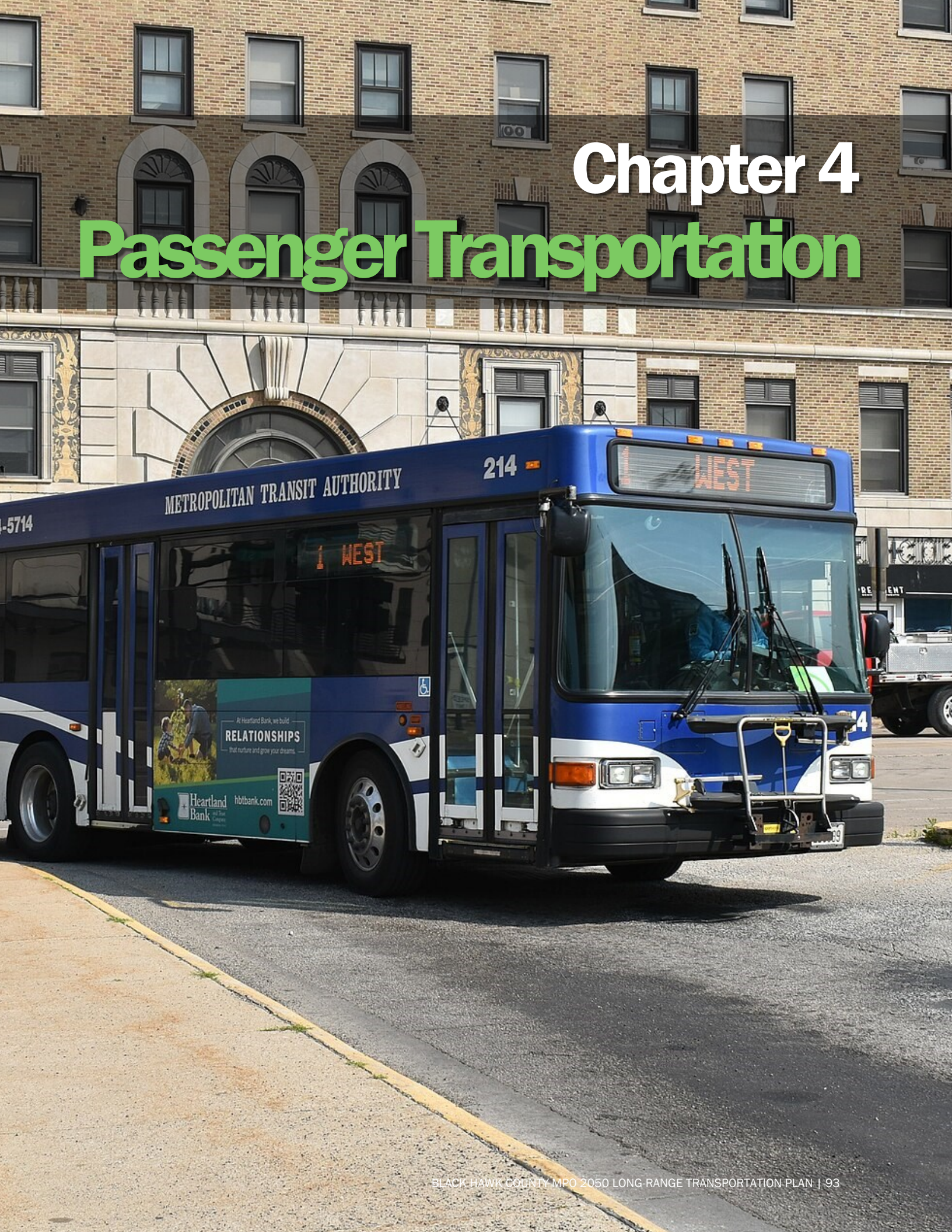
Chapter 4
Passenger Transportation



Chapter 4 – Passenger Transportation

Overview

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. Numerous 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. Within the MPO, public transit services are overseen by the Metropolitan Transit Authority (MET Transit). This authority functions as the designated transit provider, operating under the guidance of a 28E agreement established with Waterloo and Cedar Falls. MET Transit is responsible for offering both fixed route and paratransit services, catering to the diverse needs of the public.

Metro Stats

10
Year-round fixed routes[1]

176,000
Fixed route rides per year[1]

$1.50
Regular fixed route fare[1]

16,300
Air passenger enplanements per year[2]

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

Sources:
[1]MET Transit

[2]FAA, CY 2022 Enplanements at Airports, Waterloo Regional Airport

Airline travel options to the area are facilitated by the Waterloo Regional Airport (ALO). As of November 2023, American Airlines operates two daily flights to and from O'Hare International Airport, 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.

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, **trains are 20-30% percent more energy-efficient than cars** and **emit 70% less carbon dioxide per passenger mile than airplanes**. The National Highway Traffic Safety Administration (NHTSA) and the Federal Railroad Administration (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 accidents are several times higher than those in rail accidents per VMT**.

State Transit and Passenger Transportation Plans

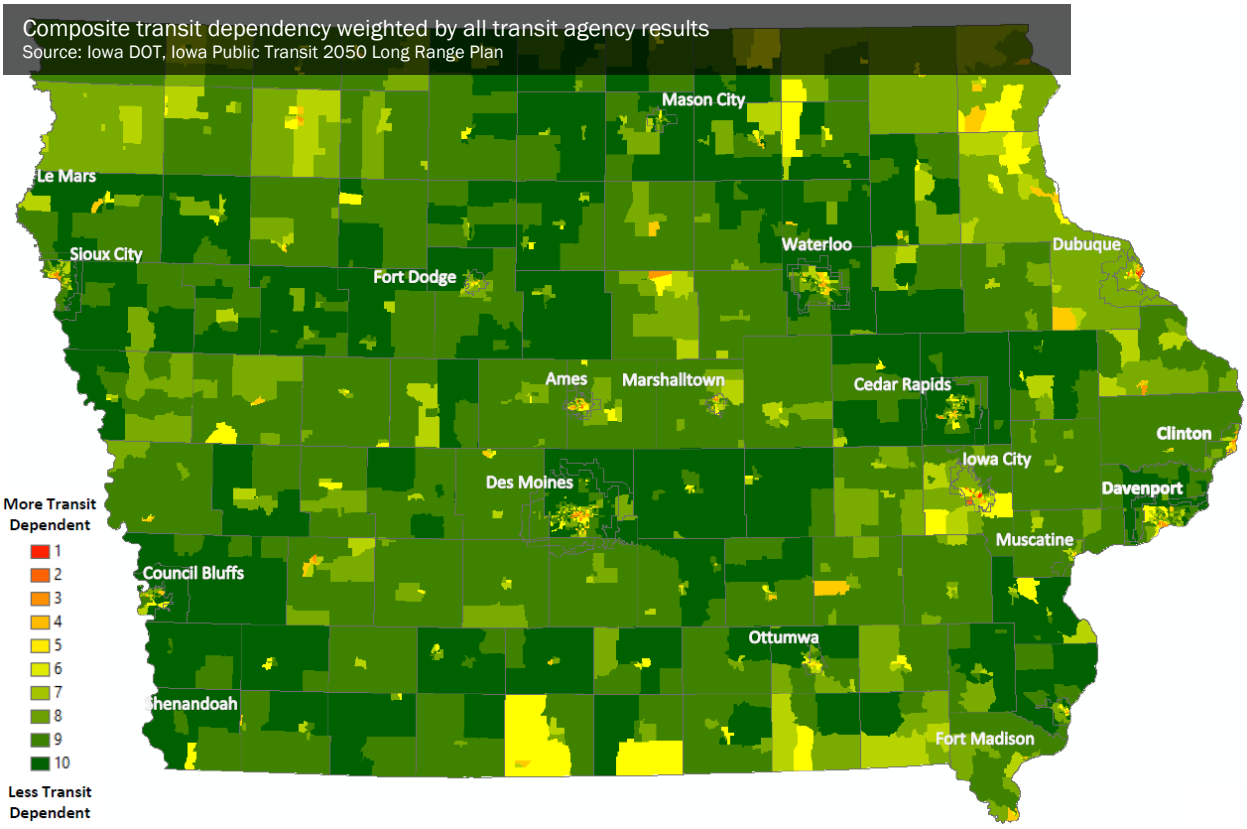
Iowa Public Transit 2050 Long Range Plan

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.

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.

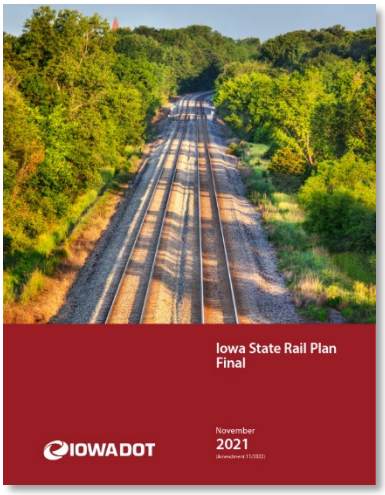
After collecting data for the various factors, it was processed using GIS. Each block group was assigned a score from one to ten for each of the seven distinct external factors employed in the analysis. Subsequently, these individual layers were combined to create an overarching composite layer, pinpointing 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.



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 most recent TAM Plan for MET Transit was adopted in September of 2022.

https://bhcmpo.org/performance-measures/

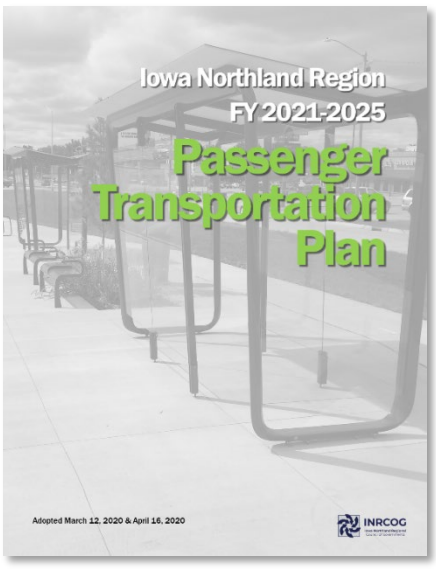
Transit Performance Management Plan

Public Transportation Agency Safety Plans (PTASP) are comprehensive frameworks that transit agencies develop and implement to enhance safety in public transportation systems. Mandated by the FTA, a PTASP is a proactive approach that focuses on identifying and mitigating safety risks to prevent accidents and incidents. These plans involve a thorough analysis of the agency's operations, infrastructure, equipment, and personnel to identify potential hazards and vulnerabilities. Based on this assessment, specific safety goals, objectives, and performance targets are established, along with strategies for achieving them. PTASP ensures that safety responsibilities and accountabilities are clearly defined across the organization and that employees are well-trained and equipped to manage potential safety-related situations. By promoting a culture of safety, fostering collaboration, and incorporating industry best practices, the PTASP aims to continually improve the safety of public transportation systems, providing passengers with confidence in the reliability and security of their travel experience.

https://bhcmpo.org/performance-measures/

Passenger Transportation Plan

The MPO coordinates the development of a Passenger Transportation Plan (PTP). The plan coordinates efforts between passenger transportation providers and human service agencies providing services in 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 MPO and its regional counterpart the Iowa Northland Regional Transportation Authority (RTA). A full update of the document is completed every five years. The most recent PTP update was adopted in April 2020 for the fiscal years 2021 to 2025. 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 that are most dependent upon transit**.

To achieve this goal, the PTP includes the following objectives:

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

The PTP includes a series of projects and initiatives recommended throughout the plan's duration (reference pages 56-58). Essential projects outlined in the PTP are detailed in Table 4.1.

Table 4.1: Key Projects Identified in the FY 2021-2025 PTP

Project or Initiative	Description	Objectives Addressed
Joint Mobility Coordinator and Marketing position for MET Transit and OnBoard Public Transit (formerly RTC)	This position will assist individuals in navigating from their origin to their destination, regardless of the mode of transportation. Tasks can include travel training; meeting with human service agencies, businesses, and other organizations to inform them of available services; and educating the public on available transportation services.	1, 2, 7
Transit audits for the metropolitan area	Transit audits take people through the entire transit experience (reading a transit map, ticket purchasing, boarding, riding the bus, using the pedestrian network, etc.). This initiative will help obtain insight from a range of citizens and elected officials.	1, 2
Extend weekday service hours and weekend hours	Extending service hours will help serve the needs of all user groups.	4, 6
Vanpools to businesses and medical facilities inside and outside of the six-county region	Vanpool program to businesses and/or medical facilities within and outside of the Iowa Northland Region.	4
Implement a winter maintenance program for bus stops in the metropolitan area	Using public transit in the winter is challenging. Limited and/or inconsistent maintenance of sidewalks and bus stops severely limits accessibility to public transit.	4
Improve accommodations at bus stops	Many bus stops need to be improved either through the addition of complete bus shelters, or bus pads with connections to the existing sidewalk network.	4, 6
Add commuter service to the Airline Highway Industrial Area in Waterloo	This project was identified as a need in the 2018 Airline Highway Transportation Survey. A new fixed route could serve employees during 1st and 2nd shift start and end times.	4

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 with the goal of identifying opportunities to improve the system. Included in the study is a review of the previous route restructuring (undertaken prior to 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 will include 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. Results of the study are anticipated to become available in early 2024.

https://bhcmpo.files.wordpress.com/2022/11/ptp_fy2021-2025.pdf

Transit Advisory Committee

The transit planning process and development of the PTP is 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 recognize current transit and passenger transportation shortfalls and identify the potential for new services and coordination possibilities in the region.

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

- Providing service to the growing population of older adults
- Installation and maintenance of bus shelters
- Cashless fareboxes (alternatives to cash)
- Expanded service time and area
- Vanpools
- Educating new populations on bus service, particularly those with limited English proficiency
- Marketing and education on existing services

Transit Service

MET Transit operates six fixed routes in Waterloo, one route in Cedar Falls, and two routes between Waterloo and Cedar Falls year-round. Route 10 serves the University of Northern Iowa, the Hawkeye Community College main campus, and the Crossroads Mall during the academic year, and continues services between Hawkeye Community College and the Crossroads Mall area during the summer. Map 4.1 shows the location of MET Transit's fixed routes as of November 2023, and Table 4.2 outlines each route's operations and average annual ridership over the past five state fiscal years.

