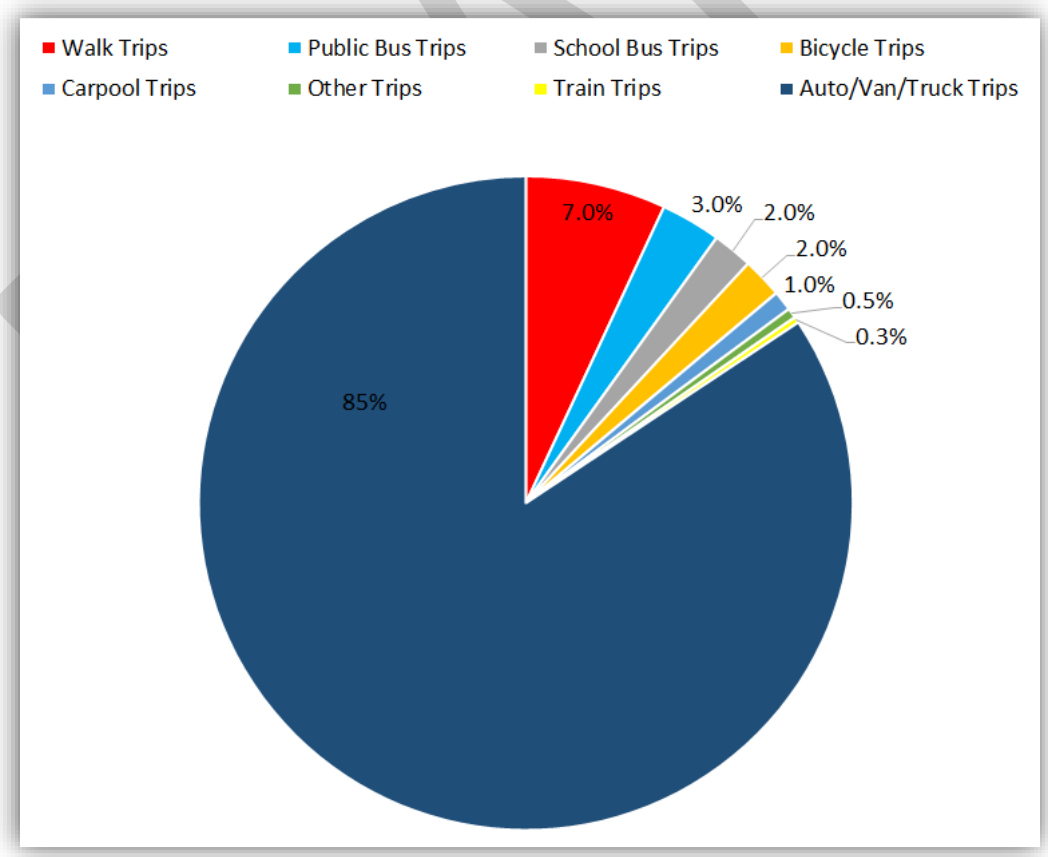
CHAPTER 5: ACTIVE TRANSPORTATION

Active transportation is a term that refers to human-powered transportation modes, such as walking and bicycling. Transit is sometimes considered active transportation because it usually involves a pedestrian or bicycle trip to get to or from the transit trip; however, in this Plan transit is addressed in the Optimized Mobility chapter (Chapter 4). This chapter focuses on pedestrian and bicycle travel and the mobility aspects of these modes, as well as the health benefits and safety concerns. Closing gaps that exist in the bike and pedestrian networks and further developing their infrastructure, as well as improving travel safety, is critical for not only a well-functioning active transportation system, but for smooth and safe travel for everyone in our region, regardless of how they are getting around.

5.1 Pedestrian and Bicycle Travel Conditions

The latest Mid-Region Household Travel Survey (2014), which is the most comprehensive survey of people living in the region, shows that seven percent of trips are made by walking, and two percent of trips are made by bicycling. Clearly, trips taken by walking and bicycling make up only a modest share of the total trips taken in the region. Nevertheless, there are important benefits associated with traveling by these modes, including improved public health outcomes, economic resiliency, and reduced reliance on single-occupancy vehicles.

Figure 5-1: Percentage of Trips by Mode



Source: Mid-Region Household Travel Survey, 2014

a. Collecting Active Transportation Trip Data

To build off of the Household Travel Survey and provide a better dataset for pedestrian and bicyclist travel patterns and counts, MRMPO has been building a non-motorized counts program using short duration counts, permanent counters, and Strava data (user-collected data using a smart phone app). Complementing this data collection is bike share and Bike to Work Day data. These programs have grown considerably over the last five years and provide both quantitative and qualitative insight into the use of bicycle facilities and the needs of riders.

Accurately capturing pedestrian and bicyclist data is vital to improving these modes of travel. Sometimes this can be a difficult task because of factors like weather, safety perception, and quality of the infrastructure that could impact a person's decision to walk or bicycle. However, collecting data on walking and biking is essential to getting a better understanding of the use of these modes, safety issues, and needed infrastructure improvements. Indeed, demand for and development of technologies by both agencies and the public that support more accurate and robust non-motorized counts is growing.

Permanent and Short Duration Counts

MRMPO manages seven permanent counters on different trails throughout the Albuquerque metro area. These permanent counters collect both pedestrian and bicyclist activity and provide crucial data for these activities on the trail network. In addition to these permanent counters, short-duration counts are collected via a video screen line approach based on national best practices. All pedestrians and bicyclists passing a designated line are counted, which is similar in approach to tube counts for motor vehicles. MRMPO collects such data at various locations from May through September, one weekday at peak AM and PM hours, and one weekend day from 11am-1pm, and for special events.

Benefits of Before and After Counts

MRMPO typically collects short duration counts for projects that are specifically meant to enhance bicyclist and/or pedestrian activity. For example, with the addition of a new buffered bicycle lane, MRMPO would collect counts before and after the lane was added on a roadway**. *This kind of data is important because it generally shows that bicycling on a particular roadway increases when a dedicated facility is added.*** This kind of result indicates that there is latent demand for such facilities, and it is likely the increase in trips is from people who want to ride but will only ride if infrastructure is put in place that helps them feel safer. These types of analyses support the argument that more bicycle facilities are needed, even when, on the surface, there does not seem to be enough demand for such facilities.

Strava Metro Data

Further data collection includes the use of smart phone technology that is becoming more popular and more comprehensive for regional use. To that end, MRMPO purchases bicycling and pedestrian data from Strava Metro. People can track their cycling, walking, and running activity (speed and distances) with a Strava application on a smart phone or with a GPS device. Strava removes all identifying information from the users and aggregates the data to a linear street and trail map[1]. Strava trips represent only a small segment of the total trips taken by the walking and cycling community and the data are obviously biased toward people who choose to use the application. Nevertheless, this data is helpful to show the relative usage on streets and trails for this segment of the population, and Strava use is expanding to more segments of the population and becoming more common for commute trips.

[1] Strava uses the Open Street Map roadway network.

Furthermore, Strava data gives some insight into travel patterns that could indicate common routes that are either better connected across the region, or where people feel safer riding or walking. Strava data can also be correlated with permanent count data to provide estimate counts for an entire area surrounding a permanent counter. Functionality of this data source is growing rapidly with a recently added online dashboard.

Map 5-1: Permanent Counter Locations

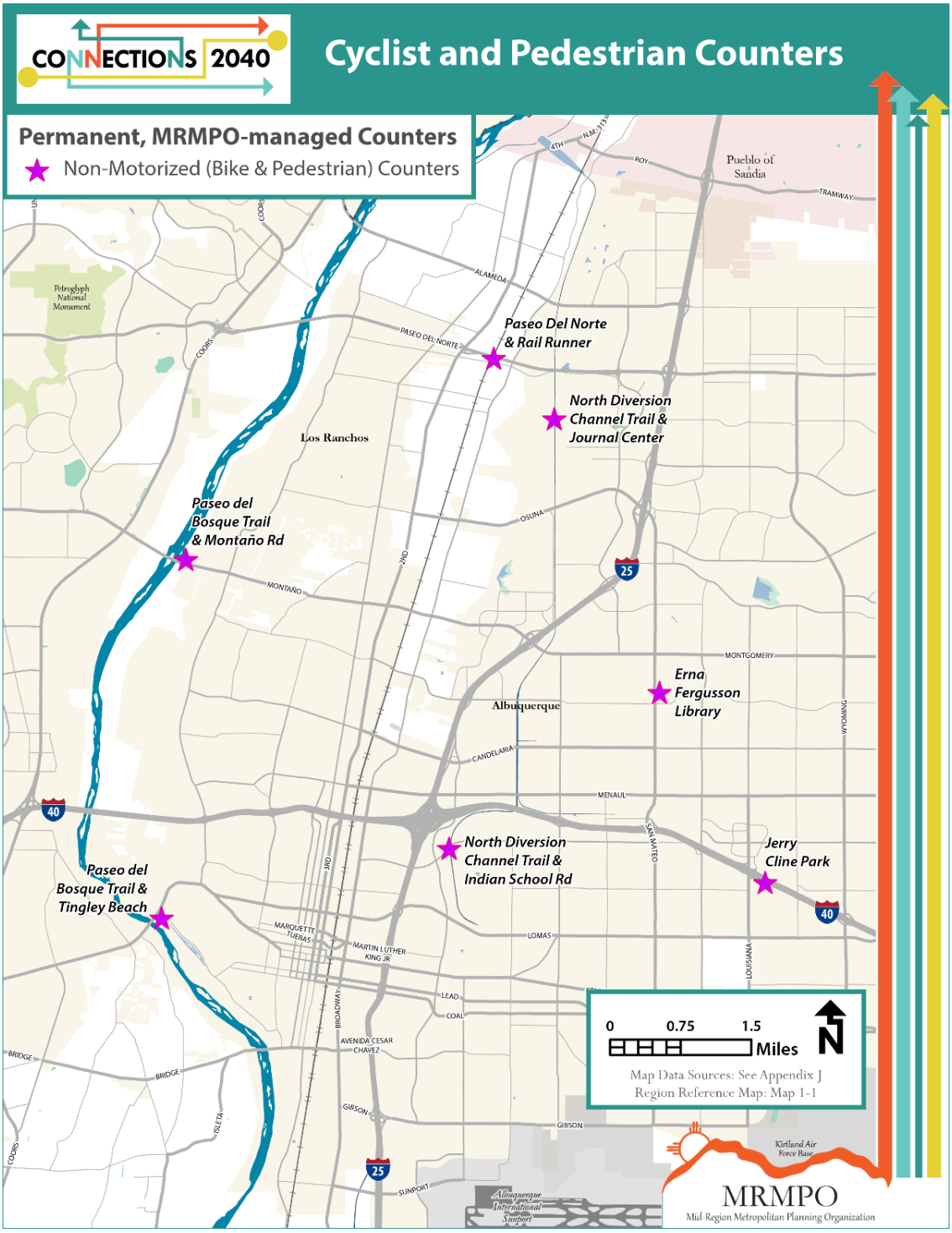
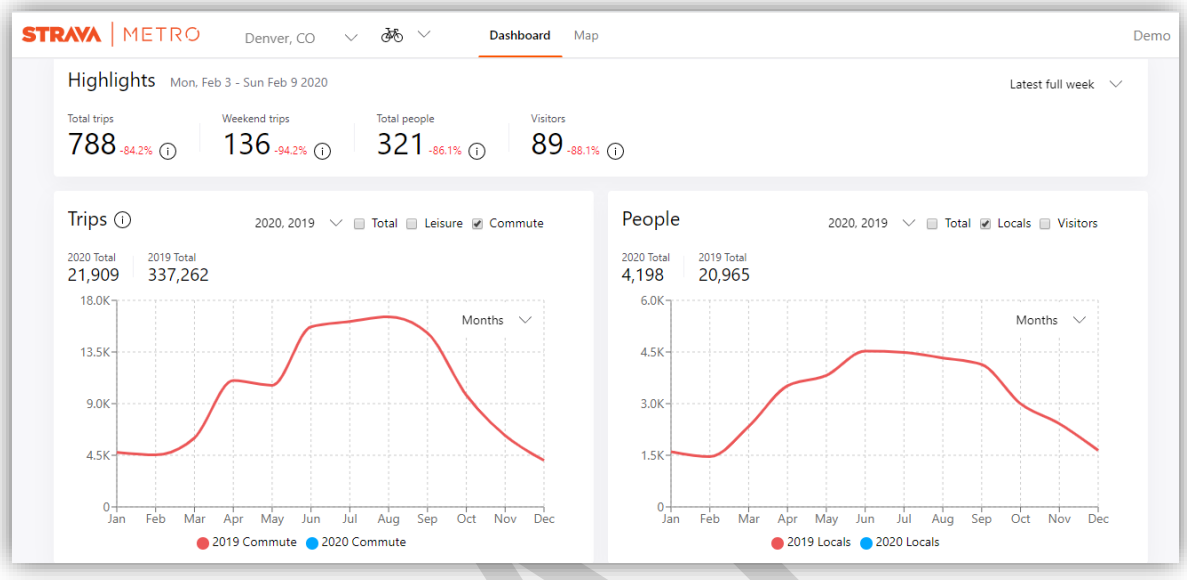


Figure 5-2: Strava Metro Online Dashboard Demonstration

Bike Share Data

The bike share program run by the Rio Metro Regional Transit District collects trip, trip duration, gender,



