



PUBLIC REVIEW DRAFT

DECEMBER 2024





TRANSITIONS 2045 PUBLIC REVIEW DRAFT | DECEMBER 2024

CONTENTS

Chapter 1 Introduction.....	6
1.1 What is an MPO (and MRMPO)?	7
1.1a MTP Planning Area or the AMPA	7
1.1b MRMPO Planning Partners	11
1.1c MPO Structure	12
1.2 MTP Goals and Key Themes	13
1.2a Core Concepts and Themes of the Transitions 2045 MTP	15
1.3 Federal Requirements for an MPO and the MTP	15
1.3a Transportation Improvement Program and Other Core Documents	15
1.3b Federal MTP Requirements	16
1.3c Fiscal Constraint	16
1.3d Federal Planning Factors and Goals	17
1.3e Air Quality	17
1.3f Title VI and Environmental Justice	18
1.3g ITS Regional Architecture	18
1.3h New Mexico 2045 Plan and Strategic Highway Safety Plan	18
1.4 MTP Public Engagement	19
1.4a Public Engagement Goals and Objectives	19
1.4b Methods for Collecting Public Input and Feedback.....	20
1.5 Contents of the MTP.....	24
Document Organization and Chapter Summaries.....	24



Chapter 2	Current State of the Region	27
2.1	Transitions Since the Connections 2040 MTP	27
2.1b	Flattened Growth and Demographic Shifts	33
2.1c	Cost of Infrastructure	40
2.2	The Target Scenario	42
2.2a	History of the Target Scenario	42
2.2b	Target Scenario Leadership	45
2.2c	Target Scenario Implementation	46
2.2d	Target Scenario Evaluation	48
2.2e	Target Scenario Moving Forward	58
Chapter 3	Regional Forecast	59
3.1	Socioeconomic Datasets	59
3.2	Socioeconomic Forecast	62
3.2.a	Population	62
3.2.b	Housing	63
3.2.c	Employment	63
3.3	Socioeconomic Forecast by Subarea	64
Chapter 4	Mobility	66
4.1	Roadway System Performance	66
4.1a	The State of Roadway Travel in the AMPA	66
4.1b	Transportation Systems Management and Operations (TSMO) and Intelligent Transportation Systems (ITS)	71
4.1c	Mobility and Emerging Technologies	76
4.1d	Existing Roadway Maintenance and New Asset Management Requirements	81
4.2	Transit and Mobility	83
4.2b	Fluctuations in Transit Ridership	84
4.2b	Factors Behind Fluctuations in Ridership	85
4.2c	Regional Transit Partners	87
4.2d	How Development Patterns Impact Transit	90
4.3	Transit Opportunities and Strategies	92
	Network Design Opportunities	92
	Land-Use Supportive Opportunities	93
4.4	Congestion Management Process Overview	98
4.4a	Congestion Management Process (CMP) and Federal Regulations	98



4.4b CMP Corridor Rankings.....99

4.4c Congestion Management Approaches 100

4.5 Goals, Objectives, and Strategies 101

Chapter 5 Safety..... 102

5.1 Vision and Approach 102

5.1a The Safe Systems Approach 102

5.1b Regional Transportation Safety Action Plan (RTSAP 202) 104

5.1c State of Roadway Safety in the Region 105

5.2 Regional Crash Data Trends..... 106

5.2a Fatality Rate per Vehicle Miles Traveled (VMT) 106

5.2b Vulnerable Road Users (VRU) 107

5.2c Roadway Character and Purpose 107

5.2d Rural Roads and Single Vehicle Crashes 108

5.3 Key Safety Strategies for the Region 109

5.3a Proven Safety Countermeasures (PSC)..... 109

5.3b Reducing Speeding on our Roadways 111

5.3c Designing Roadways..... 112

5.4 Selecting Safety Priorities 115

5.4a HFIN Data and Maps 115

5.4b Potential Road Diets 118

5.4c Safety Projects and Programs..... 120

Chapter 6 Active Transportation..... 128

6.1 Pedestrian and Bicycle Travel Conditions 128

6.1a Existing Conditions for Active Transportation in the AMPA..... 128

6.2 Recent Enhancements to Active Transportation 136

6.2a Federal Laws, Programs, and Guidance 136

6.2b Local and State Planning Efforts 137

6.2c MTP Active Transportation Projects..... 140

6.2d Advocacy Efforts 141

6.3 The Future of Active Transportation in the Region: Opportunities and Strategies 141

6.3a Opportunities 141

6.3b Strategies 146

6.4 Goals, Objectives, and Strategies 150

Chapter 7 Economic Vitality 153



7.1 Transportation and the Economy	153
7.1 a	153
7.1 b. Strategic Investments	154
7.1c. Economic Development Agencies and Plans	158
7.2 Industry Sectors and Job Creation	158
7.2a. Snapshot of Existing Industries	158
7.2b. Economic Focus Areas	160
7.3 Housing and Affordability	160
7.3a. Affordability trends	161
7.3b. Housing Our People	163
7.3c Affordable Housing Developers, Agencies and Organizations	165
7.4 Vibrant Places.....	165
7.4a Streetscapes and Urban Design	165
7.4b Placemaking Examples	166
7.4c MainStreet Organizations.....	167
7.4d Redevelopment.....	168
7.5 Goods Movement.....	169
7.5a Trucking	169
7.5b Rail	174
7.5c Air	175
7.5 Goals, Objectives, and Strategies	176
Chapter 8 Healthy Environments	177
8.1 Protect and Enhance	177
8.1a The National Environmental Policy Act.....	177
8.1b Transportation Authorization Acts and the Code of Federal Regulations.....	178
8.2 Planning and Environmental Linkages	179
8.3 Natural Resources	180
8.3a Our Regional Habitat	180
8.3b Transportation Impacts on Air	181
8.3c Water	186
8.3d Soil	187
8.4 Climate Hazards.....	188
8.4a Heat.....	188
8.4b Wildfire	192



8.4c Flood	194
8.5 Exposure to Hazards & System Resilience.....	195
8.6 Goals, Objectives, and Strategies	197
Chapter 9 Equity.....	198
9.1 Introduction.....	198
Prioritizing Equity	198
9.2 Benefits and Burdens	203
9.2a Barriers to Access.....	203
9.2b Safety	203
9.3 Environmental Justice.....	206
Chapter 10 Financial Analysis	211
Chapter 11 Plan Implementation and Evaluation	212
11.1 Implementation of the MTP.....	212
11.1a Transportation Project Selection and Funding.....	212
11.1b Other Implementation Mechanisms	215
11.2 MTP Project Evaluation Process	215
11.2a Federal performance measures.....	215
11.2b Regional Performance Measures	219
11.3 Recommended Strategies for Achieving the MTP Goals	221
11.3a Survey Results.....	223
11.4 Next Steps	223
11.4a Broad MPO Next Steps.....	223
11.4b Topical Next Steps	Error! Bookmark not defined.
11.4c Legislative Priorities	225



CHAPTER 1 INTRODUCTION

The **Transitions 2045 Metropolitan Transportation Plan (Transitions 2045 MTP)** is the region’s long-range transportation plan. The MTP identifies transportation challenges that the greater Albuquerque metro area will face over the next 20 years and presents strategies for addressing them. The Transitions 2045 MTP includes a list of transportation projects planned to address needs in the region in the coming decades; their inclusion here makes these projects eligible for federal funding. The Transitions 2045 MTP updates the previous MTP for the region (the *Connections 2040 MTP*); MTPs are statutorily required to be updated at least every 5 years.

As our region grows and evolves, it is crucial to analyze projected population and employment growth and how, with these shifts, our transportation system will function in getting people where they need to go safely and conveniently by whatever mode they choose. **The purpose of the Transitions 2045 MTP is to provide a framework for establishing regional priorities in cooperation with member agencies, and to invest equitably in multimodal transportation infrastructure and programs that support mobility, the economy and environment, equity, and active transportation.**

Transportation has a regional impact on various aspects of our built environment, economy, and society; therefore, the Transitions 2045 MTP also examines safety, new technologies and transportation behaviors, public health, housing, and environmental justice. The **Mid-Region Metropolitan Planning Organization (MRMPO)** considers all these issues and works with partners in the region to develop a long-range plan that will assist in making transportation decisions that benefit our region.

The MTP is not just a product and a means of disseminating information, but it is also *a process* that brings together regional stakeholders and the public to develop a vision for the future and continually work toward achieving that vision. This process provides an ideal opportunity to consider how the region is growing and how those growth patterns affect the way people live and travel throughout the region.

Our ability to safely and conveniently access daily destinations such as jobs, schools, services, and recreational activities impacts the quality of our lives and the vitality and economic competitiveness of our region. Therefore, it is important to understand how our community currently functions, and how it is expected to grow in the future. The Transitions 2045 MTP identifies existing conditions, anticipates future needs, and prioritizes investments that support the goals and objectives of the plan.

The Transitions 2045 MTP establishes a vision for the region’s transportation future based on feedback gathered during public engagement efforts. Along with the goals and objectives, the vision will help guide planning efforts.

Our people-centered transportation system provides safe, comfortable, and easy access to daily destinations for all.

1.1 What is an MPO (and MRMPO)?

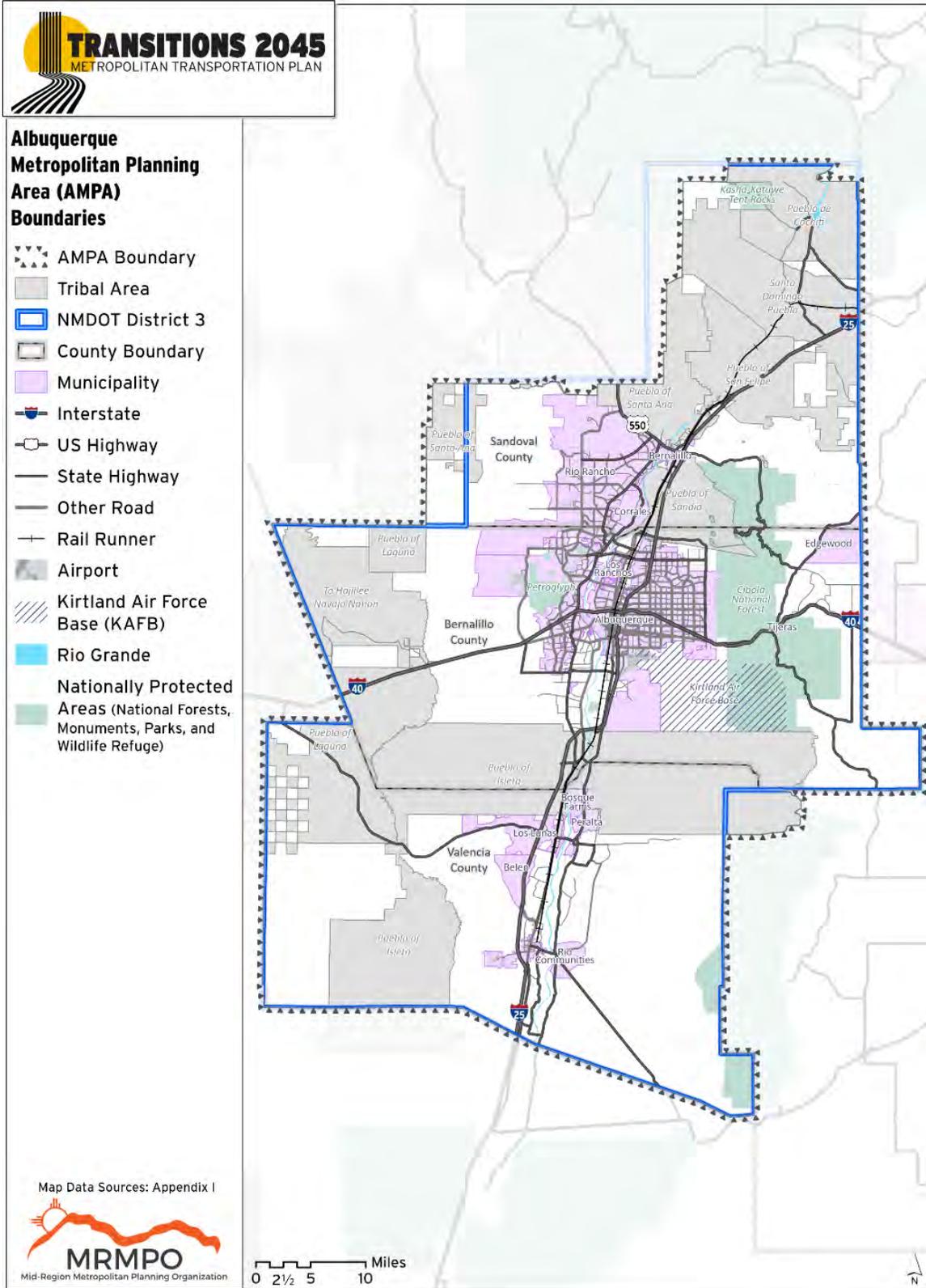
MRMPO is a government agency that leads the continuous, cooperative, and comprehensive metropolitan transportation planning process in collaboration with regional partners and stakeholders as well as the public. An MPO is a federally required organization for an urbanized area with a population greater than 50,000. MRMPO is the designated MPO for the **Albuquerque Metropolitan Planning Area (AMPA)**, which includes the Albuquerque urbanized area and the Los Lunas urbanized area in central New Mexico.

1.1a MTP Planning Area or the AMPA

The planning area boundaries for MRMPO and the Transitions 2045 MTP are defined by the AMPA and are shown below.

DRAFT

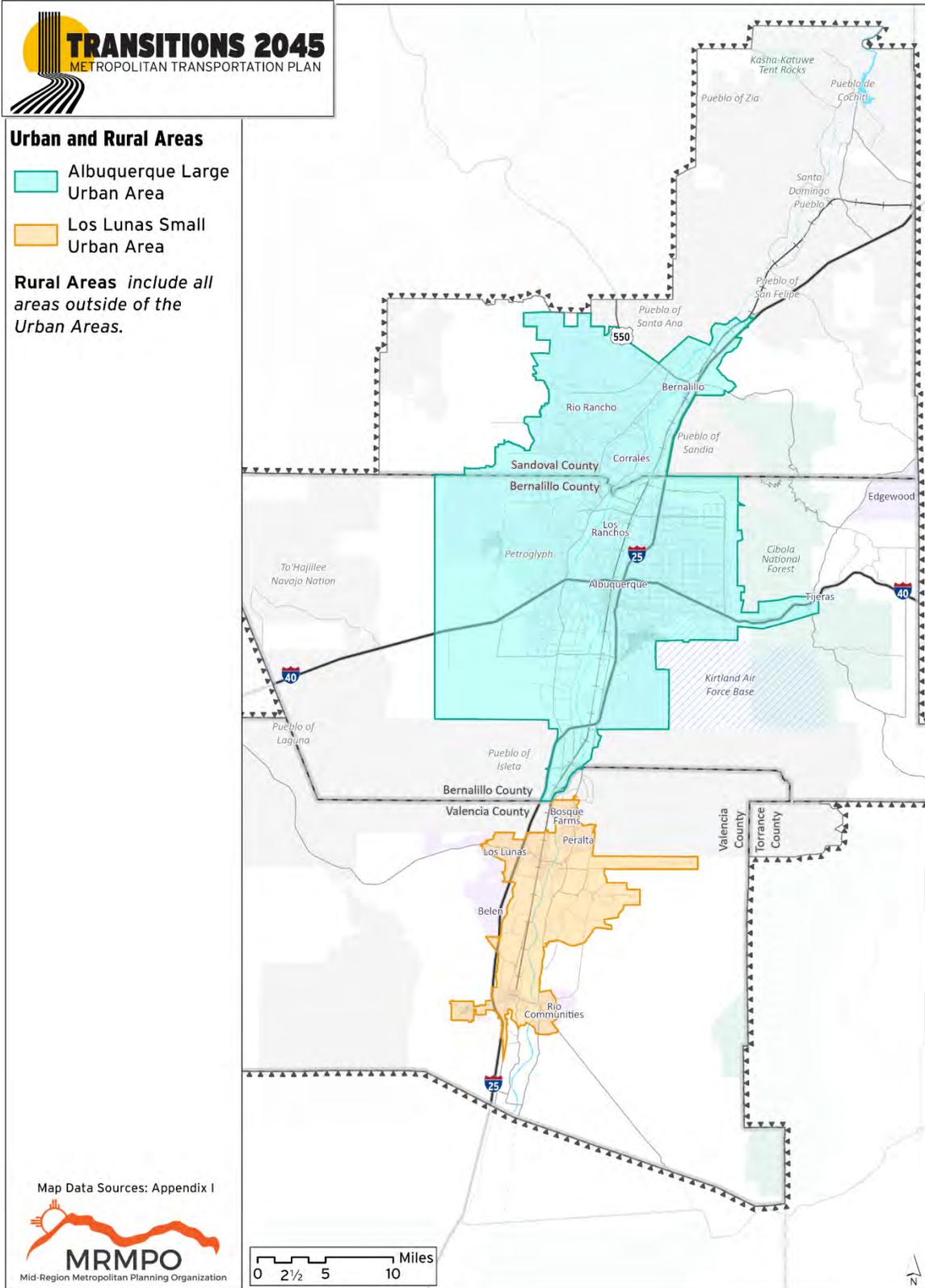
Map 1: Albuquerque Metropolitan Planning Area (AMPA) Boundaries



The AMPA is situated in central New Mexico and includes all of Valencia County, Bernalillo County, and the most developed part of southern Sandoval County. Approximately one-sixth of the land within the AMPA is protected open space including city or county open spaces, state parks, and lands owned and managed by federal agencies such as the U.S. Fish and Wildlife Service, National Park Service, and U.S. Forest Service. The Rio Grande runs through the middle of the region and supports the Bosque ecosystem, irrigates farmland, and carries water for household consumption. The AMPA also includes all, or portions of, several Tribal reservations and land grants. Within the AMPA's 3,095 square miles, there are 11 incorporated communities, seven Tribal areas, and the To'hajiilee chapter of the Navajo Nation. The AMPA includes two urbanized areas as defined by the US Census Bureau: the Albuquerque Urbanized Area and the Los Lunas Urbanized Area. The following map shows these boundaries.

DRAFT

Map 2: Urban and Rural Areas





1.1b MRMPO Planning Partners

The MRMPO worked with many partners during the development of the Transitions 2045 MTP. These partners are those shown below:

Table 1: List of MTB Members and Advisory Agencies

Bernalillo County	Village of Tijeras
City of Albuquerque (includes ABQ RIDE)	Valencia County
City of Belen	Albuquerque Public Schools
City of Rio Rancho	Belen Consolidated Schools
City of Rio Communities	Bernalillo Public Schools
Navajo Nation – To’Hajiilee	Los Lunas Public Schools
New Mexico Department of Transportation	Rio Rancho Public Schools
Pueblo de Cochiti	Albuquerque Metropolitan Arroyo & Flood Control Authority
Pueblo of Isleta	East Sandoval County Arroyo & Flood Control Authority
Pueblo of Laguna	Southern Sandoval County Arroyo & Flood Control Authority
Pueblo of San Felipe	Middle Rio Grande Conservancy District
Pueblo of Sandia	City of Albuquerque Aviation
Pueblo of Santa Ana	Albuquerque/Bernalillo County Air Quality Control Board
Pueblo of Santo Domingo	Federal Highway Administration
Rio Metro Regional Transit District	Federal Transit Administration
Sandoval County	Kirtland Air Force Base
Town of Bernalillo	NM State Transportation Commission
Village of Bosque Farms	US Bureau of Indian Affairs
Town of Edgewood	US Forest Service
Town of Peralta	US Fish and Wildlife Service
Village of Corrales	US National Park Service
Village of Los Lunas	US Bureau of Land Management
Village of Los Ranchos de Albuquerque	Various Economic Development Agencies

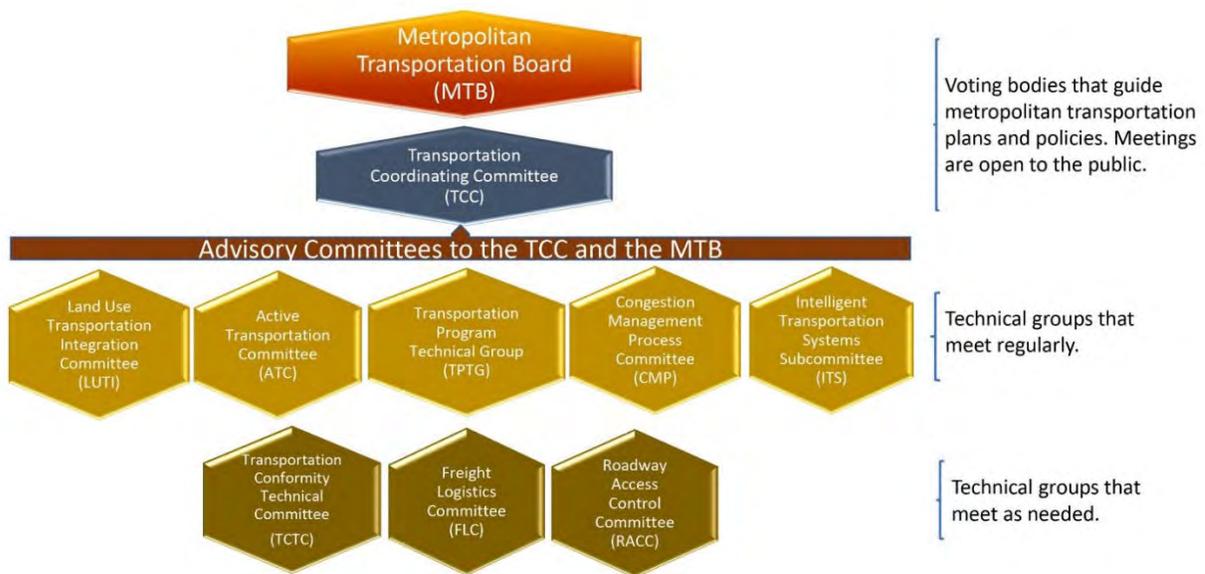
In addition to the local government agencies and Tribal governments shown above, other stakeholders such as developers, environmental stakeholders, members of the advocacy community, and the general public were engaged as well. ,

Feedback from all these partners is a critical piece of the MTP development process.

