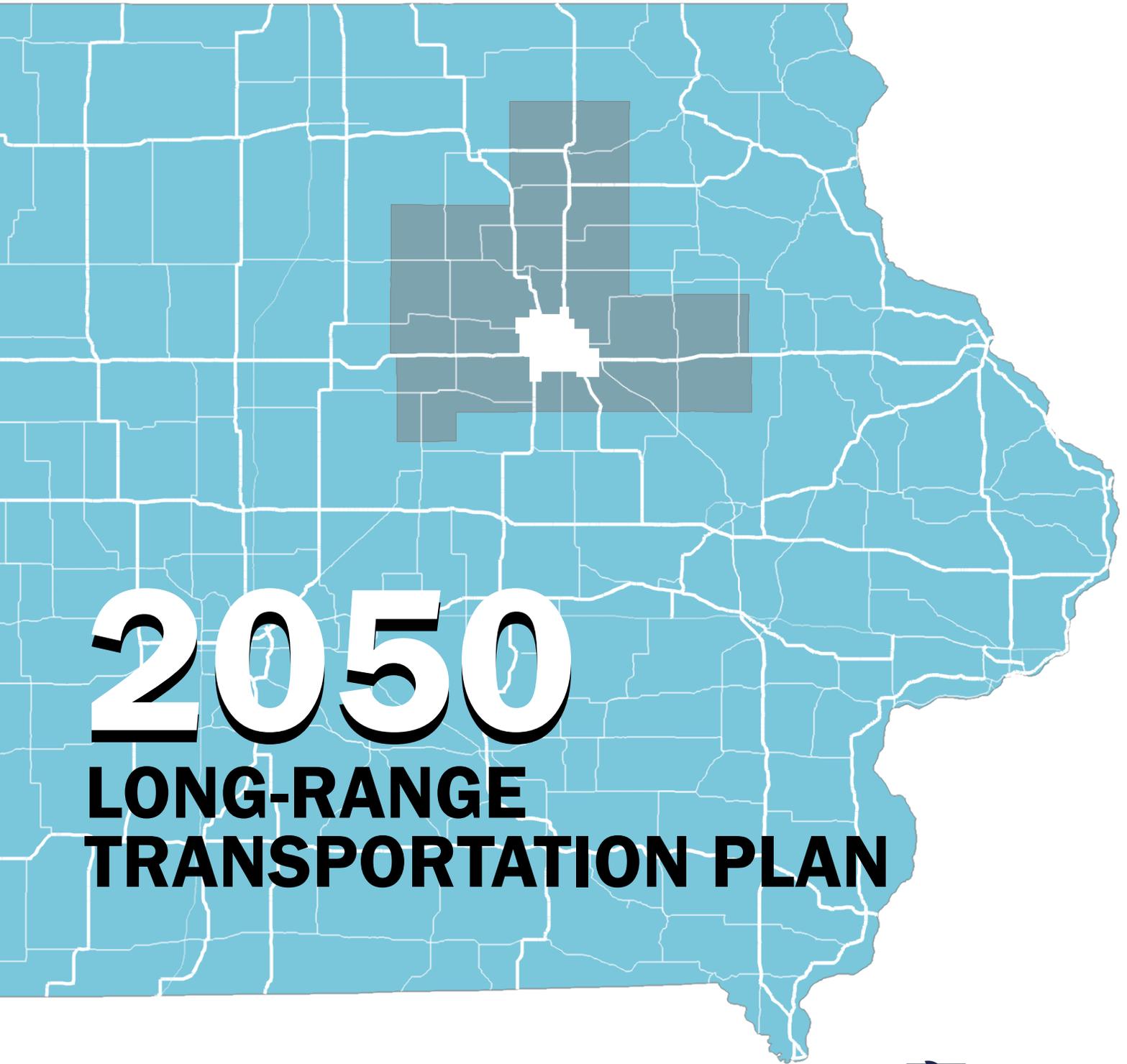


Iowa Northland

Regional Transportation Authority



2050 LONG-RANGE TRANSPORTATION PLAN

Adopted 19th March, 2026

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**RESOLUTION OF THE
IOWA NORTHLAND REGIONAL TRANSPORTATION AUTHORITY**

WHEREAS, the Iowa Northland Regional Transportation Authority Policy Board has been designated as the Regional Planning Affiliation for Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties, excluding the Waterloo-Cedar Falls metropolitan 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 (b); and

WHEREAS, this planning process shall lead to the development, maintenance, and operation of an integrated system that considers all relevant modes of transportation for the efficient movement of people and goods; and

WHEREAS, the Policy Board, in cooperation with the Federal Highway Administration, the Federal Transit Administration, the Iowa Department of Transportation, the Regional Transit Commission, and city and county jurisdictions, has developed an integrated and multimodal 2050 Long-Range Transportation Plan in compliance with Iowa Department of Transportation guidelines; and

WHEREAS, the Policy Board has included the open participation of the public in the development of the 2050 Long-Range Transportation Plan in conformance with the Policy Board's approved Public Participation Plan; and

WHEREAS, the Policy Board certifies that the 2050 Long-Range Transportation Plan was developed in accordance with 23 CFR 450 (b) and is being conducted in accordance with all applicable requirements.

NOW, THEREFORE, BE IT RESOLVED that the Iowa Northland Regional Transportation Authority Policy Board hereby approves the 2050 Long-Range Transportation Plan for the Iowa Northland Region; and

BE IT FURTHER RESOLVED that the Iowa Northland Regional Transportation Authority Policy Board certifies that the 2050 Long-Range Transportation Plan is consistent with the transportation planning process as described in 23 CFR 450 (b).

Passed and adopted this 19th day of March, 2026.



Greg Barnett, Chair

ATTEST:


Brian Schoon, INRCOG Executive Director

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Chapter 1

Overview



Chapter 1 – Overview

The goal of the Long-Range Transportation Plan (LRTP) is to document the present state of transportation patterns and infrastructure in the Iowa Northland Region across all modes, and to provide a plan for the maintenance and improvement of each mode based on anticipated needs and revenues. This Plan has a horizon year of 2050. As such, it endeavors to gauge the transportation system over three decades. While these forecasted needs are based on past trends and expected progression, it is necessary to periodically review and update this Plan to consider new developments and changing trends. Accordingly, this Plan is reviewed and revised every five years.

This document has been prepared to align with the 2021 federal transportation bill, the Infrastructure Investment and Jobs Act (IIJA), under the authority of the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Iowa Department of Transportation (DOT). IIJA builds on previous federal transportation bills that included provisions to make transportation more streamlined, performance-based, and multimodal, and to address challenges, including improving safety, maintaining infrastructure conditions, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. IIJA also incorporates performance goals, measures, and targets into the process of identifying needed transportation improvements and project selection.

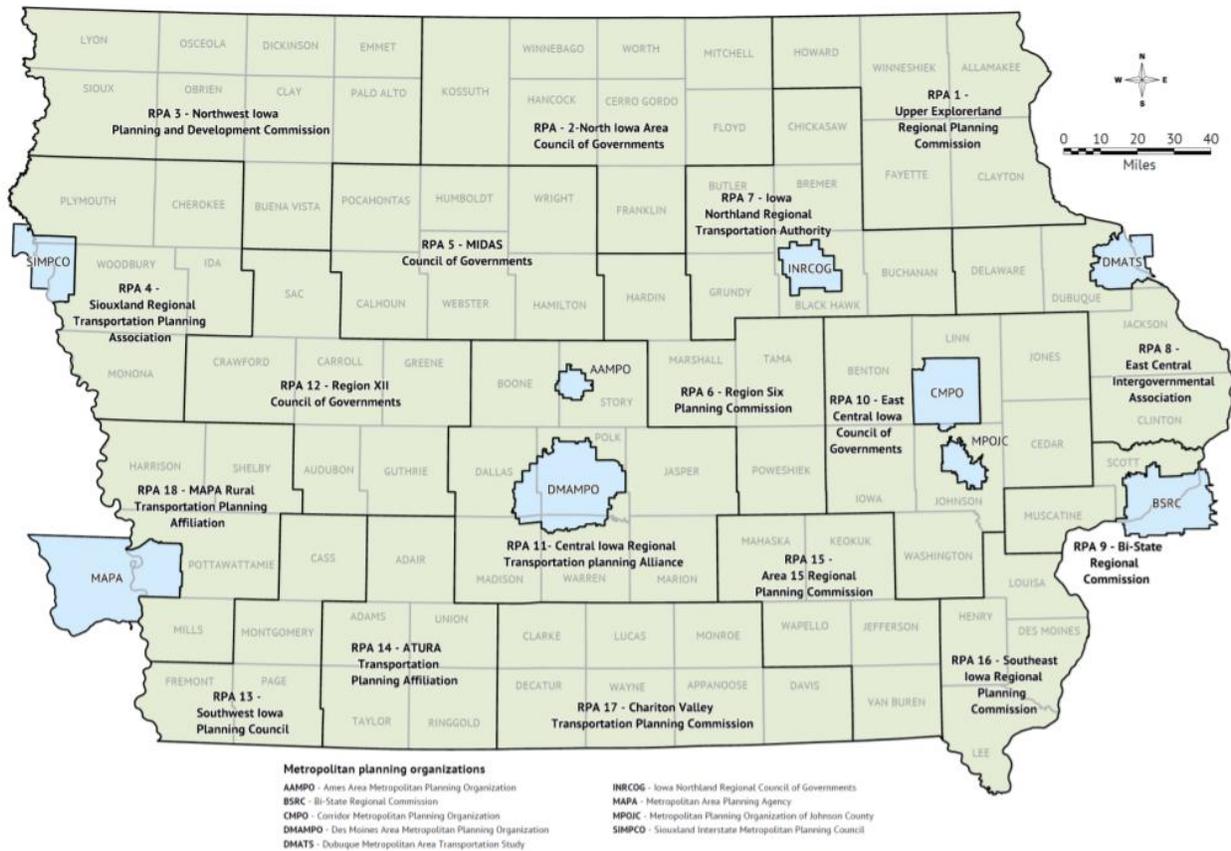
Purpose of the Long-Range Transportation Plan

The Long-Range Transportation Plan serves as a mechanism for the Iowa Northland Regional Transportation Authority (RTA) to examine its current transportation networks – highway, transit, air, rail, bicycle, and pedestrian modes – and to assess their adequacy for the existing population and economy. Moreover, it provides area officials with an opportunity to explore the future transportation needs of the community based on existing conditions, projected revenues, and population and employment projections. This effort is conducted through close coordination with the RTA Transportation Technical Committee (TTC), area officials, and the solicitation of public input to discuss the needs and opportunities of the region.

This document provides a framework upon which local jurisdictions can base transportation project selection during the annual programming process. Given a constrained financial future, local officials must be able to prioritize and select projects that best meet the needs of the region, while not exceeding the revenue projected to be available during the life of this Plan.

Regional Planning Affiliations

The State of Iowa has developed a system of Regional Planning Affiliations (RPA) to carry out transportation planning, even though federal law does not mandate specific transportation planning funding or requirements for non-metropolitan areas. Iowa has 18 RPAs that cover the area outside of the nine Metropolitan Planning Organizations (MPOs). The Iowa DOT provides funding through FHWA and FTA sources to the RPAs to finance planning and programming for transportation projects. In return, the RPAs conduct regional planning activities that mirror those federally required of MPOs. This includes several planning documents and conducting a continuing, cooperative, and comprehensive (3-C) planning process.



MPOs and RPAs in Iowa
 Source: Iowa DOT

What is the RTA?

The Iowa Northland Regional Transportation Authority (RTA) was established in 1993 to conduct transportation planning and programming for Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties, excluding the Waterloo-Cedar Falls metropolitan area (Map 1.1). The RTA was established under the umbrella of the Iowa Northland Regional Council of Governments (INRCOG) which has been a regional planning agency serving those same counties since 1973. INRCOG is also designated by the State of Iowa as the MPO for the Black Hawk County Metropolitan Area. Map 1.2 provides an overview of the RTA region.

Structure of the RTA

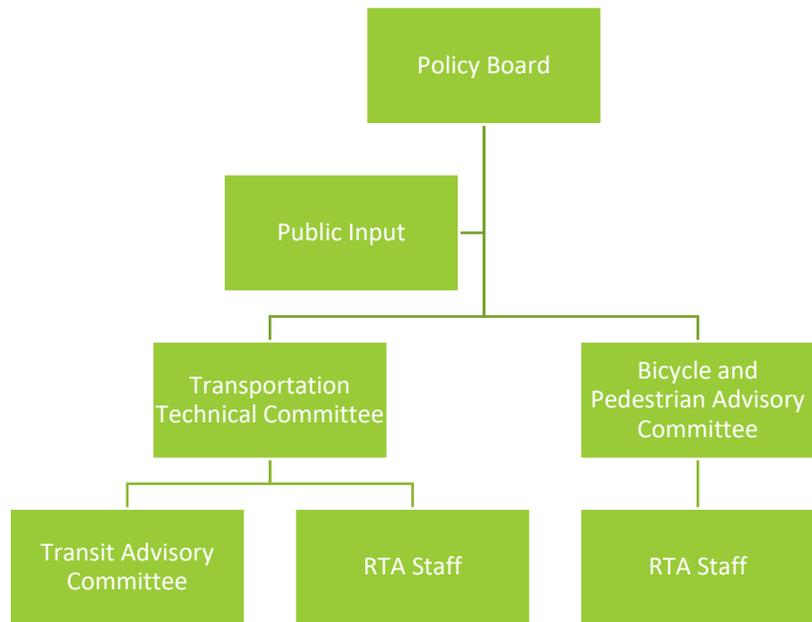
Three designated committees form the structure of the RTA: The **Policy Board**, the **Transportation Technical Committee (TTC)**, and the **Bicycle and Pedestrian Advisory Committee (BPAC)**. The Policy Board and TTC meet jointly, monthly.

The **Policy Board** is the governing body of the RTA. Voting members include a member of the Board of Supervisors for Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties; a representative from Waverly and Independence, as designated by their respective mayor and/or city council; and a representative from four cities at-large.

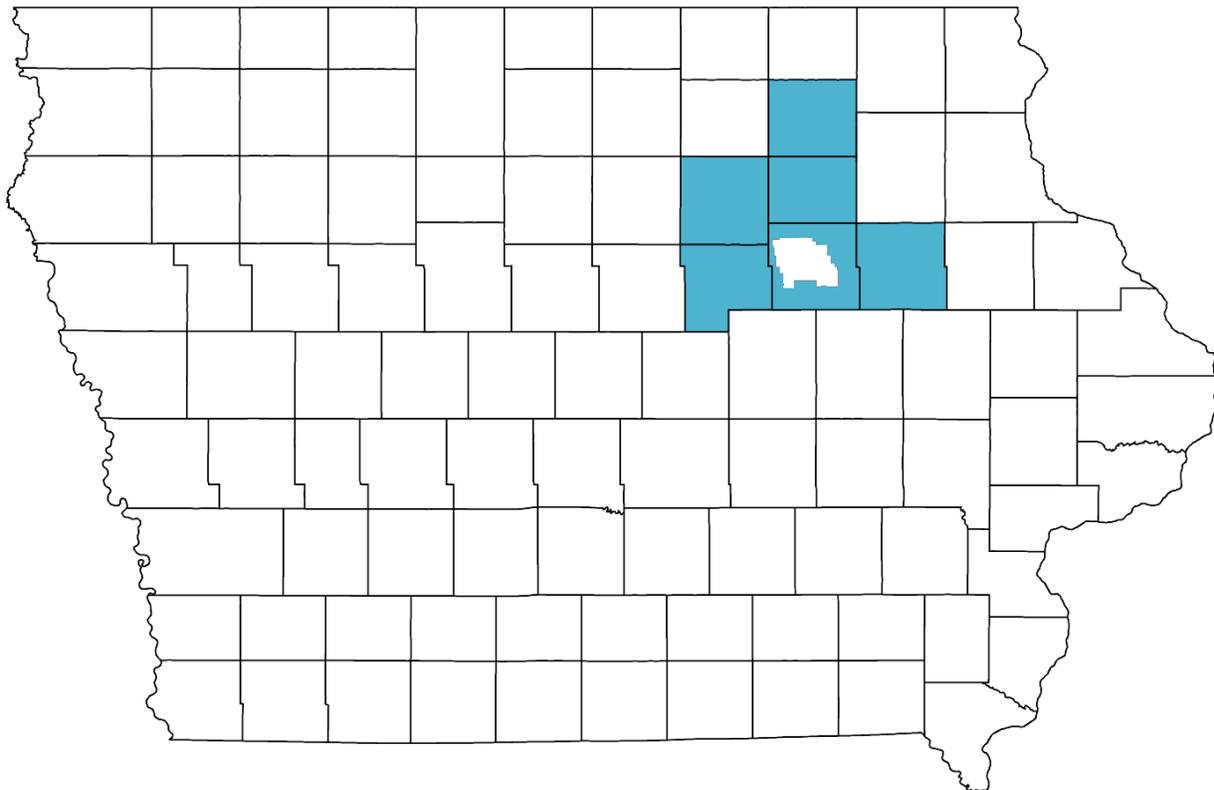
The **Transportation Technical Committee** consists of local engineers, planners, modal representatives, and interested parties. The TTC advises the Policy Board but does not vote on policy issues.

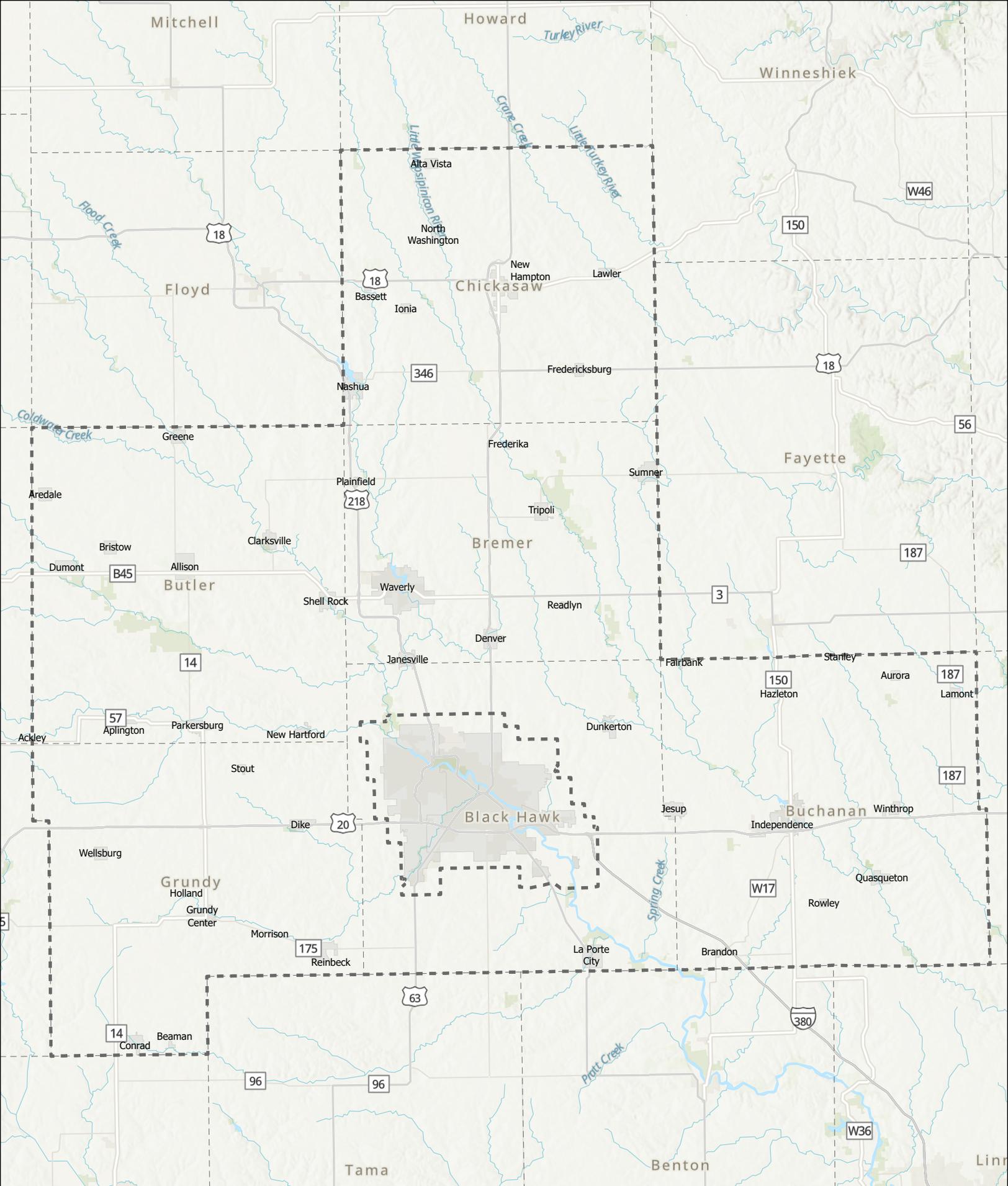
The Bicycle and Pedestrian Advisory Committee is directly responsible to the Policy Board to provide guidance and strategies on the planning and implementation of transportation projects related to bicycle and pedestrian travel. The BPAC meets annually to discuss, rank, and program transportation alternative projects.

The RTA establishes and supports subcommittees and working groups as needed. The standing subcommittee of the Transportation Technical Committee is the Transit Advisory Committee (TAC). This group meets at least twice annually to discuss passenger transportation and human service agency coordination, and to help develop the Passenger Transportation Plan (PTP).



Map 1.1: Iowa Northland Region





Map 1.2 Iowa Northland Region

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IIJA Planning Factors

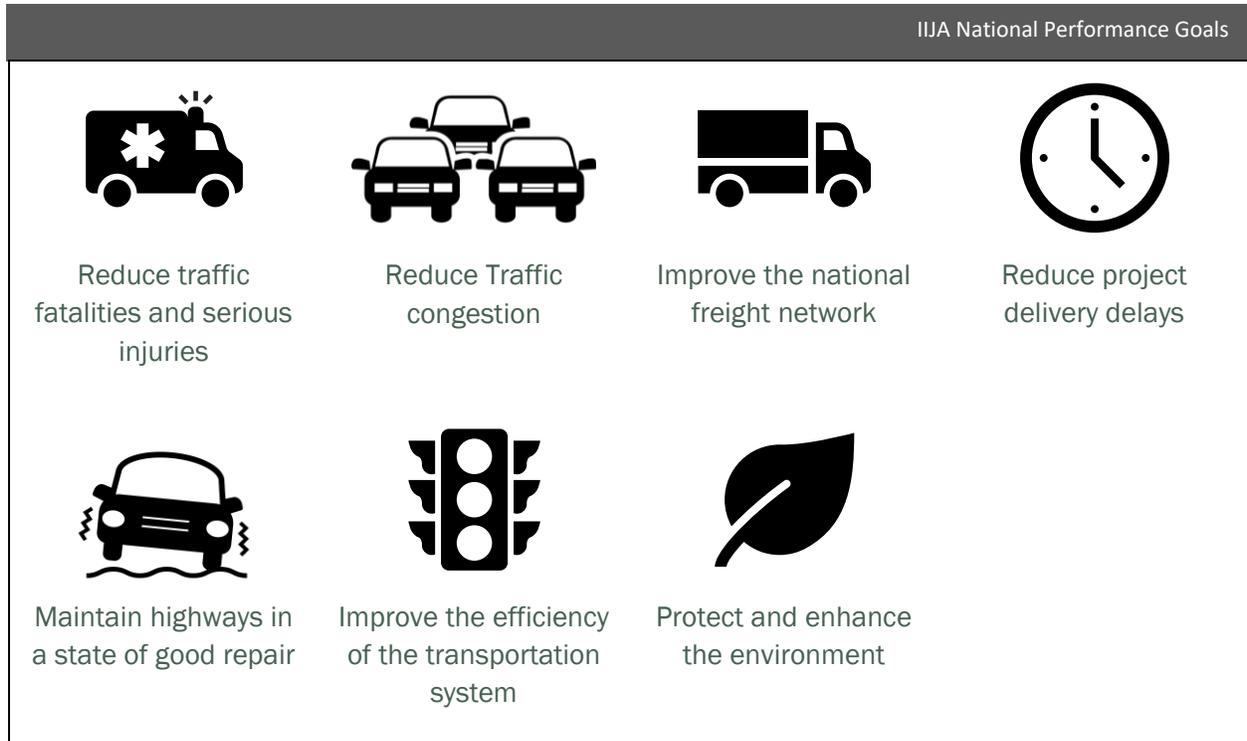
The planning and programming process is outlined in IIJA. Like the previous federal transportation bill, IIJA continues, and further strengthens, the requirement that an extensive, ongoing, and cooperative planning effort for the programming of federal funds be undertaken. The RTA's overall transportation planning goal is to provide for the **adequate, safe, and efficient** movement of people and goods in the region. The RTA utilizes IIJA's planning factors to help reach this goal, which are as follows:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety of the transportation system for motorized and non-motorized users
- Increase the security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility of people and for freight
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts on surface transportation
- Enhance travel and tourism

IIJA National Goals

The federal transportation bill emphasizes a performance-based approach and requires a process of performance measurement setting, starting with the U.S. DOT establishing performance measures, followed by the states and MPOs establishing performance targets. The national goals are as follows:

- **Safety** – To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
- **Infrastructure Condition** – To maintain the highway infrastructure asset system in a state of good repair
- **Congestion Reduction** – To achieve a significant reduction in congestion on the National Highway System
- **System Reliability** – To improve the efficiency of the surface transportation system
- **Freight Movement and Economic Vitality** – To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development
- **Environmental Sustainability** – To enhance the performance of the transportation system while protecting and enhancing the natural environment
- **Reduced Project Delivery Delays** – To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices



Performance-Based Planning and Programming

The foundation of this Plan is built upon performance-based planning and programming. This approach provides a link between short-term management and long-term decisions about policies and investments made for the transportation system, links specific actionable strategies to help improve decision making, and provides accountability for following through on the plan. The building blocks for a performance-based planning process are goals, objectives, and performance measures which are defined as:

- **Goal** – A broad statement that describes a desired end state.
- **Objective** – A specific and measurable statement that supports achievement of a goal.
- **Performance Measure** – A metric used to assess progress toward meeting an objective.

Performance-based planning and programming begins with a strategic direction, which indicates where the RTA would like to go in the future. The RTA sets this strategic direction by choosing goals, quantifiable objectives, and performance measures to guide decision making. Next, the RTA creates a long-range plan that identifies trends, targets, defines strategies, and develops investment priorities. The RTA then links the long-range plan to the Transportation Improvement Program (TIP) to deliver projects that improve performance and achieve targets within the strategic direction. Finally, the RTA monitors and evaluates performance-based planning and programming to create a feedback loop that informs future planning efforts. Figure 1.1 illustrates the performance-based planning and programming process.

Figure 1.1: Framework for Performance-based Planning and Programming



Source: FHWA Performance-Based Planning and Programming Guidebook, Page iv.

RTA Goals, Objectives, and Performance Measures

The RTA identified four goals for the 2050 Long-Range Transportation Plan which are to:

- Increase the safety of the transportation system.
- Strategically preserve the existing infrastructure.
- Support an efficient transportation system.
- Provide a high degree of multimodal accessibility and mobility.

The RTA adopted several objectives to help achieve these goals and performance measurements to track the progress toward meeting the objectives. Performance measurements are federally required only for Metropolitan Planning Organizations and therefore do not apply to the RTA. Nevertheless, the RTA recognizes the value of establishing region-specific performance measures to guide future regional planning initiatives and to facilitate the implementation of the state transportation plan. The RTA's goals, objectives, and performance measures can be found in Table 1.1.



Why is Performance-Based Planning and Programming Important?

With limited transportation funds and a growing list of infrastructure needs, it is critical that the RTA prioritizes projects that accomplish the goals of the Long-Range Transportation Plan. One of the best ways to accomplish this is to select performance measures and targets and then prioritize projects that help achieve those measures. The performance measures identified in the 2050 LRTP are the first step towards a performance-based planning and programming process for the RTA.

Table 1.1: 2050 Long-Range Transportation Plan Goals, Objectives, and Performance Measures

Goal	Objective	Performance Measurement	2015-2019 RTA Baseline Condition Data	2020-2024 Data	Desired Trend	Current Trend
Increase the safety of the transportation system	1.1) Reduce the number of traffic fatalities	Number of fatalities	11.6 / year	15.0 / year		
	1.2) Reduce the rate of traffic fatalities	Fatality rate (per 100 million VMT)	0.842	1.050		
	1.3) Reduce the number of traffic serious injuries	Number of serious injuries	42.8 / year	58.2 / year		
	1.4) Reduce the rate of traffic serious injuries	Serious injury rate (per 100 million VMT)	3.108	3.423		
	1.5) Reduce the number of non-motorized fatalities and serious injuries	Non-motorized fatalities and serious injuries	2.2 / year	2.0 / year		
	1.6) Reduce the number of traffic accidents involving pedestrians and bicyclists	Reported crashes involving pedestrians and bicyclists	10.2 / year	8.2 / year		
Strategically preserve the existing infrastructure	2.1) Preserve and maintain the Interstate system pavement	Percent of pavement in good condition	15.6%	59.8%		
		Percent of pavements in poor condition	0%	0.2%		
	2.2) Preserve and maintain the non-Interstate National Highway System (NHS) pavement	Percent of pavement in good condition	51.9%	62.2%		
		Percent of pavements in poor condition	1.3%	1.2%		
	2.3) Preserve and maintain state-owned pavement	Percent of pavement in good condition (IRI)	55.2%	63.7%		
		Percent of pavement in poor condition (IRI)	3.6%	2.0%		
	2.4) Preserve and maintain city and county road pavement conditions	Percent of pavement in good condition	64.7%	64.2% (2022)		
		Percent of pavements in poor condition	6.0%	6.1% (2022)		
	2.5) Preserve and maintain NHS bridges - Iowa DOT	Percent of bridges in good condition (deck area)	64.9%	58.0%		
		Percent of bridges in poor condition (deck area)	0%	0.2%		
	2.6) Preserve and maintain local bridges - City and County	Percent of bridges in good condition (deck area)	53.6%	51.4%		
		Percent of bridges in poor condition (deck area)	11.7%	16.3%		
	2.7) Decrease the number of bridges that are posted or closed	Posted or closed bridges	4.0 / year	7.0/year		

Goal	Objective	Performance Measurement	2015-2019 RTA Baseline Condition Data	2020-2024 Data	Desired Trend	Current Trend
Support an efficient transportation system	3.1) Maintain the percentage of person-miles traveled on Interstate that are reliable*	Level of Travel Time Reliability (LOTTR)	100%	100%		
	3.2) Maintain the percentage of the person-miles traveled on the non-Interstate NHS that are reliable*	Level of Travel Time Reliability (LOTTR)	98.6%	98.4%		
	3.3) Improve freight travel time reliability*	Truck Travel Time Reliability (TTTR) Index	1.24 (1.18)	1.22		
Provide a high degree of multimodal accessibility and mobility	4.1) Provide more on-road bicycle facilities	Miles of on-road bicycle accommodations (bike lane, paved shoulder, signed bike route, shared road, suggested on-road route)	-	535		
	4.2) Provide more off-road recreational trails	Miles of paved off-road trails	95.5	105.6		
	4.3) Decrease the percentage of RTA's vehicles that are beyond the Useful Life Benchmark (ULB)	Percent of vehicles that have met or exceeded ULB	59.1% (13 of 22)	40.9% (9 of 22)		
	4.4) A greater number of trips are made using public transit	Number of RTA rides 5-year average	115,816 / year	40,956 / year		

**Baseline Condition Data limited to 2019

** Under the Iowa DOT's pavement data collection framework, pavement conditions are surveyed annually on Interstates, every two years on the remaining NHS and state highways, and every four years on local (non-NHS) paved roads.

** A new definition and calculation methodology for "on-road bicycle accommodations" has been established. As a result, baseline data is not available.

State Transportation Plans

The users are the primary beneficiaries of the nation’s intermodal transportation system, built to serve public mobility and productivity. Transportation decisions must be made in an environmentally sensitive way, using a comprehensive planning process that includes the public and considers land use, development, safety, and security. The vision of the Iowa DOT and the Transportation Commission is **“A safe and efficient multimodal transportation system that enables the social and economic well-being of all Iowans, provides enhanced access and mobility for people and freight, and accommodates the unique needs of urban and rural areas sustainably.”** The Iowa DOT has adopted several plans to address federal requirements and guide transportation investments to achieve the system vision.

Iowa in Motion 2050 State Transportation Plan

Adopted in 2022, this long-range document addresses federal requirements and serves as a transportation investment guide for each transportation mode. The State Long Range Transportation Plan (SLRTP) is updated every five years because Iowa’s transportation system is ever-changing. Proactive planning for the future of the system is critical to ensure people and goods can get where they need to go in a safe manner. The needs for the system are continually evolving due to changes in demographics, land use, travel patterns, technology, legislation, and available funding. The SLRTP establishes the vision and objectives for the state’s multimodal transportation system, identifies existing and emerging needs, risks, and challenges, and recommends strategies to achieve the vision for the transportation system. SLRTP also supports a continued emphasis on stewardship. The Iowa DOT views stewardship as an efficient investment and prudent, responsible management of the existing transportation system.



The 2050 SLRTP is the third in the current series of long-range plans. In 2012, a policy-level plan was adopted. In 2017, the plan was expanded to identify primary investment areas, categorize future needs across modes, and provide strategies to achieve the system objectives. The 2022 SLRTP planning effort and document builds on these past plans with enhancements that include the following:

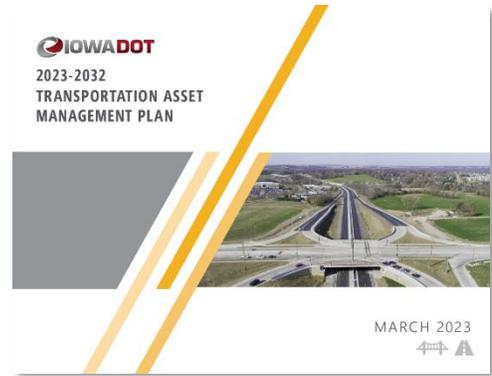
- Additional focus on emerging planning considerations
- Establishment of system objectives
- Expanded analysis of highway system needs and risks
- Updated strategies to implement the plan
- Development of Iowa DOT’s rightsizing policy

<https://iowadot.gov/iowainmotion/State-Transportation-Plan>



Iowa Transportation Asset Management Plan 2023

Transportation asset management is a strategic approach to managing transportation infrastructure. It embodies comprehensive, proactive, and long-term philosophy. The overall goals of asset management are to minimize long-term costs, extend the life of the transportation system, and improve the performance of the transportation system. Transportation Asset Management Plans (TAMP) act as a focal point for information about the state's assets, management strategies, long-term expenditure forecasts, and business management processes. The Iowa DOT's TAMP describes how the agency manages its bridges and pavements throughout their lives. The document also connects the SLRTP and system and modal plans to the Iowa DOT's five-year Transportation Improvement Program. In addition to meeting federal requirements, this TAMP meets the following objectives:



- Defines clear links among agency goals, objectives, and decisions
- Defines the relationship between proposed funding levels and expected results
- Develops a long-term outlook for asset performance
- Documents how decisions are supported by sound information
- Develops a feedback loop from observed performance to subsequent planning and programming decisions
- Improve accountability for decision-making
- Unify existing data, business practices, and divisions to achieve asset management goals

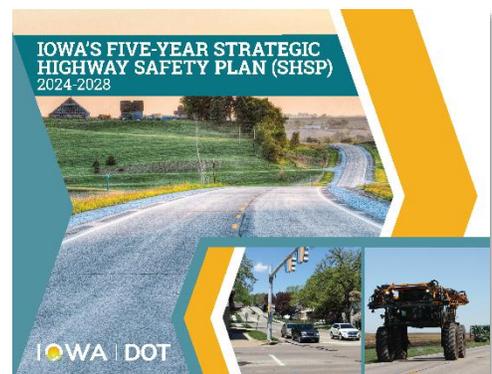
Consistent with best practices nationally, the Iowa DOT's asset management goals are to:

- Build, preserve, operate, maintain, upgrade, and enhance the transportation system more cost-effectively throughout its whole life.
- Improve the performance of the transportation system.
- Deliver the Iowa DOT's customers the best value for every dollar spent.
- Enhance Iowa DOT's credibility and accountability in the stewardship of transportation assets.

www.iowadot.gov/systems_planning/Planning/Federal-Performance-Management-and-Asset-Management

Iowa Strategic Highway Safety Plan 2024

One method a state uses to conduct safety planning is through the development of a highway safety plan. A Strategic Highway Safety Plan (SHSP) is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The SHSP establishes statewide goals, objectives, and key areas of emphasis developed in consultation with federal, state, local, and private sector safety stakeholders. The 2024 SHSP is the fifth statewide safety plan to be adopted in Iowa.



The 2024 SHSP was developed in consultation with the SHSP Implementation Team, which is comprised of individuals representing the E's of safety – education, emergency medical services, engineering, and enforcement. These multidisciplinary representatives provide updates on programs, policies, and educational campaigns for their respective organizations, as well as data on the latest

research for their areas of expertise. Iowa's SHSP also considers a fifth E: everyone. Ultimately, every driver on Iowa's roadways is responsible for making safe choices and driving responsibly.

For this update, the emphasis areas were prioritized based on an analysis of crash data and an extensive statewide input process involving Iowa's traffic safety stakeholders, resulting in seven key emphasis areas. Strategies for each key emphasis area are based on prior strategies in the previous SHSP, FHWA's Proven Safety Countermeasures, and NHTSA's Countermeasures That Work. The recommended safety strategies selected provide the greatest opportunity to reduce fatalities and serious injuries on Iowa's roadways. The seven key emphasis areas are as follows:

- Distracted Driving
- Impairment Involved
- Lane Departures
- Local Roads
- Roadside Collisions
- Occupant Protection (Unprotected Persons)
- Work Zones

The implementation of the SHSP will be conducted by the SHSP Implementation Team and broadly supported by traffic safety professionals from around the state. The implementation and progress of the plan will be evaluated on an annual basis for the five-year planning period. The goal of this plan is **Zero Fatalities**; however, interim annual goals aligned with the Highway Safety Improvement Program (HSIP) performance measures will be developed during the plan period.

Although Zero Fatalities is Iowa's long-term vision, the state also recognizes the need to establish short-term goals in pursuit of this vision. In 2016, FHWA published the HSIP and Safety Performance Management Final Rules. As part of these rules, states are required to develop statewide targets annually for five safety performance measures. These targets serve as the short-term goals for the state.

www.iowadot.gov/traffic/shsp/home

Iowa State Freight Plan 2022

The primary purpose of the State Freight Plan is to document the immediate and long-range freight planning activities and investments in the state. More specifically, it provides guidance on how to address issues, adapt to emerging trends, and invest strategically in the freight system to grow a stronger economy, strengthen the nation's competitive advantage, and enhance the quality of life for Iowans.

Developed in coordination with the Iowa Freight Advisory Council (FAC), the State Freight Plan serves as a platform for connecting Iowa's freight-related initiatives and a tool for informed decision-making aimed at addressing the ongoing challenges of today's freight system and supply chains.



This document is the second in the current series of freight plans that are now federally required to be updated every four years. The 2022 State Freight Plan is an updated and streamlined version of the original 2017 State Freight Plan with several notable enhancements that will impact the freight transportation system, including:

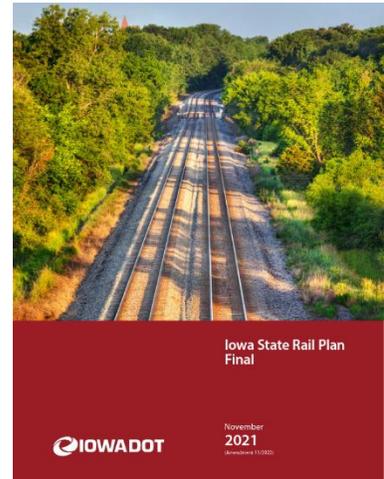
- Clearly defined system objectives
- Process for identifying multimodal bottlenecks
- Focus on infrastructure and supply chain resiliency

- Freight design considerations
- Commercial motor vehicle parking facilities assessment
- Catalog of freight-generating facilities

www.iowadot.gov/iowainmotion/Specialized-System-plans/2022-State-Freight-Plan

Iowa State Rail Plan 2021

This document is intended to guide the Iowa DOT in its activities of promoting access to rail transportation, helping to improve the freight railroad transportation system, expanding passenger rail service, and promoting improved safety both on the rail system and where the rail system interacts with people and other transportation modes. The State Rail Plan describes the state’s existing rail network and rail-related economic and socioeconomic impacts. It also describes the State Rail Plan process, Iowa’s rail vision and supporting goals, proposed short- and long-range capital improvements, studies, and recommended next steps to address the issues identified. The State Rail Plan is intended to meet the requirements established under Section 303 of the Passenger Rail Investment and Improvement Act of 2008, which provides for enhanced State involvement in rail policy, planning, and development efforts, including requiring States to develop FRA-accepted State Rail Plans to be eligible for capital grants authorized under this act and subsequent federal transportation bills.



<https://iowadot.gov/iowainmotion/modal-plans/rail-transportation-plan>

Iowa Public Transit 2050 Long Range Plan

In 2020, the Iowa DOT adopted the Iowa Public Transit 2050 Long Range Plan. While the Iowa DOT has conducted specific planning efforts – Iowa Statewide Passenger Transportation Funding Study, Iowa Park and Ride System Plan – this Plan looks at the public transit system from a broader point of view. The Plan seeks to coordinate planning, programming, and technical assistance statewide to support transit operations at the local level. The goal is to provide specific strategies and improvements that can be implemented and revisited over time.

This Plan serves as a guide to assist the Iowa DOT in making informed public transit decisions for the state. The strategies and action items within the plan serve as the starting point for the implementation phases of the planning process. The transit plan will also be updated every five years to stay current with trends, forecasts, and factors that influence decision-making.



www.iowadot.gov/iowainmotion/Modal-Plans/Public-Transit-Plan

Iowa Bicycle and Pedestrian Long-Range Plan

Adopted in 2018, this plan outlines a strategic vision to improve safety, connectivity, and accessibility for bicyclists and pedestrians across the state. This comprehensive plan identifies priorities, goals, and action steps to create a safer, more equitable transportation network that supports both recreational and commuter needs.

Key elements of the plan include:

- **Complete Streets Policy:** The plan incorporates a Complete Streets approach, which emphasizes designing streets that are safe and accessible for all users, regardless of age, ability, or mode of transportation. This approach integrates infrastructure improvements such as sidewalks, bike lanes, crosswalks, and transit facilities to promote multi-modal transportation options.
- **Improving Infrastructure:** Expanding and maintaining bike lanes, multi-use trails, sidewalks, crossings, and other essential facilities to ensure safe and seamless access for all users.
- **Enhancing Safety:** Addressing safety concerns through design improvements, targeted education programs, and implementing best practices for safer road crossings and connectivity.
- **Promoting Connectivity:** Strengthening regional and local connections between communities by linking multi-modal transportation networks to support commuting, recreation, and community access.
- **Equity and Access:** Ensuring all Iowans, regardless of age, income, or geography, have access to safe and affordable active transportation options.



The plan emphasizes collaboration between state, regional, and local partners to implement improvements while addressing economic development opportunities, environmental sustainability, and quality-of-life enhancements. The Iowa Bicycle and Pedestrian Long-Range Plan provide a framework for integrating walking and biking infrastructure into future planning, development, and decision-making, supporting healthier, more connected, and livable communities across Iowa.

<https://iowadot.gov/iowainmotion/Modal-Plans/Bicycle-and-Pedestrian-Plan>

Chapter 2

Region Profile



Chapter 2 – Region Profile

Understanding the region's characteristics is vital for maintaining the current transportation system and planning for future needs. This chapter reviews current conditions and projected demographic and economic trends that impact transportation demand and infrastructure. It outlines factors influencing travel and anticipates population and employment growth over the next 25 years. While data is often presented at the county level, transportation planning for the Black Hawk County metropolitan area is managed by the MPO, which falls within the RTA and significantly influences regional transportation.

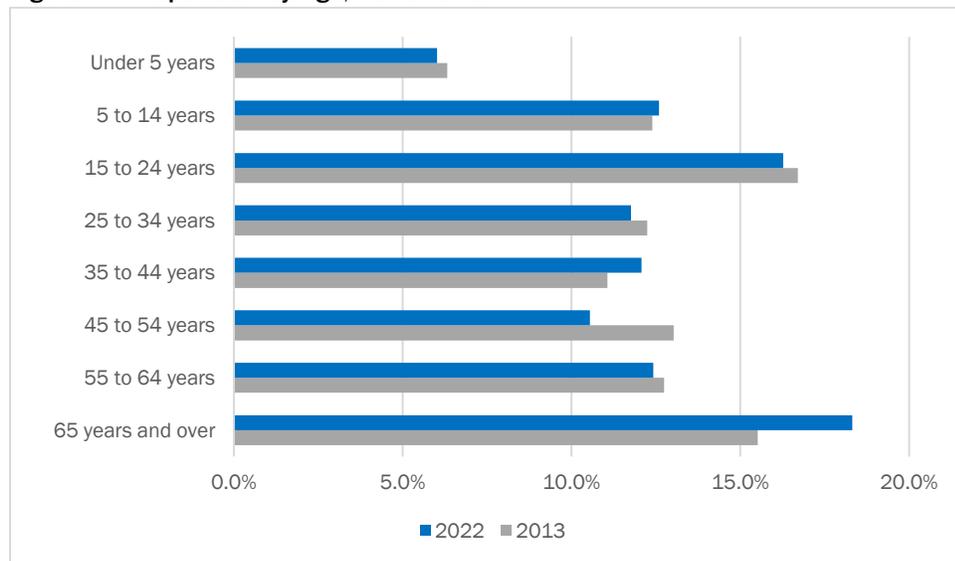
Population

The Iowa Northland Region, comprising Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties, had a combined population of 215,372 per the 2020 Census, with most residing in Black Hawk County. The RTA area, excluding the MPO, holds 94,101 people. Table 2. shows the population by jurisdiction.

Over the past 50 years, the region's population has fluctuated, notably declining during the 1980s economic recession that impacted agriculture and manufacturing and led to outmigration. Since then, growth has stagnated due to lasting recession effects, industry changes, and rural-to-urban migration. An aging population trend from 2013 to 2022 (Figure 2.1) underscores the need for adapting services and infrastructure.

This historical context is crucial for understanding the current demographic and economic landscape of the region. It highlights the challenges faced in maintaining and expanding the population base, which in turn affects regional planning and development efforts.

Figure 2.1: Population by Age, 2013 vs 2022



Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2013 and 2022

REGIONAL STATS

94,101
Total Population¹

29,300
Jobs²

\$86,373
Median Household Income³

8%
Below Poverty Level³

88%
Use Cars to Get to Work³

Sources:

¹U.S. Census Bureau, 2020 Decennial Census

²U.S. Census Bureau, OnTheMap, 2021

³U.S. Census Bureau, ACS 5-year Estimate, 2022

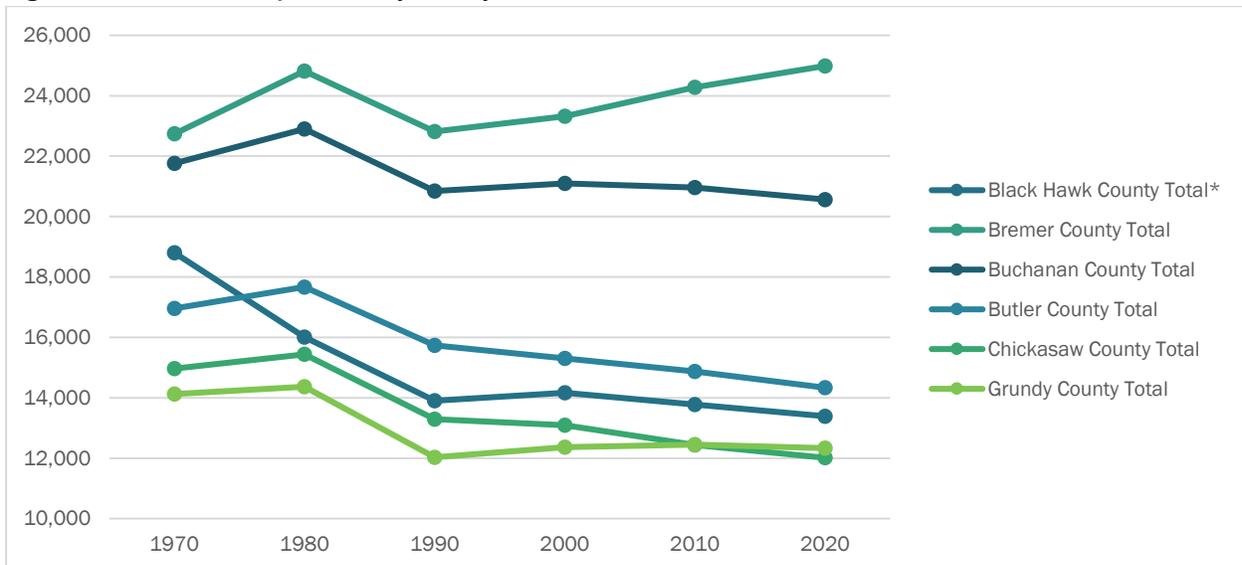
Table 2.1: RTA Population by City and County, 2020

Black Hawk County		Bremer County		Buchanan County	
Dunkerton	842	Denver	1,919	Aurora	169
La Porte City	2,284	Frederika	204	Brandon	341
Unincorporated	6,747	Janesville	1,034	Fairbank	1,111
		Plainfield	393	Hazleton	713
		Readlyn	845	Independence	6,064
		Sumner	2,030	Jesup	2,508
		Tripoli	1,191	Lamont	429
		Waverly	10,394	Quasqueton	570
		Unincorporated	6,978	Rowley	270
				Stanley	81
				Winthrop	823
				Unincorporated	7,486
	9,873		24,988		20,565

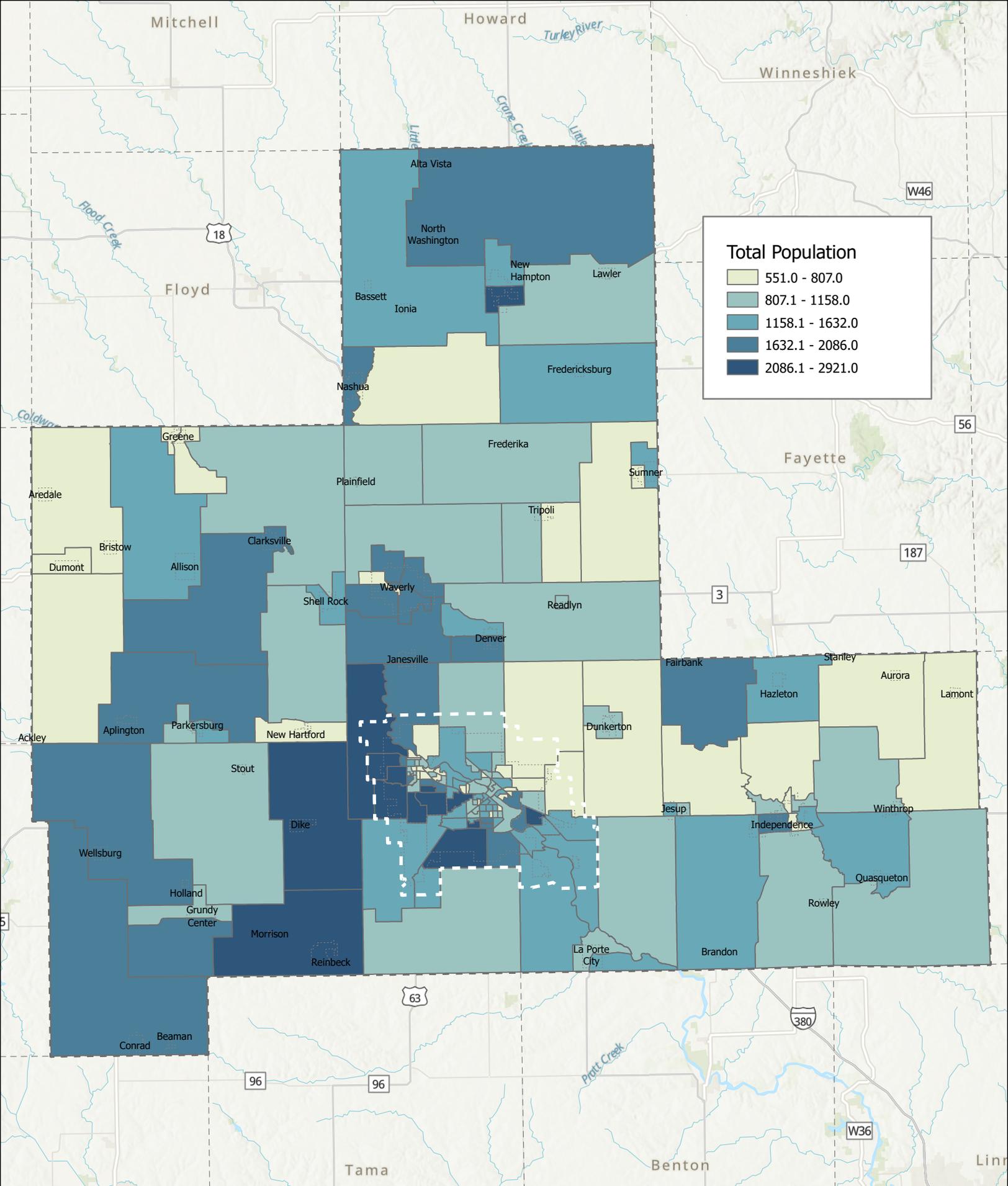
Butler County		Chickasaw County		Grundy County	
Allison	966	Alta Vista	227	Beaman	161
Aplington	1,116	Bassett	45	Conrad	1,093
Aredale	62	Fredericksburg	987	Dike	1,304
Bristow	145	Ionia	226	Grundy Center	2,796
Clarksville	1,264	Lawler	406	Holland	269
Dumont	634	Nashua	1,551	Morrison	98
Greene	990	New Hampton	3,494	Reinbeck	1,662
New Hartford	570	N. Washington	112	Stout	191
Parkersburg	2,015	Unincorporated	4,964	Wellsburg	720
Shell Rock	1,268			Unincorporated	4,035
Unincorporated	5,304				
	14,334		12,012		12,329

Source: U.S. Census Bureau, 2020 Decennial Census

Figure 2.2: Historical Population, by County



Source: U.S. Census Bureau, Decennial Census, 1970 to 2020. *Black Hawk County includes La Porte City, Dunkerton, and all unincorporated areas



Total Population

- 551.0 - 807.0
- 807.1 - 1158.0
- 1158.1 - 1632.0
- 1632.1 - 2086.0
- 2086.1 - 2921.0

Map 2.1
 Total Population by Census Block Group

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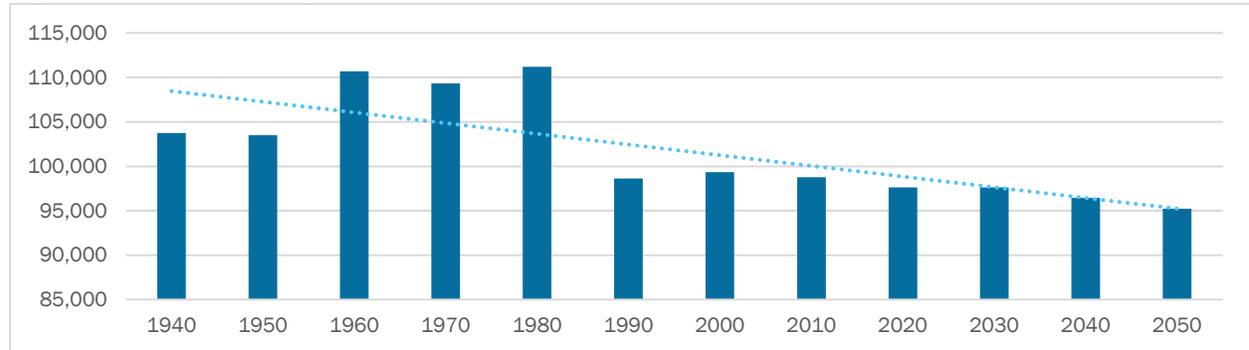
Population Density

The RTA region serves a diverse and expansive area. With a total combined population of 94,101 across 2,983 square miles, the region has an average population density of approximately 31 people per square mile. For comparison, Iowa’s average population density is 58 people per square mile. This density varies significantly, with much of the population concentrated in urban centers. This variation in density presents unique challenges and opportunities for regional transportation planning and infrastructure development.

Population Projections

Population projections for the Iowa Northland Region, using U.S. Census data from 1940 to 2020, suggest a continued linear decline through 2050. The region peaked in 1980 but has since faced population decreases due to economic changes, with recovery remaining elusive. If current trends continue, further population loss could impact economic stability, public services, and infrastructure. Addressing outmigration of younger residents and a growing elderly population will be key to ensuring long-term regional sustainability and vitality.

Figure 2.3: Population Projection, 1940 to 2050



Source: U.S. Census Bureau, Decennial Census, 1940 to 2020

Housing Characteristics

Table 2.2 provides a housing profile for the region. This profile reveals that approximately 25 percent of households have one or no vehicles available. These households are more likely to depend on carpooling, public transit, walking, or bicycling to get to and from their destinations.

Table 2.2: Selected Housing Characteristics

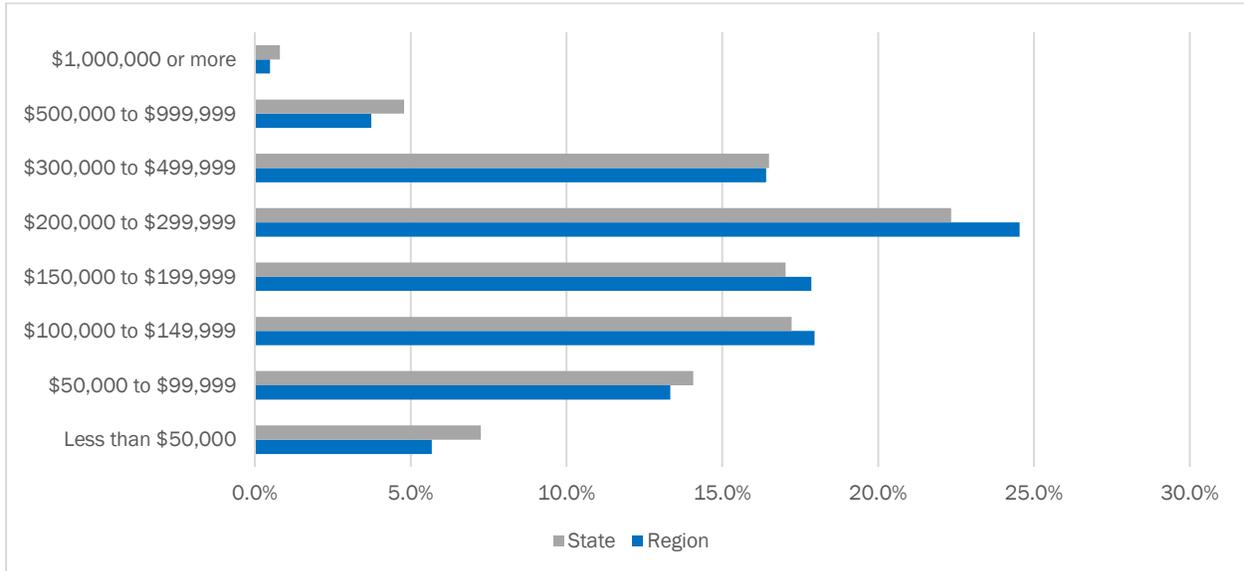
	Region	State
Total housing units	46,640	1,417,064
Occupied housing units	91.3%	91.0%
Vacant housing units	8.7%	9.0%
Housing Tenure		
Owner-occupied housing units	83.3%	71.5%
Renter-occupied housing units	16.7%	28.5%
Year Structure Built		
2000 or later	14.6%	19.3%
1960 to 1999	43.0%	41.5%
1959 or earlier	42.5%	39.2%
Vehicles available		
No vehicle available	3.0%	5.6%
1 vehicle available	22.5%	29.6%
2 or more vehicles available	74.5%	64.8%
Median value owner-occupied	\$200,063	\$181,600

Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2022

Housing Value

The cost of housing and the cost of transportation are two large factors in determining where people choose to live. Workers are faced with the advantages and disadvantages of living in an urbanized area or living in a community or rural area outside of it. The median owner-occupied home value is \$200,063 and there is a wide range of housing value in the region.

Figure 2.4: Housing Value, Owner-occupied Units

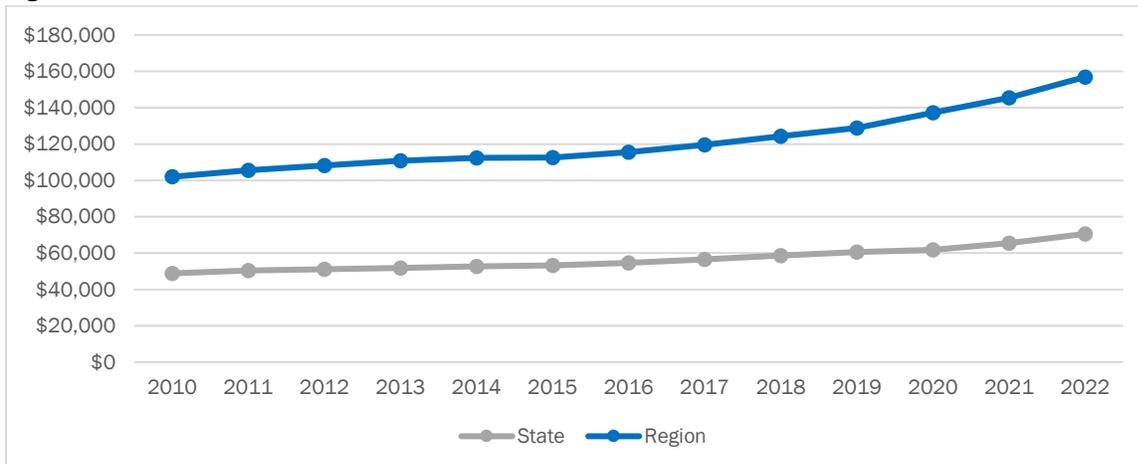


Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2022

Household Income

According to the FHWA Livability Initiative, transportation is the second largest expense for most households after housing. Households living in auto-dependent locations spend 25 percent of their income on transportation costs. Housing that is affordable and located closer to employment, shopping, restaurants, and other destinations can reduce household transportation costs to nine percent of household income. Figure 2.5 compares the median household income for the region and the State of Iowa.

Figure 2.5: Median Household Income



Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2010 to 2022

Poverty/Low Income

According to the U.S. Census Bureau, people and families are classified as being in poverty if their income is less than their poverty threshold. Approximately 7.8 percent of the population within the region, excluding the MPO area, is below the poverty level. Map 2.3 shows the percentage of the population that is below the poverty level by Census tract, highlighting areas with higher concentrations of poverty. By understanding the geographic distribution of poverty, communities can better allocate resources to enhance connectivity and ensure equitable access to essential services and employment opportunities across the region.

Average Housing and Transportation Costs

Traditional measures of housing affordability do not consider transportation costs. According to the Center for Neighborhood Technology, a household's second-largest expenditure is typically transportation costs. Compact and dynamic neighborhoods with walkable streets and high access to jobs, transit, and a wide variety of businesses can be more efficient, affordable, and sustainable. Figure 2.6 illustrates the average housing and transportation costs as a percentage of household income for Independence, New Hampton, and Waverly.

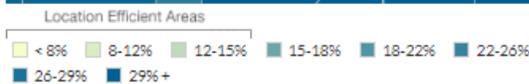
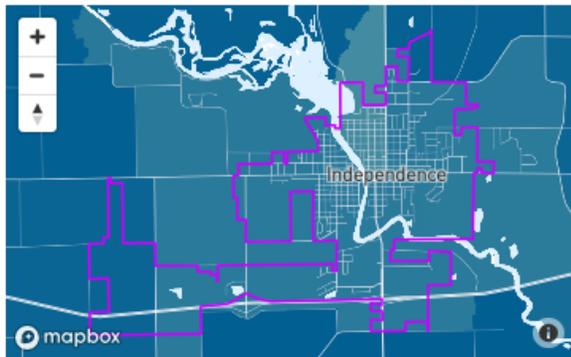


Figure 2.6: Housing and Transportation Fact Sheets

Source: [Center for Neighborhood Technology, Housing and Transportation Fact Sheet](#)

The statistics below are modeled for the Regional Typical Household. Income: \$64,837 Commuters: 1.19 Household Size: 2.59 (Waterloo-Cedar Falls, IA)

Map of Transportation Costs % Income



Location Efficiency Metrics

Places that are compact, close to jobs and services, with a variety of transportation choices, allow people to spend less time, energy, and money on transportation.

0%

Percent of location efficient neighborhoods

Neighborhood Characteristic Scores (1-10)

As compared to neighborhoods in all 955 U.S. regions in the Index

Job Access

1.9

Very low access to jobs

AllTransit Performance Score

0

Car-dependent with very limited or no access to public transportation

Compact Neighborhood

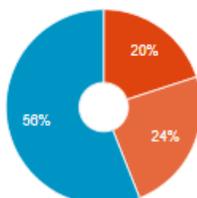
3.2

Low density and limited walkability

Average Housing + Transportation Costs % Income

Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.

- Housing
- Transportation
- Remaining Income



Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.



\$15,239

Annual Transportation Costs



2.01

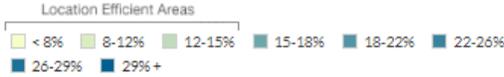
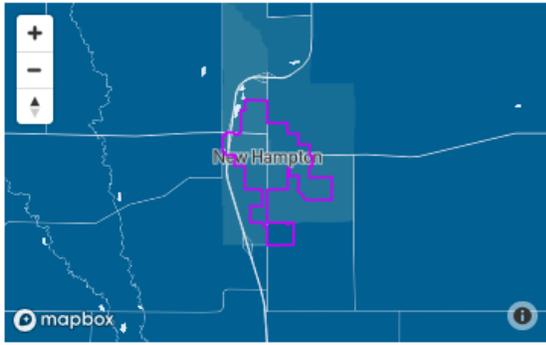
Autos Per Household



21,486

Average Household VMT

Map of Transportation Costs % Income



Location Efficiency Metrics

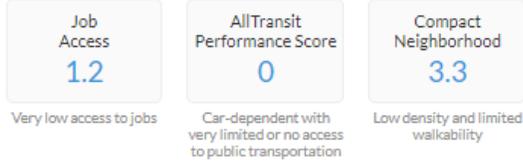
Places that are compact, close to jobs and services, with a variety of transportation choices, allow people to spend less time, energy, and money on transportation.

0%

Percent of location efficient neighborhoods

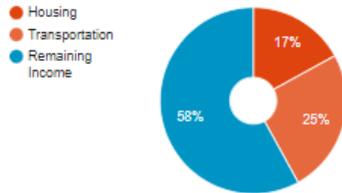
Neighborhood Characteristic Scores (1-10)

As compared to neighborhoods in all 955 U.S. regions in the Index



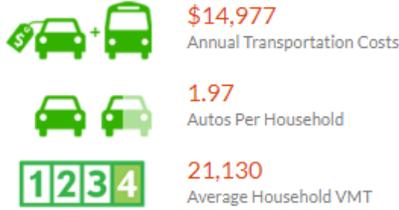
Average Housing + Transportation Costs % Income

Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.

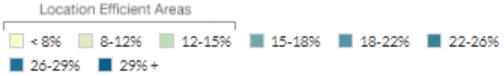
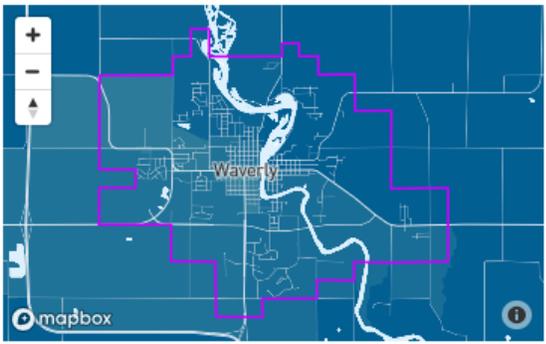


Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.



Map of Transportation Costs % Income



Location Efficiency Metrics

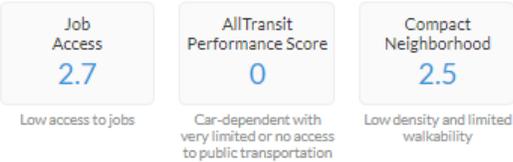
Places that are compact, close to jobs and services, with a variety of transportation choices, allow people to spend less time, energy, and money on transportation.

0%

Percent of location efficient neighborhoods

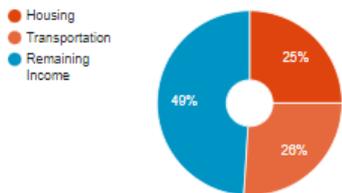
Neighborhood Characteristic Scores (1-10)

As compared to neighborhoods in all 955 U.S. regions in the Index



Average Housing + Transportation Costs % Income

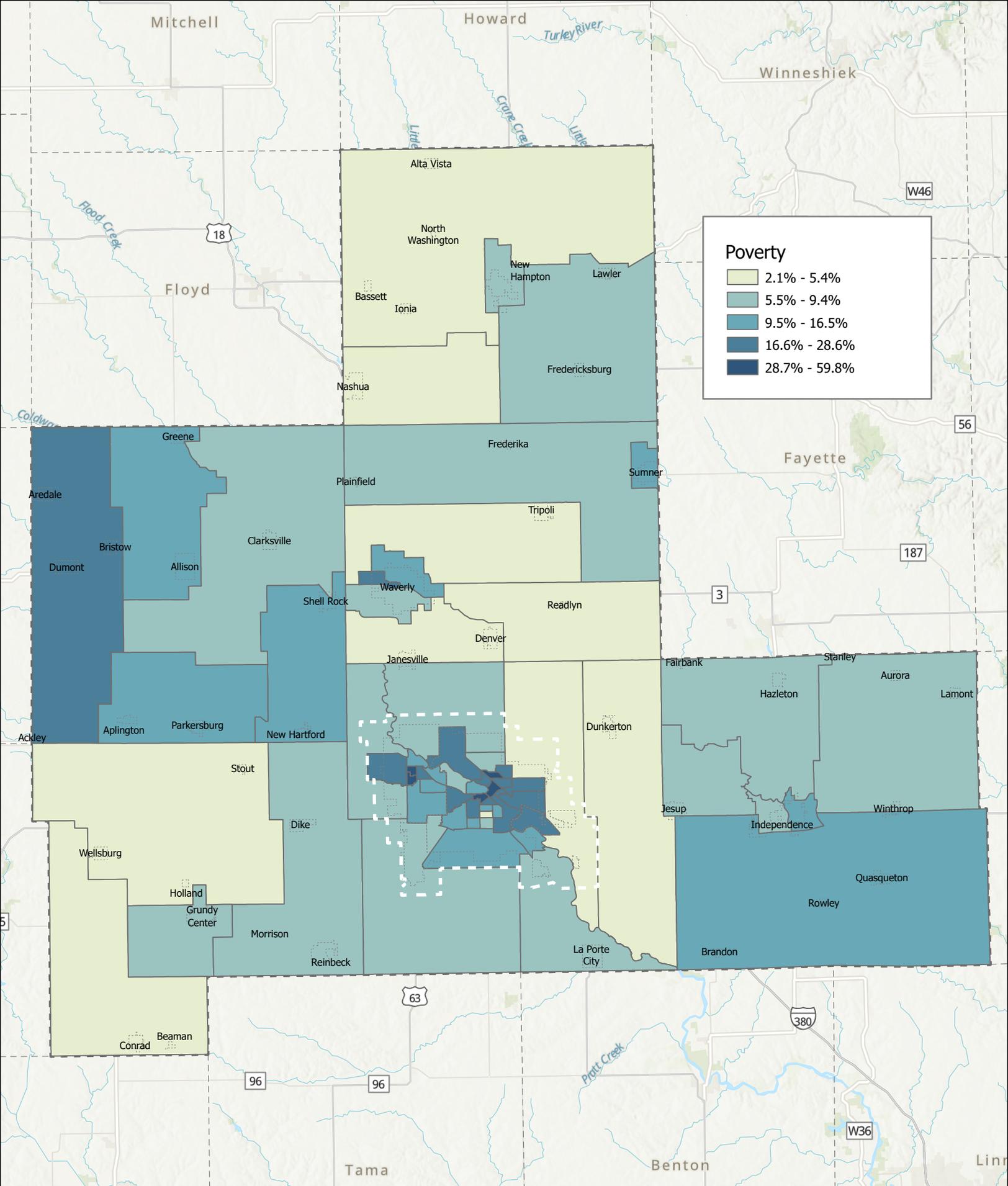
Factoring in both housing *and* transportation costs provides a more comprehensive way of thinking about the cost of housing and true affordability.



Transportation Costs

In dispersed areas, people need to own more vehicles and rely upon driving them farther distances which also drives up the cost of living.





Map 2.3
Poverty/Low-Income by Census Tract

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Racial and Ethnic Minorities

For the purposes of this plan, Racial and Ethnic Minorities are defined as individuals that do not identify as White alone. Under this definition, the estimated Minority population accounts for approximately 4.7 percent of the total population in the region, excluding the MPO area. Map 2.4 shows the number of persons that do not identify as White alone by Census block group, and Map 2.5 shows the percent of the population that is foreign born by Census tract.

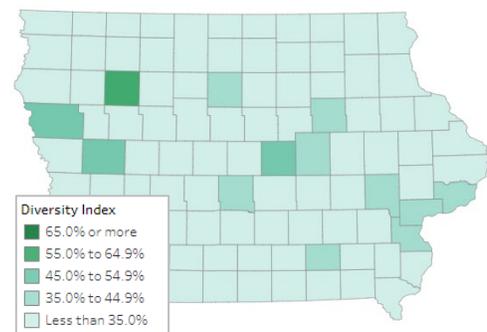


Limited English Proficiency (LEP)

The U.S. Department of Justice defines LEP persons as, “Individuals who do not speak English as their primary language and who have a limited ability to read, speak, write, or understand English...” Approximately 1.1 percent of the population 5 years of age and older within the region, excluding the MPO area, are considered LEP individuals. This information is crucial for the RTA to consider, as LEP individuals may face significant barriers to accessing transportation services. Map 2.6 shows the percentage of the population that is considered as LEP by Census tract.

Ethnic Diversity Index

The U.S. Census Bureau uses a Diversity Index (DI) to measure the probability that two people chosen at random will be from different racial and ethnic groups. The DI is bounded between 0 percent and 100 percent. A value closer to 100 indicates that much of the population has different racial and ethnic characteristics. Map 2.7 shows the DI for the region by Census block group. For comparison, Black Hawk County has a DI of 30.8 percent, the ninth highest in the state.

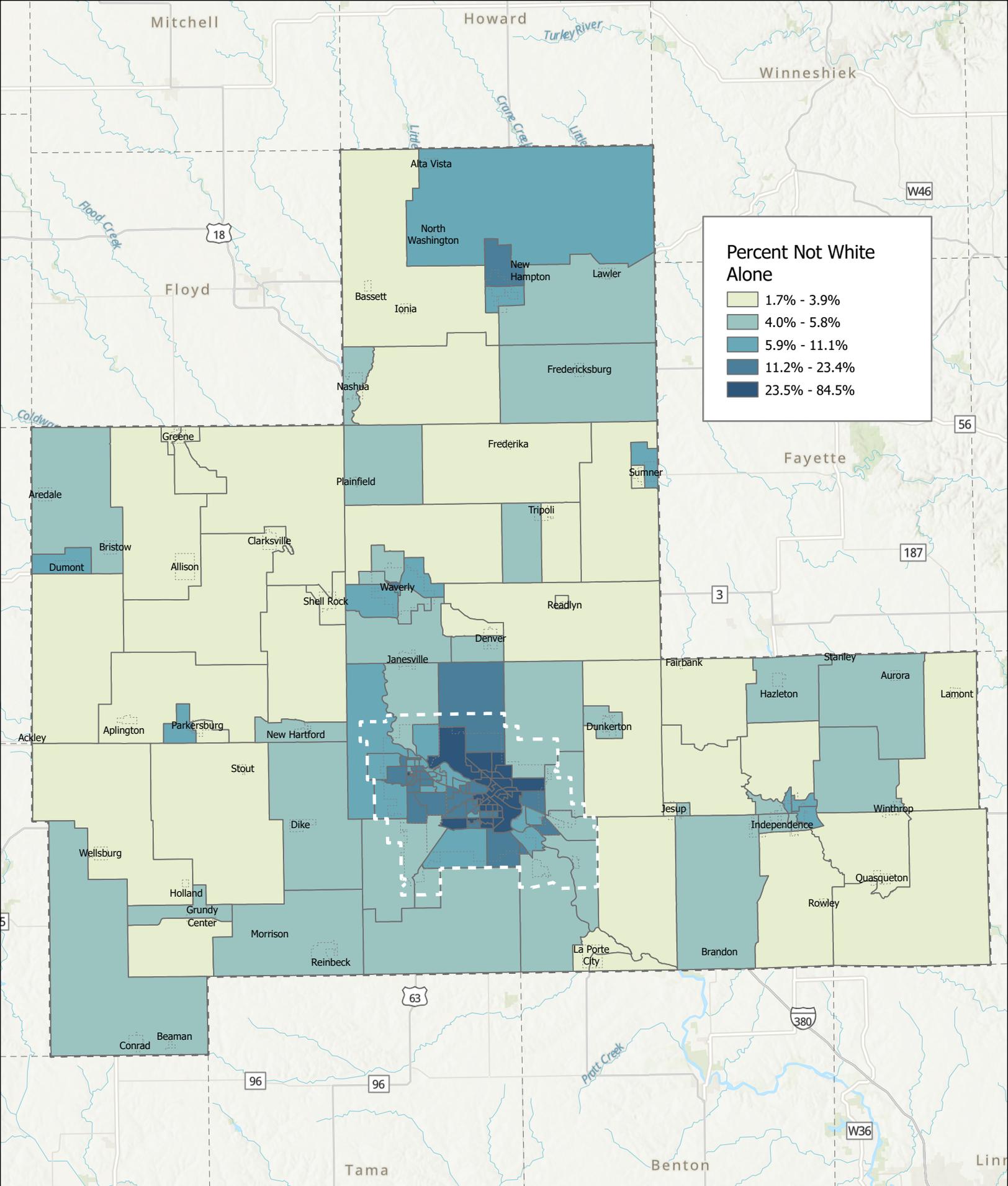


<https://www.census.gov/library/visualizations/interactive/racial-and-ethnic-diversity-in-the-united-states-2010-and-2020-census.html>

Persons with Disabilities

To capture a variety of characteristics that encompass the definition of disability, the U.S. Census Bureau American Community Survey identifies serious difficulty with four basic areas of functioning – hearing, vision, cognition, and ambulation (movement); difficulty bathing and dressing; and difficulty performing errands such as shopping. Approximately 11.8 percent of the total civilian noninstitutionalized population in the region, excluding the MPO area, have at least one disability. Map 2.8 shows the percentage of the population with disabilities by Census tract.





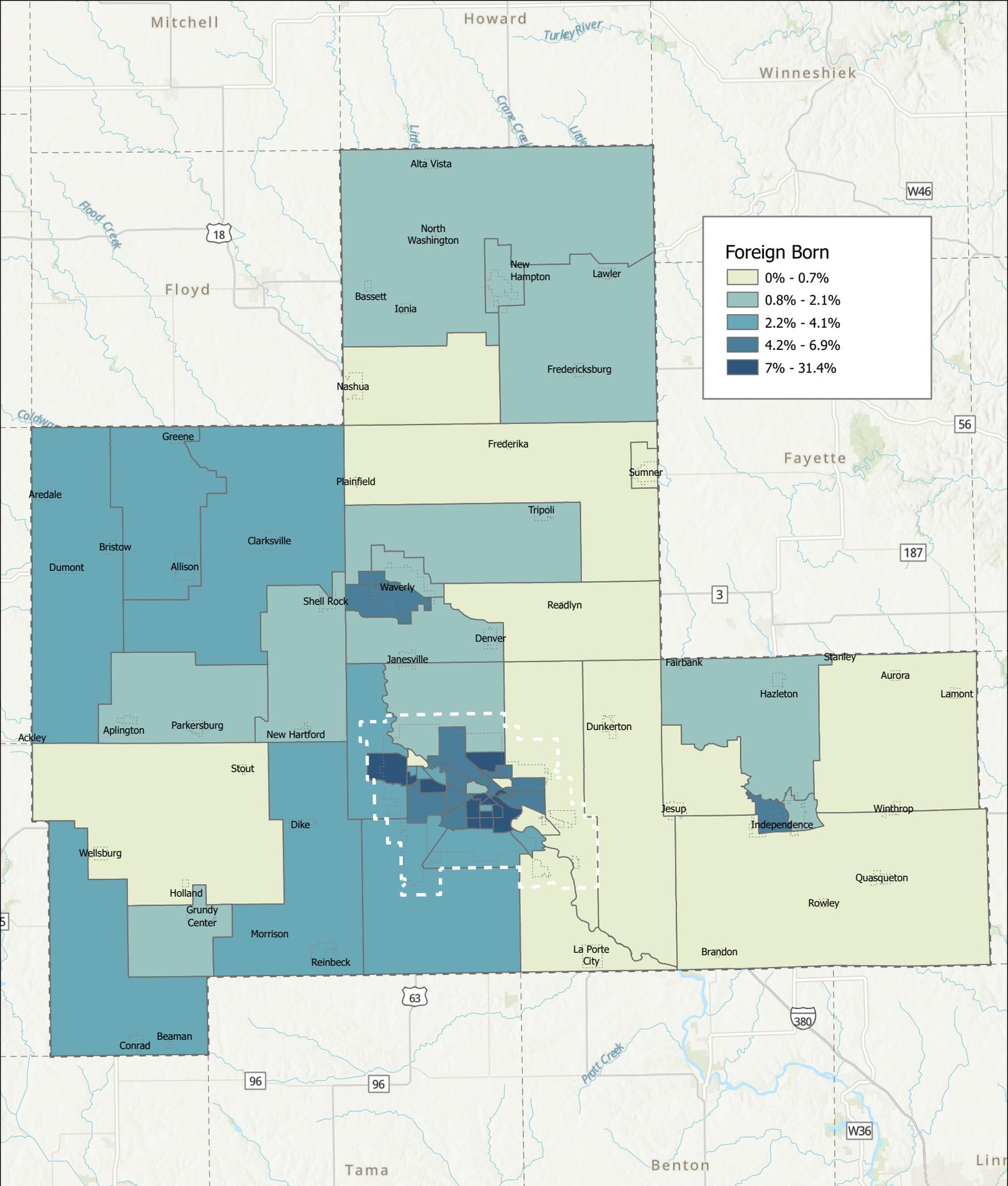
Map 2.4

Racial & Ethnic Minorities by Census Block Group

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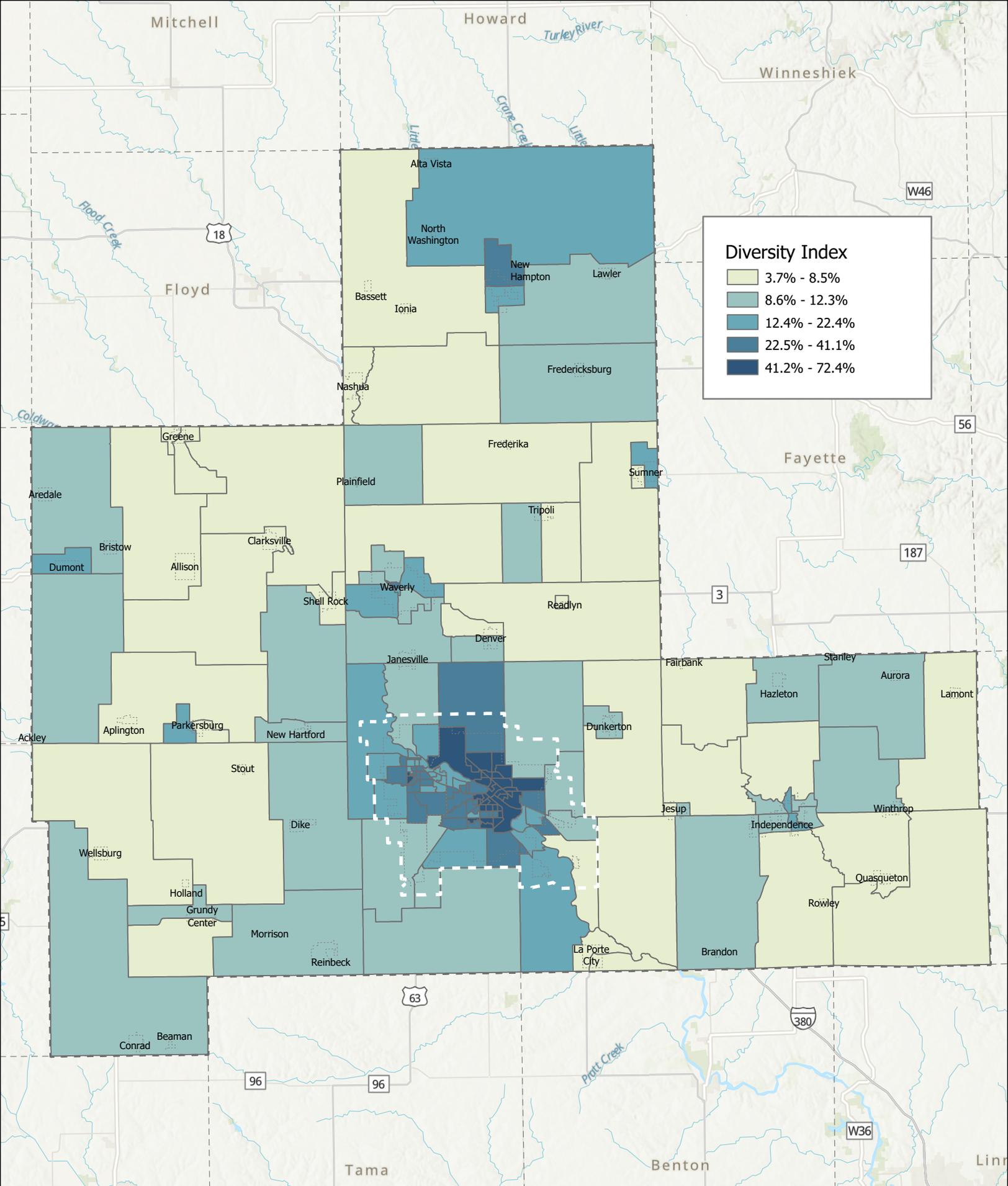
Map 2.5

Foreign Born Population by Census Tract

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Diversity Index

- 3.7% - 8.5%
- 8.6% - 12.3%
- 12.4% - 22.4%
- 22.5% - 41.1%
- 41.2% - 72.4%

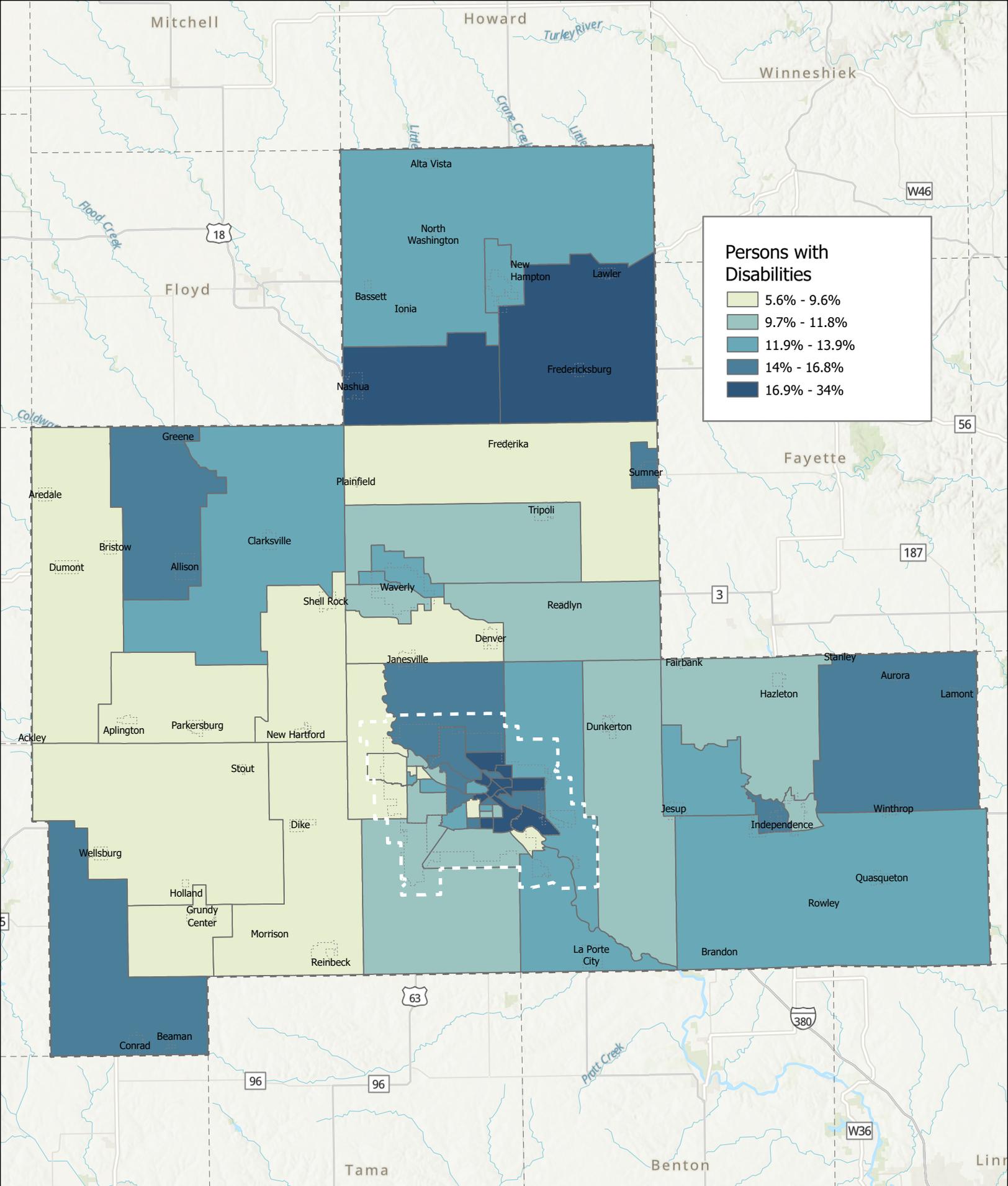
Map 2.7

Ethnic Diversity Index by Census Block Group

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Map 2.8

Persons with Disabilities by Census Tract

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Jobs

The number of jobs in the region has seen a modest increase over the past two decades. According to the U.S. Census Bureau, there were approximately 29,300 jobs in the region in 2021, an increase of 2,000 jobs since 2002, reflecting an average annual increase of 0.39%. Map 2.9 shows the number of jobs, and Figure 2.7 shows the job counts by North American Industry Classification System (NAICS) industry sector.

Map 2.9: Number of Jobs

Source: U.S. Census Bureau, OnTheMap, 2021

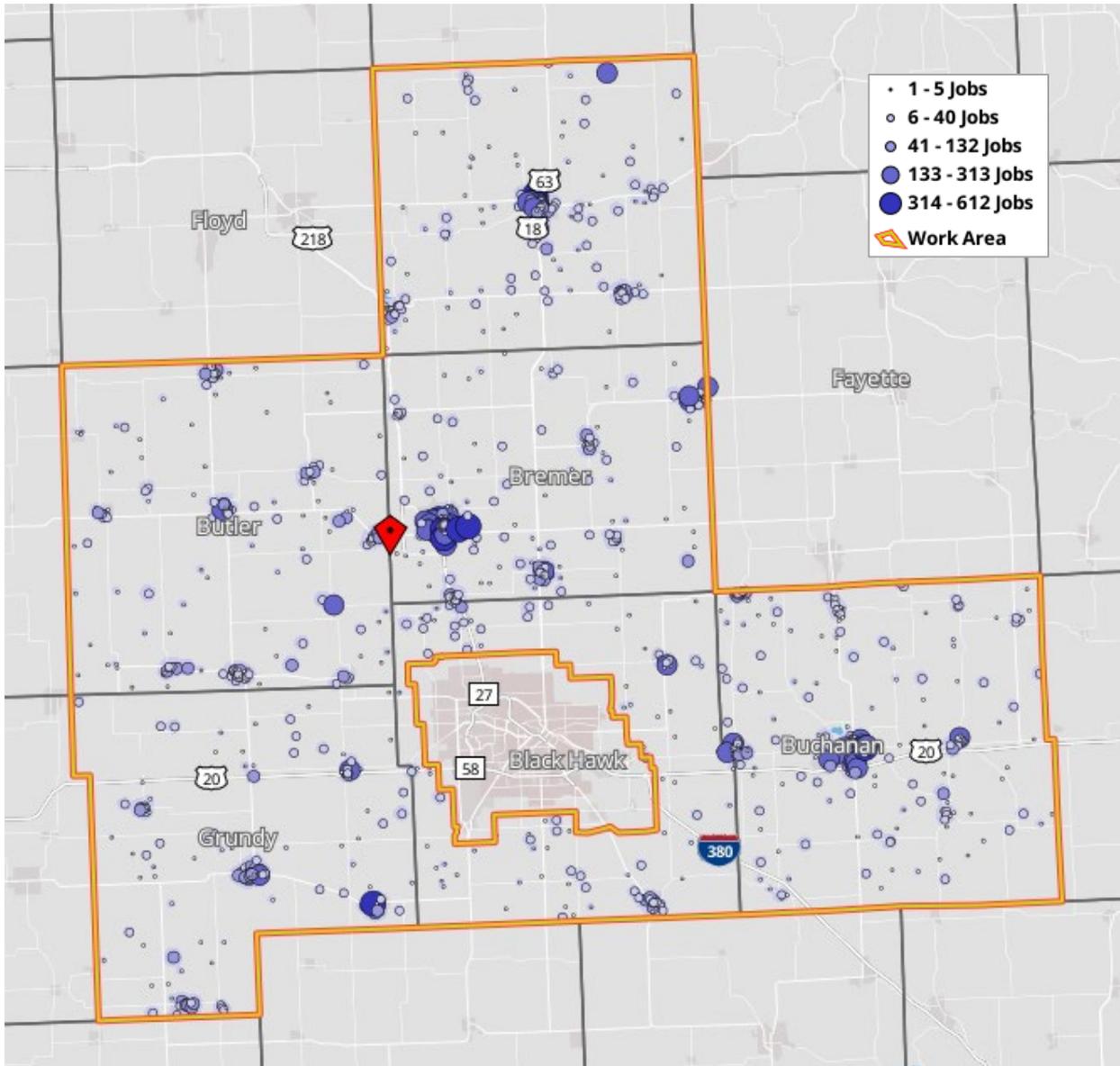
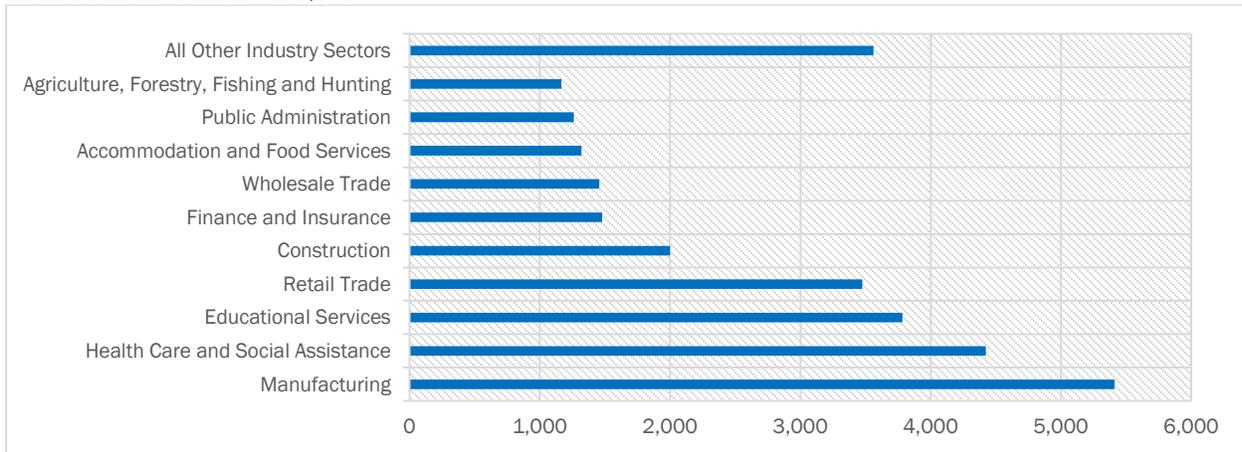


Figure 2.7: Jobs by NAICS Industry Sector

Source: U.S. Census Bureau, OnTheMap, 2021



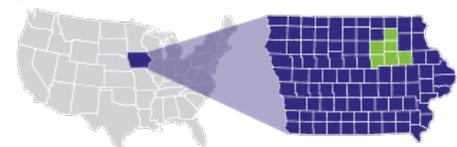
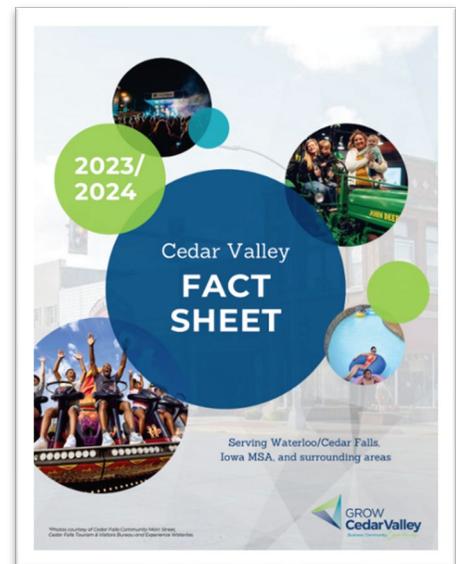
Major Employers

Table 2.3 lists the major employers in the region, including the Black Hawk County metropolitan area. Of these top employers, manufacturing, education, and health care are the top three industries by number of employees. These industries play a critical role in the region’s economic stability and growth, providing essential services and pronounced levels of employment. The prominence of these sectors underscores the importance of supporting infrastructure and policies that foster their continued development, ensuring sustained job creation and economic resilience.

Table 2.3: Top 20 Employers

Company	Industry	Approximate Employees
John Deere	Manufacturing	5,800
UnityPoint Health	Health Care	3,379
Tyson Fresh Meats	Food Processing	2,980
MercyOne	Health Care	2,573
Waterloo Community Schools	Education	1,700
Target Distribution Centers	Distribution	1,700
University of Northern Iowa	Education	1,650
VGM Group	Diversified	1,521
Hy-Vee Food Stores	Grocery	1,181
Cedar Falls Community Schools	Education	1,168
City of Waterloo	Government	1,025
Western Home Communities	Health Care/Housing	962
Hawkeye Community College	Education	730
Bertch Cabinet Manufacturing	Manufacturing	727
Veridian Credit Union	Financial	647
Omega Cabinetry/Masterbrand	Manufacturing	600
City of Cedar Falls	Government	588
Central Rivers AEA	Education	562
LSB/LSBX	Financial	450
Wartburg College	Education	450

Source: Grow Cedar Valley, 2023/2024 Cedar Valley Fact Sheet

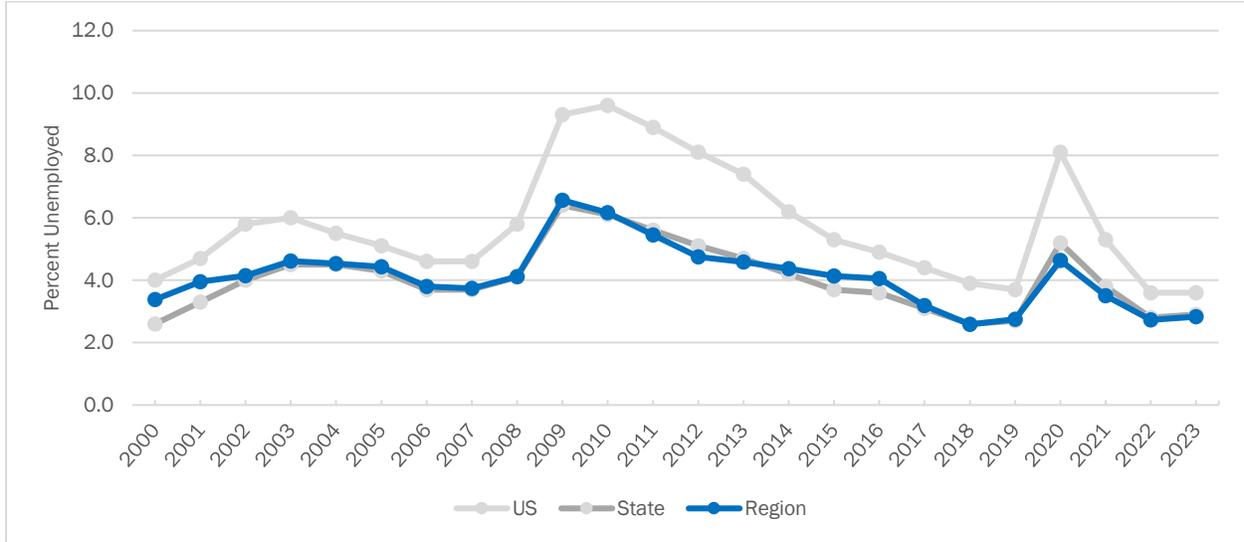


Unemployment

Figure 2.8 displays the unemployment rate for the region over the past 25 years, alongside the statewide and national averages. Since 2000, the region has experienced an unemployment rate comparable to the state, consistently outperforming the national average. This relative economic resilience can be attributed to several factors, including the region's diversified economy, which relies heavily on stable industries such as manufacturing, education, and healthcare. The presence of major employers and educational institutions also provides a steady stream of job opportunities, further insulating the region from broader economic downturns.

Figure 2.8: Unemployment Rate

Source: Iowa Workforce Development, Local Area Unemployment Statistics, Annual Average Unemployment Rate

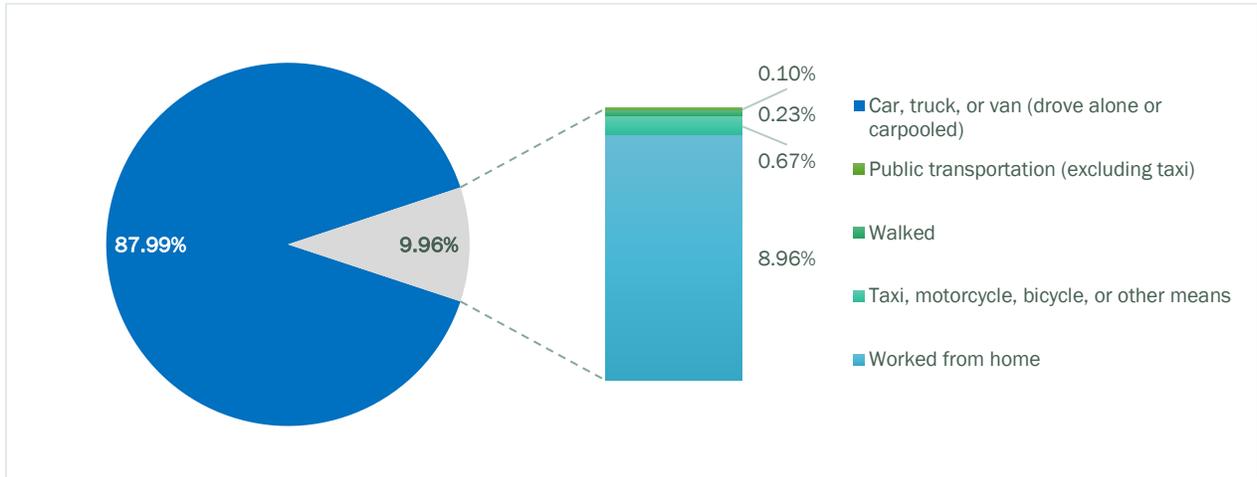


Mode of Transportation to Work

The Iowa Northland Region remains an auto-oriented community. Approximately 88 percent of residents utilize an automobile for travel to work (Figure 2.9). Working from home is the next highest mode at 9 percent. Public transportation, cycling, and walking make up a small fraction of the commute methods, highlighting the region's heavy reliance on personal vehicles. This reliance underscores the need for continued investment in road infrastructure and initiatives to support alternative transportation options.

Figure 2.9: Mode of Transportation to Work

Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2022

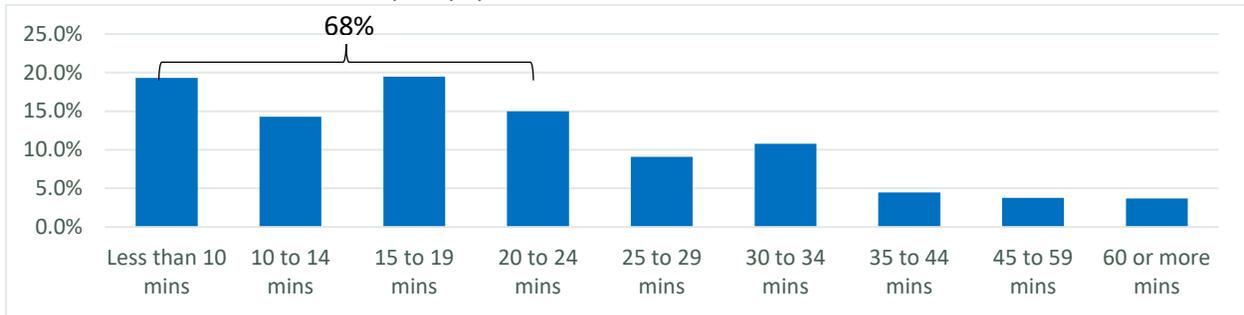


Commute Time to Work

Figure 2.10 provides travel times to work for the region. Almost 70 percent of commuting trips are 24 minutes or less, indicating that a significant portion of the region’s workforce lives relatively close to their place of employment. This short commute time suggests that most residents can avoid the longer, more stressful commutes that are common in larger metropolitan areas. The data also highlights the efficiency of the local transportation infrastructure in facilitating quick and convenient travel for most workers.

Figure 2.10: Commute Time to Work

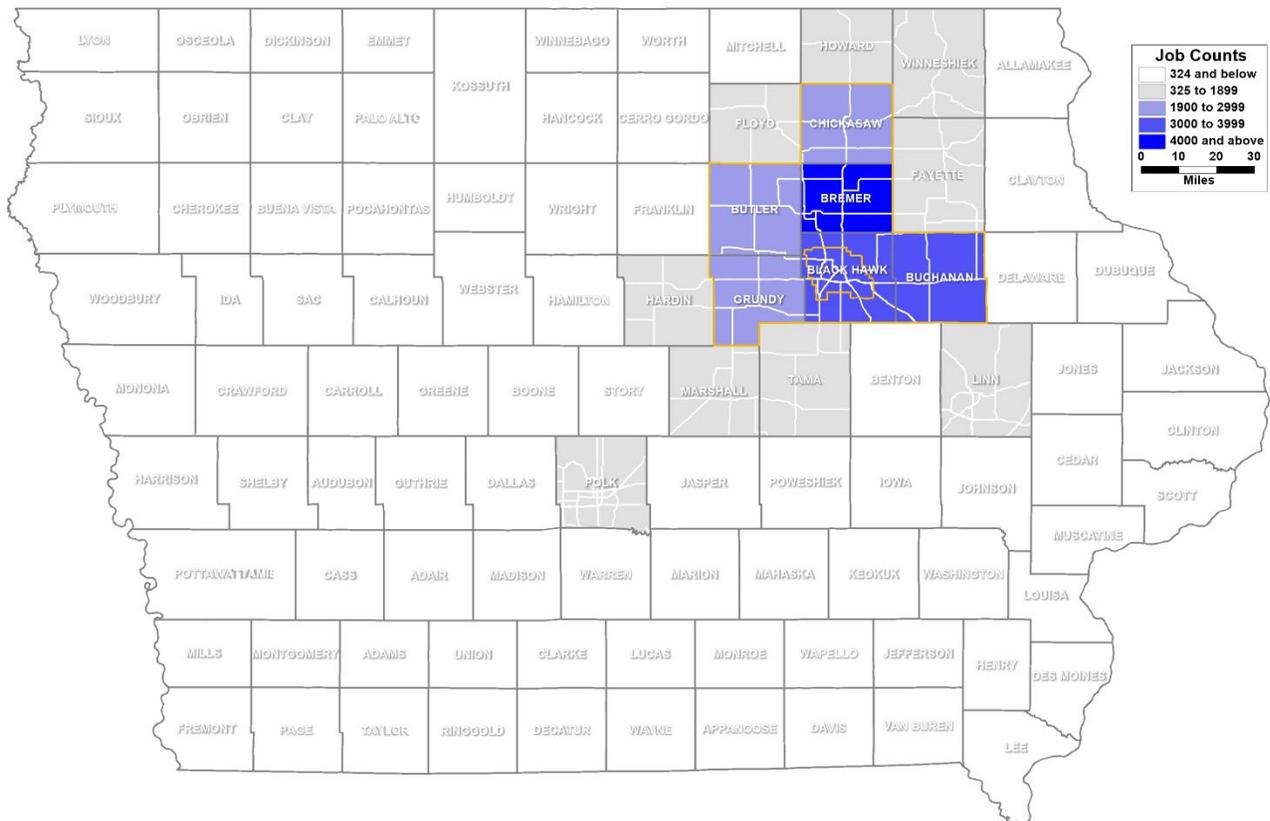
Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2022



Map 2.10 shows the job counts by counties for workers living in the region in 2021 (i.e., where do people that work in the region live). Of the 29,000 workers employed in the region, approximately 17 percent live in Bremer County, followed by Black Hawk County (13.1%) and Buchanan County (12.2%).

Map 2.10: Job Counts by Counties for Workers Living in the Region

Source: U.S. Census Bureau, OnTheMap, 2021

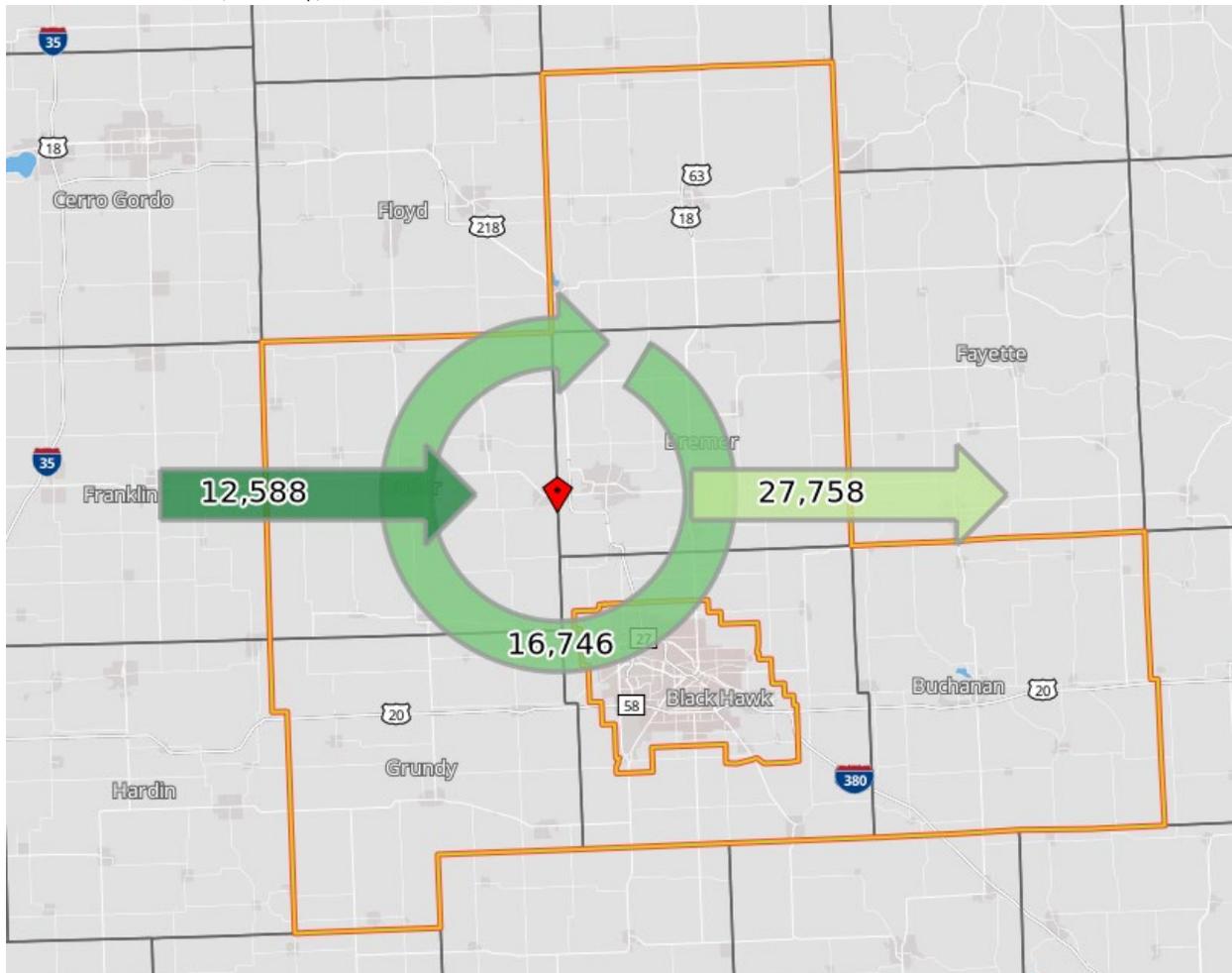


Map 2.11 illustrates the movement of workers commuting in and out of the region. As shown, more workers live within the region and are employed outside (27,758) compared to those who live outside the region and commute in for work (12,588). The presence of the metropolitan area of Waterloo/Cedar Falls within the region is particularly relevant, as it serves as a central hub for employment, influencing commuting patterns and underscoring the need for robust transportation infrastructure to support both local and regional travel demands.



Map 2.11: Inflow/Outflow of Jobs in the Region

Source: U.S. Census Bureau, OnTheMap, 2021



Employment Projections

In addition to forecasting population, it is important to forecast future employment. The regional job growth rate was calculated using U.S. Census Bureau OnTheMap data from 2007 to 2021. This timeframe offers a more current picture of the area’s growth. Expanding the analysis timeframe helps smooth out fluctuations caused by the COVID-19 pandemic, providing a more stable basis for forecasting future employment trends. To calculate the number of jobs within the RTA region, excluding the MPO area, a shapefile of the RTA boundary was imported to OnTheMap, enabling the calculation of jobs specifically within the RTA boundary.

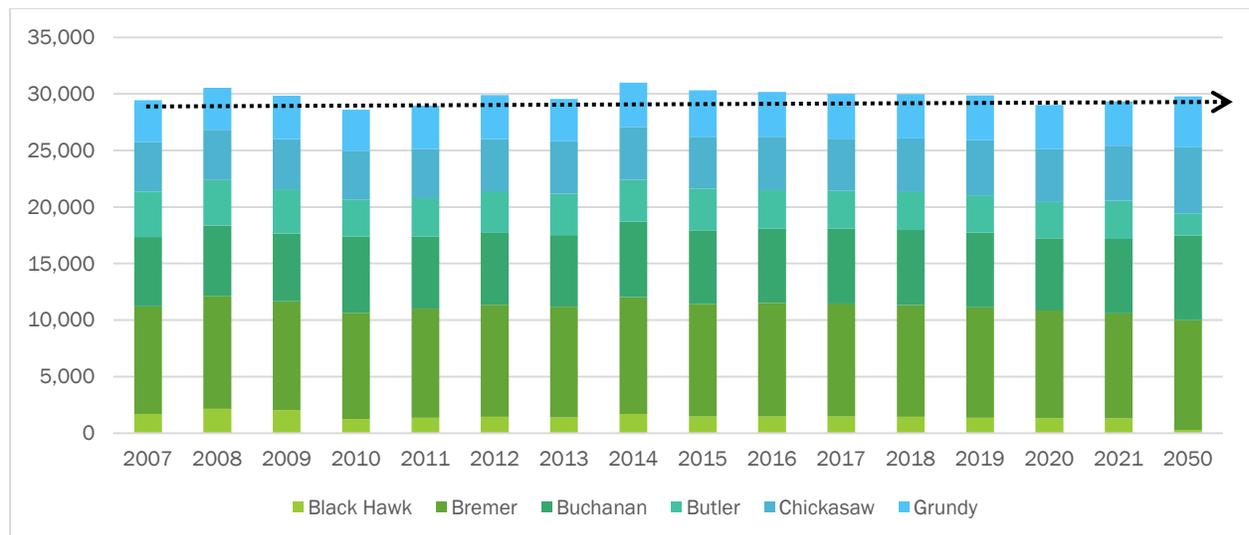
Linear projections from 2007 to 2021 were used to forecast the number of jobs in the region through the horizon year 2050. In 2021, there were an estimated 29,334 jobs. This figure is projected to increase modestly by 441, resulting in a total of 29,775 jobs by 2050. This represents an average annual job growth rate of approximately 0.051%. For comparison, the average annual job growth rate in the U.S. over the past decade has been around 1.2%.

The region will continue to rely on the larger pool of jobs in the Waterloo/Cedar Falls metropolitan area, which is projected to experience a significant increase. According to the MPO 2050 Long-Range Transportation Plan, the metropolitan area is expected to add 9,700 jobs by 2050. This anticipated growth underscores the importance of the metro area as a crucial employment hub, offering opportunities that can support the broader regional economy. As the region’s job market remains relatively stagnant, the metropolitan area’s growth will be vital in providing employment options and stimulating economic activity across the entire region.

Table 2.4: Employment Projections

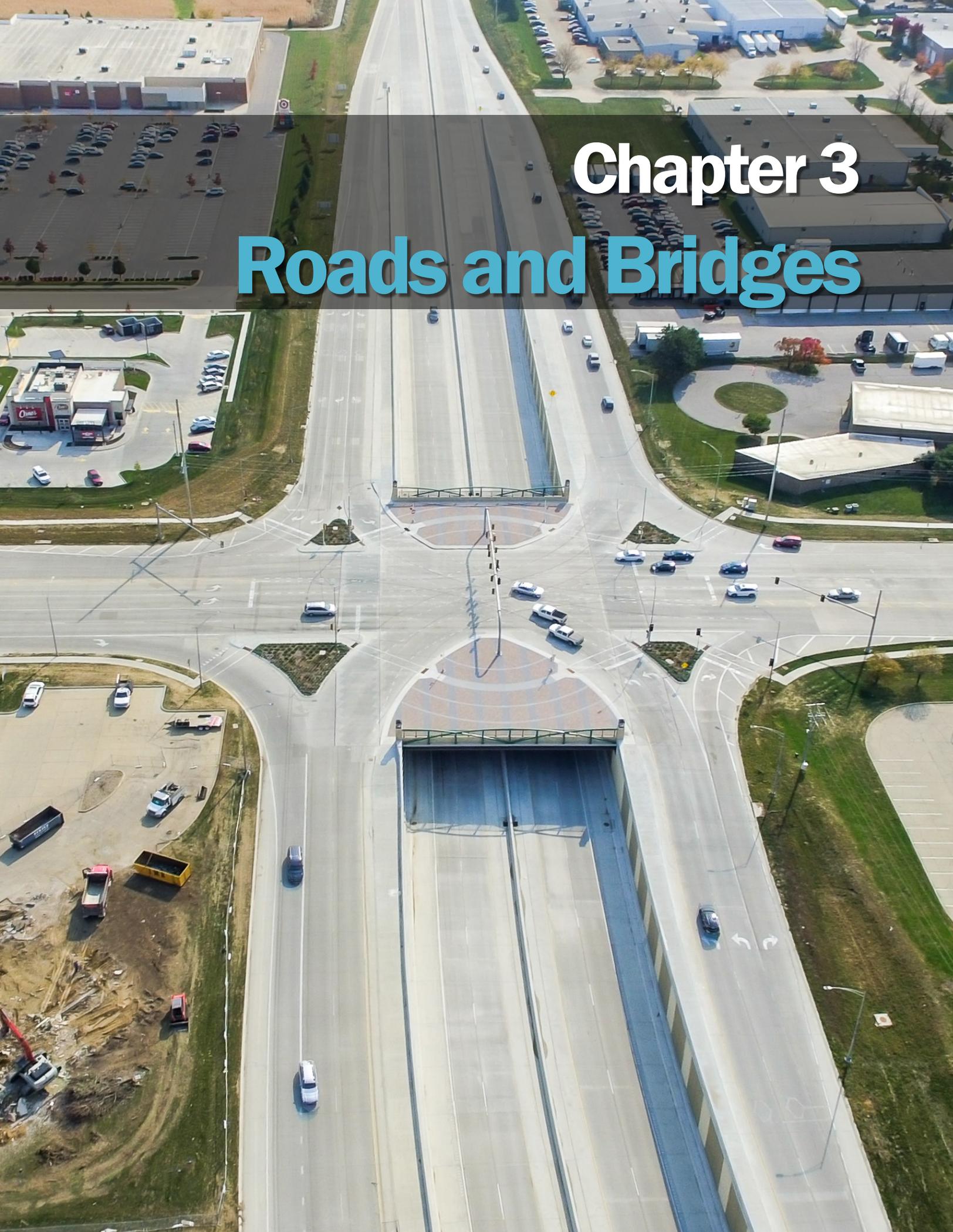
	2007	2009	2011	2013	2015	2017	2019	2021	2050
Black Hawk	1,701	2,055	1,361	1,387	1,476	1,478	1,366	1,314	287
Bremer	9,516	9,612	9,669	9,792	9,962	9,982	9,778	9,282	9,716
Buchanan	6,134	6,001	6,340	6,352	6,504	6,610	6,601	6,596	7,495
Butler	4,015	3,913	3,402	3,636	3,690	3,352	3,292	3,374	1,906
Chickasaw	4,356	4,445	4,366	4,647	4,593	4,623	4,875	4,854	5,874
Grundy	3,738	3,813	3,831	3,760	4,097	3,954	3,967	3,914	4,496
Total	29,460	29,839	28,969	29,574	30,322	29,999	29,879	29,334	29,775

Source: U.S. Census Bureau, OnTheMap, 2007 to 2021



Chapter 3

Roads and Bridges



Chapter 3 – Roads and Bridges

The RTA's overall goal is to provide for the safe, reliable, and efficient movement of people and goods in the region. The road network is the most readily available and used public transportation infrastructure that can be utilized to help reach this goal, emphasizing the importance of maintaining a viable road network. The RTA's objectives are to maintain the regional road network for existing and planned traffic and maintain a balance of connectivity and accessibility while ensuring safety for all modes.

State Road and Bridge Plans

Iowa in Motion 2050 State Transportation Plan

Adopted in 2022, this long-range document addresses federal requirements and serves as a transportation investment guide for each transportation mode. The State Long Range Transportation Plan (SLRTP) is updated every five years because Iowa's transportation system is ever-changing. Proactive planning for the future of the system is critical to ensure people and goods can get where they need to go in a safe manner. The needs for the system are continually evolving due to changes in demographics, land use, travel patterns, technology, legislation, and available funding. The SLRTP establishes the vision and objectives for the state's multimodal transportation system, identifies existing and emerging needs, risks, and challenges, and recommends strategies to achieve the vision for the transportation system. The SLRTP also supports a continued emphasis on stewardship. The Iowa DOT views stewardship as an efficient investment and prudent, responsible management of the existing transportation system.



The 2050 SLRTP is the third in the current series of long-range plans. In 2012, a policy level plan was adopted. In 2017, the plan was expanded to identify primary investment areas, categorize future needs across modes, and provide strategies to achieve the system objectives. The 2022 SLRTP planning effort and document builds on these past plans with enhancements that include the following:

- Additional focus on emerging planning considerations
- Establishment of system objectives
- Expanded analysis of highway system needs and risks
- Updated strategies to implement the plan
- Development of Iowa DOT's rightsizing policy

REGIONAL STATS

6,109
Miles of roads¹

92
Miles of locally owned roads in poor condition²

962
Miles of locally owned roads in good condition²

1,680
Bridges³

277
Bridges in Poor Condition⁴

13
Bridges closed⁴

Sources:
¹Iowa DOT, Roadway Asset Management System (RAMS)

²Iowa Pavement Management Program, 2022

³Iowa DOT, Data Portal, Bridge Point

⁴FHWA, National Bridge Inventory, 2023

A multi-pronged approach was used to determine improvement needs across the multimodal system. For highways and bridges, a nine-layer analysis was conducted to analyze various needs and risks. The Primary Highway System was divided into 464 corridors for analysis, and needs and risks were identified at the corridor level. A comprehensive matrix covering the entire Primary Highway System is included in the Plan. The matrix shows which need(s) and/or risk(s) were identified in each corridor.

Route	Corridor	County	IMFN CIN		Needs					Risks			
			Networks		Pavement Condition	Bridge Condition	Bottlenecks	Super-2	Capacity	Safety	Operations	Flood Resiliency	Bicyclists
I-380	IA 150 to E jct US 20	Benton, Buchanan, Black Hawk										N/A	N/A
	E jct US 20 to Mitchell Ave	Black Hawk										N/A	N/A
US 18	US 218 to US 63	Floyd, Chickasaw										11.9%	7.2%
	US 63 to IA 150	Chickasaw, Fayette										1.4%	31.5%
US 20	US 65 to IA 14	Hardin, Grundy										N/A	N/A
	IA 14 to IA 27	Grundy, Black Hawk										N/A	N/A
	IA 27 to US 218	Black Hawk										N/A	N/A
	I-380 to IA 150	Black Hawk, Buchanan										N/A	N/A
US 63	IA 150 to IA 13	Buchanan, Delaware										N/A	N/A
	US 30 to US 20	Tama, Black Hawk					74					4.3%	4.8%
	US 20 to US 218	Black Hawk						4LC				7.8%	12.2%
	US 218 to Waterloo N CL	Black Hawk						4LC				72.1%	68.4%
	Waterloo N CL to IA 3	Black Hawk, Bremer						4LC				1.5%	0.0%
	IA 3 to US 18	Bremer, Chickasaw						4LC				0.2%	5.8%
US 218	US 18 to MN border	Chickasaw, Howard										0.6%	6.0%
	IA 150 to S jct I-380	Benton, Black Hawk				151	92					4.2%	1.1%
	Mitchell Ave to IA 27	Black Hawk							Partial			2.6%	6.7%
	IA 27 to IA 3	Black Hawk, Bremer										0.5%	0.0%
IA 3	IA 3 to US 18	Bremer, Chickasaw, Floyd										0.0%	0.5%
	US 65 to US 218	Franklin, Butler, Bremer				159						2.8%	0.7%
	US 218 to US 63	Bremer				12						12.8%	12.8%
IA 14	US 63 to IA 150	Bremer, Fayette										0.0%	0.0%
	US 30 to US 20	Marshall, Grundy		Partial		125	95					15.6%	15.5%
	US 20 to IA 3	Grundy, Butler										4.9%	0.0%
IA 21	IA 3 to US 18	Butler, Floyd										3.8%	2.5%
	US 30 to US 20	Benton, Tama, Black Hawk										1.8%	0.4%
IA 24	US 63 to US 52	Chickasaw, Winneshiek					8					6.3%	3.6%
IA 57	US 65 to Cedar Falls W CL	Hardin, Butler, Grundy, Black Hawk				140						12.3%	0.0%
	Cedar Falls W CL to US 218	Black Hawk					94					33.5%	33.5%
IA 93	US 63 to IA 150	Bremer, Fayette										2.1%	1.3%
IA 150	I-380 to US 20	Benton, Buchanan										6.8%	17.2%
	US 20 to IA 3	Buchanan, Fayette										14.5%	13.3%
IA 175	I-35 to IA 14	Hamilton, Hardin, Grundy										3.7%	3.3%
	IA 14 to US 63	Grundy, Black Hawk										8.6%	3.1%
IA 187	US 20 to IA 3	Buchanan, Fayette										60.9%	0.0%
IA 188	IA 3 to US 218	Butler, Bremer										0.0%	0.0%
	US 218 to US 63	Bremer										0.0%	0.0%
IA 281	Waterloo E CL to IA 150	Black Hawk, Buchanan										2.3%	0.0%
IA 346	US 218 to US 63	Chickasaw										6.1%	6.1%

Excerpts from Highway Needs and Risks Matrix
 Source: Iowa DOT, Iowa in Motion 2050

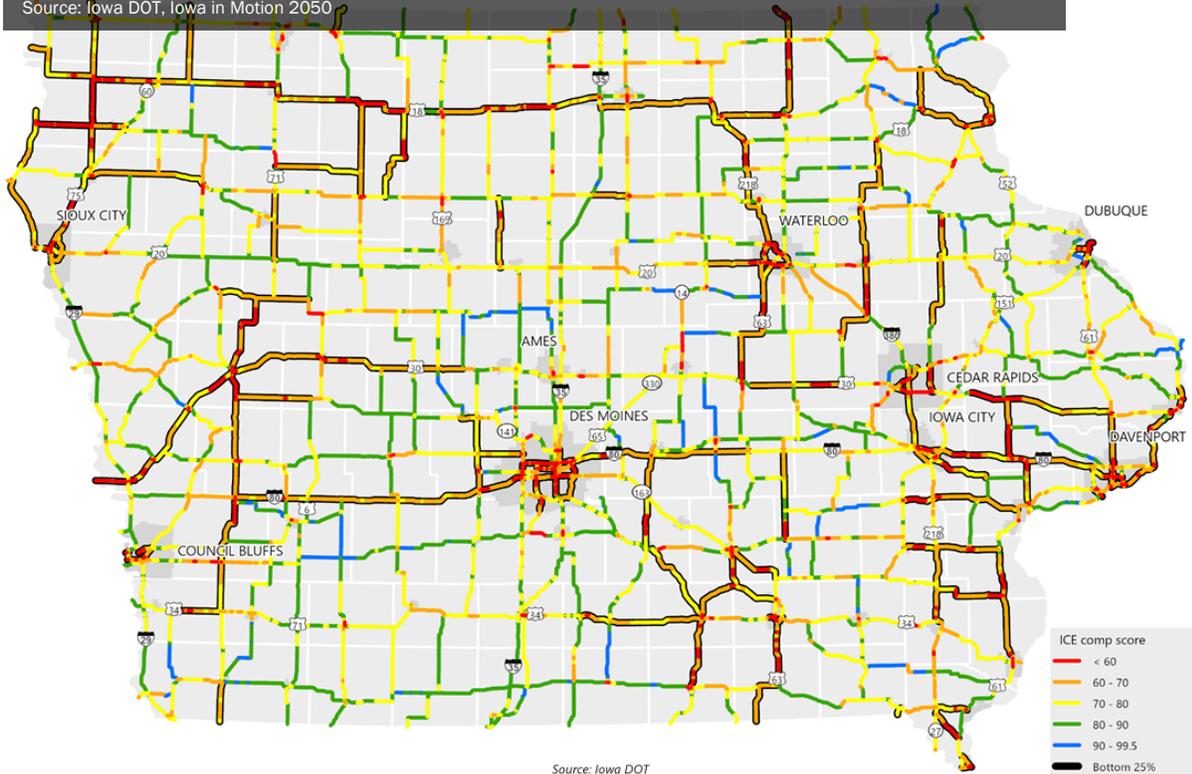
Excerpts from the *Highway Needs and Risks* section of the 2050 State Transportation Plan are provided on the following pages.