Map 4.2: MET Transit Fixed Routes

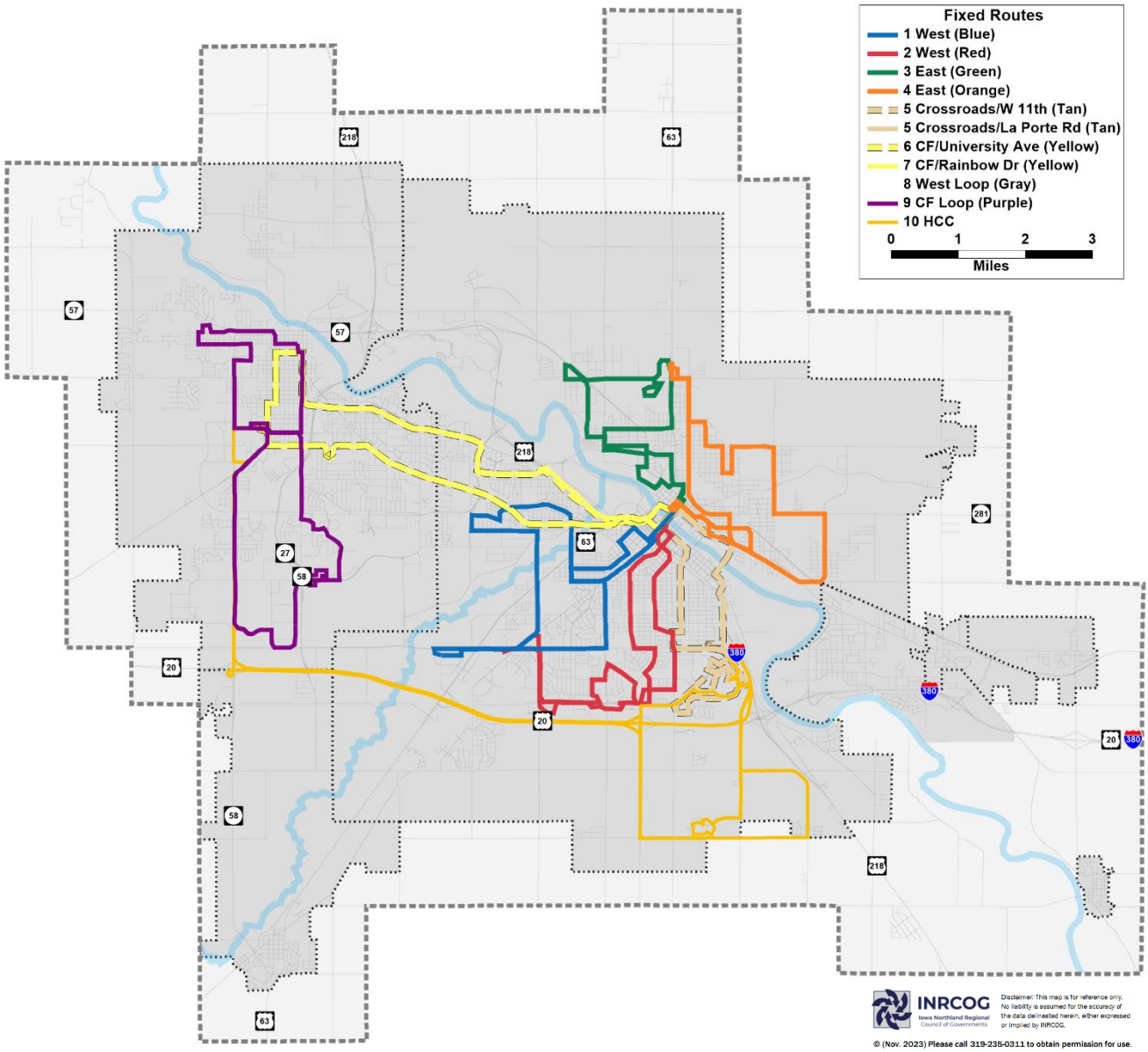


Table 4.2: MET Transit Fixed Routes

Route	Annual Operations	Daily Operations	Average Annual Rides SFY 2019-2023
1 West (Blue)	All year	All day	25,817
2 West (Red)	All year	All day	26,490
3 East (Green)	All year	All day	23,823
4 East (Orange)	All year	All day	24,280
5 Crossroads/W 11th (Tan)	All year	All day	37,963
5 Crossroads/La Porte Rd (Tan)	All year	All day	18,064
6 CF/University Ave (Yellow)	All year	All day	17,468
7 CF/Rainbow Dr (Yellow)	All year	All day	34,993
9 CF Loop (Purple)	All year	All day	10,579
10 HCC (Gold)	Reduced summer service	No mid-day service	3,589

MET Transit's fixed route and paratransit hours of operation are 5:45 a.m. to 6:15 p.m. from Monday to Friday, and 7:15 a.m. to 6:15 p.m. on Saturday. There is no service on Sunday. Regular fixed route fares have remained the same for well over a decade. Regular fares for adults are $1.50 per ride, while fares for seniors, disabled, Medicare card holders, and students are $0.75; the cost of a 30-day pass is $50 and $45, respectively. Riders can also purchase eleven ride tickets at once for the price of ten tickets.

Paratransit service, which is also provided by MET Transit, provides transportation for people who are unable to use fixed route buses. To qualify for paratransit service, passengers must meet one of the following conditions established by the Americans with Disabilities Act (ADA):

- Inability to get on or off a bus
- Inability to get to or from a fixed route bus stop
- Inability to wait at a fixed route bus stop
- Inability to ride the fixed route buses or follow transit instructions because of a disability

ADA paratransit eligibility is based on a passenger's functional abilities rather than a medical diagnosis. MET Transit currently offers paratransit throughout Waterloo, Cedar Falls, and Evansdale, though it is only required to offer the service within 0.75 miles of fixed routes.

Transit Ridership

Figures 4.1 and 4.2 show the total number of rides for fixed routes and paratransit from state fiscal years 2019 to 2023. Over the past five years, MET Transit has witnessed a notable decline in transit ridership due to various factors, with the COVID-19 pandemic being one of the most significant contributors. The transit system was temporarily shut down due to the pandemic, and widespread restrictions and social distancing measures discouraged public gatherings, leading to a significant shift towards remote work for many individuals. This shift resulted in fewer people utilizing public transportation services, causing a considerable drop in MET Transit's ridership. Moreover, fluctuations in fuel prices and changes in demographic trends could have also played a role in the overall decline in transit ridership for MET Transit over the past five years.

Figure 4.1: Fixed Route Ridership by Month, SFY 2019-2023

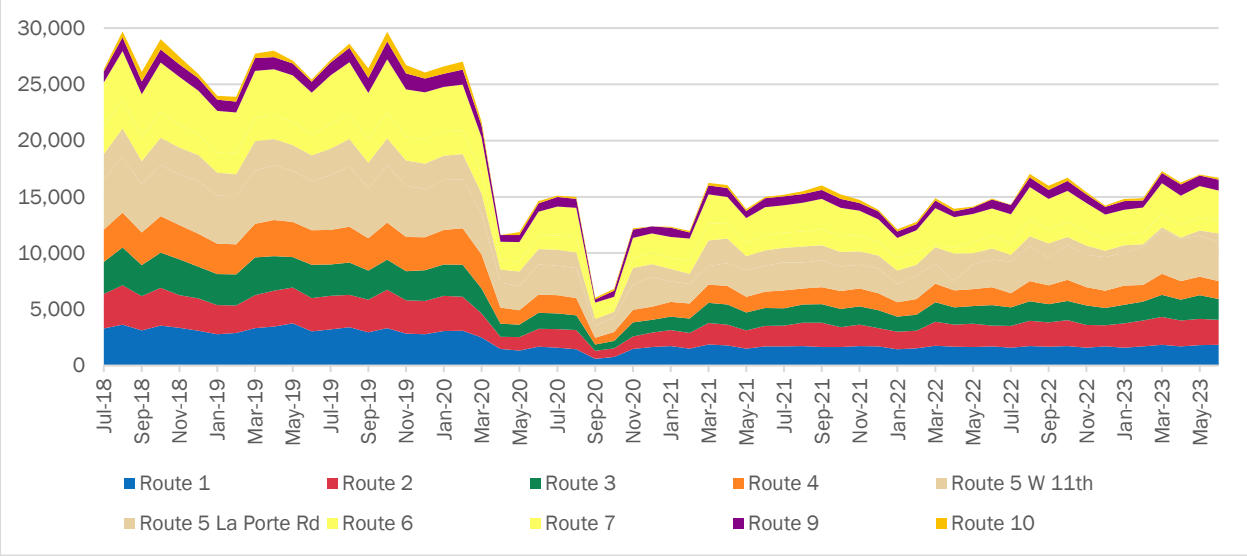
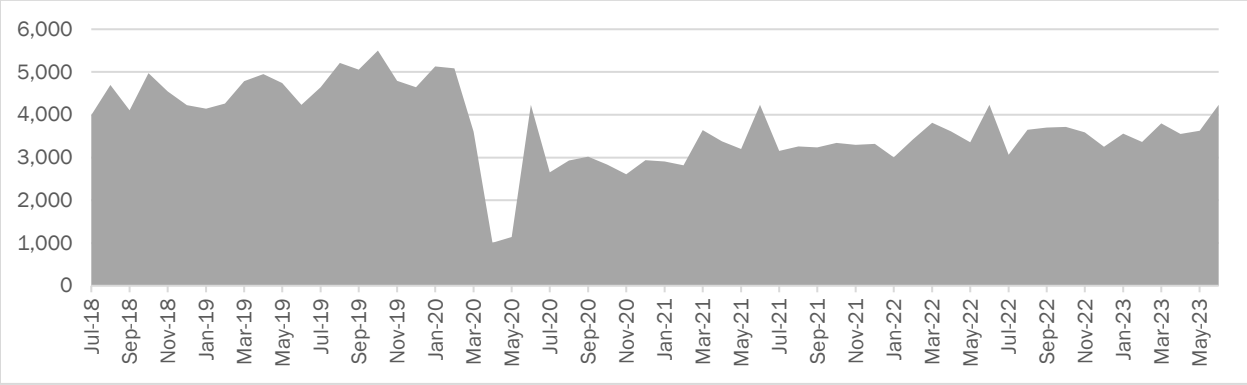


Figure 4.2: Paratransit Ridership by Month, SFY 2019-2023



Transit Ridership Forecasts

Predicting future transit ridership is a tough task due to uncertainties and factors involved. The challenge is foreseeing changes in urban settings caused by population shifts, economic changes, and altered land use patterns. This task is made harder by factors like technological advancements and new transportation choices. Unexpected events like pandemics can disrupt travel patterns, making accurate predictions even tougher.

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 exponential growth or decay patterns. Moreover, power trendlines can adeptly identify periods of rapids growth followed by saturation, mirroring real-world scenarios in transit systems.

Figure 4.3 provides a power trendline projection based on annual ridership data from state fiscal years 2021 to 2023. Notably, the data from state fiscal years 2019 and 2020 have been excluded from this analysis. This omission is a result of the significant decline in ridership during these years, attributable to the widespread restrictions imposed in response to the COVID-19 pandemic. By focusing on the years that follow the pandemic-related impact, the power trendline projection seeks to provide a clearer outlook for fixed route ridership, considering a context that is more aligned with regular travel patterns and conditions.

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 with the community to understand their changing needs and preferences can provide valuable insights for predicting future ridership.

Figure 4.3: Fixed Route Ridership Projection, Power Trendline

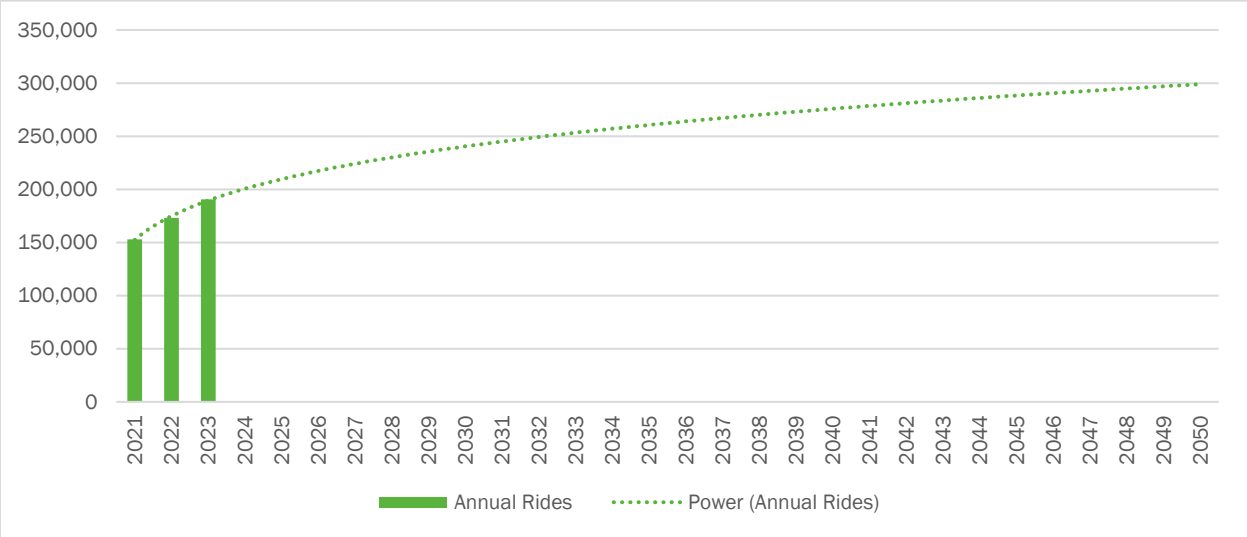
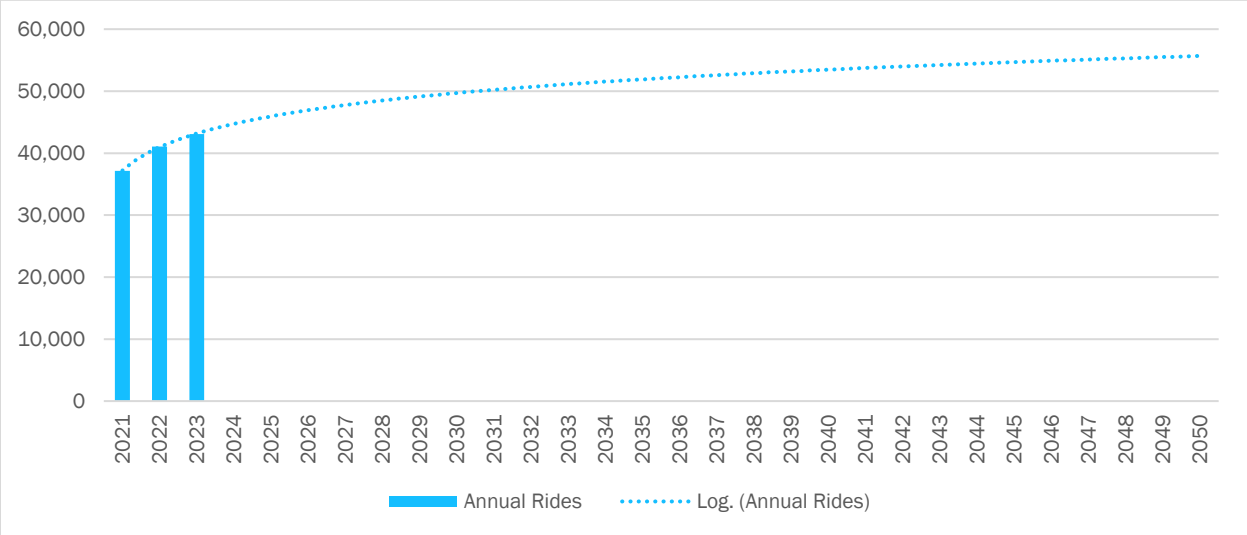


Figure 4.4 displays the ridership projection for MET Transit's paratransit system, where a logarithmic trendline was employed instead of a linear one. The rationale behind this choice lies in the anticipation that ridership will plateau as the baby boomer generation ages and increasingly utilizes the paratransit service.