1.1c MPO Structure

MRMPO is housed within the **Mid-Region Council of Governments (MRCOG)** and is governed by the **Metropolitan Transportation Board (MTB)**, a board of elected officials and appointees from the different jurisdictions and member agencies in the AMPA. The board is supported by several technical and advisory committees comprised of agency staff professionals. The board and committee hierarchy is shown below. Further information on the committees can be found in Appendix X.

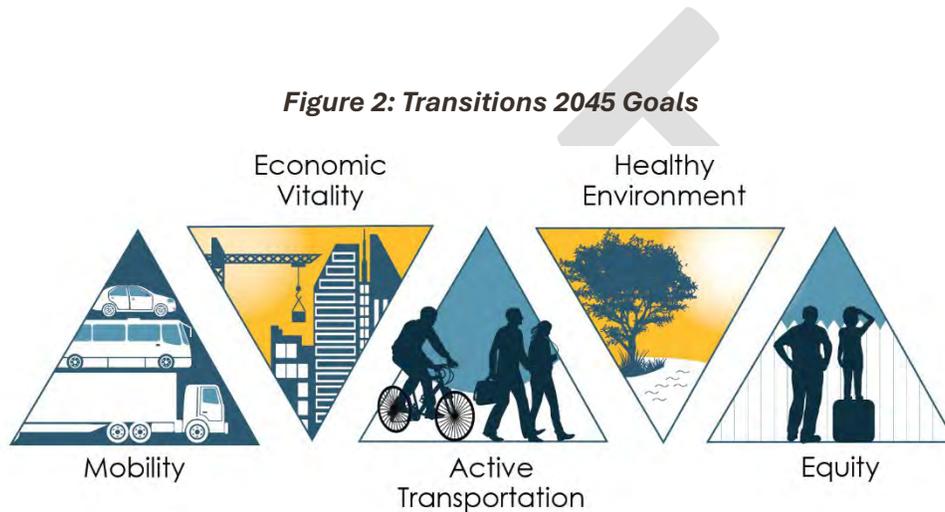
Figure 1: MRMPO Board and Committee Structure



It is important to note that MRMPO is not an implementation agency, meaning it does not own any right-of-way and therefore cannot build or maintain infrastructure projects. Rather, the role of MRMPO is to facilitate regional discussion that includes identifying transportation needs and strategies for addressing those needs.

1.2 MTP Goals and Key Themes

The Transitions 2045 MTP presents five guiding goals that establish a framework and general priorities for the MTP. These goals can be used to assess the performance of the region’s transportation system; they also are considered during the prioritization of transportation projects selected for funding. The goals of the Transitions 2045 MTP are shown below:



Objectives for each goal guide the MRMPO’s work toward achieving these goals. The public weighed in on the objectives through a public survey disseminated as part of the plan (see Chapter 1.4 and Appendix X). The objectives the public felt most strongly about are shown in bold.

Table 2: Goals and Objectives for the Transitions 2045 MTP

Goals and Objectives for the Transitions 2045 Metropolitan Transportation Plan	
Goal	Objective
Mobility	Prioritize safety for all users of the transportation system
Promote the safe and efficient movement of people and goods throughout the region.	Preserve and enhance existing infrastructure
	Enhance Transportation System Management & Operations
	Support frequent transit service
	Advance emerging technologies in transportation
Active Transportation	Improve safety for bicyclists and pedestrians
Ensure safe and convenient ways to travel for people who cannot or choose not to drive.	Build connected bike and pedestrian travel networks
	Coordinate land use and transportation planning
Healthy Environment	Protect and enhance the natural environment
Incorporate climate change and environmental considerations into transportation planning and decisions.	Prevent disproportionate environmental impacts to low-income neighborhoods and communities of color
	Reduce transportation contributions to climate change
	Protect public health and safety from the impacts of climate change
Economic Vitality	Invest in creating vibrant places
Strategically invest in high-quality transportation systems that support the economic health of the region.	Support regional freight, logistics, and goods movement
	Encourage diverse housing options
Equity	Provide safe and reliable routes to daily destinations
Improve safe and reliable transportation systems in traditionally underserved communities.	Increase access to green space and outdoor recreational opportunities
	Improve access to economic opportunity
	Expand access to affordable housing

The development of the goals for the Transitions 2045 MTP began with the goals from the last MTP (the *Connections 2040 MTP*). These goals were updated during initial brainstorming sessions with MRMPO’s staff and committees, then vetted among stakeholders, local agencies, and the public. Equity was added as a new goal in response to stakeholder feedback and a shared commitment to



providing affordable and convenient transportation options to all, especially those who live in areas which have been historically underserved with transportation investments. Equity is also incorporated as an objective for each MTP goal to further integrate its consideration into the regional planning framework. The revised goals were approved by the MTB and incorporated into this plan.

1.2a Core Concepts and Themes of the Transitions 2045 MTP

“Transitions” was selected as the title for this plan update because it reflects the dramatic changes experienced during and following the recovery from the COVID-19 pandemic. Regional challenges include the slowing rate of population growth in the region; different travel behaviors caused by more people working from home; a greater awareness of the need for equity in transportation; a deepening housing affordability crisis; and escalating transportation project costs. Other issues addressed in the plan include rapidly evolving technologies in the transportation sector and the critical need for safer transportation conditions, especially for pedestrians.

The Transitions 2045 MTP continues to recognize a core concept that has been carried through from previous MTPs: that transportation and land use are integrally linked. That is, the way in which our transportation system functions depend on the fabric of land uses found across our area as well as the intensity of those uses. For example, transit usually does not operate efficiently in areas with low population density because there are not as many people who might use the bus service. This results in inefficient service that relies on longer routes and higher fuel usage while capturing lower ridership and less revenues than transit service in more densely populated areas.

Conversely, transportation can affect how land uses develop. For example, a new highway built in a rural area can promote development, such as new housing; when new housing arises, services and facilities emerge to serve those new residents.

The *Transitions 2045 MTP* prioritizes the maintenance of existing infrastructure over building new infrastructure. In light of slower growth and rising project costs, it is especially prudent to budget appropriately to upkeep today’s transportation network before embarking on building new infrastructure that itself will add to the maintenance needs of the region in future years.

1.3 Federal Requirements for an MPO and the MTP

1.3a Transportation Improvement Program and Other Core Documents

In addition to the development of an MTP, MPO’s are responsible for programming federal funds through the Transportation Improvement Program (TIP). The TIP is the short-range implementing mechanism for the MTP that allows for regionally significant transportation projects to be federally funded and eventually built by member agencies. All MPOs must coordinate with their state Department of Transportation (DOT) to develop an MTP and a TIP.

The MTP goals and objectives provide the framework used in the TIP, and provide the criteria for whether projects meet regional transportation needs and are worthy investments within the AMPA.



With the assistance of a data driven Project Selection Process (PSP), discussed further in Section 11.1a, projects are evaluated and prioritized for funding and implementation according to whether they meet the MTP goals. A project cannot be added to the TIP unless it is included in the MTP. The MTP and TIP must be consistent with the latest federal transportation law.

MPO's are required by federal regulation to produce other core planning documents. MPOs must create a Public Participation Procedures (PPP) that defines the process for providing residents and all interested parties reasonable opportunities to be involved in the MTP and TIP planning process. MPOs must also develop a Unified Planning Work Program (UPWP) which outlines the planning and administrative work the MPO will undertake over a course of two years and the budget for carrying out its responsibilities.

1.3b Federal MTP Requirements

Federal requirements for MTPs are detailed in the current federal surface transportation law, the Infrastructure Investment and Jobs Act (IIJA), also referred to as the Bipartisan Infrastructure Law (BIL), signed by President Joe Biden in 2021. Administrative regulations for the BIL are found in Title 23 of the Code of Federal Regulations, Part 450.

MTPs are living documents intended to be continually revisited as urban areas grow and change, funding situations evolve, new data and analytical methods become available, and different transportation needs and priorities are identified. For this reason, MTPs must be updated every four or five years.¹ The Transitions 2045 MTP is an update to the previous MTP, the Connections 2040 MTP, which was adopted in 2020. MTPs must have a planning horizon of at least 20 years. The Transitions 2045 MTP has a horizon year of 2045.

1.3c Fiscal Constraint

Long-range transportation plans must be fiscally constrained, meaning all projects and programs contained in the MTP must have an identified funding source. Simply put, fiscal constraint means that expected project costs cannot exceed expected revenues in the region. This is achieved through a collaborative process, facilitated by MRMPO, working with member agencies wishing to receive federal funds for transportation projects. MRMPO staff meet with agency representatives to estimate future project costs and revenues. If the complete list of projects sum to an amount that is expected to exceed revenues, member agencies work together to determine which projects should get funded, and which might drop out of the plan or be moved into an unfunded or 'illustrative' project list.

Metropolitan agencies within the AMPA have a long history of working collaboratively to elevate projects and programs that best align with the shared goals they have identified for the region. This has never been more critical than now as costs of construction have risen substantially over the past several years and is expected to limit the number of projects that can reasonably be expected to be built with the funds available. Fiscal constraint is discussed further in Chapter 11.

¹ MPOs without air quality maintenance violations can update their plans every five years. MRMPO's plan must now be updated every five years because it is currently in carbon monoxide (CO) attainment status.

1.3d Federal Planning Factors and Goals

Title 23 of the Code of Federal Regulations includes planning factors that must be considered as part of the metropolitan transportation planning process (23 CFR 450.306(b)), as well as specific elements that must be included in an MTP (23 CFR 450.324). The detailed planning factors and plan requirements that must be addressed in a long-range transportation plan are included in Appendix X. MRMPO’s planning process is consistent with the planning process requirements and the Transitions 2045 MTP includes all federally required elements for transportation plans.

In addition, the BIL requires performance-based planning and programming that supports national planning goals (23 USC 150(b)). Federal performance measures, which assess progress toward safety, system reliability, and infrastructure condition goals, and regional performance measures, are discussed in Chapter 11.

National goals, and how they relate to and are addressed by the Transitions 2045 MTP goals, are shown below:

Table 3: Connection between National Goal Areas and MTP Goals

National Goals	2045 MTP Goal(s)
Safety: To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.	Active Transportation, Mobility
Infrastructure Condition: To maintain the highway infrastructure asset system in a state of good repair.	Mobility, Economic Vitality
Congestion Reduction: To achieve a significant reduction in congestion on the National Highway System.	Mobility, Economic Vitality, Healthy Environments
System Reliability: To improve the efficiency of the surface transportation system.	Mobility, Active Transportation, Economic Vitality
Freight Movement and Economic Vitality: To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.	Economic Vitality, Mobility
Environmental Sustainability: To enhance the performance of the transportation system while protecting and enhancing the natural environment.	Healthy Environments
Reduced Project Delivery Delays: To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies’ work practices.	Economic Vitality

1.3e Air Quality

MRMPO must meet the Clean Air Act and **Environmental Protection Agency (EPA)** conformity regulations. Currently, the region conforms with federal air quality regulations. MRMPO must make

a conformity determination on its MTP and the **Federal Highway Administration (FHWA)** and **Federal Transit Administration (FTA)** must also make a conformity determination. In addition to federal air quality regulations, the MTP must conform to the Albuquerque/Bernalillo County Air Quality Control Board transportation conformity regulations (New Mexico Administrative Code [NMAC] Title 20, Chapter 11, Part 3). Regional air quality is discussed further in Chapter 8, Healthy Environments.

1.3f Title VI and Environmental Justice

MRMPO conducts planning and public input processes to comply with Title VI of the Civil Rights Act of 1964 and the Environmental Justice Orders. Title VI prohibits discrimination on the basis of race, color, or national origin and specifies that recipients of federal funds must certify nondiscrimination. Environmental Justice requirements direct every federal agency to make environmental justice part of its mission by identifying and addressing all effects of programs, policies, and activities on minority and low-income populations. Evaluation of environmental justice as it applies to the regional transportation system is addressed in Chapter 9.

1.3g ITS Regional Architecture

Figure 3: New Mexico 2045 Plan



For any project that includes ITS elements such as communications, traffic and operational management, or travel messaging associated with informing traveler about congestion, incidents, detours, or weather conditions that affect travel decisions, MRMPO must ensure that projects comply with the Regional ITS Architecture. This requirement, referred to in 23 CFR as Rule 940, is in place so that all of these communications and data collection systems are integrated in a planned and coordinated manner that guarantees the delivery of these critical transportation information services.

1.3h New Mexico 2045 Plan and Strategic Highway Safety Plan

Federal transportation law requires **New Mexico’s Department of Transportation (NMDOT)**, MPOs, and **regional transportation planning**

organizations (RTPOs) to coordinate their long-range plan development processes. Coordination means that these organizations’ plans must be mutually consistent with respect to demographic assumptions, travel demand forecasts, and revenue forecasts. To help ensure this consistency, NMDOT, MPOs, and the RTPOs update their long-range plans on roughly the same timetable and participate in exchanges of data, information, and ideas at critical stages. The Transitions 2045 MTP

is consistent with the current statewide planning document, the *New Mexico 2045 Plan*. NMDOT also develops a statewide **Strategic Highway Safety Plan (SHSP)** that establishes emphasis areas, goals and strategies to improve safety performance on all New Mexico roadways. An update to the plan will be completed in 2025 with collaboration from partners in the state.

1.4 MTP Public Engagement

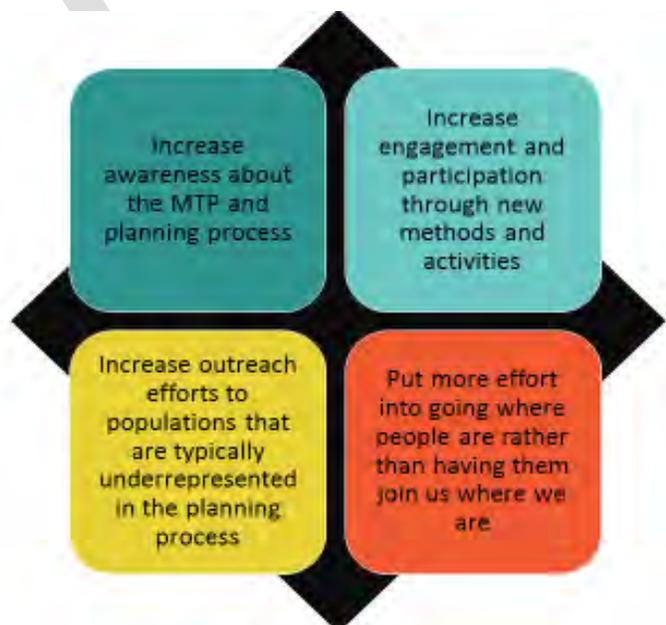
Public engagement efforts and activities for for this MTP update were guided by the Transitions 2045 MTP’s Public Participation Plan (see Appendix X) and comply with MRMPO’s *Public Participation Procedures (PPP)*. MRMPO’s overarching goal for public participation is to effectively engage as many community members and stakeholders as possible, with a focus on reaching out to populations typically underrepresented in the planning process, such as low-income and minority populations, tribal and pueblo members, young adults, the disabled community, and transit-dependent individuals.

1.4a Public Engagement Goals and Objectives

The objectives of MRMPO’s public participation goals are to increase engagement through new methods, to increase efforts to reach underrepresented groups, and to put more effort into going to *where people are* as opposed to having them come to where we are. Appendix X contains a list of public presentations, locations where outreach was conducted, MTP outreach materials, and survey results. In its outreach efforts, **MRMPO’s focus shifted from presenting information to gathering information and ideas** from the public, agency members, and stakeholders. As this information is gathered, staff integrates feedback into the applicable plans. Outreach strategies used for the Transitions 2045 MTP include the following:

- Interactive online surveys (available in English and Spanish)
- Public meetings and open houses, including new methods and techniques to better engage participants
- Attending community events and meetings to hand out information and gather feedback in geographically varied locations
- Social media, electronic newsletters, and email blasts
- Presentations to existing and new advocacy and tribal planning groups, non-profits, and community organizations
- Use of the updated Transitions 2045 MTP video to help explain the MTP planning process and products

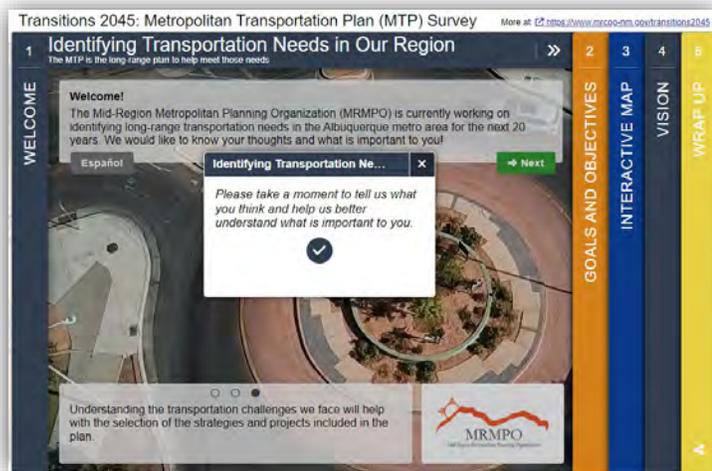
Figure 4: Public Engagement Goals for Transitions 2045



1.4b Methods for Collecting Public Input and Feedback

To collect public input and feedback for the Transitions 2045 MTP, staff used a variety of methods including two online interactive surveys that allowed participants to provide feedback on the MTP. Some of these results are detailed below. A complete overview of results is provided in Appendix X.

Figure 5: First MTP Survey



What did we gather?

- 1,600 comments from outreach events and surveys
- 662 survey participants
- 1,314 mapped data points
- 19 outreach events and meetings

MRMPO also held four official public kick-off meetings for this MTP and made a concerted effort to supplement these meetings with other opportunities for the public and key stakeholders to weigh in on the plan.

First MTP Survey

The Transitions 2045 MTP surveys were made available online in both English and Spanish. The first survey was open from October 2023 until February 2024. There were a series of questions and exercises, including mapping exercises, that were designed to collect respondents' feedback on the updated MTP Goals, their concerns and suggestions by mode on the transportation system, and their vision for the region. Two hundred eighty-eight people filled out the surveys (see full survey summary of survey results in Appendix X).

Key takeaways from the surveys included:

- Strong support for the MTP goals and objectives that deal with increasing safety for pedestrians and cyclists
- A desire to reduce the environmental impacts of transportation
- A focus on improving transit and equity outcomes.

Top concerns reported from the mapping exercise for each mode were revealing:

- Vehicle – poor roadway design

- Transit – infrequent service
- Walking – no sidewalk/inadequate sidewalk
- Bicycle – no bike facility/ not enough separation from vehicles

While people’s visions for transportation varied in interesting ways, there was a core theme for the majority of the 82 statements received. The vision exercise demonstrated a strong desire for increased bike, pedestrian, and transit infrastructure, a reduced reliance on single occupancy vehicles, and the prioritization of safety for all modes. This can be seen in the following selected examples:

- “Well paved bike paths and safer bike lanes.”
- “Improved bus service. Including late night and weekends to accommodate people who work”
- “Where accidents are minor and every method of transportation is accessible and equal”
- “Safer streets and a healthier environment for all”

Second MTP Survey

The second MTP survey was open from June 2024 until August 2024. It was comprised of questions and exercises that were designed to collect respondents’ feedback on project funding, mapping their dream transportation projects, and rating the key MTP strategies. Three hundred seventy-four people participated and filled out the second survey.

