Appendix B: Transportation Profile

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Transportation Inventory

Roadways in the MAPA Region

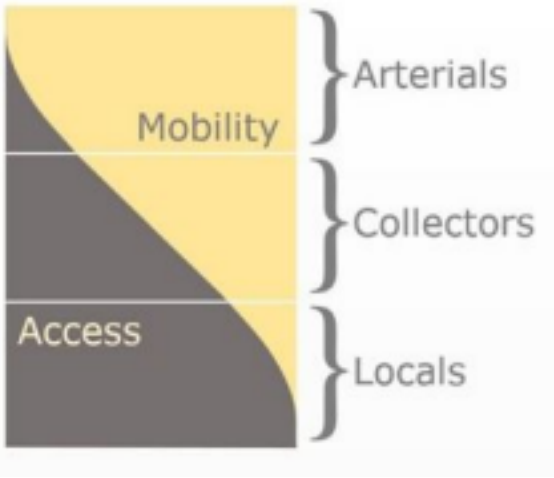
The network of streets, highways, and bridges represents the primary form of transportation in the MAPA TMA. From residential streets to interstate freeways, it is utilized daily by the vast majority of residents in the metro area to get from point A to point B. In recent decades, hundreds of millions of dollars have been spent to construct and maintain the system that exists today. Ensuring that the roadway system continues to be safe and provides access for residents and businesses is critical to the region's future.

The MAPA MTP provides the metro area with a roadmap for anticipated transportation improvements. While the 25-year planning timeframe inherently carries with it a high level of uncertainty, it is nonetheless important to periodically assess the region's transportation system and evaluate long range plans and goals. Traffic levels have grown rapidly in recent decades in the MAPA region; however, traffic growth slowed for several years following the economic recession of 2008. Since that time traffic growth has slowly begun to increase as population and employment continue to increase. The COVID-19 pandemic and social distancing had significant impacts in reducing traffic on the region's roadways. Surface and air traffic have mostly returned to pre-pandemic levels as of 2025, though commuting patterns have shifted.

In many communities throughout the region, the roadway system in the metro area has not kept pace with new, suburban growth. Improvements to the roadway system lag behind the current extent of residential, commercial and retail development. A tension exists between investing in these traditional infrastructure needs while ensuring that adequate resources exist to maintain the transportation system of today and of the future.

Federal Functional Classification

The functionality of a street is related to traffic mobility and land access. Higher level facilities such as freeways and expressways have lower access which allow for higher speeds and capacities. Conversely, lower level facilities such as local streets and minor collectors allow for greater access, but have reduced mobility due to lower speeds and capacities. This relationship can be seen in the diagram to the right.



The Federal Highway Administration (FHWA) groups roadways into classes according to the character of service they are intended to provide. In order to be eligible for federal-aid funding, a roadway must be

classified as a Major Collector or higher in the functionally classified road network. Figure 1 and figure 2 list the number of center-line and lane miles, and miles by each federal functional classification in the MAPA TMA. Figure 3 illustrates the functional classification of roadways in the MAPA TMA.

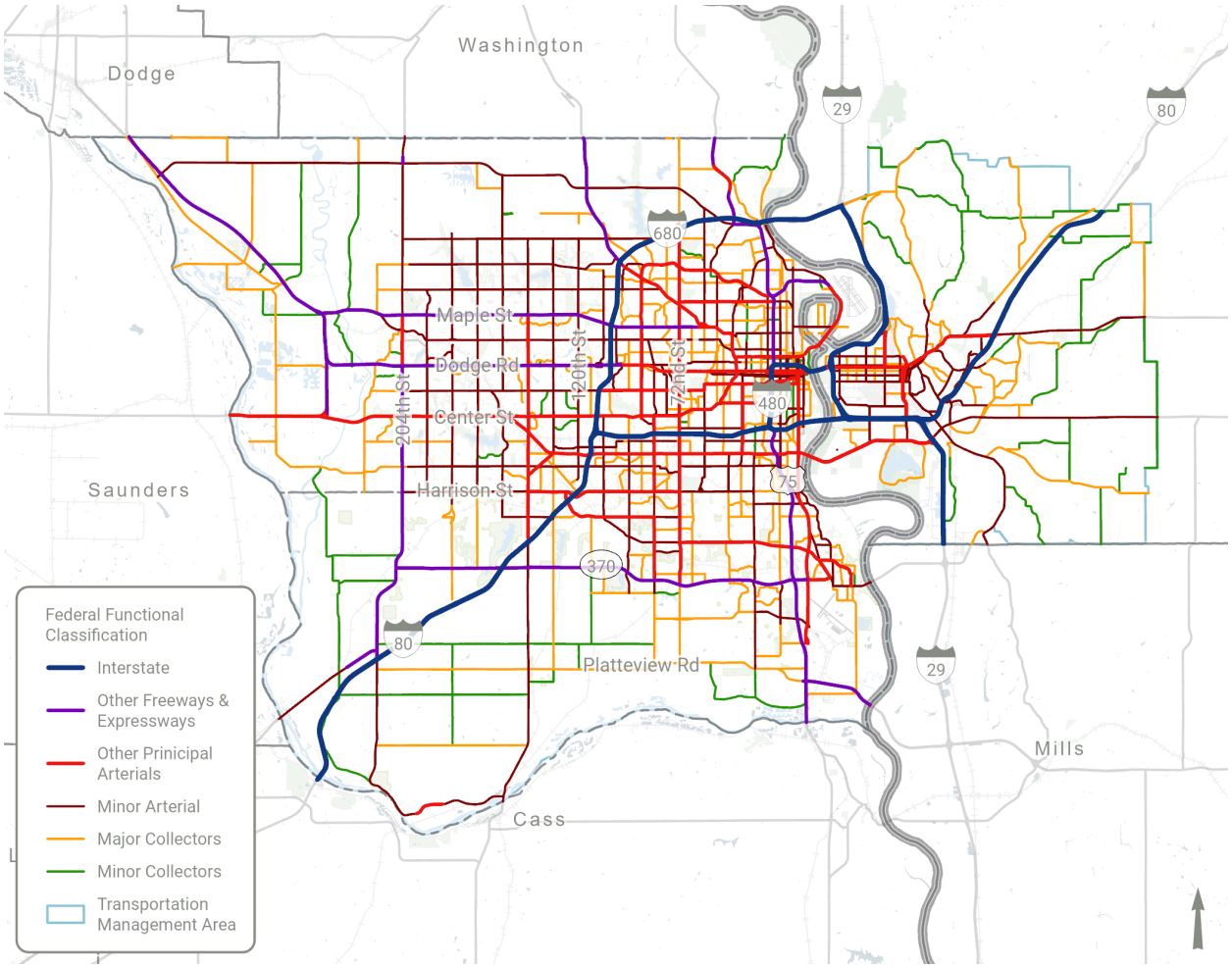
Figure 1: Centerline Miles of Roadway by Functional Classification

County	Interstate (PAI)	Other Principal Arterial (OPA)	Minor Arterial (MA)	Collector	Local (LOC)	Total
Douglas	35	204	222	279	2,442	3,182
Sarpy	17	63	62	158	1,020	1,320
Pottawattamie (MPO)	38	18	72	146	605	879
MAPA TMA Total	**90**	**286**	**356**	**583**	**4,067**	**5,381**

Figure 2: Lane Miles of Roadway in by Function Classification

	Interstate (PAI)	Other Principal Arterial (OPA)	Minor Arterial (MA)	Collector	Local (LOC)	Total
Douglas	182	795	624	587	4,882	7,070
Sarpy	81	246	162	325	2,040	2,855
Pottawattamie (MPO)	154	67	162	292	1,198	1,872
MAPA TMA Total	**418**	**1,108**	**949**	**1,203**	**8,120**	**11,798**

Figure 3: Functional Classification of Roadways in the MAPA TMA



Pavement Condition

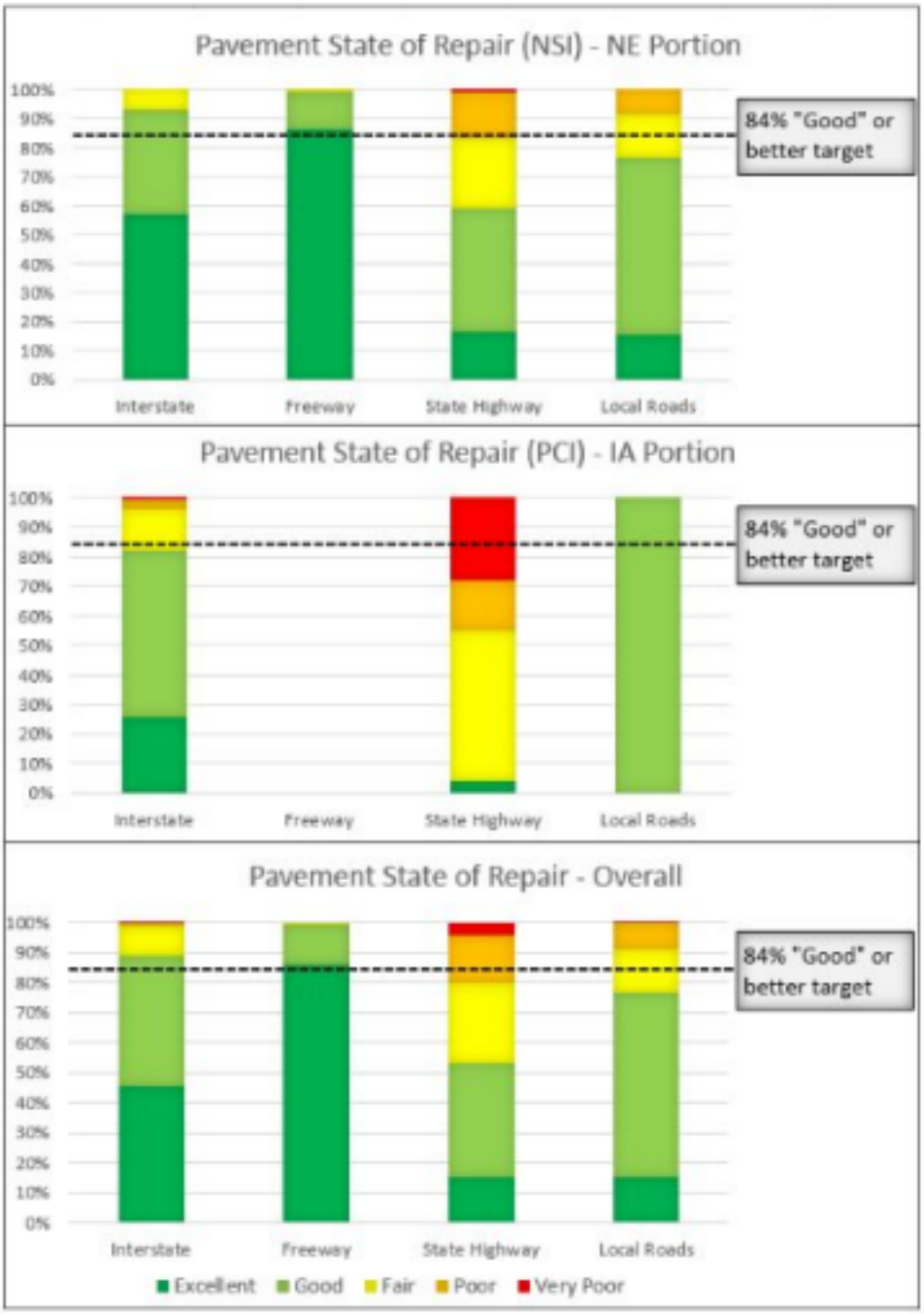
Current pavement conditions in the study area are shown in figure 4. Interstates and Freeways are the only functional classes of roadways within the study area that currently meet the performance target of 84% “good” or better condition. Pavements deteriorate over time due to trac loads, severe weather, and other factors. Without preventative maintenance or rehabilitation pavements will deteriorate over time to a point where they are no longer serviceable and require reconstruction. No functional class of pavements is expected to meet the 84% “good” or better condition target beyond 2015 except the Freeway class. After 2033, no study area roadways are expected to be in “good” or better condition unless pavement treatments are applied.

Pavement condition indices calculated as a combination of surface and structural distresses (i.e., rutting and faulting) were applied as primary pavement performance measures for the MTIS study area as follows:

- The Nebraska Serviceability Index (NSI) was applied for pavements within the Nebraska region; and
- The Pavement Condition Index (PCI) was used for pavements within the Iowa region.

Both NSI and PCI are measured on a 0-100 scale with higher values indicating better pavement condition. In addition to NSI/PCI, the International Roughness Index (IRI) was applied as required under MAP-21 as a measure of pavement surface quality. Higher IRI values indicate higher pavement roughness and thus reduced ride quality.

Figure 4: Pavement Condition Ratings by State, Metro Travel Improvement Study.



Bridge Condition

There are nearly 1,000 bridges in the MAPA TMA. Of these, 325, or one-quarter, are currently classified as structurally deficient or functionally obsolete. A report by the U.S. DOT to Congress describes these terms as follows:

- Structural deficiencies are characterized by deteriorated conditions of significant bridge elements and reduced load carrying capacity.
- Functional obsolescence is a function of the geometrics of the bridge not meeting current design standards.

