to John Deere PEC. Lots of daily riders of bikes there. 58/Viking Road should be closed to walking/biking until overpass is complete. Bad place for people not in a car.
- There needs to be more development on Waterloo's east side - commercial and residential. I don't feel safe walking anywhere in Waterloo anymore due to street violence and I'm a life long resident.
- Walking in Waterloo is hard. It's either poor sidewalks or unsafe area.
- Would like to see a bike trail from Hwy 63 to Hwy 58 with lights for safety riding.
- I am very thankful that Waterloo cleans their trails during the winter months. CF does not and that gets frustrating.
- PLEASE: no more taxes, etc. I'm 82 yrs. old & SS doesn't provide for much. And what 4 digit code? I didn't find one.
- We have 3 major thoroughfares: Lafayette, Gilbertville Rd. and by the truck stops; with no designated or SAFE walking areas.
- Please consider adding sidewalks on Veralta Dr. from University Ave. to Orchard Dr. I don't even care which side of the street.
- The walking and biking in our community is one of the signature attributes that will attract new residents. It is also good for community health.
- Given that people live such far distances from shopping / schools etc. I think creating bike paths seems more feasible than strictly walking.
- Aside from the College Square Apts. our house is the only residence on Maplewood Dr. that has a sidewalk on that street. It's unfortunate that sidewalks weren't required for home construction at that time. Would be costly & unfair for current homeowners now. Suggest sidewalks be required for new residential building citywide if not the case.
- It would be nice if Ridgeway had sidewalks as well, west of Sargeant Road/63!
- Thank you for the opportunity to provide my input!
- Thank you for selecting me!
- I feel no tax dollars are needed for pedestrian access. Property owners should be responsible. Our tax dollars are needed for existing infrastructure such as roads and bridges, not trails for bicycles or sidewalks for pedestrians.
- This is a good survey. I'm not a person that would use the transit system (bus) now, but I may in future. I would hope they will continue running.
- I use a walker
- Waterloo/Cedar Falls have come a long way in providing recreations trails and pedestrian improvements.
- Our downtown is great for walking & biking but no place (or not many) to stay overnight. The mall area has all the shopping & eating & hotels but if you want to walk/bike, it is not easy.
- Need MET bus to continue south on Hammond Ave. We have no bus service on Maxhelen.
- There are a lot of young families in Wild Horse that do not use the Union & 12th St. sidewalk because they do not connect to us. It's a safety concern for our children. Thank you for asking our input!!
- Wheelchair accessible curb not installed at northeast corner of Park and Sycamore.
- Our taxes are high enough - no new taxes!

- Would like to see trail connections in 23 that keep kids particularly off the roadway when riding bikes. Crossing 63 w/ small kids seems dangerous lots of traffic & cars don't see or always yield ped. when turning right off Shaulis especially.
- See map - It would be nice to connect walk way from (MLK) to Newell St. If you used ex-rail road track from Idaho St. and Willow St. Just 1 block of MLK and go Northwest on old track it would take you right to Newell and Beech. Could go over to Donald St.
- Do not pass my address to anyone! I raised 3 daughters and they ruined shoes walking to Hoover Middle School because of no sidewalks from home to school. All along Ridgeway there needs to be sidewalks. They couldn't ride the tricycle around the block due to no sidewalks half the time.
- Sidewalks in this area are needed and a nice park
- We walk on street we have little traffic in the area
- The new retirement center built by Menards is where I've seen elderly trying to get to from the Crossroads business area. San Marnan is very difficult to walk across.
- Overall I think the Waterloo/Cedar Falls area has great trails to ride walk. I'd like to see more walkable areas around the museums and/or mall area for those that could use them.
- Stop investing money in worthless ideas such as roundabouts and walking paths on University Ave.
- I would like to 10 punch pass to Cedar Valley SportsPlex so I can work out and loss this baby weight :)
- My main concern is for safety while crossing streets at crosswalks. The need for sidewalks in residential areas so one doesn't walk on streets.
- I think we would greatly benefit having pedestrian improvements between shopping in the crossroads area, San Marnan, LaPorte Rd. (section 22 on map)
- I grew up in Waterloo and it is basically a mid-western solidified Jim Crow town. When growing up, I experienced racism, but not in my schools. I went to Catholic schools. I had gov't jobs JPTA and others, but black men need job opportunities despite their jail records! Thank you for allowing my input. Blessings.
- I reside in Ray Mar and it would be nice to have some sort of trail to go bike riding on. Gilbertville Road is busy and dangerous for children to bike on.
- I would oppose any actions that would increase taxes. I bike a lot, which you didn't ask, and walk regularly on the treadmills at the CF Rec. Center.
- Still need improvements around dangerous intersections such as VIking Rd. - 58 and Greenhill - 58.
- I think the main cause for a lack of pedestrian travel in this area is the long term trend toward sprawl development. I doubt there's any way to counter that with the exception of some slight amelioration in a few special areas.
- Extend the sidewalk from Nature Trail to East Shaulis to Highway 21.
- I do NOT support improving sidewalks at taxpayer expense. What we have is MORE than adequate; maintenance is all that is truly needed.
- We live north of Ridgeway near Crossroads shopping center and I would absolutely love to walk/bike to HyVee and Target to save fuel and environment, but I am terrified of crossing San Marnan! No one expects pedestrians/bicyclists so I am afraid of being hit by a car! Thanks for this survey!
- Thank you!
- We have no sidewalks for kids to walk on, unsafe.
- Crossing San Marnan is very scary. People who stay at the motels almost must get in their car to cross the street safely.
- Why don't you put the money toward improving University Ave. between CF - Main St. and Waterloo city limits?
- The University Ave. plan is a fantastic improvement to pedestrian access. And the roundabouts will help tremendously.
- I have a disabled brother who lives on Randolph and am acquainted with many of his neighbors and neighborhood features and their frequent non-auto transportation needs.
- This was addressed to my son who have lived in Kansas City for 20+ years. I have lived in Cedar Falls, in Cedar Heights for 45+ years. I formed a neighborhood walking group in 1977. We are still walking nearly every weekday.
- I consider walking up to 2 miles not bad. It would be good to encourage restaurants near bike trails or other specialty growth businesses - organic groceries, coop, etc. to improve walkability index of Hudson and Greenhill area with new schools and new hospital.
- Some residential areas in section 7 have no sidewalks. Many of the shootings in Waterloo have happened in section 6 and Southern part of section 7 where I live. Wouldn't walk in these areas after dark.
- We need improved safety in our community and the money budgeted to specific funded should only be used for that. Stop cutting the budget and laying off police officers. Cut salaries of high paid officials.
- There needs to be a trail along Hudson Road in front of the UNI-Dome 27th St. to 23rd approximately. Also, finish trail from Hwy 21 to casino but I know that is already in the budget.
- Waterloo lacks sidewalks in most areas of the city. Having lived in Cedar Falls, they have sidewalks and that was one with I had when my husband and I bought a home in Waterloo. Thankfully there is a walking path around Kittrell but that's it for our neighborhood. Would like to see more paths leading to the bike trails.

- If the city is really interested and concerned about walkability and access then bring more businesses to Allen Hospital area. Walmart, Dollartree, Dairy Queen, laundromat, restaurants, anything to acknowledge that we live here to. 63 is a good start (looks beautiful).
- When it snows no one shovels it off the crosswalks. The snow plow's push the snow up on them but no one shovels it away and that makes it very hard for wheelchairs to get by.
- I would like for you to stop wasting money on bike trails. Also I think you should start doing things for the people on the east side of the river - bladder dam - waste of money. Fix Park Avenue bridge with gambling money.
- Hcc has many students that walk and run along Orange Rd. but the road is not well suited for this use. It may be just a matter of time before someone is hurt or killed.
- We live on Home Park Blvd. We love our historic boulevard but street parking is damaging the boulevard due to cars driving on it to avoid parked cars at curb. Please consider narrowing Blvd. 2-3' and add old fashioned lighting along center Blvd. (ie: Logan Ave.) It is very dark at night due to beautiful mature trees.
- There should be incentives provided to encourage people to eliminate owning an automobile.
- Waterloo/Cedar Falls is generally pedestrian safe. The areas that need work are San Marnan and University for walking and biking purposes.
- I ride a bike on the trails at least 3 times a week. Improving the paved trails, especially from green hill rd to ridgeway down cedar heights would make it a lot easier to ride my bike to work safely.
- Too many areas that have no sidewlk. Try walking from Target (Waterloo) to Crossroads for example. No sidewalks at Kimball and San Marnan and Ansborough and San Marnan even though I'm within easy wlaking distance to both. There are entire neghborhoods with no sidewalks. Most of Ridgway has no sidewalks. There is no safe way to walk from Kimball and SanMarnan to Vrossroads. The Met is a joke. I have to rely on friends to get to the YMCA from my houde. The MET would take over 1.5 hours to go 4.5 miles.
- Many sidewalks in our neighborhood end and don't connect to others. Also would like more connection from our area to UNI and along Hudson Road west side. I run and always have to run in the grass.
- We think there should be sidewalks along all shopping and resterant areas.
- In general, the trails are good for biking and walking when traveling north of Greenhill Road. The Viking Plaza area could use an upgrade. I realize that there are plans for an improved 58 coming, but I hope sidewalks and bike trails are incorporated. Also: more roundabouts please! Being able to cross a roundabout is much easier in my experience than a traffic signal.
- If I win a prize, my new address is [deleted], Cedar Falls.
- Thank you!

These comments were reviewed by INRCOG staff, and are cited throughout Section Five to show support or opposition to recommended projects.

Written responses… Safety (Greenhill, Ridgeway), Perception of Crime, Connectivity to Bike Trails, Lack of sidewalks, Taxation, a couple mentioned sprawl/living far away, improvements to the Allen area, a couple mention snow removal

Conclusions and Discussion

The statistically significant mail-out surveys accomplished the goals of gathering performance measurements for the Pedestrian Master Plan and gaining a broad understanding of residents' habits and opinions related to walking. Several of the objectives identified in Section One could not otherwise be measured with Census data or other existing data sources. Accordingly, a new data set was required to measure the progress of these objectives. These survey methods are repeatable and can be used to track the Plan's progress. One limitation of the performance measurements, however, is that many of them rely on the results shown in Figure 4-22. Those measurements are based on the neighborhood each respondent identified as needing the most improvement. As a result, this survey does not measure the progress of improved areas so much as it measures the existence of unimproved areas.

Some of the survey questions produced results that were informative but not impactful to the Plan itself. One example is the question, "Overall, how would you describe the pedestrian connectivity to parks, trails, and cultural amenities in the Waterloo-Cedar Falls area?" While informative, the results of this question do not affect the Plan's recommendations in any way and are not tied to any performance measurements. The next time this survey is conducted, it may be desirable to eliminate some of these questions.

Many survey questions asked respondents about their habits. However, only three questions specifically asked respondents about their preferences. In future surveys, additional questions could be added to better understand what residents prefer (in the future) as opposed to their habits (in the past).

Of course, representation was another issue with these surveys. Adults under 30 years old, females, renters, one-person households, and those earning less than the median income were all underrepresented. Racial minority populations were also somewhat underrepresented, particularly Black people. In future surveys, additional mailings could be sent to target populations to gain a more representative sample.

Automobile-oriented retail areas were consistently ranked highly for needing pedestrian improvements, as shown in Figure 4-20. They make up six of the top seven neighborhoods respondents would improve for pedestrians. These are areas 1, 11, 12, 19, 21, and 22 in Figure 4-20 and Appendix B.

Automobile-oriented retail areas make up six of the top seven neighborhoods respondents would improve for pedestrians.

Statistically significant mail-out survey results, 2015

Generally, walking is not understood to be a viable mode of transportation (to destinations such as work or shopping) by survey respondents. Yet, the vast majority of respondents indicated they walk at least once a week, with the top reasons being "for wellness" and "for fun". Figure 4-21 shows there is interest in improving access to parks, trails, and cultural amenities; residential neighborhoods; and shopping and restaurants. However, there is low interest in improving access to offices or industrial areas. This suggests that pedestrian projects that serve a recreational purpose may have greater public support.

SPECIAL OUTREACH SURVEY TO NON-ENGLISH SPEAKING AND HOMELESSS RESIDENTS

While conducting the mail-out surveys described earlier in this section, it was noticed that people who are not fluent in English and people who do not have a permanent residence would not likely respond to the surveys. It was also assumed that these populations are particularly affected by the area's pedestrian infrastructure or lack thereof. Accordingly, a special survey was developed to reach out to the non-English speaking and homeless populations to identify pedestrian-related issues they face and their broader transportation needs.

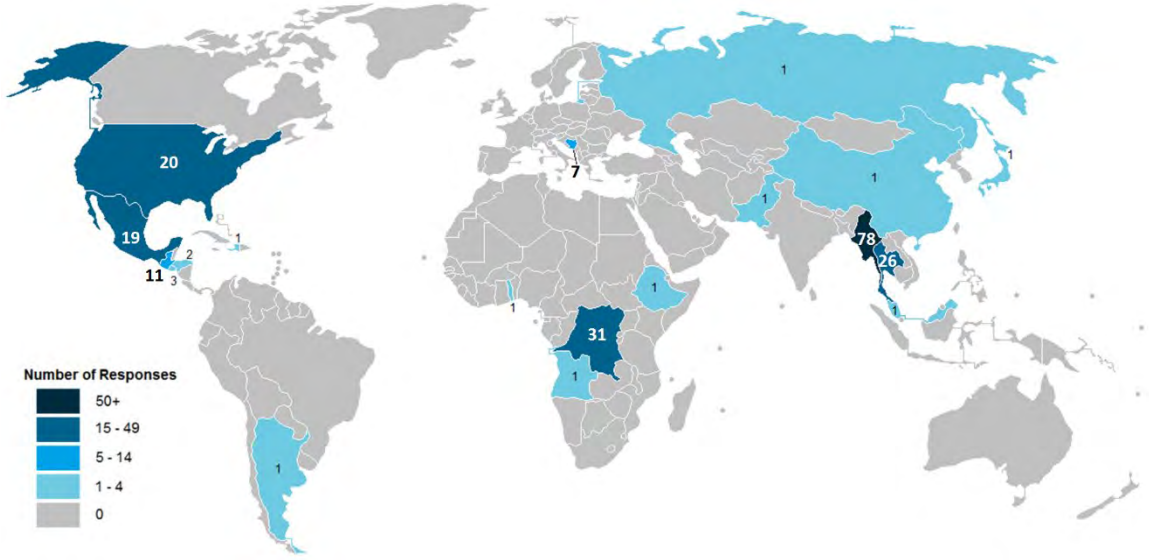
The results of this survey are included as Appendix C. Survey forms were administered by three area organizations:

- Hawkeye Community College Metro Center, 147 participants
- Operation Threshold, 44 participants
- Black Hawk Grundy Mental Health, 16 participants

Survey forms were completed in November and December 2015. Unlike the mail-out surveys, these were not statistically significant. Instead, a convenience sample was used to gain a broad understanding of issues faced by these populations. To date, this is the only known transportation study of non-English speaking or homeless residents in Black Hawk County.

Altogether, about half of the survey participants (104) originally lived in Southeast Asia, specifically Myanmar (Burma) and Thailand. Another 35 respondents are from Mexico and Central America, 31 are from the Democratic Republic of Congo, and seven are from Bosnia and Herzegovina. Figure 4-25 shows the home country of all survey participants.

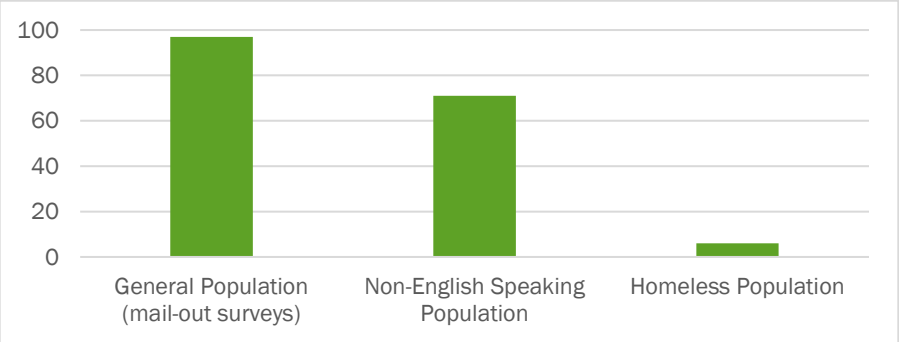
Figure 4-25: Map of Countries Special Outreach Survey Participants Are From



Results

Around 71 percent of non-English speaking survey participants indicated they own a car. Among the homeless population surveyed at Black Hawk Grundy Mental Health, around six percent (or one out of 16) indicated they own a car. In contrast, 97 percent of respondents in the mail-out surveys of the general population indicated they have at least one vehicle.

Figure 4-26: Percent of survey participants who have an automobile, by group



Participants were also asked multiple-answer questions about their mode of transportation including, "How do you usually get to work or school?" and "How do you usually get to the store to buy food?" A notable share of participants indicated they walk to their destinations. Nearly 20 percent said they walk to work or school, and between 6 and 11 percent said they walk to reach other destinations. However, few participants indicated bicycling or riding the bus for transportation.

Figure 4-27: Modes of transportation used by non-English speaking survey participants

	To Work or School (173 participants)	**To Get Food** (175 participants)	**To Medial Appts.** (159 participants)	**To Do Laundry** (69 participants)
Drive	56.6 %	60.0 %	65.4 %	58.0 %
Get a ride	31.2 %	40.6 %	34.6 %	31.9 %
Walk	19.7 %	10.3 %	6.9 %	10.1 %
Bicycle	1.2 %	1.7 %	1.3 %	2.9 %
Bus	0.6 %	1.1 %	0.6 %	-
Taxi	-	0.6 %	0.6 %	1.4 %
Percentages shown do not add up to 100 percent because this is a multiple answer question.				

Between 56 and 66 percent of non-English speaking participants indicated they drive to reach their destinations. In contrast, about 92 percent of all commuters surveyed in the mail-out surveys drove alone to work. This reveals an apparent disparity between non-English speakers and the general population. Moreover, about four percent of commuters in the mail-out surveys carpool to work, whereas around 31 percent of non-English speaking survey participants indicated they get a ride to work. This suggests there is a large demand for individual transportation among non-English speaking populations which is not being met by fixed bus routes or bicycling. Figure 4-15 and Figure 4-16 show the modes of transportation used by mail-out survey respondents.

Figure 4-26 shows the modes of transportation used by homeless residents surveyed at Black Hawk Grundy Mental Health. Note that walking is the most common mode of transportation among this group.

Figure 4-28: Modes of transportation used by Black Hawk Grundy Mental Health survey participants

	To Work or School (6 participants)	To Get Food (16 participants)	To Medial Appts. (16 participants)	To Do Laundry (14 participants)
Walk	3	9	9	7
Bus	3	5	6	3
Get a ride	2	6	5	4
Drive	-	1	1	1
Skateboard	-	1	1	1
Bicycle	-	-	1	-
Taxi	-	-	-	-

Given the relatively small size of the MPO area, participants were also asked specifically where they go to buy food, do laundry, and go for medical appointments. Perhaps surprisingly, 85 percent of non-English speaking participants indicated they bought food at Walmart in the last month. This vastly surpasses any other grocery store indicated. It also makes a case for improving pedestrian access to automobile-oriented stores including Walmart.

Figure 4-29: Common destinations for non-English speaking survey participants

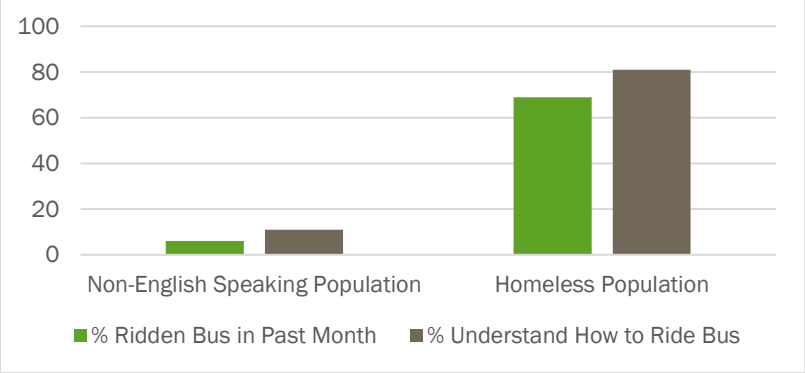
	To Get Food (141 participants)	To Medial Appts. (125 participants)	To Do Laundry (170 participants)
#1 destination	Walmart (120)	People's Clinic (92)	Laundromat (72)
#2 destination	Asian stores (42)	Covenant Medical Center (25)	My own washer (56)
#3 destination	Hy-Vee (34)	Unity Point Allen Hospital (17)	Shared washer in apt. bldg. (41)
#4 destination	Aldi (30)	-	At a friend's house (6)

Hy-Vee was the most common destination to get food among homeless survey participants. Kwik Star, Casey's, Cork's Grocery, and Family Dollar were also noted. Considering that most homeless residents surveyed walk or get a ride to get food, it follows that their food choice is often limited to their surrounding neighborhood. When asked, "Is there anywhere you want to buy food, but can't because of transportation?" three of the participants said Aldi.

Participants were also asked a few questions about riding the bus. Only 6 percent of non-English speaking residents indicated they had ridden the bus in the past month. Comparatively, 69 percent (or 11 out of 16) homeless residents have ridden the bus in the past month.

When asked, "Do you understand how to ride the bus in Waterloo?" only 11 percent of non-English speaking residents indicated they understand how to ride the bus in Waterloo, compared to 81 percent of homeless participants.

Figure 4-30: Bus ridership and understanding how to ride the bus, by group

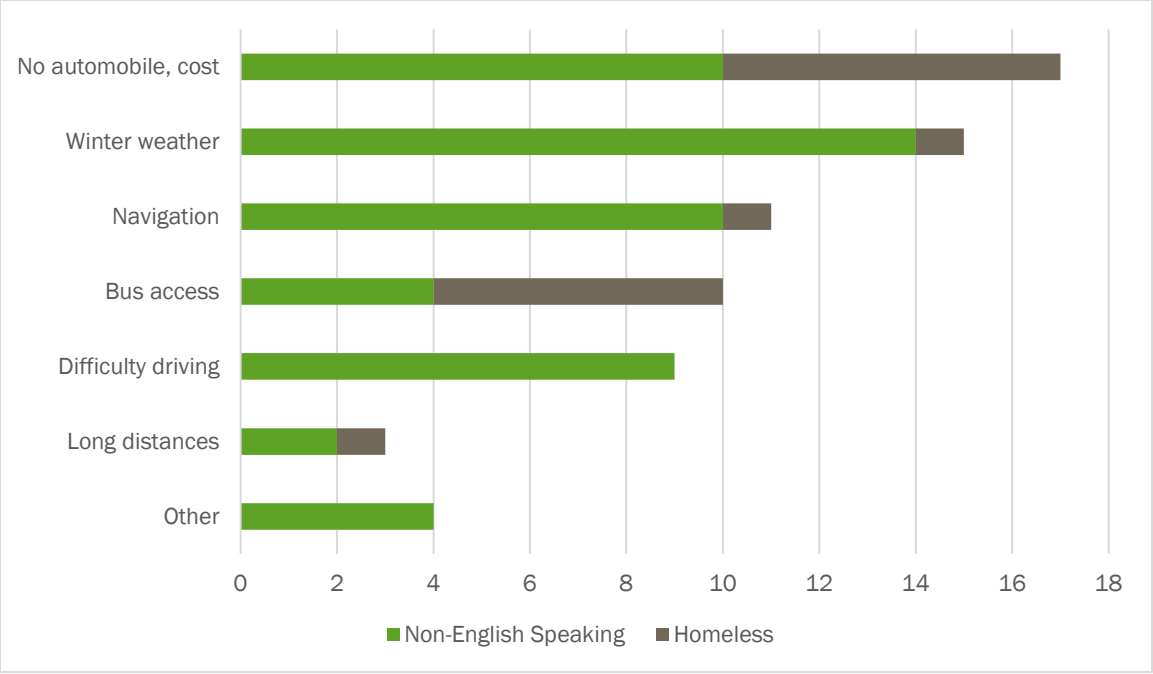


These results demonstrate a need for outreach to non-English speaking residents on using MET Transit buses. The results also suggest that adjustments to the fixed route system may be necessary to make the bus network more intuitive. One participant noted, "It is difficult to know the bus schedule."

Another question asked of participants was, "Have you ever been afraid to walk in your neighborhood?" Around 29 percent of non-English speaking survey respondents said they have been afraid to walk in their neighborhood, while 71 percent indicated they have not. The most common reason given for feeling afraid was because of crime or intimidation. Other reasons noted include dogs, traffic, and lighting. Among homeless respondents, the response was split: 50 percent have been afraid and 50 percent have not been afraid to walk in their neighborhoods.

An open-ended question was also asked, "What are the most difficult things about getting where you need to go?" Written responses were broadly grouped into six categories:

Figure 4-31: Transportation challenges faced, by group



Difficulties faced by non-English speaking residents were often different than those faced by homeless residents. Most notably is the extent that non-English speaking residents experience difficulty with the act of driving itself. Winter weather, navigation, operating a vehicle, and travelling long distances can all be challenges for people from different cultures and climates. As one survey participant put it, "I don't like to drive." Among homeless participants, responses written by multiple people include not having transportation, not having money for gas, lack of evening bus service, and difficulty navigating bus routes.

Conclusions and Discussion

There are inherent challenges involved with surveying non-English speaking individuals. The methodology used to administer these surveys is described in Appendix C.

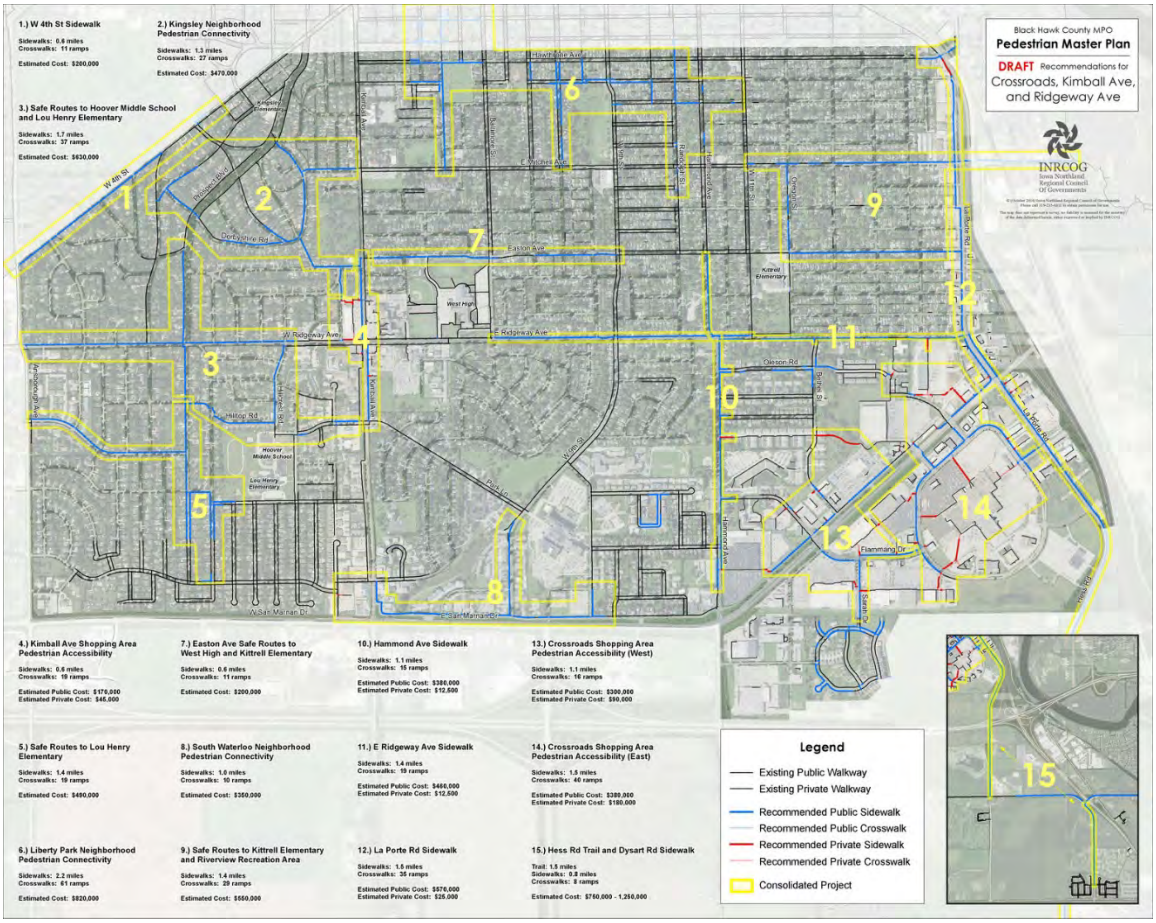
As hypothesized, a higher percentage of non-English speaking and homeless residents walk to their destinations than does the general population. Both groups also carpool at a far greater rate than the general population. While there is an apparent demand for individual transportation, several participants indicated they have difficulty driving a car.

Perhaps surprisingly, however, the non-English speaking participants rode the bus at a lower rate than the general population. So not only do they drive less, they also ride the bus less, according to the results. In addition, only 11 percent of non-English speaking participants said they understood how to ride the bus. The same pattern is true even among participants who have lived in the USA five years or more. These results could indicate three things: 1.) there are tangible barriers to using the bus such as service times, frequency, and cost, 2.) the existing fixed routes are not intuitive enough for people to feel comfortable taking that "first ride", and 3.) it is not known that bus service is available. The first two suggest that changes to the fixed routes are necessary to better meet the demand for transportation. The third suggests that additional outreach to non-English speaking populations could potentially increase ridership.

PUBLIC INPUT MEETINGS AND ONLINE SURVEY

In November 2016, six public input meetings were held in Waterloo and Cedar Falls to obtain input on draft project recommendations for the Pedestrian Master Plan. Meeting locations included Hoover Middle School, George Washington Carver Academy, Southdale Elementary, Cedar Heights Elementary, and the non-traditional locations of Crossroads Shopping Center and the Cedar Valley SportsPlex in Waterloo. These two locations were selected to achieve a wider range of public contact by going to where people are already congregating. Flyers advertising the public input meetings were distributed to over 50 businesses and civic centers, and a press release was sent to local media.

At the meetings, residents were able to review recommendations for sidewalk and crosswalk improvements in the Crossroads area, College Square, Cedar Heights, Kimball and Ridgeway Avenues, East Waterloo, and Downtown Waterloo. Attendees were asked to indicate which projects they would support and which ones they would not. The goal was to receive input from all residents, not just proponents of sidewalks. Residents could also provide feedback using an online survey form. 120 responses were received from the input meetings and the online survey. Public input meeting materials can be found in Appendix D.



The surveys included a matrix of every draft project recommendation, and respondents were asked to indicate if they were in support of or opposed to each project. A numeric value was assigned to each answer as follows: Strongly Support= 2; Somewhat Support= 1; Somewhat Oppose= -1; and Strongly Oppose= -2. These values were used to determine the mean of each project. Figure 4-32 shows the number of responses and mean for each project.