Figure 4.4: Paratransit Ridership Projection, Logarithmic Trendline



Transit Coverage

Transit Coverage

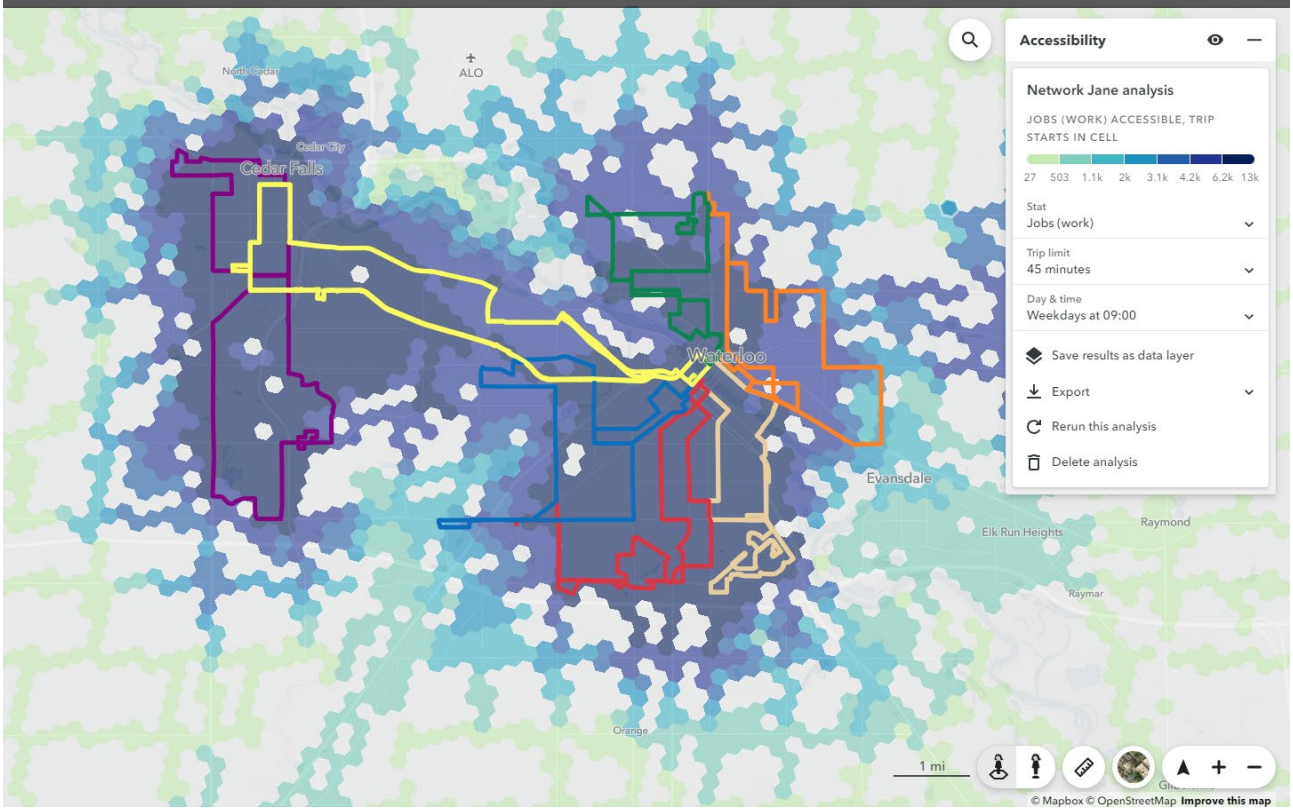
Maps 4.2 through 4.8 show the relationship between MET Transit's fixed routes and several economic and demographic characteristics identified in Chapter 2 of this document. Reviewing these characteristics may help to show gaps in coverage that could be considered for future projects.

In 2017, the MET Transit Board voted to purchase a license for the transit planning software, Remix. MET Transit and MPO staff utilized this tool to determine the feasibility of long-term changes to the fixed route system. The software also enables overlaying existing routes with various demographic data. Table 4.3 shows various demographic data made available through Remix, based on a 0.25-mile radius of each fixed route.

Table 4.3: Demographic Characteristics Within ¼ Mile of Fixed Routes (as of November 2023)

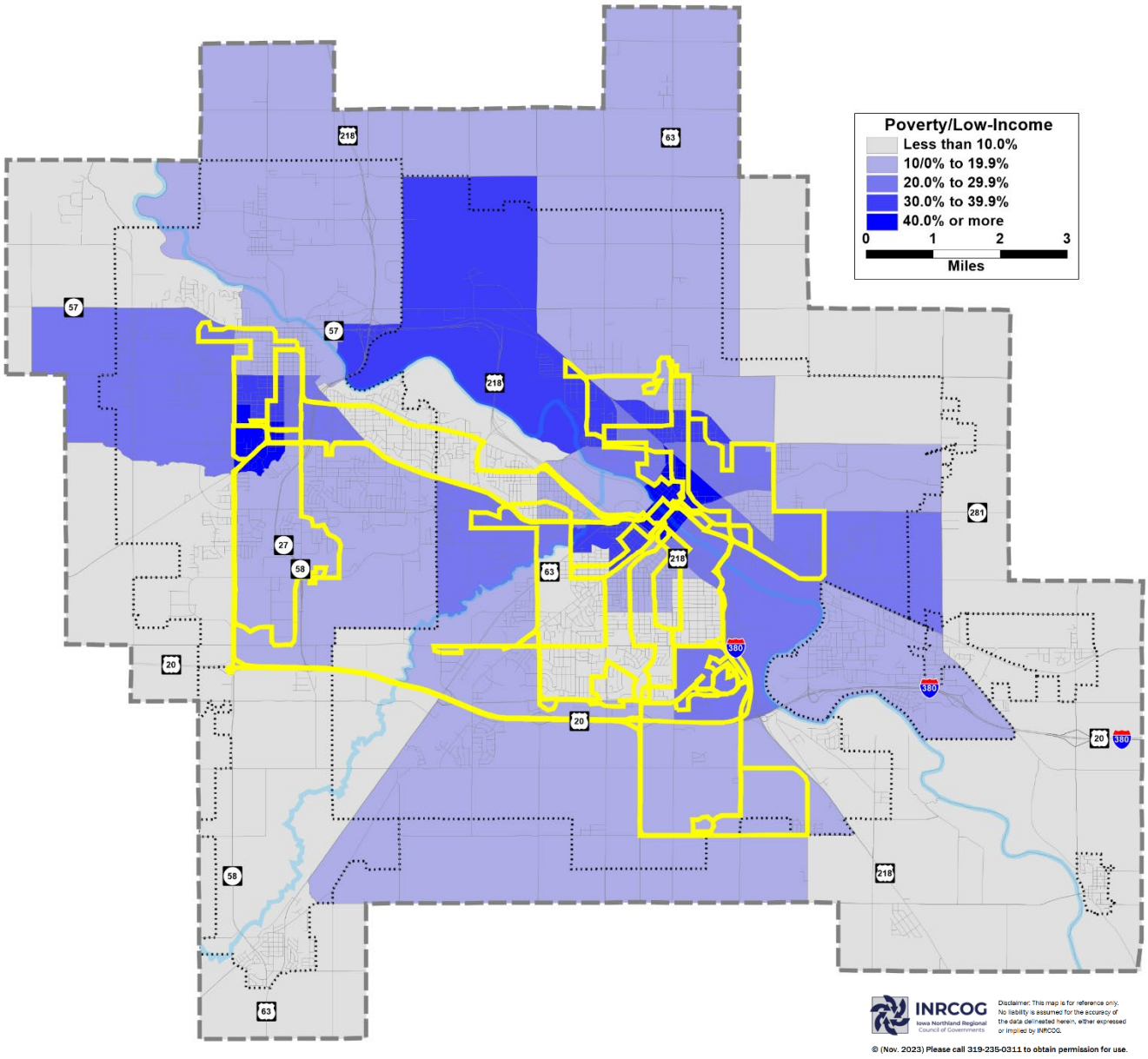
Route	Pop. (2020)	Jobs	Poverty	Non-White	Car Free Houses	Disability	Age 65+	Non-English
1 West (Blue)	14,200	4,800	18%	32%	12%	14%	15%	7%
2 West (Red)	17,300	7,800	12%	35%	10%	16%	17%	9%
3 East (Green)	6,300	4,400	31%	59%	26%	23%	15%	5%
4 East (Orange)	9,400	3,800	26%	61%	20%	23%	15%	7%
5 Crossroads/W 11th/La Porte Rd (Tan)	9,300	5,300	18%	38%	16%	17%	13%	15%
6 CF/University Ave (Yellow)	19,900	9,900	21%	18%	10%	12%	15%	2%
7 CF/Rainbow Dr (Yellow)	19,200	10,000	22%	18%	11%	12%	15%	2%
9 CF Loop (Purple)	13,200	8,500	25%	17%	6%	9%	10%	1%
10 HCC (Gold)	8,400	5,800	29%	21%	9%	12%	9%	3%

Access to Jobs Analysis
Source: Remix



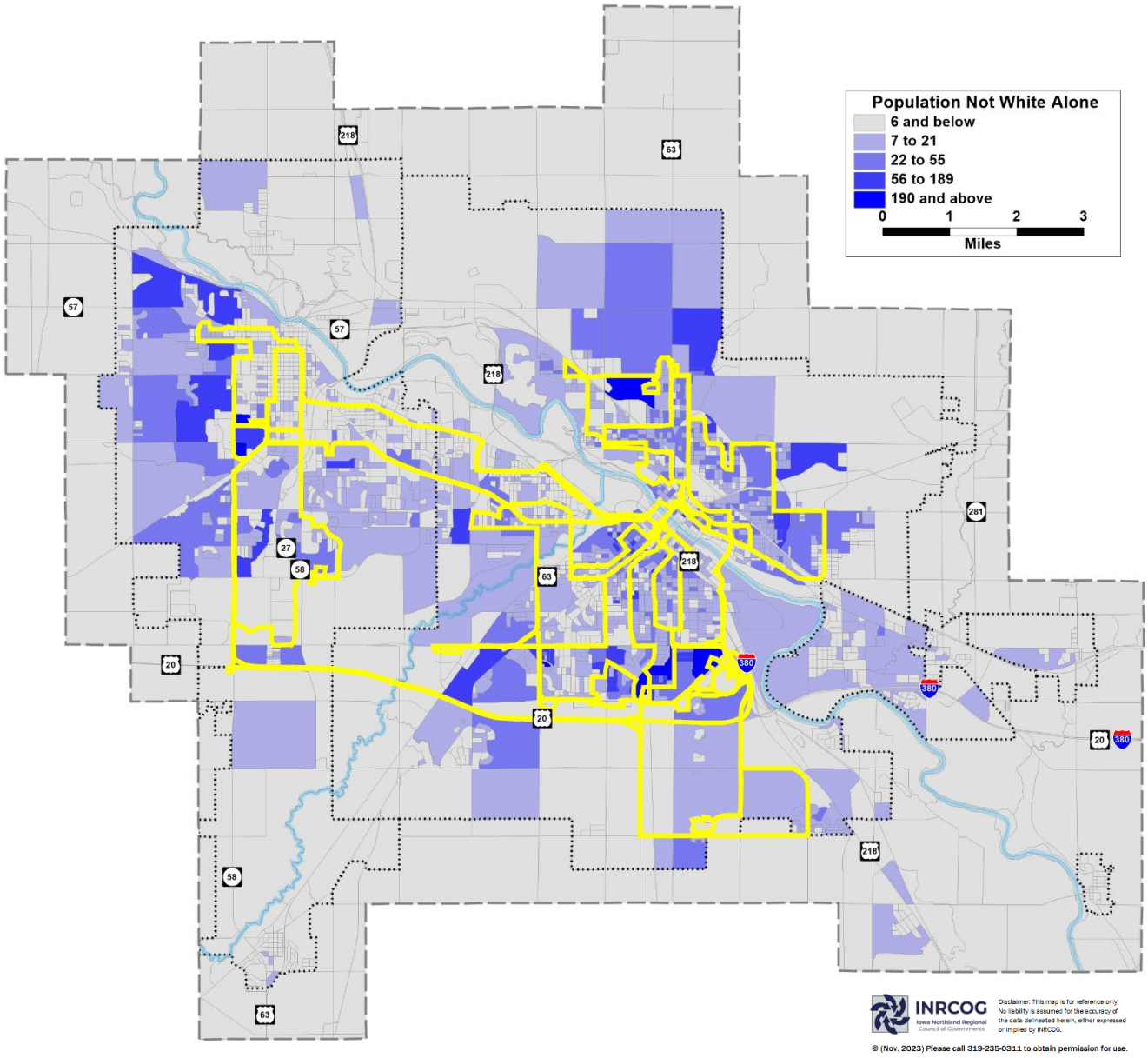
Map 4.2: Poverty/Low-Income by Census Tract

Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2021



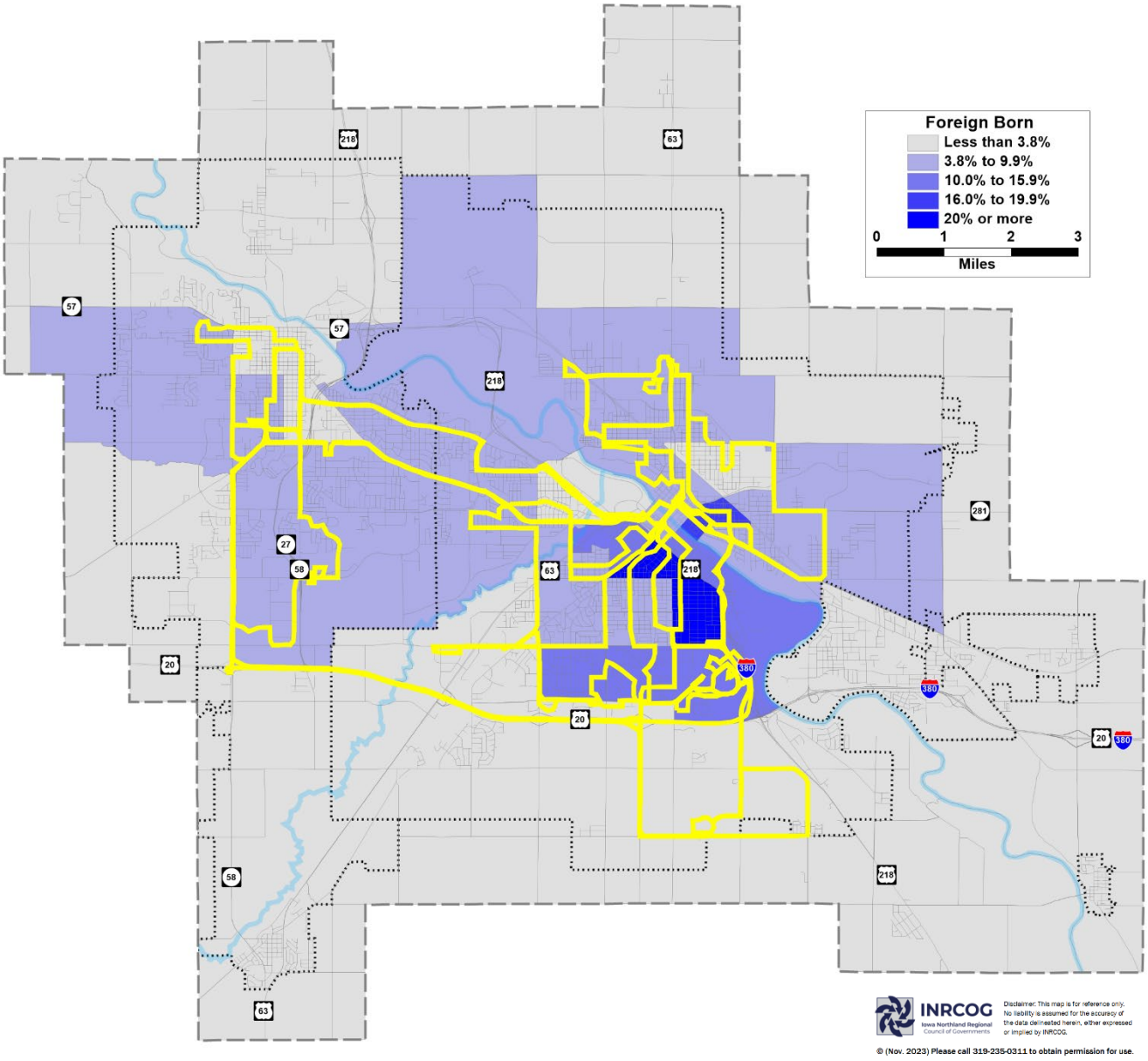
Map 4.3: Racial and Ethnic Minorities by Census Block

