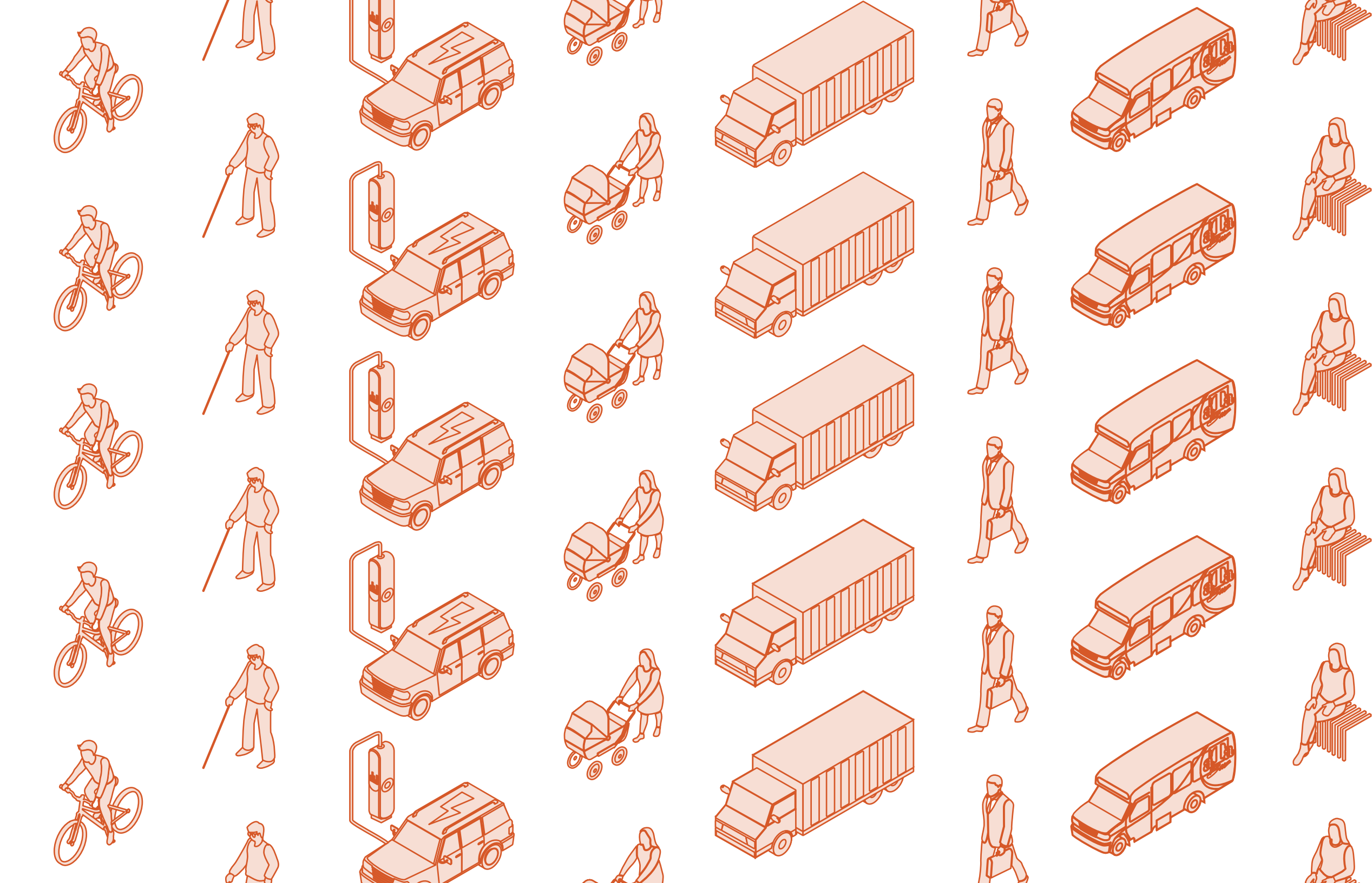




Chapter Five



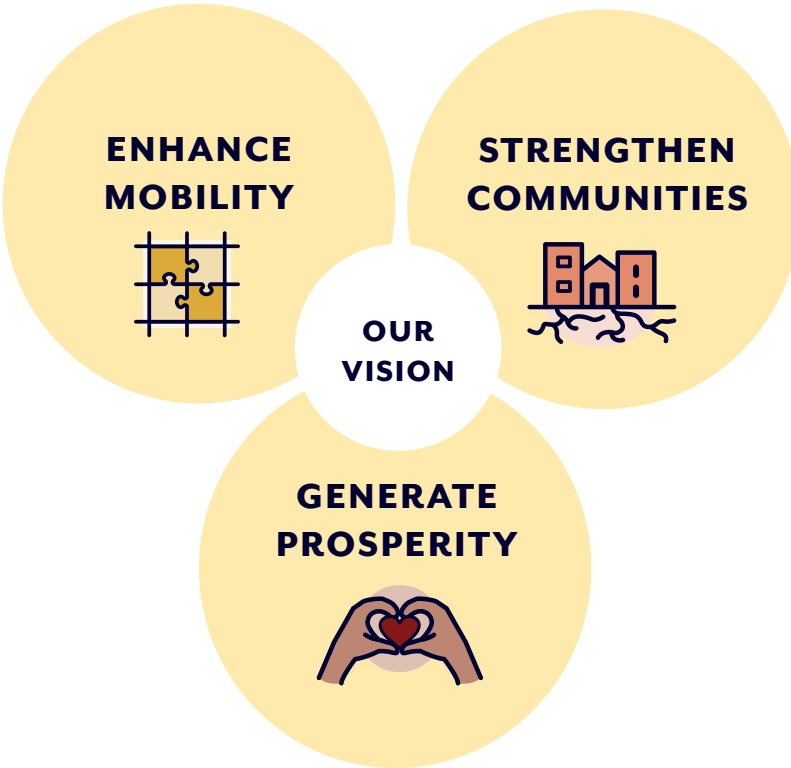
METRICS FOR PROGRESS

To achieve our vision for creating a transportation system that enhances mobility, strengthens communities, and generates prosperity, we must be able to monitor and assess how we are meeting our goals. Performance measures, and their respective targets, allow us to understand how our system is performing now compared to where we want to go.

The following chapter provides a summary of our performance measures and targets. This information is updated routinely to track our progress and identify where and how we should focus our investments.

METRICS FOR PROGRESS

To better gauge where we are today and what we need to do to achieve our transportation vision and goals, performance measures and targets have been established. Our MPO is required to track some of these performance measures, while others are voluntary.



CONNECT 2050 GOALS

SAFETY
Provide a safe and secure multi-modal transportation system.

PRESERVATION
Invest in the preservation and maintenance of our existing transportation infrastructure and assets.

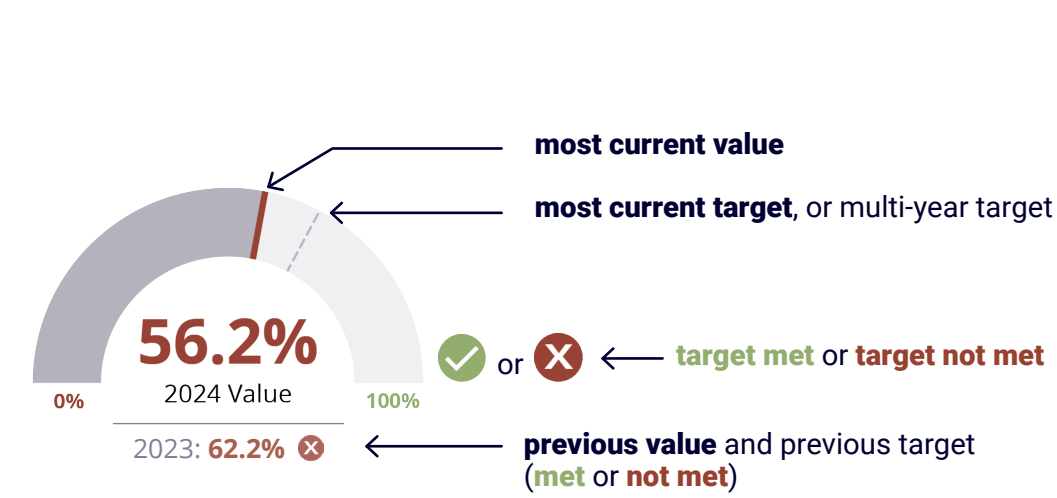
MOBILITY
Maintain system performance and enhance modal choice for the efficient movement of people, goods, and freight.