"Neither type of deficiency indicates that the bridge is unsafe." In other words, these are bridges in need of improvement and can result in congestion or pose inconveniences to large vehicles such as trucks, school buses or emergency vehicles that are forced to take lengthy detours. National Bridge Inventory data no longer directly identifies functionally obsolete bridges, and so the figures in Figure 5 below reflect the most recent data from 2019.

The majority—three quarters—of structurally deficient or functionally obsolete bridges are located off the state highway system on municipal and county roads, which typically carry lower traffic volumes. 19 percent of bridges in Douglas County fall into this category as do 27 percent of bridges in the MAPA TMA portion of Pottawattamie County. The Sarpy County portion of the MAPA TMA has the highest rate of obsolete or deficient bridges at 28 percent. Pottawattamie County also has the highest number of bridges per capita within the metro area. Figure 5 provides the bridge conditions by county.

Figure 5: Bridge Status in the MAPA Region by County

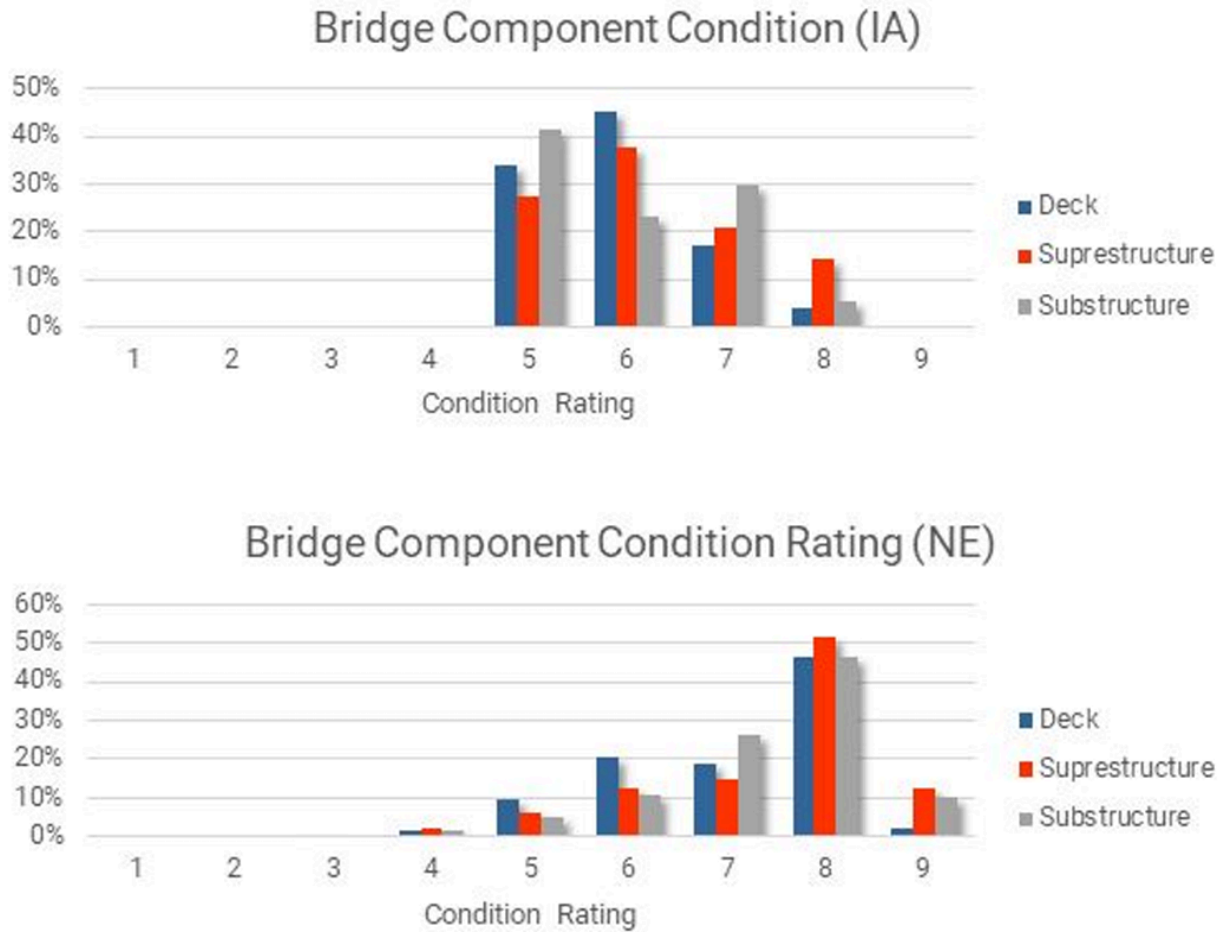
	Count	# of Structurally Deficient	# of Functionally Obsolete	Percent Deficient or Functionally Obsolete
Douglas	502	22	75	19%
Sarpy	185	25	27	28%
Pottawattamie	566	99	54	27%
MAPA Total	**1,253**	**146**	**156**	**24%**

Source: FHWA NBI, 2019

A total of 393 bridges located within the MTIS study area were included in the analysis. Study area bridges are on average 23 years old. The analysis of the bridge conditions shows that 76% of bridges in the MTIS study area are in good condition, 20% in fair condition, and the remaining 4% are in poor condition. By 2040, study area bridges are expected to deteriorate from the current level of 4% structurally deficient to 30% structurally deficient without further investment

in bridge preservation and rehabilitation. The Metropolitan Travel Improvement Study (MTIS) evaluated the overall condition of each bridge, the condition ratings of their main components (deck, superstructure, and substructure) were analyzed. In Iowa, part of the bridge component ratings mostly lie in the range of 5-7, while in Nebraska, the components are in better condition, with ratings between 6 and 8 (figure 6). Condition ratings of Iowa structures were anticipated to increase dramatically early in the planning period as aging structures are replaced through the Council Bluffs Interstate System (CBIS) project.

Figure 6: MTIS Bridges, Bridge Component Condition by State



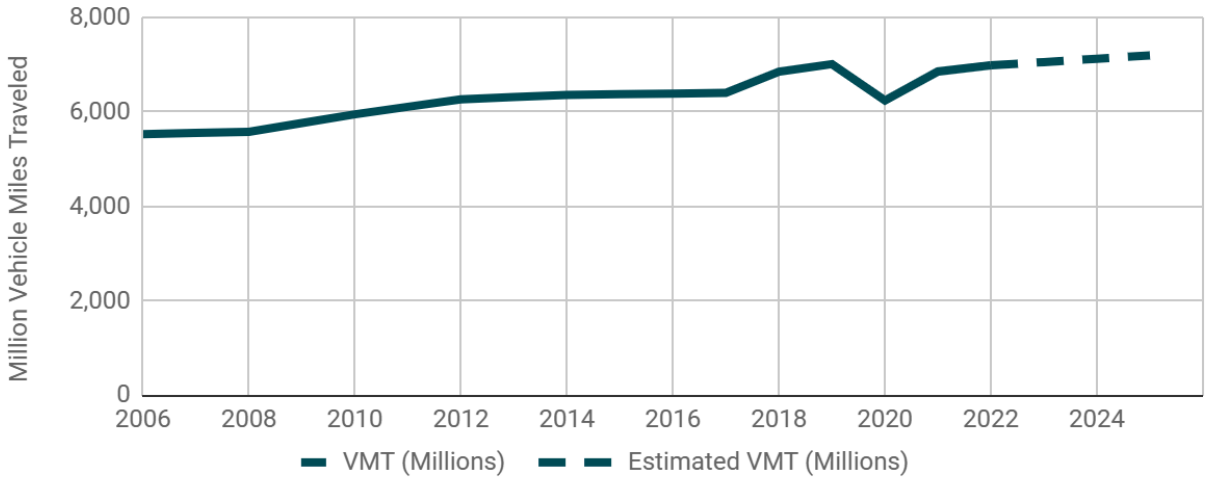
Traffic Trends in the MAPA Region

A look at current traffic trends help to gauge where the MAPA region is heading and how the transportation system is likely to perform over the coming 25 years. It also offers an opportunity to the region to step back and consider what steps will be necessary to meet future transportation needs. Travel data and trends are vital to setting goals, choosing appropriate action steps, and tracking the region's progress toward attaining those goals. More information

about traffic trends in the Omaha-Council Bluffs Region can be found in MAPA's Regional Traffic Patterns Report.

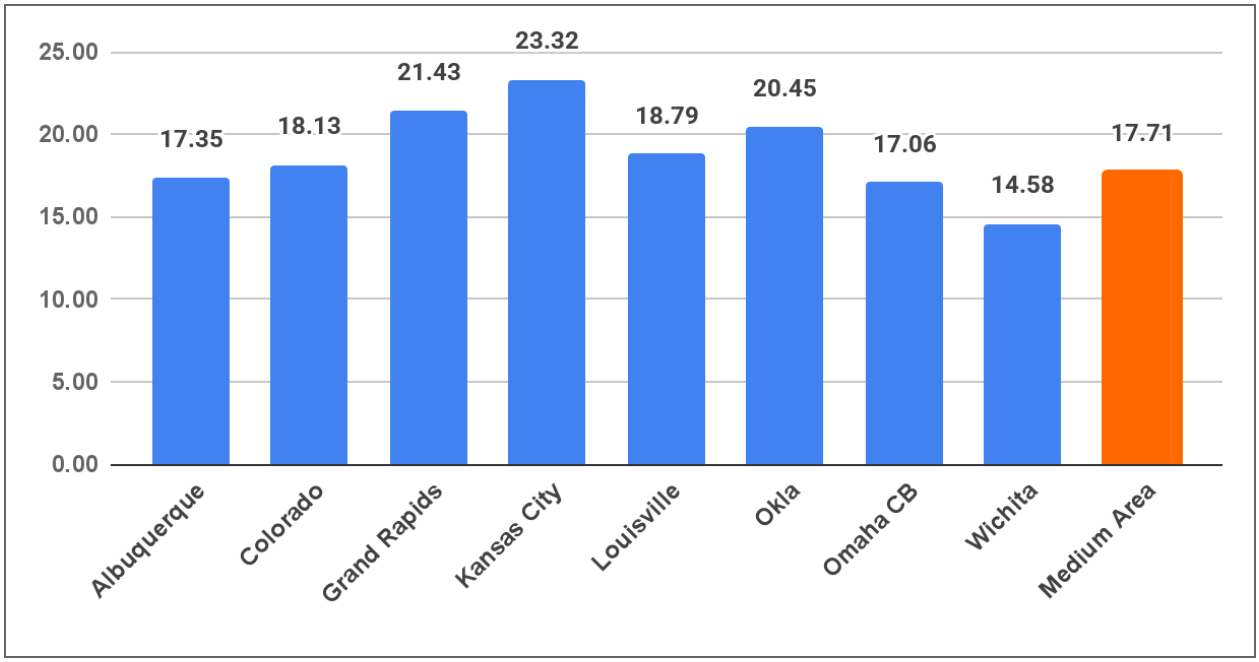
Traffic in the MAPA region has more than doubled over the past 40 years. Daily vehicle miles traveled (VMT)—a measure of how much people drive—grew from about 6.6 million miles in 1980 to more than 19 million miles in 2022. Most of this growth came from development in Douglas and Sarpy Counties. VMT dipped sharply during the COVID-19 pandemic but rebounded to pre-pandemic levels by 2022. Figure 8 shows this trend over time with annual VMT.

Figure 7: Annual Vehicle Miles Travelled in the MAPA Region



Historically residents in the MAPA TMA drive less than residents of most other medium-sized areas (figure 8) The Texas Transportation Institute's Urban Mobility Report also lists Omaha as having among the lowest per capita VMTs in the nation for mid-sized metro areas. This is largely the result of a contiguous and relatively dense urban form and a smaller freeway system than most of MAPA's peer regions. Keeping per capita VMT low, and further reducing it, is a key strategy throughout the region to reduce the incidence of fatal and severe crashes, resiliency, and quality of life indicators.

Figure 8: Per Capita Daily VMT in Peer Region Urban Areas, 2022 Urban Mobility Report



Congestion in the MAPA Region

Congestion has grown significantly in the MAPA region over the past 25 years. The Texas Transportation Institute's annual Urban Mobility Study (which was last completed in 2022) provides a comprehensive look at traffic and congestion across the nation's metro areas. While it is a macroscopic congestion measure that does not necessarily take into account all local factors affecting congestion, it nevertheless provides a reasonable and consistent source of data that can be tracked and compared over time.

Figure 9 shows the TTI study's estimated hours of delay per traveler in the greater Omaha-Council Bluffs metro area between 1982 and 2022. This study's figures show a seven-fold increase in delay associated with congestion, growing from three annual hours per person in 1982 to 48 hours in 2022. Figure 10 compares the MAPA region's delay to other similar metro areas. Note that the peer regions have a broad range of average delay. The 32 annual person hours estimated for the Omaha-Council Bluffs metro area is below the average for MAPA's peer regions.