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



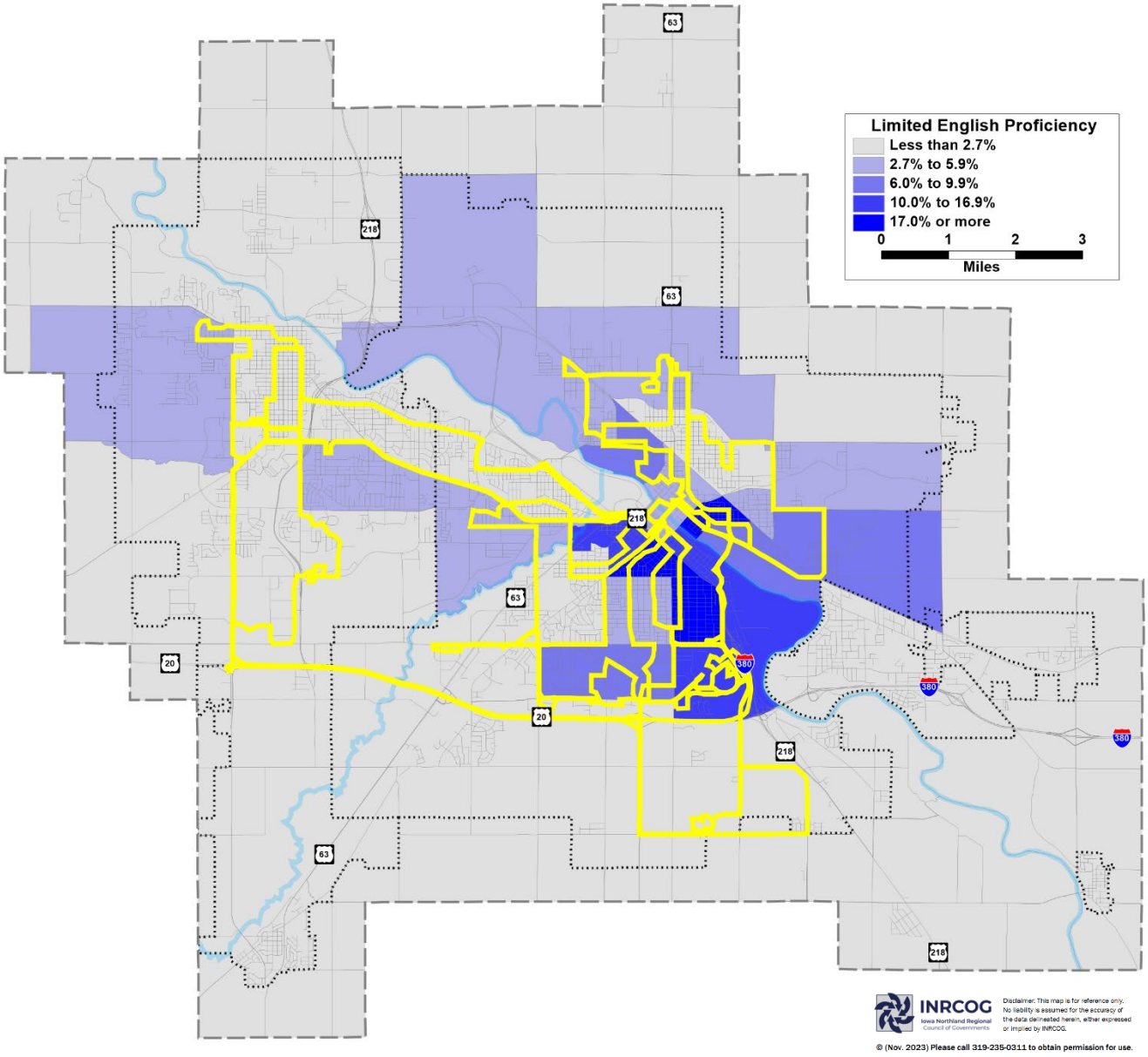
Map 4.4: Foreign Born Population by Census Tract

Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2021



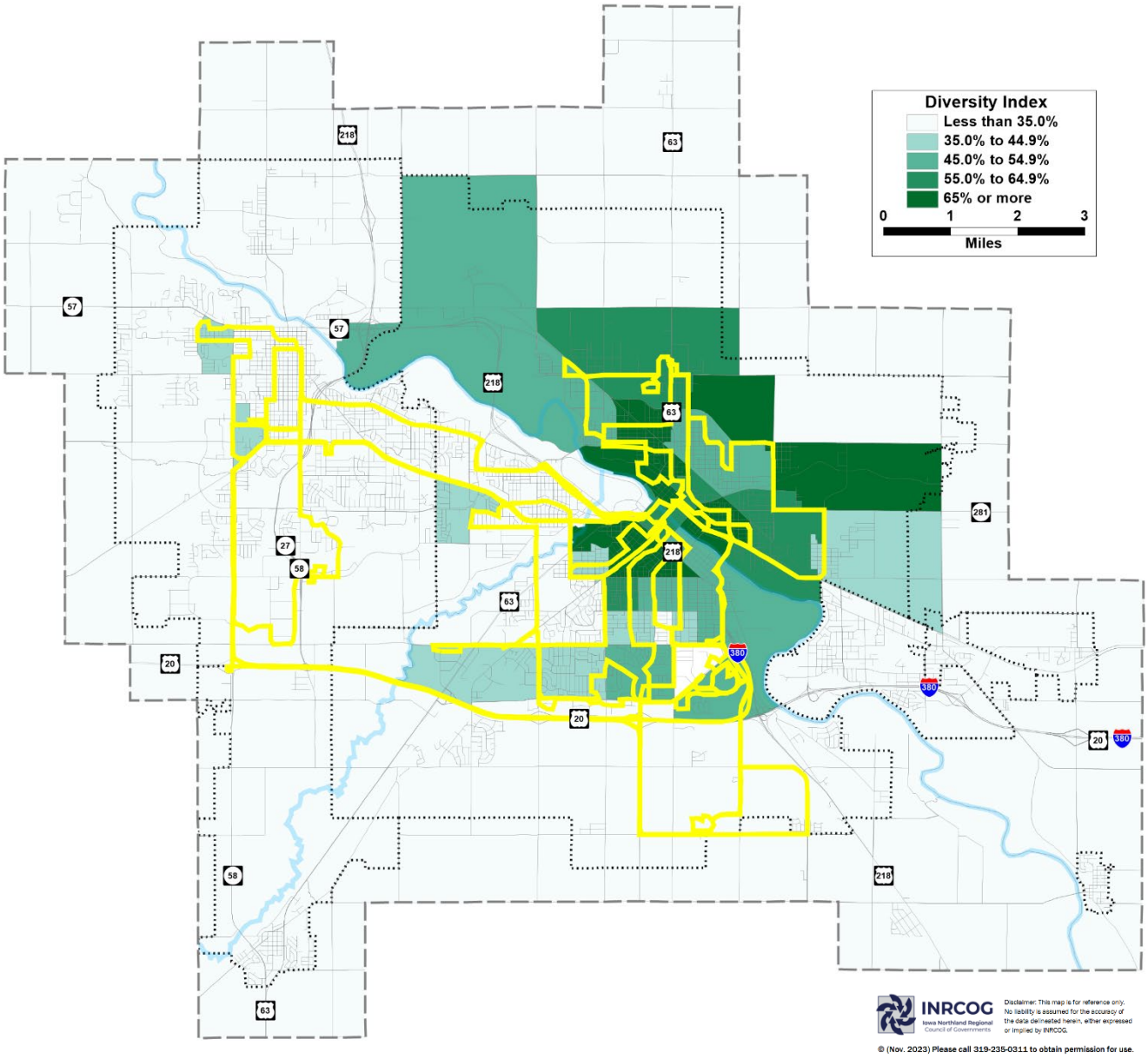
Map 4.5: Limited English Proficiency by Census Tract

Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2021



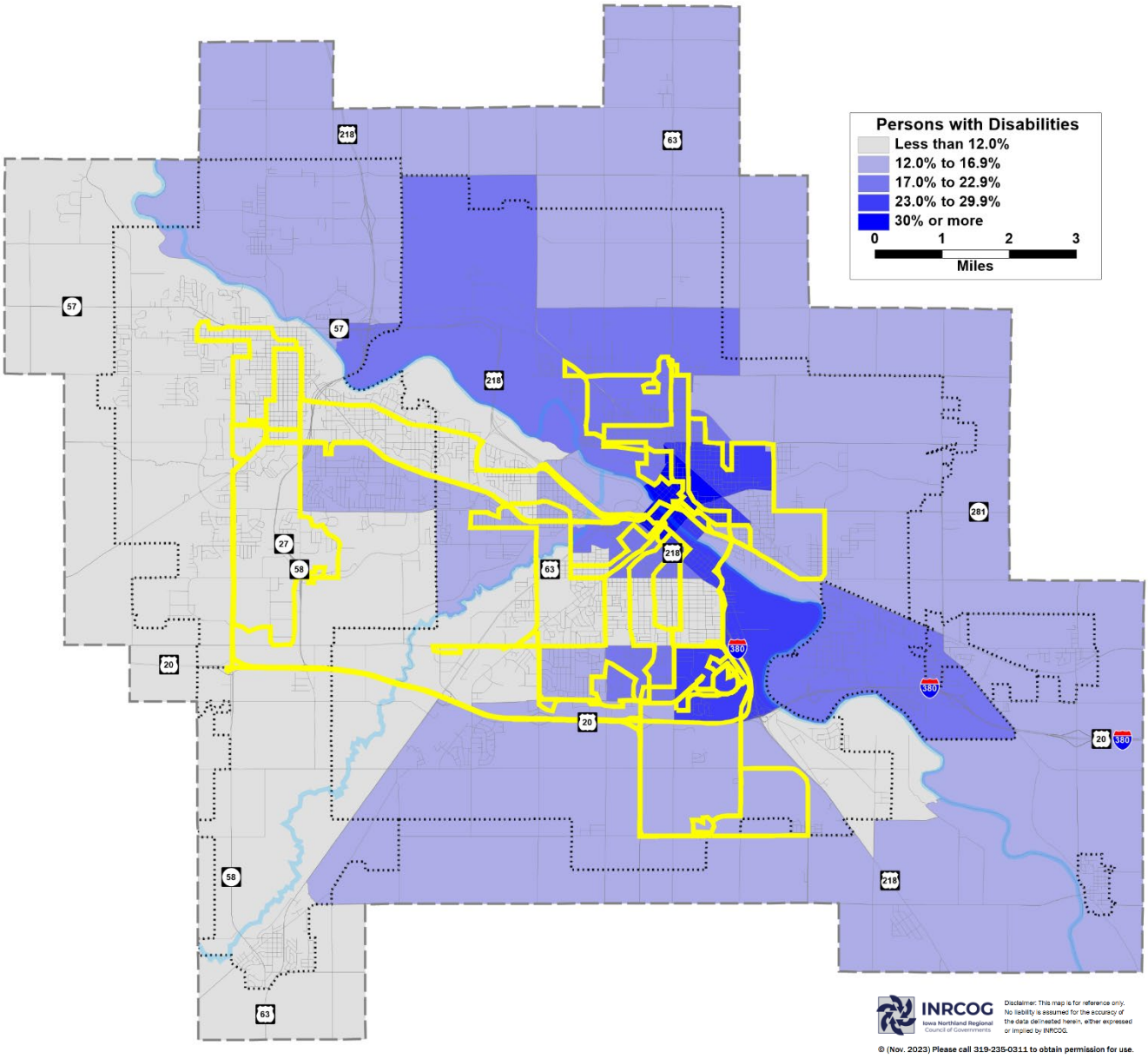
Map 4.6: Ethnic Diversity Index by Census Block Group

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



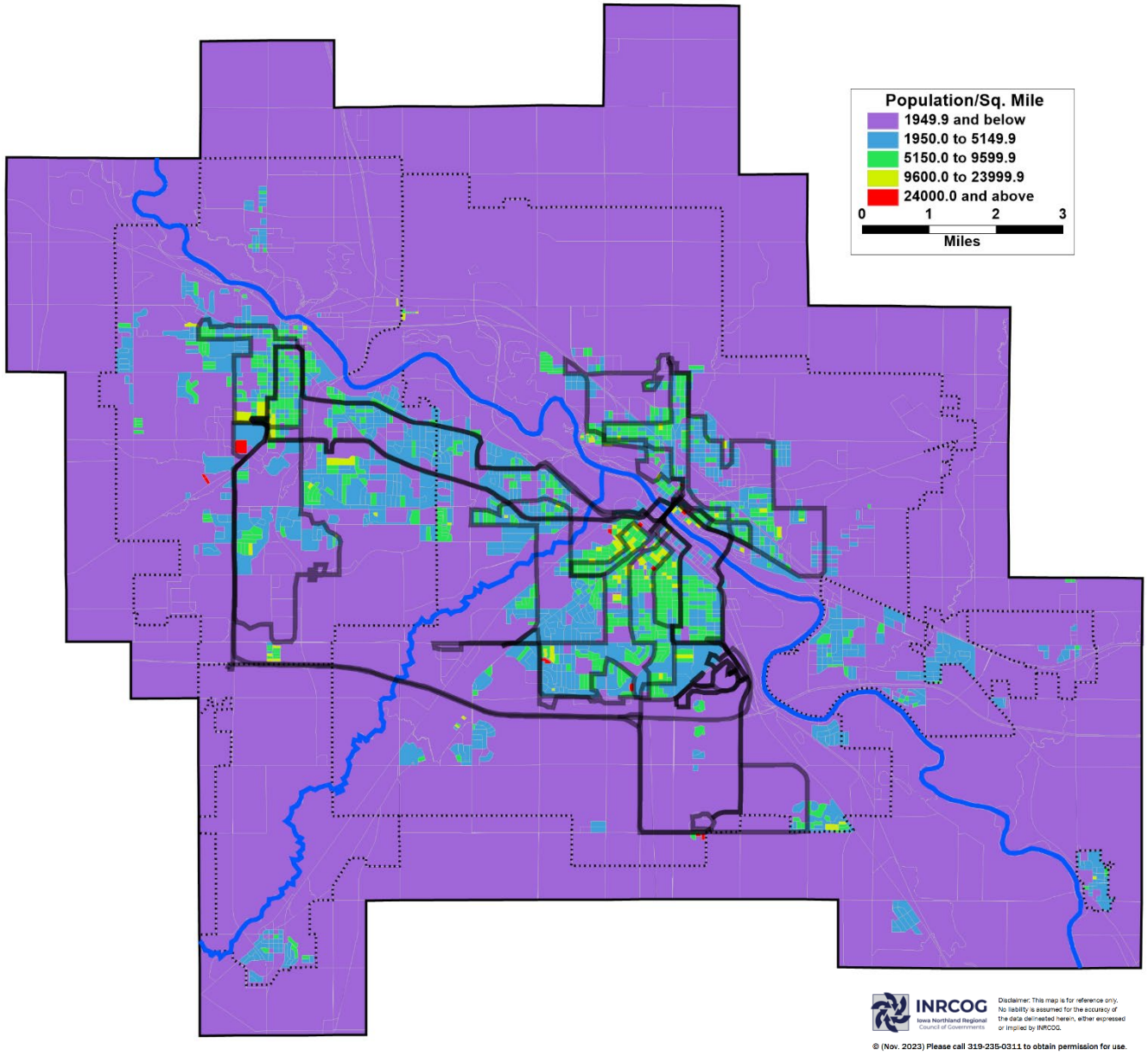
Map 4.7: Persons with Disabilities

Source: U.S. Census Bureau, American Community Survey 5-year Estimates, 2021



Map 4.8: Population Per Square Mile by Census Block

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



Inventory

MET Transit has a total of thirty-nine vehicles in service, including 20 fixed route buses and 19 paratransit buses. Table 4.4 shows the fleet of vehicles and several characteristics.