Figure 4-32: Public input survey results for projects

MEAN AVERAGE	NUMBER OF RESPONSES	NAME
1.532	47	University Ave Trail and Sidewalks (Midway Dr to US-63)
1.488	41	East High Trail Connection
1.462	39	Safe Routes to Cunningham Elementary
1.444	36	Safe Routes to Lincoln Elementary
1.444	36	Safe Routes to George Washington Carver Academy
1.417	36	Logan Ave Shopping Area Pedestrian Connectivity
1.400	40	Safe Routes to Highland Elementary
1.380	50	Viking Rd Shopping Area Pedestrian Accessibility
1.378	45	Safe Routes to Central Middle School and Fred Becker Elementary
1.373	51	University Ave Shopping Area Pedestrian Accessibility
1.366	41	Enhancements along Park Ave
1.362	47	Repair 4th St Bridge canopy
1.325	40	Bulb-outs at all viable intersections
1.318	44	College Square Neighborhood Connectivity (South)
1.318	44	Ped Connections at US-63/University
1.293	41	Hammond Ave Sidewalk
1.283	46	Safe Route to Cedar Heights Elementary
1.268	41	Safe Routes to Kittrell Elementary and Riverview Recreation Area
1.261	46	Safe Routes to Hoover Middle School and Lou Henry Elementary
1.256	39	E 4th St Pedestrian Overpass or Underpass
1.250	44	Greenhill Rd Sidewalk
1.250	36	Evansdale Sidewalk Connection
1.244	41	E Ridgeway Ave Sidewalk
1.212	33	Riverfront Neighborhood Pedestrian Connectivity
1.209	43	S Hackett Rd Subdivision Connectivity
1.205	44	Five Corners Area Sidewalk and Crosswalk Infill
1.196	51	Viking Rd Sidewalk
1.189	53	Cedar Prairie Trail Connections
1.188	48	Cedar Heights Dr / Viking Rd Trail
1.176	34	Northeast Side Crosswalk Improvements and Vinton Ave Sidewalk
1.171	35	Independence Ave Sidewalk
1.167	42	Safe Routes to Lou Henry Elementary
1.163	43	Crossroads Shopping Area Pedestrian Accessibility (East)
1.156	45	Aesthetic improvements along US-63
1.136	44	W 4th St Sidewalk
1.135	37	La Porte Rd Sidewalk
1.122	49	Greenhill Rd Sidewalk
1.114	44	Kimball Ave Shopping Area Pedestrian Accessibility
1.103	39	Crossroads Shopping Area Pedestrian Accessibility (West)
1.098	41	Tree buffer in front of jail
1.087	46	Decorative lighting to Grout Museum
1.075	40	Progress Ave and Loma St Sidewalks
1.050	40	Easton Ave Safe Routes to West High and Kittrell Elementary
1.022	46	College Square Neighborhood Connectivity (North)
1.000	35	South Waterloo Neighborhood Pedestrian Connectivity
0.975	40	Open gates to Expo Plazas
0.955	44	Decorative lighting under P garage
0.925	40	Cedar Heights Dr Commercial Connections
0.923	39	Veralta Dr Sidewalk and Infill
0.865	37	Liberty Park Neighborhood Pedestrian Connectivity
0.822	45	Plant grass near Convention Center
0.805	41	Public space near 4th St Bridge
0.780	41	Hess Rd Trail and Dysart Rd Sidewalk
0.756	41	Public space on E 4th St/Lafayette St
0.750	40	Kingsley Neighborhood Pedestrian Connectivity
0.725	40	Narrow street near Lincoln Park

NATIONAL HOUSEHOLD TRAVEL SURVEY ADD-ON

Summary

The Black Hawk County MPO participated in the 2017 National Household Travel Survey (NHTS) Add-on. The NHTS is a periodic national survey used to assist transportation planners and policy makers who need comprehensive data on travel and transportation patterns in the United States. Data is collected on daily trips taken by households over a 24-hour period. States and MPOs can participate in the Add-on Program to obtain additional samples of the household travel survey within their respective geographic boundaries. Add-on participants are also provided the opportunity to add six questions unique to their needs. The survey produced responses from a total of 1,221 households consisting of 2,450 individuals specifically from the Black Hawk County MPO area.

The following open-ended questions were included in the survey:

- **If there's one road you could improve for walking, which would it be?**
- **If there's one road you could improve for bicycling, which would it be?**

By far, the response given most often to both questions was University Avenue with 91 responses to the walking question and 105 responses to the bicycling question. Cedar Falls and Waterloo have both completed their projects along University Avenue, and both projects include significant improvements for walking and bicycling. Because University Avenue was such an outlier, it is not included in the following figures.

Figure 4-33: Roads respondents would improve for bicycling and walking

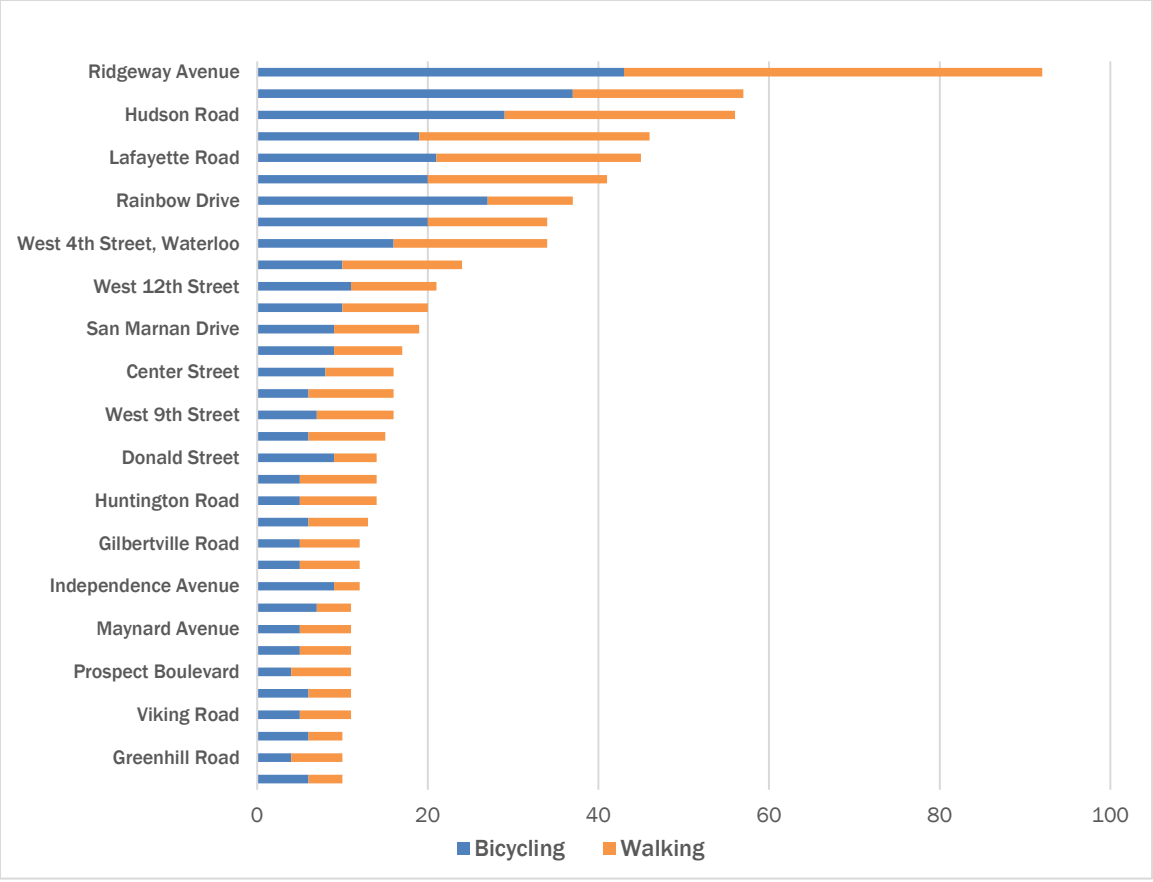


Figure 4-34: Roads respondents would improve for walking in Waterloo

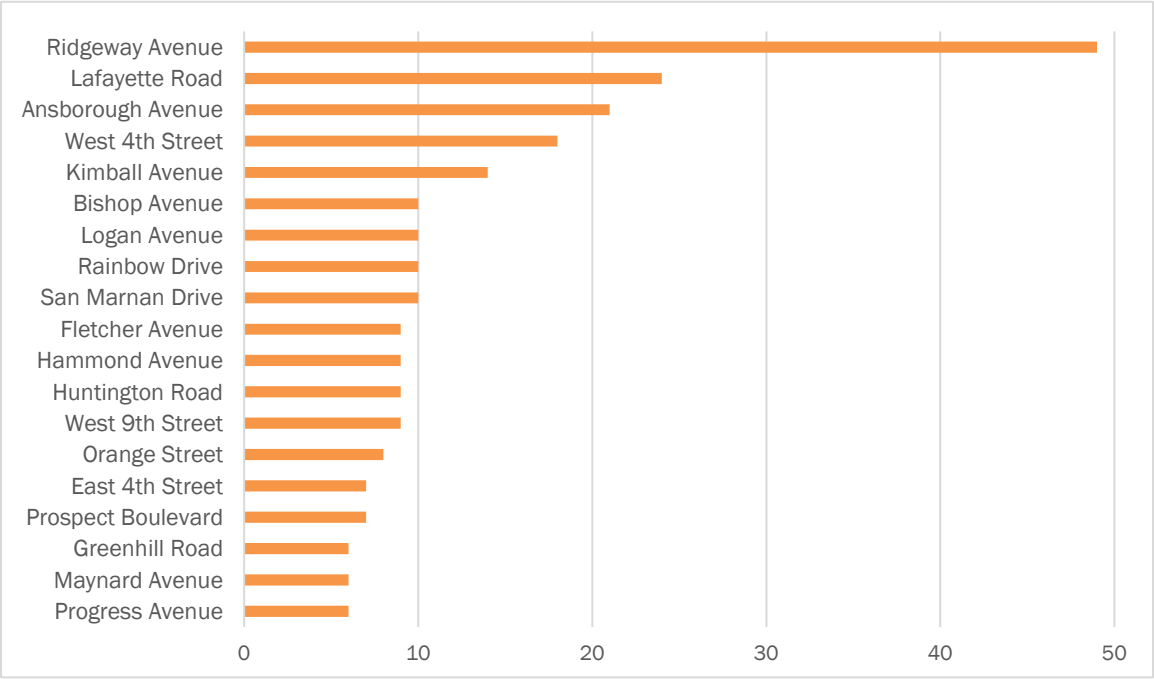


Figure 4-35: Roads respondents would improve for bicycling in Waterloo

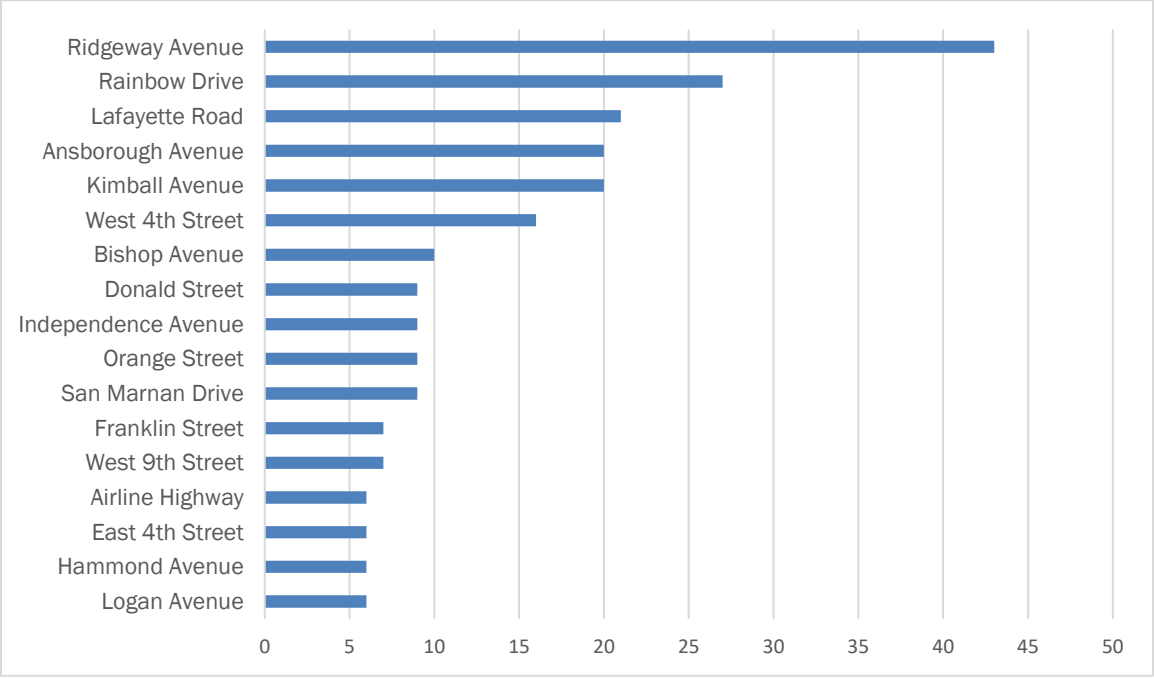


Figure 4-36: Roads respondents would improve for walking in Cedar Falls

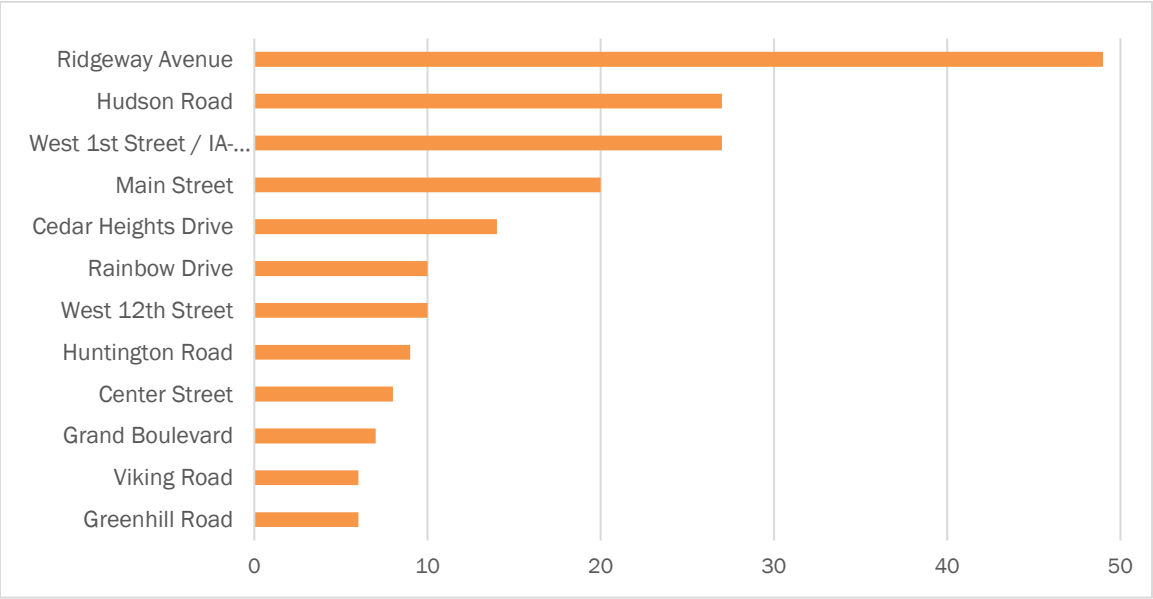


Figure 4-37: Roads respondents would improve for bicycling in Cedar Falls

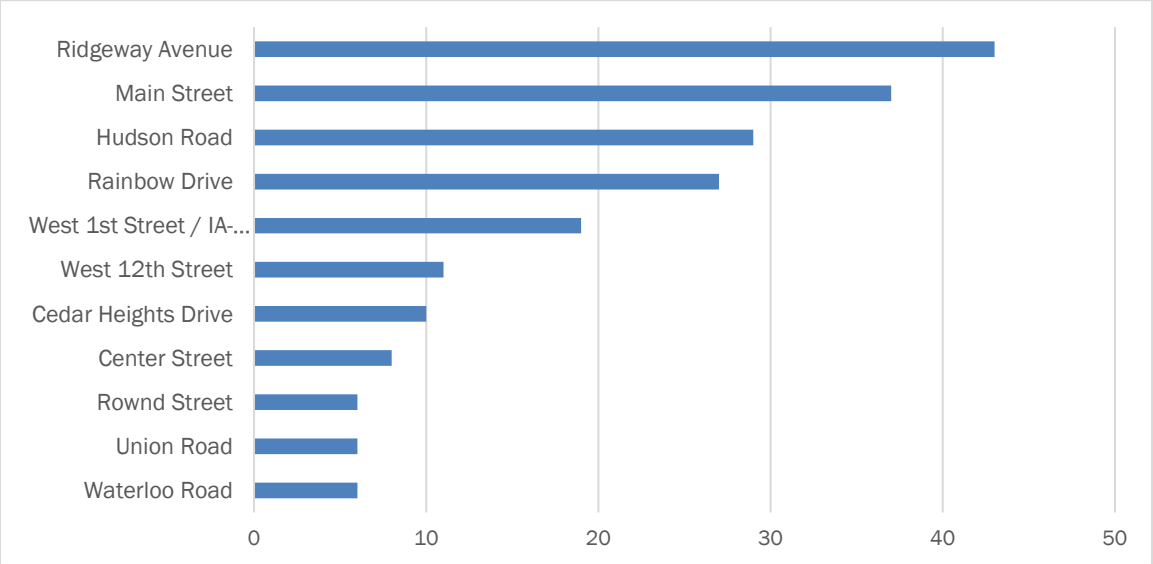
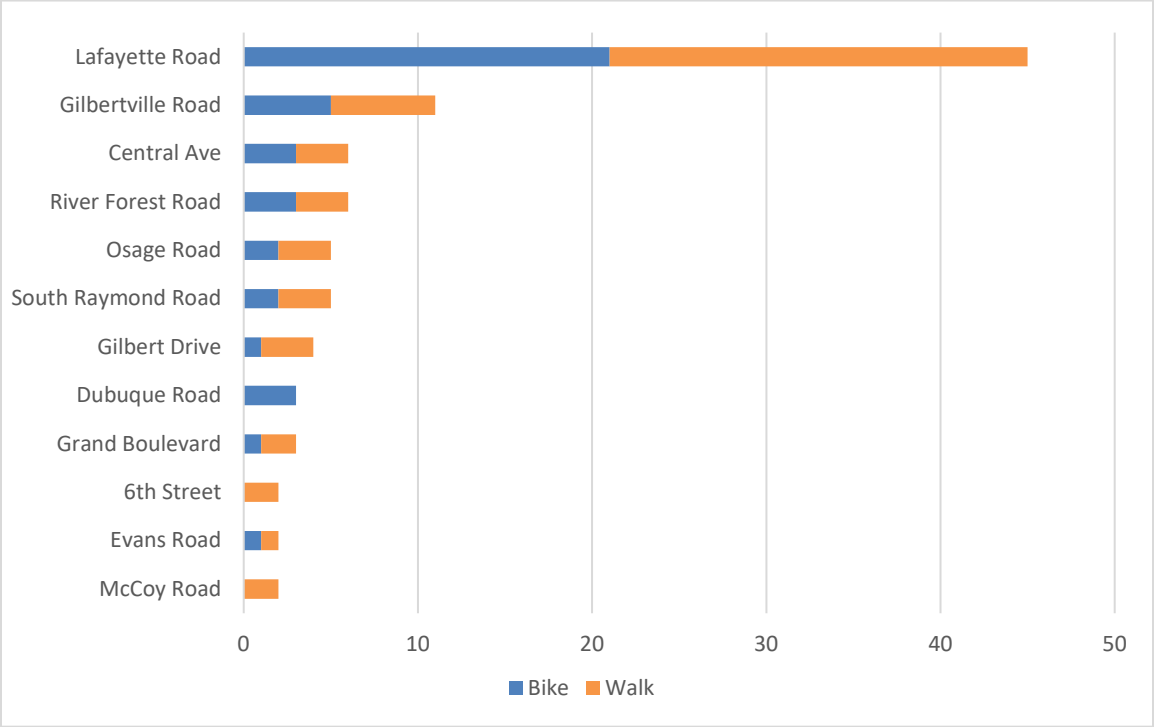
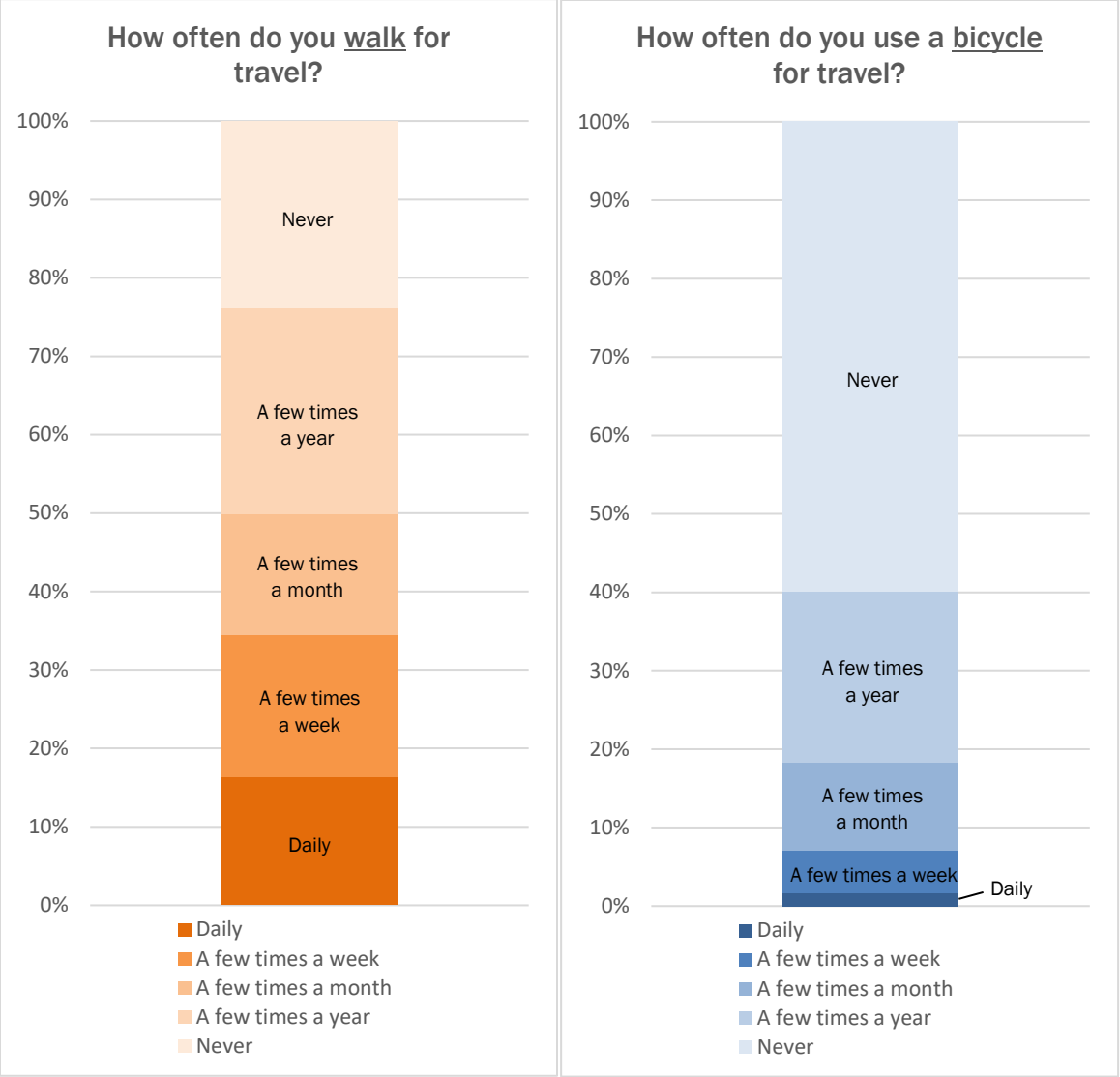


Figure 4-38: Roads respondents would improve for walking and bicycling in Evansdale, Elk Run Heights, Raymond, and the immediate surrounding area.



Trends

Survey respondents were also asked how often they walk and use a bicycle for travel. A total of 34.4 percent of respondents walk for travel at least a few times a week. Likewise, a total of 18.3 percent of respondents use a bicycle for travel at least a few times a month.



Despite this, around half of respondents rarely or never walk for travel, and nearly 60 percent of respondents never use a bicycle for travel. Infrastructure improvements and land uses that support walking and bicycling have been shown to increase the use of these modes of transportation. Increased walking and bicycling improve public health outcomes overall by increasing physical activity and reducing health risks associated with a sedentary lifestyle.

This data is unweighted and should not be considered completely representative of the overall population. Nonetheless, the NHTS Add-on survey results should be regarded as the most accurate and comprehensive travel data available for Black Hawk County.

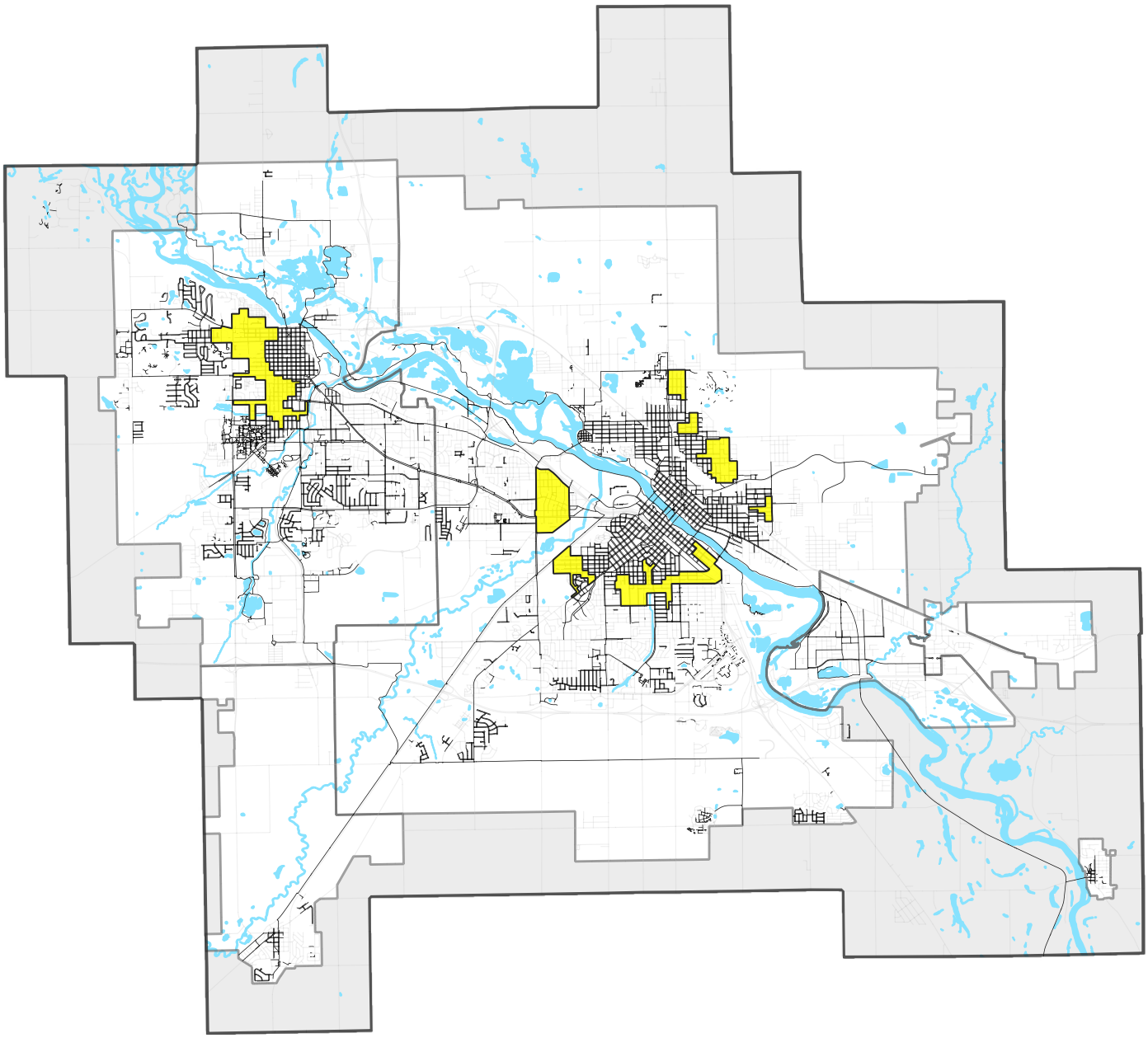
Section 5: Recommendations

The Pedestrian Master Plan serves as a guide for the ongoing development of pedestrian related investments in the Black Hawk County MPO. The recommendations outlined in this section are intended to make walking a viable, safe, convenient, and healthy mode of transportation for people of all abilities and ages and all trip purposes. This section lays out the strategy for implementing the Pedestrian Master Plan divided into **Priority Sidewalk Infill Areas** and **Policy Recommendations**. Sidewalk infill areas were identified by staff as areas of greatest need. These areas generally have a sidewalk network in place but have gaps on one or both sides of the street. The policies describe priorities to improve conditions for residents and visitors who walk in the metropolitan area. Existing federal, state, and local best practices were considered when developing the recommended policies.

PRIORITY SIDEWALK INFILL AREAS

This section identifies recommended priority sidewalk infill areas to improve pedestrian connections to neighborhoods destinations, transit, and recreational opportunities. These priority infill areas are a starting point designed to focus improvements where people are most likely to walk or areas with greater safety issues where improvements should be prioritized (high impact areas). The sidewalk network should provide high quality pedestrian connections to residential areas, transit, recreation, and retail. Communities should consider prioritizing implementation of pedestrian improvements within these corridors.

The intent of identifying priority sidewalk infill areas is to focus on projects that bring a strong return on investment of time and public dollars dedicated to these efforts. Priority areas included in this Plan serve as a guideline and starting point for community improvements. Priority areas and individual community needs may alter over time because of changing walking patterns, land use patterns, implementation constraints and opportunities, and the development of other transportation improvements.