Figure 9: Urban Mobility Report, Annual Hours of Delay per Commuter, 1982-2022

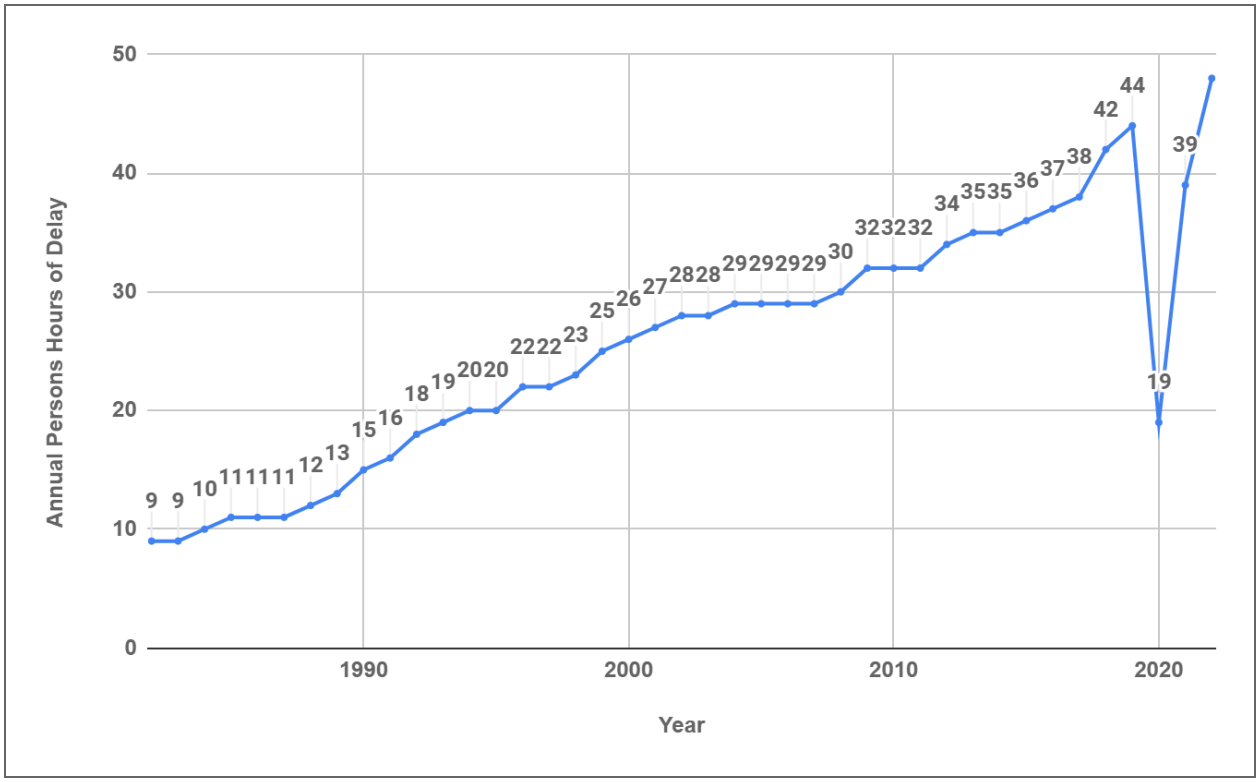
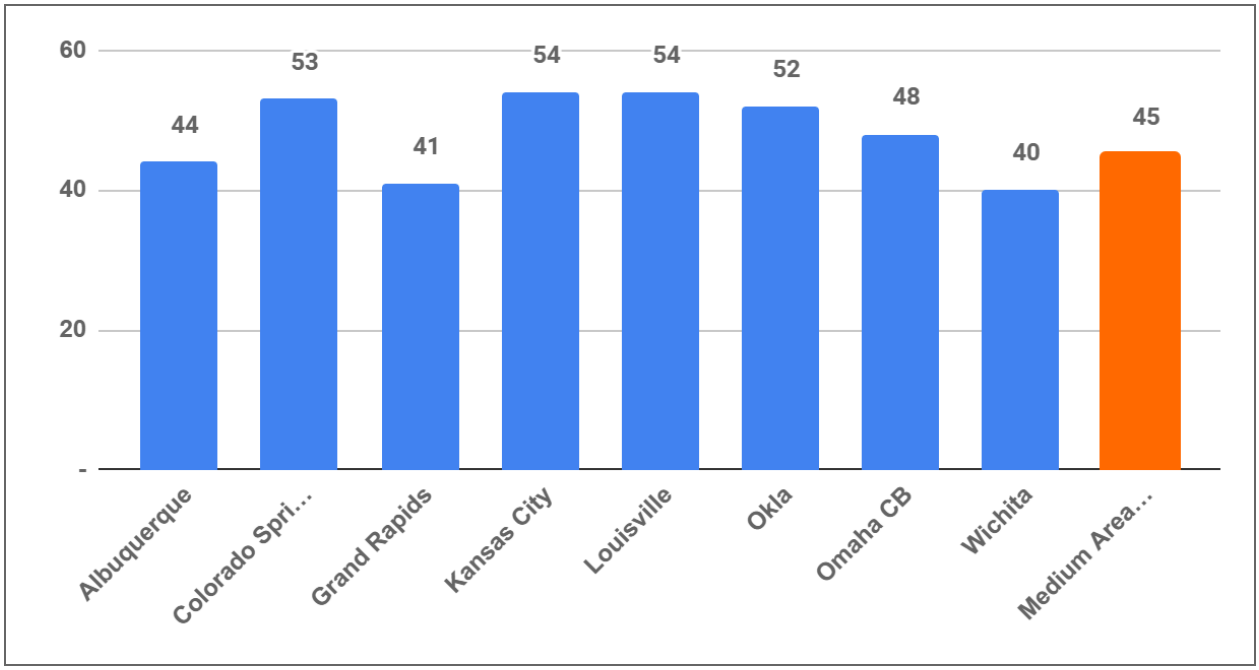


Figure 10: Annual Person Hours of Delay in Peer Regions, Urban Mobility Report (2022)

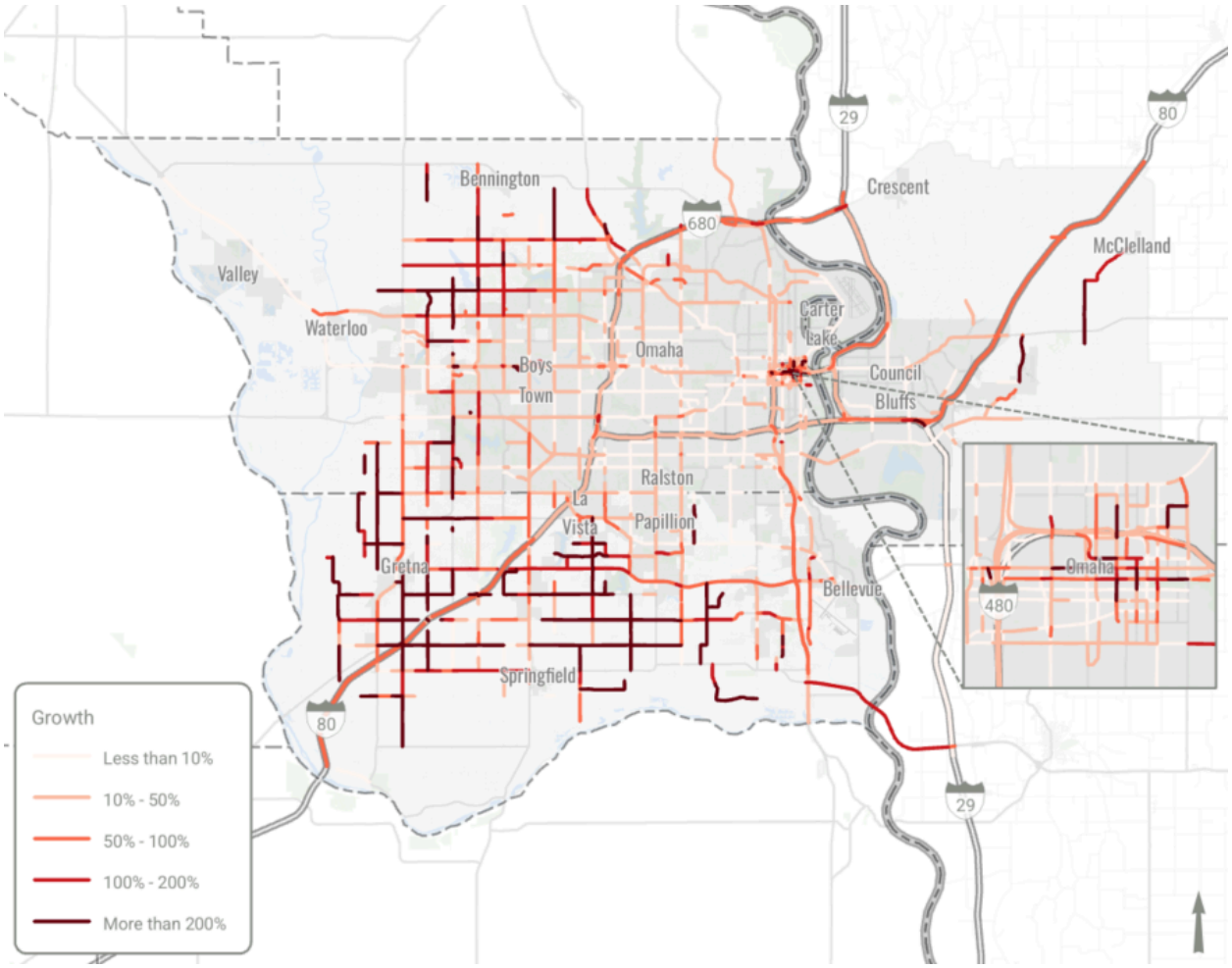


A Reliability Index is a measure of how much variability there is on the travel time along a corridor. As part of the Metro Travel Improvement Study (MTIS), reliability was estimated using INRIX travel time data. Since that study was completed, MAPA was closely coordinated with its State DOT partners in setting regional targets for travel and freight reliability. MAPA utilizes the Probe Data Analytics (PDA) suite of tools to understand and monitor congestion trends in the region. In the Metro region, travel time reliability is declining on the interstate system but improving on non-interstate roads. A detailed description of progress towards the regional travel time performance measures is documented in Appendix E.

Traffic Growth

Traffic volumes are expected to grow by 2050 at various locations throughout the MTIS study area. Outside of the central business district, fully-developed urban portions of the metro area will not see the same levels of traffic growth as the still developing suburban / rural fringes of the study area. The anticipated traffic growth map represents the percent change in traffic that roadways are expected to carry in 2050 compared to today. Figure 11 shows the overall traffic growth ratios between 2010 and 2050 based on MAPA's travel demand model.

Figure 11: Anticipated Traffic Growth, 2022 - 2050



Public Transportation

Public transit includes a diverse array of publicly owned and operated transportation options including:

- Buses, including Bus Rapid Transit
- Streetcars
- Trolleys
- Rail - Light, Commuter, Heavy
-

Transit offers affordable, environmentally friendly travel for commuters--and for many seniors, students, people with disabilities, and low-income residents, it's the only option. The region is served by one major transit provider along with several smaller ones (see Figure 16).

Figure 12 : Inventory of Transit Providers in the Region

Transit Agency	Location	Days of Operation	Hours
Metro Transit	Omaha	M,T,W,Th,F,S,S	5am-11pm
Moby	Omaha	M,T,W,Th,F,S,S	5am-11pm
SWITA	Cass, Fremont, Harrison, Mills, Montgomery, Page, Pottawattamie, and Shelby	M,T,W,Th,F,S,S	6am-5pm
Bellevue	Bellevue city limits	M,T,W,Th,F	7am-3pm
LaVista / Ralston	La Vista and Ralston city limits	M, T, W, Th, F	7am- 4:30pm
Papillion	Papillion city limits	M, T, W, Th, F	7am-4pm
Council Bluffs	Council Bluffs city limits	M,T,W,Th,F,S	5:15am 11:30pm

Metro Transit: Moving Omaha Forward

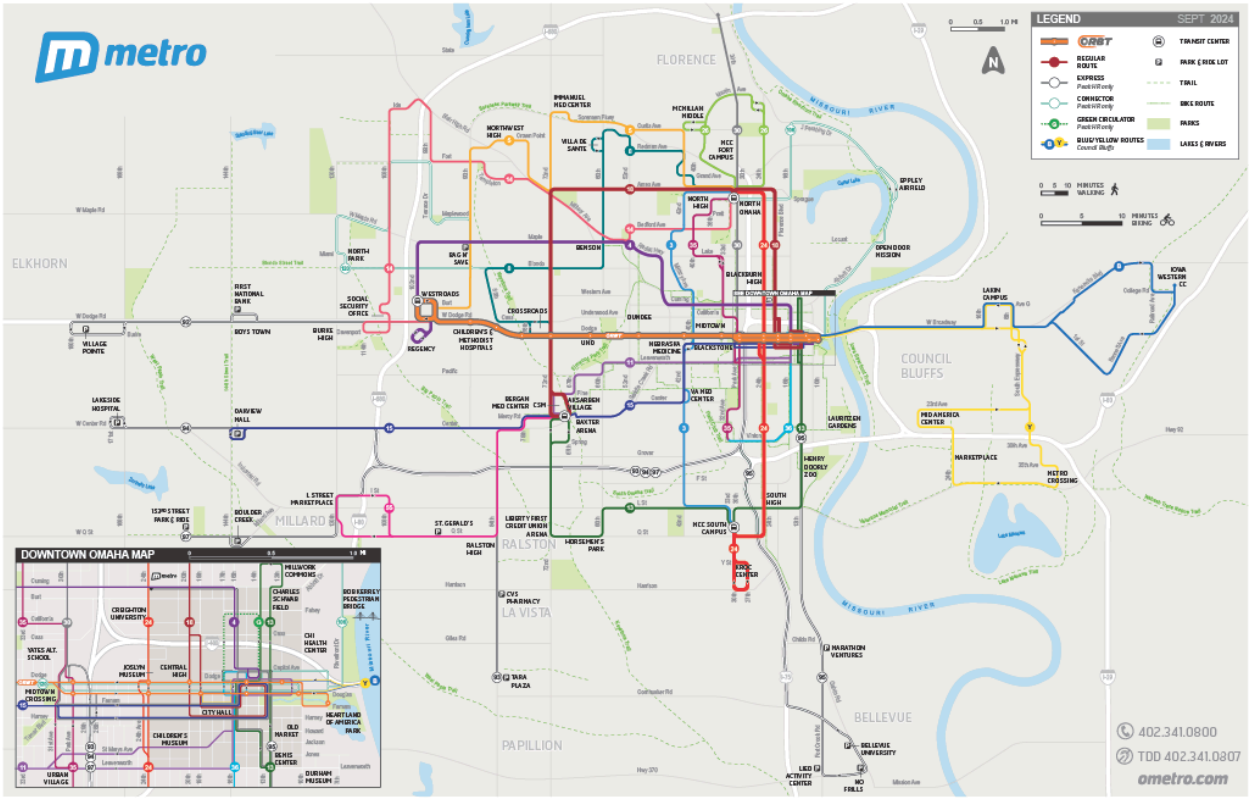
Metro is the Regional Metropolitan Transit Authority of Omaha, created by the Nebraska Legislature in 1972 and governed by an elected Board of Directors. Today, Metro operates fixed-route bus and paratransit services across Omaha and neighboring communities, covering

273 square miles and serving more than 656,000 people—about 80% of the metro's urbanized population.