PROSPERITY
Create an affordable, sustainable, and integrated transportation system for all users.

RESILIENCE
Promote a transportation system that adapts to change, recovers from disruption, and advances environmental sustainability.

UNDERSTANDING THE METRICS AND GAUGES IN THIS CHAPTER

The following chapter has been organized by the five goals of *Connect 2050*. Throughout these sections, gauge charts have been used to clarify the comparison of where we stand today compared to our future targets. Note that there is a delay in reporting for many performance measures, which is why some PMs have different reporting years. FHMPPO uses the most recent data available.



- Federally Required Metric**
MPOs are federally required to use a performance-based approach for guiding transportation investment and policy decisions. Transportation legislation identifies several performance metrics MPOs must monitor, establish targets for, and report on.
- Flint Hills MPO Metric**
MPOs can choose to establish additional goals and targets specific to their region.

IIJA PLANNING FACTORS

- The current federal surface transportation legislation, the Infrastructure Investment and Jobs Act (IIJA), retains the ten transportation planning factors established in the previous legislation, the FAST Act. Within each *Connect 2050* goal section, you will find the corresponding planning factors listed.
- With the prevalence of data available, the MPO has chosen to set its own targets instead of adopting statewide metrics set by KDOT.

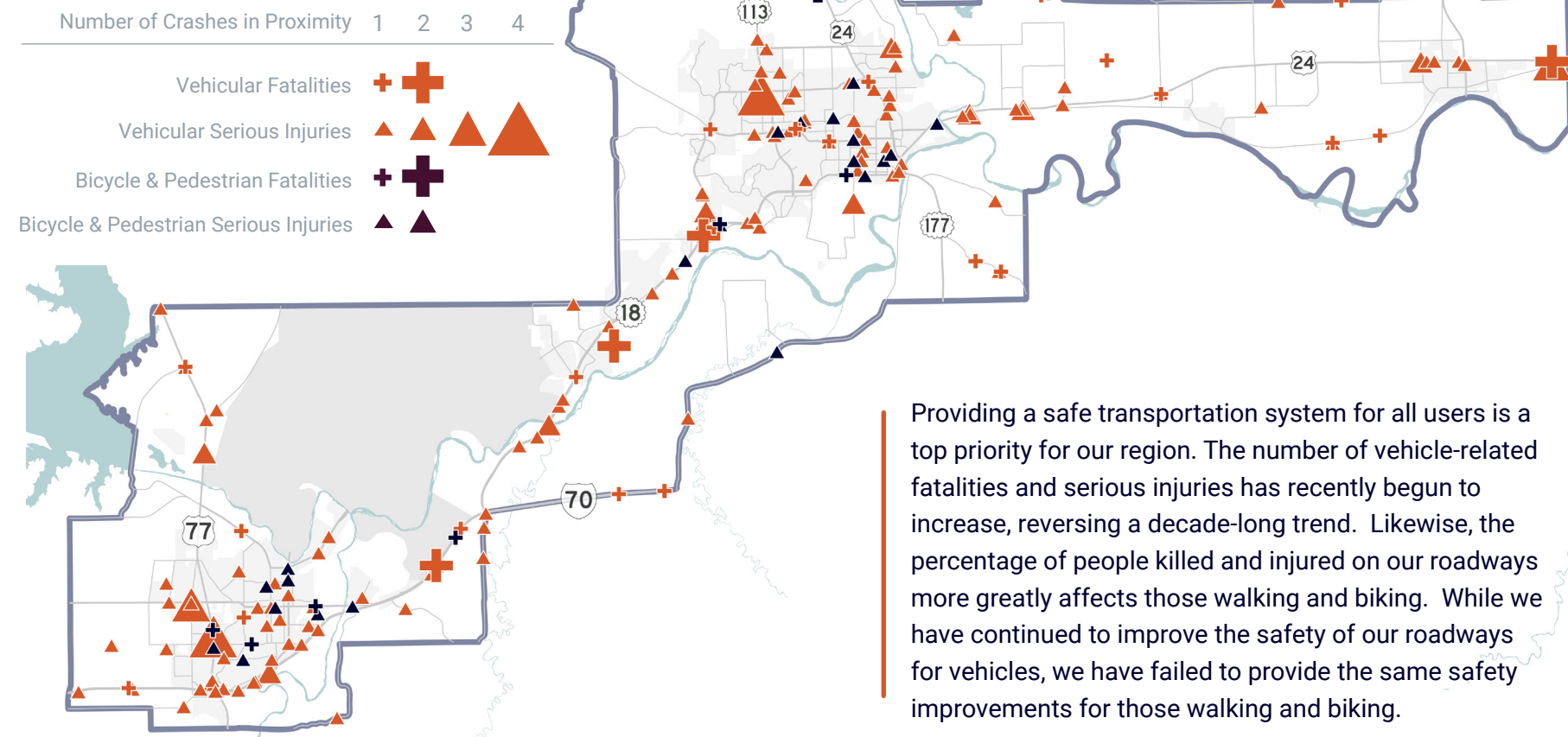


SAFETY

Provide a safe and secure multi-modal transportation system.

Figure 5.1: Fatalities & Serious Injuries

2019-2023 KDOT data



PM 1: # of vehicular fatalities

Because the number of vehicular fatalities may vary greatly from year to year, the MPO looks at 5-year averages to gain a better idea of overall trends. Over the last five years of available data (2019-2023), we have had a total of 34 fatalities on our roadways. In 2023, there were 8 vehicular fatalities in the MPO area and the 5-year average increased to 6.8.



PM 2: Rate of vehicular fatalities per 100 million vehicle miles traveled (VMT)

Using a "rate" allows us to compare the safety of our roadways to larger regions that have hundreds more crashes each year. Think of this as a per capita comparison, but rather than using population, we use the number of miles driven on our roadways. The five-year average rate of fatalities per 100 million VMT is 0.93, marking the third consecutive year of increase.

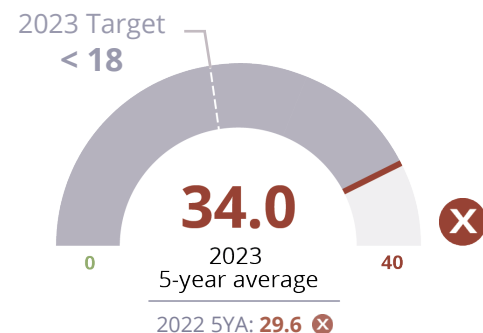


WHAT IS VMT?

Vehicle Miles Traveled (VMT) is the number of miles driven on our roadways in one year. In 2023, people drove approximately **741 million miles** in our region, an increase from 728 million in 2022.

PM 3: # of serious injuries

The MPO area saw 37 serious injuries in 2023, a decrease from 2022 but still higher than the five-year average. In addition, the five-year average of serious injuries increased to 34, the highest 5-year value since 2017. This five-year average well exceeded both the 2023 target (<18 serious injuries) and the 2024-26 target of <25 serious injuries.



PM 4: Rate of serious injuries per 100 million VMT

In 2023, the rate of serious injuries for the MPO area decreased to 4.991 serious injuries per 100 million VMT. Despite this decrease for the year, the 5-year average increased to 4.7 serious injuries per 100m VMT due to higher numbers in previous years. This exceeds the 2023 target of 3 SI per 100m VMT.



PM 5: Non-motorized fatalities & serious injuries

Bicycle and pedestrian fatalities and serious injuries are classified as "non-motorized". There were 7 non-motorized fatalities and serious injuries within the MPO area in 2023, bringing the 5-year average to 6. This 5-year average exceeds the target value of 5 and is the highest since the MPO began collecting data in 2011.



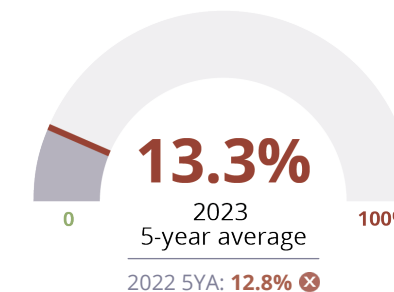
WHAT ARE CONSIDERED SERIOUS INJURIES?