Priority Infill Areas in Waterloo and Cedar Falls

Priority Area

Sidewalk or Trail

Hidden

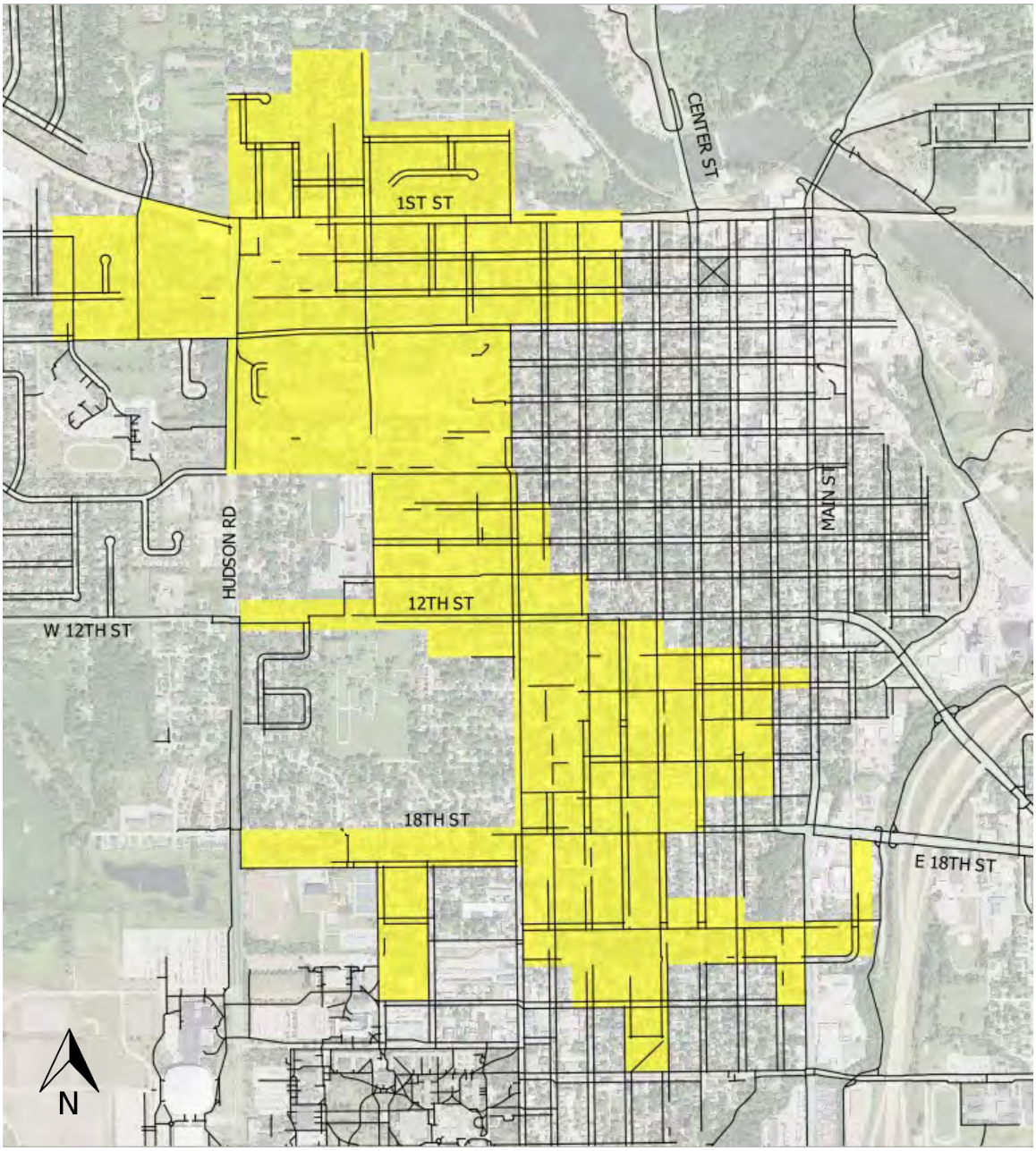
Planned

N

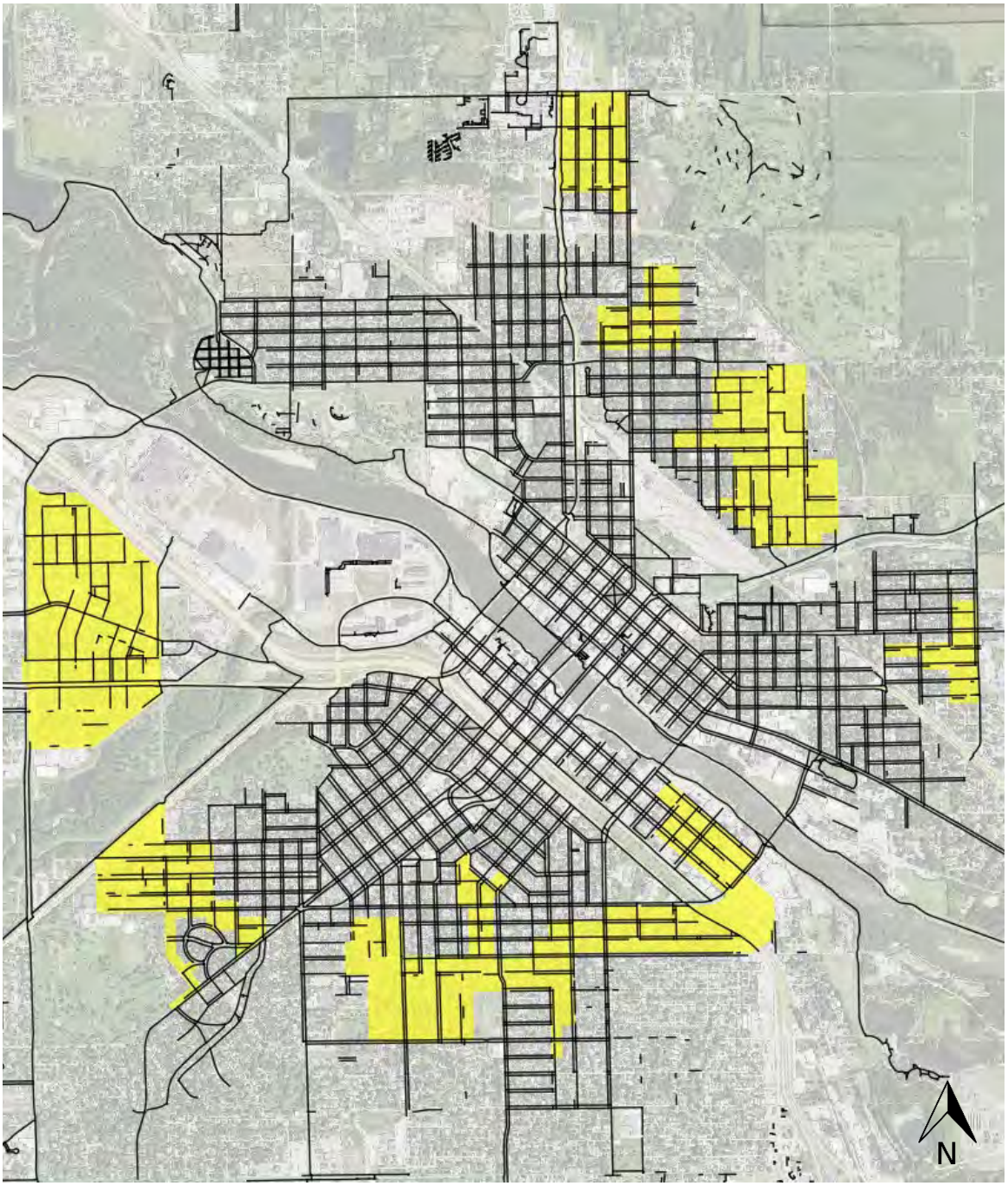
0 0.5 1 2 3 4 Miles

INRCOG
Iowa Northland Regional Council of Governments

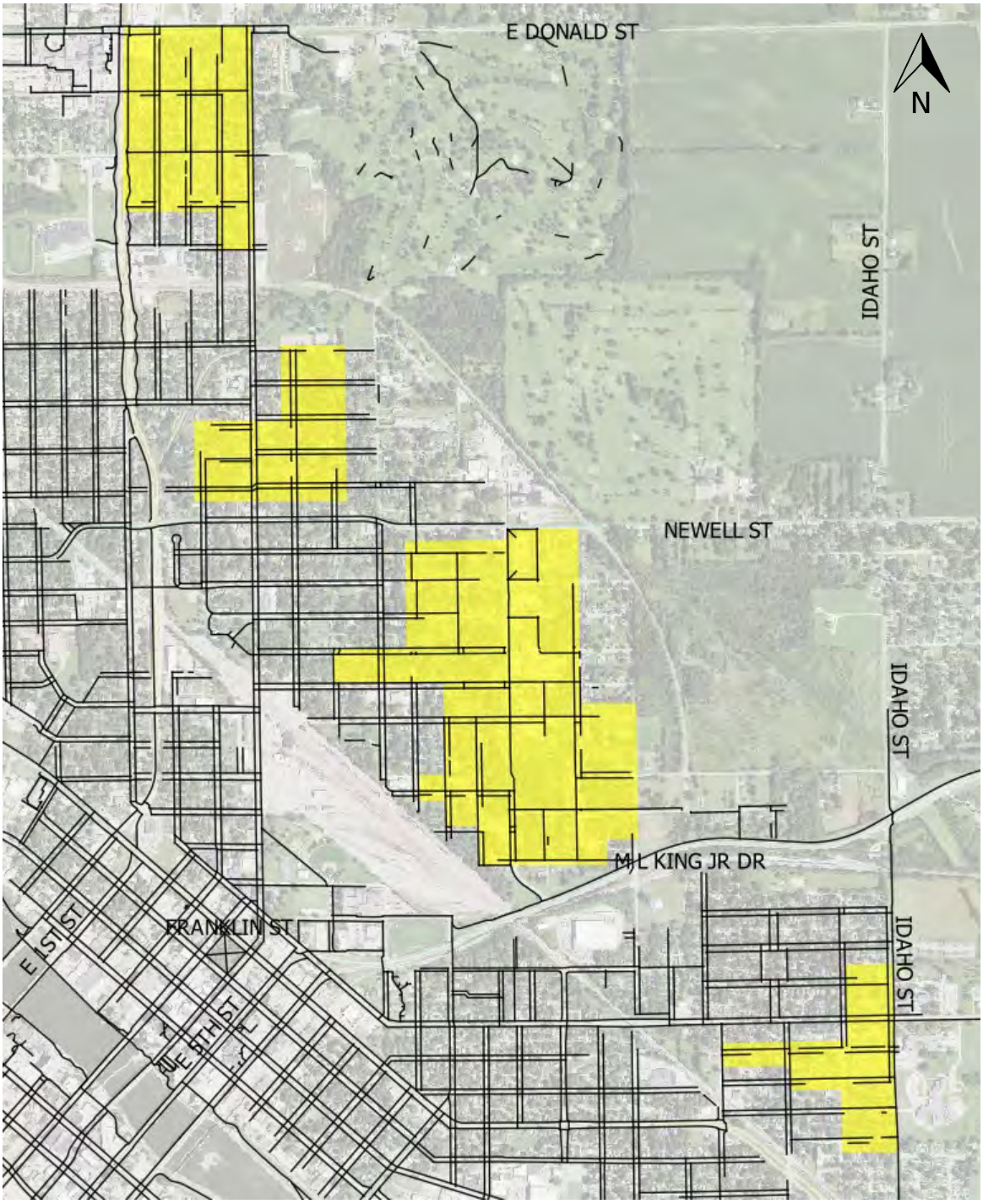
PRIORITY INFILL AREAS – CEDAR FALLS



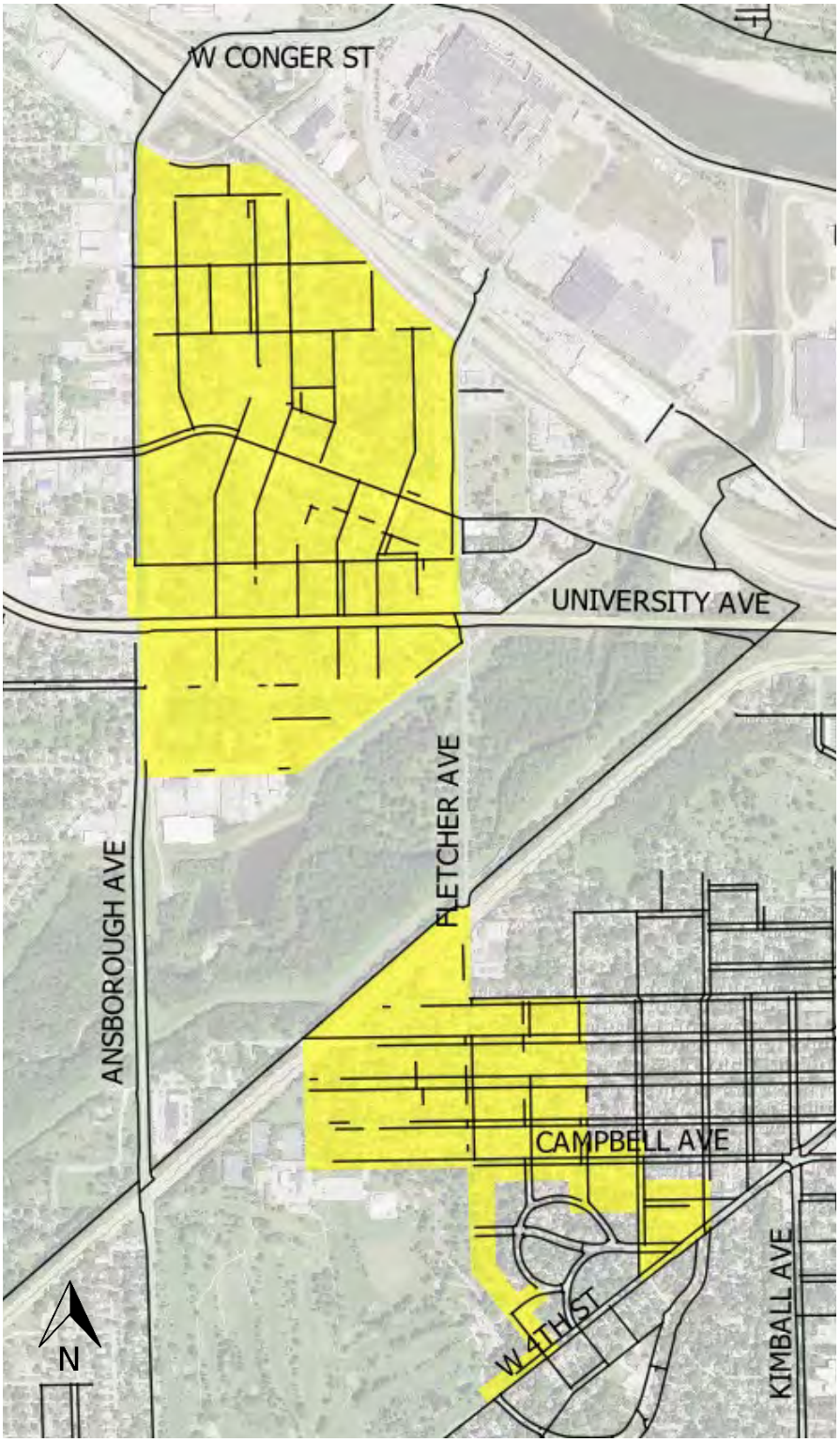
PRIORITY INFILL AREAS – WATERLOO



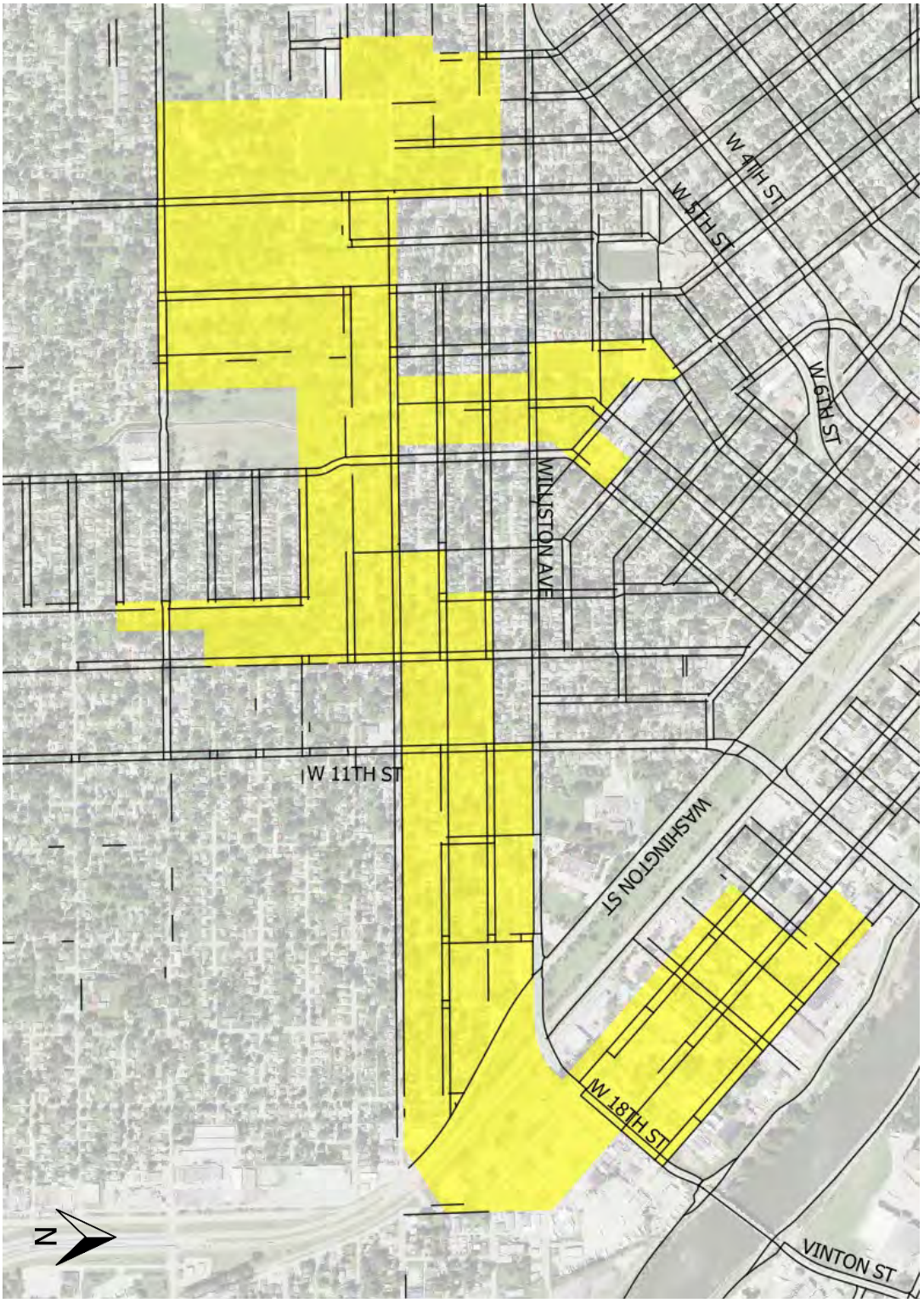
PRIORITY INFILL AREAS – WATERLOO



PRIORITY INFILL AREAS – WATERLOO



PRIORITY INFILL AREAS – WATERLOO



POLICY RECOMMENDATIONS

General Recommendations

1. Prioritize sidewalk construction and infill needs identified in Section 5

Sidewalk infill areas were identified by staff as areas of greatest need. These areas generally have a sidewalk network in place but have gaps on one or both sides of the street. The intent of identifying priority sidewalk infill areas is to focus on projects that bring a strong return on investment of time and public dollars dedicated to these efforts. Priority areas included in this Plan serve as a guideline and starting point for community improvements.

Applicable jurisdictions:
Waterloo and Cedar Falls

Responsible parties:
City finance departments, City engineering departments, City planning departments, City councils

2. Establish an annual funding source for new sidewalk construction

Sidewalks provide immense value to communities by making walking safer and easier. While streets constructed today are typically required to include sidewalks, many of the existing streets throughout the metropolitan area were built without sidewalks. In built-up neighborhoods that need sidewalks, the most common method of financing is by special assessment. This can come as an unexpected expense to property owners. As a result, property owners without sidewalks may oppose or protest new sidewalk construction to avoid these potentially large one-time costs.

Creating a dedicated funding source for new sidewalk construction would help spread these costs out over time. Such a funding source could be implemented different ways:

- A tax or fee paid by all property taxpayers in the city
- A special communitywide assessment
- Bond-generated funds
- Red light camera revenues

Applicable jurisdictions:
All

Responsible parties:
City finance departments, City engineering departments, City councils

3. Establish an annual funding source for sidewalk maintenance

Sidewalks are integral to successful economic districts, residential housing, and transit. They are low cost, low maintenance, and provide numerous benefits to individuals and their community. However, sidewalks often face challenges, particularly related to maintenance. The maintenance of sidewalks can be a complicated picture that, in the worst case, leads to disrepair of facilities.

Cities have different procedures for replacing damaged sidewalk panels. In Waterloo for example, the city is divided into 10 sections and each section is inspected for sidewalk repairs once every 10 years. The adjacent landowner must then pay the full cost of the repair. This can come as an unexpected expense to property owners. As a result, property owners without sidewalks may oppose or protest new sidewalk construction to avoid these potentially large one-time costs. Creating a dedicated funding source for sidewalk maintenance would help spread these costs out over time. Such a funding source could be implemented different ways:

- A tax or fee paid by all property taxpayers in the city
- A special overlay district covering select areas with existing sidewalks
- A set fee on individual property owners based on the length of sidewalk adjacent to their property
- Red light camera revenues

The first method would be the most ambitious politically, but it would be the most effective at encouraging rather than discouraging new sidewalk construction. The last example would discourage new sidewalk construction most, though it may be the easiest to implement.

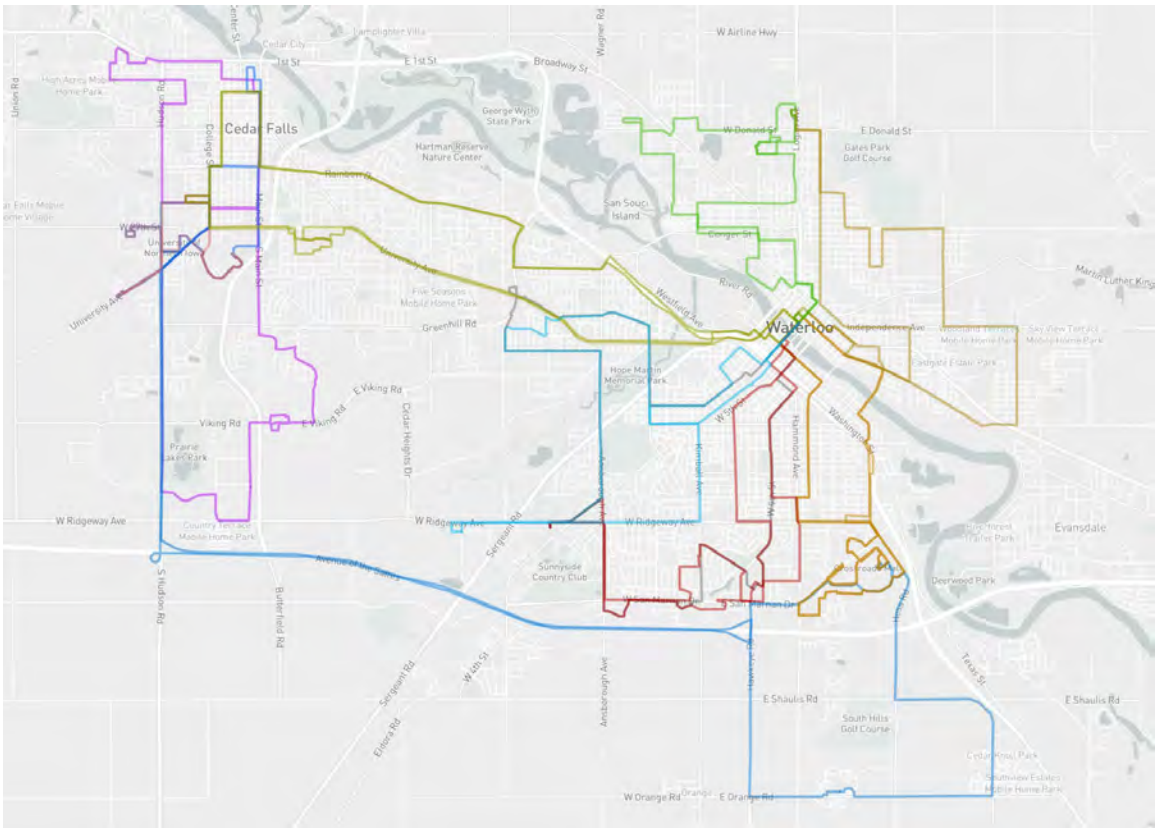
Applicable jurisdictions:
All

Responsible parties:
City finance departments, City engineering departments, City councils

4. Restructure and expand MET Transit Service

Transit systems give pedestrians the ability to travel long distances in less time than walking. To be effective, bus service needs to be reliable, frequent, and direct. MET Transit's current routes, as of summer 2021, all travel on a one-hour schedule. Travel times can be long for many passengers, in part because most bust routes only travel in one direction. This means passengers may need to ride the entire route when making a round trip. For example, a passenger might travel 20 minutes from their home to their destination and then travel 40 minutes on the return trip home. For passengers who require a transfer, travel times can be even longer.

Many routes involve numerous turning movements that can be confusing for new passengers. These routes can be optimized to cover a similar area in less time or a larger area in the same amount of time. Redesigning the routes to be more direct will make it easier for new passengers to navigate the transit system, increase the average travel speed of the bus, and provide a more comfortable ride for passengers.



MET Transit has been working toward updating the fixed bus route network since 2017. The agency recognizes the importance of reliable, frequent, and direct bus routes. The changes proposed will provide a greater number of two-directional routes which are expected to reduce travel times. These changes are also expected to result in more areas being covered by multiple bus routes which will make more places accessible to passengers in those areas. In all, the changes proposed will transition the fixed-route bus network from a coverage-based system to a more ridership-based system by placing more emphasis on the user experience and less emphasis on covering many different streets.

In addition to restructuring the fixed bus route network, expansion of service has long been identified as a community need. While MET Transit would like to provide service later in the evenings and to areas not currently served, it is difficult to expand service when current funding sources are being exhausted. If additional funds become available, MET Transit has identified several priorities for expanding service:

- Changing the hours of operation to start at 5:15 a.m. instead of 5:45 a.m.
- Add commuter service to the Airline Highway Industrial Area in Waterloo
- Add service to underserved areas including North Cedar and Cedar Terrace
- Expand operating hours further into the evenings
- Increase frequency along high-demand routes
- Add service on Sundays

Applicable jurisdictions:
Waterloo and Cedar Falls

Responsible parties:
MET Transit, City councils

5. Revise snow removal policies and enforcement practices

Snow removal policies vary from city to city. In Waterloo, the city gives property owners 48 hours after the snow stops to clear the sidewalk and another 24 hours after a notice has been posted on the property.

Cedar Falls' snow removal policy is less stringent. Property owners are responsible for clearing the "natural accumulation" of ice and snow from abutting sidewalks in "a reasonable amount of time." After plows clear snow off the streets, property owners are not liable to clear the snow deposited on the sidewalk or curb ramps because it is not "natural accumulation." This often results in snowbanks that cover curb ramps and block sidewalks for long periods of time. This poses safety hazards to pedestrians who either walk in the street or attempt to climb the snowbanks, and it functionally restricts people in wheelchairs from using the sidewalks entirely.

All jurisdictions are encouraged to review their snow removal policies and amend them to prioritize pedestrian safety and access.

Applicable jurisdictions:
All

Responsible parties:
City public works departments, City attorneys, City councils

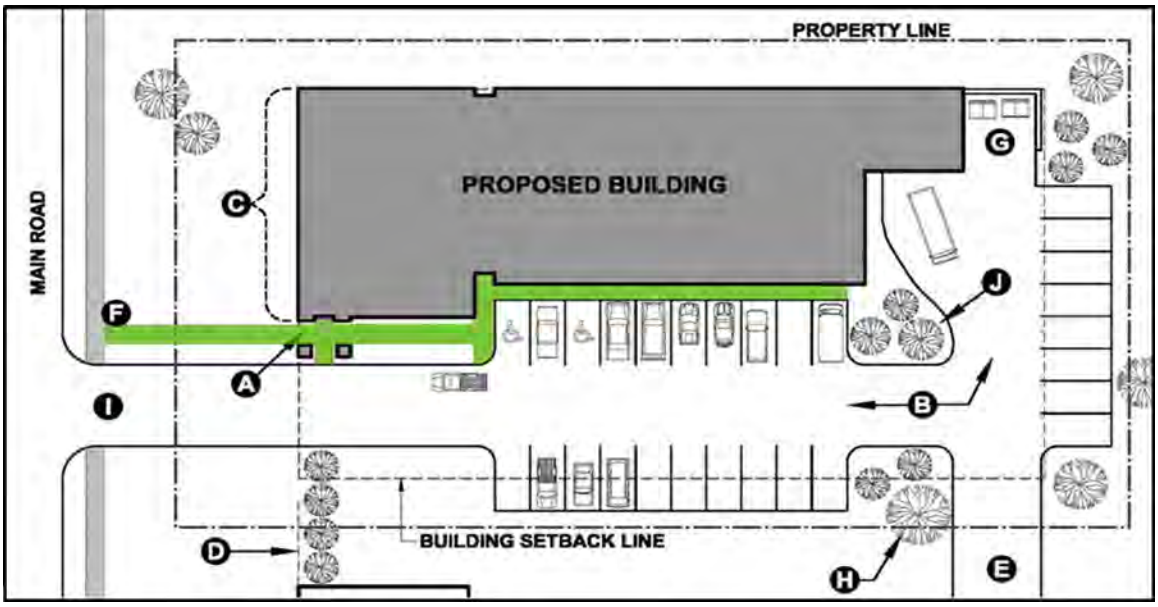
Planning and Zoning Recommendations

1. Encourage sidewalk connections in site planning for new development

Public sidewalks are critical for making connections between destinations. However, those connections are not complete if the destinations themselves do not support walking. Cities can incentivize developers to provide private sidewalks that connect to existing public sidewalk networks. One approach the city can take is reducing the parking requirement for a development if the developer provides a sidewalk connection to the primary use entrance i.e., front door, as well as connections to adjacent public sidewalks, the on-site parking area, and adjacent developments where appropriate. Figure 5-1 shows an example of such a sidewalk connection, highlighted in green.

In walkable urban environments, buildings are placed right at the edges of streets and public spaces rather than being set back behind parking lots. These built edges provide a sense of definition to streets and other spaces which helps create a sense of place. Where buildings are set back behind parking lots, pedestrians are isolated from uses and activities, exposed to traffic, and forced to walk greater distances. Even if a walking path or sidewalk is provided, pedestrians and transit users receive the message that they are of secondary importance. Cities can incentivize developers to construct parking lots on the side or rear of the building.

Figure 5-1: Example of sidewalk connection to existing public sidewalk in site planning



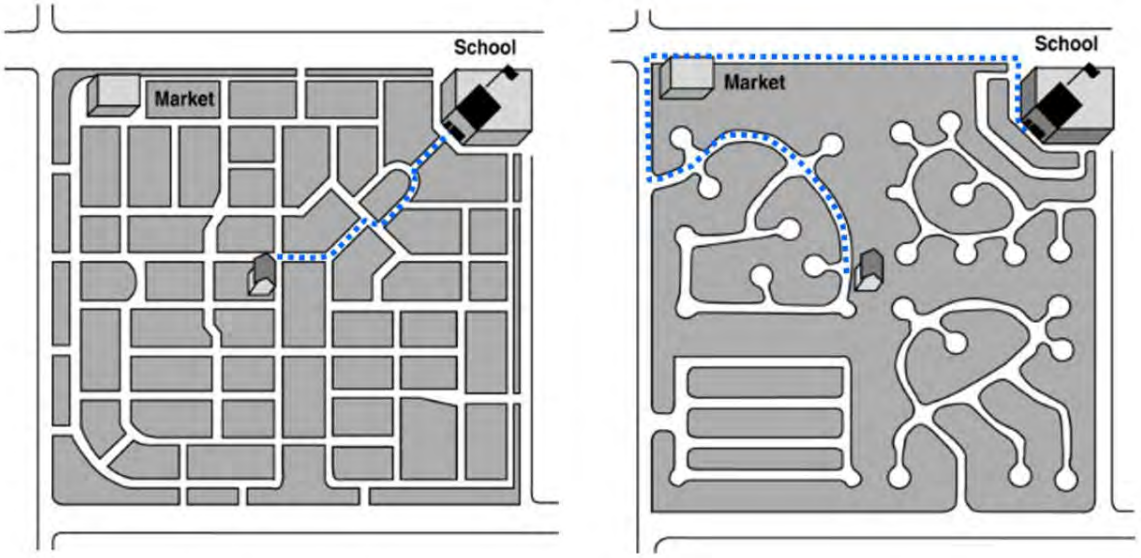
Original image: Ecode360.com, Chelmsford, MA

Applicable jurisdictions:
All

Responsible parties:
Planning departments, zoning administrators, planning and zoning commissions, engineering departments, city councils

2. Update zoning and subdivision ordinances to prioritize street connectivity

Figure 5-2: Example of walking distances to school in two different subdivisions



Original image: Kentucky Transportation Cabinet

A critical element in pedestrian planning is amending the city code to support pedestrian-friendly developments. This includes amending the zoning and subdivision ordinances. Examples of elements to includes in such amendments include the following.

- Drive construction requirements
- Require sidewalks on undeveloped lots
- Consider form-based codes
- Regular zoning updates and reviews
- Reduce minimum lot sizes
- Implement maximum block lengths
- Prohibit permanent dead-end streets
- Review existing model ordinances

Applicable jurisdictions:
All

Responsible parties:
City planning departments, City planning and zoning commissions, City councils

3. Encourage transit-oriented development

Transit-oriented developments (TOD) refer to medium to high density developments intentionally situated within walking distance of a transit stop. Often this development is mixed-use. Downtown Waterloo could be considered the area's first TOD. However, transit service has changed significantly since the late 1800s when downtown was first built.

While TODs are often discussed in the context of large metropolitan areas, the concepts can also be applied to smaller cities as well. Transit-oriented development in its simplest form is the opposite of urban sprawl, as it involves building up instead of building out. This type of development maximizes existing infrastructure (e.g., roads, sewers, utilities) and services (e.g., police, fire, snow removal), whereas urban sprawl development requires additional infrastructure and an expansion of public services. For these reasons, TODs can ultimately save city governments money in the long run. Residents of TODs can also save money by avoiding the expense of automobile ownership.

Step One: Successful TODs are only possible where transit service is fast, frequent, and reliable. Currently, fixed routes provided by MET Transit are designed to maximize coverage at the expense of speed and frequency. Most buses travel along large one-directional loops with headways of one hour. For TODs to be successful, MET Transit's fixed routes should be redesigned to reduce travel times and provide service in both directions. The resulting system would consist of several nodes where multiple routes intersect. These nodes are then optimal locations for transit-oriented apartments and mixed-use buildings.

Step Two: City planning officials can incentivize TODs by designating specific TOD districts around these nodes and reducing parking requirements for new development or redevelopment that meets certain criteria. For example, new residential buildings in Chicago within a certain distance from a Metra or "L" stop are only required to provide a 1:2 ratio of parking spaces to residential units, whereas residences are normally required to have a ratio of 1:1.