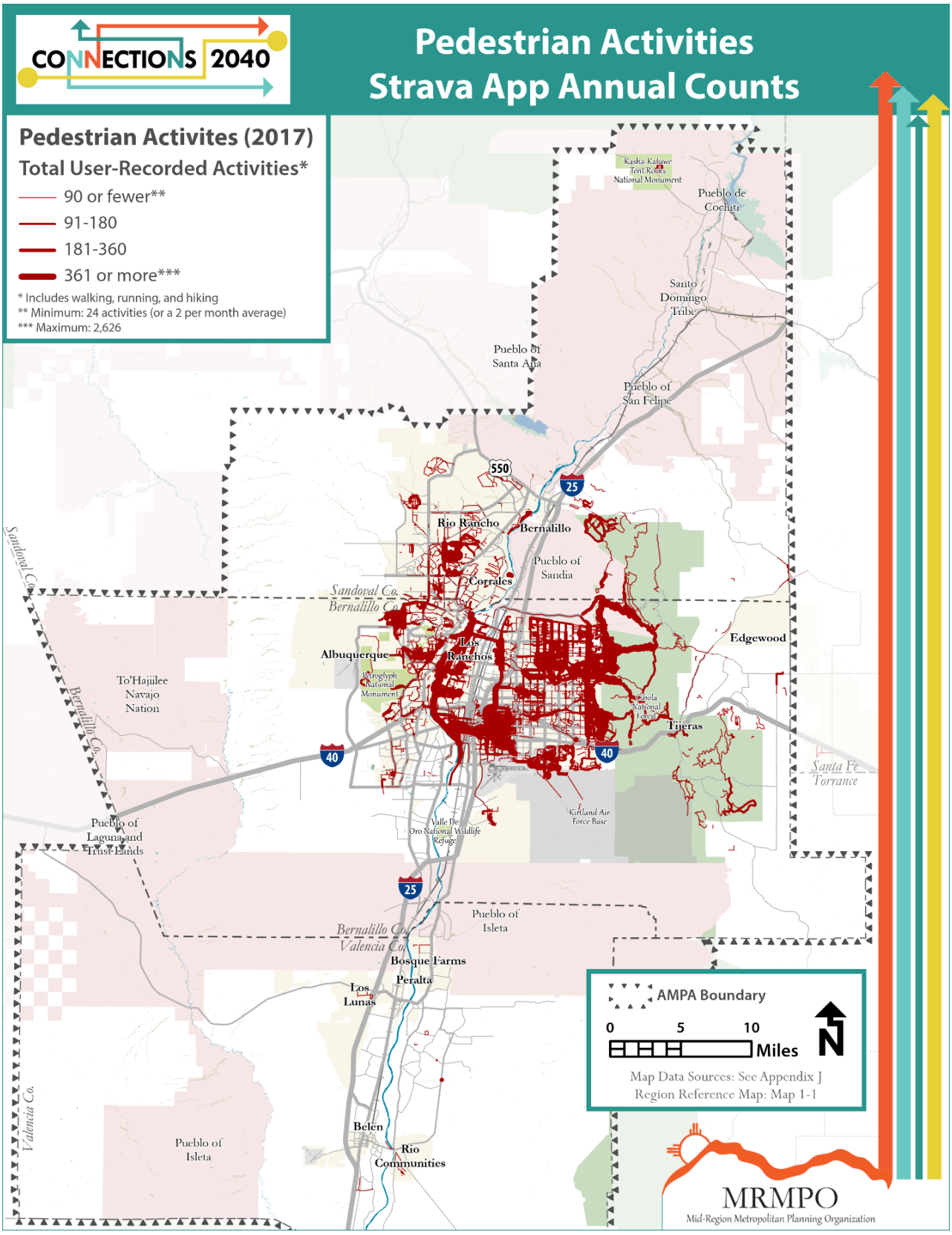
zip code, and GPS data on routes riders take. These datasets are extremely useful in future bicycle planning efforts as we gain a better understanding of exactly where riders are bicycling and in turn where limited funding should be dedicated to expanding and improving connections among existing bicycling facilities. Additionally, this program exemplifies the latent demand for these types of services considering its rapid growth and use in the region. The details of this program are provided later in this chapter.

Bike to Work Day Data

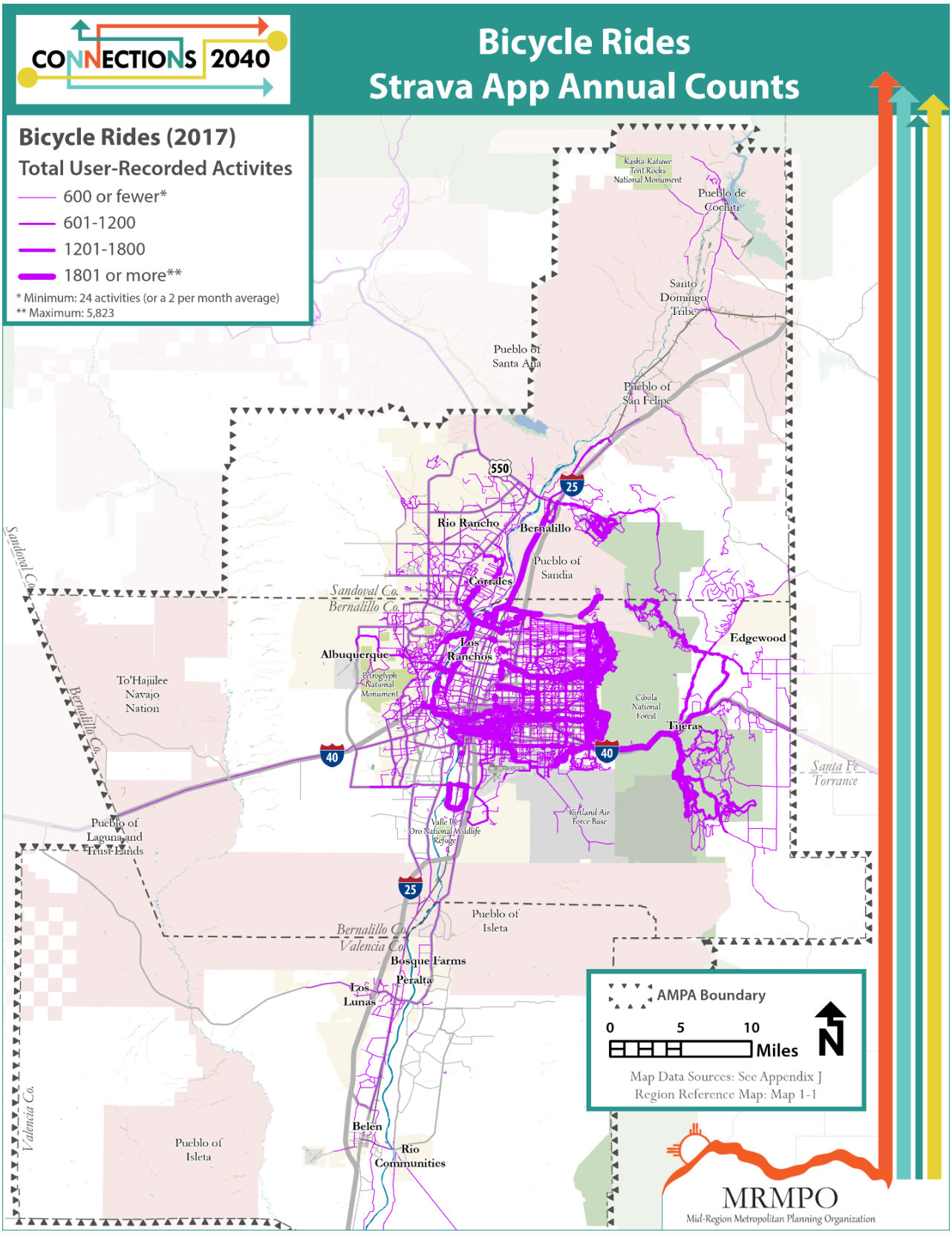
Each year, MRCOG partners with the City and other local entities to plan and carry out a Bike to Work Day (BTWD) event. BTWD occurs as part of a national campaign called National Bike Month. Albuquerque's event features about 13 to 15 cycle stops where riders can stop on their way to work to meet other bicycle commuters, receive free safety promotional materials, and take MRCOG's BTWD survey. The survey is conducted every year and was designed to examine public perceptions of Albuquerque's bicycle-friendliness and help create a more bicycle-friendly community. Highlights of a recent survey include:

- When planning a route to use, respondents prefer bicycle lanes and routes with fewer and slower cars.
- Over two-thirds of survey respondents reported that bicycling in the Albuquerque area was "getting better" because of improved and expanded bicycle infrastructure such as protected and buffered bike lanes, green "paint," bike boulevards, and flex posts.
- For the third year in a row, respondents who thought bicycling conditions were "staying the same" or "getting worse" felt that poor driver behavior (including aggressive behavior, inattentive driving, speeding, and running lights) was the cause.
- For the third year in a row, bicycling for exercise or recreation was the most common bicycle trip purpose.
- Just over half of respondents reported bicycling to work one to five or more times per week.

Map 5-2: Strava Metro Pedestrian Counts, 2017



Map 5-3: Strava Metro Bicycle Counts, 2017



b. Active Transportation Opportunities

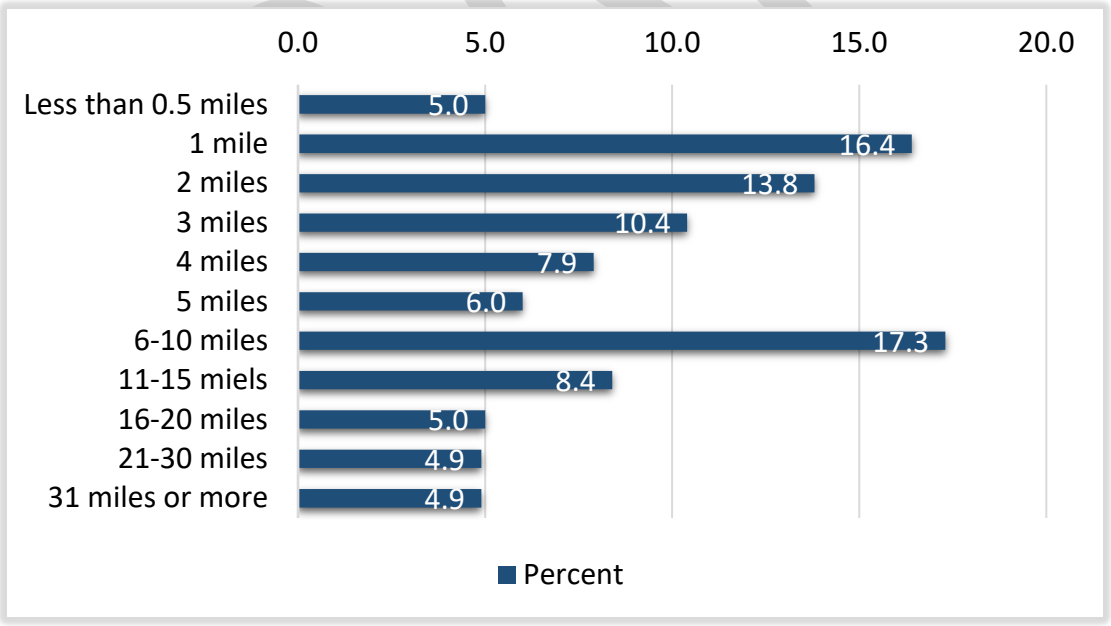
Taking Short Trips

There are indications that walking and bicycling could be a more common way to get around. Nineteen percent of driving trips are less than 2.5 miles, which is approximately a 15-minute bicycle ride. Eleven percent of driving trips are under a mile, which is approximately a 20-minute walk. In fact, according to the 2017 National Travel Survey *more than half* of vehicle trips are less than four miles. This is a substantial amount of trips. Shifting these short trips to walking or biking could have a major impact on our air quality, personal health, and overall quality of life.[2] Further supporting the possibility of shifting these trips is that, in the households participating in the Mid-Region Household Travel Survey, 56 percent reported having bicycles and 20 percent of households include someone who takes some form of walking or bicycle trip on a regular basis, indicating that biking as an activity (or intended activity) is widespread.

National Household Travel Survey

"Car trips of under a mile add up to about 10 billion miles per year. That's like the entire population of Chicago driving to Las Vegas and back! If we all chose to power half of these short trips with our feet instead of petroleum, assuming an average fuel economy of 22 mpg and an average fuel price of $2.50/gallon, we would save about $575 million in fuel costs and about 2 million metric tons of CO2 emissions per year. That's like taking about 400,000 cars off the road each year. The total financial savings are even bigger — almost $900 million dollars — when you include savings on maintenance and tire replacement."

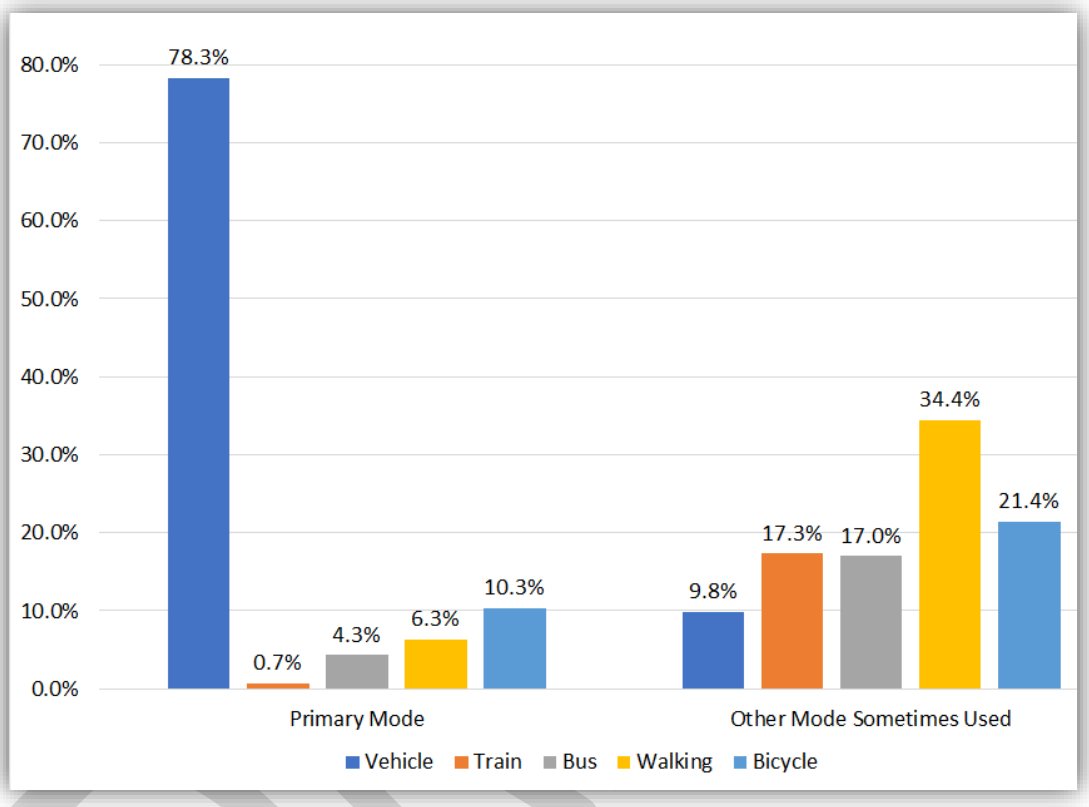
Figure 5-3: Share of US Vehice Trips by Distance, 2017



[2] Environmental Protection Agency 2015 article (EPA-420-F-15-021) published by the Office of Transportation and Air Quality

Additionally, the 2040 MTP Questionnaire[3] asked people about transportation besides their primary mode, and 34 percent indicated they walked and 21 percent bicycled. Combined with the number of short trips that people make by car, these results make a good case for the potential to replace some trips with walking and biking. Focusing on increasing the frequency of people choosing active modes is a realistic and needed strategy for the region.