USDOT uses the definition provided by the MMUCC 4th edition. An injury is considered serious if it meets one or more of the following criteria:

- Severe laceration
- Broken or distorted extremity
- Crush injuries
- Skull, chest, or abdominal injury other than bruises
- Significant burns (2nd or 3rd degree on >10% of body)
- Unconscious when taken from the scene
- Paralysis

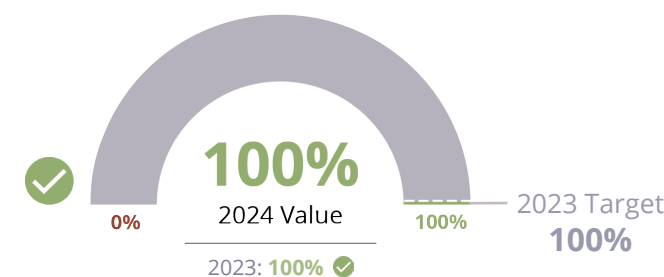
PM 6: % of serious injury and fatality crashes involving bicycles & pedestrians

Despite comprising only 9% of commuting mode share, the five-year average percentage of serious and fatality crashes involving cyclists and pedestrians was 13.3%. This is an increase from the previous 5-year average of 12.8%.



PM 7: % of public transit buses with cameras

The Flint Hills Area Transportation Agency (ATA Bus) has 32 vehicles, including 28 cutaway vehicles and 4 transit vans. All public transit vehicles are equipped with cameras.



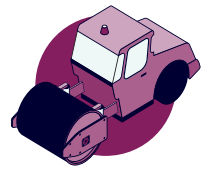
PM 8: # of public transit related fatalities & serious injuries

The ATA Bus had no transit-related fatalities or serious injuries between 2016 and 2024. Public transit remains one of the safest modes of travel in our region.



WHAT ARE THE IJA PLANNING FACTORS FOR SAFETY?

- Increase safety of the transportation system for motorized and non-motorized users.
- Increase security of the transportation system for motorized and non-motorized users.

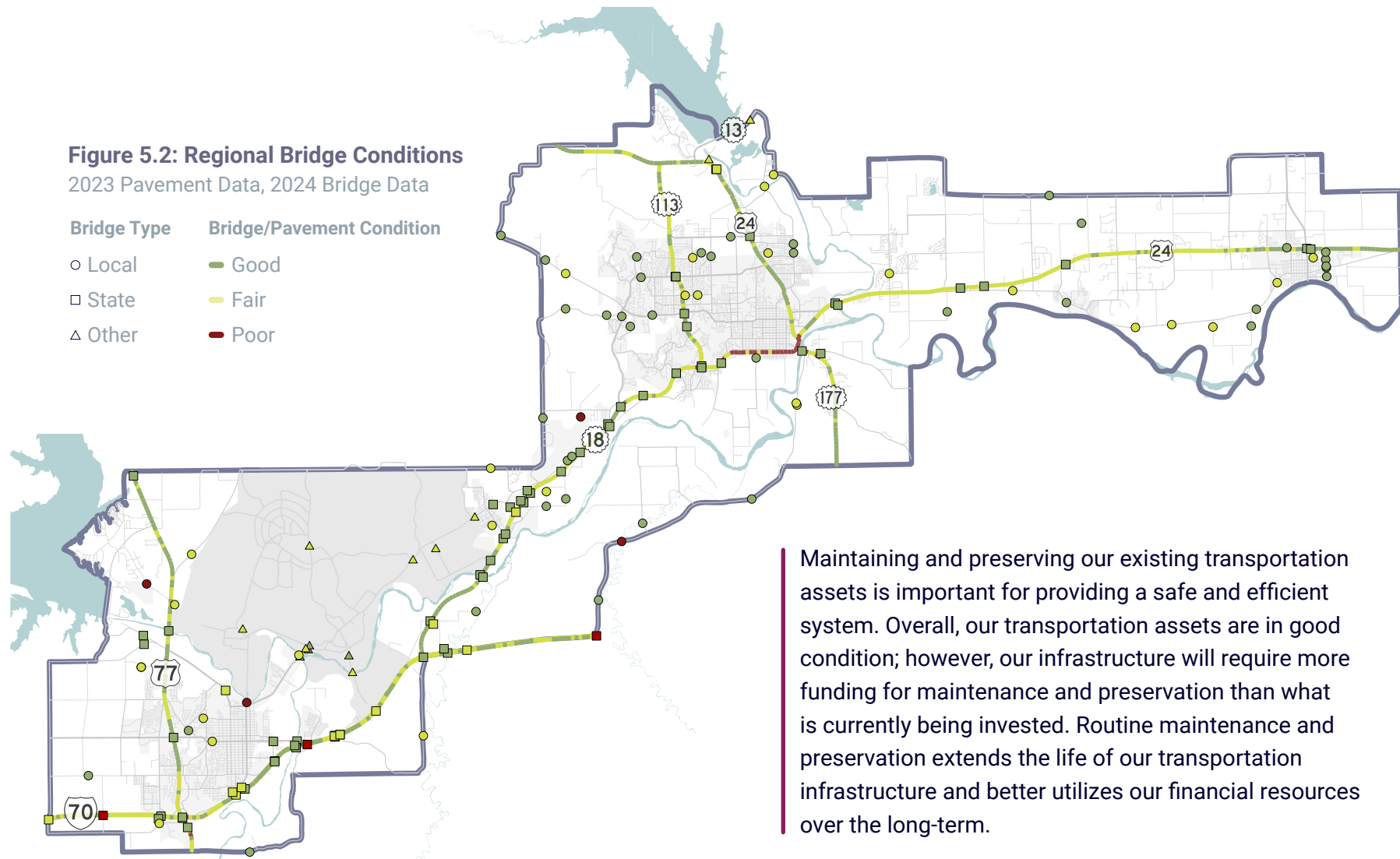
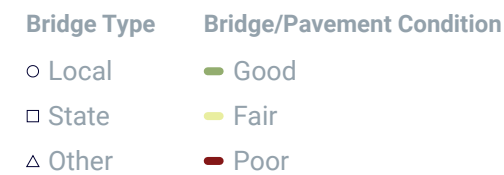


PRESERVATION

Invest in the preservation and maintenance of our existing infrastructure and assets.

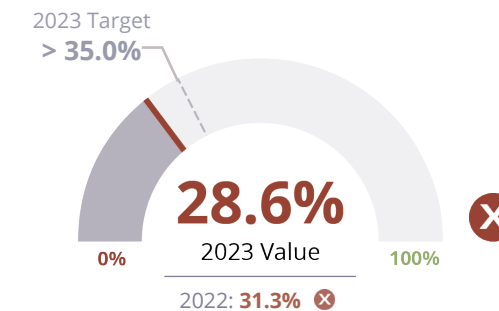
Figure 5.2: Regional Bridge Conditions

2023 Pavement Data, 2024 Bridge Data



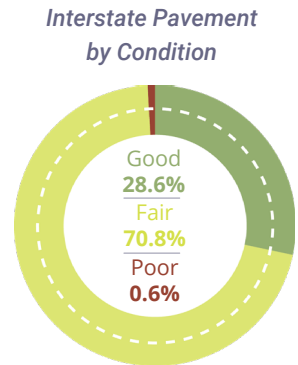
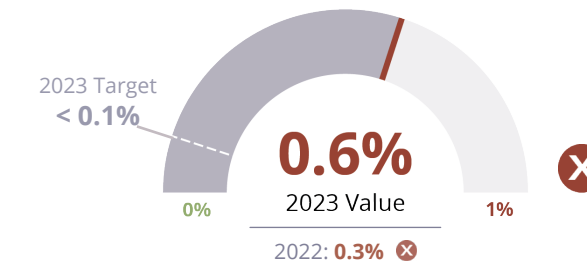
PM 1: % of Interstate pavement in good condition

The 16 centerline miles of I-70 are the only segments of interstate in the MPO region. Current construction work is expected to improve the condition of these lanes in the coming years.