Consider the example on the following page. Two new bus routes meet at an intersection, or node. Buses on each route travel in both directions providing direct access to multiple destinations in a reasonable amount of time. Each destination also serves as a transfer stop to access additional bus routes. Residents, commuters, and businesses all stand to benefit from these centralized locations along the bus network.

Figure 5-3: Example of transit travel times from a transit-oriented development

Applicable jurisdictions:
Waterloo, Cedar Falls, Evansdale

Responsible parties:
City planning departments, City planning and zoning commissions, City councils, private developers, MET Transit, INRCOG

4. Reduce minimum parking requirements

Some of the highest valued land in the metropolitan area is in districts that cannot be built with today's minimum parking requirements.

For example, the City of Waterloo requires two parking spaces for each dwelling unit. A 50-unit residence would require 100 new parking spaces. Cities have made exceptions to this requirement on a case-by-case basis in the past.

Example of the amount of land needed to fulfill today's minimum parking requirements

Applicable jurisdictions:
All

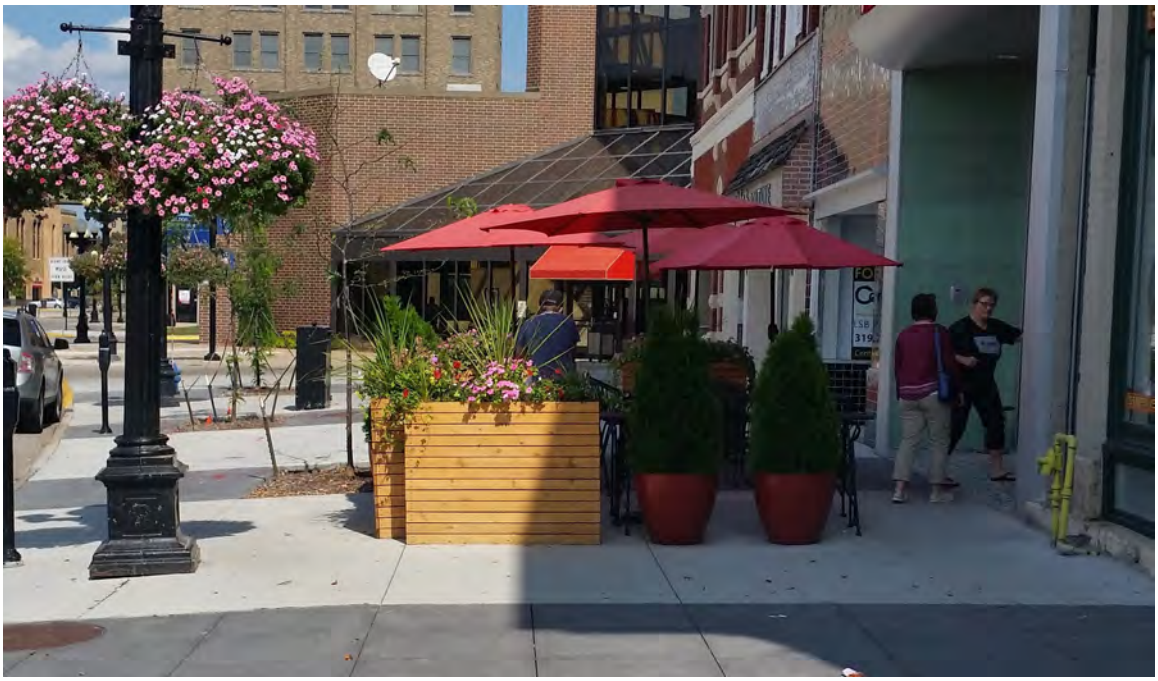
Responsible parties:
City planning departments, City planning and zoning commissions, City councils

5. Adopt pedestrian "through zones" on sidewalks in business districts

Regulating sidewalk space in business districts can create uniformity, improve access for people with mobility devices, and establish where different activities should take place. A clear walking path, or "pedestrian through zone", provides a clear and defined space for pedestrians walking along a sidewalk. Outdoor seating, landscaping, and utility poles do not encroach into the pedestrian through zone.

In the summertime, restaurants often install outdoor seating areas on the public sidewalk. While outdoor seating is desirable, cities should consider managing these spaces, so their presence does not hinder pedestrians, particularly people in wheelchairs. A pedestrian through zone at least five feet wide allows pedestrians to pass each other and reduces the need for pedestrians to make awkward movements to walk through the space. The zone should also continue straight along the entire length of a city block and not meander side to side.

Pedestrian through zone, NACTO



No pedestrian through zone

To provide more outdoor seating and space while maintaining pedestrian through zones, cities and businesses may consider creating parklets. Parklets are public seating platforms or spaces that convert curbside parking spaces into vibrant community spaces. Also known as street seats or curbside seating, parklets are the product of a partnership between the city and local businesses, residents, or neighborhood associations. Most parklets have a distinctive design that incorporates seating, greenery, and/or bike racks and accommodate unmet demand for public space while maintaining pedestrian through zones.

Example parklet, NACTO

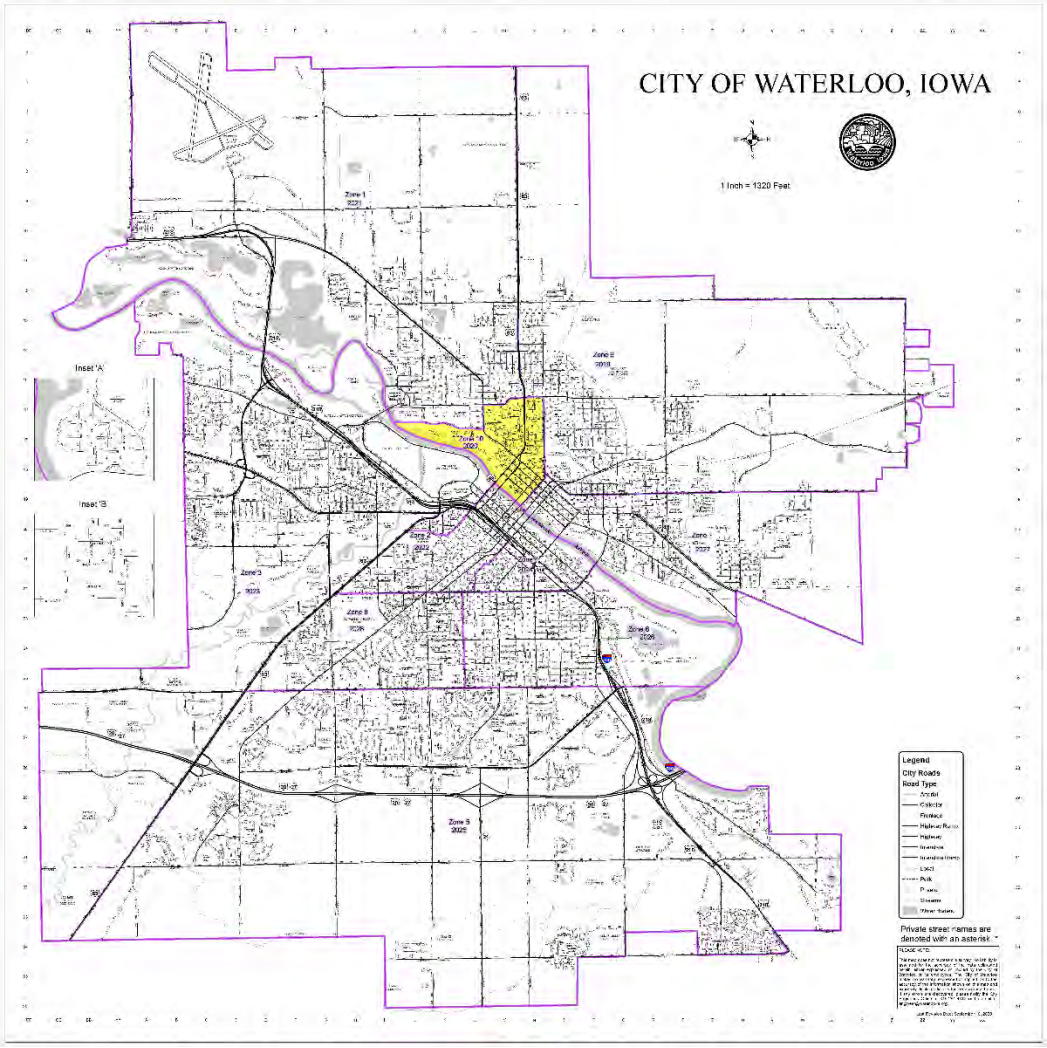
Applicable jurisdictions:
All

Responsible parties:
City planning departments, City planning and zoning commissions, City councils, private businesses

Engineering Recommendations

1. Include routine inspection program

Change from complaint-based to inspection-based or schedule-based system for lighting and sidewalk maintenance. In the long run, it is less expensive to inspect and replace broken lights and non-compliant sidewalk panels in a schedule-based system because fewer individual trips are required. Waterloo and Cedar Falls review and inspect public sidewalks on a ten-year cycle, and the cities are each divided into ten zones.



Applicable jurisdictions:
All

Responsible parties:
City engineering departments, utility companies

2. Adopt street design standards to improve safety for all users

Design standards help eliminate the guesswork in identifying improvements that make walking, bicycling, and other modes of transportation safer. Adopting pedestrian-friendly standards ensures the street design for new road reconstruction projects will support walking. This can help make new and reconstructed roads pedestrian-friendly by default.

Model street design guidance exists today and can help cities develop their own standards.

NACTO Urban Street Design Guide and Los Angeles County Model Design Manual for Living Streets

Applicable jurisdictions:
All

Responsible parties:
City traffic departments, city engineering departments, city councils

3. Reduce design speeds along arterial and collector roads

Lowering injuries and fatalities remains a crucial goal for all cities. Speed plays a critical role in the cause and severity of crashes. There is a direct correlation between higher speeds, crash risk, and the severity of injuries.

SPEED (MPH)	STOPPING DISTANCE (FT)*	CRASH RISK (%)†	FATALITY RISK (%)†
10–15	25	5	2
20–25	40	15	5
30–35	75	55	45
40+	118	90	85

* Stopping Distance includes perception, reaction, and braking times.

† Source: Traditional Neighborhood Development: Street Design Guidelines (1999), ITE Transportation Planning Council Committee 5P-8.

Higher design speeds often mandate larger curb radii, wider travel lane widths, on-street parking restrictions, guardrails, and clear zones. Additionally, as a driver's speed increased, their peripheral vision narrows severely. Lower design speeds reduce observed speeding behavior, providing a safer place for people to walk, park, and drive.

Cities can bring the design speed in line with the target speed by implementing measures to reduce and stabilize operating speeds as appropriate. Narrower lane widths, roadside landscaping, speed humps, and curb extensions reduce traffic speeds and improve the walking and bicycling environment. On roads with above

Applicable jurisdictions:
All

Responsible parties:
City traffic departments, City engineering departments, City councils

4. Install curb extensions along arterial and collector roads

Installing curb extensions should be considered on any street where on-street parking is allowed. Curb extensions, also known as “bulb outs”, reduce the distance a pedestrian needs to walk to cross the street. They also calm traffic by making the street feel narrower. Pedestrian safety is improved when pedestrians spend less time crossing travel lanes and when vehicles travel slower.

Cities can adopt local street design standards to establish the size and curb radii of new curb extensions and the conditions that warrant their installation. Prior to street reconstruction, cities can also conduct demonstration projects with pavement markings and delineators to test the traffic impacts of installing new curb extensions before committing to installing them.

Example painted curb extension, streetsblog.org

Applicable jurisdictions:
All

Responsible parties:
City traffic departments, City engineering departments, City councils

5. Support infrastructure for buses and bicycles

Infrastructure treatments for buses and bicyclists often have overlapping benefits for pedestrians. These benefits can include calming traffic and reducing conflict points. Additional street design considerations, such as 10 to 11-foot driving land widths, can benefit bicyclists and pedestrians by discouraging speeding.

Transit and bicycle infrastructure, nacto.org

Applicable jurisdictions:
All

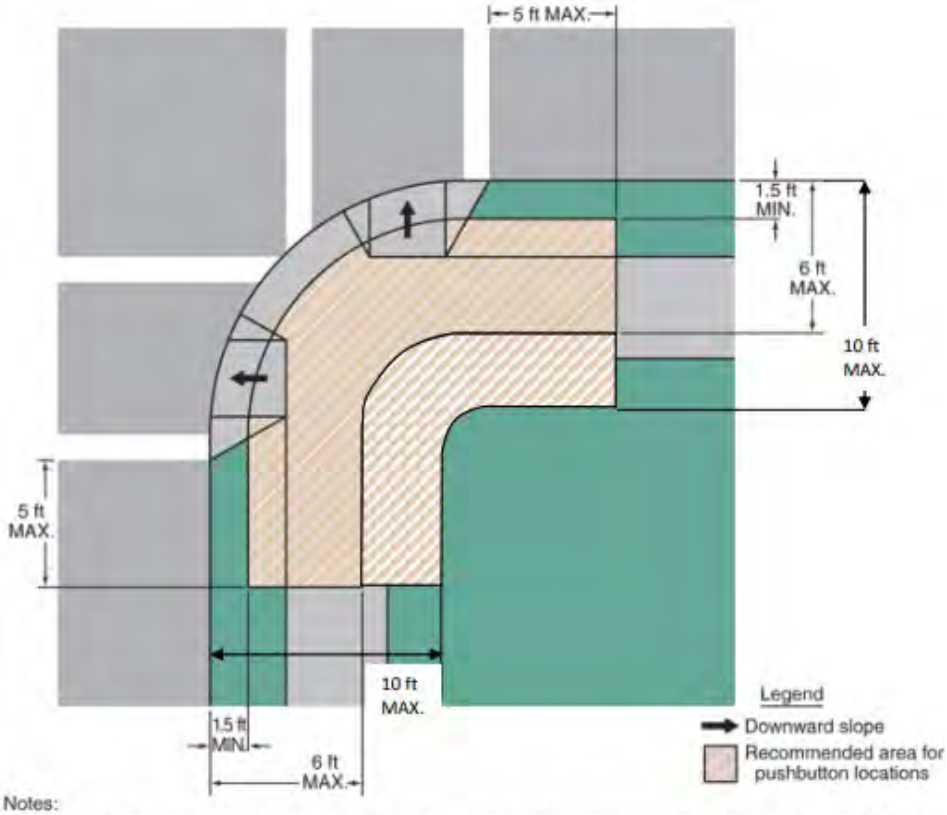
Responsible parties:
City traffic departments, City engineering departments, City councils, MET Transit, Iowa DOT, INRCOG

6. Improve the design of pedestrian crossings

Safe and frequent pedestrian crossings support a walkable environment. Pedestrians are especially sensitive to minor shifts in grade and geometry, detours, and the quality of materials and lighting. Pedestrian crossing design has the potential to shape pedestrian behavior while guiding people toward the safest possible route.

Crosswalks should be designed to offer as much comfort and protection to pedestrians as possible. Historically, many crosswalks were designed using inadequate, narrow striping, setbacks, deviations from the pedestrian walkway, and considerable crossing distances. Intersection crossings should be kept as compact as possible, facilitating eye contact by moving pedestrians directly into the driver's field of vision.

Pedestrian actuated signal buttons, also known as push buttons, are detectors intended to provide pedestrians with the ability to activate a pedestrian signal and reassure pedestrians that they will receive a crossing indication. Push buttons should be designed and installed to maximize convenience, conspicuity, and communication for pedestrians. Pedestrian push buttons should be located within easy reach of pedestrians intending to cross, generally no more than 6 feet from the edge of the roadway. Section 4E.08 of the Manual on Uniform Traffic Control Devices (MUTCD) provides specific guidance on the location of push buttons at traffic signals.



Notes:

1. Where there are constraints that make it impractical to place the pedestrian pushbutton between 1.5 feet and 6 feet from the edge of the curb, shoulder, or pavement, it should not be further than 10 feet from the edge of curb, shoulder, or pavement.
2. Two pedestrian pushbuttons on a corner should be separated by 10 feet.
3. This figure is not drawn to scale.
4. Figure 4E-4 shows typical pushbutton locations.

Push button location area, MUTCD

The presence of a crosswalk does not in and of itself render a street safe or walkable. Based on their surrounding context, speed, and overall roadway width, crosswalks often require additional design and safety measures. FHWA has published a *Crosswalk Visibility Enhancements Countermeasure Tech Sheet* which identifies six crosswalk visibility enhancements:

- High-visibility crosswalk marking. Preferred over parallel line crosswalks and should be provided at all established midblock pedestrian crossings. They should also be considered at uncontrolled intersections.
- Parking restriction on the crosswalk approach. Can include the removal of parking space markings, installation of new "parking prohibition" pavement markings or curb paint, and signs. The minimum setback is 20 feet in advance of the crosswalk where speeds are 25 mph or less, and 30 feet where speeds are between 26 and 35 mph.
- Advance YIELD or STOP markings and signs. The stop bar or "shark teeth" yield markings are placed 20 to 50 feet in advance of a marked crosswalk to indicate where vehicles are required to stop or yield in compliance with the accompanying "STOP Here for Pedestrians" or "YIELD Here to Pedestrians" sign.
- Curb extension. This treatment, also referred to as bulb-outs, extends the sidewalk or curb line out into the parking lane, which reduces the effective street width. Curb extensions must not extend into travel lanes and should not extend across bicycle lanes.
- Improved nighttime lighting. Consideration should be given to placing lights in advance of midblock and intersection crosswalks on both approaches to illuminate the front of the pedestrian and avoid creating a silhouette.

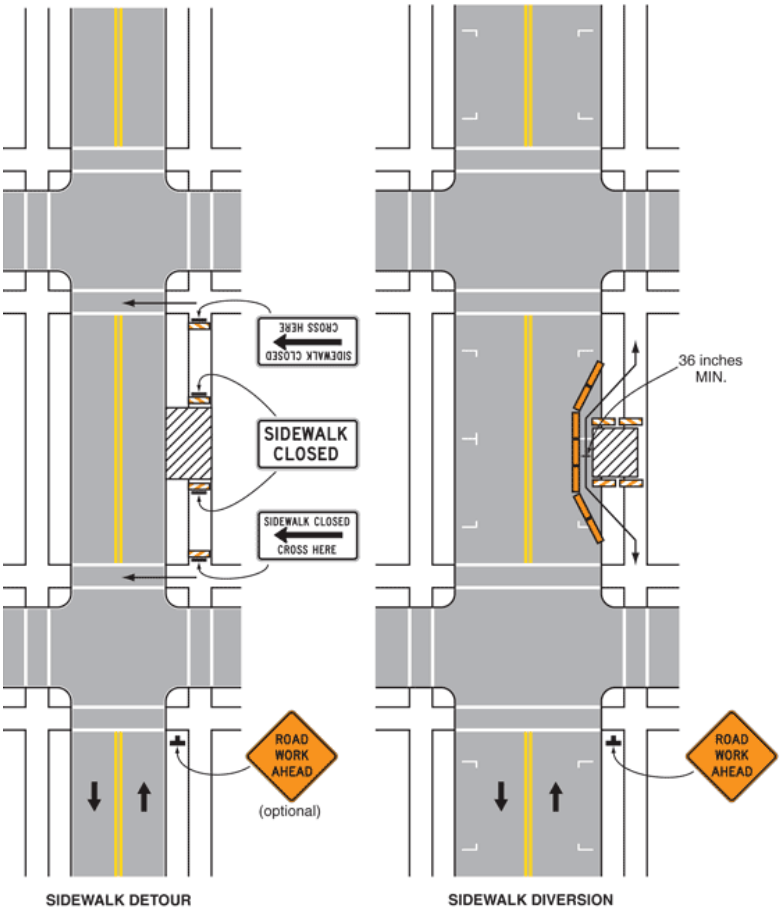
FHWA, Crosswalk Visibility Enhancements Countermeasure Tech Sheet

Applicable jurisdictions:
All

Responsible parties:
City traffic departments, City engineering departments, Iowa DOT

7. Provide adequate pedestrian accommodations during construction

The MUTCD requires all road users to be controlled throughout work zones, including pedestrians and bicyclists. When streets are being improved, needs of pedestrians and bicyclists should receive as much attention as the needs of motorists. The Americans with Disabilities Act of 1990 requires suitable access for persons with disabilities, even in work areas. Temporary traffic control for pedestrians should consider the special needs of disabled pedestrians, including those with visual disabilities. Cities are encouraged to consider additional pedestrian crossings during street reconstruction projects. MUTCD Sections 6D.01 and 6D.02 provide guidance for planning temporary traffic control for pedestrians, including the figure to the right.



Applicable jurisdictions:
All

Responsible parties:
City traffic departments, City engineering departments, Iowa DOT

Traffic Control Recommendations

1. Adopt street design standards to improve safety for all users

Design standards help eliminate the guesswork in identifying improvements that make walking, bicycling, and other modes of transportation safer. Adopting pedestrian-friendly standards ensures the street design for new road reconstruction projects will support walking. This can help make new and reconstructed roads pedestrian-friendly by default.

Model street design guidance exists today and can help cities develop their own standards.

NACTO Urban Street Design Guide and Los Angeles County Model Design Manual for Living Streets

Applicable jurisdictions:
All

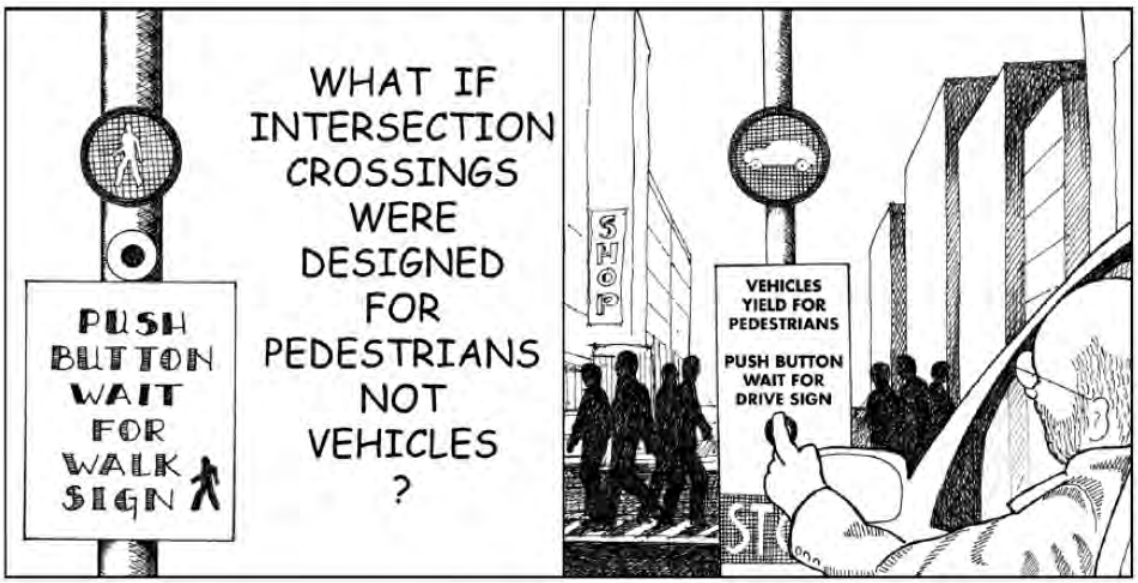
Responsible parties:
City traffic departments, city engineering departments, city councils

2. Phase out pedestrian actuated signals

A driver does not need to press a button to change traffic signals. Nicknamed "beg buttons", these devices prioritize vehicle movement over pedestrian movement by putting the responsibility on pedestrians to request permission to cross the street. Traffic problems arise when pedestrians are required to press these buttons:

- Pedestrians may not be able to reach the button especially if they are in a wheelchair.
- Pedestrians may cross without pressing the button.
- Pedestrians may press the button and then cross prematurely, disrupting signal phasing and traffic flow.
- The button itself may be broken and/or unsanitary.

The NACTO Urban Design Guide recommends fixed-time signals over pedestrian-actuated signals.



Comic by Dhiru Thadani

Applicable jurisdictions:
Waterloo, Cedar Falls, Evansdale, Elk Run Heights

Responsible parties:
City traffic departments, Iowa DOT

3. Support infrastructure for buses and bicycles

Infrastructure treatments for buses and bicyclists often have overlapping benefits for pedestrians. These benefits can include calming traffic and reducing conflict points. Additional street design considerations, such as 10 to 11-foot driving land widths, can benefit bicyclists and pedestrians by discouraging speeding.

Transit and bicycle infrastructure, nacto.org

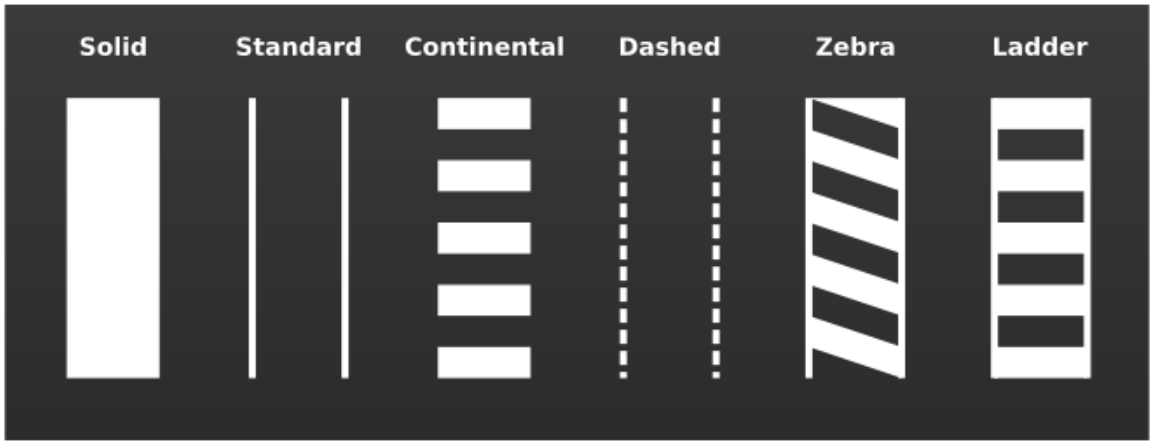
Applicable jurisdictions:
All

Responsible parties:
City traffic departments, City engineering departments, City councils, MET Transit, Iowa DOT, INRCOG

4. Apply highly visible markings (zebra, continental) at major crosswalks

Marked crosswalks guide pedestrians and alert drivers to a crossing location. Accordingly, it is important that both drivers and pedestrians clearly see the crossings. Crosswalks can be marked in paint, or a longer lasting plastic or epoxy material embedded with reflective glass beads. Although more expensive, high-visibility crosswalk marking materials are a better value over time as they require less maintenance.

The crosswalk stripe should be as wide as or wider than the walkway it connects to. This ensures that when two groups of people meet in the crosswalk, they can comfortably pass one another. Crosswalks should also be aligned as closely as possible with the pedestrian through zone. Inconvenient deviations create an unfriendly pedestrian environment. High-visibility ladder, zebra, and continental crosswalk markings are preferable to standard parallel or dashed markings. These are more visible to approaching vehicles and have been shown to improve yielding behavior.



Applicable jurisdictions:
All

Responsible parties:
City traffic departments, City engineering departments

Appendix A: Performance Measurements Source Data

Total number of crashes involving pedestrians

Based on 2011-2020 data from the Iowa Crash Analysis Tool (www.icat.iowadot.gov). Filter details are as follows:

- Jurisdiction: Black Hawk County MPO (INRCOG)
- Years: 2011-2020
- Filter: Type (Pedestrian; Skater, personal conveyance, wheelchair)

Crash details are as follows:

- 2011: 27 crashes
- 2012: 23 crashes
- 2013: 16 crashes
- 2014: 14 crashes
- 2015: 26 crashes
- 2016: 18 crashes
- 2017: 19 crashes
- 2018: 15 crashes
- 2019: 14 crashes
- 2020: 17 crashes
- Total: 189 crashes
- Average: 18.9 crashes/year

Percent of people who rate crosswalk safety as "excellent" or "good"

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Crosswalk safety

- Total surveyed: 344
- "None": 35
- "Poor": 88
- "Fair": 88
- "Good": 66
- "Excellent": 6
- "N/A or Unsure" or non-response: 61
- Percent, ("Good"+"Excellent")/(Total surveyed–"N/A or Unsure" or non-response)
- Percent, (66+6)/(344-61)
- Percent, 0.254417

Percent of parents with school-age children whose children walk to school on a regular basis

2015 Pedestrian Master Plan Survey
Question 28. Are you the parent of a school aged child/children (ages 5-17)? If so, do they typically walk to school?

- Total surveyed: 344
- "Yes, and they (all) walk to school": 7
- "Yes, but they don't (all) walk to school": 49
- "No, I'm not a parent of a school aged child": 283
- Non-response: 5
- Percent, ("Yes, and they (all) walk to school"/("Yes, but they don't (all) walk to school"+"Yes, and they (all) walk to school"))
- Percent, (7/(49+7))
- Percent, 0.125000

Percent of people who rate sidewalk conditions as "excellent" or "good"

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Sidewalk condition

- Total surveyed: 344
- "None": 80
- "Poor": 58
- "Fair": 70
- "Good": 71
- "Excellent": 11
- "N/A or Unsure" or non-response: 54
- Percent, ("Good"+"Excellent")/(Total surveyed–"N/A or Unsure" or non-response)
- Percent, (71+11)/(344-54)
- Percent, 0.282759

Percent of people who rate lighting at night as “excellent” or “good”

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Lighting at night

- Total surveyed: 344
- “None”: 5
- “Poor”: 77
- “Fair”: 115
- “Good”: 76
- “Excellent”: 4
- “N/A or Unsure” or non-response: 67
- Percent, (“Good”+“Excellent”)/(Total surveyed–“N/A or Unsure” or non-response)
- Percent, (76+4)/(344-67)
- Percent, 0.288809

Percent of people who rate safety from street crime (e.g. theft, assault) as “excellent” or “good”

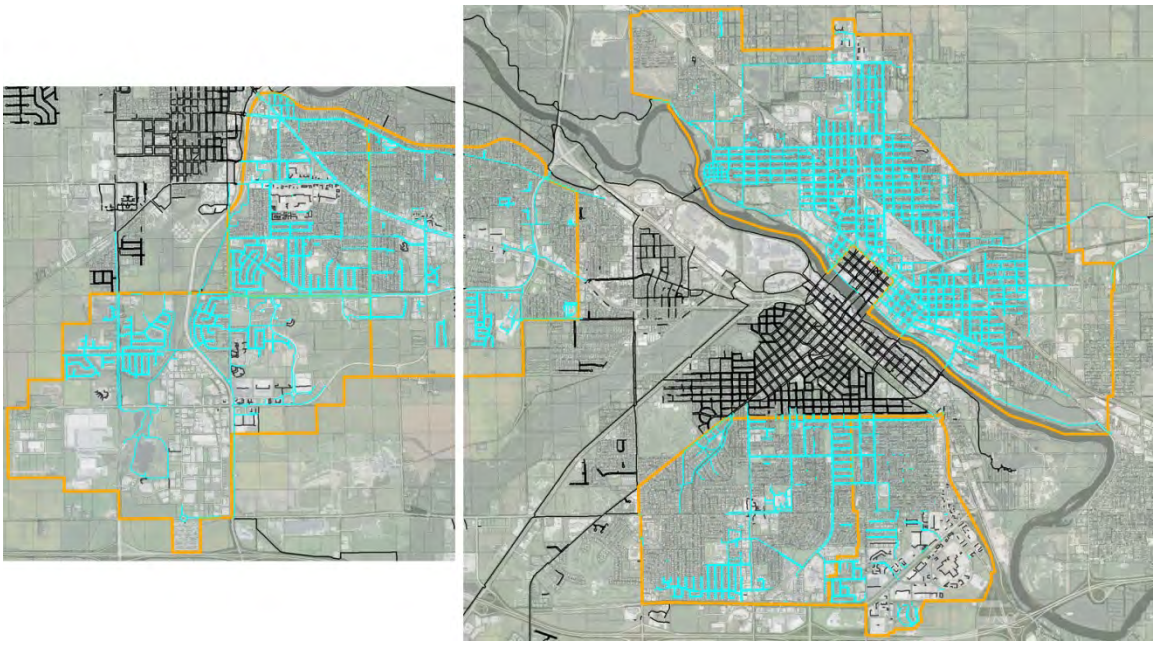
2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Safety from street crime (e.g. theft, assault)

- Total surveyed: 344
- “None”: 13
- “Poor”: 61
- “Fair”: 74
- “Good”: 88
- “Excellent”: 33
- “N/A or Unsure” or non-response: 75
- Percent, (“Good”+“Excellent”)/(Total surveyed–“N/A or Unsure” or non-response)
- Percent, (88+33)/(344-75)
- Percent, 0.449814

Total length of public sidewalks and crosswalks in focus areas

Based on existing sidewalk GIS data. Features selected from existing sidewalks that “intersect the source layer feature” MPO Focus Areas. Downtown Waterloo is not included. Then private sidewalks and crosswalks unselected.