Figure 5-4: What is your Primary Mode of Transportation? What other Modes do you Use?



Designing for Everyone

The design of cities and communities play a critical role in personal safety and impact the way that people engage with, move through, and experience their environment. Access to transportation options (driving, walking, biking, and transit) that are safe, convenient, and affordable can positively impact a person's everyday life. Historically, much of the planning and designing for bicycling (and pedestrians) has been for the "Strong and Fearless"[4] type of riders (see figure below) but is moving towards capturing more types of bicycle riders. The key to a well-functioning bicycle network rests in focusing on the "Interested but Concerned" riders.

[3] A report on the 2040 MTP Questionnaire results can be found on MRCOG's website: https://nm-mrcog.civicplus.com/DocumentCenter/View/3951/Connections-2040-Questionnaire-Report-PDF

[4] These bicyclist types were originally developed by Roger Geller at the City of Portland, OR but have been expanded and are now used nationally.

Figure 5-5: Four Types of Bicyclists from City of Fresno Active Transportation Plan

For pedestrians, there is a similar notion of designing for a broad age range – eight to 80 years old[5] – which is a comparable approach that realizes the immense impact that the design of the built environment has on our ability to travel by other modes other than the automobile.

> **A clear way forward to improving our transportation system is capturing short trips by improving the safety and comfort of walking and biking facilities in such a way that it supports the needs of more people of all ages and abilities. The benefits of doing so are far reaching from the cost of crashes economically and emotionally, to the quality of our air, and the improvement of our physical and psychological health.**

Gender Parity in Design Details

Men, women, and children encounter our built environment in different ways and have different design and safety needs. For women and children, design elements such as adequate street and sidewalk lighting, well-surveilled parking, and clear sight lines in public spaces may be important factors in how safe an area feels to walk or bike. These everyday design details come to light when reviewing data about men's and women's transportation use. Women walk fewer steps each day than men, largely because of personal safety.[6] They also bicycle less than men; women account for 29.1 percent of bicycle trips vs. 70.9 percent for men[7]. Several studies and research have identified a variety of reasons for this bicycling gap, including but not limited to a lack of safe bicycle infrastructure, social pressures, complex trip patterns (women are often responsible for domestic chores and shuttling others), and harassment. By ensuring gender and

Women as a Barometer of Safer Bicycling Conditions

Cities that invest in protected or separated bicycle infrastructure experience increases in female ridership. Minneapolis saw an increase in female ridership after investing in protected bicycling infrastructure. New York City also saw an increase in female ridership along corridors with protected bike lanes.[1] Protected or separated bicycling facilities not only provide a safer space for bicyclists, they also provide physical separation from vehicles and more protection from potential verbal harassment.

[5] From the 8 80 cities concept that if everything done in our cities works for an 8-year old and an 80-year old, it will work well for everyone. See (https://www.880cities.org/).
[6] Shadwell, Talia. (2017). Paying to stay safe: why women don't walk as much as men. The Guardian
[7] US Census Bureau, 2011-2015 American Community Survey 5-year estimates

age parity in walking, biking, and transit use as an explicit goal in transportation, particularly in the design of our streets and built environments, safety is improved for everyone (for sources in text box above see footnote below[8]).

c. Approaches to Changing Behavior

Design plays a critical role in whether a person is going to walk, bike, or take transit to daily desinations such as work, school, shopping, medical appointments, or recreation. In addition to design, other actions can help attract more people to walking and bicycling including education, encouragement, and enforcement.

Education and Outreach Impacts

With the availability and connectivity that smartphones offer, the opportunity for distracted driving increases, especially regarding texting and talking on the phone while driving. A focus on trying to discourage this driver behavior is paramount. Behavior campaigns are one way to educate people about using our public roadways and shift attitudes towards being aware of the rules of road for all people no matter how they are traveling along or across it. Additionally, an important facet of behavior campaigns is to focus on younger drivers to change future driver behavior for years to come.

Behaviors can be difficult to change and need to be done in concert with other tactics; however, there are numerous public health campaigns that have been successful in shifting behaviors. For example, we have seen substantial changes in seatbelt use and a significant reduction in the number of people smoking cigarettes despite their addictive qualities. Generally speaking, fewer people engage in drinking and driving and are well aware of the consequences.

Pedestrian, bicyclist, and driver behaviors can also change, and more people can learn the rules of the road for not just driving but bicycling and walking as well. **Driver education needs to be expanded to include ALL the rules of the road and must encourage everyone to look for one another.** Furthermore, our understanding and safe use of different types of facilities and streets such as roundabouts, bicycle boulevards, pedestrian crossing signals, and shared roads has evolved over the last 10 years as we see more of this type of infrastructure and will continue to do so if we put effort into this type of education and outreach.

Local Education and Outreach Efforts

There are a number of existing efforts underway in the region that encourage people to walk and bike more. Officially organized efforts such as the City of Albuquerque's annual Bike to Work Day event and bike rodeo program, the PACE bike share program, the Healthy Here's Initiative's wellness referral program, Prescription Trails, and Rio Metro advertising campaigns aim to encourage people to bicycle and take the bus or train for more trips.

There are also grassroots efforts that have been successful for the same purpose, including Slow Roll 505 and the ABQ CiQlovía. Encouragement efforts that are successful in other regions may have potential here including Walk and Ride to School programs and strong participation from the private sector in Travel Demand Management efforts.

[8] Baker, Linda. (2009). Getting more bicyclists on the road. The Scientific American; Reeves, H. (2012). "Spokes & soles // As infrastructure improves, more Twin Cities women bike," Southwest Journal, 11 June 2012; Teferra, Roha. 2011. Protected bike lanes means more female ridership; Clabots, Barbara. (2016). Even in the most bike-friendly states, women are left behind. Yes Magazine.

The City of Albuquerque's Bicycle/Pedestrian Safety Education Program (BSE), which receives funding through MRMPO, provides educational activities that support safe biking and walking. Their Bicycle Safety Education Classes are a national model. These classes have a strong focus on teaching children in Albuquerque Public Schools about bicycle safety, and they provide "bike rodeos" that are a hands-on obstacle course for kids to help learn the rules of bicycling.

Figure 5-6: ABQ CiQlovía, 2018

Focused Traffic Enforcement

Road safety campaigns or public service announcements (PSAs) are most successful when used in coordination with legislation and law enforcement. Road safety campaigns working toward increasing seat belt use and decreasing drunk driving, such as "Click it or Ticket" and NMDOT's "ENDWI" have been effective, in part, because they were tied to targeted law enforcement campaigns. Other high-profile campaigns that have had an impact in our region include Look for Me, Superblitz, and 100 Days & Nights of Summer traffic safety. Enforcement efforts should target the most dangerous driving behaviors to reduce fatalities and serious injuries and could also include an informational element – officers can be part of spreading messages about safety – such as when pedestrians have the right-of-way or how high-speed crashes are more likely to result in death.

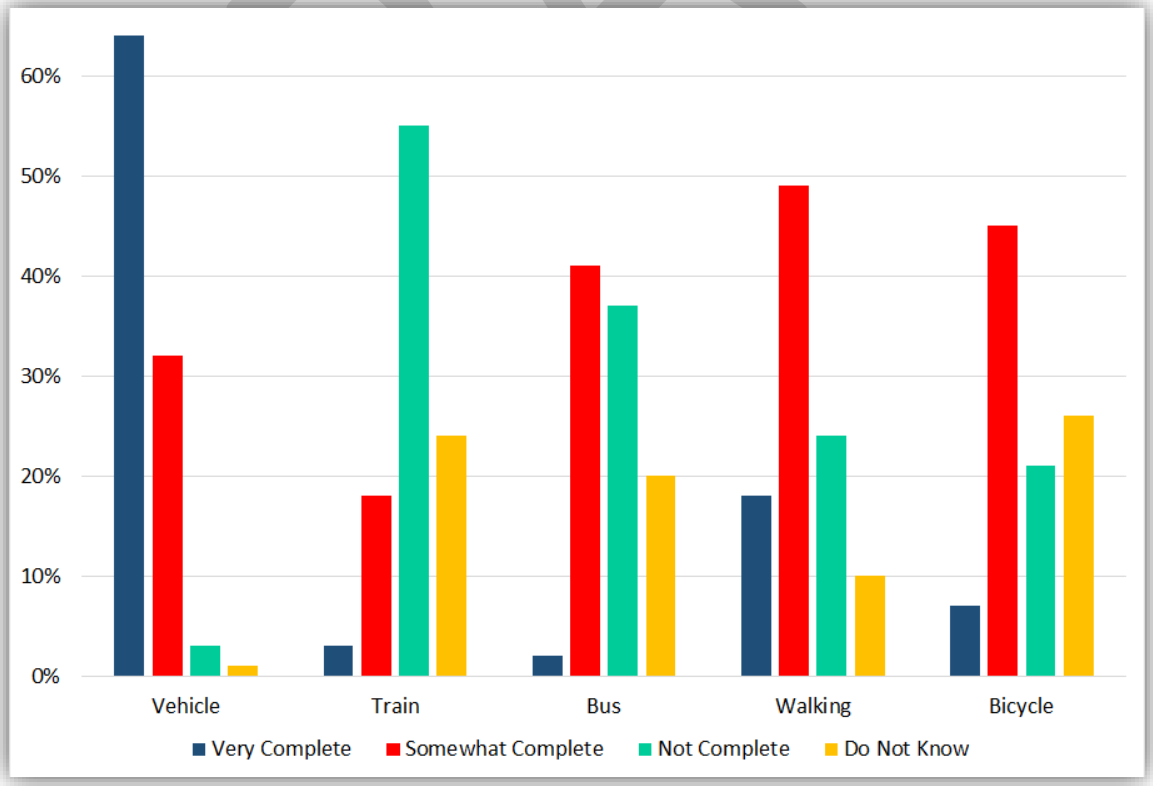
Because our police force does not have the capacity to be everywhere all the time, a data driven approach enables law enforcement to target key issue areas and employ intelligent transportation system options in places where law enforcement cannot be. With new technologies and focused enforcement efforts, the job of making sure we are all traveling safely is improved. **Certain types of interventions are far more effective than others and understanding what the data is telling us to focus our efforts on can make a world of difference in the safety of our roadways.** This requires not only continued coordination with law enforcement, but also continued evolution of data collection to better inform safety needs and solutions.

Figure 5-7: NMDOT Look For Me Campaign

d. Closing Network Gaps

According to the *Connections 2040 MTP* Questionnaire, a low number of respondents reported they felt the walking and bicycle networks to be 'very complete' at 18 and seven percent, respectively. The region includes many physical barriers for walking and bicycling routes, particularly with the river and the interstate system, and the public has consistently requested addressing gaps that exist in the bikeway network through comments, questionnaire responses, and at outreach events.

Figure 5-8: How Complete do you Consider the Transportation Networks?



In recent years some progress has been made in this regard with the construction of pedestrian and bicycle grade-separated crossings. The importance of closing gaps is reflected in the Project Prioritization Process. For instance, where a project makes a connection between two existing links of the bikeway and trail network, that project recieves more priority points than a project that only extends the network. Closing gaps in the bicycle and pedestrian networks provides better access to jobs, services, and other destinations such as schools, grocery stores, and recreation. Importantly, it also provides more encouragement for people to bike and walk.

Gaps identified through various outreach efforts in the MTP development include crossing I-25, especially at Paseo del Norte and Alameda, I-40 in downtown Albuquerque, Isleta Drain Trail, the eastern end of Sunport Boulevard, and along NM 6 in Valencial County. There are also simple connections that can be made by providing bike and walking paths through the end of a cul-de-sac head street.

Measuring the Effectiveness of Connectivity

Through the use of MRMPO's in-house Transportation Accessibility Model (TRAM) tool, MRMPO can measure by mode, including biking or walking, how well a new connection can improve accessibility in the case of an existing gap in a network. For example, perhaps bicyclists or walkers find it difficult to cross a busy road. TRAM analyses can show how a new planned crossing would benefit the surrounding community by calculating how many people would be served and how many jobs would be accessible if the crossing existed (using Census and Info USA data). As shown in the graphic and table below, connecting Sunport Boulevard over I-25 would greatly improve bicycle accessibility and access to services to the surrounding area.