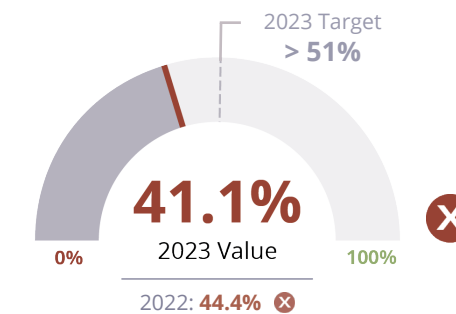
PM 2: % of Interstate pavement in poor condition

The pavement condition on I-70 continues to deteriorate. The longer preservation and maintenance needs are prolonged, the more expensive repairs become.



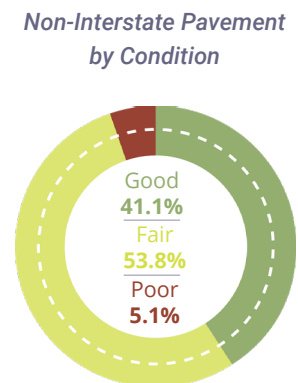
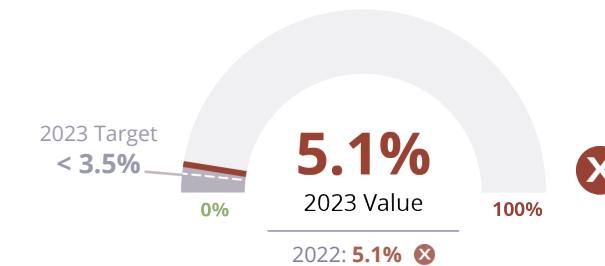
PM 3: % of non-Interstate pavement in good condition

The non-interstate pavement includes all roadways on the National Highway System (NHS), such as state highways. There are 60 centerline miles of non-Interstate NHS roads in our region.



PM 4: % of non-Interstate pavement in poor condition

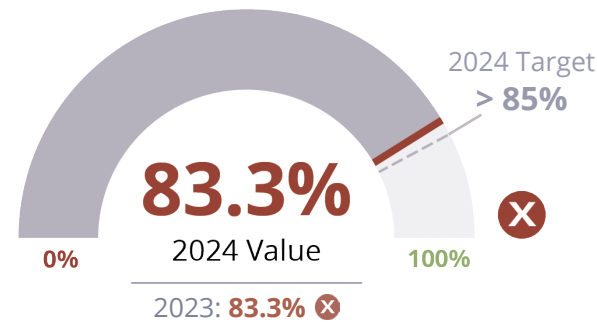
Since 2018, 3.6% more pavement on non-interstate NHS roadways is now in poor condition. The 2023 percentage, 5.1%, is also well above the target value of less than 3.5%.



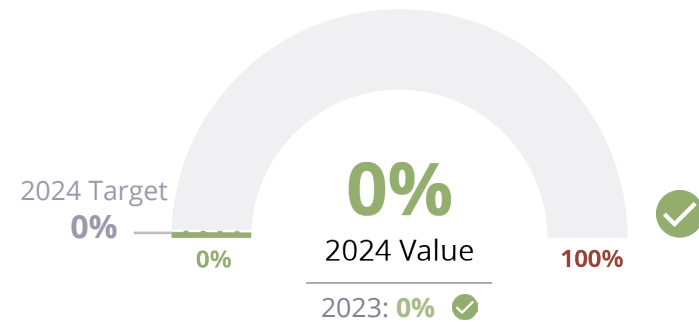
CENTERLINE VS LANE MILES

Roadway lengths can be measured by **centerline miles** or **lane miles**. Centerline miles do not take into consideration the number of lanes a roadway has, while lane miles do. Example: If a four lane road is 100 feet long, it would be 100 centerline miles or 400 lane miles.

PM 5: % of NHS bridges in good condition
Bridge condition is measured by the deck area classified in good, fair, or poor condition. Of the bridges on the National Highway System (NHS), 83.3% are in good condition.



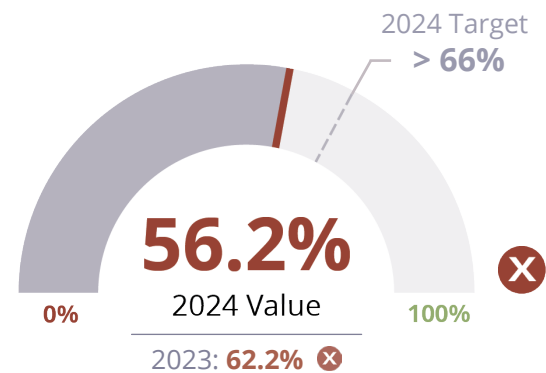
PM 6: % of NHS bridges in poor condition
There are no bridges by deck area classified as in poor condition on the NHS system.



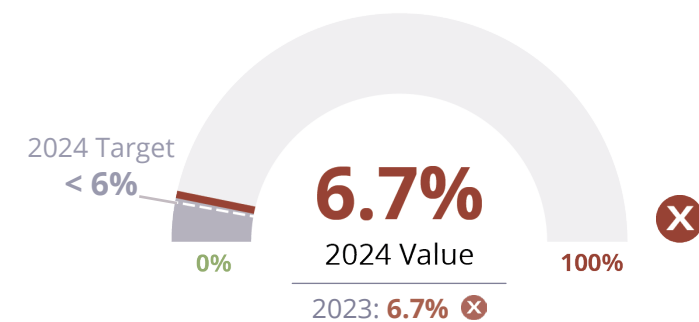
State-Owned Bridges by Condition



PM 7: % of non-NHS bridges in good condition
Non-NHS bridges are those on the local roadway system. Of the 84 bridges on the local system, 56.2% are in good condition.



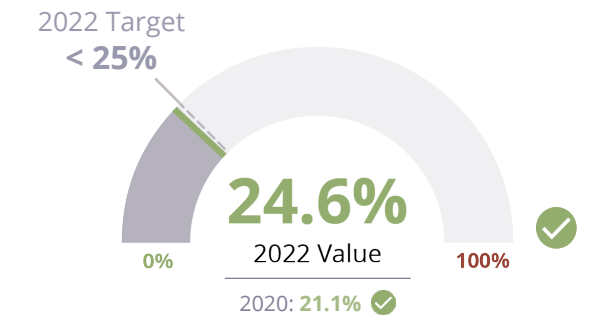
PM 8: % of non-NHS bridges in poor condition
While most of our non-NHS bridges are in good condition, 5.4% are in poor condition.



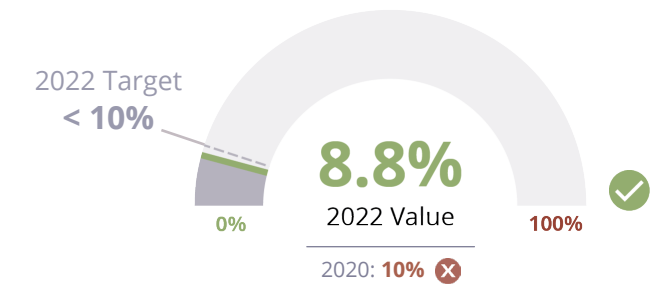
Non-State-Owned Bridges by Condition



PM 9: % of revenue vehicles exceeding their useful life benchmark (ULB)
Useful life benchmark is the expected life cycle of a transit asset. Our region has several smaller transit providers that provide transportation services to their clients, while the ATA Bus provides the general public with transit services. Our goal is to have less than 25% of all of our transit vehicles meeting or exceeding their useful life. A majority of the vehicles exceeding their ULB are vehicles owned by smaller transit providers.



PM 10: % of transit fleet with more than 200,000 odometer miles
In total, our region has 57 transit vehicles in service by the smaller transit providers and ATA Bus. Of these, five (5) exceed 200,000 odometer miles. The goal is to have less than 10% of the fleet below this threshold as maintenance on high-mileage vehicles is substantially more frequent and expensive.



MISSING THE (MOVING) TARGET:

The MPO region failed to meet targets on 12 of 14 Federally required metrics. The reasons are numerous but include project delays, changes in data classification, COVID19 related changes in driving behavior (state & nationwide trends), lack of historical data, and overly aggressive targets. The MPO is working to set more reasonable goals based on the data available. Despite the missed targets, the MPO and its regional communities will continue to leverage data help identify and prioritize projects by safety and need.