Figure A-1: Existing public sidewalks and crosswalks in Cedar Falls and Waterloo focus areas



- Waterloo, Shape_Length, sum: 1015280.168812
- Cedar Falls, Shape_Length, sum: 476647.427147
- Waterloo: 192.287911 miles
- Cedar Falls: 90.274134 miles
- Total: 282.562045 miles

Percent of people who rate the directness of walkways as “excellent” or “good”

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Directness of walkways

- Total surveyed: 344
- “None”: 59
- “Poor”: 61
- “Fair”: 70
- “Good”: 74
- “Excellent”: 10
- “N/A or Unsure” or non-response: 70
- Percent, (“Good”+“Excellent”)/(Total surveyed–“N/A or Unsure” or non-response)
- Percent, (74+10)/(344-70)
- Percent, 0.306569

Percent of people who indicate all their bus stops have usable sidewalk access

2015 Pedestrian Master Plan Survey
Question 13. Have you ridden on a MET Transit bus in the past year?
Question 14. If you’ve used MET Transit in the past year, do your bus stops all have usable sidewalks?

- Total surveyed: 344
- Yes: 17
- I don’t remember: 2
- No: 7
- Non-response: 318
- Percent, “Yes”/(“Yes”+”No”)
- Percent, (17)/(17+7)
- Percent, 0.708333

Percent of people who describe parks and cultural amenities as “very connected”

2015 Pedestrian Master Plan Survey
Question 19. Overall, how would you describe the pedestrian connectivity to parks, trails, and cultural amenities in the Waterloo-Cedar Falls area?

- Total surveyed: 344
- “Very connected”: 109
- “Moderately connected”: 175
- “Slightly connected”: 40
- “Not connected at all”: 12
- Non-response: 8
- Percent, (“Very connected”)/(Total surveyed–Non-response)
- Percent, 109/(344-8)
- Percent, .324405

Percent of people who rate continuity of walkways as “excellent” or “good”

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Continuity of walkways

- Total surveyed: 344
- “None”: 56
- “Poor”: 93
- “Fair”: 75
- “Good”: 52
- “Excellent”: 4
- “N/A or Unsure” or non-response: 64
- Percent, (“Good”+“Excellent”)/(Total surveyed–“N/A or Unsure” or non-response)
- Percent, (52+4)/(344-64)
- Percent, 0.200000

Percent of workers who walk to work

Based on 2015-2019 American Community Survey (ACS) five-year estimates.

- Waterloo, Workers 16 years and over: 44,584
- Waterloo, Walked: 1.5%
- Waterloo, Workers who walked: 672
- Cedar Falls, Workers 16 years and over: 26,194
- Cedar Falls, Walked: 6.5%
- Cedar Falls, Workers who walked: 1,707
- Evansdale, Workers 16 years and over: 1,065
- Evansdale, Walked: 0.0%
- Evansdale, Workers who walked: 0
- Hudson, Workers 16 years and over: 813
- Hudson, Walked: 2.6%
- Hudson, Workers who walked: 21
- Elk Run Heights, Workers 16 years and over: 506
- Elk Run Heights, Walked: 0.0%
- Elk Run Heights, Workers who walked: 0
- Raymond, Workers 16 years and over: 350
- Raymond, Walked: 0.0%
- Raymond, Workers who walked: 0
- Gilbertville, Workers 16 years and over: 426
- Gilbertville, Walked: 1.2%
- Gilbertville, Workers who walked: 5
- Total, Workers 16 years and over: 73,938
- Total, Workers who walked: 2,405
- Percent, Walked (all MPO cities): 3.3%

Percent of people who walk at least two blocks daily or almost daily

2015 Pedestrian Master Plan Survey
Question 11. On average, how often do you walk more than two blocks? (don't include bicycling)

- Total surveyed: 344
- "Daily or almost daily": 169
- "Around 1-4 times per week": 97
- "Around 1-4 times per month": 38
- "Never or less than once per month": 39
- Non-response: 1
- Percent, "Daily or almost daily"/(Total surveyed–Non-response)
- Percent, 169/(344-1)
- Percent, 0.492711

Percent of commuters who regularly walk to work

2015 Pedestrian Master Plan Survey
Question 15. Which mode of transportation do you most frequently use to get to work?

- Total surveyed: 344
- “Car, alone”: 215
- “Car, carpool”: 9
- “Taxicab”: 0
- “Motorcycle or scooter”: 2
- “Bus”: 4
- “Bicycle”: 4
- “Walk”: 0
- “This doesn’t apply to me (e.g. retired, work from home, unemployed, etc.)”: 95
- Non-response: 15
- Percent, “Walk”/(Total surveyed–Non-response–“This doesn’t apply to me…”)
- Percent, 0/(344-15-95)
- Percent, 0.000000

Percent of people who regularly walk to shopping and dining

2015 Pedestrian Master Plan Survey
Question 16. Which mode of transportation do you most frequently use to get to go shopping and dining?

- Total surveyed: 344
- “Car, alone”: 278
- “Car, carpool”: 44
- “Taxicab”: 0
- “Motorcycle or scooter”: 0
- “Bus”: 4
- “Bicycle”: 1
- “Walk”: 2
- “This doesn’t apply to me”: 4
- Non-response: 11
- Percent, “Walk”/(Total surveyed–Non-response–“This doesn’t apply to me…”)
- Percent, 2/(344-11-4)
- Percent, 0.006079

Percent of Waterloo students grades K-8 overweight or obese

Data provided by SuccessLink: 2001 through 2015 body mass index of Waterloo students grades K-8 in the 85th percentile and above (overweight or obese)

- 2014-2015: 39%

Percent of Cedar Falls students grades K-8 overweight or obese

Data provided by SuccessLink: 2001 through 2015 body mass index of Cedar Falls K-8 students in the 85th percentile and above (overweight or obese)

- 2014-2015: 26%

Percent of adults (age 20+) that report a BMI of 30 or higher

Centers for Disease Control (CDC) county-level estimates, 2017

- 2017: 31.0%

Percent of adults (age 20+) that report no leisure-time physical activity

Centers for Disease Control (CDC) county-level estimates, 2017

- 2017: 22.0%

Percent of people who indicate they walk for wellness

2015 Pedestrian Master Plan Survey
Question 12. Generally speaking, what reason(s) do you walk? Check all that apply. For wellness

- Total surveyed: 344
- "For wellness": 235
- Blank: 109
- Percent, "For wellness"/Total Surveyed
- Percent, 235/344
- Percent, 0.683140

Percent of people who indicate that creating a walkable community is "very important"

2015 Pedestrian Master Plan Survey
Question 23. How important to you is the goal of creating a walkable community?

- Total surveyed: 344
- "Very important": 158
- "Moderately important": 127
- "Slightly important": 38
- "Not important at all": 16
- Non-response: 5
- Percent, "Very important"/(Total surveyed–Non-response)
- Percent, 158/(344-5)
- Percent, 0.466077

Percent of people who rate the safety of walkways for the elderly, disabled, and children as "excellent" or "good"

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Safety for the elderly, disabled, and children

- Total surveyed: 344
- "None": 47
- "Poor": 122
- "Fair": 89
- "Good": 30
- "Excellent": 5
- "N/A or Unsure" or non-response: 51
- Percent, ("Good"+"Excellent")/(Total surveyed–"N/A or Unsure" or non-response)
- Percent, (30+5)/(344-51)
- Percent, 0.119454

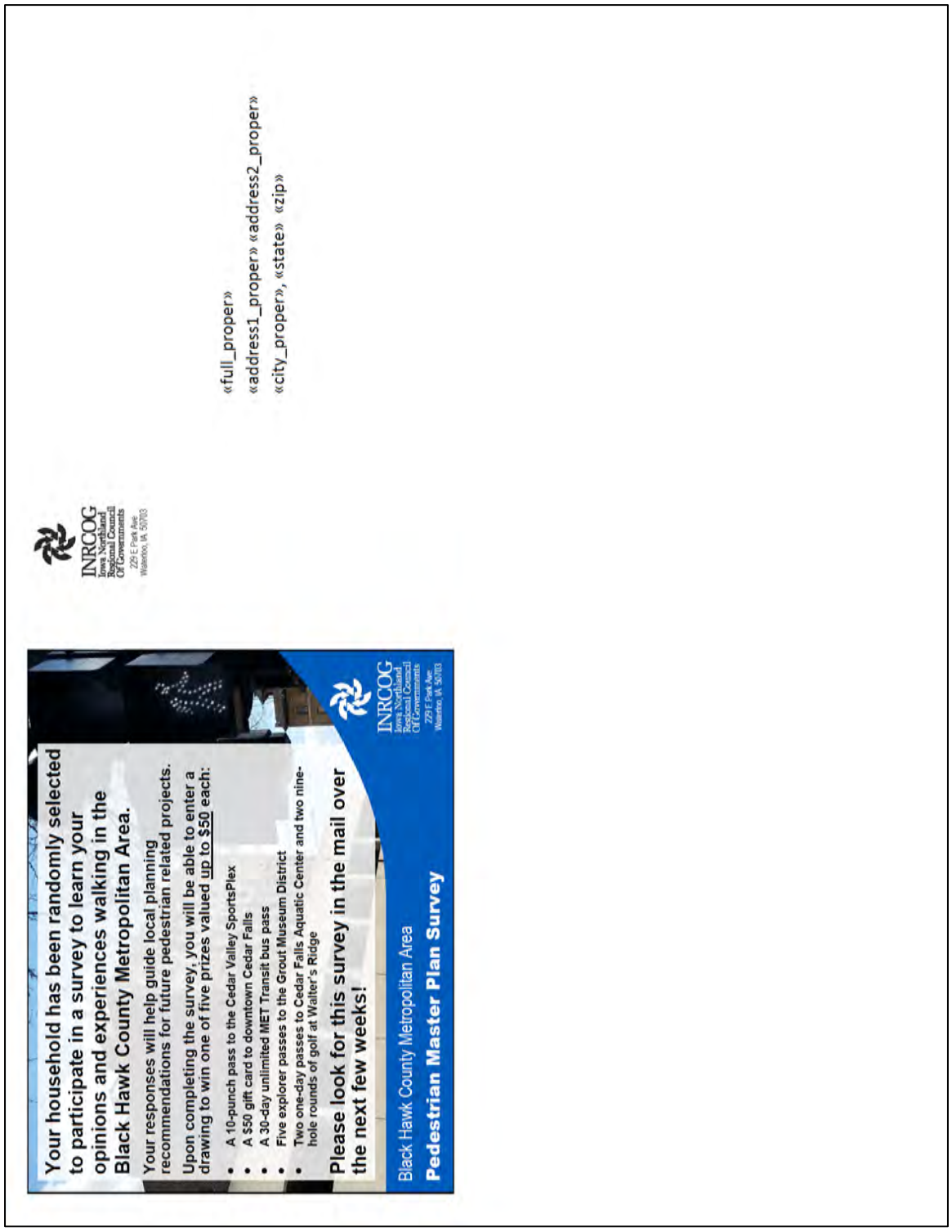
Percent of people who rate the quality of design for pedestrians as "excellent" or "good"

2015 Pedestrian Master Plan Survey
Question 20. Please review the map included in this mailing. If you could improve pedestrian accommodations in just one area, which area would you choose?
Question 22. Think about the area you selected in question 20. Select the word that best describes each of the following: Quality of design for pedestrians

- Total surveyed: 344
- "None": 42
- "Poor": 94
- "Fair": 100
- "Good": 42
- "Excellent": 7
- "N/A or Unsure" or non-response: 59
- Percent, ("Good"+"Excellent")/(Total surveyed–"N/A or Unsure" or non-response)
- Percent, (42+7)/(344-59)
- Percent, 0.171930

Appendix B: Mail-out Survey Materials

Pre-Survey Postcard



Cover Letter

June 1, 2015

INRCOG
Iowa Northland
Regional Council
Of Governments

«full_proper»
«address1_proper» «address2_proper»
«city_proper», «state» «zip»-«zip4_fixed»

Hello «first_proper»! You have been randomly selected to complete a short survey and enter a drawing to win one of five prizes valued up to $50.00!

Your survey responses will be used to develop recommendations for the Black Hawk County MPO **Pedestrian Master Plan** which includes the cities of Waterloo, Cedar Falls, Hudson, Evansdale, Elk Run Heights, Raymond, and Gilbertville. The MPO (short for Metropolitan Planning Organization) is made up of local government officials from each city as well as Black Hawk County, MET Transit, and the Waterloo Airport Board. The Iowa Northland Regional Council of Governments (INRCOG) provides staffing and resources for the MPO.

This survey is to be completed by only one adult (18+) member of your household. Demographic information (i.e. age, gender, race) is only asked to ensure the survey responses we receive are an accurate reflection of the overall population. We will never reveal any personally identifiable information about you or your household.

Please complete the attached survey and return it by mail using the self-addressed stamped envelope provided. Alternatively, you can take the survey online at the following website: www.surveymonkey.com/s/WCFpedsurvey. Whichever method you choose, please only take the survey once.

As a thank you, your completed survey can enter you in a drawing for one of five prizes. Simply include your unique survey code at the end of the survey for your chance to win one of the following:

- $50 Gift Card to Downtown Cedar Falls businesses
- 10-punch pass to the Cedar Valley SportsPlex
- 30-day unlimited MET Transit bus pass
- Five explorer passes to Grout Museum District
- Two one-day passes to Cedar Falls Aquatic Center and two nine-hole rounds of golf at Walter's Ridge

Winners will be randomly selected on July 31, 2015, and will be notified by mail soon after. Accordingly, it is important to submit your survey prior to this date. Again, be sure to include your unique four-digit survey code for your chance to win.

Your unique survey code is «survey_code».

Please feel free to contact me by phone at 319-235-0311 or email at cleseman@inrcog.org if you have any questions. Thank you for your participation!

Sincerely,

Codie Leseman, Transportation Planner

Waterloo-Cedar Falls Area Pedestrian Master Plan Survey

Please complete this survey and return in the enclosed self-addressed stamped envelope.

Alternatively, you can take this survey online at www.surveymonkey.com/s/WCFpedsurvey

Please, only check one box unless otherwise indicated.
Feel free to attach additional pages if necessary.

(* = required)

1.) How old are you?* 18-29 30-44 45-59 60-74 75+ (circle one)

2.) How many years have you lived in the Waterloo-Cedar Falls metro area?* (circle one) 0-2 2-5 5-10 10-20 20+

3.) What race(s) are you? Check all that apply.*
- White
- Black or African American
- Asian
- American Indian and Alaska Native
- Native Hawaiian and Other Pacific Islander
- Some other race

4.) Are you Hispanic or Latino?*
- Yes
- No

5.) What is your gender?*
- Male
- Female

6.) How many people live in your household?* ____

7.) How many automobiles does your household have?* (don't include motorcycles, four wheelers, parts cars, etc.) ____

8.) Do you rent or own your home?* Rent Own

9.) The median household income in Black Hawk County is $45,747. Does your household earn more or less than this amount?
- More than $45,747
- Less than $45,747

10.) Do you, or does someone in your household, have a disability that limits your/their mobility?*
- No
- Yes, myself
- Yes, someone in my household
- Yes, myself and someone in my household

11.) On average, how often do you walk more than two blocks? (don't include bicycling)*
- Daily or almost daily
- Around 1-4 times per week
- Around 1-4 times per month
- Never or less than once per month

12.) Generally speaking, what reason(s) do you walk? Check all that apply.
- To get to shops and other businesses
- To get to work
- To get to school
- To get to a place of worship
- To visit friends or family
- To get to the MET bus
- To walk my dog
- For wellness
- For fun

13.) Have you ridden on a MET Transit bus in the past year? (If no, skip to question 15)*
- Yes
- No

14.) If you've used MET Transit in the past year, do your bus stops all have usable sidewalks?
- Yes
- I don't remember
- No

If you answered no for question 14, where? Which intersections? (example: University Ave at Fletcher Ave)

_____

_____

15.) Which mode of transportation do you most frequently use to get to **work**?*
- Car, alone
- Car, carpool
- Taxicab
- Motorcycle or scooter
- Bus
- Bicycle
- Walk
- This doesn't apply to me (e.g. retired, work from home, unemployed, etc.)

16.) Which mode of transportation do you use most frequently to go **shopping and dining**?*
- Car, alone
- Car, carpool
- Taxicab
- Motorcycle or scooter
- Bus
- Bicycle
- Walk
- This doesn't apply to me

17.) Is there anywhere you or someone in your household would like to walk but currently don't because of inadequate or unsafe infrastructure?*
- No
- Yes (**please describe where**):

_____

Turn over > > >

18.) Are you the parent of a school aged child/children (ages 5-17)? If so, do they typically walk to school?*

- No, I'm not a parent of a school aged child ☐
- Yes, and they (all) walk to school ☐
- Yes, but they don't (all) walk to school ☐

(**please explain why**):

_____

19.) Overall, how would you describe the pedestrian connectivity to parks, trails, and cultural amenities in the Waterloo-Cedar Falls area?*

- Very connected ☐
- Moderately connected ☐
- Slightly connected ☐
- Not connected at all ☐

20.) Please review the map included in this mailing. If you could improve pedestrian accommodations in just **one area**, which area would you choose?*

- 1.) Thunder Ridge, Holmes Jr High, Beaver Hills ☐
- 2.) North Cedar, Black Hawk Park, Big Woods Lake ☐
- 3.) Airport, Airline Highway ☐
- 4.) Downtown Cedar Falls, CF High School ☐
- 5.) George Wyth State Park, Hartman Reserve ☐
- 6.) Broadway St, Riverfront Stadium, Lincoln Elem ☐
- 7.) Allen Hospital, Logan Plaza, Carver Academy ☐
- 8.) East High, Cunningham Elem ☐
- 9.) Tyson, John Deere Tractor Cab, Highland Elem ☐
- 10.) UNI, College Hill ☐
- 11.) College Square Mall, Peet Jr High ☐
- 12.) Cedar Heights, Central Middle School ☐
- 13.) Falls Ave, John Deere Works Fndry, Fred Becker Elem ☐
- 14.) Church Row, Six Corners, Irving Elem ☐
- 15.) Downtown Waterloo, Grout Museum Dist, TechWrks ☐
- 16.) SE Riverfront, Crystal Distrib, Riverview Rec Area ☐
- 17.) Evansdale, Bunger Middle School, Deerwood Park ☐
- 18.) East Evansdale, Elk Run Heights, Raymond ☐
- 19.) Viking Plaza, Cedar Falls Industrial Park ☐
- 20.) Audubon Park, UnityPoint Clinic, Byrnes Park ☐
- 21.) Kimball Ave, West High, Hoover Middle School ☐
- 22.) Crossroads Shopping Center, La Porte Rd ☐
- 23.) Hudson, Orange Elem ☐
- 24.) Gilbertville, Cedar Knoll, Hawkeye College, Isle Casino ☐

21.) Within the area you selected in question 20, where specifically would you like to see pedestrian improvements focused on most?* (**please select only one option**)

- Schools ☐
- Parks, trails, cultural amenities ☐
- Residential neighborhoods ☐
- Shopping, restaurants ☐
- Offices, industry ☐
- Other ☐

Feel free to be more specific (optional):

_____

22.) Think about the area you selected in question 20. Select the word that best describes each of the following:* (**please complete all rows**)

	None	Poor	Fair	Good	Excellent	N/A or Unsure
Sidewalk condition	☐	☐	☐	☐	☐	☐
Crosswalk safety	☐	☐	☐	☐	☐	☐
Lighting at night	☐	☐	☐	☐	☐	☐
Directness of walkways	☐	☐	☐	☐	☐	☐
Continuity of walkways	☐	☐	☐	☐	☐	☐
Safety for the elderly, disabled, and children	☐	☐	☐	☐	☐	☐
Safety from street crime (e.g. theft, assault)	☐	☐	☐	☐	☐	☐
Quality of design for pedestrians	☐	☐	☐	☐	☐	☐

23.) How important to you is the goal of creating a walkable community?*

- Very important ☐
- Moderately important ☐
- Slightly important ☐
- Not important at all ☐

24.) Which strategies would you support using to develop and improve pedestrian facilities in the Waterloo-Cedar Falls area? (check all that apply)*

- Dedicated funding sources in the City budget ☐
- Bonds, i.e. borrowing ☐
- Grants, i.e. competitive State and Federal funds ☐
- Partnering with major retailers ☐
- Billing adjacent property owners ☐
- None ☐
- I don't know ☐

25.) If you're interested in entering a drawing to win one of the following prizes, please write your unique four-digit survey code below:

- $50 Gift Card to Downtown Cedar Falls businesses
- 10-punch pass to the Cedar Valley SportsPlex
- 30-day unlimited MET Transit bus pass
- Five explorer passes to Grout Museum District
- Two one-day passes to Cedar Falls Aquatic Center and two nine-hole rounds of golf at Walter's Ridge

Survey Code: ____ ____ ____ ____

26.) Please provide any additional comments below:

_____

_____

_____

_____

_____

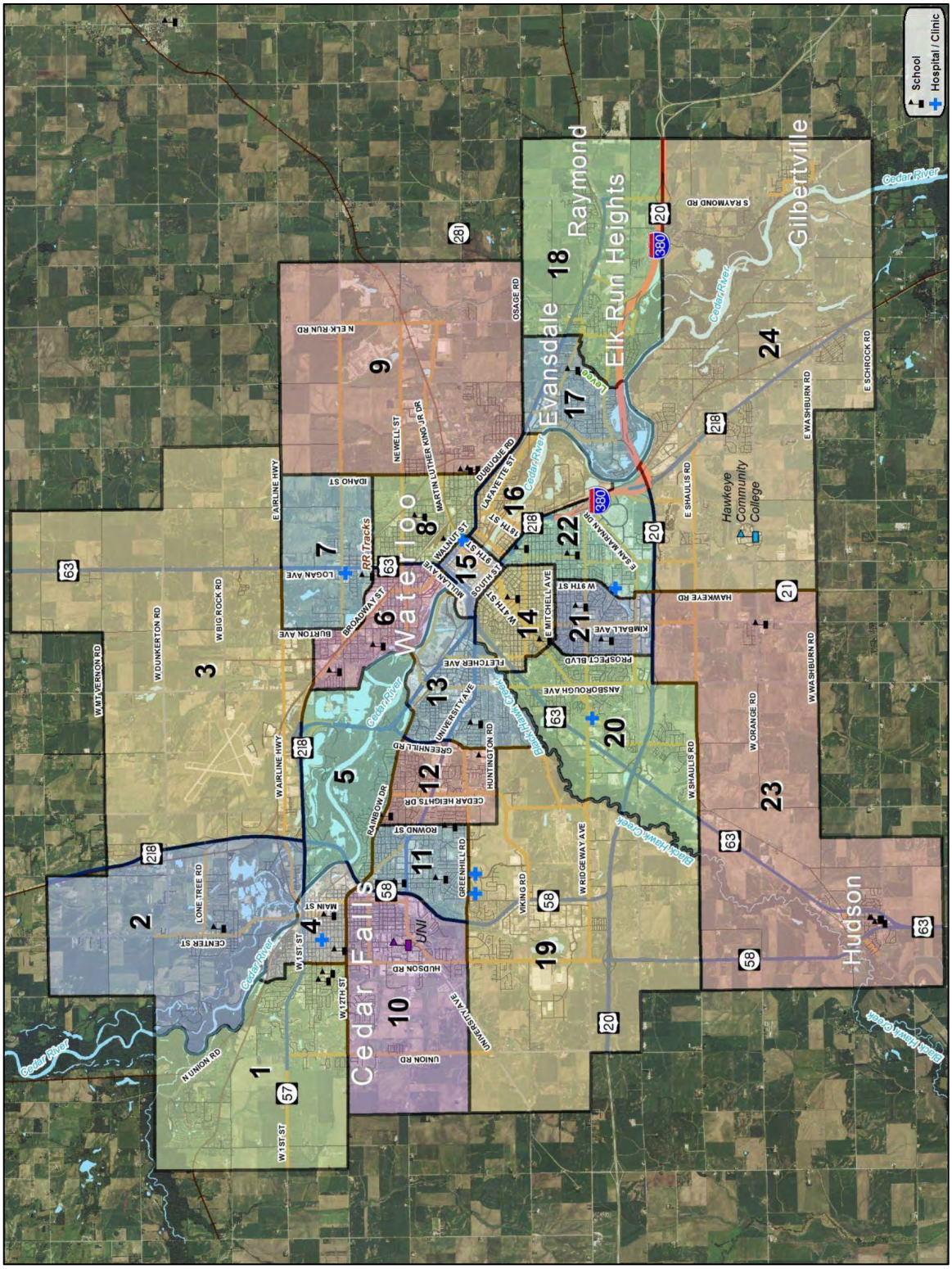
_____

_____

_____

_____

Map of Metropolitan Area



Post Postcard

INRCOG
Iowa Northland Regional Council Of Governments
229 E Park Ave
Waterloo, IA 50703

«full_proper»
«address1_proper» «address2_proper»
«city_proper», «state» «zip»

Appendix C

INRCOG
Iowa Northland
Regional Council
Of Governments

SPECIAL OUTREACH TRANSPORTATION SURVEY

OF NON-ENGLISH SPEAKING AND HOMELESS RESIDENTS

HAWKEYE COMMUNITY COLLEGE METRO CENTER

OPERATION THRESHOLD

BLACK HAWK GRUNDY MENTAL HEALTH

FALL 2015

OVERVIEW

This document presents the results of the Special Outreach Survey for non-English speaking and homeless residents conducted in November and December 2015. This survey was conducted as part of the Black Hawk County MPO Pedestrian Master Plan, and was led by INRCOG staff and the Special Outreach Survey sub-committee. Sub-committee participants included the following:

Sue Beach	Cedar Valley Alliance and Chamber
Felicia Cass	Healthy Cedar Valley Coalition
Doreen Corley	Operation Threshold
Mariliegh Fisher	Community Housing Initiatives
Will Frost	Berkshire Hathaway Home Services
Perry Goodman	City of Waterloo Neighborhood Services
Holly Hartley	Love INC
Laura Hidlebaugh	Hawkeye Community College Metro Center
Dave Mueterthies	Black Hawk Grundy Mental Health
Mary Robinson	All Nations Church, Tyson
Pam Zeigler	Cedar Falls Schools
Codie Leseman	INRCOG
Kevin Blanshan	INRCOG
Kyle Durant	INRCOG

The Special Outreach Survey was developed as a follow-up to the Pedestrian Master Plan Survey conducted earlier in 2015. The Pedestrian Master Plan Survey was sent to a statistically-significant random sample of residents in the cities of Waterloo, Cedar Falls, Evansdale, Hudson, Elk Run Heights, Raymond, and Gilbertville, and portions of Black Hawk County. However, the surveys were only available in English and only to those who had a documented physical address. Accordingly, the Special Outreach Survey aims to identify the transportation needs of non-English speaking and homeless residents specifically.

Surveys were administered by staff members of three community service organizations in Waterloo: Hawkeye Community College Metro Center (147), Operation Threshold (44), and Black Hawk Grundy Mental Health (16). In total, 207 surveys were collected. All were paper-and-pencil surveys. Surveys through the Hawkeye Community College Metro Center were administered specifically to students of the English language learner (ELL) program. While students in the program are not fluent English speakers, they do have some measurable understanding of the English language ranging from upper beginner to advanced. Instructors at the Metro Center provided assistance to students when necessary.

The Special Outreach Survey is not statistically-significant, and data were collected using convenience samples. For these reasons, the following survey results should be considered anecdotal.

DISCUSSION

Due to the inherent challenges involved with surveying non-English speaking individuals, some liberties were taken to assume the intended meaning of misspelled words and other mistakes on survey responses. For example, the intended meaning of “Espanis” is assumed to be “Spanish” and is counted accordingly. These assumptions are listed under each applicable response.

On the following pages, “NR” stands for non-response. This means either the individual surveyed did not write a response, or their response was incomplete, irrelevant, or a misinterpretation of the question asked. Some questions allowed for multiple answers or an open-ended response. For these, the terms “all” and “exclusively” are used to distinguish between whether a response was among multiple responses or not. For example, if a respondent indicated they travel to work by driving, walking, or taking the bus, that response would count toward “all” for all three modes of transportation, but would not count toward “exclusively” for any mode as the respondent does not exclusively use any of those modes. If a respondent indicated they travel to work by driving only, then that response would count toward drive “exclusively” as well as drive “all”. In most cases, both “all” and “exclusively” are shown for each response. However, in some cases only “all” is shown. This is only the case where there are zero “exclusively” responses, and it is done so to save space and make this document easier for readers. In some cases there is no “NR” value shown. This is only the case where there were zero non-responses for a particular group and a particular question. This is most often the case with Black Hawk Grundy Mental Health, as there are several instances where all 16 respondents wrote a response. Numbers listed on this document do not correspond exactly to the numbers of the paper surveys. Surveys administered to students at the Hawkeye Community College Metro Center did not include Question Five. Responses for Question 17 were calculated based on a formula described on that page. Questions 21 and 25 in this document are dependent on each respondent’s response to the previous question. Written responses that do not comply with the appropriate skip logic were counted as non-responses. Question Nine uses a similar method to ensure data integrity, as described on that page.

Any questions regarding the survey methodology or results should be directed to INRCOG staff by calling 319-235-0311.

1. HOW OLD ARE YOU?

Hawkeye Community College Metro Center

- 18-29: **50**
- 30-44: **62**
- 45-59: **25**
- 60-74: **8**
- *NR: 2*

Operation Threshold

- 18-29: **16**
- 20-44: **22**
- 45-59: **5**
- *NR: 1*

Black Hawk Grundy Mental Health

- 18-29: **7**
- 30-44: **5**
- 45-59: **3**
- 60-74: **1**

2. WHAT IS YOUR FIRST LANGUAGE?

Hawkeye Community College Metro Center

- **Spanish: 37**
  - Spanish: 28
  - Espanis: 5
  - Espanol: 2
  - Espanish: 1
  - Hispanish: 1
- **French: 28**
- **Karenni: 24** (23.5*)
  - Karenni: 23
  - Burmese and Karenni: 0.5*
- **Burmese: 16** (15.5*)
  - Burmese: 13
  - Buamana: 1
  - Burma: 1
  - Burmese and Karenni: 0.5*
- **Karen: 12**
- **Bosnian: 7**
- **Kayaw: 5**
  - Kayan: 2
  - Kayaw: 2
  - Kayw: 1
- **Chin: 3**
  - Chin: 2
  - "Chian": 1
- **Lingala: 3**
- **Zomi: 2**
- **Chinese: 1**
  - "Chese": 1
- **Creole: 1**
- **Japanese: 1**
- **Nuer: 1**
- **Punjabi: 1**
- **Russian: 1**
- **Swahili: 1**
- **Tedim: 1**
  - Tedim: 1
- **Other: 3**
  - "Mayanmar": 2
  - "Mai": 1

* - See Question 17 for more information about calculating multiple responses for single response questions.