Key takeaways from the surveys included which transportation spending categories were prioritized:

Figure 6: Second MTP Survey



1st Public Transit

2nd Pedestrian and Bicycle Improvements

3rd Road Maintenance and Preservation

4th Roadway Safety

Interactive Map

Both surveys included interactive map exercises. The first survey allowed people to indicate where there were transportation challenges and potential solutions for walking, rolling, biking, driving, motorcycling, and taking public transit. There were a total of 581 map markers collected during the first survey phase. The number of markers by category are displayed in Figure 7. These results were turned into an online story map (Figure 8) and shared with the participants of the exercise, stakeholders, and MRMPO member agencies, who used the information to support the project list update for the MTP.

Figure 7: First Survey Map Marker Summary by Mode

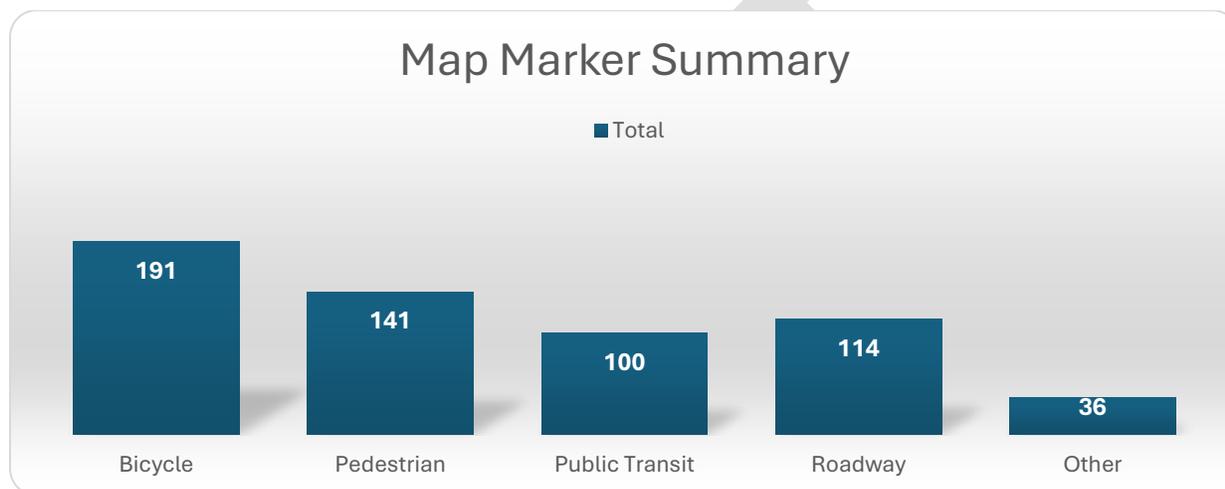
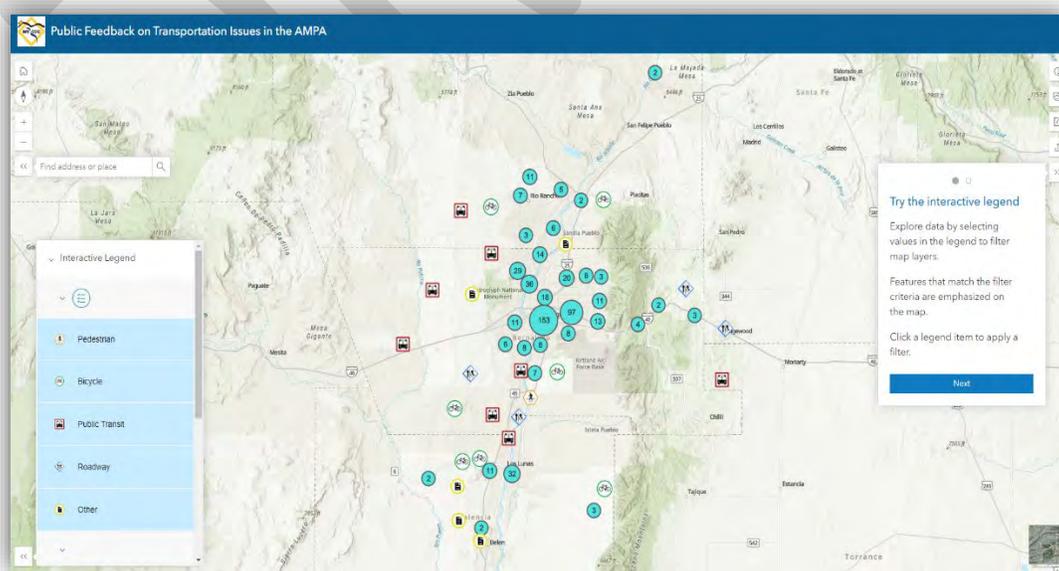
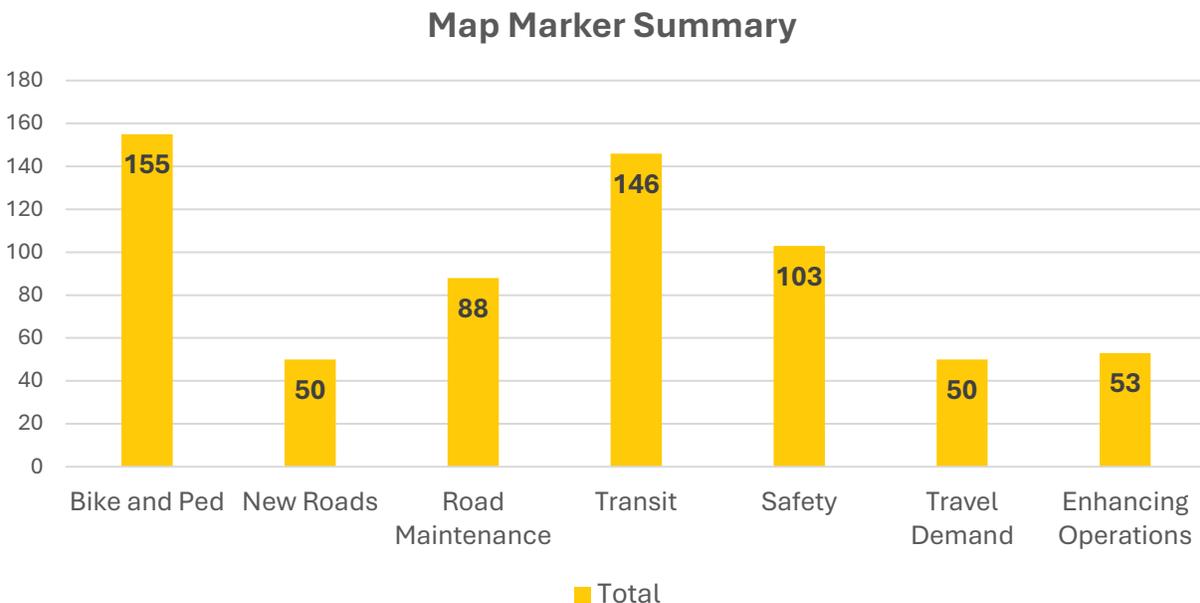


Figure 8 : First Survey Online Story Map



The second survey asked participants what dream transportation project they would like to see in the region based on the MTP transportation project funding categories. There was a total of 631 map markers collected. The results are displayed in Figure 9.

Figure 9 : Second Survey Map Marker Summary by Project Type



What Was Done Differently

To help guide the outreach efforts, the Transitions 2045 MTP Public Participation Plan was developed in conjunction with updates to MRMPO’s *Public Participation Procedures* and outreach tools. This allowed for new approaches and best practices to be adopted while continuing to employ effective outreach methods from the previous MTP update. For example, there was an emphasis on attending existing meetings for member agencies, committees, Tribal partners, and community organizations. This helped get the word out, provide forums for collecting feedback, and inform key stakeholders about the MTP update while maintaining the MPO’s goal of going to “where people are.” This included using virtual engagement to a greater extent to allow for more flexibility and opportunities. There was also a greater emphasis on iterative evaluation during the outreach process, where MRMPO staff reflected on how effective or ineffective various strategies were at gathering quality feedback. This included developing tools to better track progress and perform internal audits to ensure our goals and targets were met. These tools are available in Appendix X.

How Feedback Was Integrated

The outreach process facilitated the collection of valuable and meaningful data that has assisted the MTP update process. Integral aspects of the Transitions 2045 MTP such as the goals, strategies, funding priorities, projects, long range vision, and safety and equity concerns have been developed in tandem with the public, member agencies, community organizations, advocacy groups, and a variety of other stakeholders. As previously mentioned in this chapter, the data points collected

from the mapping exercise in the first survey were developed into an interactive web map for MRMPO member agencies. This map was shared during the project list update for the MTP to provide an additional layer of transportation information that could be used to identify where certain investments should be prioritized.

1.5 Contents of the MTP

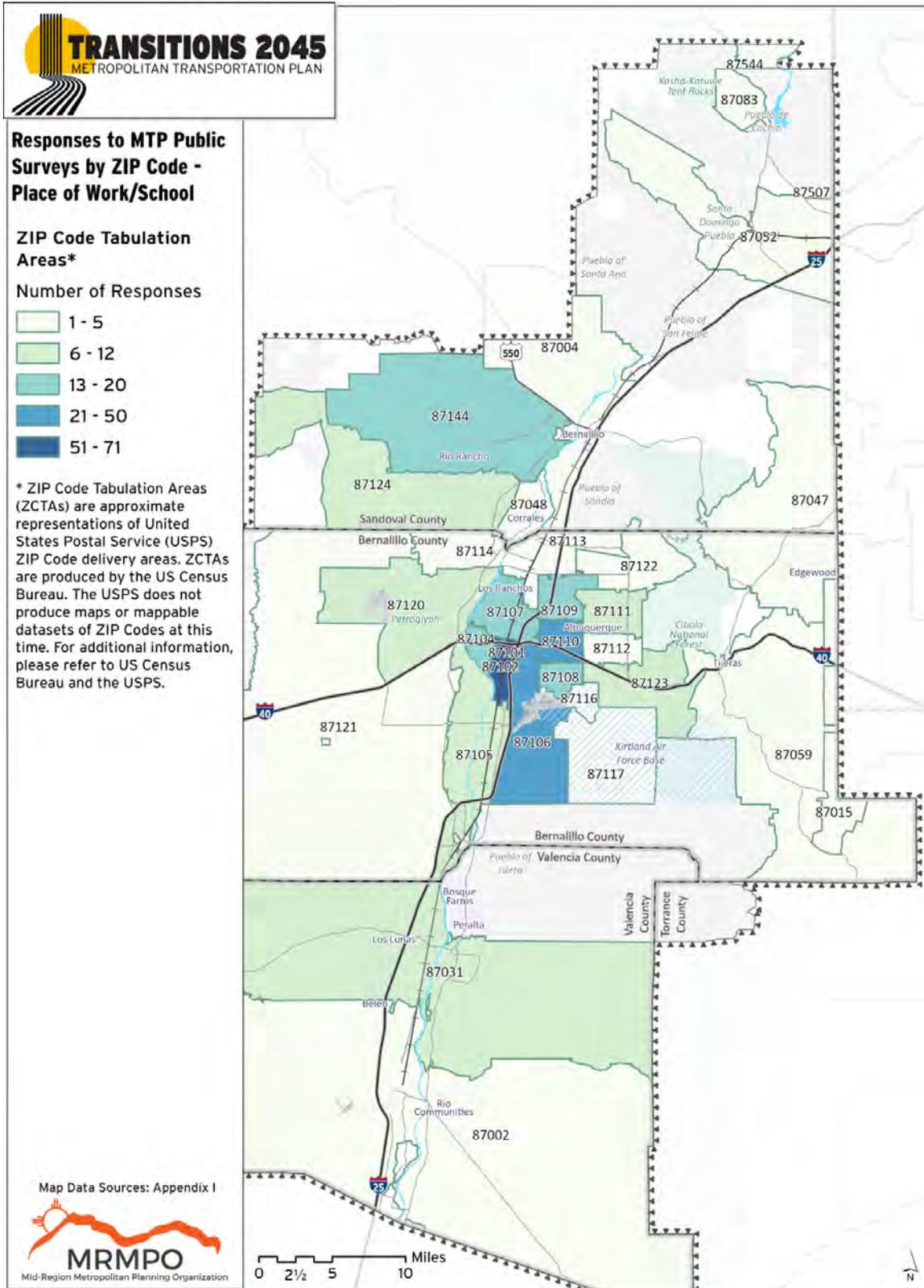
Document Organization and Chapter Summaries

The Transitions 2045 MTP includes discussion of the current state of the region and how conditions are expected to change in the coming years before delving into focused chapters that include content grouped around the goals and key themes of the MTP. The MTP concludes with a look at plan financials, implementation, and evaluation.

Table 4: Document Organization and Chapter Summaries

Chapter 1: Introduction to the long-range transportation plan and the role of the MRMPO, plan requirements, and public outreach performed for the plan.
Chapter 2: Current State of the Region for socioeconomic, transportation, and land use trends.
Chapter 3: Regional Forecast for population and employment growth in the next 20 years and how our transportation system is expected to perform.
Chapter 4: Mobility including how the roadway and transit systems are performing, congestion management activities, and an overview of new and emerging technologies affecting transportation.
Chapter 5: Safety challenges in the region as well as actions being taken to address safety for the traveling public.
Chapter 6: Active Transportation travel conditions and efforts to improve conditions for bicycle and pedestrian modes of travel.
Chapter 7: Economic Vitality and the ways in which transportation and economy intertwine. Housing affordability and goods movement are also discussed.
Chapter 8: Healthy Environments and environmental concerns including climate change, conservation of resources, and air quality.
Chapter 9: Equity and environmental justice considerations such as access to destinations via transit and accessible sidewalks for different populations.
Chapter 10: Financial Analysis of expected costs of projects, revenues, and financial requirements for MPOs. Describes financial aspects of the plan including federal funding, fiscal constraint, revenue projections, and maintenance and operations costs. NOTE: this chapter is still under development.
Chapter 11: Plan Implementation and Evaluation , including ways in which the plan is implemented and MTP and TIP projects are evaluated. Strategies for achieving the MTP goals are highlighted.
Supplemental materials are included in the Appendix, including the MTP project list.

Map 4: Responses to MTP Public Surveys by Zip Code - Place of Work/School



CHAPTER 2 CURRENT STATE OF THE REGION

The **Albuquerque Metropolitan Planning Area (AMPA)** is home to New Mexico’s highest concentration of population and jobs. As of 2020, there were approximately 891,000 people and 403,000 jobs², which represents 42 percent of the state’s population and about 48 percent of its jobs. The metro area also hosts New Mexico’s largest city, the City of Albuquerque (population 564,584); its fastest growing municipality since 2020, Los Lunas (at 10 percent); and the city with the largest numeric growth since 2020, Rio Rancho (at +6,227).³ The AMPA is home to several major educational institutions, including the **University of New Mexico (UNM)**, **Central New Mexico Community College (CNM)**, and **Albuquerque Public Schools (APS)**; major hospitals including University of New Mexico Hospital and Presbyterian Hospitals; and other large employers such as Sandia National Laboratories, Intel Corporation, and Kirtland Air Force Base. With a unique mix of urban and outdoor amenities and vast agricultural and rural rangelands, the AMPA offers a range of settings and lifestyle opportunities for its diverse population.

This chapter sets the stage for the elements contained in each Transitions MTP chapter and provides a general overview of regional trends affecting transportation programming and policy. The chapter compares the current state of the region to past trends to identify shifts in population and employment, travel patterns, and housing affordability.

The chapter will also discuss the region’s progress towards achieving the Target Scenario, which was developed and refined over the last three MTPs. The Target Scenario was an alternative future that envisioned stronger centers of economic activity, an improved balance of jobs and housing east and west of the Rio Grande, and the preservation of open space, agricultural land, and rural communities. As the region has made substantial progress towards realizing the Target Scenario over the years, the **Mid Region Metropolitan Planning Organization (MRMPO)** must now focus its attention on addressing new needs brought about by significant shifts in its economic, social, and transportation fabric over the past five years. These include the COVID-19 pandemic, shifts in travel behavior, flattening population growth, and increasing cost of infrastructure. This chapter highlights these changes and their impact on the AMPA’s transportation needs.

2.1 Transitions Since the Connections 2040 MTP

Three major factors have emerged in the past five years that have shifted infrastructure needs in the future:

- **The COVID-19 pandemic** fundamentally changed the way residents and workers travel throughout the region.
- **Overall population growth** in the region has essentially stalled which has resulted in reduced expectations for future growth.

² MRMPO’s definition of employment includes all jobs covered by unemployment insurance as well as an estimate of agricultural workers, military, and self-employment.

³ Annual Estimates of the Resident Population for Incorporated Places in New Mexico: April 1, 2020 to July 1, 2023. Source: U.S. Census Bureau, Population Division Release Date: May 2024

- **The cost of infrastructure** has increased substantially, raising the price tag on transportation projects by 20 to 30 percent or more.

2.1a COVID-19 Pandemic

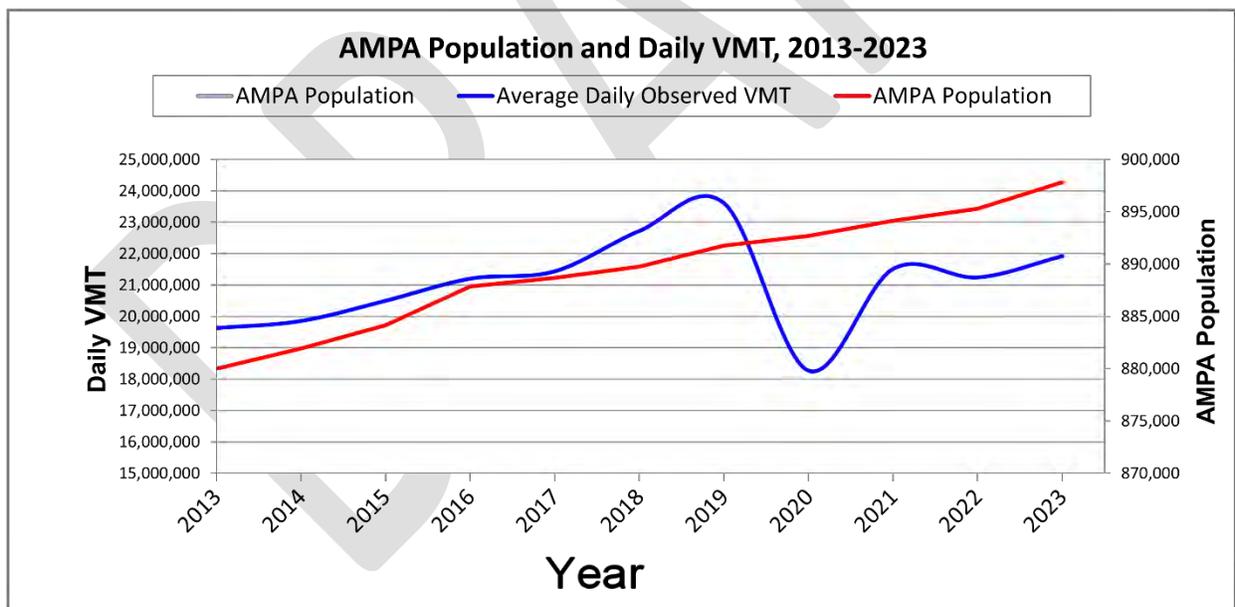
The COVID-19 pandemic changed daily life in the AMPA in substantial ways. While the loss of community members was the most direct and damaging effect of the pandemic, its residual effects continue to shape the landscape of the region, especially as it relates to transportation. These effects include shifts in travel demand and peak times of travel, an increase in working from home and virtual meetings, changes to transit ridership and service, and an emergence of new transportation technologies.

Decrease in Vehicular Travel Demand

The impacts of the pandemic have been felt across all aspects of daily life. Although it is unclear if post-pandemic trends will be long-lasting, the pandemic caused notable changes in travel demand and travel patterns in the AMPA, including:

- An immediate drop in regional traffic volumes in 2020. In the years following, traffic volumes have increased but have not returned to pre-COVID levels .
- An increase in employees working from home (including full time remote or hybrid in-person/remote) and increased flexibility in traditional work hours.