Figure 5-9: Bicycle Accessible Areas with the Sunport Extension

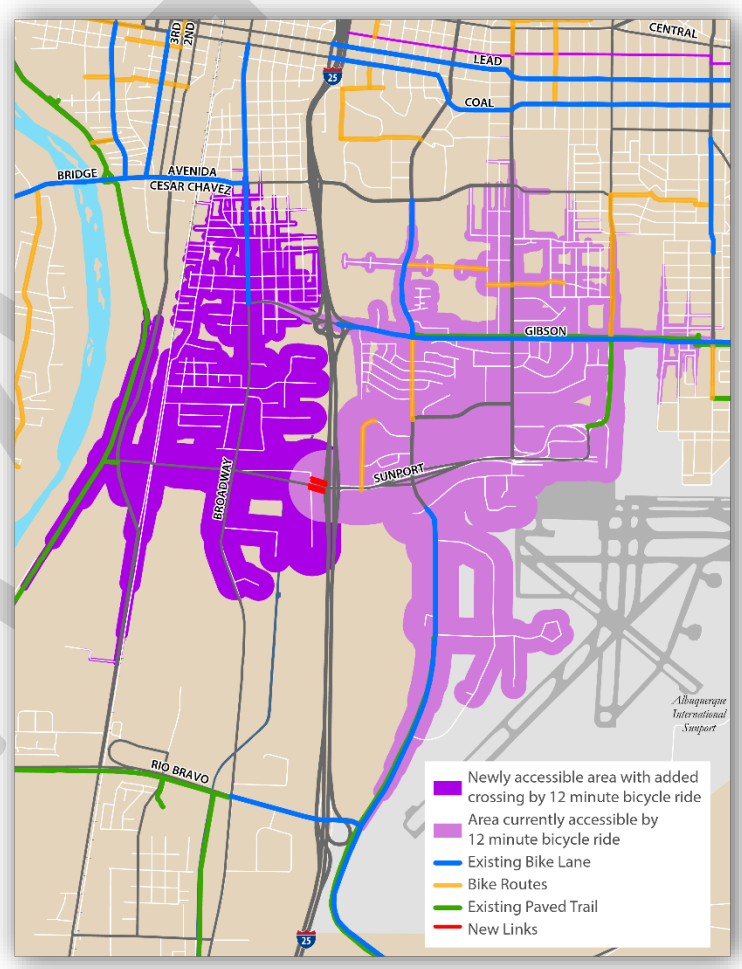


Table 5-1: Improved Bicycle Accessibility with Sunport Boulevard Crossing Over I-25

	2016 Population	2016 Households	2016 Jobs
Sunport without Connection	7,441	3,080	11,647
Sunport with Connection	11,479	4,325	13,488
Difference	54%	40%	16%
% Change	70%	38%	68%

5.2 The Future of Active Transportation

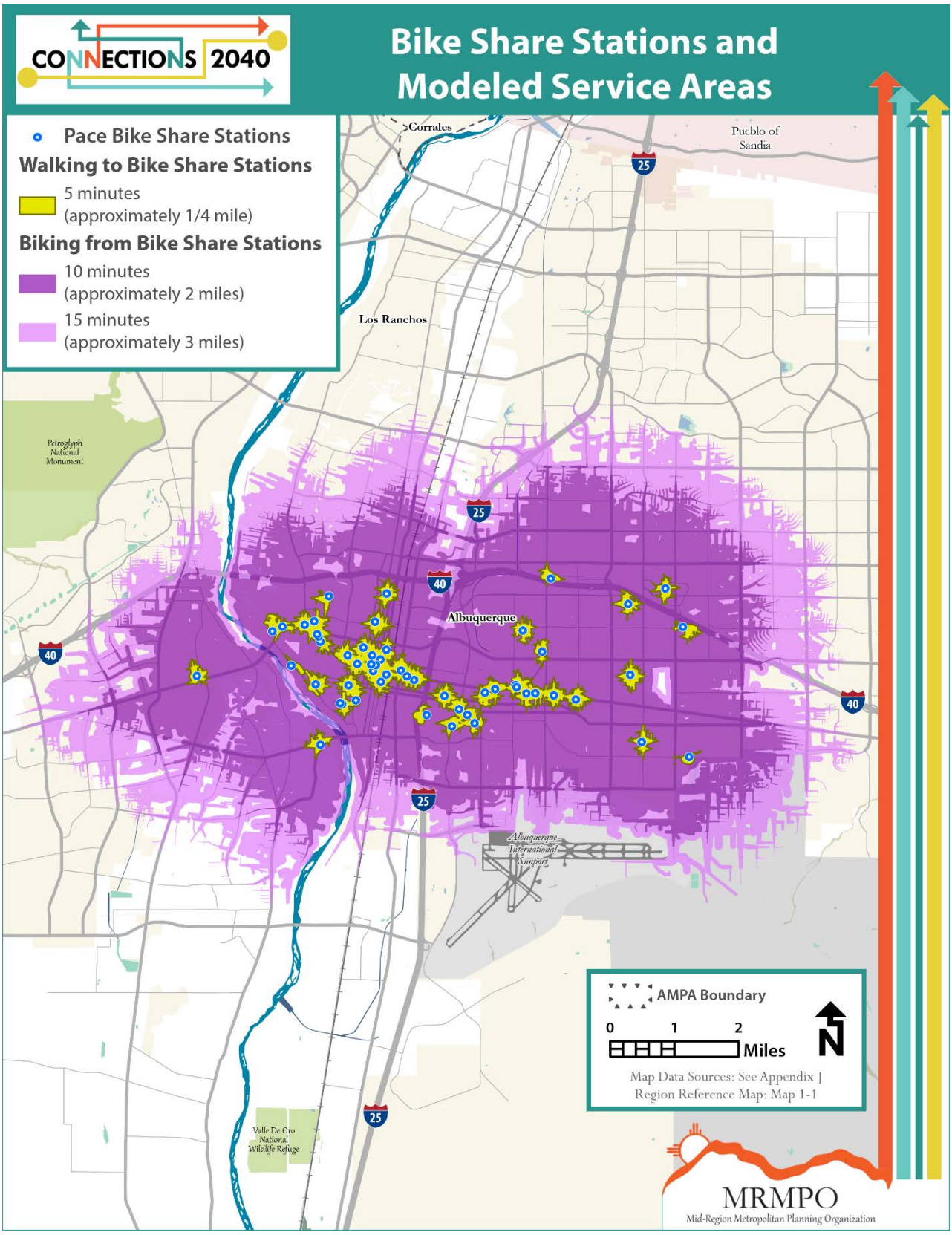
Over the last 10 years, there has a been a reframing in approaches to bicycle infrastructure and ensuring the built enviornment is designed better for the most vulnerable users of our roadways – people of all ages and abilities whom are walking. Improving the safety and comfort for people walking and biking in turn improves safety for everyone using our roadways. Also to this end, activity centers in the Target Scenario focus on providing higher residential and employment densities in key locations to support more walkable places. Being able to complete trips by walking within these centers is an essential element in providing overall regional mobility and access. For bicycling, more consideration has been given to female riders and creating bicycle facilities with a higher level of comfort, or less stress. As a result, more riders at a variety of ages and riding levels can be supported and the latent demand for bicycle riding fullfilled. Since most transit trips begin or end with a walk or bicycle ride, more multimodal enhancements help transit access as well.

Improving Access with Bike Share

Bike share is an element of the transportation system that consists of a network of stations where bikes are publicly available for short-term rental through several different fare options. Bike share trips are typically short distances and for a brief amount of time. This type of infrastructure and access to bikes can have a considerable impact on improving the transportation system for more active transportation modes. Bike share programs not only provides access to bikes for travel, but also supports more places for parking bikes (which can also be a barrier to biking in the first place) which should be a part of our planning processes just as we provide parking for drivers.

The Downtown ABQ Main Street Initiative and MRCOG partnered to plan and implement a pilot bike share program in downtown Albuquerque, which launched on May 15, 2015, with 75 bikes and 15 stations. This pilot program had over 10,000 trips taken by over 2,400 people. The pilot program also investigated the feasibility of a larger, more regional bike share system. Starting in May 2016, the program moved under the management of the Rio Metro Regional Transit District (RMRTD) to expand and grow the program beyond downtown. In April 2018, Pace ABQ launched with 200 bikes and 30 stations. In June 2018, an additional 50 bikes and 10 stations were added to the system. As Rio Metro receives approval for public or private station locations, they are added in to the network. Rio Metro selected Zagster's Pace bike share program through a competitive request for proposals process. Pace is a hybrid approach to bike share. The system consists of designated stations where riders can reliabily and predicably check in or out bikes, but riders can also begin or end rides at any public bike rack. Pace bikes feature a unique locking system to enable the bike to be locked to other racks. Rio Metro secured additional Transportation Alternative Program (TAP) federal funding to do an additional expansion of the system in 2019. The 2019 expansion included 250 additional bikes and 57 additional stations that were rolled out in waves throughout the year.

Map 5-4: Bike Share Stations and Distance Contours



Long Range Bikeway System (LRBS)

Creating connected and premium networks of bicycling facilities can make bicycling a safer, more convenient, and more attractive option. Examples of bicycle facilities that can increase comfort, safety, and potentially lead to more bicycle ridership include infrastructure separated from motor vehicles (such as bike paths), protected bike lanes, and bicycle boulevards. The LRBS provides an aspirational view of how people in the region would like the bikeway network to develop over time and is not limited to the 20-year horizon or funding limitations of the MTP project list.

For this 2040 MTP, MRMPO's Active Transportation Committee (newly formed) updated the Long Range Bikeway System (LRBS). The LRBS provides high-level guidance about providing future facilities and is based on the National Association for City Transportation Officials (NACTO) guide for "Designing for All Ages and Abilities." As a result, there is now a greater focus in the latest LRBS on creating more protected bikeway facilities that serve the "Interested but Concerned" riders discussed earlier. For more details on the guidance that MRMPO is prosposing, the Long Range Transportation Systems guide was also updated as a part of this MTP. Ultimately, local governments will determine what type of facility to provide and are encouraged to implement a more premium option to get us closer to an all ages and abilities network that will support more people who want to ride, but are afraid to do so.

Bicycle Facility Guidance

The LRBS does not provide prescriptive design guidance about specific treatments, but rather indicates what kinds of facilities might best serve a wider variety of people. For example, if the LRBS indicates that a protected bike lane is proposed for a given roadway, it is providing guidance on the best and highest use. Unfortunately, this type of facility may not fit within the Right of Way limits or may not be appropriate for other reasons and therefore may not be implemented. Also, the LRBS does not determine what type of bike facility should be built, but rather provides sound guidance based on current traffic counts, speed, and the type of roadway.

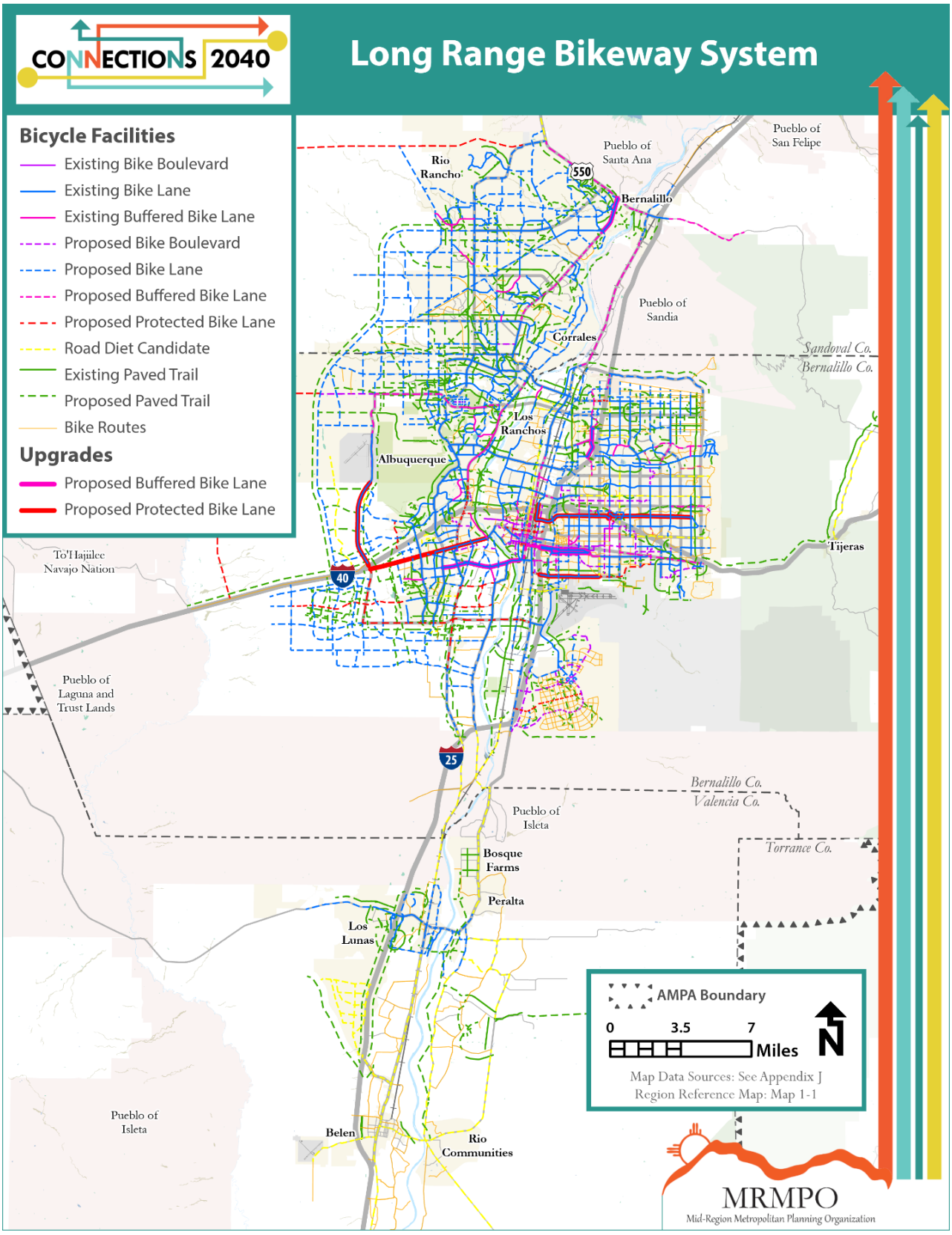
Table 5-2: MRMPO Recommended Bicycle Guidelines based on Roadway Attributes

Motor Vehicle Speed	Max Motor Vehicle Volume (ADT)	Key Operational Considerations	Bicycle Facility Proposed
Less than or equal to 25 mph	Less than 6,000	Low Curbside Activity*	Buffered Bicycle Lane, Bicycle Lane, Bicycle Boulevard
Greather than 25 mph	6,000 to 10,000	Low Curbside Activity	Protected Bicycle Lane, Buffered Bicycle Lane, Bicycle Lane
	10,000 or Greater	Low Curbside Activity	Protected Bicycle Lane, Buffered Bicycle Lane
High speed limited access roadways, natural corridors, or geographic edge conditions with limited conflicts	Not Applicable	High Pedestrian Volumes	Bike Path with Separate Walkway or Protected Bicycle Lane
		Low Pedestrian Volumes	Shared Use Path or Protected Bicycle Lane

*High Curbside Activity such as frequent buses, high vehicular congestion, or turning conflicts should first consider a Protected Bicycle Lane

To the degree most possibile, roadways in the LRBS used this guidance for the update of the proposed bicycle routes along with local knowledge of the roadway's function and characteristics.

Map 5-5: Long Range Bikeway System (LRBS)



Long Range Pedestrian Facilities

Priorities for improving the pedestrian network and pedestrian facilities in the AMPA must focus on developing walkable centers and safer conditions for pedestrians walking along and across streets. Focusing on areas such as activity centers, schools, parks, transit stops, and areas with high crash rates will help target locations that could benefit most from improvements to the safety and comfort of pedestrian infrastructure. The Pedestrian Composite Index (PCI), described below, is a tool that can be used to inform pedestrian improvements. Because of the high pedestrian fatality rates in this region, it is imperative that we work on bringing different methods, data, partners, and approaches together (in an equitably- minded way) to ensure the pedestrian network—and pedestrian safety—improves over time.