Fixed-route service includes local, express, commuter, and circulator buses, with expanded reach to Ralston, La Vista, Papillion, Bellevue, and Council Bluffs. In 2020, Metro launched its first rapid transit line, ORBT, along Dodge Street. Since then, ridership has grown steadily, surpassing 2 million ORBT rides in November 2024.

Metro is also modernizing the rider experience. The UMO contactless fare system, introduced in 2020, allows riders to pay by phone, smart card, or paper token, with automatic fare capping to keep monthly costs affordable. Metro continues to innovate with programs like free rides for K–12 students and new microtransit services designed to expand mobility options.

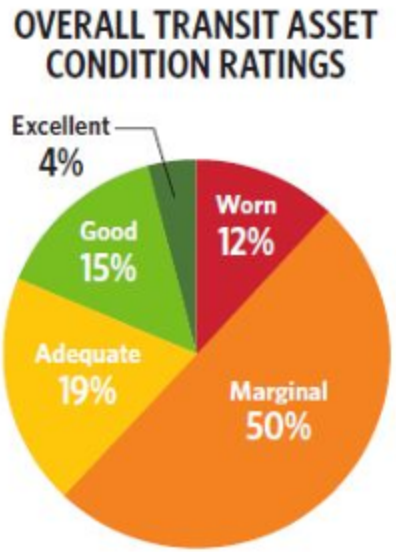
Figure 13: Metro Transit Route Map, September 2024



Transit Infrastructure Condition

Metro Transit operates Omaha's fixed-route buses and paratransit services for people with disabilities. Many of Metro Transit's facilities and vehicles are aging – 20% of facilities are in poor or marginal condition, and a large share of buses (25%) and support vehicles (85%) have already exceeded their useful life according to Metro's 2023 Asset Management Plan.

With key investments made possible by competitive Sec 5339 awards and investments in new, alternative fuel vehicles that replaced existing rolling stock, Metro's 2023 Asset Management Plan estimated all rolling stock (including support vehicles) would be in a state of good repair by 2024. While this rapid progress is important, it also demonstrates the crucial need to develop sustainable revenue streams to maintain this progress into the long-term–recognizing the $1.7 billion gap forecasted for



Federal Transit Authority condition rating for all transit assets (facilities, stations, systems, and vehicles)

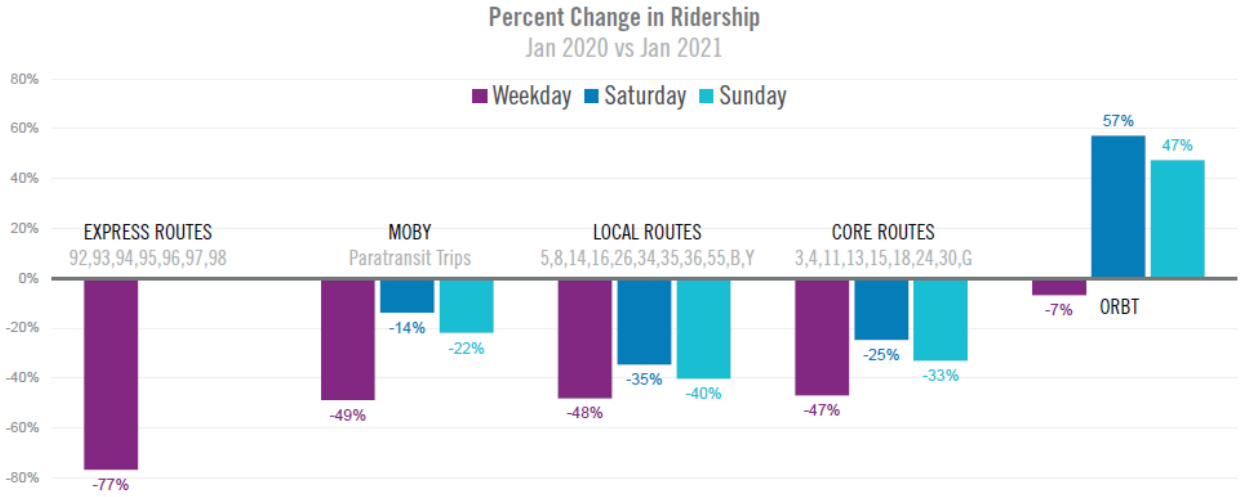
transit operations and maintenance and capital expenditures through the MTIS. Similarly, key investments are being made in transit facilities through the City of Omaha, including improvements to the Westroads Transit Center to accommodate the ORBT service and ongoing upgrades to Metro's main transit facility and administrative offices through Section 5339 funding.

Key Transit Service Findings - MetroNEXT

Key findings of the existing conditions analysis in the MetroNEXT plan include:

- The COVID-19 pandemic changed public transportation throughout the United States. Ridership on Metro's routes dropped about 40% for more than a year as quarantine measures and work from home policies took effect. Figure 14 shows the change in ridership throughout the first year of the pandemic.
- Ridership has been recovering since the reduction in spread of COVID-19, with some of Metro's routes returning and exceeding pre-pandemic levels.
- Metro, in partnership with MAPA, developed a Transit Suitability Index for the region to highlight areas favorable to public transportation. Suitability is determined by population, likelihood of ridership, compatible destinations, and safety. Areas of high suitability are concentrated in Omaha's urban core, with sporadic nodes in western Douglas and Sarpy counties. A significant portion of the region meets the medium suitability criteria, meaning transit, possibly even high frequency transit, is feasible, but maybe not right away.
- Although Metro has been successful at increasing revenue, funding allocated to Metro's services on a per capita basis remains lower than metro areas Omaha generally aspires to be like – Minneapolis and Denver. Funding for transit in Omaha is more comparable to metro areas such as Des Moines.

Figure 14: Change in Ridership 2020 - 2021 (MetroNEXT)



The COVID19 pandemic had a significant impact on transit ridership across the country. Although use continues to recover, trips provided by Metro Transit are down nearly 33% from 2017 as shown in Figure 15.

Figure 15: Revenue Mile and Revenue Hour Performance, 2017-2023 (USDOT National Transit Database)

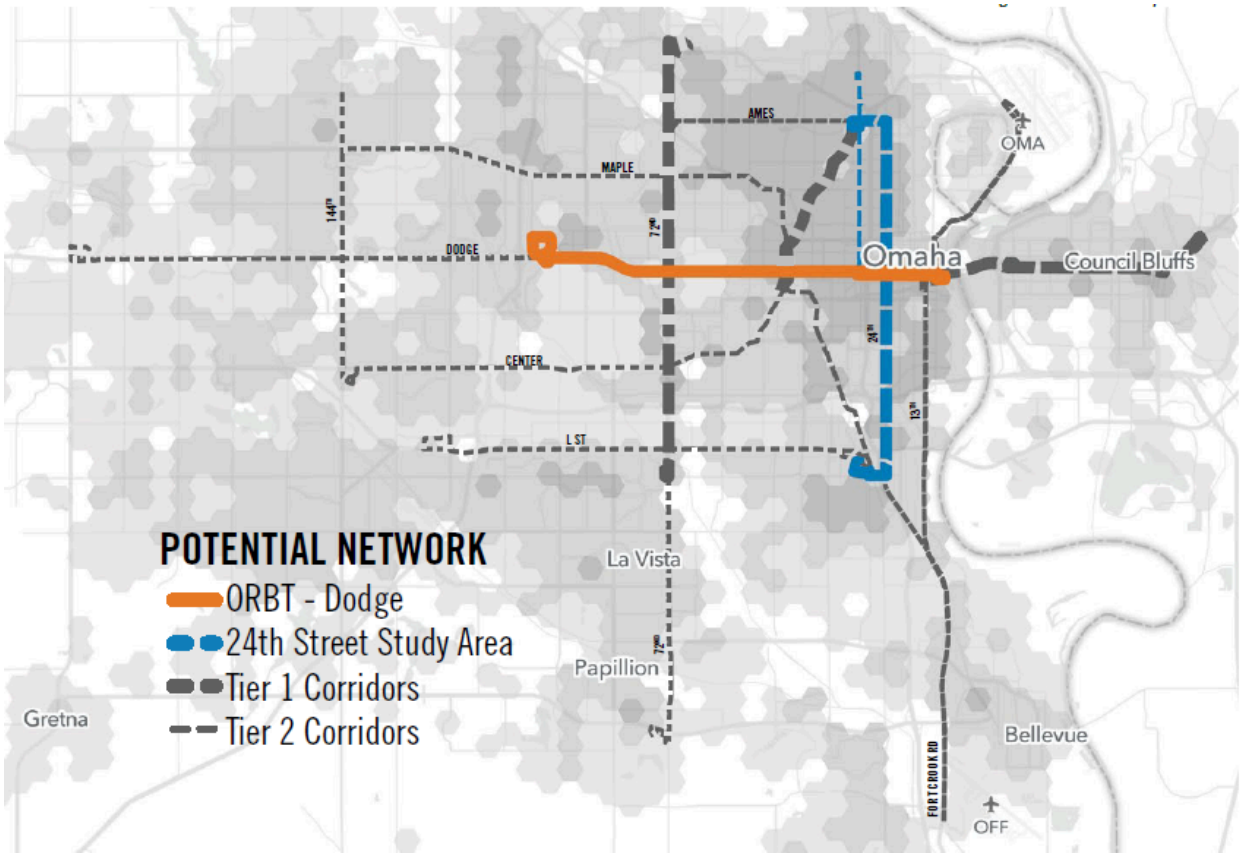
Category	2017	2023	Percent Change
Revenue Miles	3,864,817	4,531,536	17.25%
Revenue Hours	280,426	339,574	21.09%
Operating Expenses per Revenue Mile	$6.39	$9.24	44.60%
Operating Expenses per Revenue Hour	$88.08	$123.26	39.94%
Trips per Mile	1.04	0.7	-32.69%
Trips per Hour	14.36	9.8	-31.75%

From May 10, 2021 to June 1, 2022, Metro Transit ran a pilot program providing free rides to students from kindergarten through 12th grade. Metro recorded a 50% increase in ridership for that group compared to pre-COVID levels, suggesting substantial demand for transit service from students.

Bus Rapid Transit

The success of the Dodge Street ORBT line has encouraged Metro to look more closely at future rapid transit corridors. Figure 16 shows the routes identified in MetroNEXT. Further study of the 24th Street corridor began in 2021 and looked at potential routes for a north-south ORBT line.