Operation Threshold

- **Karenni: 22**
- **Kayaw: 8**
    - Kayaw: 7
    - Kayar: 1
- **Karen: 4**
    - Karen: 3
    - Kacterin: 1
- **English: 3**
- **Tedim: 3**
    - Tedim: 2
    - Tidion: 1
- **Burmese: 2**
- **Siyin Chin: 1**
- **Zomi: 1**
    - Zo: 1

Black Hawk Grundy Mental Health

- **English: 16**

3. WHAT COUNTRY ARE YOU FROM?

Hawkeye Community College Metro Center

- **Burma (Myanmar): 51**
  - Burma: 33
  - Myanmar: 11
  - Burmese: 5
  - Burmses: 1
  - Ka Low Do: 1
- **Congo: 31**
  - Congo: 30
  - DRC: 1
- **Mexico: 19**
- **Thailand: 12**
- **Guatemala: 11**
- **Bosnia and Herzegovina: 7**
  - Bosnia: 6
  - Bosnian: 1
- **El Salvador: 3**
- **Honduras: 2**
- **Angola: 1**
- **Argentina: 1**
- **China: 1**
- **Ethiopia: 1**
- **Haiti: 1**
- **Japan: 1**
- **Malaysia: 1**
- **Pakistan: 1**
- **Russia: 1**
- **Togo: 1**
- **United States: 1**

Operation Threshold

- **Burma (Myanmar): 27**
  - Burma: 18
  - Myanmar: 8
  - Burmese: 1
- **Thailand: 14**
  - Thailand: 13
  - Thai: 1
- **United States: 3**

Black Hawk Grundy Mental Health

- **United States: 16**

4. HOW LONG HAVE YOU LIVED IN THE UNITED STATES?

Hawkeye Community College Metro Center

- Less than 2 years: **22**
- 2 to less than 5 years: **46**
- 5 to less than 10 years: **48**
- 10 to less than 20 years: **21**
- 20+ years: **6**
- *NR: 4*

Operation Threshold

- Less than 2 years: **3**
- 2 to less than 5 years: **10**
- 5 to less than 10 years: **27**
- 10 to less than 20 years: **0**
- 20+ years: **3**
- *NR: 1*

Black Hawk Grundy Mental Health

- Native born U.S. citizens: 16

5. ARE YOU HOMELESS?

Hawkeye Community College Metro Center

- This question was not asked.

Operation Threshold

- No: 37
- Yes: 4
- *NR: 3*

Black Hawk Grundy Mental Health

- Yes: 16

6. DO YOU OWN A CAR?

Hawkeye Community College Metro Center

- Yes: 103
- No: 44

Operation Threshold

- Yes: 31
- No: 11
- *NR: 2*

Black Hawk Grundy Mental Health

- No: 15
- Yes: 1

7. DO YOU OWN A BIKE?

Hawkeye Community College Metro Center

- No: 108
- Yes: 30
- *NR: 9*

Operation Threshold

- No: 37
- Yes: 4
- *NR: 3*

Black Hawk Grundy Mental Health

- No: 12
- Yes: 2
- *NR: 1, respondent wrote "skateboard"*

8. DO YOU HAVE A JOB? DO YOU GO TO SCHOOL OR COLLEGE?

Hawkeye Community College Metro Center

- Job and school: 55
- School: 46
- Job: 36
- Neither: 7
- *NR: 3*

Operation Threshold

- Neither: 21
- School: 12
- Job: 6
- *NR: 5*

Black Hawk Grundy Mental Health

- Neither: 14
- Job: 2

9. HOW DO YOU USUALLY GET TO WORK OR SCHOOL?

Hawkeye Community College Metro Center

- Drive (all): 87
- Drive (exclusively): 79
- Get a ride (all): 46
- Get a ride (exclusively): 39
- Walk (all): 20
- Walk (exclusively): 12
- Bicycle (all): 2
- Bicycle (exclusively): 1
- Bus: 0
- *NR: 4*

Operation Threshold

- Walk (all): 14
- Walk (exclusively): 10
- Drive (all): 11
- Drive (exclusively): 9
- Get a ride (all): 8
- Get a ride (exclusively): 6
- Bus (all): 1*
- Bus (exclusively): 1*
- Bicycle: 0
- *NR: 14*

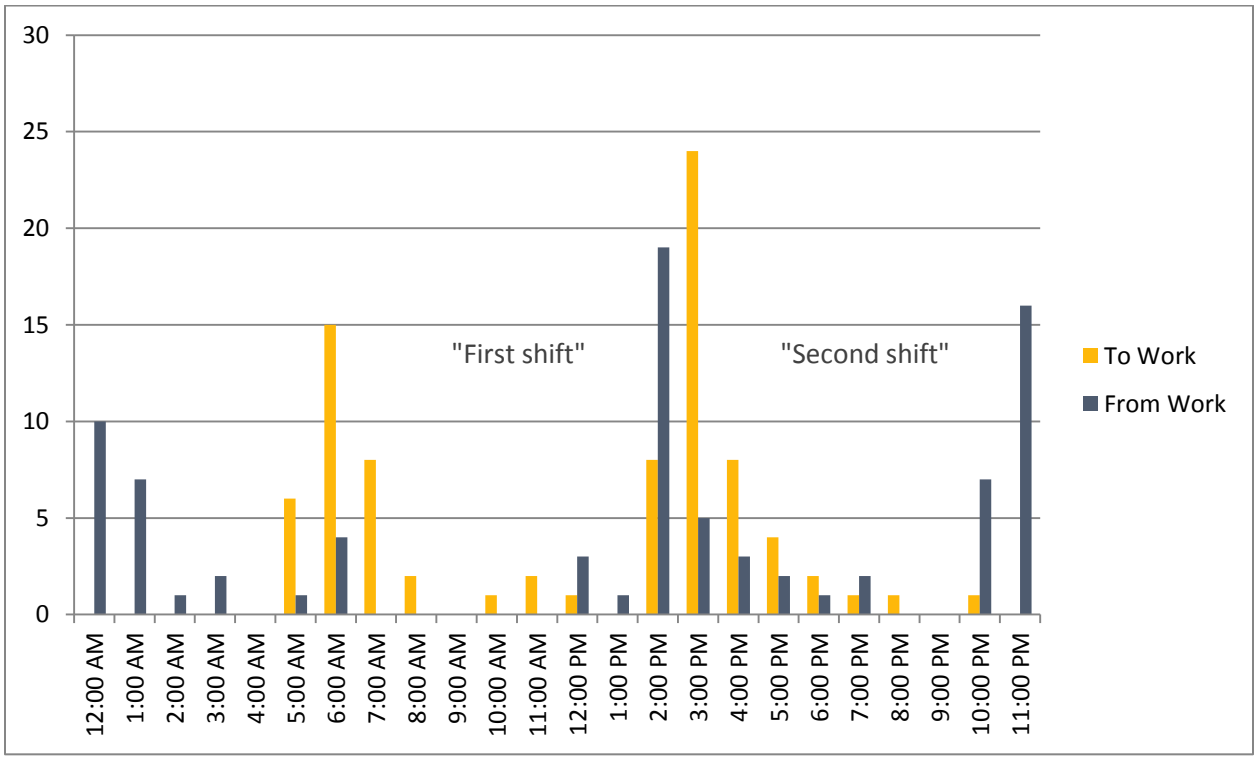
Black Hawk Grundy Mental Health

- Bus (all): 3
- Bus (exclusively): 1
- Walk (all): 3
- Walk (exclusively): 1
- Get a ride (all): 2
- Get a ride (exclusively): 2
- Bicycle: 0
- Drive: 0
- *NR: 10*

* - These responses were confirmed by cross-referencing the respondents' answers to the questions "Have you ridden the bus" and "Do you understand how to ride the bus". Three (3) individuals provided contradictory responses which were counted as non-responses as a result.

10. WHAT TIME DOES YOUR USUAL SHIFT START AND END?

All organizations:



11. HAVE YOU EVER MISSED WORK, SCHOOL, OR IMPORTANT APOINTMENTS BECAUSE OF TRANSPORTATION? EXPLAIN.

Hawkeye Community College Metro Center

- No: 55
- Yes: 30
- Other response: 7
- *NR: 55*

Operation Threshold

- No: 8
- Yes: 3
- Other response: 2
- *NR: 31*

Black Hawk Grundy Mental Health

- Yes: 9
- No: 5
- Other response: 2

12. WHERE IS IT DIFFICULT TO GET TO (IN THE WATERLOO AREA)?

All organizations:

- Healthcare related: 8
  - "Yes, it is difficult to get to the doctor or a hospital and I don't have GPS": 3
  - "Yes, it is difficult to get to the doctor or a hospital": 2
  - "Everywhere, mostly my doctor, laundry, grocery store"
  - "NA meetings, doctor, Black Hawk Grundy"
  - "To see my doctor"
- Need to be driven: 8
  - "I have to be driven to appointments and shopping": 5
  - "I have to be driven husband"
  - "I have to go husband"
  - "I no have car"
- Bus related: 6
  - "It is difficult to know the bus schedule": 2
  - "It's difficult to get to the bus stop."
  - "The bus"
  - "The first bus is finish 6:00 p.m. No good."
  - "The west side and University after five"
- Everywhere: 6
  - "Everywhere": 2
  - "Anywhere"
  - "Everywhere, mostly my doctor, laundry, grocery store"
  - "Most places"
  - "We get to clinic and school everywhere we aren't drive so very difficult for me"
- Crossroads area: 5
  - "To go from Aldi to Walmart": 2
  - "Downtown and mall"
  - "Evansdale and San Marnan"
  - "Walmart"
- Navigation related: 5
  - "Yes, it is difficult to get to the doctor or a hospital and I don't have GPS": 3
  - "GPS – address"
  - "I don't know all Waterloo area"
- Grocery store related: 3
  - "Everywhere, mostly my doctor, laundry, grocery store"
  - "It's difficult to do efficient grocery shopping/can only purchase a fraction at a time. Also no transportation to Evansdale, where my sponsor resides"
  - "Grocery store and laundry"
- Church related: 2
  - "Church": 2
- Downtown: 2
  - "Downtown and mall"
  - "Waterloo downtown"
- Evansdale: 2
  - "Evansdale and San Marnan"
  - "It's difficult to do efficient grocery shopping/can only purchase a fraction at a time. Also no transportation to Evansdale, where my sponsor resides"
- Laundry related: 2
  - "Everywhere, mostly my doctor, laundry, grocery store"
  - "Grocery store and laundry"
- Outside Waterloo area: 2
  - "Outside city limits"
  - "Far distances"
- Work related: 2

    - "Hawkeye Community College Metro Center, Elk Run Rd. MLK Dr."
    - "Work"
- Airline Hwy: 1
    - "Airline Highway – no bus route"
- Expo school: 1
    - "By Expo"
- Hawkeye Community College Metro Center: 1
    - "Hawkeye Community College Metro Center, Elk Run Rd. MLK Dr."
- Jefferson St: 1
    - "Jefferson Street"
- No problems: 45
    - "No": 18
    - "None": 17
    - "Not really": 3
    - "No place"
    - "I don't have a problem"
    - "I don't have any problem about it"
    - "I have a car"
    - "I'm no difficult. I have jobs. I'm go to school. I'm good."
    - "It's ok"
    - "No where"
- Other: 6
    - "I don't know": 2
    - "Appointments, stores"
    - "I know in Waterloo area or Cedar Falls area"
    - "The people is very close and racist."
    - "Yes"

13. IN THE PAST MONTH, HAVE YOU RIDDEN THE BUS?

Hawkeye Community College Metro Center

- No: 134
- Yes: 6
- *NR: 7*

Operation Threshold

- No: 31
- Yes: 5
- *NR: 8*

Black Hawk Grundy Mental Health

- Yes: 11
- No: 5

14. DO YOU UNDERSTAND HOW TO RIDE THE BUS IN WATERLOO?

Hawkeye Community College Metro Center

- No: 117
- Yes: 16
- *NR: 14*

Operation Threshold

- No: 33
- Yes: 4
- *NR: 7*

Black Hawk Grundy Mental Health

- Yes: 13
- No: 3

15. WOULD YOU RIDE THE BUS IN WATERLOO IF IT WAS EASIER TO UNDERSTAND?

Hawkeye Community College Metro Center

- No: 55
- Maybe: 35
- Yes: 30
- *NR: 27*

Operation Threshold

- No: 21
- Maybe: 10
- Yes: 7
- *NR: 6*

Black Hawk Grundy Mental Health

- Yes: 8
- *NR: 8*

16. HOW DO YOU USUALLY GET TO THE STORE TO BUY FOOD?

Hawkeye Community College Metro Center

- Drive (all): 90
- Drive (exclusively): 77
- Get a ride (all): 50
- Get a ride (exclusively): 37
- Walk (all): 12
- Walk (exclusively): 3
- Bicycle (all): 3
- Bicycle (exclusively): 1
- Taxi (all): 1
- Taxi (exclusively): 1
- *NR: 10*

Operation Threshold

- Get a ride (all): 21
- Get a ride (exclusively): 18
- Drive (all): 15
- Drive (exclusively): 11
- Bus (all): 2
- Bus (exclusively): 1
- Walk (all): 6
- Walk (exclusively): 3
- Bicycle (all): 0
- Bicycle (exclusively): 0
- *NR: 6*

Black Hawk Grundy Mental Health

- Walk (all): 9
- Walk (exclusively): 5
- Get a ride (all): 6
- Get a ride (exclusively): 4
- Bus (all): 5
- Bus (exclusively): 1
- Drive (all): 1
- Drive (exclusively): 1
- Bicycle (all): 0
- Bicycle (exclusively): 0
- *NR: 1, respondent wrote "skateboard"*

17. WHAT IS THE CLOSEST STORE TO YOU THAT SELLS FOOD?

Hawkeye Community College Metro Center

- **Walmart: 45** (45.16)
  - Walmart: 43
  - Walmart, Hy-Vee: 1.5*
  - Walmart, Aldi, Sam's: 0.33*
  - Walmart, Hy-Vee, Myanmar store: 0.33*
- **Hy-Vee: 21** (20.83)
  - Hy-Vee: 15
  - Walmart, Hy-Vee: 1.5*
  - Hy-Vee in Waverly: 1
  - Hy-Vee in Cedar Falls: 1
  - Hy-Vee on Logan: 1
  - Hy-Vee, Aldi: 0.5*
  - Hy-Vee, Dollar Tree: 0.5*
  - Walmart, Hy-Vee, Myanmar store: 0.33*
- **Asian Market: 13** (12.83)
  - Asian Market: 8
  - Asia Store: 3
  - Burmese store: 1
  - Family Dollar, Burmese store: 0.5*
  - Walmart, Hy-Vee, Myanmar store: 0.33*
- **Aldi: 7** (7.33)
  - Aldi: 6
  - Aldi, Dollar General: 0.5
  - Hy-Vee, Aldi: 0.5*
  - Walmart, Aldi, Sam's: 0.33*
- **Family Dollar: 6** (5.5)
  - Family Dollar: 5
  - Family Dollar, Burmese store: 0.5*
- **Kwik Star: 4**
- **Mexican Store: 3** (2.5)
  - Mexican Store: 1
  - Michuacana Mexican: 1
  - Mexican store, gas station: 0.5*
- **Fareway: 2**
- **Hometown Foods: 2**
  - Hometown: 1
  - Hometown Foods: 1
- **Dollar General: 2** (1.5)
  - Dollar General: 1
  - Aldi, Dollar General: 0.5
- **African Market: 1**
- **Cork's Grocery: 1**
- **CVS: 1**
- **Kwik Stop: 1**
- **Dollar Tree: 1** (0.5)
  - Hy-Vee, Dollar Tree: 0.5*
- **Gas station: 1** (0.5)
  - Mexican store, gas station: 0.5*
- **Sam's Club: 0** (0.33)
  - Walmart, Aldi, Sam's: 0.33*
- *NR: 38*

* - In cases where a respondent wrote multiple locations, their response is counted as one divided by the number of locations written. The values in bold are simply the total for each location rounded to the nearest whole number.

Operation Threshold

- **Asian Market: 5**
  - Burmese store: 2
  - Myanmar market: 2
  - Asia Food: 1
- **Hometown Foods: 2**
  - Hometown: 2
- **Kwik Star: 2**
- **Walmart: 2**
- **Dollar General: 1**
  - General Dollar: 1
- **Gas station: 1**
- **Hy-Vee: 1**
- *NR: 30*

Black Hawk Grundy Mental Health

- **Hy-Vee: 11 (10.5)**
  - Hy-Vee: 7
  - Hy-Vee on Logan: 3
  - Hy-Vee, Kmart: 0.5
- **Kwik Star: 2 (1.5)**
  - Kwik Star: 1
  - Kwik Star, Family Dollar: 0.5
- **Cork's Grocery: 1**
- **Family Dollar: 0.5**
  - Kwik Star, Family Dollar: 0.5
- **Kmart: 0.5**
  - Hy-Vee, Kmart: 0.5
- *NR: 2*

18. IN THE PAST MONTH, WHERE HAVE YOU BOUGHT FOOD?

Hawkeye Community College Metro Center

- Walmart (all): 102
- Walmart (exclusively): 35
- Asian stores (all): 34
- Asian stores (exclusively): 6
- Hy-Vee (all): 31
- Hy-Vee (exclusively): 6
- Aldi (all): 30
- Aldi (exclusively): 4
- Hometown Foods (all): 1
- Hometown Foods (exclusively): 1
- Waterloo General Market International Store (all): 6
- Sam's Club (all): 5
- Dollar General (all): 4
- Fareway (all): 4
- Family Dollar (all): 3
- Mexican stores (all): 3
- CVS (all): 1
- Gas station (all): 1
- Honey Garden Family Restaurant (all): 1
- *NR: 24*

Operation Threshold

- Walmart (all): 18
- Walmart (exclusively): 7
- Asian stores (all): 8
- Hy-Vee (all): 3
- Dollar General (all): 1
- "Dollar store" (all): 1
- Fareway (all): 1
- Kwik Star (all): 1
- *NR: 26*

Black Hawk Grundy Mental Health

- Hy-Vee (all): 10
- Hy-Vee (exclusively): 5
- Kwik Star (all): 2
- Casey's (all): 1
- Cork's Grocery: 1
- Family Dollar (all): 1
- Nowhere (all): 2
- *NR: 2*

19. IS THERE ANYWHERE YOU WANT TO BUY FOOD, BUT CAN'T BECAUSE OF TRANSPORTATION?

Hawkeye Community College Metro Center

- **No: 62**
  - No: 57
  - I drive my car, sometimes I get a ride from family or friends: 1
  - I have a car: 1
  - I drive car: 1
  - I will transportation and it access: 1
  - No, I can go anywhere buy food. I drive. Sometimes isn't easy to drive if snowing: 1
- **Yes: 14**
  - Family and friend: 1
  - Hy-Vee, African store: 1
  - Is difficult: 1
  - K-Mart: 1
  - K-Mart, Walmart: 1
  - Problems with my car: 1
  - Sometimes at Walmart when my own car is broke. I have to call my friends or brother to get a ride: 1
  - Sometimes at Walmart: 1
  - Sometimes: 1
  - African store in Cedar Rapids: 1
  - Yes: 4
- *NR: 71*

Operation Threshold

- **No: 10**
- **Yes: 4**
  - I don't know the address, no transportation: 1
  - Very important because no food to eat have to buy: 1
  - Yes: 1
  - Yes, at Chicago big city: 1
- *NR: 30*

Black Hawk Grundy Mental Health

- **No: 7**
  - No: 6
  - Not really: 1
- **Yes: 7**
  - Aldi: 3
  - Applebees: 1
  - There is only so much you can get riding the bus: 1
  - Walmart: 1
  - Yes: 1

20. WHERE DO YOU USUALLY DO YOUR LAUNDRY?

Hawkeye Community College Metro Center

- Laundromat (all): 53
- Laundromat (exclusively): 49
- My own washer and dryer (all): 48
- My own washer and dryer (exclusively): 48
- Shared washer and dryer in apartment building (all): 36
- Shared washer and dryer in apartment building (exclusively): 31
- At a friend's house (all): 6
- At a friend's house (exclusively): 5
- *NR: 9*

Operation Threshold

- Laundromat (all): 19
- Laundromat (exclusively): 19
- My own washer and dryer (all): 8
- My own washer and dryer (exclusively): 8
- Shared washer and dryer in apartment building (all): 5
- Shared washer and dryer in apartment building (exclusively): 5
- *NR: 12*

Black Hawk Grundy Mental Health

- At a friend's house (all): 8
- At a friend's house (exclusively): 6
- Laundromat (all): 7
- Laundromat (exclusively): 6
- My own washer and dryer (all): 2
- My own washer and dryer (exclusively): 1
- Shared washer and dryer in apartment building (all): 1
- Shared washer and dryer in apartment building (exclusively): 1

21. HOW DO YOU USUALLY GET TO THE LAUNDROMAT OR TO YOUR FRIEND'S HOUSE FOR LAUNDRY?

Hawkeye Community College Metro Center

- Drive (all): 33
- Drive (exclusively): 27
- Get a ride (all): 15
- Get a ride (exclusively): 14
- Walk (all): 4
- Walk (exclusively): 3
- Bicycle (all): 2
- Bicycle (exclusively): 1
- Taxi (all): 1
- Taxi (exclusively): 1
- *NR: 95*

Operation Threshold

- Get a ride (all): 7
- Get a ride (exclusively): 7
- Drive (all): 7
- Drive (exclusively): 7
- Walk (all): 3
- Walk (exclusively): 3
- *NR: 27*

Black Hawk Grundy Mental Health

- Walk (all): 7
- Walk (exclusively): 6
- Get a ride (all): 4
- Get a ride (exclusively): 3
- Bus (all): 3
- Bus (exclusively): 1
- Drive (all): 1
- Drive (exclusively): 1
- *NR: 3, one respondent wrote "skateboard"*

22. WHERE DO YOU USUALLY GO FOR MEDICAL APPOINTMENTS?

Hawkeye Community College Metro Center

- People's Clinic (all): 73
- People's Clinic (exclusively): 64
- Covenant Medical Center (all): 24
- Covenant Medical Center (exclusively): 20
- Unity Point Allen Hospital (all): 14
- Unity Point Allen Hospital (exclusively): 6
- Cedar Falls (all): 1
- Cedar Falls (exclusively): 1
- Waverly (all): 1
- Waverly (exclusively): 1
- Family Medicine Greenhill (all): 1
- Iowa City (all): 1
- WIC (all): 1
- *NR: 44*

Operation Threshold

- People's Clinic (all): 19
- People's Clinic (exclusively): 17
- Unity Point Allen Hospital (all): 3
- Unity Point Allen Hospital (exclusively): 1
- Covenant Medical Center (all): 1
- Covenant Medical Center (exclusively): 1
- Northeast Iowa Family Practice Center (all): 1
- Northeast Iowa Family Practice Center (exclusively): 1
- *NR: 22*

Black Hawk Grundy Mental Health

- People's Clinic (all): 10
- People's Clinic (exclusively): 7
- Covenant Medical Center (all): 3
- Covenant Medical Center (exclusively): 2
- Black Hawk Grundy Mental Health (all): 3
- Black Hawk Grundy Mental Health (exclusively): 1
- Unity Point Allen Hospital (all): 2
- Unity Point Allen Hospital (exclusively): 2
- Free Clinic (all): 1
- Free Clinic (exclusively): 1

23. HOW DO YOU USUALLY GET TO MEDICAL APPOINTMENTS?

Hawkeye Community College Metro Center

- Drive (all): 88
- Drive (exclusively): 77
- Get a ride (all): 44
- Get a ride (exclusively): 35
- Walk (all): 9
- Walk (exclusively): 5
- Bicycle (all): 2
- Bicycle (exclusively): 1
- Taxi (all): 1
- Taxi (exclusively): 1
- *NR: 16*

Operation Threshold

- Drive (all): 16
- Drive (exclusively): 16
- Get a ride (all): 11
- Get a ride (exclusively): 10
- Walk (all): 2
- Walk (exclusively): 1
- Bus (all): 1
- Bus (exclusively): 0
- *NR: 16*

Black Hawk Grundy Mental Health

- Walk (all): 9
- Walk (exclusively): 5
- Bus (all): 6
- Bus (exclusively): 2
- Get a ride (all): 5
- Get a ride (exclusively): 2
- Drive (all): 1
- Drive (exclusively): 1
- Bicycle (all): 1
- *NR: 1, respondent wrote "skateboard or ambulance"*

24. HAVE YOU EVER BEEN AFRAID TO WALK IN YOUR NEIGHBORHOOD?

Hawkeye Community College Metro Center

- No: 93
- Yes: 40
- *NR: 14*

Operation Threshold

- No: 21
- Yes: 7
- *NR: 16*

Black Hawk Grundy Mental Health

- No: 8
- Yes: 8

25. IF YES, WHY WERE YOU AFRAID?

Hawkeye Community College Metro Center

- Crime, intimidation: 14
  - There are shootings: 5
  - Because I saw stranger people: 1
  - Because somebody made me scared: 1
  - Because sometimes getting dark very early so I heard about robbery. I very scare for them: 1
  - Because… [my neighbors plays loud music] and took my friend's bicycle: 1
  - Liquor store: 1
  - Our neighbors: 1
  - Sometimes people are shooting on the street. Sometime I don't feel safe: 1
  - There was a shooting near my house: 1
  - We don't know about each other moral: 1
- Dogs: 2
  - Because many dogs: 1
  - Many many dogs: 1
- Traffic, infrastructure, lighting: 2
  - Fast traffic: 1
  - No safe area: 1
- Lighting: 1
  - The street need more lights: 1
- Other: 1
  - I am afraid I can be seen as annoying people: 1
- *NR: 127*

Operation Threshold

- Crime, intimidation: 5
  - At night and walk alone: 1
  - Crime: 1
  - Robberies, shootings: 1
  - They have gun, shoot and robbery: 1
  - When we met someone is not good: 1
- *NR: 39*

Black Hawk Grundy Mental Health

- Crime, intimidation: 5
  - Violence: 2
  - Anxiety of being alone: 1
  - Gang Activity: 1
  - People want to jump me: 1
- Lighting: 1
  - When it dark can't see: 1
- *NR: 10*

26. WHAT ARE THE MOST DIFFICULT THINGS ABOUT GETTING WHERE YOU NEED TO GO?

Hawkeye Community College Metro Center

- Winter weather: 14
  - Drive in the snow.
  - Driving in the snow (bad weather).
  - Good conditions except driving in a snow
  - I don't like Waterloo is cold.
  - In the winter time. There is a lot of snow on street in Waterloo. I afraid that my car will stuck on street. One or two times in each year my car stuck on the road in heavy snow. There is no snow removal clipart during that time. I work second shift is difficult to get home from work, when there is a lot of sno on the road. Snow make some difficult where I need to go.
  - In the winter when the snow covered the roads sometimes the roads are not very clean and safety.
  - In winter is difficult, the street need more clean went snowing.
  - It's difficult things to get to buy food and clothes when snowing.
  - Road snow
  - snow
  - The city need to clean the road on the weather times.
  - The weather time on the road.
  - Time management and bad weather condition
  - We want to clean streets when is winter time.
- Navigation: 10
  - The most difficult thing is the language for places I don't know. I don't know the directions: 4
  - Every where because we are new town
  - I don't know Waterloo very well
  - I don't know Waterloo very well but in Waverly is really simple.
  - Sometimes, I don't know how to get where the primary doctor referred to another special doctor and other place.
  - The difficult is do not know where is the exactly street
  - Yes, I don't know directions and the most difficult thing is the language for places I don't know.
- Difficulty driving: 8
  - A lot of traffic: 2
  - I can't pass the driving test.
  - I don't car because, I don't have a driver license. I still afraid.
  - I don't like to drive.
  - It's difficult things is car.
  - Someone road is closed because is in construction for long time, sometimes for 1 year.
  - Too many one-way streets
- No automobile, cost: 7
  - A car is expensive to buy. We have one car only.
  - Cost money. Far away. My car is old.
  - I need more car.
  - School - need to walk
  - The car I haven't a car sometimes I need ride.
  - The difficult is because I don't have the car. Sometimes I go with my husband someday my husband is afraid he must to sleep and me I can't to move for to go to buy anything.
  - Transportation
- Bus access: 4
  - A lot of traffic. I need more buses.
  - I want to know a bus when time bus start and end.
  - That there is continued and established transport stops and indentified in other states have estabilshed and indentified stops and bus schedules indicating what time the bus passes.
  - When I were in Maryland I usually took buses because I could find buses every 15' and the bus stop were visible. I could use my phone's map to find all bus line, schedule and specific stop. But here I can't.
- Long distances: 2
  - The ride is one of the most difficult things when you have an appointment out of town. Not everybody drives long distances.
  - Sometime I have to go to the hospital in Iowa City. I have to drive far away make me scare.
- Other: 3
  - Franklin St. is not good. Pot holes.
  - I need to go to church

    - Many bills for hospital.
- No problems: 20
    - None: 12
    - I do not have any difficult things about getting where I need to go.
    - I go to job - my car driver
    - I'm good to the all things. I'm walk myself. I'm good. Thank you.
    - I'm ok with transportation.
    - No where
    - Nothing, I'm alright
    - Nothing. Because I have my own car and google map.
    - Now mostly good.
- *NR: 79*

Operation Threshold

- No automobile, cost: 3
    - Finding a ride to get there on time or within a reasonable time
    - It easy to get to go somewhere but you have to save gas. No $.
    - The most difficult thing about getting to school because I can't drive a car. Right now the weather is very cold and windy too best.
- Difficulty driving: 1
    - The most difficult is when I really want to go and I'm afraid to go alone or afraid to talk by myself but I have to go if it's really important I just get ride for my friend or neighbor, if my husband is busy.
- No problems: 2
    - No
    - Not difficult
- Other: 1
    - Appointments: 1
- *NR: 37*

Black Hawk Grundy Mental Health

- No automobile, cost: 7
    - Transportation
    - No transportation
    - Transportation - not having gas or money to pay
    - I have to walk
    - Do not have the money to get there or a ride
    - Arranging a ride
    - Having the gas to go to places
- Bus access: 6
    - Money for bus pass
    - Shortened bus schedule time in the evening
    - The bus system here is so messed up. It's horrendous how complicated it is to get somewhere. You spend more time waiting for the bus than what you have to do when you get to your destination.
    - Know which bus to take
    - Bus schedules could run earlier/later
    - Don't understand bus. Scared of being alone. It's cold.
- Long Distances: 1
    - Other cities or town
- Navigation: 1
    - Sometimes I am very unsure of what direction to go, I have become skeptical of people, waiting for something bad to happen. I am resistant to ask for help or directions. Even though I've lived here for almost 7 years, I still do not know my way around.
- Winter weather: 1
    - Snow/ice

Appendix D: Public Input Meeting Materials

Black Hawk County Metropolitan Area

Pedestrian Master Plan
Public Input Meeting Survey

Demographics

Name (optional): _____ **Representing** (optional): _____

Age: < 18 18-29 30-44 45-59 60-74 75 + **Homeownership** (circle one): Own Rent

Race: White Black Asian Pacific Amer. Indian **Hispanic/Latino** (circle one): Yes No

Household income: < $ 47,000 $ 47,000 + **Number of people in household**: _____

Number of years in Waterloo/Cedar Falls area: _____ **Number of autos owned by household**: _____

How did you hear about this meeting? _____

How did you get to this meeting?