Table 4.4: MET Transit Vehicle Inventory (as of July 2023)

Bus ID	Service	Description	Seats/ Standing	Lock Downs	Date Acquired	Purchase Price	Condition	Mileage	Over ULB*
901	Fixed Route	2009 Gillig-30'	26/18	2	4/20/09	$288,599	Fair	507,174	Y
902	Fixed Route	2009 Gillig-30'	26/18	2	4/20/09	$288,599	Fair	495,511	Y
903	Fixed Route	2009 Gillig-35'	30/56	3	4/20/09	$328,655	Fair	542,892	Y
110	Fixed Route	2010 Gillig-30'	26-40	2	8/23/10	$345,787	Fair	405,826	Y
210	Fixed Route	2010 Gillig-30'	26-40	2	8/19/10	$345,787	Fair	439,969	Y
310	Fixed Route	2010 Gillig-30'	26-40	2	8/19/10	$345,787	Fair	471,510	Y
410	Fixed Route	2010 Gillig-35'	31-50	3	8/19/10	$355,632	Fair	480,615	Y
510	Fixed Route	2010 Gillig-35'	31-50	3	8/30/10	$355,632	Fair	405,295	Y
112	Fixed Route	2012 Gillig-30'	26-16	2	3/12/12	$356,945	Good	451,023	Y
212	Fixed Route	2012 Gillig-30'	26-16	2	2/14/12	$356,945	Good	405,446	Y
312	Fixed Route	2012 Gillig-30'	26-16	2	3/12/12	$356,945	Good	441,256	Y
113	Fixed Route	2013 Gillig-30'	26-17	2	2/21/13	$373,449	Good	460,688	Y
114	Fixed Route	2014 Gillig-30'	26-17	2	3/18/14	$373,873	Good	361,898	
214	Fixed Route	2014 Gillig-30'	26-17	2	3/19/14	$373,873	Good	435,086	
120	Fixed Route	2020 Ford Glaval-176"	16-0	4	1/23/20	$92,995	Excellent	109,552	
220	Fixed Route	2020 Gillig-30'	26-17	4	9/26/20	$439,801	Excellent	184,111	
820	Fixed Route	2020 Ford Glaval-176"	16-0	4	1/12/21	$93,219	Excellent	90,965	
221	Fixed Route	2021 Gillig-30'	26-17	4	7/28/21	$461,800	Excellent	82,719	
122	Fixed Route	2022 Gillig-30'	26-17	4	1/11/23	$466,178	Excellent	24,795	
222	Fixed Route	2022 Gillig-30'	26-17	4	11/12/23	$466,178	Excellent	20,726	
301	Paratransit	03 Bluebird-30'	24-18	10	8/21/03	$154,393	Poor	268,657	Y
412	Paratransit	12 Glaval Titan-183"	16-0	5	10/8/12	$81,203	Poor	160,013	Y
512	Paratransit	12 Glaval Con.-MD	10-0	7	12/17/12	$155,674	Good	160,332	Y
115	Paratransit	15 Glaval Legacy-MD	18-0	7	5/1/15	$136,786	Good	159,262	Y
215	Paratransit	15 Glaval Legacy-MD	18-0	7	5/1/15	$136,786	Good	167,001	Y
315	Paratransit	15 Glaval Legacy-MD	18-0	7	7/28/15	$135,186	Good	142,944	Y
415	Paratransit	16 Chev TurtleTop-176"	16-0	5	10/27/15	$94,329	Good	135,331	Y
515	Paratransit	16 Chev TurtleTop-176"	16-0	5	10/27/15	$94,329	Good	159,740	Y
615	Paratransit	16 Chev TurtleTop-176"	16-0	5	10/27/15	$94,854	Good	143,402	Y
116	Paratransit	16 Chev TurtleTop-176"	16-0	5	12/7/16	$95,806	Good	128,813	Y
216	Paratransit	16 Chev TurtleTop-176"	16-0	5	12/7/16	$95,806	Good	141,631	Y
117	Paratransit	17 Glaval Legacy-MD	18-0	7	4/7/17	$140,363	Excellent	113,417	
118	Paratransit	18 Glaval Uni-176"	16-0	5	6/13/18	$81,318	Excellent	135,444	
218	Paratransit	18 Glaval Uni-176"	16-0	5	11/8/18	$81,318	Excellent	126,330	
420	Paratransit	20 Glaval Uni-176"	16-0	5	1/12/21	$93,219	Excellent	63,787	
520	Paratransit	20 Glaval Uni-176"	16-0	5	1/12/21	$93,219	Excellent	64,928	
620	Paratransit	20 Glaval Uni-176"	16-0	5	1/12/21	$93,219	Excellent	65,035	
720	Paratransit	20 Glaval Uni-176"	16-0	5	1/12/21	$93,219	Excellent	70,763	
121	Paratransit	21 Glaval Uni-176"	16-0	5	8/6/21	$84,270	Excellent	58,193	

**Useful Life Benchmark*

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 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.

Burlington Trailways Depots
Source: www.burlingtontrailways.com

Transit Infrastructure

During the last five years, there has been a steady growth in transit-related infrastructure development within the metropolitan area. In 2018, the City of Waterloo initiated a project to replace its outdated bus benches with ADA-compliant bus stop landings. The previous benches were frequently located in grassy areas, making them inaccessible to individuals using wheelchairs, and their condition had significantly deteriorated over time. The newly installed landings align with existing bus routes, ensuring improved accessibility and convenience for all users.

New bus shelters on University Avenue, Cedar Falls
Source: INRCOG

As part of the University Avenue reconstruction projects in Waterloo and Cedar Falls, new bus shelters and benches have been introduced. These upgraded bus stops boast the distinction of being the first designated bus pull-outs in the metropolitan area. Additionally, plans are underway to implement similar shelters in Waterloo for the La Porte Rd reconstruction and enhancement project.

The University of Northern Iowa Multimodal Transportation Center, located at 1215 W 23rd St in Cedar Falls, was completed in the early 2010s, offering the metropolitan area an additional indoor temperature-controlled transfer facility. The facility's operations are under the supervision of the UNI Department of Public Safety. Bike lockers are provided in front of the facility and may be leased during the school year or over the summer.

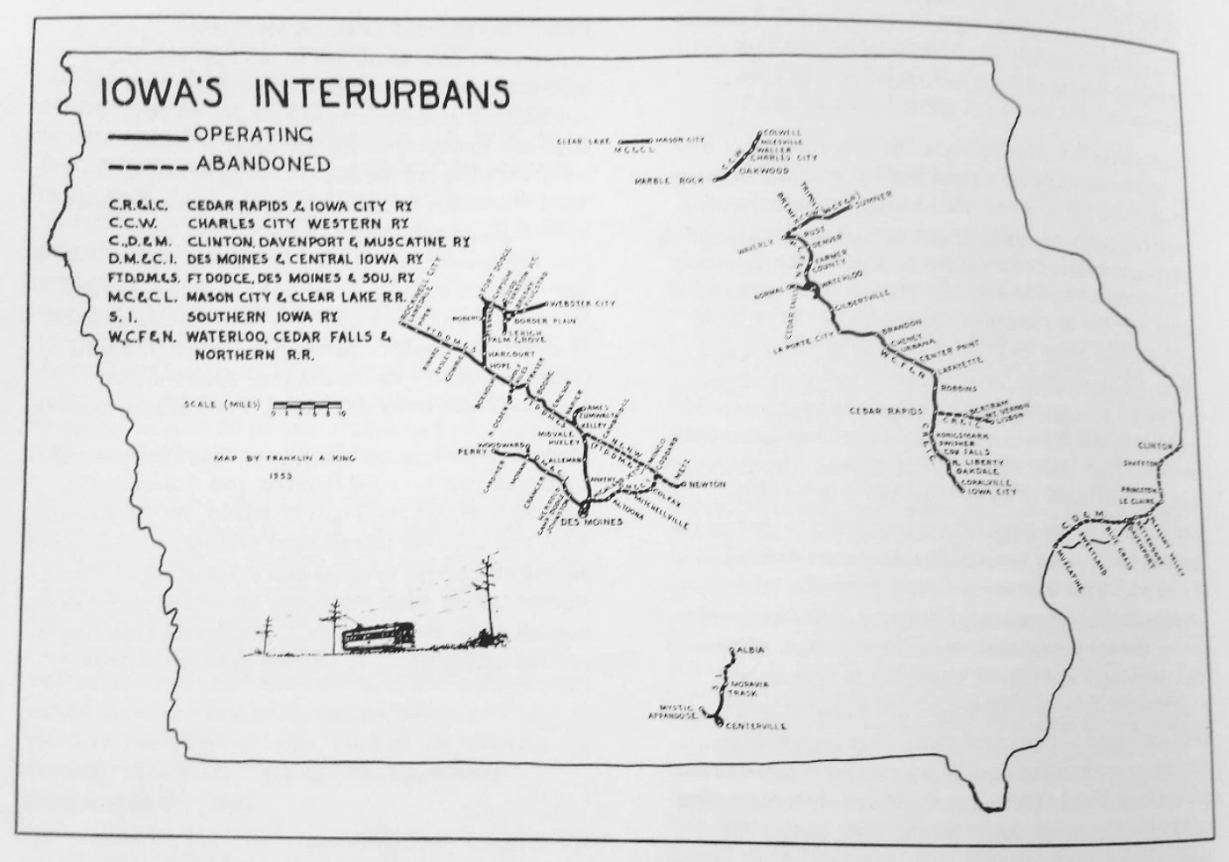
Built in the 1980s, MET Transit's Central Transfer facility was established at its present location, situated on the corner of Sycamore St and E Park Ave in downtown Waterloo. The facility not only serves as the primary transfer point for fixed routes but also offers connections to intercity bus services operated by Burlington Trailways. Inside, passengers can find indoor seating, while unsheltered outdoor seating is also available. Additionally, there are restrooms and a staffed ticket booth. Since its original construction, the facility has not undergone any upgrades, making it ripe for improvement. Implementing enhancements like dynamic message signs and tickers, the introduction of greenery with trees and vegetation, installing pedestrian lighting, incorporating public art, and providing bicycle racks would significantly elevate the overall experience for riders.

Passenger Rail

Black Hawk County 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.

Streetcar at East 4th St & Mulberry St in Waterloo, 1943
Source: University of Iowa Libraries

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 displaced by buses. During the 1950s, the interurban lines also succumbed to closure.



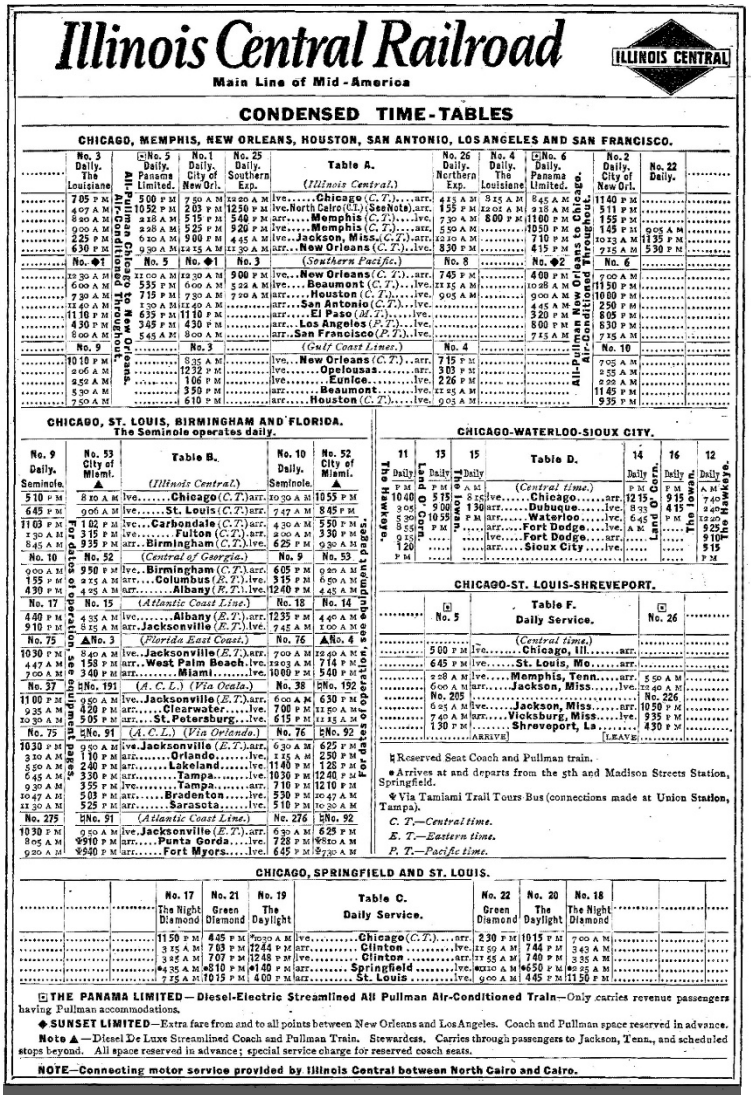
Iowa's Interurban Rail Lines, 1953
Source: The Palimpsest Publication Vol. XXXV No. 5 by Frank P. Donovan Jr., May 1954

Since 1967, passenger rail services have been absent from the metro area, 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.

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

Presently, Iowa's passenger rail services are provided by Amtrak through two prominent routes: the California Zephyr journeying from Chicago to Oakland, and the Southwestern Chief 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 Black Hawk County metropolitan area to Chicago through passenger rail is 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 swiftly and comfortably while easing congestion and reducing 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.



Illinois Central Railroad

Main Line of Mid-America

ILLINOIS CENTRAL

CONDENSED TIME-TABLES

CHICAGO, MEMPHIS, NEW ORLEANS, HOUSTON, SAN ANTONIO, LOS ANGELES AND SAN FRANCISCO.