Figure 16: Potential Rapid Transit Network

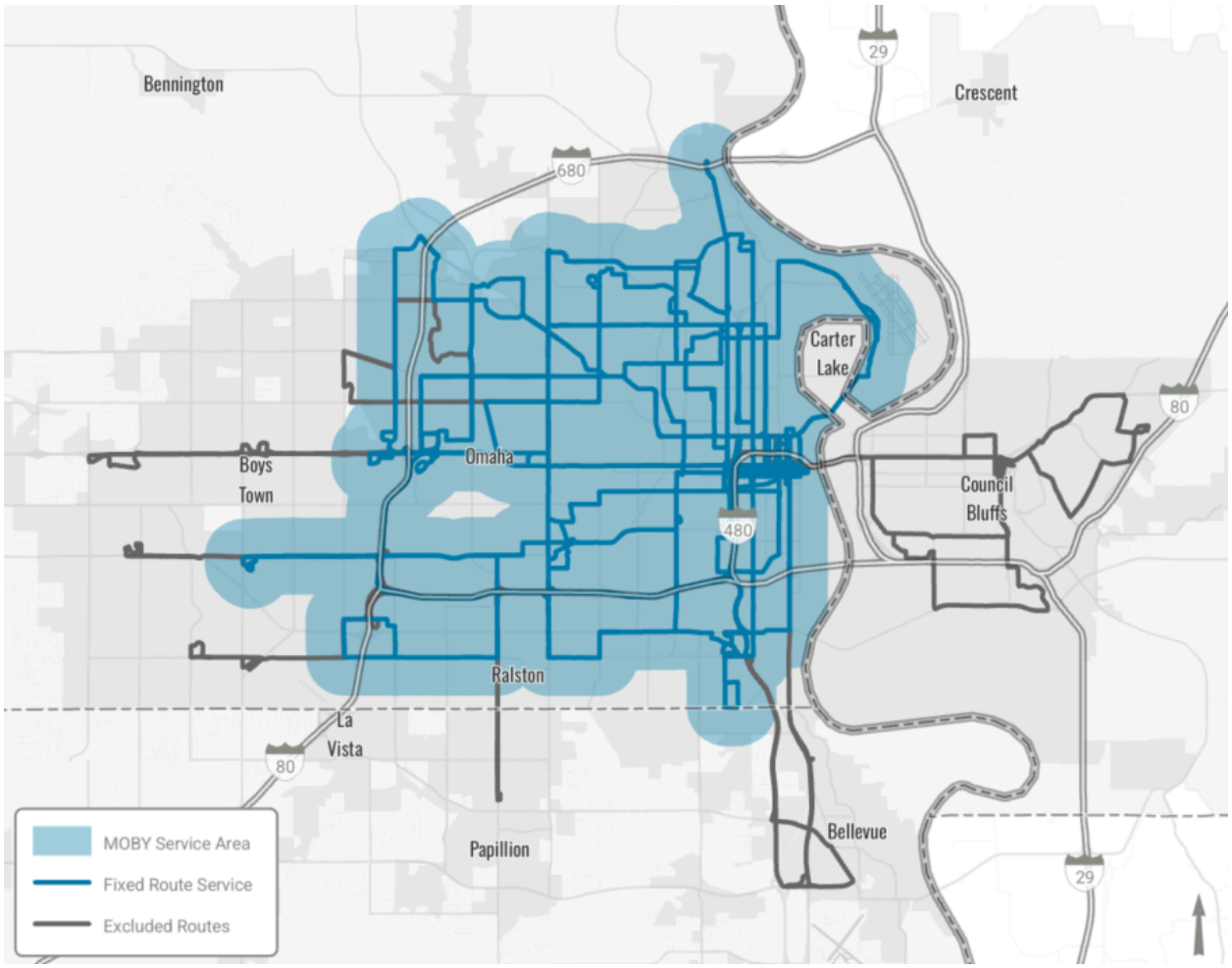


Paratransit

The Americans with Disabilities Act (ADA) has several guidelines for paratransit services. The following guidelines will be used to ensure that MOBY, the ADA program, is meeting the requirements of the ADA and, second, that it is being operated effectively with regard to productivity, financial performance, and customer satisfaction.

ADA service must be provided to all areas within ¾ of a mile of a local fixed route, but is not required to be provided in an area outside the boundaries of the jurisdiction if it does not have authority to operate in that area. ADA service must be provided for all days and hours that local fixed route bus service is provided. Figure 17 shows the MOBY service area.

Figure 17: Metro MOBY Paratransit Service Area



Intercity Bus Transit

Existing Service

The University of Nebraska Engineering School operated a commuter shuttle, that was open to the public, between the Omaha and Lincoln campuses with two additional stops at the University of Nebraska Medical College and off exit 439 on I-80. The N-E Ride provided service between Lincoln and Omaha four times a day starting at 8am and ending at 5:45, there was no cost for the service. As of July 2023 this service is no longer available.

Currently there are four private intercity bus companies operating between Omaha and Lincoln as part of longer, national intercity routes. These are Burlington Trailways, Express Arrow, Navigator Express, and Windstar/Megabus. The four companies offer a variety of trip times, costs, and pickup and drop off locations. Burlington Trailways and Express Arrow operate out of the Interline Bus Terminal in downtown Omaha. Navigator Express is an intercity airport shuttle

primarily operating out of Eppley Airfield. Windstar/Megabus operates out of Crossroads Mall in Omaha. None of these services provide stops in the Iowa portion of the MAPA region.

Planned Service

In the summer of 2020, the Nebraska Department of Transportation released a study on the feasibility of intercity bus transportation between Lincoln and Omaha. About 13,540 Lincoln residents and 10,177 Omaha residents commute to the other city each weekday. Based on these commutes an estimated ridership of 250 trips from Lincoln to Omaha and 200 trips from Omaha to Lincoln could be generated.

Recommended routes from the study include:

Red Route – I-80 Express Lincoln to Omaha Eastbound

This route would provide 15 daily one-way trips from 4:30 a.m. until midday, then return service to stops in reverse order beginning at 1:00 p.m. with a final departure at 9:30 p.m.

- Innovation Campus
- UNL Student Union
- Gold's StarTran Hub
- Gateway Mall Park and Ride
- 84th and Cornhusker Park and Ride
- Ashland – SAC Museum
- Metro Aksarben Transit Center
- UNL Engineering School (PKI)
- UNMC – 42nd and Dewey
- 24th and Douglas
- 14th and Douglas
- Amtrak/Intercity Bus Station
- Eppley Airport

Black Route – I-80 Express Omaha to Lincoln Westbound

This route is designed to transport Omaha residents to Lincoln destinations. Like the Red Route, it would begin service at 4:30 a.m., continue until midday, then switch to return service at 1:30 p.m.

- Eppley Airport
- Amtrak/Intercity Bus Station
- 24th and Dodge
- UNMC – 42nd and Dewey
- UNO – 70th and Dodge
- Westroads Mall Park and Ride Gold Route – U.S. Highway 6
- La Vista Park and Ride Exit 442
- Nebraska Crossing Mall
- Gold's StarTran Hub
- State Capitol Office Building
- UNL Student Union
- Innovation Campus

Gold Route - U.S. Highway 6

The Gold Route provides service to communities along the U.S. Highway 6 corridor beginning at 7:00 a.m. in Omaha and 7:30 a.m. in Lincoln, ending at 7:00 p.m. and 6:52 p.m. respectively.

- Amtrak/Intercity Bus Station
- Ashland
- 24th and Dodge
- 40th and Dodge
- UNMC – 42nd and Dewey
- Veterans Hospital in Omaha
- UNL Engineering School (PKI)
- Aksarben Transit Center

- Walmart Super Center (Gretna)
- Nebraska Crossing Mall Ridesharing
- Greenwood
- Waverly
- Lincoln Bus Depot
- Walmart Super Center (East Lincoln)
- Innovation Campus
- UNL Student Union
- Gold's StarTran Hub

Ridesharing

MAPA operates a regional trip matching platform known as Metro Rideshare. This platform allows users to sign up and enter their trip origin, destination, preferred modes, and gender and smoking preferences to match with others in the region looking to make a similar trip. Several large area employers have adopted this platform and use it to manage parking demand and promote active commuting options. The Nebraska Department of Transportation offers a subsidized vanpool program through Enterprise Rent-A-Car. Vanpools are arranged through employers for employees to commute to and from work in and each vanpool is set up to best suit the needs of the riders.

Heavy Transportation

Strategic Highway Corridor Network

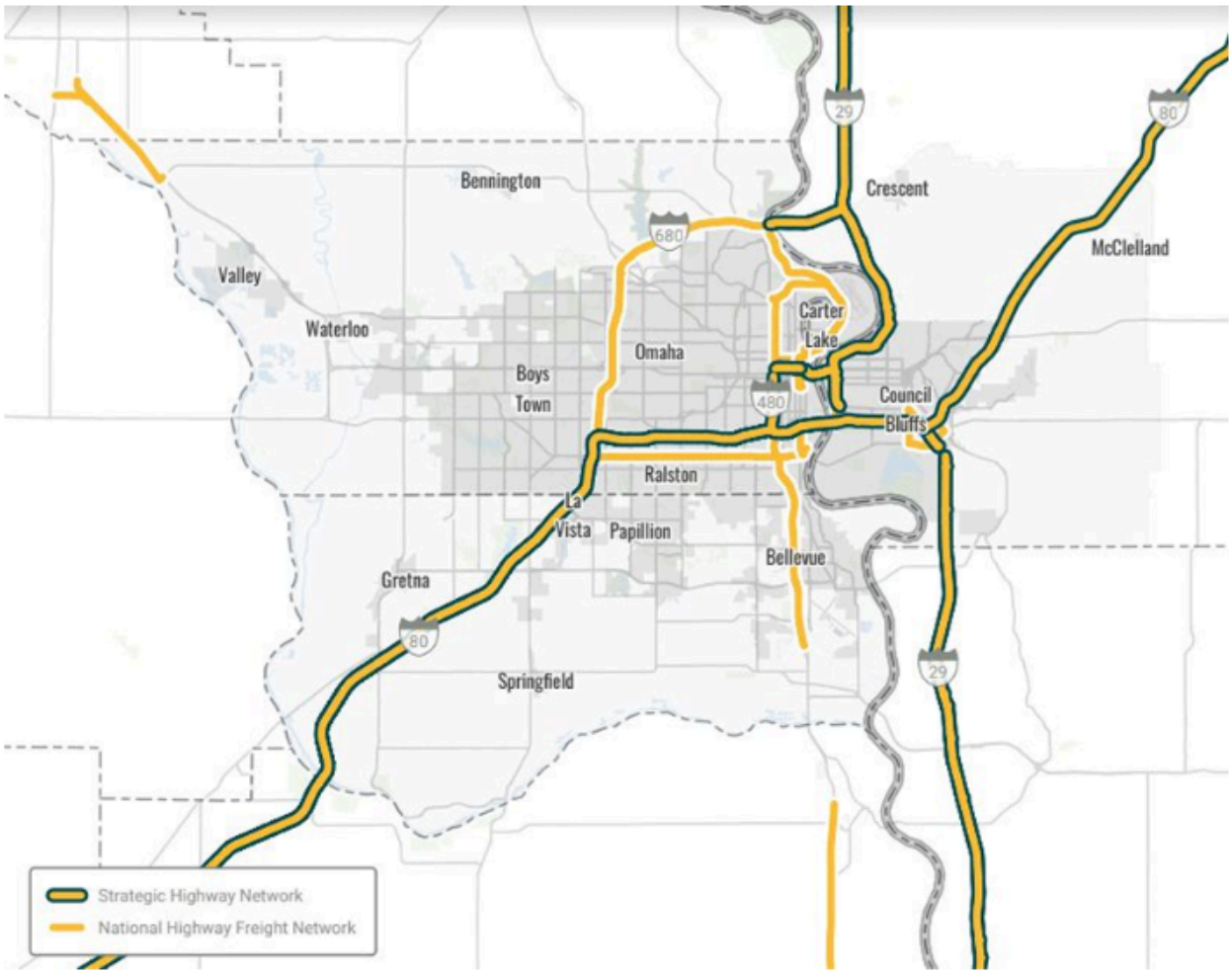
The Strategic Highway Corridor Network (STRAHNET) is a subset of the National Highway System. These roadways, both on and off the interstate system, are important to the United States strategic defense policy and which provide defense access, continuity, and emergency capabilities for peace and war time movement of personnel, materials, and equipment. (CFR §470.107.a.3) These corridors are shown in figure 18. Although these road networks are the responsibility of the state DOTs, activities which MAPA supports, such as improving Traffic Incident Management, help to support the viability of these critical networks.

National Freight Highway Network

The National Highway Freight Network (NHFN) was established as part of the FAST Act to prioritize Federal resources and establish policies which improve performance on the highway portions of the freight transportation system. The NHFN is made up of four classifications, which allow for designation of critical highway networks:

- Primary Highway Freight System (PHFS)
- Other Non-PHFS Interstate Highways
- Critical urban and Rural Freight Corridors (CRFC/CUFC)- State Defined.

These networks provide for efficient and safe transportation of goods both through the MAPA region, as well as to and from intermodal facilities located within the TMA. *Figure 18*: Strategic Highway and National Highway Freight Networks



Freight movement throughout the United States is a driving force of the national economy. The crossroads of Interstate 29 and Interstate 80 creates an ideal situation for the movement of freight into and out of the MAPA TMA via truck. Omaha's Eppley Airfield serves as a major hub for airborne freight. Union Pacific Railroad and the Burlington Northern Santa Fe Railroad both have Class I lines that cross the MAPA region. The navigable portions of the Missouri River can serve as a major highway for barge traffic to carry freight north and south. Freight traffic should not be considered in terms of a single mode of transportation. Currently, the MAPA TMA has two intermodal facilities for transferring train freight into truck freight. Two recent studies have also explored the potential for additional intermodal sites within the MAPA region.