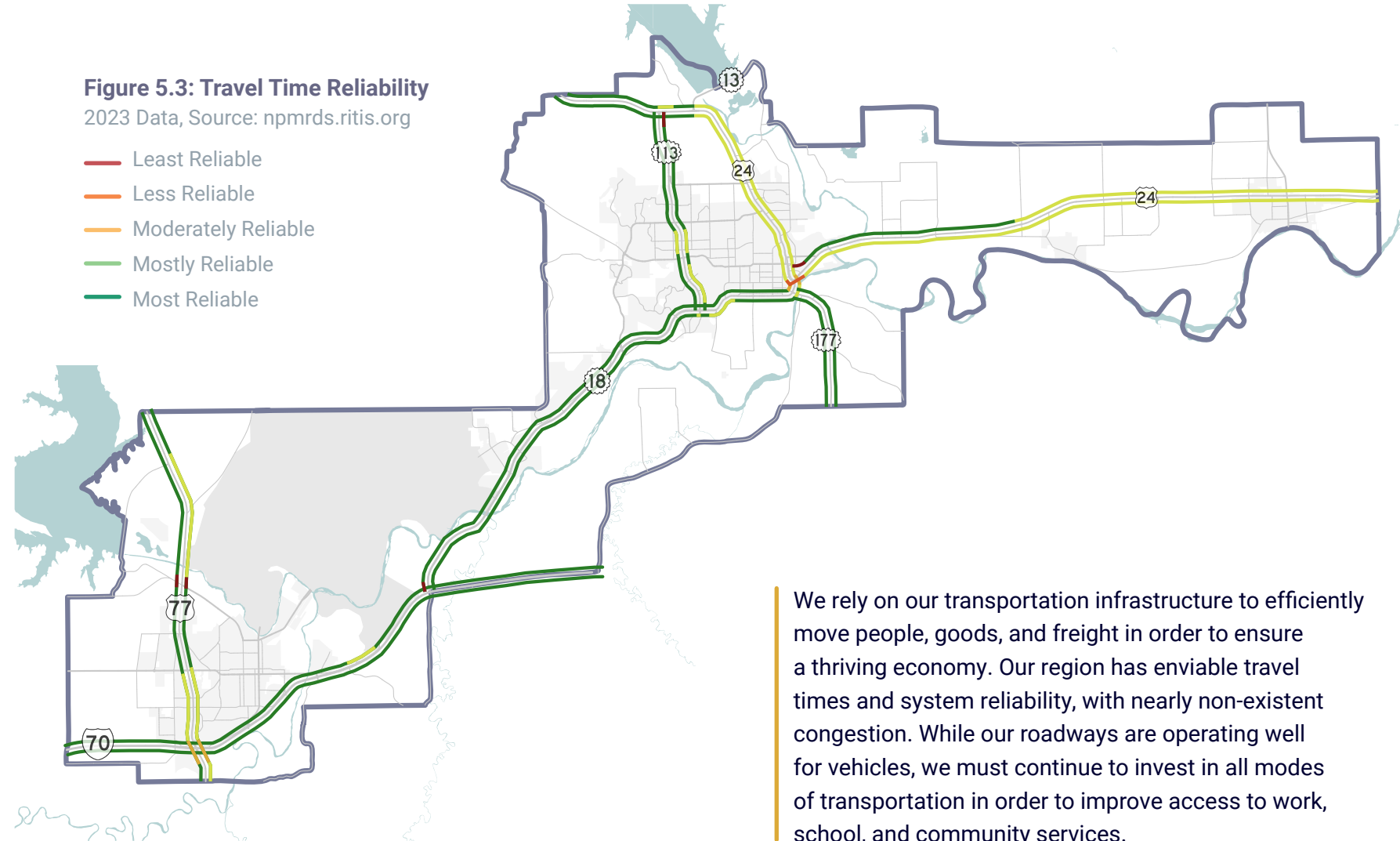


MOBILITY

Maintain system performance and enhance modal choice for the efficient movement of people, goods, and freight.

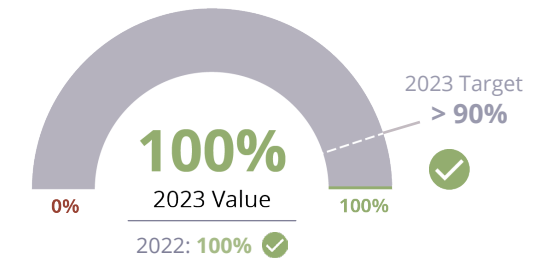
Figure 5.3: Travel Time Reliability
2023 Data, Source: npmrds.ritis.org

- Least Reliable
- Less Reliable
- Moderately Reliable
- Mostly Reliable
- Most Reliable



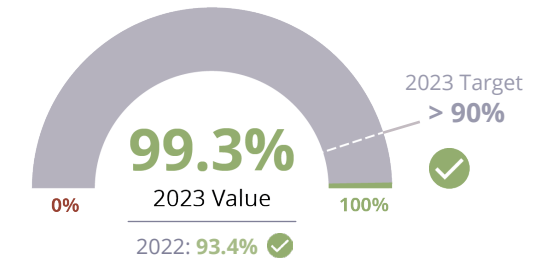
PM 1: % of person-miles traveled on the Interstate with a reliable travel time

100% of the person-miles traveled on I-70 through our region are reliable. This means our Interstate system has a low amount of congestion, allowing people and goods to move efficiently through our region.



PM 2: % of person-miles traveled on the NHS with a reliable travel time

Of the non-interstate roadways on the National Highway System (NHS), 99.3% are performing at a high-level of reliability. Reliability has improved over the past two years, largely due to the completion of construction projects on K-18 and US-24.



PM 3: Truck Travel Time Reliability (TTTR) index on our interstate system

A complex formula is used to develop the TTTR Index and to calculate the TTTR of our interstate system. Ideally, any segment along a roadway should have a TTTR Index of 1.50 or less. TTTR in the MPO region increased to 1.53, slightly above the target value, due to construction on I-70 in 2023.

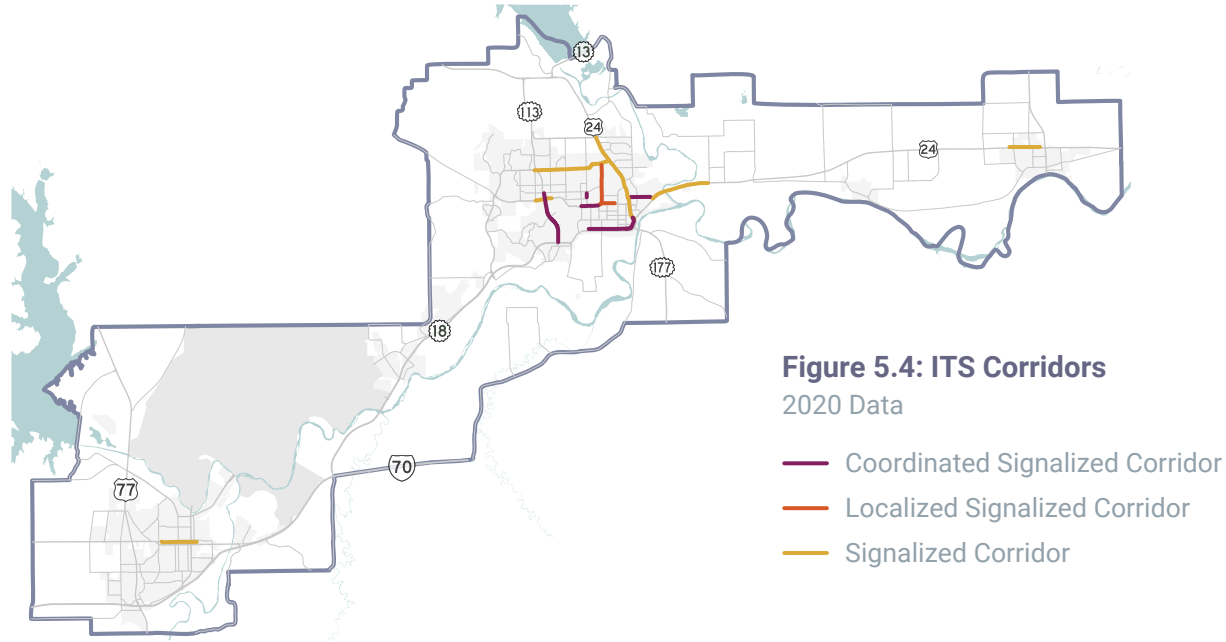
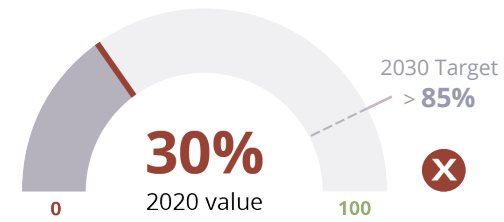


TRAVEL TIME RELIABILITY

Defined as the consistency or dependability in travel times across different days and different times of day. **Truck Travel Time Reliability (TTTR)** is the measure of reliable travel times for trucks on the Interstate system. This is calculated by comparing days with extremely high delays to days with average travel times.