No. 3 Daily. The Louisiane	⊡No. 5 Daily. Panama Limited.	No. 1 Daily. City of New Orl.	No. 25 Daily. Southern Exp.	Table A. (Illinois Central.)	No. 26 Daily. Northern Exp.	No. 4 Daily. The Louisiane	⊡No. 6 Daily. Panama Limited.	No. 2 Daily. City of New Orl.	No. 22 Daily.
7 05 P M	5 00 P M	7 30 A M	12 20 A M	lve.....Chicago (C. T.).....arr.	4 15 A M	8 15 A M	8 45 A M	11 40 P M	
4 07 A M	10 52 P M	2 03 P M	12 50 P M	lvc.North Cairo (C.T.) (See Note).arr.	1 55 P M	12 02 A M	9 18 A M	5 11 P M	
8 20 A M	2 18 A M	5 15 P M	5 40 P M	arr.....Memphis (C. T.).....lve.	7 30 A M	8 00 P M	11 00 P M	1 55 P M	
9 00 A M	2 28 A M	5 25 P M	5 20 P M	lve.....Memphis (C. T.).....arr.	5 50 A M	.....	10 50 P M	1 45 P M	
2 25 P M	6 20 A M	9 00 P M	4 45 A M	lve..Jackson, Miss. (C. T.).arr.	12 10 A M	.....	7 10 P M	10 23 A M	
6 30 P M	9 30 A M	12 15 A M	11 30 A M	arr...New Orleans (C. T.)..lve.	8 30 P M	.....	4 15 P M	7 15 A M	
No. ◆1	No. 5	No. ◆1	No. 3	(Southern Pacific.)	No. 8	.....	No. ◆2	No. 6	
12 30 A M	11 00 A M	12 30 A M	9 00 P M	lve...New Orleans (C. T.)...arr.	7 45 P M	.....	4 00 P M	7 00 A M	
6 00 A M	5 35 P M	6 00 A M	5 22 A M	lve....Beaumont (C. T.)....lve.	11 25 A M	.....	10 28 A M	11 50 P M	
7 30 A M	7 15 P M	7 30 A M	7 20 A M	arr.....Houston (C. T.).....lve.	9 05 A M	.....	9 00 A M	10 00 P M	
11 40 A M	1 30 A M	11 40 A M	.....	arr...San Antonio (C. T.)....lve.	.....	.....	4 45 A M	2 50 P M	
11 10 P M	6 35 P M	11 10 P M	.....	arr.....El Paso (M. T.).....lve.	.....	.....	3 20 P M	8 05 P M	
4 30 P M	3 45 P M	4 30 P M	.....	arr...Los Angeles (P. T.)...lve.	.....	.....	8 00 P M	8 30 P M	
8 00 A M	5 45 A M	8 00 A M	.....	arr...San Francisco (P. T.)..lve.	.....	.....	7 15 A M	7 35 A M	
No. 9		No. 3		(Gulf Coast Lines.)	No. 4			No. 10	
10 10 P M	.....	8 35 A M	.....	lve...New Orleans (C. T.)...arr.	7 15 P M	.....	.....	7 05 A M	
2 06 A M	.....	12 32 P M	.....	lve.....Opelousas.....arr.	3 03 P M	.....	.....	2 55 A M	
8 50 A M	.....	1 06 P M	.....	lve.....Eunice.....lve.	2 26 P M	.....	.....	2 00 A M	
5 30 A M	.....	3 50 P M	.....	arr.....Beaumont.....lve.	12 25 A M	.....	.....	11 45 P M	
7 50 A M	.....	6 10 P M	.....	arr.....Houston (C. T.).....lve.	9 05 A M	.....	.....	9 35 P M	

CHICAGO, ST. LOUIS, BIRMINGHAM AND FLORIDA.

The Seminole operates daily.

No. 9 Daily. Seminole.	No. 53 City of Miami. ▲	Table B. (Illinois Central.)	No. 10 Daily. Seminole.	No. 52 City of Miami. ▲
5 10 P M	8 10 A M	lve.....Chicago (C. T.).arr.	10 30 A M	10 55 P M
6 45 P M	9 06 A M	lve.....St. Louis (C. T.).arr.	7 47 A M	8 45 P M
11 03 P M	1 02 P M	lve...Carbondale (C. T.).arr.	4 30 A M	5 50 P M
2 30 A M	3 15 P M	lve.....Fulton (C. T.).arr.	2 00 A M	3 30 P M
8 45 A M	9 35 P M	arr..Birmingham (C. T.).lve.	6 25 P M	9 30 A M
No. 10	No. 52	(Central of Georgia.)	No. 9	No. 53
9 00 A M	9 50 P M	lve..Birmingham (C. T.).arr.	6 05 P M	9 20 A M
1 55 P M	2 15 A M	arr....Columbus (E. T.).lve.	3 15 P M	6 50 A M
4 30 P M	4 25 A M	arr.....Albany (E. T.).lve.	12 40 P M	4 45 A M
No. 17	No. 15	(Atlantic Coast Line.)	No. 18	No. 14
4 40 P M	4 35 A M	lve.....Albany (E. T.).arr.	12 35 P M	4 40 A M
9 10 P M	8 15 A M	arr..Jacksonville (E. T.).lve.	7 45 A M	1 00 A M
No. 75	▲No. 3	(Florida East Coast.)	No. 76	▲No. 4
10 30 P M	8 40 A M	lve..Jacksonville (E. T.).arr.	7 00 A M	12 40 A M
4 47 A M	1 58 P M	arr...West Palm Beach.lve.	12 03 A M	7 14 P M
7 00 A M	3 40 P M	arr.....Miami.....lve.	10 00 P M	5 40 P M
No. 37	⊡No. 191	(A. C. L.) (Via Ocala.)	No. 38	⊡No. 192
11 00 P M	9 50 A M	lve..Jacksonville (E. T.).arr.	6 00 A M	6 30 P M
9 35 A M	4 20 P M	arr.....Clearwater.....lve.	7 00 P M	11 50 A M
10 30 A M	5 05 P M	arr...St. Petersburg.....lve.	6 15 P M	11 15 A M
No. 75	⊡No. 91	(A. C. L.) (Via Orlando.)	No. 76	⊡No. 92
10 30 P M	9 50 A M	lve..Jacksonville (E. T.).arr.	6 30 A M	6 25 P M
3 10 A M	1 10 P M	arr.....Orlando.....lve.	1 15 A M	2 50 P M
5 50 A M	2 40 P M	arr.....Lakeland.....lve.	11 40 P M	1 28 P M
6 45 A M	3 30 P M	arr.....Tampa.....lve.	10 30 P M	12 40 P M
9 30 A M	3 55 P M	lve.....Tampa.....arr.	7 10 P M	12 10 P M
10 47 A M	5 03 P M	arr.....Bradenton.....lve.	5 30 P M	10 47 A M
11 30 A M	5 25 P M	arr.....Sarasota.....lve.	5 10 P M	10 30 A M
No. 275	⊡No. 91	(Atlantic Coast Line.)	No. 276	⊡No. 92
10 30 P M	9 50 A M	lve..Jacksonville (E. T.).arr.	6 50 A M	6 25 P M
8 05 A M	◆910 P M	arr.....Punta Gorda.....lve.	7 28 P M	◆8 10 A M
9 20 A M	◆940 P M	arr.....Fort Myers.....lve.	6 45 P M	◆7 30 A M

CHICAGO-WATERLOO-SIOUX CITY.

11 The Hawkeye. Daily	13 Daily	15 Daily	Table D. (Central time.)	14 Daily	16 Daily	12 The Hawkeye. Daily
P M	P M	⊙ A M		P M	P M	A M
10 40	5 15	8 15	lve.....Chicago.....arr.	12 15	9 15	7 40
2 05	9 00	1 30	arr.....Dubuque.....lve.	8 35	4 15	3 40
6 30	10 55	P M	arr.....Waterloo.....lve.	6 45	P M	12 20
8 35	P M	.....	arr.....Fort Dodge.....lve.	A M	.....	9 25
9 15	.....	.....	lve.....Fort Dodge.....arr.	.....	.....	9 10
1 20	.....	.....	arr.....Sioux City.....lve.	.....	.....	5 15
P M	.....	.....		.....	.....	P M

Lv. Chicago 10 40 P M daily except Sunday. Lv. Chicago 5 15 P M Sunday only. Land O' Corn. The Iowan. The Hawkeye. Lv. Chicago 10 40 P M daily except Sunday. Lv. Chicago 5 15 P M Sunday only. Land O' Corn. The Iowan. The Hawkeye.

CHICAGO-ST. LOUIS-SHREVEPORT.

⊡ No. 5	Table F. Daily Service.	⊡ No. 26
	(Central time.)	
5 00 P M	lve.....Chicago, Ill.....arr.	
6 45 P M	lve.....St. Louis, Mo.....arr.	
2 28 A M	lve.....Memphis, Tenn.....arr.	5 50 A M
6 00 A M	arr.....Jackson, Miss.....lve.	12 40 A M
No. 205		No. 226
6 25 A M	lve.....Jackson, Miss.....arr.	10 50 P M
7 40 A M	arr.....Vicksburg, Miss.....lve.	9 35 P M
1 30 P M	arr.....Shreveport, La.....lve.	4 30 P M
	ARRIVE	LEAVE

⊡ Reserved Seat Coach and Pullman train.

● Arrives at and departs from the 5th and Madison Streets Station, Springfield.

✱ Via Tamiami Trail Tours Bus (connections made at Union Station, Tampa).

C. T.—Central time.
E. T.—Eastern time.
P. T.—Pacific time.

For dates of operation, see equipment pages.

CHICAGO, SPRINGFIELD AND ST. LOUIS.

No. 17 The Night Diamond	No. 21 Green Diamond	No. 19 The Daylight	Table C. Daily Service.	No. 22 Green Diamond	No. 20 The Daylight	No. 18 The Night Diamond
11 50 P M	4 45 P M	●10 30 A M	lve.....Chicago (C. T.).....arr.	2 30 P M	10 15 P M	7 00 A M
3 15 A M	7 03 P M	12 44 P M	arr.....Clinton.....lve.	11 59 A M	7 44 P M	3 43 A M
3 25 A M	7 07 P M	12 48 P M	lve.....Clinton.....arr.	11 55 A M	7 40 P M	3 35 A M
●4 35 A M	●8 10 P M	●1 40 P M	arr.....Springfield.....lve.	●10 50 A M	●6 50 P M	●2 25 A M
7 25 A M	10 15 P M	4 00 P M	arr.....St. Louis.....lve.	9 00 A M	4 45 P M	11 50 P M

⊡ **THE PANAMA LIMITED**—Diesel-Electric Streamlined All Pullman Air-Conditioned Train—Only carries revenue passengers having Pullman accommodations.

◆ **SUNSET LIMITED**—Extra fare from and to all points between New Orleans and Los Angeles. Coach and Pullman space reserved in advance.

Note ▲—Diesel De Luxe Streamlined Coach and Pullman Train. Stewardess. Carries through passengers to Jackson, Tenn., and scheduled stops beyond. All space reserved in advance; special service charge for reserved coach seats.

NOTE—Connecting motor service provided by Illinois Central between North Cairo and Cairo.

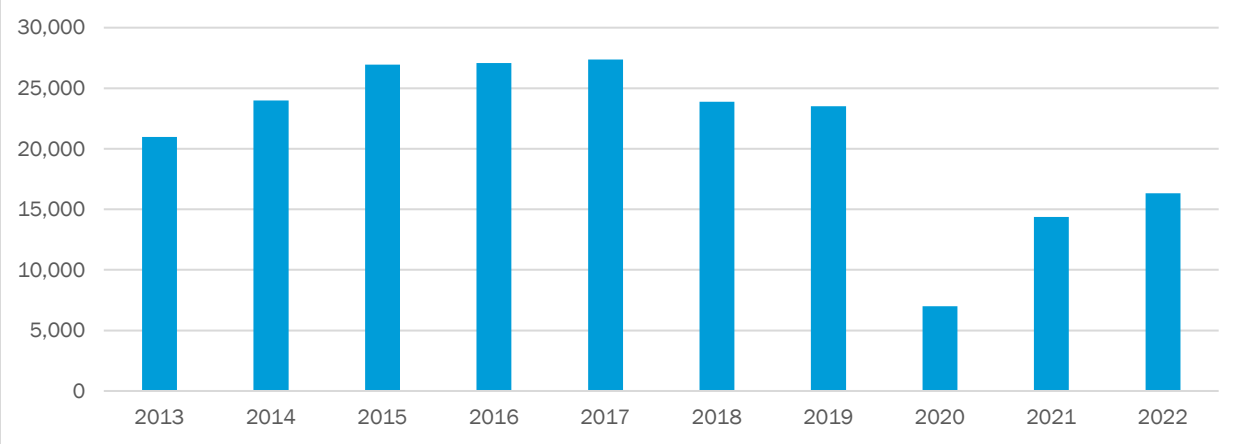
Illinois Central Railroad Timetable, 1952
Source: www.american-rails.com/illinois

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 2022, 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. Prior to the COVID-19 pandemic, the Waterloo Regional Airport was averaging 24,000 annual enplanements. Despite some recovery in air travel from 2020 to 2022, enplanements have not yet returned to pre-pandemic levels (Figure 4.5).

Figure 4.5: Calendar Year Annual Enplanements, Waterloo Regional Airport

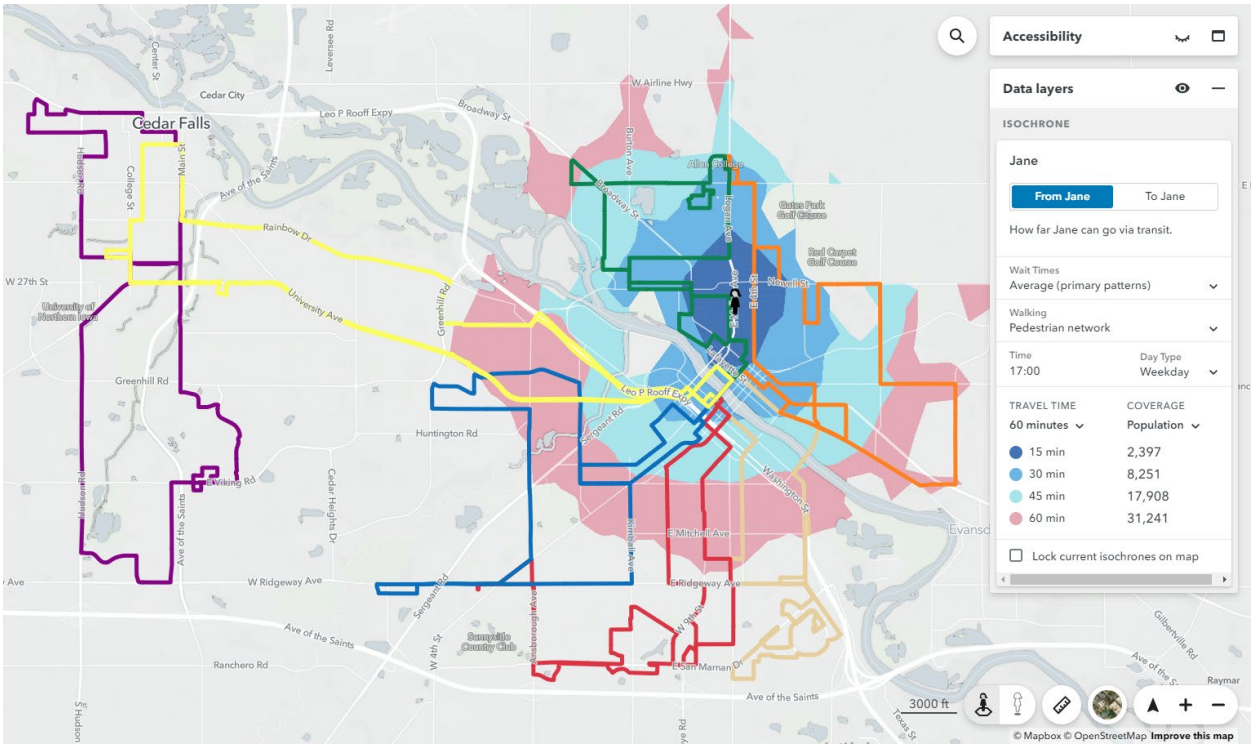


Source: Federal Aviation Administration, Passenger Boarding for U.S. Airports

Current and Ongoing Projects & Initiatives

MET Transit Fixed Route Restructure

MET Transit and MPO staff collaborated in assessing the viability of substantial, long-term adjustments to the fixed route system. While minor modifications to individual bus routes have occurred periodically, the overall fixed route network has remained unchanged for over two decades. Moreover, the existing looping system for fixed routes prioritizes geographical coverage at the expense of operational efficiency, resulting in a reduction in the system's overall effectiveness. Through the utilization of Remix software, both MET Transit and MPO personnel have been able to meticulously analyze data, unveiling entirely new configurations for the fixed route network. These configurations have been analyzed to discern routes that optimize ridership, coverage, frequency, and cost efficiency. Such analyses have also been instrumental in identifying new transfer hubs, including hospitals and commercial centers, where converging routes from different directions intersect.