___ Drove alone ___ Drove with others ___ Walked from home ___ Walked from somewhere else

___ Bicycle ___ Bus ___ Motorcycle/moped ___ Other: _____

Schools

Do you have children in K-12 school? Yes No (skip to next section)

Which school(s)? _____

Do they walk to school? Yes No (main reason why): _____

Would you be interested in participating in a *walking school bus*? Yes No Not Sure

Comments

Mark an X next to the neighborhood that best describes where you live:

___ Downtown Waterloo ___ East Waterloo ___ Crossroads/La Porte Rd ___ Kimball/Ridgway Ave ___ Cedar Heights

___ College Square Mall ___ CF Industrial Park ___ Somewhere else: _____

Please provide any comments you have about the projects on display:

_____

_____

_____

Please provide any comments you'd like included in the overall Pedestrian Master Plan:

_____

_____

If you'd like additional information, please write your email address: _____

Circle the phrase that best describes your views on each project. **If you don't have feelings either way, simply leave blank.**

		Crossroads, Kimball Ave, and Ridgeway Ave		
Strongly oppose	Somewhat oppose	Project **1** (Est. Cost $ 200,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **2** (Est. Cost $ 470,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **3** (Est. Cost $ 630,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **4** (Est. Cost $ 215,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **5** (Est. Cost $ 490,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **6** (Est. Cost $ 820,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **7** (Est. Cost $ 200,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **8** (Est. Cost $ 350,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **9** (Est. Cost $ 550,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **10** (Est. Cost $ 392,500)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **11** (Est. Cost $ 472,500)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **12** (Est. Cost $ 595,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **13** (Est. Cost $ 390,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **14** (Est. Cost $ 560,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **15** (Est. Cost $???,???)	Somewhat support	Strongly support

		Cedar Heights and College Square		
Strongly oppose	Somewhat oppose	Project **1** (Est. Cost $ 160,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **2** (Est. Cost $ 285,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **3** (Est. Cost $ 240,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **4** (Est. Cost $ 580,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **5** (Est. Cost $ 390,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **6** (Est. Cost $ 280,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **7** (Est. Cost $ 270,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **8** (Est. Cost $ 700,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **9** (Est. Cost $ 370,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **10** (Est. Cost $ 240,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **11** (Est. Cost $?,???,???)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **12** (Est. Cost $???,???)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **13** (Est. Cost $ 410,000)	Somewhat support	Strongly support

		Cedar Falls Industrial Park		
Strongly oppose	Somewhat oppose	Project **1** (Est. Cost $ 190,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **2** (Est. Cost $ 435,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **3** (Est. Cost $ 805,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **4** (Est. Cost $ 230,000)	Somewhat support	Strongly support

		East Waterloo		
Strongly oppose	Somewhat oppose	Project **1** (Est. Cost $ 650,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **2** (Est. Cost $ 160,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **3** (Est. Cost $ 500,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **4** (Est. Cost $ 545,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **5** (Est. Cost $?,???,???)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **6** (Est. Cost $ 590,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **7** (Est. Cost $ 210,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **8** (Est. Cost $ 170,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **9** (Est. Cost $ 600,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **10** (Est. Cost $ 130,000)	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **11** (Est. Cost $ 200,000)	Somewhat support	Strongly support

		Downtown Waterloo		
Strongly oppose	Somewhat oppose	Project **1**: Ped Connections at US-63/University	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **2**: Aesthetic improvements along US-63	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **3**: Decorative lighting to Grout Museum	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **4**: Open gates to Expo Plazas	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **5**: Plant grass near Convention Center	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **6**: Public space near 4th St Bridge	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **7**: Repair 4th St Bridge canopy	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **8**: Tree buffer in front of jail	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **9**: Public space on E 4th St/Lafayette St	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **10**: Decorative lighting under P garage	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **11**: Narrow street near Lincoln Park	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **12**: Enhancements along Park Ave	Somewhat support	Strongly support
Strongly oppose	Somewhat oppose	Project **13**: Bulb-outs at all viable intersections	Somewhat support	Strongly support

INRCOG
Iowa Northland
Regional Council
Of Governments

229 E. Park Ave.
Waterloo, IA 50703
Phone 319-235-0311
Fax 319-235-2891

NEWS RELEASE

DATE: October 28, 2016

RE: Pedestrian Master Plan Public Input Meetings

CONTACT: Codie Leseman, Transportation Planner II, 235-0311

The Iowa Northland Regional Council of Governments (INRCOG) will host six public input meetings to gather feedback on the Black Hawk County Metropolitan Area **Pedestrian Master Plan**.

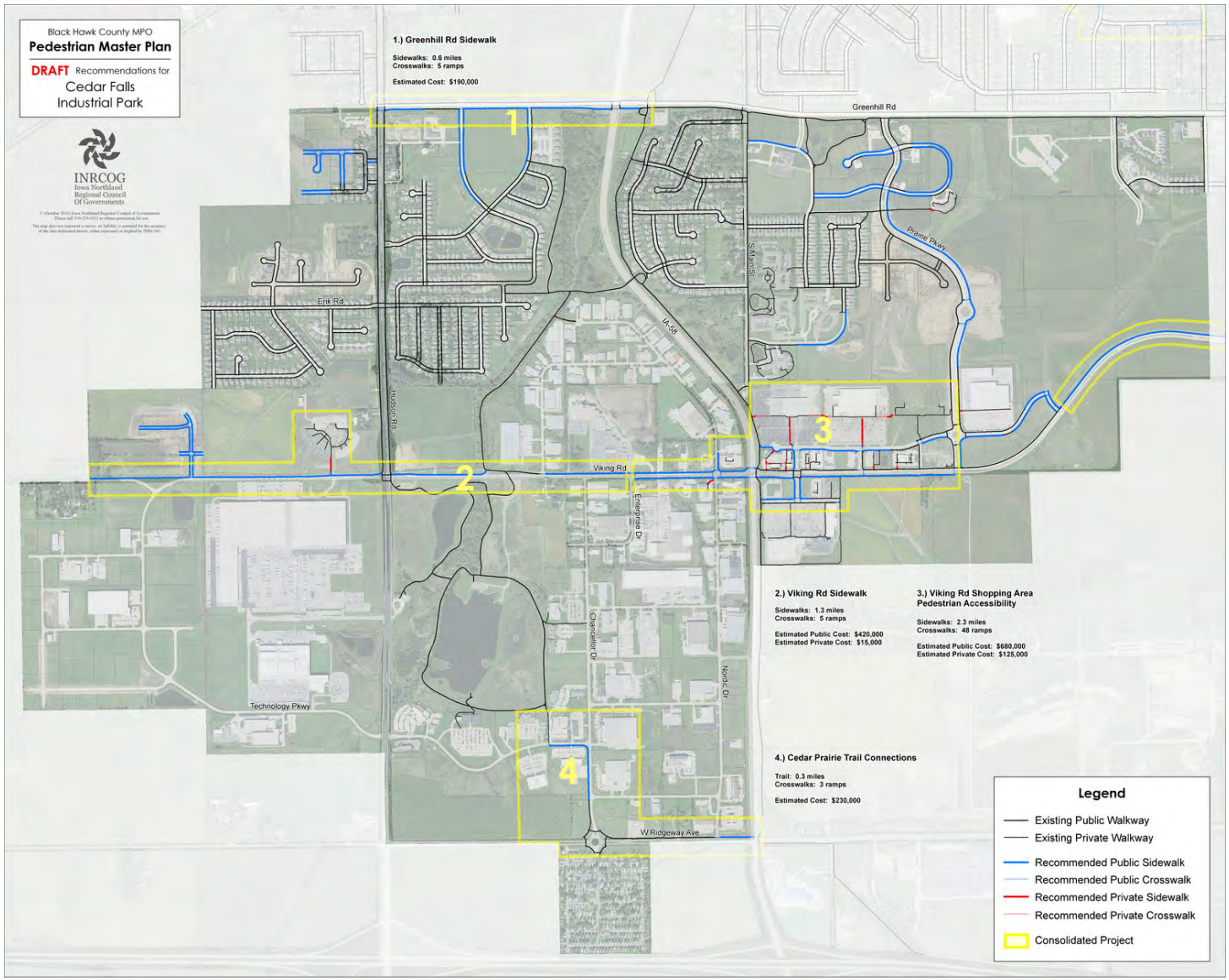
At the meetings, residents can view recommendations for sidewalk and crosswalk improvements throughout Waterloo and Cedar Falls, specifically in the Crossroads area, College Square, Cedar Heights, Kimball and Ridgway Avenues, East Waterloo, and Downtown Waterloo. They will be asked to indicate which projects they would support, and which projects they wouldn't. The goal is to get input from all residents, not just proponents of sidewalks. Once the meetings are complete, INRCOG staff will analyze the information and provide recommendations to the City of Waterloo and City of Cedar Falls for future pedestrian improvements. The Pedestrian Master Plan is expected to be completed in early 2017.

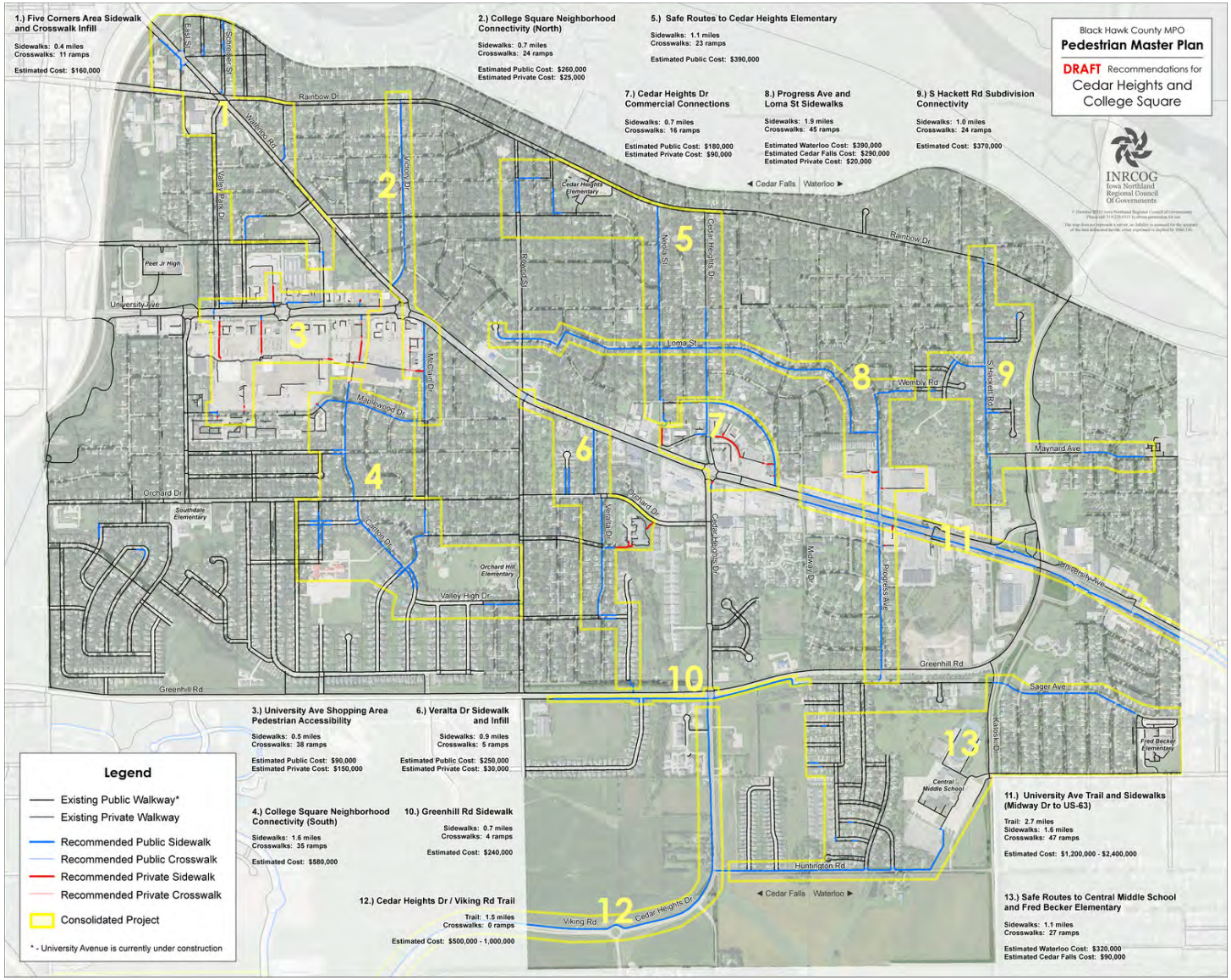
Dates for the public input meetings are as follows:

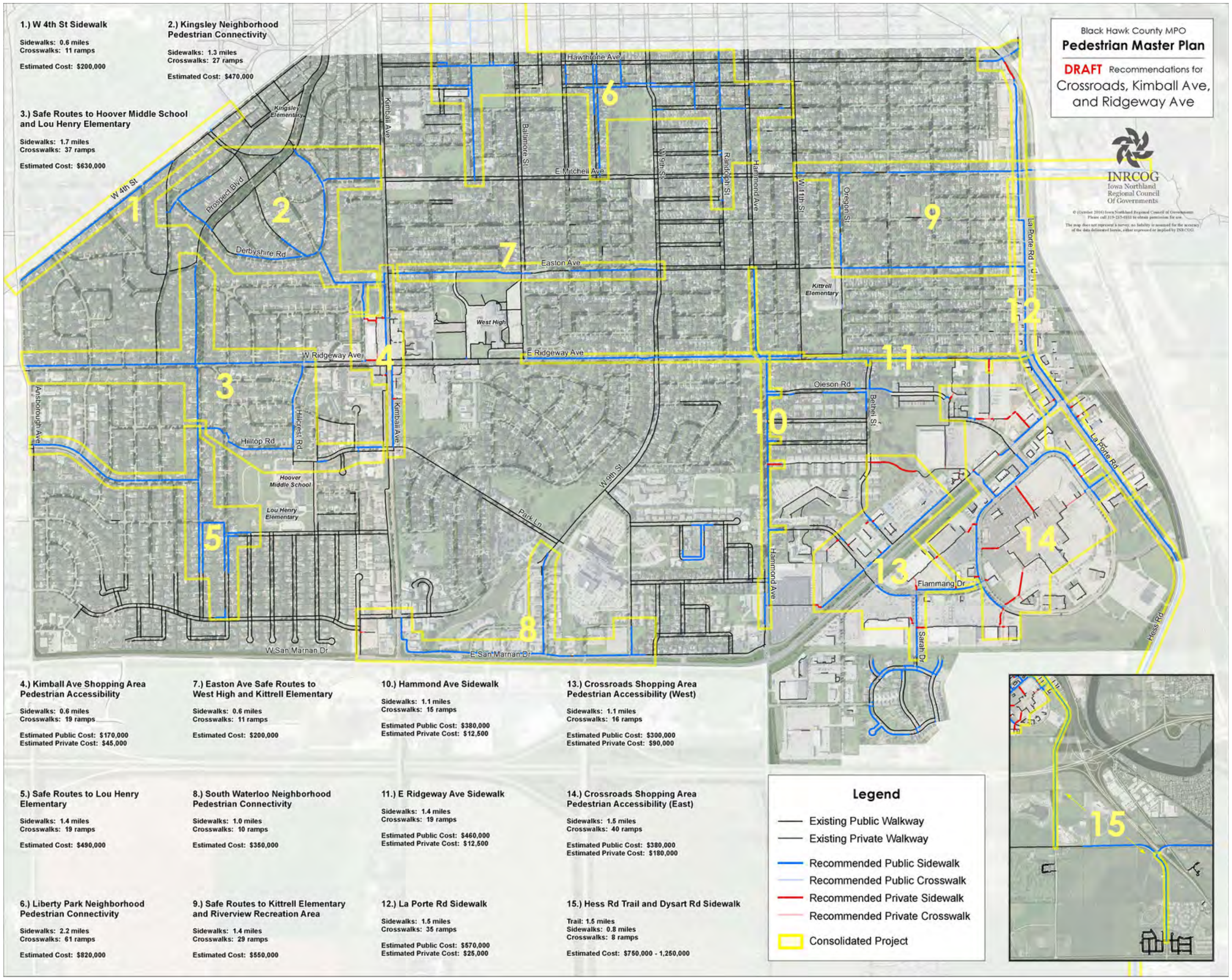
- Tue, November 1st — **Hoover Middle School**, 630 Hillcrest Rd, Waterloo (4:30-6:30pm)
- Wed, November 2nd — **George Washington Carver Academy**, 1505 Logan Ave, Waterloo (4:30-6:30pm)
- Sat, November 5th — **Crossroads Mall**, 2060 Crossroads Blvd, Waterloo (12:00-4:00pm)
- Tue, November 8th — **Southdale Elementary**, 627 Orchard Dr, Cedar Falls (4:30-6:30pm)
- Wed, November 9th — **Cedar Heights Elementary**, 2417 Rainbow Dr, Cedar Falls (4:30-6:30pm)
- Wed, November 16th — **Cedar Valley SportsPlex**, 300 Jefferson St, Waterloo (4:30pm-7:30pm)

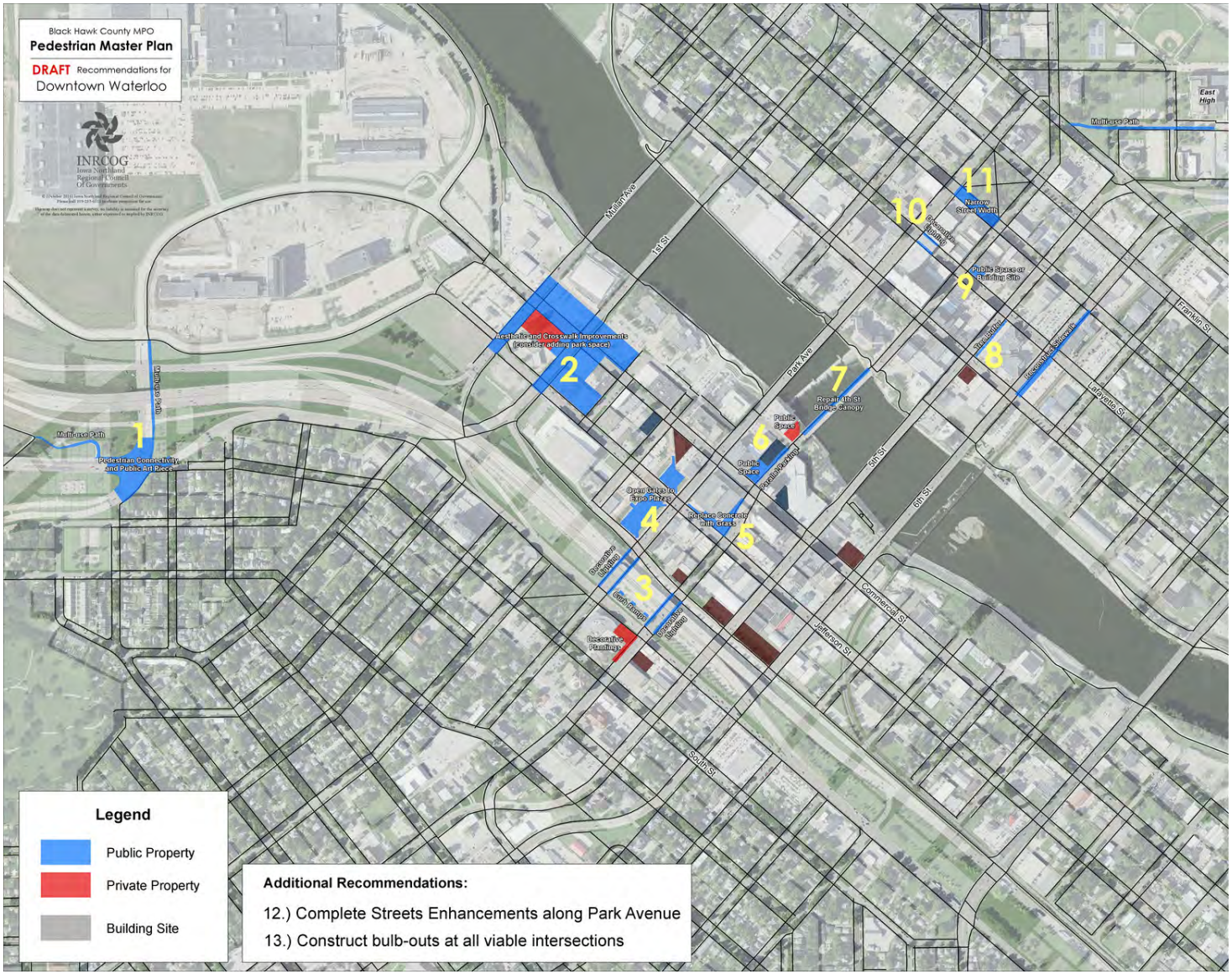
###

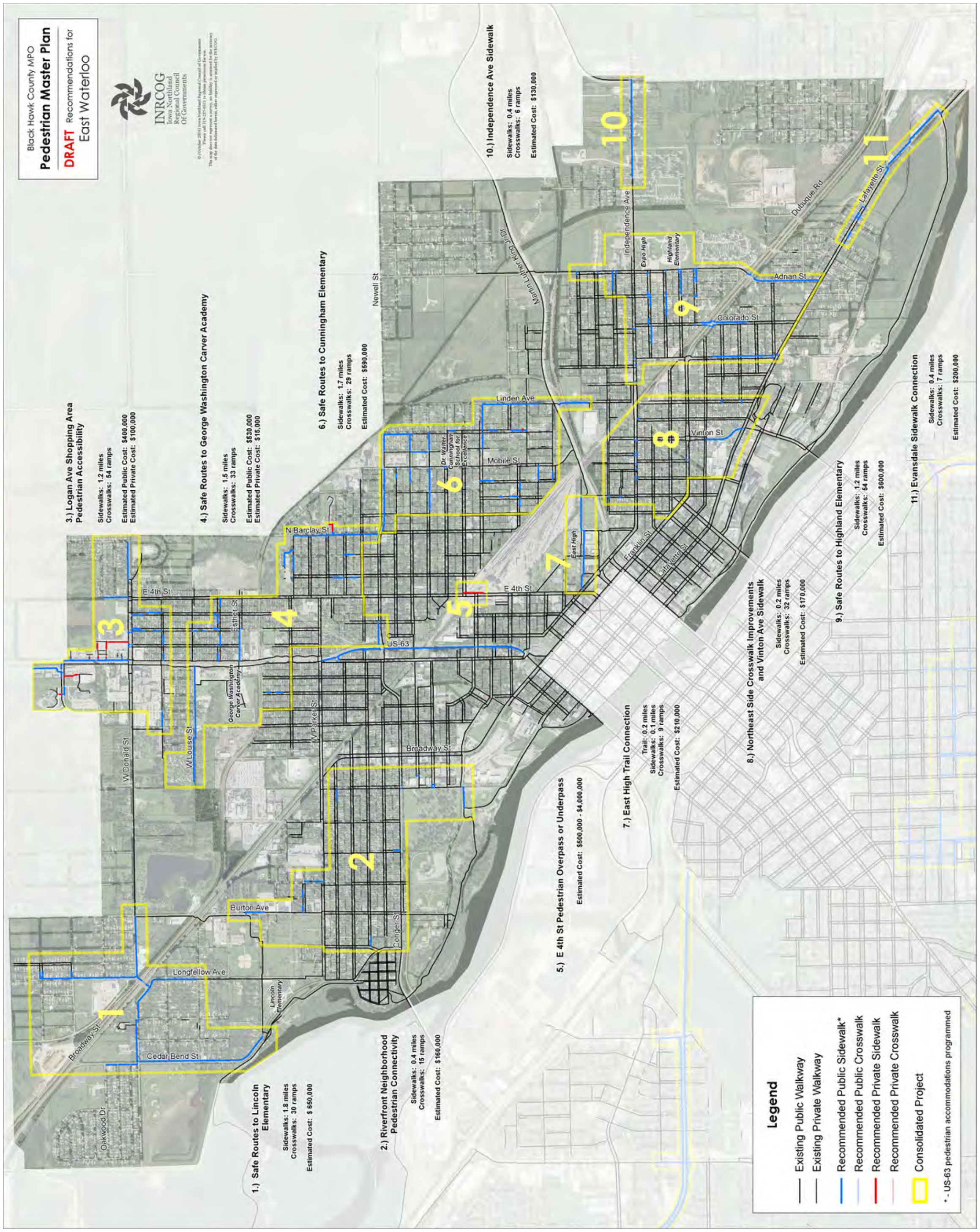
The press is encouraged to attend the first meeting on **November 1st at Hoover Middle School**, with a brief presentation taking place shortly after the meeting starts at **4:30 p.m.**


Black Hawk County MPO
Pedestrian Master Plan
DRAFT Recommendations for
Cedar Falls
Industrial Park
INRCOG
Iowa Northland
Regional Council
Of Governments
1.) Greenhill Rd Sidewalk
Sidewalks: 0.6 miles
Crosswalks: 5 ramps
Estimated Cost: $190,000
Greenhill Rd
Prairie Pkwy
S Main St
Erik Rd
IA-58
Hudson Rd
Viking Rd
Enterprise Dr
Technology Pkwy
Chancellor Dr
North Dr
W Ridgeway Ave
1
2
3
4
2.) Viking Rd Sidewalk
Sidewalks: 1.3 miles
Crosswalks: 5 ramps
Estimated Public Cost: $420,000
Estimated Private Cost: $15,000
3.) Viking Rd Shopping Area Pedestrian Accessibility
Sidewalks: 2.3 miles
Crosswalks: 48 ramps
Estimated Public Cost: $680,000
Estimated Private Cost: $125,000
4.) Cedar Prairie Trail Connections
Trail: 0.3 miles
Crosswalks: 3 ramps
Estimated Cost: $230,000
Legend
Existing Public Walkway
Existing Private Walkway
Recommended Public Sidewalk
Recommended Public Crosswalk
Recommended Private Sidewalk
Recommended Private Crosswalk
Consolidated Project


Black Hawk County MPO
Pedestrian Master Plan
DRAFT Recommendations for
Cedar Heights and College Square
INRCOG
Iowa Northland Regional Council Of Governments
1.) Five Corners Area Sidewalk and Crosswalk Infill
Sidewalks: 0.4 miles
Crosswalks: 11 ramps
Estimated Cost: $160,000
2.) College Square Neighborhood Connectivity (North)
Sidewalks: 0.7 miles
Crosswalks: 24 ramps
Estimated Public Cost: $260,000
Estimated Private Cost: $25,000
5.) Safe Routes to Cedar Heights Elementary
Sidewalks: 1.1 miles
Crosswalks: 23 ramps
Estimated Public Cost: $390,000
7.) Cedar Heights Dr Commercial Connections
Sidewalks: 0.7 miles
Crosswalks: 16 ramps
Estimated Public Cost: $180,000
Estimated Private Cost: $90,000
8.) Progress Ave and Loma St Sidewalks
Sidewalks: 1.9 miles
Crosswalks: 45 ramps
Estimated Waterloo Cost: $390,000
Estimated Cedar Falls Cost: $290,000
Estimated Private Cost: $20,000
9.) S Hackett Rd Subdivision Connectivity
Sidewalks: 1.0 miles
Crosswalks: 24 ramps
Estimated Cost: $370,000
◄ Cedar Falls | Waterloo ►
Rainbow Dr
Waterloo Rd
Valley Park Dr
Victory Dr
Cedar Heights Elementary
Broadway St
Nicole St
Cedar Heights Dr
Peet Jr High
University Ave
McClain Dr
Loma St
Wembly Rd
S Hackett Rd
Maynard Ave
Maplewood Dr
Orchard Dr
Southdale Elementary
Cedrus Dr
Veralta Dr
Cedar Heights Dr
Midway Dr
Progress Ave
Orchard Hill Elementary
Valley High Dr
Greenhill Rd
Sager Ave
Konsti Dr
Fred Becker Elementary
Central Middle School
Huntington Rd
Viking Rd
3.) University Ave Shopping Area Pedestrian Accessibility
Sidewalks: 0.5 miles
Crosswalks: 38 ramps
Estimated Public Cost: $90,000
Estimated Private Cost: $150,000
6.) Veralta Dr Sidewalk and Infill
Sidewalks: 0.9 miles
Crosswalks: 5 ramps
Estimated Public Cost: $250,000
Estimated Private Cost: $30,000
4.) College Square Neighborhood Connectivity (South)
Sidewalks: 1.6 miles
Crosswalks: 35 ramps
Estimated Cost: $580,000
10.) Greenhill Rd Sidewalk
Sidewalks: 0.7 miles
Crosswalks: 4 ramps
Estimated Cost: $240,000
12.) Cedar Heights Dr / Viking Rd Trail
Trail: 1.5 miles
Crosswalks: 0 ramps
Estimated Cost: $500,000 - 1,000,000
11.) University Ave Trail and Sidewalks (Midway Dr to US-63)
Trail: 2.7 miles
Sidewalks: 1.6 miles
Crosswalks: 47 ramps
Estimated Cost: $1,200,000 - $2,400,000
13.) Safe Routes to Central Middle School and Fred Becker Elementary
Sidewalks: 1.1 miles
Crosswalks: 27 ramps
Estimated Waterloo Cost: $320,000
Estimated Cedar Falls Cost: $90,000
Legend
Existing Public Walkway*
Existing Private Walkway
Recommended Public Sidewalk
Recommended Public Crosswalk
Recommended Private Sidewalk
Recommended Private Crosswalk
Consolidated Project
* - University Avenue is currently under construction


Black Hawk County MPO
Pedestrian Master Plan
DRAFT Recommendations for
Crossroads, Kimball Ave, and Ridgeway Ave
INRCOG
Iowa Northland Regional Council Of Governments
1.) W 4th St Sidewalk
Sidewalks: 0.6 miles
Crosswalks: 11 ramps
Estimated Cost: $200,000
2.) Kingsley Neighborhood Pedestrian Connectivity
Sidewalks: 1.3 miles
Crosswalks: 27 ramps
Estimated Cost: $470,000
3.) Safe Routes to Hoover Middle School and Lou Henry Elementary
Sidewalks: 1.7 miles
Crosswalks: 37 ramps
Estimated Cost: $630,000
4.) Kimball Ave Shopping Area Pedestrian Accessibility
Sidewalks: 0.6 miles
Crosswalks: 19 ramps
Estimated Public Cost: $170,000
Estimated Private Cost: $45,000
5.) Safe Routes to Lou Henry Elementary
Sidewalks: 1.4 miles
Crosswalks: 19 ramps
Estimated Cost: $490,000
6.) Liberty Park Neighborhood Pedestrian Connectivity
Sidewalks: 2.2 miles
Crosswalks: 61 ramps
Estimated Cost: $820,000
7.) Easton Ave Safe Routes to West High and Kittrell Elementary
Sidewalks: 0.6 miles
Crosswalks: 11 ramps
Estimated Cost: $200,000
8.) South Waterloo Neighborhood Pedestrian Connectivity
Sidewalks: 1.0 miles
Crosswalks: 10 ramps
Estimated Cost: $350,000
9.) Safe Routes to Kittrell Elementary and Riverview Recreation Area
Sidewalks: 1.4 miles
Crosswalks: 29 ramps
Estimated Cost: $550,000
10.) Hammond Ave Sidewalk
Sidewalks: 1.1 miles
Crosswalks: 15 ramps
Estimated Public Cost: $380,000
Estimated Private Cost: $12,500
11.) E Ridgeway Ave Sidewalk
Sidewalks: 1.4 miles
Crosswalks: 19 ramps
Estimated Public Cost: $460,000
Estimated Private Cost: $12,500
12.) La Porte Rd Sidewalk
Sidewalks: 1.5 miles
Crosswalks: 35 ramps
Estimated Public Cost: $570,000
Estimated Private Cost: $25,000
13.) Crossroads Shopping Area Pedestrian Accessibility (West)
Sidewalks: 1.1 miles
Crosswalks: 16 ramps
Estimated Public Cost: $300,000
Estimated Private Cost: $90,000
14.) Crossroads Shopping Area Pedestrian Accessibility (East)
Sidewalks: 1.5 miles
Crosswalks: 40 ramps
Estimated Public Cost: $380,000
Estimated Private Cost: $180,000
15.) Hess Rd Trail and Dysart Rd Sidewalk
Trail: 1.5 miles
Sidewalks: 0.8 miles
Crosswalks: 8 ramps
Estimated Cost: $750,000 - 1,250,000
Legend
Existing Public Walkway
Existing Private Walkway
Recommended Public Sidewalk
Recommended Public Crosswalk
Recommended Private Sidewalk
Recommended Private Crosswalk
Consolidated Project
W 4th St
Prospect Blvd
Derbyshire Rd
Kingsley Elementary
Kimball Ave
Hawthorne Ave
Ballamore St
E Mitchell Ave
W 9th St
Randolph St
Hammond Ave
W 11th St
Oregon St
Easton Ave
Kittrell Elementary
West High
W Ridgeway Ave
E Ridgeway Ave
La Porte Rd
Oleson Rd
Bethel St
Ansborough Ave
Hilltop Rd
Hillcrest Rd
Hoover Middle School
Lou Henry Elementary
W 9th St
Park Ln
Flammang Dr
Sarah Dr
Hess Rd
W San Marnan Dr
E San Marnan Dr
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15


Black Hawk County MPO
Pedestrian Master Plan
DRAFT Recommendations for
Downtown Waterloo
INRCOG
Iowa Northland Regional Council Of Governments
Multi-use Path
Multi-use Path
Pedestrian Connectivity and Public Art Piece
Aesthetic and Crosswalk Improvements (Consider adding park space)
Open Gates to Expo Plaza
Decorative Planting
Decorative Planting
Decorative Planting
Repaint Concrete with Grass
Public Space
Public Space
Repair 4th St Bridge Canopy
Public Space or Building Site
Narrow Street Width
Decorative Planting
Multi-use Path
East High
Median Ave
1st St
Park Ave
Franklin Ave
4th St
5th St
6th St
Commercial St
Jefferson St
Sixth St
Franklin St
Lafayette St
1
2
3
4
5
6
7
8
9
10
11
Legend
Public Property
Private Property
Building Site
Additional Recommendations:
12.) Complete Streets Enhancements along Park Avenue
13.) Construct bulb-outs at all viable intersections


Black Hawk County MPO
Pedestrian Master Plan
DRAFT Recommendations for
East Waterloo
INRCOG
Iowa Northland Regional Council Of Governments
1.) Safe Routes to Lincoln Elementary
Sidewalks: 1.8 miles
Crosswalks: 30 ramps
Estimated Cost: $ 660,000
2.) Riverfront Neighborhood Pedestrian Connectivity
Sidewalks: 0.4 miles
Crosswalks: 16 ramps
Estimated Cost: $160,000
3.) Logan Ave Shopping Area Pedestrian Accessibility
Sidewalks: 1.2 miles
Crosswalks: 54 ramps
Estimated Public Cost: $400,000
Estimated Private Cost: $100,000
4.) Safe Routes to George Washington Carver Academy
Sidewalks: 1.5 miles
Crosswalks: 33 ramps
Estimated Public Cost: $530,000
Estimated Private Cost: $15,000
5.) E 4th St Pedestrian Overpass or Underpass
Estimated Cost: $500,000 - $4,000,000
6.) Safe Routes to Cunningham Elementary
Sidewalks: 1.7 miles
Crosswalks: 29 ramps
Estimated Cost: $590,000
7.) East High Trail Connection
Trail: 0.2 miles
Sidewalks: 0.1 miles
Crosswalks: 9 ramps
Estimated Cost: $210,000
8.) Northeast Side Crosswalk Improvements and Vinton Ave Sidewalk
Sidewalks: 0.2 miles
Crosswalks: 32 ramps
Estimated Cost: $170,000
9.) Safe Routes to Highland Elementary
Sidewalks: 1.2 miles
Crosswalks: 54 ramps
Estimated Cost: $600,000
10.) Independence Ave Sidewalk
Sidewalks: 0.4 miles
Crosswalks: 6 ramps
Estimated Cost: $130,000
11.) Evansdale Sidewalk Connection
Sidewalks: 0.4 miles
Crosswalks: 7 ramps
Estimated Cost: $200,000
Legend
Existing Public Walkway
Existing Private Walkway
Recommended Public Sidewalk*
Recommended Public Crosswalk
Recommended Private Sidewalk
Recommended Private Crosswalk
Consolidated Project
* - US-63 pedestrian accommodations programmed

Appendix E

WATERLOO:
2021 WALKABILITY ASSESSMENT REPORT

healthy hometown℠

POWERED BY Wellmark

FOREWORD

Thank you to all the participants who took part in the walking audit workshop. Healthy Hometown℠ Powered by Wellmark was invited by the City of Waterloo to assist in identifying opportunities for enhancing walkability and bikeability.