The FHWA utilizes Freight Analysis Framework (FAF) to project freight growth by mode for the entire US as well as for individual states. Additionally, the analysis shows the origin and final

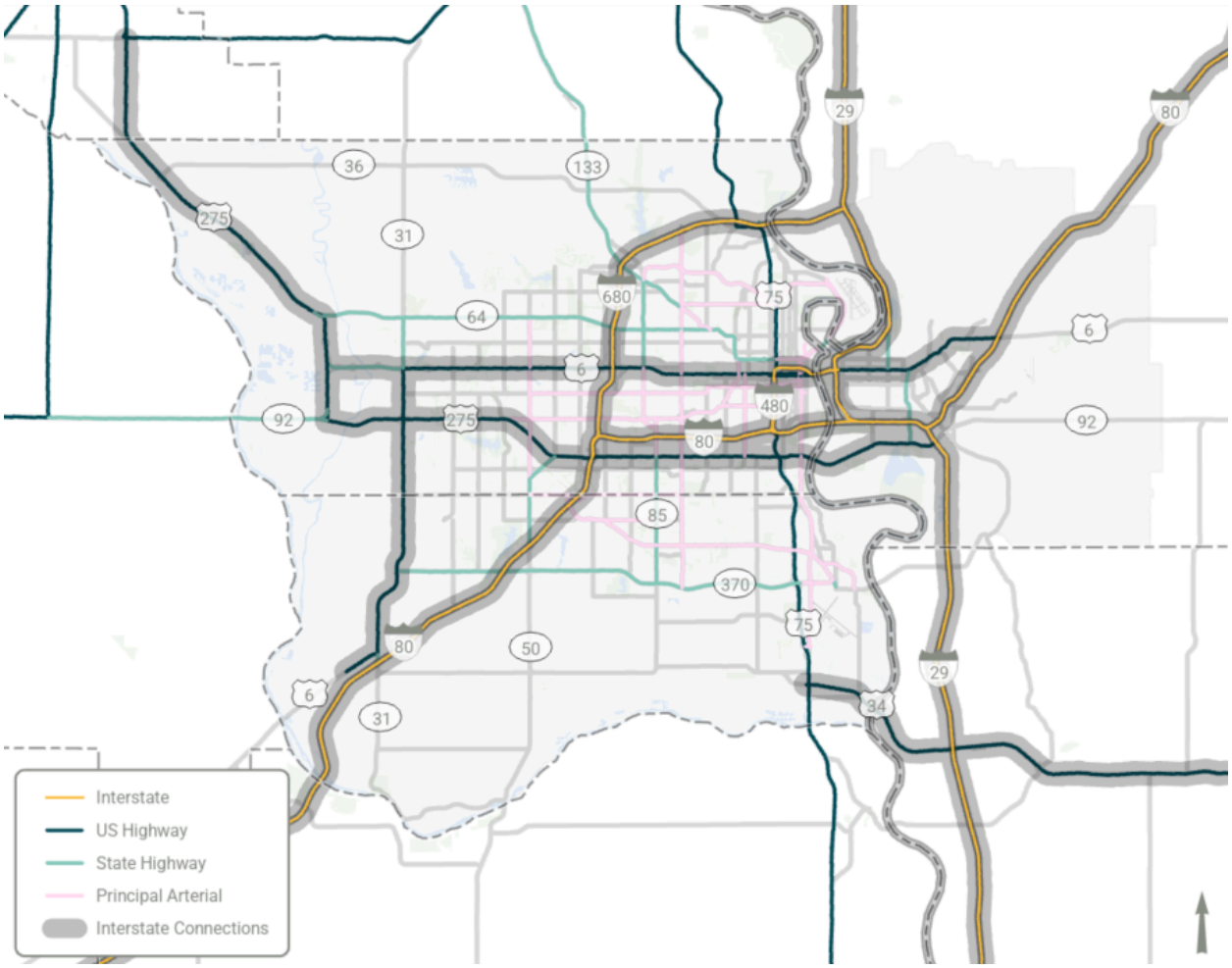
destination for freight traffic by state. This serves as the basis for freight data and projections in the MAPA TMA as there is currently no local or regional data source from which to extrapolate trends. It is therefore assumed that the freight characteristics of the MAPA TMA will mirror the characteristics of the states of Iowa and Nebraska.

Highway Freight

In addition to Interstates 29 and 80, there are three US Highways in the region that provide additional connectivity for interstate traffic. US-6 (concurrent crossing with I-480) and US-75 provide connectivity across the Missouri River for the MAPA TMA and US-75 allows for north/south traffic on the Nebraska side of the river. The new US 34 bridge that connects Mills and Sarpy Counties is expected to serve as an important freight connection between Iowa and Nebraska. This connection provides additional connectivity between US 75, Interstate 29, and may provide an alternative East-West route through the Omaha-Metro if improvements along the Platteview corridor are made. Further intrastate connectivity in the region is provided by the Iowa and Nebraska state highway systems. Iowa 92 and 192 along with Nebraska 36, 50, 64, and 370 provide major secondary facilities for freight traffic in the region. Figure 19 shows the connectivity of the highway system in the MAPA region.

For details on freight traffic in the region, please see MAPA's 2022 Regional Traffic Patterns report.

Figure 19: Interstate Connectivity in the MAPA Region



Pipelines in the MAPA Region

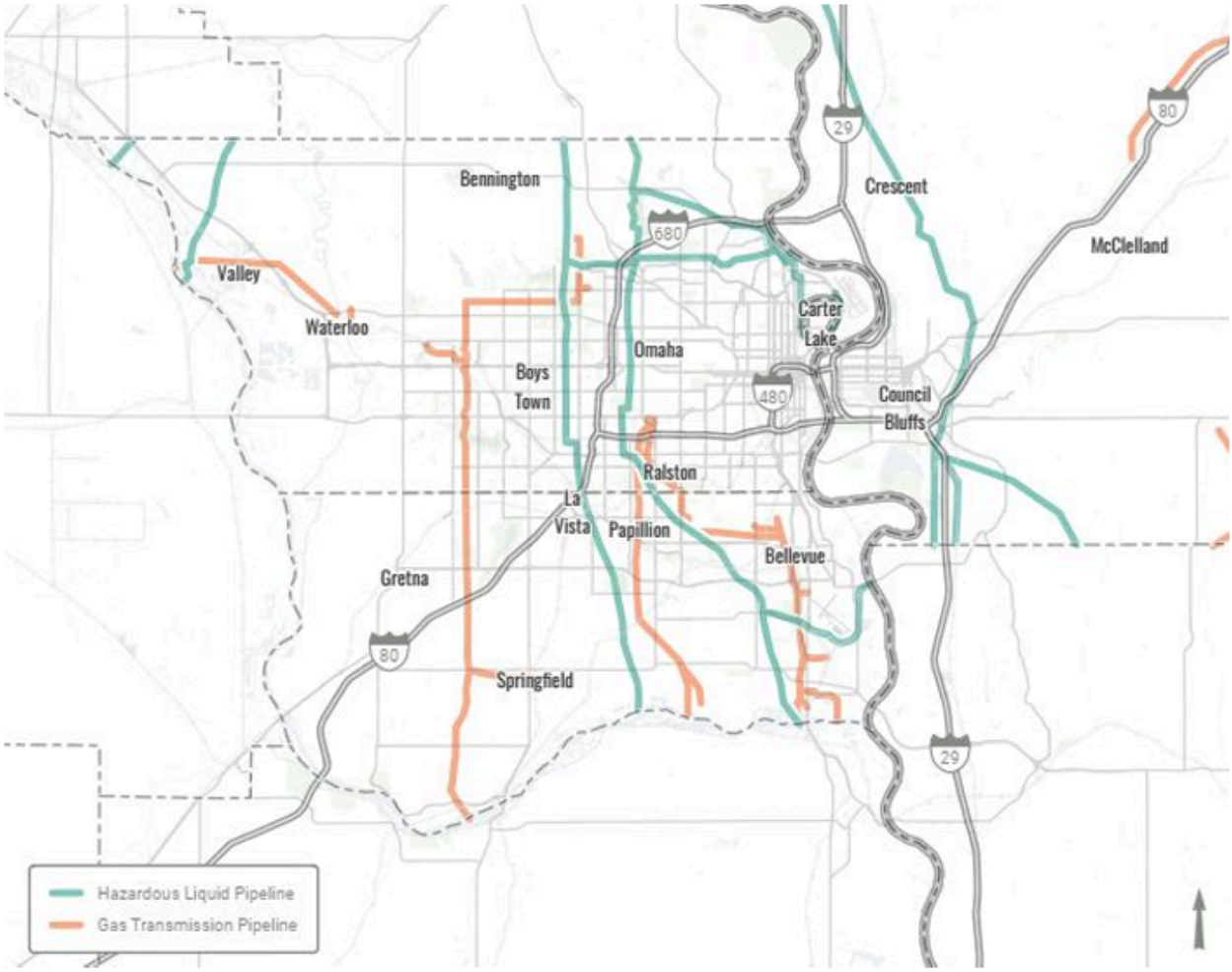
Pipelines are the second largest mover of freight materials in Iowa and Nebraska. Pipelines in the MAPA TMA generally transport crude petroleum products (gasoline and ethylene), natural gas, or a slurry mix such as pulverized coal. Omaha is a secondary junction center for pipelines throughout the United States. Regionally, there are three products pipelines that transport gasoline and ethylene, two natural gas pipelines, and one crude oil pipeline. These pipelines are listed below with a general description of the goods they are used to transport:

- C30- Minneapolis/St. Paul to Midland Basin Pipeline (products)
- C31- Minneapolis/St. Paul to Tulsa Pipeline (products)
- C33- Omaha to Chicago Pipeline (products)
- C18- Winnipeg to Omaha Pipeline (natural gas)
- C43- Hugoton (KS) to Detroit Pipeline (natural gas)

- C18- Guernsey (WY) to Chicago (crude oil)

A detailed map of the alignments of pipelines inside the TMA is shown in figure 20. Locations are approximated in order to ensure their security.

Figure 20: Approximate Location of Pipelines in the MAPA Region



Pipelines require a great deal of initial investment capital in order to facilitate construction. Over time, maintenance costs are generally lower than other large scale freight modes such as trucking or rail.

However, despite some of these advantages, the overall tonnage of goods transported by pipeline is actually expected to decrease by 2040 with the current rate at 557 tons going to 197.26 tons in 2040 based on data from the Freight Analysis Framework (FAF). Within the FAF according to the FHWA Freight Analysis Framework Data 3 pipeline freight is the only mode

which sees an overall decrease in tonnage over the planning horizon, while truck and rail-related freight show major increases (as shown in Figures B18 and B19).

Rail Freight Overview

In 2002, rail accounted for 15% of the total tonnage shipped during the year. FHWA projections for 2040 show that rail will only account for 7% of tonnage shipped. While rail is projected to comprise a smaller share of total freight traffic, the overall tonnage is projected to increase 33% from 2007 to 2040.

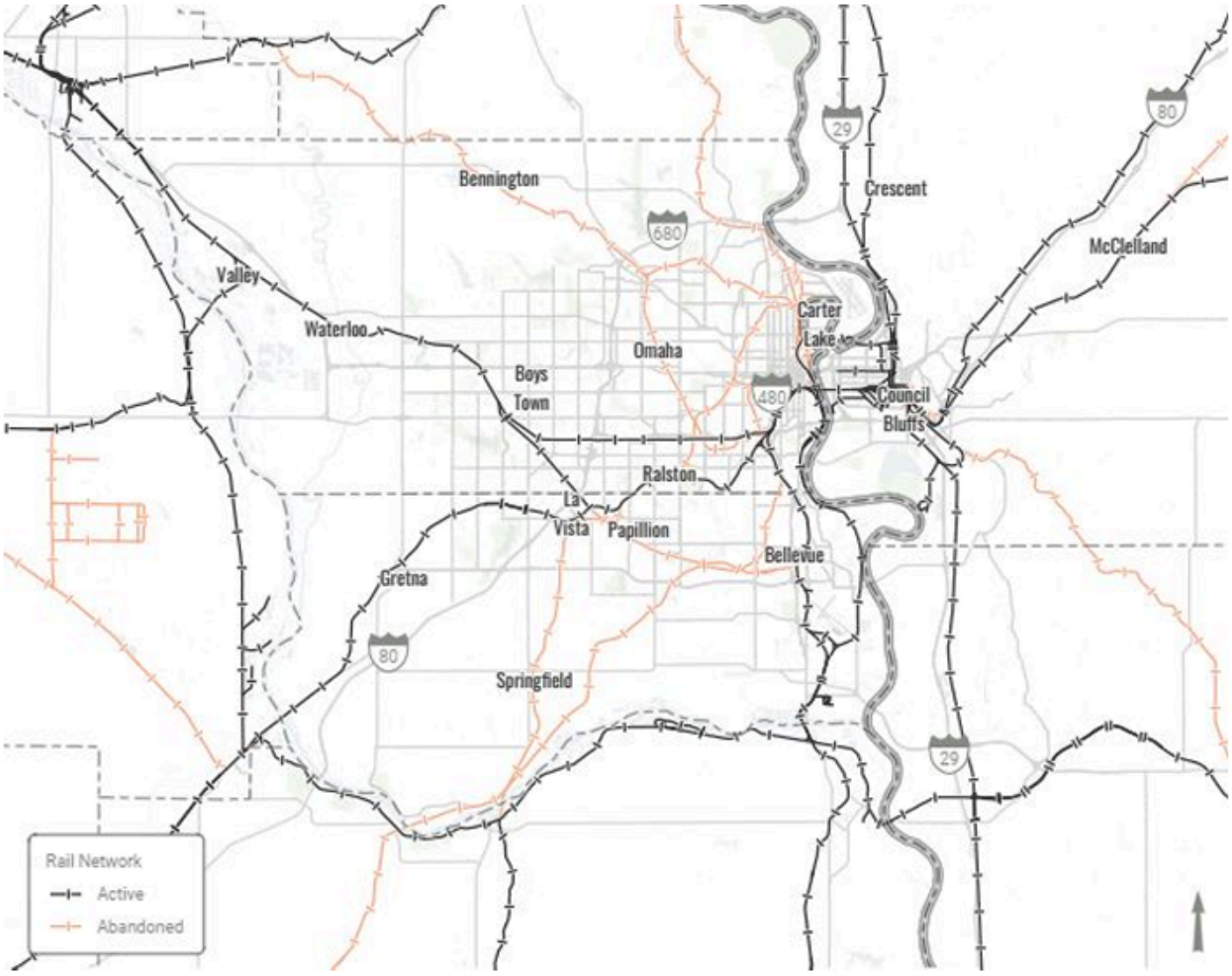
There are two Class I railroads in the MAPA TMA. Union Pacific Railroad and Burlington Northern Santa Fe Railroad both have lines that cross the MAPA TMA. Union Pacific is also headquartered in Omaha. Intermodal rail facilities are located on both sides of the Missouri River. A detailed look at rail freight statistics by carload for Nebraska and Iowa are located in figure 21. (One carload is assumed to be 18 tons per carload.) Additionally, a view of the MAPA TMA rail network can be seen in figure 22.