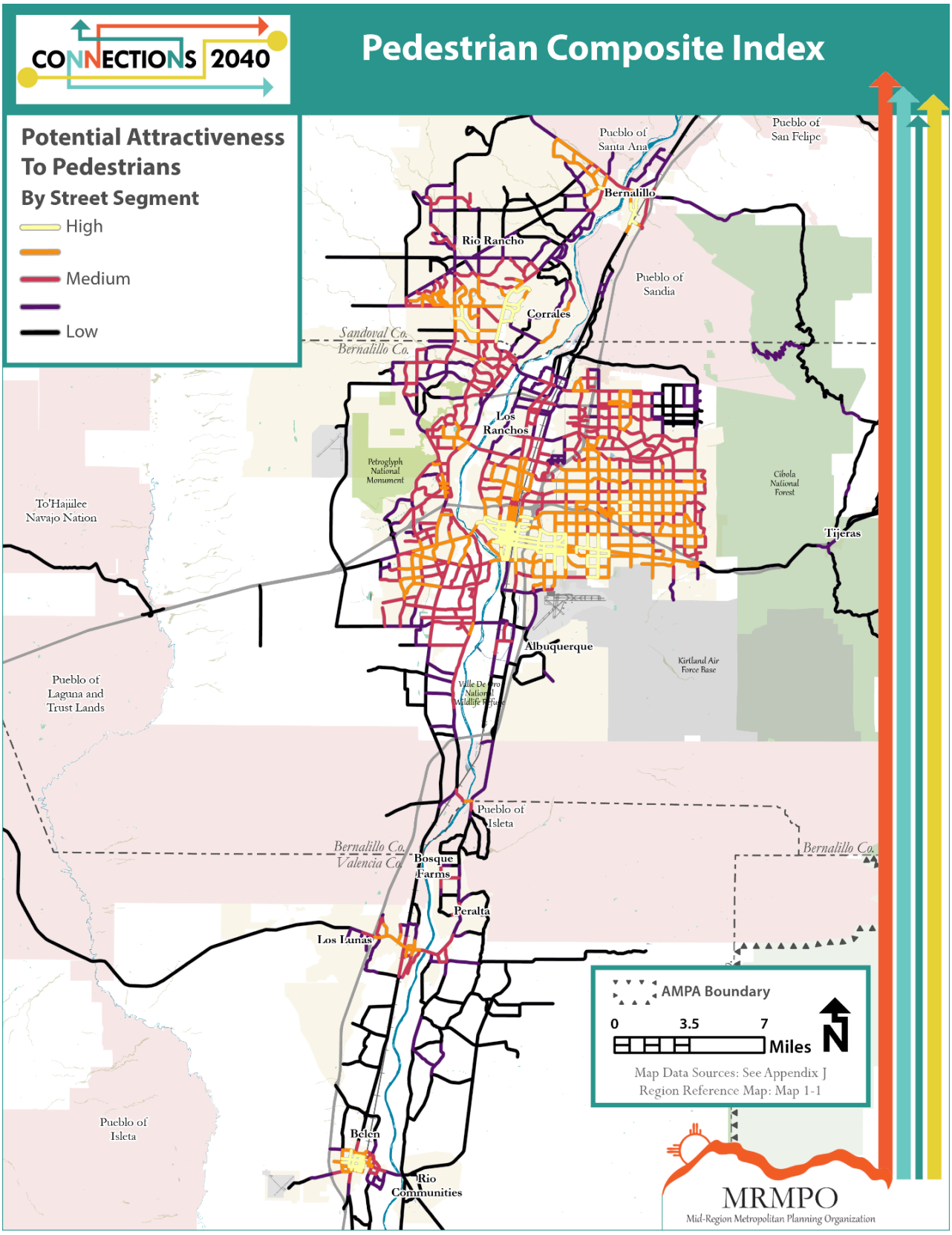
MRMPO updates and maintains the Pedestrian Composite Index (PCI). The PCI previously used regional data to compare features that deter pedestrian travel (crashes, speeds, volume, number of lanes) and features that generate pedestrian activity (transit, schools, retail densities, residential densities). This Index has evolved over the years and currently focuses on roadways with high generator scores instead of both deterrents and generators. This was done because MRMPO has subsequently developed other regional tools such as the High Fatal and Injury Network (HFIN) and Road Diet analyses, which already highlight areas with deterrent features.

The PCI tool helps compare roadways in the region and provides a wide variety of pedestrian related data for segments of roadways to help show where pedestrian improvements could be most beneficial. However, it does not provide details, such as the presence and width of sidewalks, which are necessary to calculate pedestrian level of service. Nor does it provide information on future demand for walking. Currently, MRMPO does not have access to sidewalk conditions or a substaintial pedestrian traffic count database, but as local jurisdictions gather this data, MRMPO will be able to expand this assessment to include sidewalk condition and width.

Table 5-3: Inputs to Pedestrian Composite Index

Pedestrian Generator Data
• Proximity to schools, bus stops, parks, community centers • Proximity to higher density areas of jobs and housing • Proximity to higher roadway connectivity • Percent of population 16 years+ who walk or take transit to work (latest ACS data) • Percent of households with 0 vehicles or fewer vehicles than workers (latest ACS data)

Map 5-6: Pedestrian Composite Index (PCI)



5.3 Roadway Safety Priorities

a. Safety Concerns and Crash Statistics

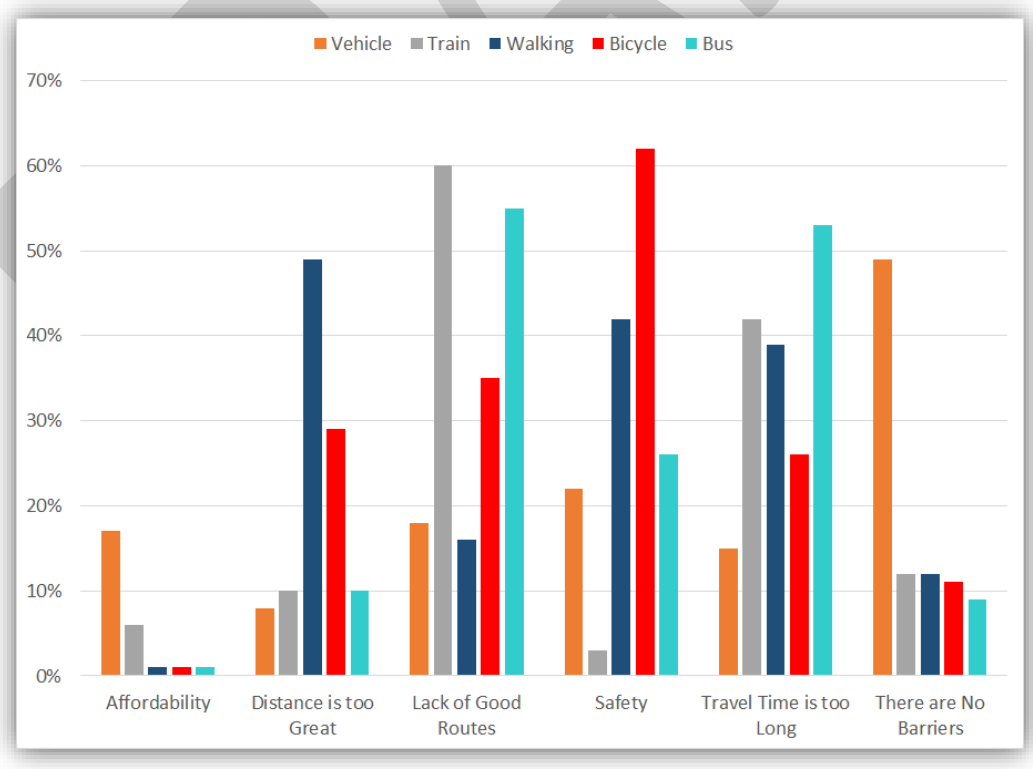
For active transportation to be a viable way to travel in our region much needs to be done to improve the safety for pedestrians and bicyclists. Overall, the data indicate that walking in New Mexico is much less safe than in other states[9]. New Mexico and the City of Albuquerque frequenty rank as one of the highest states and cities for pedestrian fatalities per capita and bicyclist fatalites[10] consistently rank in the top 10 compared to other states.

The MTP Public Questionnaire asked peoples' opinions about their most common transportation concern. Safety from traffic was reported as the most common concern for bicyclists. Open-ended responses also revealed that discontinous bicycle facilties are a large concern. For walking, the most common issue is that distances are too far and people have safety concerns related to traffic and sidewalk conditions.

Compared to National Crash Statistics

Compared to the national average of 16 percent pedestrian fatalities in New Mexico comprise 19.5 percent of the total crashes, and the pedestrian fatality rate per 100,000 residents is continually one of the highest in the nation[1]. Nationally, bicycle fatalities comprise on average about 2.28 percent of all motor vehicle crash deaths, according to 2016 data. Although the proportion of bicycle fatalities in New Mexico was below the national average at one percent, the bicycle fatality rate per 100,000 residents has exceeded the national bicycle fatality rate in the past three years (see footnotes for sources).

Figure 5-10: Top Reported Issues for All Transportation Modes, *2040 MTP* Questionnaire



[9] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812681
[10] https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812507

Pedestrian and Bicycle Crash Data Overview

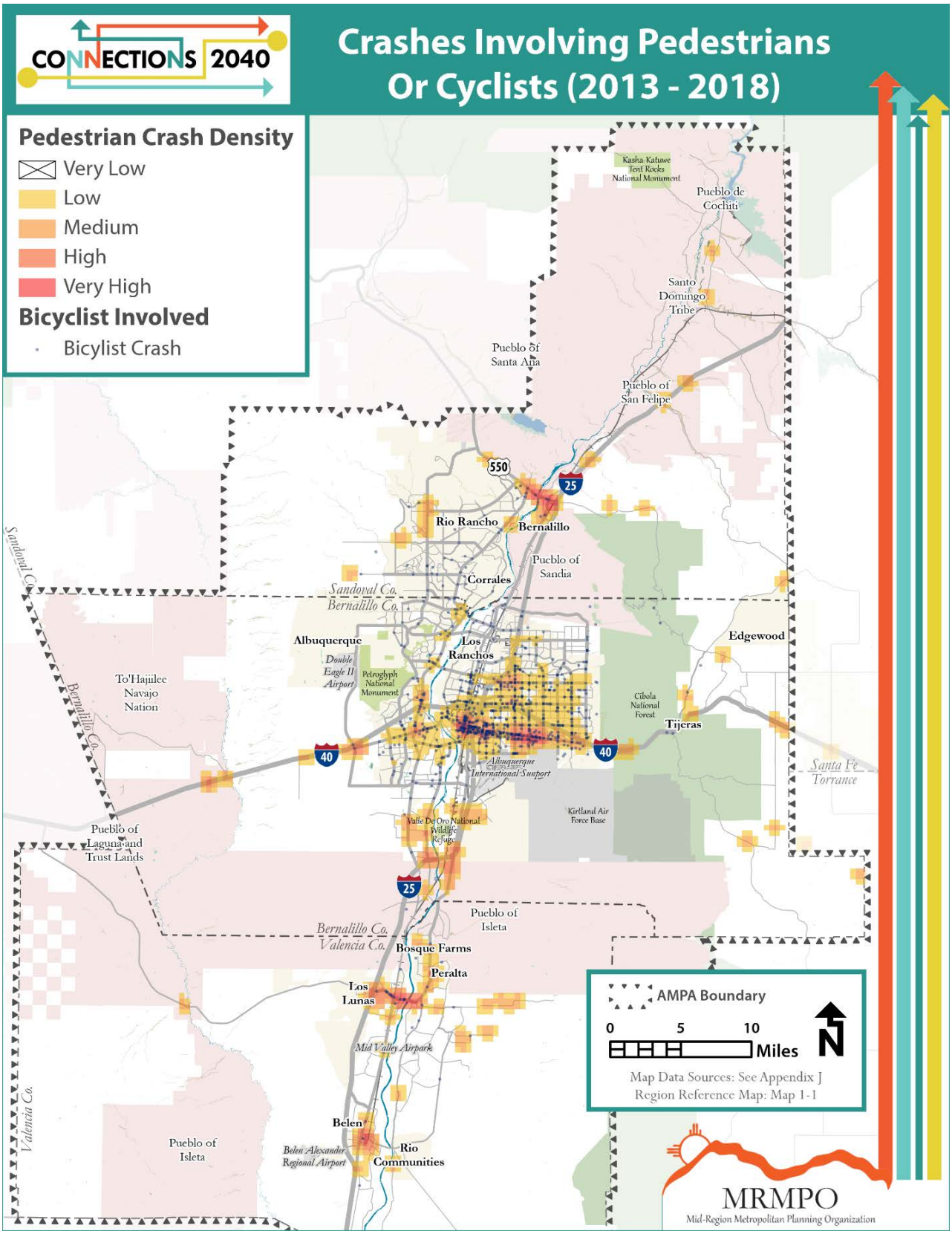
In our region, a total of 147 fatal and 1,325 injury crashes involving pedestrians occurred between 2013 and 2017. This is a substantial increase from previous five-year sets. Even more concerning is that the percentage of fatal crashes involving pedestrians has increased by 72 percent since 2013. In fact, crashes involving pedestrians account for only one percent of all crashes, but when you look at fatal crashes, 30 percent involved a pedestrian**. Of the pedestrian involved crashes with fatal outcomes 27 percent are in dark conditions and the majority (98 percent) are vehicles going straight and hitting a pedestrian crossing the road.** For bicyclists, there were 966 motor crashes involving bicycles from 2013 to 2017 in our region. Crashes involving bicycles accounted for one percent of all crashes but accounted for four percent of fatal crashes. **Of the 10 fatal crashes, seven occurred on a facility without bike infrastructure.** The following map shows the density of pedestrian crash data over this five-year period and plots bicycle involved crashes. This map gives a general idea of the problem locations in our region and was developed by isolating urban versus rural crash data so that the metro area did not overpower the results of the rural areas. [11]

Table 5-4: AMPA Pedestrian and Bicycle Crash Severity

Bicycle Crash Severity	Count
Fatal Crash	10 (2% of fatal crashes)
Injury Crash	805 (2.5% of injury crashes)
Property Damage	151 (0.002% of property damage crashes)
Pedestrian Crash Severity	**Count**
Fatal Crash	147 (30% of fatal crashes)
Injury Crash	1,325 (4% of injury crashes)
Property Damage	129 (0.002% of property damage crashes)

[11] MRMPO staff has also developed a safety map using fatal and injury crashes per mile and per intersection volumes, called the High Fatal and Injury Network (HFIN) that is shown in this chapter's discussion of the RTSAP.