<https://iowadot.gov/iowainmotion/State-Transportation-Plan>



ICE composite ratings and bottom 25 percent of Primary Highway System corridors

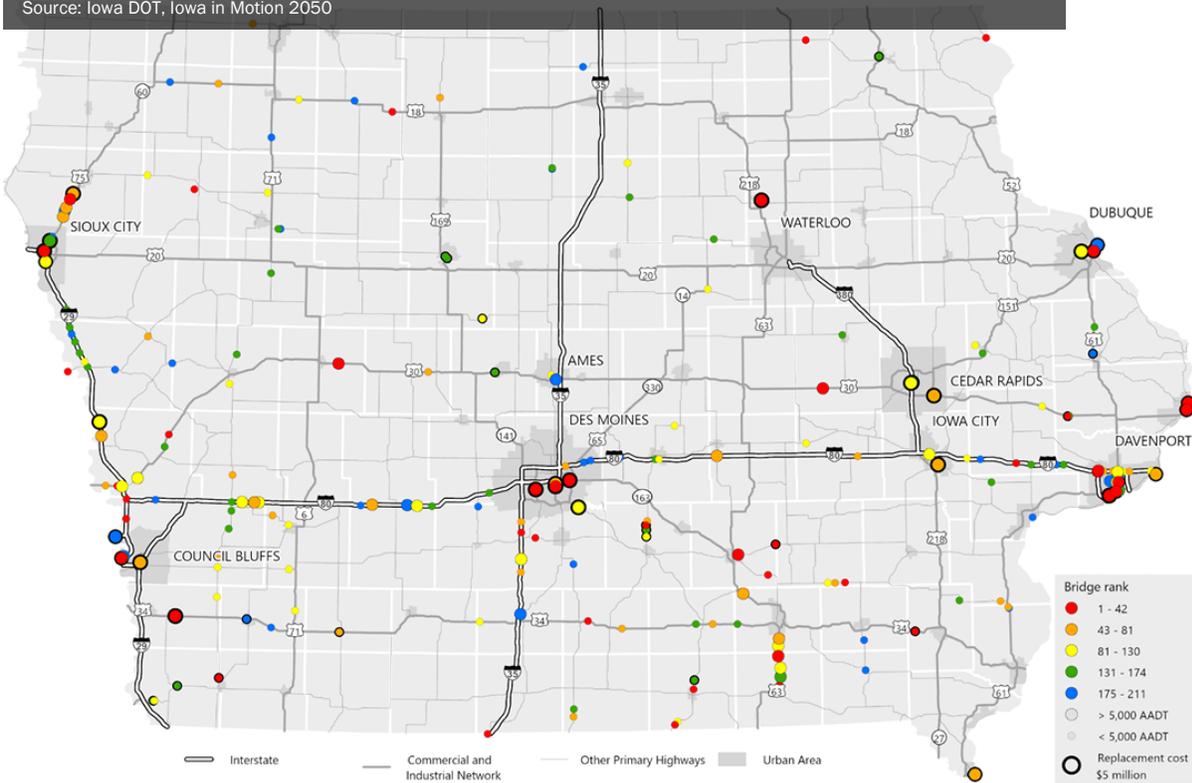
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

Bottom 5 percent of Primary Highway System bridges

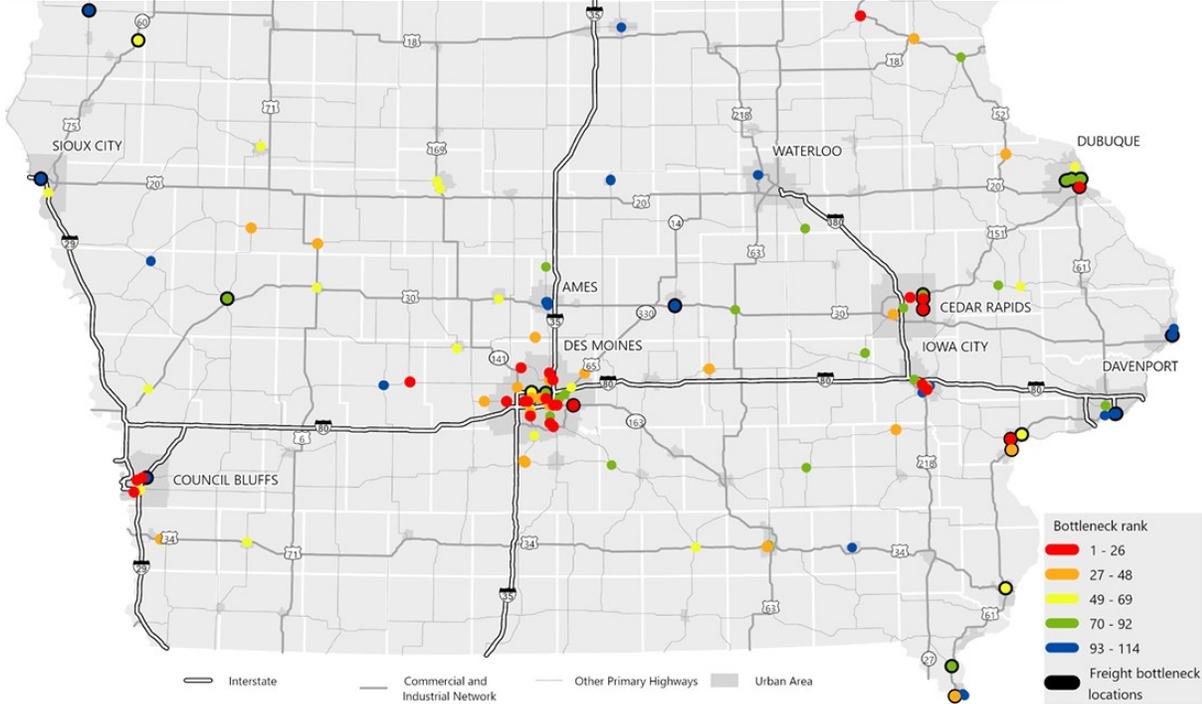
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

Bottleneck locations on the Primary Highway System

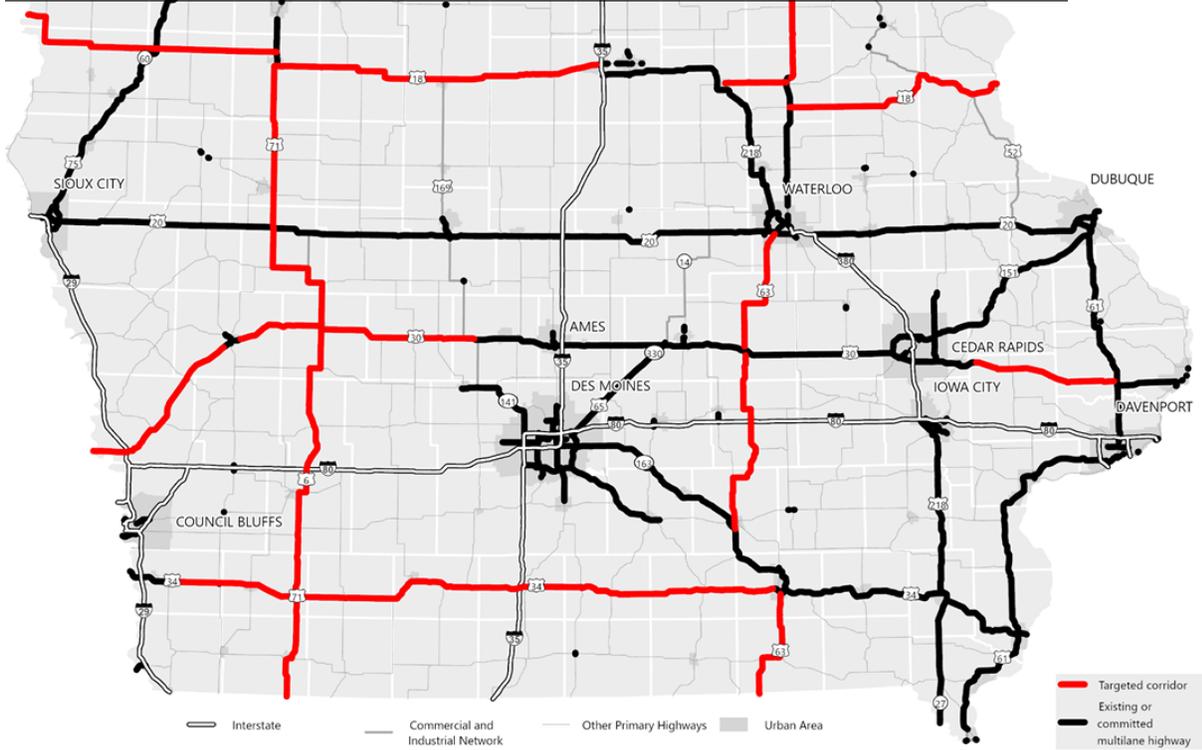
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

Corridors targeted for mobility and safety (Super-2) improvements

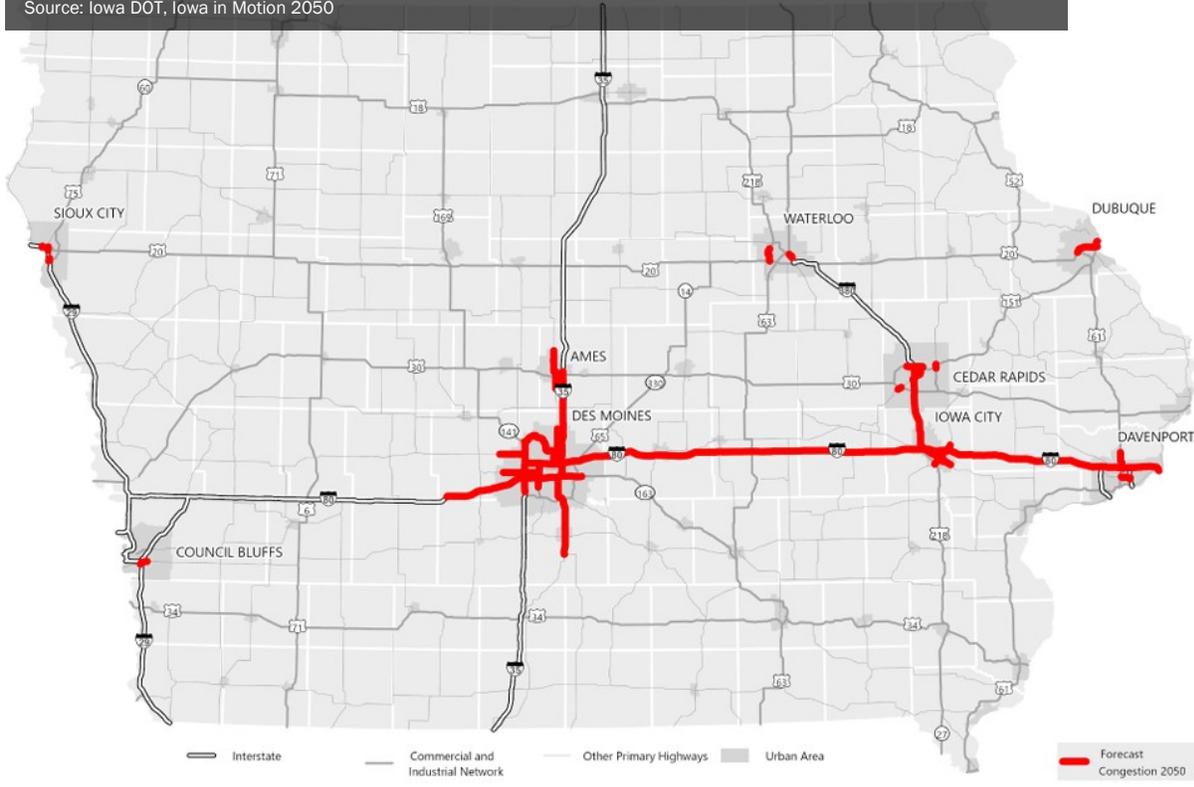
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

Corridors projected to be approaching or over capacity by 2050

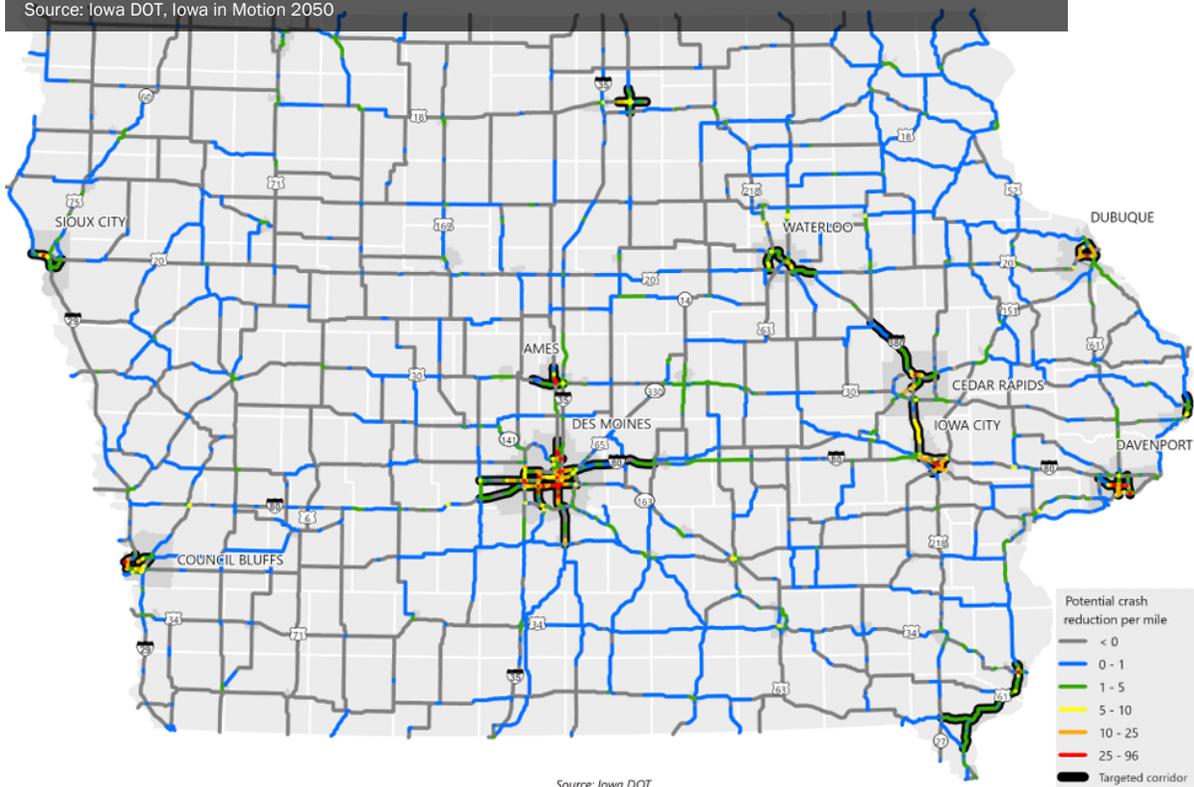
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

Potential for crash reduction per mile and corridors targeted for safety improvements

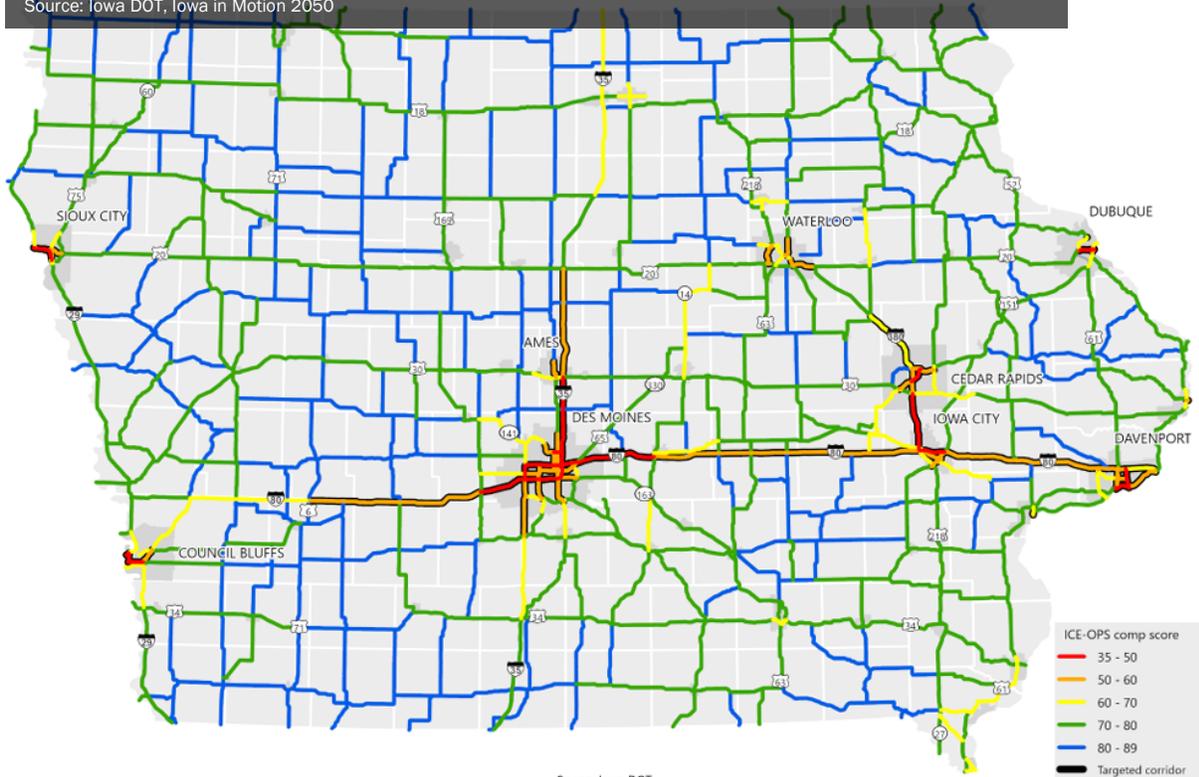
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

ICE-OPS composite scores and corridors targeted for operations improvements

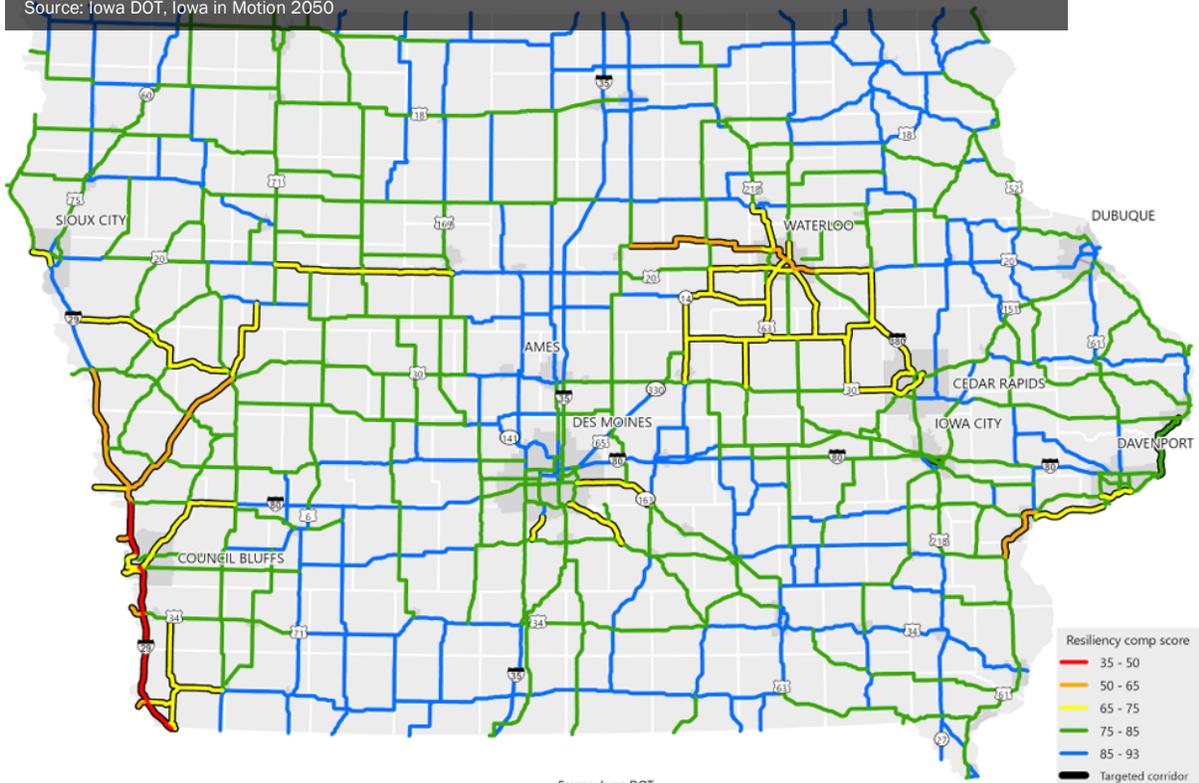
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

Flood resiliency analysis composite scores and corridors targeted for resiliency improvements

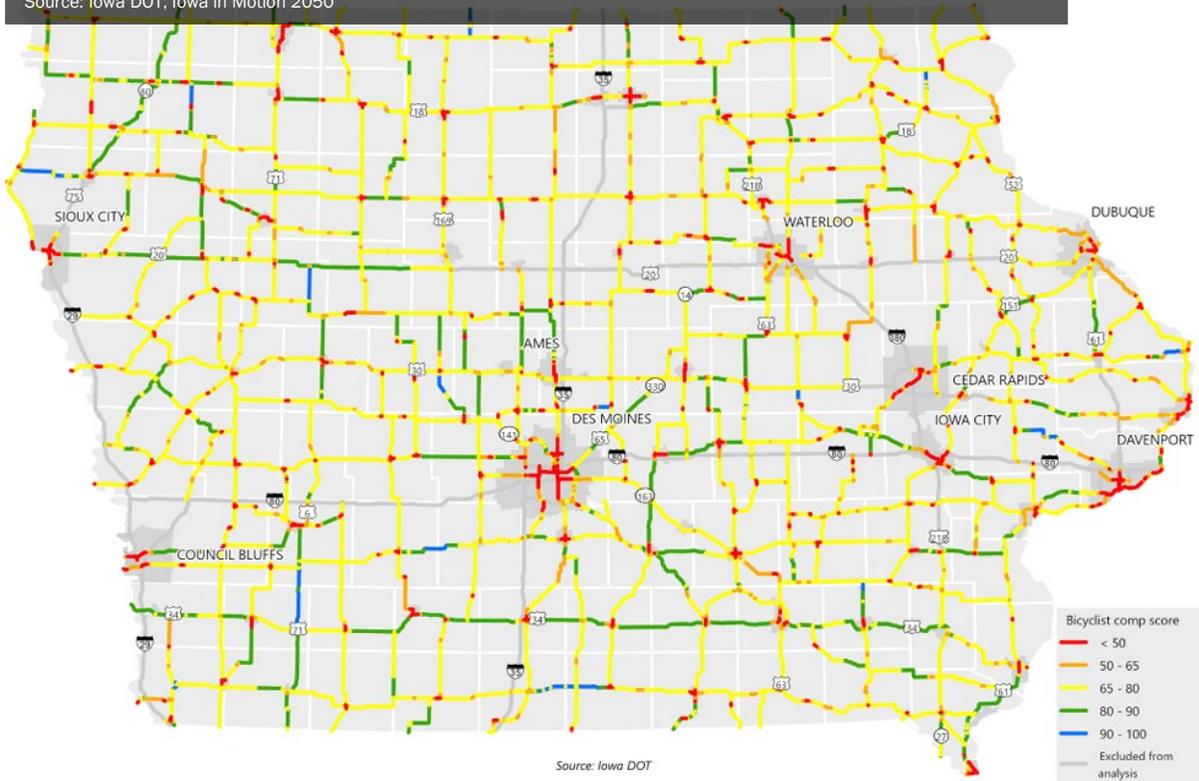
Source: Iowa DOT, Iowa in Motion 2050



Source: Iowa DOT

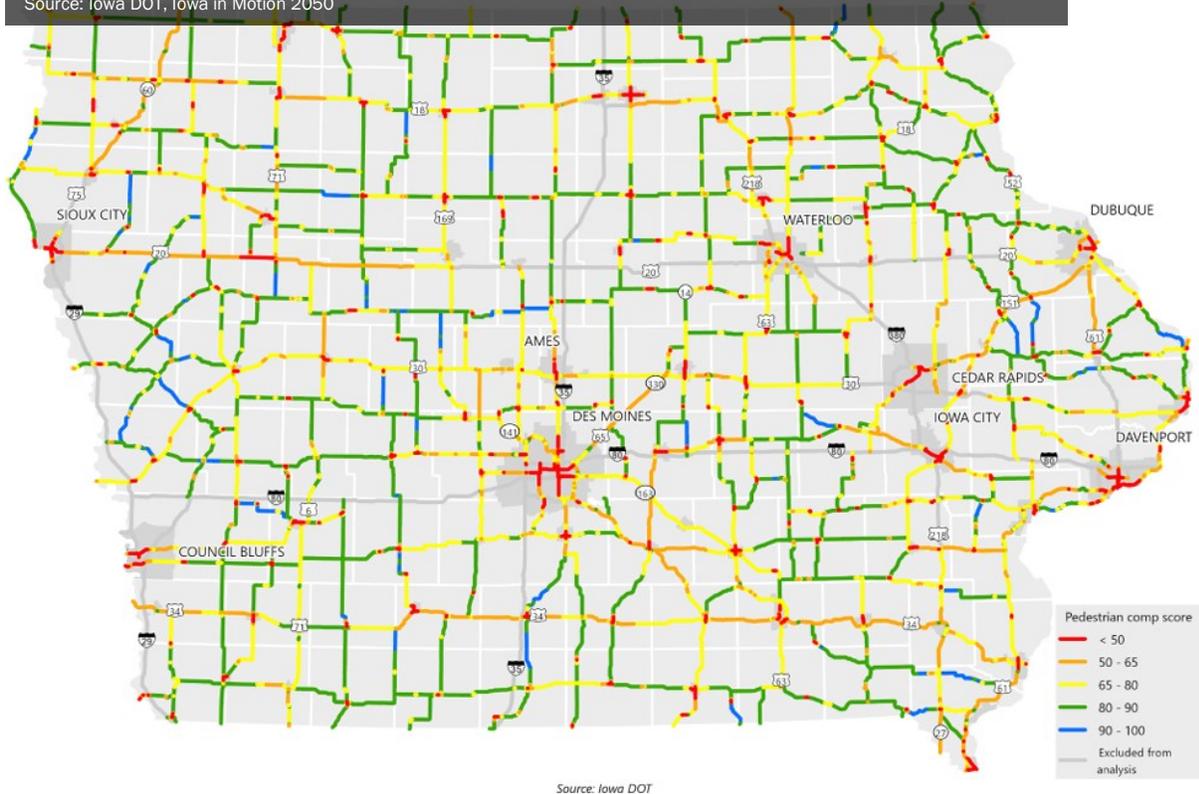
Composite scores for Primary Highway System segments for bicyclist systemic safety analysis

Source: Iowa DOT, Iowa in Motion 2050



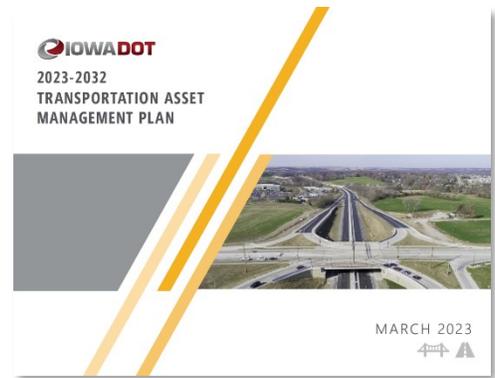
Composite scores for Primary Highway System segments for pedestrian systemic safety analysis

Source: Iowa DOT, Iowa in Motion 2050



Iowa Transportation Asset Management Plan 2023

Transportation asset management is a strategic, long-term approach to managing infrastructure. Its goals are to minimize costs, extend system life, and enhance performance. Transportation Asset Management Plans (TAMP) serve as a hub for information on assets, strategies, expenditures, and processes. Iowa DOT's TAMP outlines the management of bridges and pavements and links Iowa in Motion, system and modal plans, and the five-year Transportation Improvement Program.

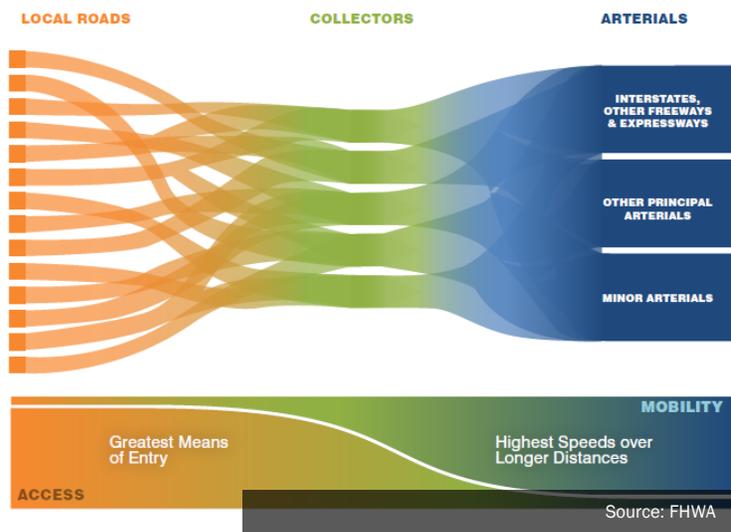


www.iowadot.gov/systems_planning/Planning/Federal-Performance-Management-and-Asset-Management

Road Inventory

The RTA's street network spans 6,109 miles. The Federal Functional Classification (FFC) system categorizes highways and streets based on the type of service they provide. These classifications include:

- Arterials** offer high mobility, faster speeds, and long uninterrupted distances, featuring multiple lanes and some access control. The rural arterial network connects metropolitan areas, cities, and states and is categorized into principal and minor, with principal arterials providing the highest speeds and longest distances.
- Collectors** balance mobility and land access, connecting the arterial network to local roads. In non-metropolitan areas, they are classified as major or minor.
- Local Streets**, the largest network by mileage, prioritize land access and local trips with lower speeds, connecting to higher-order roads.



To be eligible for federal funding for road projects, streets must be classified as major collectors or above; local streets are ineligible for federal funding for street construction or reconstruction. Federal funds can be utilized for pedestrian and bicycle accommodations along any roadway.

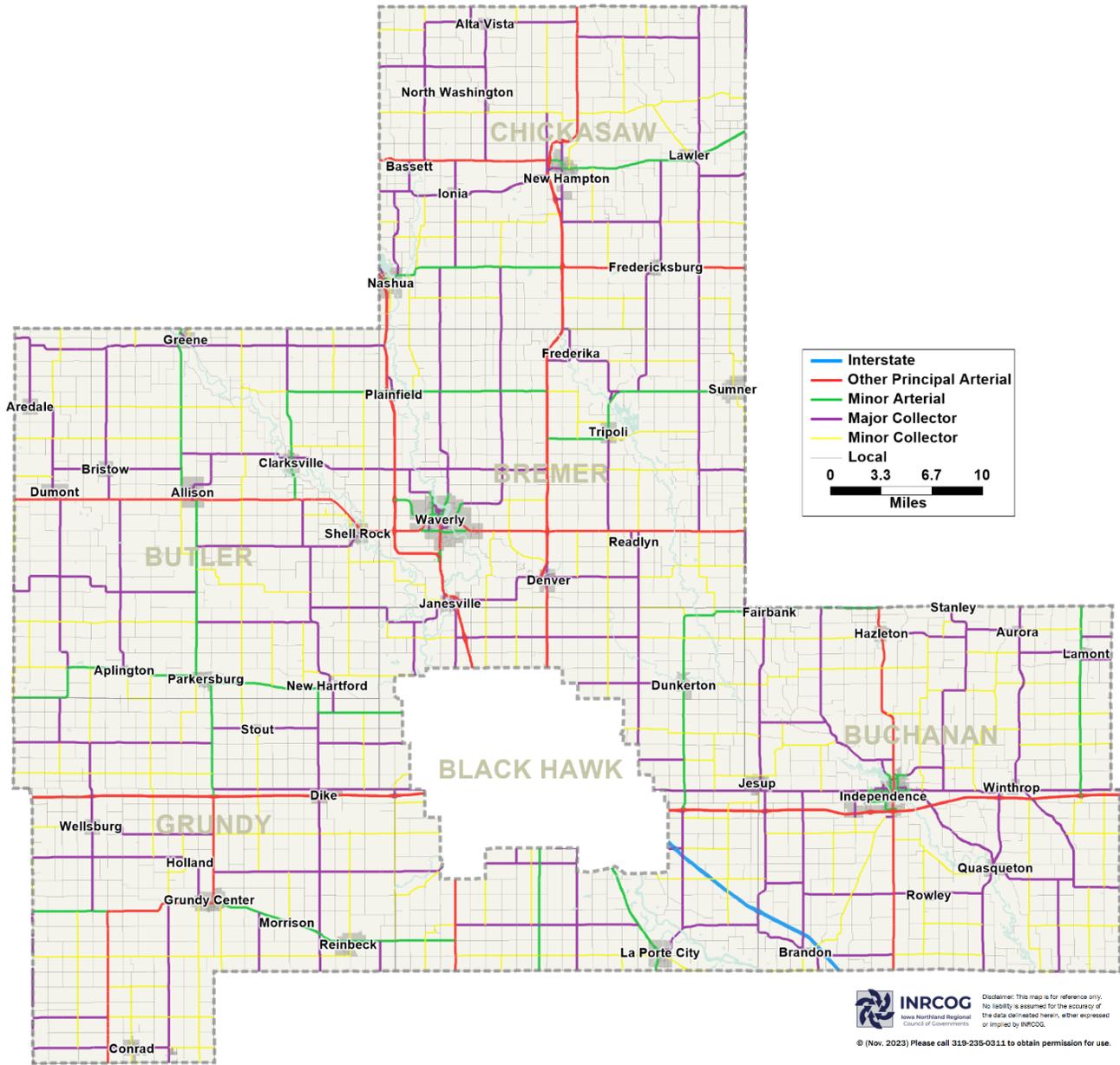
Table 3.1: Roadway Mileage, by FFC

FFC	Miles	FFC	Miles
Interstate	33.1	Local	3,774.2
Other Principal Arterial	419.4		
Minor Arterial	226.2		
Major Collector	834.5		
Minor Collector	819.6		
	2,332.8 (38%)		3,774.2 (62%)

Source: Iowa DOT, Roadway Asset Management System (RAMS)

Map 3.1: Federal Functional Classification

Source: Iowa DOT, Roadway Asset Management System (RAMS)



INRCOG
Iowa Northland Regional Council of Governments

Disclaimer: This map is for reference only. No liability is assumed for the accuracy of the data displayed herein, either expressed or implied by INRCOG.

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Roadway Conditions

The condition of the road network is critical to the operating efficiency of the system. Roadway conditions within the region are assessed based on the Pavement Condition Index, International Roughness Index, and Average Annual Daily Traffic.

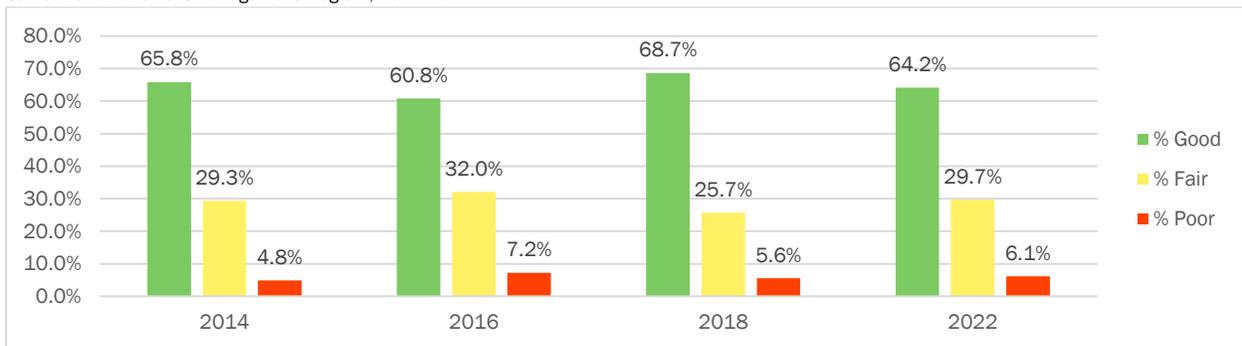
Pavement Condition Index (PCI)

PCI is a numerical index between 0 and 100 used to indicate the general condition of a pavement. This method is based on a visual survey of the number and types of distresses in a pavement. The result of the analysis is a numerical value with 100 representing the best possible condition and 0 representing the worst. PCI data from 2014 to 2022 were available for the evaluation of locally owned roads. Over the past 10 years, local pavement conditions have remained stable, with minimal fluctuations in the percentage of road mileage categorized as either good or poor.

To explore an interactive map of PCI data in the RTA region, visit www.bhcmmpo.org/rtm-interactive-maps/.

Figure 3.1: PCI for Local Roads

Source: Iowa Pavement Management Program, 2014-2022

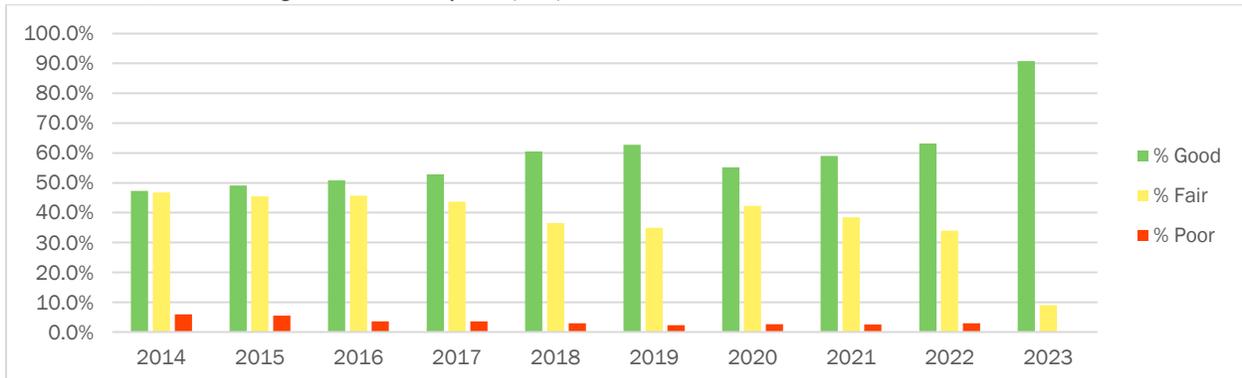


International Roughness Index (IRI)

One indicator of pavement conditions is the smoothness of the ride. This measure gets to the subjective “feel” of the road that most users notice when riding on it. Although this can vary by season due to Iowa’s various climates, the measure of smoothness is one indicator of overall pavement health. All states use a federally mandated standard measure of pavement smoothness, the International Roughness Index (IRI), to measure the smoothness of the primary highway system. IRI data from 2014 to 2023 was available for the evaluation of state-owned highways, showing that pavement smoothness has drastically improved over the past decade, enhancing overall road quality and driving experience.

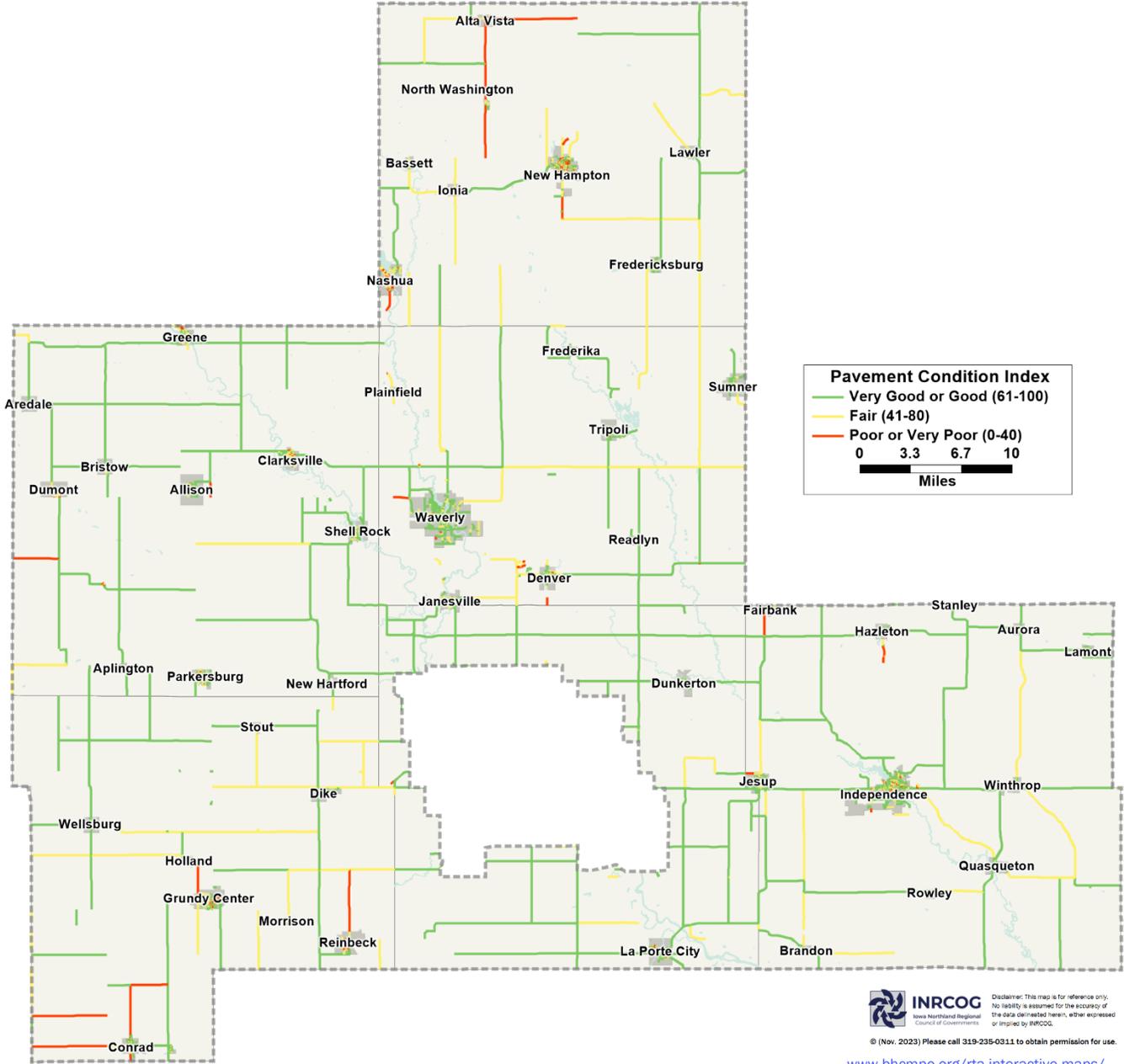
Figure 3.2: IRI for State-Owned Highways

Source: Iowa DOT, Pavement Management Information Systems (PMIS), 2014-2022



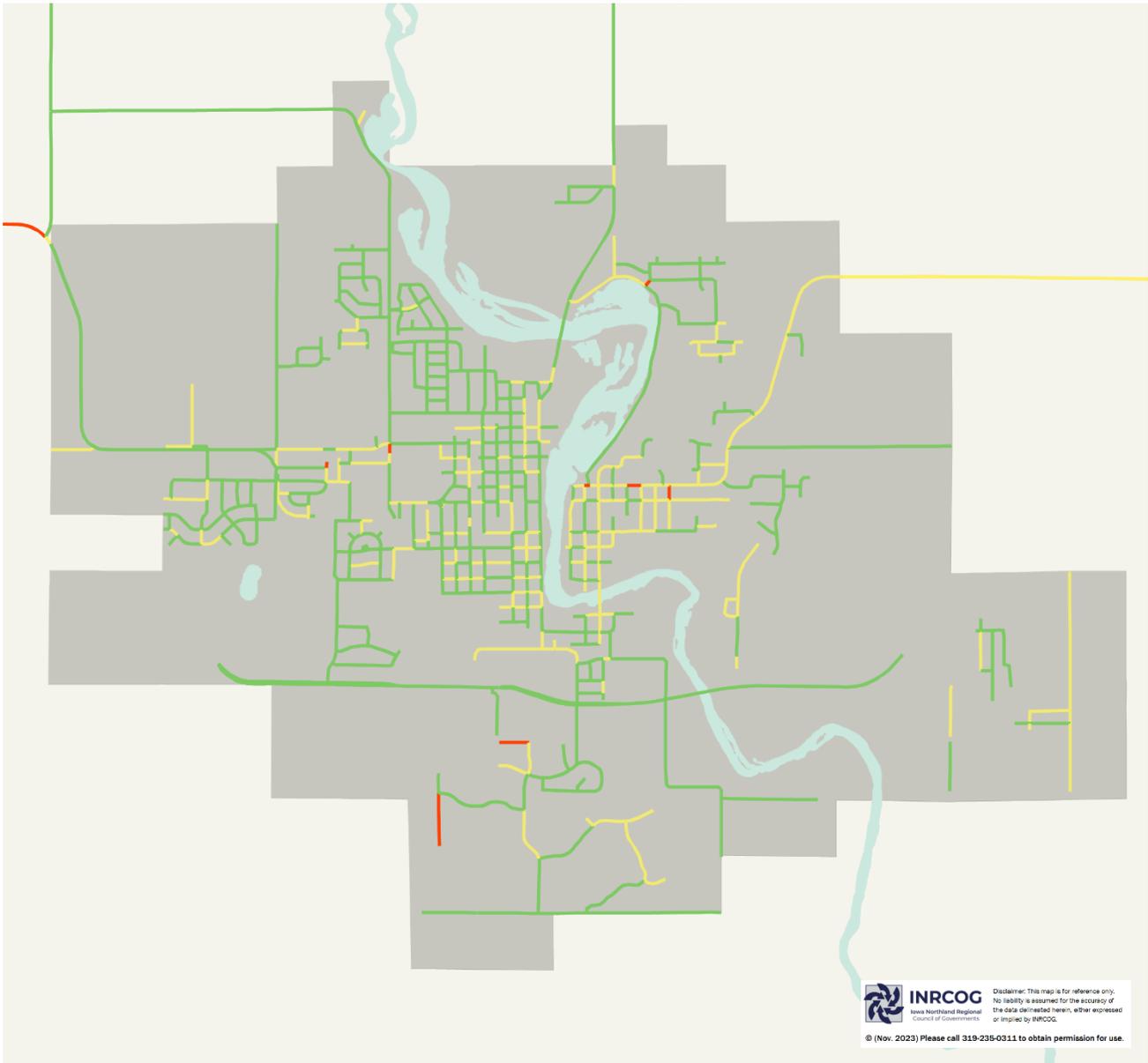
Map 3.2: Pavement Condition Index

Source: Iowa Pavement Management Program, 2022



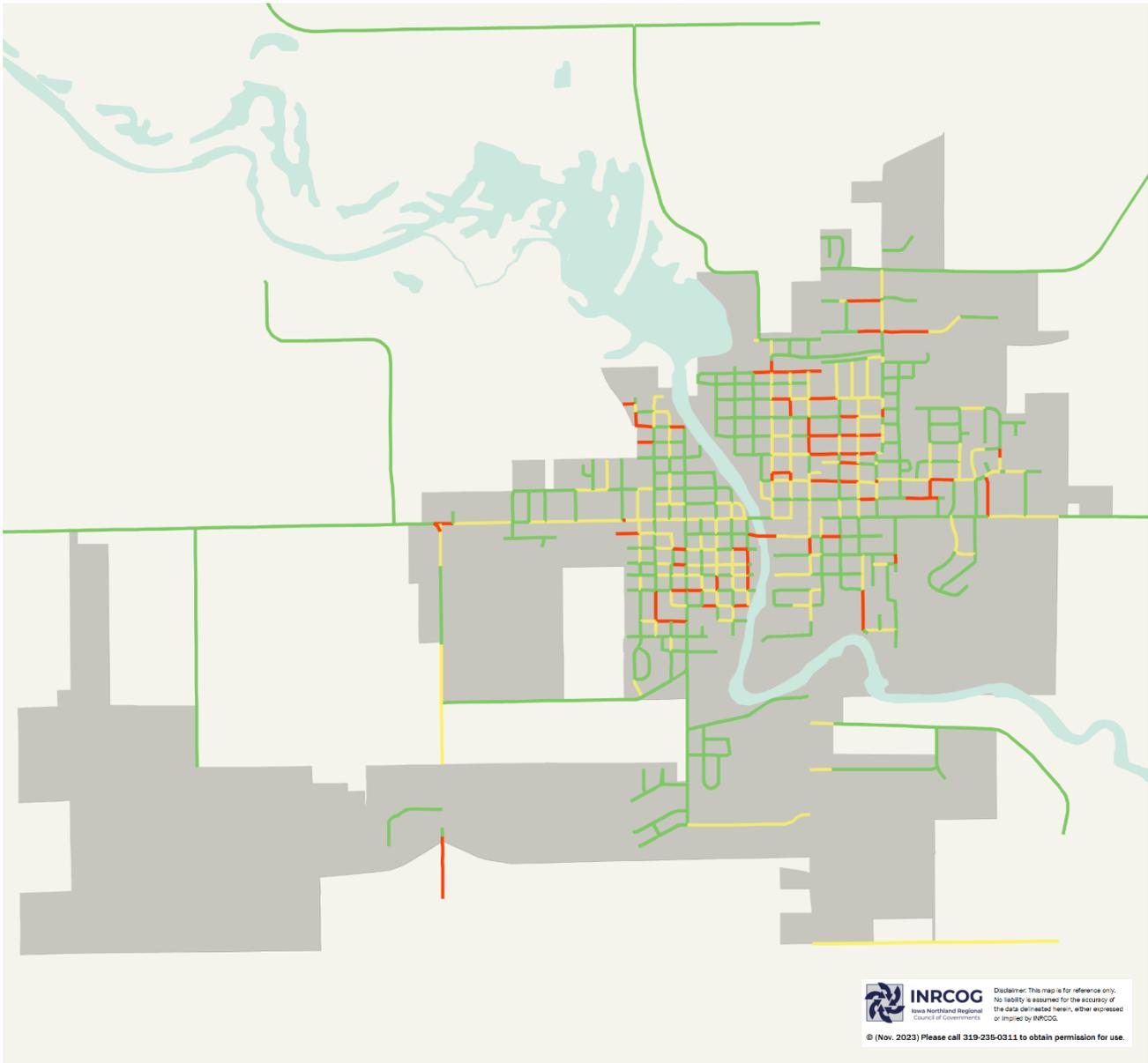
Map 3.3: Pavement Condition Index, Waverly

Source: Iowa Pavement Management Program, 2022



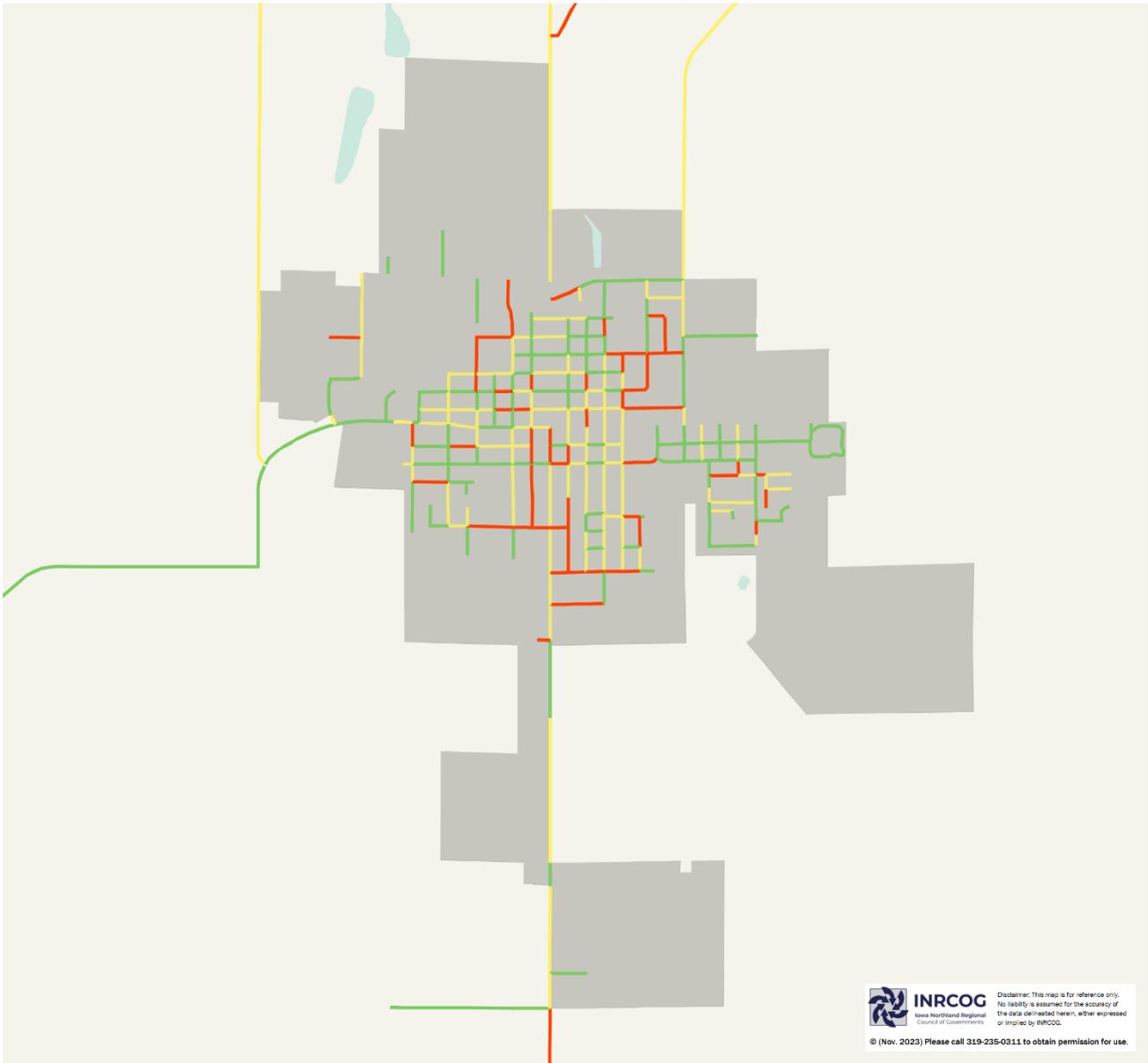
Map 3.4: Pavement Condition Index, Independence

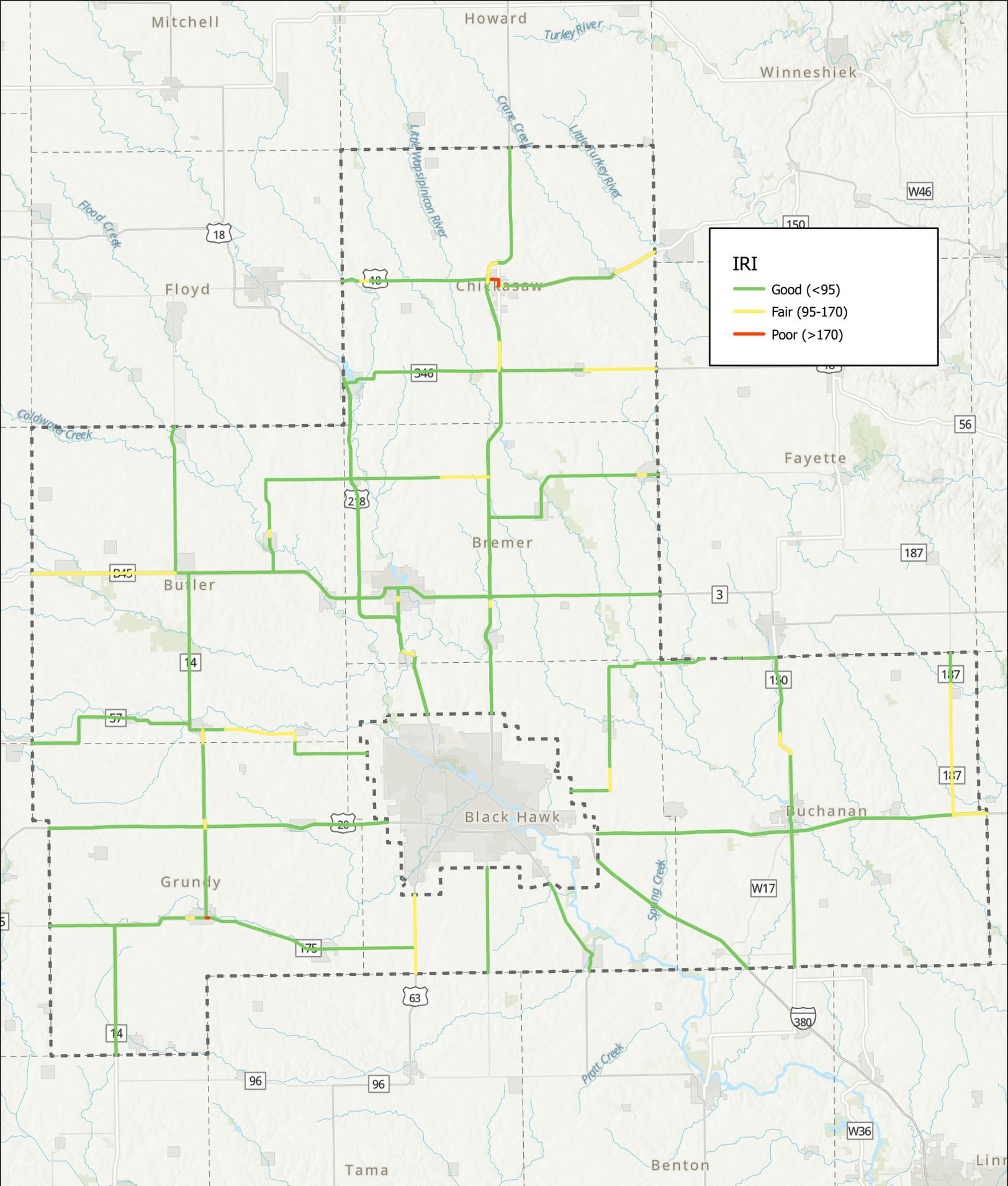
Source: Iowa Pavement Management Program, 2022



Map 3.5: Pavement Condition Index, New Hampton

Source: Iowa Pavement Management Program, 2022





IRI

- Good (<95)
- Fair (95-170)
- Poor (>170)

Map 3.6 International Roughness Index

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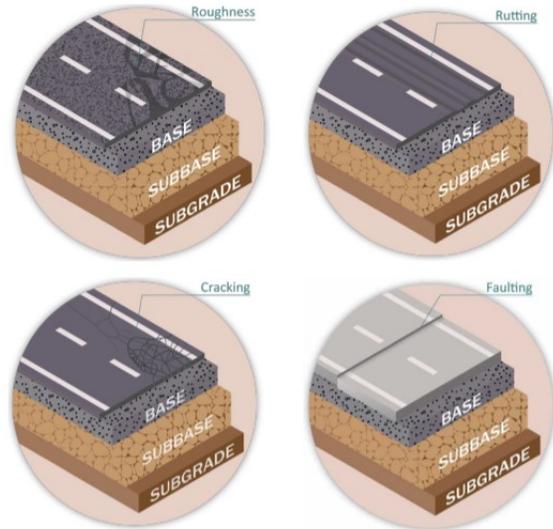


Average Annual Daily Traffic (AADT)

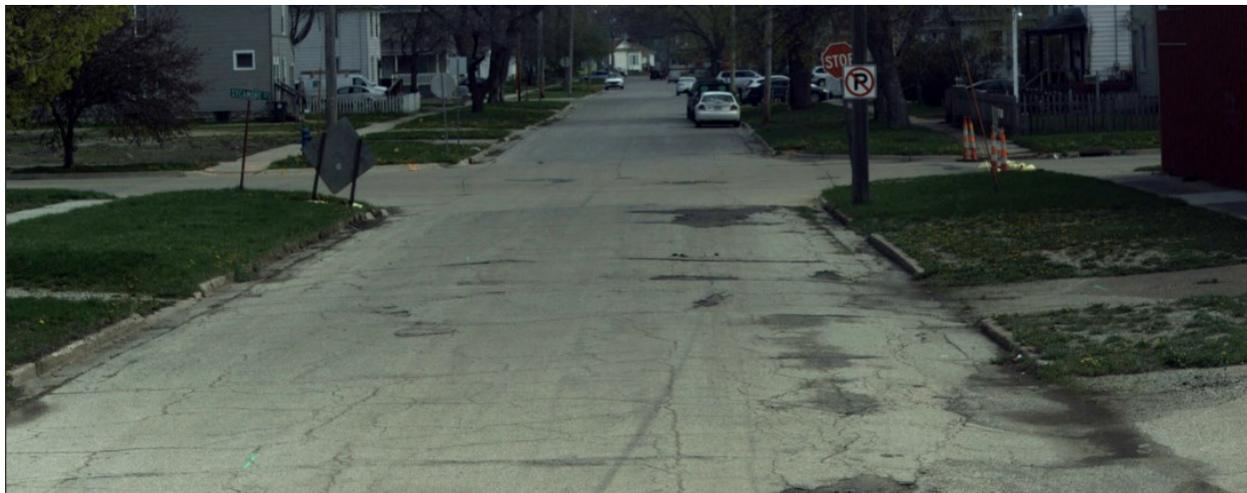
The Average Annual Daily Traffic is an indicator of the actual use of a road. To measure AADT on individual road segments, traffic data is collected either by an automated traffic counter or hiring an observer to record traffic. Data is recorded and adjusted to account for the season, time of day, and other variables that would correct the primary data to reflect actual traffic volumes. Map 3.7 shows AADT for the region.

Pavement Condition Performance

In 2018, FHWA established four performance measures for National Highway System (NHS) pavement conditions, each of which is calculated based on data reported by the Iowa DOT to the Highway Performance Management System (HPMS). The following metrics are used to calculate the pavement condition performance measures:

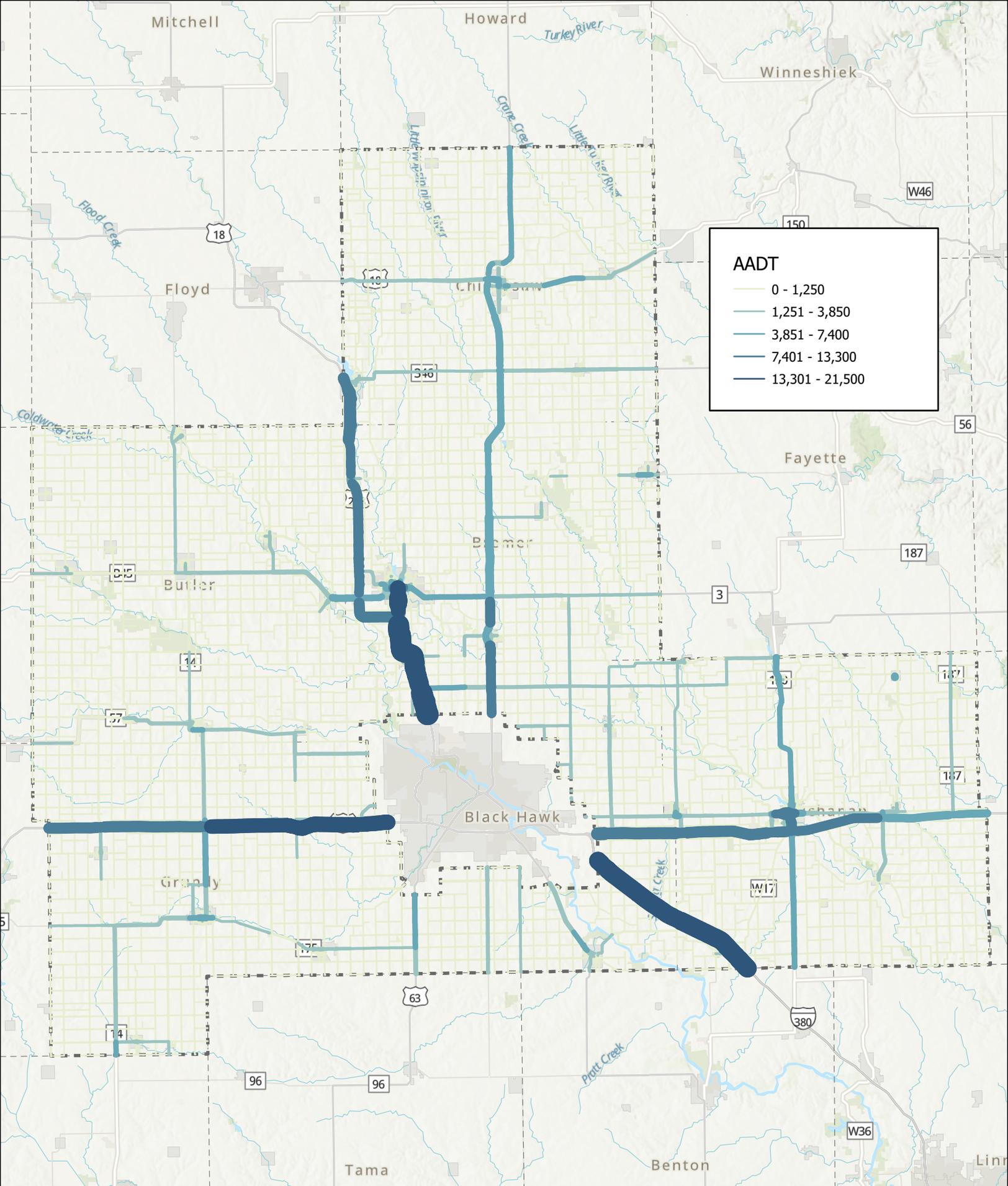


- Pavement roughness is an indicator of discomfort experienced by road users traveling over the pavement and is measured using the International Roughness Index (IRI).
- Rutting is quantified for asphalt pavement by measuring the depth of ruts along the wheel path.
- Cracking is measured in terms of the percentage of cracked pavement surfaces.
- Faulting is quantified only for concrete pavements.



For each metric, FHWA has established thresholds for good, fair, and poor conditions. Road sections are rated as being in good condition if all the metrics are rated as good, and poor when two or more are rated as poor. All other combinations are rated as fair.

Metric	Good	Fair	Poor
IRI (inches/mile)	<95	95-170	>170
Rutting (inches)	<0.20	0.20-0.40	>0.40
Cracking (%)			
- Asphalt	<5	5-20	>20
- Jointed Concrete	<5	5-15	>15
- Continuously Reinforced Concrete	<5	5-10	>10
Faulting (inches)	<0.10	0.10-0.15	>0.15



AADT

- 0 - 1,250
- 1,251 - 3,850
- 3,851 - 7,400
- 7,401 - 13,300
- 13,301 - 21,500

Map 3.7
Average Annual Daily Traffic

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Source: Iowa DOT, RAMS.

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Bridge Inventory

The Iowa Northland Region has an extensive bridge system with a wide range of crossing types. There are a total of 1,680 bridges in the six-county region. Most bridges in the region provide service for vehicular traffic, though there are a few structures that service non-motorized traffic only. Table 3.2 provides further details of the bridge inventory.

Table 3.2: Bridge Inventory

	2018	2023
Number of Bridges	1,686	1,680
Average Age of Structures (Years)	39	40
Posted Bridges	242	278
Closed Bridges	13	13
Average Bridge Sufficiency Rating	82.8	83.8
Bridges in Fair Condition	599	588
Bridges in Poor Condition	254	277

Source: FHWA, National Bridge Inventory, 2018 and 2023

Bridge Conditions

Bridge performance can be measured by various conditions and the percentage of all bridges affected. Three of the most common measures of bridge performance are as follows:

- Load Capacity Challenged (Posted or Closed)** – Posted bridges have weight restrictions to prohibit heavy loads, while closed bridges prohibit all traffic. Bridges may also be posted for other load-capacity restrictions including speed and number of vehicles permitted on the bridge. Posted and closed bridges can negatively impact the movement of people and goods as well as emergency response times.
- Substandard Bridges (Structurally Deficient or Functionally Obsolete)** – Structurally deficient bridges are structures unable to carry vehicle loads or tolerate the speeds that would normally be expected for that bridge in its designated system. Functional obsolescence refers to a bridge with inadequate width or vertical clearance for its associated highway system.
- Sufficiency Ratings** – Ratings of individual bridge elements, such as the deck substructure and superstructure, and levels of traffic, are factors utilized in the determination of bridge sufficiency ratings.

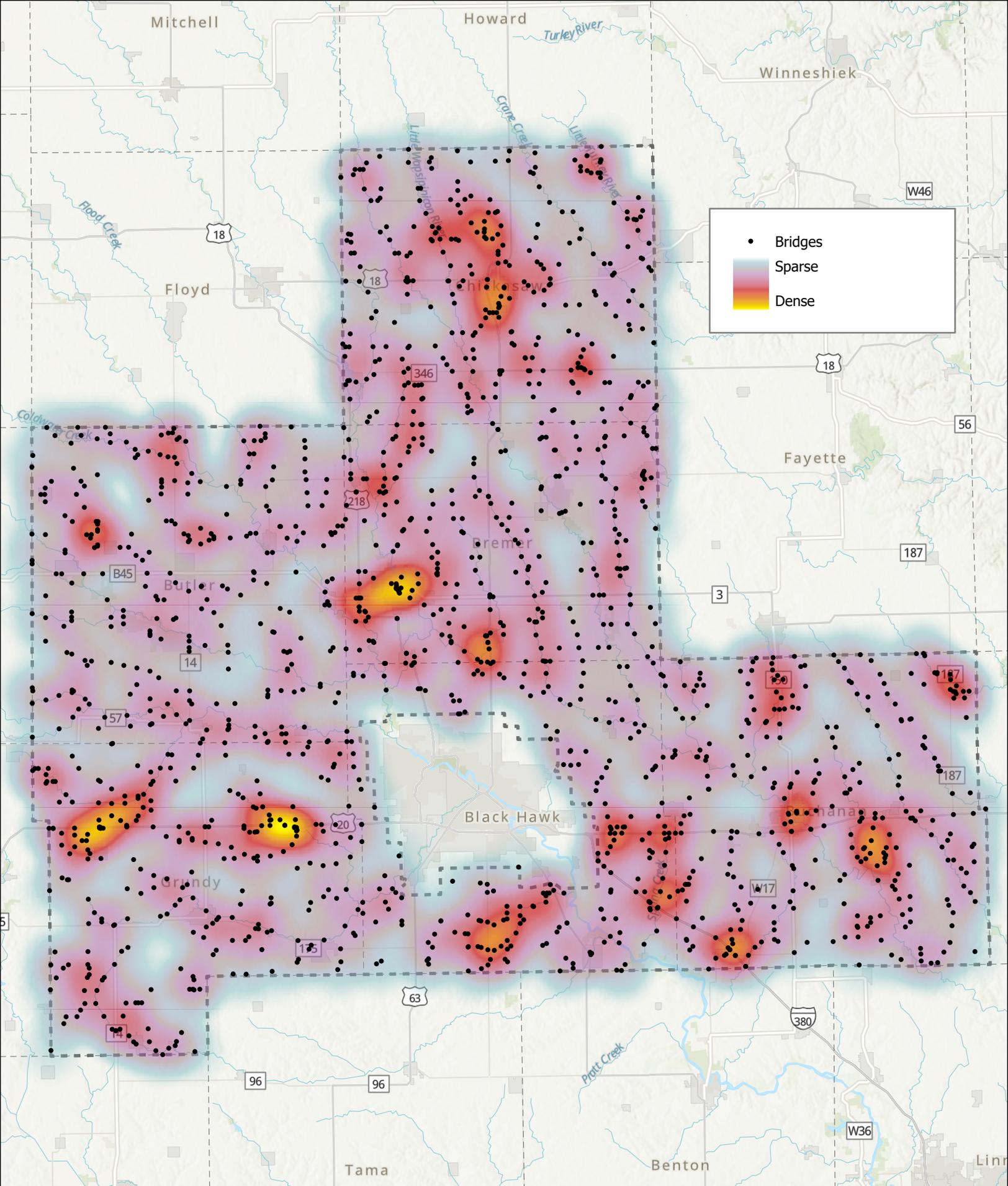


Posted and Closed Bridges

Bridge posting is part of a load rating process that determines the safe load carrying capacity of a structure. Load posting to a bridge is required by the National Bridge Inspection Standards when a bridge is not capable of safely carrying a legal load. If a structure is deemed deficient, officials will post a maximum load for the bridge. Bridges may also be posted for other load-capacity restrictions including speed and number of vehicles permitted on the bridge. Bridges closed to traffic are those structures deemed unsafe to carry any type of traffic. Map 3.8 identifies bridges that are posted and closed as of 2023.

A planning concern for county engineers in Iowa has been the permitting of large haulers on county-owned bridges. Senate File 629, passed in 2019, allows forestry haulers greater leeway to move heavy loads on local roadways, further straining road and bridge conditions and increasing the number of bridges needing posting.





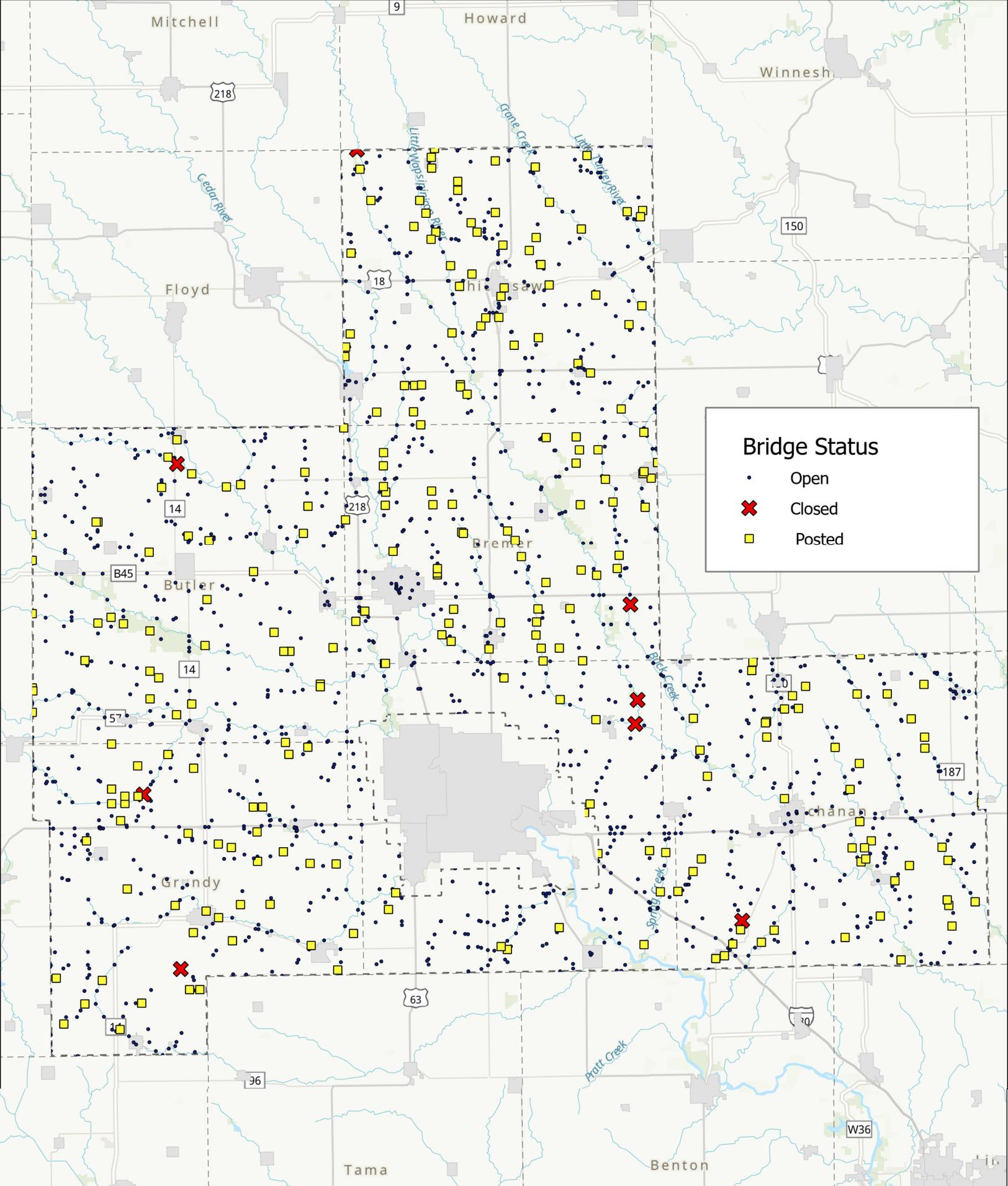
Map 3.8
 Bridge Inventory

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Source: Iowa DOT, Data Portal, Bridge point.

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Map 3.9
Posted or Closed Bridges

This map does not constitute a survey, and INRCOG assumes no liability for the accuracy of the data presented herein, whether expressed or implied.
Source: FHWA, National Bridge Inventory, 2024



Structurally Deficient Bridges

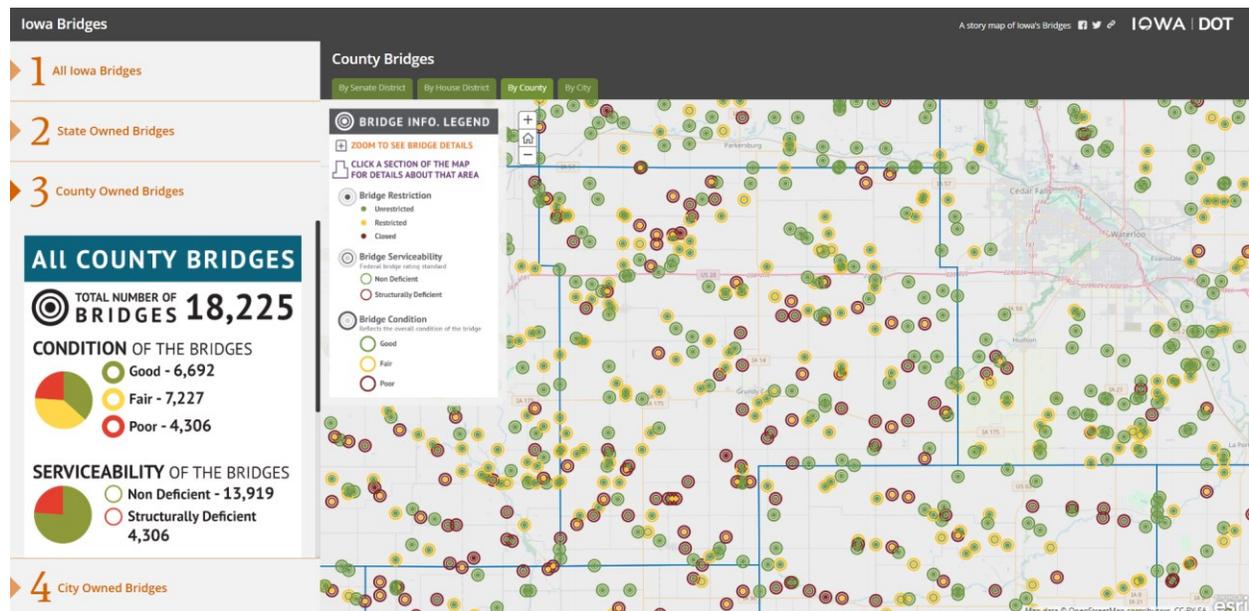
Structural deficiencies are characterized by deteriorated conditions of significant bridge elements and potentially reduced load-carrying capacity. This may include spalled or cracked concrete, the bridge deck, the support structure, or the entire bridge itself. A “structurally deficient” designation does not imply that a bridge is unsafe. However, such bridges typically require significant maintenance and repair to remain in service and would eventually require major rehabilitation or replacement to address the underlying deficiency. To remain in service, structurally deficient bridges are often posted with weight limits restricting the gross weight of vehicles using the bridge to less than the maximum weight typically allowed by statute. Map 3.10 shows the locations of structurally deficient bridges as of 2023.

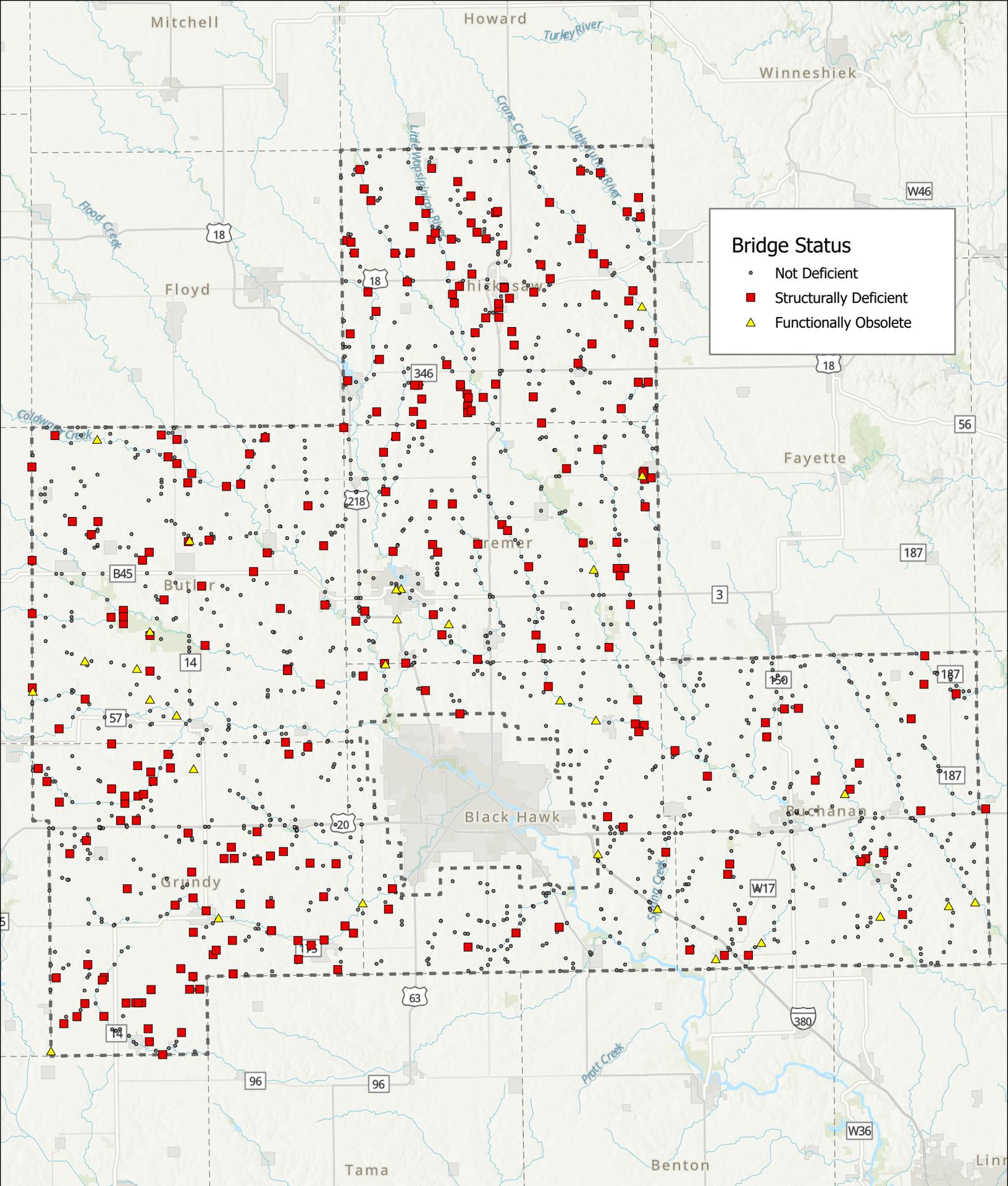
Bridge Condition Ratings

Bridges are assessed under the National Bridge Inspection Standards (NBIS) with ratings of Good, Fair, or Poor based on a 0-9 scale. These ratings determine eligibility for federal funding programs for bridge rehabilitation, maintenance, and replacement. Poor-rated bridges (4 or lower) are prioritized for funding due to safety concerns, while Fair-rated bridges (5 or 6) are eligible for preservation funding. Good-rated bridges (7 or higher) are not typically eligible for major funding. Key federal programs include the Bridge Formula Program (BFP), the Bridge Investment Program (BIP), and the Surface Transportation Block Grant (STBG), which support infrastructure improvements. Map Section 3.11 shows the bridge condition ratings from 2023 for the Iowa Northland Region.

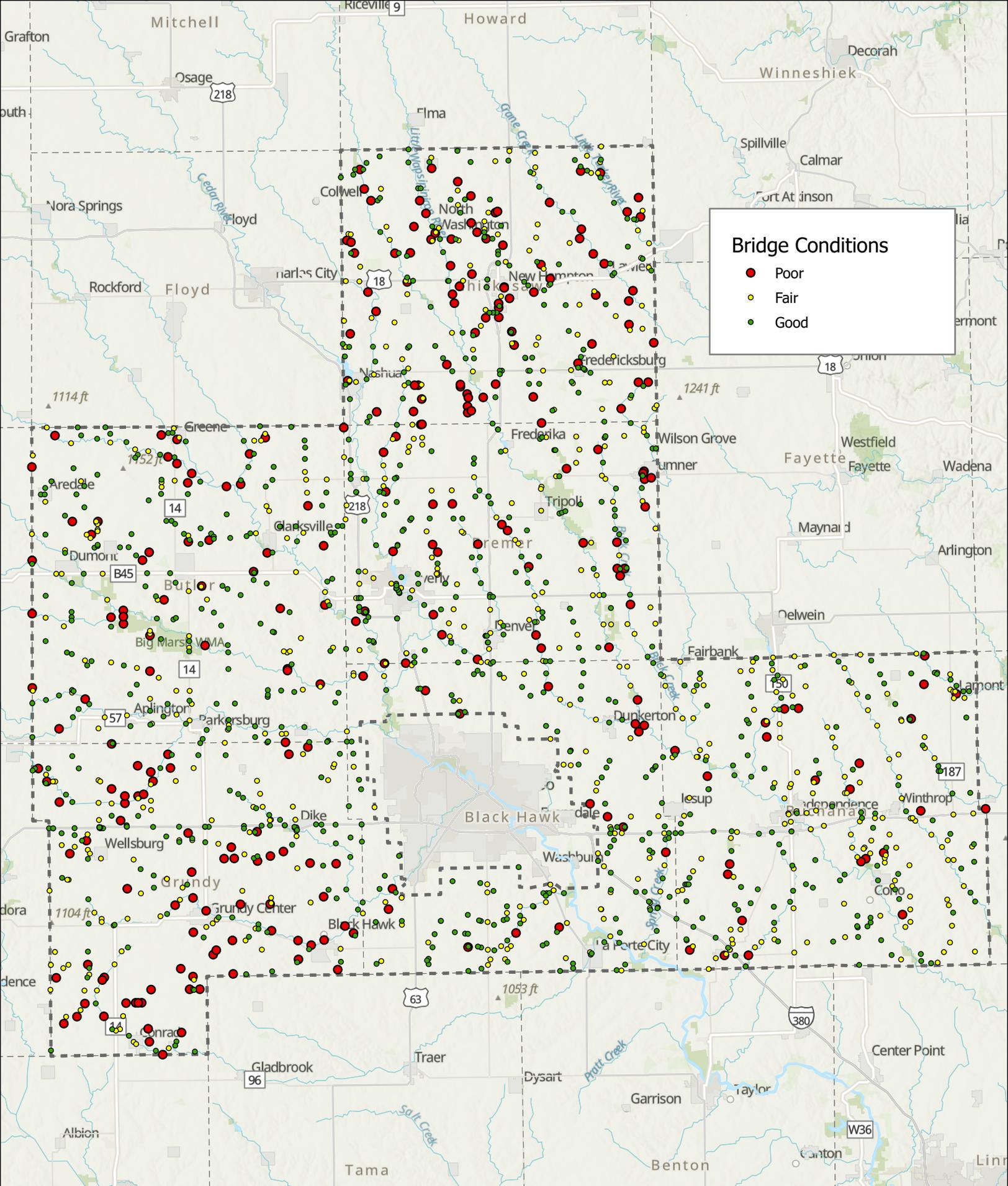


The Iowa Department of Transportation provides an interactive map of all Iowa bridges, displaying up-to-date bridge conditions, serviceability, and restrictions in place. This map is available under the Featured Apps webpage at <https://iowadot.maps.arcgis.com/home/index.html>, offering a valuable resource for monitoring and planning bridge improvements across the region. Users can filter bridges by ownership (state, county, or city) and click on individual bridges for detailed information.

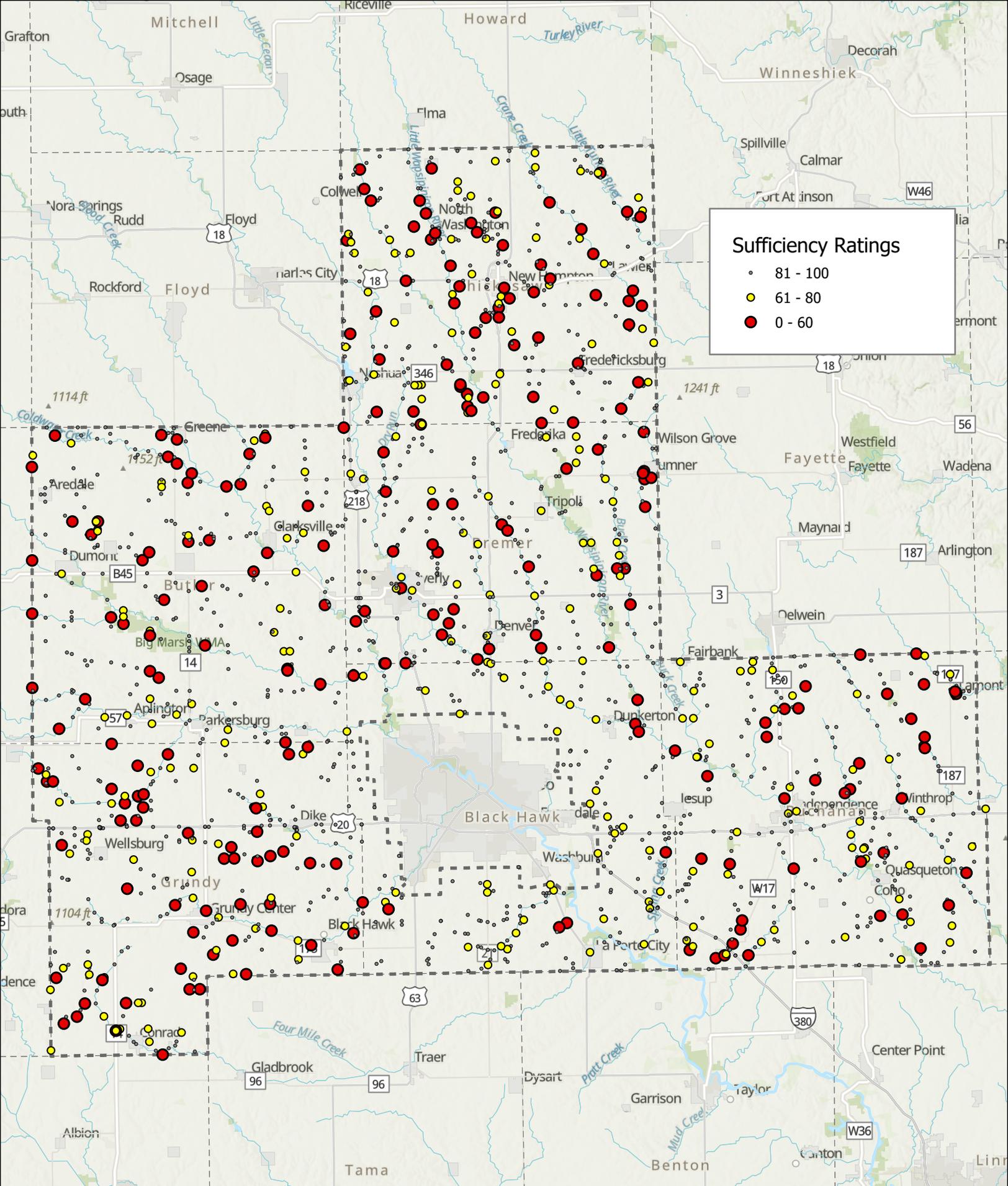




Map 3.10
 Bridge Status



Map 3.11
 Bridge Condition Ratings



Sufficiency Ratings

- 81 - 100
- 61 - 80
- 0 - 60

Map 3.12 Bridge Sufficiency Ratings

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Short-Term Road and Bridge Projects

RTA Projects

The projects outlined in Table 3.3 and Map 3.12 are aimed at addressing the roadway and bridge deficiencies identified on the previous pages. These planned projects, scheduled for federal fiscal years 2026-2029, represent targeted efforts to improve critical components of the transportation system. Projects shown only include those programmed with federal aid or Iowa Swap dollars and included in the FY 2026-2029 Transportation Improvement Program (TIP); locally funded projects are not included. Most projects are focused towards maintaining the existing transportation system.

Local jurisdictions are also actively seeking additional federal and state funding opportunities to address infrastructure and road safety deficiencies (see Chapter 7). This includes pursuing Highway Safety Improvement Program (HSIP) funds to address critical safety concerns on roadways. These efforts are vital to supplement the limited resources available for maintaining and improving local transportation infrastructure.

Not all projects to be funded by the RTA over the duration of this plan are listed here. This includes Surface Transportation Block Grant (STBG) projects to be funded during future programming sessions for federal fiscal years 2030-2033. STBG-funded projects must be included in or consistent with the RTA's Long-Range Transportation Plan, but this does not restrict the RTA to only these projects. Additional potential projects not mentioned in this chapter could include safety enhancements, bus replacements, bicycle and pedestrian facilities, and other projects that align with the RTA's goals, objectives, and performance measures detailed in Chapter 1.

Infrastructure Challenges and Innovative Solutions

Despite ongoing efforts, these improvements will only address a small fraction of the overall deficiencies highlighted earlier due to the scale of the infrastructure challenges. Although the Infrastructure Investment and Jobs Act (IIJA) significantly increased federal funding for transportation projects, its impact has been tempered by steep inflation in construction materials and fuel costs. Rising prices for concrete, asphalt, steel, and other critical materials, along with fuel price volatility, have eroded the purchasing power of federal, state, and local funds. This has forced agencies to scale back project scopes or delay additional improvements to stay within budget constraints, limiting progress on addressing urgent infrastructure needs.

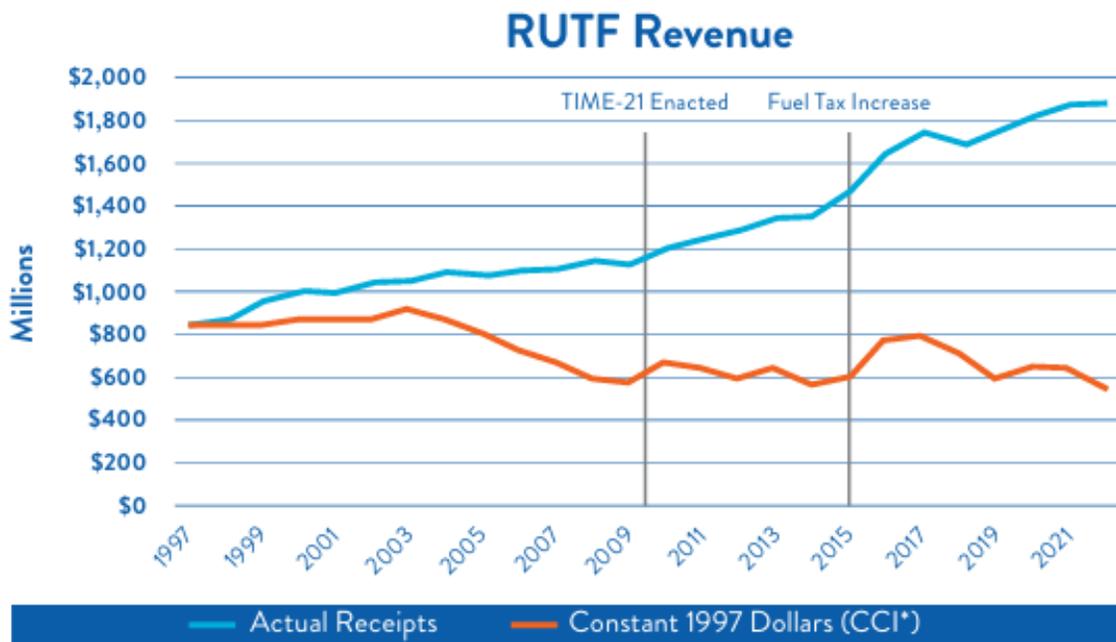
Subject	2023 Grade	2019 Grade	Change
Aviation	C-	C-	-
Bridges	D+	D+	-
Dams	D	D	-
Drinking Water	C	C	-
Energy	C+	C+	-
Inland Waterways	D+	D+	-
Levees	C	C	-
Parks, Recreation, and Trails	C	C	-
Rail	C+	C+	-
Roads	B-	C+	↑
Solid Waste	B-	B	↓
Stormwater	D+	Not Graded	
Wastewater	C-	C-	-
Overall	C	C	-

Iowa Infrastructure Report Card
 Source: American Society of Civil Engineers, 2023 Iowa Infrastructure Report Card
<https://infrastructurereportcard.org/state-item/iowa/>

The financial challenges are particularly acute in Iowa, which continues to lead the nation in the number of structurally deficient bridges. According to the 2023 Infrastructure Report Card for Iowa, released by the American Society of Civil Engineers, the state has 4,599 poor bridges, with all but 30 owned by local

governments. These local governments face severe funding constraints, further exacerbated by the inflationary pressures mentioned above. The result is a growing disparity between the funding available and the investment needed to address Iowa's aging infrastructure.

Despite the state's 2015 increase in the fuel tax of 10 cents per gallon, which provided a much-needed stabilization of funding, inflation has negated this increase in terms of constant dollars. According to the Iowa DOT's 2021 Road Use Tax Fund Study, the state faces a funding gap of over \$158 million annually just to maintain its existing roadway assets without adding capacity until 2050. This does not account for the additional \$4 billion funding gap needed to address capacity requirements by 2050. The combination of rising costs and insufficient funding has left a significant gap in Iowa's ability to keep up with the growing demand for infrastructure maintenance and improvements.



*CCI= Iowa Construction Cost Index. This reflects the inflation of roadway construction costs in Iowa and corresponding loss in buying power.

Source: Iowa DOT, 2021 RUTF Study

To address funding gaps and improve the condition of local roads and bridges, counties and cities in the RTA region could adopt several innovative strategies. Implementing local-option sales taxes or dedicated transportation levies can create consistent revenue streams for infrastructure improvements. Partnering with private entities through public-private partnerships (P3s) can provide alternative funding and expertise, while leveraging value capture mechanisms, such as tax increment financing (TIF), allows reinvestment of property tax revenues from increased property values near infrastructure projects.

Pursuing competitive federal and state grants, such as the Highway Safety Improvement Program (HSIP) or BUILD grants, is another crucial avenue for securing additional funding. Advanced construction techniques, like prefabricated bridge components or modular systems, can reduce costs and timelines, while pavement preservation methods, such as micro-surfacing or chip sealing, help extend roadway lifespans at lower costs.

Efficiency gains can also come from upgraded project delivery systems and asset management tools, as well as shared services among neighboring counties, such as pooled equipment or consolidated labor forces. By combining these strategies, local jurisdictions can stretch limited funds, improve infrastructure, and better meet the safety and mobility needs of their communities.

Table 3.3: Road and Bridge Projects, FY 2025-2029

TPMS	Fiscal Year	Jurisdiction	Project	Termini	Description	Cost Estimate (\$)	State/Federal Source
40124	2025	Buchanan Co.	W35 (Quasqueton Diagonal Blvd)	D22 southeast 7.0 miles to W40	Pavement Rehab	\$1,721,000	STBG
45725	2026	Buchanan Co.	W-45	130th St S 5.2 miles to 180th St	Pavement Rehab	3,400,000	STBG
44770	2025	Butler Co.	T16	IA 3 north 6.0 miles to C23	Pavement Rehab	\$800,000	STBG
47231	2025	Grundy	T37 (M Ave)	IA 14/175 north 2.5 miles to D35	Pavement Rehab	\$800,000	STBG
44902	2025	Black Hawk Co.	D (22) Dubuque Rd	Over Tributary to Indian Creek, S6 T88 R11	Bridge Replacement	\$625,000	HBP
38950	2025	Chickasaw Co.	B28 (140th Street),	Over Little Wapsipinicon River, S6, T96, R13	Bridge Replacement	\$1,794,000	HBP
36649	2025	Grundy Co.	S16 T88 R16	P Ave, D25north 0.9 Miles to Black Hawk Creek,	Bridge Replacement	\$725,000	HBP
52430	2025	Denver	State St	Prestien Dr N 0.43 miles to Quarter Section Run Bridge	Pavement Rehab	312,500	SWAP-STBG
45587	2026	Buchanan Co.	W-40	Over Unnamed Creek, from 250th St SE 0.8 miles	Bridge Replacement	1,100,000	HBP
45893	2026	Chickasaw Co.	Winslow Rd (C-55)	Over Tributary to W Fork Cedar River	Bridge Replacement	500,000	HBP
53409	2026	Chickasaw Co.	V-14	Over Wapsipinicon River Overflow	Bridge Replacement	1,067,500	HBP
53434	2026	Chickasaw Co.	Vanderbilt Ave	Over Little Turkey River	Bridge Replacement	500,000	HBP
55051	2026	Bremer Co.	Various	Various County Highways at State Highway Intersections	Traffic Signs (Safety)	42,750	SWAP-HSIP
35012	2026	Bremer Co.	V-19	Over Quarter Section Run	Bridge Replacement	1,500,000	HBP
47216	2026	Butler Co.	120th St	Over Stream, from Ridge Ave W 0.2 miles	Bridge Replacement	700,000	HBP
35851	2026	Butler Co.	Ridge Ave	Over Small Stream, from IA Hwy 3 N 400 feet	Bridge Replacement	300,000	HBP
38920	2026	Grundy Co.	T-55	Over Branch Beaver Creek, from Westbrook St S 0.4 miles	Bridge Replacement	750,000	HBP
27164	2026	Bremer Co.	240th St	Over Creek	Bridge Replacement	300,000	HBP
52431	2027	Independence	1st St W	10th Ave NW E 0.53 miles to Wapsipinicon River Bridge	Pavement Rehab	3,140,000	SWAP-STBG
37121	2027	Buchanan Co.	150th St	Over Otter Creek, from Indiana Ave, W 0.1 miles	Bridge Replacement	1,500,000	HBP
53373	2027	Black Hawk Co.	Eagle Rd (D-46)	Over Miller Creek	Bridge Replacement	950,000	HBP
53435	2027	Chickasaw Co.	V-56	US Hwy 18 N 3.1 miles to B-54	Pavement Rehab	2,269,000	STBG
55327	2027	Chickasaw Co.	B-28	Over Wapsipinicon River	Bridge Replacement	1,584,000	HBP
19177	2027	Chickasaw Co.	190th St	Over Plum Creek	Bridge Replacement	515,000	HBP
37703	2027	Grundy Co.	I Ave	Over Unnamed Stream, from 120th St N 0.125 miles	Bridge Replacement	640,000	HBP
36650	2027	Grundy Co.	160th St	Over the South Fork of Beaver Creek, from H Ave, W 0.3 miles	Bridge Replacement	1,500,000	HBP
52183	2027	Grundy Co.	T Ave	Over Branch of Black Hawk Creek	Bridge Replacement	275,000	HBP
45578	2027	Grundy Co.	110th St	Over Fork of Beaver Creek, from L Ave W 0.6 miles	Bridge Replacement	1,500,000	HBP
55221	2027	Bremer Co.	V-21	Waverly, NE 10.0 miles to IA 188	Pavement Rehab	3,000,000	STBG
44770	2027	Bremer Co.	150th St	Over Horton Creek	Bridge Replacement	900,000	STBG
37174	2027	Butler Co.	T-16/C-13	C-23 north and west 5.5 miles to Franklin Co.	Pavement Rehab	1,350,000	HBP
40184	2027	Butler Co.	Jay Ave	Over Small Stream, from 290th St N 0.5 miles	Bridge Replacement	600,000	HBP
53373	2027	Butler Co.	Liberty Ave	Over Beaver Creek, from 320th St N 0.2 miles	Bridge Replacement	900,000	STBG
45579	2027	Bremer Co.	180th St	Over Crane Creek	Bridge Replacement	920,000	HBP
55351	2027	Bremer Co.	160th St	Over Quarter Section Run	Bridge Replacement	345,000	HBP
55917	2027	Bremer Co.	C-33	Over Baskins Creek	Bridge Replacement	1,035,000	Grant
55924	2027	Bremer Co.	C-33	Over Quarter Section Run	Bridge Replacement	1,035,000	Grant
55925	2027	Bremer Co.	C-33	Over the Wapsipinicon River	Bridge Replacement	4,360,000	Grant
55191	2028	Independence	Multiple Roads	7th St SW, 2nd Ave SW, 6th St SE, 9th Ave SW	Pavement Rehab	413,021	PRF

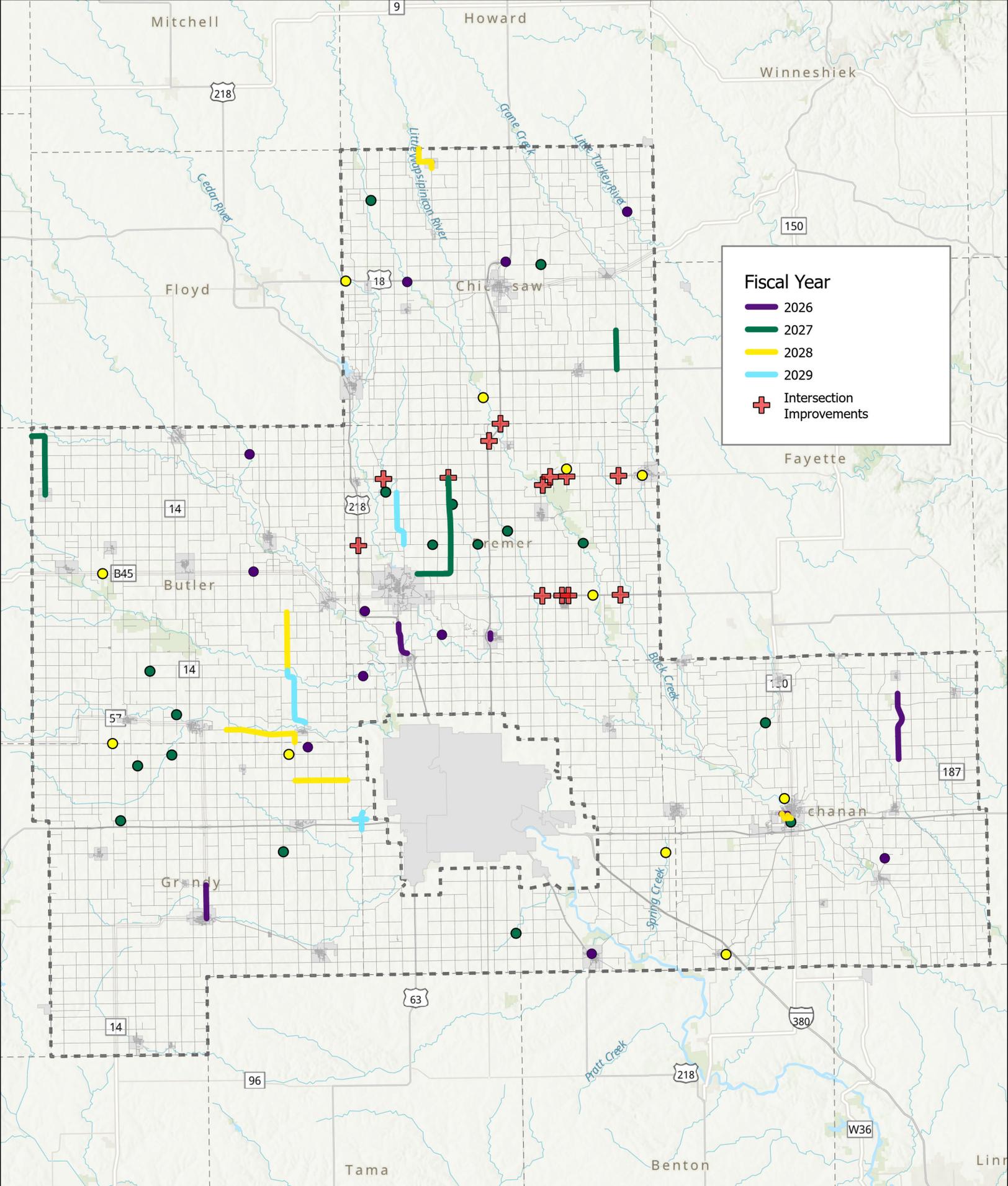
TPMS	Fiscal Year	Jurisdiction	Project	Termini	Description	Cost Estimate (\$)	State/Federal Source
37127	2028	Buchanan Co.	330th St	Over Lime Creek, from Finley Ave E 0.2 miles	Bridge Replacement	2,000,000	HBP
45592	2028	Buchanan Co.	Wapsi Access Blvd	Over Harter Creek, from D-16 (Otterville Blvd) SE 0.9 miles	Bridge Replacement	875,000	HBP
10455	2028	Black Hawk Co.	Fox Rd	Over Spring Creek	Bridge Replacement	680,000	HBP
55329	2028	Chickasaw Co.	B-66	Over the Wapsipinicon River	Bridge Replacement	2,668,750	HBP
53372	2028	Chickasaw Co.	V-18	Alta Vista SCL N 2.5 miles to Howard Co. Line	Pavement Rehab	4,750,000	SWAP-STBG
47228	2028	Grundy Co.	G Ave	Over Tributary Beaver Creek, from Westbrook Ave S 0.1 mi.	Bridge Replacement	575,000	HBP
52192	2028	Grundy Co.	110th St	Over Branch of Beaver Creek, from T-55 W 0.4 miles	Bridge Replacement	575,000	HBP
38995	2028	Bremer Co.	V-48	Over Stream	Bridge Replacement	600,000	HBP
53441	2028	Butler Co.	T-55	C-45 S 4.2 miles to West Fork Cedar River Overflow Bridge	Pavement Rehab	1,200,000	STBG
40459	2028	Grundy Co.	D-17	T-55 E 4.0 miles to Black Hawk Co.	Pavement Rehab	1,400,000	STBG
45886	2029	Black Hawk Co.	T69/D18, D19	T69/D18 S of US 20 N 1.4 mi; D19 0.6 mi. W of T69 E 0.8 mi.	Pavement Rehab	\$3,590,000	STBG
32182	2029	Bremer Co.	V14	C33 N 5.0 mi. to south of Horton	Pavement Rehab	\$3,142,873	STBG
53442	2029	Butler Co.	T55	West Fork Cedar River Bridge S 5.0 mi. to Beaver Valley St	Pavement Rehab	\$1,450,000	STBG
57958	2029	Iowa DOT	IA 57	Beaver Creek 1.3 mi E of Co Rd T53	Bridge Replacement	\$1,310,000	STBG
57957	2029	Iowa DOT	US 20	Buffalo Creek 2.3 mi E of Co Rd W40	Bridge Deck Rehab	\$1,560,000	STBG
57931	2029	Iowa DOT	US 20	Co Rd W35 2.5 mi E of IA 150	Bridge Rehab	\$630,000	PRF
57932	2029	Iowa DOT	IA 150	Branch Bear Creek 3.5 mi N of Co. Rd. D48	Bridge Rehab	\$260,000	PRF
57930	2029	Iowa DOT	IA 175	Branch Blackhawk Creek 0.8 mi W of Co Rd T69	Bridge Rehab	\$455,000	PRF
57928	2029	Iowa DOT	IA 187	220th St to IA 3	Grading, Right of Way	\$1,510,000	PRF
57538	2029	Black Hawk Co.	Osage Rd.	Over Poyner Creek, S31 T89N R11W	Bridge Replacement	\$770,000	HBP
7130	2029	Bremer Co.	C38	Over BUCK CREEK, S33 T92 R11	Bridge Replacement	\$800,000	HBP
53425	2029	Grundy Co.	D 25	0.1 mi. east of Concord Ave over a branch of Beaver Creek	Culvert Replacement	\$600,000	HBP
52196	2029	Grundy Co.	290 th St.	0.3 mi. west of M Ave over Wolf Creek, S11 T86 R17	Culvert Replacement	\$425,000	HBP
53426	2029	Chickasaw Co.	T78	Over LITTLE CEDAR, S9 T95N R14W	Bridge Replacement	\$1,982,500	HBP

Iowa DOT Projects

Table 3.4 shows Iowa DOT-sponsored projects included in the FY 2026-2029 TIP. These are not listed with the other roadway and bridge projects as they utilize different funding sources and are programmed at the state level.

Table 3.4: Iowa DOT Projects, FY 2025-2029

TPMS	Fiscal Year	Jurisdiction	Project	Termini	Description	Cost Estimate (\$)	State/Federal Source
55652	2025	Iowa DOT	US 218	La Porte City limits north 5.7 mi to Schrock Rd	Pavement Rehab	\$770,000	STBG
52489	2026	Iowa DOT	US 218	Cedar River in Janesville to IA 116 in Waverly	New interchange	26,897,000	NHPP
52688	2026	Iowa DOT	US 63	E Fork Wapsipinicon River 2.1 mi. N of US 18	Bridge Rehab	1,060,000	STBG
52522	2026	Iowa DOT	US 218	Big Creek Overflow 0.3 mi. N of D-48	Bridge Replacement	2,267,000	STBG
54680	2027	Iowa DOT	IA 150	Wapsipinicon River in Independence	Bridge Rehab	1,276,000	STBG
52523	2028	Iowa DOT	US 18	Little Cedar River, 1.0 mi. E of T-74	Bridge Replacement	5,835,000	STBG
55625	2028	Iowa DOT	IA 3	Boylan Creek 2.4 mi. E of T-16	Bridge Rehab	2,010,000	STBG
55624	2028	Iowa DOT	IA 93	Stream 0.7 mi. West of V-62 in Sumner	Bridge Rehab	1,880,000	STBG
55622	2028	Iowa DOT	IA 3	Drainage Ditch 2.1 mi. W of V-56	Bridge Rehab	350,000	PRF
55621	2028	Iowa DOT	IA 57	T-47 to New Hartford	Pavement Rehab	11,815,000	STBG
57958	2029	Iowa DOT	IA 57	Beaver Creek 1.3 mi E of Co Rd T53	Bridge Replacement	\$1,310,000	STBG
57957	2029	Iowa DOT	US 20	Buffalo Creek 2.3 mi E of Co Rd W40	Bridge Deck Rehab	\$1,560,000	STBG
57931	2029	Iowa DOT	US 20	Co Rd W35 2.5 mi E of IA 150	Bridge Rehab	\$630,000	PRF
57932	2029	Iowa DOT	IA 150	Branch Bear Creek 3.5 mi N of Co. Rd. D48	Bridge Rehab	\$260,000	PRF
57930	2029	Iowa DOT	IA 175	Branch Blackhawk Creek 0.8 mi W of Co Rd T69	Bridge Rehab	\$455,000	PRF
57928	2029	Iowa DOT	IA 187	220th St to IA 3	Grading, Right of Way	\$1,510,000	PRF
57958	2029	Iowa DOT	IA 57	Beaver Creek 1.3 mi E of Co Rd T53	Bridge Replacement	\$1,310,000	STBG



Map 3.13
Short Term Road & Bridge Projects

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Road and Bridge Unmet Needs

In early 2025, RTA staff solicited road and bridge project submissions from cities and counties throughout the region, requesting detailed information on unmet needs for the period between 2025 and 2050. This request included project termini, estimated costs, and specific details about roads and bridges in need of rehabilitation, reconstruction, or replacement. Road projects must be on federally functionally classified roads as major collectors or above, excluding minor collectors or local roads. While many of these projects are critical to maintaining the regional transportation network, they remain unfunded and are not included in the current FY 2026-2029 Transportation Improvement Program (TIP). These unmet needs reflect both aging infrastructure and growing demand for improvements that will enhance safety, connectivity, and capacity. The identified projects will require future funding to ensure the continued reliability and functionality of the region's roads and bridges over the coming decades.

The solicitation of unmet road and bridge needs from cities and counties resulted in many project submissions, underscoring the significant unmet needs within the region (reference Map 3.13 and Table 3.5). In FY 2025 dollars, the sum of all unmet needs submitted totaled \$388,625,357.00 million. This conservative figure does not include projects that would be locally funded, highlighting the broader scope of the region's infrastructure challenges. Without additional funding, the region faces substantial difficulties in maintaining a state of good repair for its roads and bridges. As these aging and increasingly strained assets require rehabilitation, reconstruction, or replacement, the lack of adequate funding could impact the region's ability to ensure safe and efficient transportation for its residents and businesses.

Table 3.5: Roads Unmet Needs

Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Bremer Co.	V56 (Viking Ave)	Chickasaw Co Line south to C50	4500000
Bremer Co.	V48 (Reed/Reno Ave)	Chickasaw Co Line south to IA 93	1200000
Bremer Co.	C33 (190th St)	Butler Co Line east to US 63	3300000
Bremer Co.	C38 (210th St/BUS 218)	US 218 east to Waverly WCL	300000
Bremer Co.	C50 (260th St)	Denver east to Fayette Co Line	3900000
Bremer Co.	T77 (Casper Ave/205th St)	C33 south and east to Waverly NCL	900000
Bremer Co.	V14 (Euclid Ave)	C33 south to Waverly NCL	900000
Bremer Co.	V49 (Reed Ave)	Black Hawk Co Line north to IA 3	1500000
Bremer Co.	V62 (Yuma Ave)	Sumner NCL north to 115th St	450000
Buchanan Co.	C57 (120th St)	Black Hawk Co Line east to Hazleton WCL	6212500
Buchanan Co.	C57 (120th St)	Mason Ave east to W33 (Olympic Ave)	1775000
Buchanan Co.	C57 (115th St)	W33 (Olympic Ave) east to W45 (Union St)	2485000
Buchanan Co.	C64 (130th St)	W45 (Slater Ave) east to IA 187	2840000
Buchanan Co.	C57 (120th St)	IA 187 east to Delaware Co Line	1420000
Buchanan Co.	C64 (135th St)	IA 187 east to Delaware Co Line	1420000
Buchanan Co.	D16 (175th St)	V62 (Baxter Ave) east to W13 (Fairbank Amish Blvd)	3195000
Buchanan Co.	D22 (220th St)	V65 (Benson Shady Grove Ave) east to Independence WCL	4792000
Buchanan Co.	V62 (Baster Ave)	D16 (175th St) south to Jesup NCL	5600000
Buchanan Co.	Wapsi Access Blvd	D16 (Otterville Blvd) south to Independence NCL	1065000
Buchanan Co.	W33	D22 (220th St) north to Fayette Co Line	10295000
Buchanan Co.	205th St	W33 west to Independence NCL	2130000
Buchanan Co.	W13 (Fairbank Amish Blvd)	IA 281 south to D16 (175th St)	5325000
Buchanan Co.	W45 (Slater Ave)	Fayette Co Line south to C64 (130th St)	2130000
Buchanan Co.	W45 (Slater Ave)	180th St south to D22 (220th St)	2840000
Buchanan Co.	V65 (Benson Shady Grove Ave)	D22 (220th St) south to D48 (La Porte Rd)	6745000
Buchanan Co.	D48 (La Porte Rd)	V65 east to V71 (Dugan Ave)	2840000
Buchanan Co.	D48	V71 (Dugan Ave) east to IA 150	4260000
Buchanan Co.	V71 (Dugan Ave)	D22 (220th St) south to D48	7810000
Buchanan Co.	D47 (290th St)	V71 (Dugan Ave) east to IA 150	4260000

Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Buchanan Co.	D47 (290th St)	IA 150 east to Rowley WCL	1420000
Buchanan Co.	D47 (290th St)	W35 (Water St) west to Rowley WCL	2840000
Buchanan Co.	W40 (Racine Ave)	D22 (220th St) south to W35 (Water St)	3550000
Buchanan Co.	W35 (Quasqueton Ave)	Wapsi River Bridge south to Linn Co Line	4757000
Buchanan Co.	D47	275th St east to Delaware Co Line	5964000
Buchanan Co.	W45 (Troy Mills Blvd)	D47 (280th St) south to Linn Co Line	4331000
Denver	State St	Quarter Section Run Bridge north to NCL	500000
Denver	Fayette St	WCL east to ECL	2000000
Chickasaw Co.	V56 (Union Ave)	Bremer Co Line north to US 18	2200000
Chickasaw Co.	V56 (Union Ave)	B54 (240th St) north os IA 24	2310000
Chickasaw Co.	V48 (Quinlan Ave)	Bremer Co Line north to Fredericksburg SWCL	1228500
Chickasaw Co.	B54 (240th St)	US 18/US 63 east to V 48 (Roanoake Ave)	1890000
Chickasaw Co.	S Linn Ave	B54 (240th St) north to McCloud Way	787500
Chickasaw Co.	N Linn Ave	RR Xing north to US 63	550000
Chickasaw Co.	B16 (100th St)	V56 (Union Ave) east to V64 (York Ave)	945000
Chickasaw Co.	B22 (120th St)	US 63 east to V56 (Union Ave)	2520000
Chickasaw Co.	V18	Alta Vista SCL north and west to Howard Co Line	4750000
Chickasaw Co.	T76	B28 (140th St) north and east to V18	1890000
Chickasaw Co.	B28 (140th St)	Floyd Co Line east to V18 (Gilmore Ave)	2205000
Chickasaw Co.	V21 (Hickory Ave)	Bremer Co Line north to IA 346	1260000
Chickasaw Co.	V14 (Exeter Ave)	IA 346 north to US 18	2205000
Chickasaw Co.	T76/B57	US 18 east to New Hampton WCL	3874500
Chickasaw Co.	Amherst Blvd	Nashua NCL north to Floyd Co Line	189000
Chickasaw Co.	Kenwood Ave	US 18 north to 170th St	945000
Black Hawk Co.	D35 (Schrock Rd)	Holmes Rd east to V37 (Dysart Rd)	6000000
Black Hawk Co.	D33 (Dubuque Rd)	Raymond ECL east to Jesup WCL	7000000
Black Hawk Co.	C57 (E Cedar Wapsi Rd)	US 63 east to N Raymond Rd	4500000
Black Hawk Co.	T75 (Union Rd)	Cedar Falls NCL north to C57 (W Cedar Wapsi Rd)	5000000
Waverly	12th St NW	IA 3 north to Waverly NCL	590000
Waverly	Horton Rd	Adams Pkwy Bridge north to Waverly NCL	220000
Waverly	Bremer Rd	2nd Ave NE to Waverly NECL	310000
Waverly	10th Ave SW	4th St SW west to IA 3 (Heritage Way)	6300000
Waverly	Cedar River Pkwy	4th St SW east to IA 3	5200000
			\$186,621,000.00

Table 3.6: Bridges Unmet Needs

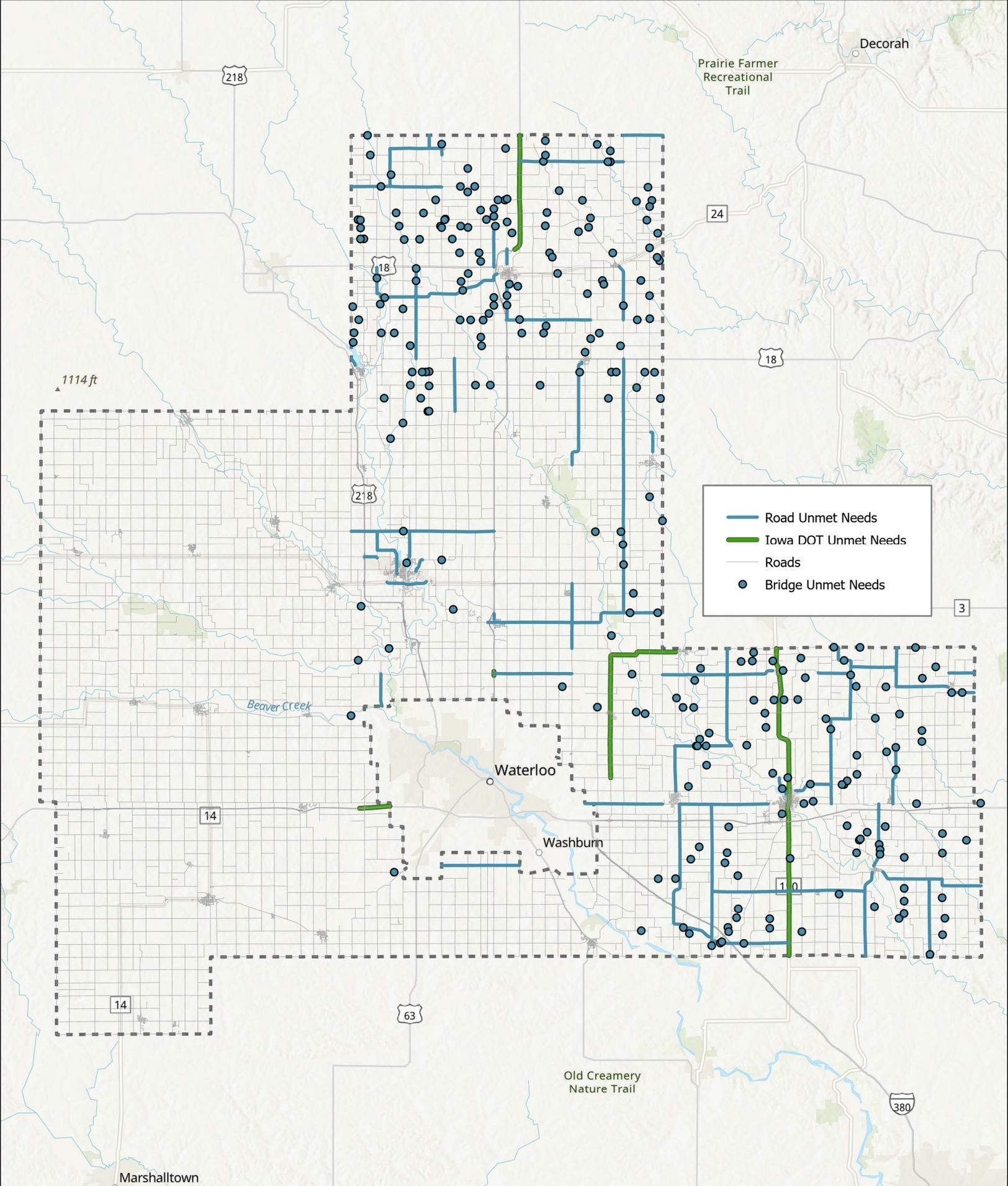
Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Bremer Co.	270th St	Tuscon Ave east 0.8 mi. to bridge	300000
Bremer Co.	252nd St (C50)	Y Ave west 0.5 mi. to bridge	600000
Bremer Co.	252nd St (C50)	Viking Ave east 0.7 mi. to bridge	1400000
Bremer Co.	236th St	Whitetail Ave west 0.35 mi. to bridge	1000000
Bremer Co.	250th St	Hilton Ave east 0.8 mi. to bridge	800000
Bremer Co.	Marquis Rd	Taylor Rd west 0.5 mi. to bridge	500000
Bremer Co.	Atlas Rd	250th St north 0.3 mi. to bridge	3200000
Bremer Co.	V56 (Viking Ave)	220th St north 0.6 mi. to bridge	1200000
Bremer Co.	200th St	Viking Ave west 0.07 mi. to bridge	800000
Bremer Co.	190th St	Viking Ave west 0.25 mi. to bridge	800000
Bremer Co.	C33 (190th St)	Tahoe Ave west 0.22 mi. to bridge	1000000
Bremer Co.	V62 (Y Ave)	110th St south 0.23 mi. to bridge	1400000
Bremer Co.	Yukon Ave	160th St south 0.6 mi. to bridge	1200000
Bremer Co.	V21 (212th St)	Hawthorne Ave west 0.08 mi. to bridge	400000
Bremer Co.	C33 (190th St)	Elk Ave east 0.04 mi. to bridge	800000
Bremer Co.	120th St	Easton Ave west 1.3 mi. to bridge	600000
Bremer Co.	310th St	Fayette Ave west 0.13 mi. to bridge	200000
Bremer Co.	212th St	110th St north 0.27 mi. to bridge	1000000
Buchanan Co.	W33	115th St northwest 1.0 mi. to bridge	1152000
Buchanan Co.	W33 (Olympic Ave)	C57 (120th St) south 0.17 mi. to bridge	1044000
Buchanan Co.	C64 (135th St)	Monroe St east 0.07 mi. to bridge	450000
Buchanan Co.	C64 (135th St)	York Ave west 0.23 mi. to bridge	450000
Buchanan Co.	V62 (Baxter Ave)	Buck Creek Blvd northeast 0.1 mi. to bridge	1287000
Buchanan Co.	D16 (State St)	Water St west 0.1 mi. to bridge	2286000
Buchanan Co.	D16 (State St)	Water St east 0.03 mi. to bridge	918000
Buchanan Co.	C57 (118th St)	Westline Dr east 0.01 mi. to bridge	350000
Buchanan Co.	D16 (Otterville Blvd)	IA 150 west 0.13 mi. to bridge	693000
Buchanan Co.	Wapsi Access Blvd	1st Ave NE northwest 0.43 mi. to bridge	675000
Buchanan Co.	205th St	Lee Ave west 0.13 mi. to bridge	1143000
Buchanan Co.	W33 (Nathan Bethel Ave)	155th St south 1.1 mi. to bridge	927000
Buchanan Co.	D22 (220th St)	Union Ave west 0.6 mi. to bridge	250000
Buchanan Co.	W40 (Racine Ave)	250th St south 0.5 mi. to bridge	828000
Buchanan Co.	W40 (Racine Ave)	255th St south 0.3 mi. to bridge	325000
Buchanan Co.	W40 (Racine Ave)	262nd St north 0.14 mi. to bridge	345000
Buchanan Co.	D48 (La Porte Rd)	318th St southeast 0.05 mi. to bridge	918000
Buchanan Co.	D48 (330th St)	Finley Ave east 0.23 mi. to bridge	828000
Buchanan Co.	D48	Gentry Ave east 0.35 mi. to bridge	1395000
Buchanan Co.	W45 (Troy Mills Blvd)	Linn Co Line north 0.3 mi. to bridge	972000
Chickasaw Co.	250th St	Roanoake Ave east 0.9 mi. to bridge	170000
Chickasaw Co.	Roanoake Ave	250th St south 0.6 mi. to bridge	600000
Chickasaw Co.	Ridgeway Ave	Buckeye St north 0.27 mi. to bridge	661500
Chickasaw Co.	260th St	Union Ave west 0.3 mi. to bridge	140000
Chickasaw Co.	280th St	Stevens Ave east 0.1 mi. to bridge	140000
Chickasaw Co.	280th St	Stevens Ave east 0.6 mi. to bridge	140000
Chickasaw Co.	280th St	Windsor Ave west 0.52 mi. to bridge	140000
Chickasaw Co.	280th St	Windsor Ave east 0.51 mi. to bridge	140000
Chickasaw Co.	Vanderbilt Ave	290th St south 0.24 mi. to bridge	155000
Chickasaw Co.	300th St	Stevens Ave west 0.19 mi. to bridge	140000
Chickasaw Co.	300th St	Windsor Ave east 1.15 mi. to bridge	170000
Chickasaw Co.	250th St	Odesa Ave west 0.23 mi. to bridge	140000
Chickasaw Co.	250th St	Mission Ave east 0.22 mi. to bridge	155000
Chickasaw Co.	280th St	V48 (Quinlan Ave) east 0.12 mi. to bridge	385875
Chickasaw Co.	290th St	Odessa Ave west 0.6 mi. to bridge	1384250
Chickasaw Co.	160th St	Odessa Ave west 0.02 mi. to bridge	140000
Chickasaw Co.	160th St	Cheyenne Ave west 0.6 mi. to bridge	140000

Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Chickasaw Co.	160th St	Exeter Ave east 0.77 mi. to bridge	155000
Chickasaw Co.	160th St	Ridgeway Ave southwest 0.19 mi. to bridge	2668750
Chickasaw Co.	150th St	Lasalle Ave west 0.23 mi. to bridge	170000
Chickasaw Co.	150th St	Franklin St east 0.04 mi. to bridge	140000
Chickasaw Co.	150th St	Kenwood Ave east 0.43 mi. to bridge	140000
Chickasaw Co.	150th St	Windsor Ave east 0.23 mi. to bridge	441000
Chickasaw Co.	150th St	Ridgeway Ave west 0.27 mi. to bridge	2100000
Chickasaw Co.	140th St	Jasper Ave west 0.63 mi. to bridge	496125
Chickasaw Co.	140th St	Ivanhoe Ave west 0.76 mi. to bridge	606375
Chickasaw Co.	140th St	Windsor Ave west 0.19 mi. to bridge	170000
Chickasaw Co.	140th St	Beaumont Ave east 0.78 mi. to bridge	496125
Chickasaw Co.	115th St	Asherton Ave east 0.7 mi. to bridge	170000
Chickasaw Co.	Kenwood Ave	150th St south 0.92 mi. to bridge	140000
Chickasaw Co.	Kenwood Ave	225th St south 0.53 mi. to bridge	892125
Chickasaw Co.	Kenwood Ave	165th St north 0.33 mi. to bridge	140000
Chickasaw Co.	Kenwood Ave	225th St north 0.3 mi. to bridge	155000
Chickasaw Co.	Lasalle Ave	165th St south 0.21 mi. to bridge	170000
Chickasaw Co.	Lasalle Ave	150th St north 0.13 mi. to bridge	170000
Chickasaw Co.	Young Way	195th St south 0.35 mi. to bridge	1231125
Chickasaw Co.	290th St	Kenwood Ave west 0.38 mi. to bridge	2180750
Chickasaw Co.	290th St	Exeter Ave west 0.6 mi. to bridge	140000
Chickasaw Co.	290th St	Irwin Ave east 0.11 mi. to bridge	140000
Chickasaw Co.	190th St	Ivanhoe Ave west 0.86 mi. to bridge	140000
Chickasaw Co.	190th St	Jasper Ave west 0.18 mi. to bridge	533750
Chickasaw Co.	190th St	Ridgeway Blvd east 0.49 mi. to bridge	1715000
Chickasaw Co.	190th St	Panora Ave west 0.29 mi. to bridge	385875
Chickasaw Co.	Exeter Ave	US 18 south 0.12 mi. to bridge	155000
Chickasaw Co.	Exeter Ave	210th St south 0.03 mi. to bridge	686250
Chickasaw Co.	170th St	Durham Ave west 0.4 mi. to bridge	170000
Chickasaw Co.	170th St	Gilmore Ave west 0.13 mi. to bridge	551250
Chickasaw Co.	170th St	Ivanhoe Ave west 0.77 mi. to bridge	140000
Chickasaw Co.	170th St	Kenwood Ave east 0.17 mi. to bridge	140000
Chickasaw Co.	170th St	Lasalle Ave east 0.51 mi. to bridge	155000
Chickasaw Co.	170th St	Odessa Ave west 0.28 mi. to bridge	170000
Chickasaw Co.	165th St	Hickory Ave west 0.35 mi. to bridge	140000
Chickasaw Co.	165th St	Pine St north 0.18 mi. to bridge	716625
Chickasaw Co.	165th St	Asherton Ave west 0.25 mi. to bridge	155000
Chickasaw Co.	165th St	Jasper Ave east 0.61 mi. to bridge	1102500
Chickasaw Co.	165th St	Victoria Ave east 0.39 mi. to bridge	1535000
Chickasaw Co.	120th St	Stevens Ave west 0.04 mi. to bridge	140000
Chickasaw Co.	120th St	Odessa Ave east 0.1 mi. to bridge	385875
Chickasaw Co.	120th St	Stevens Ave west 0.29 mi. to bridge	551250
Chickasaw Co.	Jasper Ave	250th St south 0.41 mi. to bridge	1231125
Chickasaw Co.	Jasper Ave	190th St south 0.9 mi. to bridge	2135000
Chickasaw Co.	Jasper Ave	150th St south 1.08 mi. to bridge	496125
Chickasaw Co.	Panora Ave	190th St south 0.45 mi. to bridge	1982500
Chickasaw Co.	Union Ave	220th St south 1.26 mi. to bridge	1576850
Chickasaw Co.	195th St	Windsor Ave east 0.78 mi. to bridge	140000
Chickasaw Co.	180th St	Gilmore Ave east 1.12 mi. to bridge	140000
Chickasaw Co.	180th St	Exeter Ave east 0.37 mi. to bridge	140000
Chickasaw Co.	180th St	Durham Ave east 0.15 mi. to bridge	155000
Chickasaw Co.	180th St	Asherton Ave east 0.38 mi. to bridge	140000
Chickasaw Co.	180th St	Asherton Ave east 0.03 mi. to bridge	170000
Chickasaw Co.	S Linn Ave	220th St south 0.18 mi. to bridge	155000
Chickasaw Co.	Ridgeway Ave	160th St southeast 0.88 mi. to bridge	826875
Chickasaw Co.	Addison Ave	Fayette Co Line east 0.2 mi. to bridge	1488375
Chickasaw Co.	260th St	Exeter Ave west 0.61 mi. to bridge	551250
Chickasaw Co.	240th St	Akron Way west 0.54 mi. to bridge	1532625

Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Chickasaw Co.	240th St	Vanderbilt Ave east 0.09 mi. to bridge	155000
Chickasaw Co.	240th St	Ivanhoe Ave east 0.26 mi. to bridge	155000
Chickasaw Co.	240th St	River Rd west 0.15 mi. to bridge	140000
Chickasaw Co.	260th St	Jasper Ave east 0.1 mi. to bridge	1231125
Chickasaw Co.	240th St	Jasper Ave east 0.21 mi. to bridge	140000
Chickasaw Co.	205th St	IA 24 east 0.25 mi. to bridge	140000
Chickasaw Co.	Asherton Ave	170th St south 0.2 mi. to bridge	140000
Chickasaw Co.	Asherton Ave	165th St south 0.03 mi. to bridge	140000
Chickasaw Co.	Beaumont Ave	210th St north 0.24 mi. to bridge	155000
Chickasaw Co.	Beaumont Ave	230th St north 0.26 mi. to bridge	155000
Chickasaw Co.	Odessa Ave	240th St south 0.64 mi. to bridge	549000
Chickasaw Co.	Odessa Ave	120th St north 0.64 mi. to bridge	155000
Chickasaw Co.	Odessa Ave	100th St south 0.62 mi. to bridge	385875
Chickasaw Co.	Quinlan Ave	180th St north 1.19 mi. to bridge	140000
Chickasaw Co.	Vanderbilt Ave	150th St south 0.11 mi. to bridge	140000
Chickasaw Co.	Windsor Ave	240th St north 0.17 mi. to bridge	180000
Chickasaw Co.	Windsor Ave	160th St north 0.4 mi. to bridge	496125
Chickasaw Co.	Windsor Ave	IA 24 north 0.17 mi. to bridge	1387000
Chickasaw Co.	Windsor Ave	220th St south 0.21 mi. to bridge	606375
Chickasaw Co.	220th St	Chickasaw Cir west 0.23 mi. to bridge	441000
Chickasaw Co.	220th St	Ivanoe Ave southwest 0.61 mi. to bridge	606375
Chickasaw Co.	220th St	Roanoake Ave west 0.35 mi. to bridge	155000
Chickasaw Co.	Mission Ave	S 4th St southeast 0.33 mi. to bridge	661500
Chickasaw Co.	Stevens Ave	110th St south 0.25 mi. to bridge	140000
Chickasaw Co.	250th St	Addison Ave east 0.29 mi. to bridge	170000
Chickasaw Co.	250th St	Beaumont Ave east 0.46 mi. to bridge	457500
Chickasaw Co.	250th St	Cheyenne Ave east 0.45 mi. to bridge	441000
Chickasaw Co.	210th St	Ivanhoe Ave west 0.73 mi. to bridge	1304625
Chickasaw Co.	210th St	Stanley west 0.15 mi. to bridge	140000
Chickasaw Co.	210th St	Vanderbilt Ave east 0.47 mi. to bridge	1898500
Chickasaw Co.	175th St	White Way east 0.15 mi. to bridge	180000
Chickasaw Co.	130th St	Cheyenne Ave east 0.13 mi. to bridge	140000
Chickasaw Co.	100th St	Asherton Ave east 0.34 mi. to bridge	140000
Chickasaw Co.	Mission Ave	240th St north 0.05 mi. to bridge	140000
Chickasaw Co.	Gilmore Ave	E Jackson St north 0.25 mi. to bridge	1433500
Chickasaw Co.	Gilmore Ave	170th St south 0.16 mi. to bridge	140000
Chickasaw Co.	S Linn Ave	225th St south 0.5 mi. to bridge	606375
Chickasaw Co.	Pembroke Ave	145th St north 0.28 mi. to bridge	140000
Chickasaw Co.	300th St	Exeter Ave east 0.5 mi. to bridge	1078000
Chickasaw Co.	300th St	Cheyenne Ave west 0.6 mi. to bridge	140000
Chickasaw Co.	S Locust Ave	W Cleveland St south 0.22 mi. to bridge	771750
Chickasaw Co.	Durham Ave	230th St south 0.23 mi. to bridge	140000
Chickasaw Co.	Fayette Ave	280th St north 0.05 mi. to bridge	155000
Chickasaw Co.	Fayette Ave	310th St north 0.02 mi. to bridge	1067500
Chickasaw Co.	Fayette Ave	290th St south 0.08 mi. to bridge	381250
Chickasaw Co.	Ivanhoe Ave	140th St south 0.58 mi. to bridge	140000
Chickasaw Co.	Ivanhoe Ave	120th St south 0.69 mi. to bridge	140000
Chickasaw Co.	Ivanhoe Ave	170th St south 0.13 mi. to bridge	1367162
Chickasaw Co.	Ivanhoe Ave	US 18 south 0.56 mi. to bridge	606375
Chickasaw Co.	Stanley Ave	210th St south 0.4 mi. to bridge	140000
Chickasaw Co.	Stanley Ave	110th St north 0.44 mi. to bridge	998375
Chickasaw Co.	280th St	Fayette Ave west 0.35 mi. to bridge	155000
Chickasaw Co.	280th St	Exeter Ave east 0.65 mi. to bridge	241470
Chickasaw Co.	280th St	Exeter Ave west 0.41 mi. to bridge	762500
Chickasaw Co.	235th St	Kenwood Ave west 0.52 mi. to bridge	600000
Chickasaw Co.	230th St	Addison Ave east 0.15 mi. to bridge	600000
Chickasaw Co.	110th St	Lasalle Ave west 0.15 mi. to bridge	915000
Black Hawk Co.	Wheeler Rd	E Dunkerton Rd north 0.13 mi. to bridge	1000000

Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Black Hawk Co.	Zaneta Rd	Eldora Rd west 0.75 mi. to bridge	2000000
Black Hawk Co.	N Butler Rd	Beaver Valley St south 0.98 mi. to bridge	1000000
Black Hawk Co.	E Cedar Wapsi Rd	Adams Rd west 0.81 mi. to bridge	4000000
Black Hawk Co.	Jubilee Rd	Collins Rd west 0.27 mi. to bridge	850000
Black Hawk Co.	Harmon Rd	Garling Rd east 0.65 mi. to bridge	1000000
Black Hawk Co.	E Bennington Rd	Crane Creek Rd east 0.35 mi. to bridge	1000000
Black Hawk Co.	N Pilot Grove Rd	E Dunkerton Rd north 0.62 mi. to bridge	1000000
Black Hawk Co.	E Dunkerton Rd	Rice Rd east 0.6 mi. to bridge	4000000
Black Hawk Co.	Finchford Rd	W Fork Rd wouth 0.06 mi. to bridge	3500000
Waverly	Adams Pkwy	Tiedt Rd south to bridge	14000000
Buchanan Co.	100th St	J Ave east 0.23 mi. to bridge	432000
Buchanan Co.	100th St	Nathan Bethel Ave east 0.2 mi. to bridge	576000
Buchanan Co.	110th St	115th St northwest 1.33 mi. to bridge	1248000
Buchanan Co.	270th St	Tucson Ave east 0.79 mi. to bridge	1152000
Buchanan Co.	130th St	Olympic Ave east 0.57 mi. to bridge	1008000
Buchanan Co.	130th St	Quonset Ave east 0.96 mi. to bridge	1080000
Buchanan Co.	155th St	Nathan Bethel Ave west 0.51 mi. to bridge	736000
Buchanan Co.	Quonset Ave	155th St north 0.11 mi. to bridge	936000
Buchanan Co.	Nathan Bethel Ave	155th St south 1.09 mi. to bridge	1056000
Buchanan Co.	180th St	Reed Ave east 0.41 mi. to bridge	1224000
Buchanan Co.	Pine Creek Ave	200th St north 0.39 mi. to bridge	216000
Buchanan Co.	205th St	O'Connor Ave west 0.34 mi. to bridge	216000
Buchanan Co.	O'Connor Ave	205th St north 0.39 mi. to bridge	648000
Buchanan Co.	205th St	N Dorris Ave east 0.13 mi. to bridge	936000
Buchanan Co.	Nolen Ave	290th St south 0.4 mi. to bridge	288000
Buchanan Co.	Pine Creek Ave	190th St north 1.02 mi. to bridge	360000
Buchanan Co.	Quonset Ave	310th St north 1.12 mi. to bridge	936000
Buchanan Co.	310th St	Stewart Ave west 0.53 mi. to bridge	576000
Buchanan Co.	115th St	Deacon Ave west 0.11 mi. to bridge	180000
Buchanan Co.	Central Ave	120th St south 0.58 mi. to bridge	576000
Buchanan Co.	Baxter Ave	Buck Creek Blvd northeast 0.11 mi. to bridge	1440000
Buchanan Co.	145th St	Castle Ave east 0.24 mi. to bridge	1512000
Buchanan Co.	145th St	Buck Creek Blvd east 0.14 mi. to bridge	1080000
Buchanan Co.	Union Ave	160th St south 0.53 mi. to bridge	360000
Buchanan Co.	Slater Ave	180th St north 0.46 mi. to bridge	211000
Buchanan Co.	Union Ave	170th St south 0.28 mi. to bridge	360000
Buchanan Co.	Slater Ave	190th St south 0.52 mi. to bridge	480000
Buchanan Co.	Keokuk Ave	108th St south 0.1 mi. to bridge	216000
Buchanan Co.	Harrison Ave	105th St north 0.21 mi. to bridge	576000
Buchanan Co.	110th St	Fairbank Amish Blvd east 1.46 mi. to bridge	288000
Buchanan Co.	110th St	Harrison Ave west 0.12 mi. to bridge	576000
Buchanan Co.	110th St	Isaac Ave west 0.15 mi. to bridge	1296000
Buchanan Co.	118th St	Westline Dr immediately east to bridge	288000
Buchanan Co.	Lawrence Ave	125th St north 0.22 mi. to bridge	432000
Buchanan Co.	140th St	Kentucky Ave east 0.61 mi. to bridge	288000
Buchanan Co.	140th St	IA 150 east 0.52 mi. to bridge	432000
Buchanan Co.	140th St	Isaac Ave east 0.16 mi. to bridge	936000
Buchanan Co.	140th St	Henley Ave west 0.25 mi. to bridge	576000
Buchanan Co.	150th St	Indiana Ave west 0.12 mi. to bridge	1584000
Buchanan Co.	Iowa Ave	310th St south 0.14 mi. to bridge	792000
Buchanan Co.	Iowa Ave	320th St north 0.21 mi. to bridge	648000
Buchanan Co.	King Ave	320th St south 0.21 mi. to bridge	216000
Buchanan Co.	280th St	Wooster Rd east 0.2 mi. to bridge	576000
Buchanan Co.	305th St	Frost Ave east 0.8 mi. to bridge	648000
Buchanan Co.	Laporte Rd	318th St southeast 0.05 mi. to bridge	1056000
Buchanan Co.	Frost Ave	Brandon Diagonal Blvd north 0.96 mi. to bridge	216000
Buchanan Co.	310th St	Frost Ave east 0.54 mi. to bridge	792000
Buchanan Co.	Brandon Diagonal Blvd	Frost Ave northeast 0.08 mi. to bridge	1296000

Jurisdiction	Project	Termini	Cost Estimate in 2025 (\$)
Buchanan Co.	Finley Ave	330th St south 0.19 mi. to bridge	720000
Buchanan Co.	330th St	Finley Ave east 0.23 mi. to bridge	960000
Buchanan Co.	Carter Ave	325th St north 0.37 mi. to bridge	216000
Buchanan Co.	West St	330th St south 0.27 mi. to bridge	1008000
Buchanan Co.	330th St	Gentry Ave east 0.34 mi. to bridge	1632000
Buchanan Co.	240th St	Ryan Ave west 0.65 mi. to bridge	216000
Buchanan Co.	Plymouth Ave	250th St north 0.75 mi. to bridge	288000
Buchanan Co.	240th St	Nelson Ave east 1.11 mi. to bridge	576000
Buchanan Co.	Pine Creek Ave	250th St south 0.12 mi. to bridge	576000
Buchanan Co.	250th St	Pine Creek Ave east 0.11 mi. to bridge	576000
Buchanan Co.	Racine Ave	255th St north 0.26 mi. to bridge	960000
Buchanan Co.	Racine Ave	255th St south 0.3 mi. to bridge	240000
Buchanan Co.	Racine Ave	262nd St north 0.13 mi. to bridge	288000
Buchanan Co.	Parrish Ave	262nd St northeast 0.37 mi. to bridge	864000
Buchanan Co.	10th St	Taylor Ave east 0.57 mi. to bridge	432000
Buchanan Co.	115th St	Victor Ave immediately east to bridge	216000
Buchanan Co.	Union Ave	130th St north 0.88 mi. to bridge	360000
Buchanan Co.	135th St	Monroe St east 0.07 mi. to bridge	384000
Buchanan Co.	220th St	Buchanan Delaware Ave west 0.08 mi. to bridge	240000
Buchanan Co.	220th St	Union Ave west 0.61 mi. to bridge	260000
Buchanan Co.	Vincent Ave	240th St south 0.67 mi. to bridge	216000
Buchanan Co.	250th St	York Ave west 0.19 mi. to bridge	288000
Buchanan Co.	260th St	Vincent Ave west 0.15 mi. to bridge	1728000
Buchanan Co.	Stewart Ave	262nd St south 0.13 mi. to bridge	288000
Buchanan Co.	Stewart Ave	280th St south 1.0 mi. to bridge	288000
Buchanan Co.	Stewart Ave	300th St north 0.47 mi. to bridge	288000
Buchanan Co.	Vincent Ave	290th St south 0.59 mi. to bridge	360000
Buchanan Co.	Stewart Ave	302nd St south 0.47 mi. to bridge	576000
Buchanan Co.	310th St	Vincent Ave east 0.27 mi. to bridge	648000
Buchanan Co.	Vincent Ave	322nd St immediately south to bridge	792000
Buchanan Co.	135th St	York Ave west 0.23 mi. to bridge	384000
Buchanan Co.	Slater Ave	150th St south 0.15 mi. to bridge	216000
Buchanan Co.	Troy Mills Blvd	Linn Buchanan Rd north 0.36 mi. to bridge	1056000
Buchanan Co.	165th St	Dillon Ave east 0.18 mi. to bridge	216000
Buchanan Co.	Clayton Blvd	Littleton Blvd west 0.22 mi. to bridge	1800000
Buchanan Co.	State St	Water St west 0.09 mi. to bridge	2496000
Buchanan Co.	State St	Water St immediately east to bridge	1056000
Buchanan Co.	175th St	River Road Blvd east 0.23 mi. to bridge	384000
Buchanan Co.	190th St	Deacon Ave east 0.62 mi. to bridge	626000
Buchanan Co.	Carter Ave	210th St north 0.5 mi. to bridge	216000
Buchanan Co.	220th St	17th Ave NE east 0.43 mi. to bridge	480000
Buchanan Co.	6th Ave SW	Lovers Lane Blvd north 0.09 mi. to bridge	288000
Buchanan Co.	265th St	IA 150 east 0.14 mi. to bridge	576000
Buchanan Co.	Indiana Ave	170th St north 1.23 mi. to bridge	432000
Buchanan Co.	Grant Ave	170th St south 0.6 mi. to bridge	216000
Buchanan Co.	Isaac Ave	Otterville Blvd north 0.49 mi. to bridge	576000
Buchanan Co.	205th St	Lee Ave west 0.14 mi. to bridge	1344000
Buchanan Co.	Wapsi Access Blvd	Independence NCL north 0.8 mi. to bridge	768000
Buchanan Co.	200th St	IA 150 west 0.13 mi. to bridge	768000
Buchanan Co.	Lucas Ave	220th St north 0.25 mi. to bridge	288000
Buchanan Co.	240th St	Gabriel Ave west 0.92 mi. to bridge	360000
Buchanan Co.	Daniel Ave	250th St south 0.74 mi. to bridge	504000
Buchanan Co.	Freeman Ave	270th St north 0.29 mi. to bridge	288000
Buchanan Co.	260th St	Freeman Ave east 0.22 mi. to bridge	360000
Buchanan Co.	265th St	Daniel Ave west 0.89 mi. to bridge	425000
Buchanan Co.	Gabriel Ave	280th St north 0.28 mi. to bridge	1152000
			\$202,004,357.00



Map 3.14

Road & Bridge Unmet Needs, 2031-2050

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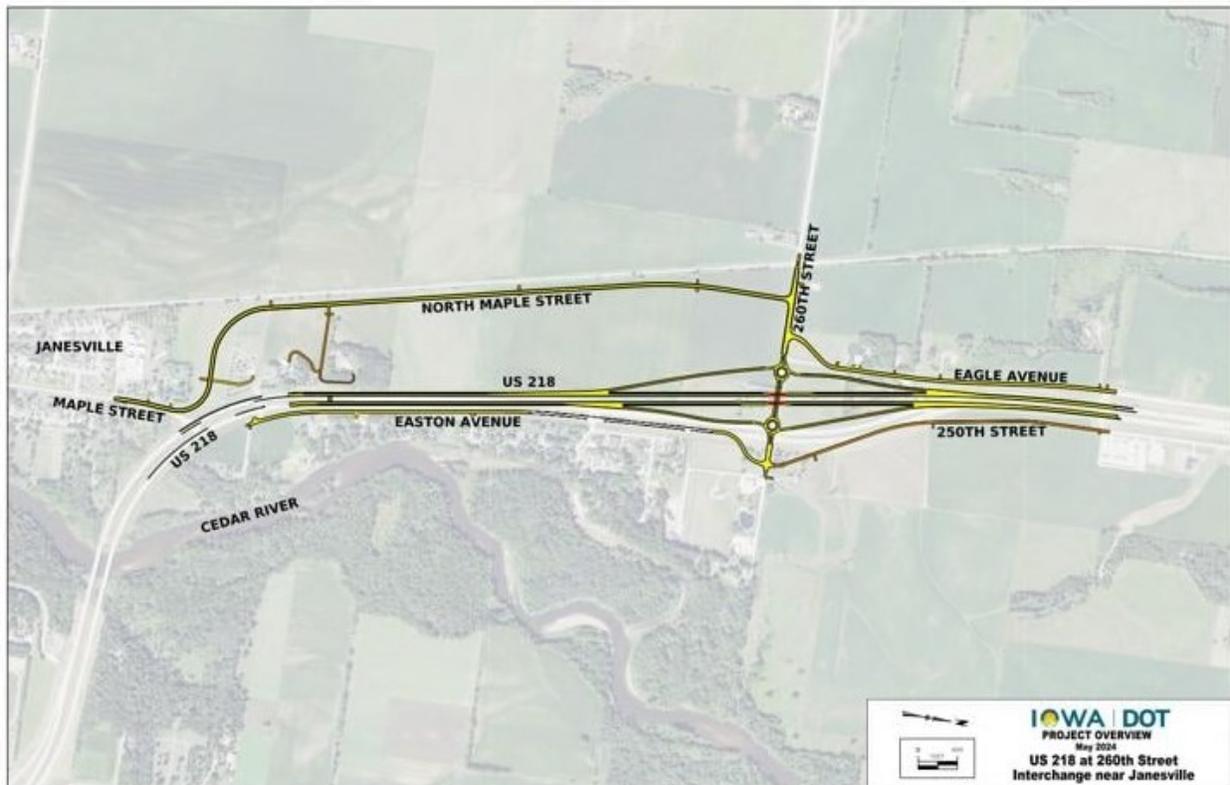
Long-Term Corridor Projects

Critical long-term corridor projects and initiatives in the Iowa Northland Region are progressing with the goal of significantly enhancing regional mobility, safety, and economic vitality. These efforts focus on improving key transportation corridors that connect communities, support freight movement, and facilitate access to essential services. Through strategic investments in infrastructure, such as system interchange upgrades, roadway expansions, and targeted safety enhancements, the region aims to address current and future transportation challenges while fostering sustainable economic growth. These projects are vital for ensuring the region remains a hub of connectivity, accessibility, and development in the years to come.