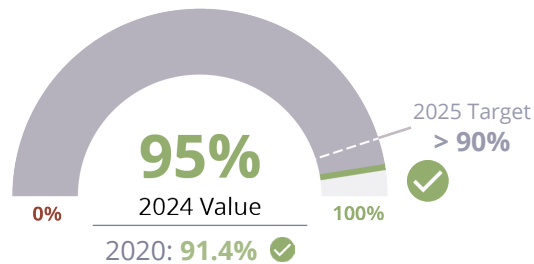
MP0 PM 4: % of Intelligent Transportation Systems enabled traffic signals along key corridors

Intelligent transportation systems (ITS) allow for communication and coordination among signals to improve traffic flow. Our region has 17.5 miles of signalized corridors, with 30% percent enabled with signal coordination to improve the efficiency of the corridor.



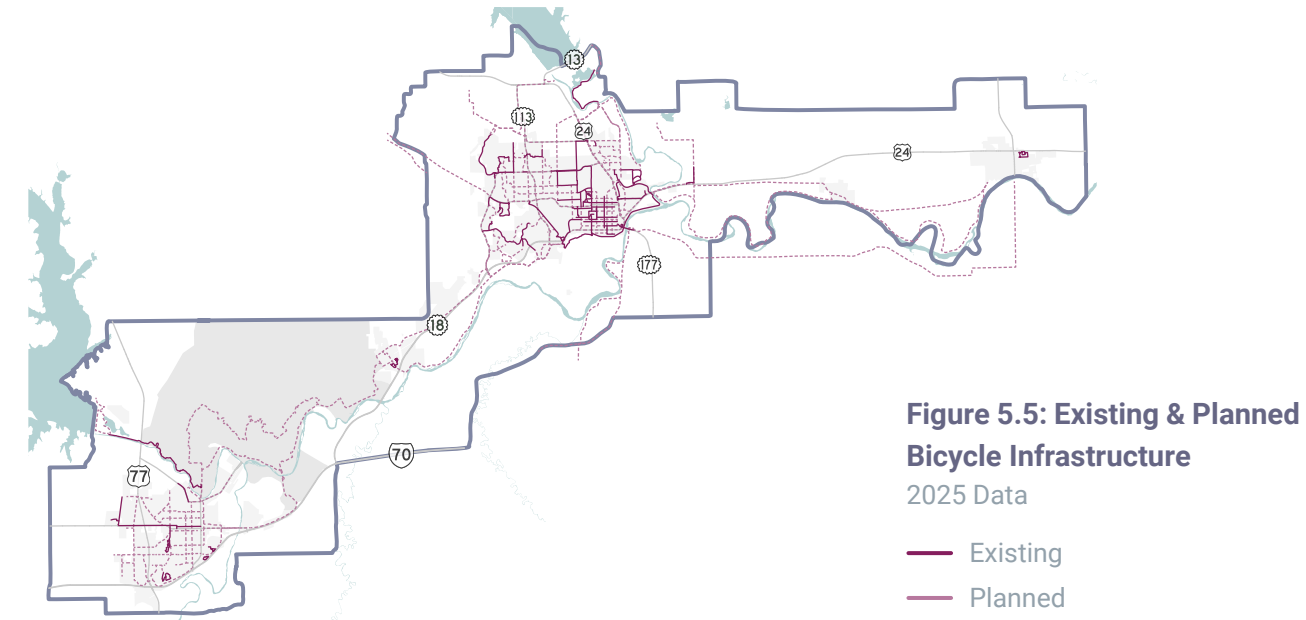
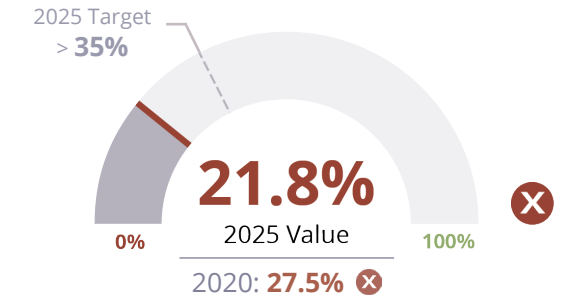
MP0 PM 5: % of transit routes on-time performance

Providing an on-time public transit service is important for dependability and reliability. The ATA Bus' current on time performance among all fixed routes has increased from 91.4% in 2020 to 95% in 2024.



MP0 PM 6: % of planned bicycle infrastructure projects implemented

There are 242 miles of planned bicycle projects in our region. To date only 67.4 miles, or 21.8%, of this infrastructure has been built. Strides towards the implementation of this bicycle infrastructure will provide our community with a network that will provide access to local and eventually regional connections.



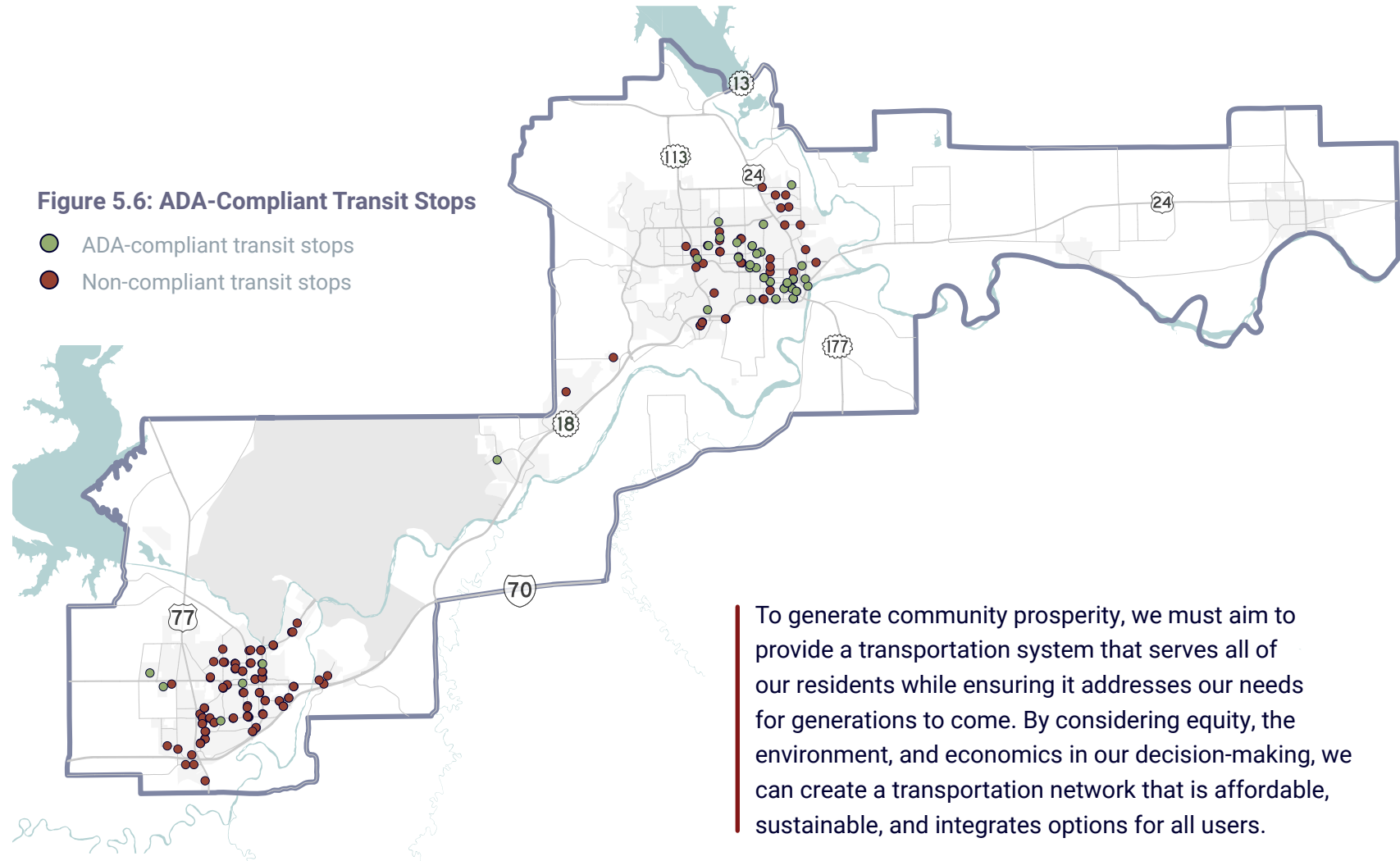
WHAT ARE THE IJA PLANNING FACTORS FOR MOBILITY?

- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
- Promote efficient system management and operations.



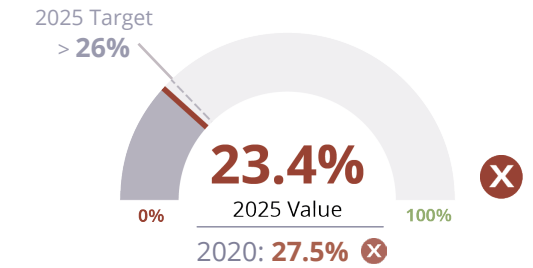
PROSPERITY

Create an affordable, sustainable, and integrated transportation system for all users.



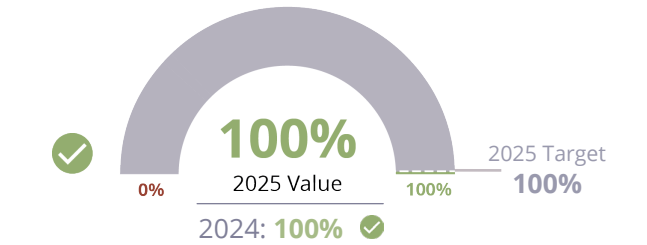
PM 1: % of transit stops compliant with Americans with Disabilities Act (ADA)

Our region has 192 fixed-route bus stops, of which, only 18% are ADA compliant. To improve public transit accessibility, the number of ADA compliant bus stops must increase.



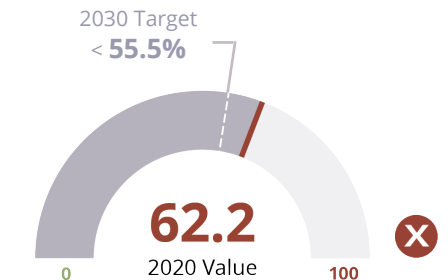
PM 2: % of bus fleet equipped with bike racks

The ATA Bus has a total of 36 buses, of which 21 are equipped with a bike rack. Ideally, all fixed-route buses should have bike racks. This number should also include bike racks on demand response buses that are occasionally used for fixed-routes.



PM 3: Maintain or reduce the number of roadway feet per person

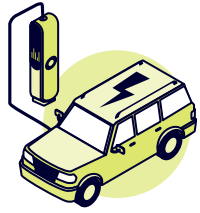
When roadways are built or expanded, a larger financial burden is placed on existing residents to support the infrastructure. To be fiscally responsible and reduce the cost of transportation, our region should focus on reducing or maintaining the number of roadway feet per person.



WHAT ARE THE IJJA PLANNING FACTORS FOR PROSPERITY?

- Protect and enhance the environment, promote energy conversation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
- Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation.
- Enhance travel and tourism.





RESILIENCE

Promote a transportation system that adapts to change, recovers from disruption, and advances environmental sustainability.

MPO PM 1: # of EVs registered

In 2023, a total of **234** plug-in EVs were registered in the 3 MPO counties. Of these, 54 were registered in Geary County, 49 were registered in Pottawatomie County, and 131 were registered in Riley County.



 = 100 cars

MPO PM 2: # of hybrids registered

1,307 hybrid vehicles were registered in the MPO counties in 2023. Residents in Riley County registered the majority with 820 hybrid vehicles. 253 hybrids were registered in Pottawatomie County and 234 in Geary County.



 = 100 cars

MPO PM 3: % of registered vehicles that are EVs or hybrids

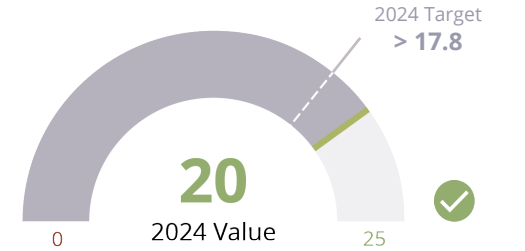
81,698 vehicles were registered in the 3 MPO counties in 2023. EVs or hybrids accounted for 1,541, or **1.9%**, of the vehicles registered. Each car in the graphic below represents 1% of the total vehicles registered in 2023.



Note: The MPO tracks the number of EVs and hybrids registered per year in our region, but does not set goals for registration.

MPO PM 4: # of Level 2 EV Charging Plugs

The MPO uses the US Department of Energy's EV Infrastructure Toolbox Calculator to set targets for EV charging infrastructure. The calculator uses population, existing infrastructure, and EV adoption rates to estimate the infrastructure needed to support a given area. As of 2024, there are 20 Level 2 plugs in the MPO area, exceeding the target of at least 17.8.



The map below is a “gap analysis” showing where Level 2 EV chargers are most needed in the MPO region. The model takes into account land use and existing charging stations to estimate areas of demand for EV charging infrastructure.