Map 5-7: Crashes Involving Pedestrians or Cyclists



Implementing Road Diets to Increase Safety

A road diet is essentially a reallocation of roadway space that aims to reduce dangerous speeding and improve infrastructure for vulnerable road users, such as pedestrians, people with disabilities, and bicyclists. The most common type of road diet reconfigures an undivided four-lane roadway into a three-lane roadway, with one travel lane in each direction and a two-way left turn lane in the center. This reconfiguration decreases conflict points (opportunities for crashes) and creates space for bicycle lanes or parking spaces in each direction of travel. The bike or parking lane also provides pedestrians with a traffic buffer, increasing their comfort on the sidewalk. According to the USDOT, road diets can reduce traffic crashes to a very large degree:

- In small urban areas with populations around 17,000 and roadways with up to 12,000 trips (daily volume), crashes dropped about 47 percent after a road diet was implemented.
- In larger metropolitan areas with populations around 269,000 and roadways with up to 24,000 trips (daily volume), the crash reduction was roughly 19 percent.

The combined estimate from all the best studies predicts that crashes will decline an average of 29 percent after a four-to-three-lane road diet. Because road diets are a low-cost and proven safety countermeasure, MRMPO identified potential road diet candidates in the AMPA and integrated those into the Long Range Bicycle System map. The analysis is found in the *RTSAP*[12]. The City of Albuquerque has implemented several successful road diets, including along segments of Central Avenue, Zuni Road, San Pedro Drive, and Rio Grande Boulevard.

b. Vision Zero and Preventing Crashes

Vision Zero is a commitment to create safer streets for all of us, whether we are walking, biking, driving, or taking transit, and regardless of our age or ability. Vision Zero policy is an integral part of the *RTSAP* and many of the strategies listed in the *RTSAP* are related to a changing paradigm in how we address dangerous crashes. For decades, there has been an implicit assumption that an inevitable amount of death and injury is acceptable on our public roadways[13]. However, these traffic collisions are not ***accidents***; they are preventable ***crashes***. Vision Zero is a systematic approach for preventing fatalities and serious injuries.

Figure 5-11: Traditional Safety Approach versus Vision Zero

Source: https://visionzeronetwork.org/wp-content/uploads/2017/10/Why-VZ-is-Different-1024x444.jpg

[12] https://www.mrcog-nm.gov/255/Safety-Analysis.
[13] Morris, 2016.

Vision Zero is used around the world to eliminate traffic fatalities and serious injuries while increasing safe, healthy, equitable mobility for all. Sweden first implemented the Vision Zero concept in 1994 and reduced its traffic fatalities by half since 2000[14]. Such a radical vision for safety was not adopted without resistance from political economists and experts in the transportation sector. Most did not believe zero fatalities were achievable and that fatalities were just a consequence of transporting people. However, the success of Vision Zero programs around the world and in the United States show that fatal and injury crashes can be reduced significantly. Since its conception, countries (Sweden, the Netherlands, the United Kingdom, Norway, and more), state DOTs (Rhode Island, Virginia, Michigan, Minnesota, and Pennsylvania), and cities (Boston, New York City, San Francisco, Seattle) have adopted the goal of zero fatalities.

Vision Zero City of Albuquerque

In May 2019, Mayor Keller signed an Executive Order committing the City of Albuquerque to work toward the goal of zero traffic deaths by 2040. The City will start by developing a Vision Zero Action Plan guided by Equity, Education and Encouragment, Engineering, and Enforcement. The City of Albuquerque will work toward zero traffic fatalities, paying particular attention to vulnerable roadway users such as pedestrians, bicyclists, and people with disabilities.

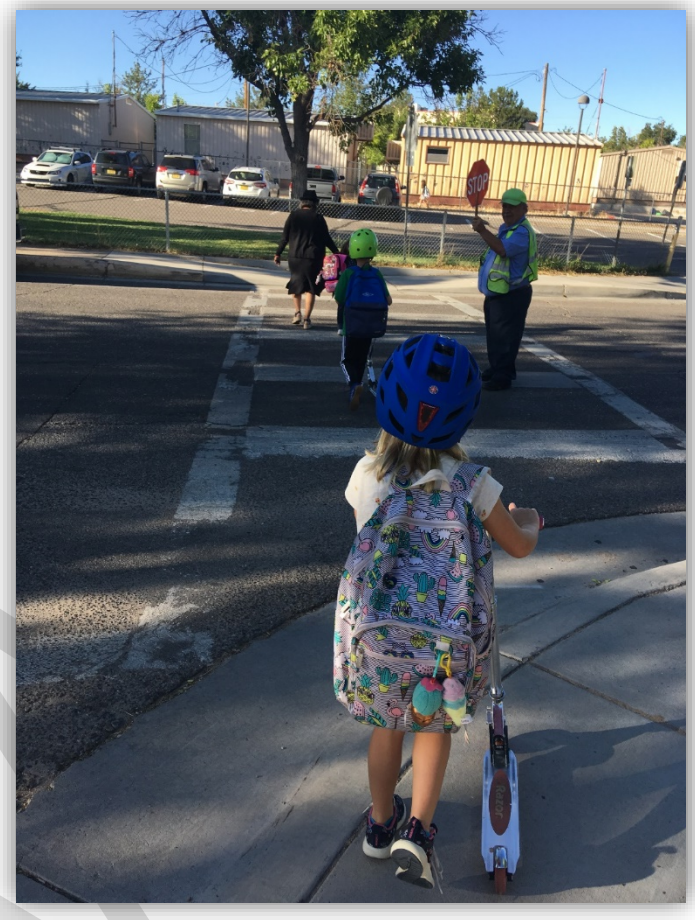
Figure 5-12: City of Albuquerque's Vision Zero Goals

[14] *Economist*, 2014.

APS Vision Zero for Youth Initiative

As children are among the most vulnerable users of the transportation system, it is critically important to address their access to active transportation as well as their safety while traveling. APS is in the process of planning for a district-wide Vision Zero for Youth initiative to be implemented in all schools (elementary, K-8, middle, and high schools). The initiative will involve both pedestrian and bicyclist safety curriculum and a public awareness campaign directed at drivers. APS aims to fill an important gap by teaching students how to navigate pedestrian and bicycle infrastructure. The awareness campaign component of this initiative will aim to increase safety awareness to drivers and reduce speeds near schools (during and outside of school hours).

Figure 5-13: Children Scooting to School in Albuquerque



5.4 Public Health Connections

In the early 20th century, the emerging field of urban planning sought to address public health through land use zoning that separated harmful uses (such as industrial factories) from residential uses. Later in the century, urban planning and public health diverged into separate fields as planning became more concerned with design. Today, the fields of planning and public health are increasingly converging to address significant public health challenges related to the built environment, as the connection between the modern built environment and public health outcomes are becoming better understood and documented through research and studies. MRMPO recognizes the importance of the convergence of the public health and planning fields at the national and local levels and that the formation of partnerships will be key in addressing significant health challenges. It is now understood that transportation issues are not merely connected to pressing health concerns, but that transportation planning will be a key strategy in addressing these concerns in their totality.

a. Physical Activity and Health Conditions

Currently in New Mexico, only 52.2 percent of adults and 26.3 percent of youth are meeting aerobic exercise guidelines (150 minutes a week), and more than a quarter of adults are getting "little to no leisure time physical activity."[15] Encouraging walking and biking is a crucial ingredient for a healthy community. There is substantial evidence that sedentary lifestyles negatively impact mental and physical health, and it is a widely accepted fact that physical activity positively affects health. Since many trips happen within walking or cycling distance from a trip's origin, providing safe and inviting conditions to encourage the use of active modes for these trips is an important strategy for improving a community's health. An indicator of lack of physical activity includes rising obesity rates. To that end, many have named obesity a national epidemic. In 2002, a study estimated that obesity was responsible for over nine percent of total health care spending in the United States.[16] By and large New Mexico has followed the national trend of a dramatic rise in obesity rates. The state's 2010 adult obesity rate was 25.6 percent, more than double the rate in 1990.[17] While a recent report found that obesity rates are beginning to stabilize in New Mexico, there is still much more that needs to be done to bring the rates down to acceptable levels.[18]

Not only is obesity a concern but related diseases such as heart disease and high blood pressure are important to address. In the United States and in New Mexico, heart disease is the leading cause of death. It has been estimated that obesity and its related health problems rival tobacco use in negative health impacts.[19]

[15] New Mexico Department of Health, Public Relations. "Half of New Mexico adults meeting aerobic exercise guidelines," *Healthy Living.* 2014

[16] Finkelstein, E. A., Fiebelkorn, I. C., Wang G. "National medical spending attributable to overweight and obesity: how much, and who's paying?" *Health Affairs Web Exclusive*. 2003

[17] New Mexico Department of Health, Chronic Disease Prevention and Control Bureau, "Complete indicator profile of obesity: adult prevalence," 2013

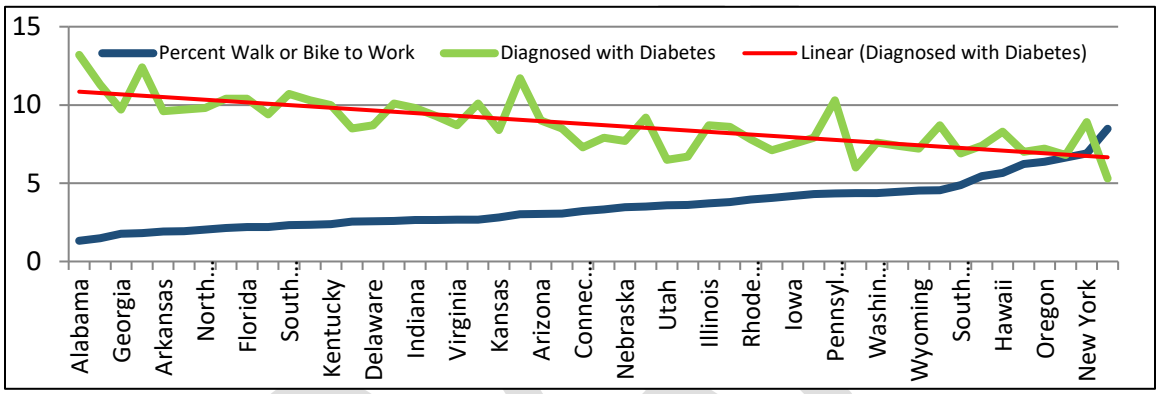
[18] New Mexico Department of Health, Public Relations, "Exercise shouldn't be a chore." *Healthy Living,* 2014

[19] Simcoe Muskoka District Health Unit, "The Impact of the Built Environment on the Health of the Population: A Review of the Review Literature," 2007

Tackling Inactivity with Active Transportation

A moderate amount of physical activity is associated with a reduction in mortality, depression, and reduced frequency of dementia. These issues are relevant to transportation and land use planners because a person can meet their daily physical activity needs by using active modes of transportation such as bicycling, walking, and even taking transit.[20] [21] One study found that **"each additional hour spent in a car per day was associated with a 6 percent increase in the likelihood of obesity,"** and that the inverse is true for public transit users due to the fact that transit users walk to and from transit stops.[22] The inverse relationship between the percentage of workers who commute by biking or walking and the percentage of people diagnosed with diabetes is shown below. There are other benefits too; in particular, switching from driving to more active modes can measurably reduce emissions and improve air quality.[23]

Figure 5-14: Percentage of People Diagnosed with Diabetes and Workers who Bicycle or Walk to Work



Source: CDC BRFSS, 2011

Connected Street Networks

An active transportation system is more than sidewalks, bike lanes, and transit services; it is also influenced by the layout and design of the broader roadway networks, which alone can have significant impacts on health outcomes. One study found that "more compact and connected street networks with fewer lanes on the major roads are correlated with reduced rates of obesity, diabetes, high blood pressure, and heart disease among residents," even when controlling for food environment, land uses, commuting time, socio-economic status, and street design.[24]

[20] Killingsworth, R., De Nazelle, A., & Bell, "Building a new paradigm, improving public health through transportation," *ITE Journal-Institute of Transportation Engineers*

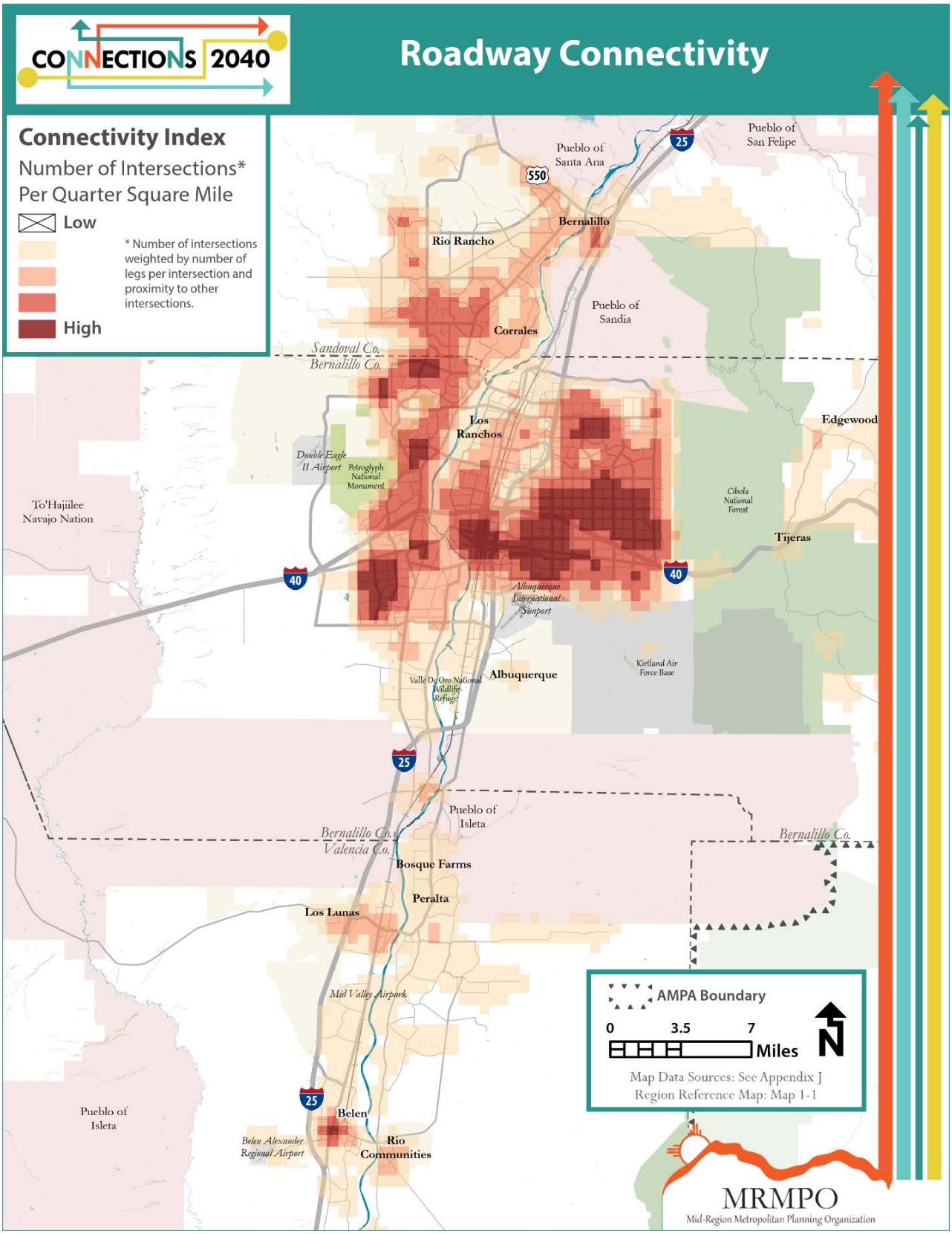
[21] Dill, J., "Bicycling for Transportation and Health: The Role of Infrastructure." *Journal of Public Health Policy*, 2009