US 218 Freeway Upgrade Between Janesville and Waverly

A significant initiative within the region is the \$36 million project to upgrade US 218 between Janesville and Waverly to a full freeway. This project includes constructing a new diamond interchange at 260th Street and US 218, along with a network of frontage roads to replace existing crossroad access points, such as Maple Street, Edgebrook Drive, and Eagle Avenue.

This upgrade directly addresses the significant growth in traffic demand along the corridor, with daily vehicle volumes anticipated to rise from 24,350 in 2025 to 32,420 by 2045. By transforming this segment of US 218 into a full freeway, the project ensures the corridor can accommodate future transportation needs efficiently and safely. Enhanced connectivity will support both local and regional mobility, improving access for commuters, freight movement, and travelers along the Avenue of the Saints corridor, a critical economic artery linking communities across Iowa and beyond.



In addition to improving capacity, the project will reduce traffic conflicts and enhance overall safety by replacing at-grade intersections with a modern diamond interchange and constructing frontage roads to provide controlled access. These upgrades aim to minimize delays, reduce accident risks, and provide

seamless travel experiences. Scheduled for completion in fall 2026, the project will position the corridor as a robust transportation backbone that supports economic growth, fosters regional development, and enhances the quality of life for residents.

IA 150 Super Two Planning Study

The Iowa 150 Super Two Planning Study, completed in 2024, is expected to play a crucial role in shaping the region's transportation infrastructure, particularly in addressing the unique needs of freight carriers and other road users who rely on this corridor for efficient and reliable travel. With its strategic focus on enhancements that improve safety and mobility, the study ensures that Iowa 150 remains a key economic and logistical asset for the region, supporting industries that depend on effective transportation networks for their operations.



The RTA recognizes the importance of the Iowa 150 Super Two Planning Study in supporting regional development and is working with the Iowa DOT to identify funding solutions for its recommended improvements. This collaborative effort aims to deliver a sustainable transportation solution that meets the needs of freight carriers, improves safety and mobility for all road users, and positions the Iowa Northland Region for long-term growth and success.

[Iowa 150 Super Two Corridor Study Final Vision Document](#)

Technological Advancements

The transportation system is anticipated to undergo momentous changes in the coming decades due to the adoption and utilization of a variety of technologies. Rapid advances in transportation technology are expected to transform how people move around the nation. A few of the most recent high-profile technology changes include connected and automated vehicles (CAV), and the electrification of our transportation system through the increased adoption of electric vehicles (EV). The State of Iowa and the Iowa Northland Region must be aware of the benefits, needs, and constraints of these technologies, and recognize how they should be adapted in both urban and rural environments. This section highlights a couple of transportation technologies that could apply to the area. This list is not intended to be all inclusive.

Connected and Automated Vehicles (CAV)

CAV has the potential to transform travel as we know. CAV combines leading edge technologies – advanced wireless communications, on-board computer processing, advanced vehicle-sensors, GPS navigation, smart infrastructure, and others – to provide the capability for vehicles to identify threats and hazards on the roadway and communicate this information over wireless networks to give drivers alerts and warnings.

Fully automated, autonomous, or “self-driving” vehicles are defined by the U.S. DOT’s National Highway Traffic Safety Administration (NHTSA) as “Those in which operation of the vehicle occurs without direct drive input to control the steering, acceleration, and braking and are designed so that the driver is not expected to constantly monitor the roadway while operating in self-driving mode.” NHTSA has adopted the SAE International definitions for levels of automation.



SAE J3016™ LEVELS OF DRIVING AUTOMATION™

Learn more here: sae.org/standards/content/j3016_202104

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	SAE LEVEL 0™	SAE LEVEL 1™	SAE LEVEL 2™	SAE LEVEL 3™	SAE LEVEL 4™	SAE LEVEL 5™
What does the human in the driver's seat have to do?	You are driving whenever these driver support features are engaged – even if your feet are off the pedals and you are not steering			You are not driving when these automated driving features are engaged – even if you are seated in “the driver’s seat”		
	You must constantly supervise these support features; you must steer, brake or accelerate as needed to maintain safety			When the feature requests, you must drive	These automated driving features will not require you to take over driving	

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	These are driver support features			These are automated driving features		
What do these features do?	These features are limited to providing warnings and momentary assistance	These features provide steering OR brake/acceleration support to the driver	These features provide steering AND brake/acceleration support to the driver	These features can drive the vehicle under limited conditions and will not operate unless all required conditions are met	This feature can drive the vehicle under all conditions	
Example Features	<ul style="list-style-type: none"> • automatic emergency braking • blind spot warning • lane departure warning 	<ul style="list-style-type: none"> • lane centering OR • adaptive cruise control 	<ul style="list-style-type: none"> • lane centering AND • adaptive cruise control at the same time 	<ul style="list-style-type: none"> • traffic jam chauffeur 	<ul style="list-style-type: none"> • local driverless taxi • pedals/steering wheel may or may not be installed 	<ul style="list-style-type: none"> • same as level 4, but feature can drive everywhere in all conditions

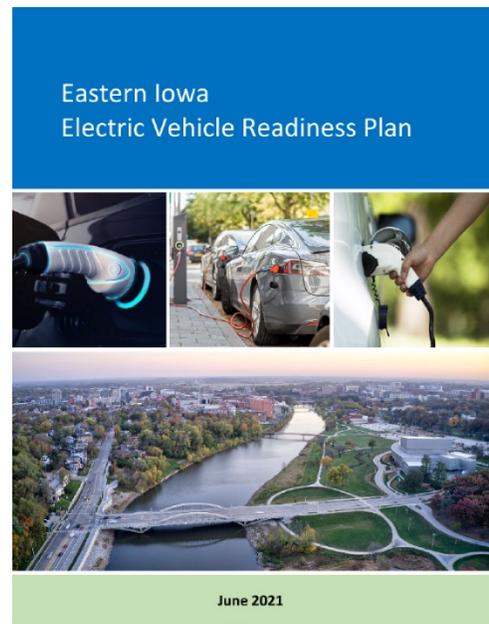
Connected vehicles are those that use any number of different communication technologies to communicate with the driver, other cars on the road, roadside infrastructure, and the “Cloud.” This technology can be used to improve vehicle safety and vehicle efficiency, saving lives and reducing fuel consumption and emissions. Market adoption predictions vary, with some predicting 100 percent adoption rates towards 2050.



Alternative-Fuel Vehicles

Most vehicles operating within the U.S. (and the Black Hawk County metro area) use fossil fuels. Hybrid electric vehicles have been around since the early 2000s with moderate adoption across the U.S. According to the U.S. Bureau of Transportation Statistics, hybrid electric vehicles made up 5.5 percent of the total U.S. market share in 2021. Plug-in electric vehicle purchases have been on the rise, as increased manufacturers release electric vehicle models. However, the U.S. market share in 2021 was only 3.2 percent, up from 1.9 percent in 2019. An increase in non-gasoline vehicle usage, not only by individuals but also the private sector, will require significant improvement of the electric charging infrastructure. The buildout of electric vehicle charging infrastructure in the region will help ensure a positive experience for the growing market of EV owners.

In 2021, the Black Hawk County MPO participated in the development of the Eastern Iowa Electric Vehicle Readiness Plan (EVRP), a collective effort with Iowa City, Cedar Rapids, Dubuque, Davenport, and the MPOs of Eastern Iowa towards increasing zero-emission vehicle adoption while ensuring the mobility needs of the region and the target carbon reductions are met equitably. As part of the process, the City of Iowa City commissioned the consulting firm ICF to evaluate the existing EV market, charging infrastructure, incentives, and characterized barriers to greater EV adoption as well as the policy and educational opportunities to overcome such barriers. Achieving a greater level of adoption requires a set of coordinated strategies and actions that encompass infrastructure planning and deployment, local policies, consumer education, and partnership creation.



The Steering Committee defined a regional vision statement and a set of specific goals that provide the foundation for the EVRP. The vision statement reflects the Committee’s role and intent to support communities across Eastern Iowa to further EV adoption in a way that is equitable, improves air quality, and generates economic benefits.

www.icgov.org/government/departments-and-divisions/climate-action-outreach/climate-plans-and-reports

The Regional Goals of the EVRP are as follows:

- Increase EV use
- Increase EV charger availability
- Increase equitable access to EVs and charging
- Reduce emissions
- Improve air quality
- Generate economic benefits
- Establish regional collaboration to leverage resources and share learnings



“The communities of Eastern Iowa will be leaders in supporting the increased use of EVs and improving access to charging infrastructure. We will empower our residents, businesses, and visitors through policies, partnerships, and initiatives that encourage adoption of EVs.”

Regional Vision Statement, Eastern Iowa EVRP

As of November 2024, the U.S. Department of Energy’s Alternative Fuel Data Center reported 443 public EV charging stations in Iowa, comprising 1,026 charging ports. The majority of these are public Level 2 chargers. Within the Iowa Northland Region, including the Black Hawk County metropolitan area, there were 15 public EV charging stations with a total of 131 charging ports (Map 3.14). Two of these stations are in Waverly, while the remainder are in the Black Hawk County metro area.

www.afdc.energy.gov/stations#/find/nearest

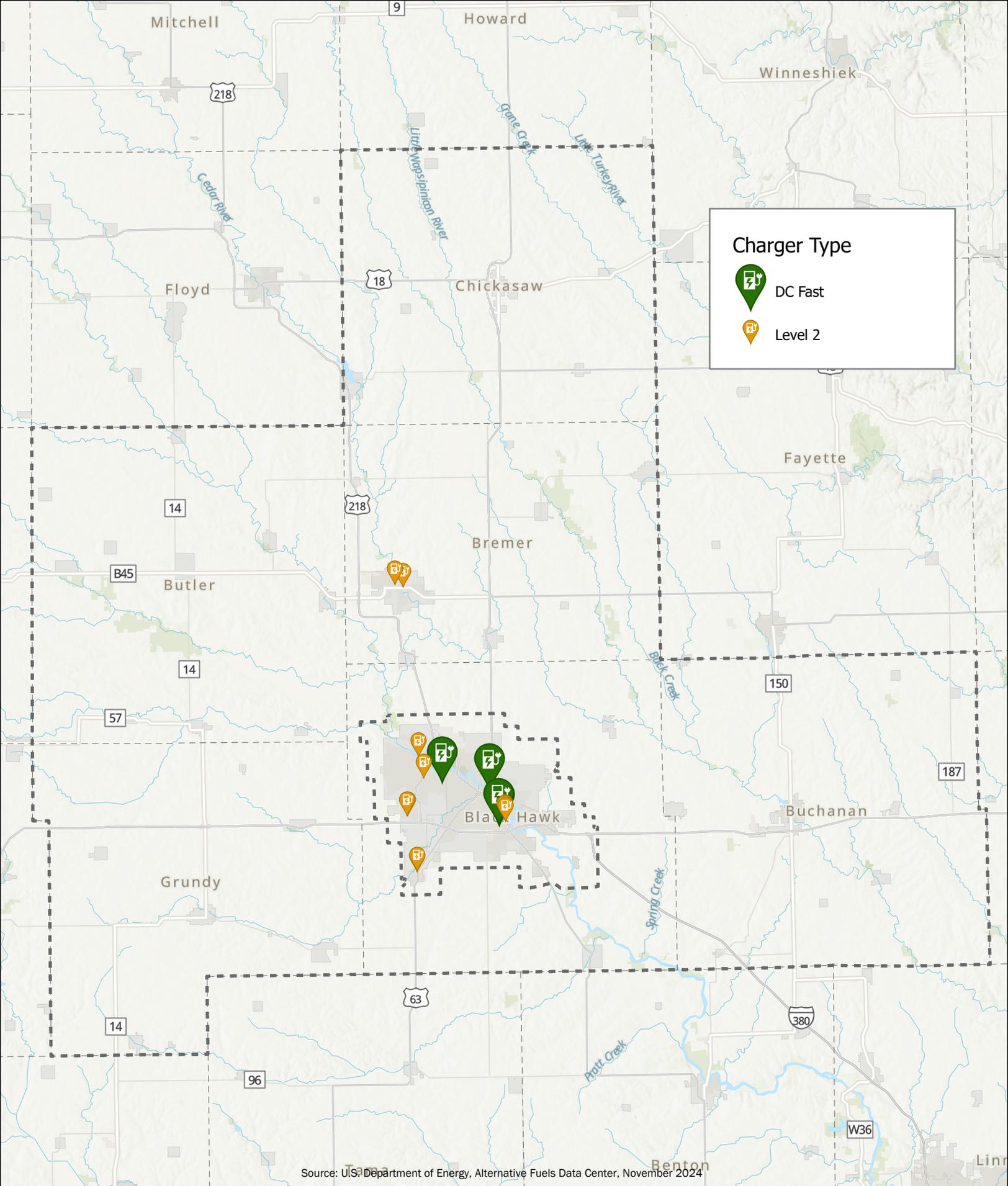
The number of EV charge points per million people is a critical factor influencing EV adoption rates. A robust charging infrastructure is essential to alleviate range anxiety and provide convenient charging options for EV owners. Higher availability and accessibility of charge points make EV ownership more practical and appealing to potential buyers.

The number of EV charge points per million required to substantially increase EV adoption rates is subject to various factors such as population density, geographic distribution, and driving patterns. While there is no universally applicable

threshold, a general guideline suggests that a significant increase in EV adoption rates can be achieved when the number of charge points per million reaches a level that ensures convenient access to charging infrastructure for EV owners. This typically entails a robust and well-distributed charging network, including a mix of fast chargers along highways, workplace chargers, and residential chargers. Ideally, a target range of 400 to 450 charge points per million people is



often considered a reasonable benchmark to stimulate widespread EV adoption. As of 2024, Waverly has 770 charge points per million population with limited geographic coverage.



Source: U.S. Department of Energy, Alternative Fuels Data Center, November 2024

Map 3.15 EV Fueling Stations

This map does not constitute a survey, and INRCOG assumes no liability for the accuracy of the data presented herein, whether expressed or implied.

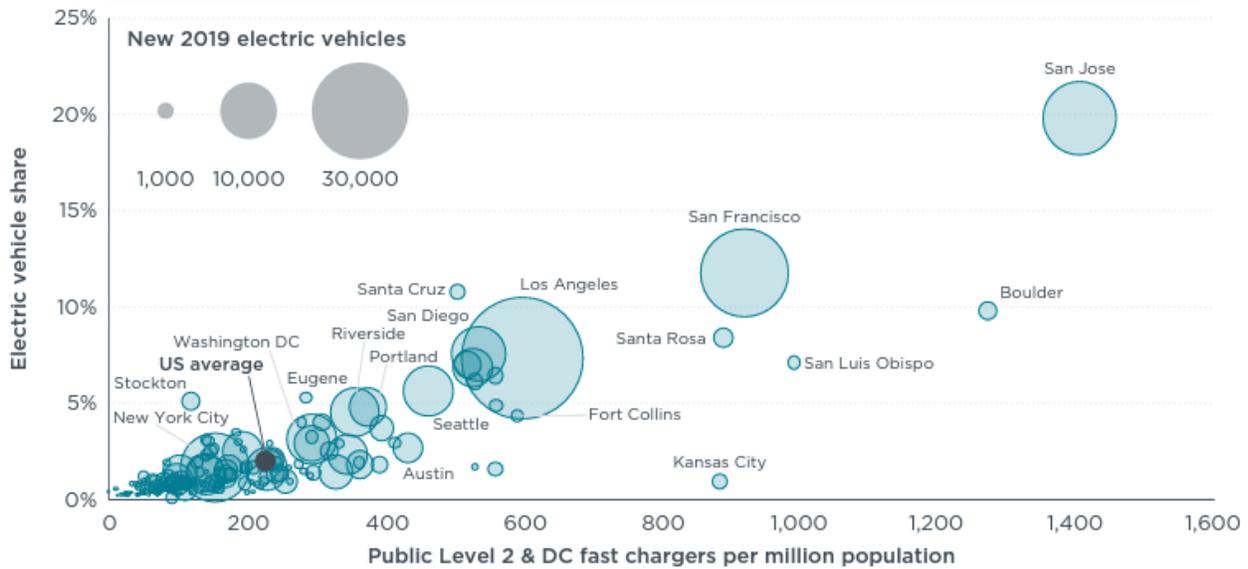
Source: U.S. Department of Energy, AFDC, Nov. 2024

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EV share of new vehicles and public chargers per million population for the 200 most populous US metro areas.
 Source: International Council on Clean Transportation, August 2020 Briefing



To increase EV adoption rates, it is imperative that the public and private sectors collaborate to enhance the number and coverage of publicly available EV charging stations in the Black Hawk County metro area and surrounding communities. Both sectors have complementary roles to play in achieving this goal. The public sector, including government agencies and utilities, can provide the necessary frameworks, policies, and funding support to incentivize the expansion of charging infrastructure. This includes identifying strategic locations for charging stations, streamlining permitting processes,

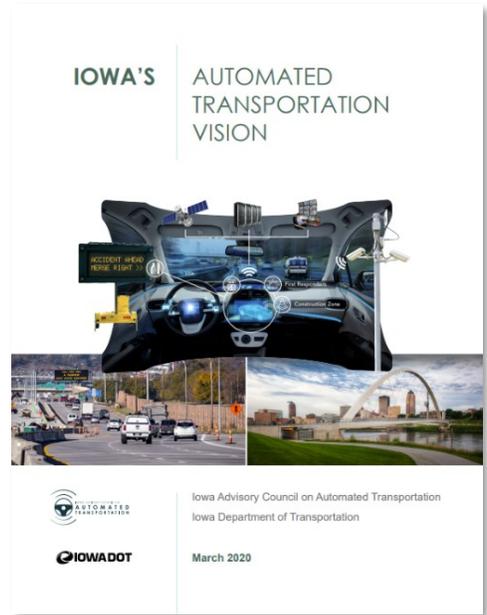


and allocating resources to underserved areas. The private sector, including charging station operators and businesses, can invest in the deployment of charging infrastructure and collaborate with public entities to develop sustainable charging solutions. By working together, the public and private sectors can create a robust and accessible charging network that addresses range anxiety, instills confidence in potential EV owners, and accelerates the transition to cleaner and more sustainable transportation solutions.

Iowa Advisory Council on Automated Transportation (AT Council)

The goal of the AT Council is to increase roadway safety, personal mobility, and freight movement within the state of Iowa by advancing highly automated technologies. The AT Council provides guidance, recommendations, and strategic oversight of automated transportation activities in the state. The vision statement for the AT Council is “*To create an AV-ready driving environment in Iowa for the safe movement of people and freight for a thriving Iowa economy.*” The Council – chaired by the Iowa DOT – consists of four subcommittees to provide in-depth resources and insights on topics related to the implementation of automated transportation and technologies. Membership consists of leaders from a variety of organizations across the state, bringing different backgrounds and expertise to discussions. In March of 2020, the AT Council published *Iowa’s Automated Transportation Vision* which serves as an automated transportation development roadmap for the AT Council and the Iowa DOT as they work to safely advance automated transportation in Iowa.

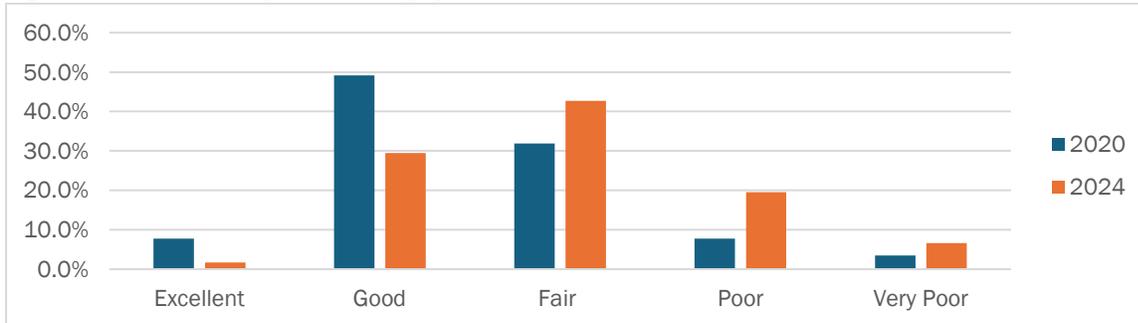
www.iowadrivingav.org



2024 Public Input Survey

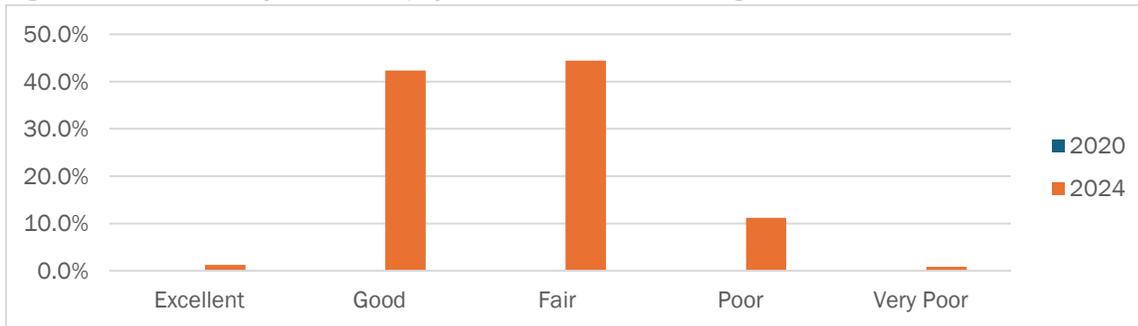
In September 2024, RTA staff conducted two online surveys designed to gather feedback from residents across the six-county region. The subsequent details provided here highlight survey responses that hold significance within the context of this chapter.

Figure 3.3: How would you rate the physical condition of our roads?



Answered: 241 Skipped: 0

Figure 3.4: How would you rate the physical condition of our bridges?



Answered: 241 Skipped: 0

Which road(s) would you improve, and what specific improvements would you make?

The responses to the question reflect a widespread concern about road conditions, particularly in rural areas and small towns. Key themes from the responses include:

- A. **Resurfacing and Paving:** Many respondents suggested resurfacing or paving roads such as Hwy 18, Hwy 63, and Hwy 218, as well as various county roads and side streets in New Hampton, where road conditions are described as poor, with potholes and deteriorating surfaces.
- B. **Widening Roads:** Several respondents called for widening key routes, such as making Hwy 63 a four-lane road north of New Hampton to the Minnesota border.
- C. **Addressing Dangerous Intersections:** There were mentions of dangerous intersections, such as the Racine Ave and Water St junction in Quasqueton, calling for reconfigurations or added safety features.
- D. **Improving Side Streets:** Many side streets in New Hampton, like North Chestnut, Logan Ave, and Maple Ave, were highlighted for needing full repairs or repaving.
- E. **Fixing Gravel Roads:** In rural areas, there were calls for blacktopping gravel roads, adding more rock, or grading them better.
- F. **Drainage and Sidewalk Concerns:** Respondents mentioned drainage issues, the need for sidewalks, and poorly maintained storm drains.

What is the number one transportation problem in your life?

Respondents identified several transportation challenges relating to roads and bridges.

- A. **Road Conditions:** Many respondents expressed frustration over deteriorating roads, potholes, and gravel roads, which lead to vehicle damage and unsafe driving conditions. Specific roads in need of repair, such as Barclay Road and New Hampton streets, were frequently mentioned.
- B. **Cost of Fuel and Vehicle Maintenance:** Several respondents cited the rising cost of gas and vehicle maintenance as significant barriers to reliable transportation, particularly in rural areas where personal vehicles are the only option.
- C. **Bridges and Snow Removal:** Poorly maintained bridges and insufficient snow removal in some counties were mentioned as additional challenges, making transportation during the winter more hazardous.

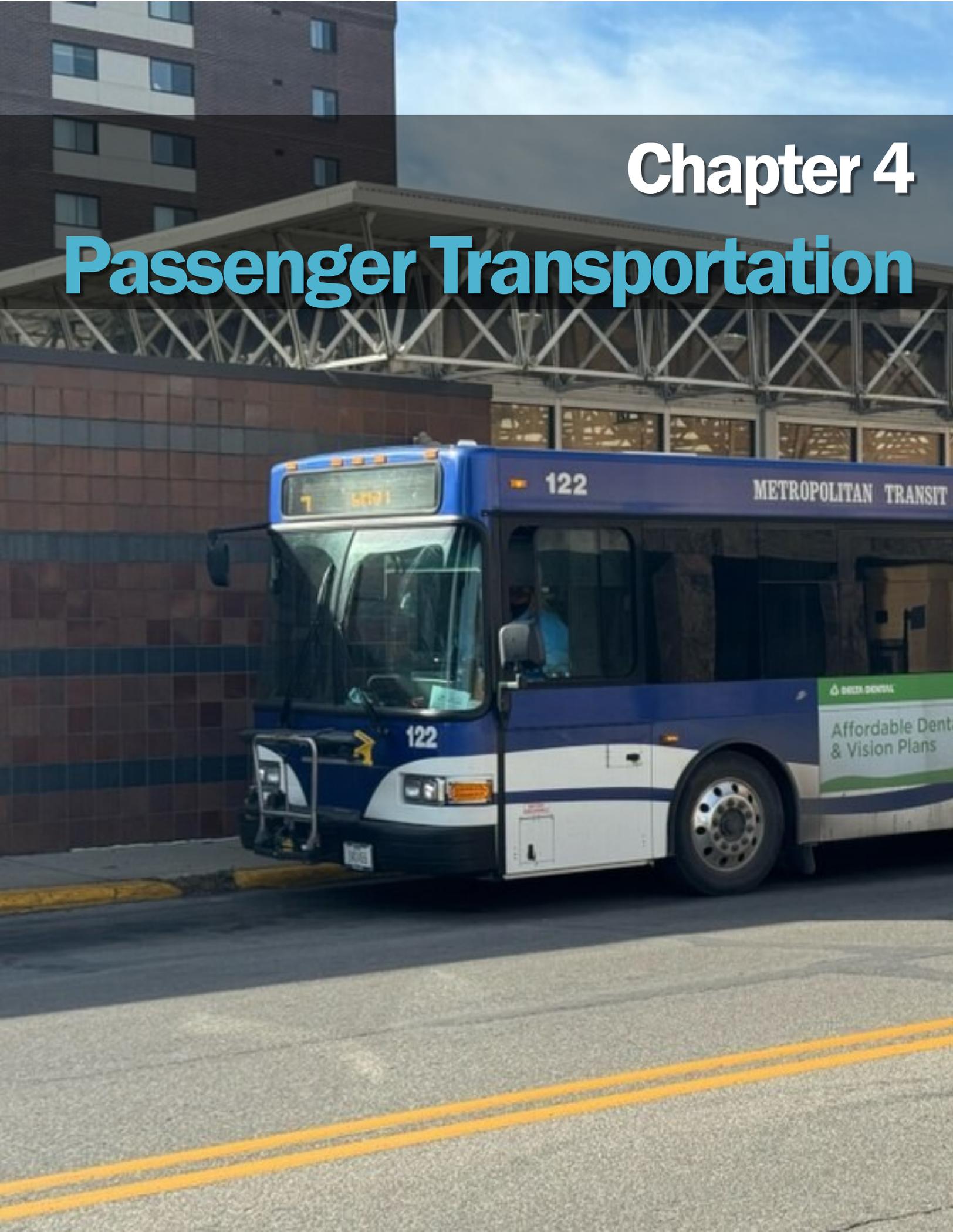
What do you think will be the biggest transportation challenge in the next 25 years?

Common challenges related to roads and bridges are summarized as follows.

- A. **Maintenance of aging infrastructure:** Concerns about deteriorating roads, bridges, and insufficient funding to keep them up to date.
- B. **Rising costs:** Increased expenses for fuel, infrastructure repairs, and electric vehicle transition, coupled with stagnant transportation funding.
- C. **Environmental concerns:** Growing pollution from vehicles and the need for more sustainable transportation options, such as electric vehicles, though infrastructure for them is insufficient.
- D. **Electric vehicle transition:** Concerns over the power grid's ability to support electric vehicles and the need for more charging stations.
- E. **Safety:** Increasing traffic, distracted driving, and unsafe road conditions present ongoing safety challenges.
- F. **Congestion and urban sprawl:** Challenges related to growing traffic congestion and urban sprawl, making it harder to implement efficient transportation systems.

Chapter 4

Passenger Transportation



Chapter 4 – Passenger Transportation



Passenger Transportation Background

Public transit and passenger transportation play a crucial role within the transportation system by presenting individuals with travel alternatives that do not hinge on possessing personal vehicles. Multiple factors influence an individual's decision to utilize public transit or passenger transportation. Some rely on these services due to necessity, such as lacking a driver's license, lacking access to a vehicle, or facing physical disabilities that hinder their ability to drive. Others opt for alternative transportation methods as a deliberate lifestyle choice, driven by affordability, convenience, environmental concerns associated with solo car commuting, or limited driving experience. Moreover, the American Public Transportation Association approximates that an investment of \$1 billion in public transportation initiatives stimulates the creation of around 50,000 jobs and generates \$2.7 billion in economic activity.

Across Iowa, an intricate web of transportation systems spans urban, small urban, and rural areas, facilitating comprehensive coverage throughout the state. In the Iowa Northland Region, public transit service is provided by OnBoard Public Transit, which is operated under the umbrella of INRCOG. The service covers the six-county region outside of the Waterloo/Cedar Falls metropolitan area, where service is provided by the Metropolitan Transit Authority (MET Transit).

Airline travel options to the region are facilitated by the Waterloo Regional Airport (ALO). As of 2025, American Airlines operates two daily flights to and from O'Hare International Airport in Chicago, providing convenient connections to a vast array of domestic and international destinations. This translates to direct and connecting flights to more than thirty prominent cities across the United States.

REGIONAL STATS

23

OnBoard Public Transit Vehicles¹

\$2.00

Fare Per Mile¹

36,781

Onboard Public Transit Ridership 2024¹

2 Daily Flights

Waterloo (ALO) – Chicago (ORD)²

12,885

Air passenger enplanement per year²

58 years

Since passenger rail service was available (Land O' Corn)

Sources :

¹Onboard Public Transit

²FAA, CY 2023 Enplanements at Airports, Waterloo Regional Airport



Passenger rail has gained interest in recent years as a viable alternative to passenger vehicle commutes for several reasons. Reduced congestion, enhanced connectivity, safer alternatives to automotive transportation, environmental sustainability, promotion of tourism and recreation, and economic growth each contribute to a growing sense of amenability for passenger rail service. According to the Federal Railroad Administration (FRA), **trains are 20-30% more energy efficient than cars and emit 70% less carbon dioxide per**

passenger mile than airplanes. The National Highway Traffic Safety Administration (NHTSA) and FRA have consistently reported that passenger rail travel has a significantly lower fatality rate per vehicle mile traveled (VMT) compared to automotive travel. In general, **fatalities in automotive crashes are several times higher than those in rail crashes per VMT.**

State Transit and Passenger Transportation Plans

Iowa Public Transit 2050 Long Range Plan

While the Iowa DOT has conducted specific planning efforts – Iowa Statewide Passenger Transportation Funding Study, Iowa Park and Ride System Plan – this Plan looks at the public transit system from a broader point of view. Adopted by the Iowa DOT in 2020, the Plan seeks to coordinate planning, programming, and technical assistance statewide to support transit operations at the local level. The goal is to provide specific strategies and improvements that can be implemented and revisited over time.

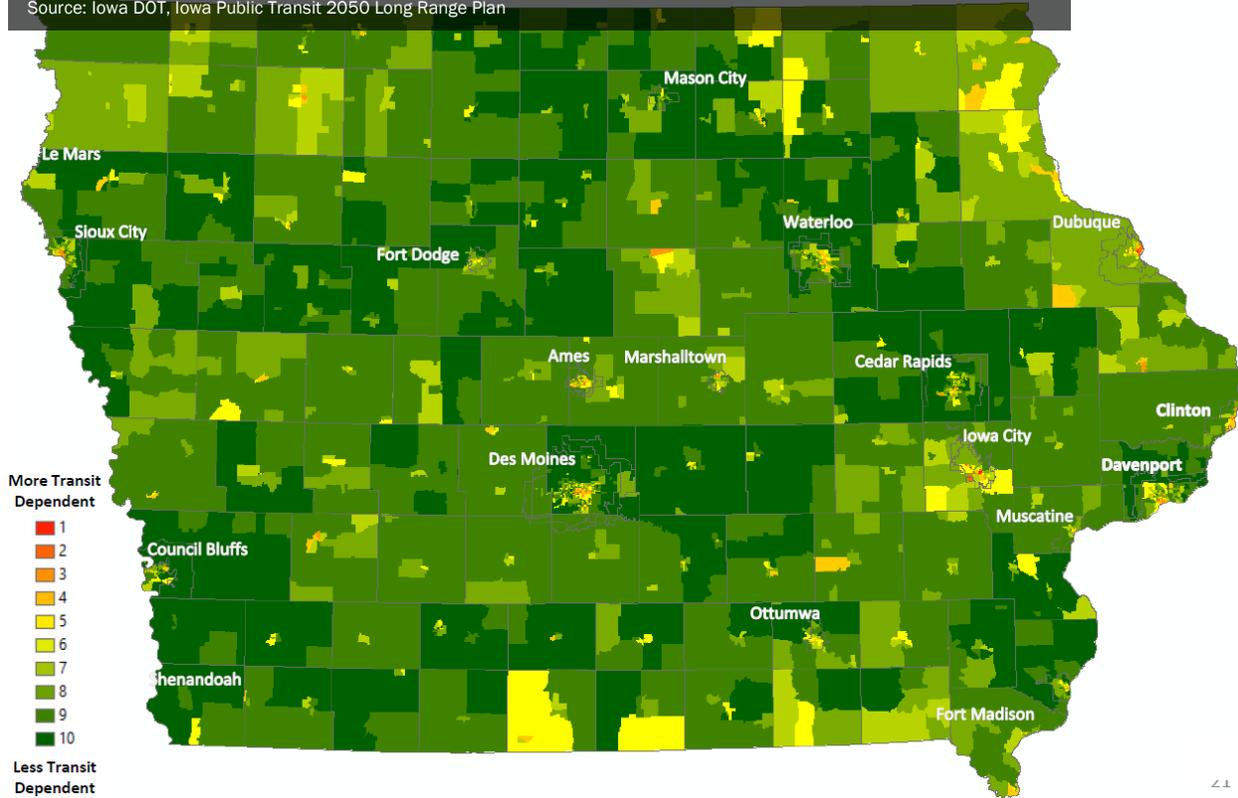
This Plan serves as a guide to assist the Iowa DOT in making informed public transit decisions for the state. The strategies and action items within the plan serve as the starting point for the implementation phases of the planning process. The transit plan will also be updated every five years to stay current with trends, forecasts, and factors that influence decision-making.



Included within the Plan is a Transit Dependency Analysis, aimed at anticipating and projecting the locations of focal points where the demand for, and reliance on, transit is most pronounced in Iowa. The analysis incorporates external factors contributing to transit dependency, encompassing aspects such as gas prices, median household income, households without vehicles, linguistic diversity, racial composition, college enrollment rates, and population density.

After collecting data for the various factors, it was processed using GIS. Each block group was assigned a score from one to ten for each of the seven distinct external factors employed in the analysis. Subsequently, these individual layers were combined to create an overarching composite layer, pinpointing the regions with the highest transit dependency as influenced by these seven factors. To determine the significance of each factor, input from Iowa's transit agencies was used to assign appropriate weights.

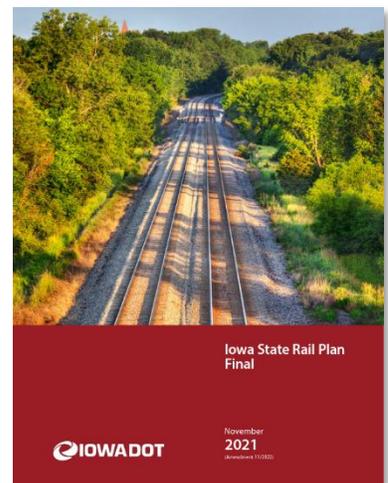
Composite transit dependency weighted by all transit agency results
 Source: Iowa DOT, Iowa Public Transit 2050 Long Range Plan



www.iowadot.gov/iowainmotion/Modal-Plans/Public-Transit-Plan

Iowa State Rail Plan 2021

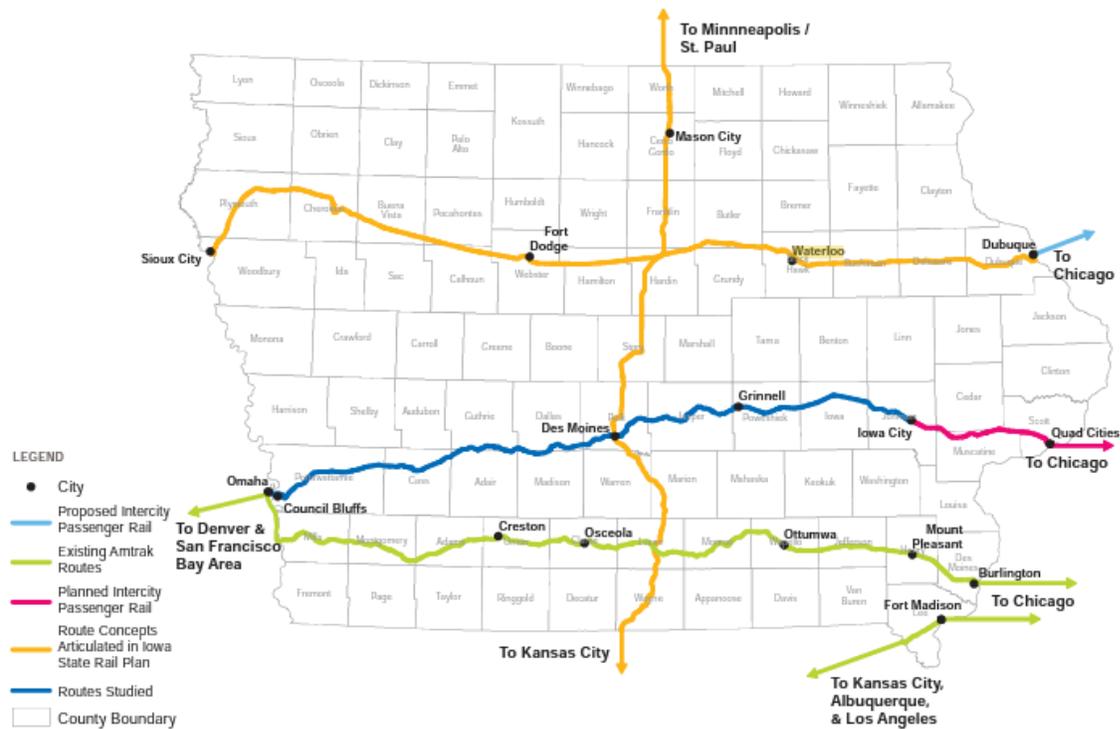
This document is intended to guide the Iowa DOT in its activities of promoting access to rail transportation, helping to improve the freight railroad transportation system, expanding passenger rail service, and promoting improved safety both on the rail system and where the rail system interacts with people and other transportation modes. The State Rail Plan describes the state’s existing rail network and rail-related economic and socioeconomic impacts. The document provides an overview of existing passenger rail service and outlines proposed passenger rail improvements and investments. Of particular interest is the intercity passenger rail initiative between Chicago and Omaha, which was identified as one of several routes of the Midwest Regional Rail System. The Plan also identifies new potential passenger services reaching all regions of the state, including a conceptual route from Dubuque to Sioux City with station stops in Waterloo and Fort Dodge. This potential route remains to be studied.



<https://iowadot.gov/iowainmotion/modal-plans/rail-transportation-plan>



Midwest Regional Rail System
 Source: Midwest Interstate Passenger Rail Commission



Existing and Potential Future Passenger Rail Routes in Iowa
 Source: Iowa DOT, Iowa State Rail Plan 2021

Transit Asset Management Plan

Transit Asset Management (TAM) Plans are comprehensive and strategic frameworks implemented by transit agencies to efficiently manage their transportation assets. These plans are vital for ensuring the long-term sustainability and optimal performance of transit systems. TAM plans involve the systematic inventory, assessment, and maintenance of various assets, such as buses and support facilities. By establishing data-driven processes and performance targets, TAM plans help transit agencies prioritize investments, allocate resources, and make informed decisions to extend the useful life of assets while minimizing operational disruptions. The goal is to enhance safety, reliability, and the overall quality of public transportation services for the benefit of passengers and the communities they serve.

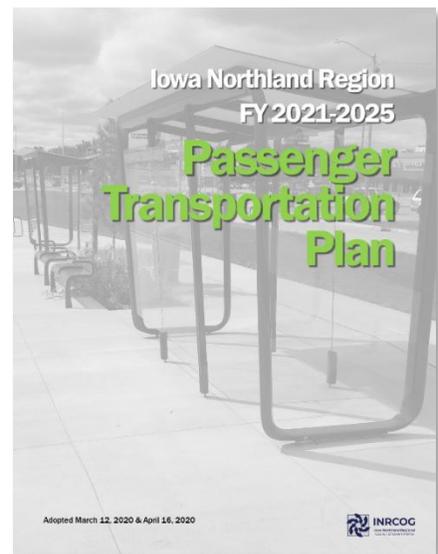
Every transit agency is federally required to develop a TAM plan if it owns, operates, or manages capital assets used to provide public transportation and receives federal financial assistance under 49 USC Chapter 53 as a recipient or subrecipient. The Iowa DOT is the sponsor for the TAM Group Plan for 23 transit systems in Iowa, including OnBoard Public Transit. The most recent Plan was adopted in September 2022.

<https://iowadot.gov/transit/Transit-Asset-Management>

Passenger Transportation Plan

RTA staff coordinate the development of a Passenger Transportation Plan (PTP). The plan coordinates efforts among passenger transportation providers and human service agencies serving the INRCOG six-county region. The plan also recommends projects to improve passenger transportation. The purpose is to enhance transportation access throughout the community, minimize duplication of services, and facilitate the most appropriate, cost-effective transportation possible with available resources.

The PTP is a joint document between the RTA and the Black Hawk County MPO. A full update of the document is completed every five years. The most recent PTP update, currently ongoing, covers the fiscal years 2026-2030. The overall goal identified in this Plan is to **ensure that the public has access to safe, dependable, convenient, and efficient transit systems, placing special emphasis on providing transit service for those who are most dependent upon transit.**



To achieve this goal, PTP includes the following objectives:

1. Promote and improve the image of the public transit system.
2. Build awareness of the existing public transit system.
3. Enhance the efficiency of the public transit system.
4. Improve accessibility and availability of public transit.
5. Coordinate transportation planning services with other community organizations & the workforce.
6. Improve fleet conditions and reliability.
7. Improve service to all user groups.

The PTP includes a series of projects and initiatives recommended throughout the plan's duration in section 4 of the document. Some key projects outlined in PTP are detailed in Table 4.1.

Table 4.1: Key Projects Identified in the FY 2026-2030 PTP

Project or Initiative	Description	Objectives Addressed	Timeline /Status
How to Ride Signage	Provide Signage across strategic and existing locations with a QR code with translations on how to ride MET Transit, fostering accessibility and a user-friendly bus riding experience.	1, 2, 7	Ongoing
Driver Workforce Development	Support recruitment, training, and retention of transit staff. Launch CDL training programs, retention incentives, and cross-training for flexible staffing. Interview other agencies to learn from their experiences.	1, 3	2026-2030
Micromobility Integration Feasibility Study	Fill first/last mile gaps by assessing potential for micromobility partnerships and funding mechanisms. Determine/identify areas where such a service would be most impactful/utilized.	3,4,7	2026-2029
Free Ride “Try Transit Out!” Event	Promote ridership and system awareness through an educational free ride campaign for various populations to promote awareness of the services.	1,2	2026-2030
Continued Performance Monitoring & KPIs	Implement KPIs (e.g., on-time performance, cost/trip, ridership by route) to monitor and improve operations	3	Ongoing
Consider Additional Seasonal Routes to Points of Interest	Determine/identify areas where seasonal destinations may exist. Explore whether an on-demand, shuttle service, or fixed route may be a necessary service.	2, 5	2026-2030
Emergency Operations Planning	Develop a disaster resilience and emergency operations plan for MET and Onboard Public Transit systems.	3, 4	2026-2030
Partner with Local Agencies and Organizations to Create Art and Designs to Place on Buses and Facilities	Hold an annual event to “Design” the next bus wrap for transit systems. Winning design gets an allotment of passes to use as they choose.	1, 2,5	2026-2030

As a result of this collaboration, INRCOG and MET Transit solicited consultant proposals in the spring of 2023 for a Comprehensive Transit Study for the Metropolitan Transit Authority of Black Hawk County to identify opportunities to improve the system. Included in the study is a review of the previous route restructuring (undertaken before the COVID-19 pandemic), characterization of the service area, user and travel analysis, inventory of service productivity, determination of current service adequacy, and a fleet and facilities assessment. The study included several opportunities for gathering public input, a crucial element in achieving the goal of further improving the services to the community and the overall functionality and efficiency of the system. Further details of the study visit

<https://bhcmpo.org/wp-content/uploads/2024/02/january-2024-pm-banner.pdf>

RESTRUCTURED ROUTES – IMPROVE THE SYSTEM

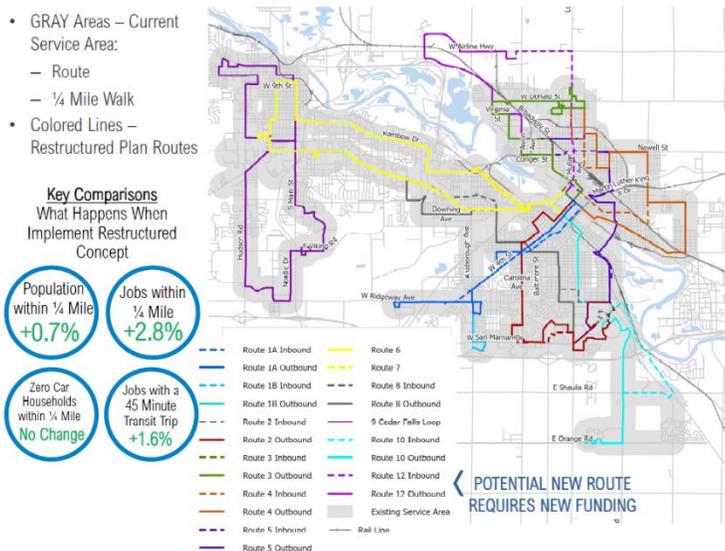


Table 4.2 provides an overview of transit projects incorporated into the Metropolitan Planning Organization (MPO) Transportation Improvement Program (TIP) for FY 2026–2029. While the table identifies multiple vehicles slated for replacement, MET Transit may not replace all listed vehicles at this time, as actual replacements will depend on vehicle condition, funding availability, and service needs. In addition to vehicle replacement, the program includes funding for operations and maintenance, administration and planning, preventative maintenance, and mobility coordinator support costs.

Table 4.2: MET Transit Projects, FY 2026-2029

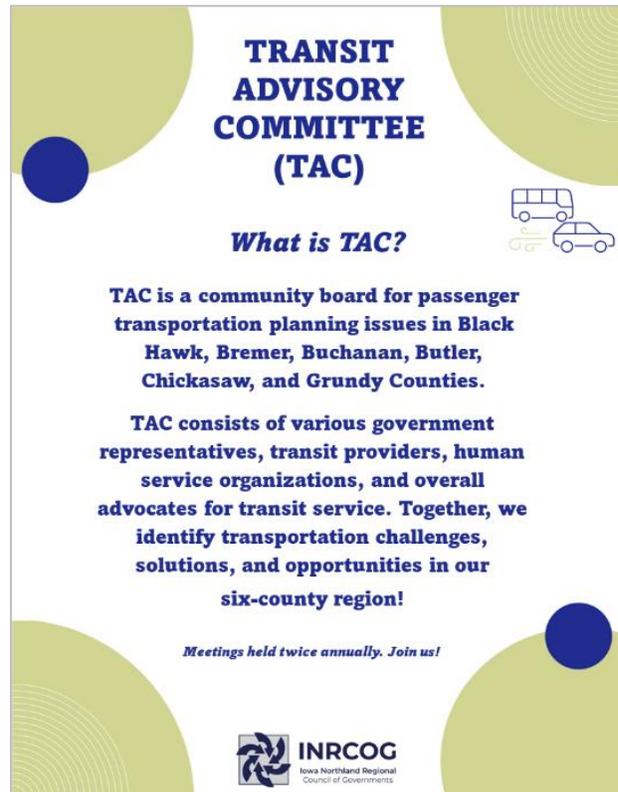
Funding Programs	Years	Funding Total	Description	FA Funding	Local Funding
5339	2029	\$171,338	Light Duty Bus (176" wb)	\$145,638	\$25,700
5339	2027	\$170,525	Light Duty Bus (176" wb)	\$144,925	\$25,600
5339	2027	\$170,525	Light Duty Bus (176" wb)	\$144,925	\$25,600
5339	2027	\$171,337	Light Duty Bus (176" wb)	\$145,637	\$25,700
5339	2027	\$171,338	Light Duty Bus (176" wb)	\$145,638	\$25,700
5339	2027	\$265,612	Medium Duty Bus (to 28 ft.)	\$225,770	\$39,842
5339	2028	\$265,612	Medium Duty Bus (to 28 ft.)	\$225,770	\$39,842
5339	2027	\$265,612	Medium Duty Bus (to 28 ft.)	\$225,770	\$39,842
5339	2027	\$265,612	Medium Duty Bus (to 28 ft.)	\$225,770	\$39,842
5339	2027	\$660,795	Heavy Duty Bus (30-34 ft.)	\$561,676	\$99,119
5339	2027	\$660,795	Heavy Duty Bus (30-34 ft.)	\$561,676	\$99,119
5339	2027	\$671,453	Heavy Duty Bus (35-39 ft.)	\$570,735	\$100,718
5339	2027	\$671,453	Heavy Duty Bus (35-39 ft.)	\$570,735	\$100,718
5339	2027	\$179,574	Light Duty Bus (176" wb)	\$152,638	\$26,936
5307	2026-2029	\$18,800,000	General Operations/Maintenance/Administration/Planning	\$9,400,000	\$9,400,000
5339	2026	\$170,525	Light Duty Bus (176" wb)	\$144,925	\$25,600
5339	2026	\$170,525	Light Duty Bus (176" wb)	\$144,925	\$25,600
5339	2026	\$170,525	Light Duty Bus (176" wb)	\$144,925	\$25,600
5339	2026	\$648,600	Heavy Duty Bus (30-34 ft.)	\$551,310	\$97,290
5339	2026	\$648,600	Heavy Duty Bus (30-34 ft.)	\$551,310	\$97,290
5339	2029	\$170,525	Light Duty Bus (176" wb)	\$144,925	\$25,600
5303	2026-2029	\$384,000	Planning	\$384,000	
5310	2026-2029	\$542,887	Preventative Maintenance and Mobility Coordinator Support	\$434,309	\$108,578
STA	2026-2029	\$1,499,000	State Transit Operating		
5339	2028	\$660,795	Heavy Duty Bus (30-34 ft.)	\$561,676	\$99,119
5339	2027	\$660,795	Heavy Duty Bus (35-39 ft.)	\$561,676	\$99,119
5339	2029	\$171,338	Light Duty Bus (176" wb)	\$145,638	\$25,700
5339	2029	\$171,338	Light Duty Bus (176" wb)	\$145,638	\$25,700
5339	2029	\$171,338	Light Duty Bus (176" wb)	\$145,638	\$25,700
5339	2028	\$171,338	Light Duty Bus (176" wb)	\$145,638	\$25,700

Transit Advisory Committee

The transit planning process and development of PTP are coordinated through the Transit Advisory Committee (TAC). The TAC consists of human service organizations, representatives of local government, transit users, and transportation providers. These entities work cooperatively to identify current transit and passenger transportation needs, challenges, opportunities, and coordination possibilities in the region.

Some opportunities identified by the TAC over the past several years include the following:

- Providing a service to the growing population of older adults.
- Vanpools
- Educating new populations on bus service, particularly those with limited English proficiency
- Marketing and education on existing services
- Joint mobility coordinator and marketing position for OnBoard Public Transit and MET Transit



Transit Service

OnBoard Public Transit offers open-to-the-public, accessible transit services to the public, seniors, individuals with disabilities, and low-income individuals as a primary means of transportation in the region's rural areas. OnBoard Public Transit is also responsible for coordinating transportation in the region. OnBoard operates Monday through Friday from 6:30 AM to 6:00 PM. As a common rule, the service provided is from curb to curb; door-to-door service may be provided upon request. OnBoard offers a response service for the six-county region outside of the Waterloo/Cedar Falls metropolitan area served by MET Transit.

OnBoard Public Transit operates 13 light/medium-duty gasoline buses, 2 minivans, and 8 transit vans. The agency does not operate diesel buses because of their limited availability, the challenges in servicing them, and the difficulty in refueling in certain rural areas. Table 4.3 details the current vehicle fleet.



Table 4.3: OnBoard Public Transit Vehicle Inventory as of September 2024

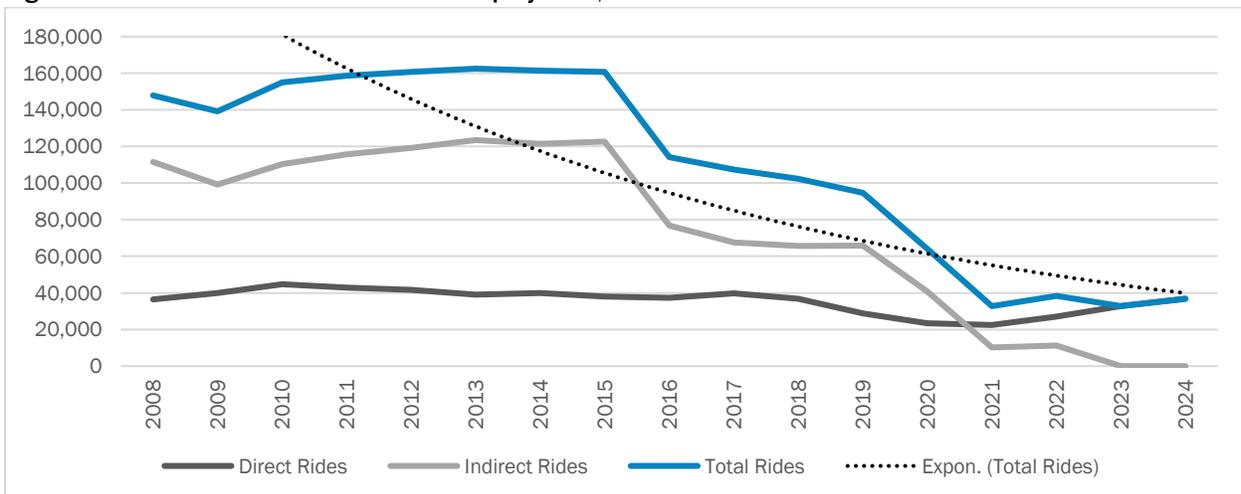
Bus ID	Description	Seats	Lock Downs	Year Acquired	Purchase Price	Condition	Mileage	Over ULB
V061	2006 Ford E-350 CV	9	2	2020	\$15,700	Fair	84,610	
1001	2011 Ford Eldorado	18	4	2012	\$56,757	Poor	205,989	Y
1201	2012 Ford Eldorado	18	4	2012	\$56,757	Poor	180,550	Y
1402	2015 Ford Eldorado	18	4	2015	\$74,385	Fair	198,325	Y
1401	2015 Ford Eldorado	18	4	2015	\$74,385	Fair	198,304	Y
1702	2017 Dodge Minivan	6	2	2017	\$42,800	Good	69,050	Y
1701	2017 Dodge Minivan	6	2	2017	\$42,800	Good	70,855	Y
1601	2017 Ford Glaval	18	4	2017	\$83,713	Fair	146,215	Y
1801	2018 Ford Aerotech	18	4	2018	\$76,251	Good	130,931	Y
1802	2018 Ford Aerotech	18	4	2018	\$76,251	Good	127,041	Y
1901	2019 Ford Aerotech	18	4	2019	\$75,787	Excellent	76,557	
V206	2020 Ford Transit	8	3	2021	\$72,601	Excellent	53,592	
V205	2020 Ford Transit	8	3	2021	\$72,601	Excellent	72,964	
V203	2020 Ford Transit	8	3	2021	\$70,591	Excellent	56,102	
V204	2020 Ford Transit	8	3	2021	\$70,591	Excellent	68,122	
V201	2020 Ford Transit	8	3	2020	\$70,456	Excellent	55,446	
V202	2020 Ford Transit	8	3	2020	\$70,456	Excellent	64,671	
2101	2021 Ford Glaval	18	5	2021	\$94,142	Excellent	60,640	
2102	2021 Ford Glaval	18	5	2021	\$94,142	Excellent	44,307	
2105	2021 Ford Glaval	18	5	2021	\$94,142	Excellent	54,524	
2103	2021 Ford Glaval	18	5	2021	\$94,142	Excellent	47,913	
2104	2021 Ford Glaval	18	5	2021	\$94,142	Excellent	47,946	
V231	2023 Ford Transit	6	3	2024	\$99,691	Excellent	221	

ULB = Useful Life Benchmark

Transit Ridership

Figure 4.1 illustrates the total number of rides provided by OnBoard Public Transit from state fiscal years 2010 to 2024. Ridership peaked in 2013 and has steadily declined since. Like other transit services nationwide, OnBoard saw a drop in ridership following the COVID-19 pandemic. However, direct services have statistically rebounded to pre-pandemic levels. In contrast, the agency no longer has contracts subsidizing indirect rides and revenue miles.

Figure 4.1: OnBoard Public Transit Ridership by Year, SFY 2010-2024



Transit Ridership Forecasts

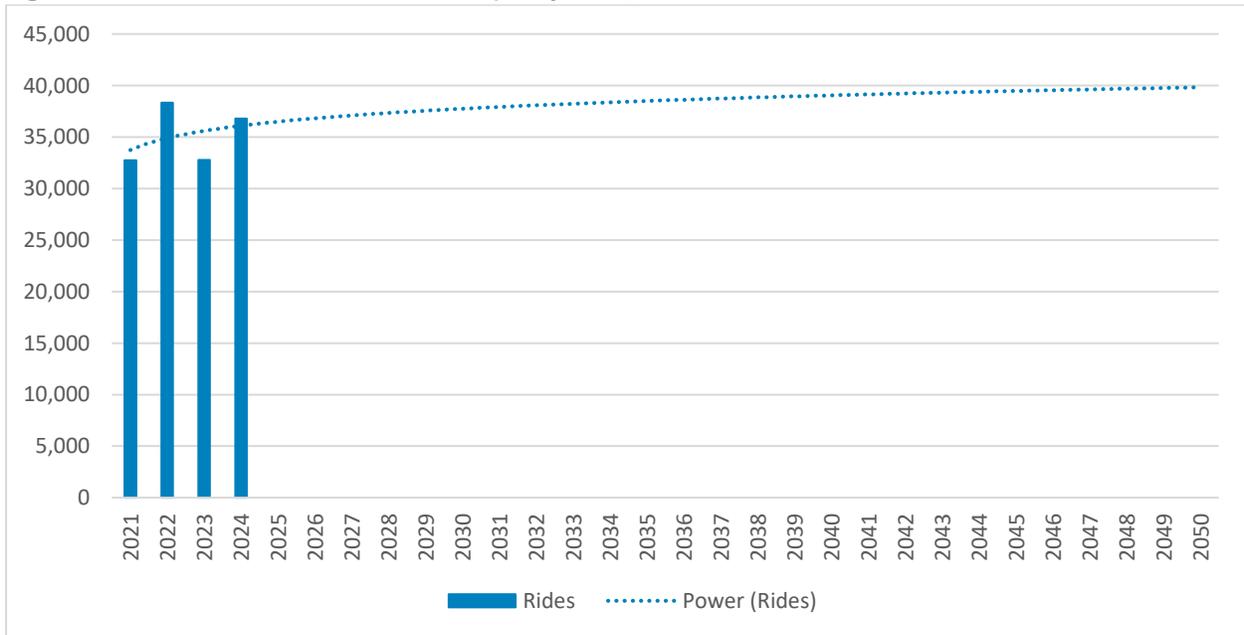
Predicting future rural transit ridership is a challenging task due to the numerous uncertainties and variables that can influence demand. Factors such as population shifts, economic conditions, and changes in employment patterns all play a significant role in determining ridership levels. Additionally, the availability and accessibility of alternative transportation options, shifts in public policy, and the impact of emerging technologies, such as ride-sharing services and autonomous vehicles, further complicate predictions. External factors like fuel prices, environmental concerns, and potential changes in funding or subsidies for public transit can also have significant effects. These complexities make it difficult to accurately forecast ridership trends in rural areas, requiring ongoing analysis and adaptability in planning.

Using a power trendline for predicting transit ridership offers a range of valuable advantages in forecasting accuracy and insight. Unlike linear models, power trendlines can effectively capture non-linear trends inherent in transit ridership data, accommodating growth or decay patterns. Moreover, power trendlines can adeptly identify periods of rapid growth followed by saturation, mirroring real-world scenarios in transit systems.

Figure 4.2 provides a power trendline projection on annual ridership data from the state fiscal years 2021 to 2024. The most recent years have been utilized for forecasting rides due to their relevance in reflecting current trends and conditions. This period captures the post-pandemic recovery phase, offering insights into the new ridership patterns and the effectiveness of service adjustments made during and after the pandemic. This approach ensures that the forecast is more aligned with the present realities and future scenarios.

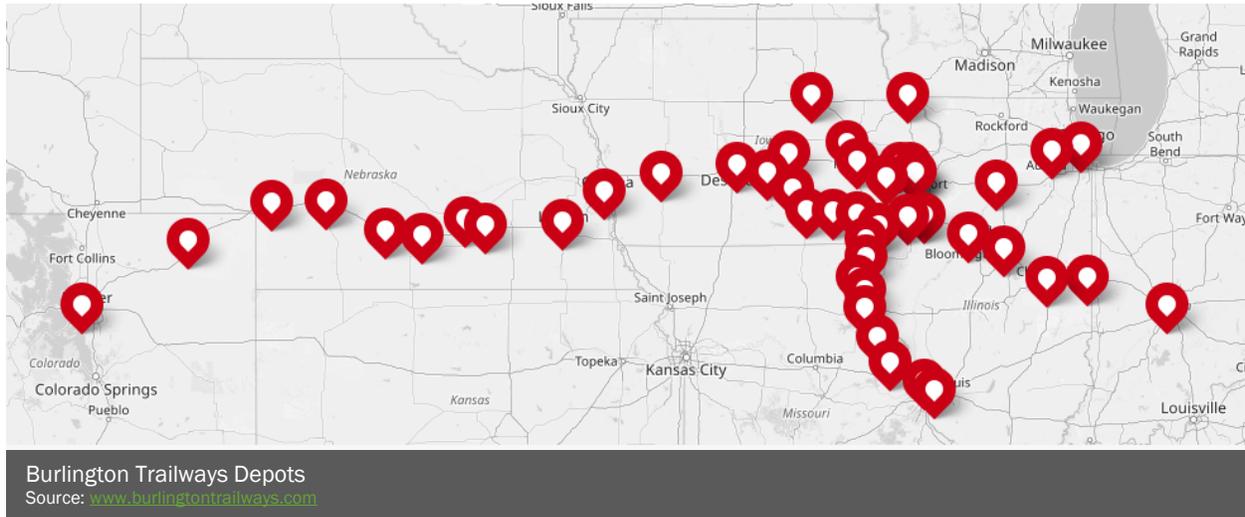
Relying solely on a power or linear trendline can be limiting, as transit ridership is influenced by various dynamic factors. More sophisticated forecasting methods, such as autoregressive integrated moving average models, can capture seasonality and cyclic patterns in ridership data. Additionally, conducting frequent surveys and engaging in the community to understand their changing needs and preferences can provide valuable insights for predicting future ridership.

Figure 4.2: OnBoard Public Transit Ridership Projection, Power Trendline



Intercity Transit

Burlington Trailways provides intercity bus service throughout Iowa and the Midwest with routes extending as far as Indianapolis, St. Louis, and Denver. Burlington Trailways offers intercity bus service throughout Iowa and the Midwest, with routes extending to Indianapolis, St. Louis, and Denver. Burlington Trailways operates one private intercity bus route with a stop at Central Transfer in Waterloo. The Schedule 1492 bus departs Waterloo daily at 1:30 p.m. to Cedar Rapids, Iowa City, Davenport, and Chicago.



Passenger Rail

The Iowa Northland Region possesses a rich heritage of passenger rail connectivity. Over numerous decades, the region proudly hosted one of the most expansive interurban rail networks within the state. During the early 1900s, a train journey spanning from Sumner to Waverly, traversing Black Hawk County, and extending onward to Cedar Rapids and Iowa City was entirely feasible. Additionally, passenger rail travel was possible from Waterloo to Chicago, facilitated by the esteemed Land O' Corn service.

Apart from the interurban lines, the city of Waterloo boasted an expansive array of streetcar lines. Among these were electric interurban lines that linked Waterloo with Cedar Falls, Waverly, and Cedar Rapids. Within the boundaries of Waterloo itself, a multitude of streetcar routes existed, namely Sans Souci, Litchfield, Galloway, Cottage, Highland, Linden, West Ninth Line, and Prospect. One remarkable



advantage of Waterloo's streetcar system was its "Loop," which provided direct access to more than 20 industrial sites. However, by the year 1940, the streetcar service within Waterloo underwent a complete phase-out, being replaced by buses. During the 1950s, the interurban lines also succumbed to closure.

Since 1967, passenger rail services have been absent from the region, following the discontinuation of the Land O' Corn by Illinois Central. This passenger railway, which initially commenced operations in 1941, owed its existence to John W. Rath, a significant figure in both the Rath Packing Company and the Illinois Central's board of directors. Originally, the Land O' Corn completed its Waterloo-Chicago journey in 5.5 hours. By the mid-1960s, the travel time had extended to 6.5 hours. The train departed from Waterloo in the morning and returned in the evening, serving as a vital transportation link to the greater Chicago area. The Hawkeye served as a counterpart to the west, providing services from Waterloo to Sioux City.

Presently, Iowa's passenger rail services are provided by Amtrak through two prominent routes: the California Zephyr journey from Chicago to Oakland, and the Chief Southwestern route from Chicago to Los Angeles. Throughout their respective journeys, these trains make several stops at various cities along the Way. Both services primarily cater to southern Iowa, with stops at Fort Madison, Burlington, Mount Pleasant, Ottumwa, Osceola, Creston, and Omaha.

The revival of passenger rail in Iowa and the reconnection of the region to Chicago through passenger rail are of utmost significance for multiple reasons. Firstly, the revitalization of passenger rail would enrich transportation choices. Rail travel offers an effective and eco-friendly alternative to driving or flying, enabling passengers to reach their destinations quickly and comfortably while reducing congestion and lowering carbon emissions. Furthermore, passenger rail has demonstrated its potential to drive economic development in other states that have embraced this mode of transportation. It invigorates local economies by generating job opportunities, attracting businesses, and fostering tourism. Moreover, investing in passenger rail demonstrates dedication to sustainability and environmental responsibility. Rail travel proves significantly more energy efficient than automobiles or airplanes, resulting in lower greenhouse gas emissions per passenger mile.

WATERLOO, CEDAR FALLS & NORTHERN RY. 1159

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 J. B. KNOWLES, Secretary, Treasurer and Auditor, * S. J. FAIRBANKS, Engineer of Construction and
 R. W. HANSEN, Traffic Manager, * Maintenance, *
 T. D. FERGUSON, General Agent, * W. G. LAMB, Master Mechanic, *

WATERLOO, LA PORTE CITY, VINTON, CEDAR RAPIDS.				WATERLOO AND WAVERLY.			
February, 1940.	Bus	Rail	Bus	Bus	Bus	Bus	March, 1939.
	No. 4	No. 18	No. 22	No. 37	No. 35	No. 36	No. 38
Madison, Ia. lvs.	7:48	8:00 A M	10:30 A M	11:25 P M	4:15 P M	7:00 P M	10:00 P M
Waterloo	7:48	8:00 A M	10:30 A M	11:25 P M	4:15 P M	7:00 P M	10:00 P M
Washburn	7:48	8:00 A M	10:30 A M	11:25 P M	4:15 P M	7:00 P M	10:00 P M
La Porte City	15:49	16:46	8:15 A M	10:45 A M	1:40 P M	4:31 P M	7:15 P M
Vinton	18:49	19:46	8:45 A M	11:15 A M	4:00 P M	6:51 P M	9:45 P M
Cedar Rapids, arr.	68:57	69:54	9:45 A M	12:15 P M	3:10 P M	6:05 P M	8:45 P M

STATIONS.

STATIONS.	Bus	Rail	Bus	Bus	Bus	Bus
	No. 1	No. 15	No. 19	No. 19	No. 19	No. 19
Cedar Rapids, lvs.	0	7:25 A M	10:00 A M	1:25 P M	4:15 P M	6:40 P M
Shaver	30	7:55 A M	10:30 A M	1:55 P M	4:45 P M	7:15 P M
Robins	60	8:25 A M	11:00 A M	2:25 P M	5:15 P M	7:45 P M
Center Point	90	8:55 A M	11:30 A M	2:55 P M	5:45 P M	8:15 P M
Urbana	120	9:25 A M	12:00 P M	3:25 P M	6:15 P M	8:45 P M
Cherry	150	9:55 A M	12:30 P M	3:55 P M	6:45 P M	9:15 P M
Brandon	180	10:25 A M	1:00 P M	4:25 P M	7:15 P M	9:45 P M
La Porte City	210	10:55 A M	1:30 P M	4:55 P M	7:45 P M	10:15 P M
Waterloo	240	11:25 A M	2:00 P M	5:25 P M	8:15 P M	10:45 P M
Madison, arr.	68:57	69:54	9:45 A M	12:15 P M	3:10 P M	6:05 P M

WATERLOO AND CEDAR FALLS.

	March, 1939.
Waterloo, lvs.	7:45 P M
Cedar Falls, lvs.	7:45 P M
Waterloo, arr.	6:35 A M
Cedar Falls, arr.	6:35 A M

Motor coach service every thirty minutes between Waterloo and Cedar Falls both directions.

CONNECTIONS.

At Waterloo, Cedar Falls and Waverly—With Chicago Great Western R.R., Illinois Central R.R. and Chicago, Rock Island & Pacific Ry.
 At La Porte City and Center Point—With Chicago, Rock Island & Pacific Ry.
 At Cedar Rapids—With Chicago, Milwaukee, St. Paul & Pacific R.R., Chicago & North Western Ry., Chicago, Rock Island & Pacific Ry., Illinois Central R.R. and Cedar Rapids and Iowa City Ry.

Total Mileage, 140.

*Daily.
 †Freight service only.
 ‡Standard—Central time.

This company owns and operates the only freight rail railway in the city of Waterloo and vicinity, reaching all the important manufacturing plants and connecting with all trunk lines; has many fine factory sites and offers special advantages to parties desiring to locate.



Illinois Central Land O' Corn departing from Chicago to Waterloo, 1967
 Photo by Paul Ehenbach

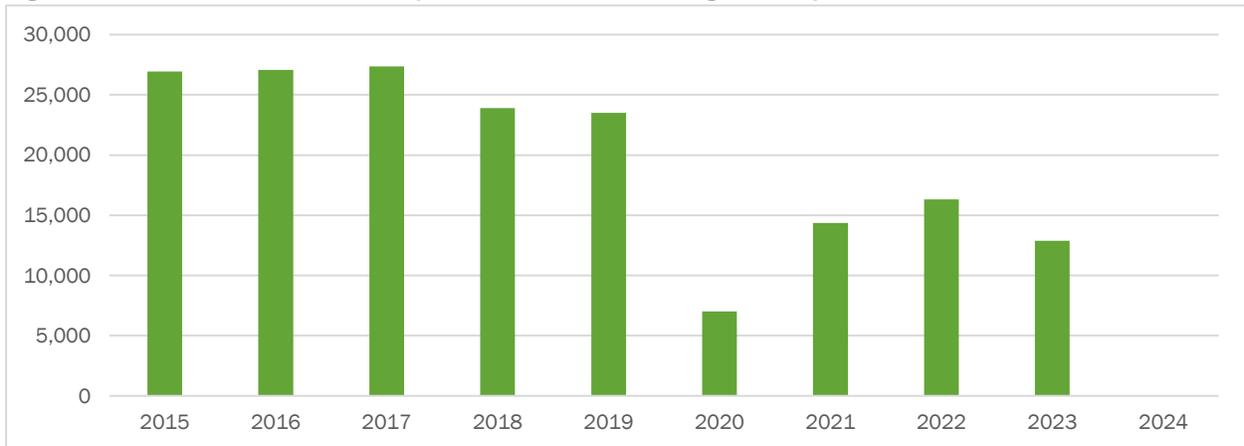
Commercial Air

The Waterloo Regional Airport (ALO) is located on Airport Boulevard immediately off U.S. 218 in the northwest corner of Waterloo. Transit service is not currently available to and from the airport. The facility is owned and operated by the City of Waterloo and overseen by a seven-member Airport Board appointed by the Mayor of Waterloo. The airport is classified as a non-hub primary commercial service airport, offering general aviation and commercial service.



ALO is served by American Airlines with two daily flights to and from Chicago. In 2024, American Airlines signed a two-year contract extension to continue providing twice-daily flights through the federal Essential Air Service program. American Airlines, which has been the sole carrier for the Waterloo Regional Airport since 2012, provides flights on 50-seat regional jets operated through the regional brand American Eagle. Before the COVID-19 pandemic, Waterloo Regional Airport was averaging 24,000 annual enplanements. Although air travel showed recovery from 2020 to 2022, enplanements have not yet reached pre-pandemic levels (Figure 4.3). Between 2020 and 2023, annual enplanements averaged around 12,600, reflecting a 50 percent decline compared to the average of the previous four years.

Figure 4.3: Calendar Year Annual Enplanements, Waterloo Regional Airport



Source: Federal Aviation Administration, Passenger Boarding for U.S. Airports



Current and Ongoing Projects & Initiatives

Technology

All vehicles in OnBoard Public Transit's fleet are equipped with video surveillance systems. Buses are fitted with multiple cameras, covering key areas such as the driver, the lift and entrance doors, the bus interior from the rear, and the road. These cameras have enhanced safety and security for both drivers and passengers. Additionally, the agency utilizes video recordings for incident investigations, risk management, and training for drivers and management.

In 2024, OnBoard Public Transit invested in TripMaster by CTS Software, an advanced dispatching and scheduling software, and equipped its fleet with tablets featuring cellular communication capabilities. This upgrade aimed to improve the efficiency of scheduling and dispatch operations, streamline real-time communication between drivers and dispatchers, and enhance overall logistical coordination.

The new system allows for more accurate route planning, quicker response times to schedule changes, and better management of passenger information, ultimately leading to improved service reliability and customer satisfaction.

This technology also enables real-time tracking of vehicles, providing the agency with valuable data for performance analysis and continuous service improvement.



Midwest Interstate Passenger Rail Commission

The Iowa Northland Regional Transportation Authority supports efforts to plan for and establish a more robust network of infrastructure conducive to passenger rail transportation across Iowa. Growing support across the Midwest has shown promise, and the consensus is that the State of Iowa should have equal representation at the planning table.

It is for this reason that in 2023, the RTA and the Black Hawk County MPO drafted Letters of Support encouraging congressional leaders to reestablish involvement in the Midwest Interstate Passenger Rail Commission (MIPRC). This regional interstate compact focuses on promoting and advocating for passenger rail service in the Midwest region. Established in 2000, MIPRC plays a crucial role in coordinating efforts among member states and fostering regional cooperation to enhance connectivity and mobility through passenger rail services. It is for these reasons that **the RTA is strongly urging Iowa Legislators to support legislation for Iowa's rejoining the MIPRC.** www.miprc.org



Ridesharing and Vanpooling

The emergence of Uber and Lyft services has introduced a transformative shift in the transportation landscape. These innovative platforms have swiftly gained prominence nationally as convenient alternatives to traditional modes of transit. By leveraging smartphone technology and digital interfaces, ridesharing services can offer residents an unprecedented level of flexibility and accessibility in commuting.



Despite their convenience, ridesharing services have certain downsides that warrant consideration.

One notable drawback is limited availability in smaller urban and rural areas. This can result in longer waiting times or even the unavailability of rides when needed. Additionally, the reliance on ridesharing services may contribute to increased traffic congestion and competition for road space, particularly in urban areas.

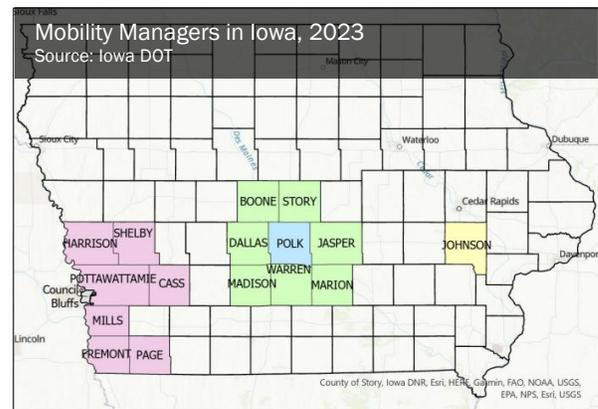


Vanpooling, exemplified by programs like Commute with Enterprise, offers a compelling solution to the challenges of commuting and limited transit availability by fostering a shared and efficient transportation arrangement. Commuters come together in a single van, typically organized and managed by a service provider like Enterprise, to collectively travel to and from work. Vanpooling offers participants cost savings compared to driving alone. Moreover, these programs often provide a valuable alternative for individuals who lack access to traditional public transportation

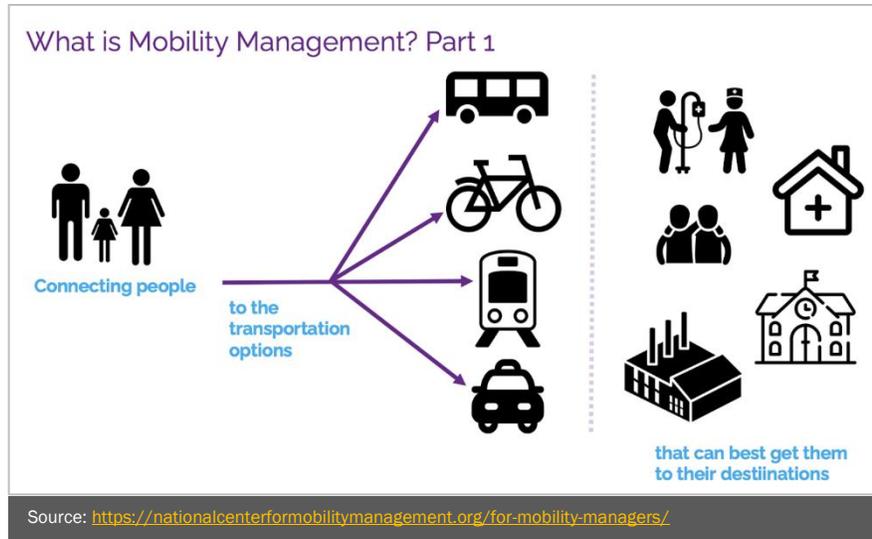
options or face long commutes. Commute with Enterprise currently has operations established in Cedar Rapids, Des Moines, and the SIMPCO region in Sioux City. Both OnBoard Public Transit and MET Transit have demonstrated a keen interest in establishing a vanpool program and continue investigating potential options and the viability of such an initiative.

Mobility Management

Mobility management has been a planning emphasis both nationally and in Iowa for well over a decade. The role of a Mobility Manager (or Mobility Coordinator) offers a multitude of benefits that contribute to the efficient functioning and enhanced utilization of public transportation systems. A mobility manager serves as a pivotal link between various transportation agencies, local governments, and the community, working to develop comprehensive mobility solutions. This role fosters the integration of different modes of transportation, such as public transit, ridesharing, cycling, and walking, to create a seamless and sustainable mobility network. The mobility manager's emphasis on inclusivity ensures that transportation solutions cater to the diverse needs of the community, including individuals with disabilities and underserved populations.



Presently, there is an absence of a designated mobility manager within the entire six-county region. Collaborative discussions have taken place between MET Transit and OnBoard Public Transit regarding the shared recruitment of a mobility manager, a recognized necessity. The Iowa DOT has established a Statewide Mobility Manager who undertakes the crucial role of educating public transit agencies, planning entities, and other statewide organizations about the inherent advantages linked to effective mobility management practices.



Vehicle Replacement

Over the past five years, the condition of OnBoard Public Transit’s fleet has seen notable improvement. As of 2025, only 39 percent of the fleet’s vehicles are beyond the federal Useful Life Benchmark (ULB), representing a 21 percent reduction since 2020. This progress reflects ongoing efforts to modernize the fleet and maintain higher safety and operational standards. However, despite these improvements, the fleet’s long-term outlook remains uncertain due to limited funding for vehicle replacements. **Without sustained financial support, OnBoard may face challenges in continuing to replace aging vehicles at the necessary rate**, potentially resulting in an older fleet in the coming years. This could impact service reliability, maintenance costs, and overall operational efficiency as vehicles age beyond their ULB.

Since 2018, OnBoard has utilized Surface Transportation Block Grant (STBG) funds through the RTA to purchase two replacement vehicles. Additional STBG funds are programmed for FY 2028 to support another vehicle replacement. In 2018, OnBoard acquired two new minivans, funded with local dollars, to replace older buses that had surpassed their federal Useful Life Benchmark (ULB). These minivans have been used primarily for economic services catering to trips with three or fewer passengers. Subsequently, the agency expanded its fleet with eight new transit vans, further diversifying its vehicle options and enhancing operational flexibility. OnBoard remains committed to exploring a range of funding sources to support future vehicle replacements and fleet upgrades.



Vehicle Storage Site

OnBoard has been using Exceptional Persons, Inc.'s facilities in Waterloo for affordable vehicle storage. However, in 2020, EPI discontinued its transportation services due to changes in funding and, consequently, no longer required its vehicle storage facility. This shift left OnBoard with the challenge of finding a new, cost-effective, and suitable storage solution for its vehicles. OnBoard has since reached an agreement with the City of Waterloo to use vacant lots adjacent to MET Transit's office at 1515 Black Hawk Street in Waterloo for vehicle storage.

Driver Recruitment and Retention

Finding and retaining qualified drivers remains a significant challenge for OnBoard Public Transit. Many potential drivers are attracted to private agencies or school districts, which offer higher salaries and more predictable schedules compared to public transit providers. OnBoard has struggled with recruitment and ensuring new drivers pass all required tests and obtain necessary licensing, resulting in difficulties maintaining a fully staffed team. The geographically dispersed service area adds to the challenge, as drivers may need to commute long distances to reach their buses, or buses might need to be parked at drivers' residences. To address staffing gaps, OnBoard introduced utility driver positions intended to cover regular drivers. However, these positions have frequently gone unfilled, exacerbating the strain on the system and limiting its ability to meet current demand. The shortage of drivers also hampers the potential for expanding service within the region.

Onboard Planned Projects

Table 4.4 provides an overview of transit projects that have been incorporated into the RTA Transportation Improvement Program (TIP) for FY 2026-2029. While the table demonstrates multiple vehicles slated for replacement, OnBoard Public Transit may not replace all the vehicles listed at this time. The Iowa DOT uses the Public Transit Management System to prioritize statewide vehicle replacements, which are determined by factors like age and mileage. Buses are selected for replacement based on the statewide ranking and funding available. Iowa has over 1,700 vehicles statewide, all competing for the same limited amount of dollars. As a result, only a few vehicle replacements are anticipated annually, at most. The amount of federal aid shown below for capital expenses is not guaranteed.

Table 4.4: OnBoard Transit Projects, FY 2026-2029

ID	Expense Type	Sponsor	Description	Fiscal Year	Total Cost	Federal Aid	Local Funding
11018	STBG	INRCOG	Capital	2029	\$140,000	\$112,000	\$28,000
11938	5339	INRCOG	Light Duty Bus (176" wb)	2026	\$170,500	\$144,925	\$25,575
11939	5339	INRCOG	Light Duty Bus (176" wb)	2026	\$170,500	\$144,925	\$25,575
1377	5311, STA	INRCOG	General Operations/Maintenance/Administration	2026-2029	\$6,701,044	\$1,401,840	\$3,800,000
3500	5304	INRCOG	RPA Transportation Planning	2026 - 2029	\$170,072	\$135,768	\$34,304

5311 = Nonurbanized Area Formula Assistance Program

5339 = Bus and Bus Facilities Program

STBG = Surface Transportation Block Grant Program

2024 Public Input Survey

As part of the Passenger Transportation Plan (PTP) requirements, public input was gathered through a Passenger Transportation Survey conducted in December 2024 and February 2025. The online survey, created using SurveyMonkey, included 8 questions and allowed for written comments. The survey conducted by INRCOG, the Passenger Transportation Survey 2024, was designed to identify existing transportation challenges and opportunities within Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties. The survey, aimed at engaging local organizations and agencies, was administered to about 21 organizations and agencies to gather critical information on the primary destinations of clients, transportation modes used by clients and employees, and other factors affecting mobility in the region. The insights provided will support the development of INRCOG's Passenger Transportation Plan, aimed at enhancing transportation services and addressing the growing needs of these communities.

Transit Advisory Committee (TAC)

The TAC continues to meet at least twice a year to discuss passenger transportation and human service agency coordination. Between July 1, 2024, and June 30, 2025, several meetings were held at the INRCOG Center with the option to join virtually. During the March 6, 2025, meeting, participants reviewed the findings from the Passenger Transportation Survey, which assessed local transportation needs and challenges. The meeting also included discussions on proposed action steps with identified goals, objectives, priorities, and strategies for the PTP to address the survey results, with a focus on improving passenger transportation services and enhancing mobility in the area. Table 4.3 contains a list of TAC participants who attended meetings over the past year.

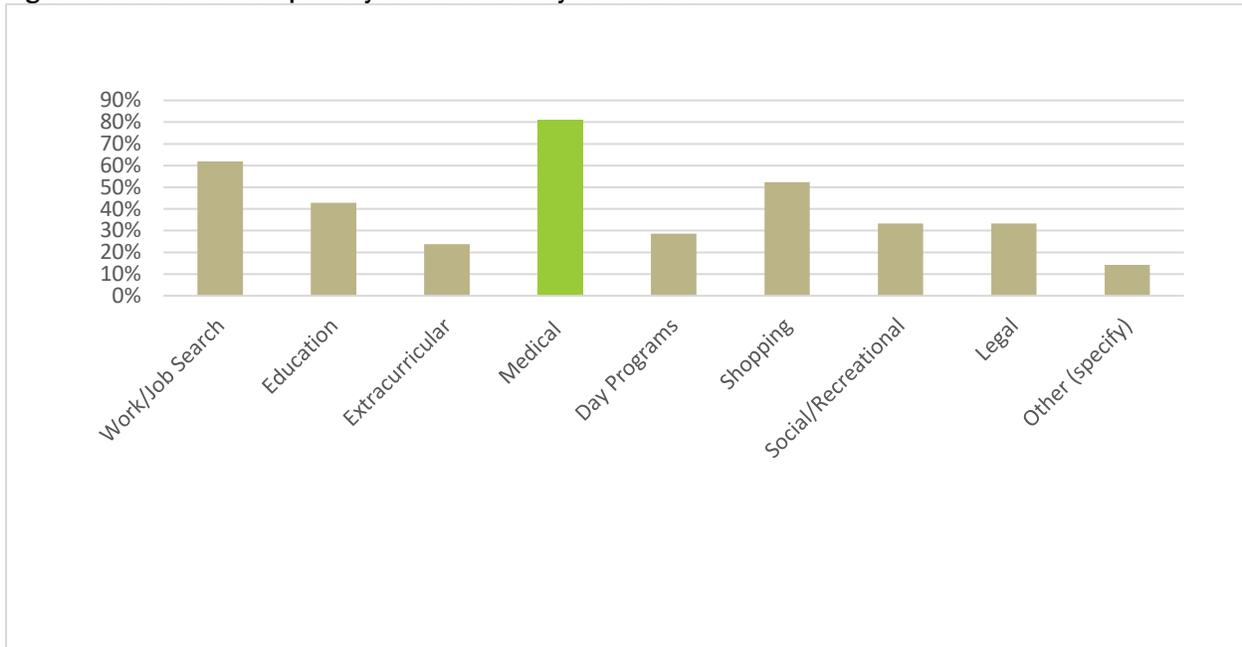
Table 4.5: TAC Participants – July 1, 2024, to June 30, 2025

Name	Organization
Lori Glover	Black Hawk County Emergency Management
Bethany Fratzke	Black Hawk County Health Department
Lisa Sesterhenn	Black Hawk County Health Department
Alecia Allen	Black Hawk County Health Department
Jan Heidemann	Bremer County of the East Central Region (ECR)
Sheila Baird	Cedar Valley United Way
Kyle Clabby-Kane	Iowa Works
Debra Hodges Harmon	Iowa Works
Todd Rickert	Grundy County Social Services
Susan Backes	House of Hope
David Sturch	MET Transit
Phillip Golden	MET Transit
Mindy Benson	BHC EMA
Aaron Reinke	BHC Public Health
Lon Kammeyer	MET Transit Board
Greg Zars	Northeast Iowa Area Agency on Aging (NEI3A)
Megan McKenzie	McElroy Trust
Erin Tink	Waterloo Community Foundation
Cathy Showalter	Otto Schoitz Foundation
Terrance Hollingsworth	Empower Me/Project Health
Shannon Bass	NEIA Food Bank
DeAnne Kobliska	Mayor of Evansdale
Emily Hanson	BHC Gaming Association
Trista Hill	Tri-County HeadStart
Aric Schroeder	City of Waterloo
George Phillips	Cedar Valley Boys & Girls Club
Norman Coley Jr.	Hawkeye Community College
Karen Siler	Iowa Works of the Cedar Valley
Kyle Durant	INRCOG
Oghogho Oriakhi	INRCOG
Nick Fratzke	INRCOG/RTC



While overall participation in the survey was found to be lackluster, participation in the Transit Advisory Committee has shown significant improvement compared to previous years. By happenstance, Black Hawk County Public Health’s development of a County Health Improvement Plan also coincided with the development of the 2026-2030 Passenger Transportation Plan. INRCOG staff have gained valuable insights from Public Health’s efforts to collect data. These collaborative efforts have helped fill in many of the gaps in our survey efforts and have proven to be a productive measure in assisting the direction of the 2026-2030 PTP update.

Figure 4.4: What are the primary destinations of your clients?



Participants were asked about the primary mode of transportation for employees and clients. 31.58% of the respondents used personal vehicles, 26.32% Public transit, 21.05% agency-provided transportation, 11% ridesharing, 5.26% Active transportation (biking and walking), and 5% non-subsidized transportation services. Among the agencies, when asked what county their typical clients live in, over 80% of the respondents answered Black Hawk (the most populous county in the region), 29% Bremer, 24% Grundy, and 14% in Butler and Chickasaw counties. When asked what the main challenges clients face regarding transportation, 85% noted a lack of reliable transportation, and 76% stated gaps in the transportation service area. These results mirror those from the 2013 public input survey conducted for the MPO, as well as the 2012 public input survey conducted to gather input for the RTA’s 2040 Long-Range Transportation Plan.

When conducting the recent survey, participants were asked to identify the primary modes of transportation used by employees and clients. The results highlighted a diverse range of transportation options, with 31% of respondents indicating that personal vehicles were the primary mode of transport. Public transit followed closely behind at 26%, while 21% of respondents relied on agency-provided transportation. Ridesharing services accounted for 11%, and 5% of respondents used active transportation (such as biking and walking), while another 5% utilized non-subsidized transportation services. These responses reflect the transportation habits and preferences of individuals who are served by various agencies within the Iowa Northland Region, which encompasses Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties.

Among the agencies that participated in the survey, a significant number (over 80%) indicated that their typical clients live in Black Hawk County, the most populous county in the region. Bremer County was the next most common location for clients, with 29% of respondents reporting that their clients typically reside there.

Grundy County followed with 24%, while 14% of respondents indicated that their clients were from other counties within the Iowa Northland Region. This geographic distribution is important for understanding where transportation services are most needed and how transportation networks should be adjusted to meet the demand in these areas.

The survey also examined the level of support for increased collaboration among agencies in the region. An overwhelming 75% of respondents strongly advocated enhanced collaboration across agencies. This response underscores a desire for a more coordinated and unified approach to addressing transportation needs, suggesting that greater cooperation could lead to more efficient use of resources, better service delivery, and improved access for clients. These findings align with results from the 2013 public input survey conducted for the MPO, as well as the 2012 public input survey used to gather feedback for the 2040 Long-Range Transportation Plan for the RTA.

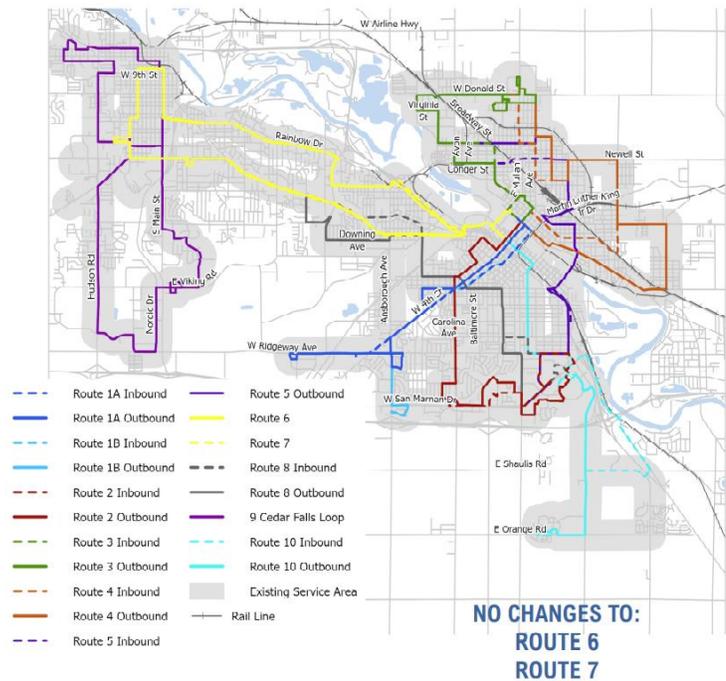
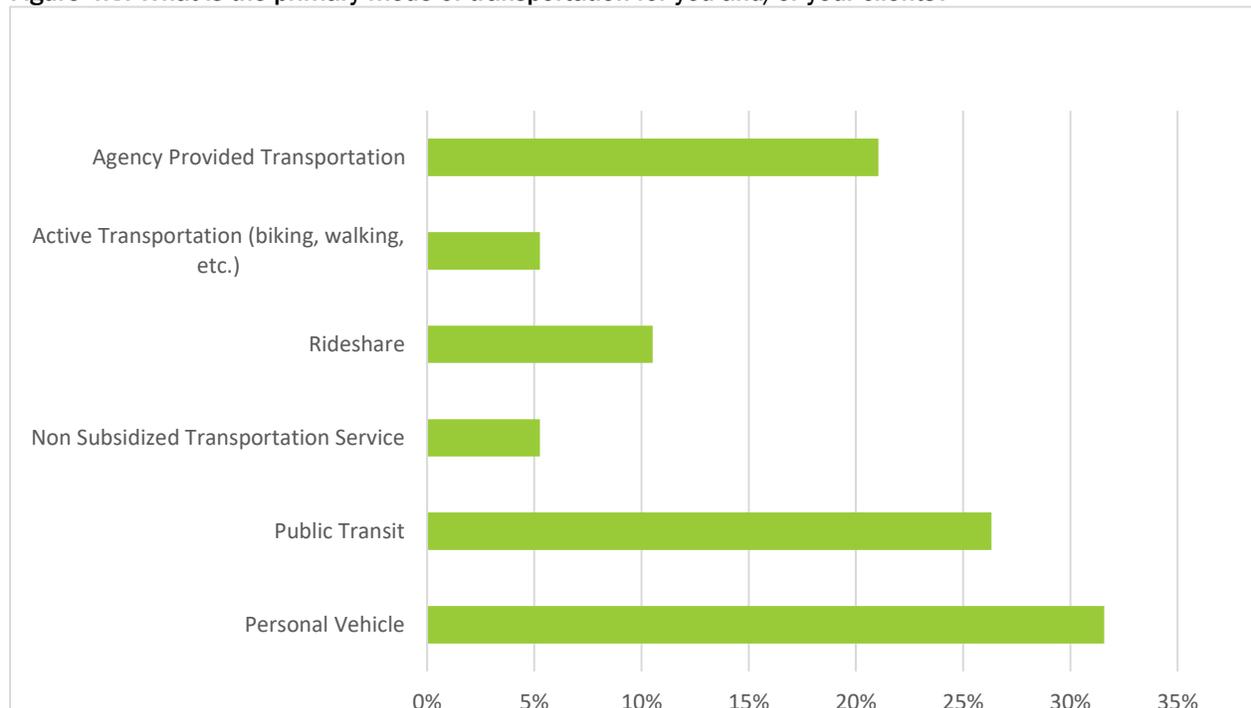


Figure 4.5: What is the primary mode of transportation for you and/or your clients?



Chapter 5

Bicycle and Pedestrian



Chapter 5 – Bicycle & Pedestrian

Bicycling and walking are vital, sustainable, and healthy modes of transportation that support improved quality of life, reduced greenhouse gas emissions, and enhanced community connectivity. The RTA recognizes the importance of investing in infrastructure and programs that support these transportation options and encourage their use as practical choices for daily commutes, recreation, and access to services. This chapter provides an analysis of existing infrastructure, plans for future investment, and strategies to enhance the safety, accessibility, and convenience of bicycling and walking within the region.

State Bicycle and Pedestrian Plan

In 2018, the Iowa DOT adopted the *Iowa Bicycle and Pedestrian Long-Range Plan* as the primary framework for guiding decision-making related to bicycle and pedestrian programs and infrastructure. This plan provides direction for regional, county, and city initiatives, promoting improved coordination and consistency across all levels of bicycle and pedestrian mobility statewide.

The Bicycle and Pedestrian Long-Range Plan has three key objectives:

1. Improve the policies and practices for the ongoing development of the Iowa bicycle and pedestrian system and program. Central to this objective is the development and adoption of a Complete Streets policy.
2. Expand the intercity and intracity bicycle network by providing guidance for the completion of national trail segments and establishing additional U.S. Bicycle Routes.
3. Facilitate implementation of the plan by including a funding toolbox, enhancing design guidelines used by Iowa DOT and local agencies, and making recommendations for program priorities.

The key concept highlighted in the document is the integration of safe bicycling and pedestrian accommodation into all transportation projects. This approach aligns with the Iowa DOT's multimodal mission by ensuring that bicycle and pedestrian needs are considered during the design and planning of new or

improved transportation facilities, unless it can be clearly demonstrated that such accommodations are unnecessary. Historically, these considerations were only addressed when a specific need was identified or driven by external stakeholders. This plan brings Iowa DOT's policies in line with federal



REGIONAL STATS

764

Miles of bikeway infrastructure

106

Miles of paved trail

72

Miles of granular or dirt trail

51

Miles of paved shoulder & bike lane

535

Miles of suggested on-road routes, signed routes, & share the road

73

Miles of planned paved trail & paved shoulder

regulations, which mandate the inclusion of bicycle and pedestrian accommodations in every transportation project involving new or improved infrastructure.

Although bicycle and pedestrian accommodations will be considered in all transportation projects, this does not guarantee their inclusion in every implemented project. There may be situations where accommodation is not practical or advisable for specific reasons. The *Iowa Bicycle and Pedestrian Long-Range Plan* provides guidance for Iowa DOT staff to identify and assess instances where implementing such accommodation would not be appropriate. The primary goal is to maintain a flexible approach that thoughtfully balances the needs of all transportation users.

www.iowadot.gov/iowainmotion/modal-plans/bicycle-pedestrian-plan

The Importance of Bicycle and Pedestrian Infrastructure

Road construction projects in the U.S. have primarily been planned to move automobiles and traffic through a corridor as quickly and efficiently as possible. This type of auto-centric planning typically leaves behind bicyclists and pedestrians as an afterthought, resulting in unfriendly, hazardous, and even deadly crossing points. Common issues include inefficient or aging infrastructure, a lack of ADA compliance, and a lack of protective barriers for vulnerable road users against busy traffic and high-speed limits.



www.smartgrowthamerica.org/dangerous-by-design/

A Nationwide Shift

Transportation and urban planning in the U.S. have undergone a drastic shift towards comprehensive multimodal planning in recent years. Policy approaches and tactics such as Vision Zero and Complete Streets provide a framework that encourages safe, accessible, and convenient access to our nation's roads for all modes of transportation.

This shift has also been highlighted by the 2021 Bipartisan Infrastructure Bill, which includes various funding sources dedicated to projects that implement multimodal inclusion. As Complete Streets initiatives continue to spread nationwide, it is important to recognize that they are not limited to major cities. These approaches can be implemented on any road where several types of road users frequently interact.



Overview of Bicycle and Pedestrian Facilities

To effectively and efficiently meet the needs of all road users, it is essential to understand both the similarities and differences between various transportation groups and how they interact with the roadway. While motorized and non-motorized transportation modes share common goals—improving safety, reducing delays, and maximizing traffic flow—pedestrians and bicyclists have distinct needs and interact with the transportation system differently than motor vehicle drivers. Table 5.1 outlines how non-motorized users engage with each type of transportation facility.

Table 5.1: Bicycle and Pedestrian Facilities

Facility	Bicycles	Pedestrians	Example
Sidewalk (< 8 ft)	No	Yes	1 st St E, Independence
Paved Trail (≥ 8 ft*)	Yes	Yes	Cedar River Pkwy Trail, Waverly
Paved Shoulders	Yes	Not recommended	Fairbank Amish Blvd, Buchanan County
Bike lane	Yes	No	N State St, Denver
Driving lane	Yes	No	Mather St, Clarksville

*The standard width for a paved trail is 10 feet

Which Facilities Work Best?

The decision of which facilities to include in a new construction or reconstruction project is determined by the respective jurisdiction. Sidewalks and paved trails accommodate pedestrian travel, while paved trails, bike lanes, paved shoulders, and driving lanes accommodate bicycle travel. However, not all facility types provide equal service for bicycles. While there are instances in which a paved trail is preferable to bike lanes, such as on roadways with high-speed limits or natural areas not situated alongside a roadway, these do not always meet a bicyclist’s needs.



In more concentrated urban areas, a paved trail does not always serve as a connection point to another location, thus requiring on-road travel. Additionally, constructing a separate, paved trail into a new or existing project is costly and not a feasible alternative for every project. Since bicyclists and pedestrians are also roadway users, it is important to develop efficient connections for them just as we do for roadway users in vehicles. Furthermore, since pedestrians and bicyclists are the most vulnerable transportation group, it is crucial to plan for safety.

Roads with bike lanes provide the additional benefit of separating drivers and cyclists who typically operate at different speeds. This makes cyclists feel safer and can reduce delays for drivers. Cyclists also tend to face fewer delays on bike lanes than on paved trails, as they have priority at most intersections. The *Guide for the Development of Bicycle Facilities* by AASHTO lists fourteen conflicts associated with paved trails or “side paths,” including the following:

- Bicyclists are often not seen by motorists turning left or right.
- Motorists may block crossings at intersections and driveways.
- Stop or yield signs along trails are ineffective.
- Fixed objects can constrain the usable width of a trail.

Sidewalks should not be considered a bicycle facility. While it varies by state and local ordinance, some cities prohibit sidewalk cycling entirely or in key areas, such as in Waterloo’s downtown area. In addition to the conflicts listed above, there are other disadvantages of bicycling on the sidewalk:

- Conflicts with pedestrians are more likely.
- Motorists may not expect bicyclists to appear suddenly at crossings and driveways.
- Uneven sidewalk pavement can make riding less comfortable and increase delays.

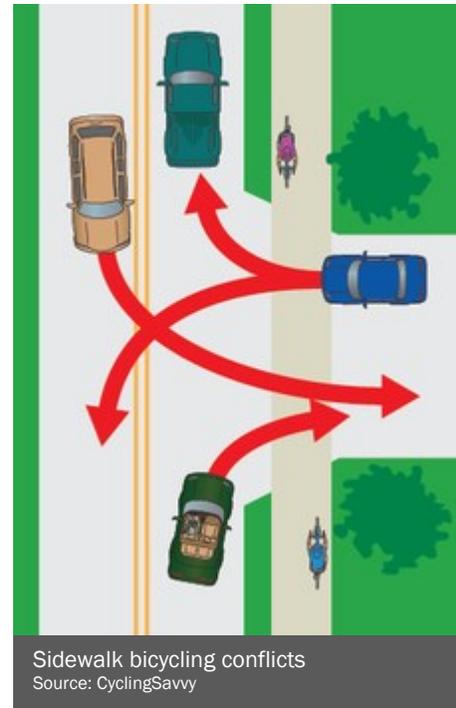
Although bicycling on sidewalks is permitted in many areas, sidewalks are not an effective solution for meeting the needs of bicycle transportation and should not replace dedicated bicycling facilities.

Bicyclists are permitted to ride in most driving lanes in the region just like motor vehicle traffic. The only exceptions are Interstate highways and highways with a posted minimum speed limit (e.g., US 218 from Janesville to Waterloo), where bicycling is prohibited. Although the law allows bicycling on most driving lanes, it can be hazardous for cyclists and often leads to frustration for drivers. When a bicyclist chooses a less direct route due to perceived safety concerns, it should be recognized as a delay.

Many local roads with low traffic volumes are inherently suitable for bicycling without requiring the addition of bike lanes or trails. These roads can be designated as “shared lanes” using signage such as *Share the Road*, *Bikes May Use Full Lane*, *Bike Route*, or shared lane markings (also known as *sharrows*). These signs not only assist bicyclists in identifying safer routes but also increase driver awareness of bicyclists sharing the road.

For pedestrians, the planning and implementation of suitable accommodation is more straightforward. Both sidewalks and trails provide equal accommodation for pedestrian movement; however, sidewalks narrower than five feet are not suitable for pedestrians walking side-by-side. Enhancements for pedestrian safety often involve site-specific solutions that shorten crossing distances, calm traffic, and create safe waiting areas at crossings. Several of these treatments are detailed in the following section.

Land use patterns are as important as transportation improvements in shaping the walking environment. Large block sizes, setbacks, and parking lots can increase walking distances and force pedestrians onto informal routes. Many businesses and civic buildings lack designated walkways, requiring pedestrians to navigate parking lots or grassy areas. Therefore, pedestrian planning should extend beyond just trails and sidewalks to address these factors.



Site-Specific Bicycle and Pedestrian Treatments

A variety of site-specific treatments can be used in addition to each of the five facilities described previously. Currently, these treatments are employed sparingly in the MPO area, and some do not currently exist at all.

Table 5.2 describes some of the most common treatments. This is only an overview and is not intended to serve as an exhaustive list of treatments. All treatments presented on the next pages are eligible for the Transportation Alternatives Program (TAP) and Surface Transportation Block Grant (STBG) funding.

Table 5.2: Site-Specific Bicycle and Pedestrian Treatments

 <p>New York City, nacto.org</p>	<p>Median refuge island Facility type: Sidewalks and Trails</p> <p>Description: A protected space in the middle of a road crossing, typically designed as part of a median, that allows pedestrians and bicyclists to cross one direction of traffic at a time</p> <p>Benefits: Reduces time spent waiting for traffic and reduces exposure in the crosswalk</p>
 <p>Canada, Flickr user drdul</p>	<p>Curb extensions (or bulb-outs) Facility type: Sidewalks</p> <p>Description: Any lateral shift in the curb that narrows the width of the street</p> <p>Benefits: Improves visibility, reduces exposure in the crosswalk, and reduces travel speeds</p>
 <p>Waterloo, INRCOG</p>	<p>Vertical speed control Facility type: All</p> <p>Description: Raised pavement in driving lanes, including speed humps, speed tables, and speed cushions</p> <p>Benefits: Reduces travel speeds</p>



Atlanta, nacto.org

Narrower driving lanes

Facility type: All

Description: Driving lanes no greater than 11 feet wide, and parking lanes no greater than nine feet wide

Benefits: Reduces travel speeds and reduces crossing distance



Marion, INRCOG

Pedestrian alleys

Facility type: N/A

Description: An alley where vehicles are restricted, and installations are added to appeal to pedestrians

Benefits: Eliminates conflicts with vehicles



Des Moines, INRCOG

Buffers and delineators

Facility type: Bike lanes

Description: Additional separation between bike lanes and driving lanes by means of buffer markings and delineator posts

Benefits: Reduces conflicts and improves perceived safety



St Paul, INRCOG

On-road wayfinding signs

Facility type: Bike lanes and driving lanes

Description: Signage that directs bicyclists to local destinations via bike lanes and designated bike routes

Benefits: Improves operations, reduces delay



Tampa, Twitter

Bike boxes

Facility type: Bike lanes and driving lanes

Description: A designated area at signalized intersections for bicyclists to wait at the head of a traffic lane

Benefits: Improves visibility, reduces conflicts, and reduces traffic delays



San Luis Obispo, nacto.org

Signal detection and actuation

Facility type: Bike lanes and driving lanes

Description: A marked location for bicycle to actuate detection at signalized intersections

Benefits: Improves traffic operations and reduces delay



Waterloo, INRCOG

Bicycle signals

Facility type: Bike lanes

Description: A traffic control device for bicyclists to be used along with conventional signals

Benefits: Improves traffic operations and reduces conflicts between bicyclists and other modes



Portland, nacto.org

Bike Boulevards

Facility type: Driving lanes

Description: A street with low traffic volumes designed to prioritize bicycles and restrict through movements by vehicles

Benefits: Reduces conflicts, maintains low travel speeds

National Guidance

U.S. Law

Planning for bicycles and pedestrians is United States law. Section 217 in Title 23 of the U.S. Code addresses bicycle transportation and pedestrian walkways. Subsection (g) relates to planning and design:

(1) In general—

Bicyclists and pedestrians **shall** be considered in the comprehensive transportation plans developed by each metropolitan planning organization and State in accordance with sections 134 and 135, respectively. Bicycle transportation facilities and pedestrian walkways **shall** be considered, where appropriate, in conjunction with all new construction and reconstruction of transportation facilities, except where bicycle and pedestrian use are not permitted.

(2) Safety considerations—

Transportation plans and projects **shall** provide consideration for safety and contiguous routes for bicyclists and pedestrians. Safety considerations **shall** include the installation, where appropriate, and maintenance of audible traffic signals and audible signs at street crossings.

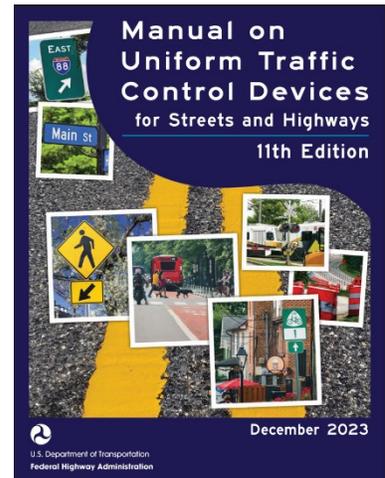


In 2010, the United States Department of Transportation (DOT) issued a *Policy Statement* emphasizing the importance of incorporating safe and convenient walking and bicycling facilities into transportation projects. The statement highlights the responsibility of all transportation agencies to enhance opportunities for walking and bicycling and integrate these modes into their systems. Recognizing the wide-ranging benefits—health, safety, environmental, transportation, and quality of life—DOT encourages agencies to exceed minimum design standards to create accessible, safe, and sustainable walking and bicycling networks. Key recommendations from the DOT Policy Statement include:

- Considering walking and bicycling as equals with other transportation modes
- Ensuring that there are transportation choices for people of all ages and abilities, especially children
- Going beyond minimum design standards
- Integrating bicycle and pedestrian accommodation on new, rehabilitated, and limited-access bridges
- Collecting data on walking and biking trips
- Setting mode share targets for walking and bicycling and tracking them over time
- Removing snow from sidewalks and shared-use paths
- Improving non-motorized facilities during maintenance projects

The Federal Highway Administration (FHWA), a division of the DOT, oversees the *Manual on Uniform Traffic Control Devices (MUTCD)*, which plays a key role in the design of bicycle facilities. The MUTCD establishes the standards for traffic signs, signals, and pavement markings across the United States. The most recent update to the MUTCD occurred in 2023, replacing the previous version adopted in 2009.

The 2023 update to the MUTCD introduces several important changes and clarifications to support safer and more efficient transportation systems, particularly for bicyclists and pedestrians. Some of the most notable updates include:



1. Enhanced Bicycle and Pedestrian Safety Standards

- New guidance and standards for designing safer intersections and crossings for bicyclists and pedestrians.
- Updated requirements for bike lanes, shared-use paths, and advanced stop bar treatments to improve visibility and access.

2. Improved Wayfinding and Signage

- Clearer standards for trail and bicycle route signage to enhance navigation and connectivity.
- Recommendations for consistent and visible wayfinding signs that promote awareness and safety for all users.

3. Incorporation of New Infrastructure Types

- Expanded design guidance for protected bike lanes, cycle tracks, and other infrastructure types that improve safety for bicyclists.
- Adjusted pavement marking standards to better delineate bicycle facilities and their interaction with other traffic.

4. Focus on Multi-Modal Transportation

- Strengthened emphasis on integrating pedestrian and bicycle facilities into multi-modal transportation planning.
- Updated requirements that ensure accessibility and connectivity for all users, regardless of age or ability.

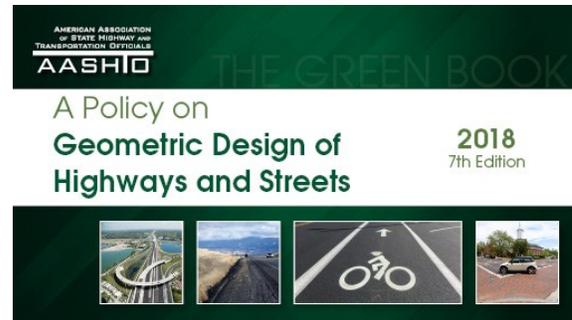
5. Data Collection and Performance Metrics

- New recommendations for agencies to monitor walking and bicycling activity through data collection to track usage trends and infrastructure effectiveness.

These updates align with FHWA's mission to promote safe, efficient, and equitable access for all transportation users, while supporting the evolving needs of communities, environmental goals, and multi-modal transportation networks.

National Standards

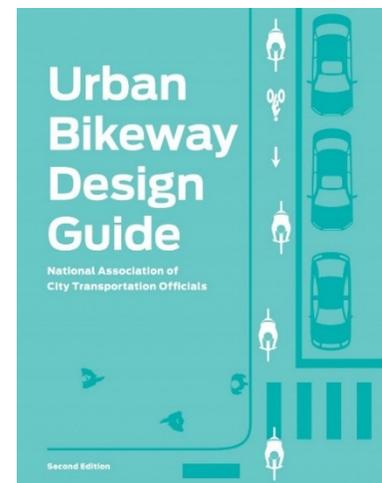
Beyond federal policy, organizations like AASHTO shape bicycle and pedestrian planning. As a standards-setting body for U.S. highways and streets, AASHTO's guidance influences design and construction. Though independent, its standards hold significant weight, with FHWA adopting many through formal rulemaking for the National Highway System.