Figure 10: Traffic Volumes



Source: MRCOG Traffic Counts Program

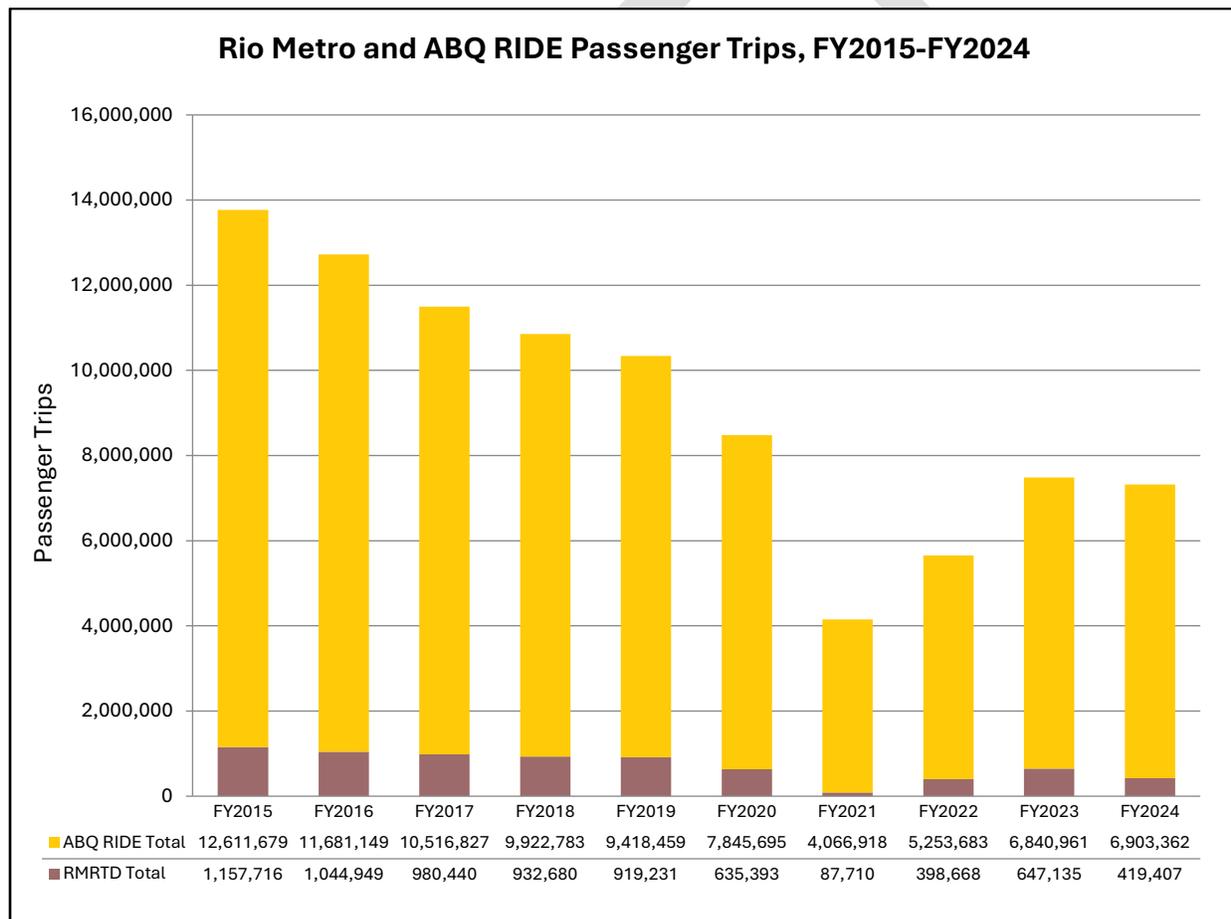
The annual number of Vehicle Miles Traveled (VMT) dropped significantly in 2020, the first year of the pandemic. This is easily explained by work from home policies and business closures intended to combat the spread of the coronavirus. After the first year, volumes began to slowly edge up again. From 2021 to 2023, traffic volumes were below pre-pandemic levels by 23 percent in 2021, 10 percent in 2022, and 8.4 percent in 2023. Today, traffic volumes remain considerably lower than five years ago and appear to be on a new and lower growth trajectory than prior to the pandemic.

Decrease in Transit Service

The COVID-19 pandemic of 2020 created the largest shock to the transit system in modern history. Between April 2019 and April 2020, transit ridership in the United States decreased by 81 percent, according to an FTA report.⁴

ABQ RIDE, the City of Albuquerque’s transit agency, significantly cut back service during the pandemic, especially on commuter routes. While similar metropolitan areas such as Spokane, Washington and Tucson, Arizona bounced back from pandemic ridership and service decreases, Albuquerque has been slower to rebound. Restoring pre-pandemic levels of service has proven to be difficult: One contributing reason is that ABQ RIDE has been able to restore only 81 percent of the bus network due to a shortage of bus drivers and maintenance technicians. Albuquerque passenger trips in 2024 are only at 71 percent of 2019 numbers. Similarly, passenger miles traveled in 2024 are at 61 percent of the levels in 2019.

Figure 11: Rio Metro and ABQ RIDE Passenger Trips, FY2015-FY2024

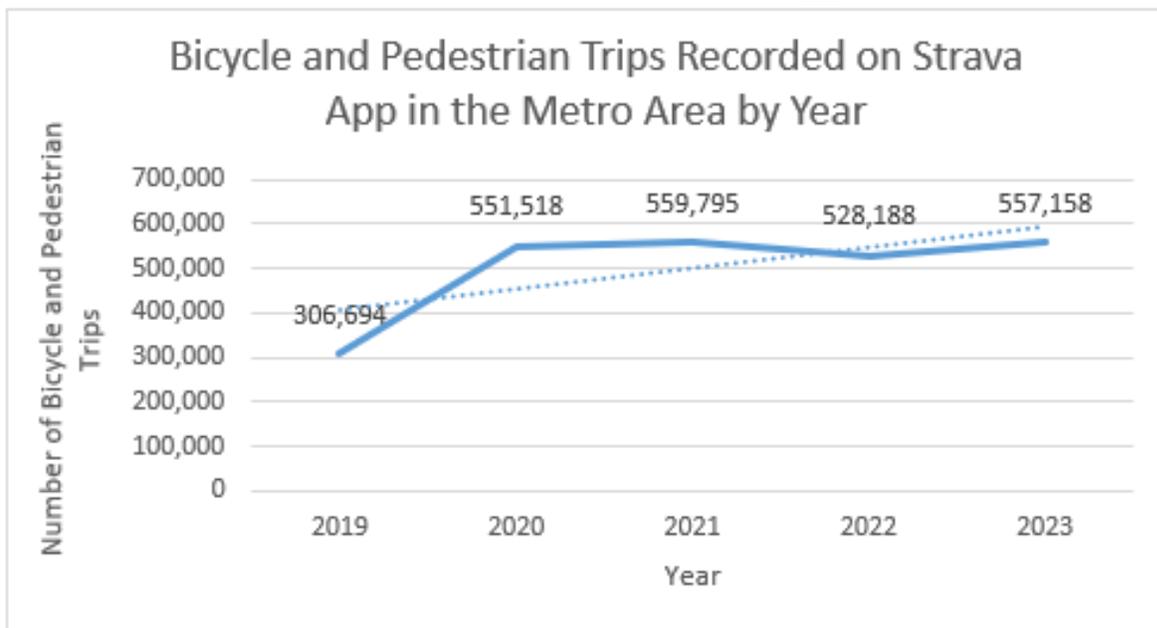


⁴ <https://www.transit.dot.gov/sites/fta.dot.gov/files/2024-08/FTA-Report-0268-Effects-of-the-COVID-19-Pandemic-on-Transit-Ridership-and-Accessibility.pdf&ved=2ahUKEwja2Y7H6LiJAxXo48kDHUclFh4QFnoECA0QAQ&usg=AOvVaw1E-I6H0m2BYSDCKSZB5pCO>

Increase in Active Transportation

While VMT in the AMPA dropped during the pandemic, bike and pedestrian trips recorded on the popular fitness app Strava increased by 80 percent from 2019 to 2020. Strava trips remained similarly high from 2021 to 2023. While long-term trends from the pandemic remain to be seen, and there are many limitations to Strava data (such as the use of the app for recreational trips and low use among low-income residents), the increase observed in walking and biking post-pandemic is encouraging. For more information on active transportation in the AMPA, reference Chapter 6.

Figure 12: Bicycle and Pedestrian Trips Recorded on Strava App in Metro Area by Year



Transitions in Work-Related Travel

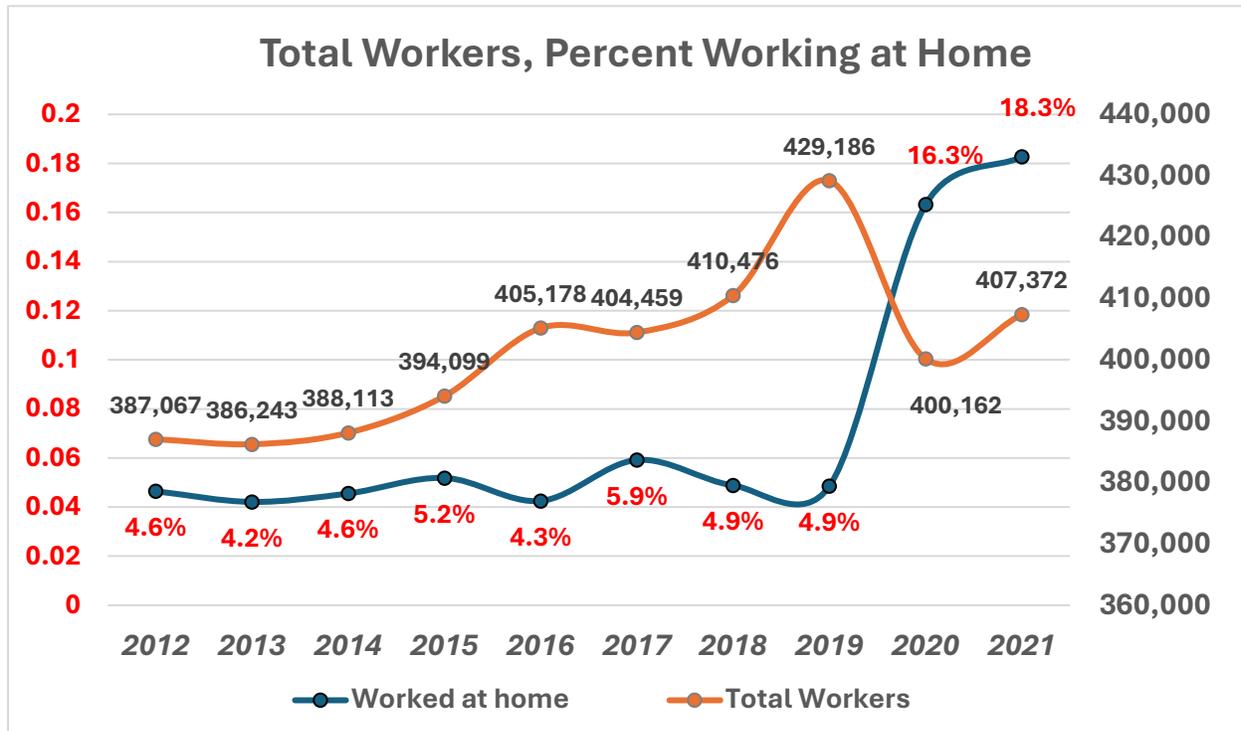
The pandemic demanded a swift adaptation to working conditions, especially for white collar jobs that can often be completed remotely with remote work technology. Even following the lift of pandemic-related in-person work restrictions, there has been a noteworthy, and perhaps permanent, increase in workers who work from home, have more flexible hybrid work schedules, and/or conduct remote meetings in lieu of in-person meetings. These trends have notably impacted travel behavior within the AMPA.

Work From Home

The COVID-19 pandemic resulted in a dramatic increase in working from home: in the metro area, 15 percent of workers worked from home in 2022, up from five percent before the pandemic. In 2022, there are 45,000 more workers working from home than in 2019, representing about one out of every seven workers in the AMPA. While the workforce for all industries increased by just three

percent post-COVID, workers working from home increased by 230 percent to total 64,000 workers.⁵

Figure 13: Total Workers, Percent Working at Home



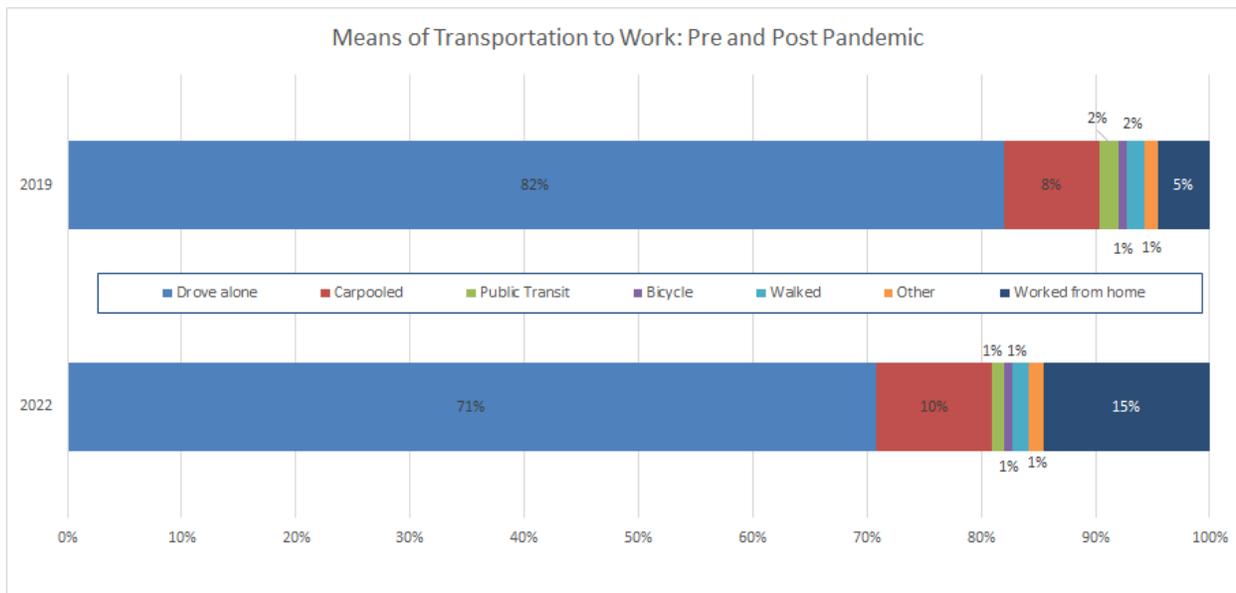
In the metro area, remote work trends have predictably shifted patterns in commute modes. By 2022, workers driving alone to work decreased by 11 percent, or nearly 40,000 workers since before the pandemic. Where single occupancy vehicles represented 82 percent of commuters, this mode now accounts for 71 percent of commuters.⁶

The largest explanation for the decrease in driving alone is the growth in remote work, which increased from five percent to 15 percent of the workforce in the AMPA.

⁵ U.S. Census Bureau. "Means of Transportation to Work by Industry." American Community Survey, ACS 1-Year Estimates Detailed Tables, Table B08126, 2022, <https://data.census.gov/table/ACS1Y2022.B08126?t=Commuting&g=310XX00US10740&y=2022>. Accessed on July 30, 2024.

⁶ U.S. Census Bureau. "Means of Transportation to Work." American Community Survey, ACS 1-Year Estimates Detailed Tables, Table B08301, 2022, <https://data.census.gov/table/ACS1Y2022.B08301?t=Commuting&g=310XX00US10740&y=2022>. Accessed on July 30, 2024.

Figure 14: Means of Transportation to Work (Pre- and Post-Pandemic)



Flexible Schedules and Shifts in Traffic by Time of Day

Peak periods of travel have also shifted since 2020, likely due to the flexibility now afforded to travelers with dynamic work schedules.

Pre-COVID morning traffic volumes historically peaked between 7 a.m. to 8 a.m., and afternoon traffic volumes peaked between 4 p.m. to 6 p.m. Currently peak volumes are lower overall than before the pandemic and are more spread out in the afternoon between 2 p.m. – 6 p.m. This effect is known as “peak-hour spreading” and, in some instances, can help manage congestion during the busiest times of the day.

Moving forward, it is likely that travelers will maintain flexibility in travel times, and variations may also emerge in travel for different days of the week. For example, it is now more common to work three days in the office and two days at home, also known as a 3:2 Hybrid Schedule. The variety of days workers may choose to work in the office or at home can lead to reduced traffic on certain days of the week.

Techniques to improve the efficiency of the transportation system, primarily by reducing the number of single-occupancy vehicles (especially during peak hours), is referred to as **Travel Demand Management (TDM)**. TDM strategies have historically included flexible work schedules that reduce the number of days reporting to the workplace, or shift working hours to avoid peak commute times. Schedule adjustments require no infrastructure to implement, are low cost, and are very popular among workers. Further discussion on TDM is included in Section 4.3.

Virtual Meetings

Nationally, remote meeting share increased 60 percent since the pandemic began.⁷ Remote work and associated online activities have proven convenient while also reducing VMT. Many public and private sector employers have since expanded their offerings of virtual/telework meetings

⁷ Think Remote (January, 2023)

considerably; all contributing to the observed reductions in area VMT. In addition, remote medical appointments and virtual classrooms also contribute to lower traffic volumes.

Pandemic Impacts on New Technology

The pandemic ushered in advances in technology that changed the way people and goods move throughout the metropolitan area. An increase in online shopping and grocery delivery resulted in fewer trips for shopping but an increase in delivery trips. Other technologies, such as alternative refueling stations and connected vehicle-compatible infrastructure have served to improve efficiency in people and goods movement. Further discussion of new and emerging technologies and their associated impacts on mobility in the region can be found in Section 4.1c.

2.1b Flattened Growth and Demographic Shifts

Another key factor that has shifted transportation needs in the metropolitan area is flattening population growth and shifts in the demographic and economic makeup of the AMPA region.

Population and employment growth are highly interrelated. When new jobs locate within the region, or when existing businesses expand, new workers and their families move into the area, and existing workers may gain the financial stability they need to grow their families.

Transportation infrastructure throughout the AMPA supports the overall vitality of the region by allowing workers to access employment sites and consumers to access goods and services. This subsection moves beyond the current state of the region and the commentary on pandemic-related impacts to discuss growth trends and what the future of the region may hold.

Population Growth and Trends

Between 2020 and 2023, the three counties that contain the AMPA gained approximately 5,180 people, with a pace of growth of 0.6 percent. Table X depicts overall population change in the region from 2020 to 2023. While overall population growth throughout the metro area is essentially flat at under one percent, there are differences between the jurisdictions. Sandoval County has continued to see sustained growth and Bernalillo County has experienced population decline.