The restructured route framework underwent thorough evaluation as an integral component of the Comprehensive Study (as detailed below) and was subjected to public review and comment in 2023. MET Transit is poised to introduce the revamped fixed route system, anticipated to be operational by the conclusion of the 2023 calendar year. **It is recommended that MET Transit persist in tracking the performance of the new routes and undertake a comprehensive system-wide analysis within a span of 3-5 years**. By conducting regular assessments, MET Transit can ensure that the new routes are effective and meet the needs of the community.

MET Transit Study and Public Input

As many transportation providers experienced with the start of the global pandemic, ridership numbers for MET Transit decreased significantly. The current route structure, travel times, and service hours do not meet many riders' needs, leaving gaps for residents who do not have access to a car in a primarily auto-oriented community. As a solution, MET Transit hired a consultant in February of 2023 to undertake a thorough and systematic assessment of the current public transit system with the objective of identifying areas for

enhancement, optimization, and strategic development. This in-depth study aims to provide a comprehensive understanding of the transit system's strengths, weaknesses, opportunities, and challenges. Key goals of the study include operational efficiency enhancement, ridership and accessibility improvement, service optimization, innovation and technological integration, environmental and sustainability considerations, community engagement, and long-term planning and investment.

During May 2023, the consultant initiated an online survey to collect input and insights from the community. To ensure inclusivity, Black Hawk County Public Health staff played a pivotal role by translating the survey and public notice materials into Bosnian, French, Marshallese, and Spanish languages. In July, two public engagement sessions were held to further solicit initial feedback on the envisioned reconfiguration of fixed routes, service coverage, frequency, and prospective enhancements.

Overall, the comprehensive transit study will serve as a strategic blueprint for the future of public transit service in the metropolitan area, with the aim of creating a more efficient, accessible, and sustainable transit network that meets the evolving needs of the community. The study will empower and engage residents, stakeholders, and key partners in shaping the future of the public transit system. The community-led approach ensures that the resulting recommendations and decisions reflect the values and priorities of the people who rely on and benefit from the transit system, fostering a stronger sense of ownership, connectivity, and pride in the local transportation infrastructure. The study is anticipated to be completed in 2024.

Midwest Interstate Passenger Rail Commission

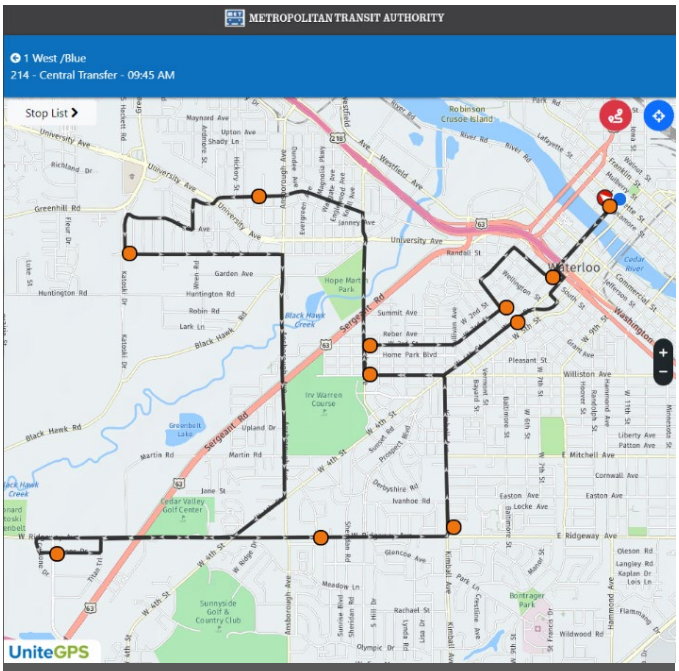
The Black Hawk County MPO supports efforts to engage in planning for and establishing a more robust network of infrastructure conducive to passenger rail transportation across Iowa. Growing support across the Midwest has shown promise and the consensus is that the State of Iowa should have equal representation at the planning table. It is for this reason that in 2023, the Black Hawk County MPO drafted a Letter 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 MPO is strongly urging Iowa Legislators to support legislation for Iowa's rejoining the MIPRC.**

MIPRC
Midwest Interstate Passenger Rail Commission

www.miprc.org

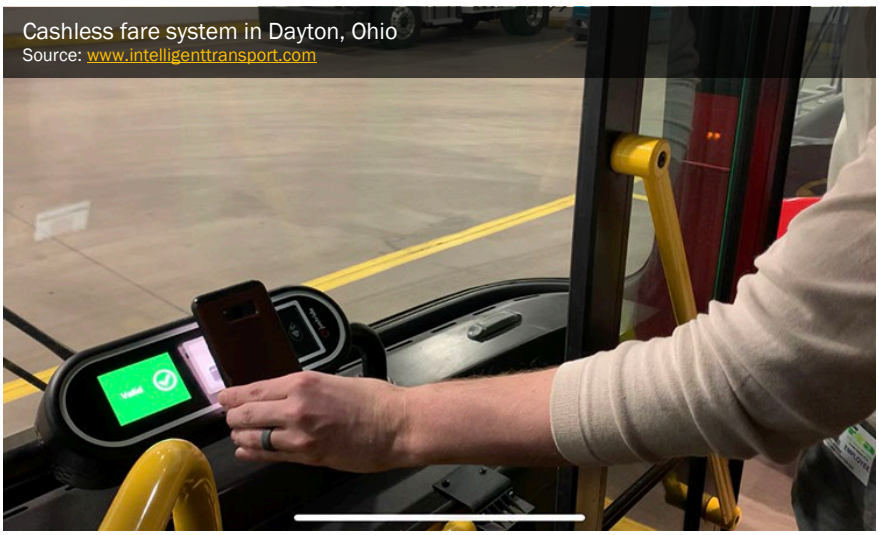
Technology

MET Transit has equipped all buses with GPS, enabling passengers to conveniently monitor bus locations through an interactive online map in real time. This innovative GPS technology also opens avenues for displaying live updates on television screens or tickers at key central points, a feature that was previously unavailable. The prospect of these advancements has captured the attention of MET Transit. Furthermore, MET Transit could collaborate with external entities like hospitals and educational institutions, potentially playing a pivotal role in introducing this technology to more transfer points.



MET Transit Real-Time Map
Source: https://transit.unitegps.com/mt

In the last decade, a range of technological advancements have been implemented, notably the integration of electronic fareboxes designed to accept both cash and traditional fare tickets. However, these fareboxes currently lack the capability to process electronic payment methods like contactless cards, mobile wallets, and digital apps. Furthermore, the coordination of paratransit service is efficiently managed through EchoLane, with each bus driver equipped with user-friendly tablets to ensure seamless operational processes.


Cashless fare system in Dayton, Ohio
Source: www.intelligenttransport.com

The integration of electronic payment methods on MET Transit buses would enhance the passenger experience and operational efficiency. Firstly, electronic payment options would streamline the boarding process, reducing the time passengers spend while boarding and making transactions swift and hassle-free. This not only enhances overall rider satisfaction but also encourages greater public transportation usage by catering to the preferences of modern, tech-savvy commuters. Additionally, the transition to electronic payment methods reduces the need for exact change, enhancing accessibility for riders from diverse backgrounds. The adoption of updated fareboxes with electronic payment options represents a pivotal step towards a more efficient, inclusive, and convenient public transportation system.

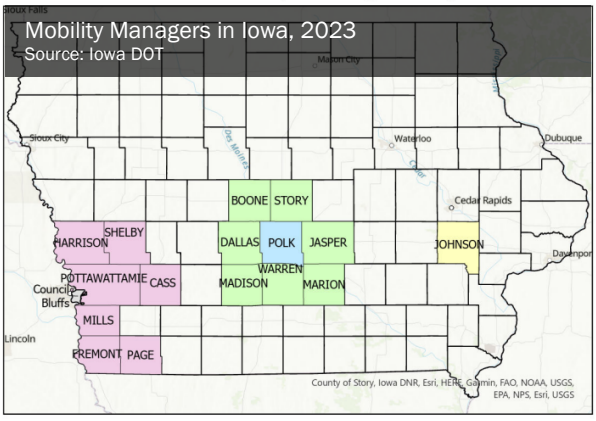
Ridesharing and Vanpooling

The emergence of Uber and Lyft services in Black Hawk County 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 areas. This can result in longer wait times or even 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.

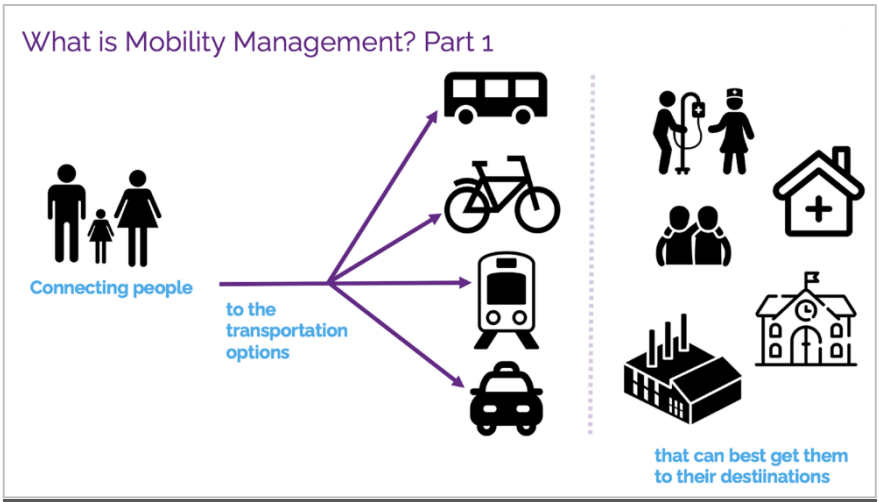
Vanpooling, exemplified by programs like Commute with Enterprise, offers a compelling solution to the challenges of commuting and limited transit availability by fostering a shared and efficient transportation arrangement. Commuters come together in a single van, typically organized and managed by a 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 MET Transit and OnBoard Public Transit through INRCOG have demonstrated a keen interest in establishing a vanpool program and are actively 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 Black Hawk County and the encompassing six-county region overseen by INRCOG. 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.



Source: https://nationalcenterformobilitymanagement.org/for-mobility-managers/

Complete Streets

In pursuit of fostering more sustainable and inclusive urban environments, cities are increasingly embracing complete streets for road design. Sidewalks widened to accommodate pedestrians, designated cycling lanes, and thoughtfully placed transit stops and shelters not only encourage walking and cycling but also provide convenient access to public transportation. This promotes the use of eco-friendly modes of transit and lessens the environmental impact. Moreover, features like accessible curb cuts, tactile paving, and audible pedestrian signals cater to individuals with disabilities, ensuring equitable mobility for everyone. By incorporating complete streets principles, the MPO can create well-integrated transportation networks that only prioritize efficiency and safety but also foster a sense of community, making urban spaces more livable and inviting for all residents. **It is highly recommended that all governing bodies in the metropolitan area integrate comprehensive complete streets elements into the design of roadways, encompassing both new construction and reconstruction projects.** This proactive approach serves to advance the development of a robust multimodal transportation system.

Source: https://santafenm.gov/news/complete-streets-resolution-supports-transportation-improvements-for-all

Bus Replacement

MET Transit is confronted with the need to modernize its ageing fleet of buses. A considerable portion of MET Transit's bus fleet was procured under the stimulus package instituted in 2009, rendering them significantly aged. **By 2022, an alarming 58 percent of the standard buses and 65 percent of the mini-buses in MET Transit's possession have surpassed the federal Useful Life Benchmark (ULB).** This situation is not exclusive to MET Transit, as a notable 63 percent of buses across the state find themselves in a similar state of exceeding the ULB status, as reported by the Iowa Public Transit Association.

In the absence of an increase in state and federal transit assistance, MET Transit may find itself at a potential crossroads where difficult choices must be made to ensure the continued viability of operations. Limited state and federal funding could necessitate raising local revenues, scaling back on essential services, deferring necessary repairs and maintenance, thereby potentially exacerbating future costs, or navigating a complex balance of these alternatives. Each option presents its own set of implications. Opting to increase local revenues could strain Waterloo and Cedar Falls' budgets and place an additional burden on local taxpayers. Conversely, reducing services might undermine the agency's mission of providing accessible and efficient transit solutions, affecting the mobility and quality of life for residents who rely on these services. Delaying repairs and maintenance, while appearing to alleviate immediate budgetary pressures, could lead to higher costs down the road, jeopardizing the safety and reliability of the transit infrastructure. The interplay of these choices underscores the **critical need for enhanced state and federal support to ensure the sustainability and effectiveness of MET Transit's operations in serving its community**.

Electric bus in Iowa City
Source: Wikipedia

MET Transit Planned Projects

Table 4.5 provides a comprehensive overview of transit projects that have been incorporated into the MPO Transportation Improvement Program (TIP) for FY 2024-2027. While the table demonstrates a considerable number of buses slated for replacement, MET Transit is unlikely to replace all the listed vehicles. 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 to be replaced based on the statewide ranking and funding available. Iowa has over 1,700 vehicles statewide, all competing for the same amount of limited dollars. As a result, only a small number of bus replacements are anticipated annually, at most. The amount of federal aid shown below for capital expenses is not guaranteed.