A key resource from AASHTO is the *Green Book*, officially titled *A Policy on Geometric Design of Highways and Streets*. The latest edition, the 7th Edition, emphasizes greater flexibility, multimodal approaches, and performance-based design principles compared to previous versions. In addition to the *Green Book*, AASHTO publishes the *Guide for the Development of Bicycle Facilities* and the *Guide for the Planning, Design, and Operations of Pedestrian Facilities*, both of which provide detailed guidance for creating safe and efficient active transportation infrastructure.

The National Association of City Transportation Officials (NACTO) is an organization of 96 major North American cities and transit agencies dedicated to exchanging ideas, insights, and practices to address national transportation challenges. Its mission is to build cities that prioritize people by offering safe, sustainable, accessible, and equitable transportation options that enhance economic vitality and quality of life.

NACTO's *Urban Bikeway Design Guide* provides cities with best practices for protected bike lanes, intersection treatments, bicycle signals, and traffic calming, promoting cycling as a viable transportation mode. Many recommendations have been integrated into FHWA's bikeway design guidance, reinforcing NACTO's national influence.

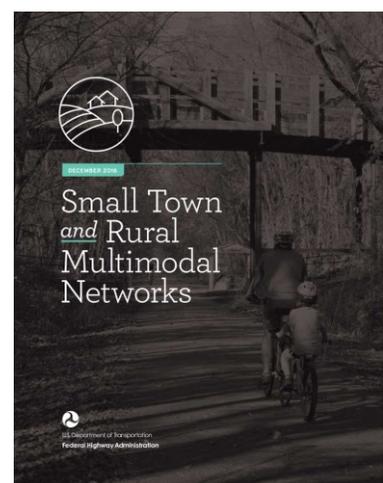


Similarly, the *Urban Street Design Guide* emphasizes safe, multimodal streets through context-sensitive design, complete streets, and converting car-dominated roads into vibrant public spaces. It offers guidance on street geometry, intersections, and pedestrian and transit accommodations, shaping urban mobility and livability.

<https://nacto.org/publication/urban-bikeway-design-guide/>

Another important resource is the *Small Town and Rural Design Guide*, which was created by AASHTO in partnership with other transportation agencies. This guide provides specialized guidance for designing and implementing bicycle and pedestrian infrastructure in rural and small-town settings, addressing the unique challenges and opportunities in these areas. It offers practical solutions that account for lower traffic volumes, varied land use patterns, and community needs. The *Small Town and Rural Design Guide* is valuable for ensuring that rural communities can support safe, multimodal transportation options while maintaining cost-effective design practices.

<https://ruraldesignguide.com/>



The League of American Bicyclists

For many years, national advances in bicycle planning have progressed faster than in Iowa. In 2011, Iowa was ranked the 6th most bicycle-friendly state by The League of American Bicyclists. By 2017, the state's ranking had fallen to 30th. However, in 2022, Iowa showed improvement, ranking 25th nationally and 6th among Midwestern states. These rankings are part of The League of American Bicyclists' 2022 report, *State Leadership for Safer Streets*, which includes state-by-state report cards on bicycle-friendliness. The rankings evaluate factors such as infrastructure, education, traffic laws and practices, policies, and planning.

www.bikeleague.org/bfa/states/state-report-cards/



Based on the information we obtained for Iowa, the League of American Bicyclists believes the following actions will improve the safety, comfort, and accessibility of bicycling in Iowa.

- Adopt a safe passing law with a minimum distance of 3 feet to address bicyclist safety. Over the last two decades most states have adopted a safe passing law to protect people biking. Iowa is one of 11 states that has not.
- Spend at least 2% of federal transportation funds on biking and walking improvements.
- Adopt a law prohibiting a motorist from opening an automobile's door unless the motorist is able to do so safely. Iowa is one of only eight states that has not adopted this type of law to reduce "dooring."
- Iowa has a recently adopted Complete Streets policy, which ensures that improvements for bicyclists are made during resurfacing, restoration and rehabilitation projects. This is often the most cost-effective time to make improvements.
- In 2020 the Adventure Cycling Association found that Iowa was one of 18 states that failed to meet minimum rumble strip standards. The League is excited to congratulate the Iowa DOT for adopting rumble strip standards and creating a prioritization process for rumble strips and shoulders in its Complete Streets process. This is a great improvement and we hope other states learn from it as well.

Bicycle Friendly Actions	Progress?
Complete Streets Law / Policy	Yes-New/Updated
Safe Passing Law (3ft+)	No
Statewide bike plan last 10 years	Yes
2% or more federal funds on bike/ped	No
Bicycle Safety Emphasis Area	Yes

Federal Data on Biking	Rank
Ridership 0.41% of commuters biking to work	23/50
Safety 5.8 fatalities per 10K bike commuters	17/50
Spending \$3.47 per capita FHWA spending on biking and walking	17/50



BICYCLE FRIENDLY STATES REPORT



2022 RANKING

F D C B A
Key: Category Rank among all 50 states

RANK	STATE	NUMBER OF BICYCLE FRIENDLY ACTIONS*	INFRASTRUCTURE & FUNDING	EDUCATION & ENCOURAGEMENT	TRAFFIC LAWS & PRACTICES	POLICIES & PROGRAMS	EVALUATION & PLANNING
1	MASSACHUSETTS	🚲🚲🚲🚲	A	A	D	A	A-
2	OREGON	🚲🚲🚲🚲🚲	B+	A	A	A-	A
3	WASHINGTON	🚲🚲🚲🚲🚲	C	A	A	B+	A
4	CALIFORNIA	🚲🚲🚲🚲🚲	B-	B	A	A	A
5	MINNESOTA	🚲🚲🚲🚲🚲	A	A	C-	A	B
6	COLORADO	🚲🚲🚲🚲	B-	B	A-	A	B-
7	VIRGINIA	🚲🚲🚲🚲	B	C-	A	B	B+
8	FLORIDA	🚲🚲🚲🚲🚲	A-	A	B	A	B
9	DELAWARE	🚲🚲🚲🚲	A-	C+	B-	B-	C
10	UTAH	🚲🚲🚲🚲	C+	B	C+	B	A-
11	MICHIGAN	🚲🚲🚲🚲	A-	A-	C+	B+	B-
12	PENNSYLVANIA	🚲🚲🚲🚲🚲	B	C	B	B-	C+
13	NEW YORK	🚲🚲	A-	A-	F+	B+	B+
14	MARYLAND	🚲🚲🚲🚲🚲	A-	B	A-	A	A
15	ILLINOIS	🚲🚲🚲🚲🚲	D	C	A	C-	D
16	NEW JERSEY	🚲🚲🚲🚲	B	B	B+	B	A
17	OHIO	🚲🚲🚲🚲	C	B	B-	C	B
18	NORTH CAROLINA	🚲🚲🚲🚲	B+	C	C+	B	B
19	TENNESSEE	🚲🚲🚲🚲🚲	B+	B+	B	C+	C+
20	CONNECTICUT	🚲🚲🚲🚲🚲	B	C+	B	B+	B+
21	RHODE ISLAND	🚲🚲🚲	B-	B-	B+	B	B
22	INDIANA	🚲🚲🚲🚲	B	B-	B	B+	B
23	VERMONT	🚲🚲🚲🚲	B-	B	C-	D+	D-
24	GEORGIA	🚲🚲🚲	D+	D+	B-	C-	F
25	IOWA	🚲🚲🚲	C-	B+	D	B	C
26	MAINE	🚲🚲🚲	C-	C	C-	C	F+
27	HAWAII	🚲🚲🚲	C+	C	C	B-	B
28	WEST VIRGINIA	🚲🚲🚲	B-	C	C	C	C+
29	WISCONSIN	🚲🚲	D-	B	C+	D-	C+
30	KANSAS	🚲	C+	C+	B-	D	B-
31	ARIZONA	🚲🚲	C+	C+	B	C	D+
32	TEXAS	🚲	C	C+	D-	B+	B-
33	LOUISIANA	🚲🚲	C-	D	B+	C+	D
34	NEVADA	🚲🚲🚲🚲	B+	F+	B	C-	F
35	NEW MEXICO	🚲🚲🚲🚲	D	C	D	C+	B-
36	NEW HAMPSHIRE	🚲	F+	C-	D+	D+	C+
37	KENTUCKY	🚲🚲🚲🚲	B+	D-	C-	B-	B-
38	NORTH DAKOTA	🚲🚲	D-	B+	C+	C-	C-
39	ARKANSAS	🚲🚲🚲	C	D+	C	F+	D
40	IDAHO	🚲🚲	C-	C	F	D-	C-
41	ALASKA	🚲	D-	B-	F	F	C-
42	MONTANA	🚲	B	B	F+	D	C
43	SOUTH CAROLINA	🚲🚲	F	D	D-	C	C
44	ALABAMA	🚲🚲	C-	F+	B-	C	D
45	MISSOURI	🚲🚲	C+	D	D	D-	D
46	SOUTH DAKOTA	🚲	C+	D	C+	F+	C-
47	OKLAHOMA	🚲	D+	D+	D+	D	C+
48	MISSISSIPPI	🚲🚲	D+	F	C	C+	F
49	NEBRASKA	🚲🚲	F+	F	B	C-	D+
50	WYOMING	🚲🚲🚲	F	B+	C	F	C

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* Bicycle Friendly Actions include a Complete Streets policy, a safe passing law, a statewide bike plan, spending 2% or more of federal transportation money on biking and walking, and a bicycle safety emphasis area.

LEARN MORE AT [BIKELEAGUE.ORG/STATES](https://bikeleague.org/states)

State Guidance

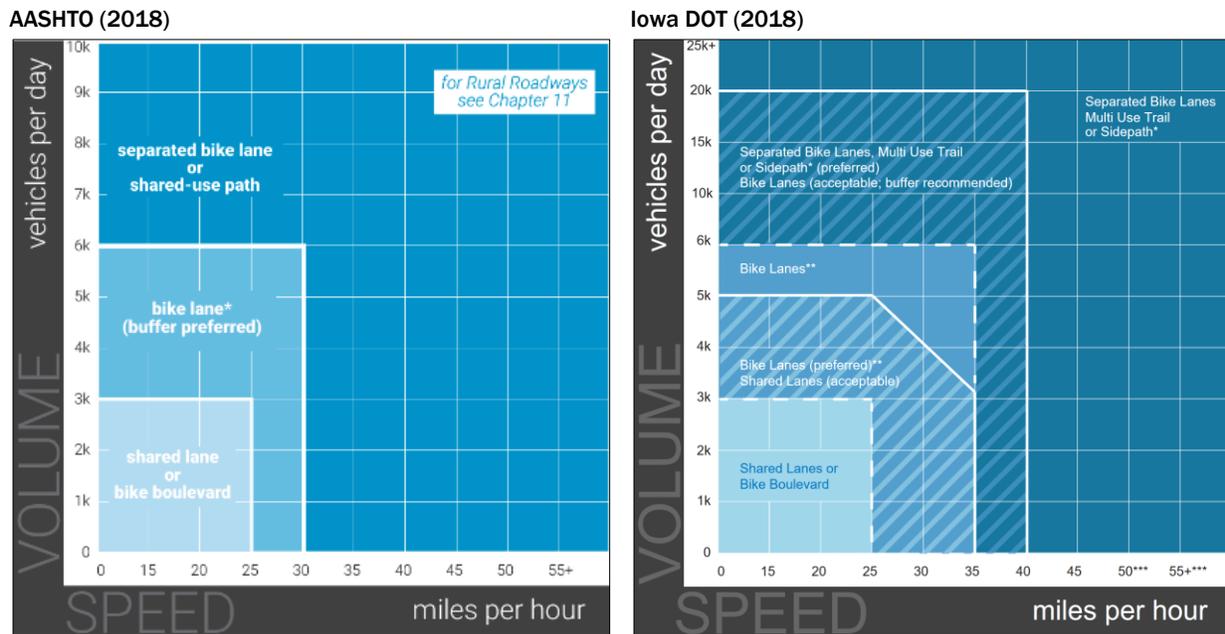
Iowa Bicycle and Pedestrian Long-Range Plan

The Iowa DOT adopted the *Iowa Bicycle and Pedestrian Long-Range Plan* in 2018, incorporating a statewide Complete Streets policy for all Iowa DOT projects. This policy requires considering bicycle and pedestrian accommodations in the design and scope of transportation projects involving new or improved facilities unless costs are excessively disproportionate to the need or likely use, or if evidence shows no future demand based on factors like land use, user volumes, population density, and crash data.

To align with national best practices, the Iowa DOT updated its *Design Manual* and *Bridge Design Manual*, focusing on on-road bicycle and pedestrian infrastructure. These updates are coordinated with the *Statewide Urban Design and Specifications (SUDAS) Manual*.

The plan provides design parameters for pedestrian facilities such as sidewalks, trails, curb ramps, crosswalks, refuge islands, and signals, and for bicycle infrastructure, including trails, paved shoulders, bike lanes, separated bike lanes, bike boulevards, shared lanes, wayfinding, and intersection treatments. It also includes urban and rural facility selection matrices (Figure 5.1), outlining preferred and acceptable options based on traffic volumes and speeds to ensure context-appropriate infrastructure.

Figure 5.1: Urban Bikeway Facility Selection Matrices



The plan also includes a table summarizing the context characteristics of common facility types, offering a detailed overview of key attributes for primary bicycle and pedestrian facilities used in Iowa. This table, located on page 96 of the document, provides additional guidance to support facility selection.

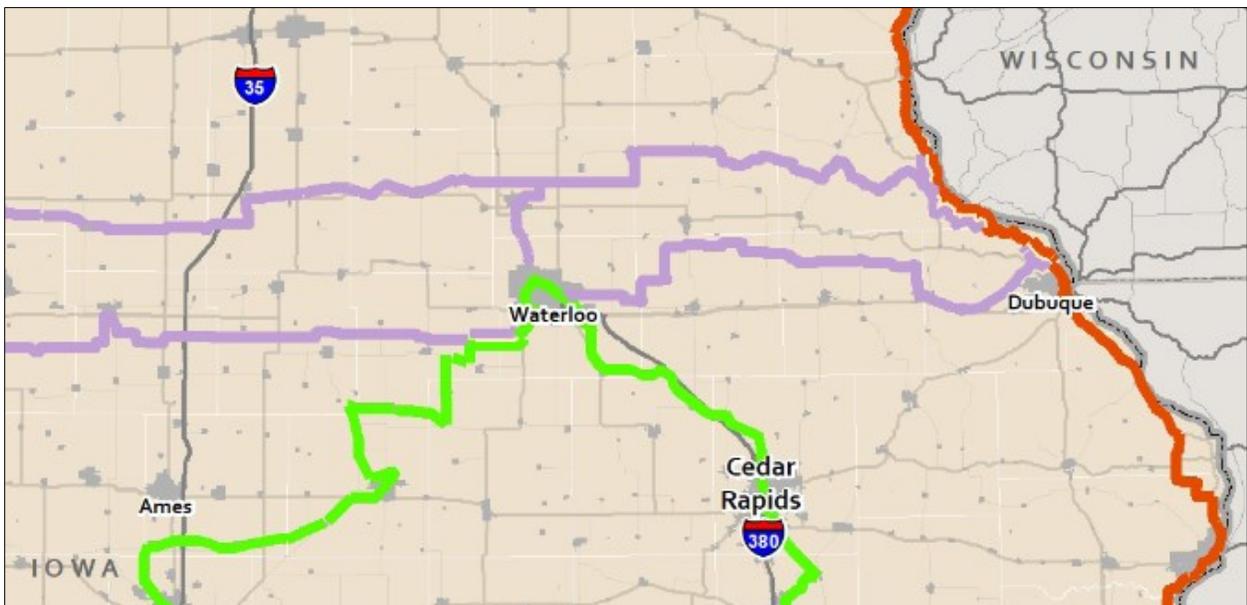
Statewide trails of significance to the region include the Cedar Valley Nature Trail extending to Cedar Rapids, a trail connecting northward to Waverly, a trail heading east toward Dubuque, and a network of trails to the south and west leading to the Des Moines metropolitan area.

Figure 5.2: Statewide Trails Vision near the RTA Region



The proposed United States Bike Routes (USBR) system includes USBR 36, a planned cross-country route from New York to Oregon with segments in Pennsylvania and Indiana. Two alignments are under consideration: the southern route, which passes through the MPO area, has 90% of on-road rural roads rated “good” for bicycling compared to 75% for the northern route but includes 35 additional miles. Figure 5.3 shows the proposed USBR 36 alignments in purple and the American Discovery Trail in green.

Figure 5.3: Proposed alignments for US Bike Route 36



Iowa Law Regarding E-Bikes

Iowa enacted new law on January 1, 2022 that defines the rules around electric assist bicycles ([Motor Vehicles and Law of the Road §321.235B](#)).

Summary:

- Iowa has three classes of low-speed electric bicycles ([321.1, subsection 36A](#)):
 - Class 1: E-Bikes equipped with a pedal-assist motor which stops when the bike reaches 20 mph.
 - Class 2: E-Bikes equipped with a motor that may be used exclusively to propel the bicycle and stop when the bike reaches the speed of 20 mph.
 - Class 3: E-Bikes equipped with a motor that aids only when the rider is pedaling and stops when the rider stops pedaling or when the bicycle reaches the speed of 28 mph.
- Class 3 E-Bikes are limited to **20 MPH** on bike lanes and trails.
- Persons under the age of 16 cannot operate a Class 3 E-Bike



Read a comprehensive overview about E-Bikes, the different types, how they operate, and more at “E-Bikes in Iowa: A Guide for Electric-Assist Bicycles” by the Iowa Bicycle Coalition at <https://www.iowabicyclecoalition.org/guides/download-e-bikes-in-iowa/>.

Statewide Urban Design and Specifications (SUDAS)

The SUDAS Manual serves as a comprehensive resource for the design and implementation of bicycle and pedestrian infrastructure across Iowa. It offers detailed technical guidance to ensure the development of safe, accessible, and context-sensitive facilities. The manual includes best practices for both on-road and off-road infrastructure, addressing a wide range of features such as bike lanes, shared-use paths, sidewalks, and intersection treatments. By incorporating national standards and adapting them to local conditions, the SUDAS Manual helps planners and engineers create cohesive, multimodal transportation networks that support active transportation while enhancing overall safety and usability.

<https://iowasudas.org/>



STATEWIDE URBAN DESIGN
AND SPECIFICATIONS



Existing Facilities

The region offers a diverse network of bicyclist and pedestrian facilities, including 106 miles of paved trails, 14 miles of granular trails, and 50 miles of paved shoulders. Many trails follow former railroad corridors, such as the regionally and statewide significant Rolling Prairie Trail and Cedar Valley Nature Trail. Most trails are built to a minimum width of ten feet, aligning with current standards for new trail construction. Given that granular trails can be less accommodating, the RTA supports hard surfacing these trails when funding is available.

Map 5.1 displays the existing regional bicycle network. To explore an interactive map of the Cedar Valley Trail Network, visit www.bhcmpo.org/rta-interactive-maps/.



American Discovery Trail

The American Discovery Trail (ADT) is a designated east-west bicycle route spanning from the East Coast to California. Established in the 1990s, the trail was created to promote awareness of backpacking and trails while protecting natural and cultural resources. The ADT follows a mix of paved trails and roadways, splitting into a Northern and Southern Route between Ohio and Colorado. The Iowa Northland Region lies along the Northern Route, with George Wyth State Park in Waterloo marking the northernmost point of the entire trail nationwide.

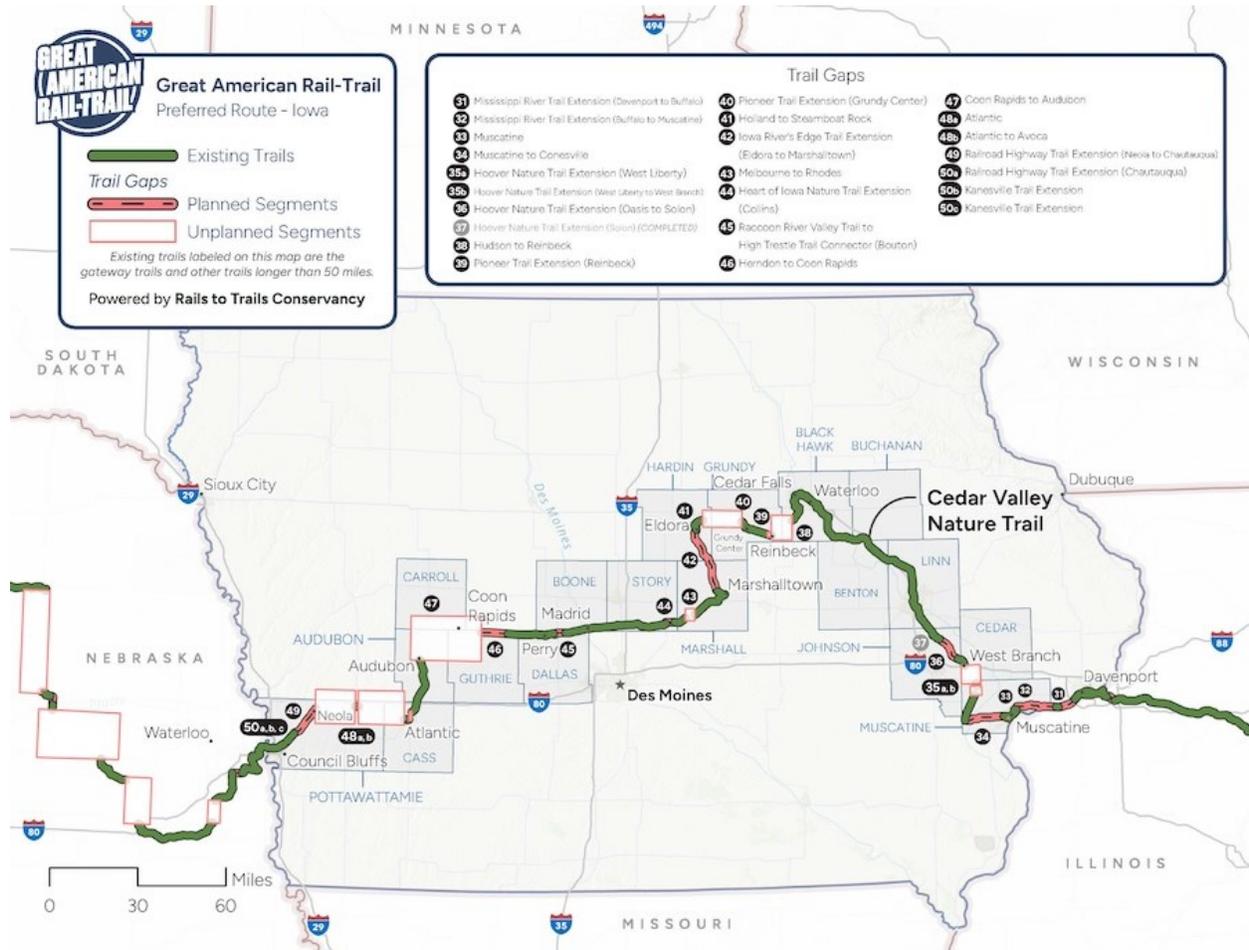
Within the region, the ADT incorporates several key trails, including the Cedar Valley Nature Trail, Evansdale Nature Trail, portions of the Cedar Valley Lakes and South Riverside Trails, the Cedar Prairie Trail, the Sergeant Road Trail, the Pioneer Trail, and part of the Comet Trail. Outside of these designated trails, the route follows existing roadways. Map 5.2 illustrates the official ADT alignment through the region. To explore the full American Discovery Trail route in Iowa, visit the Interactive Cedar Valley Trails map at www.bhcmpo.org/rta-interactive-maps/.



www.discoverytrail.org/

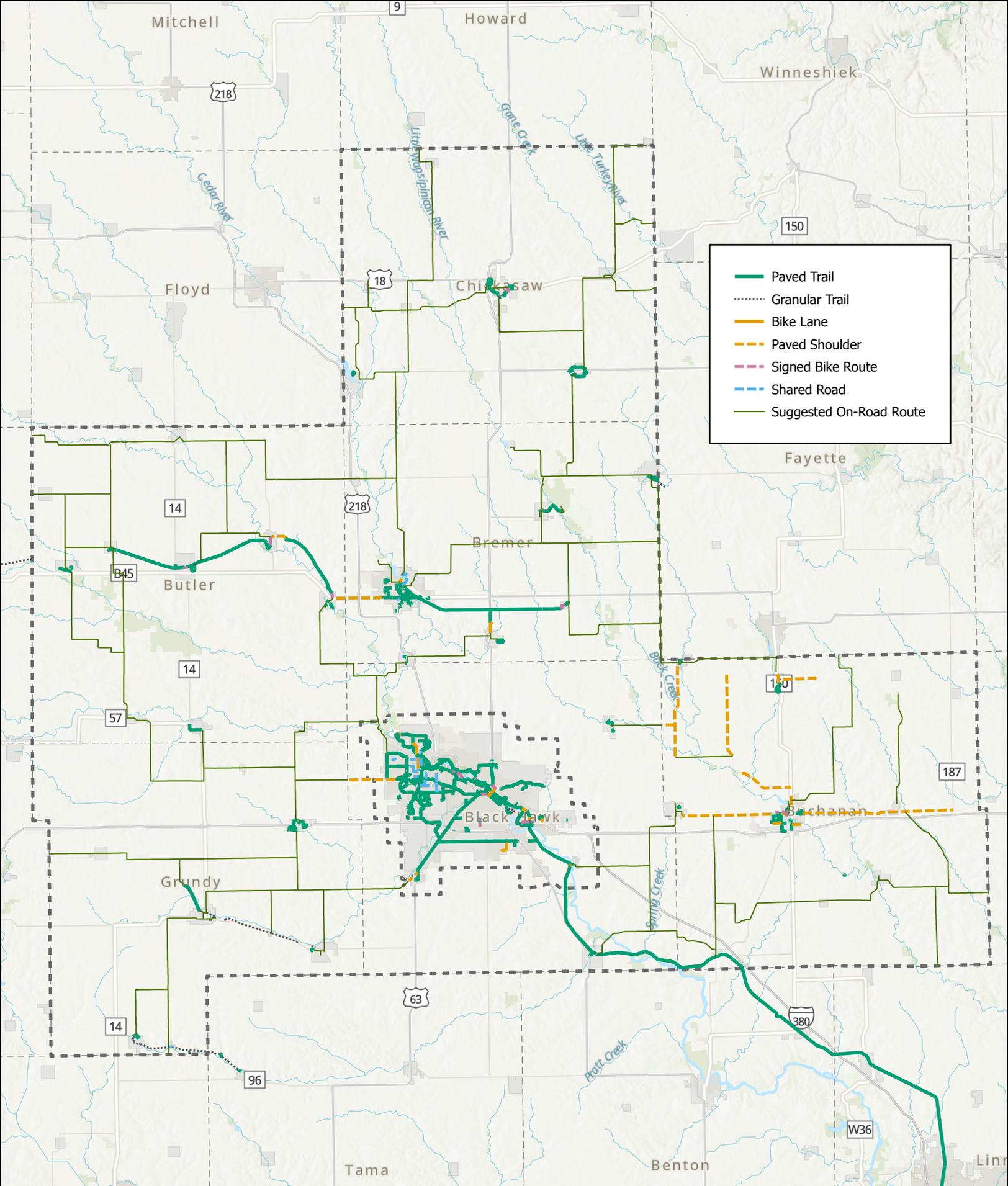
Great American Rail-Trail

The Great American Rail-Trail, a project led by the Rails-to-Trails Conservancy, aims to become the first fully bikeable, cross-country trail that is completely separated from vehicle traffic. Once completed, this 3,700-mile route will connect Washington, D.C., to Washington State, linking over 125 existing rail-trails, greenways, and multi-use paths. In the Iowa Northland Region, the designated route passes through Brandon, La Porte City, Evansdale, Waterloo, Cedar Falls, Hudson, Reinbeck, Morrison, Grundy Center, and Holland. Map 5.3 illustrates the trail alignment as of 2025, highlighting existing gaps in the network.



www.railstotrails.org/site/greatamericanrailtrail/



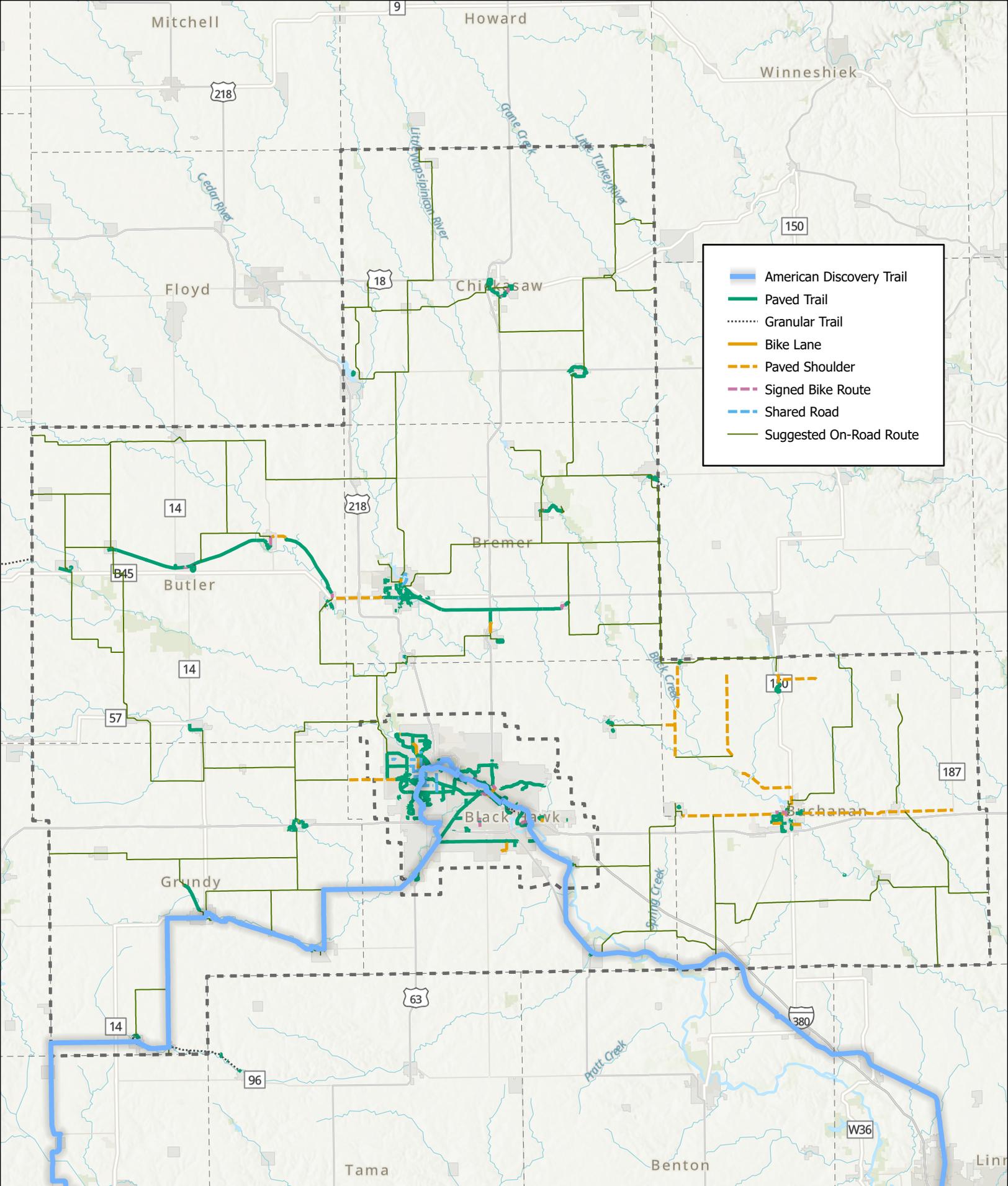


Map 5.1 Existing Bicycle Facilities

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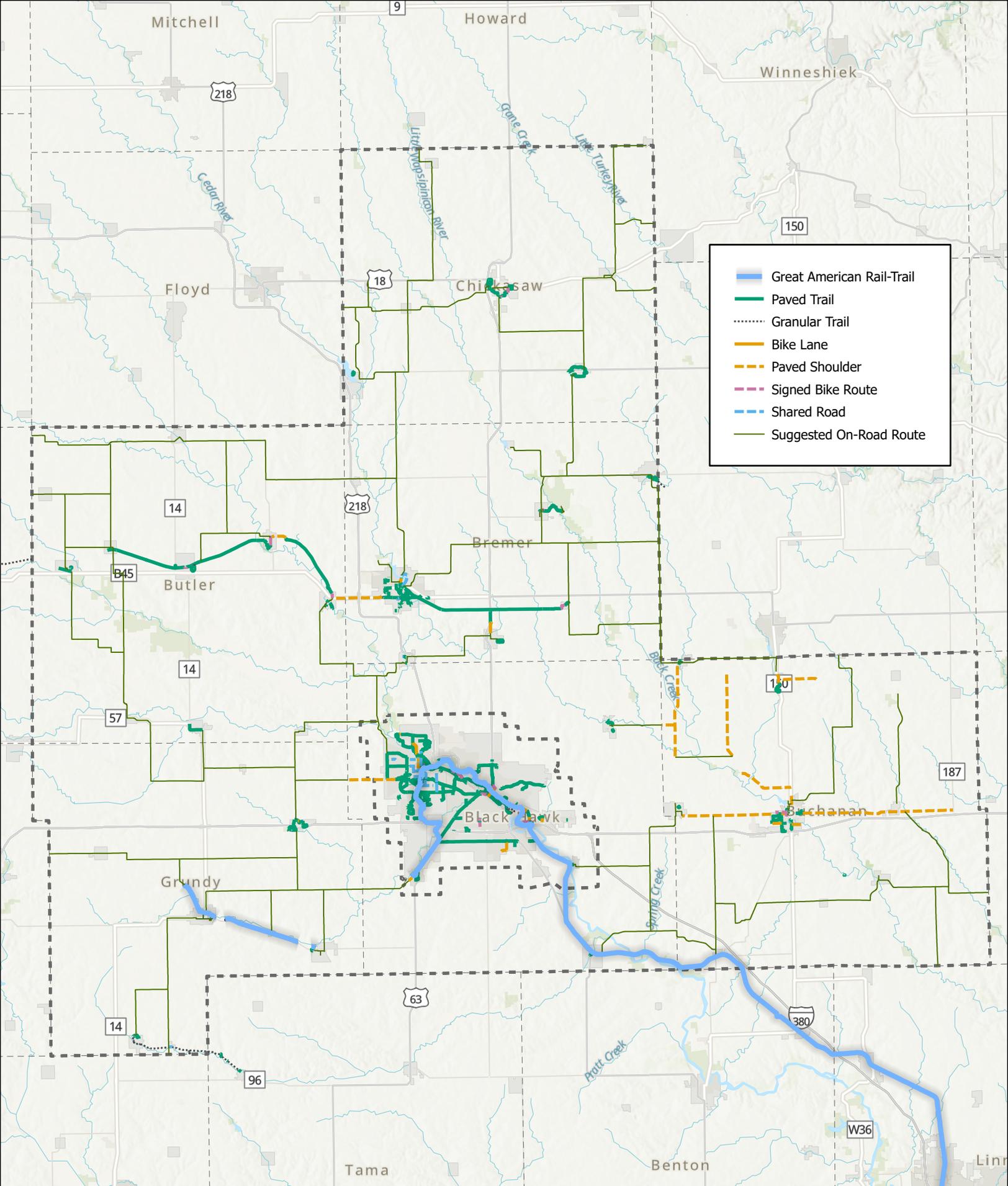


Map 5.2 American Discovery Trail

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Map 5.3 Great American Rail-Trail

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Cedar Valley Nature Trail

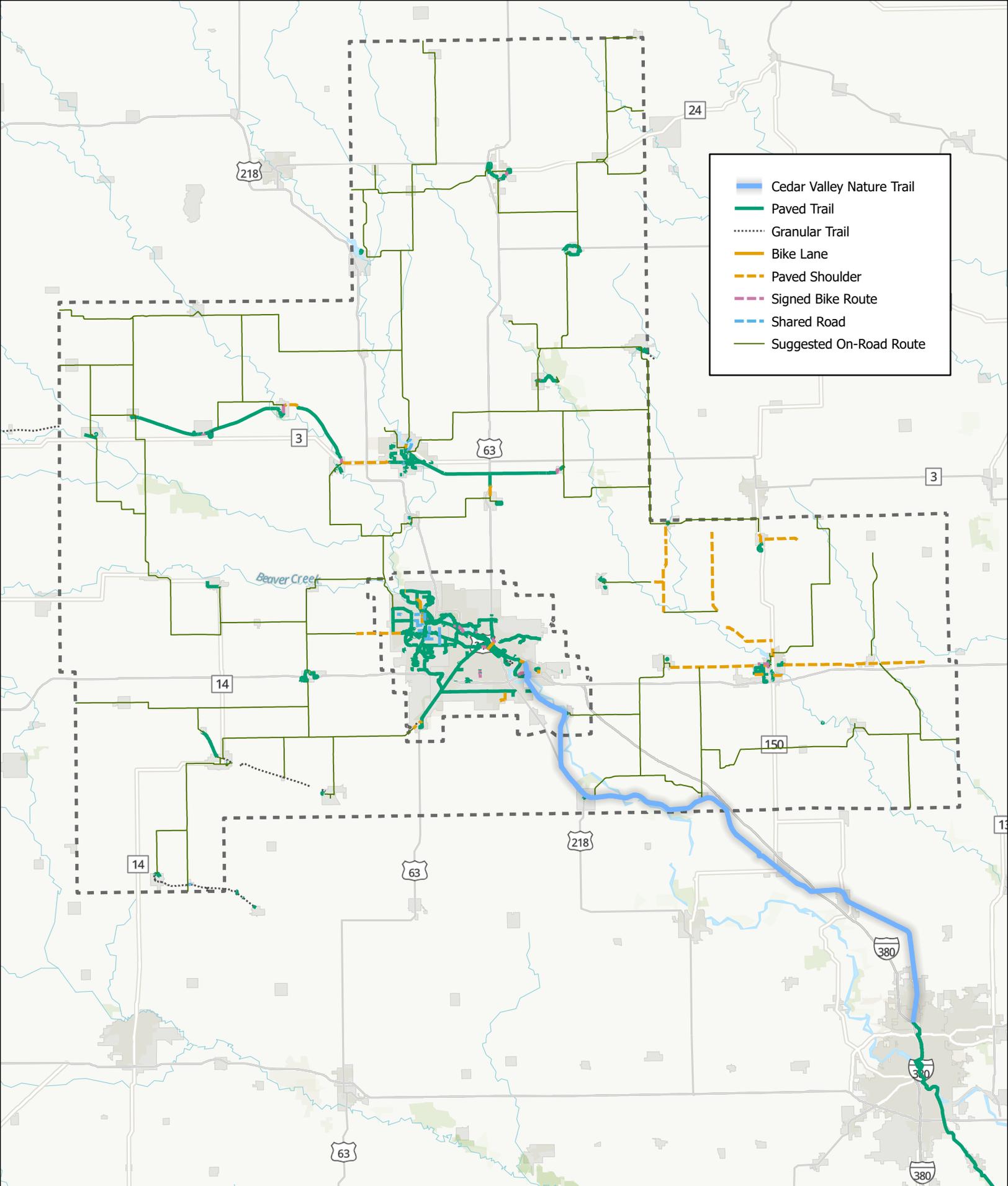
Designated as part of the American Discovery Trail in the 1990s, the Cedar Valley Nature Trail (CVNT) represents the first rail-to-trail conversion in the state of Iowa. Opened in 1982, the trail connects the Waterloo/Cedar Falls and Cedar Rapids metropolitan areas, passing through wetlands, forested land, and prairies along the way. The original alignment was from Evansdale south to Hiawatha, covering a total distance of 52 miles. In the region, the trail features two large bridges over the Cedar River, and a concrete arch bridge over Lime Creek in Brandon.

As of 2024, the entire Cedar Valley Nature Trail is now fully paved, marking a major milestone in regional trail development and unlocking significant tourism and economic opportunities. This achievement was made possible in part by a \$3.5 million Destination Iowa grant awarded in 2022 to Black Hawk County Conservation and Linn County Conservation. The grant funded the paving of the final 16 miles of limestone and dirt trail, bringing to fruition a vision more than 40 years in the making.



Now fully paved, the Cedar Valley Nature Trail enhances accessibility and connectivity between two major metropolitan areas, offering a premier recreational corridor for cyclists, runners, and outdoor enthusiasts. Users can now continue south all the way to Solon by connecting to the Hoover Trail and other regional trails, further expanding travel opportunities. The trail passes through multiple communities, providing them with increased tourism potential and new economic development opportunities. Restaurants, breweries, bike shops, and other local businesses stand to benefit from the influx of visitors drawn to the fully paved trail, while events such as cycling races and nature excursions can further bolster local economies. The completed trail also strengthens regional efforts to promote active transportation, healthy lifestyles, and outdoor recreation, solidifying its role as a vital asset for both residents and visitors.





Map 5.4 Cedar Valley Nature Trail

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Rolling Prairie Trail

The Rolling Prairie Trail, with existing segments in Bremer, Butler, and Franklin Counties, offers a vital recreational and transportation route within the region. Currently, the trail is fully connected from Readlyn to Bristow, though the alignment from Waverly to Shell Rock utilizes paved shoulders along busy Iowa 3. The goal is to close the remaining gaps between Bristow and Dumont, and Dumont to the Franklin County line, using the former rail bed corridor. Challenges include replacing several former rail bridges, such as a large bridge over the West Fork Cedar River east of Dumont. The Grundy County Conservation Board has a Transportation Alternatives Set-Aside project scheduled in FY 2026 to pave the segment from Dumont west to the Franklin County line, addressing one of the final gaps.



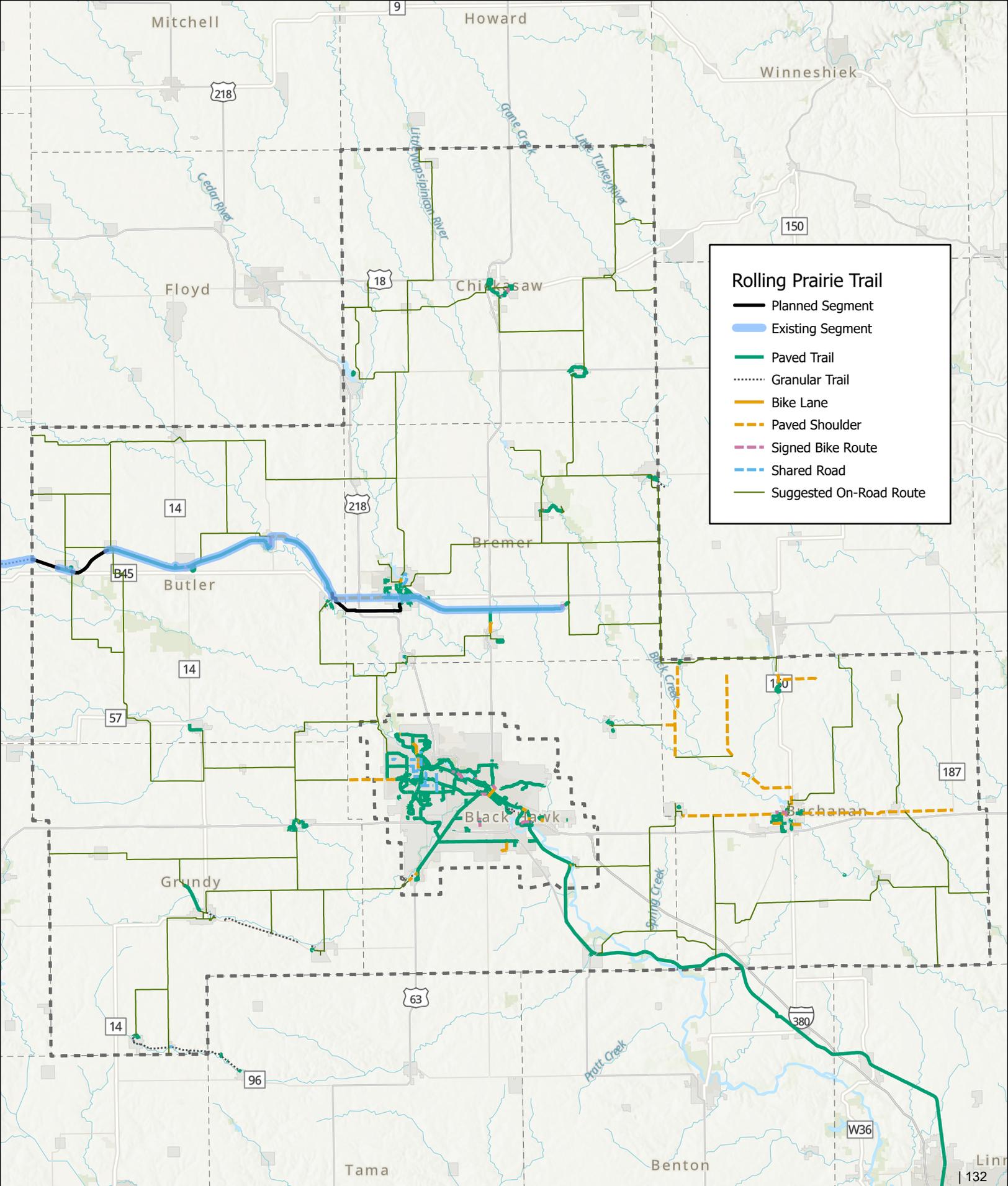
The gap between Waverly and Shell Rock presents additional challenges, as the former rail bed no longer exists. To overcome this, Butler and Bremer counties are exploring options for a separated trail along 240th Street as part of a road paving project, though the project is currently unfunded. Additionally, a proposed pedestrian underpass in Shell Rock, located underneath IA 3 to the east of Public Road, could provide a safe and convenient crossing for trail users. This underpass project was identified as a safety need and high priority during the Shell Rock Community Visioning process in 2022. Once completed, the trail will enhance connectivity and provide a safe, dedicated route for cyclists and pedestrians traveling east to west across the region.

Pioneer Trail

The Pioneer Trail in Grundy County is a scenic 12-mile pathway that connects the communities of Reinbeck, Morrison, Grundy Center, and Holland. Following a former rail corridor, this trail offers a picturesque route for cyclists, runners, and nature enthusiasts, passing through rural landscapes, farmland, and wooded areas. It provides a peaceful experience while also serving as part of the larger regional network of trails in central Iowa, supporting the growing trend of active transportation and outdoor recreation.



Although the trail is primarily rural, it provides valuable connectivity for both residents and visitors, linking small towns and enhancing regional mobility. The trail is paved from Grundy Center to Holland, with the remainder of the route surfaced with limestone or dirt. The trail currently has two gaps where the former rail bed is no longer intact. A 1.3-mile gap west of Reinbeck is scheduled for construction in 2026, leaving just one remaining gap of less than a mile east of Grundy Center. Once these gaps are filled, the long-awaited vision of a fully connected Pioneer Trail will be realized. Grundy County Conservation aims to eventually pave the entire trail from Reinbeck to Holland after the completion of these gap projects. Efforts to improve and expand the trail continue as local leaders work to develop infrastructure and connect the trail to broader regional networks.

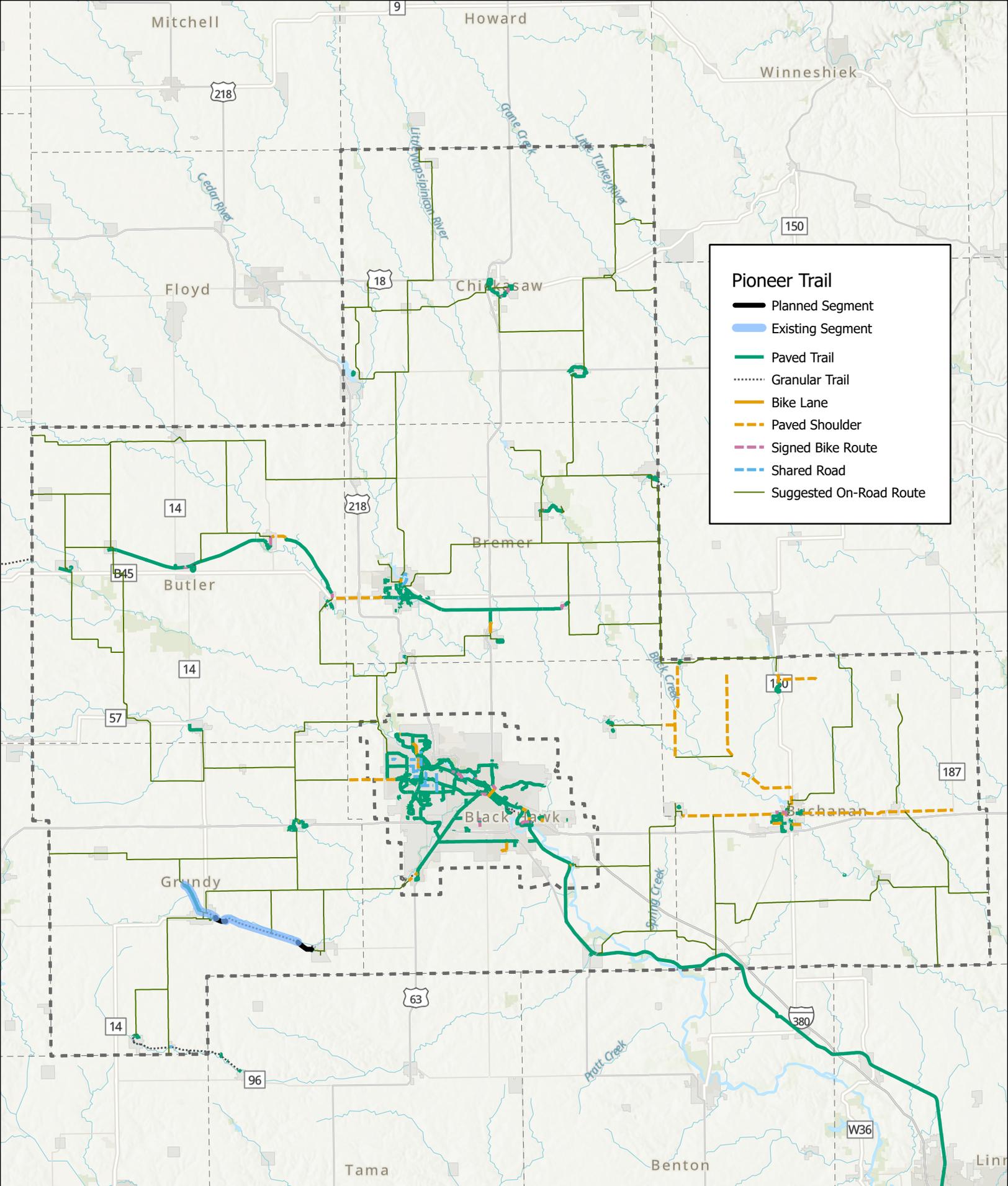


Map 5.5 Rolling Prairie Trail

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Map 5.6
Pioneer Trail

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Comet Trail

The Comet Trail in Grundy County extends east from Conrad to Beaman, where it connects with the Wolf Creek Trail, allowing users to continue east to Gladbrook (see Map 5.7). Together, these trails span approximately 10 miles. The Comet Trail also provides access to the Wolf Creek Recreation Area east of Beaman via a dirt and granular trail system. This 93-acre multi-use greenspace features a 72-foot suspension bridge over Wolf Creek, multiple creek crossings, and abundant wildlife, including whitetail deer, ring-necked pheasants, and various songbirds.



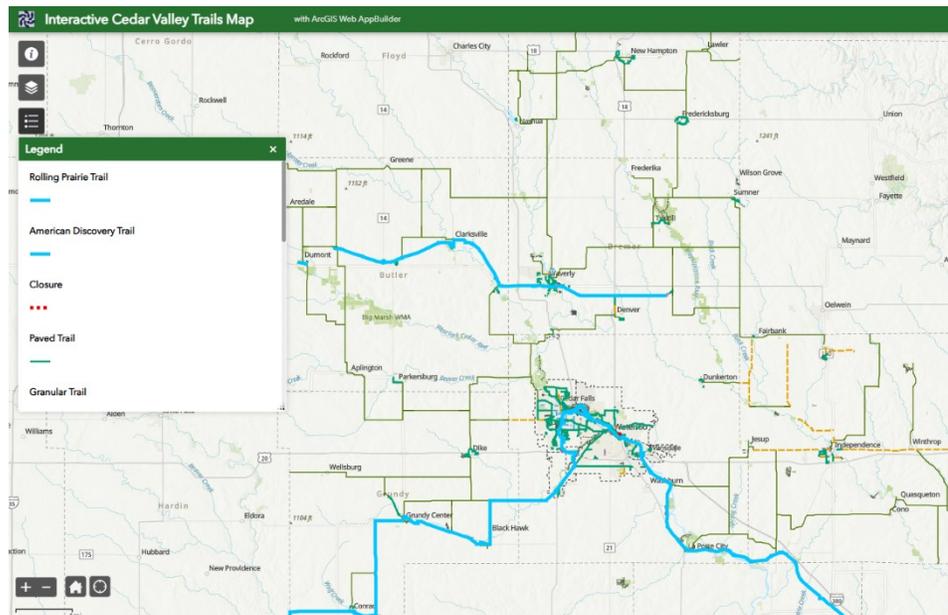
Current and Ongoing Projects

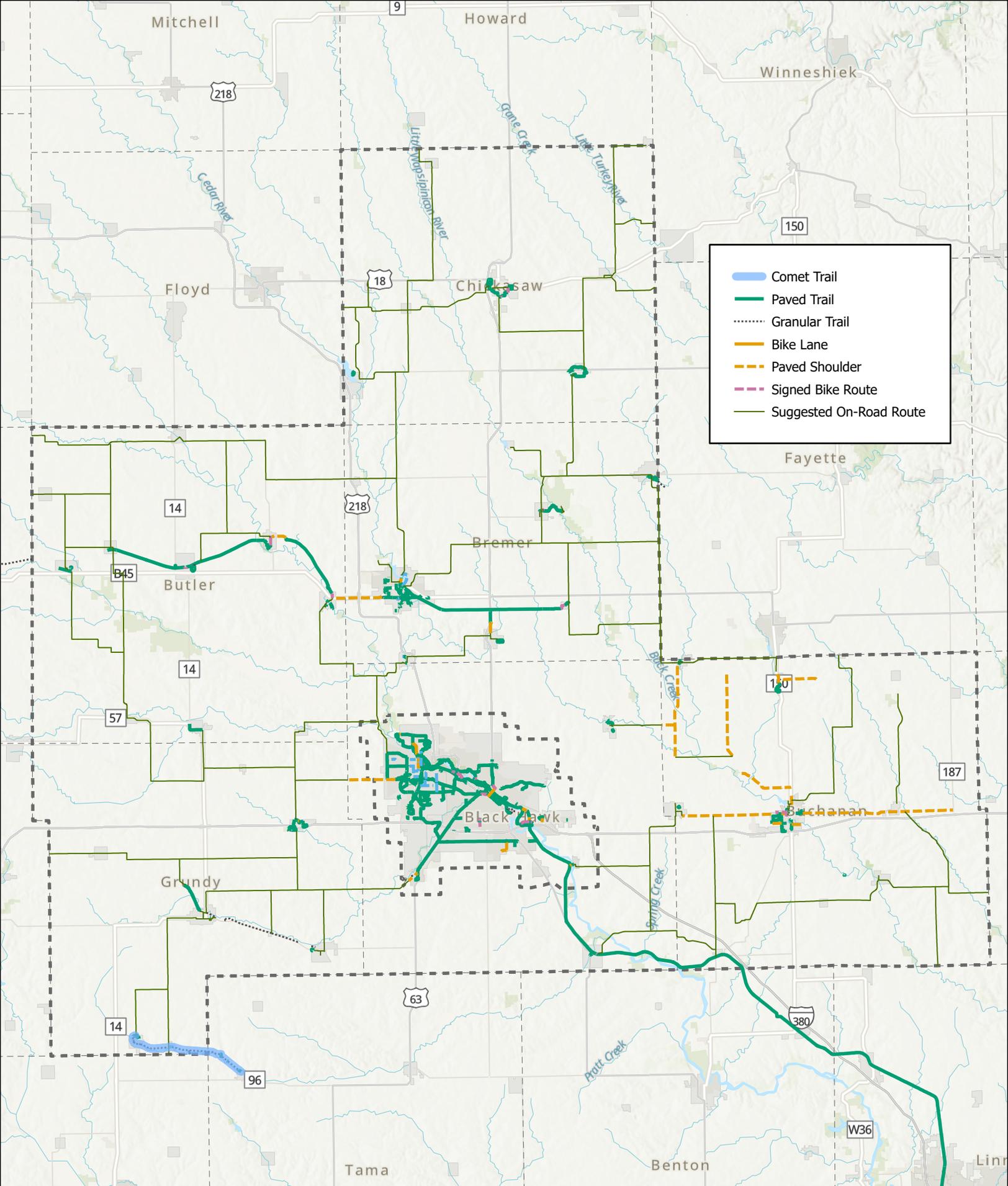
Interactive Cedar Valley Trails Map

INRCOG staff regularly update the Cedar Valley Trail and Recreation paper guide, which details the extensive trail system in the Black Hawk County metropolitan area. In response to requests from local nonprofit organizations, INRCOG launched the Interactive Cedar Valley Trails Map in May 2022 to provide an online, interactive version of the guide. This digital resource is frequently updated to incorporate new features and improvements. The paper guide and the interactive map utilize a color-blind-friendly color scheme for accessibility.

In 2023, the map was expanded to cover all bikeway facilities within INRCOG's six-county region. It now displays more than 235 miles of paved trails, along with granular and dirt trails, on-road bicycle infrastructure, and key points of interest such as local bike shops and bird-watching locations, the latter developed in collaboration with the

Prairie Rapids Audubon Society. New layers have been added to highlight statewide and regionally significant trails, including the American Discovery Trail, Cedar Valley Nature Trail, Rolling Prairie Trail, and Pioneer Trail. The Interactive Cedar Valley Trails Map continues to serve as a vital tool for promoting active transportation, outdoor recreation, and connectivity across the region. Visit the map at <https://arcgis.yvGn>.





Map 5.7 Comet Trail

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Interactive Trail Map QR Code Decals

After developing the interactive trail map, INRCOG staff, with funding from the Cedar Valley Trails Partnership, created QR code decals. These decals were installed on over 170 wayfinding signs across Waterloo, Cedar Falls, Evansdale, Hudson, Black Hawk County, and George Wyth State Park, in collaboration with local jurisdictions. Scanning the QR-code with a smartphone directs users to the interactive map, showcasing the various amenities and recreational opportunities along the trail system. The map also includes a locator feature to help users find their position on the trail. The decals were distributed and installed in the summer and fall of 2023.

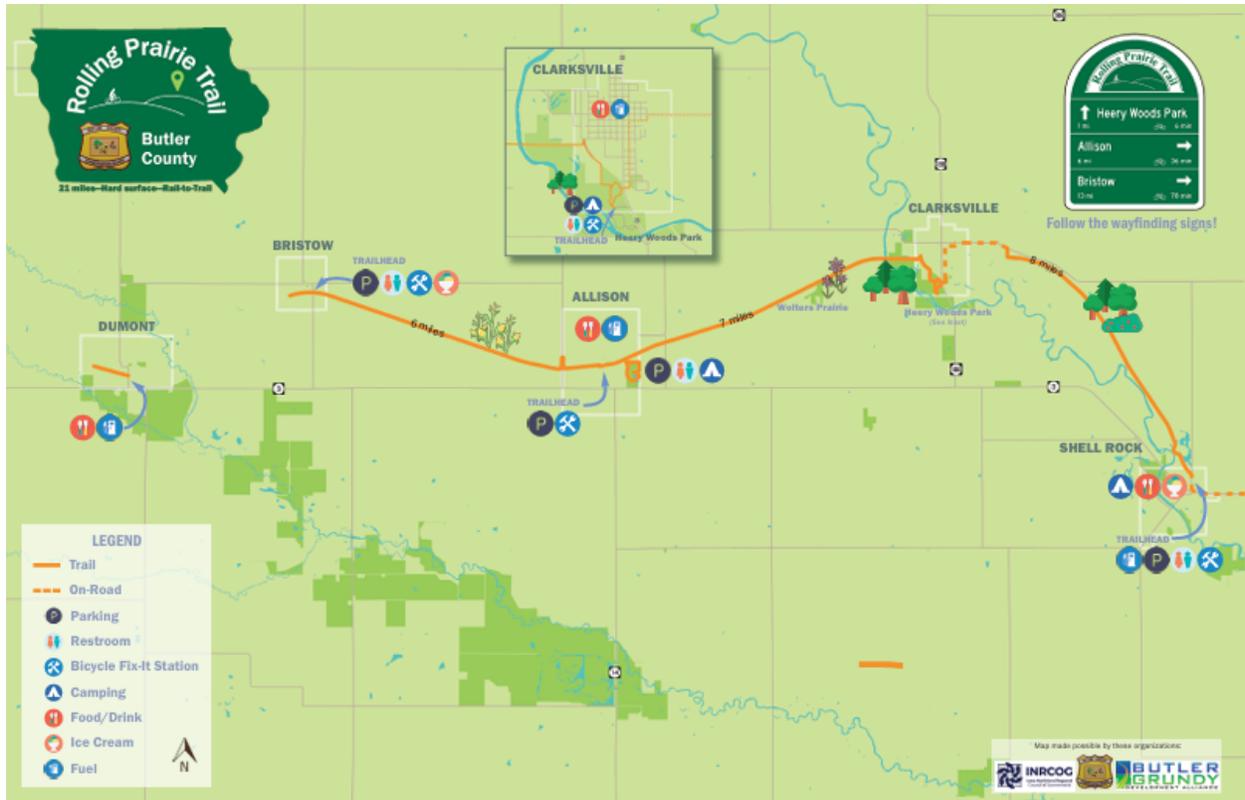
Interactive Trail Map Business Cards

Following the success of the Interactive Cedar Valley Trails Map, INRCOG staff launched a marketing initiative to spread awareness of the tool and its capabilities. One of the key strategies was the creation of two-sided business cards featuring QR codes that link to both the Interactive Trails Map and the Interactive Water Trails Map for Black Hawk County. These business cards offer a convenient and effective way to share valuable resources with the public, making it easy for people to access trail information and plan their outdoor activities. The cards have become an essential tool for promoting active transportation and outdoor recreation throughout the region. This effort has helped broaden the map's visibility, ensuring more residents and visitors can take advantage of the region's trails and recreational opportunities.



Rolling Prairie Trail Guide, Butler County

In 2022, the Butler-Grundy Development Alliance reached out to RTA staff with a request to design a vibrant and engaging map of the Rolling Prairie Trail in Butler County for inclusion in their *User's Guide & Map*. The goal was to create a visually appealing and easy-to-read resource that would enhance the experience for trail users. The resulting map features a fun, colorful design with clearly marked icons highlighting key points of interest and essential amenities along the trail. These include designated parking areas, restrooms, camping sites, bicycle repair stations, and various food and drink options. By providing this detailed and user-friendly guide, the Butler-Grundy Development Alliance aims to promote the trail as a premier recreational asset, attracting both residents and visitors while supporting local businesses along the route.



www.butlergrundy.com/outdoor-recreation/parks-trails



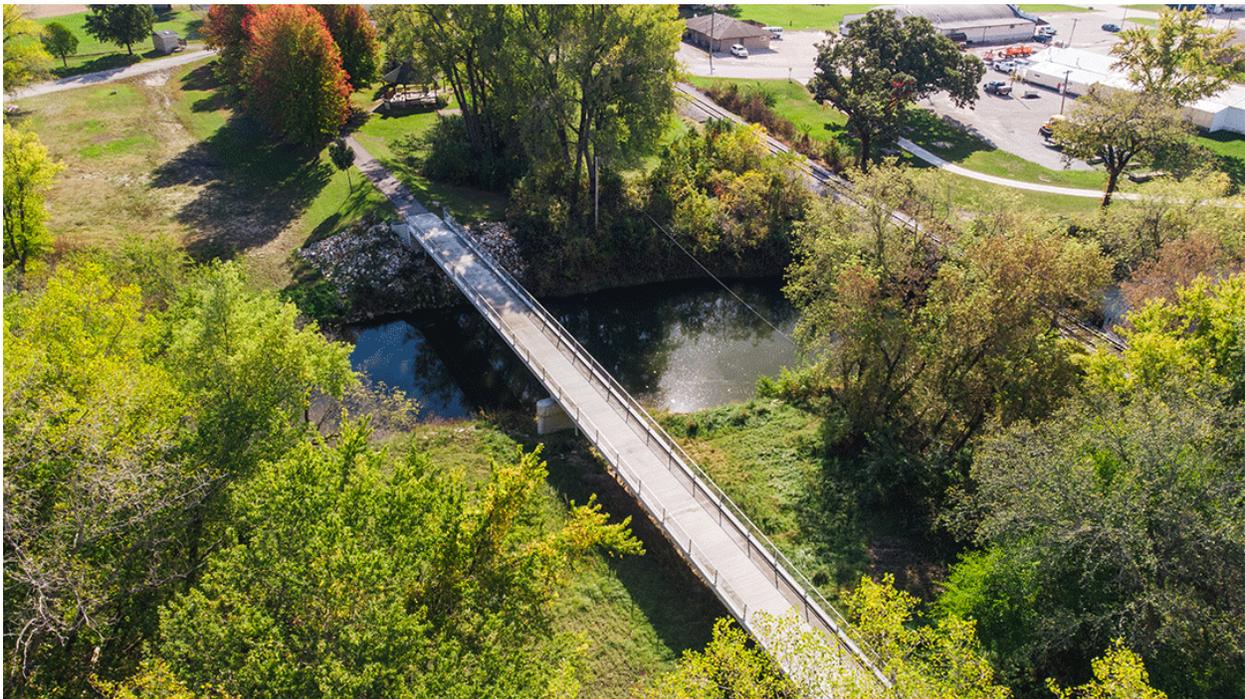
Cedar Valley Nature Trail Maintenance

The Cedar Valley Nature Trail is now fully paved from Evansdale to Cedar Rapids, fulfilling a decades-long vision of a continuous, hard-surfaced trail corridor. Completing this rail-to-trail project has been a longstanding priority for Black Hawk County Conservation. With this milestone achieved, the focus has now shifted to the strategic maintenance of existing trail infrastructure, particularly aging bridges and deteriorating pavement.



Black Hawk County Conservation owns and maintains the northern portion of the trail in Black Hawk and Buchanan Counties, while Linn County Conservation owns and maintains the trail in Benton and Linn Counties.

The trail features 18 bridges, many of which date back to the corridor's former railroad era. To date, Black Hawk County Conservation has repaired or replaced 9 bridges, including the longest structures spanning the Cedar River and Wolf Creek. However, 9 bridges still require some level of repair or replacement to ensure the long-term safety and usability of the trail. Additionally, approximately 13 miles of pavement are in need of resurfacing or full reconstruction.



To address these challenges, Black Hawk County Conservation continues to actively pursue funding opportunities to support necessary repairs and improvements. Additionally, an endowment fund has been established to assist with trail maintenance costs, ensuring the Cedar Valley Nature Trail remains a premier recreational and transportation asset for years to come.

Short-Term Bikeway Projects

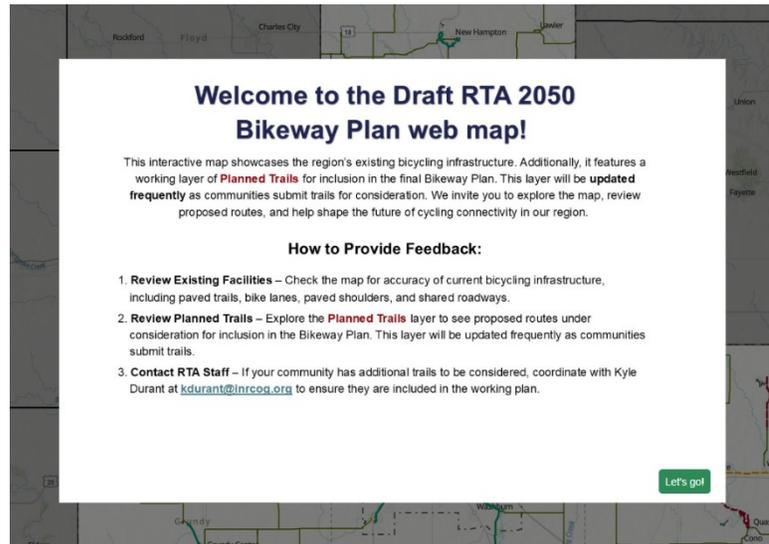
Table 5.3 outlines the programmed projects in the region for federal fiscal years 2026 to 2029, specifically those funded through federal TASA/TAP funds. State and locally funded projects are not included. The table highlights the constraints of this funding source, which is limited to \$360,000 annually. Due to these funding limitations, the program has historically supported only one or two new projects per year.

Table 5.3: Bicycle and Pedestrian Projects, FY 2026-2029

Fiscal Year	Jurisdiction	Project	Termini	Cost Estimate (\$)	TASA/TAP Funds (\$)
2026	Butler County Conservation	Rolling Prairie Trail Extension	Dumont to the Franklin Co. Line	634,617	484,500
2026	City of Denver	Brandt Park Trail Loop	Trail loop in Brandt Park w/ sidewalk connection to bike lanes on State St	431,000	344,800
2026	Buchanan County	Taylor's Ford Trail Bridge Rehab	Historic bridge rehab over the Wapsipinicon River	450,000	343,616
2027	City of Independence	Enterprise Drive Trail Phase II	IA 150 west to 6 th Ave SW	258,501	206,801

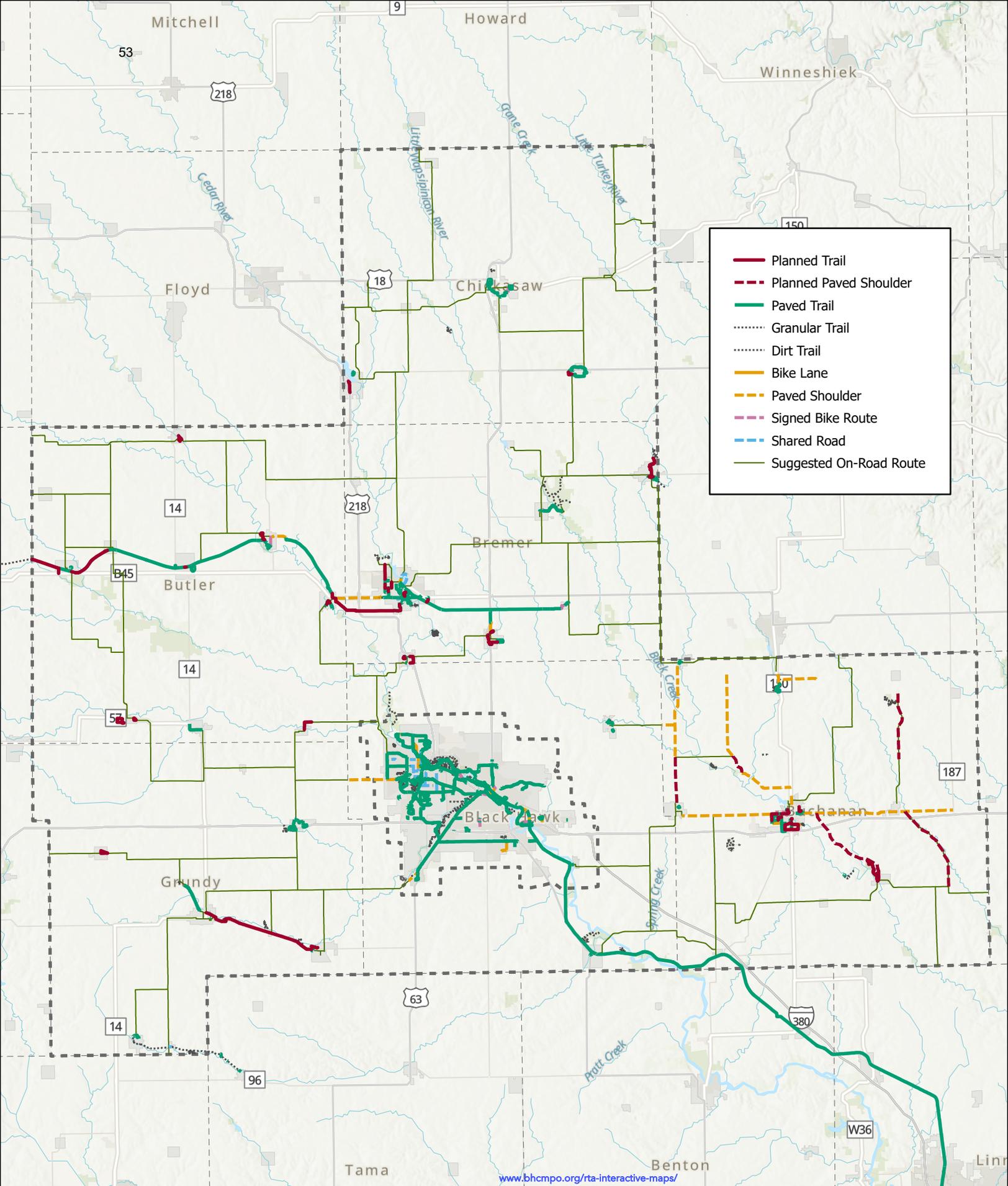
2050 RTA Bikeway Plan

The RTA Bikeway Plan is a key component of the 2050 LRTP, serving as a strategic framework to enhance and expand the biking infrastructure across the six-county region. The vision of the plan is to create a **safe, connected, and accessible bikeway network** that supports both recreational and commuter cycling while promoting active transportation as a viable mobility option. To ensure the plan reflects the most up-to-date and relevant information, RTA staff actively sought input from jurisdictions, engaging cities and county conservation boards in the planning process. An interactive map was developed to display existing biking infrastructure alongside a working layer of planned trails, allowing stakeholders to review, verify, and propose updates. Local officials, parks and recreation staff, public works departments, and community coalitions were invited to participate, providing valuable feedback on existing facilities and proposed bikeway improvements. Through this collaborative approach, the 2050 RTA Bikeway Plan aims to create a more comprehensive and connected biking network that aligns with the needs and priorities of communities across the region.



The planned bikeway network is outlined in Map 5.8, highlighting several key projects aimed at closing gaps and improving trail infrastructure. Notable projects include paving the remaining granular portions of the Pioneer Trail, completing the gaps in the Rolling Prairie Trail by paving between Bristow and Dumont, and extending the trail from Dumont to the Franklin County line (programmed for construction in 2026). Additional efforts include paving the Rolling Prairie Trail along 240th Street from Waverly to Shell Rock and constructing 25 miles of paved shoulders in Buchanan County to enhance bicycle safety along key corridors.

www.bhcmpo.org/rta-interactive-maps/



Map 5.8 2050 Bikeway Plan

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Other Non-Motorized Projects

Safe Routes to School

Safe Routes to School (SRTS) is a nationwide effort to promote children safely walking and bicycling to school through engineering, education, enforcement, encouragement, and evaluation (5-E's). SRTS projects are eligible under the Transportation Alternatives Set-Aside Program (TASA/TAP). INRCOG has been awarded Statewide TAP funding in multiple years to fund a staff person to coordinate a regional Safe Routes to School initiative in partnership with the Iowa Bicycle Coalition and Upper Explorerland Regional Planning Commission in Decorah. The goal of the program is to increase the number of students walking and bicycling to school with the goal of improving the overall health and well-being of the region's youth. To date, INRCOG has done the following:



- Supported Safe Routes related education and encouragement programs at 38 elementary and middle schools for 22 districts in INRCOG's six-county region.
- Supported 28 community organizations and 8 daycares in hosting their own bike rodeos and safety events.
- Received grants from several area community foundations to distribute over 1,800 new bike helmets to those in need.
- Collaborated with schools and caregivers to start Walking School Bus programs encouraging physical activity and safety for over 75 students and continue to advocate to form new groups.
- Worked with four schools to host Walk, Bike, and Roll to School Day events, encouraging all students to rethink their daily commute options.
- Overall outreach to 11,320 youth and 1,682 adult "roll" models in the region.
- Continuously attend area community wellness coalitions that emphasize increasing physical activity, bike skills, and traffic safety awareness.
- Provide input for the development of statewide resources, curriculum, and guides.

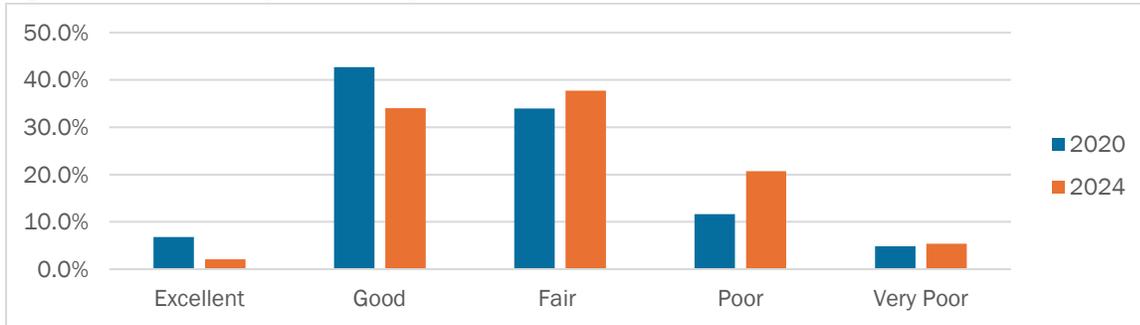
Although no dedicated federal funding exists for Safe Routes to School infrastructure and planning projects, INRCOG remains committed to supporting and expanding these initiatives by maintaining the Safe Routes to School Coordinator position.



2024 Public Input Survey

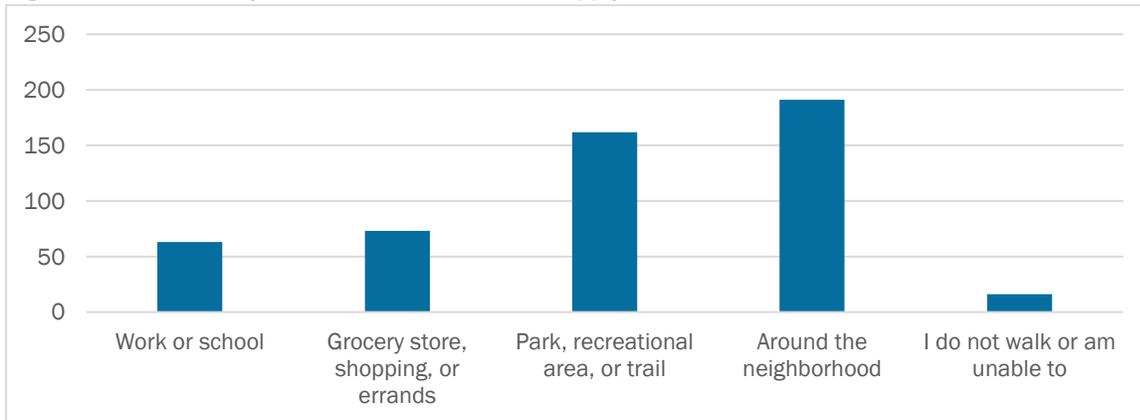
In September 2024, RTA staff conducted two online surveys designed to gather feedback from residents across the six-county region. The subsequent details provided here highlight survey responses that hold significance within the context of this chapter.

Figure 5.4: How would you rate our pedestrian infrastructure?



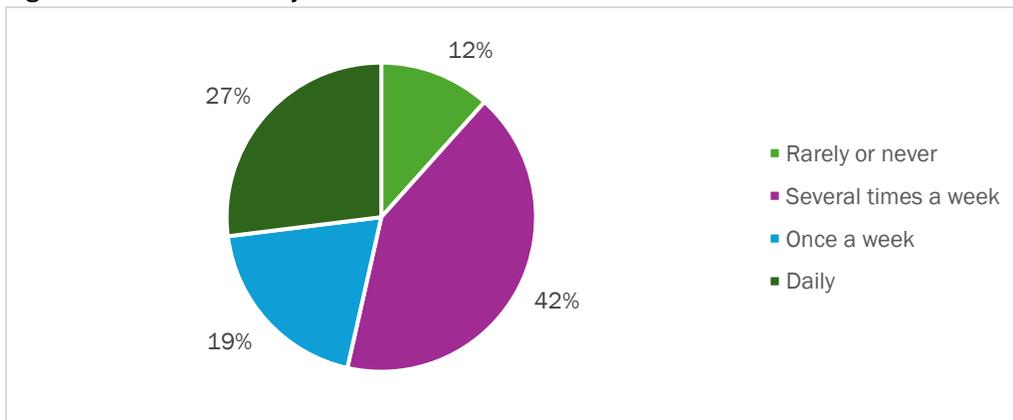
Answered: 241 Skipped: 0

Figure 5.5: Where do you walk to? Select all that apply.



Answered: 241 Skipped: 0

Figure 5.6: How often do you walk?



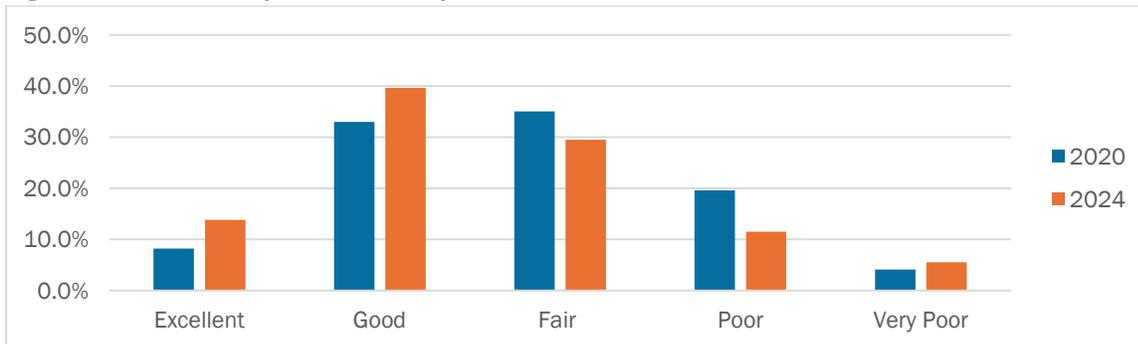
Answered: 241 Skipped: 0

Which road(s) would you improve for walking, and how would you do it?

The responses regarding road improvements for walking focus primarily on the need for better sidewalks, crosswalks, and lighting across various towns. Key points include:

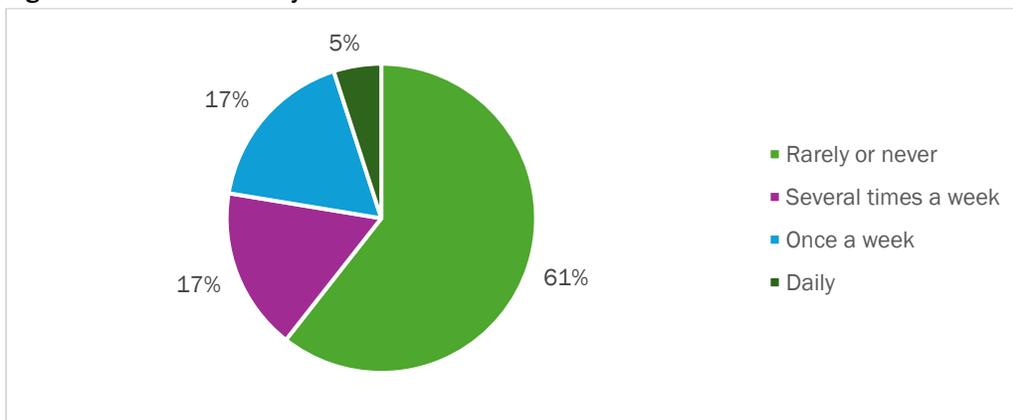
- A. **Sidewalk Additions and Repairs:** Many towns, especially New Hampton, are noted for inconsistent or missing sidewalks. Specific streets, such as Hamilton St., Milwaukee St., and others, are frequently mentioned for needing sidewalks to enhance safety, especially around schools and high-traffic areas.
- B. **Crosswalks and Pedestrian Safety:** There are numerous calls for improved crosswalks, especially on busy streets like West Main St., Milwaukee St., and around schools. Some respondents suggest installing flashing lights or crosswalk signals to increase visibility and safety.
- C. **Trail Expansion and Connectivity:** Expanding and connecting walking trails, such as around parks and connecting neighborhoods, is a recurring suggestion. Trails like the Tribe Trail in New Hampton and proposed trail connections in Buchanan County are seen as positive additions.
- D. **Lighting Improvements:** Respondents stress the need for better street lighting, particularly for walking at night or in poorly lit areas.
- E. **Sidewalk and Crosswalk Maintenance:** Many responses highlight the poor condition of existing sidewalks and crosswalks, urging towns to repair uneven surfaces, clear debris, and maintain accessibility.
- F. **Traffic Calming and Signage:** Reducing speeding, adding stop signs, and improving signage around schools and pedestrian-heavy areas are common themes to enhance pedestrian safety.

Figure 5.7: How would you rate our bicycle infrastructure?



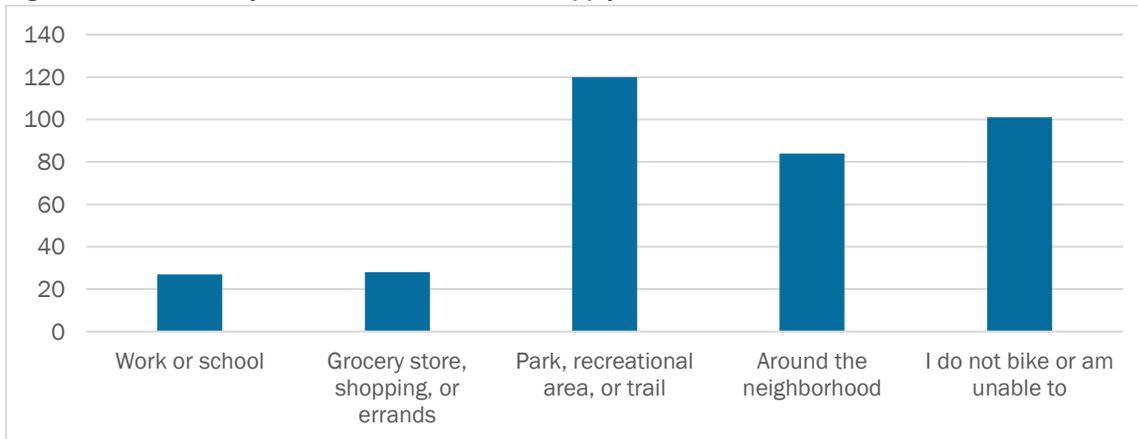
Answered: 241 Skipped: 0

Figure 5.8: How often do you bike?



Answered: 241 Skipped: 0

Figure 5.9: Where do you bike to? Select all that apply.



Answered: 241 Skipped: 0

Which road(s) would you improve for biking, and how would you do it?

The responses gathered highlight a community-wide commitment to improving biking conditions, emphasizing the need for better infrastructure, maintenance, and safety measures to promote cycling as a viable mode of transportation. Key points include:

- A. **Infrastructure Improvements:** Many respondents emphasized the need for more bike lanes and dedicated bike trails to keep cyclists safe from traffic. Specific roads like Hamilton St, East Washington, and 4th and 5th Streets were mentioned as needing bike lanes. Additionally, shared road options and wider shoulders on roads were suggested to improve connectivity between existing trails.
- B. **Trail Maintenance:** The condition of trails, such as the Waverly Rail Trail and Cedar Valley Nature Trail, was highlighted, with calls for repaving and maintenance to address issues like cracks and overgrown vegetation. Respondents also requested better signage indicating bike lanes and paved shoulders to enhance awareness and safety.
- C. **Community Connectivity:** Suggestions included connecting bike paths to retail areas and schools to promote biking for daily errands, rather than just for recreation. Some responses pointed out that improving access to bike trails could help encourage more people to bike instead of relying on roads for transportation.
- D. **Safety Concerns:** Respondents noted the dangers of riding on busy roads without proper infrastructure, citing accidents and visibility issues. There were also calls for reduced speed limits near schools and community areas to improve safety for cyclists, ensuring a more secure environment for biking.
- E. **Additional Features:** Lighting improvements, particularly around newer trails, were mentioned to enhance safety during nighttime use. Some respondents suggested bike safety classes to educate riders about traffic laws and safety practices, promoting responsible cycling habits within the community.
- F. **Specific Recommendations:** A mix of suggestions for specific roads included adding bike lanes on Union Rd, Ansborough St, and S Linn Ave. Proposals for enhancing the Cedar Valley Nature Trail and linking trails to broader regional networks were frequently mentioned, indicating a strong desire for interconnected biking routes.

What is the number one transportation problem in your life?

Some respondents emphasized the need for improved biking and walking infrastructure, including more trails and safer sidewalks.

Are there any other transportation problem areas in the area related to roads, bridges, bicycle and pedestrian facilities, or safety?

Additional transportation problem areas that were identified relating to bicycle and pedestrian facilities include the following:

- A. **Pedestrian and Bicycle Safety:** There is a lack of sidewalks in Jesup and along Union Rd leading to a new high school. A bridge is needed over Linn Ave in New Hampton for safe pedestrian and bicycle crossings on a new trail. Bikers face safety risks on Union Rd and Cedar Wapsi Rd due to narrow, shoulder-less roads. Bike trails, such as from Austinville to Parkersburg and along Hudson Rd at Hwy 20, also lack proper crossing lights and are in poor condition.
- B. **Intersection and Crossing Safety:** There are calls for better crosswalks, stop signs, and other safety measures around schools to protect pedestrians.

Any additional comments?

Sidewalks, Bike Lanes, and Safety: Many residents are concerned about unfinished sidewalks, the absence of bike lanes, and the need for safer walking and biking routes, especially around schools. Specific requests include sidewalks in Aplington and improved safety measures in New Hampton, such as making streets one-way during school hours. Railroad crossing safety is also a concern in rural areas with limited visibility and lack of crossbars.



Chapter 6

Freight



Chapter 6 – Freight



Freight Background

Multimodal freight is crucial for the economic growth of the region. Situated in the heart of the Midwest, this area heavily relies on smooth goods movement to fuel industries and local businesses. With varied multimodal infrastructure, the region enjoys better connections to regional, national, and global markets. This network allows easy transfers between modes, making freight movement efficient and cost effective. Undoubtedly, multimodal freight is a vital component driving economic prosperity and advancement in the region.

The importance of freight transportation planning has grown due to the increasing volume of goods moved. With expanding global trade and consumer demand, efficient systems are vital to reduce congestion and inefficiencies. Effective planning optimizes routes, modes, and infrastructure, meeting customer expectations while cutting costs and environmental impact. Anticipating trends helps identify bottlenecks, safety problems, and innovative solutions, enabling infrastructure upgrades. Integration of technologies and sustainability practices, like electric vehicles and green logistics, addresses environmental issues.

The significance of planning for multimodal networks and freight transportation has been emphasized by past federal transportation bills and continues with the Infrastructure Investment and Jobs Act (IIJA), also known as the Bipartisan Infrastructure Law (BIL). Three of IIJA's planning factors targeted towards the multimodal system and freight are to:

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the accessibility and mobility of people and for freight.
- Enhance the integration and connectivity of the transportation system, across and between modes for people and freight.

REGIONAL STATS

269

Transportation & Warehousing businesses¹

276

Miles of active rail lines²

213

Public at-grade rail crossings

91 & 13

Road-rail injuries and fatalities since 1975³

588

Miles of active pipeline⁴

Sources:

¹U.S. Census Bureau, 2022 County Business Patterns

²Iowa DOT, REST Services, Active Rail Lines

³U.S. DOT, Highway-Rail Grade Crossing Accident Data

⁴U.S. DOT, Pipeline and Hazardous Materials Safety Administration, National Pipeline Mapping System

Freight planning is distinct from planning for other transportation modes. This is because it mostly involves private sector operations, especially in rail and pipeline, where infrastructure is privately owned. This results in limited public data on freight and complicates collaboration among stakeholders. Some companies may be reluctant to share sensitive freight information.



The focus of this chapter is to explore freight and multimodal transportation which often overlap. The movement of freight frequently involves several steps and potentially multiple modes of transportation. There are four modes of freight transportation available in the region – truck, rail, air, and pipeline. The region does not contain any navigable waterways.

State Freight Plans

Iowa State Freight Plan 2022

The primary purpose of the State Freight Plan is to document the immediate and long-range freight planning activities and investments in the state. More specifically, it provides guidance on how to address issues, adapt to emerging trends, and invest strategically in the freight system to grow a stronger economy, strengthen the nation’s competitive advantage, and enhance the quality of life for Iowans.

Developed in coordination with the Iowa Freight Advisory Council (FAC), the State Freight Plan serves as a platform for connecting Iowa’s freight-related initiatives and a tool for informed decision-making aimed at addressing the ongoing challenges of today’s freight system and supply chains.



This document is the second in the current series of freight plans that are federally required to be updated every four years. The 2022 State Freight Plan is an updated and streamlined version of the original 2017 State Freight Plan with several notable enhancements that will impact the freight transportation system including:

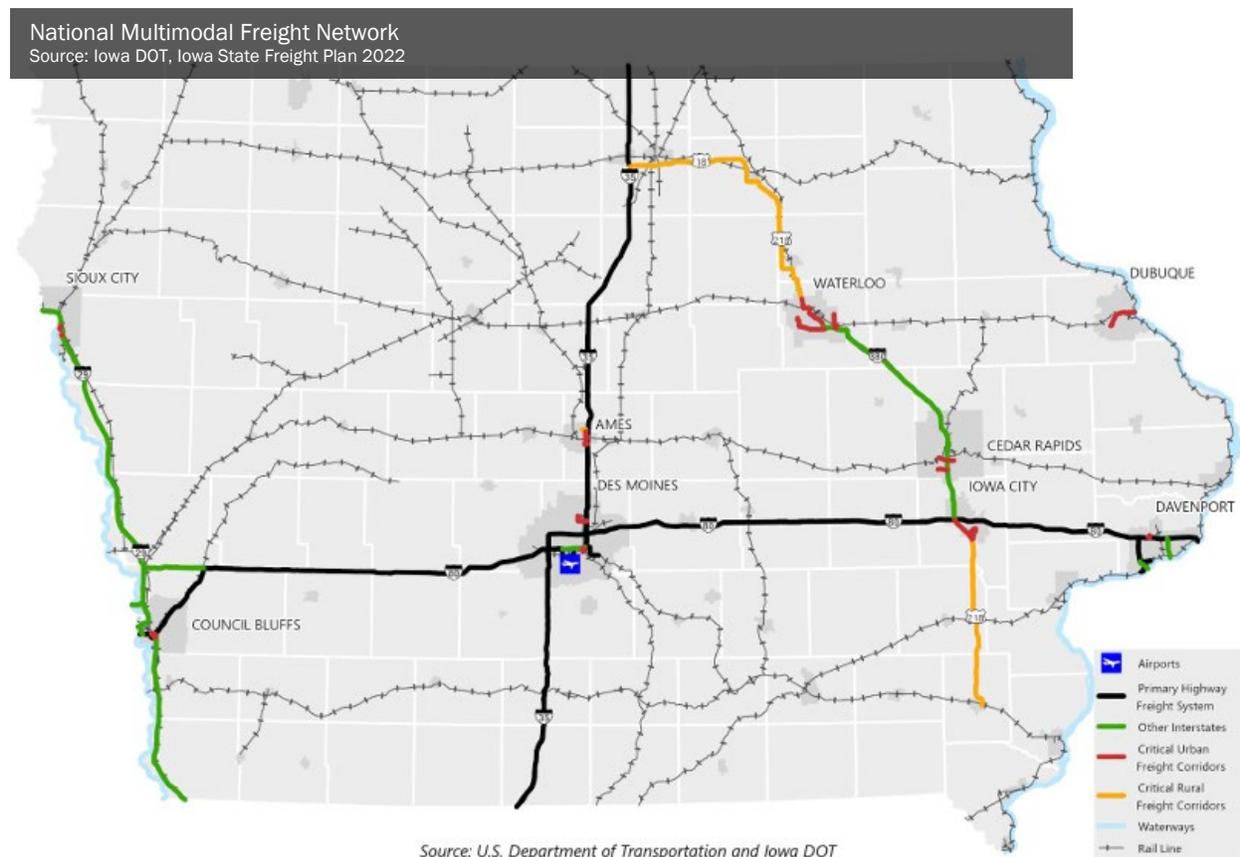
- Clearly defined system objectives
- Process for identifying multimodal bottlenecks
- Focus on infrastructure and supply chain resiliency
- Freight design considerations
- Commercial motor vehicle parking facilities assessment
- Catalog of freight-generating facilities

www.iowadot.gov/iowainmotion/Specialized-System-plans/2022-State-Freight-Plan

The most critical freight infrastructure in Iowa is designated as part of two freight networks – the National Multimodal Freight Network (NMFN), designated at the federal level, and the Iowa Multimodal Freight Network (IMFN), designated at the state level. The NMFN consists primarily of infrastructure of national and international significance. The IMFN complements the national network by also identifying infrastructure critical to state and regional commerce including airports, highways, railroads, and inland waterways. Strategic military networks, specifically the Strategic Highway network (STRAHNET) and Strategic Rail Corridor Network (STRACNET), are also designated to prioritize infrastructure and connectivity needs for national defense.

The National Highway Freight Network (NHFN) is the highway portion of the NMFN and the system eligible for National Highway Freight Program (NHFP) funds distributed to the states annually. The NHFN includes the following four subsystems of roadways:

- Primary Highway Freight System (PHFS) – A network of highways designated at the federal level and identified as the most critical highway portions of the U.S. freight transportation system.
- Other Interstate portions not on the PHFS – These highways consist of the remaining portion of Interstate roads not included in the PHFS. These routes provide important continuity and access to freight transportation facilities.
- Critical Rural Freight Corridors (CRFC) – Public roads not in an urbanized area that provide access and connection to the PHFS and the Interstate from other important ports, public transportation facilities, or other intermodal freight facilities.
- Critical Urban Freight Corridors (CUFC) – Public roads in urbanized areas that provide access and connection to the PHFS and the Interstate from other ports, public transportation facilities, or other intermodal freight facilities.



Iowa Multimodal Freight Network
Source: Iowa DOT, Iowa State Freight Plan 2022



Source: Iowa DOT

The State Freight Plan identifies specific improvements to address the freight mobility issues experienced in Iowa. These improvements are intended to support the state's freight implementation strategies, the national freight goals, and the Iowa DOT system objectives.

There were **27 locations identified as highway freight bottlenecks in Iowa.** Highway segments with capacity needs that impact freight mobility were also identified. To identify and prioritize candidates for highway freight improvements, the Iowa DOT utilized the Value, Condition, and Performance (VCAP) matrix. This approach takes advantage of multiple tools available at the Iowa DOT, including the Iowa Travel Analysis Model (iTRAM), Infrastructure Condition Evaluation (ICE), INRIX travel speed data, and Iowa's annual traffic counts. After each potential location was assigned a VCAP value, each was ranked for the three categories. The average of these three rankings was calculated and the locations were assigned an overall priority rank. Though the analysis shows localized areas of forecasted congestion in 2050, **none of the 27 highway freight bottlenecks identified fall within the Iowa Northland Region.**



Highway freight priority locations and capacity needs

Source: Iowa DOT, Iowa State Freight Plan 2022



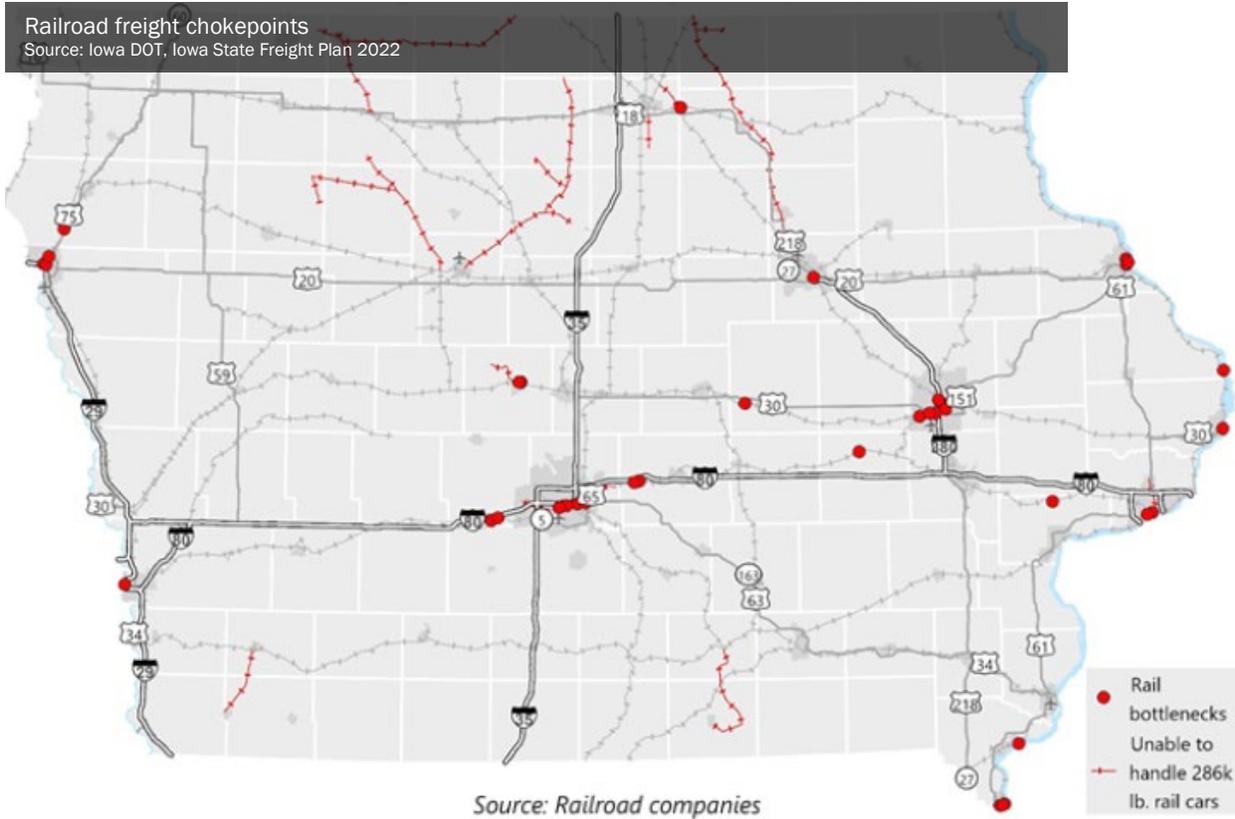
Source: Iowa Travel Analysis Model, Infrastructure Condition Evaluation, and INRIX

Railroad bottleneck locations (more commonly referred to as “choke points”) were identified by surveying each of the rail companies operating trackage in the state. Locations submitted primarily include structural choke points (e.g., low clearance areas and bridges with size restrictions), congested choke points (e.g., locations with



operational issues or shared-use corridors), and low-lying areas at risk of flooding during heavy rains or high-water levels. Additionally, railroads continue to focus their attention on heavier axle-load freight equipment and longer, heavier trains to lower costs. Using larger rail cars in 100-plus car unit trains allows the greatest savings and economic benefits, as well as keeping would-be truck traffic off the highways. The industry standard for rail car weight, which includes the weight of commodities and the rail car combined, is 286,000 pounds. Iowa has rail lines that are unable to carry the sizes and weights of railroad equipment that meet this threshold. Bryant Yard at Waterloo is a

railroad freight chokepoint due to the convergence of traffic from three subdivisions resulting in insufficient classification space. Additionally, the **CN rail from Cedar Falls north to Charles City and the state border cannot accommodate the sizes and weights required by industry standards.**

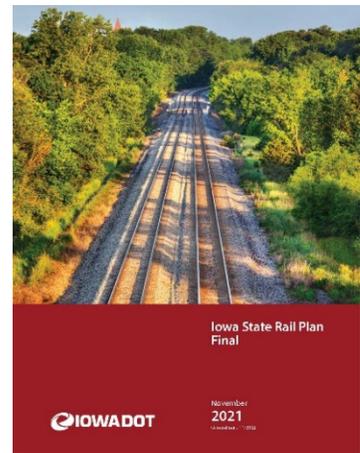


Iowa State Rail Plan 2021

This document guides the Iowa DOT in promoting rail access, improving freight and passenger rail, and enhancing rail safety. The State Rail Plan describes Iowa's rail network, its impacts, and the planning process. The Plan includes goals, capital improvements, studies, and steps to address identified issues. The document meets requirements from the Passenger Rail Investment and Improvement Act of 2008, enabling Iowa to be eligible for rail-related capital grants.

Various themes arose during the outreach process regarding existing rail issues at the local, regional, or state levels and the direction or actions that should be taken in the future. The themes described included:

- General rail benefits, opportunities, and threats
- Rail-related economic development
- Rail freight
- Intercity passenger rail service
- Commuter rail service
- Rail safety and security
- Environmental issues
- Rail financing
- The role of public agencies regarding rail



Based on suggestions obtained through outreach efforts, the Iowa DOT developed Iowa's rail vision of "A safe, secure, and efficient Iowa rail system that ensures Iowa's economic competitiveness and development by maintaining the rail infrastructure and providing rail access and connectivity for people and goods in an environmentally sustainable manner."

Rail service goals aligned with the vision were developed based on the rail-related benefits, issues, and challenges that had been identified. These goals are as follows:

- Enhance safety and security of the rail system
- Maintain the rail infrastructure
- Provide access and connectivity
- Improve efficiency
- Ensure economic competitiveness and development
- Sustain the environment

<https://iowadot.gov/iowainmotion/modal-plans/rail-transportation-plan>

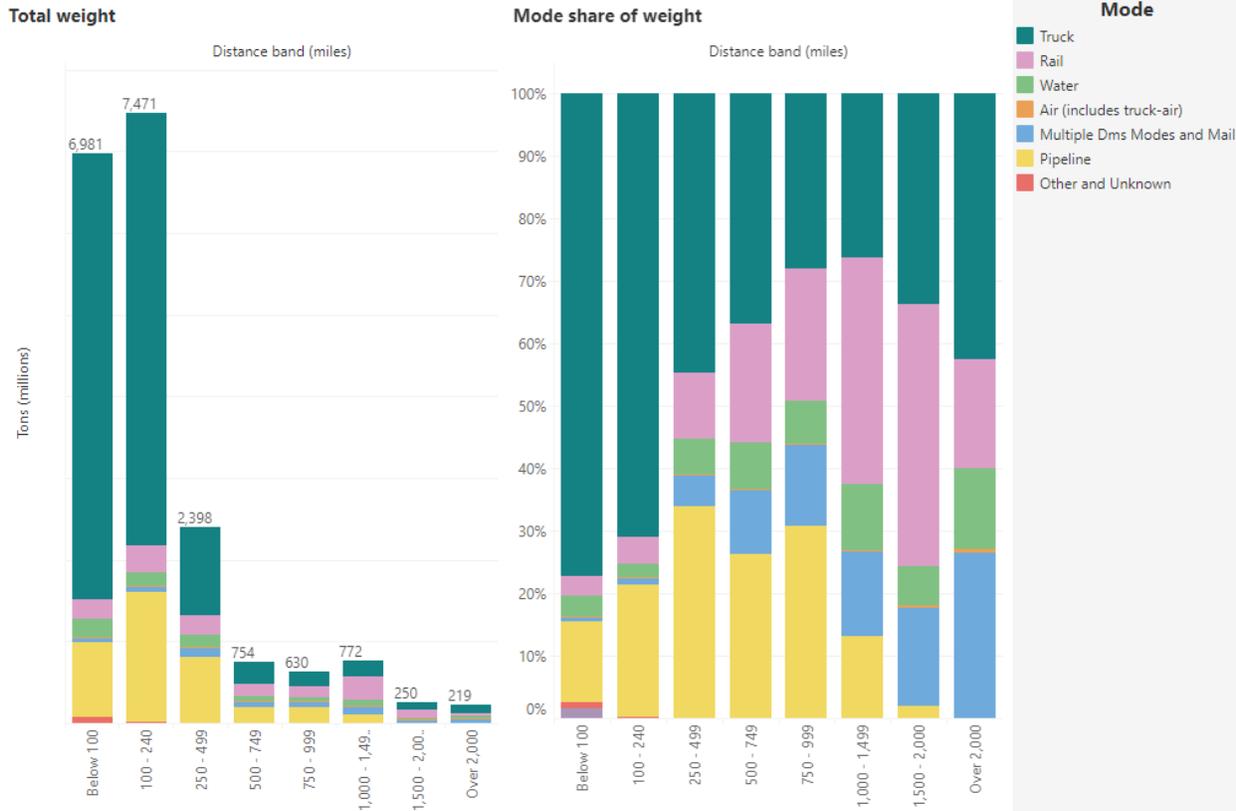


Freight at the National Level

Freight is categorized by weight and value. Weight matters for transportation and system health. Value matters economically and helps identify influential goods and industries in local economies.

In 2021, the U.S. transportation system moved **53 million tons of freight daily, worth over \$50.7 billion**. The Freight Analysis Framework (FAF), produced through a partnership between the U.S. DOT, Bureau of Transportation Statistics, and FHWA estimates tonnage will increase at about 1.4 percent per year between 2022 and 2050. Freight value is predicted to increase faster, growing from \$996 to \$1,256 per ton (adjusted for inflation). This is due to higher growth in valuable, lightweight goods. In 2022, exports at \$1,278 per ton and imports at \$1,941 per ton exceeded domestic shipments at \$909 per ton. By 2050, exports and imports are expected to make up 13.8 percent of tonnage and 21.7 percent of value.

The largest percentage of goods, by weight and value, are transported short distances (less than 250 miles). Approximately 73.8 percent of the weight and 55.5 percent of the value of goods moved less than 250 miles between origin and destination in 2022. In contrast, about 6.6 percent of the weight and 17.4 percent of the value of goods moved 1,000 miles or more in 2022. Trucks carry 77 percent of the freight tonnage that travels less than 100 miles.



The distribution of transportation modes used for freight movement differs based on the distance covered. When considering both current and constant dollars, trucks take the lead in carrying the most valuable shipments for distances less than 2,000 miles. This underscores their efficiency and suitability for shorter hauls. Conversely, for shipments covering distances between 1,000 and 2,000 miles in 2020, rail emerges as the dominant mode in terms of weight and ton-miles. This indicates that rail transport is particularly well-suited for hauling heavier cargo across moderate distances.



However, as distances extend beyond 2,000 miles, a different pattern emerges. Air transport, a combination of various modes including mail, water transportation, and rail, together account for more than half of the total value of shipments in this longer distance category. This suggests that these modes play a significant role in facilitating the movement of high-value goods across extensive geographical

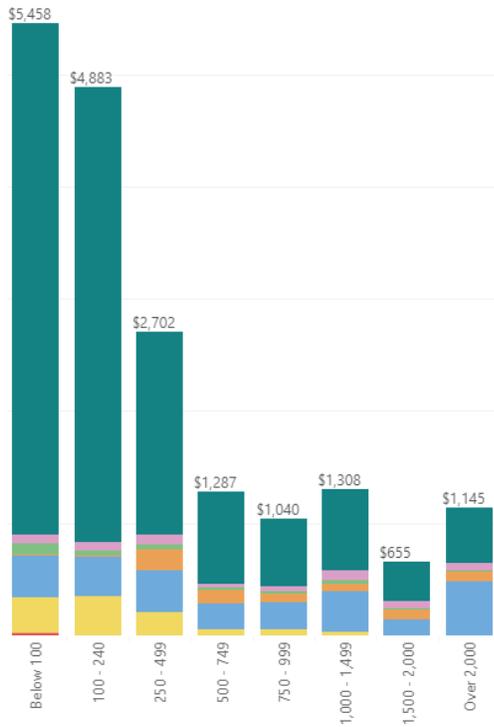
spans. The reliance on air transport indicates the importance of speed and efficiency in covering vast distances, while the combined usage of multiple modes highlights the complexity and integrated nature of modern supply chains that span across different transportation networks.

Value of freight by mode and distance, 2021

Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework

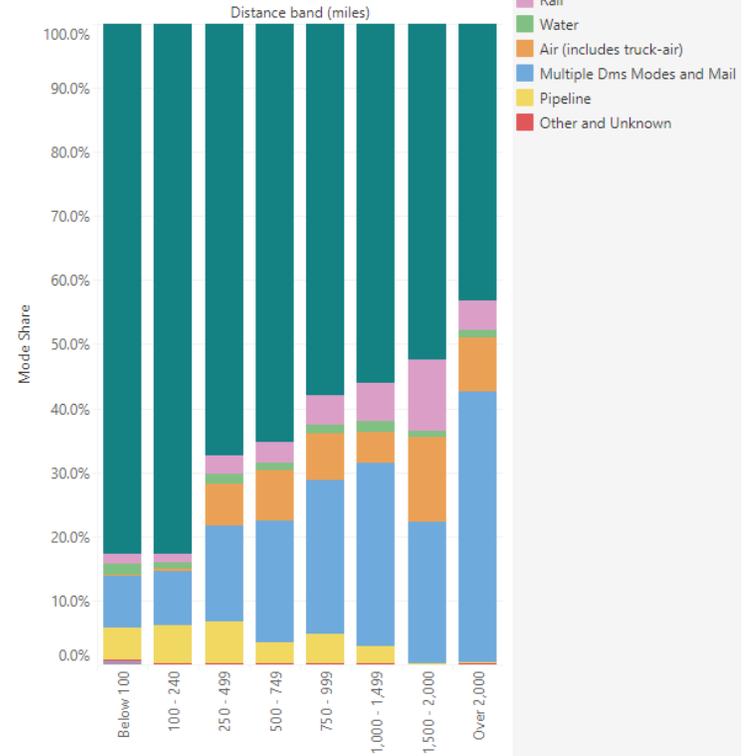
Total value

Current dollars (billions)



Mode share of value

Current dollars (billions)



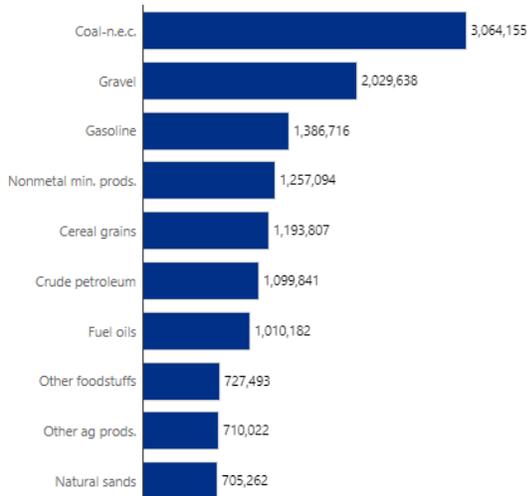
The top ten commodities by weight accounted for 65 percent of total tonnage while the top 10 by value accounted for 60 percent of total value of goods moved in 2022. The leading commodities by weight are coal-n.e.c., gravel, gasoline, and nonmetallic mineral products. The leading commodities by value are high value-per-ton goods, such as electronics, motorized vehicles, mixed freight (principally food), and machinery.

Top commodities by weight and value, 2021

Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework

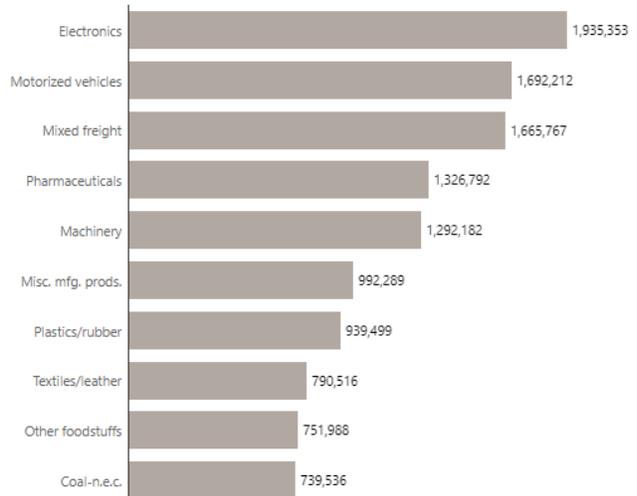
Weight

Thousands of tons

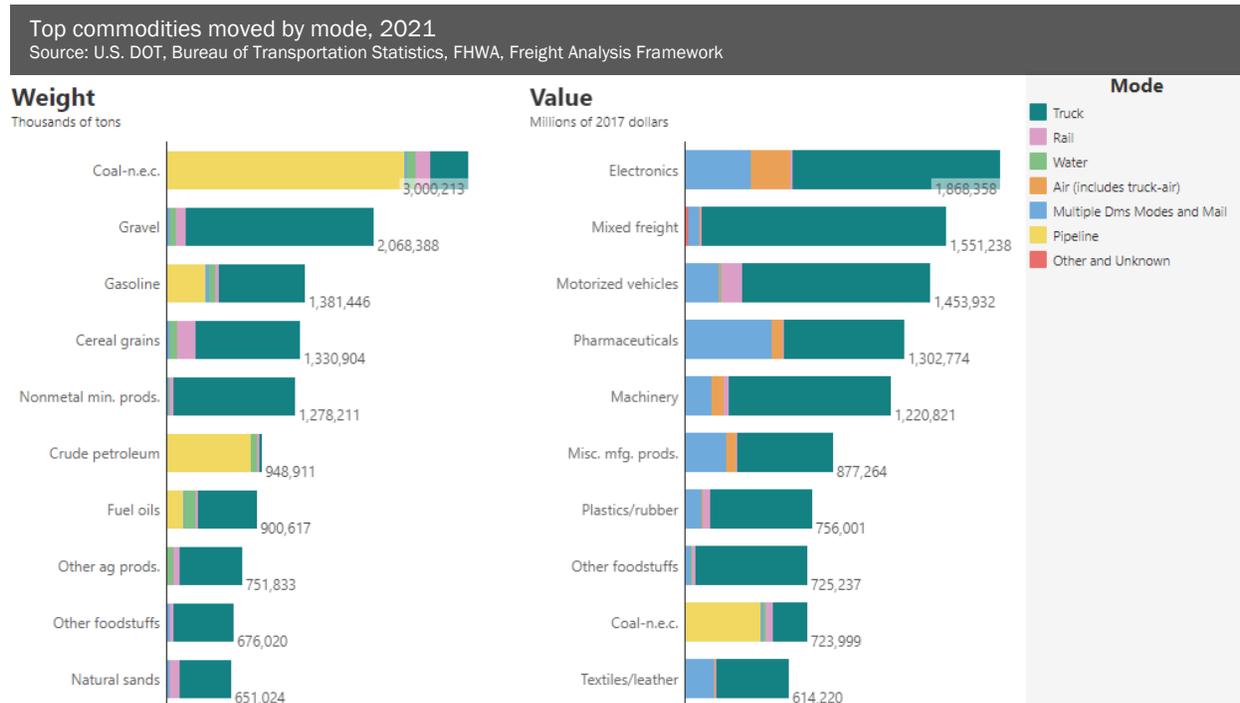


Value

Millions of 2017 dollars



Trucks engage in the supply chain of all top 10 commodities by weight and value. Trucks carry all types of goods, ranging from high-value commodities, such as mixed freight and electronics, to bulk commodities, such as gravel, grains, and gasoline. Mixed freight includes grocery and convenience store goods, office supplies, and hardware and plumbing items. In comparison, rail and water modes primarily move bulk products, while air (including truck-air transport) moves high-value items, such as electronics and pharmaceuticals. However, trucks moved more high-value, time sensitive commodities than any other mode in 2022.



www.bts.gov/product/freight-facts-and-figures

Freight in Iowa

Iowa's strong economy depends on smooth freight transportation for continued growth. Known as the "Food Capital of the World," Iowa produces significant quantities of corn, soybeans, and livestock. It also has a thriving manufacturing sector making machinery, chemicals, and more. To connect its industries with markets, Iowa needs a reliable freight system. This system ensures timely deliveries of materials for production and smooth distribution of finished goods. The need for good freight transportation shows Iowa's vibrant economy and dedication to business growth and jobs.



The need for freight transportation is influenced by where people and businesses are located. In the South and West, population and economic activity have grown faster than in the Northeast and Midwest. Iowa's transportation system is vital for moving freight from coast to coast and for handling goods that pass through the state.

Iowa's current transportation system boasts an extensive network of roads, bridges, railroads, waterways, pipelines, and airports, which play a vital role in connecting the state's communities and facilitating the movement of people and goods. The state has a robust road network, enabling efficient travel within and beyond its borders. The state's railroad system covers significant mileage, supporting freight transportation contributing to the state's economy. Iowa also benefits from its extensive network of waterways, including the Mississippi and Missouri Rivers, which allows for efficient barge transportation. The state also hosts an extensive pipeline network for the transportation of various resources. Furthermore, Iowa's airports, both commercial and general aviation, are strategically located throughout the state, offering convenient travel options for residents and businesses.

According to the FAF, freight tonnage moving in the U.S. will double in the next 20 years, challenging the overall freight transportation system. This growth will be reflected in Iowa at varying levels across all modes. **Iowa's transportation system facilitated the movement of 642 million tons of freight with an estimated value of \$376 billion in 2021.** The total weight of goods imported into and exported out of the state is expected to grow.

Since the turn of the century, Iowa has remained an exporting state, meaning the state produces and exports more goods than it imports. This is true both in terms of tonnage and value. Iowa's import-export gap is projected to grow from 40 million tons in 2017 to 115 million tons by 2050.

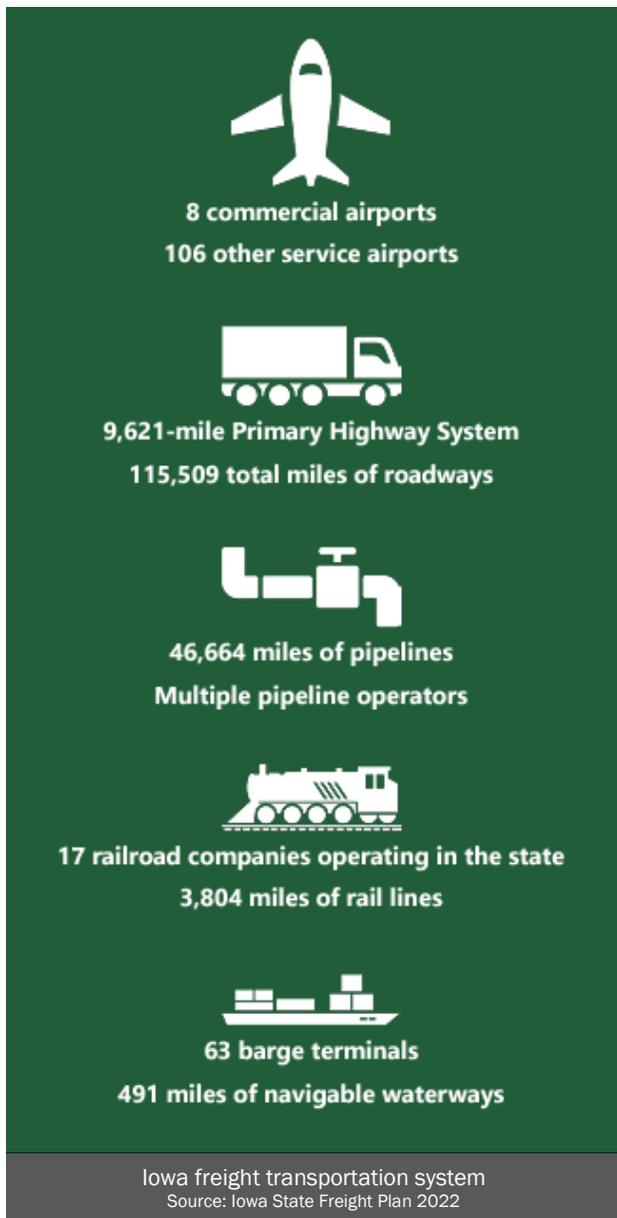
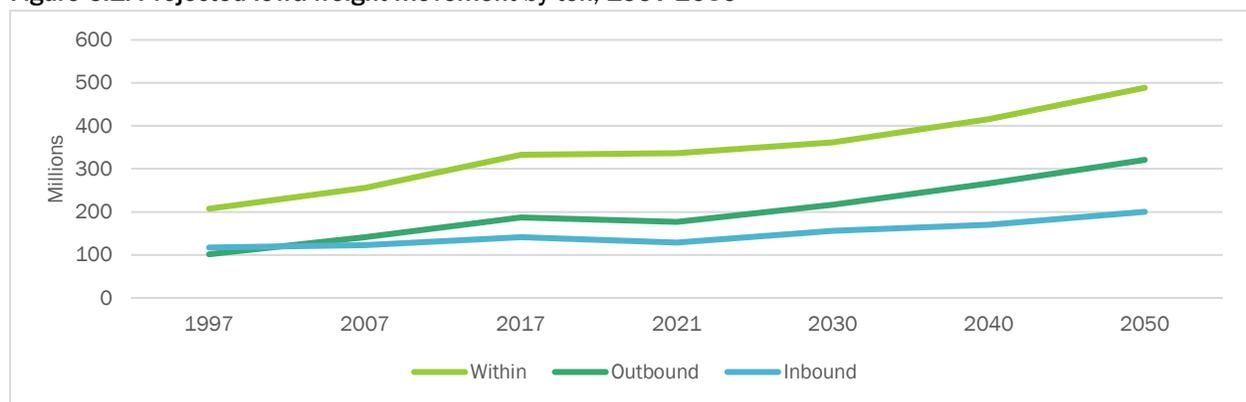
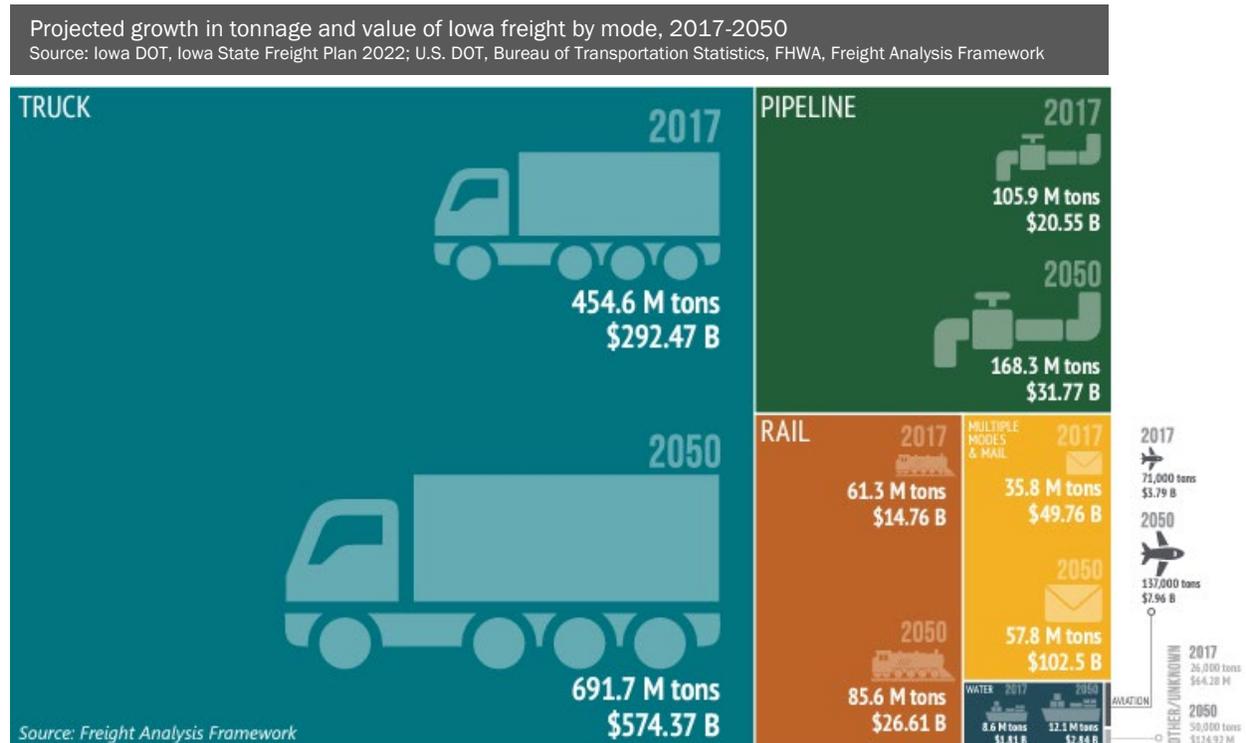


Figure 6.1: Projected Iowa freight movement by ton, 1997-2050



Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework

The graphic below shows Iowa's freight tonnage and value by mode in 2017, and the projections for 2050. **Truck, rail, and pipeline are the three top modes and collectively transport 93 percent of the tonnage to, from, and within Iowa.** These three modes are expected to maintain their prominence through 2050. In addition, the share of each mode's tonnage is expected to remain consistent with slight changes of less than one percent. The continued prominence of trucks coupled with the projected 52 percent increase in tonnage will have a significant impact on the state's highway system, resulting in increased congestion and more rapid deterioration of pavement and structures along the roadways.

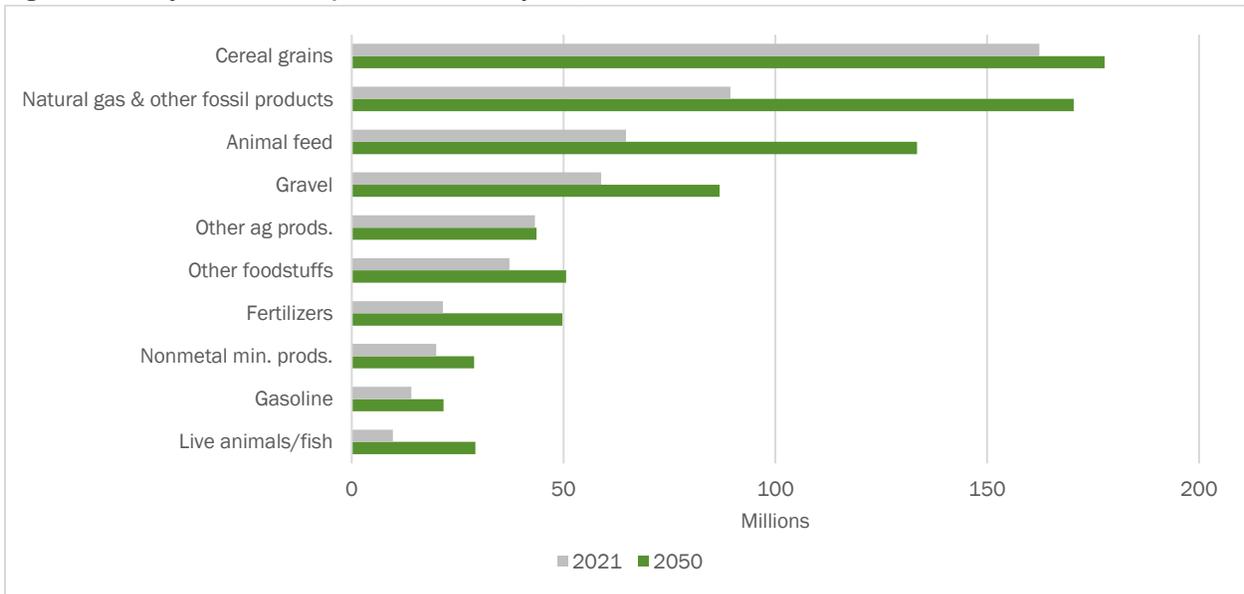


Iowa is renowned for its agricultural strength, with cereal grains, animal feed, other agricultural products, other foodstuffs, fertilizers, and live animals and fish among its top commodities by weight. The state's fertile soil and favorable climate make it an ideal region for growing an array of cereal grains, such as corn, soybeans, and oats. These crops serve as the foundation for Iowa's thriving agriculture industry, contributing significantly to the state's economy. Iowa's cereal grains are not only used for human consumption but also play a crucial role in producing animal feed. With a robust livestock sector, including hogs, cattle, and poultry, Iowa has a high demand for animal feed to support its thriving livestock industry.

Iowa's top commodities highlight the state's agricultural ability and diverse industrial output. Corn, being a staple crop in the state, occupies a sizable portion of Iowa's top commodities along with other cereal grains. With vast fields of corn across its fertile lands, Iowa produces a substantial weight of corn, contributing to the state's agricultural economy. Soybeans, another major crop, also make a significant impact on Iowa's commodity landscape, both in terms of weight and economic value. As shown in Figures 6.2 and 6.3, agricultural products will play a key role in Iowa's economy for years to come.

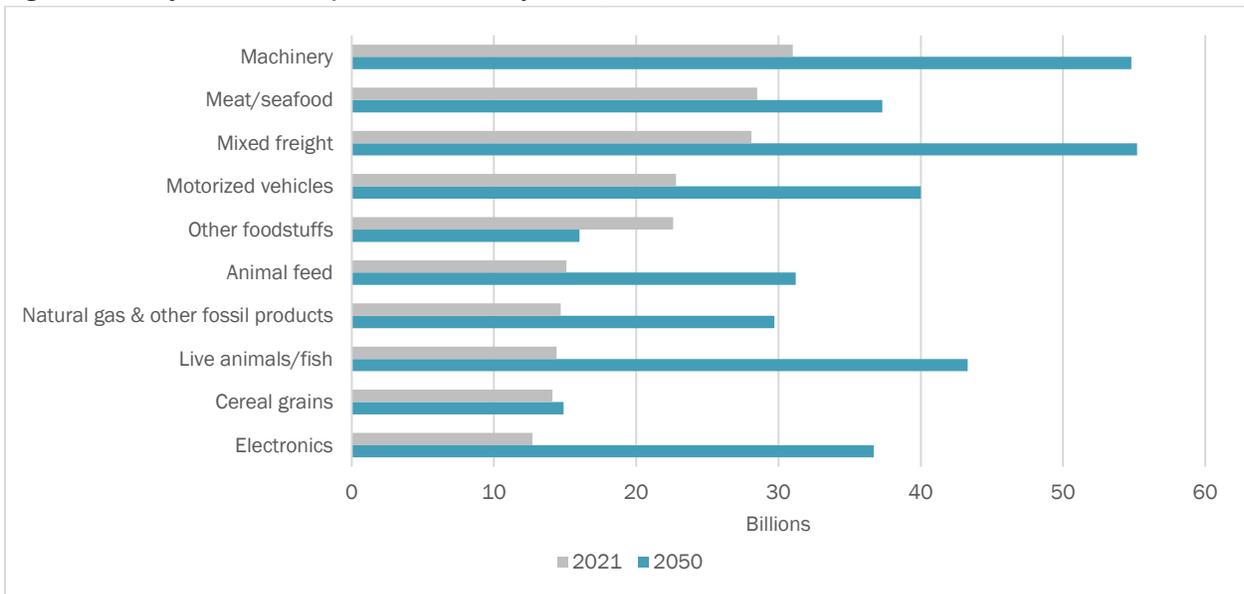


Figure 6.2: Projected Iowa top commodities by ton, 2021-2050



Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework

Figure 6.3: Projected Iowa top commodities by value, 2021-2050



Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework



In 2021, Iowa's top domestic trading partner by value was Illinois, as shown in Table 6.1. By tonnage, Minnesota was Iowa's top domestic trading partner with 81 million tons imported from or exported to the state. Iowa receives most domestic imports from the Great Plains and Midwest regions, with some exports from Texas and Louisiana. Iowa exports most goods throughout the Midwest (reference Figures 6.5 and 6.6).