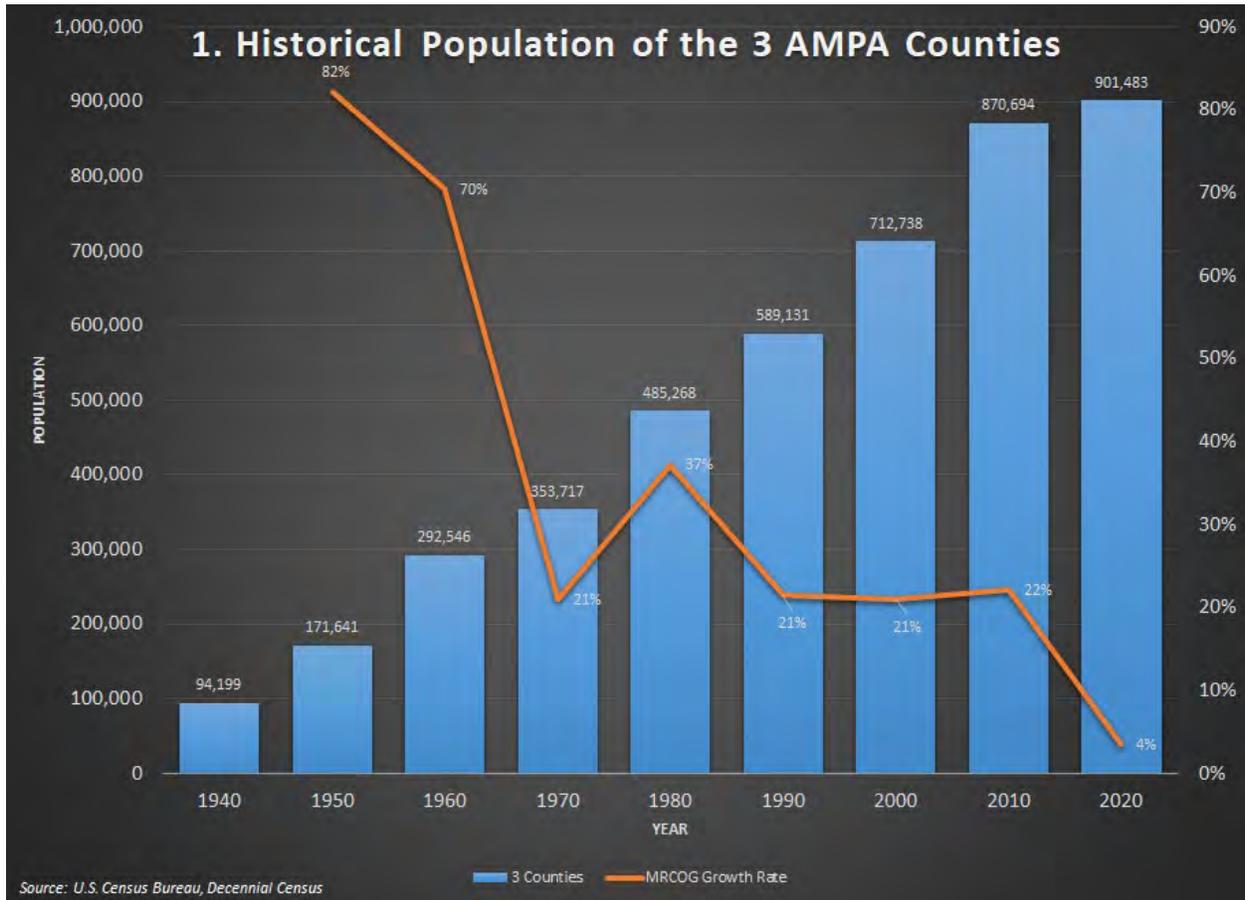
Table 5: Recent Population Change within the AMPA's 3 Counties: 2020, 2023

	2020	2023	Numeric Growth	Percent Change
Bernalillo County	676,444	671,586	-4,858	-0.7%
Albuquerque	564,559	560,274	-4,285	-0.8%
Los Ranchos	5,874	5,828	-46	-0.8%
Tijeras	465	463	-2	-0.4%
Remainder of Bernalillo County	105,546	105,021	-525	-0.5%
Sandoval County	148,834	155,936	7,102	4.8%
Town of Bernalillo	8,977	9,114	137	1.5%
Corrales	8,493	8,616	123	1.4%
Rio Rancho	104,046	110,660	6,614	6.4%
Remainder of Sandoval County	27,318	27,546	228	0.8%
Valencia County	76,205	79,141	2,936	3.9%
Belen	7,360	7,474	114	1.5%
Bosque Farms	4,020	4,076	56	1.4%
Los Lunas	17,242	19,079	1,837	10.7%
Peralta	3,342	3,424	82	2.5%
Rio Communities	4,926	4,907	-19	-0.4%
Remainder of Valencia County	39,315	40,181	866	2.2%
AMPA Estimate	901,483	906,663	5,180	0.6%
New Mexico	2,117,525	2,114,371	-3,154	-0.1%

Source: US Census Bureau, Decennial Census, Population Estimates Program

This flattening of population growth is a fairly recent trend. Figure 15 depicts the historical population growth of the three counties within the AMPA (Bernalillo, Sandoval, and Valencia Counties). While historically the metro area has seen robust growth, the rate of growth has declined substantially since 2010.

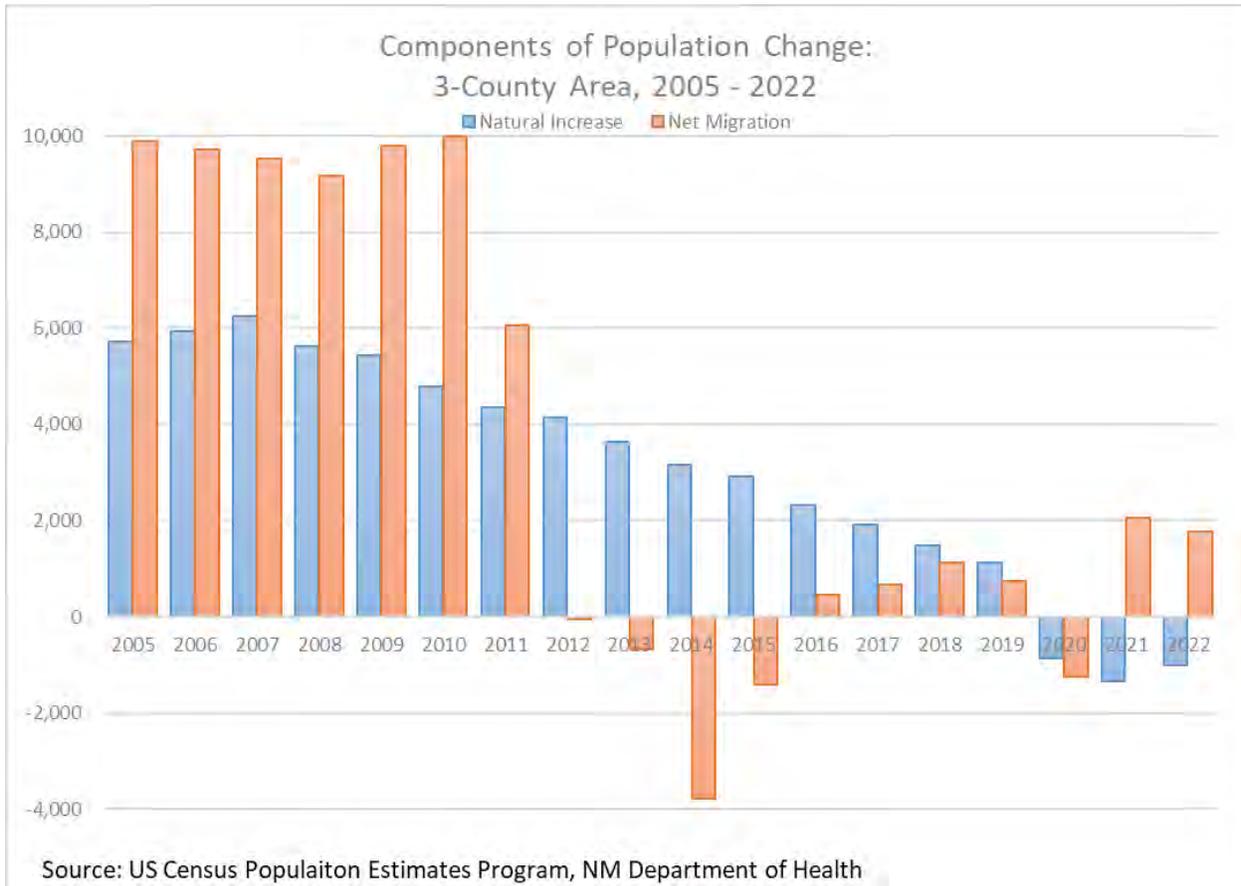
Figure 15: Historical Population of the 3 AMPA Counties



The recent slowdown in population growth was precipitated by the Great Recession and amplified by the pandemic. Figure 16 shows population change in the Albuquerque MSA since 2000 broken down by natural increase and net migration. Natural increase is the population change attributed to births and deaths in the region. Net migration is the total population change from people moving in and out of the region.

Over the past decade, the three counties containing the AMPA experienced declining births and increased deaths, which is consistent with national trends. This is consistent with demographic shifts towards people choosing to have fewer children later in life, and the aging of the population and the large baby boomer age cohort in particular. Migration into the metropolitan area also slowed over the past decade, although recent data indicates in-migration is picking back up.

Figure 16: Components of Population Change (3-County Area, 2005-2022)



Migration is a key component of population growth, particularly in the Albuquerque Metropolitan Area, which has been an attractive destination for migration both from within the state and from outside of it. Bernalillo County has led the state in attracting international migration, which is a key component of growth. Figure 16 shows the crucial role of migration in the overall growth of the AMPA. In 2021 and 2022, the region returned to positive net migration, with more people moving in than out. However, since 2020, birth rates have been outpaced by deaths, and therefore insufficient to sustain the existing population. The takeaway is that without positive migration, the metropolitan area’s population will be in decline.

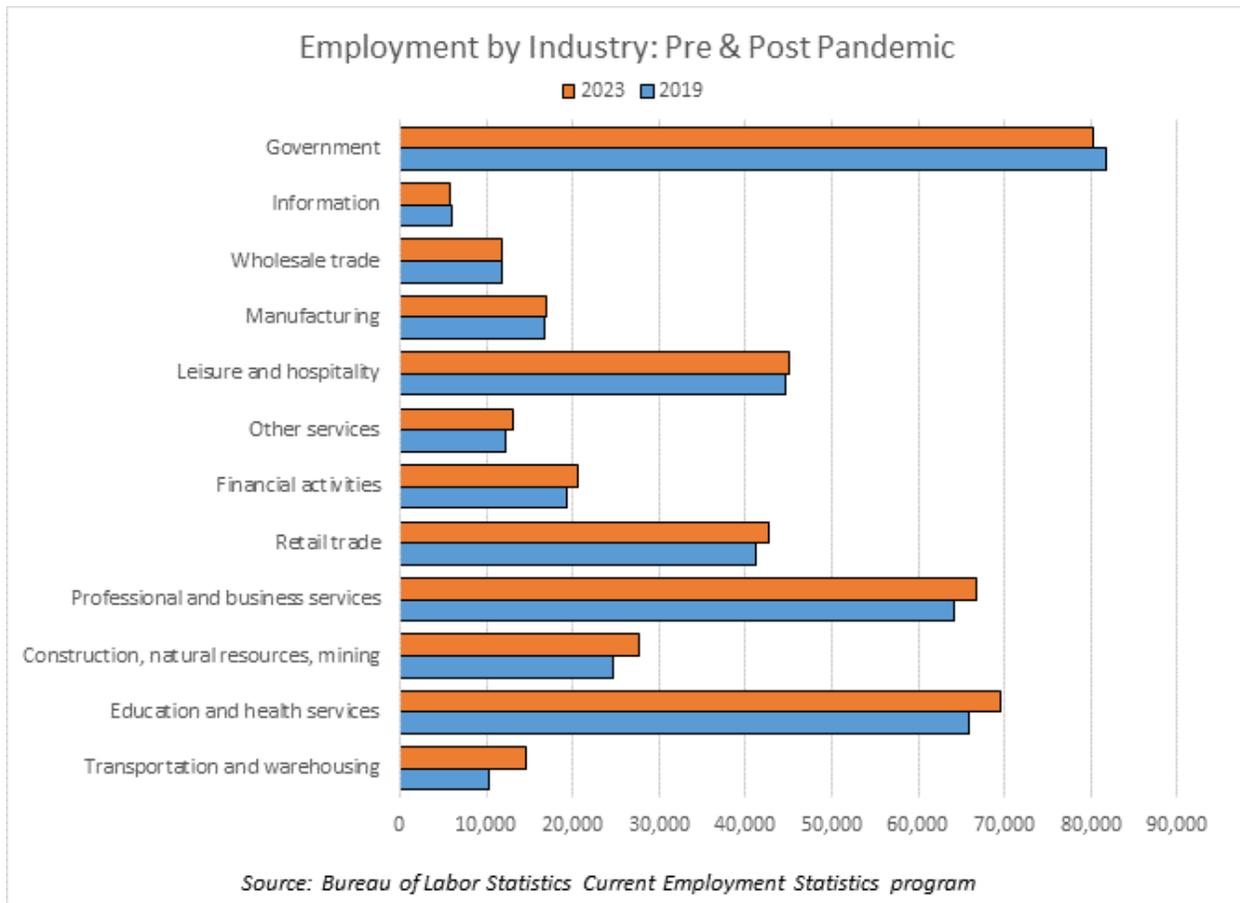
Employment growth and trends

Following the COVID-19 pandemic, the region lost approximately 25,000 jobs. However, by 2022, employment had rebounded to exceed pre-pandemic figures. As of April 2024, there were 419,700 non-agricultural jobs in the Albuquerque Metropolitan Statistical Area (MSA) and the unemployment rate was 3.1 percent.⁸ The Albuquerque MSA includes Bernalillo, Sandoval, Torrance and Valencia Counties.

⁸ The Albuquerque MSA encompasses Bernalillo, Sandoval, Torrance and Valencia Counties. The nonfarm employment figure is from NMDWS Labor Market Review, April 2024, and is not seasonally adjusted.

Figure 17 illustrates employment levels in major sectors before and after the pandemic.

Figure 17: Employment by Industry (Pre- and Post-Pandemic)



The region’s largest employer continues to be the government, followed by Education and Health Services, and Professional and Business Services. However, since 2019, the largest increase in employment was in Transportation and Warehousing, which gained 4,000 jobs for a 36 percent increase. This growth is reflected in the rise of consumer demand for fast and reliable shipping, a trend that was accelerated by the pandemic. Transportation supports activities for aviation, rail, and freight fall within this category, as well as facilities that store goods in route to their final destination. The Transportation and Warehousing industry sector is increasing in importance in the region; its most visible example is the recent Amazon facilities located in the City of Albuquerque and the Village of Los Lunas. Industry sectors and transportation needs are further discussed in Chapter 7: Economic Vitality.

Age

It is important for MPOs across the county to consider age as a component of transportation planning activities, in large part due to the differences in mobility needs and preferences and challenges different age groups have across a region. By highlighting age as a component in transportation planning, the AMPA will be better positioned to create and/or influence the

development of regional transportation systems that are inclusive, accessible, and adaptable for people of all ages and abilities.

Figure 18: Age Distribution Over Time: Historical and Forecast

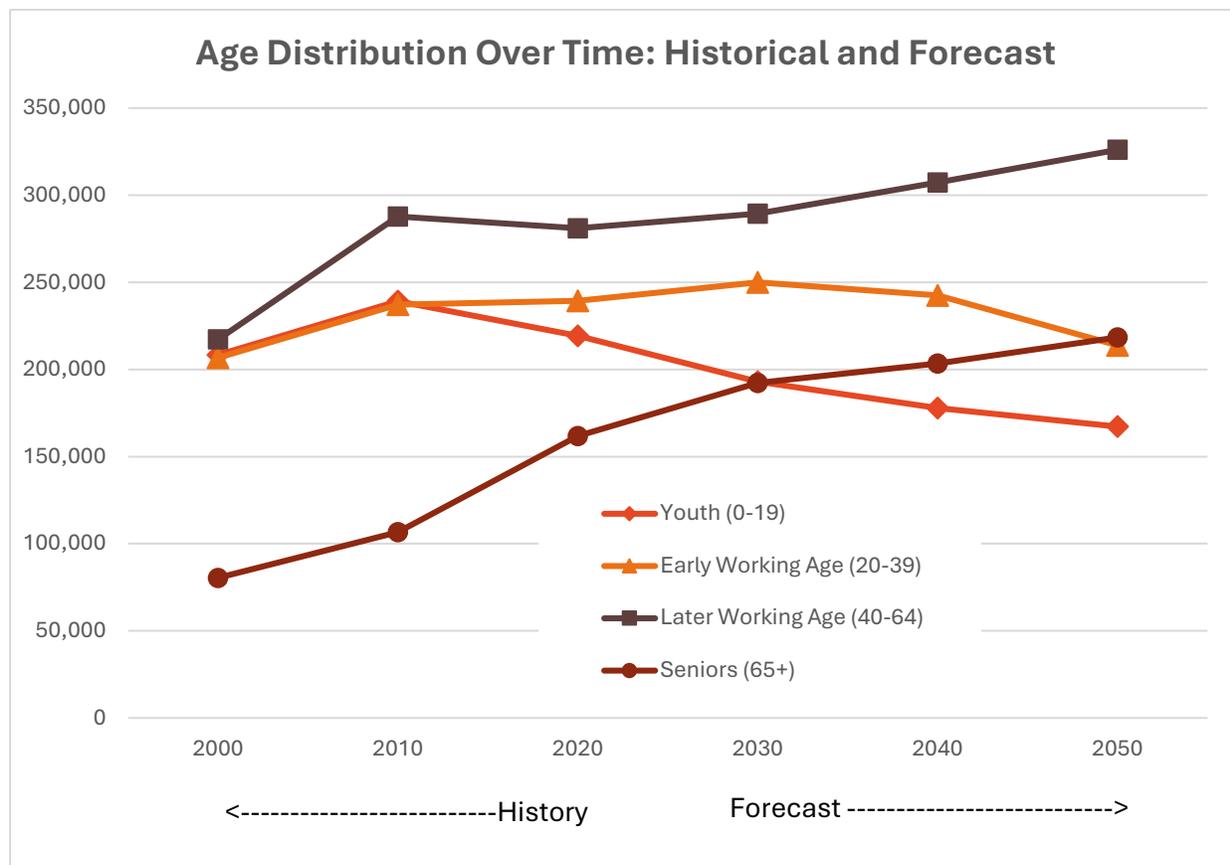


Figure 18 highlights some important shifts in age distribution over the next three decades. The number of youth will continue to decline as people have fewer children. This has implications for school enrollment, which has been declining for the past decade. This trend is expected to increase the urgency of conversations that are already happening today about reuse of existing school buildings and how to adjust districts appropriately to most efficiently transport children to school.

The figure also shows the dramatic rise in seniors aged 65+. It is expected that we will gain approximately 60,000 more seniors by 2045, increasing their share from 18 percent to 22 percent of the population. This will have impacts on travel as seniors require access to healthcare, groceries, transit, and other key destinations. As this age cohort advances it will be critical that senior care providers consider access when choosing a location, as well as safe and accessible pathways for pedestrians and people with disabilities.

Contrary to the growing senior population, the working age population under 65 will hold constant at about 58 percent of the total population over time. This may mean a flattened future demand for travel during peak commute times. It also may result in fewer workers to serve an aging population, although many people are continuing to remain in the workforce later in life, which may alleviate

some of that demand. In addition, the workforce itself is aging. The implications of this may mean higher payrolls, greater institutional knowledge, and workers who may have greater flexibility without young children at home.

Housing Affordability Challenges

Many households in the region are affected by high housing costs relative to income. Thirty-one percent of households in the region are cost-burdened, meaning that they spend more than 30 percent of their income on housing costs. Fifty-one percent of renters in the region are cost-burdened compared to 22 percent of owners. The percentage of owners who are cost-burdened decreased from 2010 to 2022 (from 29 percent to 22 percent) while the percentage of renters who are cost-burdened increased from 49 percent to 51 percent. The decrease in owner cost burden might be attributed to the drop in mortgage interest rates in 2020, which allowed mortgaged owners to lower their housing costs through refinancing.⁹

Although homeowners tend to spend less of their income on housing, buying a home is not affordable for the majority of people who are currently renters. Figure 19 compares the median home price to what would be affordable for a renter earning the median renter income in the AMPA. In 2022, a household making the median income of a renter would only be able to purchase a home costing \$163,000, which is \$150,000 less than the 2022 median home price of \$315,000. The combination of higher interest rates and elevated home prices in the region as of 2024 makes homeownership unattainable for households with income below 100 percent area median income (AMI) without subsidies.¹⁰

⁹ Albuquerque Region Housing Needs Assessment, 2024

¹⁰ Albuquerque Region Housing Needs Assessment

Figure 19: Median Home Price v. Affordable Home Price, Region, 2018-2022



Note: Affordability estimates assume a household spends 30% of their income on housing and assume a 30-year mortgage with a 10% downpayment, 30% of monthly payment is used for property taxes, utilities, insurance. Interest rates used are the historical 30-year fixed rate average from Freddie Mac from 2018 to 2022.

Source: HMDA, Freddie Mac, ACS 5-year estimates, and Root Policy Research.

Housing costs are affected by the supply of housing units. According to the recent Housing Needs Assessment conducted for the MRCOG region, there is a shortage of about 22,000 units affordable to households with income at or below 30 percent of the AMI. The Housing Needs Assessment states that at least 55,100 additional housing units will be needed by 2045 to keep up with housing demand and new household formation. Of these housing units, between 11,600 and 12,700 rental units and between 19,600 and 21,300 ownership units need to be affordable to low- and moderate-income households earning 120 percent AMI or less. Housing affordability and other regional housing-related challenges are further discussed in Chapter 7.