Table 4.5: MET Transit Planned Projects, FY 2024-2027

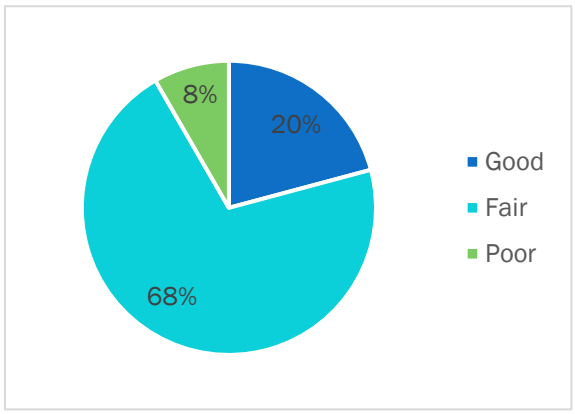
Funding Source	Expense Type	Unit #	Description	Fiscal Year	Total Cost	Federal Aid
5339	Capital	120	Light Duty Bus (176" WB)	2024	$179,574	$152,638
5339	Capital	218	Light Duty Bus (176" WB)	2024	$171,338	$145,638
5339	Capital	116	Light Duty Bus (176" WB)	2024	$171,338	$145,638
5339	Capital	216	Light Duty Bus (176" WB)	2024	$171,338	$145,638
5339	Capital	415	Light Duty Bus (176" WB)	2024	$171,338	$145,638
5339	Capital	515	Light Duty Bus (176" WB)	2024	$171,338	$145,638
5339	Capital	615	Light Duty Bus (176" WB)	2024	$171,338	$145,638
5339	Capital	115	Medium Duty Bus (to 28 ft.)	2024	$265,612	$225,770
5339	Capital	215	Medium Duty Bus (to 28 ft.)	2024	$265,612	$225,770
5339	Capital	315	Medium Duty Bus (to 28 ft.)	2024	$265,612	$225,270
5339	Capital	117	Medium Duty Bus (to 28 ft.)	2024	$265,612	$225,270
5339	Capital	512	Medium Duty Bus (to 28 ft.)	2024	$265,612	$225,270
5339	Capital	113	Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital	112	Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital	410	Heavy Duty Bus (35-39 ft.)	2024	$671,453	$570,735
5339	Capital	510D	Heavy Duty Bus (35-39 ft.)	2024	$671,453	$570,735
5339	Capital	210D	Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital	310D	Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital	903	Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital	110	Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital		Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5339	Capital		Heavy Duty Bus (30-34 ft.)	2024	$660,795	$561,676
5307	Operations		Gen. Op./Maintenance/Admin./Planning	2024	$4,640,000	$2,320,000
5303	Planning		Transit Planning	2024	$120,000	96,000
5310	Operations		Preventative Maint. & Mobility Coordinator	2024	$130,000	$104,000
5339	Capital	820	Light Duty Bus (176" WB)	2025	$171,338	$145,638
5339	Capital	212	Heavy Duty Bus (30-34 ft.)	2025	$660,795	$561,676
5339	Capital	312	Heavy Duty Bus (30-34 ft.)	2025	$660,795	$561,676
5339	Capital	114	Heavy Duty Bus (30-34 ft.)	2025	$660,795	$561,676
5339	Capital	214	Heavy Duty Bus (35-39 ft.)	2025	$681,453	$570,735
5307	Operations		Gen. Op./Maintenance/Admin./Planning	2025	$4,640,000	$2,320,000
5303	Planning		Transit Planning	2025	$120,000	96,000
5310	Operations		Preventative Maint. & Mobility Coordinator	2025	$130,000	$104,000
5339	Capital	420	Light Duty Bus (176" WB)	2026	$171,338	$145,638
5339	Capital	520	Light Duty Bus (176" WB)	2026	$171,338	$145,638
5339	Capital	620	Light Duty Bus (176" WB)	2026	$171,338	$145,638
5339	Capital	720	Light Duty Bus (176" WB)	2026	$171,338	$145,638
5307	Operations		Gen. Op./Maintenance/Admin./Planning	2026	$4,640,000	$2,320,000
5303	Planning		Transit Planning	2026	$120,000	96,000
5310	Operations		Preventative Maint. & Mobility Coordinator	2026	$130,000	$104,000
5339	Capital		Light Duty Bus (176" WB)	2027	$171,338	$145,638
5307	Operations		Gen. Op./Maintenance/Admin./Planning	2027	$4,640,000	$2,320,000
5303	Planning		Transit Planning	2027	$120,000	96,000
5310	Operations		Preventative Maint. & Mobility Coordinator	2027	$130,000	$104,000

2022 Public Input Survey

In September 2022, the personnel of the MPO conducted a pair of internet-based surveys. These surveys were aimed at collecting feedback from residents within the jurisdictions of the MPO. The subsequent details provided here highlight survey responses that hold significance within the context of this chapter.

Figure 4.6: Public Input Survey, Rounds One and Two asking respondents how they would rate our public transit:

Answered: 24



Answered: 86

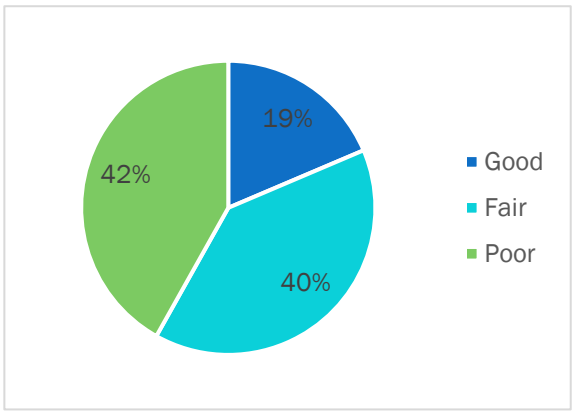
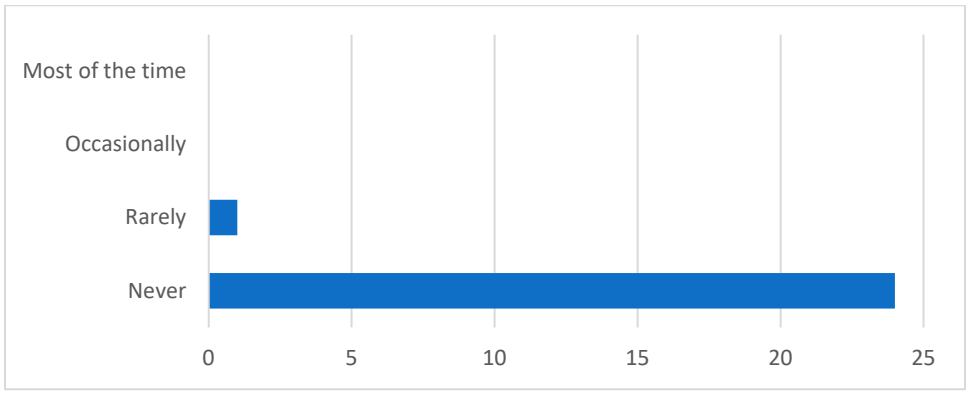


Figure 4.7: Public Input Survey, Rounds One and Two asking respondents how often they ride public transit:

Answered: 25



Answered: 86

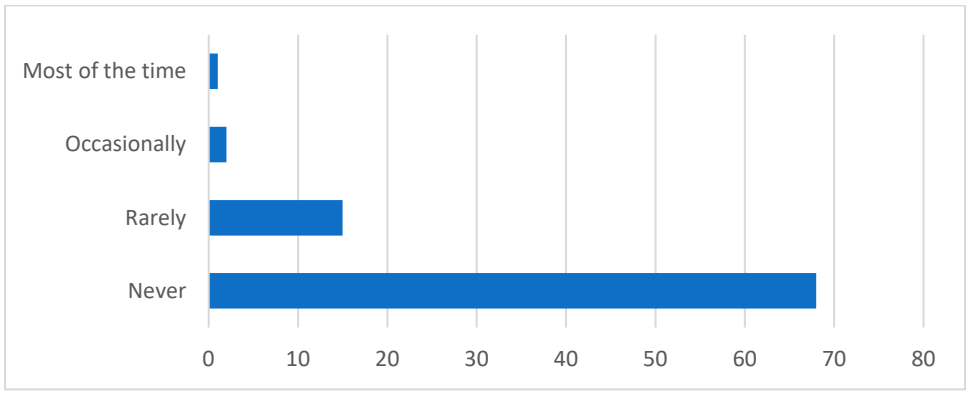


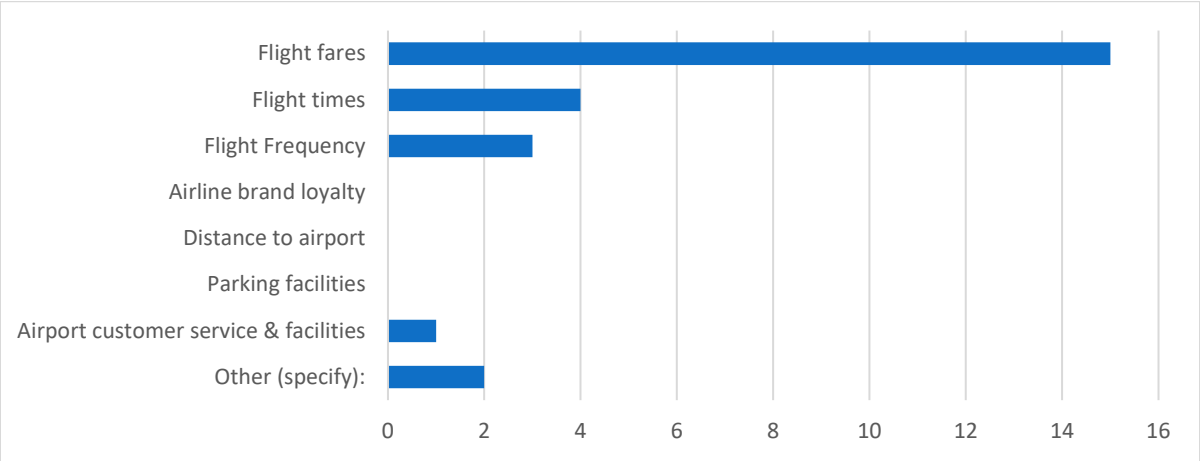
Figure 4.8: Public Input Survey, Rounds One and Two asking respondents how our public transit could be improved (e.g., availability, connectivity, efficiency, hours of operation, etc.):

Summary of Worded Responses (Both Rounds):

- Route Expansion and Connectivity
  - Suggestions for routes to specific destinations like industrial areas, workplaces, Tyson, John Deere, UNI campus, etc.
  - Calls for better connectivity and more routes connecting neighborhoods and destinations.
  - Requests for strategic stops in unserved communities, such as Evansdale and Elk Run Heights.
- Frequency and Hours of Operation
  - Desires for increased frequency of buses to reduce wait times.
  - Calls for longer hours of operation, especially during shift change hours or later at night.
- Accessibility and Convenience
  - Suggestions for more customer pickup stations.
  - Requests for cover/shelter at bus stops to protect against inclement weather.
  - Concerns about lack of knowledge regarding schedules and routes.
  - Desire for better signage along routes and at bus stops.
  - Calls for better promotion and visibility of public transit services.
- Efficiency and Modernization
  - Requests for smaller, more efficient buses.
  - Calls for modernization of buses and bus stops to improve aesthetics.
  - Suggestions for the use of electric buses where feasible.
  - Suggestions for the use of hydrogen cell buses and electric buses for sustainability
- Specific Destinations and Needs
  - Emphasis on serving specific destinations like Tyson, John Deere, university campuses, and workplaces.
  - Need for better routes to underserved communities and low-income housing complexes.
  - Suggestions for routes to the airport and industrial parks.
  - Suggestions for offering park-and-ride options for large events or utilizing alternative modes of transportation like biking.
- Ridership and Awareness
  - Desire to increase ridership through marketing, public outreach, and education.
  - Concerns about low awareness of public transit options and routes.
  - Suggestions for leaving brochures at area businesses.
- Challenges and Solutions
  - Recognition of the chicken-and-egg issue regarding ridership and connectivity.
  - Calls for a comprehensive transit study to identify needs and efficiencies.
  - Suggestion to make scheduling of paratransit available online for better accessibility.

Figure 4.9: Public Input Survey, Rounds One and Two asking respondents what the biggest factor is that influences their decision on whether to fly from the Waterloo Regional Airport:

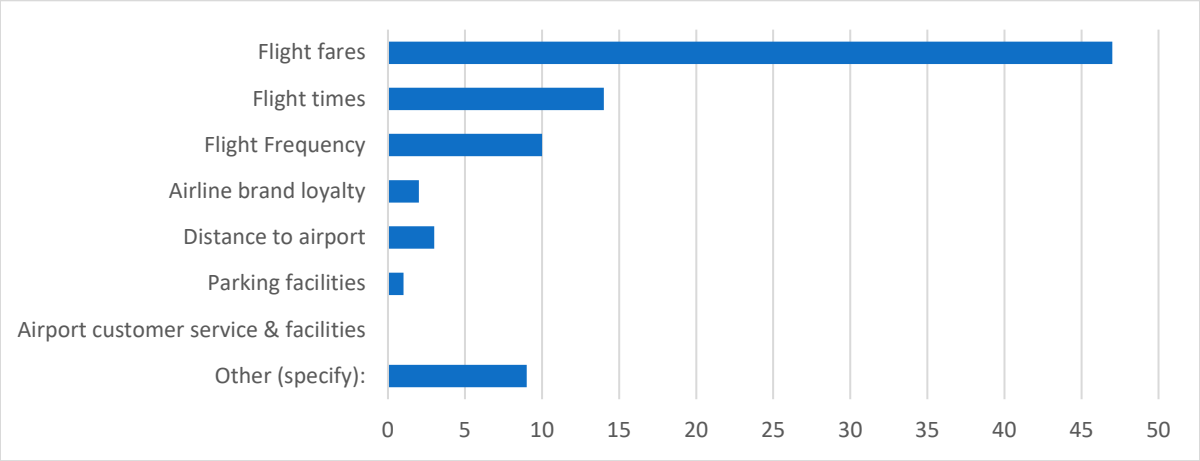
Answered: 25



Other (specify):

- "No one reason – might be the rates; might be the flight times; might be the airline brand; depends on where/what I am going."
- "Destination and connection flights."

Answered: 86



Other (specify):

- "No nonstop." (4)
- "Destination."
- "Cost AND is the flight actually going to happen. So many times the Waterloo flight is canceled and then the last minute they want me to drive to Cedar Rapids, that isn't always an option."
- "Convenience of connections to other destinations."
- "Connection delays or failures at Chicago O'Hare are a problem when flying from Waterloo."
- "As of current, I have no experience flying- but if I did, it would likely come down to cost and convenience fares."

Figure 4.10: Public Input Survey, Rounds One and Two asking respondents what their biggest transportation challenge is in the MPO:

Summary of Worded Responses (Both Rounds):

- Air Travel and Airport
  - Desires for more flights from Waterloo Regional Airport to various destinations.
  - Dissatisfaction with the limited flight options and lack of competitive prices.
  - Calls for better airline options, additional carriers, and more hubs.
- Transportation Options
  - Requests for improved public transportation options in Waterloo and Cedar Falls.
  - Concerns about inadequate bus service, lack of mass transit, and limited routes.
  - Desire for better cycling infrastructure and public transit to increase quality of life.
  - Interest in taking public transit but hindered by efficiency and frequency.
- Accessibility and Convenience
  - Desire for transportation options for other citizens who cannot drive.
  - Frustration with the need to rely on cars and vehicles for transportation.
  - Need for more accessible and efficient bus services.
- Regional Connectivity
  - Desire for train services to major metropolitan areas like Chicago and Minneapolis.
  - Concerns about limited flights, cancellations, and having to fly from other airports.
  - Calls for better service, more frequent routes, and expanded coverage.
- Social Equity and Accessibility
  - Requests for public transportation options for low-income individuals.
  - Calls for affordable and accessible bus services.
  - Suggestions for raising fares to improve bus service quality and working with social service agencies.