Table 6.1: Iowa's top five domestic trading partners by value (billions), 2021

State	Origin from Iowa	Destination to Iowa	Total
Illinois	\$20.2	\$15.9	\$36.1
Minnesota	\$16.6	\$15.6	\$32.2
Nebraska	\$10.5	\$9.7	\$20.2
Missouri	\$7.5	\$6.9	\$14.4
Texas	\$9.2	\$3.7	\$12.9

Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework

In 2020, Iowa's top international trading partner was Canada at \$3.5 billion of goods, followed by Mexico at almost \$2 billion, and China at \$1.2 billion. Figure 6.4 shows the locations of Iowa's top ten international trading partners, and the value of goods exported. The state of Iowa exported \$12.6 billion in goods in 2020, the top commodity being corn, followed by tractors, pork, and soy products.

Figure 6.4: Iowa's top ten international trading partners (exports only) by value, 2020

Source: Iowa DOT, Iowa State Freight Plan 2022; U.S. Census Bureau and U.S. Trade Online

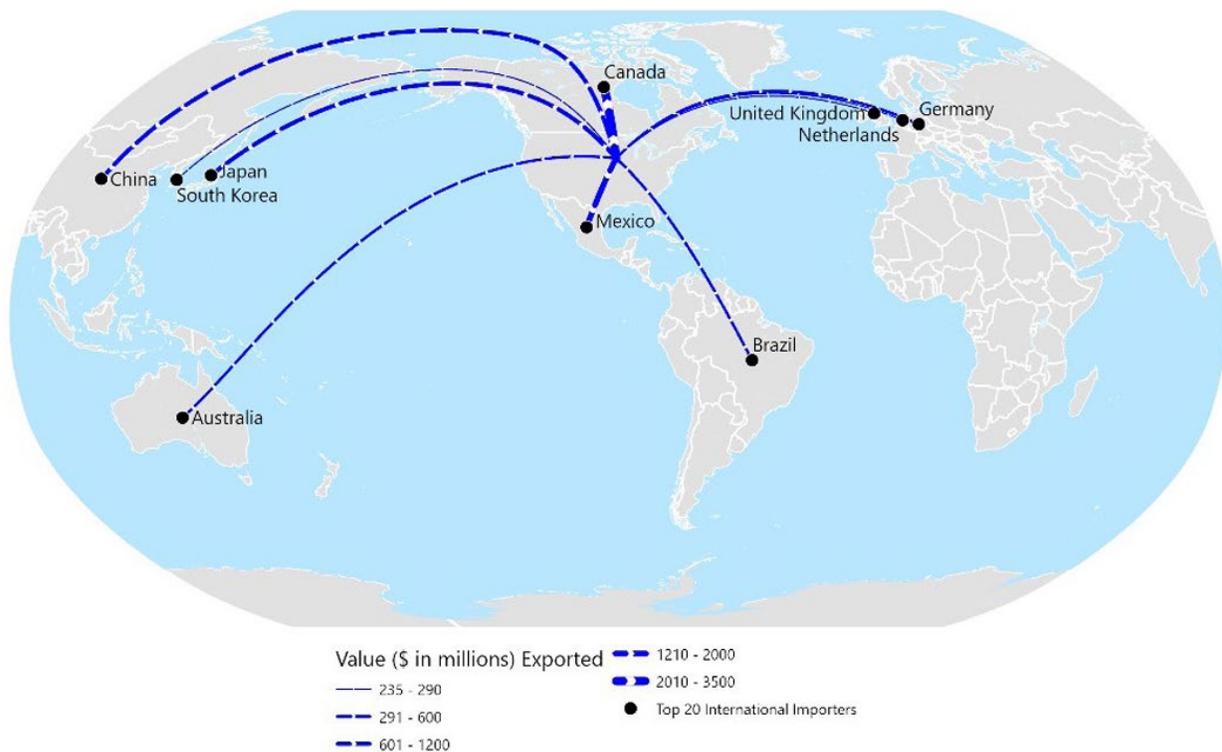


Figure 6.5: Domestic origin-destination flows from Iowa by ton (thousands)

Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework

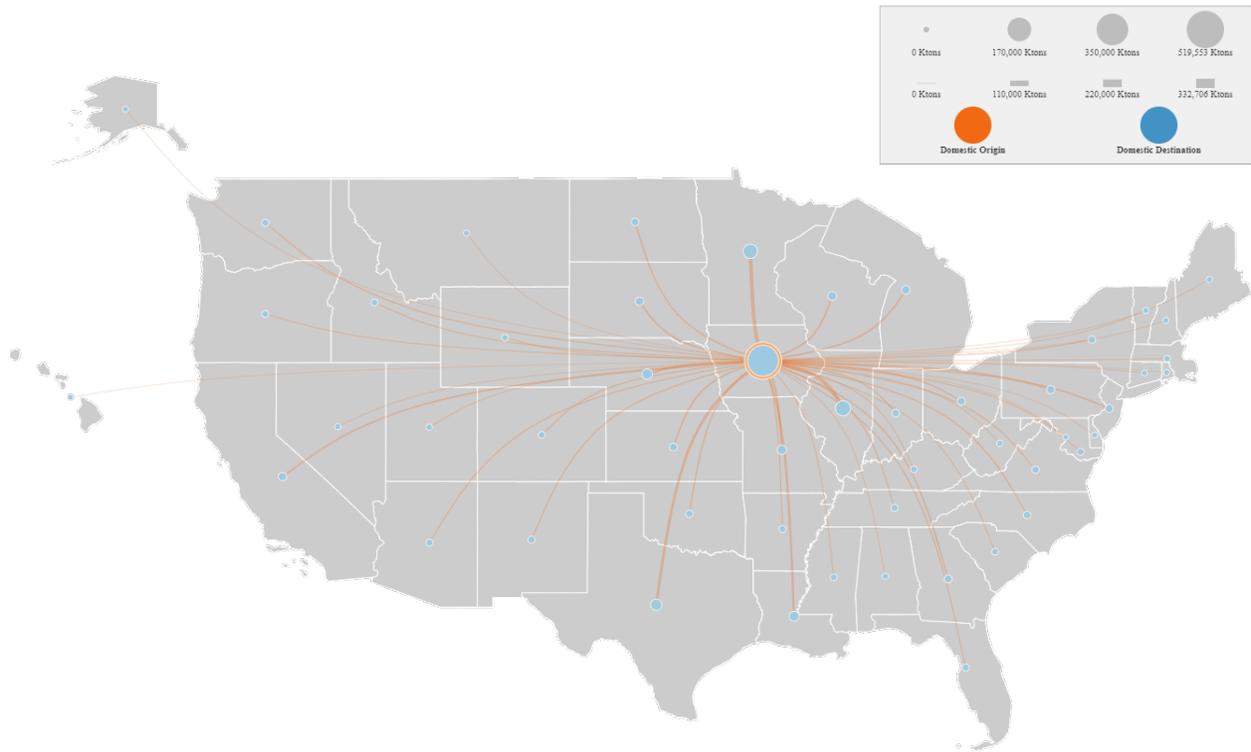
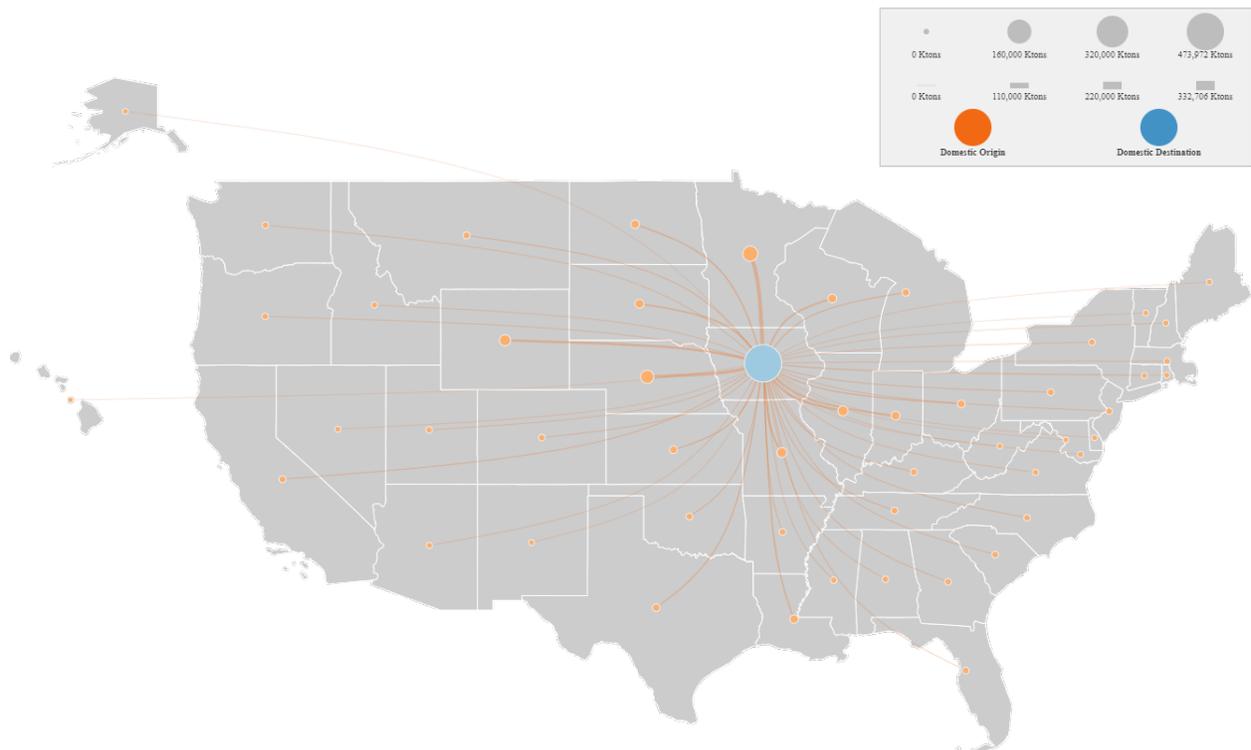


Figure 6.6: Domestic origin-destination flows to Iowa by ton (thousands)

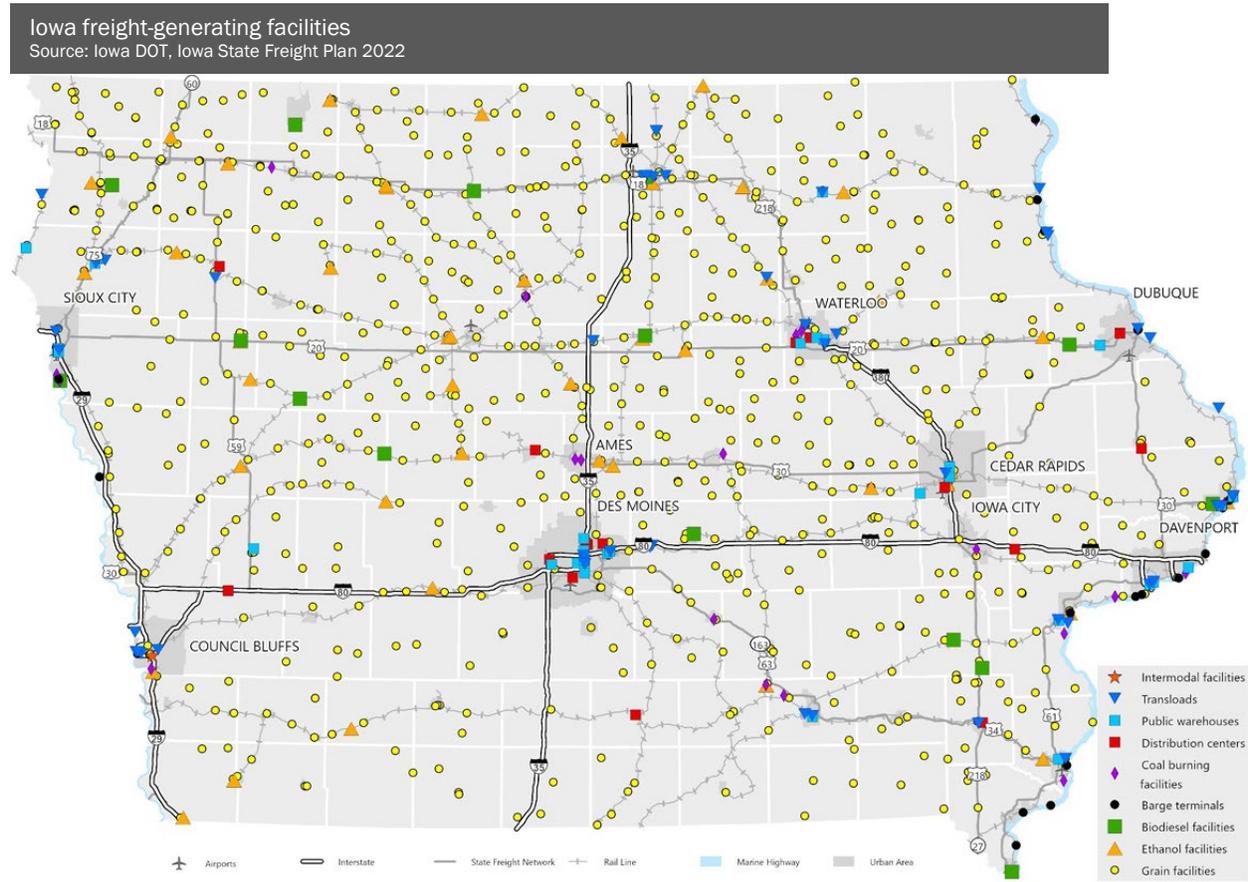
Source: U.S. DOT, Bureau of Transportation Statistics, FHWA, Freight Analysis Framework



Iowa's freight system includes several intermodal facilities and transload facilities which play a pivotal role in the modern transportation and logistics industry. Intermodal facilities are key hubs where various transportation methods like rail, trucking, and shipping come together to smoothly exchange goods. They have the setup, tools, and knowledge to manage shipments efficiently, making the whole transportation process cost-effective. These places ensure containers move easily between different modes, cutting handling costs and boosting supply chain reliability. Transload facilities play a similar role, helping goods switch between transport modes like rail and truck. They are adaptable, letting transportation methods change based on cost, efficiency, and what customers need.



The multimodal options within Iowa also include several warehouse and distribution centers that collect and distribute freight. These locations can generate many truck trips from the shipping and receiving of products and commodities, making them an important part of the transportation planning process.



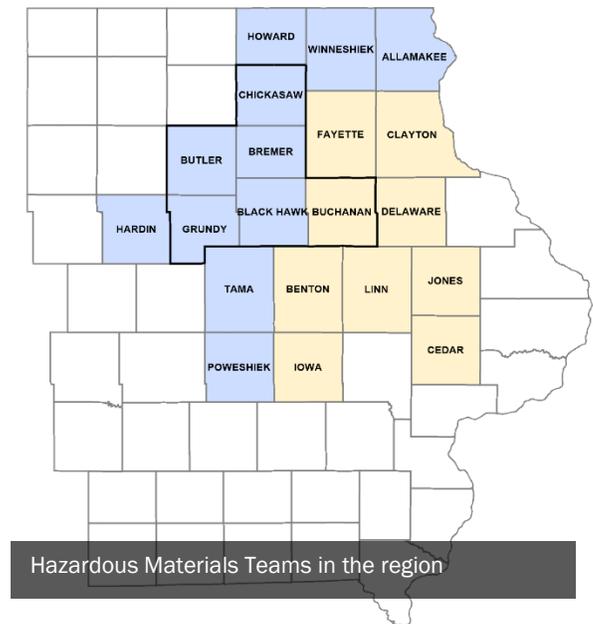
Freight in the Region

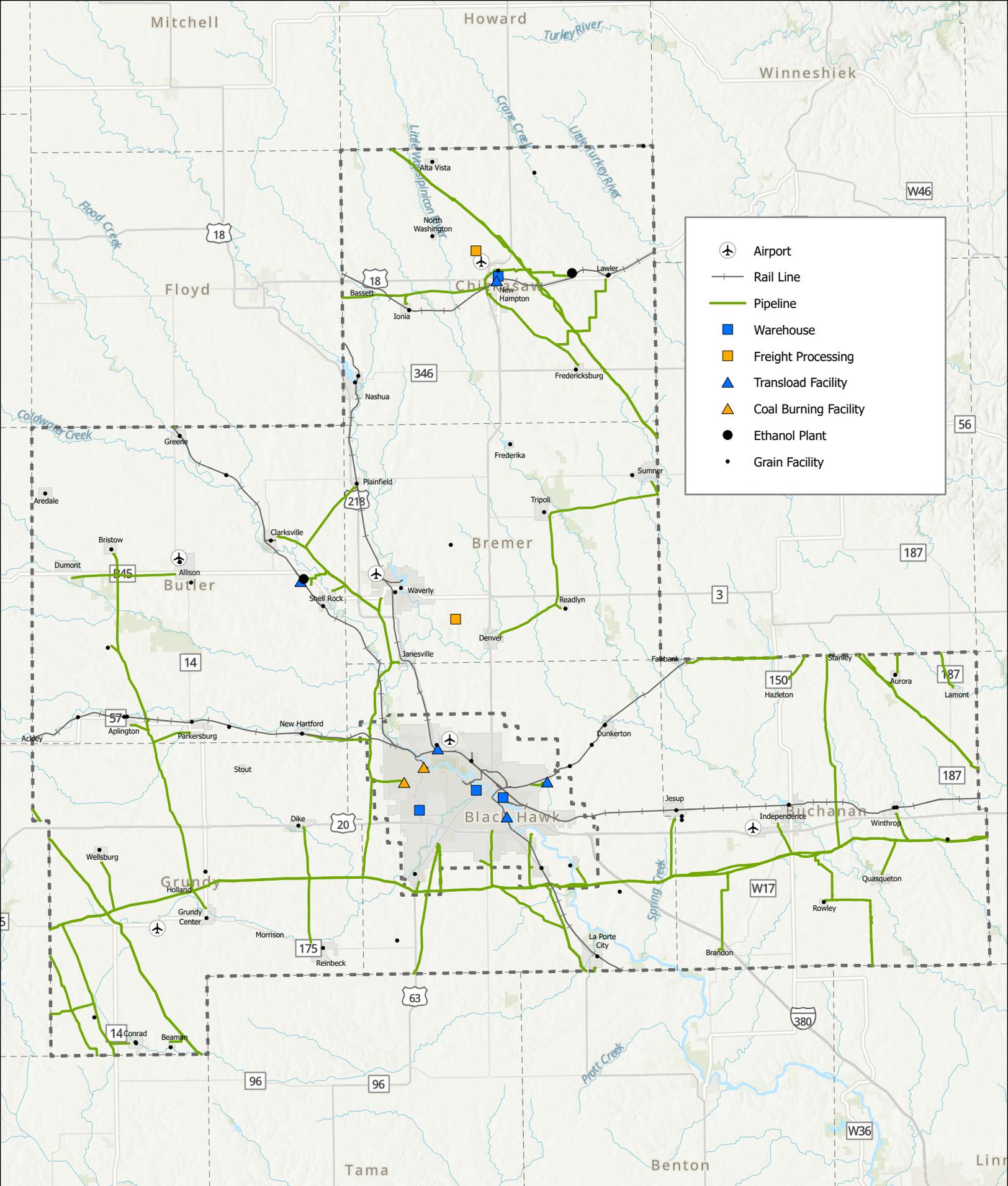
Freight in the Iowa Northland Region moves through four primary transportation modes: truck, rail, air, and pipelines. These channels facilitate the movement of goods both within the region and to and from it. Map 6.1 illustrates these multimodal freight components across the area.

The region is home to multiple manufacturing companies and industries that facilitate or rely on freight movements. There are also a variety of transportation-related companies and motor carriers homebased in the region. According to the U.S. Census Bureau 2022 County Business Patterns, the Iowa Northland Region, including the Waterloo-Cedar Falls metropolitan area, has **269 transportation and warehousing establishments with a total of 4,300 employees and annual payroll of \$240.7 million**. There are also a variety of businesses in the region that rely on freight transportation. Businesses in the manufacturing, retail, and wholesale sectors require efficient transport of their products inbound and outbound.



A wide variety of freight is moved throughout the region every day, much of which arrives without incident. However, accidents involving freight do occur and must be planned for accordingly. Of particular concern is the transport of hazardous materials. Each county has an Emergency Management Agency (EMA) and EMA Coordinator whose emergency management efforts include mitigating future risk from hazards, and developing a Hazard Mitigation Plan which outlines the potential for natural and humanmade disasters and the potential impact of those disasters on the community and the transportation system. In the event of a crash, spill, or derailment involving hazardous materials, it is imperative that local jurisdictions be prepared to respond in an expeditious manner. Waterloo serves as the base for the Northeast Iowa Response Group, which handles hazmat incidents across an 11-county area, including Black Hawk, Bremer, Butler, Chickasaw, and Grundy Counties. Meanwhile, Buchanan County falls under the jurisdiction of the Linn County Regional HAZMAT Team, which covers a nine-county region.





Map 6.1
Freight Generating Facilities

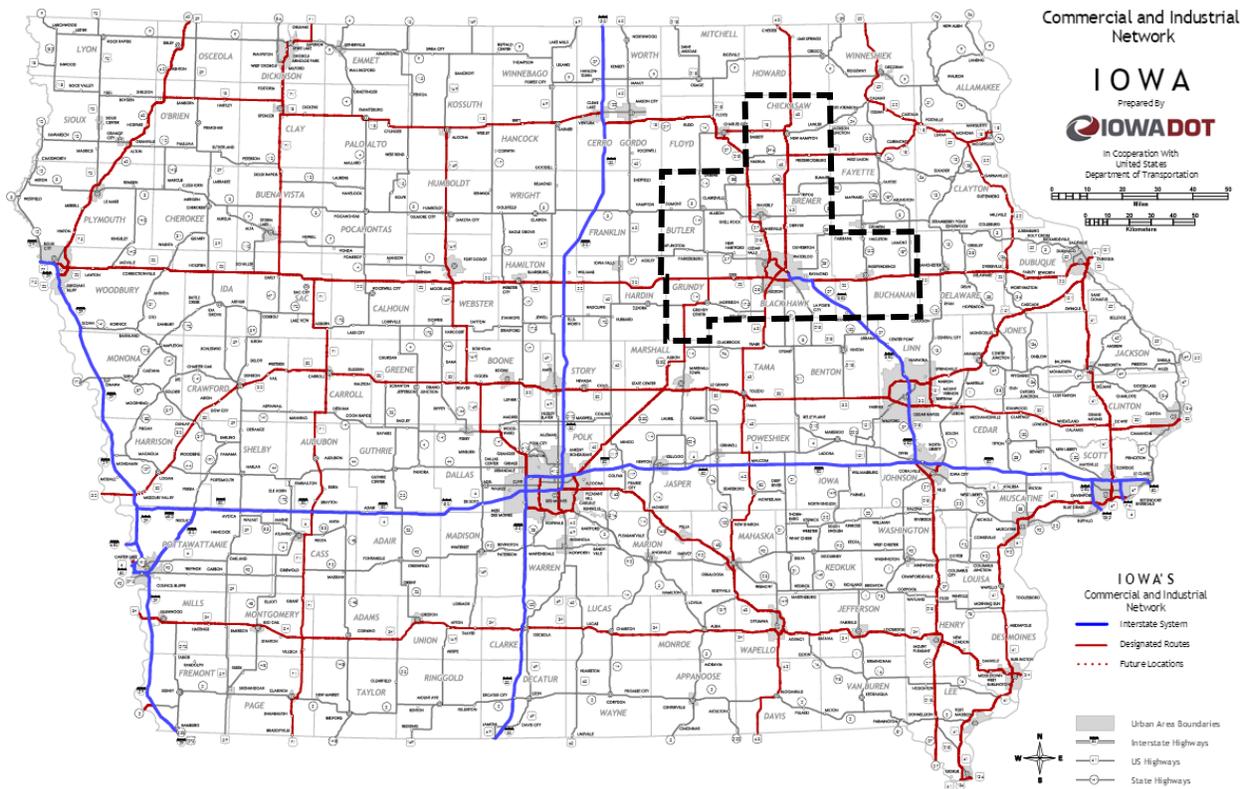
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Truck Transportation

The region has an extensive highway network that makes moving goods easy and helps the local economy. The highway system connects different business areas within and outside of the region, making it simple for companies to transport their products to other places. Most truck movement happens on the Interstate System and the Commercial and Industrial Network. These highways stretch beyond the region, connecting it to the state and the whole country. These great roads do not just help local businesses, they also bring in industries and help the economy grow by giving them reliable access to bigger networks.



Truck transportation is crucial for shippers in the region for a few key reasons. Iowa's vast highway network makes trucking easy and accessible. Trucks can reach both cities and remote places, delivering goods efficiently. They are fast and direct, which is important for time-sensitive items like agriculture and manufacturing products. Trucks are versatile, fitting all sorts of cargo sizes and types. Plus, they give shippers control with tracking and adjusting delivery times. Overall, these factors make trucks the top choice for shippers in the region.

Highway Network

The region has a substantial inventory of principal and major arterials that connect the area to the rest of the Midwest and nation. Table 6.2 provides a comparison of traffic figures for segments of these highways from 2016 to 2022. During the COVID-19 pandemic, Iowa experienced a notable decrease in total traffic as restrictions and lockdown measures limited travel and commuting. However, in contrast to the decline in passenger vehicles, freight traffic witnessed an increase during this time. The heightened demand for essential goods, medical supplies, and e-commerce deliveries led to a surge in freight movement across the state and the region. Freight traffic remained robust as trucking companies and logistics providers adapted to meet the evolving needs of the pandemic era.



Table 6.2: Highway traffic comparison, 2016 to 2022

Location	AADT 2016	AADT 2022	Percent Trucks 2016	Percent Trucks 2022	+/- Percent Trucks
I-380 at D48 interchange (Buchanan)	17,500	17,900	19.7	27.0	7.3
I-380 at east junction U.S. 20 interchange (Black Hawk)	16,700	16,900	19.5	27.6	8.1
U.S. 20 at IA 14 interchange (Grundy)	9,400	10,000	22.0	27.7	5.7
U.S. 20 at T55 interchange (Grundy)	12,800	13,600	20.5	21.4	0.9
U.S. 20 at V51 interchange (Black Hawk)	13,300	11,900	13.5	16.3	2.8
U.S. 20 at IA 150 interchange (Buchanan)	10,900	9,500	18.0	23.6	5.6
U.S. 218 at C57 interchange (Black Hawk)	20,800	21,100	11.5	12.2	0.7
U.S. 218 at IA 116 interchange (Waverly)	21,500	20,500	11.1	12.1	1.0
U.S. 218 at IA 3 interchange (Bremer)	9,200	9,700	21.3	22.3	1.0
U.S. 218 at IA 346 interchange (Chickasaw)	10,100	11,000	21.4	16.5	-4.9
U.S. 63 at junction of IA 175 (Black Hawk)	3,790	3,500	13.5	16.4	2.9
U.S. 63 at intersection of C57 (Black Hawk)	9,600	8,300	10.3	12.1	1.8
U.S. 63 at IA 3 interchange (Bremer)	7,300	8,700	13.4	11.6	-1.8
U.S. 63 at U.S. 18 & IA 346 interchange (Chickasaw)	4,120	5,600	20.1	17.4	-2.7
IA 14 at intersection of D67 (Grundy)	4,450	3,990	16.9	12.4	-4.5
IA 14 at east junction of IA 175 (Grundy)	6,400	5,700	6.2	7.2	1.0
IA 14 at U.S. 20 interchange (Grundy)	4,220	4,770	11.1	11.1	0.0

Source: Iowa DOT, Traffic Books

Truck Transportation Planning Issues

One of the primary planning issues facing truck transportation is the state's aging infrastructure. Many highways, roads, and bridges need repair and expansion to accommodate the growing demands of truck traffic. Insufficient capacity, outdated interchanges, and inadequate truck rest areas can lead to congestion, delays, and increased costs for shippers and carriers. Addressing these infrastructure challenges requires a strategic and prioritized investment plan to enhance roadway conditions and support the efficient movement of freight.



Safety is paramount in truck transportation planning. Although efforts have been made to improve safety measures on Iowa's roadways, crashes involving trucks remain a concern. Factors such as driver fatigue, inadequate training, and inadequate enforcement of regulations can contribute to crashes and jeopardize public safety. Enhancing safety in truck transportation requires a multi-faceted approach, including driver education, stricter compliance with regulations, and investment in technology to monitor and improve safety conditions.



Increasing demand for e-commerce and last-mile deliveries present new challenges that require proactive measures and strategic solutions. The rise of online shopping has amplified the need for efficient and timely delivery of goods to consumer's doorsteps. This surge in small package deliveries necessitates a reevaluation of truck transportation planning to optimize routes, manage congestion, and enhance delivery efficiency in urban areas. Another emerging issue is the integration of evolving technologies, such as autonomous trucks and electric vehicles, into the trucking industry. As these

technologies evolve and become more prevalent, transportation planners must address infrastructure requirements, safety regulations, and charging or refueling infrastructure to facilitate their adoption.

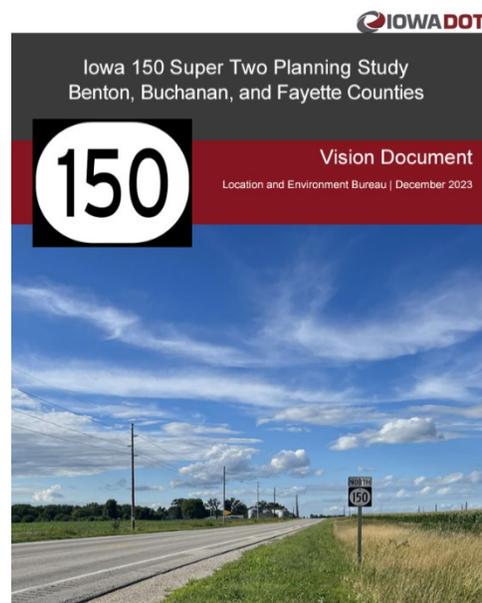
Truck transportation is associated with environmental impacts such as emissions, noise pollution, and energy consumption. The ongoing emphasis on sustainability and environmental concerns calls for incorporating eco-friendly practices into truck transportation planning, such as incentivizing the use of alternative fuels and promoting energy-efficient trucking practices to reduce the carbon footprint. To address this issue, the state needs to encourage the adoption of cleaner and more fuel-efficient vehicles, promote alternative fuels, and explore innovative technologies to mitigate the environmental impacts of truck freight transportation. By actively addressing these emerging issues, Iowa can adapt its truck transportation planning to meet the evolving needs of a changing industry and promote a more efficient, sustainable, and resilient freight network.

Iowa has made significant strides in the production of renewable energy, particularly in the fields of wind energy and biofuels. The state's abundant wind resources have positioned it as a leader in wind energy generation, with numerous wind farms dotting its landscape. Additionally, Iowa has emerged as a major producer of biofuels, primarily ethanol and biodiesel, derived from its substantial corn and soybean crops. The increased production of renewable energy in Iowa has a direct impact on truck transportation planning. The transportation of wind turbine components, such as blades and tower sections, requires careful logistical planning to accommodate their size and weight. Specialized trucks and trailers, permits, and route considerations are necessary to ensure the safe and efficient delivery of these components. Similarly, the transportation of biofuels necessitates a well-coordinated trucking network to distribute these products to fueling stations across the state. The added truck traffic can also accelerate the rate of deterioration on roads and bridges. As Iowa continues to expand its renewable energy production, truck transportation planning will play a vital role in supporting the movement of equipment, feedstocks, and end products, contributing to a more sustainable and greener future.



Planned highway initiatives that would impact truck transportation are addressed in Chapter 3. The projects primarily focus on the preservation of the major corridors in the region while improving safety at specific locations. One significant freight-related project is the Iowa Highway 150 Super Two Planning Study, completed in 2024. This initiative concentrated on assessing and planning improvements to IA Highway 150, with a particular focus on upgrading sections of the route into a "Super Two" highway. A "Super Two" highway consists of two lanes with periodic passing lanes and other enhancements designed to improve traffic flow and safety. This study is significant for the region as it aims to accommodate increasing traffic and freight volumes. Overall, the study is expected to play a crucial role in shaping the region's transportation infrastructure to better support the needs of freight carriers and other road users. The RTA hopes to work closely with the Iowa DOT to identify funding solutions that will enable the implementation of the identified improvements.

<https://bhcmppo.org/rta/>



Rail Transportation

Rail is typically second to trucks in terms of freight movement across the nation, Iowa, and the region. While railroad mileage in the state is less than half of what it was early in the 20th Century, the volume of rail traffic continues to increase. According to the *2021 Iowa State Rail Plan*, Iowa remains in the top 15 states in the total miles of rail (11th), rail tons originated (12th), rail carloads originated (15th), rail tons carried (7th), and rail carloads carried (7th). Iowa also ranks highly among all states for rail movements in many individual commodities. For commodities originating by state, Iowa ranks highly in food products (1st), chemicals (4th), and farm products (7th).



There are several rail lines operating in the region including:

- Canadian National rail line running east-west through the region, whose primary operators are the Chicago Central and Pacific Railroad and Cedar River Railroad Company.
- Canadian National rail line that comes from the north paralleling U.S. Hwy 218 before merging with the east-west route. The primary operator is the Cedar River Railroad Company.
- Iowa Northern Railway Company line running northwest-southeast through the region, with a haulage agreement with Union Pacific.
- Union Pacific rail line running from downtown Waterloo to the township of Dewar. The line continues northeast to Oelwein under the D&W Railroad Company. Iowa Northern Railway Company is the primary operator.
- Canadian Pacific rail line running east-west through Chickasaw County. Dakota, Minnesota, and Eastern Railroad Company is the primary operator.

Railroads in the United States are designated as Class I, Class II, or Class III according to revenue thresholds adjusted for inflation established by the Surface Transportation Bureau (STB).

Table 6.3: Railroads Operating in the Metro Area, by Class

Class	Revenue Threshold	Railroads in the Area	Miles Owned in Iowa	Percent of Total Iowa Rail Network
Class I	\$467 million or more	Union Pacific (UP)	1,291	33.5
		Canadian National Railway (CN)	605	15.7
		Canadian Pacific Railway (CP)	654	17.0
Class II "regional"	\$37.4 - \$467 million			
Class III "short line"	Less than \$37.4 million	D&W Railroad (DWRV)	22	0.6
		Iowa Northern Railway Company (IANR)	167	4.3

Source: Iowa DOT, 2021. Iowa State Rail Plan

The carriers serving the region depend on the transportation of bulk commodities such as grain, coal, and chemicals as their primary freight. These carriers also transport intermediate and finished manufactured products outbound from the region. There are multiple businesses located in the area that rely on rail to provide portions or all their freight transportation needs.

Rail Network

The rail network is a crucial component of the region's transportation infrastructure, spanning 276 miles of tracks that provide essential connections for freight services. This extensive network facilitates the efficient movement of goods and commodities to and from key industries such as manufacturing, agriculture, and distribution. Its extensive reach contributes to the economic development and connectivity of the region, supporting the growth and prosperity of the community.

There are two major freight rail yards in the region, both of which are in Waterloo. The CN Waterloo Yard is located northeast of Downtown Waterloo between East 4th Street and Martin Luther King Jr. Boulevard. The IANR Bryant Yard is located to the east of the Interstate 380 and San Marnan Drive interchange. There are five rail transload facilities in the region where freight can be transferred between truck and rail. Table 6.4 identifies specific multimodal facilities in the region with connections to the rail network.



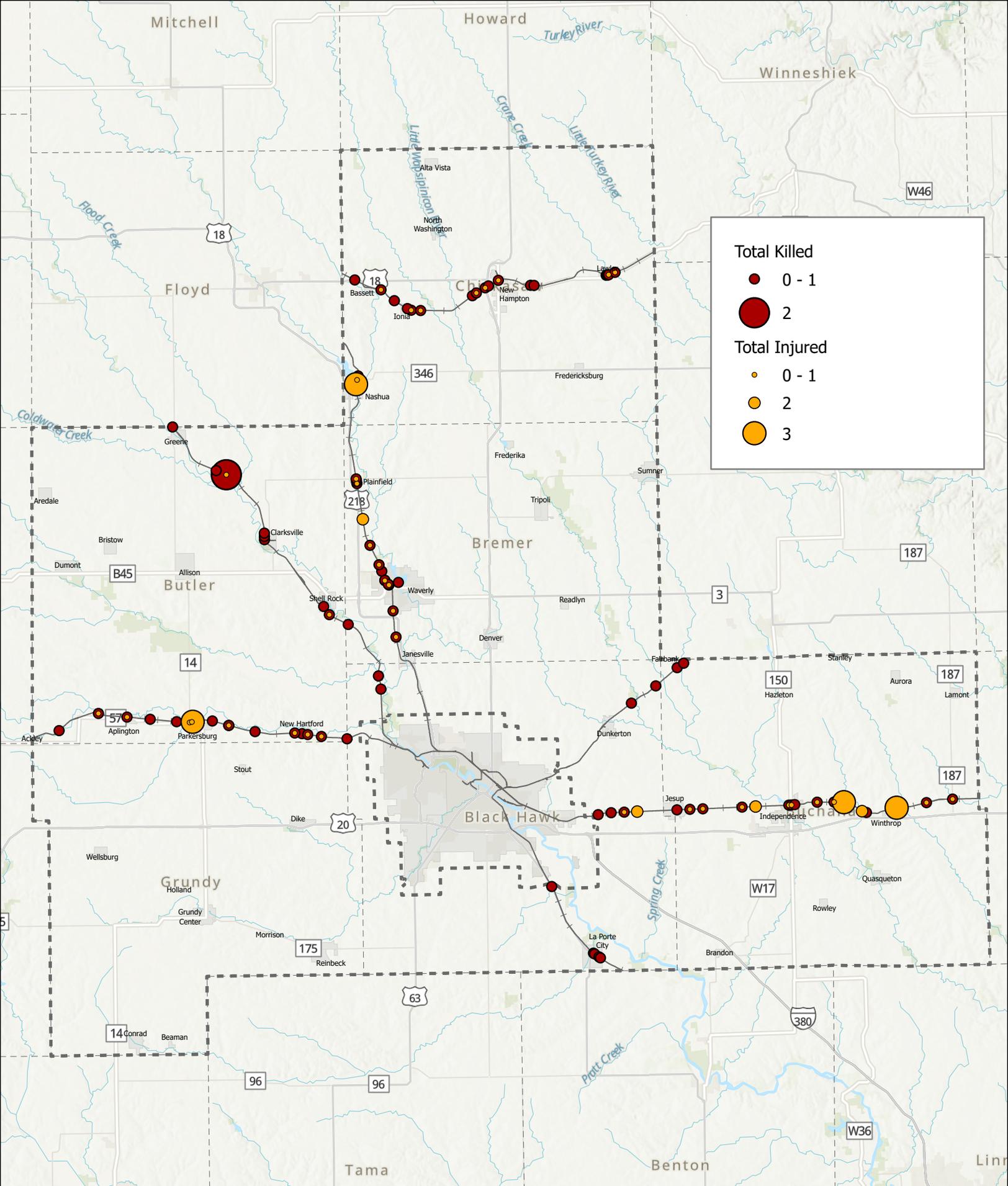
Table 6.4: Inventory of Multimodal Facilities with Connections to the Iowa Rail Network

Name	City	Public Facility	Intermodal	Transload	Cross-Dock	Team Track	Warehouse	Truck to Rail	Known Railroad Connections
Bryant Yard	Waterloo	X		X	X		X	X	IANR
Kinder Morgan/Black Hawk Terminal	Waterloo	X		X			X	X	UP
Standard Distribution Rail Facility	Cedar Falls	X		X	X		X	X	CN
Butler Logistics Park	Shell Rock								IANR
New Hampton Transfer and Storage	New Hampton	X		X	X		X	X	CP

Source: Iowa DOT, 2021 Iowa State Rail Plan

Rail Transportation Planning Issues

The most pressing challenge in rail transportation planning is the safety and delays associated with at-grade road crossings. In the Iowa Northland Region, outside of the Waterloo-Cedar Falls metropolitan area, there are 213 public at-grade rail crossings. Despite the widespread implementation of active warning systems designed to alert drivers and clear tracks for oncoming trains, these crossings continue to pose significant safety risks. Since 1975, the region has experienced 207 highway-rail incidents, leading to **13 fatalities and 91 injuries**. These statistics underscore the ongoing need for enhanced safety measures and infrastructure improvements to reduce the risk of future accidents and minimize disruptions to traffic flow. The issue remains a key focus area in regional transportation planning, highlighting the balance between maintaining efficient rail operations and ensuring public safety.



Map 6.2
 Highway-Rail Crossing Fatalities and Injuries

This map does not constitute a survey, and INRCOG assumes no liability for the accuracy of the data herein, whether expressed or implied.

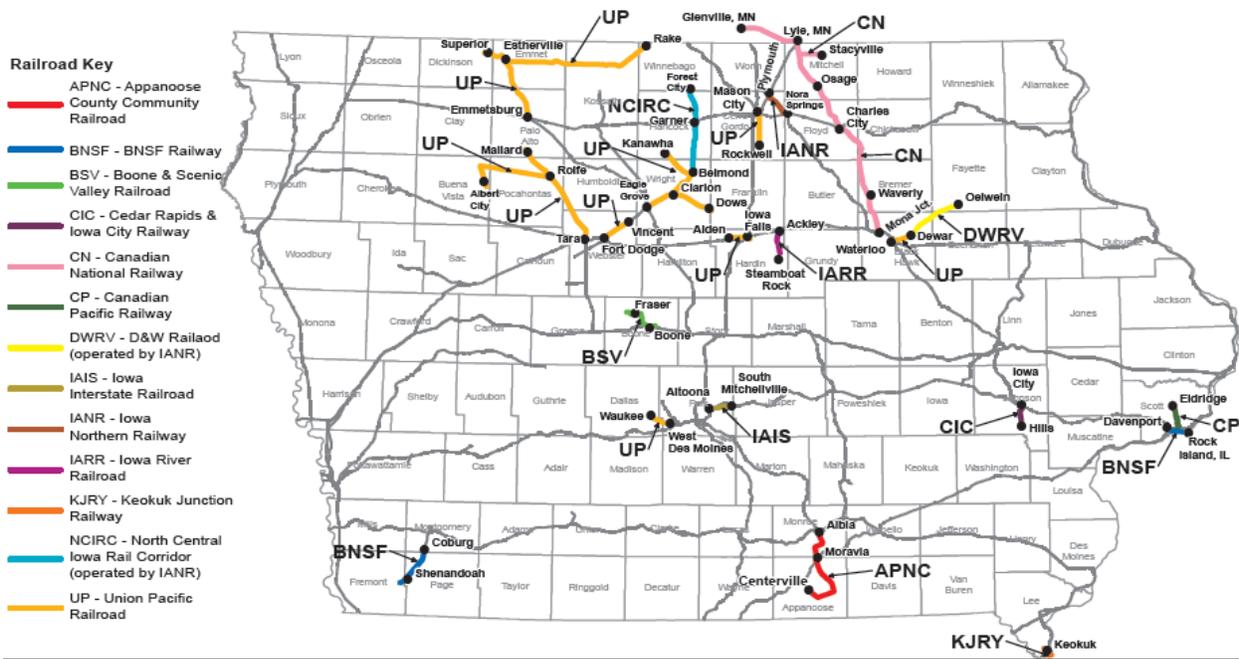


Iowa is poised to experience a significant increase in total rail traffic in the coming years. Being in the center of the Midwest helps Iowa connect to both local and global trade. From 2021 to 2050, the amount of goods transported by rail, coming in, going out, and moving within Iowa, could go up by 48 percent. Several things contribute to this growth. Iowa's strong farming, especially corn, soybeans, and livestock, needs rail transport. Plus, the state's factories and distribution centers add to rail use. There are also plans to improve rail systems, such as making better intermodal hubs and using modern technology. This will enhance the efficiency of rail transport and attract additional rail traffic. However, this increase could result in certain sections of the region's rail lines becoming overly congested.



Railroads are facing a significant challenge: a shortage of capacity to handle the growing volume of freight. A key factor behind this issue is the increased demand for rail transport as industries expand. This surge in goods transportation is putting considerable strain on the existing rail infrastructure. Certain major routes lack sufficient capacity, leading to bottlenecks and slowdowns. Additionally, limited space in terminals and yards can disrupt the smooth flow of operations. Some rail systems are outdated and require repairs or upgrades to handle increased freight volumes. Addressing these capacity issues is a top priority to ensure railroads can meet the growing demands for goods transportation effectively.

Iowa's railroads have made considerable progress in the last two decades to upgrade track and bridges to accommodate heavier railcars with maximum allowable gross weights of 286,000 pounds. These rail cars are becoming an industry standard for railroad transportation. **At present, there are three lines in the Iowa Northland Region that are incapable of handling 286,000-pound railcar weights.** As a result, additional rail traffic may be diverted onto local roads, thus increasing highway maintenance and rehabilitation costs.



Iowa rail line segments incapable of handling 286,000 lb. railcar weights
 Source: Iowa DOT, 2021 Iowa State Rail Plan; Iowa's Class I, II, and III railroads

Pipeline Transportation

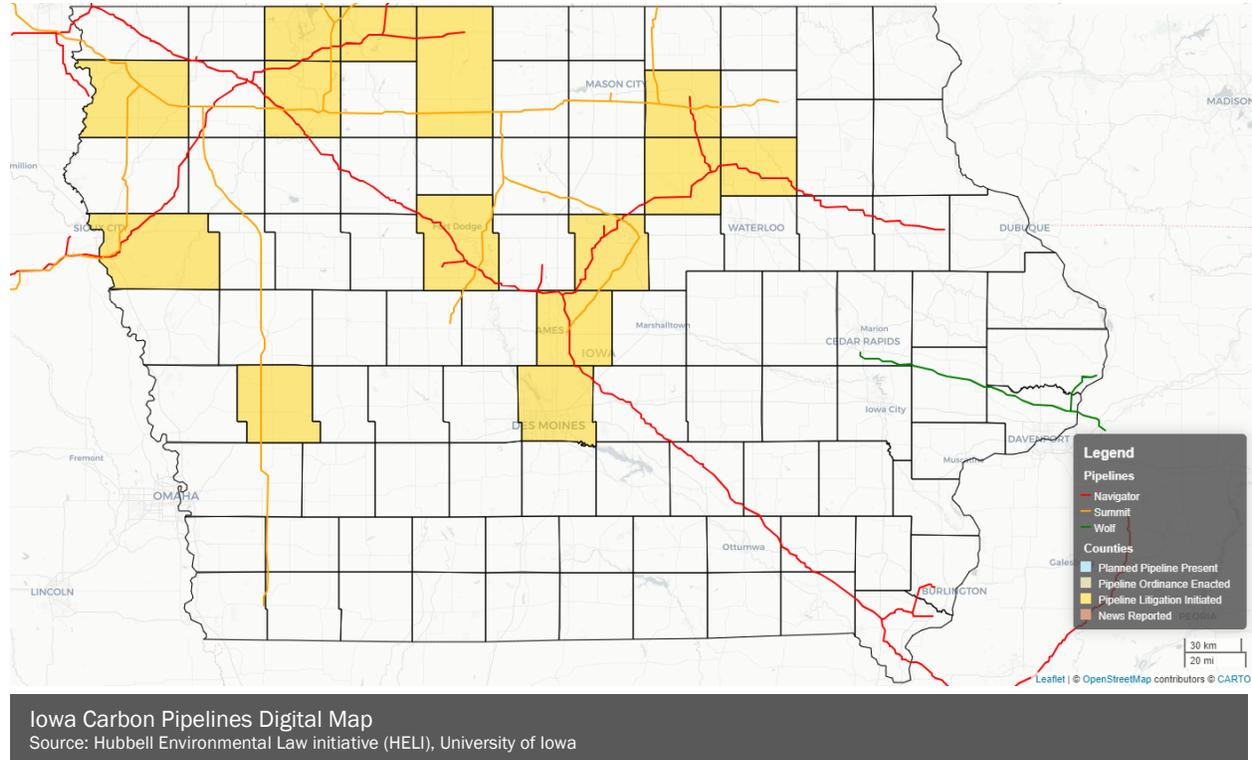
Pipelines are essential to Iowa's transportation infrastructure, moving oil, gas, and fuel efficiently across the state and beyond. They ensure a steady energy supply, support economic growth, and offer a cost-effective alternative to trucks and trains, reducing traffic, pollution, and enhancing safety. Pipeline transportation is crucial for Iowa's energy supply and economic prosperity.

Pipeline Network

The U.S. DOT Pipeline and Hazardous Materials Safety Administration (PHMSA) serves as the regulatory authority for pipeline safety and hazardous materials regulations, developing and enforcing standards, regulations, and inspection protocols to protect public safety, the environment, and infrastructure. Since 1970, PHMSA has collected data about pipeline infrastructure from operators. As of 2024, there are 12,629 miles of pipeline and 37 operators in Iowa. In the region, there are approximately 588 miles of pipeline.

Pipeline Transportation Planning Issues

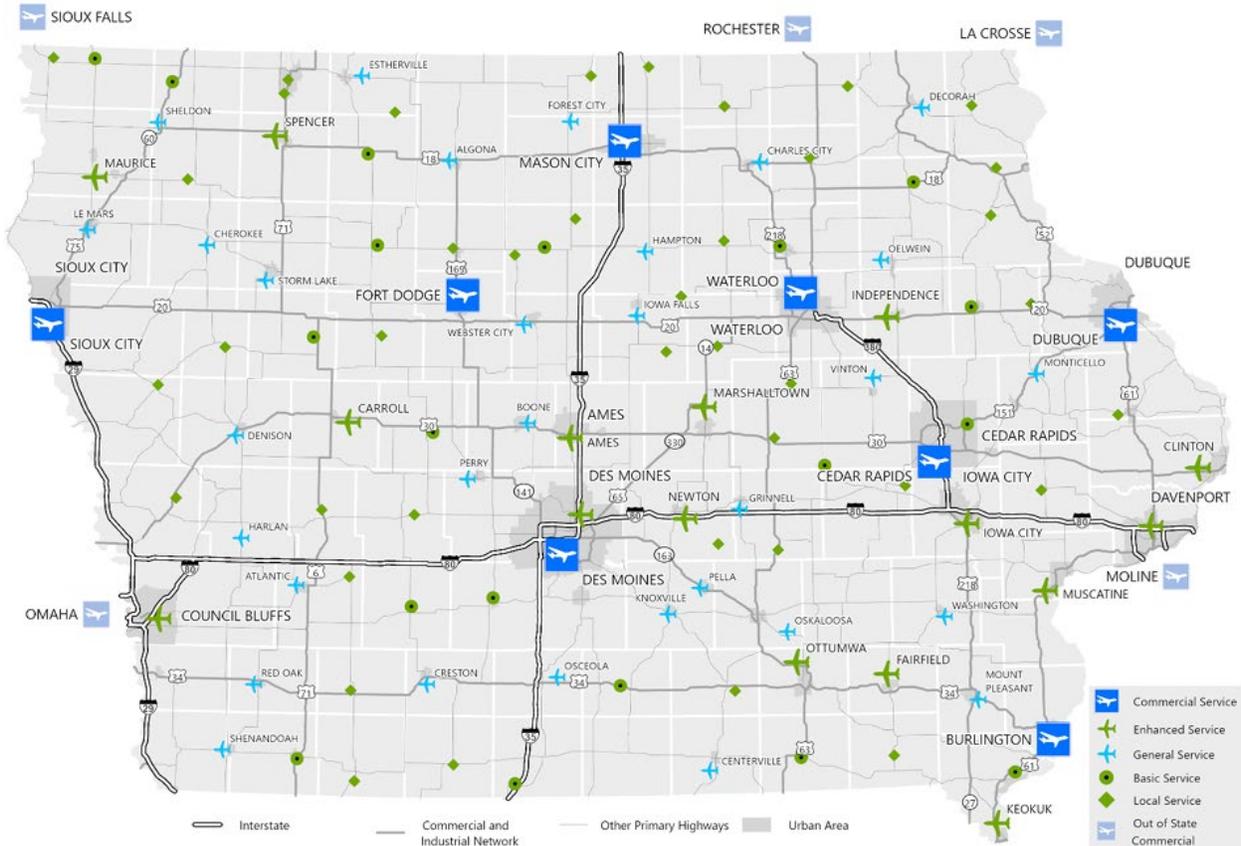
Planned carbon pipeline construction across Midwest states, including Iowa, has sparked significant debate, particularly around transportation planning and public concerns. These pipelines, designed to capture and transport carbon dioxide from industrial sources to underground storage sites, raise critical issues related to land use, environmental impact, and safety. Transportation planning must address the potential disruptions to existing infrastructure, the safety of pipeline crossings, and the long-term effects on rural and agricultural communities. Public concerns are also prominent, with many residents worried about the risks of leaks, land rights disputes, and the overall environmental impact of such projects. These factors have made carbon pipeline development a contentious issue in the region, requiring careful consideration of both economic benefits and potential hazards. The Hubbell Environmental Law Initiative (HELI) has published a digital interactive map to help users identify local Iowa counties impacted by proposed carbon pipelines.



<https://s-lib024.lib.uiowa.edu/iowa-Carbon-Pipelines/>

Air Transportation

Iowa has a variety of airports that serve diverse needs for people and businesses. Most of Iowa's population lives within 30 minutes of an airport, thanks to the state's airport system. There are big airports connecting to many places, which are busy with travelers and cargo. Iowa also has smaller regional airports across the state. These are important for smaller communities and are used by private pilots, recreational flyers, and businesses. They offer services like training, maintenance, and help with farming. The need for these smaller airports changes based on things like local economy, tourism, and recreational activities.



Iowa airports by role and bordering commercial airports
Source: Iowa DOT, Iowa in Motion 2050

Air Network

The Waterloo Regional Airport (ALO), situated off U.S. Hwy 218 in northwest Waterloo, is the largest airport in the region. It is owned by the City of Waterloo and overseen by a seven-member Airport Board. As a non-hub primary commercial service airport, it supports general aviation, commercial, and military operations, including serving as a major base for the Iowa Army National Guard. The airport features two runways—an 8,400-foot primary runway and a 6,000-foot secondary runway—and a closed third runway. Facilities include a terminal building with ticketing, baggage claim, and parking, along with hangars and a fuel farm. The Federal Aviation Administration (FAA) operates an air traffic control tower on-site, and Livingston Aviation, along with two other limited fixed base operators (FBO), provides services to general aviation. The airport does not have transit service.



WATERLOO
REGIONAL AIRPORT

The region hosts several smaller municipal airports, each serving local aviation needs with varying facilities.

Independence Municipal Airport (IIB), situated three miles southwest of Independence, is an enhanced service airport featuring a 5,500-foot paved concrete runway, 31 hangar spaces, and 24-hour jet fueling. It supports a growing number of aircraft and operations, with projections indicating an increase from 28 aircraft and 7,000 operations in 2010 to 36 aircraft and 9,000 operations by 2030.



Allison Municipal Airport (K98) is located on the northwest edge of Allison and offers a 1,790-foot turf runway, six hangar spaces, and two tie-down locations. It is expected to see a modest increase in aircraft and operations, from five aircraft and 1,250 operations in 2010 to six aircraft and 1,500 operations by 2030.

Grundy Center Municipal Airport (6K7), about three miles west of Grundy Center, has a 2,250-foot turf runway and limited hangar and tie-down facilities. The airport is projected to maintain its current operations, with one aircraft and 250 operations in 2010.

New Hampton Municipal Airport (1Y5), located northwest of New Hampton, features a 2,900-foot paved asphalt runway and a secondary turf runway. With four hangar spaces and two tie-down locations, it is expected to keep its current level of activity, like its 2010 figures of one aircraft and 250 operations.

Waverly Municipal Airport (C25), situated two miles northwest of Waverly, provides a 2,800-foot paved asphalt runway, 23 hangar spaces, and jet fueling. It anticipates growth, increasing from 23 aircraft and 5,750 operations in 2010 to 29 aircraft and 7,250 operations by 2030.

Facility improvements are funded through a variety of federal, state, and local programs. At the federal level, the FAA sponsors an Airport Improvement Program (AIP) which allocates a trust fund both on an entitlement and discretionary basis. The entitlement provision in the AIP supplies local airports with funds based on average annual passenger boardings. Discretionary funds are based on highest priority and selected from each airport's five-year Capital Improvement Program (CIP) through an 18-month grant process. Funds from this source require a ten percent local match and can be used to improve runways and purchase equipment, signs, lighting, and other non-operating expenses.

The Iowa DOT also sponsors an AIP and has developed a grant process in which state aviation fuel taxes are redistributed to airports. Like the FAA's discretionary AIP funds, capital improvement projects are selected from a five-year Capital Improvement Program and must be used to modernize and improve the facilities at Iowa airports. Projects in the region that have been funded by these grant programs in the past five years are summarized in Table 6.5.



Table 6.5: Airport Improvement Program Grants, FY 2019-2023

Fiscal Year	Airport	Project	Federal Funding (\$)	State Funding (\$)
2023	Independence	Install Runway Vertical/Visual Guidance System, Reconstruct Runway Lighting, Reconstruct Taxiway Lighting	477,000	
2023	Independence	Construct Apron	1,000,000	
2023	Independence	Construct Apron	98,000	
2023	Waterloo	Reconstruct Taxiway, Seal Runway Pavement Surface/Pavement Joints	1,477,510	
2023	Waterloo	Improve/Modify/Rehabilitate Terminal Building, Install Security Cameras	402,790	
2023	Waterloo	Improve/Modify/Rehabilitate ARFF Building	241,073	
2023	Waterloo	Reconstruct Taxiway	1,936,017	
2023	Waverly	Construct Taxiway	519,407	
2023	Waverly	Construct Taxiway	159,691	
2023	Waterloo	Hangar Rehabilitation		124,145
2023	Waverly	Reconstruct South T-Hangar Taxilane		213,687
2022	Independence	Install Weather Reporting Equipment	162,000	
2022	Waverly	Large Concessions	20,135	
2022	Independence	Taxiway and Apron Expansion		297,627
2022	Waterloo	Hangar Rehabilitation		126,752
2021	Independence	Construct/Modify/Improve/Rehabilitate Hangar	47,780	
2021	Independence	CRRSA Act Funds	13,000	
2021	Independence	General ARPA	32,000	
2021	Waterloo	CRRSA Act Funds	1,008,018	
2021	Waterloo	CRRSA Act Concessions	5,034	
2021	Waterloo	General ARPA	1,115,838	
2021	Waverly	CRRSA Act Funds	9,000	
2021	Waverly	General ARPA	22,000	
2021	Waterloo	Hangar Rehabilitation		67,090
2020	Independence	Seal Apron Pavement Surface/Pavement Joints	214,830	
2020	Independence	Seal Taxilane Pavement Surface/Pavement Joints	147,778	
2020	Waterloo	Reconstruct Taxiway	6,662,078	
2020	Waterloo	Reconstruct Apron	2,716,294	
2020	Waverly	Extend Runway	113,668	
2019	Independence	Construct Taxiway	625,834	
2019	Waverly	Extend Runway	2,714,060	
2019	Waverly	Extend Runway	723,824	

Source: Federal Aviation Administration, Grant History Summaries; Iowa DOT, Aviation Program Funding

The Waverly, Independence, and New Hampton airports were consulted to identify projects as part of their long-range needs assessments, aimed at enhancing airport infrastructure and services to meet future demands (reference Table 6.6). These projects focus on improving runway conditions, expanding hangar capacity, and ensuring compliance with evolving safety regulations. Each airport aims to address the anticipated growth in both general aviation and regional air traffic by investing in necessary upgrades that enhance operational efficiency, safety, and overall service quality.

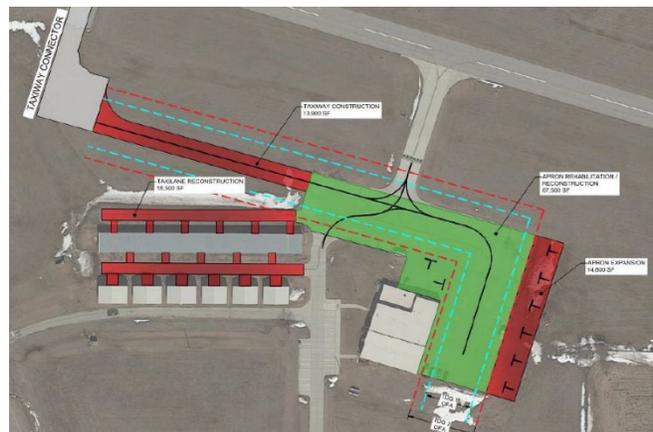


Table 6.6: Airport Long-Range Needs

Fiscal Year	Airport	Project	Total Cost (\$)
2025	Independence	Airport Master Plan/ALP	333,333
2025	Waverly	Reconstruct North T-Hangar Taxilane	336,050
2026	Independence	Rehabilitate Runway & Parallel Taxiway (Joint & Crack Sealing) LCD 2007, 2008, 2009	550,000
2026	Waverly	Reconstruct Apron	792,800
2027	Independence	Wildlife Study	40,000
2028	Independence	Rehabilitat Apron Pavement LCD 2007, 2008, 2010	333,333
2028	Waverly	Expand Apron	570,150
2029	Independence	T-Hangar	1,100,000
2029	Waverly	Master Plan Update (FAA AGIS Implementation, ALP Drawings)	200,000
2029	Waverly	Construct 4-Unit T-Hangar (Phase I)	384,900
2030	Waverly	Construct T-Hangar Taxilanes (Phase I)	258,800
2030	Waverly	Expand 4-Unit T-Hangar to 10-Unit T-Hangar (Phase II)	420,000
2031	Waverly	Construct T-Hangar Taxilanes (Phase II)	350,000
2032	Waverly	Construct Parallel Taxiway (Apron to RWY 29 end)	1,500,000
2033	Waverly	Environmental Assessment (for Ultimate Runway 18/36, 35' BRL & RPZ's)	250,000
2034	Waverly	Land Acquisition (for Ultimate Runway 18/36, 35' BRL & RPZ's)	3,200,000

Air Transportation Planning Issues

Recent planning issues have been shaped by the dynamic landscape created by the COVID-19 pandemic. The pandemic significantly disrupted the global aviation industry, leading to challenges in forecasting future demand, managing capacity, and ensuring the safety of passengers and staff. Airports and airlines had to adapt quickly to rapidly changing travel restrictions and health protocols. Planning efforts focused on implementing stringent hygiene measures, reconfiguring airport layouts to allow for social distancing, and optimizing passenger flow to minimize contact points. As the industry has navigated the recovery phase, planning efforts have been centered around fostering resilience, enhancing operational flexibility, and ensuring the ability to respond effectively to future disruptions.

Future air transportation planning will face critical challenges, particularly managing the projected growth in air travel demand as global populations and economies expand. To address this, substantial investments will be needed to expand airport capacity, upgrade infrastructure, and optimize airspace to handle increased flight operations while maintaining safety and efficiency.



Environmental sustainability is also a pressing concern. The aviation industry must focus on developing and adopting sustainable aviation fuels, fuel-efficient technologies, and alternative propulsion systems like electric or hybrid-electric aircraft to reduce its carbon footprint. Additionally, personal electric vertical takeoff and landing (eVTOL) aircraft could transform local and regional transport by reducing road congestion and offering new mobility options such as electric aerial ridesharing. Their integration will require careful planning, including new infrastructure and regulatory adjustments, to fully realize their benefits while addressing associated challenges.

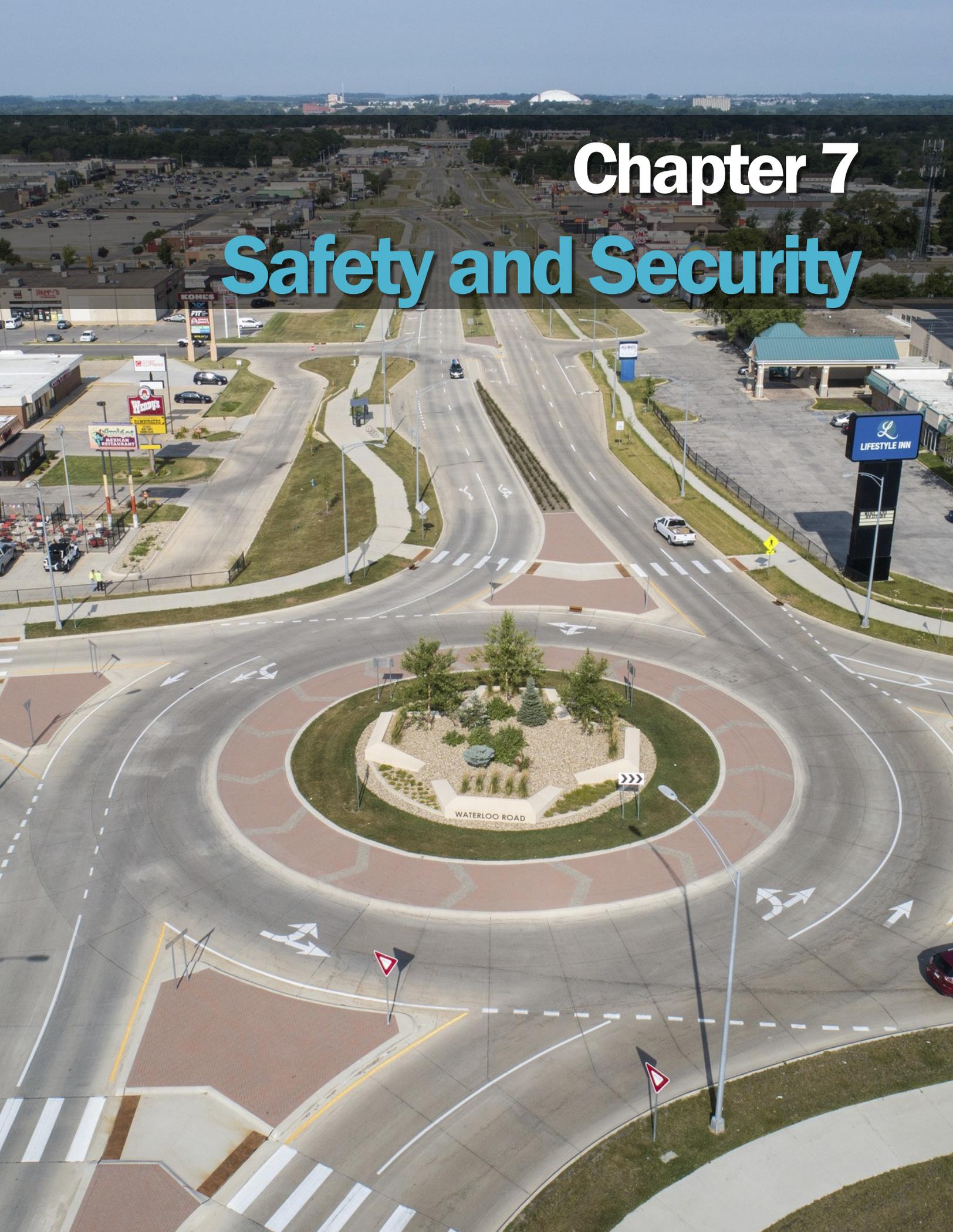
2024 Public Input Survey

In September 2024, RTA staff conducted two online surveys designed to gather feedback from residents across the six-county region. Although the surveys did not specifically include a question about “freight,” several responses touched on issues related to freight transportation. These responses included:

- Deteriorating road and bridge conditions
- County roads and gravel roads specifically in Chickasaw County, with semi traffic going to the ethanol plant
- Funding improvements on two-lane roads that need to be four-lane
- Transition to electric vehicles and the infrastructure for that
- More road space/wider roads in the country
- At-grade railroad crossing safety in rural areas

Chapter 7

Safety and Security

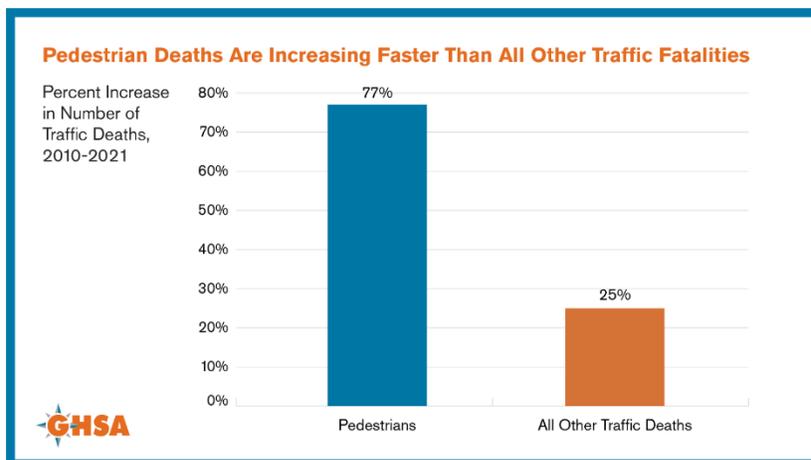


Chapter 7 – Safety and Security

National Crash Background

Over the past five years, traffic fatalities in the United States have remained a significant concern. While there have been efforts to improve road safety, the statistics paint a troubling picture. According to the National Highway Traffic Safety Administration (NHTSA), there has been a concerning upward trend in traffic fatalities since 2018 (36,560 and 42,939 fatalities in 2018 and 2022). In 2020, despite the pandemic-induced reduction in traffic volume, there were 38,800 traffic deaths, which represents a 7.5% increase from the previous year. While innovations in vehicle safety technology and public awareness campaigns have aimed to address these issues, it is evident that significant work is required to effectively reduce traffic fatalities and create safer roadways across the nation.

Several factors contributed to the overall high number of traffic fatalities in 2022. Distracted driving remained a significant concern, with the use of electronic devices, such as smartphones, continuing to be a leading cause of crashes. Additionally, impaired driving due to alcohol and drugs remained a persistent issue, contributing to a significant number of fatalities. Speeding, reckless driving behaviors, and failure to wear seat belts were also key factors leading to fatal crashes.



Pedestrians and cyclists continue to face significant risks on US roads. The Governors Highway Safety Association annual report, *Pedestrian Traffic Fatalities by State: 2022 Preliminary Data*, projects that drivers struck and killed at least 7,508 people walking in 2022 – the highest number since 1981 and an average of twenty deaths every day. There were 2.37 pedestrian deaths per billion vehicle miles traveled (VMT) in 2022, up yet again and continuing a troubling trend of elevated rates that began in 2020. The growing popularity of electric scooters and the rise in micromobility options also added to the vulnerability of non-motorized road users. Ensuring the safety of pedestrians and cyclists demands enhanced infrastructure, education, and awareness campaigns.

REGIONAL STATS

12

People killed in crashes each year¹

46

People suffer serious injuries from crashes each year¹

3.6

Crashes occur each day¹

\$9.6M

Property damage each year¹

48.5

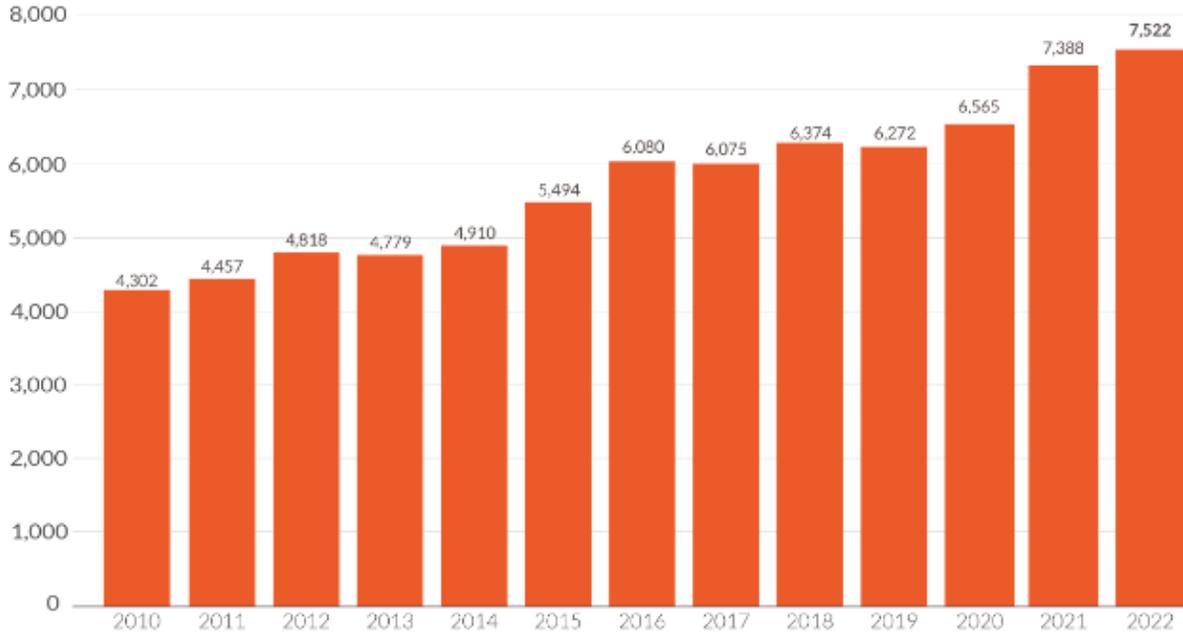
Drug/Alcohol related crashes each year¹

41.3%

Single vehicle non-collision crashes¹

Sources:
¹Iowa DOT, Iowa Crash Analysis Tool, 2014-2023

75 percent increase in the deaths of people walking since 2010



U.S. pedestrian deaths (2010-2022)

DANGEROUS BY DESIGN

smartgrowthamerica.org/dangerous-by-design



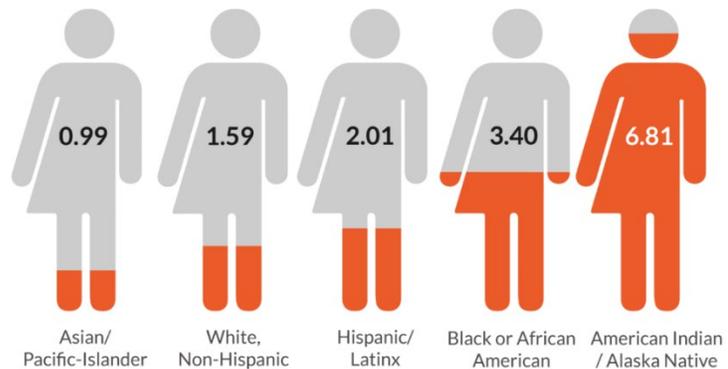
Smart Growth America
Improving lives by improving communities



National Complete Streets Coalition

The COVID-19 pandemic had a profound impact on many aspects of society, including pedestrian fatalities. The pandemic exacerbated existing disparities in pedestrian fatalities, particularly among vulnerable communities. As lockdowns and restrictions were imposed, people relied more on walking and bicycling for transportation and exercise. However, disadvantaged neighborhoods often lack proper infrastructure and pedestrian-friendly amenities, forcing residents to navigate hazardous conditions. Additionally, essential workers from marginalized communities faced heightened exposure to risks while commuting on foot, as they had limited access to private vehicles and were more likely to rely on public transportation. The pandemic served as a stark reminder of the inequities in pedestrian safety, highlighting the urgent need for targeted interventions and equitable distribution of resources to address these disparities and create safer environments for all pedestrians.

Pedestrian deaths per 100,000 by race & ethnicity (2018-2022)



Source: National Highway Traffic Safety Administration, (2024). Fatality Analysis Reporting System.

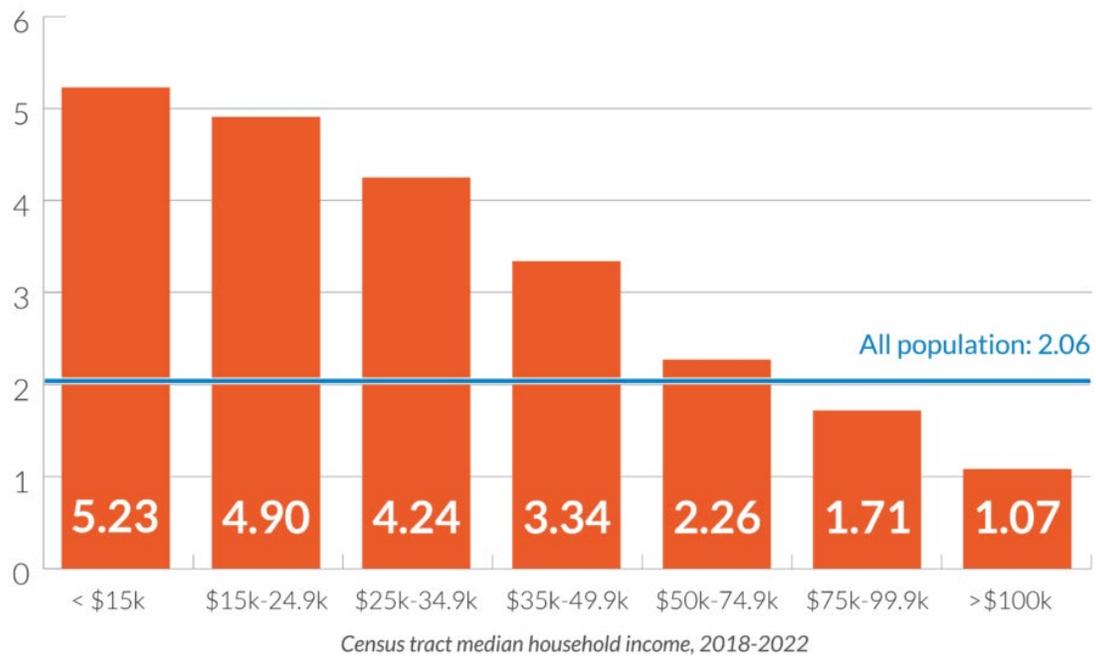


Source: Smart Growth America, Dangerous by Design 2024

Despite the alarming statistics, multiple efforts were made in 2022 to improve road safety and reduce traffic fatalities. Law enforcement agencies increased their vigilance in enforcing traffic laws and impaired driving regulations. States also worked to enhance infrastructure, implementing traffic calming measures, improving signage, and building protected bike lanes. Furthermore, the automotive industry continued to make advancements in safety technology, including lane departure warning systems, automatic emergency braking, and pedestrian detection systems.

Lower-income areas have far higher rates of pedestrian deaths

Pedestrian fatalities per 100,000 people by census tract income



Source: National Highway Traffic Safety Administration. (2024). Fatality Analysis Reporting System.



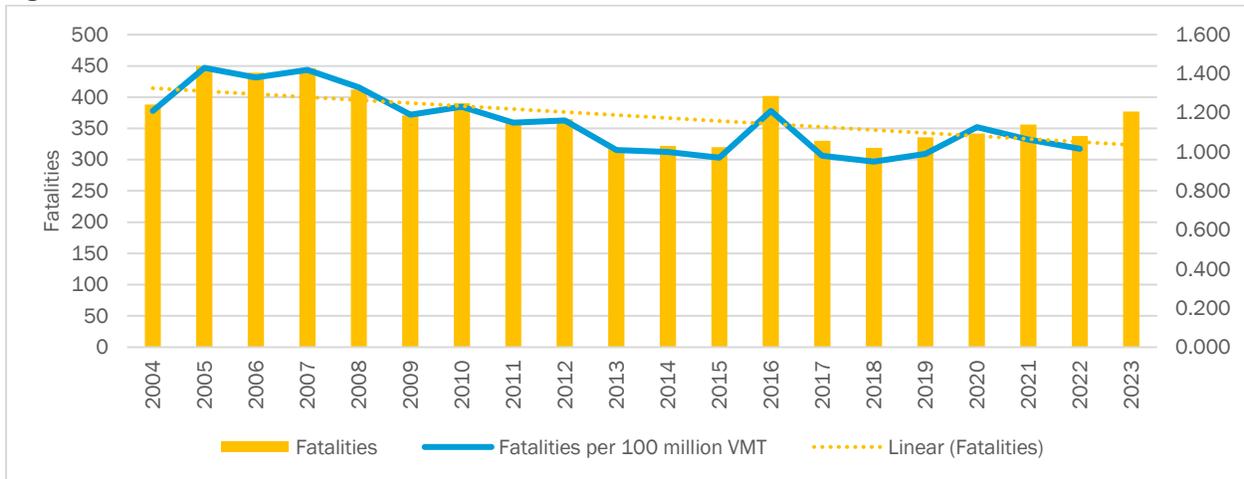
Source: Smart Growth America, Dangerous by Design 2024

The year 2022 marked a distressing increase in US traffic fatalities, emphasizing the need for comprehensive measures to address this pressing issue. Distracted driving, impaired driving, speeding, and other risky behaviors remained significant contributing factors. Furthermore, the safety of vulnerable road users, such as pedestrians and cyclists, continued to be a growing concern. Despite these challenges, efforts to improve road safety through law enforcement, infrastructure enhancements, and technological advancements persist. By prioritizing road safety and implementing a multi-faceted approach, it is possible to reduce traffic fatalities and create safer roads for everyone in the United States.

Iowa Crash Statistics

Traffic fatalities in Iowa have gradually decreased over the past two decades. However, the state is still averaging 344 traffic fatalities per year over the past ten years. Tragically, 377 traffic deaths occurred on Iowa roadways in 2023, the deadliest year in seven years. Rural areas continue to experience a disproportionate number of traffic fatalities, with 68 percent of fatalities in 2023 occurring on rural facilities. Figure 7.1 shows the statewide historical trend for traffic fatalities.

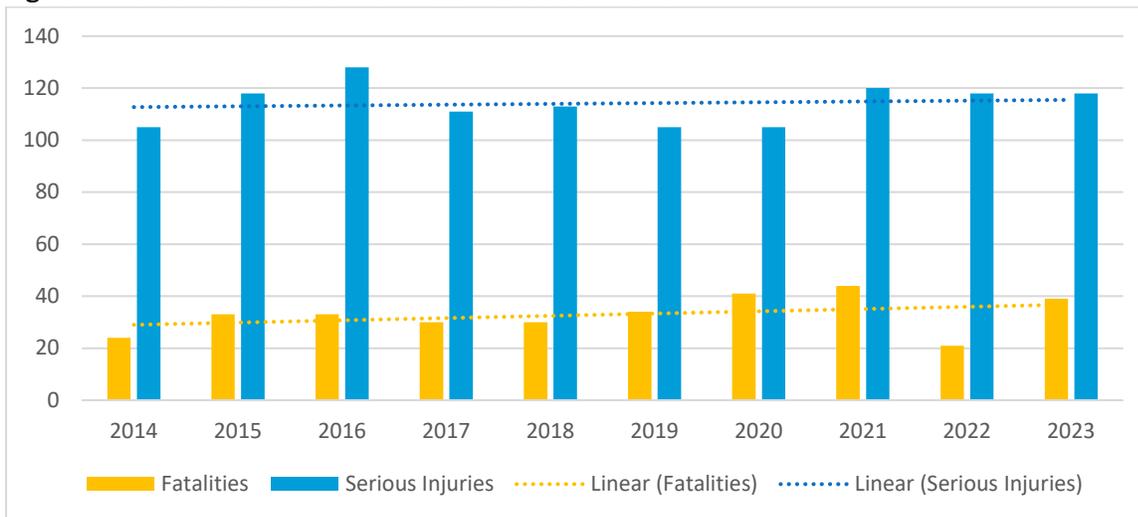
Figure 7.1: Traffic Fatalities in Iowa



Source: Iowa DOT, Crash Analysis Tool

Like nationwide trends, Iowa has witnessed a troubling rise in bicycle and pedestrian fatalities. From 2019 to 2023, the state has averaged 744 crashes, 36 fatalities, and 113 serious injuries involving vulnerable non-motorized road users. These statistics reveal a somber reality, highlighting the imperative for ongoing efforts to improve road infrastructure, implement stricter traffic laws, and promote responsible driving behaviors.

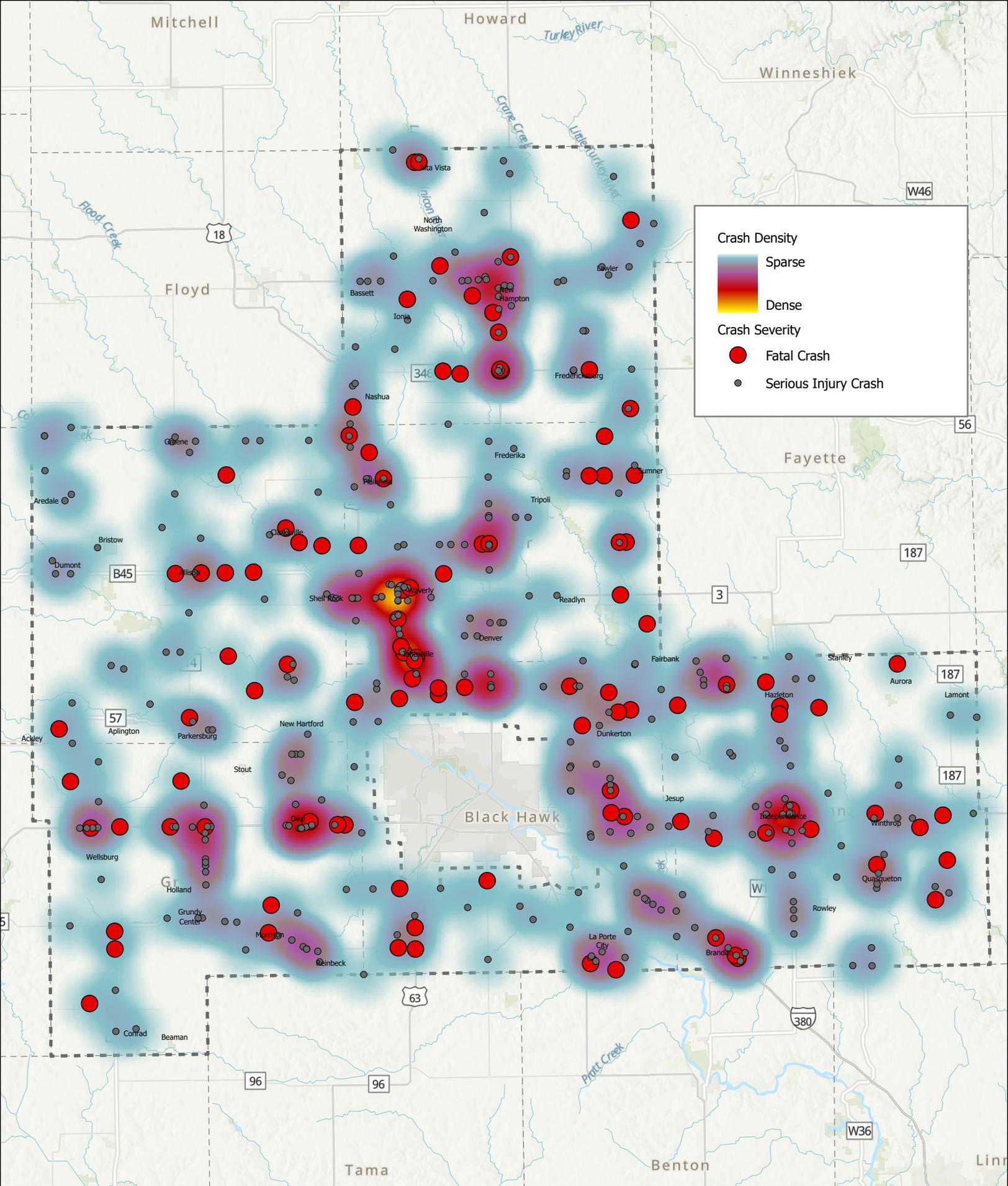
Figure 7.2: Crash Statistics for Non-Motorized Users in Iowa



Source: Iowa DOT, Crash Analysis Tool

Regional Crash Statistics

In the last decade, there has been a decrease in the overall number of crashes, yet there has been a troubling rise in both fatalities and serious injuries (defined as any injury, other than a fatality, which prevents the injured person from walking, driving, or normally continuing the activities the person was capable of before the injury occurred). In 2021, there were 23 traffic fatalities in the region, a 230% increase over the average of the previous seven years. Fortunately, fatalities dropped to 11 and 13 in 2022 and 2023, respectively, aligning more closely with the ten-year average of 12 fatalities per year (2014-2023). Another method to measure fatalities is to consider them within the context of total travel. There is a direct relationship between the amount of travel and the probability of a crash involving a fatal injury. Figure 7.4 shows the fatality rate per 100 million vehicle miles traveled (VMT). The fatality rate has been trending upward since 2014.



Map 7.1
 Fatalities and Serious Injury Crashes and Density
 (2014-2023)

This map does not constitute a survey, and INRCOG assumes no liability for the accuracy of the data presented herein, whether expressed or implied.

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Figure 7.3: Traffic fatalities in the Region

Source: Iowa DOT, Crash Analysis Tool

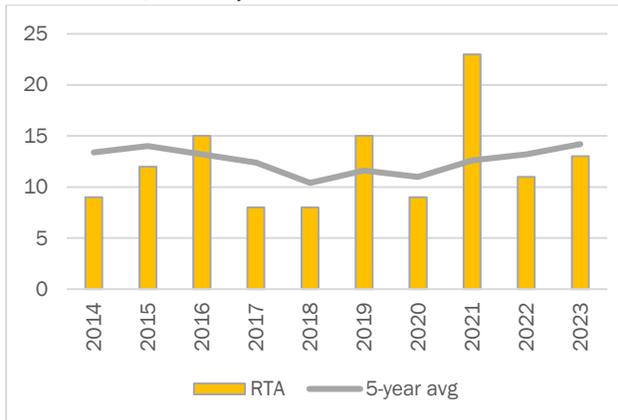


Figure 7.4: Fatality rate per 100 million VMT

Source: Iowa DOT, Crash Analysis Tool

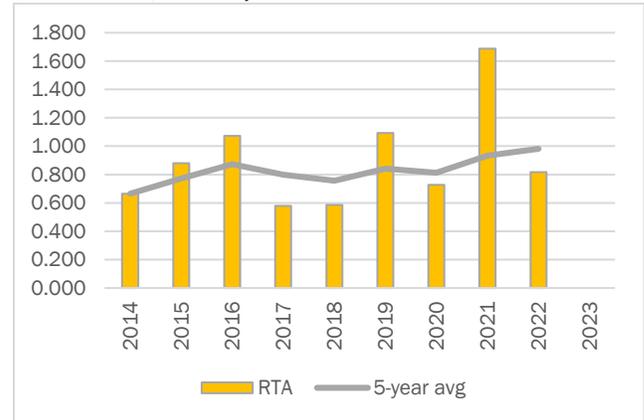


Figure 7.5: Serious Injuries in the Region

Source: Iowa DOT, Crash Analysis Tool



Figure 7.6: Serious injury rate per 100 million VMT

Source: Iowa DOT, Crash Analysis Tool



Though the area has made significant progress in safety measures, the region continues to grapple with a concerning reality: an average of **12 people die and 46 are seriously injured in traffic crashes in the region each year**. This sobering statistic underscores the persistent challenges facing road safety initiatives despite ongoing efforts to mitigate risks.

Several factors could be contributing to this troubling scenario. One explanation is the increase in vehicular traffic, which raises the potential for severe injuries or fatalities in the event of a collision. Additionally, distractions from mobile devices can lead to more severe crashes due to reduced reaction times. Furthermore, the proportion of fatalities involving single-vehicle non-collisions is alarmingly high, pointing to a concern within the rural road safety landscape. Over the period spanning 2014-2023, **51% of all fatalities** and serious injuries were attributed to **single-vehicle events**. These incidents encompass a range of factors, including vehicles veering off the road, rollovers, and collisions with fixed objects like trees or utility poles. Initiatives focusing on driver education, improved roadway design, enhanced signage, and increased law enforcement presence could prove instrumental in reducing the incidence of these tragic events and safeguarding the lives of rural Iowa residents and travelers.

Over the course of the past decade, the incidence of fatalities and serious injuries among bicyclists and pedestrians within the region has shown a steady trend, maintaining a consistent level. From 2014 to 2023, the region witnessed an average of 9.1 crashes, 0.4 fatalities, and 2 serious injuries involving vulnerable non-motorized road users. These statistics underscore the ongoing importance of prioritizing and enhancing measures to safeguard the well-being of cyclists and pedestrians within our communities.

Figure 7.7: Non-motorized fatalities and serious injuries

Source: Iowa DOT, Crash Analysis Tool

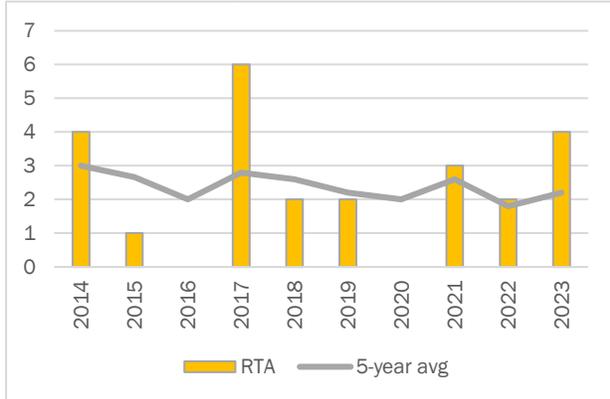
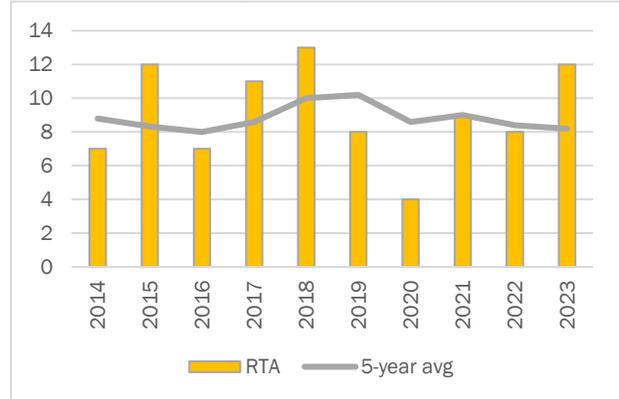


Figure 7.8: Non-motorized traffic crashes

Source: Iowa DOT, Crash Analysis Tool



Figures 7.9 and 7.10 provide a heat chart of the major cause of all crashes and fatal and serious injury crashes in the region. The top five major causes of all crashes over the past decade have been as follows:

1. Animal
2. Ran off road – right
3. Driver distraction
4. Driving too fast for conditions
5. Followed too close

For fatal and serious injury crashes, the top five major causes have been as follows:

1. Ran off road – right
2. Ran off road – left
3. Ran stop sign
4. Failure to Yield Right of Way: From stop sign
5. Driving too fast for conditions



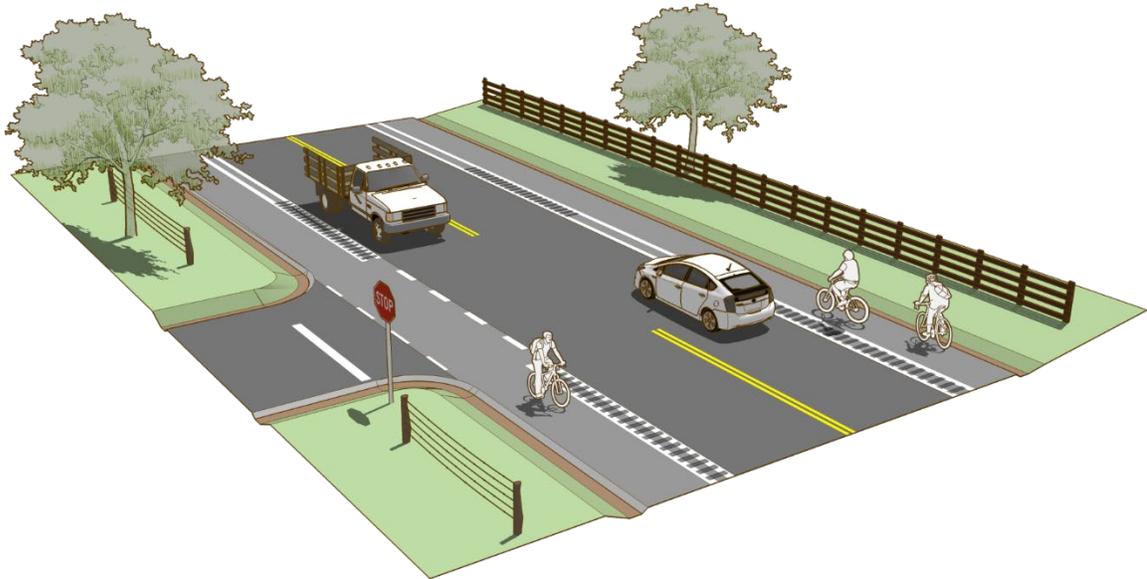
Addressing fatal and serious injury crashes caused by various factors requires a multifaceted approach that encompasses education, enforcement, engineering, and collaboration among stakeholders. Firstly, raising awareness through targeted public education campaigns is crucial. Providing information about the risks and consequences of speeding, driving too fast, and distracted driving can help change driver behavior. Reinforcing the importance of defensive driving, responsible decision-making, and adherence to traffic laws is essential.

Secondly, enforcement of traffic laws is vital to deter reckless behaviors. Law enforcement agencies should prioritize monitoring and issuing citations for offenses such as speeding, failure to yield, and running traffic signals and signs. Strick enforcement sends a clear message that such violations will not be tolerated and encourages compliance.

Thirdly, engineering measures can play a significant role in preventing crashes. Road design improvements, such as clear signage, rumble strips, bike lanes, paved shoulders, high visibility crosswalks, and better delineation of curves and intersections, can help alert drivers and enhance roadways safety. By integrating these engineering measures into road design, communities can create safer, more navigable roads that significantly lower the risk of crashes and enhance the overall safety of all road users.

Visually Separated Paved Shoulder

Source: Small Town and Rural Design Guide, Facilities for Walking and Biking



Finally, leveraging technology can assist in preventing crashes. Advanced Driver Assistance Systems (ADAS) and Intelligent Transportation Systems (ITS) are two interconnected systems that revolutionize the way we approach transportation. ADAS focuses on enhancing vehicle safety and improving driver convenience using advanced sensors and artificial intelligence. It encompasses technologies such as adaptive cruise control, lane-keeping assist, and collision warning systems, which work together to reduce the risk of crashes and improve overall road safety. On the other hand, ITS involves the integration of information and communication technologies into transportation infrastructure, vehicles, and traffic management systems. ITS aims to optimize traffic flow, reduce congestion, and enhance the efficiency of transportation networks. By combining ADAS and ITS, communities can create a seamless and intelligent transportation ecosystem that provides real-time information to drivers, warns them about hazardous conditions, and even intervenes to prevent collisions, resulting in safer roads, reduced travel times, and improved sustainability.



Figure 7.9: Major cause of crashes in the Region

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Avg
Animal	339	464	409	458	463	510	401	448	462	531	448.5
Ran off road - right	94	114	110	114	118	109	90	70	73	79	97.1
Driver Distraction: All Categories	9	87	82	106	93	82	78	79	59	92	76.7
Driving too fast for conditions	113	73	70	61	82	119	46	70	70	51	75.5
Followed too close	55	57	72	65	64	84	50	64	58	59	62.8
Ran off road - left	49	65	71	55	66	79	55	64	52	60	61.6
Lost control	40	50	43	41	61	75	51	59	53	68	54.1
FTYROW: From stop sign	62	50	57	43	45	63	45	60	55	56	53.6
Other	61	32	33	42	49	66	36	53	49	39	46.0
Ran stop sign	28	31	27	24	28	38	20	43	34	34	30.7
FTYROW: Making left turn	28	38	30	34	27	26	23	27	26	27	28.6
Unknown	50	39	40	18	20	19	14	19	25	24	26.8
Swerving/Evasive Action	120	18	13	20	16	14	10	15	8	9	24.3
Operating vehicle recklessly	15	17	23	25	24	15	29	27	29	23	22.7
Crossed centerline (undivided)	109	6	9	9	12	12	6	5	5	1	17.4
Other: No improper action	12	13	15	14	18	21	18	20	7	10	14.8
Made improper turn	15	13	23	13	14	16	16	15	13	9	14.7
FTYROW: From driveway	21	13	22	15	14	18	8	11	7	7	13.6
Improper backing	12	8	14	17	13	13	11	11	18	9	12.6
FTYROW: Other	20	16	13	10	6	15	6	15	10	8	11.9
FTYROW: At uncontrolled intersection	20	14	10	5	12	18	7	14	8	6	11.4
Exceeded authorized speed	6	10	14	8	6	4	18	13	15	15	10.9
Improper or erratic lane changing	3	8	7	6	6	15	6	8	16	2	7.7
Ran off road - straight	10	8	6	12	4	1	9	7	9	11	7.7
Passing: Other passing	0	15	12	2	6	2	4	9	8	7	6.5
Ran traffic signal	5	6	5	11	2	9	10	4	7	4	6.3
Failed to keep in proper lane	0	6	6	2	4	13	10	4	10	7	6.2
FTYROW: From parked position	10	6	10	2	8	3	3	9	5	6	6.2
FTYROW: From yield sign	7	9	3	6	1	7	6	7	4	6	5.6
Other: Vision obstructed	14	7	5	6	3	2	3	2	5	5	5.2
Traveling wrong way/wrong side of road	4	4	2	2	2	2	3	5	2	5	3.1
Equipment failure	3	2	3	3	4	5	1	2	3	4	3.0
Passing: With insufficient distance	0	2	1	6	6	2	3	1	3	3	2.7
Operator inexperience	0	0	1	0	4	1	4	3	5	4	2.2
Cargo/equipment loss or shift	0	2	2	3	3	2	1	0	5	2	2.0
Passing: Where prohibited by signs/markings	0	4	3	1	1	4	3	1	0	1	1.8
FTYROW: To pedestrian	0	2	1	2	2	3	0	1	1	4	1.6
Aggressive driving/road rage	0	3	2	5	0	1	0	1	2	0	1.4
Illegally parked/unattended	2	1	0	2	0	2	4	0	1	0	1.2
FTYROW: Making right turn on red signal	0	1	3	1	0	3	0	0	1	1	1.0
Over correcting/over steering	1	1	0	0	1	1	1	1	2	2	1.0
Disregarded RR Signal	0	1	1	3	0	1	1	1	0	1	0.9
Other: Disregarded signs/road markings	0	1	2	2	0	0	3	0	0	0	0.8
Separation of units	1	1	1	3	0	0	0	1	0	1	0.8
Driving less than the posted speed limit	0	2	1	1	1	0	0	0	1	0	0.6
Failed to yield to emergency vehicle	0	0	1	0	0	0	1	0	3	1	0.6
Other: Improper operation	0	0	0	0	1	3	0	1	0	1	0.6
Failure to signal intentions	0	0	0	1	1	1	1	0	0	1	0.5
Passing: On wrong side	0	0	2	1	0	0	0	2	0	0	0.5

Source: Iowa DOT, Crash Analysis Tool

Figure 7.10: Major cause of fatal and serious injury crashes in the Region

	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	Avg
Ran off road - right	3	5	9	8	6	8	3	6	5	4	5.7
Ran off road - left	3	4	3	2	2	7	0	7	7	10	4.5
Ran stop sign	2	3	5	1	3	1	4	10	3	5	3.7
FTYROW: From stop sign	3	4	3	5	1	0	1	3	3	10	3.3
Driving too fast for conditions	2	5	2	1	3	6	0	5	4	1	2.9
Crossed centerline (undivided)	12	2	1	2	1	2	1	2	2	0	2.5
Lost control	1	3	1	1	2	2	2	4	5	3	2.4
Driver Distraction: Other interior distracti...	0	2	1	6	1	0	8	1	0	4	2.3
Operating vehicle recklessly	0	2	3	0	2	3	4	1	5	3	2.3
Swerving/Evasive Action	10	1	1	0	1	0	2	2	1	0	1.8
Animal	0	4	0	2	1	2	0	4	2	2	1.7
Exceeded authorized speed	0	1	2	1	3	1	1	1	1	5	1.6
FTYROW: Making left turn	0	1	1	1	3	2	0	0	2	0	1.0
Other	3	1	2	1	1	0	0	0	2	0	1.0
Followed too close	0	1	1	0	1	1	1	2	1	0	0.8
FTYROW: At uncontrolled intersection	1	1	0	1	0	0	1	3	1	0	0.8
Traveling wrong way or on wrong side of road	1	0	0	0	0	1	1	1	1	2	0.7
Unknown	1	0	1	0	0	1	1	1	1	1	0.7
Driver Distraction: Inattentive/lost in thou...	0	0	1	2	2	0	0	1	0	0	0.6
FTYROW: Other	1	0	1	1	1	1	0	0	0	0	0.5
Other: No improper action	2	0	0	0	0	1	0	1	1	0	0.5
Driver Distraction: Exterior distraction	0	1	0	0	0	0	1	2	0	0	0.4
Driver Distraction: Reaching for object(s)/f...	0	0	0	1	1	0	1	1	0	0	0.4
FTYROW: From yield sign	0	0	0	0	0	1	1	0	2	0	0.4
Ran off road - straight	0	0	1	1	0	0	1	0	0	1	0.4
FTYROW: To pedestrian	0	1	0	0	0	0	0	0	0	2	0.3
Improper or erratic lane changing	0	0	0	3	0	0	0	0	0	0	0.3
Passing: Other passing	0	1	0	0	1	0	0	0	0	1	0.3
Passing: With insufficient distance/inadequa...	0	0	1	1	0	1	0	0	0	0	0.3
Disregarded RR Signal	0	0	0	0	0	1	0	1	0	0	0.2
Driver Distraction: Adjusting devices (radio...	0	0	0	2	0	0	0	0	0	0	0.2
Driver Distraction: Other electronic device ...	0	0	0	1	0	0	0	1	0	0	0.2
Driver Distraction: Passenger	0	0	0	1	0	0	0	0	0	1	0.2
Failed to keep in proper lane	0	0	0	0	0	0	0	1	0	1	0.2
Failed to yield to emergency vehicle	0	0	1	0	0	0	0	0	1	0	0.2
FTYROW: From driveway	0	1	0	0	0	0	0	1	0	0	0.2
Aggressive driving/road rage	0	0	0	1	0	0	0	0	0	0	0.1
Cargo/equipment loss or shift	0	0	0	0	0	0	0	0	1	0	0.1
Driver Distraction: Manual operation of an e...	0	0	0	1	0	0	0	0	0	0	0.1
Driver Distraction: Talking on a hands free ...	0	0	0	0	1	0	0	0	0	0	0.1
FTYROW: From parked position	0	0	0	0	0	0	0	1	0	0	0.1
Ran traffic signal	0	0	0	0	0	0	1	0	0	0	0.1
Towing improperly	0	0	0	1	0	0	0	0	0	0	0.1
Vehicle stopped on railroad tracks	0	0	0	0	1	0	0	0	0	0	0.1

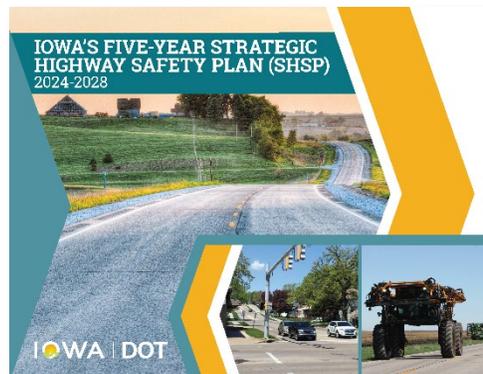
Source: Iowa DOT, Crash Analysis Tool

Safety Plans and Efforts

The Iowa DOT has been involved in several initiatives related to improving safety. There is an abundance of crash information and several tools for users located on the Iowa DOT website, as well as documents and plans outlining safety efforts.

Iowa Strategic Highway Safety Plan 2024

One method a state uses to conduct safety planning is through the development of a highway safety plan. A Strategic Highway Safety Plan (SHSP) is a statewide-coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and serious injuries on all public roads. The SHSP establishes statewide goals, objectives, and key emphasis areas developed in consultation with federal, state, local, and private sector safety stakeholders. The 2024 SHSP is the fifth statewide safety plan to be adopted in Iowa.



The 2024 SHSP was developed in consultation with the SHSP Implementation Team which is comprised of individuals representing the Es of safety – education, emergency medical services, engineering, and enforcement. These multidisciplinary representatives provide updates on programs, policies, and educational campaigns for their respective organizations, as well as data on the latest research for their areas of expertise. Iowa’s SHSP also considers a fifth E: everyone. Every driver on Iowa’s roadways is responsible for making safe choices and driving responsibly.

For this update, the emphasis areas were prioritized based on an analysis of crash data and an extensive statewide input process involving Iowa’s traffic safety stakeholders, resulting in seven key emphasis areas. Strategies for each key emphasis area are based on prior strategies in the previous SHSP, FHWA’s Proven Safety Countermeasures, and NHTSA’s Countermeasures That Work. The recommended safety strategies selected provide the greatest opportunity to reduce fatalities and serious injuries on Iowa’s roadways. The seven key emphasis areas are as follows:

- Distracted Driving
- Impairment Involved
- Lane Departures
- Local Roads
- Roadside Collisions
- Occupant Protection (Unprotected Persons)
- Work Zones

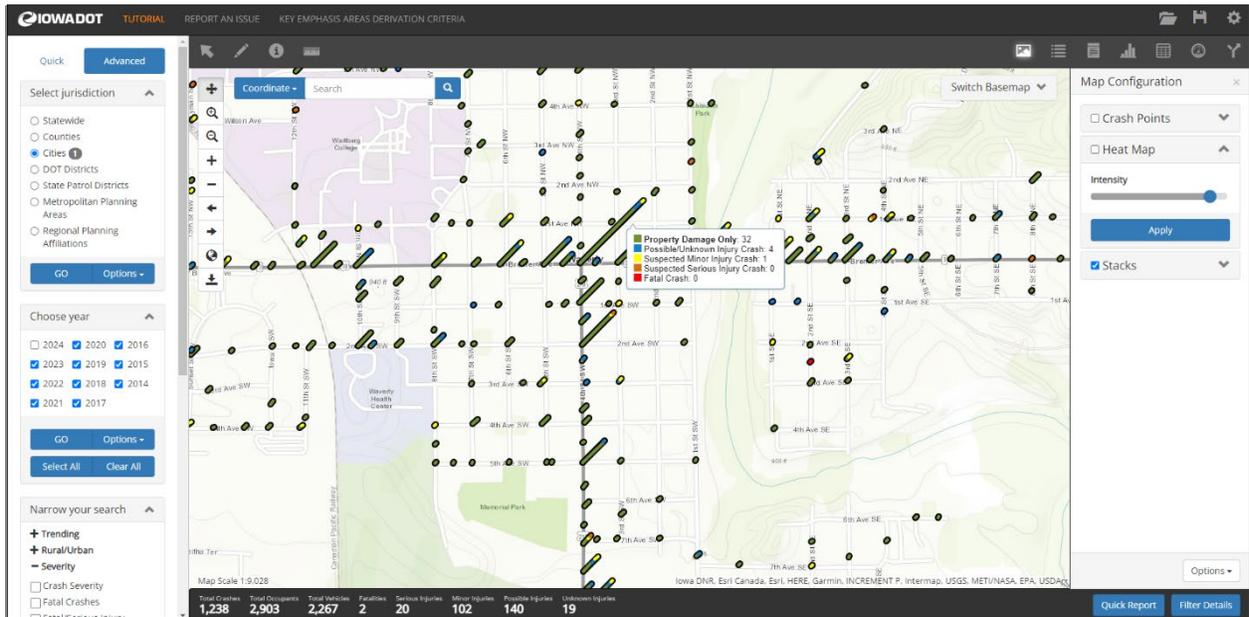
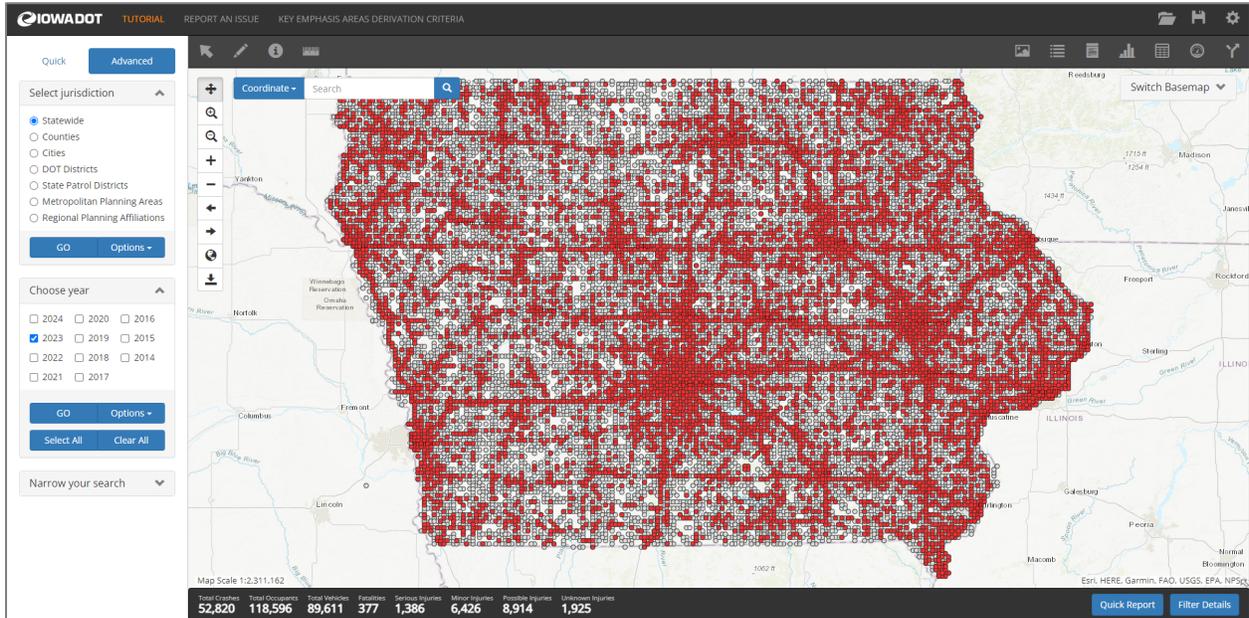
Implementation of the SHSP will be conducted by the SHSP Implementation Team and broadly supported by traffic safety professionals from around the state. The implementation and progress of the plan will be evaluated on an annual basis for the five-year planning period. The goal of this plan is **Zero Fatalities**, however, interim annual goals aligning with the Highway Safety Improvement Program (HSIP) performance measures will be developed during the plan period.

Although Zero Fatalities is Iowa’s long-term vision, the state also recognizes the need to establish short-term goals in pursuit of this vision. In 2016, FHWA published the HSIP and Safety Performance Management Final Rules. As part of these rules, states are required to develop statewide targets annually for five safety performance measures. These targets serve as the short-term goals for the state.

www.iowadot.gov/traffic/shsp/home

Iowa Crash Analysis Tool

The Iowa DOT provides public access to a web-based Iowa Crash Analysis Tool featuring quick, user-friendly functionality to review and analyze ten years of crash data. Through the online interface, users can select geographic boundaries, query crash records, export data, and produce summary charts and reports. The updated tool now includes a feature that allows users to create custom dashboards, enabling them to easily display an array of charts, graphs, and various widgets. This functionality enhances the ability to delve into crash data comprehensively, facilitating a deeper understanding of safety trends and the underlying factors contributing to crashes.



www.icat.iowadot.gov

Multidisciplinary Roadway Safety Series

The Iowa State University Institute for Transportation (InTrans) holds a series of workshops (formerly called the Local Road Safety Workshops) to provide the most current information and advice for improving safety on local agencies' roads and streets in terms of planning, law enforcement, education, and engineering. These workshops are presented annually across the state in collaboration with the Iowa DOT, FHWA, Governors Traffic Safety Bureau (GTSB), and the Iowa Local Technical Assistance Program (LTAP).

Multidisciplinary Roadway Safety Series

The Iowa DOT created a tool to analyze and compare data from similar intersections to aid in identifying the potential for crash reduction. Using models for different data points, the tool predicts the average number of crashes per year per intersection. The difference between the predicted and observed number of crashes is the intersection potential for crash reduction. If the predicted number of crashes is lower than the observed crashes during a specific time, the intersection is a priority for safety funds. Intersections are classified into one of three tiers: high, medium, and negligible potential for crash reduction. Using this new way of analyzing data, Iowa DOT's Traffic and Safety Bureau staff are working with Iowa DOT district staff to determine priorities for each district on state and U.S. highways and interstates. **In 2024, there were three intersections with a high PCR.** Table 7.1 details each intersection along with planned or completed mitigation efforts.

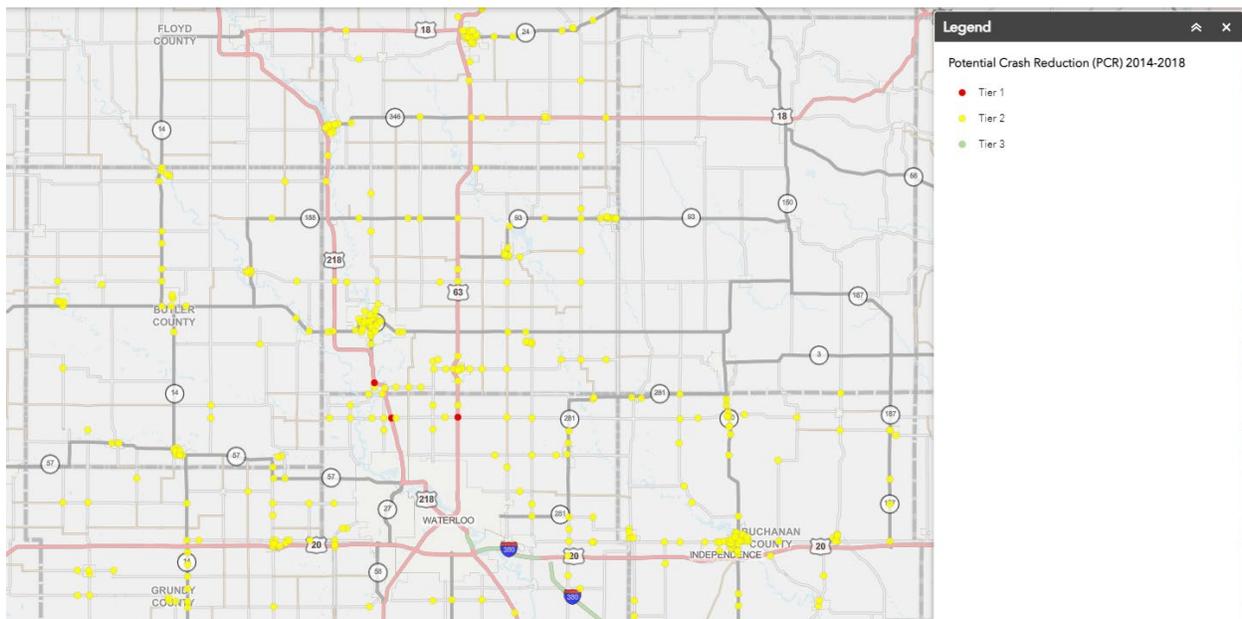


Table 7.1: Intersections with the highest potential for crash reduction (2014-2018)

Intersection	PCR (All Crashes)	PCR (Injury Crashes)	Category Ranking (All Crashes)	Statewide Ranking (All Crashes)	Category Ranking (Fatal and Injury)	Statewide Ranking (Fatal and Injury)	Mitigation Efforts
U.S. 218 and N Maple St	0.10	0.29	154	5,521	12	4	Intersection to be removed
U.S. 218 and C57/Cedar Wapsi Rd	-1.28	0.32	1,097	115,171	10	5	Interchange constructed (2016)
U.S. 63 and C57/Cedar Wapsi Rd	1.46	0.40	13	452	6	69	

www.iowadot.gov/traffic/Safety-Engineering-and-Planning

SS4A Comprehensive Safety Action Plan

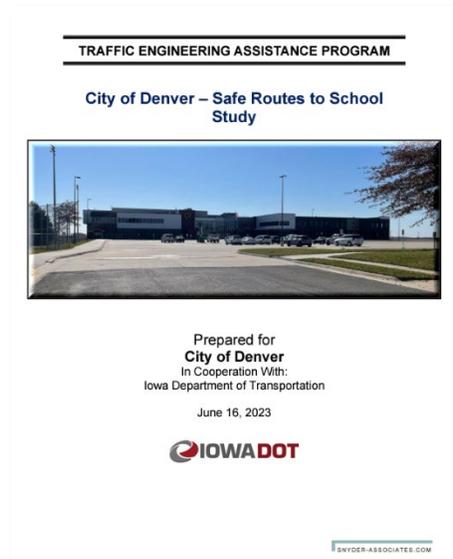
The Bipartisan Infrastructure Law established a discretionary grant program called Safe Streets and Roads for All (SS4A) to implement the goal of zero deaths. Funds are awarded on a competitive basis to support planning, infrastructure, behavioral, and operational initiatives to improve roadway safety by significantly reducing or eliminating roadway fatalities and serious injuries through safety action plan development and refinement and implementation focuses on all users. On February 1, 2023, \$2,000,000 in SS4A funds were awarded to a 97-county multijurisdictional project in Iowa. The award will aid in developing or updating comprehensive safety action plans for each county. All six counties in the Iowa Northland Region participated in this project, and workshops will be held in each county as part of the plan. Following completion, the plans will provide opportunities for each county to seek SS4A Implementation funding to implement strategies or projects that will improve and enhance safety.



Iowa Traffic Engineering Assistance Program (TEAP)

TEAP provides up to 150 hours of free traffic engineering expertise to local units of government in the form of a traffic study. Studies identify cost-effective traffic safety and operational improvements as well as potential funding sources to implement the recommendations. Typical study subjects include pedestrian crossings, high-crash locations, traffic delays, safe school routes, and parking issues. Cities without the resources of a staff engineer, typically those with populations less than 35,000, are eligible. Every Iowa county is also eligible. For locations not on a state highway, requests must include a vulnerable road user safety component, such as bicycles or pedestrians. A recent example is the City of Denver's 2023 Safe Routes to School Study, which was conducted in conjunction with the construction of the new middle/high school.

www.iowadot.gov/traffic/traffic-and-safety-programs/traffic-engineering-assistance-program-teap



Traffic Safety Improvement Program (TSIP)

The intent of TSIP is to distribute funds for roadway safety improvements, traffic control devices, studies, and outreach. TSIP provides safety funds to cities, counties, and the Iowa DOT in three separate categories: site-specific, traffic control devices, and studies and outreaches. Through these three categories, TSIP ensures a comprehensive approach to traffic safety, addressing both immediate and long-term needs. By supporting diverse projects and initiatives, the program plays a vital role in reducing traffic-related incidents and enhancing the safety and efficiency of Iowa's transportation infrastructure. A recent example is edge treatments on W35 in Buchanan County, which was funded in FY 2025.

www.iowadot.gov/traffic/traffic-and-safety-programs/tsip/tsip-program

State Safety Legislation

Iowa's traffic safety culture is supported by policy and legislation that is focused on reducing the number and severity of vehicle crashes on Iowa's roadways. This section provides a brief overview of the legislation related to traffic safety that has been passed in recent years, and future legislative strategies.

Ignition Interlock

In 2018, the Iowa Legislature passed House File 2338 which requires first-time OWI offenders who seek a temporary restricted license to install an ignition interlock device on all vehicles owned and driven by the offender. An ignition interlock device requires a driver to blow into a mouthpiece, and the device prevents the vehicle from starting if it detects the presence of alcohol. Beyond reducing the number of alcohol-related traffic fatalities and serious injuries, the passage of the ignition interlock law also means that Iowa is eligible for federal grants from the National Highway Traffic Safety Administration (NHTSA).

Statewide Sobriety and Drug Monitoring Program

Senate File 444, passed in 2017, established a Statewide Sobriety and Drug Monitoring Program that can be used by participating jurisdictions within Iowa. This program requires OWI offenders, under condition of bond, pretrial release, sentence, probation, parole, or a temporary restricted license, to be subject to twice-daily testing to determine whether alcohol and/or a controlled substance is present in the person's body. Offenders are also required to install an approved ignition interlock device on all motor vehicles owned or operated by the offender.

Homicide-by-vehicle

Senate File 444 also expanded Iowa's homicide-by-vehicle statute. Those drivers who are using a device such as a cell phone and are involved in a vehicle crash that results in a fatality can now face felony charges. These charges carry a sentence of up to 10 years in prison and a fine of up to \$10,000.

Use of Electronic Communication

Senate File 234, passed in 2017, banned the "use of hand-held electronic communication device to write, send or view an electronic message while driving a motor vehicle unless the vehicle is at a complete stop off the traveled portion of the roadway." This use is now a primary offense and includes drivers viewing text messages, instant messages, e-mail, internet sites, social media applications, or games while driving.

Backseat Safety Belt

Iowa has maintained a primary safety belt law since July 1, 1986. In 2018, the Iowa Legislature passed a law requiring all passengers under the age of eighteen riding in the backseat of a vehicle to be properly belted.

Blue and White Lights

Senate File 2163, passed in 2018, allows for the permanent use of amber, white, or blue reflector lights for Iowa DOT equipment that is being used for snow and ice treatment or removal on public roadways. This law made permanent an existing law that had a repeal date of July 1, 2019. The addition of the white and blue lights makes the snowplows more visible to vehicles approaching them from behind. During the two years of piloting this project, Iowa DOT snowplows were involved in 10 crashes compared to 29 during the two years before the project.



Move Over or Slow Down

All fifty states have a version of the “Move Over” law which requires motorists to change lanes or slow down when approaching a stationary emergency vehicle with flashing lights. In 2018, Iowa expanded its original 2002 “Move Over” law to include any vehicle with flashing hazard lights. This expansion is designed to protect not only emergency personnel or those who maintain roadways, but all motorists who might find themselves on the side of the road.

**Move over or slow down
for any vehicle on the side of
the road with lights flashing.**



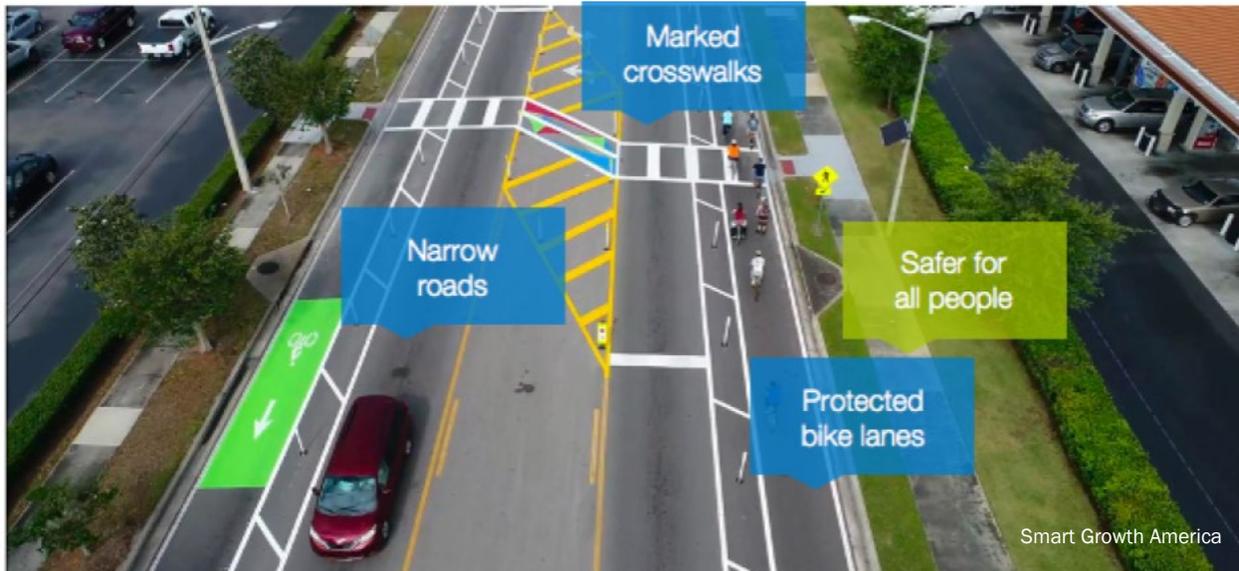
Future Legislative Strategies

Although Iowa has made great strides in passing legislation that supports reducing the number of severe crashes on its roadways, there are still opportunities to improve traffic safety. Initial legislative strategies that the Iowa Strategic Highway Safety Plan Implementation Team will undertake in the coming years include the following:

- Reducing distracted, drowsy, and impaired driving
- Hands-free cell phone requirements
- All-passenger primary seatbelt requirements
- Strengthening or enhancing graduated driver’s license (GDL) requirements
- Requiring drivers to change lanes when passing bicyclists

Local Policies

To improve road safety in the Iowa Northland Region, cities and counties should consider several local policies. One effective approach is implementing Complete Streets policies, which ensure that roadways are designed to accommodate all users, including pedestrians, cyclists, and motorists. This holistic approach can reduce crashes and enhance the overall safety of the transportation network. Additionally, enhancing signage and road markings can significantly improve visibility and guidance for drivers, reducing confusion and potential collisions.



Public education campaigns are another vital component. Increasing community awareness about road safety through outreach and education programs can foster safer driving behaviors. Installing traffic calming measures, such as speed bumps and roundabouts, can effectively reduce vehicle speeds in high-risk areas, making roads safer for everyone. Developing Safe Routes to School programs can ensure children have secure pathways for walking or biking to school, reducing the risk of crashes. These combined efforts can create a safer and more efficient transportation environment in the region.

The following local policies are relevant to the region and have the potential to significantly enhance road safety for all users:

- **Complete Streets Policies:** Design and retrofit streets to accommodate all users, including pedestrians, cyclists, and drivers. This includes creating dedicated bike lanes, reducing driving lane widths, safer and more visible crosswalks, and better lighting.
- **Reduced Speed Limits:** Implementing lower speed limits in residential areas, school zones, and high-pedestrian traffic zones to reduce the severity of crashes.
- **Traffic Calming Measures:** Implement traffic calming strategies such as roundabouts, road narrowing, raised intersections, and pedestrian islands to slow down traffic and improve safety in residential neighborhoods.
- **Public Awareness Campaigns:** Run educational campaigns to raise awareness about safe driving practices, the importance of using seat belts, and the dangers of distracted or impaired driving.
- **Enhanced Traffic Enforcement:** Increase the use of automated traffic enforcement and dedicated traffic patrols to enforce existing traffic laws more effectively.

Proven Safety Countermeasures

FHWA's Proven Safety Countermeasures (PSC) initiative is a collection of twenty-eight countermeasures and strategies effective in reducing roadway fatalities and serious injuries on our Nation's highways. Transportation agencies are strongly encouraged to consider widespread implementation of PSCs to accelerate the achievement of local, State, and National safety goals. These strategies are designed for all road users and types of roads. Each countermeasure addresses at least one safety focus area—speed management, intersections, roadway departures, or pedestrians/bicyclists—while others are crosscutting strategies that address multiple safety focus areas.

highways.dot.gov/safety/proven-safety-countermeasures

Speed Management: Appropriate Speed Limits for All Road Users

There is broad consensus among global roadway safety experts that speed control is one of the most important methods for reducing fatalities and serious injuries. Speed is an especially important factor on non-limited access roadways where vehicles and vulnerable road users mix.

A driver may not see or be aware of the conditions within a corridor and may drive at a speed that feels reasonable for themselves but may not be for all users of the system, especially vulnerable road users, including children and seniors. A driver traveling at 30 miles per hour who hits a pedestrian has a 45 percent chance of killing or seriously injuring them. At 20 miles per hour, that percentage drops to 5 percent. Several cities across the United States, including New York, Washington, Seattle, and Minneapolis, have reduced their local speed limits in recent years to reduce fatalities and serious injuries, with most having to secure State legislative authorization to do so.

States and local jurisdictions should set appropriate speed limits to reduce the significant risks drivers impose on others—especially vulnerable road users—and on themselves. Addressing speed is fundamental to the Safe System Approach to making streets safer, and a growing body of research shows that speed limit changes alone can lead to measurable declines in speeds and crashes. Based on international experience and implementation in the United States, the use of 20 mph speed zones or speed limits in urban core areas where vulnerable users share the road environment with motorists may result in further safety benefits.

When setting a speed limit, agencies should consider a range of factors such as pedestrian and bicyclist activity, crash history, land use context, intersection spacing, driveway density, roadway geometry, roadside conditions, roadway functional classification, traffic volume, and observed speeds. To achieve desired speeds, agencies often implement other speed management strategies concurrently with setting speed limits, such as self-enforcing roadways, traffic calming, and speed safety cameras.



Safety Benefits:

Traffic fatalities in the City of Seattle decreased 26 percent after the city implemented comprehensive, city-wide speed management strategies and countermeasures inspired by Vision Zero. This included setting speed limits on all non-arterial streets at 20 mph and 200 miles of arterial streets at 25 mph.⁵

One study found that on rural roads, when considering other relevant factors in the engineering study along with the speed distribution, setting a speed limit no more than 5 mph below the 85th-percentile speed may result in fewer total and fatal plus injury crashes, and lead to drivers complying closely with the posted speed limit.⁵

Speed Management: Speed Safety Cameras

Agencies can use speed safety cameras as an effective and reliable technology to supplement more traditional methods of enforcement, engineering measures, and education to alter the social norms of speeding. Speed safety cameras use speed measurement devices to detect speeding and capture photographic or video evidence of vehicles that are violating a set speed threshold.

Agencies could conduct a network analysis of speeding-related crashes to identify locations to implement these devices. Speed safety cameras can be deployed as fixed units, point-to-point units, or mobile units.

Table of selection considerations for SSC deployment

Considerations for Selection	Fixed	P2P	Mobile
Problems are long-term and site-specific.	X	X	
Problems are network-wide, and shift based on enforcement efforts.			X
Speeds at enforcement site vary largely from downstream sites.		X	X
Overt enforcement is legally required.	X	X	X
Sight distance for the enforcement unit is limited.	X	X	
Enforcement sites are multilane facilities.	X	X	

As of 2023, the City of Waterloo has implemented 23 fixed units, 1 P2P unit, and 1 mobile unit; and the City of Hudson has implemented 4 fixed units.