2.1c Cost of Infrastructure

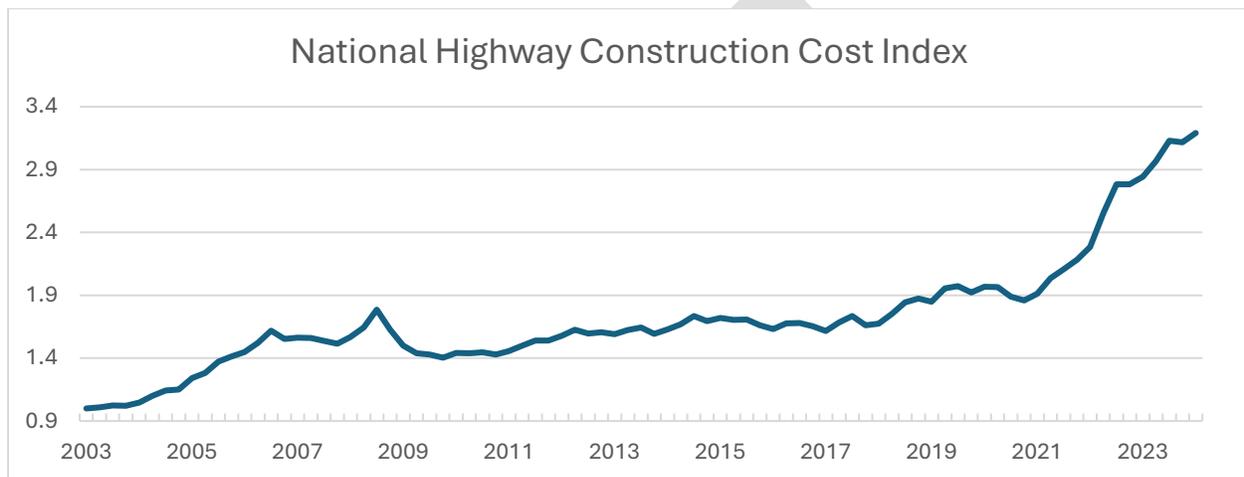
The rising costs of building infrastructure coupled with flattened population growth create significant challenges in implementing transportation improvements. Population growth rates affect revenues from gas taxes, vehicle registration and licensing fees, gross receipt taxes, and property taxes. If these revenue sources decline, and infrastructure costs continue to rise, implementing agencies will not be able to provide infrastructure at previous levels and will need to plan strategically to maximize the benefits of available funding. Given these challenges, agencies must carefully consider the long-term impacts and costs associated with new construction projects.

Construction Costs

High inflation is one significant cause of higher infrastructure costs. This is both a regional and national trend. Table XX shows the National Highway Construction Cost Index (NHCCI), a price index used to track construction costs over time. The NHCCI has increased 62 percent between the first quarter of 2020 and 2024.¹¹ The largest factors driving this increase is the higher costs of asphalt and oil.

In New Mexico, the DOT has noted 20 percent cost escalations for construction bids per year since Fiscal Year 2020.¹²

Figure 20: National Highway Construction Cost Index



Tax Revenues

Gas tax revenue has declined in recent years, in part due to more fuel-efficient vehicles and the shift to electric vehicles. In 2021, gas tax made up 25 percent of the NMDOT’s state road fund recurring revenue sources, but the DOT forecasts that it will only make up 22 percent of revenue by 2025.¹³ Other revenue sources include special fuel tax (26 percent), weight distance tax (21 percent), vehicle registration (18 percent), motor vehicle excise tax (2 percent) and other sources (8 percent).¹⁴ While the NMDOT forecasts a decrease in gas tax revenue, special fuel tax revenue is projected to increase.

With increasing project costs, state and local implementing agencies have found it challenging to complete transportation projects in the existing construction pipeline. Since 2020, project costs have grown substantially. This has resulted in the need for ‘gap financing’ and other creative solutions to ‘keep projects whole’ at the time of construction, rather than reducing the scope or breaking them into future phases. Due to rising costs, implementing agencies will need to find new

¹¹ https://data.transportation.gov/Research-and-Statistics/NHCCI/r94d-n4f9/about_data

¹² <https://www.nmlegis.gov/Sessions/24%20Regular/firs/HB0003.PDF>

¹³ <https://www.nmlegis.gov/handouts/TIRS%20061721%20Item%204%20Sandoval.pdf>

¹⁴

[https://www.nmlegis.gov/\(X\(1\)S\(xrraljo22wt0uigx0hz3ynjf\)\)/handouts/RSTP%20070522%20Item%206%20Transportation%20Revenue%20Sources%20Distributions%20State%20Comparisons.pdf](https://www.nmlegis.gov/(X(1)S(xrraljo22wt0uigx0hz3ynjf))/handouts/RSTP%20070522%20Item%206%20Transportation%20Revenue%20Sources%20Distributions%20State%20Comparisons.pdf)

funding sources or expand revenue from current funding sources in order to maintain current levels of infrastructure spending. Discretionary grants that are available through IJA are one funding source that member agencies are increasingly accessing to help fund projects that might not otherwise be constructed.

2.2 The Target Scenario

The Target Scenario is an alternative vision of growth that emphasizes the integration of land use and transportation planning. This scenario promotes targeted investments based on plans and policies and improving access to jobs and services throughout the region. The Target Scenario envisioned three key elements:

- Strengthen regional activity centers, support a core transit network, and promote safe bicycle and pedestrian connections.
- A better balance of jobs and housing east and west of the Rio Grande.
- Preservation and protection of open space, agricultural land, and rural communities.

Through its modeling tools, MRMPO demonstrated that by promoting these core principles of the Target Scenario the region could achieve shared benefits across jurisdictions which included fewer vehicle miles traveled, increased transit ridership, lower vehicle emissions, and less travel delay, especially across the river compared to the ‘business-as-usual’ scenario.

The 2040 Target Scenario was approved by the MTB in April of 2020 as an aspirational vision which the planning partners in the region could work toward together. This section describes the Target Scenario, how it was developed, and the progress the region has made towards attaining the goals set out by the Target Scenario.

2.2a History of the Target Scenario

The Albuquerque Metropolitan Planning Area underwent its first scenario planning effort over a decade ago through the development of the *2035 Metropolitan Transportation Plan*, which was approved in 2011. In response to high projections for population growth and congestion, which was projected to result in quadrupling of vehicle hours of delay and single digit speeds across the river during afternoon peak commute times, MRMPO produced “The Compact Land Use Scenario”.

Understanding the potential for severe degradation of mobility throughout the region under intense growth pressure, MRMPO recognized that it simply was not feasible to build our way out of congestion through the construction of new roads. MRMPO member governments requested that MRMPO investigate alternative solutions to help mitigate future congestion. The Compact Scenario was a ‘what if’ scenario that modeled the shift in travel demand if future growth was concentrated within areas served by existing infrastructure. It showed that by incentivizing development in areas with excess roadway capacity in the urban core, the region could reduce future vehicle miles of travel by 17 percent and increase average speeds by 16 percent.

At further request of member agencies, the *Futures 2040 Metropolitan Transportation Plan*, approved in 2015, built upon the Compact Scenario by elevating scenario planning efforts into a multi-year, multi-agency process. MRMPO was the recipient of two grant awards from the Federal



Highway Administration (FHWA) and the Volpe Resource Center to design and conduct a rigorous planning process including wide community engagement, refined modeling tools, and extensive analytical capabilities. In the end, regional stakeholders voted and approved the adoption of an alternative scenario, called the “Preferred Scenario” which represents an aspirational transportation and land use future for our region. The Preferred Scenario was officially adopted as a future target for growth by MRMPO’s governing body, the Metropolitan Transportation Board (MTB).

The *2040 Connections Metropolitan Transportation Plan*, adopted in 2020, carried forward the Preferred Scenario as the regional target and as such, it was aptly renamed “The Target Scenario.” This plan retained the original vision for the intentional integration of land use and transportation and outlines eight guiding principles intended to achieve the Target Scenario.

DRAFT

Figure 21: Guiding Principles of the Target Scenario

COORDINATE	<p>COORDINATE LAND USE AND TRANSPORTATION PLANNING</p> <ul style="list-style-type: none"> • REDUCES CONGESTION AND ENCOURAGES SHORTER TRIPS
PRIORITIZE	<p>PRIORITIZE EXISTING INFRASTRUCTURE</p> <ul style="list-style-type: none"> • NECESSARY FOR FISCALLY RESPONSIBLE GROWTH
FOCUS	<p>FOCUS ON ACTIVE PLACE-MAKING</p> <ul style="list-style-type: none"> • ENCOURAGES ECONOMIC DEVELOPMENT AND A SENSE OF COMMUNITY
INVEST	<p>INVEST IN ACTIVITY CENTERS AND TRANSIT-ORIENTED DEVELOPMENT</p> <ul style="list-style-type: none"> • SUPPORTS ECONOMIC VIABILITY AND ACCESS TO SERVICES
BALANCE	<p>BALANCE HOUSING AND JOBS PARTICULARLY ON THE WEST SIDE</p> <ul style="list-style-type: none"> • DECREASES TRIPS ACROSS THE RIVER
BUILD	<p>BUILD CONNECTED MULTI-MODAL TRAVEL NETWORKS</p> <ul style="list-style-type: none"> • PROVIDES SHORTER AND SAFER ROUTES FOR EVERYONE
SUPPORT	<p>SUPPORT PREMIUM REGIONAL TRANSIT</p> <ul style="list-style-type: none"> • IMPROVES EQUITY AND FREQUENCY OF TRANSIT SERVICES
ENCOURAGE	<p>ENCOURAGE DIVERSE HOUSING OPTIONS</p> <ul style="list-style-type: none"> • RESPONDS TO CHANGING CONSUMER PREFERENCES

2040 Connections demonstrated that by advancing these guiding principles, the region could achieve less overall congestion, particularly across the Rio Grande, which was projected to experience a 43 percent reduction in vehicle delay when compared with the ‘business-as-usual’ scenario. This benefit was accompanied by better access of residents to jobs and other destinations, as well as a more moderate development in communities that desire to protect and preserve their rural character.

Table 6: Modeled Transportation Benefits of the Target Scenario

PM Peak Hour	Base Year 2016	Trend 2040	Target 2040	% Difference Target v Trend
Vehicle Miles Traveled	1,673,908	1,937,337	1,913,356	-1%
Vehicle Hours Traveled	58,700	75,503	71,224	-6%
Vehicle Hours Delay	23,131	33,999	30,244	-11%
VMT Over Capacity	81,245	125,376	110,058	-12%
Congested Lane-Miles	56.8	91.8	81.9	-11%
Average Speed	29.8	25.9	26.1	1%
River Crossings Vehicle Hours of Delay	924	2,767	1,571	-43%

Many of the benefits of the Target Scenario are being realized by the member agencies that comprise the Mid-Region Metropolitan Planning Organization. The planning analysis and subsequent recommendations put forward by MRMPO throughout the past several Metropolitan Transportation Plans has happened in parallel with the local planning and implementation efforts of its member jurisdictions. The success of the Target Scenario relies on a regional planning process that is both iterative and cooperative as has been the case for well over a decade of forward-thinking regional planning and policymaking.

2.2b Target Scenario Leadership

The Land Use and Transportation Integration Committee (LUTI) is the steering committee for the development of the Target Scenario and other components of the MTP. The LUTI Committee is comprised of representatives from the member agencies of MRMPO who are responsible for implementing plans and policies in the metropolitan area. Participants include land use planners, school planners, city council planners, policy analysts, transit professionals, and transportation engineers from different member agencies within the region. While MRMPO provides technical analysis and planning support, it is the member agencies who have the power to make the Target Scenario a reality.

LUTI was formed in 2012 for the purpose of better integrating land use and transportation decisions and has become the guiding body for integrating scenario planning into the MTP. LUTI led the scenario planning process for the Connections 2040 MTP and has continued to be instrumental in the development of the Transitions 2045 MTP.



During the Transitions 2045 MTP planning process, LUTI was integral to updating the goals, strategies, regional centers, and socioeconomic forecast in the following ways:

1. Members provided information regarding how their agencies have adopted policies consistent with the guiding principles of the Target Scenario
2. Members updated locations for the Regional Centers Map based on areas that are currently designated for targeted investments (see Chapter 7).
3. Members provided input on development activity, local plans and projects, and development regulations including allowable use and densities to support the socioeconomic forecasts.
4. Members provided recommendations to supplement the MTP strategies with priorities and policies from their local planning processes.

While the development of the MTP goals, strategies, regional centers, and socioeconomic forecast was facilitated by MRMPO, it was developed by and for its member governments.

2.2c Target Scenario Implementation

Since the Connections 2040 MTP was approved in 2020, there have been updates to local comprehensive plans, centers for targeted investments, new bike and trails plans, a new transit plan, and much more. The guiding principles of the Target Scenario are reflected in planning efforts throughout the metropolitan area. A sample of these major planning efforts are shown below:

- The City of Albuquerque's 'Areas of Change', adopted through the update of the Albuquerque Bernalillo County Comprehensive Plan to target investment in areas appropriate for more intense development.
- Rio Rancho's recently approved Affordable Housing Study, which guides future actions to improve the availability of affordable and quality housing in the City.
- The Village of Los Lunas's commitment to transit-oriented development and the Rail Runner Station Area Plan as emphasized in the recently updated 2040 Comprehensive Plan.
- Bernalillo County's action to preserve a 'Centers and Corridors' approach to planning in their recently updated Comprehensive Plan Update.
- Albuquerque Public School's Vision Zero for Youth Initiative to navigate safe routes to school for its students.
- ABQ Ride Zero Fares program to make transit accessible to all through free transit service.
- The City of Belen updated its Comprehensive Plan in 2023 which prioritizes mixed-use and infill development and promotes a mix of housing types.

Zoning

Zoning is an important tool to achieve the Target Scenario, as zoning determines where higher-density housing can be built as well as where and how Key Centers can be developed. Traditionally, zoning in the region focused on separating residential uses from commercial uses in order to curb

nuisances caused by non-residential uses. However, zoning reform efforts seek to promote a mix of uses that enable residents to better access commercial uses as well as employment opportunities.

AMPA member jurisdictions have worked to reform their comprehensive plans and zoning codes to promote a mix of housing types, development of activity centers, and improved access to destinations. Below are some zoning tools that have been implemented within the metropolitan area that support the goals of the Target Scenario:

- Allowing the development of Accessory Dwelling Units in residentially zoned areas
- Conversion of hotels into multi-family and transitional housing
- Increases in allowable densities in centers and corridors and areas of economic activity
- Removing parking minimums or reducing parking requirements where appropriate
- Preserving commercially zoned land to achieve better jobs-to-housing balance
- Reducing building footprint requirements in some areas
- Encouraging tiny home developments or smaller lot sizes
- Expedited permitting and fee waivers for beneficial developments
- Fewer restrictions on building conversions and adaptive reuse

Transit Investments

Investing in transit supports the Target Scenario by reducing congestion, promoting travel choices, and encouraging dense, infill development patterns. The region has seen numerous important efforts and investments in its transit system in recent years, including:

- **ABQ Ride Zero Fares Program:** The Zero Fares program removed transit fares, creating a completely free transit system. The program began as a pilot during the pandemic but was adopted into permanent policy in 2023. Albuquerque is one of the largest U.S. cities to implement a free fares program.
- **ABQ Ride Forward Study:** The study, which included extensive public engagement, developed new transit routes and schedules to maximize existing resources to provide improved high-frequency transit in the AMPA. The study has released a final route network, although it has not yet been formally adopted.
- **Uptown Connect Project:** The City of Albuquerque received a \$25 million federal Department of Transportation grant to make improvements to the Uptown Transit Center, including developing affordable and market-rate multifamily housing, hotel rooms, commercial space, and a transit plaza. This project represents investment not only in the region's transit, but also in an important Key Center.

Pedestrian and Bicycle Connections

One of the key elements of the Target Scenario is emphasizing connected multimodal networks. MRMPO uses a variety of tools to ensure that bicycle and pedestrian transportation investments are directed towards locations that will create a complete multimodal network and address the region's most severe safety problems. These tools include the Long Range Bikeway System,

Pedestrian Composite Index, Road Diet Candidates Map, and High Fatal and Injury Network. For more information on these tools, reference Chapters 5 and 6.

The region has also invested in a variety of planning activities to improve pedestrian and bicycle safety and networks, including the Bernalillo County Pedestrian Safety Action Plan, Village of Los Lunas Bicycle Plan, City of Albuquerque Bikeway and Trails Facility Plan Update, and the MRMPO Regional Transportation Safety Action Plan.

Several new bicycle and pedestrian projects have been implemented in the AMPA that represent investments in active transportation.

- Bernalillo County and key partners have completed construction on portions of the Alameda Drain Trail, a nine-mile paved trail that runs from Interstate 40 to the northern end of 2nd St. Other trail sections will be completed in the next several years.
- Bernalillo County is reconstructing Bridge Boulevard from Coors Blvd to 8th St. The project adds bike lanes and pedestrian infrastructure with the goal of creating a main street environment along the corridor.
- The Louisiana Boulevard Vision Zero Project implemented a road diet from Central Avenue to Gibson Boulevard and installed the City of Albuquerque’s first protected bike lanes. The project’s main goal was to improve safety for people walking, biking, and riding transit along one of the region’s highest crash corridors.

For more information on active transportation investments, reference Chapter 6.

2.2d Target Scenario Evaluation

The previous section recognizes several of the plans and policies in the region that reflect the guiding principles of the Target Scenario. While it takes time for these efforts to demonstrate measurable impacts, this section is intended to evaluate if the region is moving in the right direction. This section looks at the three key elements of the Target Scenario and uses available data to evaluate progress. This analysis evaluates the time period following the formal adoption of the Preferred (now Target) Scenario (2016 to present), however the dates on the graphics vary due to differences in data availability. This evaluation serves as a starting place only, and is not expected to fully represent the impacts of many of the important recent policy changes (e.g., the City of Albuquerque’s Integrated Development Ordinance did not take effect until 2018). Therefore, it will be important to revisit these metrics once there has been more time to realize the benefits of new policies, plans and programs.

Element #1: Strengthen regional activity centers, support a core transit network, and safe bicycle and pedestrian connections.

Supporting centers of activity is promoted by the Target Scenario as a means to foster catalytic economic growth, as well as an efficient means to target future transportation investment toward safe and connected multi-modal networks. The decision to intentionally invest in centers of activity is codified in local plans as a means for economic development and community vitality. This is an example of alignment between regional and local planning efforts that receives wide support.

Because this is a regional plan, it highlights activity centers that serve a broad market and are critical to the community where they are located. In this plan they are referred to as Key Centers. Key Centers represent centers that have already been identified by local jurisdictions as existing areas of investment. The LUTI Committee was instrumental in identifying the Key Centers. (see Map X: Key Centers). If a center was still in its conceptual phases during the development of this plan, it was determined to be a ‘future center’ and will be included in a future MTP update once development begins.

Measure: Share of development in Key Centers

Key Centers are areas that policy makers have determined are desirable locations for economic growth; whether that be a mix of high density residential and commercial uses, employment centers, or substantial nodes for redevelopment. These are also areas to target for supportive infrastructure including safe and accessible roads, bicycle, pedestrian and transit facilities. This measure monitors the success of these efforts by looking at the share of the overall building permits that have been issued for new residential and commercial construction within Key Centers.