[22] Frank, L. D., & Kavage, S., "Urban planning and public health: a story of separation and reconnection." *Journal of Public Health Management and Practice*, 2008, p. 214

[23] Litman, T., "Transportation and Public Health." *Annual Review of Public Health*, 2013

[24] Marshall, W. E., Piatkowski, D. P., & Garrick, N.W., "Community design, street networks, and public health." *Journal of Transport & Health*, 2014

Map 5-8: Connectivity Index

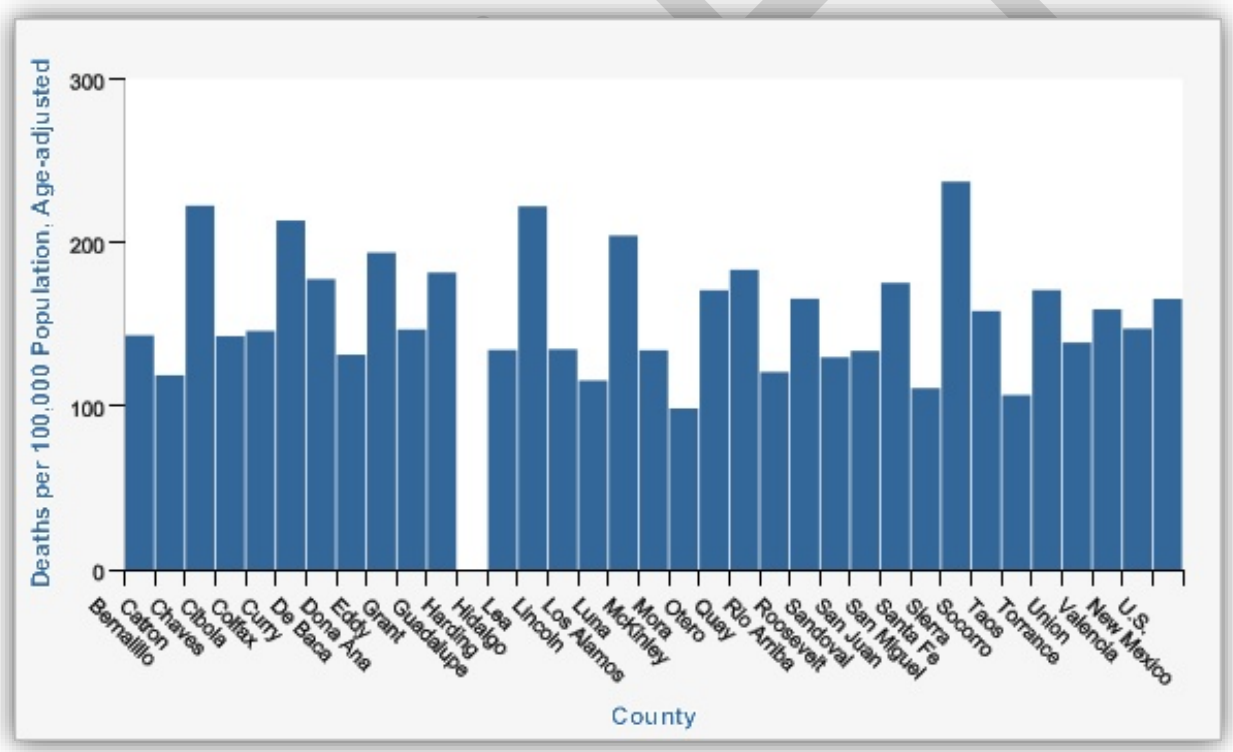


b. Addressing Health Inequities

The CDC defines health inequity as "a difference or disparity in health outcomes that is systematic, avoidable, and unjust."[25] Health disparities are often analyzed by categories of race, ethnicity, and income, and health inequities clearly exist by these groupings in the region. As transportation is geographic in nature, analyzing geographic disparities in health may be most appropriate for determining how transportation planning can address related health issues. Data from the New Mexico Department of Health Bureau of Vital Records shows **clear disparities in the geographic distribution of the mortality from chronic diseases such as cardiovascular disease** shown in the graphic below.

Over the last 10 years, heart disease has been responsible for an average of 3,406 deaths per year in New Mexico. In 2017, it accounted for 21 percent of all deaths in the state.[26] MRMPO is investigating the issues of health disparities in the region through a partnership with Presbyterian Health Care Services and the Bernalillo County Community Health Council as part of the Centers for Disease Control's Racial and Ethnic Approaches to Community Health (REACH) Healthy Here Initiative. Under the initiative, partners are working together across disciplines to address risk factors of poor nutrition, physical inactivity, and prevention, access to health care, and disease management related to chronic disease.

Figure 5-15: Heart Disease Deaths per 100,000 Population by County, New Mexico, 2015-2017[27]



[25] Centers for Disease Control and Prevention. "Social determinants of health." Retrieved Mon, 08 December 2014 from Web site: http://www.cdc.gov/socialdeterminants/Definitions.html

[26] New Mexico Department of Health (NMDOH)

[27] https://ibis.health.state.nm.us/indicator/complete_profile/CardioVasDiseaseHeartDeath.html

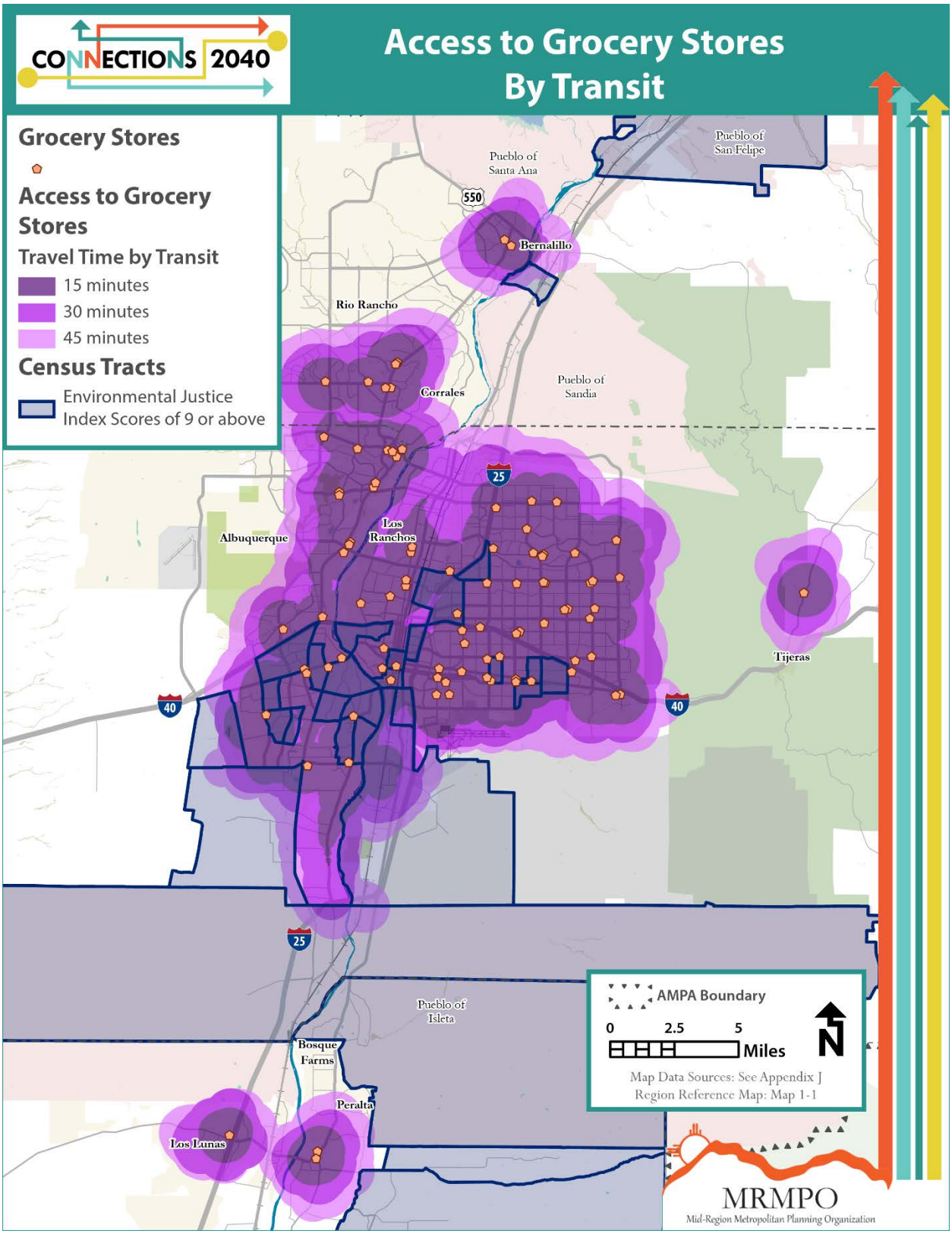
Transit Access to Grocery Stores

Another important consideration for transit planning and public health is the relative availability of access to daily services, such as grocery stores. Grocery store access was chosen for this analysis, however there are other destinations that could also be evaluated for their equitable access. Grocery stores are of great importance because they supply wholesome foods for home-cooked meals and other items necessary for health maintenance. The ability to reach grocery stores in a reasonable amount of time is especially important for transit-dependent populations like the elderly and those with disabilities, but is also a determining factor for others who might choose transit for running errands to reduce environmental impacts or simply to save money on the cost of fuel. The results of this analysis show that households in poverty have slightly less access within a 15-minute time frame (a time frame that would be the most reasonable length for making this a part of your daily trips). Additionally, much of the region's urban area populations can reach a grocery store in 45 minutes or less. However, residents of rural areas, such as in the Village of Corrales or Valencia County, are more dependent on personally owned vehicles for grocery trips.

Figure 5-16: Transit Access Demographics for Grocery Stores

Travel Time	Total Population	Population 65 and Older	Population with One or More Disabilities	Occupied Housing Units with No Vehicle	Households in Poverty	EJ Population	Non-EJ Population
Within 15 Minutes Transit Time	588,892	90,187	82,351	17,079	40,592	104,371	484,520
Within 30 Minutes Transit Time	686,331	105,726	95,008	18,038	44,799	111,496	574,836
Within 45 Minutes Transit Time	728,700	112,638	100,959	18,466	46,710	116,147	612,553

Map 5-9: Access to Grocery Stores by Transit



c. Health Related Transportation Efforts

The *Futures 2040 MTP* established the connection between transportation conditions and health outcomes and identified analytical tools to make this connection more evident. The *Connections 2040 MTP* expands on this connection and analysis. Further integrating health considerations into regional planning will require a range of efforts, including building coalitions with local public health professionals, collaboration between planning agencies and health organizations (when funding opportunities become available), improved technical analysis, and engaging community members about issues related to public health and transportation. Fortunately, a range of efforts are taking place across the AMPA that do take a more holistic approach to transportation planning. Following are a collection of ongoing efforts and potential strategies to improve public health outcomes through transportation planning.

Recent Public Health-Related Transportation Efforts

- ABQ CiQlovía, Albuquerque's annual open streets event, temporarily closes different streets to promote bicycling, walking, and public health. MRMPO and the NM Complete Streets Leadership Team started the event in 2014 and continued to manage it through 2016. Starting in 2017, the event moved to a new neighborhood, the International District, and a new group of organizers representing that neighborhood and the public health community took on management of the event. MRMPO continues to support and promote the event.

- Healthy Here is an initiative among the Bernalillo County Community Health Council, Presbyterian Healthcare Services, the International District Healthy Communities Coalition (IDHCC), the Mid-Region Council of Governments. Healthy Here is working to change systems and environments to make it easier for Hispanic and Native American residents of the International District and the South Valley to access healthy foods, be physically active, and manage chronic disease. This work was done through a network of partners and stakeholders. Healthy Here was funded from 2014-2018 by the Center for Disease Control and Prevention's Racial and Ethnic Approaches to Community Health (REACH)program.

- Healthy Here Part 2: The Healthy Here Initiative and partners received a second CDC REACH grant. The project works toward improving health and reducing chronic disease disparities among Hispanic and Native American populations in Bernalillo County with efforts focused on three low income, high minority areas: The International District, South Valley, and the 2nd/4th Street Corridor. The project helps implement the Nutrition, Physical Activity, and Community Clinical Linkages Strategies in pursuit of the associated intermediate outcomes. These outcomes include an increased number of places that improve community design by connecting safe and accessible places for physical activity and increasing the number of people with safe and accessible places for physical activity.

- An interdiscplinary team from the Albuquerque metro area was one of nine teams nationally selected to attend a 2018 Walkability Action Institute (WAI) training course in Decatur, GA in April 2018. The WAI, hosted by the National Association of Chronic Disease Directors (NACDD) and Centers for Disease Control and Prevention (CDC), is a multi-day "course" for interdisciplinary teams comprised of public health, transportation, planning, elected officials, and other disciplines. The team developed a Walkability Action Plan that included goals and action steps that the team members committed to initiating within their own organizations and agencies. This effort focuses on improving pedestrian conditions in the AMPA through the lens of equity and health.

5.5 Local Enhancements to Active Transportation

MRMPO encourages policies, projects, and programs that support active modes of transportation and active places. This includes not only addressing the safety and connectivity of the transportation system in order to make walking, biking, and transit more viable, but also promoting land use and design decisions required to make such active modes of transportation more attractive. Much of this work has been done through the development of the *Long Range Transportation Systems (LRTS) Guide*, and the Target Scenario, of which aspects have been implemented by local jurisdictions. This section provides information on some active transportation-related policies, plans, and projects that have been enacted since the adoption of the previous MTP in 2015.