Figure 21: Railway Freight Statistics for Iowa & Nebraska, 2014

Product	Carloads Terminated 2014		Carloads Originated 2014	
	Nebraska	Iowa	Nebraska	Iowa
Coal and Cement	15,417,000	20,017,000	n/a	5,731,000
Chemicals	2,311,000	4,520,000	5,447,000	397,000
Primary Metal Products	802,000	n/a	n/a	934,000
Food Products	814,000	3,144,000	7,060,000	19,192,000
Scrap Paper or Metal	n/a	979,000	166,000	n/a
Farm Products	1,654,000	3,193,000	712,489,000	7,945,000
All Other	2,325,000	3,536,000	603,000	3,071,000
Gravel, Crushed Stone, Sand	n/a	n/a	1,262,000	n/a

Source: American Association of Railroads, 2015

Figure 22: Railway Network in the MAPA Region



Water Freight Overview

Water freight transportation in the MAPA TMA takes place on the Missouri River. In recent decades, low water levels have caused barge traffic on the Missouri River to decline. Several factors have led to the decline of barge traffic on the Missouri River. While the Mississippi River has a system of locks in order to support barge traffic, the Missouri River does not. The Missouri River also has a narrower channel than the Mississippi, resulting in higher flow speeds. These higher speeds cause greater resistance and greater fuel consumption on upstream traffic making it less efficient to operate on this waterway.

In order to deal with the low water levels and fast currents of the Missouri, shallow draft Missouri River tugs were designed and built. These tugs can navigate the channel much more efficiently and effectively than their Mississippi River counterparts. However, due to the decrease in overall traffic on the Missouri River, the vast majority of the Missouri River specific

tugs were shipped to South America. There is currently one Missouri River specific tug that operates in the United States.

The agricultural profile of the region has also changed. Farmers in Nebraska and Iowa are producing more corn and soybeans than wheat in past years. This change in production further damaged the water freight in the region due to the availability of local corn and soybean processing facilities. It is not cost effective to ship corn or soybeans downriver to processing facilities when they are available locally.

The availability of rail transport is also a contributing factor to the decline of water freight in the region. There are two intermodal facilities that can facilitate land transport of freight at lower prices and faster speeds than water travel can provide.

Port Locations in the MAPA Region

The U.S. Army Corp of Engineers designates two ports located on the Omaha side of the Missouri River. These facilities include:

- Lafarge Corp. (located at 1106 Ida, Omaha, NE 68112) (Port has not been recently utilized)
- Kinder Morgan Inc. (located at 6801 No. 9th St., Omaha, NE 68112) ○ Square Feet: 35 acres
    - Barge Volume: Average about 2 barges per year
    - Historically it handled 25-30 barges per year, however since water levels on the Missouri have dramatically decreased due to drought, little barge traffic is handled
    - The facility also uses rail and truck to move product
    - Product mainly arrives by rail (90-95%) 100% of outgoing product is by truck
    - While this facility handles various freight transport options, it is not considered an Intermodal Freight Facility
    - Major products handled: steel, fertilizer, salt

After discussions with managers of these ports, it is clear that barge traffic is very limited to nonexistent. The main methods of transporting freight in the MAPA TMA is via truck, pipe, air, and rail facilities.

Information from the U.S. Army Corp of Engineers indicates two barge/port facilities are located on the Council Bluffs side of the Missouri River. These facilities are commercial property:

- Cargill (located at 2401 So. 37th St, Council Bluffs, IA 51501)
- Warren Distribution (located 2850 River Road, Council Bluffs, IA 51501)

Contact with these facilities indicates that they are not currently in operation for any commercial barge/port purposes.

While port and barge facilities in the area presently have limited use, water levels on the Missouri River are rising after drought conditions for nearly the past ten years. With this increase in water levels there is a possibility that barge traffic could increase as the Missouri River will be more accessible.

Intermodal Freight Facilities in the MAPA Region

There are two Intermodal Freight Facilities in the MAPA TMA which are shown in figure 23:

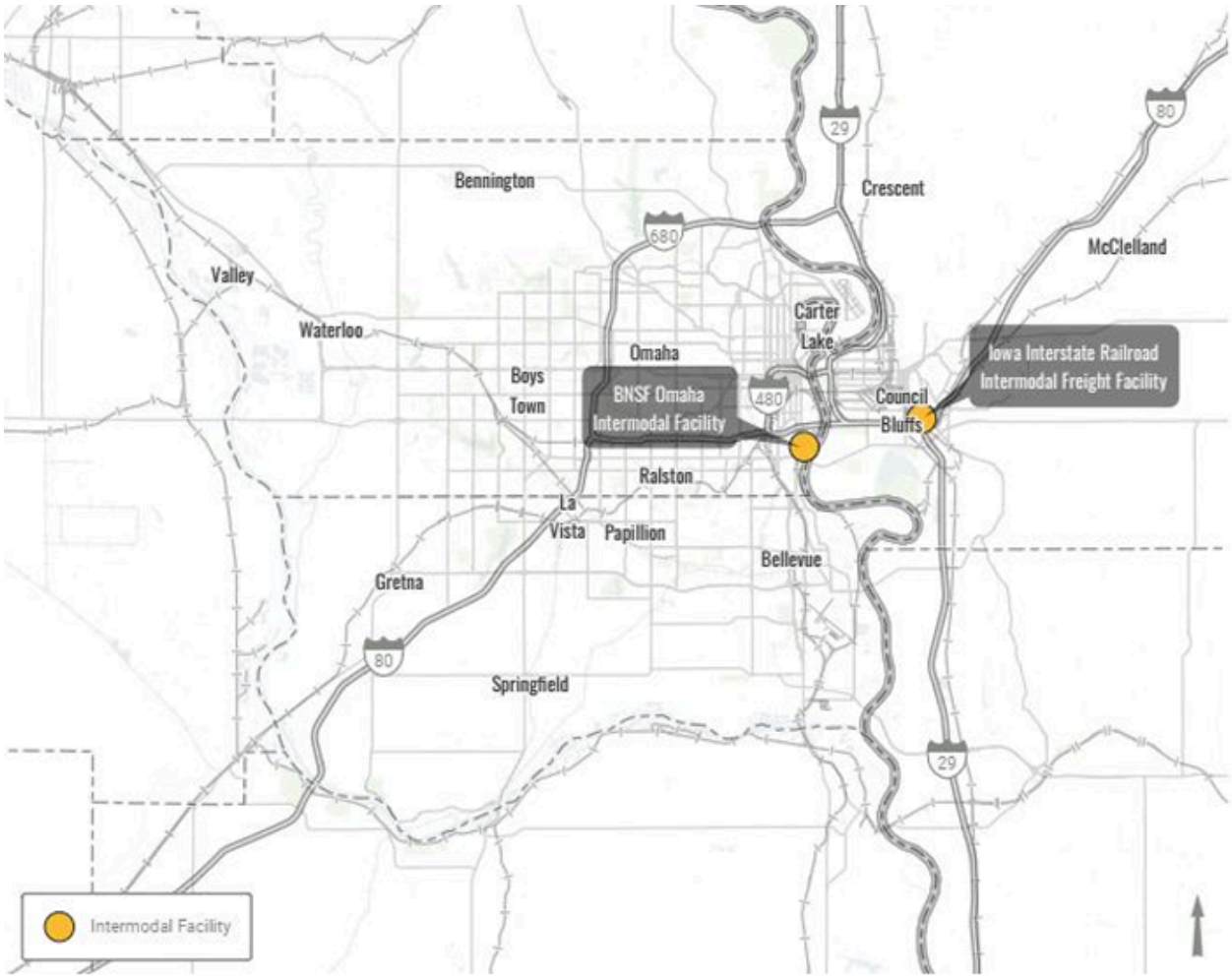
Iowa Interstate Railroad Intermodal Freight Facility (2722 South Avenue P.O. Box 1737 Council Bluffs, IA 51501)*

- Operator/Owner: Iowa Interstate Railroad
- Operation start date: 1984
- Square feet: Did not disclose
- Major materials handled: Freight of all kinds: frozen meat, canned goods, animal feed, etc.
- Traffic numbers: 115,000 lifts/year
- Capacity: 500 units
- Area to expand: Did not disclose

BNSF Omaha Intermodal Freight Facility (4370 Gibson Road, Omaha, NE 68107)*

- Operator/Owner: Burlington Northern Santa Fe
- Operation start date: September 1987
- Facility Land Occupancy: 30 acres
- Major materials handled: Major intermodal carriers
- Traffic numbers: 10,500 lifts/year
- Capacity: The facility can accommodate volumes significantly higher than current levels
- Area to expand facility: The facility can handle additional volume on its current footprint

Figure 23: Intermodal Freight Facilities in the MAPA Region



Aviation in the MAPA Region

There are five airport facilities located inside the limits of the MAPA TMA (see figure 24). Three of these facilities are public airports, one is a private facility and the fifth is operated by the United States Air Force.

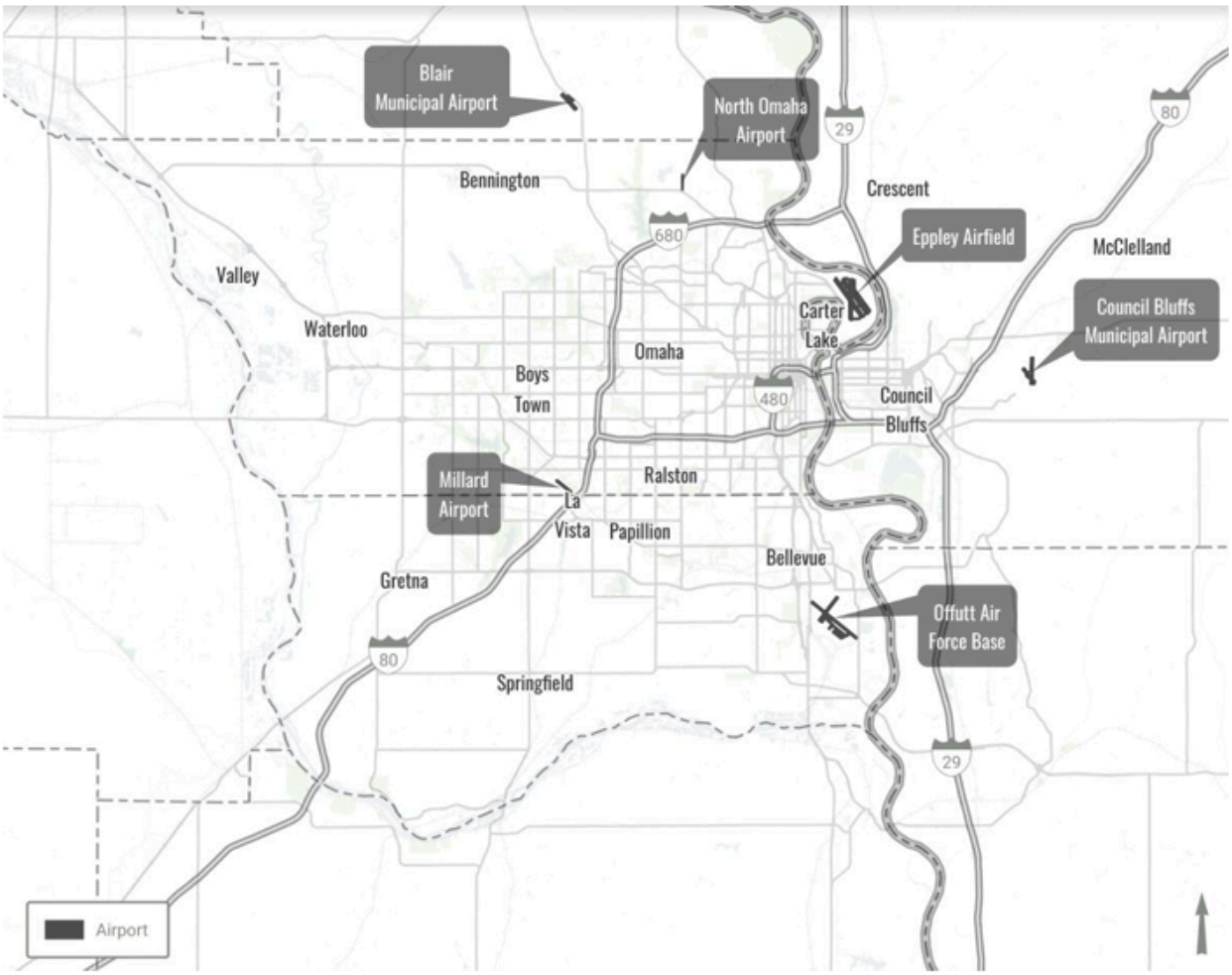
The vast majority of civilian traffic in the MAPA TMA flows through Omaha's Eppley Airfield. Eppley is the sole commercial airport with regular commercial service in the region. Eppley Airfield is operated by the Omaha Airport Authority (OAA). Eppley Airfield offers domestic service to the Nation's major hubs where passengers can connect to destinations across the globe. The City of Omaha's other public airport is the Millard Airport. This single-strip, general aviation facility is also under the control of the OAA.