Healthy Hometown is a way to make your community an even better place to live, work and play by using proven tools and techniques that help make the healthy choice the easy choice. Healthy Hometown provides evidence-based built environment and behavioral economics principles that result in desired action along with policy modifications to help communities make sustainable changes that will improve the overall well-being of residents. Implementing ways to make it safer for pedestrians and bicyclists is one primary way to achieve sustainable change.

The walking audit that was performed in Waterloo was designed to help community members identify and visualize ways to provide a better environment to walk and bike. The walking audit is also designed to stimulate conversation within the community regarding actions that can be taken.

What follows is an identification of community members who participated in the walking audit, recommendations based on the walking audit and a summary of the conversation. Some recommendations are low cost and could be easy to implement, while others may be large expenses that could take years of planning and work. We hope these recommendations will provide a framework for your community to make Waterloo more pedestrian- and bike-friendly.

SUMMARY

CREATING SAFER STREETS

- Construct **infill sidewalks** to connect gaps in the existing sidewalk network
- Ensure that the city's **sidewalk repair** policy is enforced
- Install ADA-compliant **curb ramps** at all intersections
- Paint high-visibility continental-style markings at all **crosswalks**
- Construct **bumpouts** at wide intersections
- Implement a **road diet** on Franklin Street
- Plant **street trees** between the curb and sidewalk throughout the community
- Remove **slip lane** at East Park Avenue and Walnut Street
- Replace existing **traffic signals** at East Park Avenue and Walnut Street with stop signs
- Convert **one-way streets** in the downtown area to two-way
- Make sure all **pedestrian infrastructure** is operable/in good working order
- Replace outdated pedestrian **push buttons** at traffic lights
- Install pedestrian **countdown signals** at all intersections with traffic signals

LIST OF PARTICIPANTS

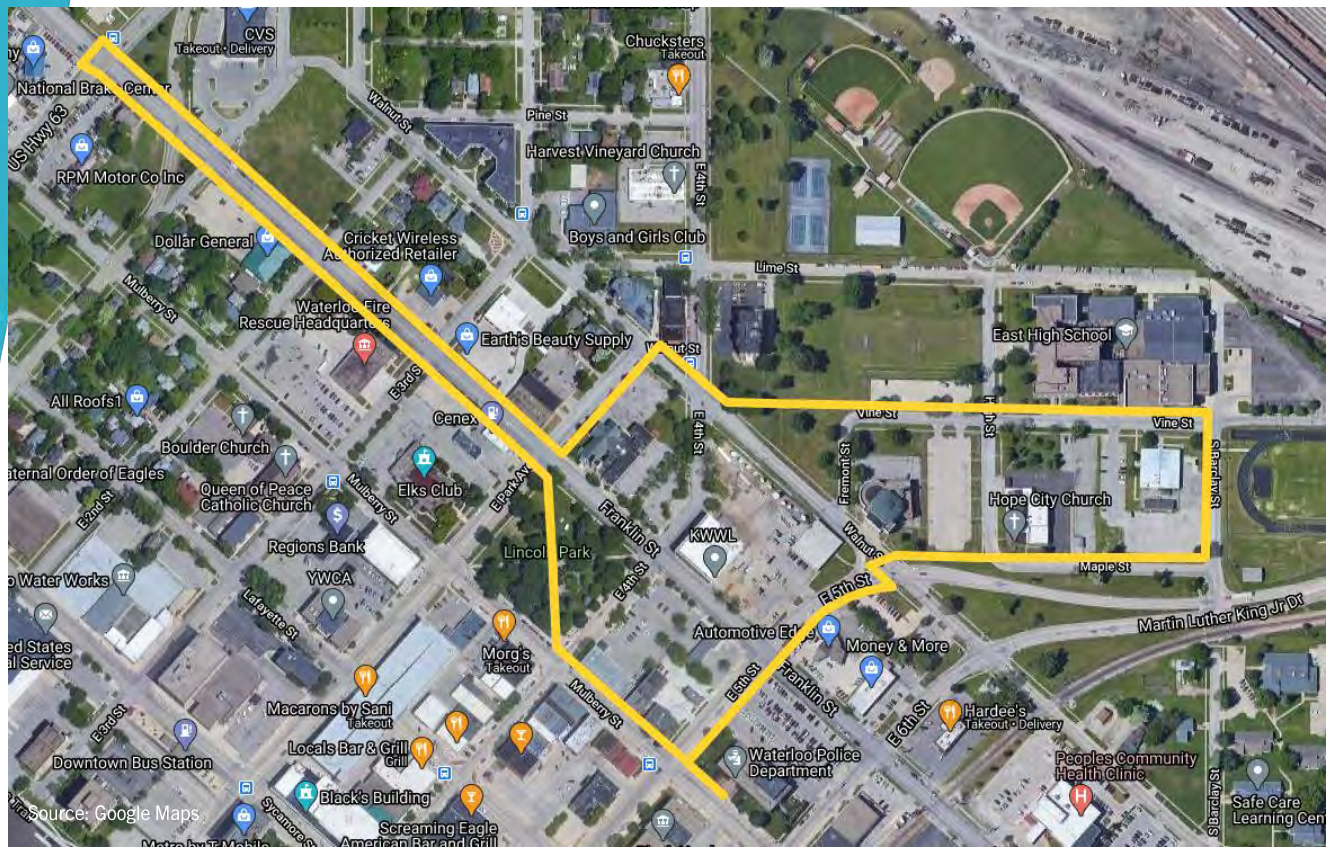
May 2021

JESSICA RUCKER	Main Street Waterloo
WAYNE CASTLE	City of Waterloo
KYLE DURANT	INRCOG
ADRIENNE MILLER	City of Waterloo
BRENDA VAVROCH	INRCOG
CODIE LESEMAN	INRCOG
NOEL ANDERSON	City of Waterloo
QUENTIN HART	Mayor of Waterloo
TAVIS HALL	Experience Waterloo
ROGER WHITE	Community Volunteer
FELICIA CASS	Waterloo Complete Streets Committee
JENNY WEBER	Wellmark Blue Cross and Blue Shield
ETHAN STANDARD	Wellmark Blue Cross and Blue Shield

WALKING AUDIT ROUTE

Participants completed a walking audit along a 1.5-mile route beginning and ending at Waterloo City Hall.

This audit began with observations of walking conditions along East 5th Street, Maple Street, Barclay Avenue and Vine Street near East High School. Participants then continued along Walnut Street, East Park Avenue, and Franklin Street to US Highway 63 before returning to City Hall along Franklin Street and Mulberry Street.



The map above depicts the first route participants observed in Waterloo during the walking audit workshop.

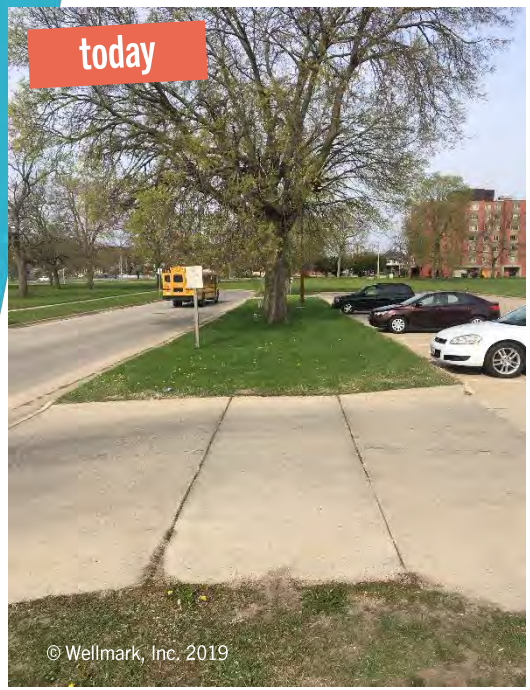
CREATING SAFER STREETS

While individuals must choose to be physically active, communities can make changes to their environment that help make this choice easier. Ensuring residents can access worksites, schools, homes, grocery stores, parks and trails by walking and biking will help encourage them to be more physically active in their everyday lives.

Sidewalks

Installing sidewalks in key areas where there are gaps can help improve the connectivity of your community's pedestrian network and promote physical activity. Future gaps can be prevented by adopting policies that require new development projects to install sidewalks as part of their construction plans.

- Construct infill sidewalks to connect gaps in the existing sidewalk network



Areas of missing sidewalk like the one pictured above along Vine Street near East High School could be eliminated with the installation of infill sidewalk.

Building sidewalks in strategic locations like the one pictured above on Vine Street near East High School would improve walkability.

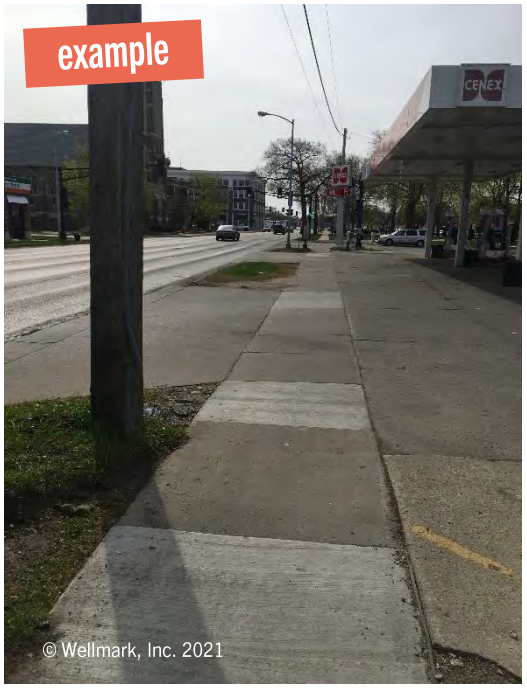
Example of a newly constructed sidewalk connection from Afton, Iowa.

CREATING SAFER STREETS

Sidewalk Repair

As sidewalks age, it's important they are adequately maintained. In order to keep all sidewalks well maintained, the city may need to annually inspect all sidewalks within specific neighborhoods and notify property owners who have sidewalks that are out of compliance. Inspections could eventually cover the entire city as the program moves to different neighborhoods each year.

- Ensure that the city's sidewalk repair policy is enforced



Some sections of sidewalk in Waterloo need to be repaired or replaced. Other areas of the city have recently had damaged sidewalk panels replaced with new concrete, as seen in the example photo above.

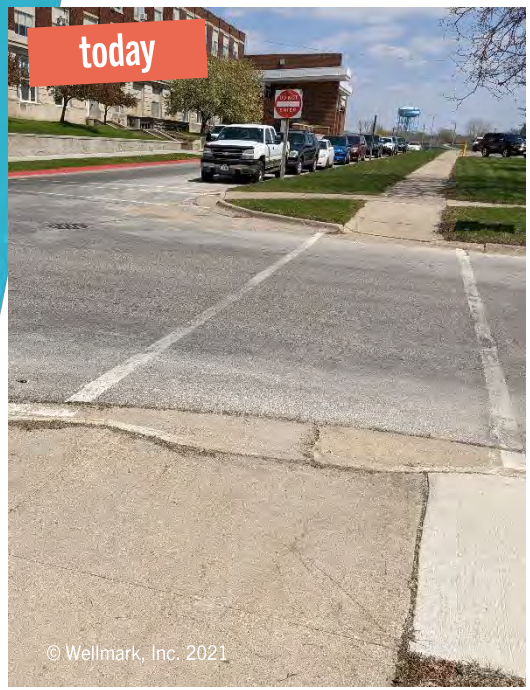
CREATING SAFER STREETS

Curb Ramps

In addition to sidewalks, missing and outdated curb ramps represent impediments to those navigating your community. These situations can be remedied by updating curb ramps to ensure they are ADA-compliant.

Many intersections in Waterloo already have updated curb ramps. In remaining locations that do not have curb ramps, sidewalks can be difficult to navigate and pose significant challenges for parents pushing strollers and people using wheelchairs and other mobility devices. Additional curb ramp replacements should be targeted along priority pedestrian routes in the community.

- Install ADA-compliant curb ramps at all intersections



The curb ramps at this intersection need to be replaced to make them ADA-compliant.

Poor curb ramp conditions can make navigating streets challenging for people with limited mobility.

Example of a recently constructed ADA-compliant curb ramp from Altoona, Iowa.

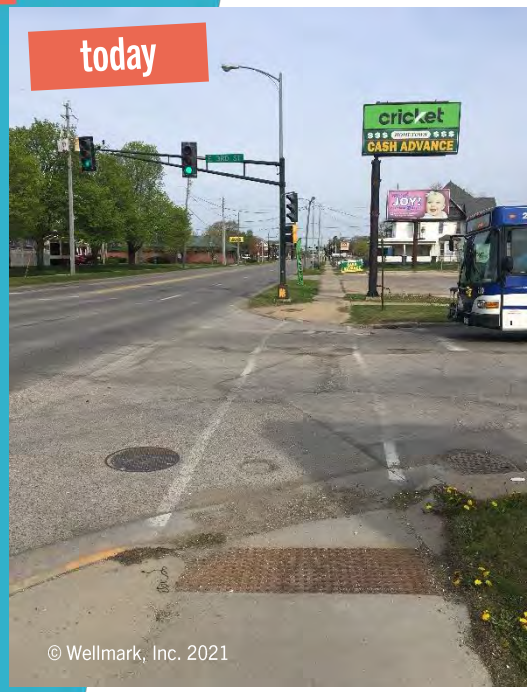
CREATING SAFER STREETS

Crosswalks

Installing safe crossing points for people walking and riding bikes is a key component of making Waterloo a more walkable and accessible community. Marked crosswalks are one component of improving the safety for people crossing streets.

Today, Waterloo has marked crosswalks at most intersections. Many of these crosswalks are painted with standard-style markings that have faded. Upgrading all crosswalks to high-visibility, continental-style markings will improve pedestrian safety.

- Paint high-visibility continental-style markings at all crosswalks



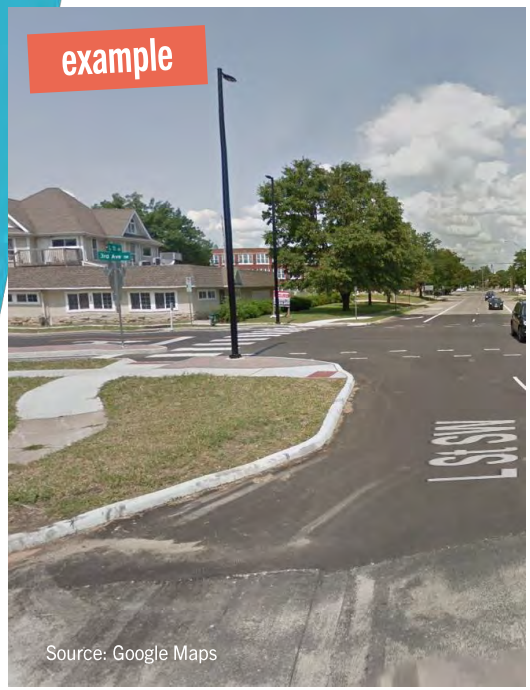
Existing crosswalks could benefit from the addition of high-visibility, continental-style markings (pictured above) to help improve the visibility of painted crosswalks.

CREATING SAFER STREETS

Bumpouts

Bumpouts are extensions of the sidewalk that take up road space not needed for vehicular traffic. Bumpouts that include various landscaping elements help create an inviting and comfortable walking environment. They also shorten crossing distances for pedestrians at intersections, decrease turning vehicle speeds, and provide opportunities for street beautification.

- Construct bumpouts at wide intersections



Example of a recently installed bumpout from Cedar Rapids, Iowa.

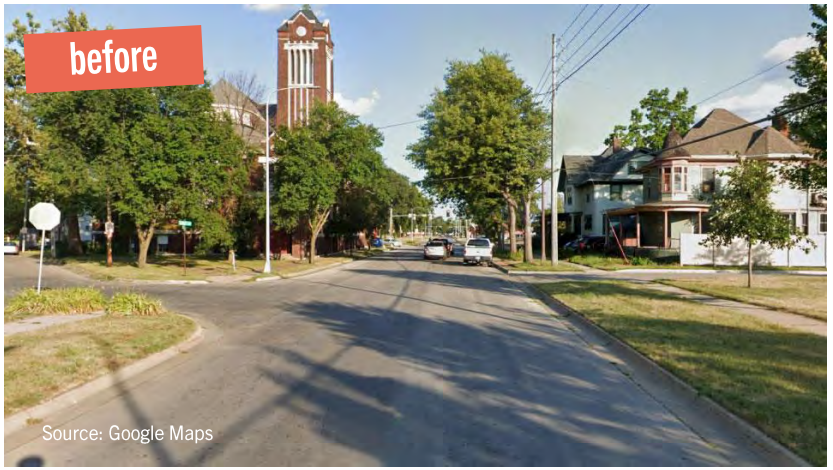


Illustration of potential bumpouts on Walnut Street.

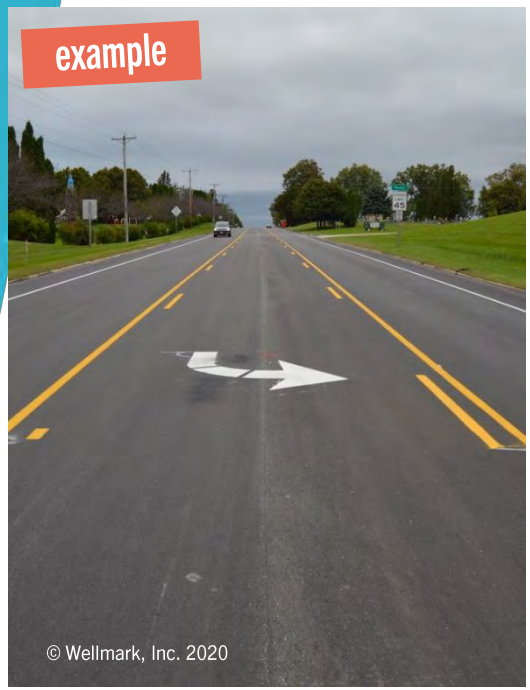
CREATING SAFER STREETS

Road Diets

Franklin Street currently has more lanes for vehicular traffic than daily traffic counts warrant. This makes it a candidate for something known as a "road diet." A road diet involves reducing the number of lanes for vehicles and using the extra space for a different use. Most communities use the opportunity to reconfigure parking, widen sidewalks or add bike lanes.

These changes will encourage lower vehicle speeds, which are more conducive to a vibrant community atmosphere. The streets should be engineered so that vehicles are more likely to naturally travel at the current posted speed limit.

- Implement a road diet on Franklin Street



Example of a recently completed road diet on Highway 9 in Waukon, Iowa.

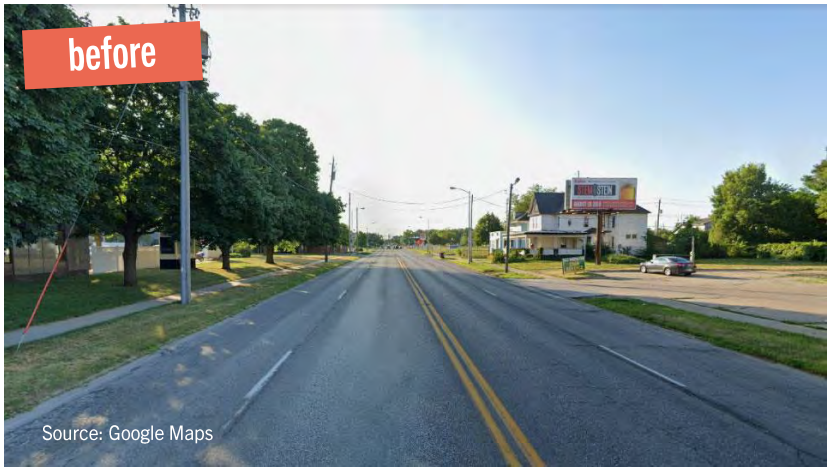


Illustration of a potential road diet on Franklin Street.

CREATING SAFER STREETS

Street Trees

Another way to help make walking more pleasant and provide a more visually interesting streetscape is planting street trees. In places with open greenspace alongside the road, planting new street trees would increase the aesthetic appeal of the environment and make walking more comfortable during warmer parts of the year. Many streets in Waterloo benefit from older trees with large canopies, though some additional streets could use new trees to provide the same benefits over time.

- Plant street trees between the curb and sidewalk throughout the community

This section of Franklin Street could benefit from the addition of street trees between the curb and sidewalk.

Participants stated that they were more comfortable walking along Franklin Street in areas where street trees were present.

CREATING SAFER STREETS

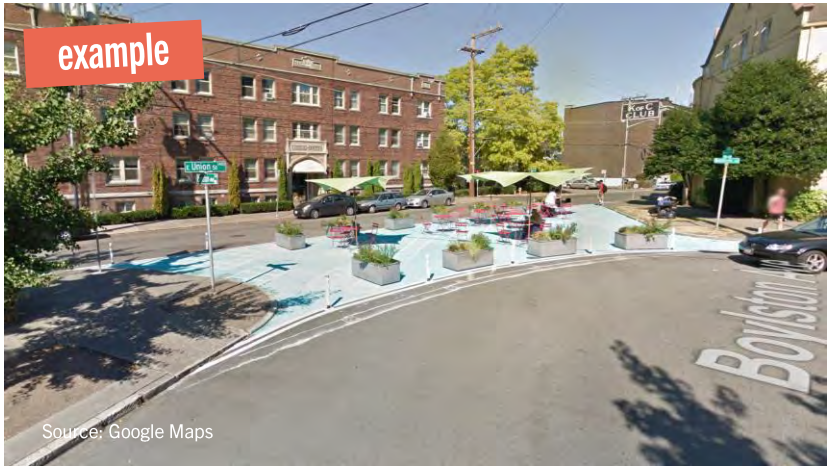
Intersection Modification

Participants indicated some enhancements could be made to the intersection of East Park Avenue and Walnut Street. Today, this is a signalized intersection that includes a slip lane for vehicles to turn left on East 4th Street from East Park Avenue. The slip lane adds unnecessary confusion for people driving and walking. Removing it would simplify the intersection's design and make it safer for all users.

- Remove slip lane at East Park Avenue and Walnut Street
- Replace existing traffic signals at East Park Avenue and Walnut Street with stop signs

The intersection of East Park Avenue and Walnut Street could benefit from the addition of bumpouts and removal of the existing slip lane.

The picture above shows the existing slip lane connecting to East 4th Street.



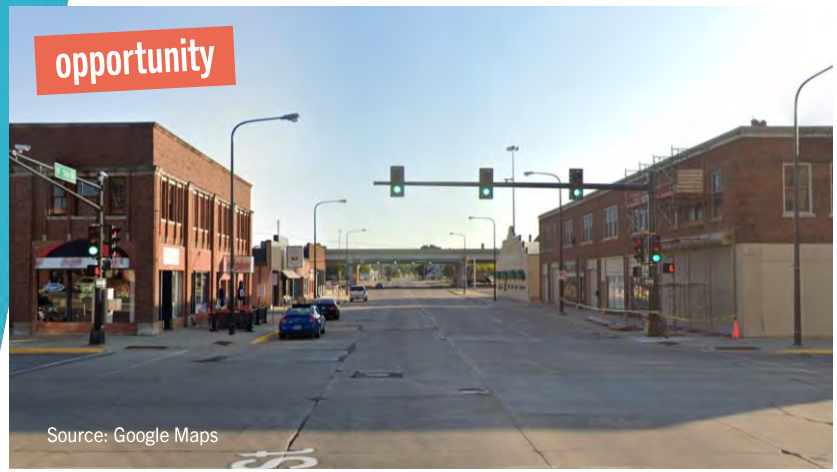
Example of an intersection that was modified using paint, planters, and seating from a neighborhood in Seattle, Washington.

CREATING SAFER STREETS

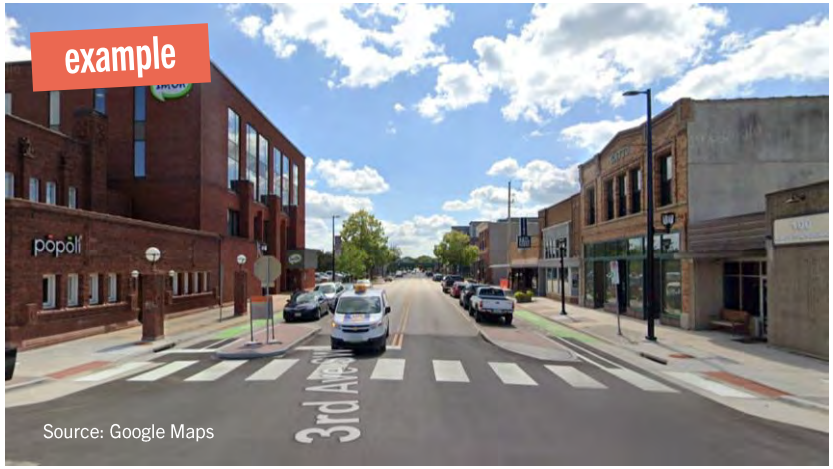
One-Way Conversions

Calming traffic and improving the walking and biking environment on city streets can be achieved by converting one-way streets to two-way streets. These conversions eliminate the ability for motorists to pass other vehicles traveling in the same direction and provide extra road space for features like on-street parking and protected bike lanes. Waterloo currently has several one-way streets in the downtown area that could be converted to two-way traffic.

- Convert one-way streets in the downtown area to two-way



Today, West 5th Street is designed with multiple lanes traveling in the same direction, resulting in traffic traveling at higher speeds.

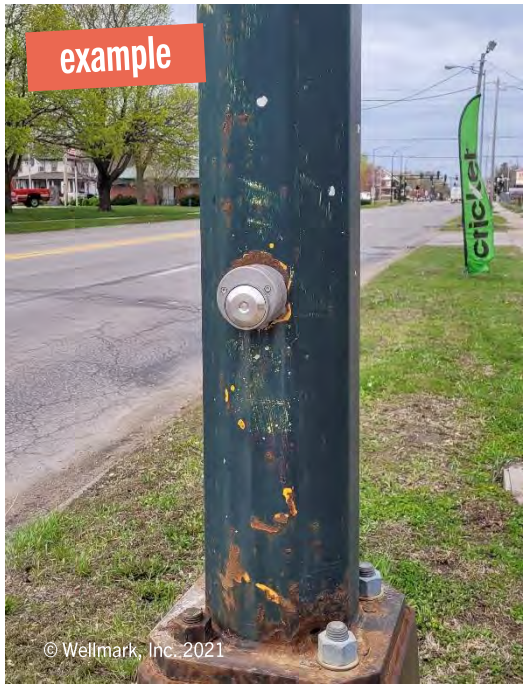


Example of a one-way conversion implemented in Cedar Rapids, Iowa that includes bumpouts, crosswalks, and protected bike lanes.

CREATING SAFER STREETS

Traffic Signals

At intersections with traffic signals, pedestrian signals were almost always present. However, participants noted that some crosswalk lights were not properly functioning. Monitoring these signals so that repairs can be made routinely will be important going forward. The use of countdown signals for pedestrians at intersections can also help eliminate a significant source of confusion.



- Make sure all pedestrian infrastructure is operable/in good working order
- Replace outdated pedestrian push buttons at traffic lights
- Install pedestrian countdown signals at all intersections with traffic signals

Some push buttons at traffic signals are outdated and not working properly. Updating these push buttons and using countdown signals for pedestrians will help eliminate confusion and improve safety at intersections.

PARTICIPANT DISCUSSION/NEXT STEPS

Following the walking audit, participants talked about their observations from the walk. Participants noted several elements that they felt made walking more comfortable, as well as many elements that made walking more difficult or less safe.

The recommendations included in this report have been assembled to serve as a guide for your community to improve upon some of those elements and prioritize which ones are most important to pursue.

This report can be used as a tool to help build support from community leaders, elected officials, and the community at large to create a plan of action.

Citizen engagement is the best way to address many of the recommendations outlined in this report. All walking audit participants are encouraged to stay involved with ongoing efforts to improve walkability in Waterloo. Working collaboratively will ensure that Waterloo continues the path of becoming a vibrant, active, and healthy community.

AFTERWORD

At Wellmark, our vision is to continuously improve the health of our members and the communities we serve. We envision a future in which every generation experiences greater quality of health and improved quality of life. Many experts agree where we live is more impactful on our overall health than our own genetics. Our surroundings and environment prompt us to make decisions impacting our health without even realizing it. We created Healthy Hometown to provide evidence-based (proven) solutions that help communities structure their environment to nudge citizens toward healthy behaviors. When we engage in healthy behaviors, we have the opportunity to live our best life – and hopefully avoid serious illnesses. Making the healthy choice the easy choice is the best answer to keeping Iowans healthy.

Important: This report, and the recommendations contained within, are provided by Wellmark Blue Cross and Blue Shield (Wellmark) as suggestions about how walkability, bikeability and social interactions may be enhanced in your community. These are simply suggestions that your community can choose to implement at its own discretion. Wellmark bears no responsibility for any implemented suggestions and provides no guarantee of any particular results.

Wellmark complies with applicable federal civil rights laws and does not discriminate on the basis of race, color, national origin, age, disability, or sex.

ATENCIÓN: Si habla español, los servicios de asistencia de idiomas se encuentran disponibles gratuitamente para usted. Comuníquese al 800-524-9242 o al (TTY: 888-781-4262).

注意：如果您说普通话，我们可免费为您提供语言协助服务。请拨打 800-524-9242 或（听障专线： 888-781-4262）

ACHTUNG: Wenn Sie deutsch sprechen, stehen Ihnen kostenlose sprachliche Assistenzdienste zur Verfügung. Rufnummer: 800-524-9242 oder (TTY: 888-781-4262).

Wellmark