Policies and Ordinances

City of Albuquerque Complete Streets Ordinance

In January 2015, the City of Albuquerque adopted a Complete Streets Ordinance. The ordinance aims to implement cost-effective improvements for multi-modal travel by taking advantage of opportunities as they arise during routine maintenance and street reconstruction projects. It also adopts, by reference, nationally-recognized standards for multi-modal facilities to complement existing standards in the City of Albuquerque's Development Process Manual, improves communication about street projects, and requires the City to consider multimodal level of service (MMLOS), rather than just conventional vehicle level of service (LOS), when working on larger roadway projects. Since the ordinance's adoption, there have been several successful complete streets and road diet projects completed.

The Complete Streets Ordinance was updated in August 2019. The update addresses equity measures for street design and project prioritization, strengthens language for project applicability, and reinforces language regarding exemptions from the ordinance.

Shared Active Transportation Ordinance

Albuquerque's City Council adopted a Shared Active Transportation Program Ordinance in the fall of 2018. Shared active transportation programs provide small vehicles such as bicycles, scooters, E-Bikes, e-scooters, or other small wheel vehicles, for rent to the public over short periods of time. Typically, trips on shared active transportation devices are short in distance and can serve as a tool to move away from single occupancy vehicle trips. Shared active transportation programs (such as bikeshares and scooter shares) are required to have a permit to operate in the City of Albuquerque. Currently, one e-scooter company is operating under a one-year pilot program. All users of these programs are required to follow state and local rules, and any rule that applies to bicycles also applies to e-scooters.

No Parking in Bike Lane Ordinance

As of December 19, 2018, stopping, standing, or parking in a bicycle lane is prohibited in the City of Albuquerque. The ordinance, which was recommended in the 2015 *Bikeways and Trails Facilities Plan*, supports the designation of bicycle lanes as travel lanes. The presence of motor vehicles in bike lanes is dangerous because it forces cyclists to confront vehicle traffic as they maneuver around the obstacles in the bicycle lane. Stopping, standing, or parking in a bike lane can result in a ticket.

Downtown Walkability Analysis and Downtown Safe Zone Boundary

In March 2015, the Downtown Walkability Analysis was adopted as a city policy for prioritizing multi-modal improvements in Downtown Albuquerque. This study was completed in the fall of 2014 by Jeff Speck, the author of *Walkable City: How Downtown Can Save America One Step at a Time.* This Downtown Walkability Analysis provided recommendations and rationale to improve walking and biking in the region's urban core. The plan identified several proposed projects and specifically recommended a 25 mph speed limit for the study area. The City of Albuquerque passed a resolution in March 2019 to create a Downtown Albuquerque Safe Zone, bounded by Lomas Boulevard to the north (but not including Lomas), the BNSF railroad tracks to the east, Coal Avenue to the south, and 8th Street to the west. The policy directs the City to identify transportation improvements for multimodal safety within this area. The policy sets the speed limit within the Safe Zone at 20 mph or lower. Speed limits signs have been replaced to reflect these new speed limit changes as well as adjustments to traffic signal timing. The policy also supports and prioritizes infrastructure improvements or alterations to streetscapes to support the 20mph limit.

Plans and Studies

Bernalillo County's Pedestrian Safety Action Plan

This plan is a 10-year Rank 2 facility master plan. It includes an overview of existing bicycle and pedestrian related plans, studies, and ordinances, inventories existing facilities, and identifies and prioritizes future facility needs as well as policy changes. The plan is based on staff research, peer review, and community meetings in conjunction with the regional transportation plan. The existing conditions and inventories are evaluated by planning area and include health and safety concerns. Some of the recommendations that came out of this plan are a Complete Streets policy, pedestrian and bikeway projects, and improving coordination with partner agencies.

Village of Los Lunas Bicycle Plan

In August 2016, the Village of Los Lunas published their *Bicycle Master Plan*, signaling their intentions to improve the connectivity of existing bicycle infrastructure. The plan encourages bikeways where none had existed and provides a vison for active transportation for the Village to pursue. Bicycle treatments include a mix of multi-use paths, traditional bike lanes, and routes.

Figure 5-17: Village of Los Lunas Bicycle Master Plan

City of Albuquerque's Bikeways and Trails Facility Plan

The City of Albuquerque's *Bikeways and Trails Facility Plan* (BTFP) was adopted by the City Council in May 2015. The BTFP updated and combined the City's bikeways and trails plans into one resource. Combining these plans can help the City of Albuquerque improve overall network connectivity and provide better coordination and management of the growth of this system. The overarching plan purpose is to ensure a well-connected, enjoyable, and safe non-motorized transportation and recreation system throughout the metropolitan area. The BTFP reflects the desires of area residents to continue developing and improving a multi-use trail and bikeway network for commuting and recreational uses, as well as daily needs. The BTFP describes the existing system, policies, programs, recommendations, and proposed projects. This plan guides future investment in Albuquerque's bikeways and trails system, including facility improvements, new facilities, priority connections, maintenance, and education/outreach programs.

Bridge Boulevard Corridor Redevelopment Plan

Bernalillo County's Bridge Boulevard Corridor Redevelopment Plan seeks to proactively couple increases in land use densities and employment opportunities along Bridge Boulevard with key pedestrian, bicycle, and transit improvements. As one of a few urban river crossings, multimodal improvements to this corridor will be important for safety and connectivity. Five Points/Bridge Boulevard was identified as an Activity Center by MRMPO with a large potential for redevelopment for additional activity.

Walkability Action Plan

A Walkability Action Plan was developed by an interdisciplinary team of health and transportation and elected officials from the Albuquerque metro area who were invited to participate in a training workshop in 2018. The Plan identified four goals to improve understanding of pedestrian issues and to improve conditions for pedestrians with action steps to achieve each goal.

ADA Transition Plans

Section 504 of the Rehabilitation Act makes it illegal for the federal government, federal contractors and state and local governments receiving federal funds to discriminate on the basis of disability. It requires state and local governments to ensure persons with disabilities have equal access to any programs, services or activities receiving federal funding. This includes pedestrian facilities in the public right-of-way. It is imperative that local jurisdictions in the AMPA incorporate barrier removal into existing efforts and ensure that new facilities are built to meet ADA compliance standards. Most local jurisdictions in the AMPA have completed Americans with Disabilities Act (ADA) Transition Plans that include a complete or partial inventory of pedestrian facilities in the public-right of-way and steps to ensure pedestrian facilities comply with the ADA.

The *LRTS Guide* provides street typology matrices and basic guidance on right-of-way set-asides that meet ADA compliance standards generally but do not provide guidance for specific access requirements. Specific pedestrian improvement projects must refer to the New Mexico Department of Transportation's ADA Pedestrian Access Standard Drawings. These drawings conform to ADA requirements and provide guidance for compliance with the Proposed Accessibility Guidelines for Pedestrian facilities in the Public Right-Of-Way (PROWAG).

Projects

Silver Avenue Bicycle Boulevard

The Silver Avenue Bicycle Boulevard from Yale Boulevard to Carlisle Boulevard was studied by the City of Albuquerque in 2015 to identify specific improvements that could benefit and better serve bicyclists. The study resulted in the relocation of stop signs, traffic calming tools such as traffic circles at intersections, redesign of on-street parking, and a bi-drectional protected lane on Carlisle to improve the crossing. Starting in summer 2018, the City of Albuquerque began to study the portion of Silver Avenue from Yale Boulevard to the Paseo Del Bosque Trail. This project will work to continue improvements and enhancements to this bicycle corridor and enable it to serve a variety of bicycle riders with different levels of comfort. Additionally, this low stress corridor connects key centers and transit nodes.

Alameda Drain Trail

Bernalillo County and the City of Albuquerque are constructing a multiuse trail along Matthew Avenue from Fourth Street NW to Second Street NW and along Second Street NW from Matthew Avenue to Roy Avenue in the North Valley. Currently, four phases are funded in the Transportation Improvement Program (TIP) as far north as Alameda Boulevard. The project includes green infrastructure/low impact development design, landscaping, wayfinding, and other trail amenities.

Second Street SW Corridor Improvement Project

Bernalillo County, with its partner the US Fish and Wildlife Service, is reconstructing five miles of Second Street SW from the Valle de Oro National Wildlife Refuge Visitor Center to Rio Bravo Boulevard using multiple federal and local funding sources (FLAP, TAP, STPE, GO Bonds, and NRPA grant). The corridor includes a multi-use trail, pedestrian bridge, green infrastructure/low impact design, landscaping, storm drainage, intersection improvements, and sidewalks. The roadway segment has been completed as far north as the South Diversion Channel. The multi-use trail has been completed to Prosperity Avenue and is under construction to Rio Bravo Boulevard. Additional FLAP funding has been secured to reconstruct the roadway with storm drainage and sidewalks to Rio Bravo Boulevard in FY 2021.

50-Mile Activity Loop

As part of ABQ the Plan, the City of Albuquerque is building a 50-Mile Activity Loop. When completed, the Loop will provide a contiguous network of trail and on-street facilities for walking, running and bicycling in an effort to increase quality of life for residents, enhance economic development opportunities, promote tourism, and spur private sector investments. As of 2019, the Activity Loop is over 90 percent complete.

Figure 5-18: City of Albuquerque 50 Mile Loop

Crucial improvements made in 2018 include the connection of the Paseo Del Norte Trail to the Piedra Marcadas park trail on the west side of Coors Boulevard and the connection of Silver Avenue's Bicycle Boulevard to the Paseo de Las Montañas trail. The Activity Loop builds upon existing infrastructure, focuses on providing key connections that link important destinations and trails, and promotes health and wellness benefits for Albuquerque residents and visitors. The Activity Loop also travels through parts of the South Valley and the International District, two areas with disproportionately poor public health outcomes. Project phases 6 and 7 will fill gaps in the southwest corner of the Activity Loop. In this area, the project was intertwined with the reconstruction of the Central-Unser intersection and redevelopment of the Bridge Boulevard corridor. The anticipated completion for this project is early 2021. There are several 50-Mile Activity Loop signs at different points around the city. An interactive map of the loop can be found here: https://www.cabq.gov/50-mile-activity-loop.

Bernalillo Railroad Crossing

The Town of Bernalillo constructed a new pedestrian crossing at the Downtown Bernalillo Rail Runner Station. The closest existing crossing is approximately 0.35 miles to the south, at Avenida Bernalillo (requiring a 0.7-mile detour from this desired location). The pedestrian crossing improves safety for locals who are known to cross the tracks to get to the other side of town. Construction of the at-grade crossing was completed in 2019. In the future, a second phase of the project will extend pathways around the crossing and enhance the markers that guide pedestrians.

Dr. Martin Luther King Jr. Avenue Bike Lane Improvements

A highly visible improvement to Albuquerque's bicycle network came in the form of bright-green thermoplastic buffered bike lanes installed along Dr. Martin Luther King Jr Avenue (MLK). The modifications to MLK greatly improve bicyclist safety and level of comfort along a key corridor connecting the University of New Mexico to downtown Albuquerque. The project intended to calm traffic by reducing the width of vehicle lanes from 13 ft to 11 ft. It also widened the existing bike lanes and provided a buffer from vehicle traffic. The design introduced bike boxes at major intersections to increase awareness of cyclists at intersection stops, provide a visible place for bicyclists to wait at intersections, and prevent vehicles from hitting bicyclists when turning right.

Indian School Undercrossing at the North Diversion Channel Trail

Indian School is the one remaining at-grade crossing for the North Diversion Channel Trail, which is a multi-use trail that runs from Tucker Ave NE to the Albuquerque International Balloon Fiesta Park. This project will create an underpass under Indian School. The project is a collaboration among the City of Albuquerque Department of Municipal Development, Parks and Recreation, and Albuquerque Metropolitan Arroyo Flood Control Authority. The completion of the underpass will greatly improve the safety for bicycle commuters, recreational riders, runners, and pedestrians. It could also encourage more residents and visitors to use the nearly nine-mile trail to attend the Albuquerque International Balloon Fiesta via bicycle, which could help to reduce associated vehicle traffic challenges.

Albuquerque Rapid Transit (ART)

The Albuquerque Rapid Transit project has a dedicated bus guideway through most of the nine-mile corridor that runs along Central Avenue. Construction began on the corridor in 2016 and bus service began in November 2019. Along with reimagining Central Avenue with premium bus service, according to the City of Albuquerque, over 1,000 individual ADA improvements were made along the corridor from Coors to Louisiana. Improvements include updating non-compliant curb ramps and drive pads and the addition of pedestrian-scale lighting. Sidewalks throughout much of the corridor were also widened to six feet and street trees were planted, which has helped to create a more pedestrian-scaled environment throughout

the corridor. Crash data and the High Fatal and Injury Network show that the Central Avenue corridor and several intersections are hotspots for crashes and fatalities—especially for pedestrians. The intention was for these corridor improvements to help create a safer environment not only for pedestrians, but for people using all modes.

HAWK Signals

In the fall of 2015, the City of Albuquerque installed a High Intensity Cross Walk (HAWK) signal, or Pedestrian Hybrid Beacon, at the intersection of Lomas and Alvarado as part of the 50-mile Activity Loop. The three-bulb signal is designed to make it easier and safer for pedestrians and bicyclists to cross busy roads. HAWK signals are an FHWA proven safety countermeasure that have been shown to result in safety benefits such as a 69 percent reduction in pedestrian crashes, 29 percent reduction in total crashes, and 15 percent reduction in serious injury and fatal crashes[28]. The light mimics a stoplight where there otherwise wouldn't be one. When the signal is activated by a pedestrian, it shows flashing yellow, solid yellow, solid red, and then blinking red lights. As with traditional traffic lights, motorists should proceed with caution during yellow lights, stop on red lights, and may proceed after stopping if no one is in the crosswalk when the lights are flashing red. As part of the Albuquerque Rapid Transit (ART) project, five HAWK signals were added throughout the corridor at ART stations to enhance pedestrian accessibility. In addition, HAWKs have been installed at Louisiana and Nathalie in the Northeast Heights in Albuquerque and on Isleta Boulevard in Bernalillo County. Bernalillo County is currently installing a midblock HAWK Signal crossing near Texas and Central Avenue in the International District to serve transit riders and pedestrians accessing a UNM health clinic, senior apartments, and the Tiny Homes Village. The HAWK Signal was identified as a priority in the Healthy Here's International District Pedestrian Safety Action Plan.

Figure 5-19: Pedestrian Hybrid Beacon in Bernalillo County

[28] https://safety.fhwa.dot.gov/provencountermeasures/ped_hybrid_beacon/