Figure 22: Percent of Permits Issued in Key Centers, 2016-2022

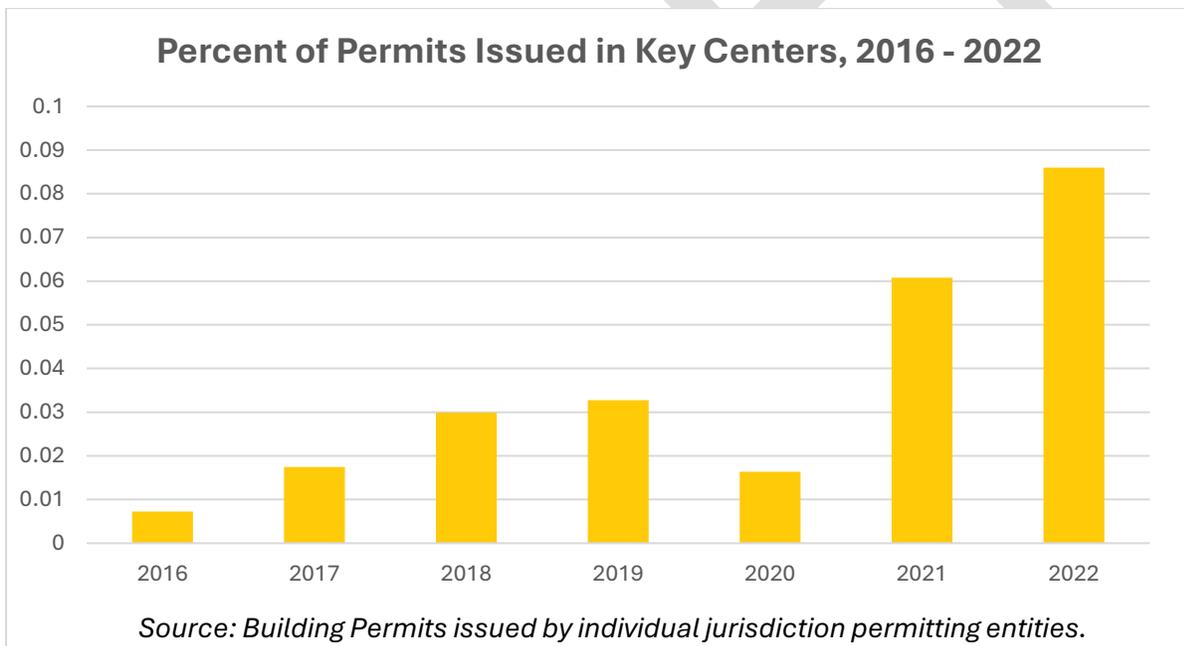


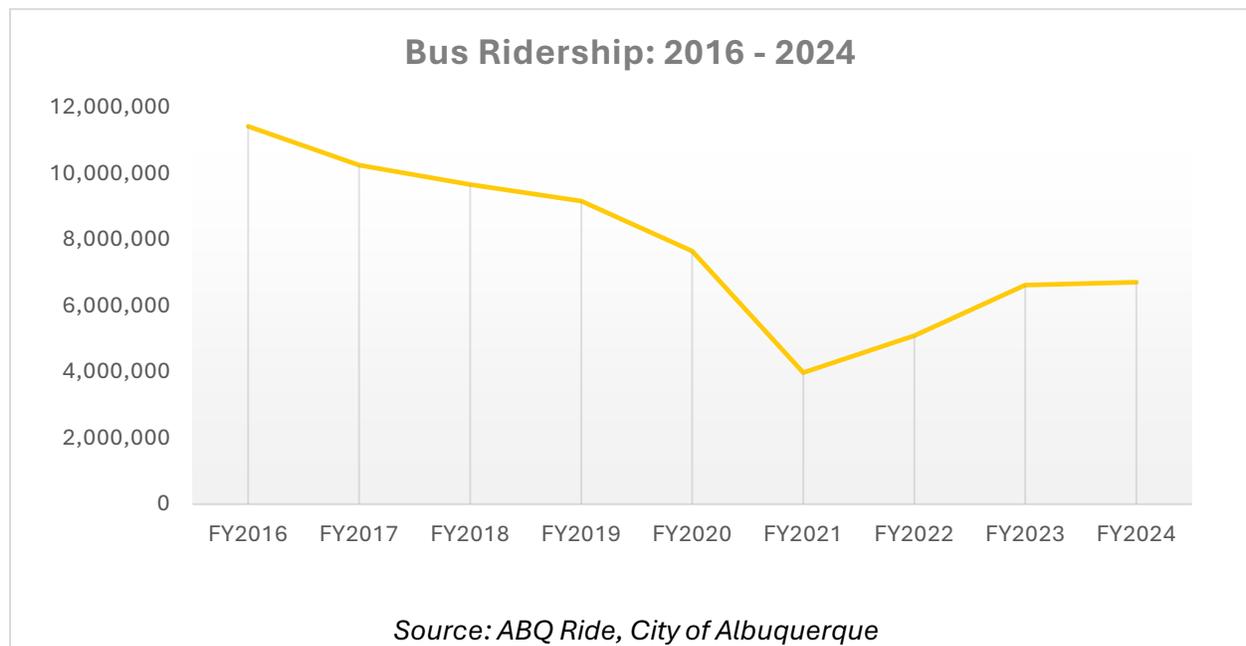
Figure 22 illustrates the number of commercial and residential units that were permitted within the boundaries of a Key Center. Between 2016 and 2022 investment in Key Centers has risen considerably as a share of total permits, from under one percent in 2016 to nearly nine percent in 2022.

Measure: Transit ridership

The Target Scenario envisions a core network of transit routes that are frequent, accessible and reliable. The Connections 2040 MTP recognizes the MTB commitment to allocate 25 percent of

specific categories of transportation funds towards improving transit ridership in the metropolitan area. The measure below depicts ridership along ABQ Ride’s fixed routes.

Figure 23: Bus Ridership, 2016-2022



Transit ridership had trended down at the end of last decade and hit a low following the Covid-19 pandemic. These trends are described in detail in the transit section of this document. Since 2021, transit ridership has been rising as service has increased, and in 2024 it is almost back to pre-Covid ridership levels. While it is still far below previous years, ridership is trending in the right direction and efforts towards a recovery network of service over the coming years hold promise for continued improvements.

Measure: Miles of buffered bike lanes

The Target Scenario supports multi-modal travel networks that allows the traveling public safe and accessible alternatives to their vehicles for daily trips. This measure looks at buffered bike lane miles to assess if these options are increasing for bicyclists.

Table 7: Buffered Bike Lanes, 2016 & 2020

Year	Centerline Miles
2016	28.74
2020	29.31
% Change	2.0%

There are two important notes related to the bike lane data. One, the table above represents centerline miles and not bike lane miles. If both sides of the roadway have buffered bike lanes the miles of bike lanes would be the total centerline times two. Two, the 2020 number is an early figure that is currently in the process of being updated. The new figure will be inserted as soon as it is available and is substantially higher than the 2020 figure.

Element #2: A healthy balance of jobs and housing east and west of the Rio Grande.

A key aspect of the Target Scenario is to promote job growth on the west side of the Rio Grande and higher density residential development in proximity to major destinations on the east side.

Achieving a balance of jobs to housing on either side of the river aims to ease congestion on river crossings and reduce trip lengths and travel time. As such, these measures look at the overall jobs-to-housing ratio east and west of the river, commercial growth west of the Rio Grande, and multi-family construction east of the river.

The geography described in this section includes the following:

- West AMPA: Bernalillo and Sandoval County west of the Rio Grande.
- East AMPA: Bernalillo and Sandoval County east of the Rio Grande.
- Valencia County: This part of the AMPA is evaluated as a whole county. While there is river crossing congestion in Valencia County, the east-west travel patterns are distinct from the northern part of the AMPA.

Measure: Jobs to housing ratio east and west of the Rio Grande

Table XX depicts housing, jobs, and the jobs-to-housing ratio (jobs/housing) in 2010 and 2020. A ratio of 1.0 would indicate that there is one job per housing unit. A ratio of under 1 means there is less than one job per home, signifying that workers likely have to commute out of that area to work.

Table 8: Jobs-Housing Ratio in the AMPA (2010 and 2020)

Jobs Housing Ratio in the AMPA: 2010 and 2020			
	2010	2020	Growth
East of the Rio Grande - Bernalillo and Sandoval County in AMPA	1.49	1.54	+
Housing	202,666	210,104	7,438
Jobs	302,057	323,704	21,647
West of the Rio Grande - Bernalillo and Sandoval County in AMPA	0.57	0.53	-
Housing	129,155	143,609	14,454
Jobs	73,099	76,269	3,170
Valencia County	0.57	0.69	+
Housing	30,085	29,929	(156)
Jobs	17,293	20,522	3,229
Total Albuquerque Metropolitan Planning Area	1.08	1.10	+
Housing	361,906	383,642	21,736
Jobs	392,449	420,495	28,046

Source: US Census, NM DWS, MRCOG

- Taken as a whole, the AMPA has a healthy jobs/housing ratio of 1.1 jobs per housing unit. Jobs and homes in the AMPA increased at the same rate between 2010 and 2020 at around seven percent.
- On the west side of the AMPA, housing unit growth far outpaced job growth between 2010 and 2020 and the jobs-to-housing ratio declined.

- On the east side of the river, job growth increased faster than housing. The jobs-to-housing ratio in 2020 was 1.54, slightly higher than in 2010.
- Permits show that while Valencia County saw new housing construction over the decade, the demolition of old housing stock likely led to a small decline in total units. Valencia county saw the fastest job growth in the region at 19 percent, which improved the county's jobs-to-housing ratio from 0.57 to 0.69 between 2010 and 2020.

Valencia County has had success in increasing employment and supplying job opportunities in proximity to its residents. However, these statistics suggest that the remainder of the metro area is not moving in the right direction towards balancing housing and jobs on both sides of the river. Household growth on the west side of the river continues to outpace job growth, contributing to the need for residents to travel longer distances and increasing the demand for trips across the river. While these data are somewhat discouraging, the benefits of policies and development projects take a long time to realize, particularly given that the pandemic put a halt to construction for an extended time, and therefore this measure will continue to be monitored in years to come.

Measure: Commercially zoned land west of the Rio Grande

Promoting a healthy jobs-to-housing balance west of the river through the preservation of commercially zoned land is a strategy in the Connections 2040 MTP. This need is voiced repeatedly among members of LUTI with regards to zone change requests. There is growing pressure on jurisdictions to rezone land on the westside from commercial to residential due to high pressure for new housing and low commercial interest. The point can certainly be made, particularly given the housing shortage, that new housing anywhere is of regional benefit. However, the unintended consequence of allowing the conversion of key commercial land (particularly in designated west side centers) to residential uses is to further exacerbate the jobs/housing imbalance and the traffic strain across the transportation network.

**MRMPO hopes to work with its member jurisdictions to access historical zoning information and track this measure in the future. At the time of publication this data was not available for analysis.

Measure: Multi-family housing construction east of the Rio Grande

The Target Scenario envisions more diverse housing choices and in particular, mixed use and multi-family development along transit corridors and within key centers. Considering that 80 percent of all jobs in the AMPA are located east of the Rio Grande, constructing multi-family housing particularly east of the river has the dual benefit of maximizing existing transportation infrastructure and improving access to jobs and other goods and services.

Figure 24: New Multi-Family Homes East of the Rio Grande, 2016-2022

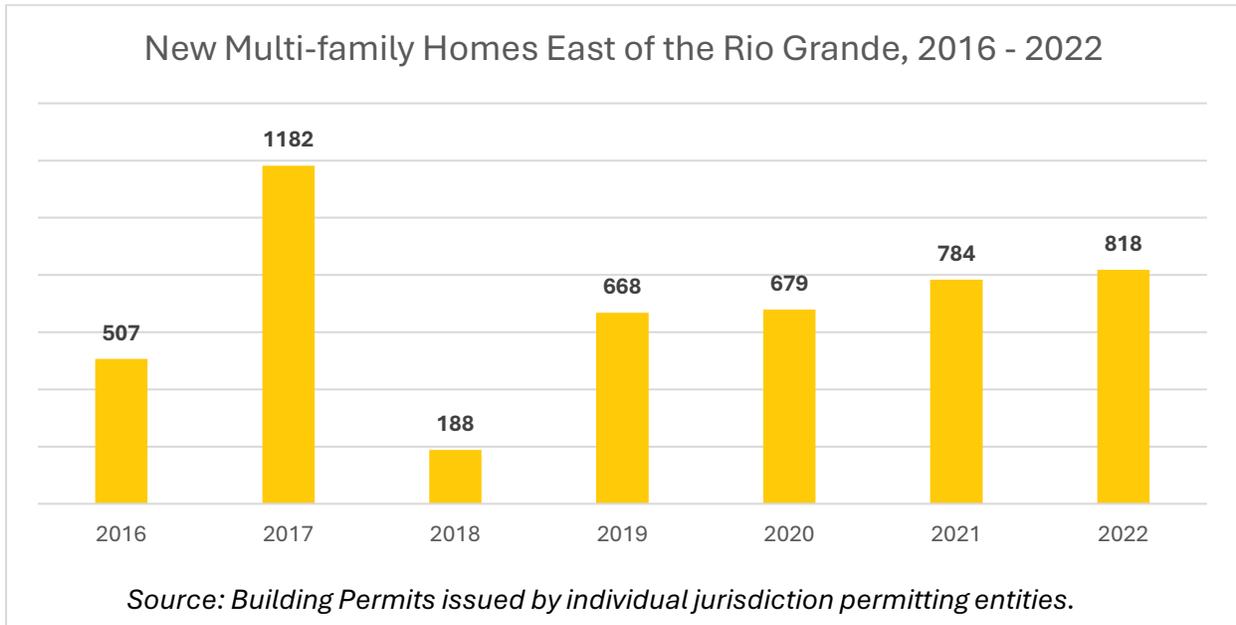


Figure 24 shows a steady rise in multi-family construction east of the Rio Grande since 2016. The year 2017 had a spike in multi-family units due to the construction of some large complexes built in that year. Multi-family construction in general has been rising as a share of all residential permits since 2010, averaging approximately one of every three units constructed since 2016. The majority of multi-family homes have been built east of the river.

Element #3: Preservation and protection of open space, agricultural land, and rural communities.

The Target Scenario emphasizes the preservation of rural communities and low impact development that protects open spaces and agricultural lands. This has the dual purpose of supporting the use of existing infrastructure over the need for costly new facilities, as well as ensuring that the natural landscape and rural character are honored. The following measures evaluate the amount of space allocated to these uses over time.

Measure: Acres of Open Space

Open space refers to all parks and public open space. The Target Scenario envisions that this land is protected and enhanced. This data is acquired by federal, state, and locally available datasets and verified by MRMPO staff through aerial images and interviews.

Table 9: Acres of Open Space, 2012 & 2020

Year	Acres
2012	162,439
2020	185,104
Percent Change	14.0%

Source: MRMPO Land Use Data

This measure is positive showing that open space land has increased by 14 percent between 2012 and 2020. This is likely due to the construction of new parks, and the purchase of open space by local jurisdictions for preservation.

Measure: Acres of Agricultural land

This measure sums the acreage of agricultural land in the AMPA. This data is acquired through aerial photography and verified by local jurisdictions by MRMPO staff.

Agricultural land in the AMPA has increased by 22 percent. This may be due to the conversion of land for farming as well as improvements in the data collected.

Table 10: Acres of Agricultural Land, 2012 & 2020

Year	Acres
2012	34,176
2020	41,887
Percent Change	22.6%
Source: MRMPO Land Use Data	

Measure: Development in Rural Areas

The measure below shows the number of homes per acre in census designated portions of the AMPA that are considered ‘rural’ and ‘urban’. These are formal census designations measured by density thresholds set by the Census Bureau.

Table 11: Housing Units Per Acre , 2010 &2020

	2010	2020
Rural	0.01	0.02
Albuquerque Urban Area	1.93	1.97
Los Lunas Urban Area	0.56	0.84
Source: US Census Bureau		

Urban areas have increased in density of homes as development has continued, particularly in the Los Lunas Urban Area. This has also increased in rural areas although to a lesser degree.

Key takeaways include:

This section measures progress towards the key elements of the Target Scenario.

Areas of success include:

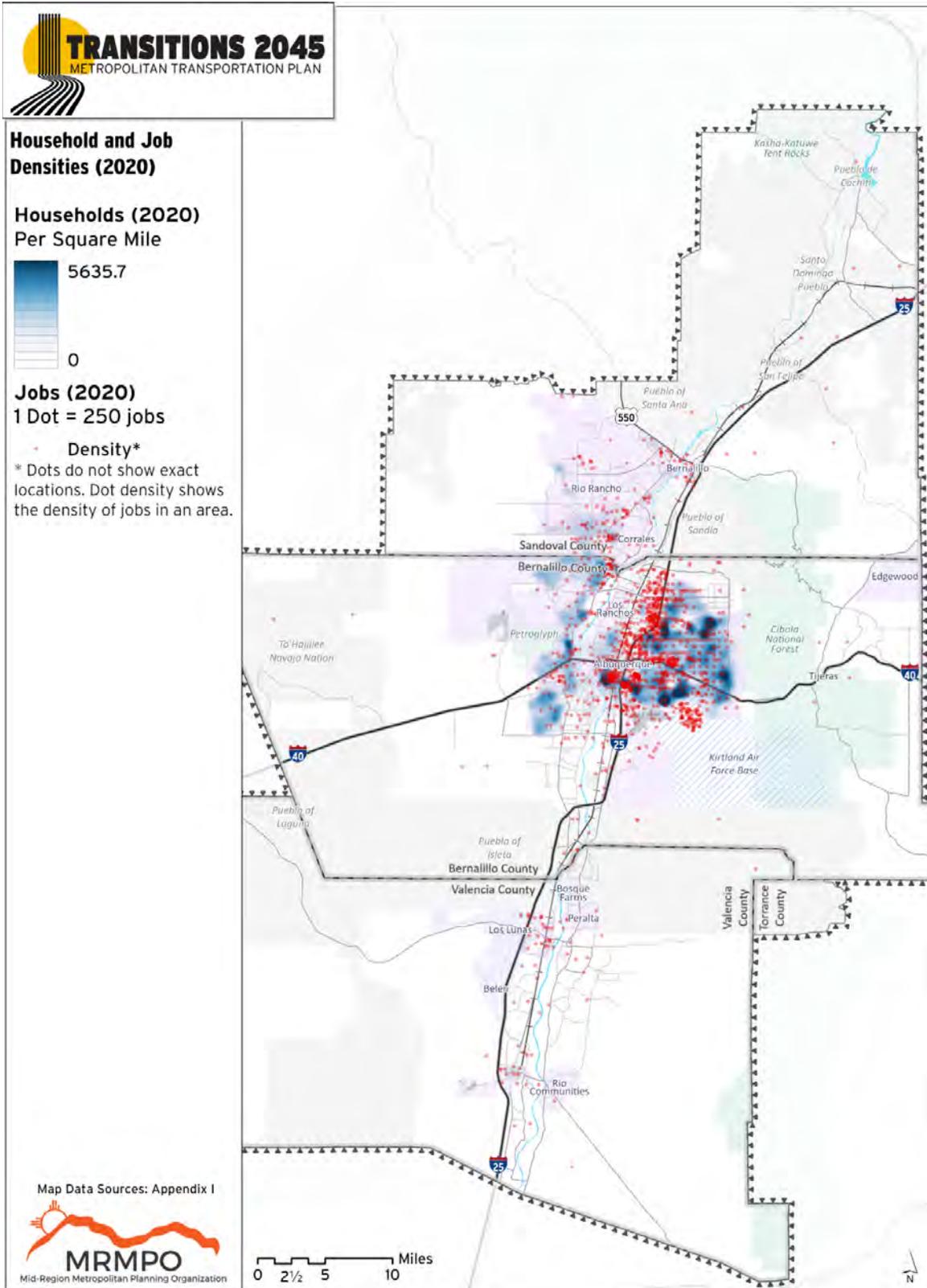
- Preservation of open space
- Preservation of agricultural land
- Construction of new, safe bicycle facilities
- Development of multi-family homes in proximity to jobs and goods

Areas in need of additional emphasis include:

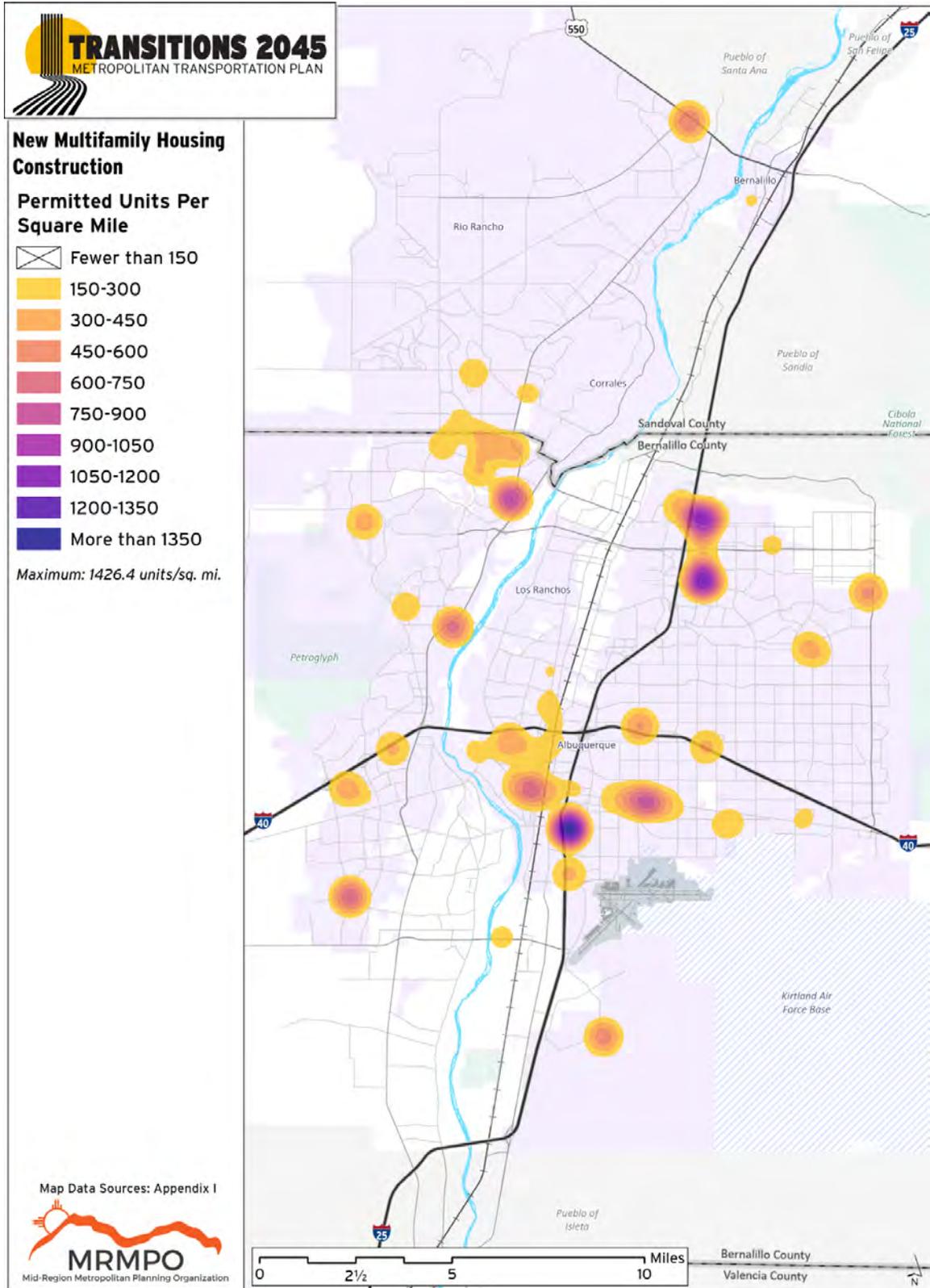
- Transit ridership
- Attraction of new jobs west of the Rio Grande

These metrics should be evaluated periodically to monitor the metropolitan area’s progress in these areas.