Safety Benefits:

Fixed units can reduce crashes on urban principal arteries up to: ⁴

54%

for all crashes.

47%

for injury crashes.

P2P units can reduce crashes on urban expressways, freeways, and principal arterials up to:

37%

for fatal and injury crashes.²

Mobile units can reduce crashes on urban principal arterials up to:

20%

for fatal and injury crashes.⁵

Pedestrian/Bicyclist: Bicycle Lanes

Most fatal and serious injury bicyclist crashes occur at non-intersection locations. Nearly one-third of these crashes involve overtaking motorists; the speed and size differential between vehicles and bicycles can lead to severe injury. To make bicycling safer and more comfortable for most types of bicyclists, State and local agencies should consider installing bicycle lanes. These dedicated facilities for the use of bicyclists along the roadway can take several forms. Providing bicycle facilities can mitigate or prevent interactions, conflicts, and crashes between bicyclists and motor vehicles, and create a network of safer roadways for bicycling. Bicycle Lanes align with the Safe System Approach principle of recognizing human vulnerability—where separating users in space can enhance safety for all road users.

Bicycle lanes can be included on new roadways or created on existing roads by reallocating space in the right-of-way. In addition to the paint stripe used for a typical bicycle lane, a lateral offset with painted buffer can help to further separate



bicyclists from vehicle traffic. State and local agencies may also consider physical separation of the bicycle lane from motorized traffic lanes through the use of vertical elements like posts, curbs, or vegetation.

Pedestrian/Bicyclist: Leading Pedestrian Interval

A leading pedestrian interval (LPI) gives pedestrians the opportunity to enter the crosswalk at an intersection 3-7 seconds before vehicles are given a green indication. Pedestrians can better establish their presence in the crosswalk before vehicles have priority to turn right or left.

LPIs provide the following benefits:

- Increased visibility of crossing pedestrians
- Reduced conflicts between pedestrians and vehicles
- Increased likelihood of motorists yielding to pedestrians
- Enhanced safety for pedestrians who may be slower to start into the intersection



Pedestrian/Bicyclist: Crosswalk Visibility Enhancements

Poor lighting conditions, obstructions such as parked cars, and horizontal or vertical roadway curvature can reduce visibility at crosswalks, contributing to safety issues. For multilane roadway crossings where vehicle volumes are more than 10,000 AADT, a marked crosswalk alone is typically not sufficient. Under such conditions, more substantial crossing improvements could prevent an increase in pedestrian crash potential.

Three main crosswalk visibility enhancements help make crosswalks and the pedestrians, bicyclists, wheelchair and other mobility device users, and transit users using them more visible to drivers. These include **high-visibility crosswalks, lighting, and signing and pavement markings.** These enhancements can also assist users in deciding where to cross. Agencies can implement these features as standalone or combination enhancements to indicate the preferred location for users to cross.



Safety Benefits:
High-visibility crosswalks can reduce pedestrian injury crashes up to¹

40%
Intersection lighting can reduce pedestrian crashes up to²

42%
Advance yield or stop markings and signs can reduce pedestrian crashes up to³

25%

High-visibility crosswalks use patterns (i.e., bar pairs, continental, ladder) that are visible to both the driver and pedestrian from farther away compared to traditional transverse line crosswalks. They should be considered at all midblock pedestrian crossings and uncontrolled intersections. Agencies should use materials such as inlay or thermoplastic tape, instead of paint or brick, for highly reflective crosswalk markings.

The goal of improved crosswalk lighting should be to illuminate with positive contrast to make it easier for a driver to visually identify the pedestrian. This involves carefully placing the luminaires in forward locations to avoid a silhouette effect of the pedestrian.

On multilane roadways, agencies can use “YIELD Here to Pedestrians” or “STOP Here for Pedestrians” signs 20 to 50 feet in advance of a marked crosswalk to indicate where a driver should stop or yield to pedestrians, depending on State law. To supplement the signing, agencies can also install a STOP or YIELD bar (commonly referred to as “shark’s teeth”) pavement markings. In-street signing, such as “STOP Here for Pedestrians” or “YIELD Here to Pedestrians” may be appropriate on roads with two or three lanes where speed limits are 30 miles per hour or less.

Pedestrian/Bicyclist: Medians and Pedestrian Refuge Islands in Urban and Suburban Areas

A *median* is the area between opposing lanes of traffic, excluding turn lanes. Medians in urban and suburban areas can be defined by pavement markings, raised medians, or islands to separate motorized and non-motorized road users.

A *pedestrian refuge island* (or crossing area) is a median with a refuge area that is intended to help protect pedestrians who are crossing a road.

Pedestrian crashes account for approximately 17 percent of all traffic fatalities annually, and 74 percent of these occur at non-intersection locations. For pedestrians to safely cross a roadway, they must estimate vehicle speeds, determine acceptable gaps in traffic based on their walking speed, and predict vehicle paths. Installing a median or pedestrian refuge island can help improve safety by allowing pedestrians to cross one direction of traffic at a time.





Safety Benefits:

Median with Marked Crosswalk

46%
reduction in pedestrian crashes.²

Pedestrian Refuge Island

56%
reduction in pedestrian crashes.²



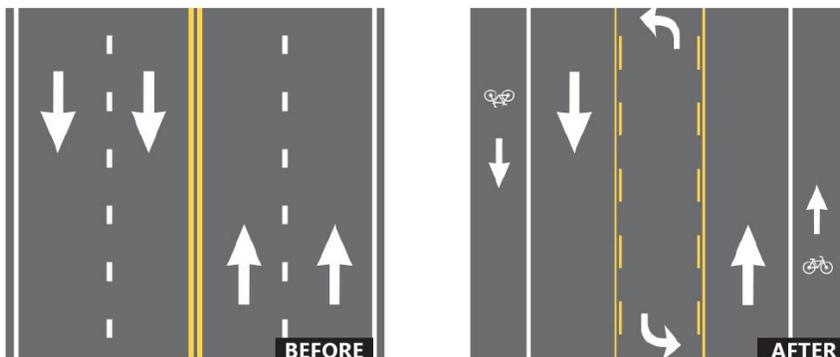
Safety Benefits:

4-Lane to 3-Lane, Road Diet Conversions

19-47%
reduction in total crashes.¹

Pedestrian/Bicyclist: Road Diets (Roadway Reconfiguration)

A Road Diet, or roadway reconfiguration, can improve safety, calm traffic, provide better mobility and access for all road users, and enhance overall quality of life. A Road Diet typically involves converting an existing four-lane undivided roadway to a three-lane roadway consisting of two through lanes and a center two-way left-turn lane (TWLTL). Benefits may include reduction of rear-end and left-turn crashes, reduced right-angle crashes, fewer lanes for pedestrians to cross, opportunity to install pedestrian refuge islands and bike lanes, traffic calming and more consistent speeds, and a roadway that better accommodates the needs of all road users.



Pedestrian/Bicyclist: Rectangular Rapid Flashing Beacons (RRFB)

A marked crosswalk or pedestrian warning sign can improve safety for pedestrians crossing the road, but at times may not be sufficient for drivers to visibly locate crossing locations and yield to pedestrians. To enhance pedestrian conspicuity and increase driver awareness at uncontrolled and marked crosswalks, transportation agencies can install a pedestrian actuated RRFB to accompany a pedestrian warning sign. RRFBs consist of two, rectangular-shaped yellow indications, each with an LED-array-based light source. RRFBs flash with an alternating high frequency when activated to enhance the conspicuity of pedestrians at the crossing to drivers.

The RRFB is applicable to many types of pedestrian crossings but is particularly effective at multilane crossings with speed limits of less than 40 miles per hour. Research suggests RRFBs can result in motorist yielding rates as high as 98 percent at marked crosswalks, but vary depending on the location, posted speed limit, pedestrian crossing distance, one- versus two-way road, and the number of travel lanes. RRFBs can also accompany school or trail crossing warning signs. Agencies should reserve the use of RRFBs for locations with significant pedestrian safety issues, as over-use of RRFB treatments may diminish their effectiveness.



Pedestrian/Bicyclist: Walkways

A walkway is any type of defined space or pathway for use by a person traveling by foot or using a wheelchair. These may be pedestrian walkways, shared use paths, sidewalks, or roadway shoulders.

With the staggering numbers of pedestrian fatalities and injuries occurring in roadway crashes annually, it is important for transportation agencies to improve conditions and safety for pedestrians and to integrate walkways more fully into the transportation system. Research shows people living in low-income communities are less likely to encounter walkways and other pedestrian-friendly features.



Safety Benefits:

RRFBs can reduce crashes up to:

47%

for pedestrian crashes.⁴

RRFBs can increase motorist yielding rates up to:

98%

(varies by speed limit, number of lanes, crossing distance, and time of day).³



Safety Benefits:

Sidewalks

65-89%

reduction in crashes involving pedestrians walking along roadways.³

Intersections: Backplates with Retroreflective Borders

Backplates added to a traffic signal head improve the visibility of the illuminated face of the signal by introducing a controlled-contrast background. The improved visibility of a signal head with a backplate is made even more conspicuous by framing it with a 1- to 3-inch yellow retroreflective border. Signal heads that have backplates equipped with retroreflective borders are more visible and conspicuous in both daytime and nighttime conditions.



This treatment is recognized as a human factor enhancement of traffic signal visibility, conspicuity, and orientation for both older and color vision deficient drivers. This countermeasure is also advantageous during periods of power outages when the signals would otherwise be dark, providing a visible indicator for motorists to stop at the intersection ahead.

Transportation agencies should consider backplates with retroreflective borders as part of their efforts to systematically improve safety performance at signalized intersections.

Adding a retroreflective border to an existing signal backplate is a very low-cost safety treatment. This can be done by either adding retroreflective tape to an existing backplate or purchasing a new backplate with a retroreflective border already incorporated. The most efficient means of implementing this proven safety countermeasure is to adopt it as a standard treatment for signalized intersections across a jurisdiction or State.

Intersections: Yellow Change Intervals

At a signalized intersection, the yellow change interval is the length of time that the yellow signal indication is displayed following a green signal indication. The yellow signal confirms to motorists that the green has ended and that a red will soon follow.

Since red-light running is a leading cause of severe crashes at signalized intersections, it is imperative that the yellow change interval be appropriately timed. Too brief an interval may result in drivers being unable to stop safely and cause unintentional red-light running. Too long of an interval may result in drivers treating the yellow as an extension of the green phase and invite intentional red-light running. Factors such as the speed of approaching and turning vehicles, driver perception-reaction time, vehicle deceleration, and intersection geometry should all be considered in the timing calculation.

Transportation agencies can improve signalized intersection safety and reduce red-light running by reviewing and updating their traffic signal timing policies and procedures concerning the yellow change interval.

The infographic is divided into two vertical panels. The top panel features a circular icon of a traffic signal with a yellow border, followed by the text 'Safety Benefits: 15% reduction in total crashes.¹'. Below this is a photograph of a traffic signal with a yellow retroreflective border, with arrows pointing to the 'Retroreflective Border' and 'Signal Backplate'. The bottom panel features a circular icon of a traffic signal with a yellow change interval, followed by the text 'Safety Benefits: 36-50% reduction in red-light running.²', '8-14% reduction in total crashes.²', and '12% reduction in injury crashes.²'.

Safety Benefits:
15%
reduction in total crashes.¹

Safety Benefits:
36-50%
reduction in red-light running.²

8-14%
reduction in total crashes.²

12%
reduction in injury crashes.²

Intersections: Roundabouts

The modern roundabout is an intersection with a circular configuration that safely and efficiently moves traffic. Roundabouts feature channelized, curved approaches that reduce vehicle speed, entry yield control that gives right-of-way to circulating traffic, and counterclockwise flow around a central island that minimizes conflict points. The net result of lower speeds and reduced conflicts at roundabouts is an environment where crashes that cause injury or fatality are reduced.

Roundabouts are not only a safer type of intersection; they are also efficient in terms of keeping people moving. Even while calming traffic, they can reduce delay and queuing when compared to other intersection alternatives. Furthermore, the lower vehicular speeds and reduced conflict environment can create a more suitable environment for walking and bicycling.

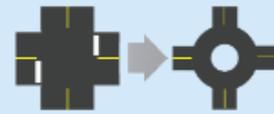


Roundabouts can be implemented in both urban and rural areas under a wide range of traffic conditions. They can replace signals, two-way stop controls, and all-way stop controls. Roundabouts are an effective option for managing speed and transitioning traffic from high-speed to low-speed environments, such as freeway interchange ramp terminals, and rural intersections along high-speed roads.



Safety Benefits:

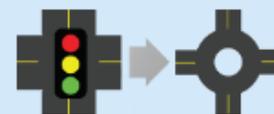
Two-Way Stop-Controlled Intersection to a Roundabout



82%

Reduction in fatal and injury crashes¹

Signalized Intersection to a Roundabout

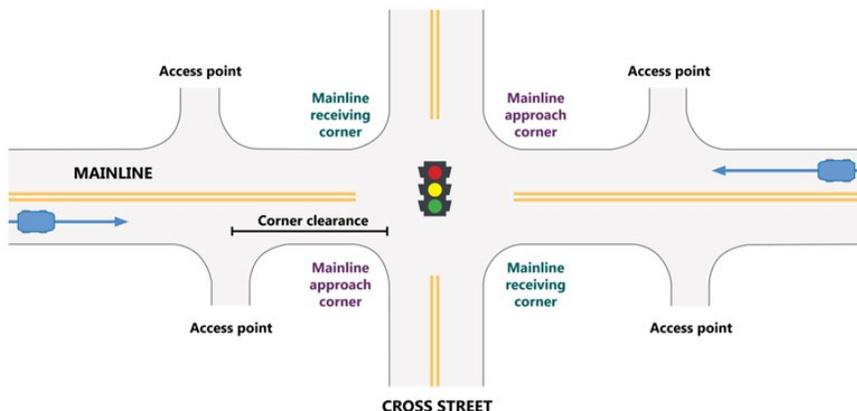


78%

Reduction in fatal and injury crashes¹

Intersections: Corridor Access Management

Access management refers to the design, application, and control of entry and exit points along a roadway. This includes intersections with other roads and driveways that serve adjacent properties. Thoughtful access management along a corridor can simultaneously enhance safety for all modes, facilitate walking and biking, and reduce trip delay and congestion.



Every intersection, from a signalized intersection to an unpaved driveway, has the potential for conflicts between vehicles, pedestrians, and bicyclists. The number and types of conflict points—locations where the travel paths of two users intersect—influence the safety performance of the intersection or driveway. FHWA developed corridor-level crash prediction models to estimate and analyze the safety effects of selected access management techniques for different area types, land uses, roadway variables, and traffic volumes.

The following access management strategies can be used individually or in combination with one another:

- Reduce density through driveway closure, consolidation, or relocation.
- Manage spacing of intersection and access points.
- Limit allowable movements at driveways (such as right-in/right-out only).
- Place driveways on an intersection approach corner rather than a receiving corner, which is expected to have fewer total crashes.
- Implement raised medians that preclude across-roadway movements.
- Utilize designs such as roundabouts or reduced left-turn conflicts (such as restricted crossing U-turn, median U-turns, etc.).
- Provide turn lanes (i.e., left-only, right-only, or interior two-way left).
- Use lower speed one-way or two-way off-arterial circulation roads.

Successful corridor access management involves balancing overall safety and mobility for all users along with the needs of adjacent land uses.

Safety Benefits:

- Reducing driveway density
- 5-23%** reduction in total crashes along 2-lane rural roads.³
- 25-31%** reduction in fatal and injury crashes along urban/suburban arterials.⁴

Intersections: Systemic Application of Multiple Low-Cost Countermeasures at Stop-Controlled Intersections

This systemic approach to intersection safety involves deploying a package of multiple low-cost countermeasures, including enhanced signing and pavement markings, at many stop-controlled intersections within a jurisdiction. These countermeasures increase driver awareness and recognition of the intersections and potential conflicts.

There are several benefits to systemically applying multiple low-cost countermeasures at stop-controlled intersections, including the following:

- Resources are maximized because the treatments are low cost.
- A high number of intersections can receive treatment.
- Improvements are highly cost-effective, with an average benefit-cost ratio of 12:1, even assuming a conservative 3-year service life.

The low-cost countermeasures for stop-controlled intersections consist of the following treatments:

On the Through Approach

- Doubled-up (left and right), oversized advance intersection warning signs, with supplemental street name plaques (can also include flashing beacon)
- Retroreflective sheeting on signposts
- Enhanced pavement markings that delineate through lane edge lines

On the Stop Approach

- Doubled-up (left and right), oversized advance “Stop Ahead” intersection warning signs (can also include flashing beacon)
- Doubled-up (left and right), oversized Stop signs
- Retroreflective sheeting on signposts
- Properly placed stop bar
- Removal of vegetation, parking, or obstructions that limit sight distance
- Double arrow warning sign at stem of T-intersections



Intersections: Dedicated Left- and Right-Turn Lanes at Intersections

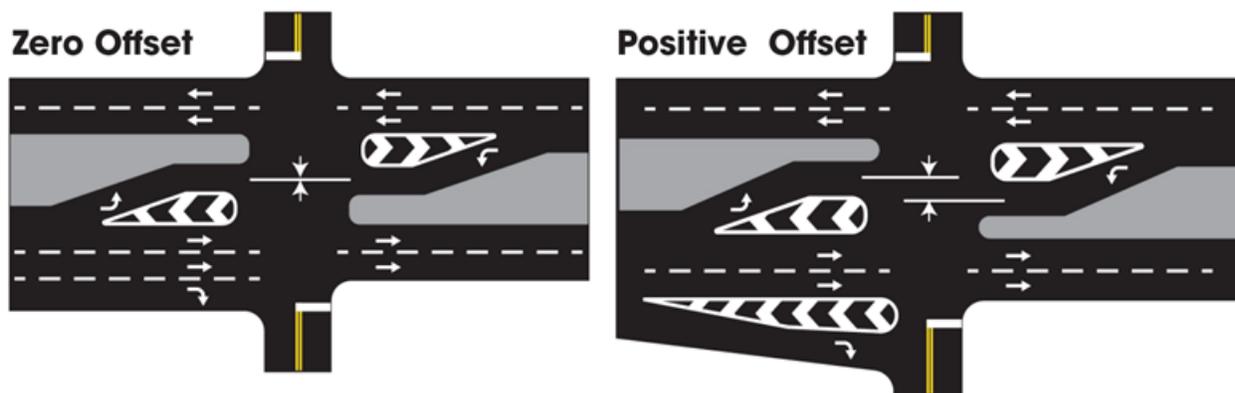
Auxiliary turn lanes—either for left turns or right turns—provide physical separation between turning traffic that is slowing or stopped and adjacent through traffic at approaches to intersections. Turn lanes can be designed to provide for deceleration prior to a turn, as well as for storage of vehicles that are stopped and waiting for the opportunity to complete a turn.

While turn lanes provide measurable safety and operational benefits at many types of intersections, they are particularly helpful at two-way stop-controlled intersections. Crashes occurring at these intersections are often related to turning maneuvers. Since the major route traffic is free flowing and typically travels at higher speeds, crashes that do occur are often severe. The main crash types include collisions of vehicles turning left across opposing through traffic and rear-end collisions of vehicles turning left or right with other vehicles following closely behind. Turn lanes reduce the potential for these types of crashes.

Installing left-turn lanes and/or right-turn lanes should be considered for the major road approaches for improving safety at both three- and four-leg intersections with stop control on the minor road, where significant turning volumes exist, or where there is a history of turn-related crashes. Pedestrian and bicyclist safety and convenience should also be considered when adding turn lanes at an intersection. Specifically, offset left- and right-turn lanes will lengthen crossing distances for pedestrians.

Providing an offset of left- and right-turn lanes to increase visibility can provide added safety benefits, and is preferable in many situations, particularly at locations with higher speeds, or where free-flow or permissive movements are possible.

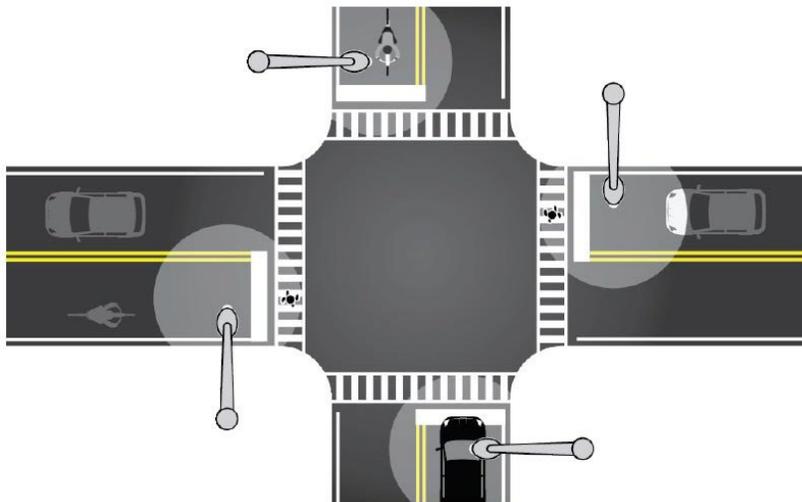
At turn lanes with zero or negative offset, turning vehicles can block sightlines. For left-turn lanes, this usually involves opposing left-turning vehicles occupying the turn lanes at the same time. For right-turn lanes, this typically involves right-turning vehicles from the major road and vehicles entering the intersection from the minor road. In both scenarios, adding positive offset to turn lanes enhances the sight distance to approaching vehicles that conflict with the turning movement. Offset turn lanes should be considered when there is a high frequency of these types of conflicts to reduce the likelihood of a severe crash.



Crosscutting: Lighting

The number of fatal crashes occurring in daylight is about the same as those that occur in darkness. However, the nighttime fatality rate is three times the daytime rate because only 25 percent of vehicle miles traveled (VMT) occur at night. At nighttime, vehicles traveling at higher speeds may not have the ability to stop once a hazard or change in the road ahead becomes visible by the headlights. Therefore, lighting can be applied continuously along segments and at spot locations such as intersections and pedestrian crossings to reduce the chances of a crash.

Adequate lighting (i.e., at or above minimum acceptable standards) is based on research recommending horizontal and vertical illuminance levels to provide safety benefits to all users of the roadway environment. Adequate lighting can also provide benefits in terms of personal security for pedestrians, wheelchair and other mobility device users, bicyclists, and transit users as they travel along and across roadways.



Research indicates that continuous lighting on both rural and urban highways (including freeways) has an established safety benefit for motorized vehicles. Agencies can provide adequate visibility of the roadway and its users through the uniform application of lighting that provides full coverage along the roadway and the strategic placement of lighting where it is needed the most.

Increased visibility at intersections at nighttime is important since various modes of travel cross paths at these locations. Agencies should consider providing lighting to intersections based on factors such as a history of crashes at nighttime, traffic volume, the volume of non-motorized users, the presence of crosswalks and raised medians, and the presence of transit stops and boarding volumes.

Most new lighting installations are made with breakaway features, shielded, or placed far enough from the roadway to reduce the probability and/or severity of fixed-object crashes. Modern lighting technology gives precise control with minimal excessive light affecting the nighttime sky or spilling over to adjacent properties. Agencies can equitably engage with underserved communities to determine where and how new and improved lighting can most benefit the community by considering their priorities, including eliminating crash disparities, connecting to essential neighborhood services, improving active transportation routes, and promoting personal safety.



Crosscutting: Pavement Friction Management

Friction is a critical characteristic of a pavement that affects how vehicles interact with the roadway, including the frequency of crashes. Measuring, monitoring, and maintaining pavement friction—especially at locations where vehicles are frequently turning, slowing, and stopping—can prevent many roadway departures, intersection, and pedestrian-related crashes.

Pavement friction treatments, such as High Friction Surface Treatment (HFST), can be better targeted and result in more efficient and effective installations when using continuous pavement friction data along with crash and roadway data.

Friction data for safety performance is best measured with Continuous Pavement Friction Measurement (CPFM) equipment. Spot friction measurement devices, like locked-wheel skid trailers, cannot safely and accurately collect friction data in curves or intersections, where the pavement polishes more quickly and adequate friction is so much more critical. Without CPFM equipment, agencies will assume the same friction over a mile or more.

CPFM technology measures friction continuously at highway speeds and provides both network and segment level data. Practitioners can analyze the friction, crash, and roadway data to better understand and predict where friction-related crashes will occur to better target locations and more effectively install treatments.

HFST consists of a layer of durable, anti-abrasion, and polish-resistant aggregate over a thermosetting polymer resin binder that locks the aggregate in place to restore or enhance friction and skid resistance. Calcined bauxite is the aggregate shown to yield the best results and should be used with HFST applications.

HFST should be applied in locations with increased friction demand, including:

- Horizontal curves
- Interchange ramps
- Intersection approaches
 - Higher-speed signalized and stop-controlled intersections
 - Steep downward grades
- Locations with a history of rear-end, failure to yield, wet-weather, or red-light running crashes
- Crosswalk approaches



The infographic features a circular logo at the top with a stylized eye shape. Below the logo, the text 'Safety Benefits:' is followed by three statistics: 'HFST can reduce crashes up to: 63% for injury crashes at ramps.²', '48% for injury crashes at horizontal curves.²', and '20% for total crashes at intersections.³'. At the bottom, there is a photograph of a machine applying HFST to a wet road surface, with the caption 'Automated application of HFST. Source: FHWA'.

Safety Benefits:

HFST can reduce crashes up to:

63%
for injury crashes at ramps.²

48%
for injury crashes at horizontal curves.²

20%
for total crashes at intersections.³

Automated application of HFST.
Source: FHWA

Crosscutting: Road Safety Audit

While most transportation agencies have established traditional safety review procedures, a road safety audit (RSA) or assessment is unique. RSAs are performed by a multidisciplinary team independent of the project. RSAs consider all road users, account for human factors and road user capabilities, are documented in a formal report, and require a formal response from the road owner.

Responsibilities

-  RSA Team
-  Design Team/Project Owner



RSAs provide the following benefits:

- Reduced number and severity of crashes due to safer designs.
- Reduced costs resulting from early identification and mitigation of safety issues before projects are built
- Increased opportunities to integrate multimodal safety strategies and proven safety countermeasures
- Expanded ability to consider human factors in all facets of design
- Increased communication and collaboration among safety stakeholders
- Objective review by independent multidisciplinary team

RSAs can be performed in any phase of project development, from planning to construction. Agencies may focus RSAs specifically on motorized vehicles, pedestrians, bicyclists, motorcyclists, or a combination of these roadway users. Agencies are encouraged to conduct an RSA at the earliest stage possible, as all roadway design options and alternatives are being explored.

Safety Benefits:
10-60%
reduction in total crashes.¹

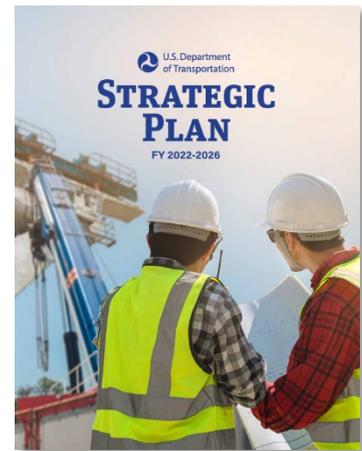
Multi-disciplinary team performs field review during an RSA.
Source: FHWA

Security Planning

Transportation planning for the security of the transportation system is a primary concern nationwide due to its critical role in ensuring public safety, economic stability, and social well-being. The transportation system is essential for the movement of people, goods, and services across the country. Any disruption or security breach within this system can have severe consequences, including the potential for terrorist attacks, accidents, or the spread of illegal activities. Natural disasters and humanmade accidental or intentional incidents can cause serious disruption to the system and pose danger to the public. Conversely, the transportation system is also what provides a means for exit during an emergency evacuation. By prioritizing transportation planning for security, authorities can implement measures such as enhanced surveillance, infrastructure protection, and emergency response protocols to mitigate risks and safeguard the integrity of the transportation system, thereby ensuring the smooth functioning of society.

U.S. DOT Strategic Plan

The FY 2022-2026 U.S. DOT Strategic Plan establishes the DOT's strategic goals and objectives. This document is a roadmap for transformative investments that will modernize the infrastructure to deliver safer, cleaner, and more equitable transportation systems. Strategic Goals and Objectives tied to security planning include the following:



Strategic Goal	Strategic Objectives
Safety: Make our transportation system safer for all people. Advance a future without transportation-related serious injuries and fatalities.	Critical Infrastructure Cybersecurity
Climate and Sustainability: Tackle the climate crisis by ensuring that transportation plays a central role in the solution. Substantially reduce greenhouse gas emissions and transportation-related pollution and build more resilient and sustainable transportation systems to benefit and protect communities.	Infrastructure Resilience

www.transportation.gov/dot-strategic-plan

National Response Framework and National Incident Management System

The National Response Framework (NRF) is a guide to how the Nation responds to all types of disasters and emergencies. It is built on scalable, flexible, and adaptable concepts identified in the National Incident Management System to align key roles and responsibilities across the Nation. The document describes specific authorities and best practices for managing incidents that range from the serious but purely local to large-scale terrorist attacks or catastrophic natural disasters.

The National Incident Management System (NIMS) is a comprehensive, national approach to incident management. NIMS provides a consistent nationwide framework, approach, and command structure to enable government at all levels, the private sector, and non-governmental organizations to work together to prepare for, prevent, respond to, recover from, and mitigate the effects of incidents. The document uses the Incident Command System (ICS) as a basis for organization structure.

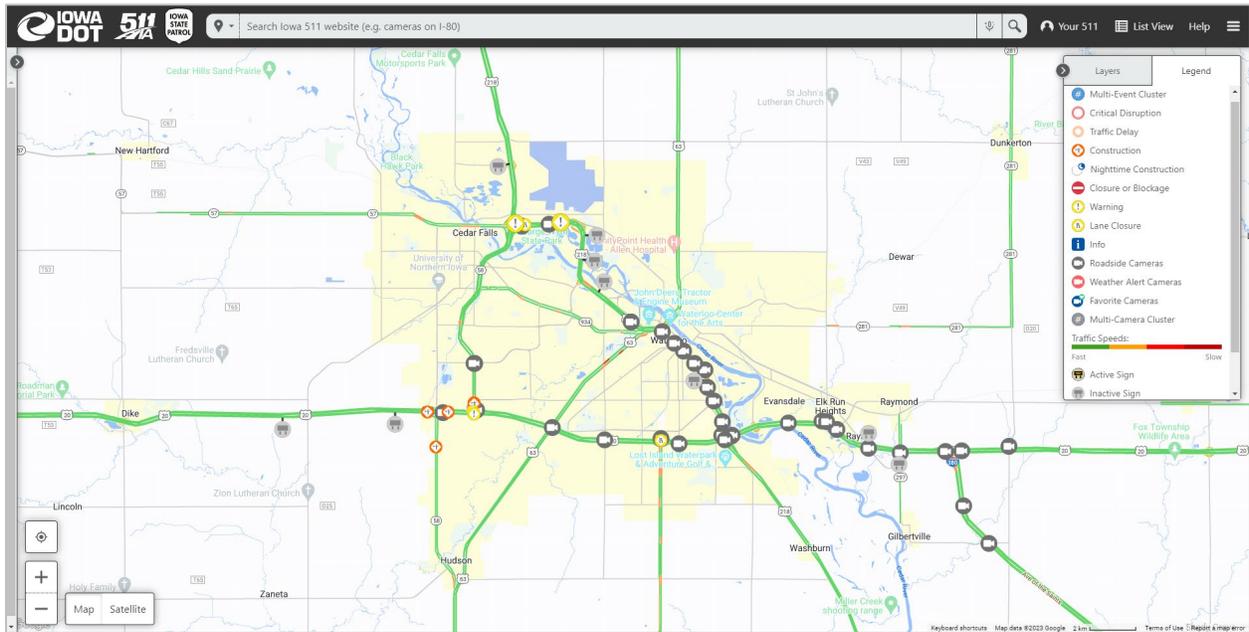
www.fema.gov/emergency-managers/national-preparedness/frameworks/response

Iowa Statewide Traffic Management Center (TMC)

The TMC located in Ankeny is a 24/7 center located used to proactively manage the transportation system by addressing recurring and nonrecurring congestion in real-time. Using advanced technology, the TMC proactively monitors the transportation system, mainly on the primary roadway system, for disruptions in traffic flow. When disruptions occur, the TMC coordinates with internal and external partners to provide safe and quick clearance, detour routing, traffic control, and accurate and timely information to the public. The TMC uses tools such as Iowa 511, social media, and Dynamic Message Signs (DMS) to help protect on-scene responders and to prevent secondary crashes when disruptions occur.

Intelligent Transportation Systems (ITS)

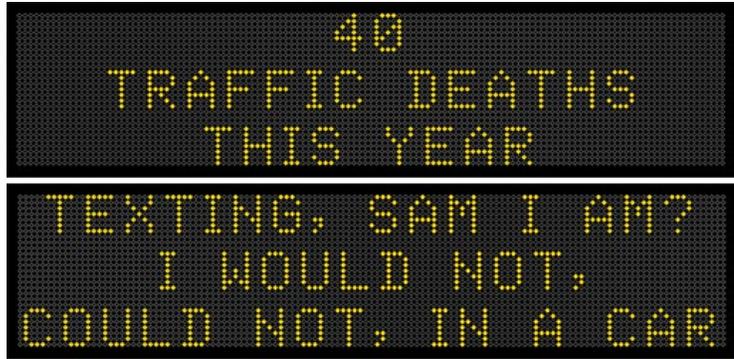
There are several ITS safety and security activities undertaken by the Iowa DOT. This includes the Iowa 511 Traveler Information System which provides citizens with real-time information on roadway travel conditions, incidents, and construction activities. The 511 system can be accessed via phone, web, or mobile application and provides a way to quickly communicate with the traveling public. Many metropolitan areas have cameras on major routes and speed sensors that monitor congestion. The first installation of cameras and speed sensors in the region was part of the Interstate 380 reconstruction project in 2012. Since then, the Iowa DOT has expanded the system to include U.S. 218 and U.S. 20.



Another ITS activity undertaken by the Iowa DOT is the use of dynamic message signs. Large overhead signs can be found throughout the state on many interstates and primary highways. These signs can be used to communicate information to drivers on weather, incidents, diversions, Amber Alerts, public reminders, and other topics. DMS have been installed in Waterloo, Cedar Falls, and Evansdale on U.S. 218, U.S. 20, and Interstate 380.

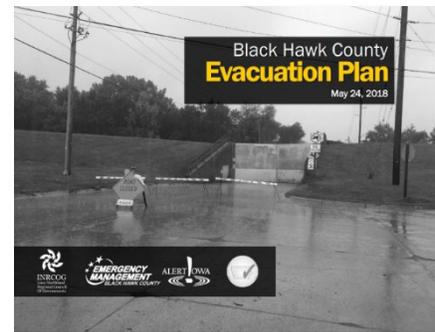


Every Monday since 2013, the Iowa DOT has been utilizing dynamic message signs across the state to provide a safety message and the number of people who have been killed on Iowa's roads so far in the year. "Message Monday" is meant to increase awareness, change driver behavior, and reduce crashes and fatalities. To make messages more memorable, movie quotes, song lyrics, and puns are used. The Iowa DOT also has a Transportation Matters Blog where each Message Monday is discussed and additional information and tips for motorist safety are provided.



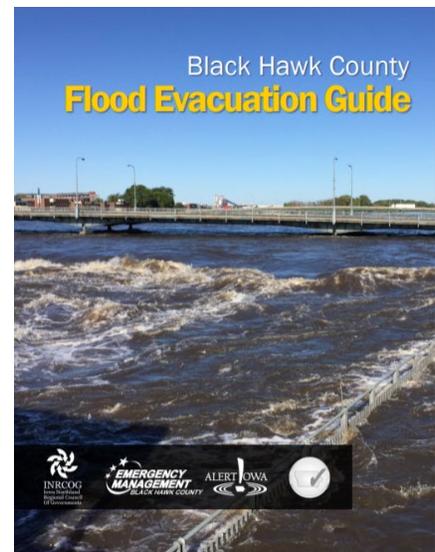
2018 Black Hawk County Evacuation Plan

The purpose of the Evacuation Plan is to provide the Black Hawk County Emergency Management Agency and responders with an initial framework of information to be used for an orderly and coordinated evacuation in the event of a disaster. The Plan does not address normal day-to-day emergencies or procedures used in coping with such emergencies. The concept of operations reflected in the document focuses on potential large-scale disasters that were identified in the *Black Hawk County Multi-Jurisdictional Hazard Mitigation Plan* and provides a framework for addressing emergency situations. The Black Hawk County Evacuation Plan is designed to be implemented under NIMS. In addition to the Plan, a Flood Evacuation Guide was developed to aid the public in preparing for an evacuation due to flooding which is one of the most likely natural disasters to impact the county.



Multi-Jurisdictional Hazard Mitigation Plan

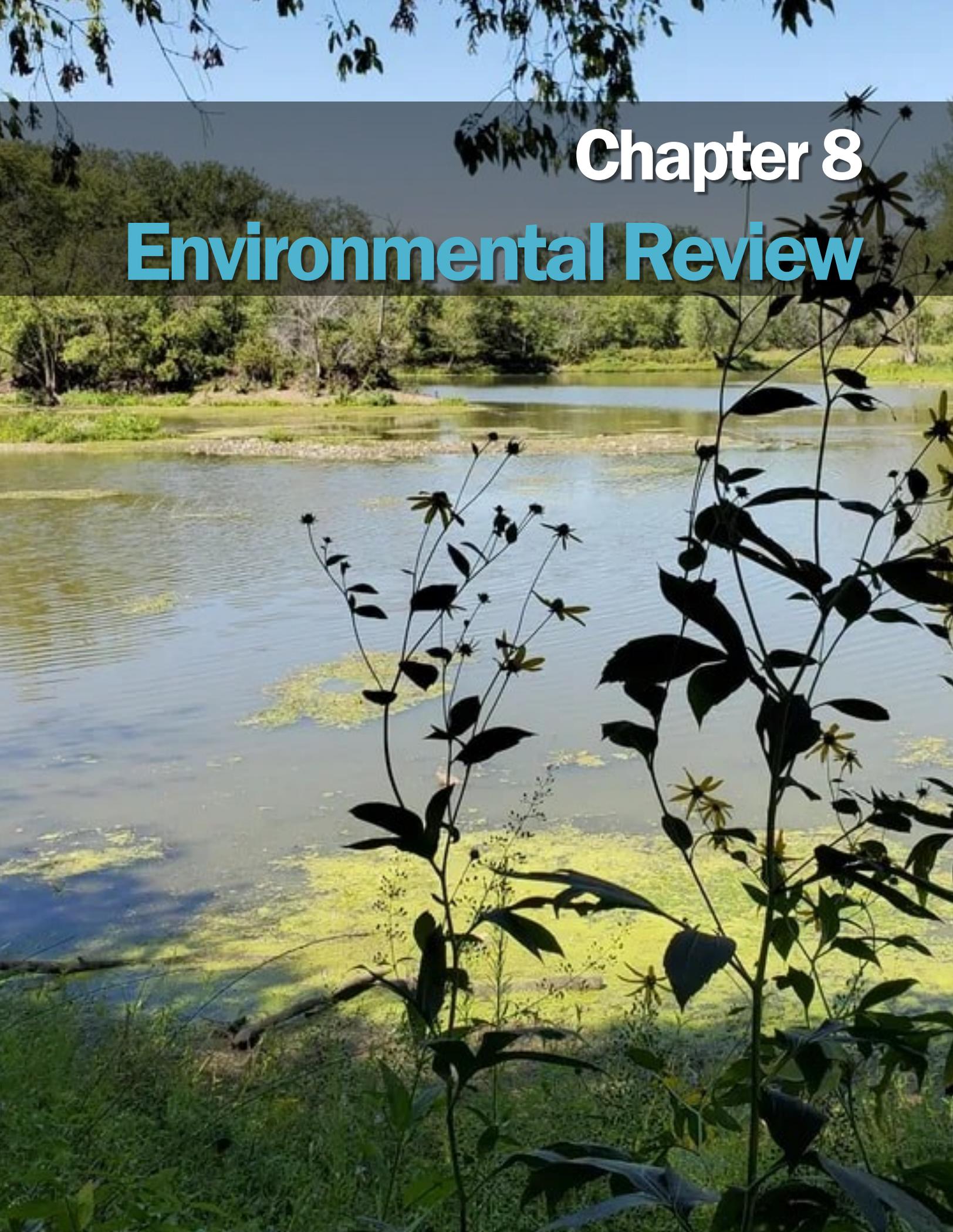
The 2020 Black Hawk County Multi-Jurisdictional Hazard Mitigation Plan outlines the potential for natural and humanmade disasters and the potential impact of those disasters. The plan identifies local community policies, actions, and tools for ongoing, short-, mid-, and long-term implementation to reduce risk and potential future losses of property and lives. The development of the document involved a local planning committee reviewing potential hazards and threats from these hazards. Reviews included a hazards and risk assessment of the transportation network itself due to the potential for vehicular and other types of crashes or events.



2024 Public Input Survey

In September 2024, RTA staff conducted two online surveys designed to gather feedback from residents across the six-county region. Although the surveys did not specifically include a question about “safety,” several responses touched on issues related to safety in the region. These responses included:

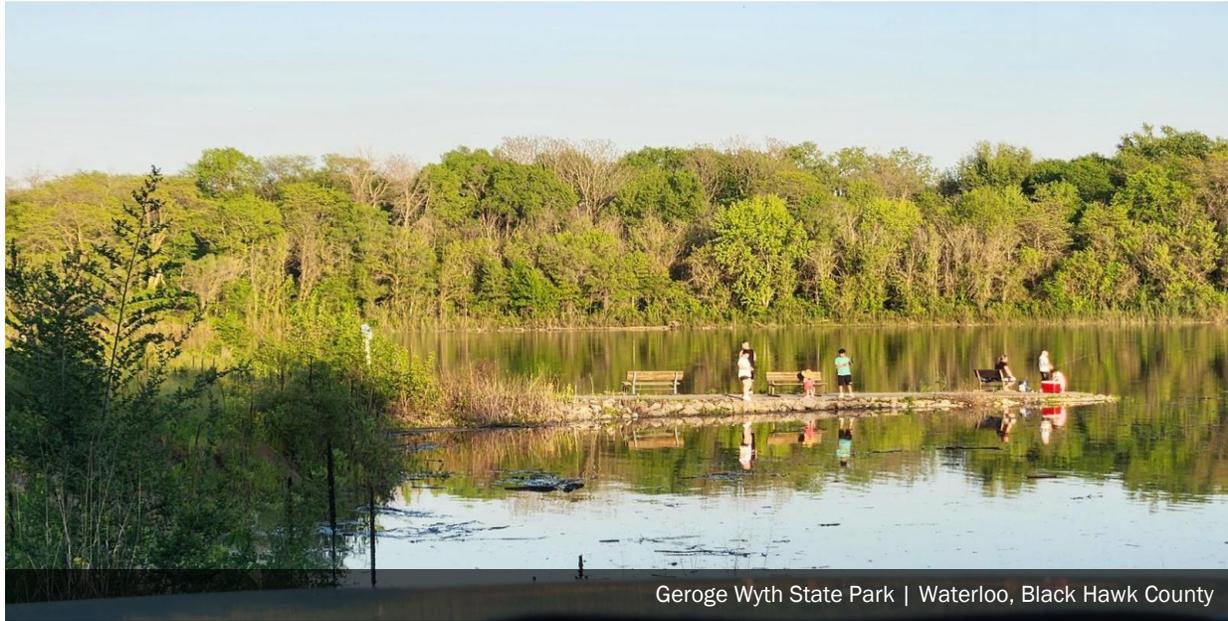
- **Addressing Dangerous Intersections:** There were mentions of dangerous intersections, such as the Racine Ave and Water St junction in Quasqueton, calling for reconfigurations or added safety features.
- **Lack of Sidewalks and Safe School Routes:** Multiple streets in New Hampton, such as West Hamilton and South Hamilton, were mentioned as lacking sidewalks, posing a safety risk for children and pedestrians, especially around schools.
- **Dangerous Road Conditions:** Logan Ave, East Hamilton, and North Maple in New Hampton were noted as being rough, cracked, and hazardous, making them unsafe for drivers and pedestrians. Roads with potholes, such as Court Street, were cited as a trip hazard, especially for children.
- **Gravel Road Issues:** Several gravel roads, particularly in Chickasaw County, were noted for becoming muddy quickly due to insufficient rock, which makes them dangerous to travel, especially during bad weather.
- **Snow Removal Concerns:** In New Hampton, inadequate snow removal at intersections was mentioned, making it difficult for vehicles to navigate safely during winter.
- **School Zone Safety:** Concerns were raised about unsafe school zones, such as East Harrison Street, where there are issues with congestion, cars passing unsafely, and the risk to children.
- **Crosswalks:** Several locations, particularly near schools, parks, and busy streets, are identified as needing crosswalks or better-lit crosswalks to ensure pedestrian safety.
- **Lighting:** Many streets are poorly lit, which raises safety concerns, especially for children walking or biking in the dark.
- **Bike Lanes and Trails:** Many respondents express the need for bike lanes on heavily trafficked roads such as East Washington, Hamilton Street, and S Linn Ave in New Hampton, and on highways such as Hwy 3 (Waverly to Butler County) and Hwy 24.
- **Traffic Speed and Road Sharing:** Reduced speed limits on certain streets, such as Greeley Street and West Hamilton, were suggested to enhance safety for bikers, especially near schools and busy areas.
- **Education and Signage:** Offering bike safety classes and improving traffic law compliance is recommended to prevent accidents, as many riders are perceived as not obeying traffic rules. Additional signage in places like Fredericksburg (where biking on sidewalks is prohibited) would help clarify local biking rules.
- **Drivers' Behavior:** There were concerns about reckless driving behaviors, such as speeding and not yielding the right of way, which increase the risk of accidents.

A scenic view of a river or lake with green foliage in the foreground and a dense forest in the background. The water is calm, reflecting the surrounding greenery. In the foreground, there are several tall, thin plants with dark green leaves and small, light-colored flowers. The background shows a dense forest of trees along the riverbank.

Chapter 8

Environmental Review

Chapter 8 – Environmental Review



Environmental Review Background

Transportation projects can affect both natural and built environments, including air quality, water resources, wildlife habitats, and local communities. Long-range transportation plans must address these impacts at both the policy and program levels. Since projects in these plans are typically years away from final design and implementation, conducting a detailed environmental review at this stage is not practical. The RTA can collaborate with resource agencies to explore potential impacts on natural resources, identify key areas of concern, and develop policies or strategies to minimize negative effects on the environment throughout the project's lifecycle.

Federal Requirements

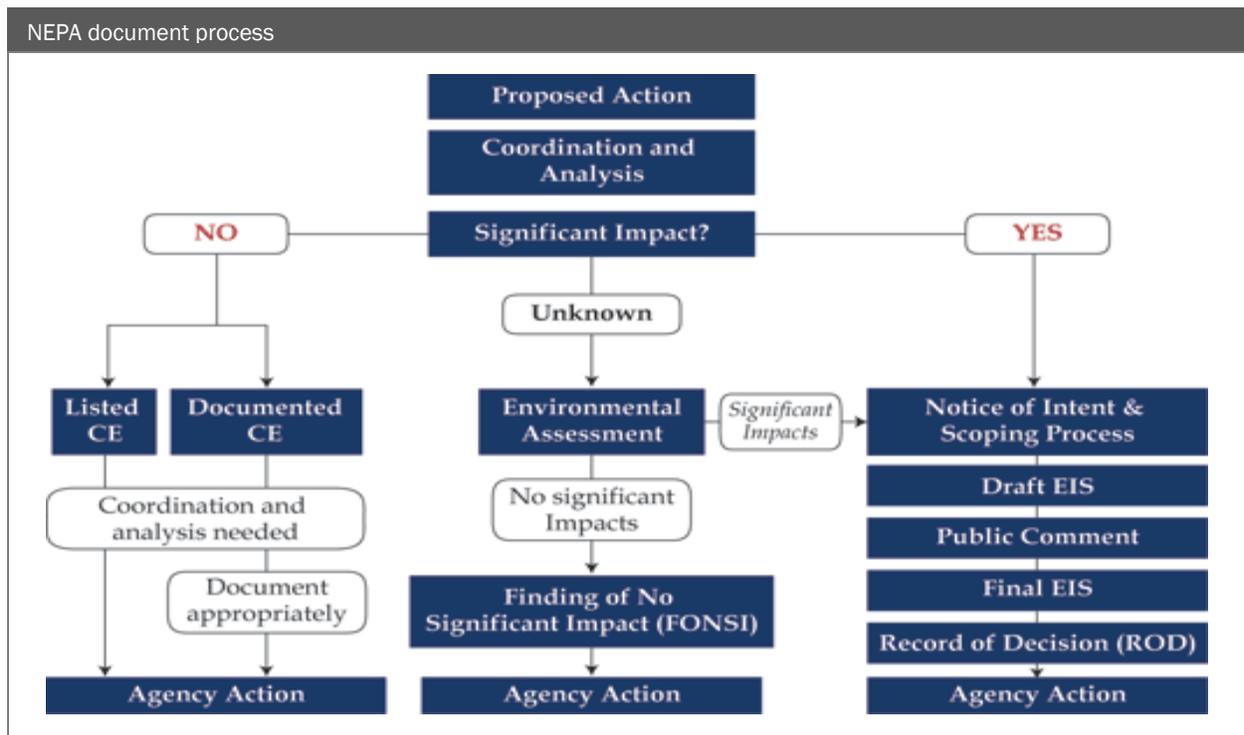
23 CFR 450.324 (f)(10) outline requirements for Metropolitan Planning Organizations (MPOs) regarding environmental consultation. The RTA has opted to model the environmental review consultation process after this federal code, though it does not apply to Regional Planning Affiliations. The overall purpose of this consultation process is to integrate environmental values into the decision-making process from the broad planning level to the specific project level. The federal code states, *“The metropolitan transportation plan shall, at a minimum, include a discussion of types of potential environmental mitigation activities and potential areas to carry out these activities, including activities that may have the greatest potential to restore and maintain the environmental functions affected by the metropolitan transportation plan. The discussion may focus on policies, programs, or strategies, rather than on the project level. The MPO shall develop the discussion in consultation with applicable Federal, State, and Tribal land management, wildlife, and regulatory agencies...The MPO shall consult, as appropriate, with State and local*

agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation concerning the development of the transportation plan. The consultation shall involve comparison of transportation plans with State conservation plans or maps, or inventories of natural or historic resources.”



As a federally funded transportation project progresses to the engineering stage, it must comply with several laws, including the National Environmental Policy Act (NEPA) of 1969. NEPA serves as a national policy to protect and enhance the environment, establishing a process for major federal actions, such as federal funding for transportation projects that require the preparation of environmental review documents. Ensuring compliance with NEPA is generally the responsibility of the project sponsor. The NEPA process requires evaluating various alternatives for the project, considering their potential environmental impacts, and engaging in public involvement and interagency collaboration. This collaborative process ensures that stakeholders, including the public, environmental groups, and relevant government agencies, have an opportunity to provide input on the project's potential effects on the environment, public health, and local communities.

The type and scope of environmental document required by NEPA depend on the project and how much it might impact the environment. There are three main types of documents: Categorical Exclusion (CE), Environmental Assessment (EA), and Environmental Impact Statement (EIS). A Categorical Exclusion (CE) is the simplest process and applies to projects that are known to have no significant environmental impact based on previous findings. An Environmental Assessment (EA) is used when it's unclear how a project will affect the environment. The EA helps determine whether the project will cause significant impacts. If it won't, a "Finding of No Significant Impact" (FONSI) is



If the EA shows that the project could have significant environmental effects, an Environmental Impact Statement (EIS) is required. The EIS is a detailed analysis of the project and its alternatives, and it provides opportunities for other agencies and the public to give their input. Other actions concerning federal aid transportation projects that are mandated via either federal or state legislation include the following:

- The Federal Water Pollution Control Act was enacted in 1972, amended in 1977, and became commonly known as the Clean Water Act. This Act focuses on restoring and maintaining the chemical, physical, and biological integrity of the nation’s waters, enabling them to support the protection, propagation, and recreation associated with fish, shellfish, and wildlife.
 - Section 401 requires that a Federal license or permit be obtained when any activity, including the construction or operation of transportation facilities, may result in any discharge into navigable waters.
 - Section 404 permits may be issued after an adequate opportunity for public comment for the discharge or dredging, or filling of material into the navigable waters at specified disposal sites.
 - National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants into any surface waters. Iowa is authorized to approve NPDES permits, regulate federal facilities, approve pretreatment programs, and approve general permits.



- The Endangered Species Act of 1973 addressed the fact that various species of wildlife and plants have been rendered extinct because of economic growth and development, unattended to by adequate concern and conservation. This Act seeks to conserve endangered and threatened species and to resolve water resource issues in concert with the conservation of endangered species.

- Section 7 addresses interagency cooperation and consultation to ensure that any transportation project authorized, funded, or carried out is not likely to jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of the habitat of such species.
- The U.S. Department of Transportation Act of 1966 included a special provision to preserve the beauty and integrity of publicly owned parks and recreation areas, waterfowl and wildlife refuges, and historic sites considered to have national, state, or local significance.
- Section 4(f) mandates that FHWA and State DOTs cannot approve the use of land from a significant publicly owned park, recreation area, wildlife, or waterfowl refuge, or any significant historic site,



unless there is no feasible and prudent alternative to the use of land, and the transportation project includes all possible planning to minimize harm to the property.

- Executive Order 12898 – Environmental Justice (1994) ensures federally funded transportation projects do not disproportionately impact minority and low-income populations. It uses U.S. Census data to assess project impact and promote equitable planning and development

Table 8.1: The Iowa State and Administrative Code legislative mandates on the Environment

Permit / Regulation	Purpose	Administered By
Sovereign Lands Construction Permit	Prohibits building on state-owned land or water without a permit	Iowa DNR
Flood Plain Development Permit	Requires a permit for any development in floodplains/floodways to protect life/property	Iowa DNR
Solid Waste Regulations	Governs the construction, operation, and closure of facilities managing solid waste and soil reuse	Iowa DNR
Open Burning Restrictions	Limits the burning of landscape waste to ¼ mile away from inhabited buildings not owned by the burner	Iowa DNR
Air Quality Permitting & Reporting	Requires a state permit and participation in Iowa’s air reporting system	Iowa DNR
Endangered Species Protection (Ch. 481B)	Protects threatened and endangered plant and animal species	Iowa DNR
Iowa Code 314.23	Preserves Historic Heritage, mandates the protection of woodlands, wetlands, parks, and prime farmland in transportation projects	Transportation Agencies

- The National Historic Preservation Act of 1966 focuses on using measures, including financial and technical assistance, to preserve our prehistoric and historic resources and fulfill the social, economic, and other requirements of present and future generations. Section 106 requires that, before the approval of any federal funds for a transportation project, a detailed assessment must be undertaken that considers the project’s impact on any district, site, building, structure, or object that is included in or eligible for inclusion in the National Register.



Taylor's Ford Bridge – Historic Bridge

Table 8.2: Environmental Planning Vs. NEPA

Topic	Planning Stage	NEPA / Regulatory Process
Purpose	Early identification of environmental concerns	Legal compliance and detailed impact evaluation
Timing	During long-range transportation planning	During the project development and approval stages
Stakeholder Engagement	Helps initiate coordination with resource agencies	Formal agency consultation and public review required
Function	Not a replacement for NEPA	Legally mandated process with decision-making power

The environmental analysis in a long-range transportation plan is not intended to replace or serve as a substitute for NEPA or other federal and state regulatory processes. However, integrating transportation planning with environmental considerations offers several advantages, such as the early identification of potential environmental issues and the opportunity to engage with various resource groups. Ultimately, NEPA compliance and adherence to other federal and state regulations will be addressed individually for each federally funded project as it moves into the development phase. The environmental analysis in this chapter



ENDANGERED SPECIES ACT
AMENDMENTS ACT of 2025

provides an overview of regional resources and highlights how planned transportation projects might impact those resources.

Protecting and improving both the natural and built environment is a key priority for the RTA. Project sponsors are encouraged to initiate coordination with environmental, regulatory, and resource agencies early in the project development process to achieve the best possible outcomes. Although it is the responsibility of the project sponsor to ensure compliance with government regulations, the RTA has a vested interest in promoting effective planning that takes environmental considerations into account and strives to preserve and enhance the environment.

The Waterloo Railyard Relocation Study explores the potential to move freight rail operations out of central Waterloo to reduce traffic conflicts, enhance safety, and create redevelopment opportunities. The relocation aims to lessen noise, vibration, and air quality impacts on nearby neighborhoods, improving community livability. However, railyards can also affect the environment through diesel emissions, noise, soil and water contamination, and habitat disruption. The Neighborhood Access and Equity Grant, initially awarded to the city, supports projects that improve transportation access in underserved areas while promoting environmental sustainability through cleaner transportation options and reduced air quality impacts.



CN Railyard Relocation | Waterloo

Environmental Strategy

The RTA urges jurisdictions to adhere to federal guidelines as part of their environmental strategy. Project sponsors should follow the steps outlined in 40 CFR 1508.20 to define mitigation. These steps, in order of preference, include:

- Avoiding the impact altogether by not taking a certain action or parts of an action.
- Minimizing impacts by limiting the degree or magnitude of the action or parts of an action.
- Rectifying the impact by repairing, rehabilitating, or restoring the affected environment.
- Reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action.
- Compensating for the impact by replacing or providing substitute resources or environments.

Avoidance of damage to the environment should always be the primary goal. When this cannot be achieved, minimizing impacts and compensating for them can help mitigate any negative environmental impacts from transportation projects.

Local Mitigation Examples

The RTA encourages on-site, in-kind mitigation whenever feasible. This approach involves compensatory mitigation, which replaces wetlands, streams, or natural habitats or functions lost due to a transportation project with similar land use located next to or near the impacted area. On-site mitigation may also include enhancing public recreation opportunities near transportation projects. An example of this is the Hayes Street Bridge replacement over Otter Creek in Hazleton, where 0.11 acres of the Otter Creek Wildlife Area were permanently converted to highway right-of-way. The mitigation effort included the addition of a fishing pier, a parking area, and access between the pier and the parking area.

Another example of local mitigation is the U.S. Hwy 63 reconstruction and widening project near the Bremer and Chickasaw County line. The project involved raising the highway to prevent flooding by the Wapsipinicon River, which required a large amount of filtering. Initially, the Iowa DOT planned to source this soil from a farm it had purchased, which would have involved stripping the soil and making parts of the farm unsuitable for crop production. Additionally, this would have meant a constant flow of slow-moving truck traffic making an eight-mile round trip, posing significant traffic safety risks. Instead, the contractor sourced the fill from a nearby lot intended for conversion from farmland to a wetland. This led to the creation of the 254-acre Heffernan Wildlife Management Area, which now includes bottomland timber, grassland, and wetlands.



U.S. Hwy 63 | Chickasaw and Bremer County Line

Mitigation Activities

The project sponsor and regulatory agencies will ultimately decide on the type of mitigation for a specific transportation project. Preventing environmental damage should always be the primary objective. However, this is not always feasible. Depending on the size and scope of the project and the environmental resources it may impact, various mitigation activities can be considered.

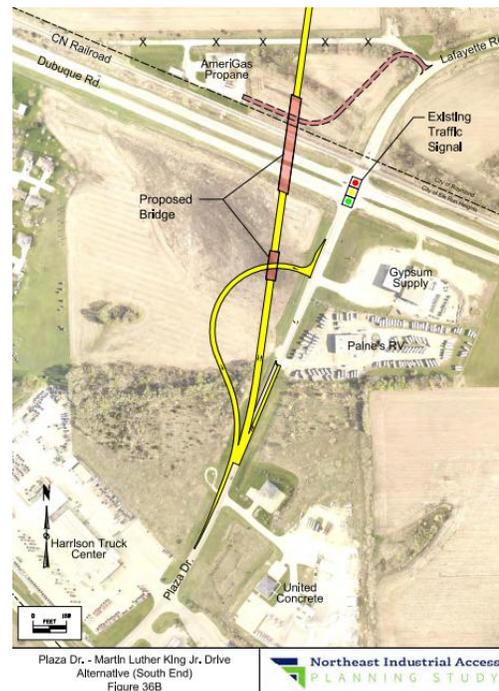
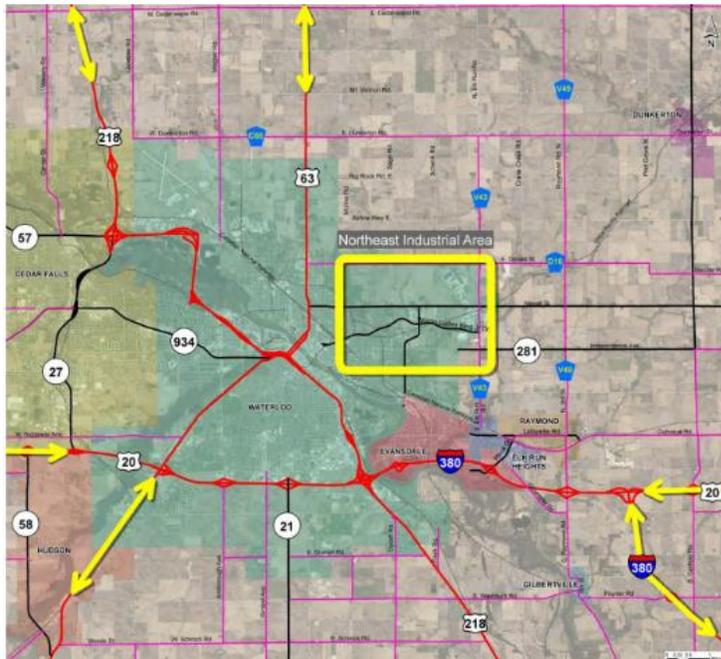
Table 8.3: Potential Mitigation Activities for Transportation Projects

Resource	Potential Mitigation Activities
Air quality	<ul style="list-style-type: none"> • Transportation control measures • Transportation emission reduction measures • Control loose, exposed soils with watering or canvas sheets • Minimize idle heavy construction vehicles
Cultural resources	<ul style="list-style-type: none"> • Landscaping for historic properties • Preservation in place or excavation for archeological sites • Memorandum of Agreement with State/Federal resource authorities • Education activities • Photo documentation and/or historic archival recording
Endangered and threatened species	<ul style="list-style-type: none"> • Time of year restrictions • Construction sequencing • Species research and/or fact sheets • Memorandum of Agreement for species management • Bridge sensitive areas instead of laying pavement directly onto the ground • Design measures to minimize the potential fragmentation of animal habitats • Enhancement or restoration of degraded habitat • Creation of a new habitat • Establish buffer areas around existing habitats • Modifications of land use practices • Restrictions on land use
Farmland	<ul style="list-style-type: none"> • Protect one farmland acre for every acre converted • Agricultural conservation easements on farmland
Forested and other natural areas	<ul style="list-style-type: none"> • Replacement property for open space easements of equal fair market value and equivalent usefulness • Minimize removal and/or selective cutting in forested areas except for what is needed to establish roadways and associated right of way • Preserve and/or reestablish vegetation whenever possible within open areas
Neighborhoods, communities, homes, and businesses	<ul style="list-style-type: none"> • Context-sensitive solutions for communities • Minimize noise impact with sound barriers • Prevent the spread of hazardous materials with soil testing and treatment • Develop sidewalks, bike lanes, recreational areas, etc. • Property owners paid fair market value for the property acquired • Residential and commercial relocation
Noise	<ul style="list-style-type: none"> • Depressed roads • Noise barriers • Plant trees
Parks and recreation areas	<ul style="list-style-type: none"> • Construct bicycle and pedestrian pathways • Replace impaired functions
Viewshed impacts	<ul style="list-style-type: none"> • Vegetation and landscaping; screening; buffers; earthen berms
Wetlands and water resources	<ul style="list-style-type: none"> • Preserve, create, replace, or restore wetland areas • Vegetative buffer zones • Bridge sensitive areas instead of laying pavement directly onto the ground • Improve stormwater management • Make perpendicular crossings of streams and riparian buffers rather than lateral encroachments • Restore streams and/or stream buffers • Strict erosion and sedimentation control measures

Northeast Industria Study (NEIA)

The Northeast Industrial Area in Black Hawk County is home to numerous large industrial and manufacturing businesses, generating significant freight movement. Current traffic counts show trucks make up 15 to 35 percent of all traffic, a figure expected to grow over the next 25 years. This high volume of freight activity creates notable safety, capacity, and access challenges, prompting the MPO to initiate a freight-focused planning study, completed in 2019. While the study addressed immediate concerns, freight growth projections underscore the need for proactive, long-term planning.

The 2019 study examined primary, secondary, and local routes currently used to access the industrial area, including US 63, US 218, US 20, and I-380. The analysis considered roadway capacity, safety performance, and truck routing efficiency to and from the industrial area.



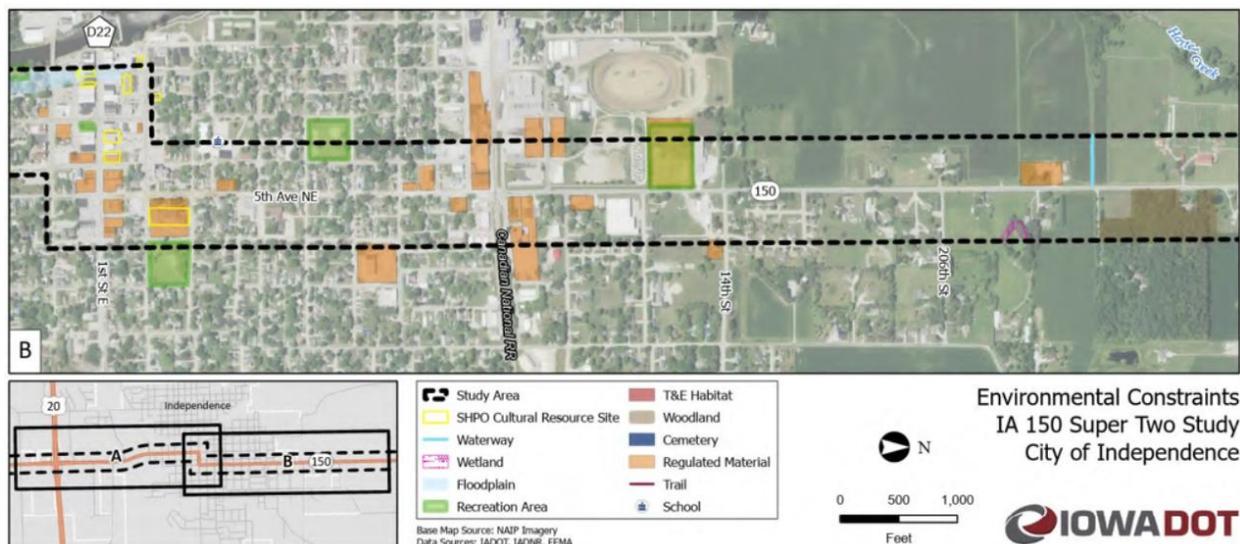
In 2025, building on the initial findings, the next phase of work will focus on evaluating and mitigating the impacts of increased truck traffic on regional transportation networks and surrounding communities. Transportation Demand Modeling, which is ongoing and expected to be completed in 2025, will be used to identify and assess potential corridor alternatives, helping planners understand traffic patterns, congestion points, and freight movement efficiency. A key component of this effort will be completing comprehensive environmental studies for these corridors to evaluate impacts on air quality, noise, water resources, and local habitats, ensuring that proposed infrastructure improvements support economic growth while maintaining a strong commitment to environmental stewardship. The results will guide strategic, evidence-based improvements to accommodate growing freight demands, enhance safety, and protect community character and environmental quality, balancing the region's economic, social, and ecological priorities.

IA 150 Super Two Study

Iowa Highway 150 (IA 150) is a key north-south transportation corridor in eastern Iowa, extending through both Fayette and Buchanan counties. The portion of the corridor in Buchanan County lies within the Region 7 Regional Planning Affiliation (RPA 7). IA 150 serves as a vital connection for rural communities, regional commerce, and agricultural operations. This study examines existing conditions and potential improvements along the IA 150 corridor, with consideration given to environmental, cultural, and community constraints throughout the project area.

A desktop review of known environmental and cultural constraints was conducted as part of the Study. This review focused on environmental features such as floodplains, wetlands, woodland areas, recreational lands, waterways and protected rivers, sovereign lands, and regulated material sites. Additionally, the review considered cultural and community constraints, including cemeteries and churches.

The IA 150 corridor includes several water crossings within the Study area. These crossings consist of the Wapsipinicon River, Bear Creek and its branches, Harter Creek, Otter Creek and its branches, and Hazleton Creek. The terrain along IA 150 is generally flat, and the surrounding land use is primarily rural and agricultural, with some farmsteads located along the corridor. In and near the Iowa communities along the route, land use transitions into a mix of residential, commercial, and industrial development. Other potential constraints throughout the corridor include recreational lands, wetlands, floodplains, habitats of threatened and endangered species, and other cultural resources. These environmental and cultural factors will be important considerations as the Study progresses.



Environmental Analysis

To raise environmental awareness early in the project development process and to provide the public and decision makers with an overview of potential environmental impacts, a general environmental analysis is conducted. To conduct this analysis, GIS software was employed to develop a database containing environment-related layers, providing a comprehensive view of the region's environmental resources. In addition, online interactive maps have been identified for use by jurisdictions, offering accessible tools for environmental review. While this list of resources is not exhaustive, it serves as an initial step in addressing some of the most common environmental concerns. It is important to note that some types of environmental data are typically available at the section level, and obtaining more detailed information may require a deeper, more focused review.

Table 8.4: Environmental Analysis Layers

Layer	Data Source
Major Water Sources	Iowa Department of Natural Resources
Watersheds	Iowa Department of Natural Resources
Impaired Waters	Iowa Department of Natural Resources
Floodplains	Iowa Department of Natural Resources
Wetlands	Iowa Department of Natural Resources
Historic Sites	Iowa Office of the State Archaeologist
Public Lands	Local jurisdictions
Cemeteries	Iowa Department of Natural Resources
Environmentally Sensitive Areas	Iowa Department of Natural Resources
Threatened and Endangered Species	Iowa Department of Natural Resources

Since transportation planning in the Iowa Northland Region is conducted at a regional level, this section does not provide a detailed analysis of specific projects within the plan. Instead, it aims to highlight potential environmental impacts that should be considered early in the planning process. The NEPA process must be completed, and all applicable federal and state regulations must be followed for each project before any federal funds can be allocated for the construction of transportation improvements.

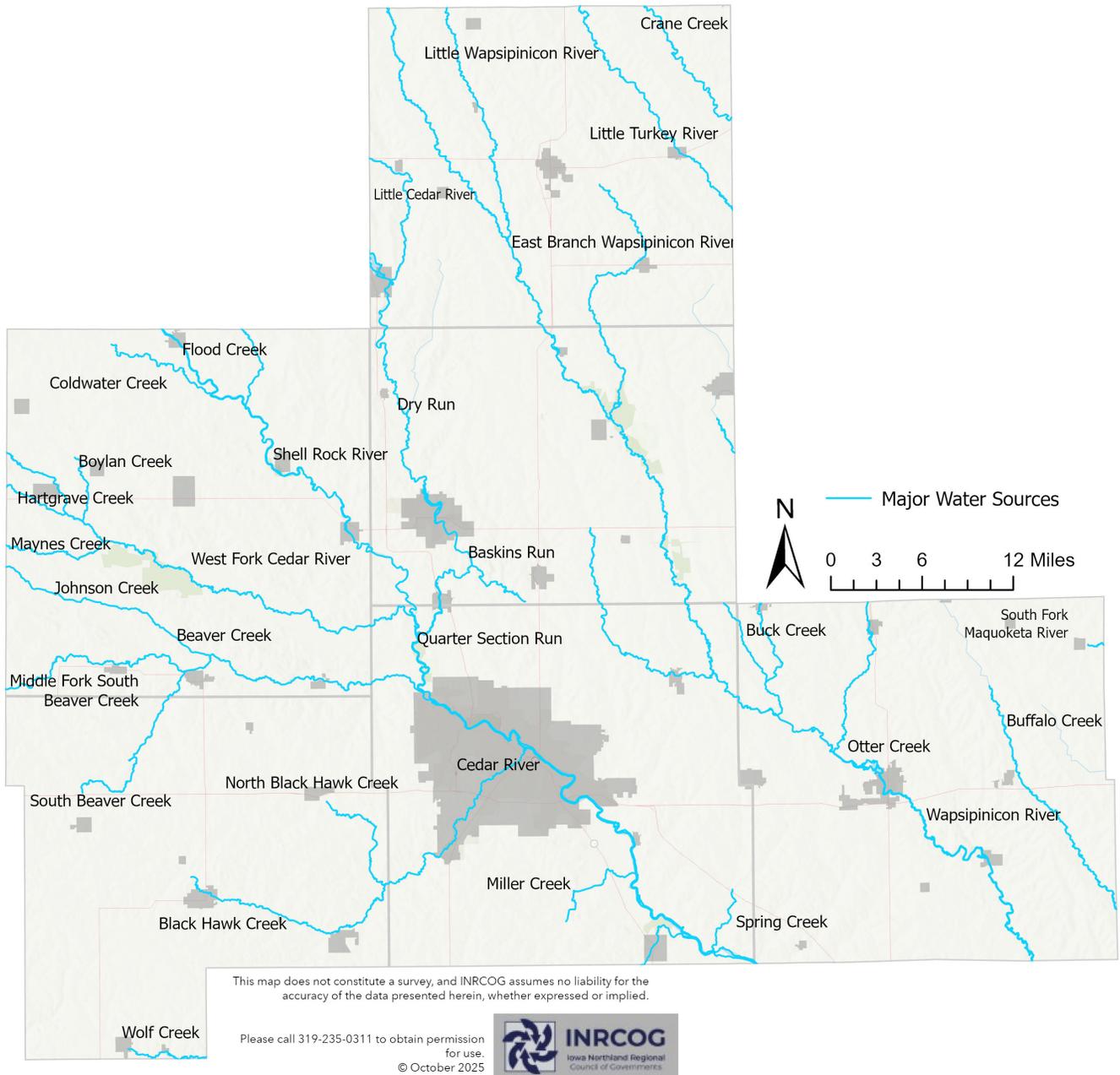
Most of the road and bridge projects outlined in this Plan involve resurfacing or reconstruction and are expected to take place within existing right-of-way, resulting in minimal environmental impacts. However, a project may ultimately require more right-of-way than initially planned or change alignment during the final design, which could lead to additional environmental impacts. In any case, this environmental analysis serves as an initial framework for discussing the potential environmental effects of the proposed transportation projects.



Major Water Sources.

The Iowa Northland Region contains no waterways that are used for transportation purposes. The largest rivers in the region are the Cedar, Wapsipinicon, and Shell Rock. The primary impact that these water sources have on the region is the potential for flooding and associated road closures and detours. Road closures and detours due to flooding can have a significant negative impact on farmers and other motorists navigating the region. These water sources and their surrounding areas also attract boaters, anglers, campers, hunters, bicyclists, hikers, and other recreational users.

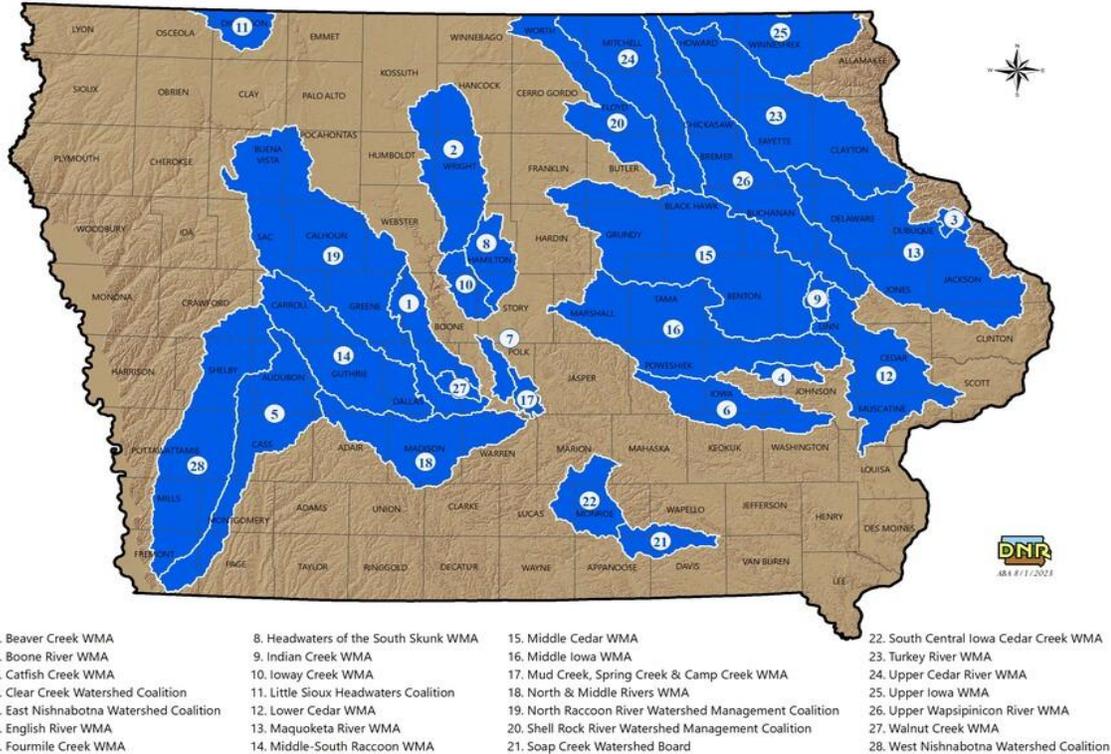
Map 8.1 Major Water Sources



Watersheds

A watershed is defined by the U.S. Environmental Protection Agency (EPA) as the land area that drains to one stream, lake, or river, affecting the water quality in the water body that it surrounds. Like water bodies (lakes, rivers, streams), individual watersheds share similarities but also differ in many ways. Every inch of the United States is part of a watershed – all land drains into a lake, river, stream, or other water body and directly affects its quality. Thus, watershed conditions are important for everyone.

IOWA'S WATERSHED MANAGEMENT AUTHORITIES



Iowa's Watershed Management Authorities
Source: Iowa DNR

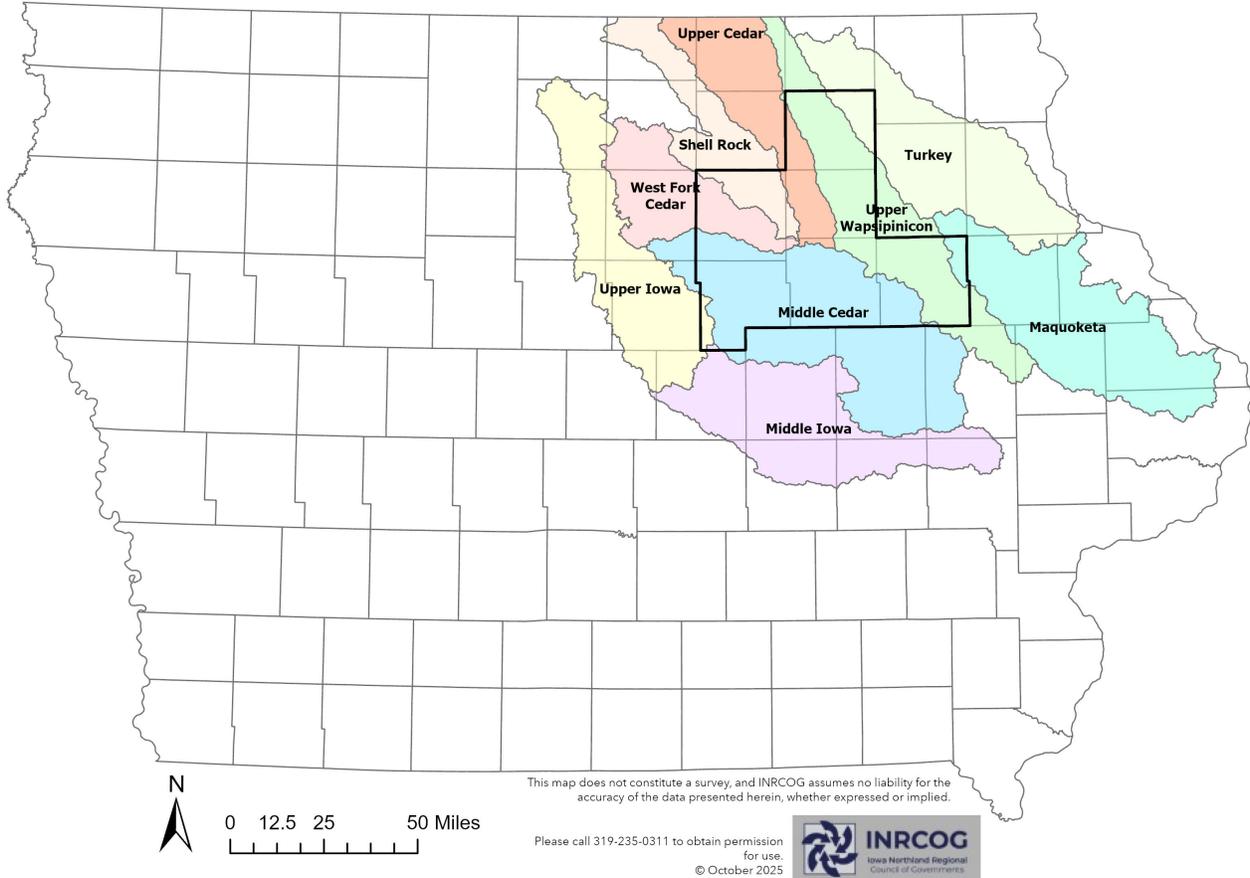
The Cedar River Watershed spans 7,830 square miles across Iowa, flowing 335 miles through cities including Mason City, Cedar Falls, Marshalltown, Waterloo, and Iowa City. This watershed plays a critical role in supporting both rural and urban communities, providing water resources, recreational opportunities, and habitat for diverse ecosystems.

As the river passes through these cities, its health is influenced by urban development, transportation infrastructure projects, and agricultural runoff, which can affect water quality, alter natural flow patterns, and impact local habitats. In this region, farming activities such as crop cultivation and livestock production play a central role in the local economy, but they also contribute to runoff that can have substantial impacts on the watershed. Rainfall and irrigation can carry fertilizers, pesticides, herbicides, and sediment from fields into nearby rivers and streams, leading to nutrient loading, increased turbidity, and the potential for harmful algal blooms. These changes in water quality can disrupt aquatic ecosystems, harm fish and wildlife habitats, and affect recreational uses such as fishing, boating, and swimming. Protecting the Cedar River's ecological integrity is essential for sustaining community well-being, supporting economic activities, and maintaining environmental resilience throughout the region.

Nine watersheds impact the region:

- Maquoketa
- Middle Cedar
- Middle Iowa
- Shell Rock
- Turkey
- Upper Cedar
- Upper Iowa
- Upper Wapsipinicon
- West Fork Cedar

Map 8.2 Watershed



Healthy watersheds not only affect water quality in a good way but also provide greater benefits to the communities of people and wildlife that live there. Healthy watersheds provide critical services, such as clean drinking water, productive fisheries, and outdoor recreation that support our economies, environment, and quality of life. The health of clean waters is heavily influenced by the condition of their surrounding watersheds, mainly because pollutants can wash off from the land to the water and cause substantial harm.

In 2010, Iowa passed legislation authorizing the creation of Watershed Management Authorities (WMAs). A WMA is a mechanism for cities, counties, Soil and Water Conservation Districts (SWCDs), and stakeholders to cooperatively engage in watershed planning and management. Currently, there are three active WMAs in the region, which include the Middle Cedar, Upper Cedar River, and Upper Wapsipinicon River.

Impaired Waters

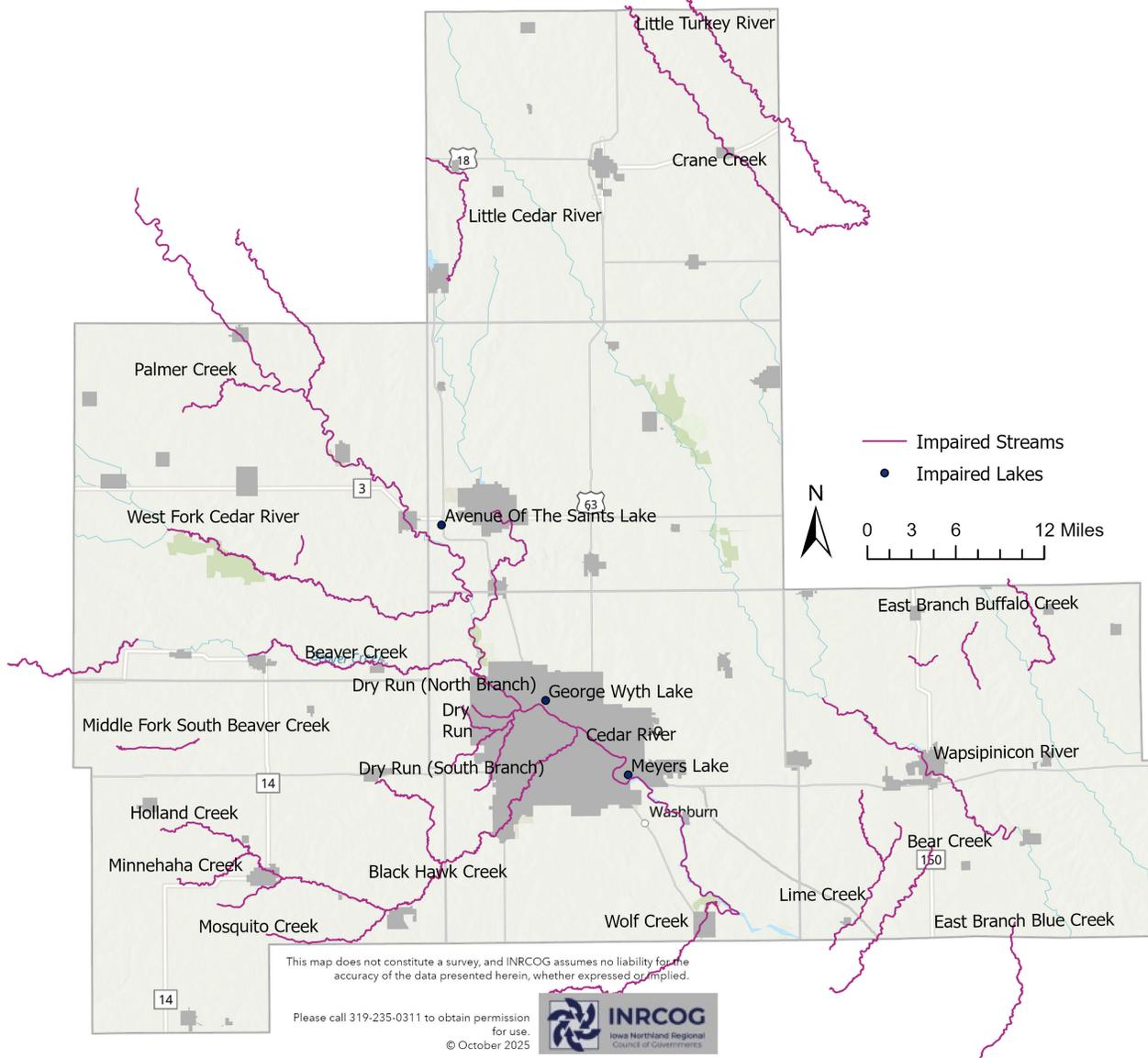
Streams, rivers, and lakes are used for recreation and fishing, and may provide water for drinking or agriculture. When water is contaminated by pollutants, the water bodies are considered impaired. These impairments are related to the amount of pollution that has occurred in or near the water body.

The Clean Water Act (CWA) – passed by Congress in 1972 – puts requirements on the States to protect water quality. Section 303(d) of the CWA requires states to submit to the EPA lists of waters that do not meet applicable water quality standards, to identify pollutants(s) that are causing or are expected to cause impairment, and to establish and implement plans to address these pollutants on a prioritized schedule.



Iowa's Impaired Waters
Source: Bleedingheartladn.com

Map 8.3 Impaired Waters



Impaired waters are lakes, wetlands, streams, and rivers that fail to meet Iowa's water quality standards due to pollutants or unknown causes. The Iowa DNR compiles this list, and each impaired segment requires a Total Maximum Daily Load (TMDL) plan, approved by the EPA, which allocates allowable pollutant loads to all contributors to restore water quality. In 2024, several river segments, including one on the Cedar River, exceeded nitrate and nitrite standards for drinking water, highlighting the need for targeted pollution reduction efforts. <https://programs.iowadnr.gov/adbnet/Assessments/Summary/2024/Impaired/Map>. The EPA identified one segment on the Cedar River, two segments on the Des Moines River, two segments on the Iowa River, one segment on the Raccoon River, and one segment on the South Skunk River as exceeding the nitrate and nitrate plus nitrite water quality standards associated with drinking water use.

In Iowa, about one-third of the cropland is equipped with drainage tiles to manage water runoff. These agricultural drains channel excess water, often carrying high levels of nitrates, from fields into local waterways. This runoff contributes significantly to the growing Dead Zone at the mouth of the Mississippi River, where oxygen levels are too low to support marine life. While drainage is mandated to provide "public benefit" and be "conducive to the public health, convenience, and welfare" under state law, the environmental impact remains a concern. Nitrate levels in water are considered safe for consumption if they are at or below the Environmental Protection Agency's standard of 10 mg/L. However, emerging research suggests that even lower nitrate levels could pose health risks.

Regardless, a recent report emphasizes that public health and welfare should be understood as the need to keep our waterways free from nitrate pollution, highlighting the importance of managing runoff to protect both water quality and human health.

Although Transportation planning projects in the region are generally Rehabilitation and expansion-based, they can nonetheless significantly impact water quality, particularly in impaired waters. In Iowa, many rivers, lakes, and streams are listed as "impaired" due to pollutants such as nitrates, phosphorus, and sediment, which degrade water quality and harm aquatic ecosystems. Transportation infrastructure projects, such as road reconstruction, rehabilitation, highway expansion, and urban development, can contribute to this issue in several ways.

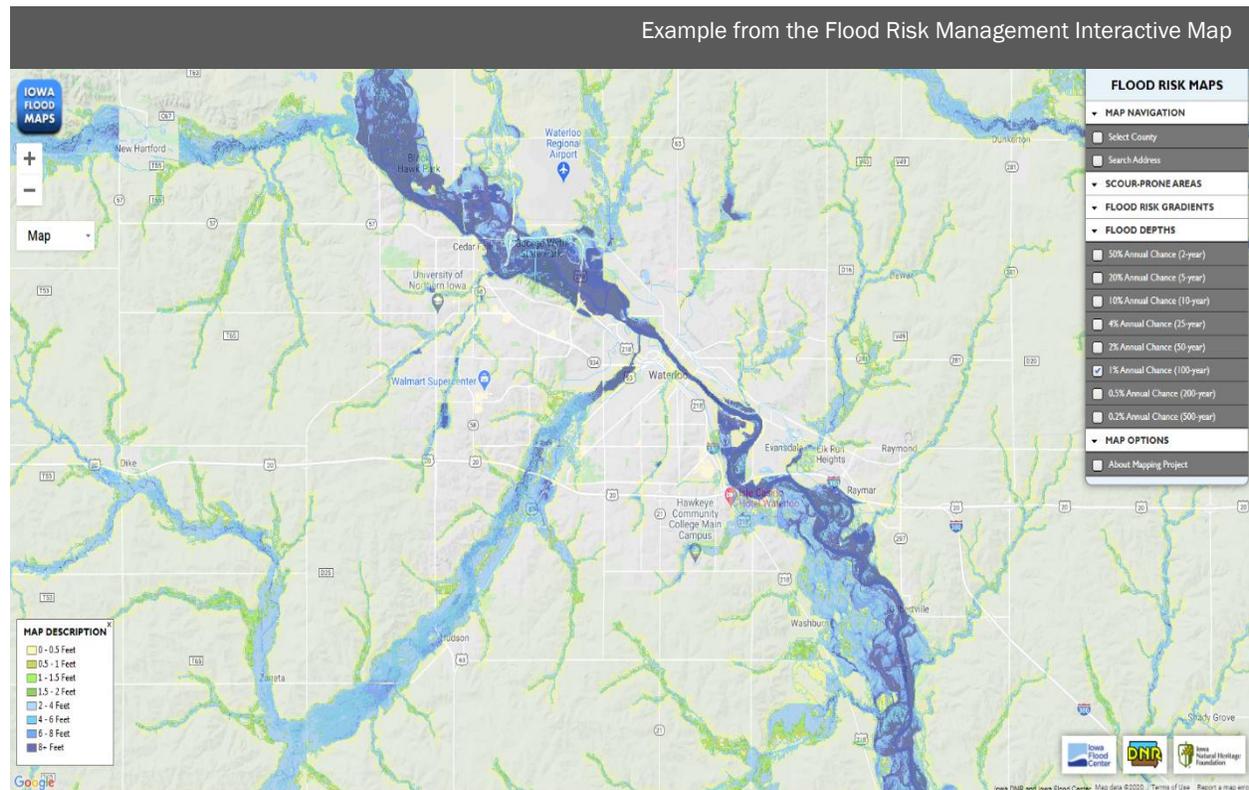
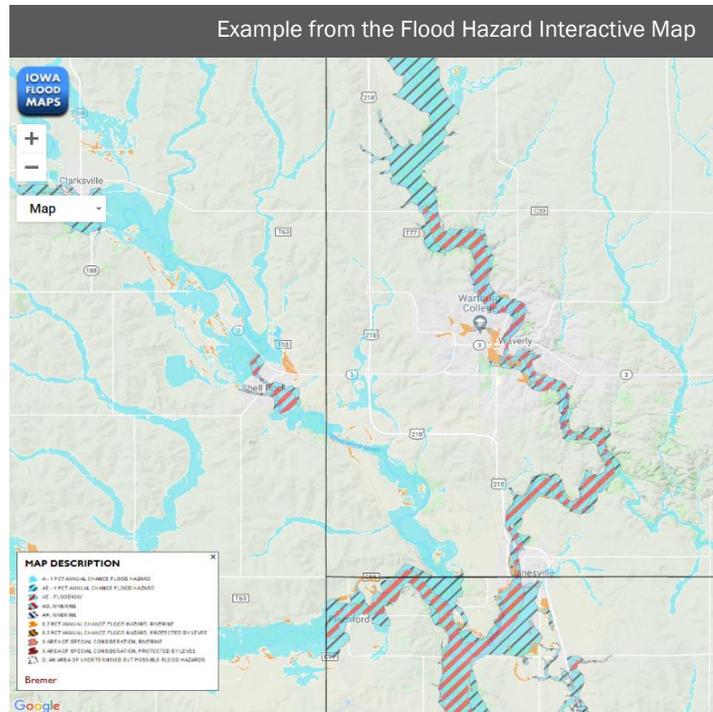
Road reconstruction, rehabilitation, and expansion often lead to increased impervious surfaces, such as asphalt and concrete, which prevent rainwater from naturally soaking into the ground. This results in more stormwater runoff, which can carry pollutants like oils, metals, and fertilizers directly into nearby water bodies. Additionally, transportation projects may disrupt natural drainage patterns, leading to increased erosion and sedimentation in rivers and streams. Erosion can contribute to higher sediment levels, which can impair water clarity, damage aquatic habitats, and reduce the oxygen levels in the water.

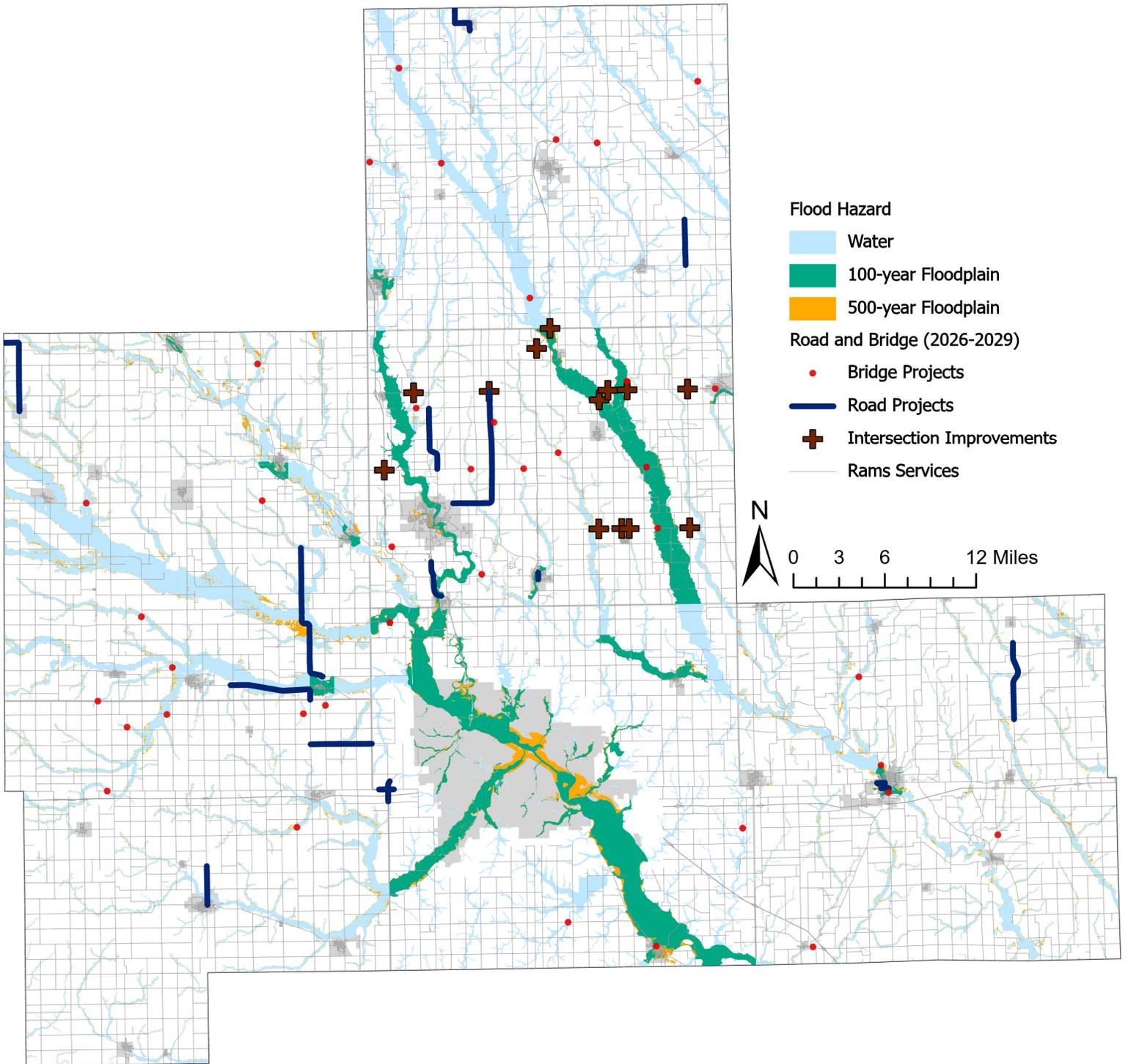


Floodplains

Flood zones are designated areas defined by the Federal Emergency Management Agency (FEMA) based on different levels of flood risk. These zones are shown on a community's Flood Insurance Rate Map (FIRM) or Flood Hazard Boundary Map. Each zone indicates the severity or type of flooding risk in the area. For transportation projects located within a mapped floodplain, a floodplain development permit is required, along with any other relevant environmental permits.

The Iowa Department of Natural Resources (DNR), in collaboration with the Iowa Flood Center and other partners, is working to develop new, comprehensive, and accurate floodplain maps for cities and counties in Iowa. The information is available through two web-based platforms.





Map 8.4

Floodplain - Roads & Bridges (2026-2029)

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Map 8.4 highlights programmed roads and bridges within the region and floodplains. Identifying roads and bridges that are susceptible to environmental risks, particularly flooding and extreme precipitation events, across the region with a changing climate. Identifying at-risk corridors, ensuring measures of how bridge and road design must now accommodate extreme rainfall events, river overflow, seasonal flooding, or other environmental conditions due to changing climate conditions.

Table 8.5: Roads and Bridges LRTP Relation to Flood

Projects & Potential Impact on Floodplains					
Water Body	Jurisdiction	Project	Termini	Description	Environmental
Quarter Section Run	Denver	State St	Prestien Dr N 0.43 miles to Quarter Section Run Bridge	Pavement Rehab	Floodplain
Wapsi River	Independence	1st St W	10th Ave NW E 0.53 miles to Wapsipinicon River Bridge	Pavement Rehab	
	Chickasaw Co.	Winslow Rd (C-55)	Over Tributary to W Fork Cedar River	Bridge Replacement	
Wapsi River	Chickasaw Co.	V-14	Over Wapsipinicon River Overflow	Bridge Replacement	
Little Turkey River	Chickasaw Co.	Vanderbilt Ave	Over Little Turkey River	Bridge Replacement	
Beaver Creek	Grundy Co.	T-55	Over Branch Beaver Creek, from Westbrook St S 0.4 miles	Bridge Replacement	
Over Creek	Bremer Co.	240th St	Over Creek	Bridge Replacement	
Otter Creek	Buchanan Co.	150th St	Over Otter Creek, from Indiana Ave, W 0.1 miles	Bridge Replacement	
Miller Creek	Black Hawk Co.	Eagle Rd (D-46)	Over Miller Creek	Bridge Replacement	
Wapsi River	Chickasaw Co.	B-28	Over the Wapsipinicon River	Bridge Replacement	
Plum Creek	Chickasaw Co.	190th St	Over Plum Creek	Bridge Replacement	
Unnamed Stream	Grundy Co.	I Ave	Over Unnamed Stream, from 120th St N 0.125 miles	Bridge Replacement	
Beaver Creek	Grundy Co.	160th St	Over the South Fork of Beaver Creek, from H Ave W 0.3 miles	Bridge Replacement	
Black Hawk Creek	Grundy Co.	T Ave	Over Branch of Black Hawk Creek	Bridge Replacement	
Beaver Creek	Grundy Co.	110th St	Over Fork of Beaver Creek, from L Ave W 0.6 miles	Bridge Replacement	
Horton Creek	Bremer Co.	150th St	Over Horton Creek	Bridge Replacement	
Unnamed Stream	Butler Co.	Jay Ave	Over Small Stream, from 290th St N 0.5 miles	Bridge Replacement	
Beaver Creek	Butler Co.	Liberty Ave	Over Beaver Creek, from 320th St N 0.2 miles	Bridge Replacement	
Crane Creek	Bremer Co.	180th St	Over Crane Creek	Bridge Replacement	
Wapsipinicon River	Bremer Co.	C-33	Over Wapsipinicon River	Bridge Replacement	
Lime Creek	Buchanan Co.	330th St	Over Lime Creek, from Finley Ave E 0.2 miles	Bridge Replacement	
Harter Creek	Buchanan Co.	Wapsi Access Blvd	Over Harter Creek, from D-16 (Otterville Blvd) SE 0.9 miles	Bridge Replacement	
Spring Creek	Black Hawk Co.	Fox Rd	Over Spring Creek	Bridge Replacement	
Wapsipinicon River	Chickasaw Co.	B-66	Over Wapsipinicon River	Bridge Replacement	
Beaver Creek	Grundy Co.	110th St	Over Branch of Beaver Creek, from T-55 W 0.4 miles	Bridge Replacement	
Unnamed Stream	Bremer Co.	V-48	Over Stream	Bridge Replacement	
Cedar River	Iowa DOT	US 218	Cedar River in Janesville to IA 116 in Waverly	New system interchange	
Wapsipinicon River	Iowa DOT	US 63	E Fork Wapsipinicon River 2.1 mi. N of US 18	Bridge Rehab	
Big Creek	Iowa DOT	US 218	Big Creek Overflow 0.3 mi. N of D-48	Bridge Replacement	
Wapsipinicon River	Iowa DOT	IA 150	Wapsipinicon River in Independence	Bridge Deck Overlay	
Cedar River	Iowa DOT	US 18	Little Cedar River, 1.0 mi. E of T-74	Bridge Replacement	
Boylan Creek	Iowa DOT	IA 3	Boylan Creek 2.4 mi. E of T-16	Bridge Rehab	

Historically, the region has experienced several significant flooding events, notably in 1993, 2008, and 2016, which have had lasting effects on communities and critical infrastructure. Major rivers such as the Cedar River, Wapsipinicon River, and Turkey River have routinely overflowed due to heavy rainfall, spring snowmelt, and upstream surges.

These flood events have caused extensive damage to roads and bridges, leading to closures, detours, and costly repairs. The 2008 flood, one of the most severe in the region’s history, resulted in submerged roadways eroding. One of the most significant causes of flooding across northeast Iowa is riverine flooding, driven by the behavior of major rivers and creeks in the region. The Cedar River, Wapsipinicon River, West Fork of the Cedar River, and the Turkey River are central to the region’s hydrology and are routinely subject to flooding under certain conditions. These rivers often overflow during spring snowmelt, prolonged or heavy rainfall, and upstream water surges, leading to widespread flooding in low-lying areas, particularly in communities such as Waterloo, Cedar Falls, Waverly, and Independence. Flash flooding is also common, particularly during intense summer storms that drop large amounts of rain in a short period, overwhelming drainage systems and causing localized damage.

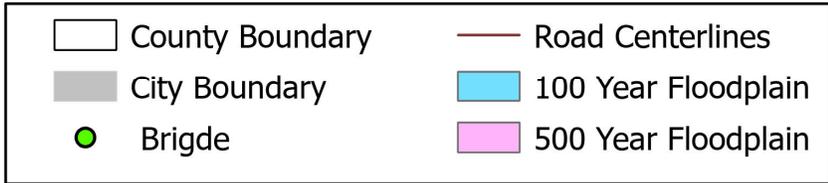
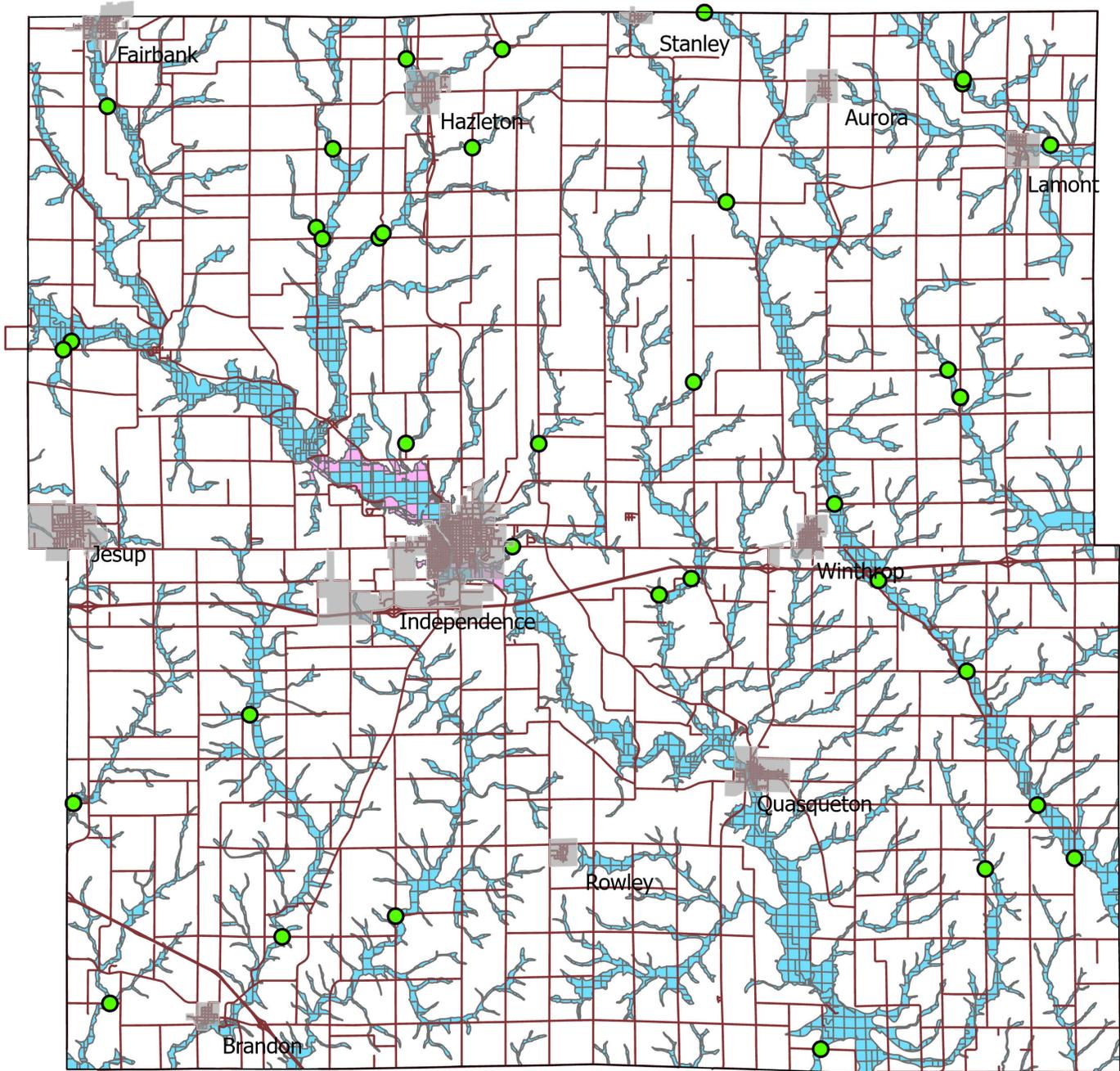


Historically, among the counties listed, Black Hawk, Bremer, and Buchanan have experienced the most significant and frequent flooding. Black Hawk County, situated along the Cedar River and adjacent to major urban areas such as Waterloo and Cedar Falls, has experienced repeated major flood events, most notably in 1993 and 2008. Bremer County, especially around Waverly, is also highly flood-prone due to the Cedar and Shell Rock Rivers. Buchanan County regularly sees flooding along the Wapsipinicon River, notably impacting Independence. In contrast, Butler, Chickasaw, and Grundy Counties experience more localized or less severe flooding, with fewer densely populated areas at risk.

Table 8.6: Flood Risk by County

County	Flood Risk Level	Primary Causes	Notable Rivers and Creeks	Key Impact Areas
Black Hawk	High	Riverine flooding, urban runoff, flash floods	Cedar River, Black Hawk Creek, Dry Run Creek	Waterloo, Cedar Falls
Buchanan	High	Riverine flooding, snowmelt, and flash flooding	Wapsipinicon River, Little Wapsi	Independence
Bremer	High	Riverine flooding, backwater flooding, snowmelt	Cedar River, Shell Rock River	Waverly
Butler	Low to Moderate	Riverine and backwater flooding, localized flash flooding	Shell Rock River, Beaver Creek	Greene, Clarksville
Chickasaw	Low to Moderate	Riverine flooding, snowmelt, and localized flash floods	Little Cedar River, Wapsipinicon River	Nashua, New Hampton
Grundy	Low to Moderate	Localized flooding from creeks and agricultural runoff	Black Hawk Creek, small tributaries	Reinbeck, a rural area

Embankments and structural damage to bridges highlight vulnerabilities in the transportation network. Communities like Waverly, Independence, and Janesville were especially affected, emphasizing the need to incorporate resilience and flood risk mitigation into transportation planning and infrastructure investment.



Map 8.5

At Risk Roads & Bridges, Buchanan County

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Highway 150, 2016 Wapsipinicon Flood, Independence, Buchanan Co.



Independence, located in Buchanan County, Iowa, regularly experiences flood threats from the Wapsipinicon River. One of the most significant events occurred in September 2016, when the Wapsipinicon River reached a major flood crest of approximately 19.9 feet, leading to the closure of the Highway 150 South bridge due to dangerously high-water levels. This bridge, a vital transportation route through the southern part of the community, was the only major roadway in the town affected at the time. While

other low-lying rural roads experienced localized flooding, the 2016 event underscored the city’s vulnerability to flooding with potential impacts on critical road and bridge infrastructure.

Table 8.7: Wapsipinicon River at Independence Flood Categories & Impacts

Flood Categories	
Record	22.35 feet - 5/18/1999
Major	15 feet
Moderate	13 feet
Minor / Flood Stage	12 feet
Action	10 feet

River Level Impacts	
12 feet	Water affects low-lying streets in Independence.
16 feet	Water affects many residences, businesses, and parks in Independence and Littleton.
20 feet	Water affects most residences, businesses, and parks in Independence. Flooding also occurs in Fairbanks, Littleton, and Central City.
21 feet	Water reaches the guardrails of the Iowa Highway 150 bridge and floods much of the cemetery.
22 feet	Water affects Iowa Highway 150 from the cemetery to Three Elms Park Road in Independence. Water also floods most residences and businesses from the river to 2nd Avenue NE.



The NOAA Hydrologic Ensemble Forecasting System (HEFS) is a tool that provides probabilistic river flow and flood forecasts by accounting for uncertainties in weather and environmental conditions. For Independence, Iowa, HEFS, helps predict water levels on the Wapsipinicon River, offering valuable information to assess flood risks and support preparedness efforts. These forecasts are available through NOAA’s National Water Prediction Service and aid local authorities in making informed decisions during potential flood events.

In Bremer County, Iowa, Waverly and Janesville are the most flood-prone communities due to their location along the Cedar River. Waverly, despite mitigation efforts like an inflatable dam, remains at risk, especially when river levels exceed 11 feet, prompting flooding in the southeast parts of the city. Downstream, Janesville experiences similar threats, often impacted by river surges and backwater effects, with flood stages around 13 to 14 feet posing serious risks to residential areas, including trailer parks.



<https://www.usgs.gov/media/images/flood-monitoring-waverly-ia-1>

Table 8.8: Wapsipinicon River at Independence Flood Categories & Impacts

Flood Categories	
Record	19.33 - 6/10/2008
Major	19 feet
Moderate	17 feet
Minor / Flood Stage	12 feet
Action Stage	10 feet

River Level Impacts	
11.5 feet	Lowland flooding of city parks in Waverly occurs.
12 feet	1st Street Northwest by Kohlmann Park floods
13 feet	Cedar Lane and 7th Avenue Southeast near 1st Street Southwest flood
15 feet	Water affects the northwest parts of Waverly. Portions of 3rd Street Southeast and 4th Street Southeast near the Southeast Elementary School flood.
17 feet	Widespread flooding occurs in the northwest, southwest, and southeast parts of Waverly. Bremer Avenue floods.

In recent times, the National Weather Service has been forecasting significant flooding along the Cedar River watershed from Charles City to Janesville due to recent projected rainfall through Saturday, June 22nd. In Waverly, the Cedar River is expected to crest around 14 feet by noon on Monday. City officials anticipate rising water levels throughout the weekend, prompting preparations for localized flooding and road closures. As the river rises, specific thresholds will trigger closures and utility precautions. At 10–11 feet, power shutoffs may be considered in southeast Waverly. At 11.5 feet, 7th Avenue SE will be overtopped and closed. Once the river reaches 12 feet, the official minor flood stage, 4th Street SE will flood, limiting access to Southeast School. By 13 feet, 7th Ave SE, 4th St SE, and 8th St SE are expected to be closed. At 13.5 feet, Cedar Lane will close in two locations. Notably, this projected crest exceeds those of recent floods, including the 2016 and 2013 events, when the river crested 13.2 and 13.13 feet in Waverly.

Table 8.9 Bremer County Roads & Bridges Posted or Closed due to Flooding

Roads, Infrastructure, and Flooding						
Route	County	From	Direction	To	Environmental Impact	FFC
C28/165th St	Bremer	Quebec Ave	East	End of Pavement	Flooding	Minor Collector
Possum Ave	Bremer	Highway 93	North	140th St	Flooding	Major Collector
C33/190th St	Bremer	Reed Ave	East	Tahoe Ave	Flooding	Minor Collector
V56/Viking Ave	Bremer	160th St	South	165th St	Flooding	Major Collector
V56/Viking Ave	Bremer	200th St	South	210th St	Flooding	Major Collector
C50/260th St	Bremer	Oakland Ave	East	Piedmont Ave	Flooding	Major Collector
V21/212th St	Bremer	Grand Ave	East	Hilton Ave	Flooding	Major Collector

Bridge Infrastructure & Impact of Flooding					
NBI/FHWA ID #	County	Description	Bridge Type	Environmental Impact	Status
79850	Bremer	Bremer Co Bridge 6-22 on V21	PPCB	Flooding	Open
80090	Bremer	Bremer Co Bridge 7-5 on Yukon Ave	Steel I-Beam	Flooding	Posted
76741	Bremer	Bremer Co Bridge 9-13 on Marquis	Timber	Flooding	Open
76751	Bremer	Bremer Co Bridge 9-15 on Marquis	Timber	Flooding	Open
79400	Bremer	Bremer Co Bridge 8-23 on 215th St	Steel I-Beam	Flooding	Posted

Due to recurring flooding conditions along the Cedar River and its tributaries, cities like Waverly in Bremer County have taken proactive measures to manage flood risk and protect residents. Waverly participates in the National Flood Insurance Program (NFIP), which allows residents to obtain federal flood insurance and access certain types of federal assistance. Participation requires the city to adopt and enforce basic development standards within the 100-year flood hazard areas.

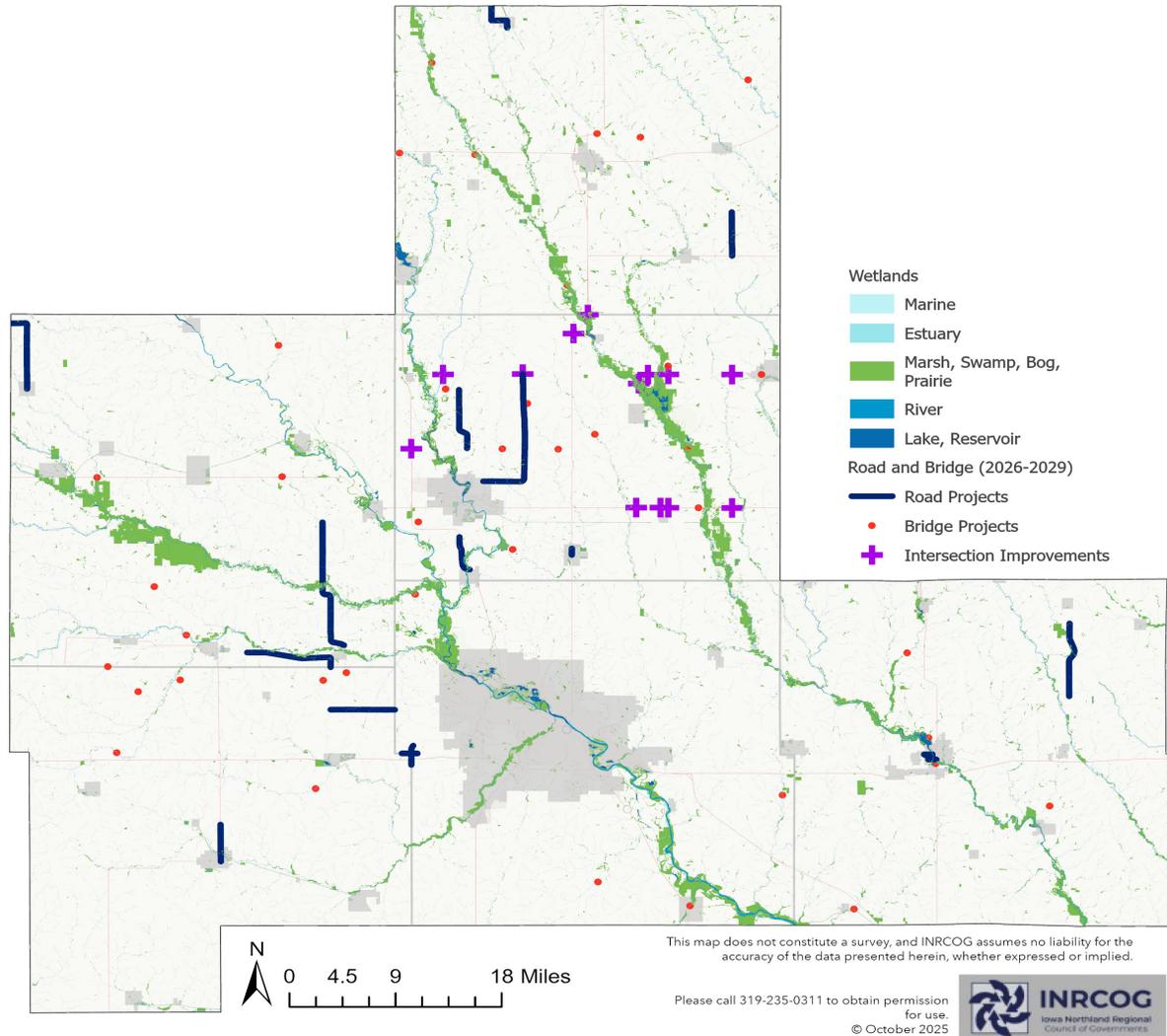
To support this effort, the City regulates and enforces requirements for properties located within the designated flood hazard zones, as shown on the National Flood Insurance Rate Maps (FIRMs). These maps are available for public viewing at City Hall or through local insurance providers.



Wetlands

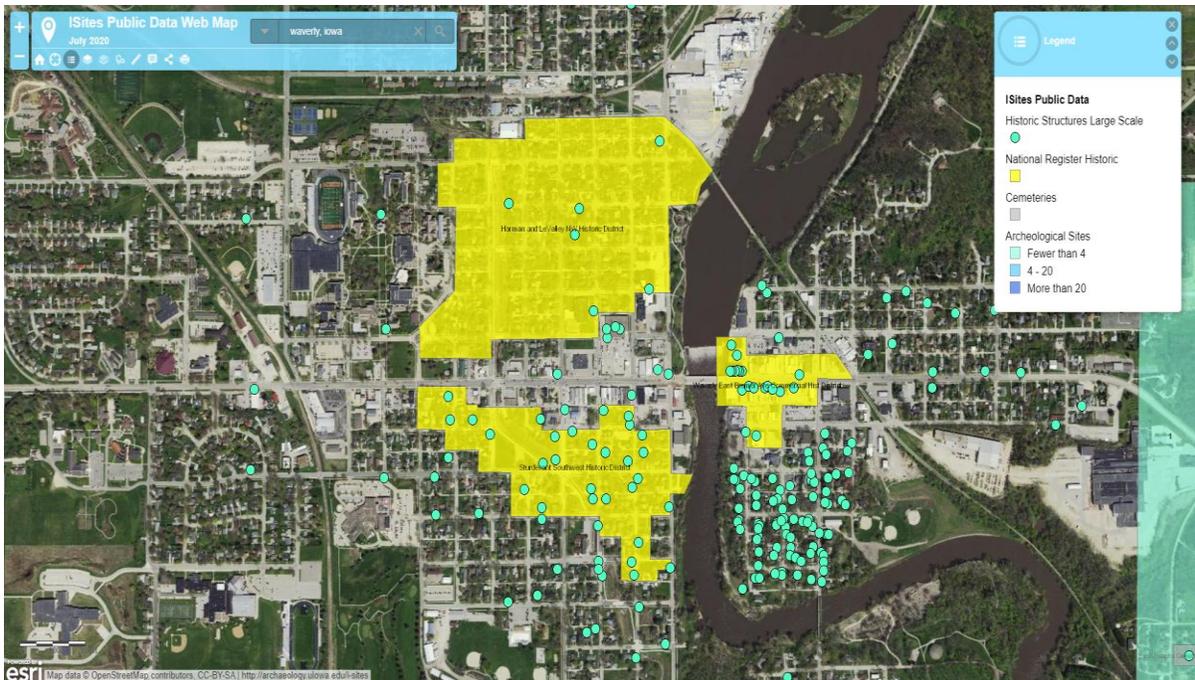
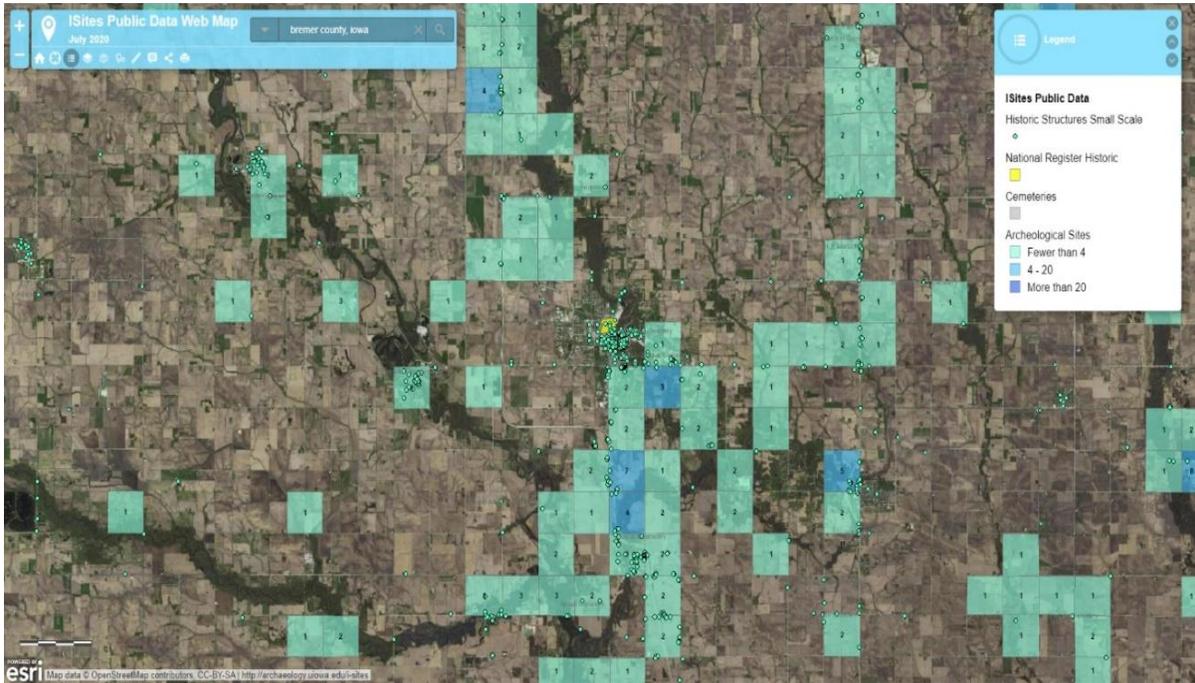
In Iowa, wetlands are most often referred to as areas that are periodically or regularly inundated with water. Soils in wetlands are normally saturated with water, and the vegetation in and around them is specifically adapted to the wetland environment. Wetlands help maintain and improve water quality by intercepting runoff as it moves through the wetland system. Wetland environments increase the quality of water before discharging it into streams and creeks or before it percolates through the soil.

Map 8.6 Wetlands



Archeological and Historic Sites

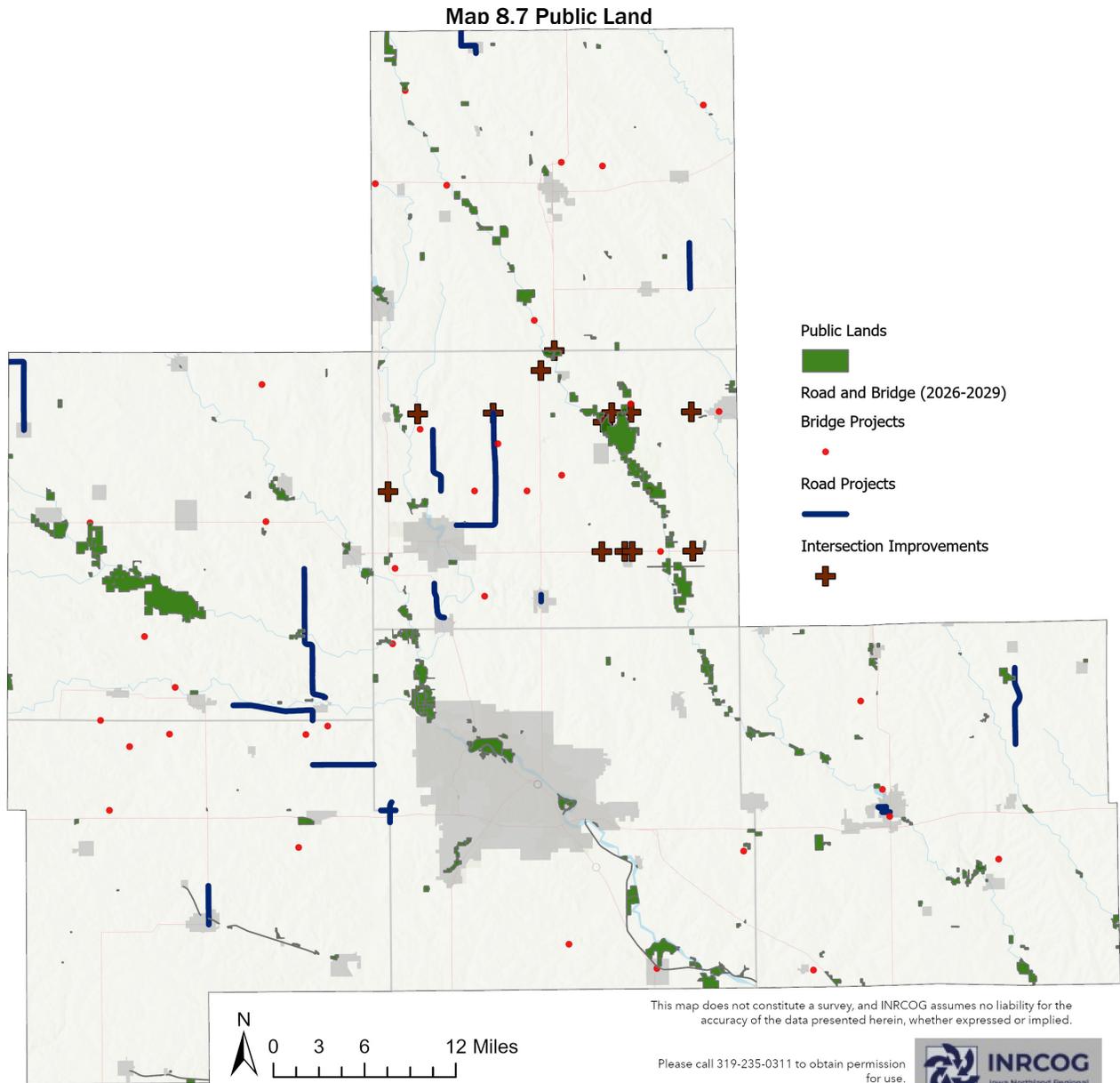
The Iowa Office of the State Archaeologist manages the Iowa Site File, which is the master inventory of archaeological sites in Iowa. I-Site™ Public Access is an online interactive map for historic and archeological sites. <https://archaeology.uiowa.edu/i-sites>



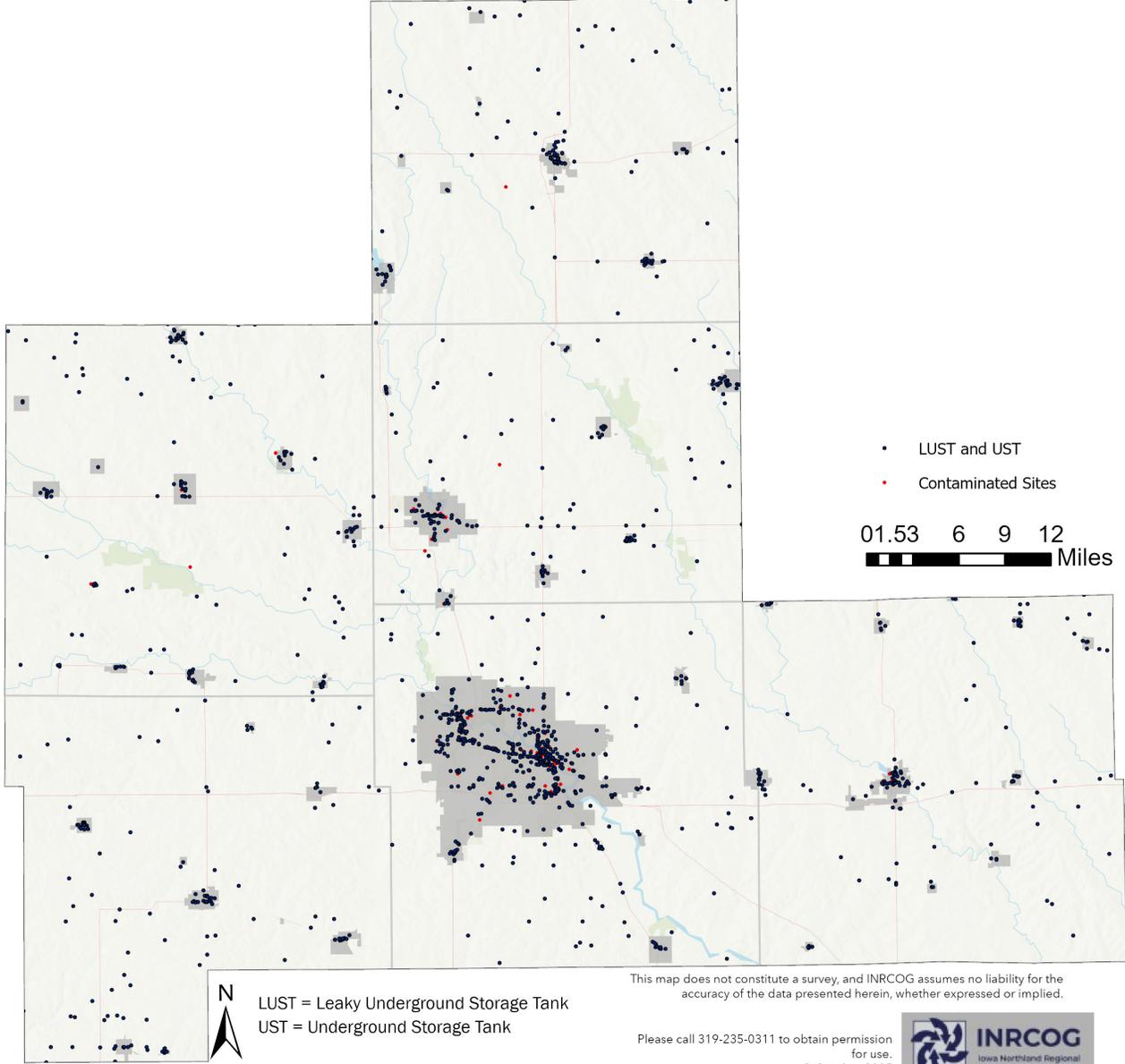
Additional Environmental Factors

RTA staff also performed a general environmental analysis for the following factors:

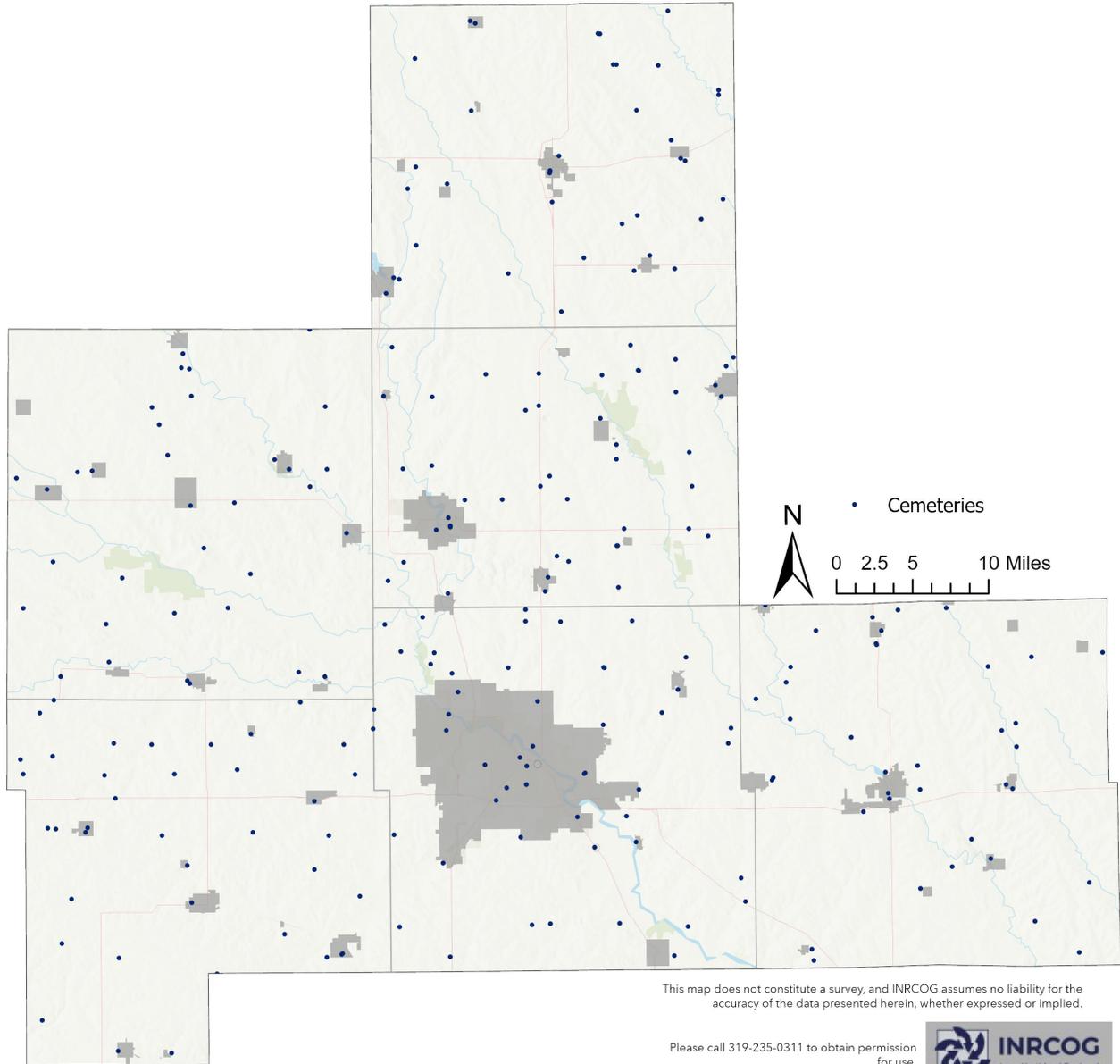
- Public Land
- Environmentally Sensitive Areas
- Cemeteries
- Threatened and Endangered Species



8.8: Environmentally Sensitive Areas



Map 8.9: Cemeteries



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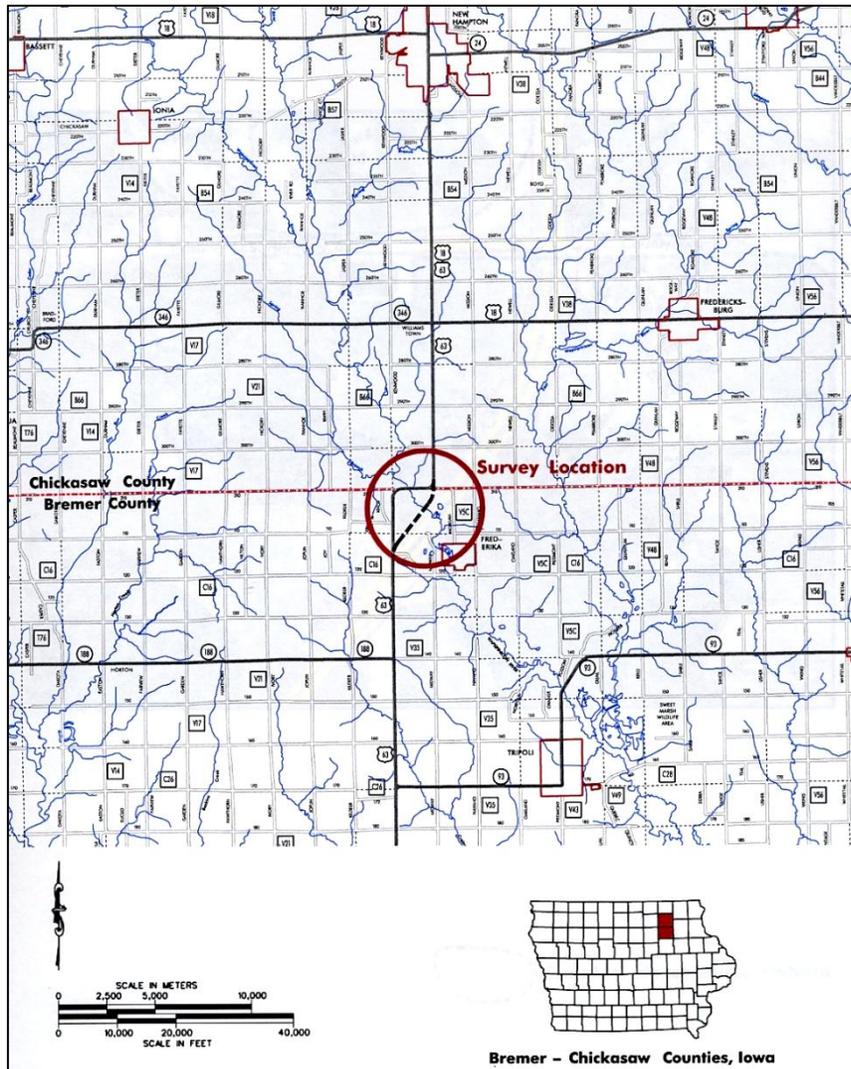


state. Threatened species are those that are at risk of becoming endangered shortly, while endangered species are already in danger of extinction. The region is home to more than 60 such species. Threatened and endangered species in Iowa play a crucial role in maintaining ecosystem balance by supporting biodiversity, regulating food webs, and ensuring water quality and pollination. Species like the Topeka Shiner and local pollinators are vital for the health of aquatic and terrestrial environments.