The region's third public airport is located east of Council Bluffs, IA. The Council Bluffs Municipal Airport is a dual-strip general aviation facility and is operated by the Council Bluffs Airport Authority.

The North Omaha Airport is a privately owned, public use airport located north of Interstate 680 on 72nd Street. Users pay a fee for operation of the airport. The North Omaha Airport is also the home base for the Omaha Police Department's helicopter fleet.

The United States Air Force operates Offutt Air Force Base in Bellevue, Nebraska. In the past, Offutt was the home of Strategic Air Command or SAC. Currently, Offutt Air Force Base is the home of United States Strategic Command or USSTRATCOM and the 55th Wing of the United States Air Force. There are currently around 10,000 military and federal employees stationed at Offutt in various capacities.

Figure 24: Airports in the MAPA Region



Eppley Airfield Airport Operations

Eppley Airfield is located north of downtown Omaha. This 2,650 acre facility is classified as a Medium Hub Commercial Service Airport by the Federal Aviation Administration and currently serves nine commercial carriers:

- American Airlines
- Alaska Airlines
- Allegiant Air
- Delta Air Lines
- Frontier Airlines
- Southwest Airlines
- United Airlines

Eppley Airfield operates two concourses with 20 available gates for commercial traffic. Although the number of flights has been on the decline in recent years, the overall number of enplanements and deplanements has risen during recent years. As shown in figure 25, the general trend for passenger traffic was generally up over the past five years.

Eppley Airfield also serves various corporate, charter, and general aviation operations. Eppley Airfield's flight statistics are shown in figure 26 and figure 27. Based on the data shown for passengers, it would seem that Eppley Airfield users have become more efficient over the past five years. The number of flights into and out of Eppley during this time period has continued to fall or remain constant while the total passenger enplanements/deplanements have increased (see figure 25). This shows that the aircraft that do enter and depart Eppley Airfield are generally larger and are operating with higher passenger volumes than they had in the past. It can be assumed that Air Taxi operations are operating at similar levels in terms of capacity due to the correlated decline in that category over the past five years.

Figure 25: Enplanements and Deplanements at Eppley Airfield

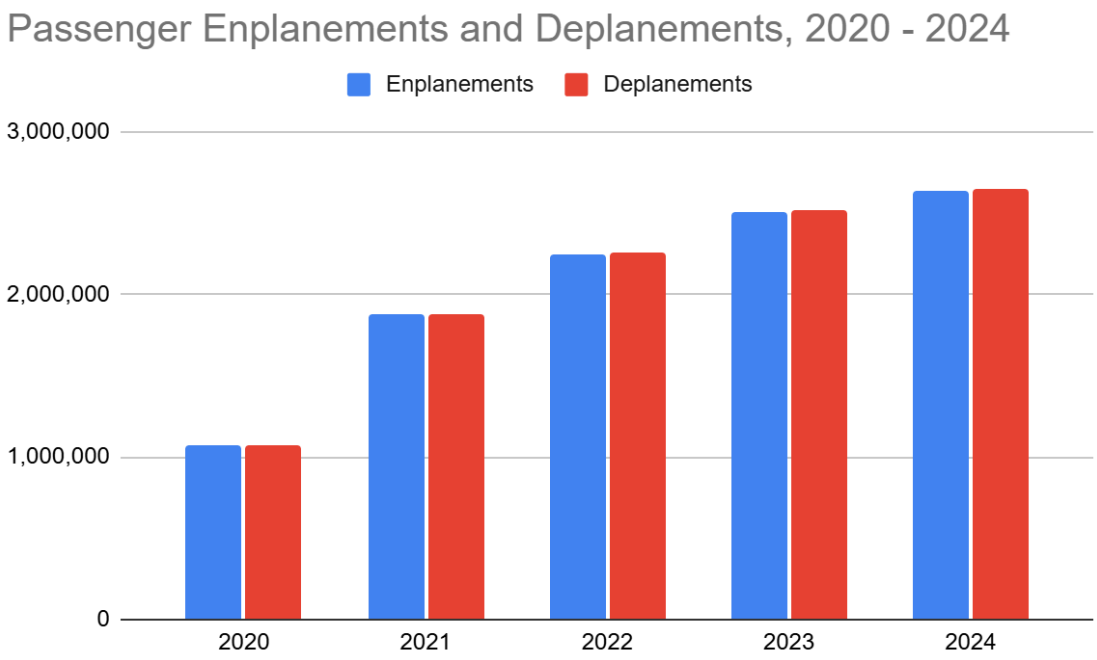
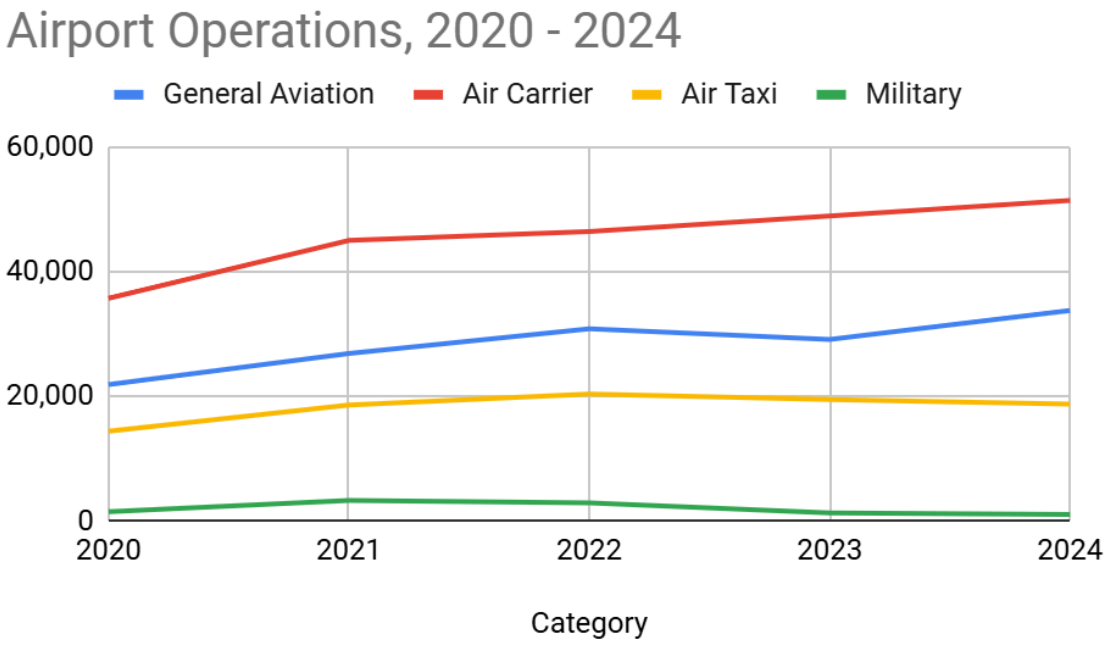


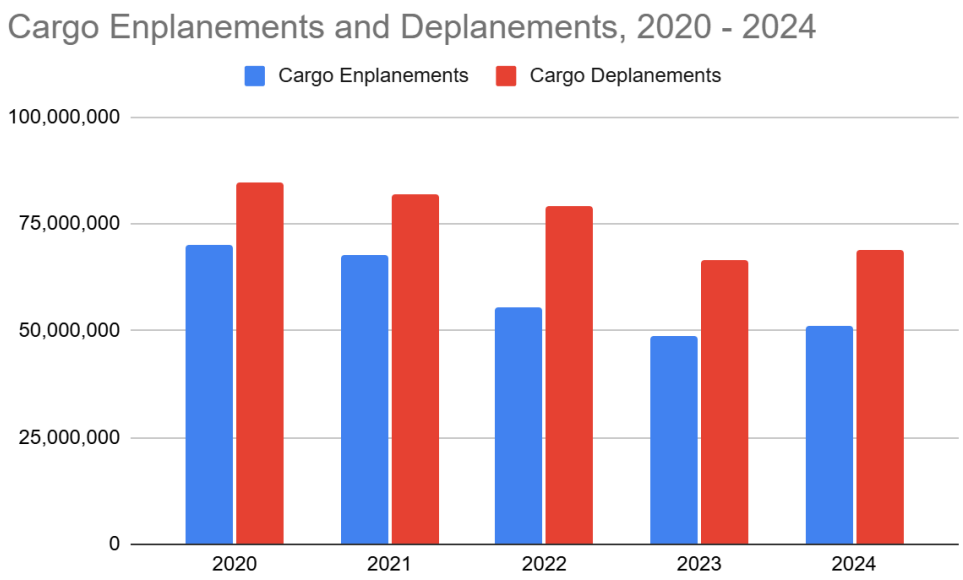
Figure 26: General Airport Operations at Eppley Airfield



Overview of Air Cargo

Eppley Airport (OMA) is the only air cargo facility in the MAPA TMA. According to the official airport website, the Eppley facilities cover 2,650 acres of land and there are 368,000 sq. ft. in the building. Additionally, there are six runways at Eppley Airfield. OMA currently has eight freight carriers and accommodated over 154 million pounds of cargo and mail in 2019. Air cargo in the MAPA TMA flows out of Omaha's Eppley Airfield. Total air cargo and mail numbers increased from 2015 to 2019. These trends are illustrated in figure 27.

Figure 27: Eppley Airfield Freight Statistics



Eppley Terminal Modernization Program

In 2023, the Omaha Airport Authority launched the Build OMA Terminal Modernization Program. The multi-phase project will effectively overhaul the airport with a single security checkpoint, new terminal drive, and new central utility plant.

Millard Airport (MLE) Overview

The Millard Airport is a general aviation facility located northwest of the intersection of Interstate 80 and Harrison Street. Millard Airport does not have a control tower and traffic relies on control service from Eppley Airfield.

The Millard Airport is operated by the Omaha Airport Authority. Millard has one lighted runway that is 3,801 feet long by 75 feet wide.

The runway was resurfaced in 2014 and the operations spaces will be renovated in 2015. OAA will continue to maintain the facility as per federal regulations. The latest data available for traffic at Millard was compiled in 2012, which showed 14,900 annual operations.

Council Bluffs Airport (CBF) Overview

The Council Bluffs Airport is a general aviation facility located 4 miles east of Council Bluffs, Iowa. This facility is owned and operated by the Council Bluffs Airport Authority. Council Bluffs Airport has two runways in operation. Renovations and expansions are as follows:

- 18/36 is a 5,500 feet by 100 feet concrete facility
- Expanded in 200514/32 3,650 feet by 60 feet concrete runway
    - Completely reconstructed in 2008
    - 4 corporate hangers
        - Completed in 2012
    - Instrument Landing System (ILS)
    - Completed in 2012
- New itinerant apron
    - Completed in 2010
- Road Access to the airport

The Council Bluffs Airport is designated in the National Plan of Integrated Airport Systems (NPIAS) as the reliever airport for Eppley Airfield. The emergency rescue organization LifeNet operates a rescue helicopter out of Council Bluffs Airport. Traffic statistics for the Council Bluffs Airport compiled in 2008 show an average of 106 departures and arrivals take place per day.

Council Bluffs Airport is also home to a full service fixed base operator with a certified flight school. The Council Bluffs Airport Authority has an active public-private development plan to facilitate investment in additional aircraft storage hangars and businesses in the airport area.

Figure 28: Aerial Photograph of the Council Bluffs Airport

North Omaha Airport (3NO) Overview

The North Omaha Airport is a privately owned facility located on the northeast corner of the junction of 72nd Street and Bennington Road. There is one runway located at this facility. Runway 17/35 is a 2,480 feet by 40 feet concrete facility in good condition. The North Omaha Airport also has tie down space and hangar space for rent. There is an overnight parking fee at this airport and the facility is closed to aircraft 8,000 lbs or larger.

North Omaha is also the base of operations for the Omaha Police Department's helicopter.

Traffic statistics for the North Omaha Airport show that on average 39 departures and arrivals take place per day; statistics were updated in 2008.

Figure 29: Aerial Photograph of the North Omaha Airport