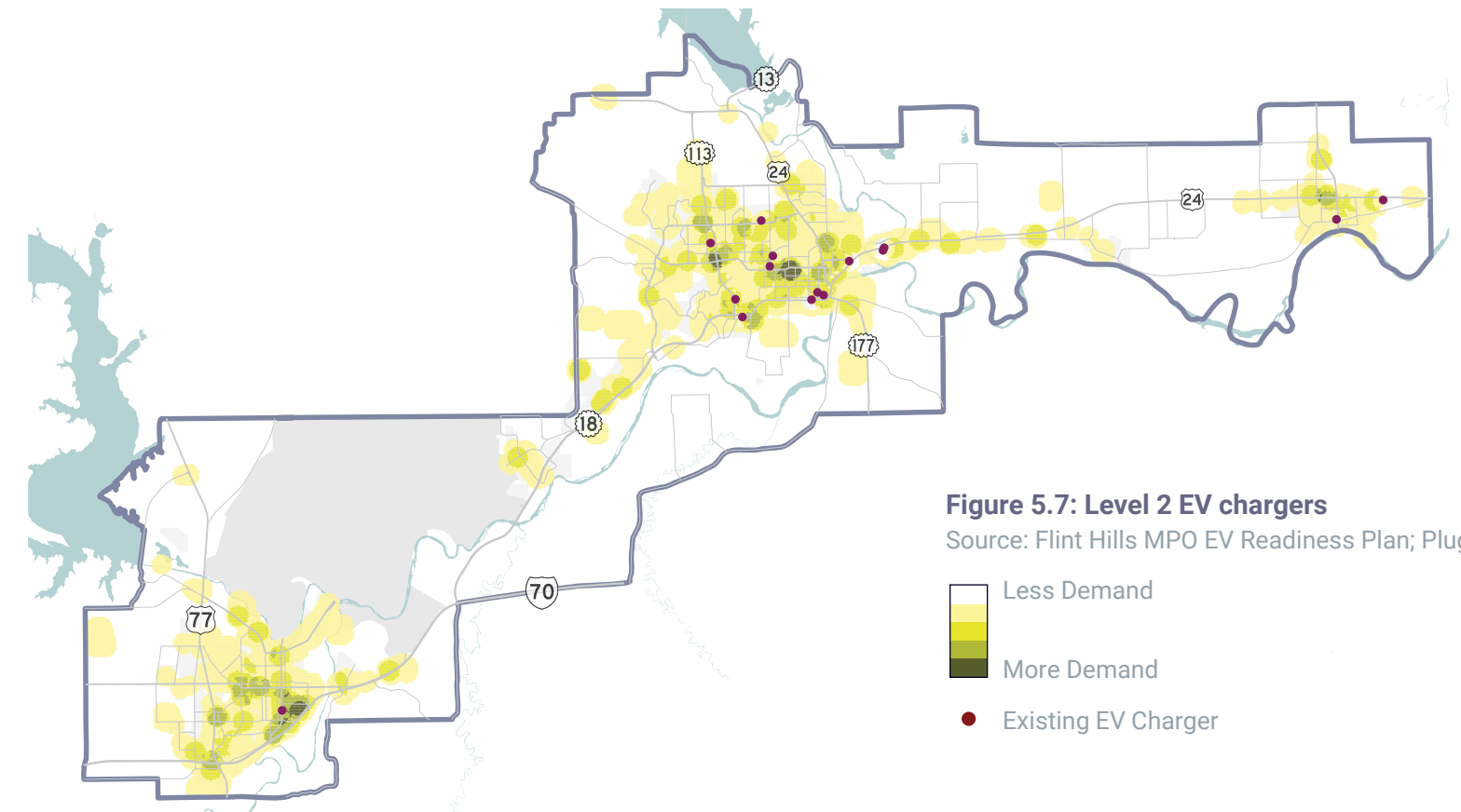


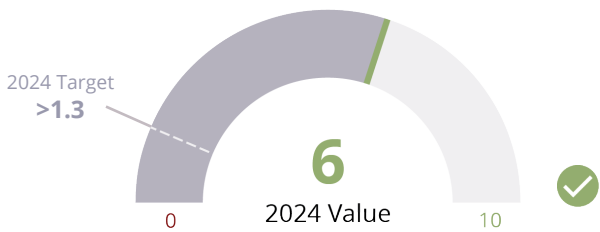
Figure 5.7: Level 2 EV chargers

Source: Flint Hills MPO EV Readiness Plan; Plugshare

-  Less Demand
-  More Demand
-  Existing EV Charger

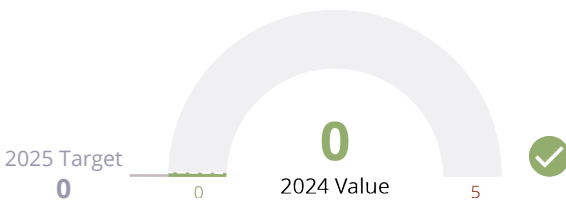
PM 5: # of Level 3 EV Charging Plugs

There are currently 6 Level 3 EV charging plugs in the region, well above the target of 1.3. All 6 are located along US-24 near Manhattan. The map below shows the MPO's Level 3 gap analysis, which reveals demand is highest in the I-70 corridor near Junction City.



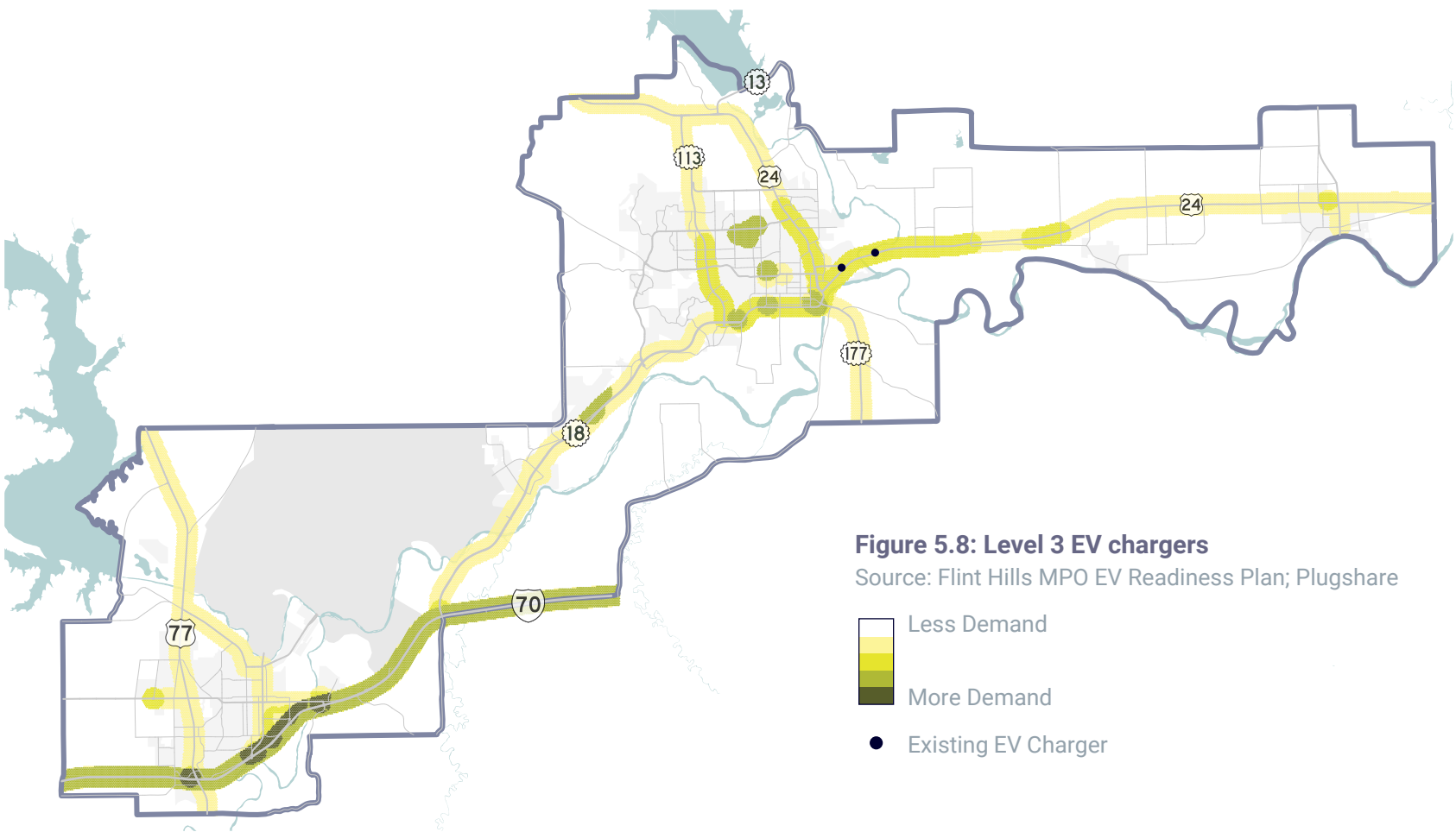
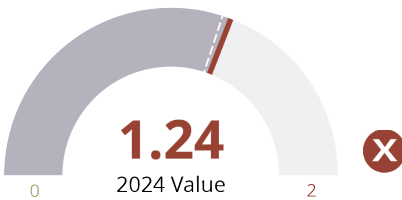
PM 6: # of EV/Hybrid Vehicle Fires

While rare, EV fires present unique challenges to firefighters and require specialized equipment to extinguish. The MPO tracks the number of fire incidents involving EVs, EV batteries, and hybrid vehicles using data from emergency management agencies in the MPO counties. To date, there have been no fires caused by an EV or hybrid vehicle in the MPO region.



PM 7: # of Parking Spots Per Capita

The MPO tracks the total number of parking spots in the region, providing insights into urban density and accessibility. Tracking this measure can help prioritize parking policies and inform decisions on EV charging infrastructure placement.



WHAT ARE THE IJA PLANNING FACTORS FOR RESILIENCE?

- Protect and enhance the environment, promote energy conversation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
- Improve the resiliency and reliability of the transportation system and reduce or mitigate storm water impacts of surface transportation.

DRIVE TO ZERO

The Kansas Drive to Zero Plan (DTZ), adopted in June 2025, is the official Kansas Strategic Highway Safety Plan (SHSP) for 2025-2029. This plan was developed through a collaborative and data-driven approach, uniting public and private sectors, to produce a holistic safe systems approach (Figure 5.9). Figure 5.10 provides a graphic overview of the five DTZ Strategy Teams and lists the associated DTZ Strategies. While not Performance Measures per se, these Strategies provide a roadmap towards improved safety on our roadways. Projects listed in Chapter 6 have the associated DTZ Strategy listed to show how they align with State goals.

Appendix E contains the full DTZ plan, including detailed information for each Strategy.

Figure 5.9: Drive to Zero Safe Systems Approach



Figure 5.10: Drive to Zero Plan Strategies



Graphics on this page courtesy of Kansas Drive to Zero.