Spotted Skunks
Source: Iowa DNR

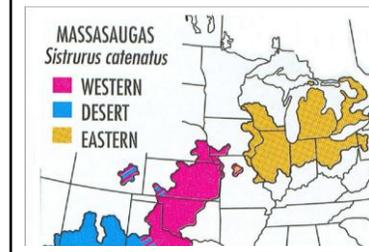
Map showing U.S. 63 Wapsipinicon River Crossing, Bremer and Chickasaw Co.



The eastern Massasauga rattlesnake, also known as the “swamp rattler,” is a stout-bodied snake with a broad, triangular head and a rather small but noticeable rattle on the end of its tail. “Massasauga” means “great river mouth” in Chippewa, so named because it is usually found in river bottom forests and nearby fields.

Adult snakes range from 18 to 40 inches in length, although they average 27 inches. The Massasauga’s body is distinctively marked with a row of large black or dark brown hourglass-shaped markings along the back and three rows of smaller dark spots on each side. The background coloration is gray or brownish gray.

Eastern Massasaugas’ preferred habitat is low, swampy areas close to marshes, lakes, and rivers, although during the summer, they may occasionally be found in open grasslands, meadows, or dry woodlands. Typically, however, they prefer to sit in tufts of grass or under rocks a short distance from the water.

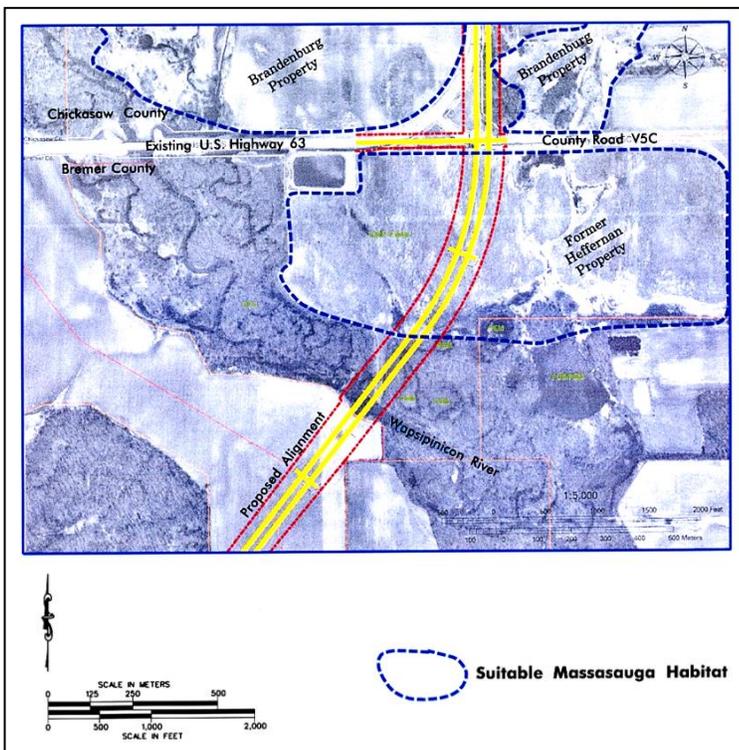


A study prepared for the Iowa Department of Transportation by Terry VanDeWalle of Earth Tech, Inc. (July 2003) revealed that during the planning and design of improvements to U.S. Highway 63 in Bremer and Chickasaw counties, including a new crossing over the Wapsipinicon River, consideration was given to the potential presence of the eastern Massasauga rattlesnake (*Sistrurus Catenatus Catenatus*). The upper portion of the Wapsipinicon River lies within the species' historic range in Iowa, with known populations located just three to four miles from the proposed project area, particularly on land associated with the Sweet Marsh Wildlife Management Area (WMA)





When transportation projects may affect wildlife habitat, agencies like the Iowa DNR often step in. For the U.S. 63 improvements, the DNR mandates the DOT to check for any eastern Massasauga rattlesnakes near the planned Wapsipinicon River crossing. This type of survey helps make sure construction doesn't harm endangered species and supports responsible project planning. The survey found that eastern Massasauga rattlesnakes likely lived near the U.S. 63 project area in the past, but there is no evidence they are still present.



Although an area south of Bremer County Road V-5C has since been removed from agricultural production and now offers suitable land. These findings suggest that while the habitat has potential, the eastern Massasauga rattlesnake was no longer present in the project corridor, reducing project impacts on the species.

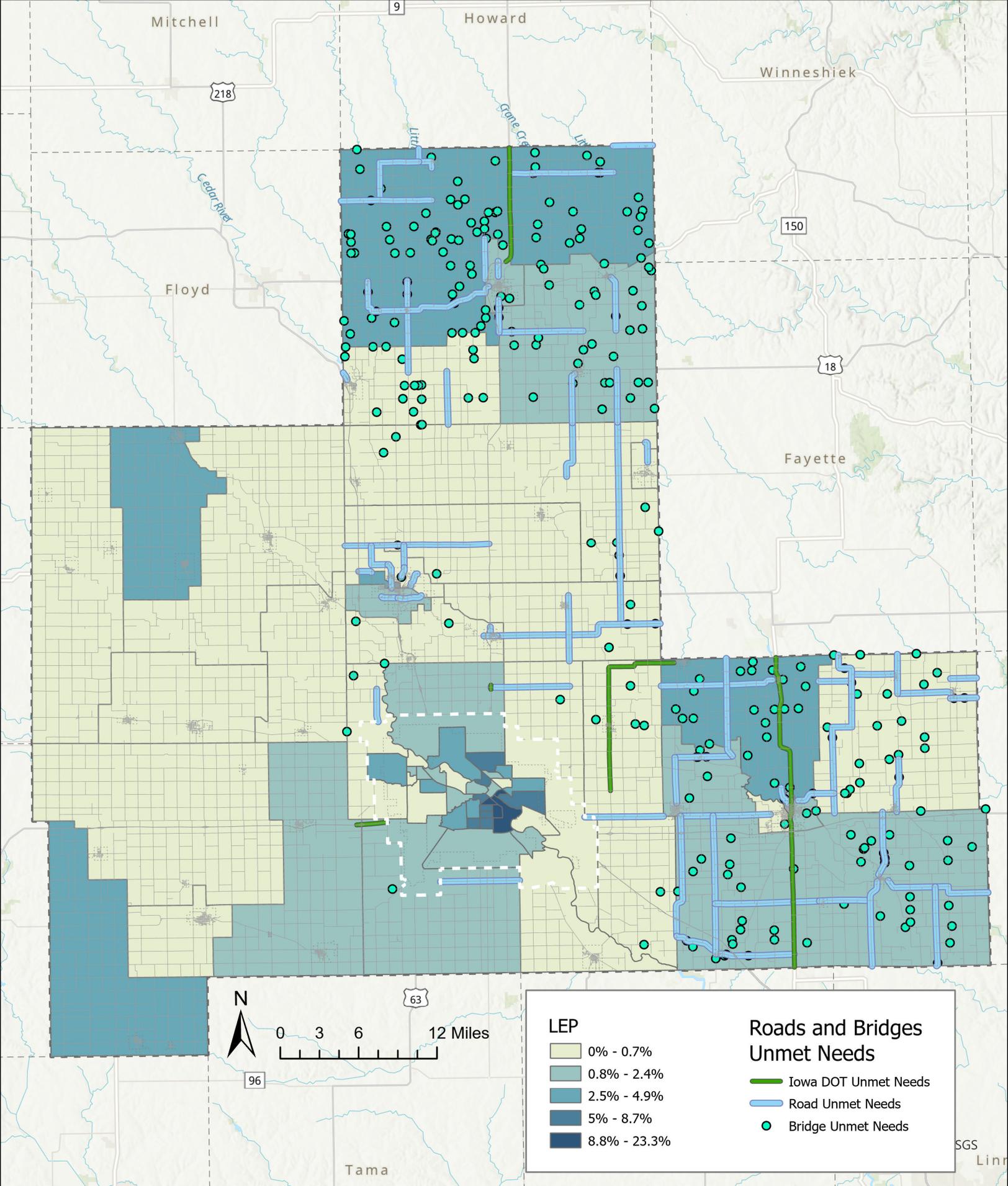
Environmental Justice Assessment



An environmental justice (EJ) assessment was conducted for the roads and projects included in the fiscally constrained Long-Range Transportation Plan (LRTP) to identify underserved populations and promote equitable development. The analysis considered Limited English Proficiency (LEP) populations, ethnic and racial minorities, low-income and poverty areas, and individuals with disabilities. These groups are often more vulnerable to the potential negative impacts of transportation investments and changes.

By understanding their specific needs and geographic distribution, policymakers and planners can better tailor transportation investments to address accessibility, safety, and mobility gaps within these communities. Prioritizing these populations supports broader regional goals of equity, resilience, and environmental sustainability by reducing disparities and ensuring all residents benefit from transportation improvements.

The following maps illustrate the spatial distribution of key socio-economic indicators across the region alongside the unmet road and bridge needs identified through the LRTP process.



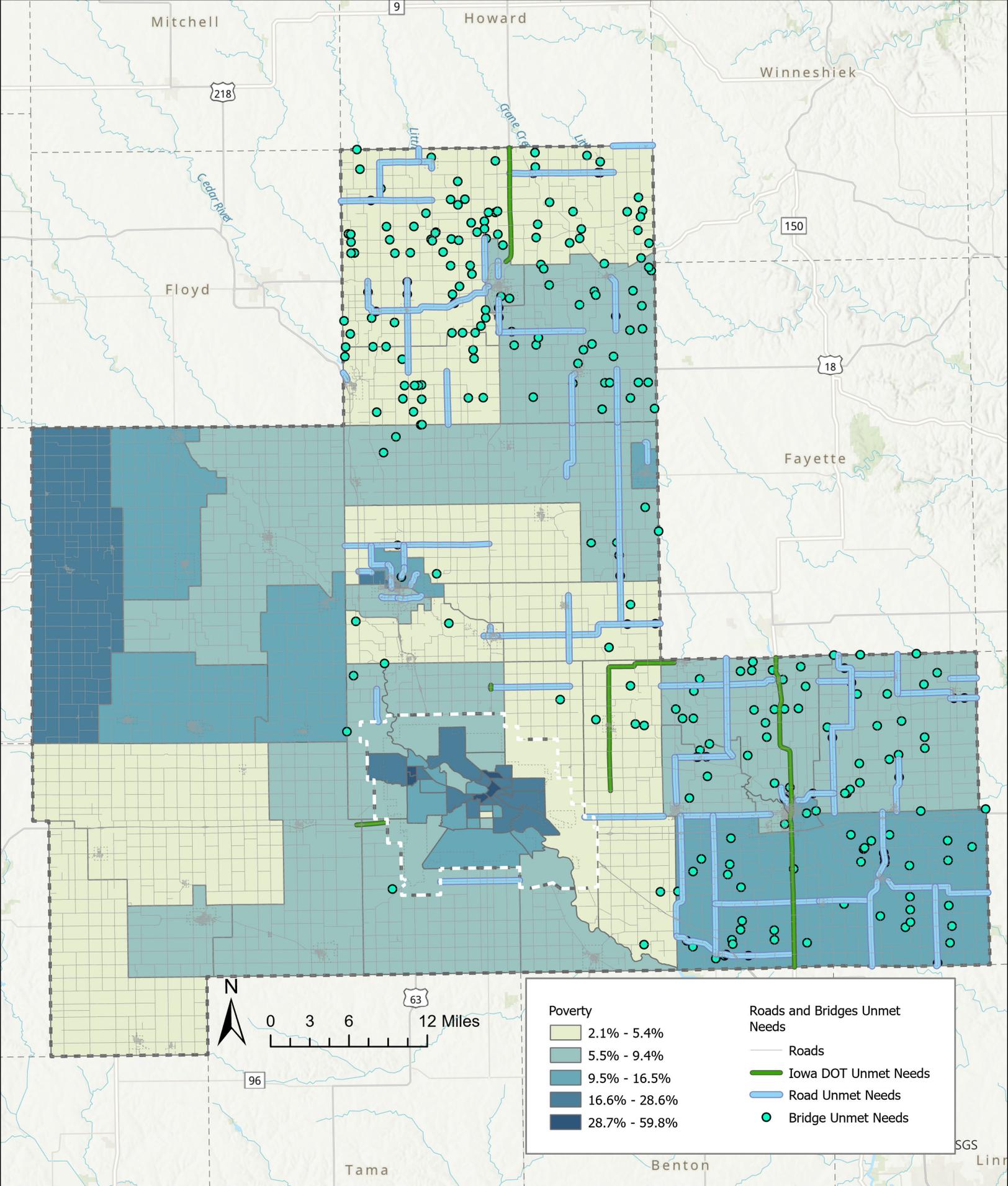
Map 8.10

Limited English Proficiency - Roads and Bridges Unmet Needs

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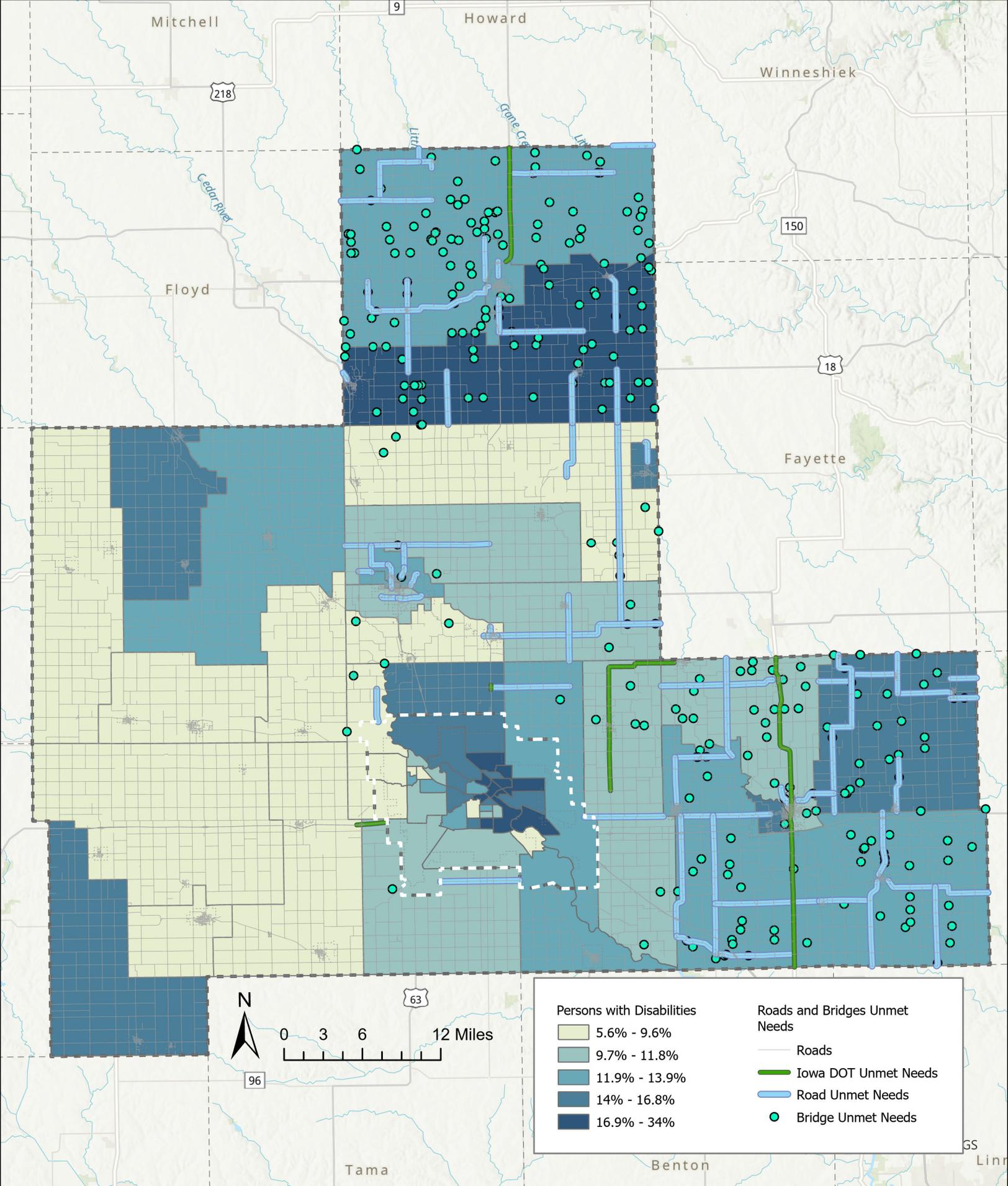
Map 8.11

Poverty by Census Tract - Roads and Bridges Unmet Needs

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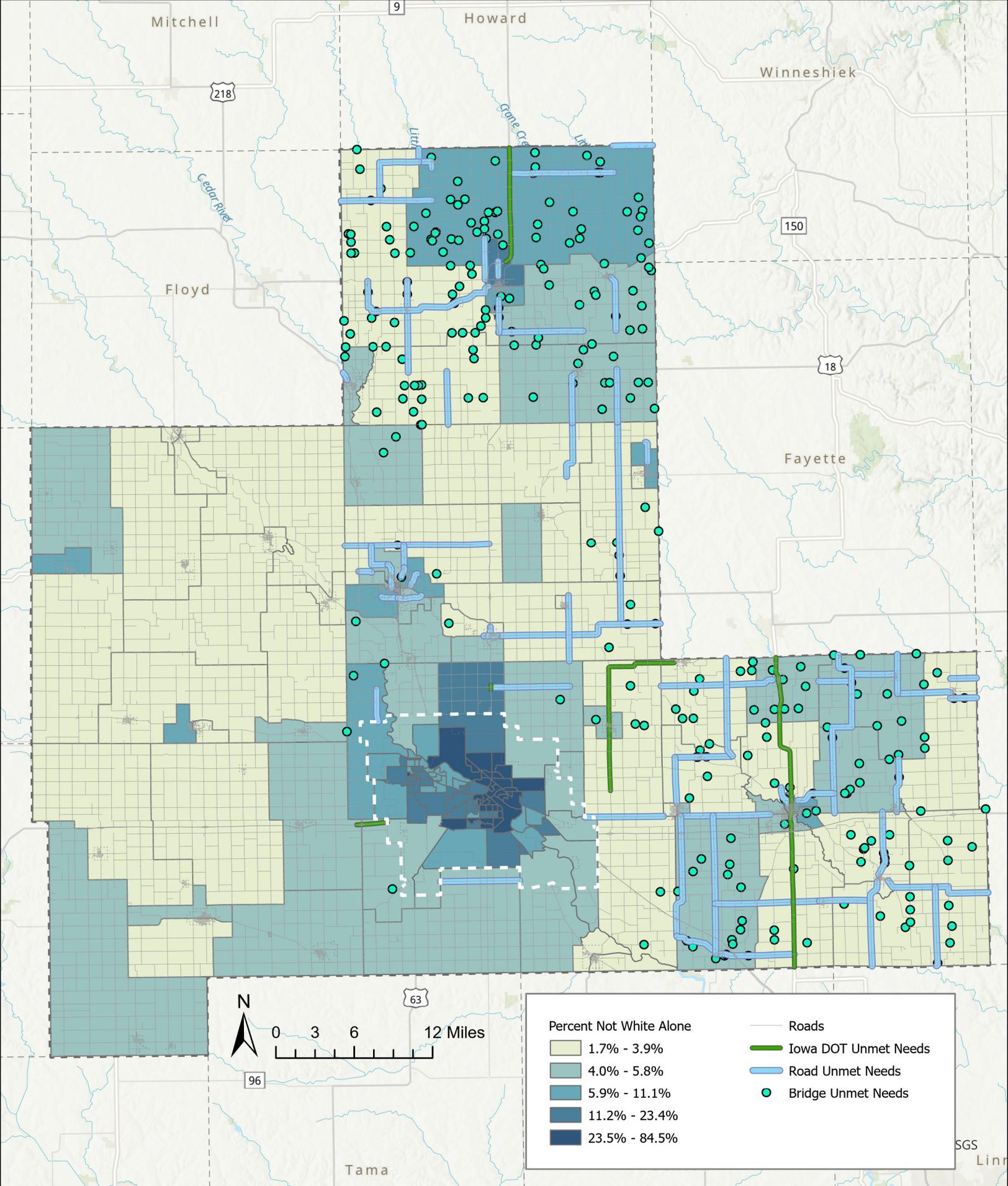




Map 8.12

Persons with Disabilities - Roads and Bridges Unmet Needs

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Map 8.13

Ethnic Minorities by Census Block Group - Roads & Bridges Unmet Needs

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Table 8.3: Threatened and Endangered Species

Name	Class	Status	Black Hawk	Bremer	Buchanan	Butler	Chickasaw	Grundy
Blue-spotted Salamander	Amphibians	E	x					
Central Newt	Amphibians	T	x	x	x		x	
Mudpuppy	Amphibians	T	x		x	x		
Barn Owl	Birds	E	x			x	x	
Henslow's Sparrow	Birds	T	x					
Short-eared Owl	Birds	E		x				
Northern Harrier	Birds	E					x	
Red-shouldered Hawk	Birds	E	x	x	x	x	x	
American Brook Lamprey	Fish	T	x	x	x	x	x	
Black Redhorse	Fish	T	x		x		x	
Blacknose Shiner	Fish	T		x		x		
Orangethroat Darter	Fish	T			x			
Topeka Shiner	Fish	T		x				
Weed Shiner	Fish	E				x		
Western Sand Darter	Fish	T	x	x	x	x		
Creek Heelsplitter	Freshwater Mussels	T	x	x	x	x	x	
Creeper	Freshwater Mussels	T	x	x	x	x	x	
Slippershell Mussel	Freshwater Mussels	E			x			
Yellow Sandshell	Freshwater Mussels	E	x	x	x			
Cylindrical Papershell	Freshwater Mussels	T	x	x	x		x	
Ellipse	Freshwater Mussels	T		x	x		x	
Baltimore	Insects	T				x	x	
Plains Pocket Mouse	Mammals	E	x			x		
Spotted Skunk	Mammals	E	x					x
Southern Bog Lemming	Mammals	T				x		
Northern Long-eared Bat	Mammals	T	x				x	
Beakrush	Plants	T				x	x	
Bog Bedstraw	Plants	E					x	
Bog Birch	Plants	T	x	x			x	
Bog Willow	Plants	T	x	x	x		x	
Prairie Bush Clover	Plants	T	x			x		
Leafy Northern Green Orchid	Plants	T					x	
Bog Clubmoss	Plants	E			x			
Low Nut Rush	Plants	T					x	x

Brittle Prickly Pear	Plants	T	x			x		
Buckbean	Plants	T			x		x	
Crossleaf Milkwort	Plants	E					x	
Eastern Jointweed	Plants	E					x	
False Mermaid-weed	Plants	E			x			
Fragrant False Indigo	Plants	T			x			
Kitten Tails	Plants	T	x		x			
Leathery Grape Fern	Plants	T	x		x		x	
Little Grape Fern	Plants	T	x					
Narrowleaf Pinweed	Plants	T	x					
Northern Panic-grass	Plants	E	x				x	
Orange Grass St. John's Wort	Plants	E					x	
Pink Milkwort	Plants	T	x				x	
Pale Green Orchid	Plants	E			x		x	x
Purple Fringed Orchid	Plants	T			x		x	x
Racemed Milkwort	Plants	E					x	
Rush Aster	Plants	T						x
Shining Willow	Plants	T			x			x
Silky Prairie Clover	Plants	E	x					
Showy Lady's Slipper	Plants	T						x
Slender Arrow Grass	Plants	T						x
Small Sundrops	Plants	T						x
Sweet Indian Plantain	Plants	T	x		x		x	x
Western Prairie Fringed Orchid	Plants	T	x		x			x
Woolly Milkweed	Plants	T	x					
Yellow Monkey Flower	Plants	T					x	
Winterberry	Plants	E			x			x
Woodland Horsetail	Plants	T			x		x	x
Yellow-eyed Grass	Plants	E					x	x
Blanding's Turtle	Reptiles	T	x		x		x	x
Eastern Massasauga	Reptiles	E			x			x
Ornate Box Turtle	Reptiles	T	x				x	x

Summary

The Environmental Analysis chapter of the Long-Range Transportation Plan evaluates how transportation projects interact with natural, cultural, and built environments, highlighting the importance of sustainable and responsible infrastructure planning. Key environmental elements considered include watersheds and major water sources, impaired waters, wetlands, public lands, cemeteries, and environmentally sensitive areas. Projects can influence water quality, stormwater runoff, noise, air quality, and wildlife habitats, making early environmental assessment critical to reducing negative impacts. Integrating these considerations ensures that roadway expansions, freight corridors, and other infrastructure improvements support economic growth while preserving ecological, cultural, and community resources across the region.

Transportation projects can influence water quality, stormwater runoff, noise levels, wildlife habitats, and community character, making early environmental assessment critical to minimizing negative effects. Integrating these factors into planning helps ensure that roadways, freight corridors, and other infrastructure improvements support economic growth while protecting ecological and cultural resources. Environmental considerations currently influence long-term transportation projects by affecting project design, permitting, and timelines. For instance, projects that cross sensitive watersheds, wetlands, or public lands may require mitigation measures, such as stormwater management, habitat preservation, or rerouting to avoid cemeteries and other culturally sensitive sites. Past projects, including freight corridor improvements, urban roadway expansions, and the Waterloo railyard relocation, have been adjusted to address water quality, habitat protection, and environmental compliance. By incorporating comprehensive environmental analysis early in the planning process, the MPO ensures that transportation investments balance mobility needs with the preservation of natural, cultural, and community resources over the next several decades.



Consultation

Several Federal, State, Tribal, and local government agencies were notified when the draft LRTP document was available for review and comment. Feedback on topics relevant to their field of expertise was requested.

Agencies notified include the following:

- Black Hawk County Conservation
- Bremer County Conservation
- Buchanan County Conservation
- Butler County Conservation
- Chickasaw County Conservation
- Black Hawk County Emergency Management
- Bremer County Emergency Management
- Buchanan County Emergency Management
- Butler County Emergency Management
- Chickasaw County Emergency Management
- Grundy County Emergency Management
- Black Hawk County REAP Committee
- Grow Cedar Valley
- Hawkeye Community College
- Iowa Department of Agriculture and Land Stewardship
- Iowa Department on Aging
- Iowa Department for the Blind
- Iowa Department of Cultural Affairs
- Iowa Department of Education
- Iowa Department of Human Rights
- Iowa Department of Human Services
- Iowa Department of Natural Resources
- Iowa Department of Public Health
- Iowa Department of Public Safety
- Iowa Department of Transportation, Systems Planning Bureau
- Iowa Department of Transportation, District 2
- Iowa Department of Veterans' Affairs
- Iowa Economic Development Authority
- Iowa Homeland Security and Emergency Management
- Iowa Northland Regional Transit Commission
- Iowa Tourism Board
- Iowa Utilities Board
- Iowa Workforce Development
- Office of the State Archaeologist
- Sac & Fox Tribe of the Mississippi
- State Historical Society of Iowa
- Transit Advisory Committee
- University of Northern Iowa
- U.S. Army Corps of Engineers, Rock Island District
- U.S. Environmental Protection Agency, Region 7
- U.S. Department of Agriculture – Natural Resources Conservation Service
- U.S. Department of the Interior Bureau of Indian Affairs, Midwest Regional Office
- U.S. Fish and Wildlife Service, Illinois-Iowa Field Office

Chapter 9

Financial Analysis



Chapter 9 – Financial Analysis

A crucial element in implementing this plan is ensuring that funding is in place to support transportation projects. A financial analysis examines reasonably available transportation resources and compares them to the projected costs of needs. “Reasonably available” transportation resources include funds authorized at the local, state, and federal levels, which are likely to be accessible for the duration of the plan. A variety of funding sources are utilized for transportation improvements, as described in this chapter.

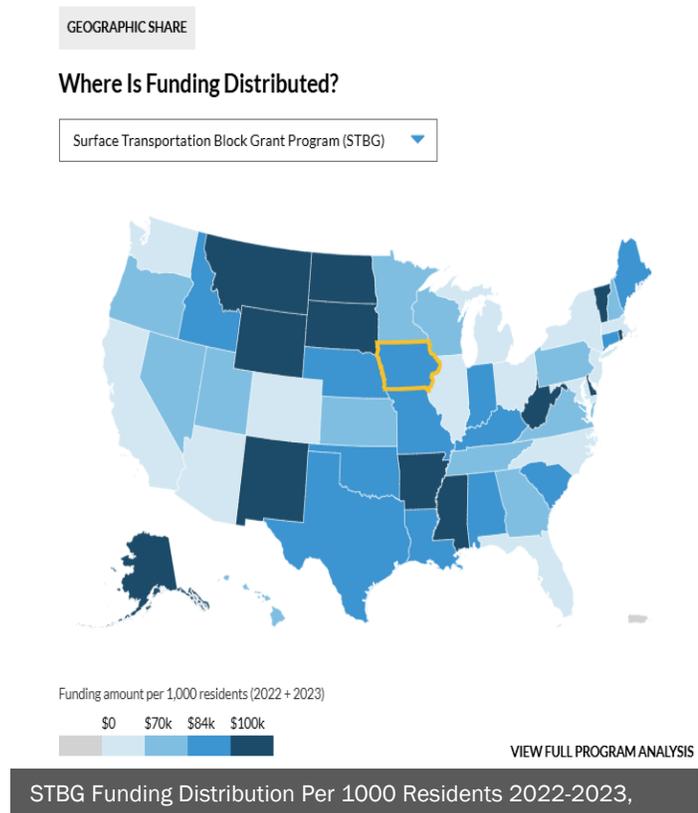
Traditional Transportation Revenue Sources

Local jurisdictions receive transportation funding from a variety of sources, including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Iowa Department of Transportation (DOT), and local contributions. The Regional Transportation Authority (RTA) manages three main funding pools: the Surface Transportation Block Grant (STBG) Program, Iowa’s Transportation Alternatives Program (TAP), and TAP-Flex. The RTA Policy Board allocates TAP-Flex funds between the STBG and TAP programs. Additional transportation funding sources, primarily managed by the Iowa Transportation Commission or individual jurisdictions, are also discussed in this chapter. Table 9.1 summarizes the funding options available to RTA jurisdictions. The Iowa DOT has compiled a Funding Guide to assist local governments, organizations, and individuals in conducting preliminary searches for funding assistance for various types of transportation projects. The most current version can be found at www.iowadot.gov/pol_leg_services/Funding-Guide.pdf.

Federal Funding

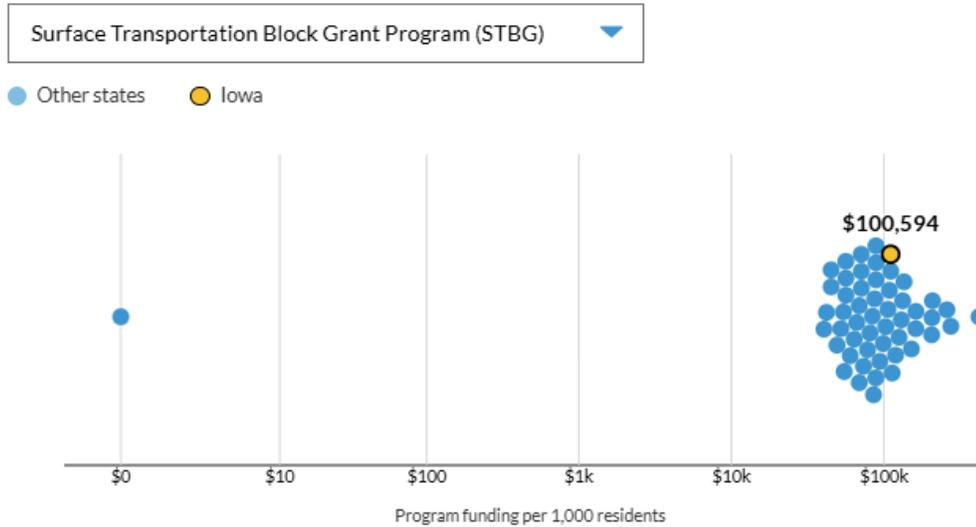
Federal programs that could fund projects in the RTA include the following:

- **Surface Transportation Block Grant (STBG) Program** – The STBG program was established to address key transportation needs identified by Congress, offering flexible funding to maintain and enhance a variety of transportation facilities, including federal-aid highways and public road bridges. In Iowa, the Department of Transportation (DOT) allocates these funds to Metropolitan Planning Organizations (MPOs) and Regional Planning Affiliations (RPAs), which have broad discretion to use them for eligible projects, including roadway improvements, bridge repairs, transit capital investments, planning efforts, and Transportation Alternatives Program activities. Iowa also offers a funding swap option, allowing MPOs and RPAs to exchange federal STBG funds for state Primary Road Fund dollars. A portion of Iowa’s STBG funding is targeted directly at counties for use on county bridge projects.



These funds can be used for on- or off-system bridge investments; however, off-system investments must be continued to maintain the ability to transfer the federal STBG set-aside for off-system bridges. The link below provides an overview of how federal grants are distributed in Iowa per 1000 residents: https://apps.urban.org/features/infrastructure-spending-states-counties/state/19/?program=fhwa_stp

Compare funding received by state



STBG distribution 2022-2023, Iowa.

- **Transportation Alternatives Set-aside Program (TAP)**

TAP program is a set-aside from the STBG program. TAP provides funding to expand travel options and enhance the transportation experience. Transportation Alternatives Program projects improve the cultural, historic, aesthetic, and environmental aspects of transportation infrastructure. Projects can include the creation of bicycle and pedestrian facilities, as well as the restoration of historic transportation facilities, among others. Some types of projects eligible under the SAFETEA-LU program, Transportation Enhancements, are no longer eligible, or have modified eligibility, under the TAP.



- **Congestion Mitigation and Air Quality Improvement Program (CMAQ)** – CMAQ provides flexible funding for transportation projects and programs tasked with helping to meet the requirements of the Clean Air Act. These projects can include those that reduce congestion and improve air quality.
- **Demonstration Funding (DEMO)** – Demonstration funding is a combination of different programs and sources. The FHWA administers discretionary programs through various offices representing special funding categories. An appropriation bill provides money to a discretionary program through special

congressionally directed appropriations or legislative acts, such as the American Recovery and Reinvestment Act of 2009 (ARRA).

- **Highway Safety Improvement Program (HSIP)** – This is a core federal-aid program that funds projects with the goal of achieving a significant reduction in traffic fatalities and serious injuries on public roads. A portion of this funding is targeted for use on local high-risk rural roads and railway-highway crossings.
- **National Highway Performance Program (NHPP)** – NHPP funds are available to be used on projects that improve the condition and performance of the National Highway System (NHS), including some state and U.S. highways and interstates.
- **National Highway Freight Program (NHFP)** – NHFP funds are distributed to states via a formula process and are targeted towards transportation projects that benefit freight movements. Ten percent of NHFP funds are targeted towards non-DOT-sponsored projects.
- **State Planning and Research (SPR)** – SPR funds are available to fund statewide planning and research activities. A portion of SPR funds is provided to RPAs to support transportation planning efforts.



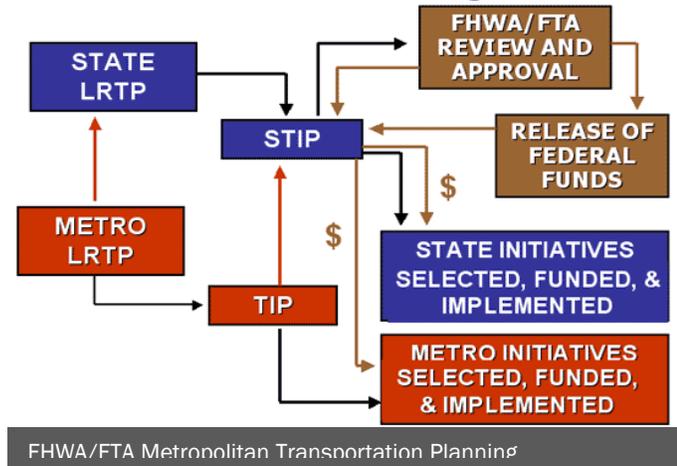
The Iowa Department of Transportation (DOT) oversees several grant programs funded through federal sources. All projects receiving these grants must be included in the region's Transportation Improvement Program (TIP). Grant funding is awarded through a competitive selection process. State-administered grant programs include the following:

- **City Bridge Program** – A portion of STBG funds is set aside specifically for bridge projects within city limits. These funds are swapped for state Primary Road Fund dollars. Eligible projects must be classified as structurally deficient or functionally obsolete. The Iowa DOT Local Systems Bureau evaluates and prioritizes applications based on established criteria, with funding awards of up to \$1 million per project.
- **Highway Safety Improvement Program – Secondary (HSIP-Secondary)** – Funded through a portion of Iowa's HSIP allocation, this program supports safety improvements on rural secondary roads. Like other programs, federal funds for these local projects are swapped for Primary Road Fund dollars.
- **Iowa Clean Air Attainment Program (ICAAP)** – ICAAP supports projects that reduce transportation-related emissions by improving traffic flow, reducing vehicle miles traveled, and limiting single-occupancy vehicle use. The program utilizes \$4 million from Iowa's CMAQ apportionment. Local road or bridge projects awarded ICAAP funds may be eligible for the federal-to-state fund swap.
- **Federal Recreational Trails Program** – This program provides funding for both motorized and non-motorized trail projects and is funded through a set-aside from Iowa's Transportation Alternatives Program (TAP). Participation is determined annually by the Iowa Transportation Commission
- **Iowa's Transportation Alternatives Program** – This program allocates STBG funds to MPOs and RPAs to support locally sponsored projects that enhance travel options and improve the overall experience for both motorized and non-motorized transportation users.

Several federal transit programs also contribute funding. Most of these funds are allocated by formula to states and large metropolitan areas. Additional program funds are awarded through discretionary grants, with some specifically earmarked for designated projects. These programs include the following:

- **Metropolitan Transportation Planning Program (5303 and 5305)** – FTA provides funding for this program to the state based on its urbanized area populations. The funds are dedicated to supporting transportation planning projects in urbanized areas with more than 50,000 people.
- **Statewide Transportation Planning Program (Section 5304 and 5305)** – These funds come to the state based on population and are used to support transportation planning projects in non-urbanized areas. They are combined with Section 5311 funds and are allocated among Iowa’s RPAs.

The Statewide Planning Process



- **Urbanized Area Formula Grants Program (Section 5307)** – FTA provides transit operating, planning, and capital assistance funds directly to local recipients in urbanized areas with populations between 50,000 and 200,000. Assistance amounts are based on population and density figures and transit performance factors for larger areas.
- **Bus and Bus Facilities Program (Section 5339)** – This formula program provides federal assistance for major capital needs, such as fleet replacement and construction of transit facilities. All transit systems in the state are eligible for this program.
- **Enhanced Mobility of Seniors and Individuals with Disabilities Program (Section 5310)** – Funding is provided through this program to increase mobility for the elderly and persons with disabilities. Part of the funding is administered along with the non-urbanized funding, with the remaining funds allocated among urbanized transit systems in areas with a population of less than 200,000. Urbanized areas with more than 200,000 in population receive a direct allocation.
- **Non-urbanized Area Formula Assistance Program (Section 5311)** – This program provides capital and operating assistance for rural and small urban transit systems. Fifteen percent of these funds are allocated to intercity bus projects. A portion of the funding is also allocated to support rural transit planning. The remaining funds are combined with the rural portion (30 percent) of Section 5310 funds and allocated among regional and small urban transit systems based on their relative performance in the prior year.
- **Rural Transit Assistance Program (Section 5311(b)(3))** – This funding is used for statewide training events and to support transit funding fellowships for regional and small urban transit staff or planners.

State and regional funding



State Funding

The largest state transportation programs are funded through the Road Use Tax Fund (RUTF), which includes revenue from several sources, the largest being the state gas tax and new vehicle registration fees. Programs funded through the RUTF include the following:

- **Municipal Funds** – These funds are apportioned to and programmed by each city. The funding comes from RUTF and comprises about 20 percent of its total statewide.
- **Secondary Road Fund** – These funds are distributed from the RUTF to each county for programming. Funds may be spent on construction, maintenance, salaries, equipment, etc. The secondary road network is defined as all public roads under a county’s jurisdiction that are not primary roads. The Secondary Road Fund has historically accounted for 25 percent of the RUTF.
- **Farm to Market (FM)** – FM funds are distributed monthly to each county by the State. FM funds may only be used for construction on the FM network, which includes trunk and trunk collector roads outside of metropolitan area boundaries. FM accounted for eight percent of the total RUTF.
- **Primary Road Fund (PRF)** – These funds are programmed by the Iowa Transportation Commission for use on any federally functionally classified primary road.
- **Traffic Safety Improvement Program (TSIP)** – TSIP is funded by one-half of one percent of the RUTF. Cities, counties, and the Iowa DOT can apply for three types of projects. Site-specific projects account for \$5-6 million per year, and a maximum of \$500,000 can be awarded to a project. The other two project types are traffic control devices and traffic safety studies; both programs have \$500,000 to distribute per year.

Additional state funding sources for transportation projects include the following:

- **State Recreational Trails Program** – These funds are programmed by the Iowa Transportation Commission based on applications from state and local government agencies and non-profit organizations.
- **Revitalize Iowa’s Sound Economy (RISE)** – RISE is designed to help Iowa’s cities and counties compete economically. Projects often involve new construction to attract businesses to an area (Immediate Opportunity) or improve an industrial park (Local Development). State RISE projects are programmed by the Iowa Transportation Commission. Cities and counties can apply to the Iowa DOT for the designated funds.



RISE funds were used to pave Union Avenue in Butler County to support the new Trinity Rail facility



- **Traffic Engineering Assistance Program (TEAP)** – Traffic engineering consultants are retained by the Iowa DOT and are available to local governments as requested for candidate projects on a first-come/first-served basis. The purpose is to identify cost-effective traffic safety and operational improvements as well as potential funding sources to implement the recommendations. Typical studies include high-crash locations, unique lane configurations, obsolete traffic control devices, school pedestrians, truck routes, parking issues, and other traffic studies.



TEAP was used for the 1st St Intersection Study, Independence

- **Community Attraction and Tourism (CAT)** – CAT was created to assist projects that will provide recreational, cultural, entertainment, and educational attractions. Administered through the Iowa Economic Development Authority (IEDA), this program is intended to help position a community to take advantage of economic development opportunities in tourism and strengthen a community's competitiveness as a place to work and live. Eligible projects include the construction of recreational trails with a substantial regional or statewide economic impact.

- **Resource Enhancement and Protection (REAP)** – Administered through the Iowa Department of Natural Resources (DNR), this statewide program invests in the enhancement and protection of the state's natural and cultural resources. Funding is available annually to cities through statewide competitive grants. Recreational trails are eligible, though they are typically funded as part of a larger project with environmental or park enhancement benefits.



New Hampton Trail, funded through REAP

RISE funds were used for the extension of Lake St off Leverage Rd to provide access to CPM's new 140,000-square-foot facility, Waterloo.



There are also state funds for transit, which include the following:

- **State Transit Assistance (STA)** – All public transit systems are eligible for this funding. These funds can be used by the public transit system for operating, capital, or planning expenses related to the provision of open-to-the-public passenger transportation. Most of the funds received in the fiscal year are distributed to individual transit systems based on a formula using performance statistics from the most recent available year.
- **STA Coordination Special Projects** – These funds aid the startup of new services that have been identified as needed by health, employment, or human services agencies participating in the passenger transportation planning process.
- **Public Transit Infrastructure Grant Fund** – This program can fund transit facility projects that involve new construction, reconstruction, or remodeling. To qualify, projects must include a vertical component.



Local Funding

Locally programmed transportation funds vary from jurisdiction to jurisdiction. Local funding sources for transportation projects include the following:

- **Property Tax** – Although tax levies vary from city to city, a sizable portion of local transportation revenues comes from property tax assessments (general funds).
- **General Obligation Bonds** – General obligation bonds are debts incurred by cities or counties that are repaid through property tax revenues. These bonds can be issued for essential purposes, including roads and bridges.
- **Local Option Sales Tax (LOST)** – Iowa Code provides that each County and City can vote to adopt up to a one percent local option sales tax. Revenues may be partially or completely dedicated to local street construction and reconstruction.
- **Tax Increment Finance Funding (TIFF)** – TIFF is a method of reallocating property tax revenues that are produced because of an increase in taxable valuations above the base valuation figure within a tax increment area. Both cities and counties may create tax increment financing areas.

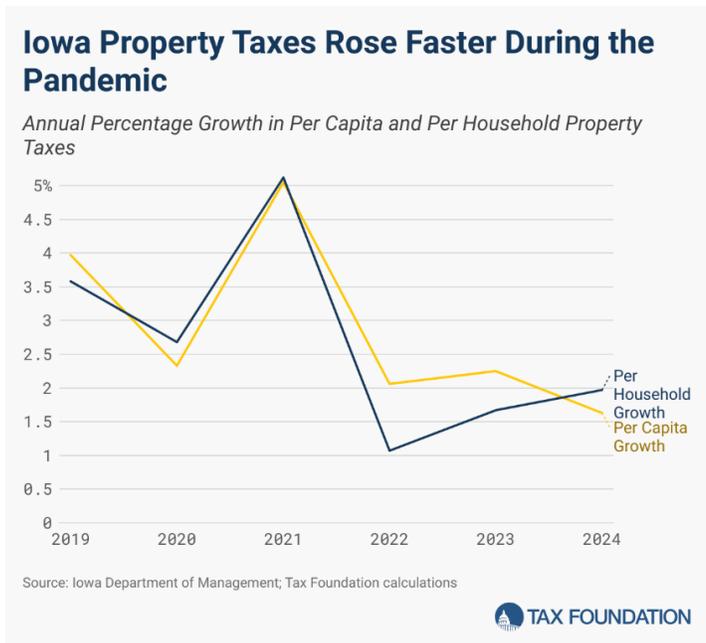


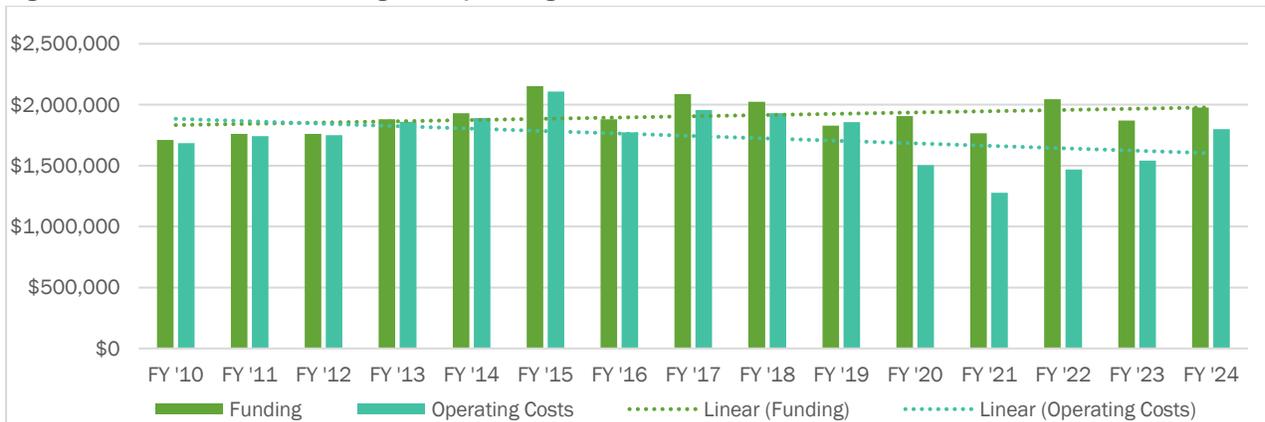
Table 9.1: Federal, State, and Local Funding Sources for Transportation Projects

	Funding Program	Roads / Bridges	Transportation Alternatives	Source
Federal	Surface Transportation Block Grant (STBG) Program	X	X	RTA
	Iowa's Transportation Alternatives Program (TAP)		X	RTA
	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	X	X	FHWA
	Highway Safety Improvement Program (HSIP)	X		FHWA
	Demonstration Funding	X	X	FHWA
	National Highway Performance Program (NHPP)	X		FHWA
	National Highway Freight Program (NHFP)	X		FHWA
	Transportation Alternatives Set-aside Program (TAP)		X	Iowa DOT
	City Bridge Program	X		Iowa DOT
	County Bridge Program	X		Iowa DOT
	Highway Safety Improvement Program – Secondary	X		Iowa DOT
	Iowa Clean Air Attainment Program (ICAAP)	X	X	Iowa DOT
	Federal Recreational Trails Program		X	Iowa DOT
State	Municipal Funds	X		Iowa DOT
	Secondary Road Fund	X		Iowa DOT
	Farm to Market (FM)	X		Iowa DOT
	Primary Road Fund (PRF)	X		Iowa DOT
	Traffic Safety Improvement Program (TSIP)	X		Iowa DOT
	Traffic Engineering Assistance Program (TEAP)	X		Iowa DOT
	State Recreational Trails Program		X	Iowa DOT
	Revitalize Iowa's Sound Economy (RISE)	X	X	Iowa DOT
	Community Attraction and Tourism (CAT)		X	IEDA
	Resource Enhancement and Protection (REAP)		X	Iowa DNR
Local	Property Tax	X	X	City/County
	General Obligation Bonds	X	X	City/County
	Local Option Sales Tax (LOST)	X	X	City/County
	Tax Increment Finance Funding (TIFF)	X	X	City/County

Regional Transit Commission (RTC) Funding Analysis

To estimate average revenues and expenses for RTC, past funding sources and operating costs were reviewed. Figure 9.1 shows this historical data from fiscal years 2010 to 2024. A simple trendline was used to project future funding and costs through 2050. Based on this basic analysis, RTC is expected to have a total balance of \$4.8 million from FY 2021 to 2050 projections (see Table 9.2)

Figure 9.1: RTC Historical Funding and Operating Costs



Source: RTC

Capital expenditures related to buses have been calculated separately. Due to the complexity of the bus procurement process and the variability in funding from one year to the next, it is challenging to predict the number of buses that will be replaced in any given year. Therefore, this document assumes an average of one new bus and minivan every three years throughout the plan's life. With guidance from the DOT, the current costs to replace a light-duty bus and minivan are about \$182,929 and \$99,691, respectively. Vehicle type replacement values are adjusted annually based upon a 3-year average of the Producer Price Index, with the discretion of the Modal Transit Bureau to adjust as deemed necessary. Funding from the FTA (Section 5339) is expected to cover about 85 percent of the total costs. The remaining 15 percent comes from RTC. STBG funding could also be utilized for bus and minivan replacements. To date, precisely in FY 2019, RTC has purchased one bus using STBG funds.



Onboard Public Transit Light Duty Ford Elkhart Bus

Table 9.2: RTC Forecasted Funding Sources FTA (Section 5339), 2021-2055

Expenditures (two vehicles every three years)	
Funding sources	
Federal Share (Section 5339)	\$7,526,655
Local Share	\$1,328,237

Table 9.3: RTC Forecasted Operating Revenues and Expenditures, 2021-2050

Operating Revenues (FTA, STA, Passenger Revenue, Contract Revenue, Local Tax, Other)	
Operating Costs (Direct System, Indirect System)	\$65,424,616
Balance	\$4,887,198



Regional Transit Authority (RTA) Funding Analysis

To estimate future funding for the RTA, historical funding levels were analyzed to forecast the state and federal resources likely to be available throughout this plan (2021–2055). The funding sources reviewed include the National Highway Performance Program (NHPP), Primary Road Fund (PRF), Surface Transportation Block Grant (STBG) Program, Iowa’s Transportation Alternatives Program (TAP), and the City and County Bridge Program.

Revenue forecasts for STBG were projected to follow a linear growth rate from 2011 to 2020. Revenue forecasts for Iowa’s TAP were projected using the average of the annual TAP targets for FY 2023 to FY 2026, due to the IIJA Act and review of TAP, before which the RTA received Transportation Enhancement funds at a significantly lower amount than the current Iowa TAP and TAP Flex targets. STBG revenues were forecasted using the STBG Target for FY 2021 to FY 2024. City bridge funds were projected using the average annual award amounts from 2011 to 2020, which is \$600,600 per year. County Bridge funds were projected using the average annual programmed amount between the six counties from 2011 to 2024, which is \$3,725,357 per year. County and City Bridge funds have only been targeted for specific bridge replacement projects at specific amounts based on input provided by the County Engineers and city officials. NHPP and PRF dollars were projected at a constant rate using averages from 2011-2020. Table 9.4 provides historical funding and revenue forecasts.

Table 9.4: History and Projections for Federal and State Funding

Fiscal Year	NHPP/PRF	STBG & TAP Flex	City Bridge	County Bridge	Iowa’s TAP & TAP Flex
2011	\$45,071,000	\$2,451,097	\$1,000,000	\$216,000	--
2012	\$24,707,000	\$2,524,354	\$0	\$2,208,000	--
2013	\$30,366,000	\$2,409,109	\$1,000,000	\$2,609,000	--
2014	\$5,980,000	\$2,245,442	\$0	\$5,108,000	\$184,000
2015	\$25,552,000	\$2,281,211	\$0	\$1,240,000	\$184,000
2016	\$13,459,000	\$2,268,400	\$0	\$2,965,000	\$184,000
2017	\$19,013,000	\$2,340,544	\$0	\$2,988,000	\$184,000
2018	\$20,452,000	\$2,333,939	\$568,000	\$4,937,000	\$184,000
2019	\$8,994,000	\$2,525,157	\$2,820,000	\$5,400,000	\$184,000
2020	\$16,004,000	\$2,579,454	\$618,000	\$1,136,000	\$184,000
2021-2025	\$104,799,000	\$13,517,039	\$3,003,000	\$27,073,357	\$1,247,681
2026-2035	\$209,598,000	\$28,488,795	\$6,006,000	\$37,253,570	\$2,910,806
2036-2045	\$209,598,000	\$28,540,000	\$6,006,000	\$37,253,570	\$2,920,000
2046-2055	\$104,799,000	\$14,270,000	\$3,003,000	\$18,626,785	\$1,460,000
Total 2021-2050	\$628,794,000	\$84,815,834	\$18,018,000	\$101,580,497	\$8,538,487



Local transportation revenues are derived from a variety of sources, with the Road Use Tax Fund (RUTF), property taxes, general obligation bonds, and local option sales tax (LOST) typically representing the largest contributors. To establish a baseline for local transportation revenues and expenditures, data were drawn from the City Street Financial Report for cities, as well as County Farm to Market Receipts, Secondary Road Fund Receipts, and County Secondary Road Operations and Maintenance data for counties. These reports are submitted annually to the Iowa DOT and provide detailed accounts of transportation-related revenues and expenditures. For this analysis, only 82 percent of Black Hawk County’s revenue and expenditure data were included, reflecting the proportion of roads located outside the MPO study area.

Before constructing or reconstructing new infrastructure, an expense that must be factored into local funding is the operation and maintenance of the existing system. To calculate this, operations and maintenance reports from the Iowa DOT were analyzed, which are derived from the County Engineer Annual Reports and City Street Finance Reports.

Table 9.5 and Figure 9.3 present projected local, non-federal aid revenues alongside estimated operation and maintenance (O&M) expenditures. The analysis is based on the average revenues and expenditures from fiscal years 2015 to 2019. Historically, Operation and maintenance costs are forecasted with a 4% annual increase, and revenues with a 2% annual increase, which is consistent with the Black Hawk County Metropolitan Area, which is located within the Iowa Northland Region. This aligns with assumptions outlined in the FY 2021–2024 Transportation Improvement Program (TIP) for the region. Based on these growth rates, a funding shortfall is anticipated beginning in FY 2041 and continuing through FY 2050. Balances in previous years may be used to support other local projects, cover debt service, or provide matching funds for state and federal transportation programs.

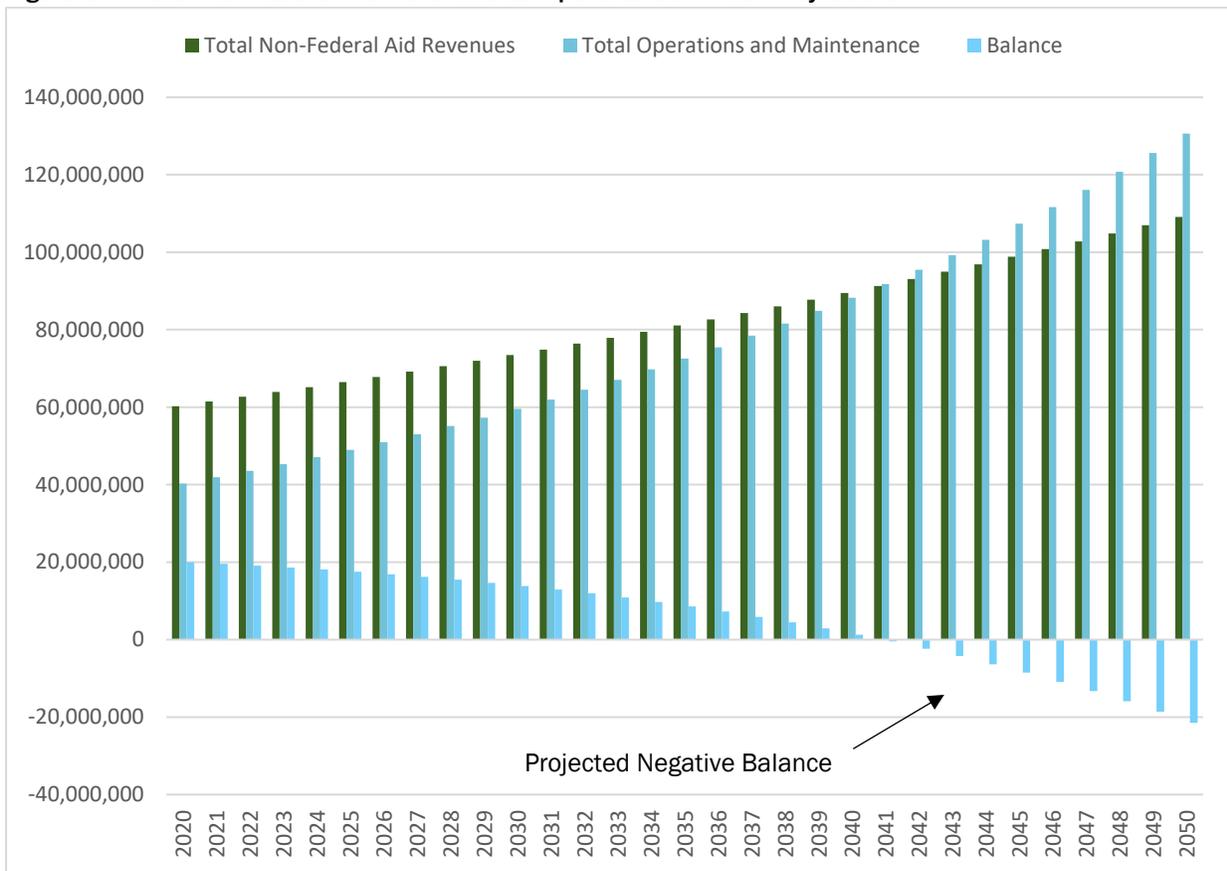
Table 9.5: Local Non-Federal Aid Revenues & Expenditures Projections

Fiscal Year	Non-Federal Aid Revenues	Operations Cost on Total Roadway System	Maintenance Cost on Total Roadway System	Balance
2015-2019 (Average)	\$59,054,124	\$13,072,912	\$25,649,350	\$20,331,863
2021-2025	\$319,735,764	\$76,584,965	\$150,261,446	\$92,889,353
2026-2035	\$742,770,232	\$206,541,778	\$405,239,670	\$130,988,784
2036-2045	\$905,432,768	\$305,732,286	\$599,853,705	-\$153,223
2046-2050	\$524,560,412	\$204,162,983	\$400,572,421	-\$80,174,992
Total 2021-2050	\$2,492,499,176	\$793,022,013	\$1,555,927,241	\$143,549,922

Source: Iowa DOT, Secondary Road Operations & Maintenance Data, County Secondary Road Fund Receipts, County Farm to Market Receipts, City Street Finance Report – Expenditures, City Street Finance Report Receipts



Figure 9.2: Local Non-Federal Aid Revenues & Expenditures Annual Projections



Source: Iowa DOT, Secondary Road Operations & Maintenance Data, County Secondary Road Fund Receipts, County Farm to Market Receipts, City Street Finance Report – Expenditures, City Street Finance Report Receipts



Funding Deficiencies

As detailed in Chapter 3, a comprehensive assessment was conducted to estimate the funding needed to bring the region’s federal-aid–eligible secondary and municipal road and bridge network to a state of good repair. Based on the most recent pavement condition and IRI data collected in 2022, approximately 93 miles of locally owned roads are in poor condition. At a conservative cost estimate of \$365,000 per mile, resurfacing these roads would require about \$34 million.

Additionally, an estimated 277 local bridges are rated in poor condition according to sufficiency ratings. Replacing these structures, using the 2017 FHWA bridge replacement unit cost of \$132 per cubic foot for a combined 618,818 cubic feet, would total approximately \$81.7 million.

In total, it would cost approximately \$116 million in current dollars. This figure does not account for future maintenance costs for construction projects or infrastructure that are presently in good condition. Table 9.6 compares expenses to projected state and federal funding outlined in Table 9.4. As shown, the region will experience a significant transportation funding deficiency for federal aid-eligible road and bridge projects over the life of this plan.

As shown in Table 9.5, local non-federal aid revenues are projected to hit a negative balance starting in FY 2041. Unless additional funding sources are identified, the region will continue to face an uphill battle to successfully maintain the road and bridge network at a level that is both safe and does not significantly impede economic development.



Table 9.6: Projected Funding Deficiency for Federal Aid Eligible Roads & Bridges

Revenues	
STBG & TAP Flex	\$84,815,834
City Bridge	\$18,018,000
County Bridge	\$101,580,497
Total Revenues	\$204,414,331
Lower cost to improve roads & bridges to a state of good condition	\$116,100,394.00
Total Funding Deficiency	\$88,313,937.00

Iowa DOT Long-Term Projects for Future Funding

These projects represent long-term initiatives that align with our strategic goals and are being considered for future funding as resources become available. While not prioritized for immediate implementation, they offer significant potential benefits and are anticipated to be viable within the next 10 to 15 years.

Table 9.7: Iowa DOT Potential Projects for Future Funding

Jurisdiction	Project	Description	Termini
Iowa DOT	US 63	Resurfacing	C 66/Dunkerton Rd - 275 th St, south of Denver
Iowa DOT	US 63	Diamond Grind Pavement	Three miles north of 275 th Street, near Denver.
Iowa DOT	IA 57	Resurfacing	East of Parkersburg, 0.60 of a mile
Iowa DOT	US 218	Resurfacing	US 63 to IA 57
Iowa DOT	US 63 & C57	Safety Improvement	

Short-Term Bikeway Projects

Table 9.8 outlines the programmed projects in the region for federal fiscal years 2026 to 2029, specifically those funded through federal TASA/TAP funds. State and locally funded projects are not included. The table highlights the constraints of this funding source, which is limited to \$360,000 annually. Due to these funding limitations, the program has historically supported only one or two new projects per year.

Table 9.8 Bicycle and Pedestrian Projects

Fiscal Year	Jurisdiction	Project	Termini	Cost Estimate (\$)	TASA/TAP Funds (\$)
2026	Butler County Conservation	Rolling Prairie Trail Extension	Dumont to the Franklin Co. Line	634,617	484,500
2026	City of Denver	Brandt Park Trail Loop	Trail loop in Brandt Park with/ sidewalk connection to bike lanes on State St	431,000	344,800
2026	Buchanan County	Taylor's Ford Trail Bridge Rehab	Historic bridge rehab over the Wapsipinicon River	450,000	343,616
2027	City of Independence	Enterprise Drive Trail Phase II	IA 150 west to 6 th Ave SW	258,501	206,801

As shown in Table 9.4, the Iowa Northland Region can anticipate a projection of \$8,538,487 in Iowa's TAP and TAP Flex funds for bicycle accommodation projects for FY 2026-2055. Additional funding sources that could be sought after implementing the Regional Bicycle Accommodation Plan include the Surface Transportation Block Grant program, the State Recreational Trails program, the Federal Recreational Trails program, Statewide TAP, and local funds and grants.

Short-Term Road and Bridge Project Table 9.7 provides a list of fiscally constrained road and bridge projects from FY 2026-2029. This includes projects programmed through the RTA and the Iowa DOT. These projects are included in the fiscally constrained FY 2026-2029 Transportation Improvement Program.

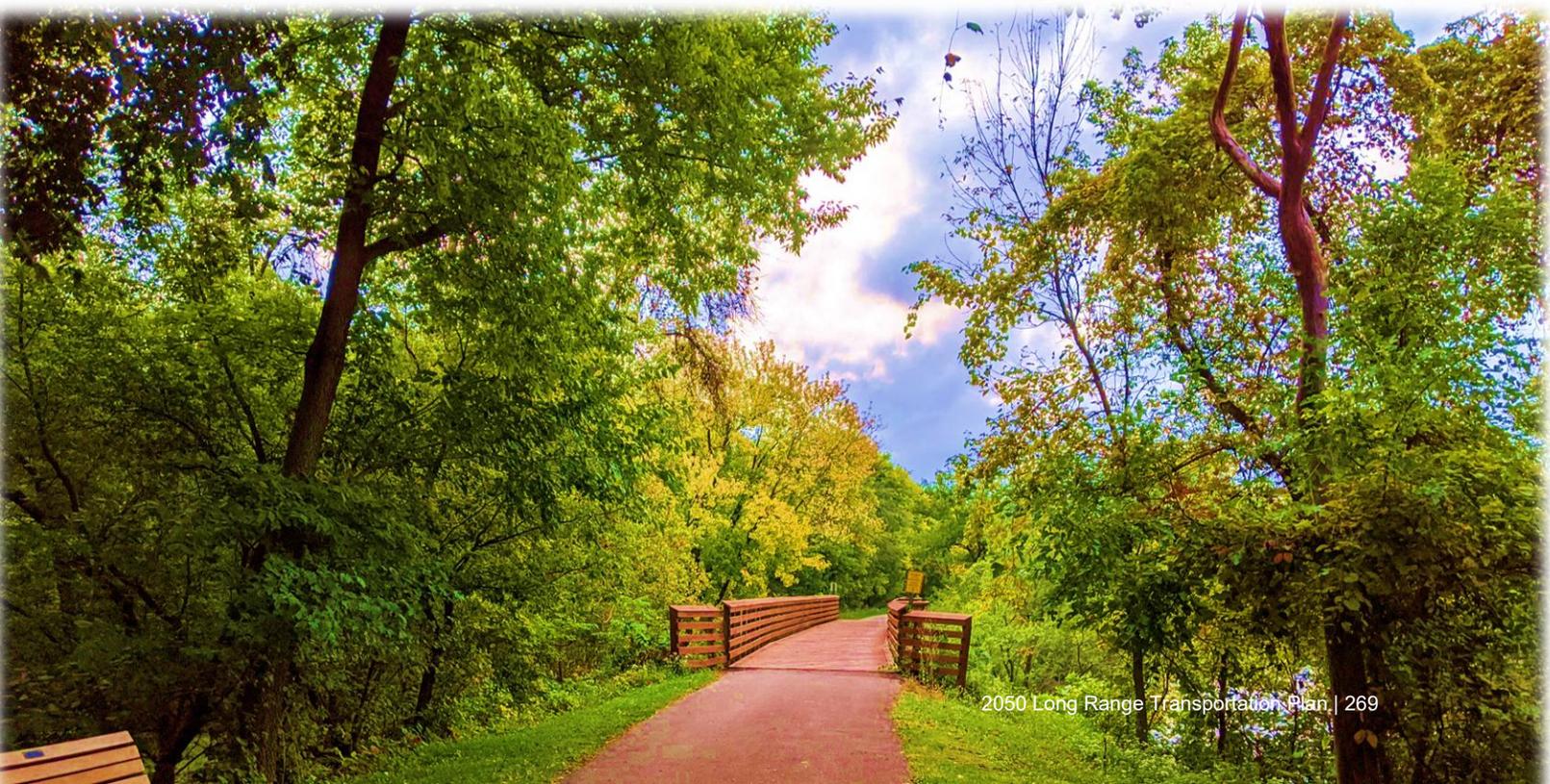


Table 9.9: Road and Bridge Projects, FY 2025-2029

TPMS	Fiscal Year	Jurisdiction	Project	Termini	Description	Cost Estimate (\$)	State/Federal Source
40124	2025	Buchanan Co.	W35 (Quasqueton Diagonal Blvd)	D22 southeast 7.0 miles to W40	Pavement Rehab	\$1,721,000	STBG
45725	2026	Buchanan Co.	W-45	130th St S 5.2 miles to 180th St	Pavement Rehab	3,400,000	STBG
55652	2025	Iowa DOT	US 218	La Porte City limits north 5.7 mi to Schrock Rd	Pavement Rehab	\$770,000	STBG
44770	2025	Butler Co.	T16	IA 3 north 6.0 miles to C23	Pavement Rehab	\$800,000	STBG
47231	2025	Grundy	T37 (M Ave)	IA 14/175 north 2.5 miles to D35	Pavement Rehab	\$800,000	STBG
44902	2025	Black Hawk Co.	D (22) Dubuque Rd	Over Tributary to Indian Creek, S6 T88 R11	Bridge Replacement	\$625,000	HBP
38950	2025	Chickasaw Co.	B28 (140th Street),	Over Little Wapsipinicon River, S6, T96, R13	Bridge Replacement	\$1,794,000	HBP
36649	2025	Grundy Co.	S16 T88 R16	P Ave, D25north 0.9 Miles to Black Hawk Creek,	Bridge Replacement	\$725,000	HBP
52430	2025	Denver	State St	Prestien Dr N 0.43 miles to Quarter Section Run Bridge	Pavement Rehab	312,500	SWAP-STBG
45587	2026	Buchanan Co.	W-40	Over Unnamed Creek, from 250th St SE 0.8 miles	Bridge Replacement	1,100,000	HBP
45893	2026	Chickasaw Co.	Winslow Rd (C-55)	Over Tributary to W Fork Cedar River	Bridge Replacement	500,000	HBP
53409	2026	Chickasaw Co.	V-14	Over Wapsipinicon River Overflow	Bridge Replacement	1,067,500	HBP
53434	2026	Chickasaw Co.	Vanderbilt Ave	Over Little Turkey River	Bridge Replacement	500,000	HBP
55051	2026	Bremer Co.	Various	Various County Highways at State Highway Intersections	Traffic Signs (Safety)	42,750	SWAP-HSIP
35012	2026	Bremer Co.	V-19	Over Quarter Section Run	Bridge Replacement	1,500,000	HBP
47216	2026	Butler Co.	120th St	Over Stream, from Ridge Ave W 0.2 miles	Bridge Replacement	700,000	HBP
35851	2026	Butler Co.	Ridge Ave	Over Small Stream, from IA Hwy 3 N 400 feet	Bridge Replacement	300,000	HBP
38920	2026	Grundy Co.	T-55	Over Branch Beaver Creek, from Westbrook St S 0.4 miles	Bridge Replacement	750,000	HBP
27164	2026	Bremer Co.	240th St	Over Creek	Bridge Replacement	300,000	HBP
52431	2027	Independence	1st St W	10th Ave NW E 0.53 miles to Wapsipinicon River Bridge	Pavement Rehab	3,140,000	SWAP-STBG
37121	2027	Buchanan Co.	150th St	Over Otter Creek, from Indiana Ave, W 0.1 miles	Bridge Replacement	1,500,000	HBP
53373	2027	Black Hawk Co.	Eagle Rd (D-46)	Over Miller Creek	Bridge Replacement	950,000	HBP
53435	2027	Chickasaw Co.	V-56	US Hwy 18 N 3.1 miles to B-54	Pavement Rehab	2,269,000	STBG
55327	2027	Chickasaw Co.	B-28	Over the Wapsipinicon River	Bridge Replacement	1,584,000	HBP
19177	2027	Chickasaw Co.	190th St	Over Plum Creek	Bridge Replacement	515,000	HBP
37703	2027	Grundy Co.	I Ave	Over Unnamed Stream, from 120th St N 0.125 miles	Bridge Replacement	640,000	HBP
36650	2027	Grundy Co.	160th St	Over the South Fork of Beaver Creek, from H Ave, W 0.3 miles	Bridge Replacement	1,500,000	HBP
52183	2027	Grundy Co.	T Ave	Over Branch of Black Hawk Creek	Bridge Replacement	275,000	HBP
45578	2027	Grundy Co.	110th St	Over Fork of Beaver Creek, from L Ave W 0.6 miles	Bridge Replacement	1,500,000	HBP
55221	2027	Bremer Co.	V-21	Waverly, NE 10.0 miles to IA 188	Pavement Rehab	3,000,000	STBG
44770	2027	Bremer Co.	150th St	Over Horton Creek	Bridge Replacement	900,000	STBG
37174	2027	Butler Co.	T-16/C-13	C-23 north and west 5.5 miles to Franklin Co.	Pavement Rehab	1,350,000	HBP
40184	2027	Butler Co.	Jay Ave	Over Small Stream, from 290th St N 0.5 miles	Bridge Replacement	600,000	HBP
53373	2027	Butler Co.	Liberty Ave	Over Beaver Creek, from 320th St N 0.2 miles	Bridge Replacement	900,000	STBG
45579	2027	Bremer Co.	180th St	Over Crane Creek	Bridge Replacement	920,000	HBP
55351	2027	Bremer Co.	160th St	Over Quarter Section Run	Bridge Replacement	345,000	HBP
55917	2027	Bremer Co.	C-33	Over Baskins Creek	Bridge Replacement	1,035,000	Grant
55924	2027	Bremer Co.	C-33	Over Quarter Section Run	Bridge Replacement	1,035,000	Grant
55925	2027	Bremer Co.	C-33	Over the Wapsipinicon River	Bridge Replacement	4,360,000	Grant

TPMS	Fiscal Year	Jurisdiction	Project	Termini	Description	Cost Estimate (\$)	State/Federal Source
55191	2028	Independence	Multiple Roads	7th St SW, 2nd Ave SW, 6th St SE, 9th Ave SW	Pavement Rehab	413,021	PRF
37127	2028	Buchanan Co.	330th St	Over Lime Creek, from Finley Ave E 0.2 miles	Bridge Replacement	2,000,000	HBP
45592	2028	Buchanan Co.	Wapsi Access Blvd	Over Harter Creek, from D-16 (Otterville Blvd) SE 0.9 miles	Bridge Replacement	875,000	HBP
10455	2028	Black Hawk Co.	Fox Rd	Over Spring Creek	Bridge Replacement	680,000	HBP
55329	2028	Chickasaw Co.	B-66	Over the Wapsipinicon River	Bridge Replacement	2,668,750	HBP
53372	2028	Chickasaw Co.	V-18	Alta Vista SCL N 2.5 miles to Howard Co. Line	Pavement Rehab	4,750,000	SWAP-STBG
47228	2028	Grundy Co.	G Ave	Over Tributary Beaver Creek, from Westbrook Ave S 0.1 mi.	Bridge Replacement	575,000	HBP
52192	2028	Grundy Co.	110th St	Over Branch of Beaver Creek, from T-55 W 0.4 miles	Bridge Replacement	575,000	HBP
38995	2028	Bremer Co.	V-48	Over Stream	Bridge Replacement	600,000	HBP
53441	2028	Butler Co.	T-55	C-45 S 4.2 miles to West Fork Cedar River Overflow Bridge	Pavement Rehab	1,200,000	STBG
40459	2028	Grundy Co.	D-17	T-55 E 4.0 miles to Black Hawk Co.	Pavement Rehab	1,400,000	STBG
52489	2026	Iowa DOT	US 218	Cedar River in Janesville to IA 116 in Waverly	New interchange	26,897,000	NHPP
52688	2026	Iowa DOT	US 63	E Fork Wapsipinicon River 2.1 mi. N of US 18	Bridge Rehab	1,060,000	STBG
52522	2026	Iowa DOT	US 218	Big Creek Overflow 0.3 mi. N of D-48	Bridge Replacement	2,267,000	STBG
54680	2027	Iowa DOT	IA 150	Wapsipinicon River in Independence	Bridge Rehab	1,276,000	STBG
52523	2028	Iowa DOT	US 18	Little Cedar River, 1.0 mi. E of T-74	Bridge Replacement	5,835,000	STBG
55625	2028	Iowa DOT	IA 3	Boylan Creek 2.4 mi. E of T-16	Bridge Rehab	2,010,000	STBG
55624	2028	Iowa DOT	IA 93	Stream 0.7 mi. West of V-62 in Sumner	Bridge Rehab	1,880,000	STBG
55622	2028	Iowa DOT	IA 3	Drainage Ditch 2.1 mi. W of V-56	Bridge Rehab	350,000	PRF
55621	2028	Iowa DOT	IA 57	T-47 to New Hartford	Pavement Rehab	11,815,000	STBG
45886	2029	Black Hawk Co.	T69/D18, D19	T69/D18 S of US 20 N 1.4 mi; D19 0.6 mi. W of T69 E 0.8 mi.	Pavement Rehab	\$3,590,000	STBG
32182	2029	Bremer Co.	V14	C33 N 5.0 mi. to south of Horton	Pavement Rehab	\$3,142,873	STBG
53442	2029	Butler Co.	T55	West Fork Cedar River Bridge S 5.0 mi. to Beaver Valley St	Pavement Rehab	\$1,450,000	STBG
57958	2029	Iowa DOT	IA 57	Beaver Creek 1.3 mi E of Co Rd T53	Bridge Replacement	\$1,310,000	STBG
57957	2029	Iowa DOT	US 20	Buffalo Creek 2.3 mi E of Co Rd W40	Bridge Deck Rehab	\$1,560,000	STBG
57931	2029	Iowa DOT	US 20	Co Rd W35 2.5 mi E of IA 150	Bridge Rehab	\$630,000	PRF
57932	2029	Iowa DOT	IA 150	Branch Bear Creek 3.5 mi N of Co. Rd. D48	Bridge Rehab	\$260,000	PRF
57930	2029	Iowa DOT	IA 175	Branch Blackhawk Creek 0.8 mi W of Co Rd T69	Bridge Rehab	\$455,000	PRF
57928	2029	Iowa DOT	IA 187	220th St to IA 3	Grading, Right of Way	\$1,510,000	PRF
57538	2029	Black Hawk Co.	Osage Rd.	Over Poyner Creek, S31 T89N R11W	Bridge Replacement	\$770,000	HBP
7130	2029	Bremer Co.	C38	Over BUCK CREEK, S33 T92 R11	Bridge Replacement	\$800,000	HBP
53425	2029	Grundy Co.	D 25	0.1 mi. east of Concord Ave over a branch of Beaver Creek	Culvert Replacement	\$600,000	HBP
52196	2029	Grundy Co.	290 th St.	0.3 mi. west of M Ave over Wolf Creek, S11 T86 R17	Culvert Replacement	\$425,000	HBP
53426	2029	Chickasaw Co.	T78	Over LITTLE CEDAR, S9 T95N R14W	Bridge Replacement	\$1,982,500	HBP

RTA Project Selection Process

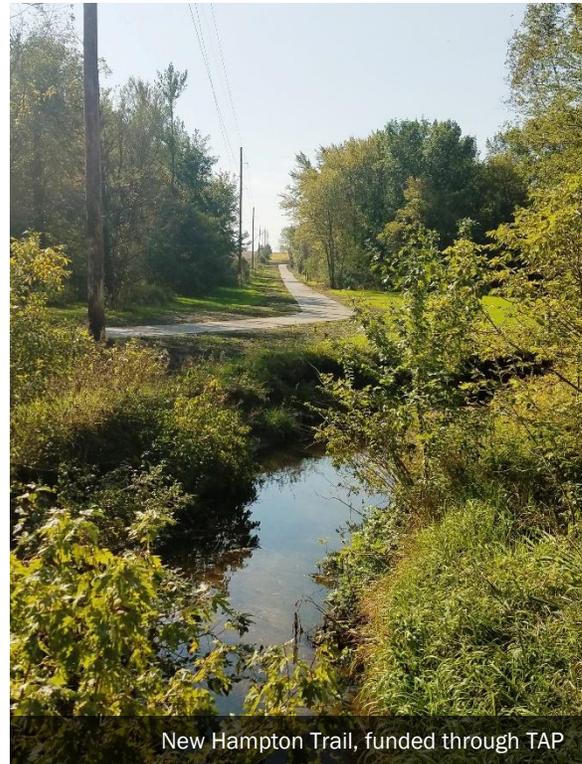
The RTA allocates funding to projects through three primary sources: the Surface Transportation Block Grant (STBG) Program, Iowa's Transportation Alternatives Program (TAP), and TAP-Flex. TAP-Flex funds are divided between STBG and TAP at the discretion of the RTA Policy Board. The following sections detail the RTA's process for selecting TAP and STBG projects as part of its annual Transportation Improvement Program (TIP) development.

Iowa's Transportation Alternatives Program (TAP)

The FAST Act mandates that projects funded through the Transportation Alternatives Program (TAP) be selected through a competitive process. This approach is intended to enhance transparency, objectivity, and openness, while also improving overall project quality. To meet this requirement, the RTA employs a project ranking system, and the RTA Policy Board established specific funding criteria at its December 21, 2017, meeting. Jurisdictions with proposed projects must submit them in advance of the annual TAP Committee meeting.

Candidate projects must meet the following requirements:

- Commitment of the local sponsor by resolution to maintain the project for a minimum of 20 years.
- If awarded, projects must be let within two years of October 1 of the original program year.
- For construction projects, a minimum total project cost of \$100,000 (\$80,000 federal) with a 20 percent match and a minimum federal-aid participation level of 40 percent.
- Eligible project sponsors include:
 - Cities
 - Counties
 - County Conservation Boards
 - School Districts (co-applicant only)
- Eligible activities include:
 - Pedestrian and bicycle facilities and amenities, including safe routes to school infrastructure
 - Recreational trails program activities under 23 U.S.C. 206 of Title 23
 - Planning studies related to either of the above activities
 - Safe routes to school non-infrastructure programs (i.e., pedestrian safety education, bicycle rodeos, safe routes to school coordinator)
- Ineligible activities include:
 - Design engineering and construction-related services
 - Sidewalk maintenance
- Funding within the four-year Transportation Improvement Program (TIP) may be advanced to earlier years of the TIP.
- Applications must include a completed *Iowa TAP Project Criteria Form* and *Iowa's TAP Application Form*, along with all required attachments. Incomplete applications will not be considered for funding.
- Projects submitted for consideration will be reviewed by RTA staff for program eligibility before the project ranking process.



New Hampton Trail, funded through TAP

TAP projects are ranked and recommended for funding based on the following criteria:

- Project Readiness
 - Ability to meet federal requirements
 - Ability to meet programming timelines
 - Status of matching funds
 - Amount of matching funds
 - Public acceptance of the project
 - Right-of-way constraints
- Relationship with Transportation System
 - Ability to minimize conflict points
 - Connectivity to existing facilities
 - Enhancement of the existing transportation system
 - Relationship to complete streets
 - Inclusion in state, regional, and local plans
- Associated Benefits
 - Environmental and social impacts
 - Regional economic development impact
 - Regional tourism impact
 - Sustainability elements of the project
- Other
 - Cost of public benefit
 - Involvement of or benefit to multiple jurisdictions
 - Predicted usage relative to population

Project sponsors are required to identify which criteria their project relates to and provide a brief sentence describing the relationship within the *Iowa TAP Project Criteria Form*.

Each project sponsor can present their project at the TAP Committee meeting. Projects are evaluated through a direct comparison method, where each project is compared head-to-head with every other project. For each pair, the preferred project receives one point. After all comparisons are completed, the points are totaled to generate a ranked list of projects for funding consideration.

Project rankings are determined by the voting entities present at the TAP Committee meeting. INRCOG and the Iowa DOT do not vote but may offer staff recommendations upon request. Voting on project rankings is conducted as follows:

- Each County has up to two votes from different departments (engineering, conservation, economic development, etc.)
- Each city has one vote
- Silos & Smokestacks has one vote

Projects are recommended for funding based on their ranking and available funding levels. The TAP Committee has the discretion to determine the federal funding share allocated to each selected project. The draft TAP funding recommendations are then forwarded to the RTA Technical Committee for inclusion in the draft Transportation Improvement Program (TIP).

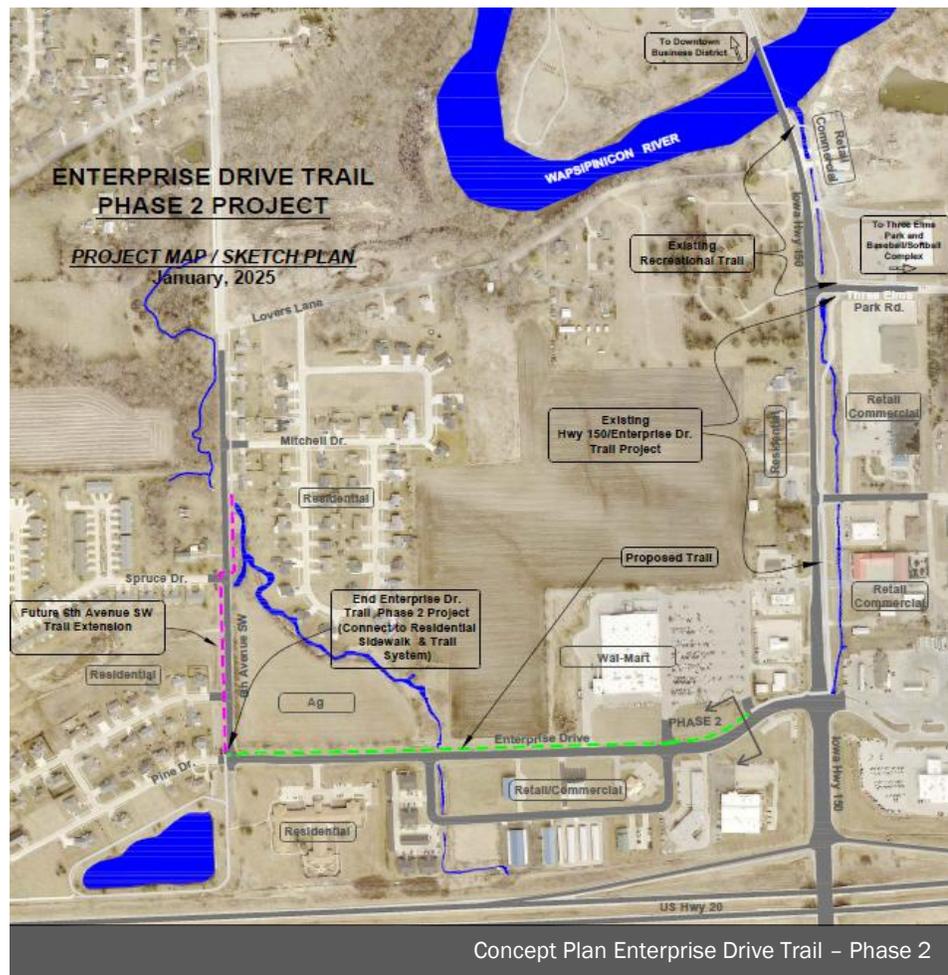
TASA/TAP Projects

Enterprise Drive Trail - Phase 2 – City of Independence, Buchanan County

The City of Independence is seeking partial funding from the Iowa Department of Transportation's Transportation Alternatives Set-Aside (TASA) program to construct a 2,000-foot (0.4-mile) trail extension. This project will complete a key segment of the community's master trail plan, beginning at the current trail terminus west of Highway 150 on Enterprise Drive and extending west to the intersection of 6th Avenue SW and Pine Drive. Designed with a flat corridor, ADA-compliant features, safe all-way stop intersections, and dedicated easement space, the extension will provide a secure and accessible route fully separated from vehicle traffic.

As Phase II of the Highway 150/Enterprise Drive Trail, this extension will enhance the transportation system while delivering broad community benefits. It offers a safe, low-cost alternative for walking, cycling, and other non-motorized travel, reducing congestion and vehicle emissions.

The project encourages healthy lifestyles, expands access to parks and natural areas, strengthens neighborhood and cultural connectivity, and fosters social interaction and mobility by linking residents, visitors, schools, and businesses. Together, these improvements will expand Independence's trail network, promote active transportation, and provide lasting recreational and community benefits for residents and visitors alike.



The project will launch in January 2027 with the initiation of preliminary design and the submittal of the concept statement, setting the stage for a critical trail extension in Independence. Construction is scheduled for completion by July 2028, with a final construction audit and project close-out planned for September 2028. The total project cost is \$317,094, of which 80% is being requested through the Transportation Alternatives Set-Aside program. The remaining 20% will be provided as the required local match, ensuring both state and local investment in a project that will strengthen the community's trail network, improve mobility, and expand recreational opportunities.

Surface Transportation Block Grant (STBG) Program.

Each jurisdiction with proposed projects must submit them before the annual Technical Committee meeting. During this meeting, both existing and new candidate projects are reviewed. The Technical Committee selects projects for inclusion in the draft Transportation Improvement Program (TIP) based on project quality and fiscal constraints. Roadway projects must align with those identified in the most recent Long-Range Transportation Plan. Consideration is also given to jurisdictional need and the availability of alternative funding sources. A consensus is reached by evaluating the overall cost relative to the anticipated transportation benefits of each project.

The RTA does not currently use a formal ranking or scoring system for STBG projects. Instead, a Funding Equity Guideline spreadsheet is utilized to provide suggested funding ranges for each jurisdiction. These ranges are based on 2018 vehicle miles traveled (secondary for counties, municipal for cities) and total federal-aid eligible mileage (Minor Arterials and Collectors). The spreadsheet is updated annually to reflect a rolling ten-year allocation history. While these allocation factors promote long-term funding equity, they do not guarantee specific funding amounts for jurisdictions. The RTA Policy Board adopted the current STBG funding requirements on May 17, 2018.

Candidate projects must meet the following requirements:

- For construction projects, a minimum total project cost of \$100,000 (\$80,000 federal) with a minimum 20 percent match and a federal-aid participation level of 40 percent.
- Eligible activities include
 - Major new construction, reconstruction, or resurfacing of roadways or bridges
 - Regional planning and planning studies
 - Transit capital purchases
 - Projects eligible under the RTA's TAP
 - ADA-compliant ramp reconstruction in conjunction with an adjacent road reconstruction or resurfacing project
 - Minor utility adjustments and incidental utility work are necessary to complete a roadway project
- Ineligible activities include:
 - Design engineering and construction-related services
 - Sidewalk maintenance
- Roadway projects must be on federally classified routes that are Minor Collectors or above, or a Farm-to-Market route.
- Applications must include a completed *STBG Project Submittal Form*. Incomplete applications will not be considered for funding.
- Project sponsors will participate in the Iowa DOT's federal-aid swap for all eligible road and bridge projects.

Submitted STBG applications are reviewed during the Technical Committee meeting. As part of the process, project sponsors are required to provide detailed information about their projects and are allowed to present them at the meeting. The Technical Committee then prioritizes projects for funding based on factors such as project benefits, jurisdictional need, and the program's funding and timing constraints. The Funding Equity Guideline may also be used, as needed, to assist in developing the draft funding recommendations.

City of Evansdale, Black Hawk County - Angels Park -& Meyers Lake, - 2025 REAP Application.

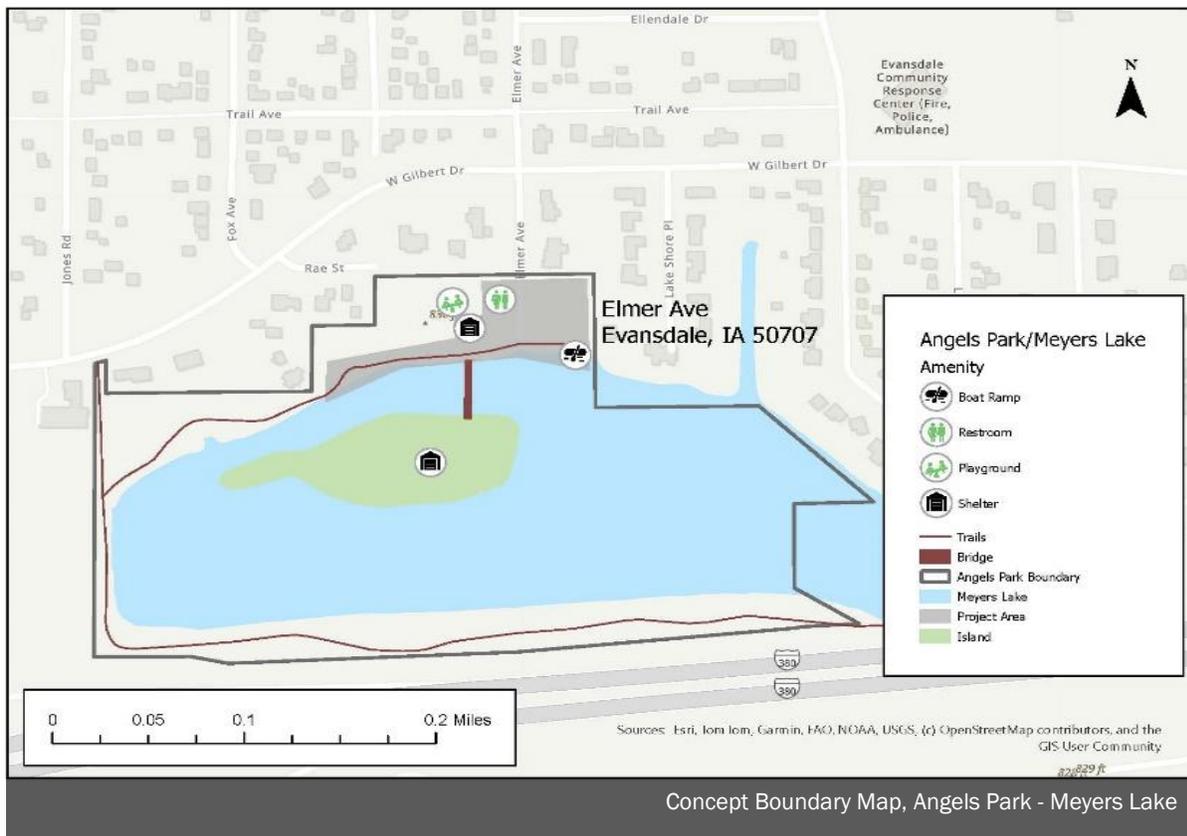
The City of Evansdale’s 2025 \$75,000 REAP grant request focuses on preserving and enhancing Angels Park and Meyers Lake, two of the community’s most valued natural and recreational amenities. The project is designed to balance environmental stewardship, public accessibility, and trail connectivity, ensuring these spaces remain safe and welcoming for all users. The improvements include;

- Water Quality Improvements – Construction of a bio-retention system and installation of native plantings to naturally filter and treat stormwater runoff before it enters the riparian ecosystem.
- Shoreline Protection – Erosion wall repairs to stabilize the lakeshore, protecting both water quality and recreational infrastructure.
- Accessibility Upgrades – Renovation of ADA-compliant restrooms and enhancements to pedestrian trails, expanding access for users of all ages and abilities.



Meyers Lake, Evansdale

The Evansdale Nature Trail begins north of Lafayette Road and winds south around Meyers Lake before linking to Gilberts Drive on the west side.. These improvements will also encourage more people to visit Angels Park and Meyers Lake, supporting both community use and regional tourism.



Concept Boundary Map, Angels Park - Meyers Lake

Chapter 10

Public Involvement



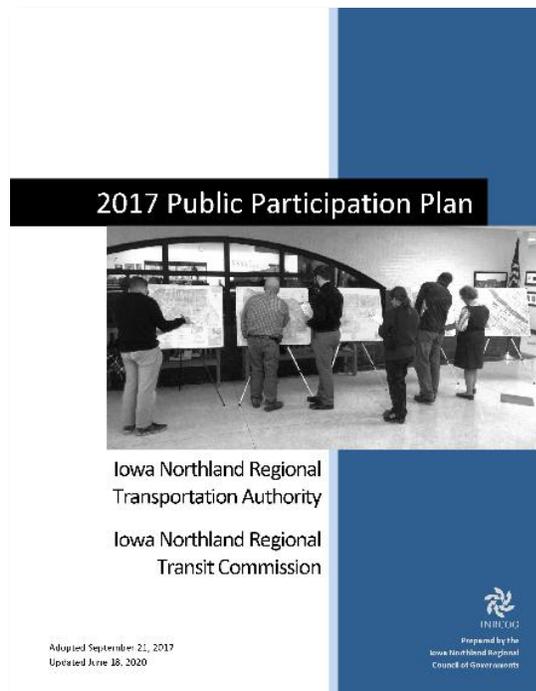
Chapter 10 – Public Involvement

Public Participation and Why it Matters

Gathering public input is a vital component of all RPA 7 (INRCOG) planning efforts, including the Long-Range Transportation Plan (LRTP). Public involvement plays an essential role in the transportation planning process, providing valuable insights and perspectives that help inform decision-makers and enhance the overall quality and depth of planning outcomes. Engaging the public allows planners to identify concerns and better understand elements of the transportation system that might be overlooked when relying solely on technical data or political considerations. For transportation planning to be truly effective, it must involve the voices of those who are directly impacted in their daily lives.



Public Participation Plan



The RTA provides service to Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties, except for the Waterloo-Cedar Falls metropolitan area, which falls under the jurisdiction of the Black Hawk County Metropolitan Planning Organization (MPO).

In 2017, the RTA implemented its Public Participation Plan (PPP) to establish how public input would be incorporated into agency initiatives, including the Long-Range Transportation Plan. The plan was revised on June 18, 2020, to allow for increased flexibility in virtual engagement when in-person meetings are not possible, a response to the challenges posed by the COVID-19 pandemic. The PPP reflects the RTA's dedication to a transparent and inclusive planning process. It also ensures compliance with various regulations, including the FAST Act, Title VI of the Civil Rights Act of 1964, Executive Order 12898 on Environmental Justice, the Americans with Disabilities Act of 1990, the Iowa Open Meetings Law, and the Iowa Public Records Law.

The public involvement process utilized for the development of the 2050 Long-Range Transportation Plan was guided by the PPP, which sets minimum requirements for public involvement opportunities. Public involvement actions required include the following:

- Draft LRTP
 - The draft document will be developed by INRCOG staff with further input from jurisdiction representatives & the Iowa DOT, & oversight by the Policy Board & Technical Committee.
 - Input will be sought from individuals, affected public agencies, representatives of public transportation employees, freight shippers, private providers of transportation, representatives of users of public transportation, representatives of users of pedestrian walkways & bicycle transportation facilities, representatives of the disabled, providers of freight transportation services, & other interested parties.
 - Focus groups will be utilized to represent all pertinent modes of transportation & issues. Focus groups may include transit, highway & land use, bicycle & pedestrian, safety & security, & environmental resources. Focus groups will be charged with identifying issues & potential solutions & reviewing draft chapters.
 - The draft document will be made available at the INRCOG Center, on the INRCOG website, & upon request.
- Notices & Public Meetings
 - A minimum of three (3) public input sessions will be held regarding the draft LRTP.
 - When a circumstance presents itself where a meeting in person is impossible or impractical, the RTA may conduct a public input meeting by electronic means.
 - The RTA will provide public access to the discussion of the input meeting to the extent reasonably possible.
 - The public announcement of the meeting, at least one week before the public input meeting, shall include the time, virtual/electronic place, subject matter of the meeting, & name & phone number of the person available to respond to requests for information about the meeting.
 - The place of the input meeting is the place from which the communication originates or where public access is provided to the discussion.
 - The RTA shall make promptly available to the public, in a place easily accessible to the public, the transcript, electronic recording, or minutes of the discussion & will include a statement explaining why a public input meeting in person was impossible or impractical.
 - Should in-person meetings be held, at least one (1) public input session will be held in an area identified as being a low-income or minority neighborhood.
 - All in-person meetings will be held in accessible facilities.
 - Notices for public input sessions will be advertised through local media sources. Notices may be posted at governmental offices, public libraries, post offices, on transit buses, at the INRCOG Center, & on the INRCOG website & Facebook page. Notices may also be sent to organizations serving traditionally underserved populations.
 - Any person with sight, reading, or language barriers can contact the RTA (minimum 48 hours before a session) & arrangements will be made for accommodation.
- Public Comment Period

TRANSPORTATION SURVEY

INRCOG is gathering input from rural Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties to identify transportation needs for the next 25 years.

Play a role in the future of transportation in your community! Answer questions about:

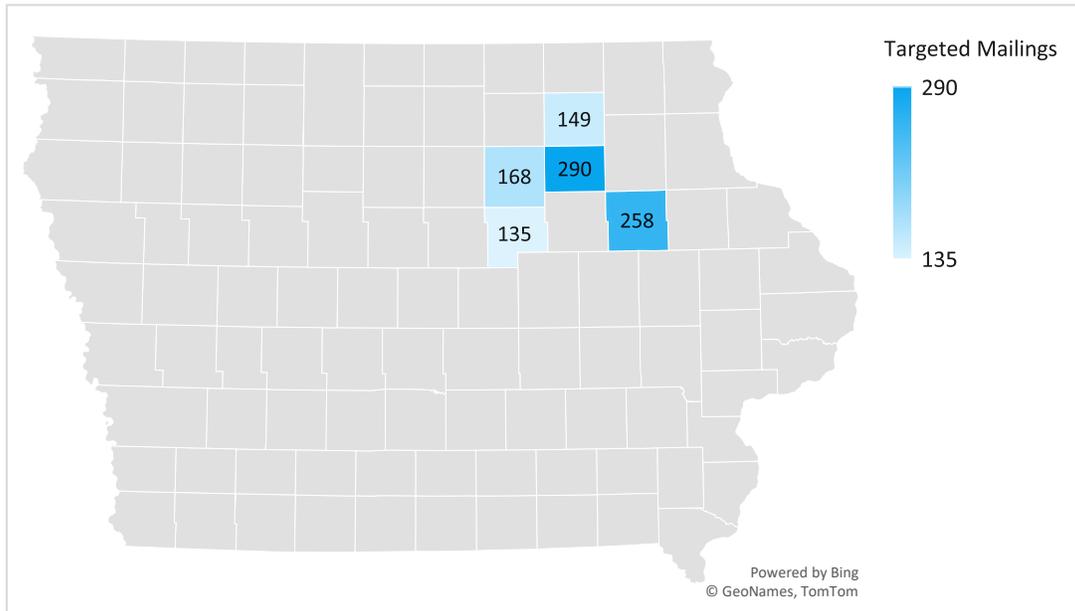
- Roads & Bridges
- Safety
- Transit
- Passenger Rail
- Pedestrian & Bicycle Infrastructure

Scan the QR code or visit www.bhcmpto.org/RTA

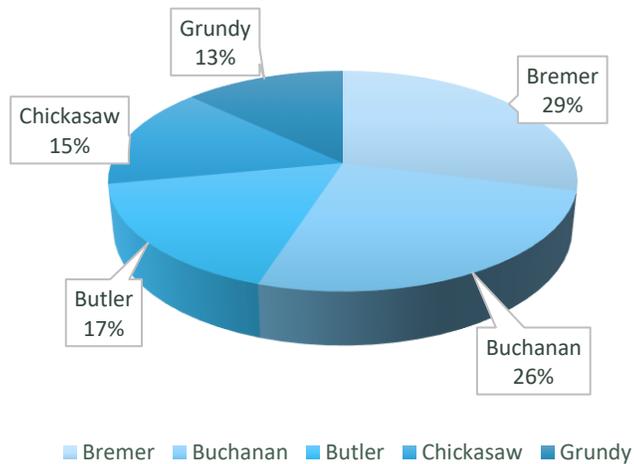
Survey closes Sept 15th!



A total of 1,000 postcards were distributed across the region, but only 9 responses were received. Staff noted that the survey period overlapped with the 2024 elections, which may have led to lower engagement due to an increase in political advertisements. Round Two yielded a stronger response, with 232 surveys submitted. Because of the limited responses from Round One, the results from both rounds were combined. Despite the low initial turnout, the combined data provides meaningful insight into the region’s transportation needs and priorities.

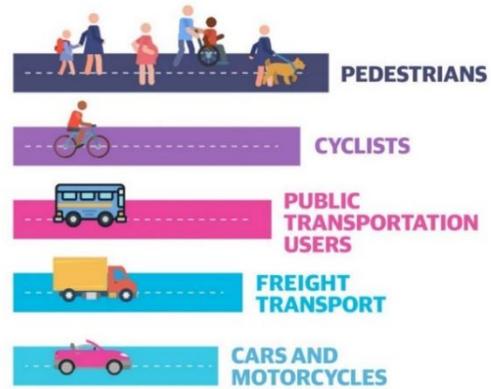


Households will be selected from the five-county RTA region: Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties. From the available pool of 29,208 leads, survey invitations were proportionally distributed based on each county's share of the total leads. This ensures geographic representation while maintaining a minimum base of 200 mailers per county. Fig. 10.1 shows the percentages representing each county's share of the total 29,208 available leads, used to proportionally allocate the 1,000 survey mailings. Bremer County, which makes up 29% of the total leads, receives 290 mailings, while counties with fewer leads, like Grundy at 13% receive fewer mailings to ensure fair regional representation.

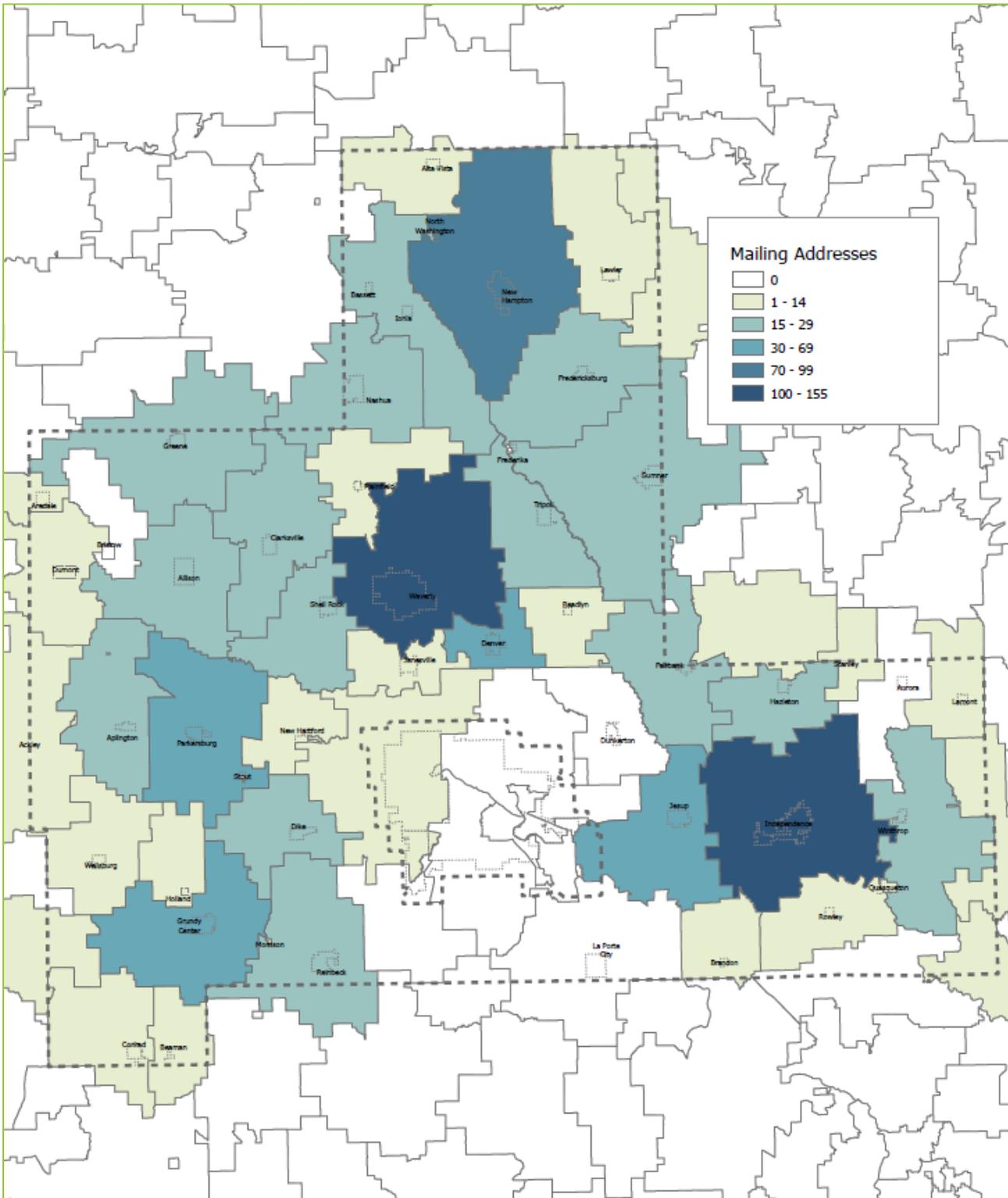


- 29.5 percent of survey respondents rated roads as Good
- 44.4 percent of survey respondents rated bridges as fair.
- 37.8 percent of survey respondents rated pedestrian infrastructure as Fair.
- 39.6 percent of survey respondents rated bicycle infrastructure as Excellent or Good.
- 36.5 percent of responses rated public transit (bus) as Very Poor.
- When asked what the number one transportation problem is in their life:
 - 31.2 percent responded to road & bridge maintenance.
 - 18.8 percent responded with a deficiency in public transportation in smaller towns

- 5.8 percent responded with cycling and pedestrian safety issues (road, railroad crossing, bike & ped).
- 26 percent responded to School Transportation.
- 8.2% responded to the cost of Fuel and Vehicle Maintenance.
- 4 percent Traffic flow & Vehicle behavior
- When asked what the biggest transportation challenge will be in the next 25 years:
 - 45.5 responded road & bridge maintenance.
 - 35.8 percent said access to public transit (bus & rail).
 - 15.3 percent mentioned the cost of gas/fuel prices.
 - 5.1 percent mentioned alternatives such as electric vehicles.
- When asked about strategies for road improvements
 - 52 percent responded with sidewalk additions and repairs.
 - 20 percent Crosswalks and Pedestrian Safety.
 - 12 percent responded with trail expansion and connectivity.
 - 16 percent responded to lighting Improvements, traffic calming, and signage



Map 10.1 Survey Distribution by Home Zip Code



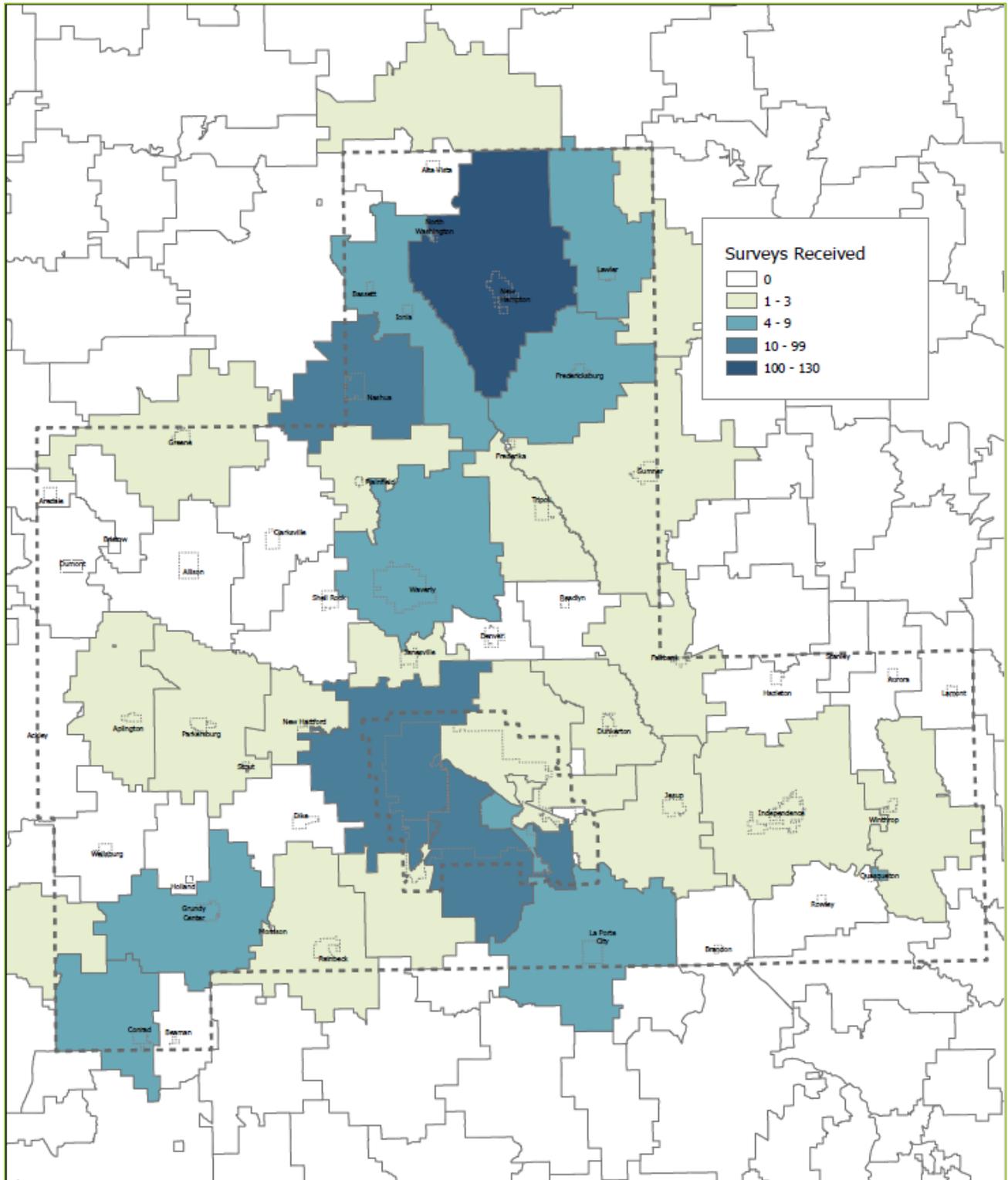
Map 10.1
Survey Distribution by Home Zip Code

This map does not constitute a survey, and INRCOG assumes no liability for the accuracy of the data presented herein, whether expressed or implied.

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Map 10.2 Completed Surveys by Home Zip Codes



Map 10.2
Completed Surveys by Home Zip Code

This map does not constitute a survey, and INRCOG assumes no liability for the accuracy of the data presented herein, whether expressed or implied.

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In addition, the RTA has several ongoing activities that form the basis of interaction with the public. These include:

- Monthly joint Policy Board and Technical Committee meetings, which are open to the public.
- Electronic access to meetings through Microsoft Teams
- Work sessions, focus groups, open houses, public input meetings, and public hearings as applicable during the development of major transportation planning documents.
- Publication of transportation articles in the monthly INRCOG electronic newsletter, which is mailed to over 400 local officials and citizens.
- Notices of opportunities for public input shared via the MailChimp marketing program.
- Provision of information and interviews with area media as requested.
- Presentations to city councils, planning commissions, and county supervisors as needed.
- Presentations to local service clubs and other groups and organizations as requested.
- Information, transportation plans, and notices of opportunities for public input shared on INRCOG's website www.inrcog.org and Facebook page.

TRANSPORTATION INPUT SURVEY



- Iowa Northland Regional Council of Governments
- Help identify transportation needs in Eastern Iowa
- Survey for residents in Bremer, Butler, Grundy, Black Hawk, Buchanan, and Chickasaw counties
- Access survey at www.bhcmpo.org/rta
- Open until September 15th

Public feedback was gathered through a Passenger Transportation Survey conducted in support of the FY 2026–2030 Passenger Transportation Plan (PTP). The survey aimed to identify current transportation services, unmet needs, and opportunities for better coordination across the Iowa Northland Region, including the Waterloo-Cedar Falls metropolitan area. The responses also played a key role in determining investment priorities and strategies for passenger transportation over the next five years.

As part of the requirement for completing PTP, the recent public input for this document was obtained through a Passenger Transportation Survey. The online survey was developed using Survey Monkey and distributed to passenger transportation providers and human service agencies in December 2024 and again in February 2025. The survey consisted of 8 questions as well as several opportunities for written comments.

Agencies were also provided with the opportunity to complete the survey manually. Agencies were notified of the survey through email and were encouraged to distribute it to other agencies.

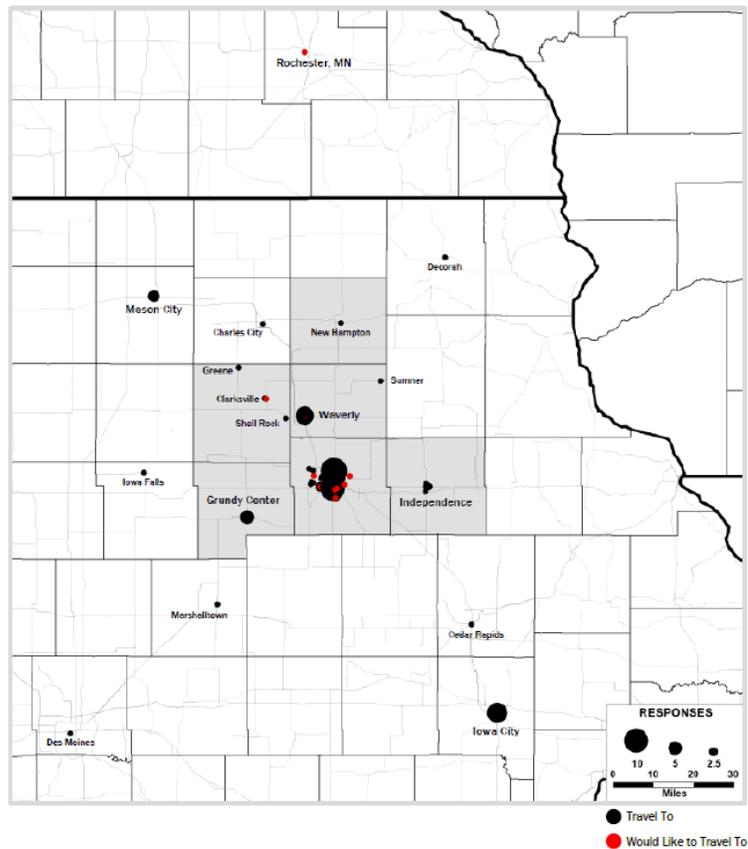
Policy Board and Technical Committee

Throughout 2025, monthly joint meetings of the Policy Board and Technical Committee were held to guide the Long-Range Transportation Plan (LRTP) update. Key discussion topics included the methodology for the public input survey, the Bicycle Accommodation Plan, and a review of draft chapters. All RTA meetings were open to the public and promoted through local media outlets and the INRCOG Facebook page.

Website and Social Media

The INRCOG website www.inrcog.org was used throughout the development of this Plan. Draft chapters were posted on the transportation department website <https://bhcmppo.org/rta-plans-programs/> as they were completed. Other information on the transportation planning process and additional transportation documents and memorandums is available on the website. The final LRTP is posted online and available at the INRCOG office. The INRCOG Facebook page was also used to notify the public of the draft LRTP and opportunities for input.

Destinations Clients Travel To and Would Like to Travel To

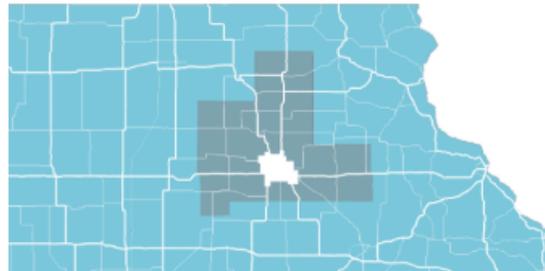


2050 INRTA Long-Range Transportation Plan Update Draft Chapters Available

Draft chapters of the [2050 Iowa Northland Regional Transportation Authority Long Range Transportation Plan Update](#) are now available for review and comment, with additional chapters to be released as they are completed. We encourage you to explore the draft materials and stay engaged with the process.

Comments can be submitted to [Nick Fratzke](#) until the RTA Policy Board considers the final document for adoption in December 2025.

Iowa Northland Regional Transportation Authority



[2050 LRTP Update](#)

Public Input Opportunity

Draft 2050 Long-Range Transportation Plan

Draft chapters of the 2050 LRTP are available for review and comment, with additional chapters to be released as they are completed. Comments will be accepted until the RTA Policy Board reviews and considers adoption of the full final plan on December 18, 2025.

2 – Region Profile	3 – Roads & Bridges
5 – Bicycle & Pedestrian	6 – Freight
7 – Safety & Security	8 – Preliminary Environmental Review
9 – Financial Analysis	10 – Public Involvement
Appendix III – 2050 LRTP Public Input Survey Report	

External Stakeholder Consultation

Several Federal, State, Tribal, and local government agencies were notified when the draft LRTP document was available for review. Feedback on topics relevant to their field of expertise was requested. Agencies notified include the following:

- Black Hawk County Conservation
- Bremer County Conservation
- Buchanan County Conservation
- Butler County Conservation
- Chickasaw County Conservation
- Grundy County Conservation
- Black Hawk County Emergency Management
- Bremer County Emergency Management
- Buchanan County Emergency Management
- Butler County Emergency Management
- Chickasaw County Emergency Management
- Grundy County Emergency Management
- Black Hawk County REAP Committee
- Grow Cedar Valley
- Hawkeye Community College
- Iowa Department of Agriculture and Land Stewardship
- Iowa Department on Aging
- Iowa Department for the Blind
- Iowa Department of Cultural Affairs
- Iowa Department of Education
- Iowa Department of Human Rights
- Iowa Department of Human Services
- Iowa Department of Natural Resources
- Iowa Department of Public Health
- Iowa Department of Public Safety
- Iowa Department of Transportation, Systems Planning Bureau
- Iowa Department of Transportation, District 2
- Iowa Department of Veterans' Affairs
- Iowa Economic Development Authority
- Iowa Homeland Security and Emergency Management
- Iowa Northland Regional Transit Commission
- Iowa Tourism Board
- Iowa Utilities Board
- Iowa Workforce Development
- Office of the State Archaeologist
- Sac & Fox Tribe of the Mississippi
- State Historical Society of Iowa
- Transit Advisory Committee
- University of Northern Iowa
- U.S. Army Corps of Engineers, Rock Island District
- U.S. Environmental Protection Agency, Region 7
- U.S. Department of Agriculture – Natural Resources Conservation Service
- U.S. Department of the Interior Bureau of Indian Affairs, Midwest Regional Office
- U.S. Fish and Wildlife Service, Illinois-Iowa Field Office

Appendices



APPENDIX I – RTA POLCY BOARD & COMMITTEES

Policy Board Members (Term Ending 12/31/2026)

Representing	Name	Title
Black Hawk County	Ritch Kurtenbach	Supervisor
Bremer County	Duane Hildebrandt	Supervisor (Vice Chair)
Buchanan County	Keith Wieland	Supervisor
Butler County	Greg Barnett	Supervisor (Chair)
Chickasaw County	Scott Cerwinske	Supervisor
Grundy County	Mark Schildroth	Supervisor
City of Waverly	James Bronner	City Administrator
City of Independence	Brad Bleichner	Mayor
City of Denver (Small City At Large)	Joel Wikner	Councilmember
City of Dunkerton (Small City At Large)	Michael Schares	Mayor
City of La Porte City (Small City At Large)	Jane Whittlesey	City Clerk
City of New Hampton (Small City At Large)	Steve Geerts	Mayor

Transportation Technical Committee Members (Term Ending 12/31/2026)

Representing	Name	Title
Black Hawk County	Cathy Nicholas	County Engineer
Bremer County	Landon Moore	County Engineer
Buchanan County	Brian Keierleber	County Engineer
Butler County	John Riherd	County Engineer
Chickasaw County	Roman Lensing	County Engineer
Grundy County	Jeff Skalberg	County Engineer
City of Waverly	James Bronner	City Administrator
City of Independence	Matthew Schmitz	City Manager
City of Denver (Small City At Large)	Joel Wikner	Councilmember
City of Dunkerton (Small City At Large)	Michael Schares	Mayor
City of La Porte City (Small City At Large)	Jane Whittlesey	City Clerk
City of Clarksville (Small City At Large)	Jerald Heuer	Mayor

Bicycle and Pedestrian Advisory Committee Members (Term Ending 12/31/2026)

Representing	Name	Title
Black Hawk County Conservation	Mike Hendrickson	Executive Director
Bremer County Conservation	Andrew Hockenson	Director
Buchanan County Conservation	Ben Bonar	Executive Director
Butler County Conservation	Matt Wilken	Executive Director
Chickasaw County Conservation	Chad Humpal	Director
Grundy County Conservation	Nick Buseman	Executive Director
City of Waverly	James Broner	City Administrator
City of Independence	Matthew Schmitz	City Manager
City of Denver (Small City At Large)	Joel Wikner	Councilmember
City of Dunkerton (Small City At Large)	Michael Schares	Mayor
City of La Porte City (Small City At Large)	Jane Whittlesey	City Clerk
City of Clarksville (Small City At Large)	Jerald Heuer	Mayor

Transit Advisory Committee Members (TAC)

Name	Organization
Mindy Benson	Black Hawk County Emergency Management
Bethany Fratzke	Black Hawk County Health Department
Lisa Sesterhenn	Black Hawk County Health Department
Aaron Reinke	Black Hawk County Health Department
Rachael Mayer	Black Hawk County Health Department
Alecia Allen	Black Hawk County Health Department
Jan Heidemann	Bremer County of the East Central Region (ECR)
Sheila Baird	Cedar Valley United Way
Kyle Clabby-Kane	Iowa Works
Debra Hodges Harmon	Iowa Works
Todd Rickert	Grundy County Social Services
Susan Backes	House of Hope
David Sturch	MET Transit
Rosalyn Middleton	MET Transit Board
Phillip Golden	MET Transit
Lon Kammeyer	MET Transit Board
Greg Zars	Northeast Iowa Area Agency on Aging (NEI3A)
Megan McKenzie	McElroy Trust
Erin Tink	Waterloo Community Foundation
Cathy Showalter	Otto Schoitz Foundation
Terrance Hollingsworth	Empower Me/Project Health
Shannon Bass	NEIA Food Bank
DeAnne Kobliska	Mayor of Evansdale
Emily Hanson	BHC Gaming Association
Trista Hill	Tri-County HeadStart
Aric Schroeder	City of Waterloo
Hector Salamanca-Arroyo	Cedar Valley Boys & Girls Club
George Phillips	Cedar Valley Boys & Girls Club
Norman Coley Jr.	Hawkeye Community College
Karen Siler	Iowa Works of the Cedar Valley
Kyle Durant	INRCOG
Oghogho Oriakhi	INRCOG
Sanzida Rahman Setu	INRCOG
Nick Fratzke	INRCOG/Onboard Public Transit

APPENDIX II – ACROYNMS

3-C	Continuing, Cooperative, and Comprehensive
AADT	Average Annual Daily Traffic
AASHTO	American Association of State Highway and Transportation Officials
ADA	Americans with Disabilities Act
ADAS	Advanced Driver Assistance Systems
ADT	American Discovery Trail
AIP	Airport Improvement Program
ALO	Waterloo Regional Airport
ATTAIN	Advanced Transportation Technologies and Innovative Mobility Deployment
BIL	Bipartisan Infrastructure Law
BPAC	Bicycle and Pedestrian Advisory Committee
CAT	Community Attraction and Tourism
CAV	Connected and Automated Vehicles
CE	Categorical Exclusion
CIP	Capital Improvement Program
CMAQ	Congestion Mitigation and Air Quality
CPFM	Continuous Pavement Friction Measurement
CRFC	Critical Rural Freight Corridors
CRP	Carbon Reduction Program
CSAP	Comprehensive Safety Action Plan
CUFC	Critical Urban Freight Corridors
CVAST	Cedar Valley Association for Soft Trails
DI	Diversity Index
DMS	Dynamic Message Sign
DNR	Department of Natural Resources
DOT	Department of Transportation
EA	Environmental Assessment
ECP	Existing, Committed, and Planned
EIS	Environmental Impact Statement
EMA	Emergency Management Agency
EV	Electric Vehicle
EVRP	Electric Vehicle Readiness Plan
FAA	Federal Aviation Administration
FAC	Freight Advisory Council
FAF	Freight Analysis Framework
FBO	Fixed Base Operator
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FFC	Federal Functional Classification
FM	Farm to Market
FONSI	Finding of No Significant Impact
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
GDL	Graduated Driver's License
GTSB	Governors Traffic Safety Bureau
HFST	High Friction Surface Treatment
HPMS	Highway Performance Management System
HSIP	Highway Safety Improvement Program
ICAAP	Iowa Clean Air Attainment Program
ICAT	Iowa Crash Analysis Tool
ICE	Infrastructure Condition Evaluation
ICS	Incident Command System
IEDA	Iowa Economic Development Authority
IJA	Infrastructure Investment and Jobs Act
IMFN	Iowa Multimodal Freight Network

INRCOG	Iowa Northland Regional Council of Governments
InTrans	Institute for Transportation
IRI	International Roughness Index
IRVM	Integrated Roadside Vegetation Management
ISMS	Iowa Standardized Model Structure
iTRAM	Iowa Travel Analysis Model
ITS	Intelligent Transportation Systems
LEP	Limited English Proficiency
LOS	Level of Service
LOST	Local Option Sales Tax
LOTTR	Level of Travel Time Reliability
LPI	Leading Pedestrian Interval
LRSP	Local Road Safety Plan
L RTP	Long-Range Transportation Plan
LTAP	Local Technical Assistance Program
MET	Metropolitan Transit Authority
MIPRC	Midwest Interstate Passenger Rail Commission
MPO	Metropolitan Planning Organization
MUTCD	Manual on Uniform Traffic Control Devices
NACTO	National Association of City Transportation Officials
NAICS	North American Industry Classification System
NEIA	Northeast Industrial Access
NEPA	National Environmental Policy Act
NHFN	National Highway Freight Network
NHFP	National Highway Freight Program
NHPP	National Highway Performance Program
NHS	National Highway System
NHTS	National Household Travel Survey
NHTSA	National Highway Traffic Safety Administration
NIMS	National Incident Management System
NMFN	National Multimodal Freight Network
NPDES	National Pollutant Discharge Elimination System
NRF	National Response Framework
PCI	Pavement Condition Index
PCR	Potential for Crash Reduction
PHFS	Primary Highway Freight System
PHMSA	Pipeline and Hazardous Materials Safety Administration
PTASP	Public Transportation Agency Safety Plan
PPP	Public Participation Plan
PRF	Primary Road Fund
PSC	Proven Safety Countermeasure
PTP	Passenger Transportation Plan
RAISE	Rebuilding American Infrastructure with Sustainability and Equity
RAMS	Roadway Asset Management System
REAP	Resource Enhancement and Protection
RISE	Revitalize Iowa's Sound Economy
RRFB	Rectangular Rapid Flashing Beacons
RSA	Road Safety Audit
RTA	Regional Transportation Authority
RUTF	Road Use Tax Fund
SHSP	Strategic Highway Safety Plan
SLRTP	State Long Range Transportation Plan
SPR	State Planning and Research
SRTA	Safe Routes to School
SS4A	Safe Streets and Roads for All
STA	State Transit Assistance
STB	Surface Transportation Bureau
STBG	Surface Transportation Block Grant

STRACNET	Strategic Rail Corridor Network
STRAHNET	Strategic Highway Network
SUDAS	Statewide Urban Design and Specifications
TAC	Transit Advisory Committee
TAM	Transit Asset Management
TAMP	Transportation Asset Management Plan
TAP	Transportation Alternatives Program
TAZ	Traffic Analysis Zone
TDM	Travel Demand Model
TEAP	Traffic Engineering Assistance Program
TERM	Transit Economic Requirements Model
TIFF	Tax Increment Finance Funding
TIP	Transportation Improvement Program
TMC	Traffic Management Center
TPWP	Transportation Planning Work Program
TSIP	Traffic Safety Improvement Program
TTC	Transportation Technical Committee
TTTR	Truck Travel Time Reliability
TWLTL	Two-Way Left-Turn Lane
ULB	Useful Life Benchmark
UNI	University of Northern Iowa
USBR	United States Bike Route
VCAP	Value, Condition, and Performance
VHT	Vehicle Hours Traveled
VMT	Vehicle Miles Traveled
VRM	Vehicle Revenue Miles
YOE	Year of Expenditure

APPENDIX III – 2024 PUBLIC INPUT SURVEY REPORT

This document summarizes the results from both Round One and Round Two of the Public Input Survey, conducted as part of the 2050 Long-Range Transportation Plan update for the Iowa Northland Regional Transportation Authority (RTA). The RTA serves Black Hawk, Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties, excluding the Waterloo-Cedar Falls metropolitan area, which is managed by the Black Hawk County Metropolitan Planning Organization (MPO).

The goal of the survey was to identify transportation challenges, needs, and priorities within the six-county region. Developed and administered by RTA staff, the survey was conducted in two rounds. In Round One, a mailing list of 1,000 randomly selected households from Bremer, Buchanan, Butler, Chickasaw, and Grundy Counties was acquired through the consultant DirectMail, while Black Hawk County was excluded due to difficulties filtering out metropolitan addresses. Round

Two was open to the public through INRCOG's media platforms, including email lists, the RTA website, and the INRCOG E-newsletter. The two rounds were launched simultaneously to maximize outreach efforts and remained open from August 15th to September 15th, 2024.

ArcGIS Survey123 was utilized to create, distribute, and analyze the survey. For Round One, postcards were designed and mailed using VistaPrint, featuring a QR code and URL linking to the online survey. To encourage participation, recipients could also request a paper survey from INRCOG. Additionally, respondents to the mail-out survey were entered into a drawing for a \$50 cash prize.

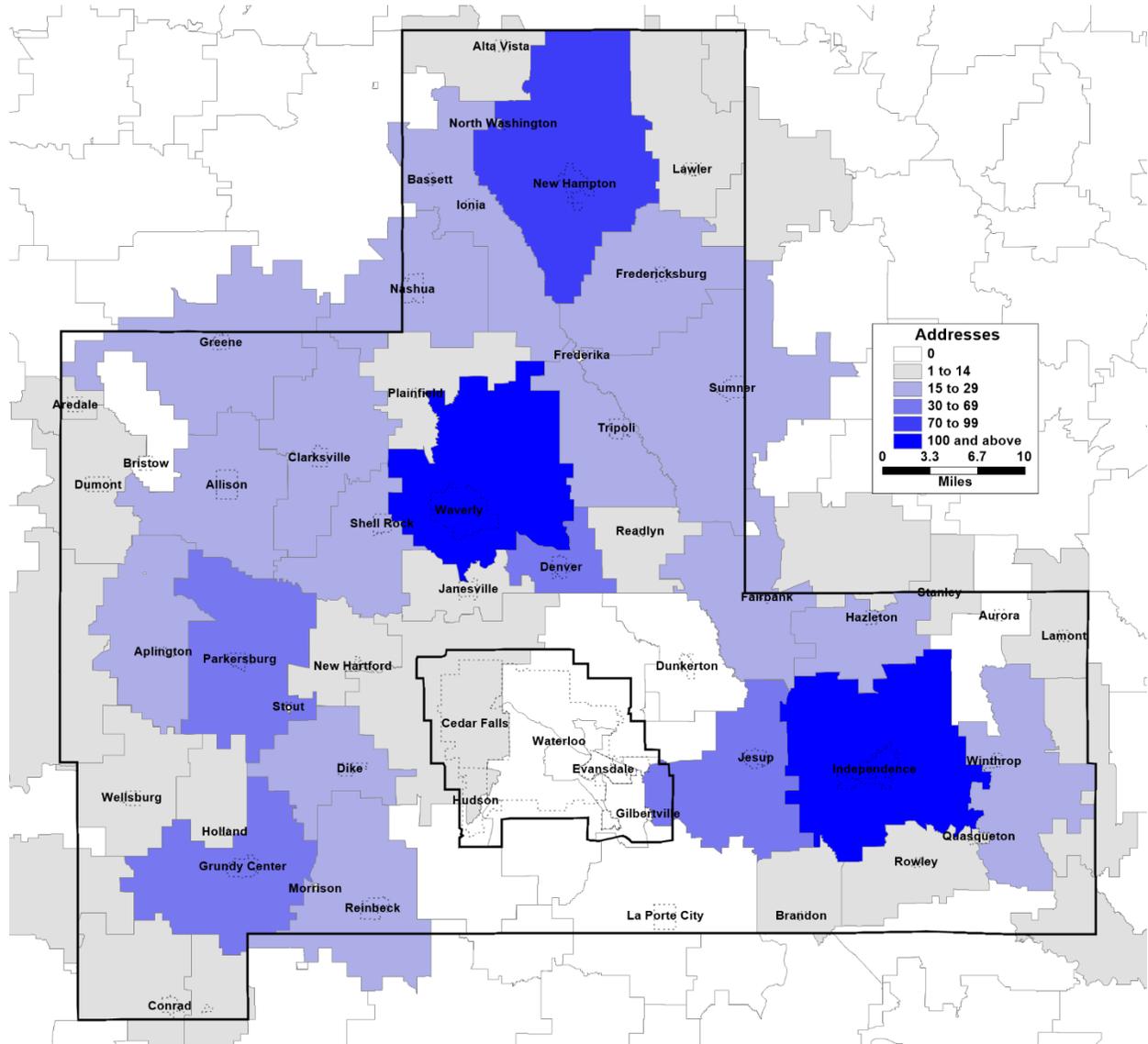
A total of 1,000 survey postcards were sent to residents in the region, resulting in only 9 responses. Staff observed that the timing of the surveys coincided with the 2024 elections, which likely contributed to the low response rate due to a surge in media advertisements. In Round Two, there were 232 submitted surveys. Given the low response rate from the mail-out survey, the results were combined. Overall, these combined results offer valuable insights into the community's transportation needs and priorities.

This document outlines the results for each question, along with a compilation of written comments submitted. In the following pages, "N/A" indicates no answer was provided. This may occur if the respondent did not submit a response, or if their answer was incomplete, irrelevant, or misinterpreted the question. All written comments are included in this report, except those marked "N/A" or "I do not know."

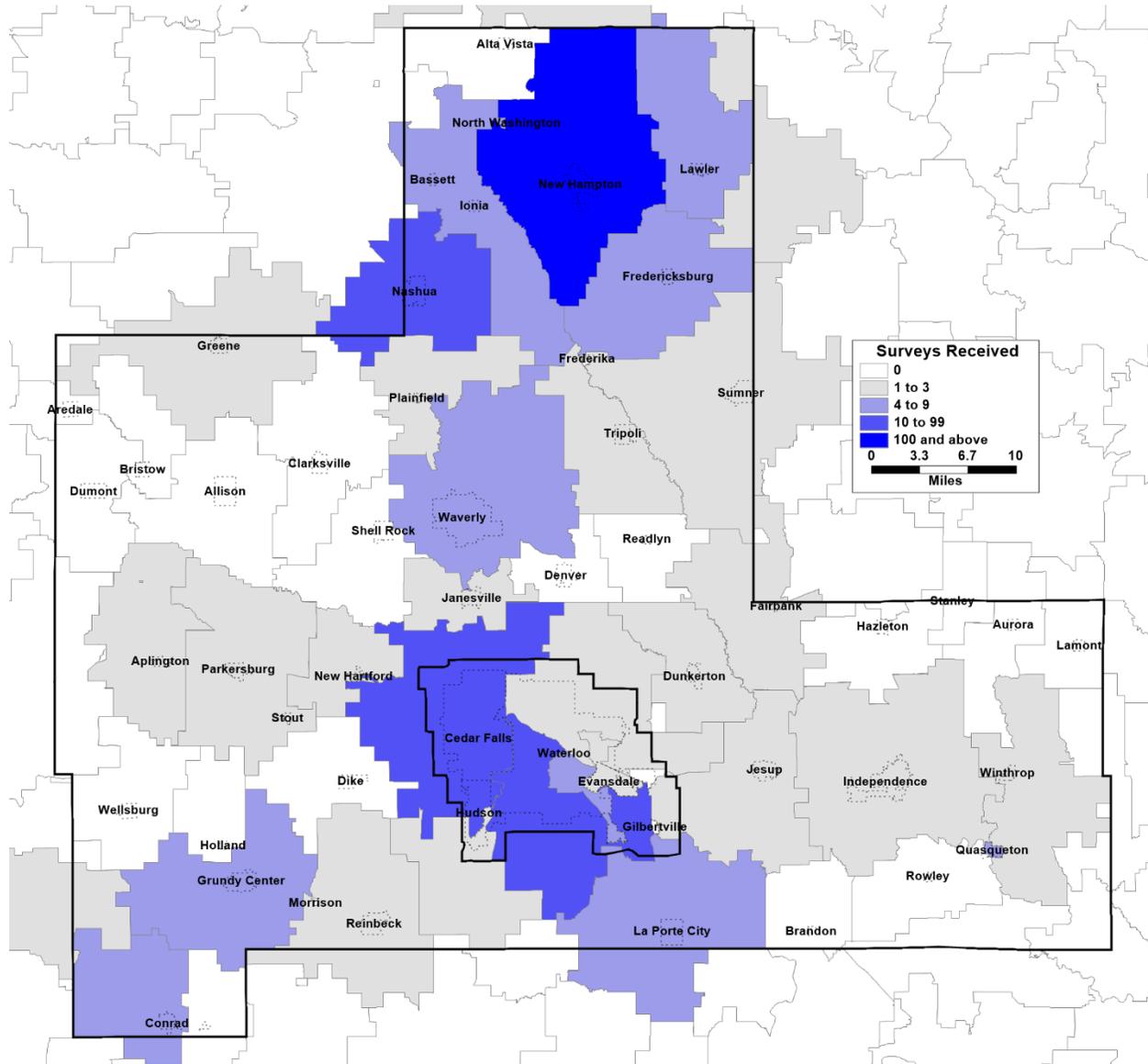
Since the second round of the survey was open to everyone, some respondents are residents of the Waterloo-Cedar Falls metropolitan area. These responses were not excluded, as these individuals may still work or travel outside the metro area and into the region.



Survey Distribution by Home Zip Code



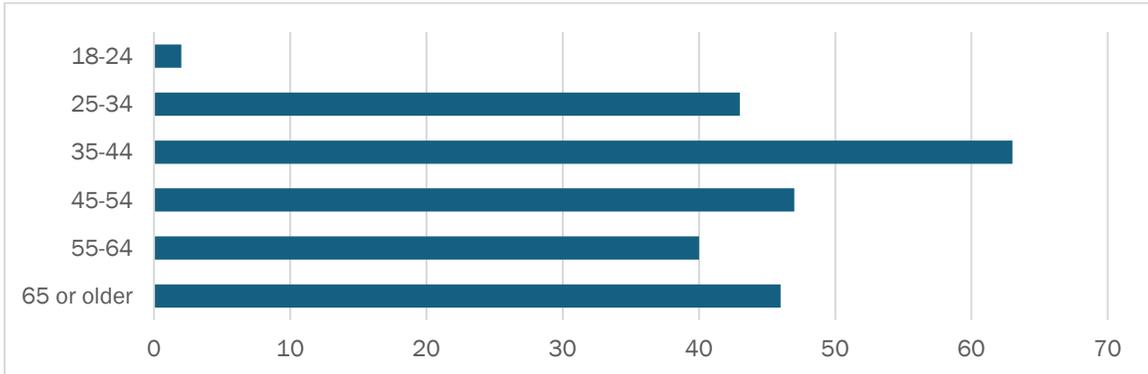
Completed Surveys by Home Zip Code



1. Which age group are you in?

A. Answered: 241

B. Skipped: 0



2. What is your home ZIP code?

A. Answered: 241

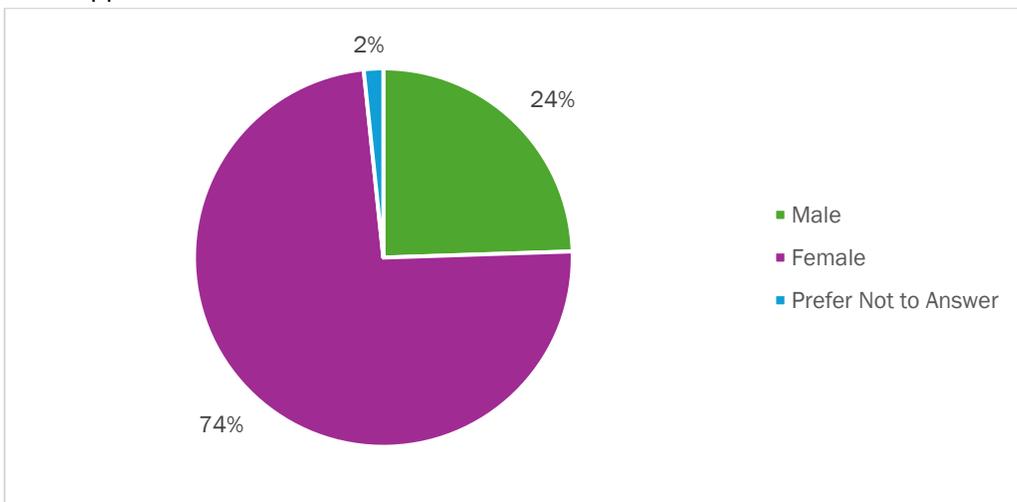
B. Skipped: 0

- **50659, 130 (53.9%)**
- 50658, 14 (5.8%)
- 50701, 13 (5.4%)
- 50613, 12 (5.0%)
- 52154, 8 (3.3%)
- 50645, 6 (2.5%)
- 52326, 5 (2.1%)
- 50621, 4 (1.7%)
- 50630, 4 (1.7%)
- 50638, 4 (1.7%)
- 50651, 4 (1.7%)
- 50677, 4 (1.7%)
- 50702, 4 (1.7%)
- All others, 29 (12.0%)

3. To which gender identify do you most identify?

A. Answered: 241

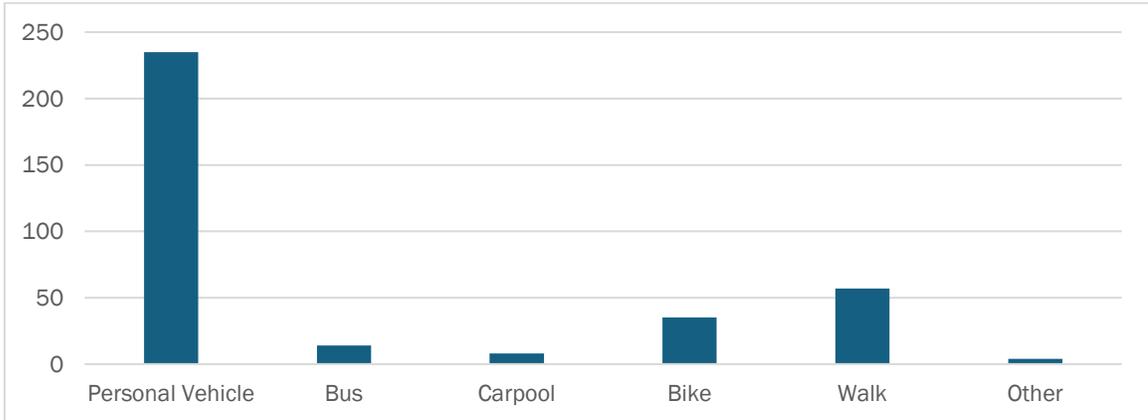
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4. What transportation mode do you most commonly use?

A. Answered: 240

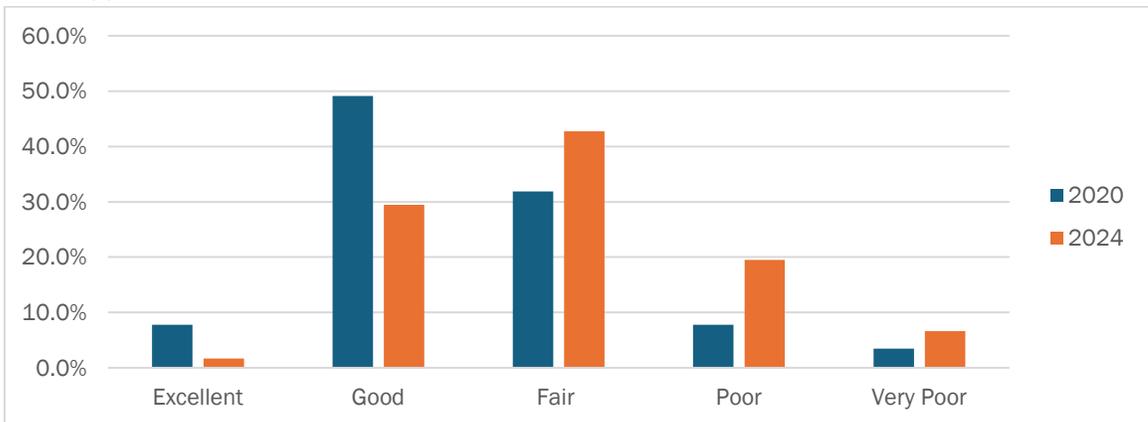
B. Skipped: 1



5. How would you rate the physical condition of our roads?

A. Answered: 241

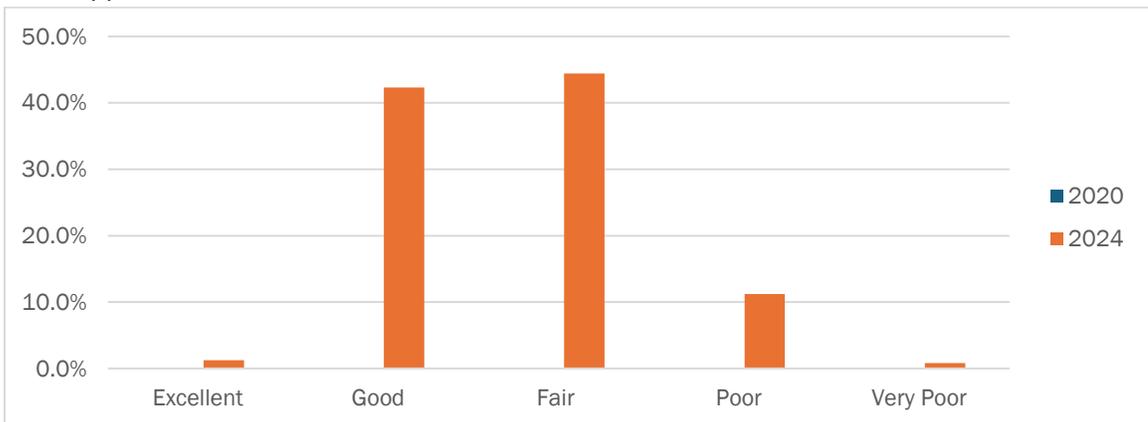
B. Skipped: 0



6. How would you rate the physical condition of our bridges?

A. Answered: 241

B. Skipped: 0



7. Which road(s) would you improve, and what specific improvements would you make?

The responses to the question reflect a widespread concern about road conditions, particularly in rural areas and small towns. Key themes from the responses include:

- A. **Resurfacing and Paving:** Many respondents suggested resurfacing or paving roads such as Hwy 18, Hwy 63, and Hwy 218, as well as various county roads and side streets in New Hampton, where road conditions are described as poor, with potholes and deteriorating surfaces.
- B. **Widening Roads:** Several respondents called for widening key routes, such as making Hwy 63 a four-lane road north of New Hampton to the Minnesota border.
- C. **Addressing Dangerous Intersections:** There were mentions of dangerous intersections, such as the Racine Ave and Water St junction in Quasqueton, calling for reconfigurations or added safety features.
- D. **Improving Side Streets:** Many side streets in New Hampton, like North Chestnut, Logan Ave, and Maple Ave, were highlighted for needing full repairs or repaving.
- E. **Fixing Gravel Roads:** In rural areas, there were calls for blacktopping gravel roads, adding more rock, or grading them better.
- F. **Drainage and Sidewalk Concerns:** Respondents mentioned drainage issues, the need for sidewalks, and poorly maintained storm drains.

Individual Responses:

- Racine Ave
- Just keep keeping them up as they have been. I was impressed with seal coat done on C33 east of Hwy 63 years back. It turned out great and has lasted longer than I expected.
- Pave/Blacktop Barclay Road from Canfield Road to Baxter Road.
- Kenwood Avenue *Airport* Road going North of New Hampton
- North Chestnut, along with a lot of others in New Hampton.
- A lot of the side streets in New Hampton. A few as examples are North Chestnut, East Washington, and part of Foley Ave
- 188
- Highway 18 and 24.
- Alta Vista roads completely redo - more holes than road! Hwy 18 from Floyd County through New Hampton. Resurface Roads throughout New Hampton.
- Hwy 63 from directly north of New Hampton to the Iowa border - it needs to be a 4-lane road as it was made into from New Hampton south to Waterloo.
- Secondary black top
- 1) US 20 outside of Black Hawk County could have a lot of bridges replaced with intersections, the traffic volume is very low. For example, where Dugan Avenue currently has a bridge that goes over US 20 with no way to access one road from the other, when the bridge needs major repairs, instead of repairing it, it could be torn down and turned into an intersection. 2) US 218 might need some of the intersections removed/reconfigured, the intersection between 250th Street and US 218 is almost impossible to cross during high traffic times. 3) Does the ramp from US 20 West to I-380 South need to exist? I think this could be removed with little effect.
- All roads in rural Iowa. Stop wasting money on new overpasses in Des Moines and other large cities.
- County Rd 346
- Hwy 18-repave. Add more rock to secondary roads
- Linn Ave, East Main St/Hwy 24 could all use re pavement. Making Hwy 63 north 4 lanes to Minnesota. Making secondary gravel roads hard surfaced. Pembroke Ave specifically
- Almost every road in New Hampton needs repaired. The problem is the funding. Each road needs new concrete and the infrastructure underneath also needs to be replaced. It is very costly and our past councils for the last few decades were not preparing the future citizens financially for this.

- There are MANY streets in New Hampton city limits that are way below par. Our state roads are not bad, our county roads are just OK.
- The intersection of Linn and Milwaukee in New Hampton
- Highway 63 north of New Hampton to Highway 9.
- East Logan from First Station to gravel road. It is rough, cracked.
- West Milwaukee from Hwy 18 west to Hwy 63 overpass
- Secondary roads do not get enough good rock. They turn to mud roads quickly. City streets lacking proper updating. Parking areas poorly maintained.
- Main St, New Hampton
- Roads are in great condition
- Kenwood Ave north of HWY 18 in New Hampton. County black top between New Hampton and Chickasaw.
- N Maple Ave, New Hampton between Marv & Zips and Zips Trucking coming from Milwaukee up through the train tracks. It's a disaster zone.
- Many streets in New Hampton example Logan Street from S Linn to S Alta Ave
- Our town is like 10 blocks long 10 blocks wide and just about every street has potholes
- Quasqueton Diagonal Boulevard from Quasqueton to old Highway 20.
- Widen Quasqueton Diagonal and update bridge over Pine Creek.
- All streets in the city of New Hampton
- New Hampton city streets: terrible. Bumpy, like riding a roller coaster. US 63 north of IA 188 - Occasional large holes in concrete. Ignored for weeks and months, then finally sprayed with tar and rocks.
- 63 North from New Hampton to Cresco turn
- Pembroke Ave from 150th street to 100th Street in Chickasaw County
- Many city streets in New Hampton
- The intersection of Racine Ave and Water St. Coming into Quasqueton. There have been many accidents at this corner.
- Blacktop the 1 mile County line road starting from 2 miles south of Aplington that 7th Street runs into it to the Buck Grove blacktop that the 1 mile would run into. This would provide a hard surface road from south of Aplington to the Buck Grove blacktop. It would help farmers and residents of Aplington with a road that should have been blacktop years ago.
- Hwy 20 Evansdale to Dike
- All of Dunkerton Rd from city limits east to west
- Hwy 188 between Plainfield and Hwy 63 in Bremer County- Needs re-surfacing. Hwy 27 bridge just south of Plainfield in Bremer County- Has rough transitions. Hwy 27 overpasses from Hwy 14 to Old Hwy 218 West & slightly North of Charles City- Both have terribly rough transitions. Make a better Waterloo/Cedar Falls bypass for Hwy 27/Hwy 218/Hwy 63. Hwy 63 overpass where Hwy 346 turns into Hwy 18 in Chickasaw County- Has rough transitions. Hwy V21 from Bremer County line north to Hwy 346 in Chickasaw County- Needs re-surfacing & every culvert has been patched and they're rough. Hwy B60 west of Nashua to T64 in Floyd County- Re-Surfacing & bridges seem rough. Fix dip in Hwy 27 northbound south of Nashua right near 305th St. Connect Hwy 3 North of Shell Rock over to Hwy 27 at the Bus 218/ 210th St overpass for grain trucks hauling to the ethanol plant & soybean facility in Shell Rock.
- 188 between Plainfield and 63
- T55 and 175 need repaved
- The city streets in Nashua - the entire community has poor to very poor roads throughout the town. There is no shoulder or drainage system, so the roads get eroded and the adjoining properties have flooding.
- Hwy 218 potholes between Plainfield and Nashua
- Most of streets in Nashua need repairs
- Highway 3. Resurface in Butler County from Highway 14 west to Franklin County and repair the rough areas from Highway 14 east to Shell Rock.
- All the streets within the town of Nashua
- HWY 218 between Waverly and Nashua needs repairs.
- Road conditions change, sometimes due to weather. In making changes to roads, one thing to take in consideration is an increased amount of traffic through the years. If it increases as it has, roads need to be designed with consideration of that. Roads now are being reconfigured because unexpected amount of increased traffic. That is a waste of money.
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- HWY 188- resurface. 4 lane HWY 27 it is hollowed out in the tire tracks. Old HWY 218, potholes, resurfaced
- Hwy 188 east of Plainfield. V14 south of Horton

- Greeley Street, Nashua, Iowa.
- B60. Resurface due to being very rough.
- Would like the Nature Trail from La Porte City to Waterloo improved. There are many cracks making it very rough. Also, the Nature Trail all the way to Cedar Falls is rough. Other cities with trails are cement and very smooth. Ours are asphalt and very rough.
- Highway 218 from LaPorte City to Cedar Falls. Highway 20 from Winthrop to Dike. Brandon Rd from LaPorte City to Brandon.
- Cedar Wapsi and 63 junction. Too busy and accident bound.
- Most gravel roads in Chickasaw Co need rock and a good maintainer! Culverts need replacing
- E Milwaukee to Foley to court and Washington
- West Main Street and South Hamilton as well as South Broadway have safety concerns! Safe school routes, stop signs, crossing guards
- North Maple Ave from Milwaukee to W Jefferson St
- Make designated walkways for transportation to school. Linn and Main Street in New Hampton to have updated sidewalks and walk lights (with buttons) to designate which direction walker needs to stop direction.
- Almost all streets in Nashua
- E Logan Street to be less bumpy
- East Hamilton. West Garfield
- All the roads in our town are terrible and need repair. If they are repaired, they just throw gravel on them.
- Hamilton, Broadway
- Milwaukee Street
- East Hamilton and east logan
- The streets around West Main/Court/Hale are very bad.
- Court Street. From Foley all the way through town. Mostly on the first block is awful. I have had kids fall, trip and twist ankles over potholes and big chunks of the road that has fallen off. There are many others like this as well but this one I take often and know it's really bad.
- West Milwaukee Street in New Hampton IA. East main Street by Mikkelson park in New Hampton IA
- Just wish there was more sidewalks. On W. Hamilton St to the high school and streets around the high school and streets around Mikkelson that don't have a sidewalk
- South Broadway
- Hwy 18, Hwy 24, Iowa 24, All new Hampton roads
- Unfamiliar but roads in town of NH, over by Thiessens
- E. Logan Street
- Our city streets are all a mess
- Too many to list here in New Hampton
- The snow removal in the town of New Hampton is awful. The intersections don't get fully cleared, so there's ridges to drive over when crossing/turning.
- South Maple to Main Street. Hamilton to Broadway. Main Street and South Maple to Broadway. All around the school. These intersections are very dangerous during the school year
- Main Street, road past Croell roads near the school
- South Linn Ave in New Hampton, most roads in New Hampton need to be redone and not just a layer of chip and seal put on top.
- Logan Ave
- Industrial Ave
- Washington St New Hampton Iowa
- All gravel roads. Many city streets.
- Main St/Highway 24 from East city limits to Pleasant Hill in New Hampton. East Washington St to Pleasant Hill in New Hampton. Logan Avenue in New Hampton
- 2445 Odessa Ave. More rock, better grading, brush out of ditches
- Main Street heading east from new Hampton. Horrible surface and one of the most important roads of the city.
- Seems like many roads are in need of improvement
- New Hampton Main St. from the east edge of town to Pleasant Hill Rd.
- Cleveland, Logan, South Sheakley
- Logan Ave and Cleveland Ave
- All New Hampton roads
- Broadway Ave in NH, travels around NH, road by high school, road around railroad tracks, many roads have potholes that are beyond fixing.

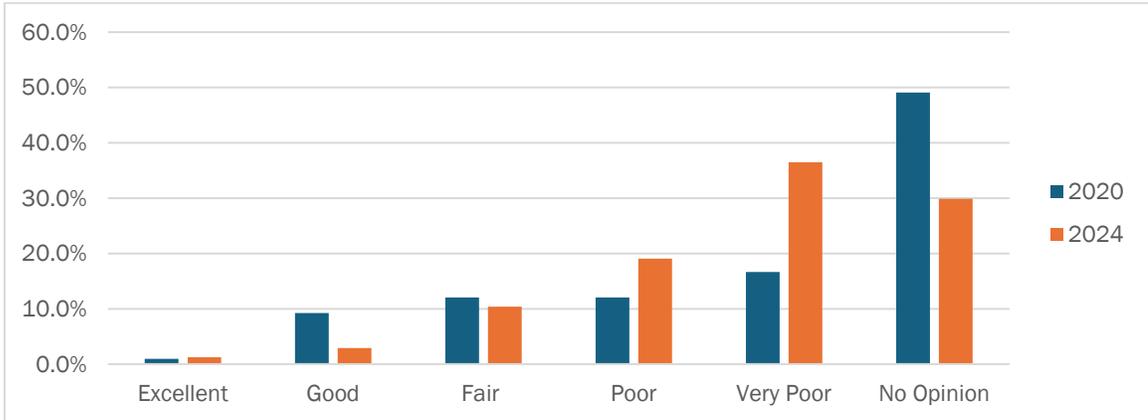
- Mowing ditches on gravel roads once a month during the summer. There should be NO uncontrolled intersections. Put up a yield or stop sign.
- New Hampton, right in front of Poor Richards
- Hwy 63
- More push button cross walks especially by the school and on Main Street
- Logan Street east of Linn Ave, Maple Ave south of Milwaukee
- Hamilton
- Logan Street New Hampton
- Safer ways to cross streets, especially for children and elderly.
- East Main and North Maple
- Highway 18, going west out of New Hampton. Concrete is very rough.
- New Hampton: Logan St from S Linn to S Alta. Hamilton St from S Linn to S Chestnut. W Garfield from S Maple to S Lin
- On E Harrison St it becomes dangerously backed up with kids running in the roads, along with adults when school lets out. Cars passing cars when they're not supposed to. S Water Ave where the buses need to pull in. It's dangerously narrow where littles have to be walking to get to the bus or across the street to their parent's vehicles. We need some kind of system implemented to keep the kids and other drivers safe.
- New Hampton roads in town
- S. Broadway Ave in New Hampton Iowa
- W Hamilton, congested around the schools and no sidewalks on the west side by cemetery
- 2nd St
- 63 south
- Almost all the roads south of Main St in New Hampton. Definitely Hwy 24 going east out of town by the park.
- City of New Hampton is horrible
- Our city leaders are well aware of which ones need work
- Logan Ave and North Maple from train tracks North, New Hampton.
- Cleveland, Logan, Broadway in New Hampton
- Back roads and main roads traveled on daily.
- West Gardner Street old manholes sticking up create hazard. W Gardner and Broadway corner fills with water every time it rains.
- All streets in New Hampton
- Foley, Washington, Pleasant Hill, Water-all streets in New Hampton. Just to name a few
- Hamilton, S Locust, Cleveland, E Logan, W Milwaukee
- West Milwaukee Street in New Hampton Iowa. E Main Street connecting to 24 in New Hampton Iowa
- East main in New Hampton and there are too many side streets to list them all. The city tars and rocks the side streets coming directly off of Main Street and the part of Main that is business district but the rest of New Hampton is in dire need. I don't know much about fixing and the cost of cement is high. Not sure if it is possible to grind off a layer or if it needs flat out replacing but I drive 5mph in many places because of the rough roads
- New Hampton
- East Logan from South Linn to Mission Street in New Hampton
- Lots of potholes/ rough conditions
- Hwy 3 East of Waverly for Winter driving
- I can't think of any specifics at the moment. I do know gravel roads in Parkersburg could be made into paved roads.
- W Hamilton Street between S Linn Ave, New Hampton and Western Ave, New Hampton needs sidewalks the length of the street between school buildings.
- Hamilton, Maple, Broadway
- NO SIDEWALKS ON WEST HAMILTON STREET THE BUSIEST STREET FOR SCHOOL TRANSPORTATION AND A MAN WAS HIT BY A CAR THERE THIS AM!!!!
- Broadway is bad
- Logan Ave New Hampton
- Highway 24 going east from 50659. Logan Ave New Hampton the entirety of it.
- Streets in Alta Vista need some serious attention.
- Water Ave, Logan & Cleveland - also Kenwood Ave - all of it should continue to be paved to county hwy.
- 4th Street in New Hampton heading south around garnet pond, black top.
- City roads. Kenwood Ave. Repave roads.
- Hamilton street and Linn Ave in new Hampton. 100th Street in rural New Hampton
- All New Hampton streets that have been chip and oiled for decades

- Multiple roads between Jerico and New Hampton and in New Hampton. Always ice on the Jerico blacktop that it worries me with the bridge with no railing
- Broadway, Cleveland and West Milwaukee from Bailey Ave to Linn Ave.
- 290th, bridge going over the Wapsipinicon is riddled with holes as you go on and come off. It is super dangerous after rain and snow.
- Kenwood Avenue as heavy bus traffic.
- Industrial Ave. in New Hampton, IA. North Maple from Milwaukee to Hale in New Hampton, IA
- All - this summer they just laid crushed rock on the roads
- Hwy 24 leaving New Hampton heading east
- Mission. 4th Avenue
- County line road between Grundy and Hardin County is very rough
- I'm thinking adding a walking path under the bridge on Highway 14 into town would greatly benefit Grundy Center citizens.
- Hwy 18 west of New Hampton continues to have boils and wear pockets. Still some low spots on the north south road from Horton to Waverly
- North Maple to Milwaukee.
- When resurfacing county roads it would sure be nice if you could extend the asphalt a little on the edges for bicycle safety.
- City side street. Lots of cracks and uneven surfaces.
- Garfield Street- large cracks and holes that make it difficult for my children to ride their bikes and scooters. South Hamilton Street- a heavily trafficked road that should have a sidewalk to keep pedestrians safe. This road would be the quickest route for my child to walk home from the elementary school, but so many vehicles speed on it coming to and from the high school that my family avoids walking on it. It is dangerous.
- HWY 346, V21, T76 South, Hwy 18 East of 63, Hwy 63 North of New Hampton to Rochester
- T29 from 330th St to Highway 14-widen/increase shoulder
- North of Conrad
- Roundabout at Dubuque Road and South Canfield
- Prospect Street from 1st to 6th. 6th Street from Prospect to North
- City streets in the New Hampton City Limits are not in very good condition.
- HWY 20 Mile marker 220-225 both directions. Not too bad but concrete starting to break. HWY 14 near Fern Iowa. Concrete disintegrating.
- All of the county roads need work and maintenance. Some bridges in Bremer County are closed for work (Waverly on Highway 3)
- Place long turn lanes in both directions at each new elementary school on Waverly to allow the traffic at beginning & ending of school day.
- Hwy 20 West
- Several roads in Grundy County. Highway 14, and most county roads are terrible. Bridges aren't up to date. The state takes very poor care of snow Plowing in Grundy County, other counties are clear and Grundy is a mess.
- Spring Avenue in rural New Hartford to 325th Street then to Terrace Avenue. It is currently gravel but with heavy vehicular traffic due to a lot of rural housing. There are two small wooden bridges that could be replaced on that route too.
- East Bremer Ave from Kwik Star to Cedar River Pkwy. Cedar Lane is also very bumpy in Waverly. Would be nice to have the gravel road east of Wapsie Valley High School paved.

8. How would you rate our public transit?

A. Answered: 241

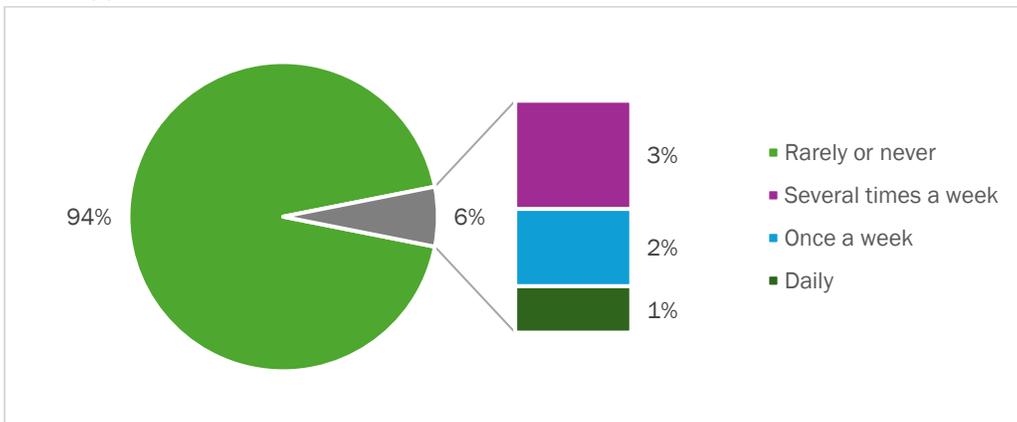
B. Skipped: 0



9. How often do you ride public transit?

A. Answered: 241

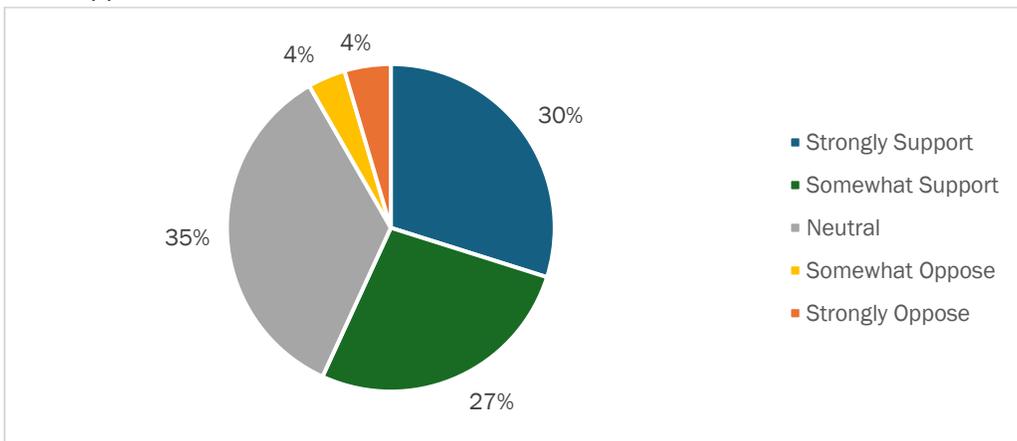
B. Skipped: 0



10. How supportive are you of expanding passenger rail service in Iowa?

A. Answered: 241

B. Skipped: 0



11. How can our public transit system be improved?

The responses reveal several key themes:

- A. **Passenger Rail:** Many respondents suggest expanding passenger rail services, particularly connecting regional hubs like Waterloo, Cedar Rapids, Iowa City, Des Moines, and even further to cities like Chicago, Minneapolis, and Denver, Colorado. There is a strong desire for more rail options both for short and long-distance travel.
- B. **Availability in Rural Areas:** A major concern is the lack of public transportation in rural areas, especially in smaller towns like New Hampton. Many emphasize the need for basic services, particularly for school children, the elderly, and those without access to cars. There is a call for local and regional bus systems, or alternatives like shuttle services, to provide essential transportation for daily activities, such as getting to school or medical appointments.
- C. **Bus System Improvements:** In areas where buses exist, people seek increased frequency, longer operating hours (especially for 2nd and 3rd shift workers), more stops, and greater connectivity between smaller towns and larger cities. Simplifying bus routes and improving accessibility (e.g., easier access to bus passes) are also suggested.
- D. **School Transportation:** A recurring issue is the lack of transportation for school-aged children in small towns. Many respondents note the loss of local shuttle services that used to transport children to school and activities, creating a significant hardship for families.
- E. **Affordability and Accessibility:** There are concerns about the cost of existing services in rural areas, which some describe as prohibitively expensive. Additionally, respondents highlight the need for affordable, safe, and clean public transportation options.
- F. **Skepticism and Cultural Resistance:** Some respondents express doubt about the viability of public transportation in rural areas due to low demand, the dominance of car culture, or concerns about the impact on farmland. However, others advocate for targeted services to meet the specific needs of vulnerable populations (e.g., the elderly, children, and people without cars).

Individual Responses:

- Availability (x11)
- We need to repair our bridges first!!! Too many are low tonnage rated and others are closed while waiting to be replaced. This is unacceptable!
- New Hampton doesn't have a public transportation. There are other transportation companies with there on business. Most except insurance. Some have to show for me. I have called and they don't show.
- New Hampton currently doesn't offer Bus services.
- Public transportation is non-existent and for what does exist in rural areas, is incredibly expensive.
- Would love passenger rail to expand in the Midwest states!
- I would like to see passenger rail service more utilized/built in this area/state/country.
- Availability to transport kids to school
- Adding passenger rail of course, increasing how often the busses come, adding more bus stops rather than the current system of stopping at any intersection people are at, adding a bus transfer station somewhere along University Avenue near the Waterloo/CF border
- Expand to rural areas
- Add passenger rail
- There needs to be better options for transportation in smaller towns, we just lost a shuttle service in New Hampton due to costs being too high.

- Add a passenger rail.
- Availability to rural areas
- Public transit is not needed in our area except for young children and senior citizens.
- I'm not sure. There is a demand for transportation of all ages for school, doctors' appointments and general rides. We often have people that cannot leave because they don't have a ride home.
- I am okay as long as it doesn't go near my property.
- Public transportation is rarely use in NE Iowa. No improvements are needed.
- New Hampton is in need of public transportation service for our in-town students because the Chassis is no longer operating.
- We don't have any
- Expand in places where it's most easily accessed, then plan out from there. Example, from Cedar Rapids to Iowa City for commuters.
- I've always been a proponent of adding passenger rail to this area to connect Waterloo, Cedar Rapids, Iowa City, Des Moines and the Quad Cities with hopes to get the Quad Cities and Des Moines connected to Chicago, Minneapolis and Denver with Amtrak for us without having to drive long distances to do so.
- Availability throughout the state
- Help the elderly get to appointments, especially those that are not able to get other help.
- Passenger rail would be a big plus. All the money goes to the coasts and major cities.
- More pick up/drop cities in mid to North Iowa. Work on safety and marketing of options
- Rail to Iowa to CR and Iowa City would be nice
- The MET Transit buses need to run more frequently. Rail service between towns and as far as Des Moines, Minneapolis and Chicago would be awesome!!
- Passenger rail.
- Hours suck for anyone that works 2nd or 3rd shift. There aren't busses available in all areas. No busses go to small towns outside of Waterloo/Cedar Falls
- As I get older I would love to be able to take a train to Chicago or Des Moines or Minneapolis or St Louis.
- Provide services around the various shift change times from our factories and businesses that have 2nd & 3rd shifts.
- Availability and affordability. In New Hampton we lost the town chassis that transported our children and elderly. Due to staffing and funding this service is no longer offered.
- Longer evening and weekend bus service. Add passenger rail.
- Put a depot in Aplington with a passenger train going through Aplington.
- There is no good bussing or public transit that runs often enough to be useful to me.
- Have it run to a few more cities so people don't have to travel so far to a major city to get on it. But I could see people using it from a regional hub to go to a larger city and back.
- Newer buses and shorter ride times.
- Rural areas do not want public transport, it will ruin farmland
- Clean, affordable, safe, proximity. Good options are not available.
- 1) Rural public transportation doesn't go where I want to go for longer trips, or even close. And it would require going way out of the way. 2) I have to drive so far to access it, I might as well drive the whole way. 3) The number and times for departures and arrivals is inadequate for my schedule. When I lived on the East Coast I regularly used commuter rail between cities and subways in the cities. It was convenient and worked well. When I lived in the Twin Cities I regularly used city bus and for a while the tram (but it got seedy). Now in Butler County I live near work so car is best. I still would use rail for my regular medium trips (Des Moines, Wausau, Rochester, Mankato) and especially for regular longer trips (Orlando, Denver) if it would work with schedule, access, cost, and if there was adequate feasible last mile transportation. It doesn't do to only add a few spurs. The whole system needs expansion by adding more hubs with non-stop service, and many more spurs.
- Availability and addition of passenger rail
- There's no availability that I'm aware of in my community
- While I personally do not use public transportation, I work in a position in which I am trying to support others who need public transportation and use it daily. We need the times that it available to be expanded so that evenings and weekends are offered. We also need the ability to streamline it to make it so that it does not take several hours to get from some places in Waterloo to Cedar Falls. I would love to see a passenger rail that would go from the Cedar Valley to Cedar Rapids and also to Ames and Des Moines that could also maybe take people in a faster and more direct way from Waterloo to Cedar Falls and vice versa.
- Keep roads and bridges in excellent repair in rural areas since public transit systems probably will not be efficient in these areas.
- In my area there is no transit if any sort... not even Uber or Lyft

- One problem is this is a rural area. People are traveling in different directions at different times of the day. Public transportation may prove to be very costly. Public transportation for elderly and people that are unable to drive should be considered and promoted. Some that I have told people about aren't used as they should be. A lot of people are not aware of what is available now to help them.
- In Butler and Chickasaw County, we have no public transportation nor in Floyd County. Since we are not used to any we have all gotten used to using our own form of transportation.
- Many folks living in the surrounding communities outside of Waterloo- CF commute to work in Waterloo Cedar Falls. Connect the smaller communities to the larger cities. Connect Waterloo to Iowa City and Des Moines.
- Connect Cedar Falls, Waterloo, Cedar Rapids and Iowa City with high speed light rail service
- Just being available. Right now we have nothing because of cuts and no funding. Our school children and elderly who rely on public transportation are scrambling. It is a hardship on people of this community.
- We need more transportation for school kids around New Hampton since we lost our local Chickasaw chassis. Day cares have no way to get school aged kids to school.
- We need a system to assist with getting daycare kids to school as it is too far to walk for 3-4 year olds.
- Transit bus for school age children!
- We don't have local public transit around town that is available to pedestrians and children
- Currently in New Hampton there is no transportation for the town kids to get to school. The only transportation company shut down earlier this year. So it can be improved by setting up a new business to help with transportation getting kids to and from school.
- More of it in rural areas - not enough companies providing public transportation
- We have no public transit currently in New Hampton and are in need.
- In a small community and there is none. Need a service.
- We do not have any transportation services in our town. The schools and parents are struggling with getting kids to school. I wish they had town bus stops. A lot of children don't take extracurricular activities as well because they don't have someone to take them to and from practice, if they live out of town.
- We have none.
- There's a huge need for a busing system to transport children to and from school especially from both in home daycares and daycare centers. The current buses don't transport kids.
- Availability for school aged students who need a ride to school especially on extremely cold days, or extremely hot days, instead of walking. Availability also for those who cannot drive themselves for any reason
- There's no public transport for kids in New Hampton Iowa. I give a child rides to and from school every day because they don't have a car and have no other way of getting her to school.
- Would be awesome to expand to our area as we have lost our public transport and we have school kids that are needing a safe way to and from school. I am a daycare provider who would know it would be a great thing to have in our town, knowing our kids are getting where they need to be safely as it is difficult for all daycare providers to help transport the kids with growing families
- Need to have more availability in the rural communities
- Be available for rural Iowa
- Kids that need rides to and from school, elderly people that need transportation, people without cars, people unable to rides, etc. do not have any local public transport anymore
- To actually provide it.
- Bring affordable transportation for kids to ride
- Increase availability as there are very limited to no options
- We don't have one
- Need better support for school transportation!
- Availability in rural areas.
- Need more for city kids that can't get take time off to get their kids to daycare.
- New Hampton lost our chassis that was hugely utilized for our school children. Now our little preschool kids have to walk, and someone is going to get killed. We need a safe way for our children to get to and from school
- Make it available, safe, and affordable. \$20 to go 6 blocks is excessive when the driver ignores all stop and yield signs.
- For small towns.
- Rural areas have next to nothing for public transportation. Availability, options...
- Public bus for to/from school and to/from Dr appointments and grocery store in New Hampton.
- Have County, Towns public transportation for those that are in need to get places
- Low flying drone passenger carriers. Electric trolley as well.
- New Hampton is in great need for bus service!
- Availability in smaller towns such as New Hampton.

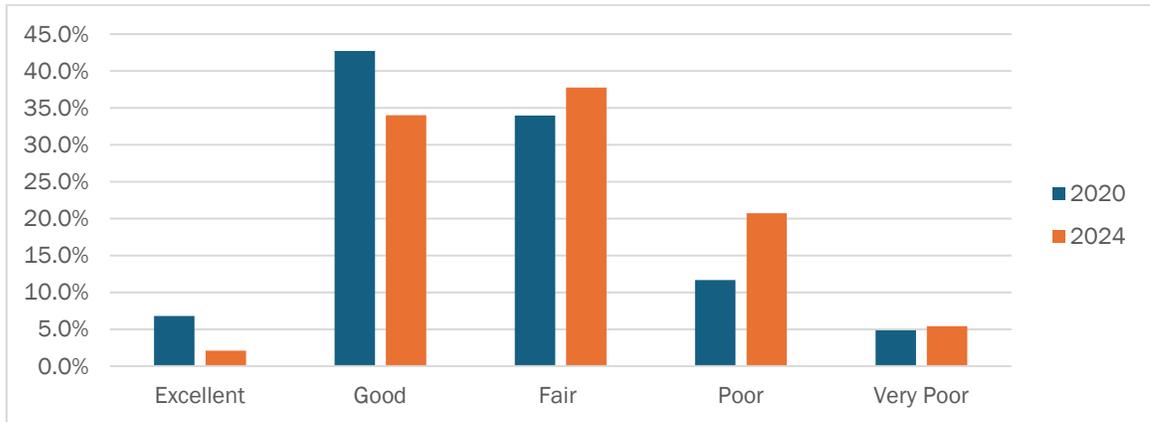
- Making scheduling easier
- No available public transportation to/from daycares to schools in New Hampton. The school does not offer bus service to all in town kids. I think they should add bus stops in all 4 quadrants of New Hampton.
- There is no public transportation system. No everyone has a car available to get groceries or go to doctor appointments.
- Add bus in New Hampton IA for kids for school
- Not sure as New Hampton is small
- Bus route to take town kids to both schools
- Availability needs major improvement. Adding any kind of public transport would help.
- We have no public transportation in New Hampton
- Getting a public transit system could help student gets to school
- We recently lost public transportation for school kids who live or go to daycare in New Hampton. We used the service when our kids were young. Options for after school transportation needed.
- We have a son with special needs and we live in town. We can't allow him to walk places on his own due to those special needs. We looked into the possibility of using the transit van in New Hampton for him to get from a daycare to school this was an option, but we opted to opt use it as the service was ending.
- We need to have one
- It is hard to get consistent public transportation in small towns due to its limited use and town walkability
- Hours
- Have no public transportation in New Hampton
- We have nothing and that makes life so hard for two parents that work or single parents, stay at home moms with babies. Plenty of my employees struggle with shifts at our factories and being able to get their child to and from.
- More service
- Have public transit available. Add passenger rail.
- At least one local transit in New Hampton
- Major city connections might be nice to have, but I'd rather see our roads, bridges, and trails improved versus adding more rail transit. We are culturally an automobile country and that is where we should be primarily investing in for transportation infrastructure. the rail network just doesn't exist and is cost prohibitive to create in the short term for sure and maybe even in the long term.
- Need service to take small children to school in town (some may have to walk 1.5 miles).
- Our community has a high need for transportation of town students to and from school. Transportation for the elderly population as well.
- I am not sure on this because I don't use this service now, so I don't know what is available. I did use the chassis when my kids were little to get to school and my grandma did when she lived alone and didn't have a car. To be able to have a chassis service to me is secondary to an ambulance service as far as its value to the community.
- We don't have public transit. it is needed.
- Having one available
- Availability for those with disabilities, longer hours of operation, add a passenger rail, make it eco-friendly and accessible. People in the rural counties that don't have a car are stranded and have very limited access to work.
- More buses for the current operating area. The ability to get users further distances or at least operate between the major cities (Cedar Falls, Waverly, Waterloo, Grundy Center). It'd be helpful if users could be brought from Grundy Center to Waverly or any commute matching the examples I listed in parenthesis. Hours of operation could include some evening routes and/or limited weekend transportation.
- Having available transportation services 24/7 would be outstanding but would at least like to see it available M-F 7:30am -5pm
- Small regional buses would be so helpful! Transport within town (New Hampton) and the surrounding communities would be great, especially in the summertime when kids have swim lessons and activities in town during the workday.
- More bus stops.
- Local transportation options would be helpful for in town transportation, especially for school children. New Hampton ended their chassis service and the competing service's prices were seven times higher. Passenger rail would be a neat idea, depending how far it goes.
- WE NEED TRANSPORTATION OF SOME SORT IN OUR NEW HAMPTON COMMUNITY!
- Availability to rural communities. Rural communities have no options to get around but to walk or own a vehicle. We need at minimum a transit bus transport for public use especially with very little parking.
- I'm not aware of any public transit currently. The one system in New Hampton was ended leaving many people without a way to get around.

- In town, in New Hampton for school aged children
- Daycare transportation in our small town
- Bus routes that connect all cities over 5,000
- Would love a train that connected major cities in Iowa to allow for options other than driving. In particular, Waterloo to CR/Coralville/IC & Waterloo to Des Moines.
- Adding some transit options for school aged kids that live in city limits.
- We need something to pick up children like we had when the Chickasaw Chassi was here. When my kids were young this got them from daycare to school. As well as from daycare to summer activities. Not sure why this is no longer available.
- Make one available that has licensed drivers who follow roadway laws.
- There is no public transit in New Hampton
- Availability for school aged children
- Insurance used to pay for transport to IA City. We could use some sort of mini bus to major hospitals in the area. People with eye appts have to find a driver.
- Could use more services for elderly and school age children
- Add passenger rail.
- Rail might be nice for stops along Highway 30 line, if people would use it enough.
- My town is too small for public transportation.
- Get Rid of it Save the Tax Payer
- Connectivity and availability
- Unfortunately, in rural areas, it isn't viable economically.
- Provide service to our area - New Hampton Iowa
- I lived in Yokohama, Japan for 3 years and their public transportation is great. Buses stop throughout neighborhoods with stops at local businesses and rail stations within the city limits. Trains take people out of town with stops and connections along the routes. It's a wonderfully easy system.
- There is NO reliable bus or rail near Bremer County. I did use the rail from Dubuque to Chicago when it was available years ago, When I go to cities with public transportation--Minneapolis (Lr) for example I use it. Don't see the any available in Bremer County any time soon.
- Little need in our area.
- Add Uber etc.
- Public transportation is fine in larger cities, not a rural idea. Too inconvenient
- A passenger rail would be amazing to see. I don't use other public transportation.

12. How would you rate our pedestrian infrastructure?

A. Answered: 241

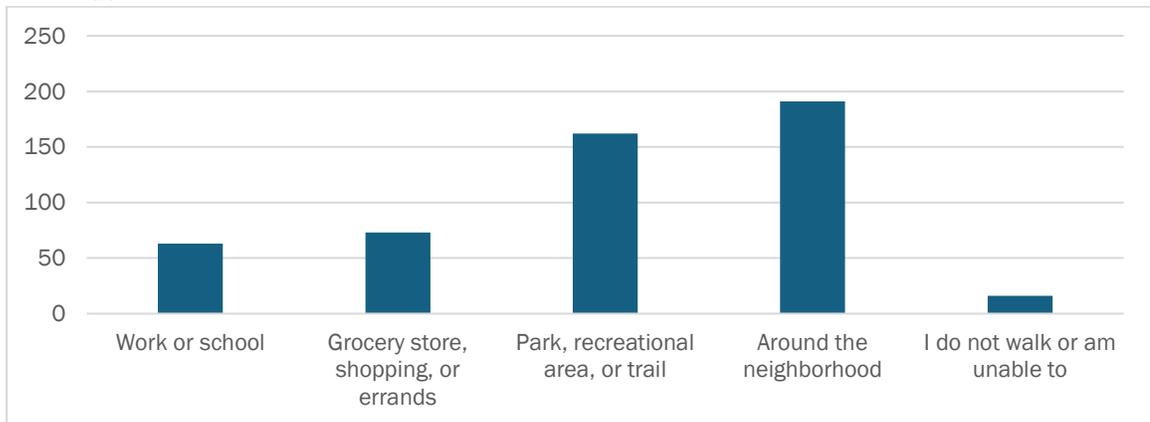
B. Skipped: 0



13. Where do you walk to? Select all that apply.

A. Answered: 241

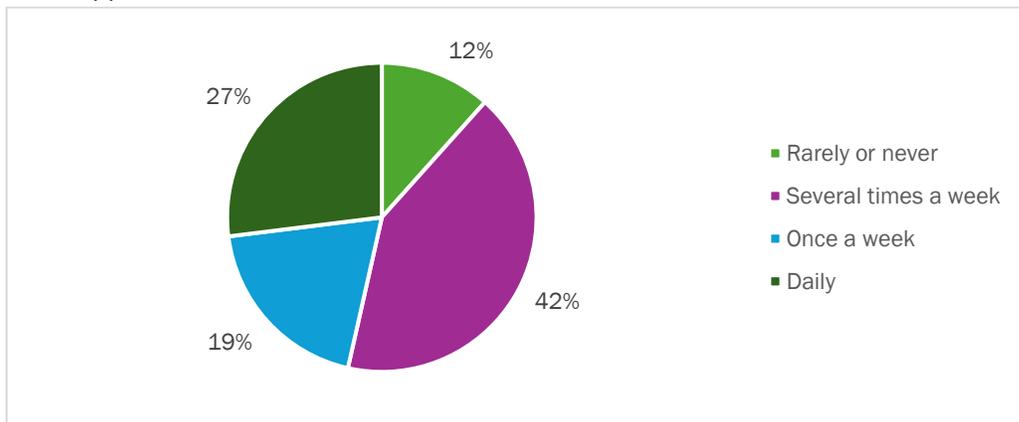
B. Skipped: 0



14. How often do you walk?

A. Answered: 241

B. Skipped: 0



15. Which road(s) would you improve for walking, and how would you do it?

The responses regarding road improvements for walking focus primarily on the need for better sidewalks, crosswalks, and lighting across various towns. Key points include:

- A. **Sidewalk Additions and Repairs:** Many towns, especially New Hampton, are noted for inconsistent or missing sidewalks. Specific streets, such as Hamilton St., Milwaukee St., and others, are frequently mentioned for needing sidewalks to enhance safety, especially around schools and high-traffic areas.
- B. **Crosswalks and Pedestrian Safety:** There are numerous calls for improved crosswalks, especially on busy streets like West Main St., Milwaukee St., and around schools. Some respondents suggest installing flashing lights or crosswalk signals to increase visibility and safety.
- C. **Trail Expansion and Connectivity:** Expanding and connecting walking trails, such as around parks and connecting neighborhoods, is a recurring suggestion. Trails like the Tribe Trail in New Hampton and proposed trail connections in Buchanan County are seen as positive additions.
- D. **Lighting Improvements:** Respondents stress the need for better street lighting, particularly for walking at night or in poorly lit areas.
- E. **Sidewalk and Crosswalk Maintenance:** Many responses highlight the poor condition of existing sidewalks and crosswalks, urging towns to repair uneven surfaces, clear debris, and maintain accessibility.
- F. **Traffic Calming and Signage:** Reducing speeding, adding stop signs, and improving signage around schools and pedestrian-heavy areas are common themes to enhance pedestrian safety.

Individual Responses:

- Many or all (x5)
- We need more grant opportunities to expand trails
- Cedar Lane in Waverly needs a place for walkers, runners and bikes.
- The city of Jesup could use more sidewalks or a walking trail.
- All of New Hampton's side streets
- Most all of them in New Hampton
- East Washington street in New Hampton needs more sidewalks as it's a heavily traveled. Part of the road only has one side with a sidewalk and another part has no sidewalk at all. A lot of people use that street to get to nearby parks and a store on east side of town
- W. Milwaukee by Zips needs a crosswalk for employees for they are not dodging cars to get to parking lot. All residential homes should have a sidewalk throughout town to make it easier to walk around town.
- Sidewalks in New Hampton aren't standard. You can be walking on a sidewalk and it will end mid-block.
- Lights and [crosswalks].
- More sidewalks through New Hampton, Ionia & Alta Vista - repair those that are there
- New Hampton recently made a very nice walking trail connecting the existing trail around the park on the east side of the town to the walking trail on the west side of the town. It's mostly connected now (due to be completed soon) and is a welcome addition to the town.
- Have walking trail
- School to School and Park to park roads
- Ionia sidewalks for daycare traffic is increasing because of closed bridge on 18 and kids on bikes are in danger they close back street by park kids are out in semi traffic speeding in Ionia
- Sidewalks could be repaired to be level to reduce fall hazards
- West Main Street from Western to the trail could use a sidewalk. There isn't one along there and it makes walking to the trail dangerous unless you go behind the CWC.

- How are we supposed to get sidewalks in New Hampton city limits if our Board of Adjustment and City offices constantly allow new builders to ask permission to NOT put in a sidewalk? The rule needs to be any NEW construction or cement work requires a sidewalk to be put in if it's not already there.
- Sidewalks on Milwaukee St in New Hampton
- Numerous sidewalks in New Hampton need to be replaced. The Tribe Trail in New Hampton is an awesome addition to our community!
- Hamilton from New Hampton Elementary to CWC, no sidewalk but a lot of foot traffic with kids walking
- North Pleasant Hill Ave in New Hampton--needs more sidewalks
- I can't say of the top of my head. There are a number of them in New Hampton that need repair.
- Reducing heavy traffic on busy walk routes. Have truck routes and make them use them.
- There needs to be pedestrian crossings on Main Street in New Hampton for those walking to the park.
- Sidewalks are rarely used anymore. They are in good condition.
- New Hampton's roads are fairly decent for walking purposes
- Add sidewalks to heavily vehicle roads. All of Hamilton St in New Hampton
- On Second Street South the sidewalk ends after 311 South Second St and then we have to walk on the street
- I live in a small town. Not many sidewalks left or being added as infrastructure. Most people here complain about them, so they get taken out by homeowner. Other town roads are pea gravel over tar. Once driven on, not terrible to walk on. Not all streets have this though.
- Would like to see a connecting trail system in Buchanan County that hooks up with the Cedar Valley Nature Trail - could consider trail system along the Wapsipinicon as well.
- Crosswalk could be installed on IA 24 near Zips, Inc. for workers.
- Over or under-passes for pedestrians to safely get through all of the roundabouts that seem to have been designed entirely without pedestrian safety in mind.
- People need to do a better job of maintaining sidewalks on their property. This means keeping weeds from growing in cracks and over edges of walks, removing overhanging branches and grass clippings, and removing snow in winter. Same goes for the recreational trails.
- Logan St in New Hampton and many other streets in New Hampton are dangerous for walkers and bikers and motorists.
- Sidewalks on Water St
- Put sidewalks in all parts of Aplington instead of the hit and miss that it now has. Sidewalks on West end of town, east end of town, South end of town, north of Main Street, on Gray Street, around city park, and fill in on all properties that do not have one on both sides or even on 1 side. We need consistency on our side walks.
- On some streets there are houses with and next them without sidewalks, so you have to walk in the street at times
- I think within a city all three of the items listed are very nice for walking. Good sidewalks, ample lighting & crosswalks. But I think we do a pretty good job with that in most cities.
- I always thought a bike trail all the way around New Hampton could be possible.
- We do not need walking trails in rural Grundy County
- General ideas for sidewalks: 1) Wide enough for 2 or 3 adults to walk together. 2) Smooth and without upheavals, uneven cracks, or other tripping hazards. 3) In winter, kept shoveled, plowed, blown, or brushed of snow and de-iced. Preferably done uniformly by the city. 4) Hedges and tree branches should be kept trimmed to not encroach on the path or poke your face. (Done either by property owner or city). 5) Wedged curbs at intersections are nice for walkers, bikers, and wheelchairs. 6) Bike rack locking rail designated areas downtown for shoppers and bike commuters. (Better if covered). 7) Think in terms of systems for walkers and bikes (like bike racks, posted safety rules for bike on sidewalks and or roads).
- When I lived in Japan and Europe I was impressed with their extensive, well planned, equipped, and maintained interactive systems for bike, cars, trains, and foot traffic, with shared and organized responsibilities by government, businesses, property owners, and patrons.
- Resurface the roads as they haven't been done in decades, they are a hazard due to the enormous potholes that are "bandaged" yearly with some cold patch.
- Sidewalk improvements and bike lanes
- Sidewalks often in disrepair or no sidewalk available
- I was forced to replace my sidewalk within 6 months of buying my house, but I have not seen any others in town with torn up horrible sidewalks being forced to replace theirs. We need decent sidewalks in Nashua to walk in.
- More recreational trails and better sidewalks and lighting around towns.
- Sidewalks in Nashua need to be upgraded, repaired or improved. They have been neglected for years. Old HWY Road in Nashua is used for walking and biking a lot and it is in serious shape.

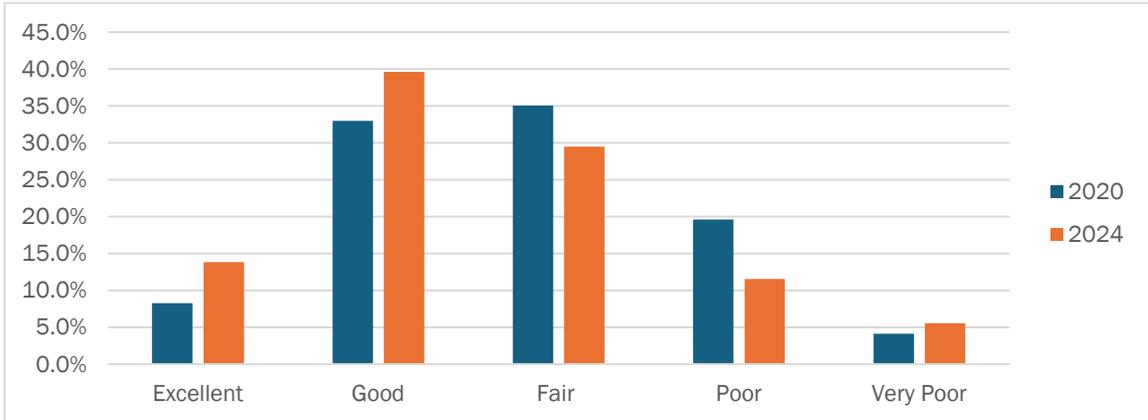
- Greeley Street. Residential areas just west of Main Street.
- The recreational trails are mowed too often and too wide. It greatly reduces the nature experience.
- Would like the Nature Trail from La Porte City north to Waterloo and to Cedar Falls improved as the asphalt has numerous cracks and is very rough riding a bicycle.
- La Porte Rd from W Main St to E Reinbeck Rd needs a sidewalk & lighting to get to Dollar General from town.
- They are fine for walking. Except for E. Washington going. There needs to be a stop sign at the corner of E. Washington St. and N. Water. And Washington and Foley. There is a big hill. Can't see over. There are at least 12 kids on this block alone. This road is a racetrack. Someone is going to get hurt or killed.
- I only use the pedestrian system for recreation. I have no good awareness of the conditions otherwise.
- West Main Street and 3 side streets with stop signs during before /after school. One way street ONLY during school hours for school drop offs! Crossing guard issues! Bath paths painted on South Maple as no sidewalks for children to walk to school! Stop sign during school hours t South Broadway and West Hamilton. Or pedestrian flashing lights so parents can cross!
- More crosswalks with walking lights. More lighting for kids during the walk.
- Almost all streets in Nashua could use sidewalks/improve sidewalks
- E Logan St more lights
- A lot of roads in town do not have sidewalks for kids to walk on so they have to walk alongside the road
- I would put a sidewalk along one of the main roads that's traveled by our grocery store. It's a main road from our park to our schools. I would have my children walk to school, but that road is just so busy and there is not a sidewalk.
- Hamilton Street from water street going east and west. sidewalks not available in full route to high school nor to the city park
- Add sidewalks all the way along Hamilton from Stolz Park area (Bigelow Ave) to the high school. I see lots of kids walking downside of road here.
- They are fine
- Not all streets in town have sidewalks. Add sidewalks to the North side of E Logan. Add sidewalks to the North side of W Hale.
- Lighting
- Crosswalk lights could be a little longer giving slower kids or people enough time to get off the road
- There needs to be a way to safely walk from the sidewalk that ends by the bike trail, to the bike trail by the factories that goes behind the McDonalds area. Also connected sidewalks on court street.
- Around the school would benefit with better crosswalks. There are also several roads that do not have sidewalks that would benefit from adding a walking/biking lane or a sidewalk.
- Sidewalks where we don't have them, safer ways for kids to get to and from school
- South Broadway
- Main Street school to 271 S Water Ave New Hampton Iowa
- Adding more sidewalks throughout New Hampton for safety
- Sidewalks - several areas in our town that need attention
- E. Prospect Street, better sidewalks
- Lots of dark streets in our town at night
- Better training and guards so drivers know not to drive in the bike/walk lane
- More sidewalks
- Better lighting/signage/flashing lights near St Joes school in New Hampton
- From school to NH daycares. My sister-in-laws are affected by this. I am not in the New Hampton district.
- South Maple and Hamilton
- Most main sidewalks
- New Hampton needs more cross walks across Linn Ave, or an elevated crosswalk above the street near the elementary school.
- Logan Ave
- Put more crosswalks in place.
- By the schools
- Even ground, pavement, safe crosswalk options...
- E Washington St in New Hampton with sidewalks
- Finish the sidewalks in New Hampton
- Lots of sidewalks need repair and many streets don't even have sidewalks
- Sidewalks throughout town and lighting
- Logan Ave and Cleveland Ave
- Push button that lights up when pedestrians walking to alert car drivers.

- N Jackson St in Fredericksburg between the Marsh Creek bridge and middle school needs a sidewalk. Also, trying to cross Main St in Fredericksburg sometimes is very difficult due to heavy traffic. Almost wonder if there should be a permanent stop sign/4 way stop near the middle school to make it easier for pedestrians to cross all times of the day.
- Public transport for kids
- Crosswalks by the school and on Main Street. Even by Fareway
- Stop light at Milwaukee and Linn Ave, Pedestrian crossing on Milwaukee for Zips Trucking
- Hamilton to school
- Sidewalks
- Lighting and crosswalks in many different areas.
- Too many dogs
- By the school
- Intersection of Highway 18 and Linn in New Hampton. Just east of Zips. Extremely busy corner. Recommend a stoplight. Lots of foot traffic in this area, walking north to Dollar General or the factory. Also Highway 18 across from Zips. Needs a crosswalk. Heavy foot traffic as workers cross the road to reach the parking lot.
- New Hampton: I would like all corners (even on side streets) be handicap accessible. Right now, it seems only one sidewalk needs to be accessible, causing you to have to turn right, then left to get straight across the street. Often times, the accessible 'ramped' sidewalks do not line up.
- E Harrison Street where it needs a better system for people to get across the streets. Crossing light only works for one way so it's dangerous unless a crossing guard steps in the middle of the road to protect kids.
- Sidewalks
- Residential sidewalks in New Hampton
- West Hamilton. All around elementary, and back side of middle school/high school
- Sidewalks
- 4th Avenue
- Like I stated in the previous page almost all of them from south of Main St.
- All of New Hampton Iowa
- Main Street from S Maple towards high school New Hampton. Add streetlights on S Maple Ave.
- Many side roads/residential roads throughout La Porte City have horrible sidewalks or none at all. heaved, sunken. The downtown area has blind corners near alleys that can be unsafe and again, everything except Main St has areas of opportunity for repair due to uneven or dangerous footing conditions.
- Some areas don't have sidewalks.
- Sidewalks
- Some roads don't have sidewalks and there are not crossing lights for walkers at busy intersections-Pleasant Hill and Main or Water and Main
- Broadway and Hamilton. W Main.
- E Main Street and w Main Street in New Hampton Iowa
- Again too many to mention specifically. The sidewalks in areas not connected to Main Street business is neglected. Sidewalks are tripping hazards. We have the walking trail which is new and smooth but just going to get your mail or take garbage out is pretty hazardous in many areas.
- Many streets need sidewalks and crosswalks for kids
- Safer crosswalks on South Linn, Hamilton and West Main Street especially by the schools!!
- Closer to school, crosswalks, more safety near the school and parks.
- Bike trails from rural areas to towns.
- Sidewalks are not maintained at a high enough quality. Usually walk on the edge of road or highway
- Maintaining a Cedar River bridge for the Rail Trail. Sidewalks to Wartburg baseball field needed.
- Hospital area
- Cedar Lane needs a sidewalk on the entire road for runners/walkers

16. How would you rate our bicycle infrastructure?

A. Answered: 241

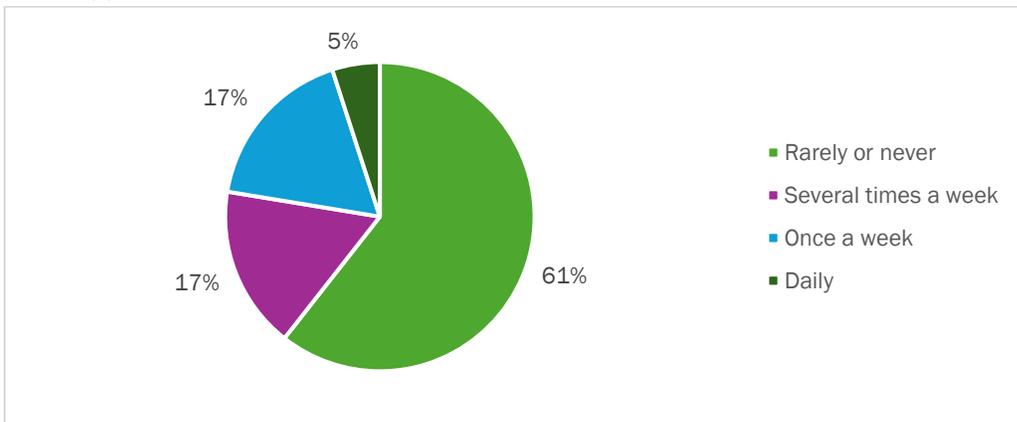
B. Skipped: 0



17. How often do you bike?

A. Answered: 241

B. Skipped: 0



18. Where do you bike to? Select all that apply.

A. Answered: 241

B. Skipped: 0



19. Which road(s) would you improve for biking, and how would you do it?

The responses gathered highlight a community-wide commitment to improving biking conditions, emphasizing the need for better infrastructure, maintenance, and safety measures to promote cycling as a viable mode of transportation. Key points include:

- A. **Infrastructure Improvements:** Many respondents emphasized the need for more bike lanes and dedicated bike trails to keep cyclists safe from traffic. Specific roads like Hamilton St, East Washington, and 4th and 5th Streets were mentioned as needing bike lanes. Additionally, shared road options and wider shoulders on roads were suggested to improve connectivity between existing trails.
- B. **Trail Maintenance:** The condition of trails, such as the Waverly Rail Trail and Cedar Valley Nature Trail, was highlighted, with calls for repaving and maintenance to address issues like cracks and overgrown vegetation. Respondents also requested better signage indicating bike lanes and paved shoulders to enhance awareness and safety.
- C. **Community Connectivity:** Suggestions included connecting bike paths to retail areas and schools to promote biking for daily errands, rather than just for recreation. Some responses pointed out that improving access to bike trails could help encourage more people to bike instead of relying on roads for transportation.
- D. **Safety Concerns:** Respondents noted the dangers of riding on busy roads without proper infrastructure, citing accidents and visibility issues. There were also calls for reduced speed limits near schools and community areas to improve safety for cyclists, ensuring a more secure environment for biking.
- E. **Additional Features:** Lighting improvements, particularly around newer trails, were mentioned to enhance safety during nighttime use. Some respondents suggested bike safety classes to educate riders about traffic laws and safety practices, promoting responsible cycling habits within the community.
- F. **Specific Recommendations:** A mix of suggestions for specific roads included adding bike lanes on Union Rd, Ansborough St, and S Linn Ave. Proposals for enhancing the Cedar Valley Nature Trail and linking trails to broader regional networks were frequently mentioned, indicating a strong desire for interconnected biking routes.

Individual Responses:

- All (x3)
- Expand opportunities for communities to build trails
- Biking needs to be off of roads.
- Most of them in New Hampton
- East Washington would be a good road to have a bike lane as that is a heavily traveled road
- Sidewalks through out town.
- The Waverly Rail Trail to Readlyn and Denver is rough and needs repaved. Also, Waverly to Butler County via Hwy 3 is not safe.
- New Hampton has an amazing trail system.
- All small towns could use either bike lanes
- Use riding trail
- Bike lanes less traffic just streets
- I bike on trails
- Bike lanes are all well and good but most bikers do not ride in the street if there is a sidewalk available.
- A bike path around Chickasaw Basin area

- I see many bikers on the blacktop between New Hampton and Ionia. This is very dangerous since there is basically no shoulder.
- Hamilton, it is a bike route but no markings on the road for safety
- Most of our roads do not have bike lanes.
- Maintenance and more opportunity
- Bikes trails are in good condition. No improvements are necessary.
- Lighting around the new addition to the tribe trail would be wonderful
- Adding a bike lane on Hamilton St in New Hampton. Adding a bike lane on S Linn Ave in New Hampton.
- We have no bike lanes in town just in the street
- Any town street that needs attention
- There have been fatal or almost fatal accidents with bikers on the rural highways. Roads are not wide enough or drivers have poor visibility. I've seen some areas put in bike/walking trails miles long to great success (Quad Cities, near Dubuque, Cedar Rapids area to name a few) that have gotten a mass majority of bikers off the highways. Walkers and bikers would all benefit from it and give the communities a great amenity.
- All roads should have a bike lane to ensure safety.
- New Chickasaw Trail is great
- Allow bikes on the trails/sidewalks and not in the streets. I know many want them to "share the lane" but it's not safe at all
- New Hampton has a great Tribe trail
- Too many to name in New Hampton
- Trails would be great
- Offer bike safety classes as very few of bike riders obey traffic laws!
- Bike lane on Joseph Rd, Dunkerton Rd, Sal Ave, Carroll Blvd, Main St, Stickney etc.
- I think biking should be totally separate from traffic, so I think building bike trails & bike lanes a little ways apart from regular lanes of traffic would be best & safer.
- Bike trail around New Hampton.
- None, don't tear up rural farmland for this dumb
- I rarely ride bike but my wife does a lot, for all the reasons above. My comments about bikes are in previous question about sidewalks. However, I didn't think about lighting. That's a good point.
- Same answer as pedestrian - all city roads are in poor to very poor condition and are not very safe due to the large potholes.
- Hwy 346
- We do not have bike trails in Nashua
- More trails.
- When roads are constructed or improved, some have increased shoulders. I would like to see bike paths integrated at those times. One example would have been from Nashua east on Hwy 346 at least to the Little Brown Church. Doing that and making a beginning and ending trail for tourism would be good.
- Old HWY Road is where there is biking in Nashua
- Reducing speeds on Greeley Street. Better lighting on this street.
- Connect your trail system to other communities
- Increase bike trails
- A bike lane to and from Denver would be great! A bike lane on Union Road north of Cedar Falls would be great. Once the Cedar Valley Nature Trail is finished, you can ride from Cedar Falls to Iowa City or vice-versa. Promote this fantastic accomplishment! Maximum speed on trails should be 15 mph. Too many electric and throttle bikes are going well over 20 mph, and make the trails very unsafe.
- Please improve the Nature Trail from La Porte City Trail entrance north to Waterloo and also to Cedar Falls. The asphalt trail has numerous cracks and heaving making it very rough to ride a bicycle. We have heard numerous same comments from others. We take our bicycles to other towns to bicycle since they have nice smooth trails.
- Bike lane on all roads.
- More bike trails to locations on the outskirts of town adding access to the casino, Hawkeye College, public housing, etc.
- Reduced speeds on West Main and South Hamilton
- Our trail is complete and pretty safe to ride on
- Almost all roads in Nashua - trails are needed, improved sidewalks
- Not a lot of sidewalks in New Hampton so kids have to ride on the busy roads to school.
- We have a bike trail, but again There is a main road that's heavily traveled by kids walking to and from school that has no sidewalk or bikes or people walking.
- Same as sidewalks. Only aware of one road in town that has a bike lane available.

- E. Logan going from Hwy 63 to Mission Ave. This is a way to get on the Tribe Trail and people go very fast near the trailhead.
- We have a new bike trail
- The new bike trail is really nice, but it's on the outskirts of town and is for recreation not necessity of getting places. Kids can't really use it to get to school and people don't ride it to go to work or run errands.
- Speed and lights
- South Broadway
- E. Prospect Street
- 4th Street part of the tribe trail - drivers still use the bike lane as a drive lane, very dangerous after dark!
- New bike trail
- More paved shoulders/wider shoulders on county blacktops would be nice.
- South Maple
- Add trail on all of Milwaukee
- Create bike lanes near schools and libraries.
- Maintain current locations. Resurface broken, uneven concrete. Better crosswalk options.
- Bike lanes on Main St or Avenues to connect neighborhoods to bike trails in New Hampton because the streets are so rough and broken/cracking they're dangerous to ride on.
- All roads wider shoulders for biking on
- No bike lanes. Expand the trails more to main businesses
- Many in need of repair
- Lighting
- Logan Ave and Cleveland Ave
- I am worried about potholes when biking
- It is not safe to bike on roads. I only bike on trails or exercise.
- I don't usually ride my bike but my husband rides his bike to work. I think overall, there are no issues. Main St in Fredericksburg doesn't allow bikes on the sidewalk where their businesses are. They've stated on their Facebook page that there will be a fee if caught riding on the sidewalk. However, there are no signs on Main St that we've ever seen. They should get a no bike sign so everyone knows this rule. The Fredericksburg library has a bike rack which is nice.
- Bike racks and lanes
- Trail around industrial need some updates
- Hamilton to school
- Better shoulders on all roads.
- S Water Ave, W Hamilton Street, Main Street. A lot of people biking with no real safe space to.
- Bike lanes on Hwy 24 out of New Hampton
- Bike lane to school
- W Hamilton
- Hwy 18
- 4th Avenue
- Locust, Water, Chestnut
- Bike trails are good just roads are rough
- Add more bike lanes around town
- Cedar Valley Nature Trail is very rough with lots of deep holes that need repair. Hitting a hole can nearly wipe a person out. South of Waterloo on Cedar Prairie Trail there is a bridge that crosses the Black Hawk Creek... This bridge has so many trees piled up against it and it looks like it has already started to shift... it could possibly fail in the next flood. Overall the trail network is nice and I don't want to lose any of it. I would always appreciate more, but the big thing we need more of is maintenance on what we already have. When trails or paths do get damaged they are closed or are dangerous for a long time before anything is done about it. Investment in a trail user networking app (and marketing for the app) for reporting areas of concern could improve trail monitoring and could help pinpoint areas that really need maintenance.
- Crossings
- Trail
- The area just finished an amazing trail
- Could use bike lanes and signs
- Crossing over South Linn using the TRIBE trail!
- Lighting, improving sidewalks
- There really needs to be a bike trail, separate from the road on Union Rd. and Finchford Rd. from Cedar Falls to Finchford.
- In New Hampton, the road quality varies greatly across the town. I'd like to see some of the money the city council has set aside start to go towards cement road repairs and less of the tar and gravel repairs.

- Maple, Broadway, Hamilton
- Reduce speeds and or stop signs down West Main in 2 areas for sure. Kids can't cross safely. West Hamilton is a huge problem!! HELP
- Extend our bike trail to airport park
- Linn Ave
- New Hampton has almost no bike lanes for transportation within the city areas. Coupled with prohibiting people from sidewalk biking it means minors including would have to bike on the roads. Reducing speeds near schools would help.
- Logan, Cleveland, Water Ave
- Bike lanes in town or wide sidewalks for kids to ride on
- Find more options to link our trail with others. This is a tourist investment.
- There needs to be a designated route
- Bike Trails need to be extended out into Chickasaw County. There is only about 6 miles of trail in city limits and the county roads are dangerous to ride on.
- Make the trail complete so can ride on just trail and not streets as part of it.
- Bike lanes on Milwaukee, Linn, and Main St in New Hampton, IA.
- Create more bike lanes
- We have a nice trail
- Everything west of maple street to the schools
- Speed is a problem on all county roads
- Having better access to trails would be very beneficial, as they are great for biking/walking, but can be difficult to get to.
- Bike trails are improving :)
- The "Beaman blacktop" in Marshall County has a strip of asphalt off to the sides to make biking safer. Be nice if the same conditions existed in Grundy County on that stretch.
- side streets have uneven surfaces.
- I love our bike trail and feel fortunate to have it. I do worry about the portion where you have to cross S. Linn Ave due to it being a busy street with vehicles moving at a face pace. I mostly worry that a child who is biking unsupervised would cross without paying close enough attention to traffic, so I think that the more signs/flashing lights/etc. we can have in that spot to warn vehicles, the better
- All of the roads that the Bikers pay road use tax on
- Bike lanes needed throughout town
- Bike lanes on all roads that don't have them, including rural. We ride around southern Grundy County and roads in/out of Conrad and Beaman have little to no shoulder or bike lanes. D67 east and west of Conrad, Hawk Ave north of Conrad, T29/J Ave north of Beaman, 310th St between Highway 14 and T29.
- Adding paved shoulder outside a rumble strip like 14 has to any road would be great.
- 6th Street & South Street
- I would eliminate the existing bike lanes downtown. They are unused and confusing. I would create a connecting series of bike paths between neighborhoods connected to the walking path downtown.
- Limited availability and not adequately maintained.
- Maintain Waverly Rail Trail to Denver & expand to be able to link to other nearby trails
- Lovers Lane
- Grundy uses a stone over lay of tar. That is not safe for any bike.
- The highway between New Hartford and Dike off of Highway 57, I would add a paved shoulder so bikes can get over. Lots of people use it for biking but the road is narrow with no paved shoulder and it's very hilly so it's hard to pass.

20. What is the number one transportation problem in your life?

Respondents identified several transportation challenges impacting their daily lives, with the most common issues summarized as follows.

- A. **Road Conditions:** Many respondents expressed frustration over deteriorating roads, potholes, and gravel roads, which lead to vehicle damage and unsafe driving conditions. Specific roads in need of repair, such as Barclay Road and New Hampton streets, were frequently mentioned.
- B. **Public Transportation:** A common issue was the lack of public transportation, especially in smaller towns. Respondents highlighted the need for transportation options for children, elderly citizens, and those who need to travel for medical appointments or daily errands.
- C. **Cost of Fuel and Vehicle Maintenance:** Several respondents cited the rising cost of gas and vehicle maintenance as significant barriers to reliable transportation, particularly in rural areas where personal vehicles are the only option.
- D. **School Transportation:** Many parents expressed concerns about the lack of school bus services, especially in town, making it difficult for children to get to and from school or daycare safely.
- E. **Cycling and Pedestrian Safety:** Some respondents emphasized the need for improved biking and walking infrastructure, including more trails and safer sidewalks.
- F. **Bridges and Snow Removal:** Poorly maintained bridges and insufficient snow removal in some counties were mentioned as additional challenges, making transportation during the winter more hazardous.

Individual Responses:

- Cost of gas/fuel (x7)
- Bike trails
- Bridges rated low/closed.
- Barclay Road being a gravel road.
- Horrible roadways and then ruining expensive tires on all my vehicles
- No transportation. I would like a transportation company to take me to recreational things. Like Fair, Movies, GO visit family and friends in another town
- Transportation for my kid for school in town. We no longer have a chassis bus for transportation and school only has one bus stop in town for kids. Need a bus for kids to get to school from in home daycares
- No bus service in town for children to be picked up before and after school.
- Lack of common sense in government. For example, that roads/economic growth development plans aren't better aligned for increased traffic patterns. Or that counties (Bremer) spend money for a road (V49) to accommodate two-three rich farmers when the money could have improved highways in need of repair that serve larger numbers of people.
- Rough roads.
- Poor road conditions/potholes
- Having to drive on gravel roads in this rural community that I live in
- Not having transportation for my kids from daycare to school anymore.
- Taking mother-in-law to appointments
- The bicycling network is too disconnected. I live in Cedar Falls but go to Waterloo a lot but there isn't usually an easy way to bike there, especially the area between US 63, 218, and 20.
- Trying to keep vehicles together from driving on our roads
- Need community transportation from smaller communities to hospitals groceries courthouse etc. for older people to revive small towns
- Deteriorating roads and bridges.

- Bridges. Feel they are not checked like they should be
- Chickasaw county does not do a very good job of snow removal. The city of New Hampton is in dire need of new streets and infrastructure and this cannot be ignored any longer. Patching holes, adding more gravel and tar on top of an already bad road cannot continue forever. North Water Street in New Hampton is so bad that if you park on the side of the street, you can barely open your door because the center of the street is so far above the sidewalk.
- Public transportation in smaller towns for the elderly.
- The city streets in New Hampton are a much bigger issue than the county and state roads.
- Rough roads in New Hampton
- Gravel roads
- Insurance and taxes
- People need ride to and from medical care and specifically after hours needs.
- These roads are horrible and are extremely hard on my car. Also, they make getting into my new driveway impossible. Also, the DOT is not consistent and are brutal to work with. We live on main and now have to sell because they made it so that we cannot get our cars in the driveway. They stated, they don't care.
- I have no problems with transportation in my life other than when government bureaucrats make unnecessary laws than infringe on my rights.
- gravel roads being covered with poor quality rock. It disintegrates within a week on a heavily traveled road
- Gas prices
- The bad roads in many cities and counties in NE IA
- 0 problem right now. My own car I can afford to run.
- There's only one option - use of personal vehicle. Passenger rail to connect our bigger cities (Waterloo/Cedar Rapids/Iowa city to start) would give an excellent option for commuters to access affordable travel for healthcare, expand their job opportunities, relieve traffic in high congested areas)
- Electric charge stations for my EV while we travel - very difficult to find any stations near the main Highways with rapid charging stations.
- Walking as recovering from an ankle fracture
- Uneducated arrogant drivers not yielding the right of way causing near misses or accidents.
- Democrats destroying oil production resulting in high fuel prices, even with ethanol.
- Limited airline access in Waterloo. Also train access is limited in Northern Iowa.
- Traffic light seem to be restricting traffic flow.
- Deteriorating conditions and quantity of traffic lights and or without smart controls.
- Poorly skilled drivers posing a risk to me as a motorist, cyclist, and pedestrian.
- I can't think of one. I'm privileged that I have a vehicle and the money to maintain it and pay for gas.
- Construction work.
- For me it's fine. But I know several that don't/can't drive. They need better, more reliable transportation.
- Busses don't run late enough and sometimes not early enough or they don't go to the places they need.
- Too few EV charging stations. I would like to get an EV but infrastructure isn't there yet.
- Traffic when I go to bigger cities. No problems in the cedar valley
- Slow traffic lights changing. Ridgway/Greyhound Drive. Waterloo
- Too many uncoordinated traffic lights. Bring traffic light controls up to the 21st century with computerized controls so we're not sitting at lights with no traffic.
- I have none, our community has many including affordability of public transit.
- Inadequate commercial air service.
- Bumps and unlevel seams in pavements.
- City streets in New Hampton
- Worry about vehicles rolling through stop sign after getting off interstate between Winthrop and Quasqueton
- No public transportation, bus, train, ways to get to Dr appointments, etc.
- little access to good public transit
- Road closures
- Rough roads
- Poorly paved roads, potholes
- Installing roundabouts - these shut roads down for 2 construction seasons. Putting art in the middle that is surrounded by weeds is a waste of tax dollars. Signage in advance of roundabouts is lacking.
- Merge lanes at heavily used ramps are way too short.
- Potholes cause major vehicle damage and are more than challenging to a bike rider.
- I wish Hwy 63 were four lanes all the way to Rochester, MN
- Costs. But I doubt you can do anything about that.
- Condition of the roads because that is really the only transportation source that I utilize except walking.

- Fix roads with structural damage
- Age
- Besides the city streets not being cleared if snow in the early morning hours so I can get out to get to work, I would say public transportation is needed.
- I would like to see more trails.
- Construction. A long distance for pilot cars.
- Walking.
- The numerous roundabouts in my area are such a great improvement that I get annoyed at stop lights.
- Quality of roads. Lots of potholes.
- Trying to assist HCC students with accessible, affordable, timely transportation to and from HCC whether they live in Cedar Falls, Waterloo, Evansdale, Elk Run or other close by communities.
- Gas Prices/Rough Roads/snow removal - specifically icy roads because Randy Bennett - Public Works Director in Waterloo thinks salt or brine is best but that only works above 20 degrees and we live in Iowa where it's colder than 20 degree often. I understand not using sand due to the sewer system but there has to be a better option and why do our plows tear up the roads so bad even when they don't plow to concrete? Marion, Iowa doesn't look like Waterloo. They seem to have figured something out.
- Bikes who don't follow the rules of the road.
- The cost of cars and gas
- Getting college students moved back and forth between Hawkeye CC and UNI.
- Rough trails in Black Hawk County
- Vehicles not observed traffic rules, speeding, passing in no passing zones & not paying attention to surroundings, especially on 218 between La Porte City & Waterloo.
- The availability of convenient and cost effective transportation to low income, immigrant, international and college age adults.
- Getting school age students to and from school
- Getting preschoolers to and from schools from care.
- A student transit, safe routes to school
- No transportation for in town kids to school
- Getting my kids to school safely, especially during the winter.
- Rough roads and sidewalks
- No ride from school for my kids
- There is no public transportation for town students to and from school in New Hampton and not a lot of sidewalks to walk on.
- Transporting kids that cannot drive.
- It's not safe for my children to walk to and from school or to the park because of sidewalks and no pedestrian crossings. There is also no public former transportation to get children to and from school or daycare that live in town.
- Child getting to and from school
- Kids safety walking home from school
- Gas money
- New Hampton needs more transportation options for students who live in city limits
- A way for my 5 and 7 year old to get to and from school and daycare.
- Public transportation for our town for those who cannot drive, and for school aged children getting to and from school
- Getting my kids to and from school in the winter time as both parents work and are not able to take them to school
- Unsafe and congested parking/traffic by the elementary school. Worrying about getting kids to school that don't have transportation.
- Limited options for children/families.
- Getting all the children I care for including my own safely to/from school. This town has been growing in numbers and we are struggling to get children to school to get a good education as a lot of parents work during those hours and expect daycare to get them there but most of us are unable to transport that many children safely.
- Public transport for children
- Personal vehicle
- Transportation for daycare and school aged children
- Places without sidewalks and not having any public transit
- Students having difficulty finding transportation to school.
- There is none for children that is affordable.

- School bus transportation or lack of. Kids are having to walk long distances for bus stops in town, which is a safety concern and issue.
- Potholes
- Getting my kids to and from school/daycare
- I don't need public transportation at this time but some of my neighbors do and it is very costly for senior citizens to use
- Getting kids to daycare after school in New Hampton
- We need a chassis or something safe for our school children
- No activity bus
- Bad roads in New Hampton
- Need for better roads
- Long bus routes
- It is too expensive and unsafe.
- Need more public transportation
- No public transportation.
- Hearing town kids don't have a safe way to get to school. Elderly, handicap folks have a hard time getting a ride to get groceries, appointments or anywhere
- Poor roads
- No public transit
- Getting my special needs brother to and from his job
- Roads could use improvement.
- No transit
- Bus for my grandchild
- No access to public transportation
- Uncontrolled intersections on gravel roads
- My biggest problem is a personal problem: not checking the gas gauge when leaving. Too many times I've left town and then realize I'm almost on E. This has happened to me multiple times while driving to Waverly. I think there should maybe be a gas station off of 63 somewhere between Waverly and Fredericksburg. Kind of surprising there aren't more gas stations off of 63.
- Need transport for our kids to school in New Hampton IA
- Crosswalk safety
- Patchy roads in town
- Ride to /from schools for your kids
- Getting kids to and from activities during the day or field trips
- Cost/lack of availability
- Transportation for my student from daycare to school
- Driving on poor quality roads, mostly highways. Potholes
- Getting kids to and from
- Roads in poor condition.
- There not being a lot of direction or safety during rush hours for parents or people after work.
- We need public bus service in New Hampton
- Issues with no transportation for children of daycare age in New Hampton
- Congested roads around school in am and afternoon.
- Operations
- No public transportation
- My employees
- Gas Prices
- Unsatisfactory roads and gas prices.
- Handicap parking
- Not having enough transportation in town for children to get to school.
- Winter road maintenance and potholes.
- Price of gas.
- No transportation here
- Lack of public transportation from my home in the event my car is not usable.
- Roads
- Deteriorating streets
- Roads in New Hampton Iowa that shake your whole car!
- The roads are so bumpy I can't keep coffee in my cup and it actually hits my back and I slow down and are perfectly aware of every bump so it's not like I am flying down the road.

- Money for gas
- Transportation for elderly to appointments and young children who live in town to and from school.
- Kids safety om bikes and walking
- I work with people in Bremer County. People in the rural counties that don't have a car are stranded and have very limited access to work. This increases poverty with those people. I live in the country and have a lot of issues with bikers on Union Rd and Cedar Wapsi from Cedar Falls to Finchford. It's dangerous for bikers to be on that road with cars. There are a lot of curves.
- Bremer Ave Bridge that is closed in Waverly
- Time on bus and route getting me where I need to go without walking for more than a mile
- The people I serve (people with disabilities) need more bus transportation for work at night and occasionally on weekends.
- Not having any transportation available in New Hampton
- Lack of safe and reliable backup transportation during the workday for my kids during the summer.
- The bus system for the school.
- Pedestrian travel around New Hampton is not consistent. Sidewalk access should be expanded and upgraded across town to give students and citizens safe places to walk to get to school. Major traffic areas like W Hamilton and N Pleasant Hill Ave should have accessible sidewalks for pedestrians to avoid car traffic.
- Safe sidewalks!!!
- Gas prices
- NO TRANSPORTATION SYSTEM in Chickasaw County
- Without the Chickasaw Chassis there are few options.
- Safe walking/sidewalks in my town. Lack of public transit in my town. Community willing to pay for service but slim to no options.
- School transportation and safety of dropping off and picking up children, available parking.
- Condition of roads
- Transporting kids to school and home in town
- Poor road quality
- Air service is a long way away
- Roads
- Honestly, the reliance on driving. Having moved here after living in Des Moines and Chicago, I became really car dependent for everyday life (work, errands, store, etc.). Also, a lot of the roads don't make sense in Waterloo (did the planners have an aversion to using a grid?). I've been here 20 years and am still occasionally unsure of how to get somewhere.
- Chickasaw County needs to add bike trails!!
- The lack of school bus transportation for children in Chickasaw County.
- For me none but I understand the younger families of our community are desperately in need.
- Summer transportation for children activities
- Availability
- Need sidewalks
- Getting my children to & from school
- Safety and availability
- When I am sick
- Lacking sidewalks, signage for getting to local trails.
- Trains left stopped over intersections for hours and sometimes even days
- Safer biking
- Walking on South Hamilton Street
- Fuel Price
- Safe transportation for children to and from schools including living new/improved sidewalks
- Limited bike trails
- I don't really have one. I chose to live in rural Iowa for the quality of life so the lack of public transportation wasn't a consideration.
- Inadequate walking and biking trails within the City of Jesup Limits
- Having transportation to Rochester Minnesota for medical appointments
- At present I am able to drive. If I lose my ability to drive I will not be able to get to needed stores or resources.
- Traffic @ Waverly elementary schools
- No way to avoid through traffic in Independence
- Lousy roads.
- The gravel road to my house.
- Personal car

21. What do you think will be the biggest transportation challenge in the next 25 years?

The biggest transportation challenges will involve maintaining aging infrastructure and addressing public transportation gaps, especially in rural areas. Rising costs, environmental concerns, and the need for accessible transit will further strain the system, requiring innovative solutions and equitable funding. Common challenges are summarized as follows.

- A. **Maintenance of aging infrastructure:** Concerns about deteriorating roads, bridges, and insufficient funding to keep them up to date.
- B. **Public transportation gaps:** A significant lack of public transportation options, particularly in rural areas, affecting children, the elderly, and non-drivers.
- C. **Rising costs:** Increased expenses for fuel, infrastructure repairs, and electric vehicle transition, coupled with stagnant transportation funding.
- D. **Rural vs. urban disparity:** Emphasis on rural areas being left behind while funding and improvements focus on urban centers.
- E. **Environmental concerns:** Growing pollution from vehicles and the need for more sustainable transportation options, such as electric vehicles, though infrastructure for them is insufficient.
- F. **Accessibility and equity:** Issues with transportation for vulnerable populations, such as the elderly and young children, particularly in small towns without public transit options.
- G. **Workforce challenges:** Difficulty finding qualified workers to maintain and repair transportation infrastructure.
- H. **Electric vehicle transition:** Concerns over the power grid's ability to support electric vehicles and the need for more charging stations.
- I. **Safety:** Increasing traffic, distracted driving, and unsafe road conditions present ongoing safety challenges.
- J. **Transportation for specific populations:** Difficulty in providing transportation for children, elderly, and people with disabilities to essential services like school, medical appointments, and shopping.
- K. **Congestion and urban sprawl:** Challenges related to growing traffic congestion and urban sprawl, making it harder to implement efficient transportation systems.
- L. **Climate change regulations:** Concerns about potential stringent regulations due to climate change and the impact on transportation habits.

Individual Responses:

- Gas/fuel prices (x7)
- Roads (x4)
- Electric vehicles (x4)
- Public transit/transportation (x3)
- Cost (x3)
- Gas/fuel (x2)
- Afford upkeep on existing bridges and roads
- Getting ahead and then keeping up with the bridge maintenance rotation.
- More road space/wider roads in the country
- There isn't going to be transportation for those that don't drive.
- Buses
- Growing rural transportation barriers due to continued rising costs.
- Pollution from vehicles

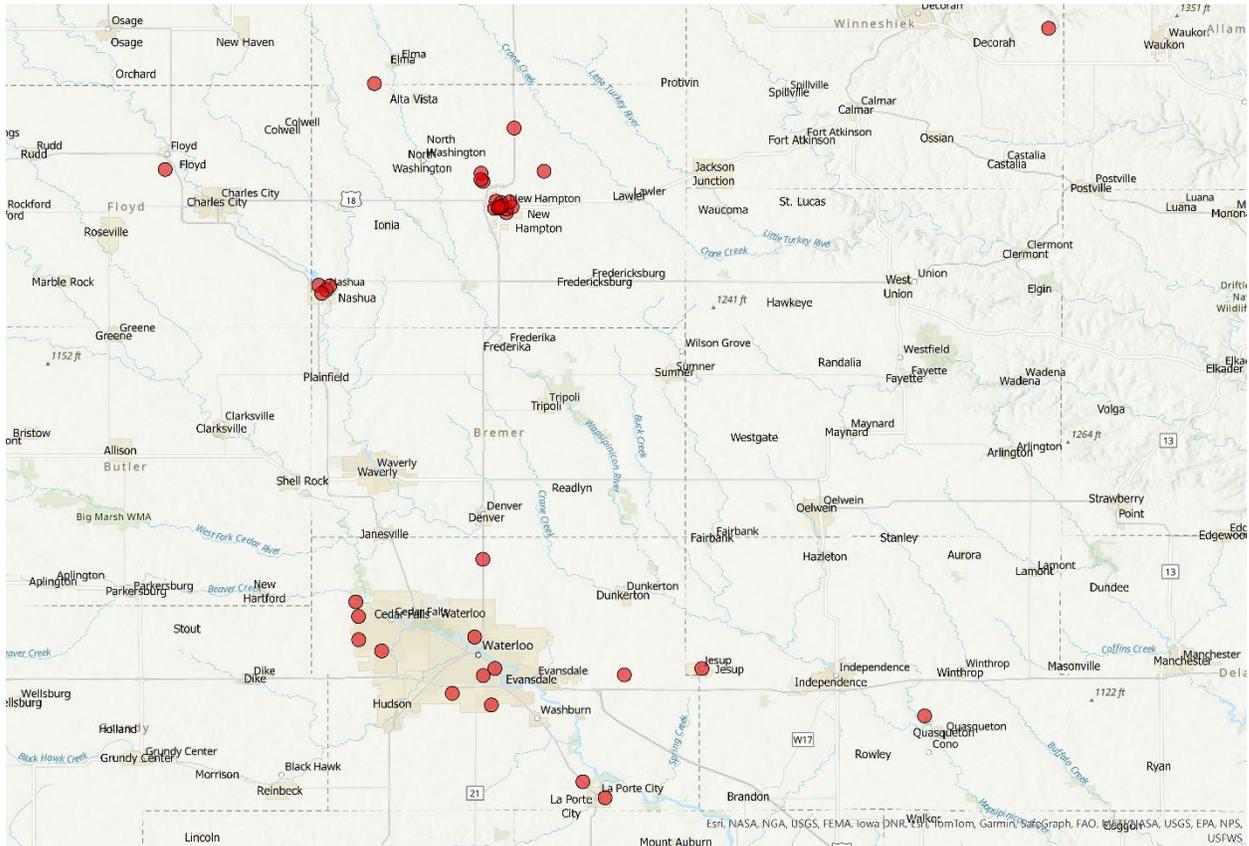
- Crumbing roads and bridges
- Road/bridge quality. lack of paved roads.
- Handling the increased traffic on roads and bridges that don't have a lot of funding to keep them up-to-date and safe to travel on.
- Transportation from in home daycares to school and other activities for children
- Elderly not able to drive
- Cities being too spread out to easily access areas by biking or walking
- Road use tax has roughly stayed the same for the last 20 years while construction cost have more than tripled. Kind of hard to fix anything without funding. Money always goes to big cities.
- We need amtrac closer less road trips
- The money and projects continue to focus on the larger urban areas and rural communities are being left behind.
- Cost of fuel, switching to electric vehicles and a lack of power grid to support them, poor infrastructure.
- Money and good workers.
- We're in Iowa, it snows, there's ice, we have to treat our roads with an ice melt which destroys our roads and our cars. We need a bigger budget to repair roads the right way instead of kicking the can down the road until it becomes someone else's problem.
- Transportation for the elderly and preschool age children.
- Replacement of bridges.
- Getting kids to and from school
- Maintaining aging roads and bridges
- Insurance and taxes
- More and more people will need rides for healthcare.
- Keeping infrastructure up to date with increased use of the transportation roads
- Making the DOT give a damn about the people. They cared so much about our driveway because it connected to Main Street, but don't care that the road they maintain is full of potholes. Not impressed.
- None. Paying excessively high taxes will be my personal challenge as I near retirement.
- County roads and gravel roads specifically in Chickasaw County. safety of bridges. Hwy 24 going thru New Hampton to Lawler. Semi traffic going to the ethanol plant. Any gravel roads in northern Chickasaw County due to heavy, heavy traffic from Reicksview Farms. We shouldn't have to put up with ruts that are a foot deep - no exaggeration - due to one business and all it's heavy traffic. spring is awful because of them.
- Lack of public transport for in-town students to get to school
- Money to fix the roads/bridges
- We have no place but the road
- Having more handicap accessible rides available
- Cost of travel for the average American. Ways to connect our public systems nationally so that long traveling isn't reliant only on personal vehicle and airlines only. I think having a well established local system will give us a better shot at Amtrak (for example) to hook us into their National system.
- Building the EV infrastructure.
- Improvement of roads outside of the big cities and urban areas
- TOO MANY cars per family.
- Leaving behind the folly of electric vehicles.
- Roads need to be maintained better. Speed limits hinder faster travel on Iowa state roads.
- Distracted driving.
- Deteriorating conditions and lack of proper maintenance.
- Bridges
- Better public transportation.
- Transition to electric vehicles and the infrastructure for that.
- Fuel and infrastructure.
- I don't see it changing much
- Need to encourage people to use public transit more and personal vehicles less, to reduce CO2 emissions
- Roads deteriorating and not keeping up on replacing/ resurfacing. Add paved shoulders to more roads and up the speed limit
- Public transportation and reliable on time passenger train service, intercity and long distance.
- Too much urban sprawl that makes it difficult to provide public transport.
- Road infrastructure
- Retaining airline service.
- Road maintenance without disrupting traffic flow.
- Repairs for roads and bridges

- Elderly getting rides for health, food, recreation.
- Passenger rail
- The amount of roads that need improvement.
- Continual road decay & heavier traffic
- Price of fuel. Lack of public transportation.
- Electrical vehicles being forced on us
- Maintenance Getting caught up in new fads that waste tax dollars
- Regressive government in Iowa
- Self-driving smart cars that interact with each other and with smart traffic lights to maximize flow efficiency and minimize congestion and idling. Level 1. GPS already offers possible routes and travel time. Cars have sensors & accident avoidance tech. Level 2. Enter destination and desired arrival time, and receive routes AND possible departure times. Example: A trip is normally 20 mins, but at rush hour leaving 5 mins early = arriving 30 mins early. But leaving 5 mins late = arriving 30 mins late. And cars COORDINATE with each other for accident avoidance. Level 3. Stoplights communicate with each other and with cars for optimal dynamic rerouting of cars and dynamic re-timing of traffic lights. No waiting at a light with no cross traffic. Imaging network stoplights communicating with each other, and with the self-driving cars' programmed destinations. Lights change and car speeds adjust to never have to stop. Fast, smooth, safe, fair, efficient flow.
- Bridge Repairs
- Getting busses, trains and other mass transportation to be available.
- The fact there is no public transportation in Nashua. I may need it some day
- Providing more options for people in terms of public transportation and keeping the current roads in good drivable condition.
- Oversized farm equipment and elderly medical transportation in rural areas.
- Having some type of public transportation for the elderly
- Maintaining roads.
- If there are stringent rules that come into effect because of "climate change", that may be the biggest issue.
- As I get older I assume I will need help getting to doctor appointments. I think surfaced bike trails connecting the small towns would be a draw to younger families.
- Walking if we do not fix these sidewalks.
- It would be nice to come up with an improved way to repair or replace bridges without making it such a major high cost project.
- Bridges, roads, pollution
- Having enough funds to keep up with repairs and having labor to get the job done.
- Gas prices/rough roads/snow removal
- Not enough ways to get around for those that don't drive.
- Funding improvements on two-lane roads that need to be four-lane such as Highway 63 north of New Hampton
- Clean energy!
- Focus on Nature Trail improvements
- Road construction.
- Mayor, council, supervisors are doing away with everything. But they keep the stuff they themselves want. There will be nothing left for our children and grandchildren.
- Same. Getting preschoolers to and from school
- Safe routes. Transit problems
- Transporting in town kids to school
- Hiring bus drivers.
- No improvement to roads/sidewalks
- No transit bus
- There isn't an easy way to get town students to and from school and they cannot walk or bike safely.
- Safe travels for non-drivers and elderly that cannot drive.
- Children not being an extracurricular activities because they don't have transportation if their parents work. Which most parents work. A lot of parents can't get off work early are no school days to come pick up their kids in the afternoons as well. It's a real problem in our town
- No affordable public transportation in small towns.
- Right now in this town there is none available.
- Money for gas
- Keeping up with road conditions
- Limited access
- Worrying about transportation for vulnerable families.

- As the population continues to grow if we do not have a transportation system in place it is a good possibility people will start to leave again and we do not want that for our town
- Public transportation in rural communities
- Making transportation more accessible for kids going to school
- Congestion of traffic and not enough ways to keep our children safe.
- Buses for kids and transportation for elderly or disabled on a fix income and can't afford private transportation
- Chassis service for elderly
- Kids in town who live far away from school but not far enough for the school bus to take them
- Parents working and daycare providers not being able to get children to school and less expensive for senior citizens on fixed incomes
- Not having adequate services for the elderly/disabled in rural settings.
- Finding drivers for our buses in the rural communities!
- Keeping our school children safe
- No bus to help with students in town for parents
- Funding to maintain roads.
- Safety
- Transportation for kids to school and sporting events
- Making it readily available.
- Need for public transportation.
- No public transportation, or only public transportation.
- No public transit for our town
- Maintaining roads, bridges, and sidewalks
- Available public transportation to get kids to and from school while the parents are at work.
- No transit
- Bus for children
- Having safe way for youth to get to school and elderly to get to grocery/run errands
- Handicap transportation to medical appointments
- Price of public transit
- I think due to climate change, there is going to be a bigger push for citizens to forgo personal vehicles and rely solely on biking, walking, and public transportation. In big cities, this isn't a huge issue, but rurally, there isn't the public transportation options. And if there is a push for people to get rid of personal vehicles through higher vehicle taxes, etc., I don't support it.
- Not having enough for people that cannot afford a car and having a safe way for the elderly and small children to walk across the road.
- Taxation increases for roads instead of the city using funds periodically to improve roads properly instead of just patching them to get by each year
- Bad roads
- Elderly getting around and getting the things they need when they are no longer able to drive
- Students to school
- Bridge repairs.
- Parking
- Public transportation for those who can't drive.
- People causing fender benders, or even worse.
- Issues with no transportation for children of daycare age in New Hampton
- Upkeep
- Doctor app
- Children to school and people to work elderly/ mentally challenged to the store
- infrastructure
- Too many electric vehicles on the road.
- Transportation for kids to school, Elderly not getting to appointments
- road congestion and further degradation caused by that congestion because maintaining the roads is already an issue
- Conditions of roads and distance to essential services.
- No transportation in New Hampton for the elderly and if there was, the cost
- Not enough affordable public transportation options
- Deteriorating streets and sidewalks
- Terrible road conditions and transportation for young kids/elderly

- Maintenance of our roads and sidewalks because they have gotten so bad that the amount of money to get them back will be huge. Having a chassis for kids and elderly or disabled allows them a freedom we can't imagine and access to independence.
- roads continue to deteriorate and no money to fix them
- Transportation for elderly to appointments and young children who live in town to and from school.
- Having none available
- Having reliable, eco-friendly transportation.
- Improving older bridges & roads in rural communities that don't have the tax dollars to repair things that larger cities possess.
- fixing/redoing/construction of our current roads & bridges - having the funds to do this
- Increasing the use of electrical vehicles in a way to make it more sustainable.
- Nothing will be done and not transportation available!
- Local transit for kids and those who are unable or unwilling to drive.
- The bus system.
- Local level transportation solutions. Our current options aren't sufficient and replacements are either too costly or people aren't willing to invest in the infrastructure to make our towns accessible and safe to others.
- No public transportation in our area that people on low income can afford.
- Road funding
- Transportation for children!!
- I imagine the same as current. Charging station availability could be a future issue.
- Public transportation for the rural. Parents have to both be employed; cost of living is very high. Elderly have limited incomes. There needs to be public transportation access so everyone can safely get to where they need to be daily.
- Should I not be able to drive, my only option for a ride is calling a cab from Mason City, Decorah, Waterloo, Rochester.
- Quality of cement & black top
- Upkeep of roads and bridges along with water treatment/sewage pipes
- Lack of affordable air service at a decent price and decent flight times.
- I worry about safety issues around bridges in the state, as well as shifting the culture toward more alternatives to driving. People here only take public transportation if they have no other option (which I get, because it's not efficient), but how do you change that?
- More public transportation in rural communities.
- Lack of transport, and lack of safe pedestrian crossings.
- Parents getting kids to school while at work and no bus available.
- Cost of upkeep on everything.
- Availability
- Getting sidewalks
- Quality of roads
- Safety and availability
- Too much speed for cars and trucks
- Maintaining roads as tax base decreases along with rural population.
- Upkeep of trails
- Unless South Hamilton has a sidewalk in the future, my children will never be allowed to walk or bike home without a grown up. It is currently just way too dangerous.
- Keeping Diesel & Gas vehicles
- Funding for more transportation options
- Safety of all roads to bicycles and crowding of current roads. Maintaining bridges for safety.
- Maintaining roads and bridges.
- Keep existing roads/bridges up to date.
- Connected trail systems. Aging roadway systems.
- Road upkeep
- With the shift toward electric vehicles, a sufficient quantity of charging stations will be an issue.
- Lack of comprehensive transportation plan in the nation or state.
- Increased traffic on Ave of the Saints & at the Waverly elementary schools
- Improving highways and bridges. The idea of public transportation is stupid in rural areas.
- Commuting issues and urban sprawl.
- Road & bridge conditions. If getting more electric vehicles where will the money come from for repairs?
- Maintenance of what is already built. New projects should not eat the \$ that will be needed for maintenance of the old bridges and roads. Would support tax increase if it went for maintenance.

22. Are there any other transportation problem areas in the area related to roads, bridges, bicycle and pedestrian facilities, or safety?



Additional transportation problem areas that were identified by respondents include:

- A. **Pedestrian and Bicycle Safety:** There is a lack of sidewalks in Jesup and along Union Rd leading to a new high school. A bridge is needed over Linn Ave in New Hampton for safe pedestrian and bicycle crossings on a new trail. Bikers face safety risks on Union Rd and Cedar Wapsi Rd due to narrow, shoulder-less roads. Bike trails, such as from Austinville to Parkersburg and along Hudson Rd at Hwy 20, also lack proper crossing lights and are in poor condition.
- B. **Road Conditions:** Several roads are in disrepair, including city streets in Nashua and New Hampton, and stretches of Hwy 20. Chickasaw County faces flooding and culvert issues, while an old, narrow bridge with heavy truck traffic needs repairs. Streets like W Hamilton St in New Hampton also require significant improvements.
- C. **Traffic Congestion and Speed Concerns:** Small towns are concerned about speeding in areas with children on bikes. Congestion is an issue during school drop-off and pick-up times in New Hampton, prompting suggestions for one-way streets.
- D. **Public Transportation Gaps:** Communities like Nashua and New Hampton lack public transportation, particularly for students and the elderly. Low-income residents face challenges accessing bus services due to high costs and limited stop locations.

E. Intersection and Crossing Safety: There are calls for better crosswalks, stop signs, and other safety measures around schools to protect pedestrians.

Individual Responses:

- The lack of sidewalks or walking trail in Jesup is a safety concern for pedestrians.
- The road floods out when heavy rains, it washes out around the road, Chickasaw County needs to be aware of this issue and fix the culvert on this road
- Small towns need safer roads speed kills kids on bikes in traffic amtrac etc.
- There needs to be a bridge over Linn Ave in New Hampton to allow walkers and bike traffic to cross on their new trail.
- Frankville Road Decorah, IA. Heavily traveled road that is in bad shape
- Old, narrow bridge with heavy truck traffic and it is in terrible shape on the bridge deck. Patched a million times.
- Bike trail from Austinville to Parkersburg.
- Lack of sidewalk to new high school from Union Rd
- The community of Nashua doesn't have many options for biking. We have a beautiful impoundment that could potentially be used as an area for a trail.
- Streets in Nashua need repairs
- Nashua needs improved city streets along with public transportation for the elderly
- Nature Trail from La Porte City north to Waterloo and to Cedar Falls needs to be improved, it is very rough, heaving and cracked in numerous locations.
- Too congested. Very difficult to cross.
- New Hampton does not have any transportation service for children getting to and from school. This is biggest concern during winter months.
- New Hampton, Iowa.
- Cars drive very fast around this curve where it changes from gravel to cement and the trail crosses here and uses the road for a small distance.
- New Hampton is a growing town with a lack of public transportation for student use.
- South Broadway needs to be 1 way going South to North from W Hamilton St to W Main St. It is too congested during school drop off and pick up. W Spring St needs to be 1 way going from East to West from S Broadway Ave to S Maple Ave.
- No public transportation for elderly or children
- We have no public transportation but a large population of people that need it.
- City streets in New Hampton are all cracked and broken and dangerous to bike on and are very rough on vehicles to drive on. The city does not repair, but instead they just tar and put pebble rock on to coat it. It is NOT fixing the issue!
- The road here is so rough it is a year or two from being impassable. There is also no safe way to cross the main road to get to the park.
- Just uses for children
- Our roads in New Hampton are in horrific shape. Some are dangerous to ride a bike on. Big holes and rocks everywhere!
- New Hampton is in need of transportation for children of daycare and school age. Walking bus.
- Bike safety is an issues on Union Rd. There are no shoulders and lots of curves. Bikes like to ride on this road, but it causes issues with traffic due to no places to pass them safely, backing up traffic. This goes on along Cedar Wapsi Rd towards Finchford, also.
- The number one complaint that I hear at our business is that low income people don't have the money to take the bus & if they did there isn't a bus stop in their area.
- On West Hamilton in New Hampton between S Linn Ave and Western Ave, there is only sidewalk in the area around the Elementary School on the corner of S Linn and W Main Street. Because we combined high school and middle school into one campus at 710 W Main Street, foot traffic has significantly increased along W Hamilton from students. It is also one of the two ways to enter the parking lot of the Chickasaw Wellness Center/MS-HS School, so it is frequently driven by students. Sidewalk is needed along the entire W Hamilton Street to allow pedestrians to safely get to and from school into the surrounding neighborhoods.
- We need updated crosswalks painted and added. We need stop signs and/or reduced speeds.
- Make this four lane
- Multiple accidents
- We need more safety measures around the schools. Make the streets one way during drop off and pickup. Place flashing stop signs. Ensure pedestrian safety!
- County road between Grundy and Hardin County

- Lack of safe sidewalks
- Dangerous intersection
- Union Road and Highway 57 should be a roundabout.

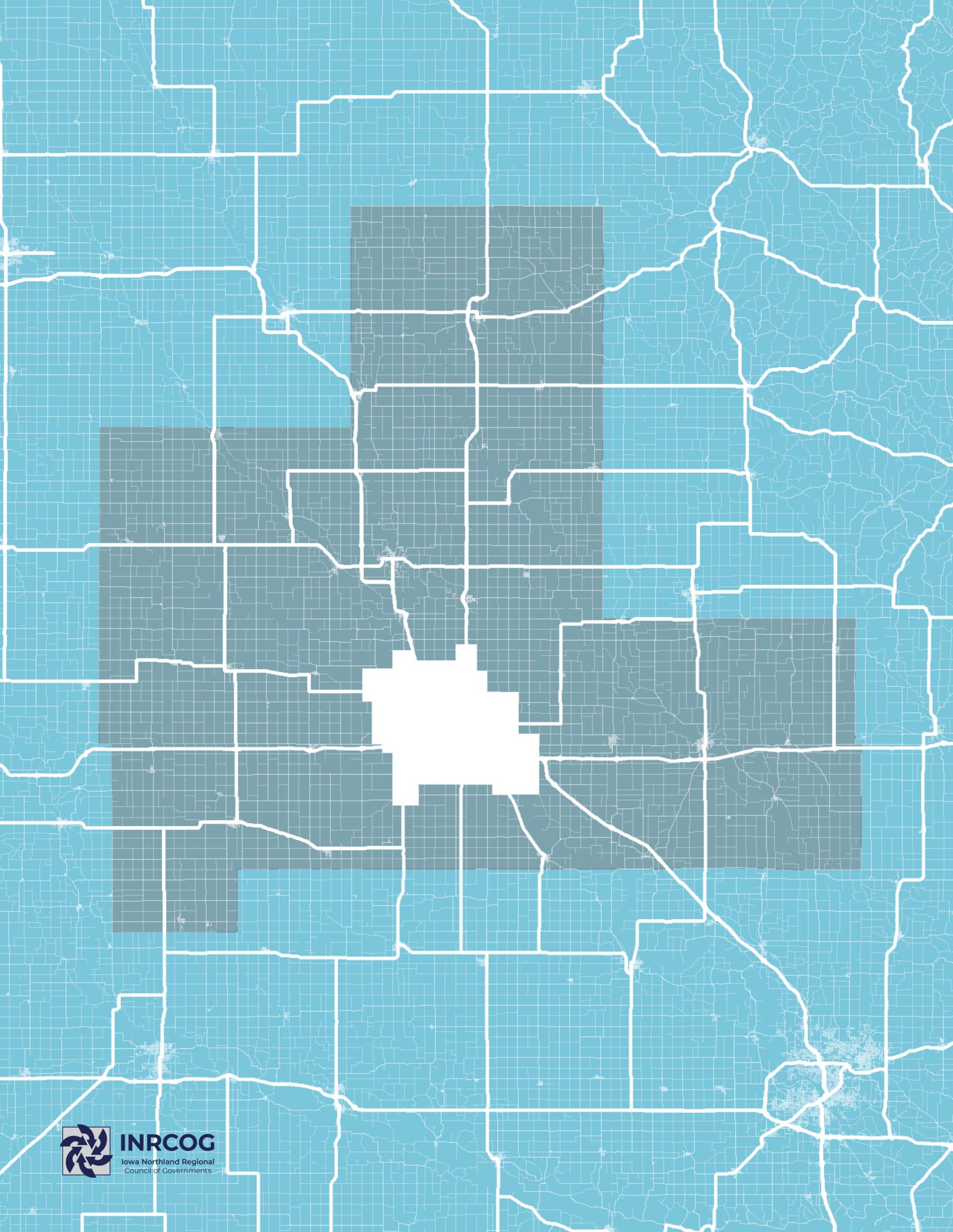
23. Any additional Comments?

Summary of comments:

- A. **Transportation Access and Public Transit:** Some residents rely on family and friends for transportation, but struggle when those options aren't available. There's a strong desire for community-specific transit services, especially in New Hampton, to ensure safe transportation for children where sidewalks are lacking. Expanding and funding the public bus system is a major concern. Metro roads and roundabouts are praised, though some residents call for improvements like a four-lane highway to Rochester.
- B. **Sidewalks, Bike Lanes, and Safety:** Many residents are concerned about unfinished sidewalks, the absence of bike lanes, and the need for safer walking and biking routes, especially around schools. Specific requests include sidewalks in Aplington and improved safety measures in New Hampton, such as making streets one-way during school hours. Railroad crossing safety is also a concern in rural areas with limited visibility and lack of crossbars.
- C. **Road Conditions and Maintenance:** Poor road conditions, such as on East Logan, need more attention beyond patchwork fixes. Residents also expressed concerns about excessive salt use in winter, which damages roads, cars, and the environment. New Hampton roads, in particular, need repair to ensure community safety and growth.
- D. **Government and Tax Concerns:** Several respondents emphasized the importance of keeping taxes low and reducing government involvement to maintain the quality of life in Northeast Iowa. Some suggested more interactive town halls where the public can express concerns rather than just hear about government plans.
- E. **General Comments and Suggestions:** Some residents offered positive feedback for the survey and efforts to address concerns. There were specific suggestions for adding a pedestrian crosswalk or light at the Zips employee parking lot and for school districts to provide transportation for daycare students.

Individual Responses:

- I don't drive. Have family and friends to take me. But if they aren't available that is tough for me.
- Keeping the tax burden to a minimum is extremely important for the citizens in these counties.
- Lower taxes and less government involvement is key to making NE Iowa a great place to live.
- We have unfinished sidewalks no bike lanes or routes etc.
- I forgot to include Dubuque in the passenger rail connections in addition to Waterloo/Cedar Falls, Cedar Rapids, Iowa City, etc.
- Thank you for asking and listening!
- Doing good, keep up the good work!
- Thanks for the voice platform.
- Offering a community specific transit to our community would be much appreciated.
- Roads in metro area are excellent. Big applause for traffic circles, too.
- Use less salt during winter. It destroys cars, roads, and is bad for the environment. I grew up and survived without having roads "treated" every time it "might" snow and cars did NOT have traction control, stability control, anti-lock brakes, etc... If people can't drive on snow/ice maybe they should move to Florida!
- 4 lane highway to Rochester would be nice, work is always being done near Des Moines
- Need sidewalks in Aplington
- You doing this survey is a good idea ... good job 👍
- Railroad safety should be a big concern. There are so many railroad crossings in rural areas that do not have cross bars and also do not have a good line of sight due to trees, fields, etc.
- Safety walking and biking to schools.
- The number one concern is the public bus system. It needs funding and expansion terribly.
- Think outside the box and have a town hall where you really LISTEN and not just come tell people what YOUR plans are.
- Maybe school districts need to step up and see how many daycare students are out there and possibly provide some kind of transportation for them
- We need in town public transit in New Hampton to get our kids to and from school safely as there are not sidewalks on every road for them to safely walk or bike on out of the way of traffic.
- I'd love to see Broadway near the elementary school be made one way, at least during school hours. Very dangerous when someone tries to go against school drop off traffic.
- No comments.
- There is not a good way for pedestrians to cross the busy 4 lane from the Zips employee parking lot to the main building. There needs to be a crosswalk, yield sign or light to push
- The road on east Logan needs to be fixed instead of just patched in spots that road is horrible
- This would greatly help our town and lots of people and daycare are behind it. Please help us improve our roads and transportation to be able to keep our community growing and everyone safe
- Please help the New Hampton community repair its streets!
- Please help our community
- Safe walking and biking around New Hampton schools is a huge problem.
- Please loom into creating a 1-way road of Hamilton next to the school all the way to the high-school parking area to cut down on safety issues. 9/4/2024 a man was hit and airlifted due to injuries. This is a very unsafe situation we deal with during school drop off and pickup. One way traffic could allow for a steady drop off lane and help traffic flow safely. It is way too congested and people are narrowly missed from being hit weekly.
- All of the surrounding counties have many, many miles of bike trail and I am not aware of any trails in Chickasaw County. There are trails in a few of the small towns in the county only.
- Iowa's roads are highly suspect. Some is the fault of our severe winters, others from controllers who need less in their pockets.



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