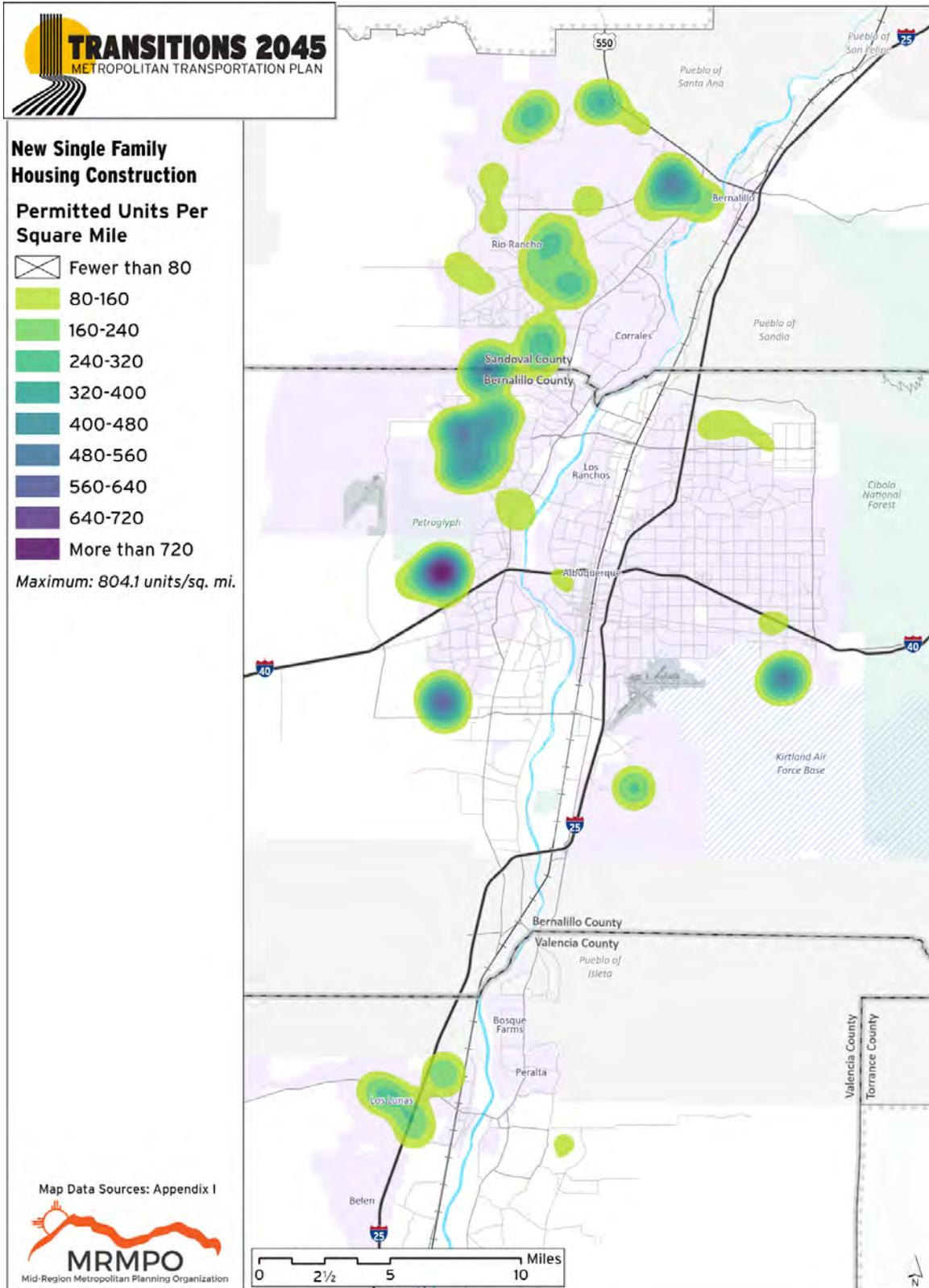
Map 5: Household and Job Densities (2020)



Map 6: New Multifamily Housing Construction



Map 7: New Single Family Housing Construction



2.2e Target Scenario Moving Forward

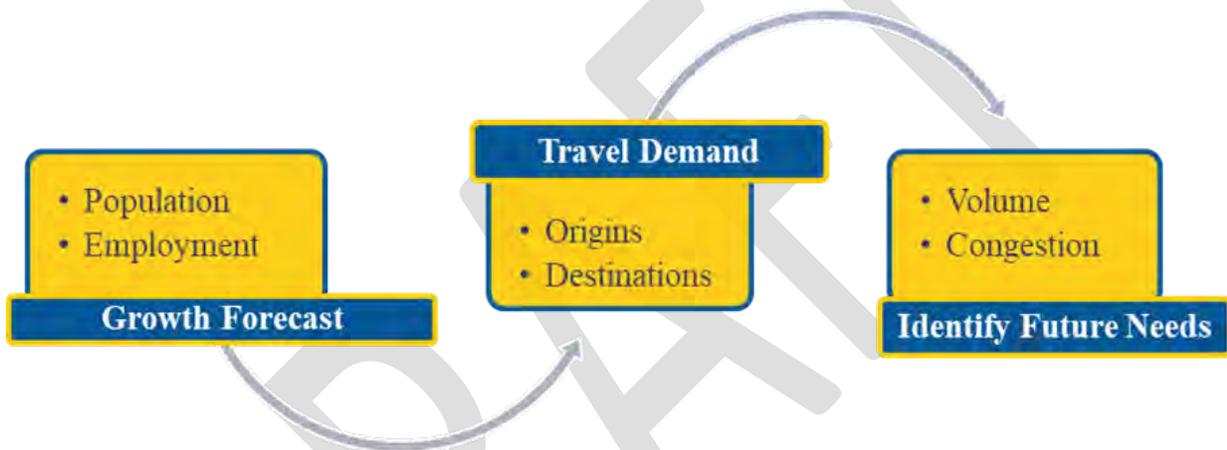
With many of the principles of the Target Scenario becoming a reality, LUTI members discussed the future role of scenario development in the region. Agency representatives agreed that while the development of a new Target Scenario may no longer be necessary, particularly given reduced growth expectations (discussed in Chapter 3), continuing to strive towards the goals of the Target Scenario should remain at the forefront of transportation and land use planning. The integration of transportation and land use is no longer the alternative, but rather the gold standard for how to plan for the future.

Given the immersion of Target Scenario principles throughout local plans, policies and practices, MRMPO proposed to its governing body that these principles be interwoven with the goals of the Transitions 2045 MTP, and the MTB concurred. **As such, the guiding principles of the Target Scenario are no longer part of an ‘alternative scenario’ but rather form the very foundation of the goals of this plan.** In addition, strategies to achieve the Target Scenario put forward in the Connections 2040 MTP are now included as strategies of the Transitions 2045 MTP. Indeed, the Target Scenario is no longer an aspirational goal; rather, it reflects the best practices currently found throughout transportation and land use planning in the AMPA.

DRAFT

CHAPTER 3 REGIONAL FORECAST

An integral part of planning for the future of transportation in the metropolitan area is understanding how and where the region is expected to grow. To help with this understanding, MRMPO produces a 2045 socioeconomic and travel demand forecast to accompany this plan. These forecasts help planners and decision-makers identify both short and long-range strategies and actions that will lead to the development of an integrated multi-modal transportation system. The beginning of this chapter highlights the socioeconomic forecast, which is then followed by a description of the travel demand forecast. The primary purpose of MRMPO’s socioeconomic forecast is to identify the most likely future trip origins (homes) and destinations (work, shopping, etc.) to anticipate future infrastructure needs and prioritize transportation investments accordingly.



3.1 Socioeconomic Datasets

MRMPO begins its socioeconomic forecasting process with the latest available data regarding population, land use, and employment.

POPULATION: The population forecast begins with the most recent population projections by county from the demographer at the University of New Mexico’s Geospatial Population Studies (GPS) group. GPS projections are based on a demographic forecasting technique called the cohort-component method. These projections are based on population counts from the US Census Bureau and projected forward based on age and sex cohorts, fertility and death rates, and historical migration trends at the state level which are then distributed to county.

LAND USE: A clear picture of existing land use, available land, allowable uses and densities, and development constraints is important to produce a forecast that is rooted in existing conditions where forecast growth cannot exceed capacity in any area. MRMPO collects land use information, zoning codes and policies, and development projects and plans from its local agencies. MRMPO also hosts its own land use information including a regional historical database of building permits as current as 2023. In addition, staff interview developers, planners, and local experts in order to

evaluate its land use assumptions and ensure that small area forecasts are aligned with existing development trends.

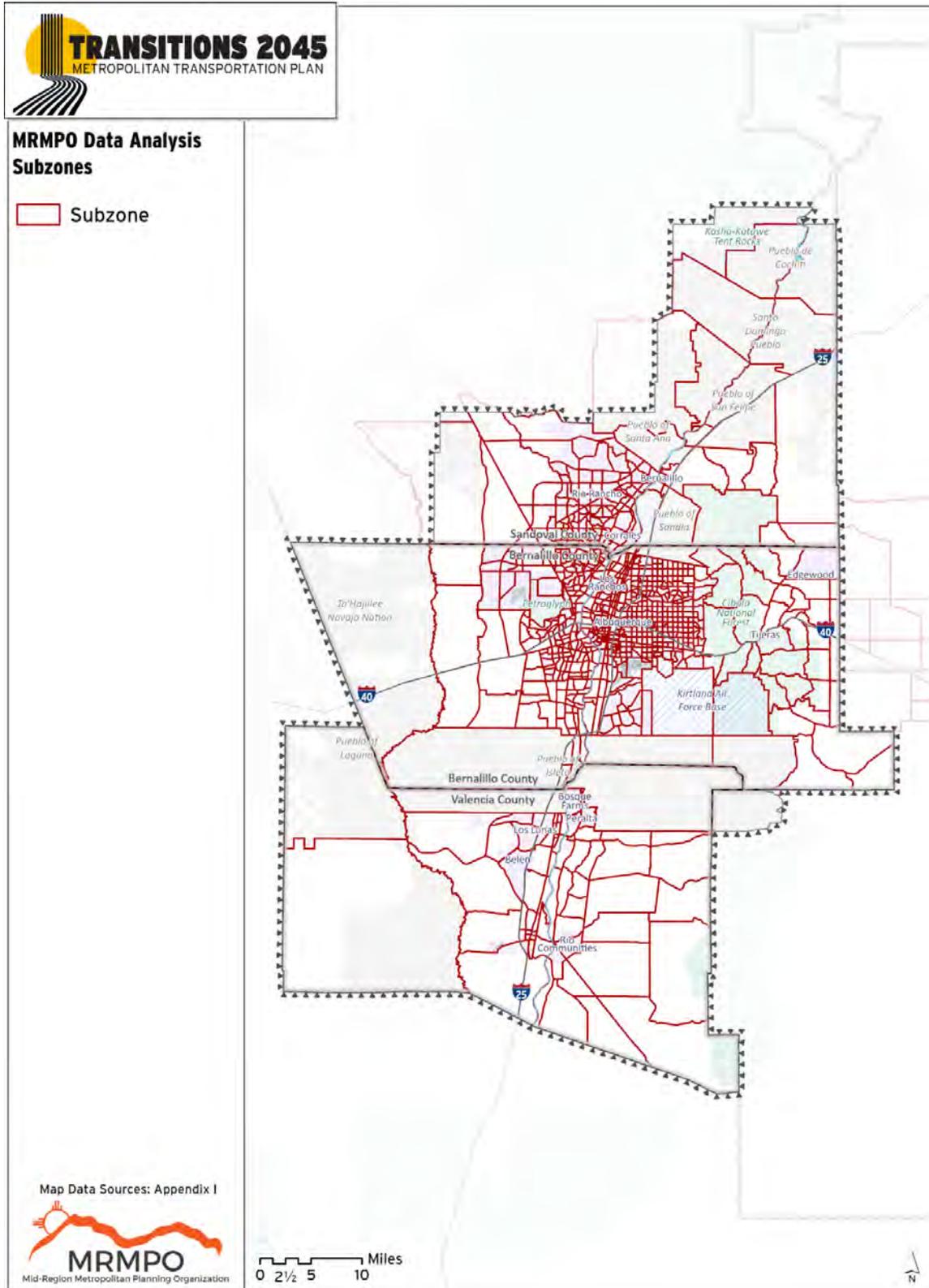
Employment

The employment forecast is based on a combination of sources including the short-range forecast from the University of New Mexico's Bureau of Business and Economic Research (BBER) and a Regional Economic Model (REMI) purchased by MRMPO. These sources are based on existing data from the Quarterly Census of Employment and Wages (QCEW) and the Bureau of Labor Statistics (BLS) among other sources. The employment forecast is based on 2-digit sectors as defined by the North America Industrial Classification System (NAICS) and are expanded to include self-employment, agricultural jobs, and the military.

Equipped with the most up-to-date information possible, MRMPO has developed a forecast future growth as a 'data analysis subzone' (DASZ) level. There are 926 DASZs throughout the region. Forecasting at this small geographic level allows MRMPO to forecast travel demand on our transportation system that serves the region.

DRAFT

Map 8: MRMPO Data Analysis Subzones



These forecasts are available to public, private and governmental entities for their own use. They are used by transportation planners and decision-makers as they perform project planning and develop local land use and transportation policy. They are also used to support other planning endeavors pertaining to issues such as housing, public health, and economic development. Since the socioeconomic forecasts have broader applications than the MTP, they are developed for the whole region as illustrated in Map 1, rather than just the metropolitan area.

MRMPO’s forecasts are the result of a set of current policies, locally developed assumptions, and the most up-to-date data available at one point in time. Changes to any one of these factors will inevitably impact the forecast. As such, the forecast is not a definitive future, but a likely picture of growth given today’s land use and planning assumptions. The next section presents the socioeconomic forecast.

3.2 Socioeconomic Forecast

This section presents the population and employment forecast for the MRCOG Region and by small area geography.

3.2.a Population

The Transitions 2045 socioeconomic forecast relies on the Population Projections released by GPS in 2020. MRMPO supplemented this projection series for the four counties of Bernalillo, Sandoval, Tarrant and Valencia Counties with a projection for southern Santa Fe County to cover the entire MRCOG Region and extended the GPS projection from 2040 to 2045. The following table shows the resulting population forecast for the region.

Table 12: Population Forecast in the MRCOG Region (2045)

Year	Population
2020	926,877
2045	964,873
Numeric Growth	37,996
Percent Growth	4.1%

**Source: UNM-GPS, MRMPO*

The region is anticipated to grow by almost 38,000 people over the next 25 years. This is dramatically less than the previous Connections 2040 MTP forecast, which expected a population growth of 194,000. The difference lies in the integration of more recent data regarding the components of population change which are highlighted in Chapter 2. This projection series contains updated figures for births, deaths, and migration, which are the primary drivers of population change. The US Census Bureau and the New Mexico Department of Health show a hastened decline in birth rates, increase in death rates, and flat migration (with the same number of people are moving in as moving out of the region). The forecast does not rely on data from 2020 and subsequent years, and therefore trends unique to the pandemic do not alter the long-range projections.

Of note, data collected by GPS reveals an outmigration of women in their childbearing years which, combined with the aging of the baby boomer generation, will result in fewer children who might eventually start their own families. This trend essentially ensures flat growth into the future unless there is a sustained attraction of young people moving into the region or a reduction in the out-

migration of young people. While projections must be rooted in real data, it is important to keep in mind that these figures are estimates and could change based on external influences, such as policy decisions or economic opportunities, which could serve to boost growth, and particularly migration.

3.2.b Housing

Despite slow population growth, the demand for new housing is expected to be sustained into the future. The primary explanation is the aging of the population.

The estimated share of the population aged 65 and over increased from 12 percent in 2010 to 18 percent in 2022 and is expected to represent almost 22 percent of the population by 2045. In contrast, the population under 25 is expected to decrease its share of the total population from roughly 29 percent in 2022 to 25 percent by 2045. The aging of the population has led to decreases in the average household size, which is projected to continue.

The decrease in household size has significant implications for housing demand. For example, at a total population of one million, a reduction in the average household size from 2.1 to 2 (a decrease in household size of 0.1), requires around 23,800 additional homes to house the same one million in population. As such, even if population growth is minimal, the need for new housing remains critical to accommodate the population. The forecast anticipates a demand for 43,000 new homes to accommodate population growth and the declining household size to 2045.

Just as the population forecast is highly dependent on fluctuations in migration, housing demand is influenced by changing economic conditions. For example, growth in key employment sectors may attract new workers which will increase activity within the housing market. If residents experience a boost in household incomes due to rising wages, consumer confidence grows which encourages new households to form as children decide to move out from their parent’s home or new couples decide to invest in their first home. Lower interest rates or improved housing affordability also increases housing demand. Therefore, if economic conditions grow stronger, the region may need even more homes than are currently projected.

3.2.c Employment

The region is projected to gain an additional 60,000 jobs by 2045. Employment growth is expected to outpace population growth due to several factors. Labor force participation is expanding as aging members of the workforce stay in their jobs longer. Workers holding jobs later in life is a trend that is the result of longer life expectancies, and it is also shaped by financial conditions and lifestyle preferences.

In addition, technological advancements lead to higher workforce productivity, meaning that companies need fewer workers to produce the same amount of goods. In addition, higher demand for services caused by an aging population (e.g., healthcare, home deliveries, etc.) means more job opportunities even if the existing population remains stable.

Table 13: Employment Forecast in the MRCOG Region (2045)

Year	Employment
2020	425,828
2045	485,476
Numeric Growth	59,648
Percent Growth	14.0%

**Source: UNM-BBER, REMI, MRMPO*

The Healthcare and Social Assistance sector is projected to see the largest increase in employment by 2045 (16,500 jobs), followed by Professional, Scientific, and Technical Services and Transportation and Warehousing. Construction jobs will continue to rise due to the need for the rehabilitation of existing infrastructure and new job growth. Population-serving industries such as education and government will remain relatively flat into the future.

3.3 Socioeconomic Forecast by Subarea

Similar to historical trends, future growth will not be evenly distributed throughout the region. Areas that have seen the most rapid growth in recent years, Sandoval County and the City of Rio Rancho in particular, will see the most amount of future growth. Bernalillo County, which has lost population over the past couple of years, will see mild growth mostly due to redevelopment activity as well as growth in major subdivisions where vacant developable land still exists, such as Mesa del Sol. Valencia County will continue its uptick in activity driven primarily by job growth in the Village of Los Lunas. Tarrant County, like other rural counties throughout the state, will continue to decline due to the combination of natural aging and outmigration to urban areas where there is better access to healthcare and other services.

Given the anticipated reduction in population growth, the MRMPO's Land Use and Transportation Integration (LUTI) Committee recommended that this MTP consider an alternative future growth scenario that imagines considerable employment growth and a rebound of migration to historical levels. The LUTI Committee discussed the various factors and trends that may contribute to migration into the metropolitan area. These are described in Table 14. Some factors may lead to both in- and out- migration: for example, the political climate could be a draw for some or a downside for others. Other factors may impact individuals in different ways, leading to both in- and out-migration. For example, quality of life varies significantly based on income and other factors. *A future draft of this document will contain modeled results of the land use and travel demand forecast.*

Table 14: In-Migration

In-Migration
Climate: sunshine, seasons, and few natural disaster risks
Quality jobs and industries
Family friendly
Walkability in certain neighborhoods
Affordability: Housing and cost of living
Natural amenities, parks and open space, nature and outdoor recreation
Economic opportunity, innovation
Political climate
High quality of life
High tech infrastructure
Clean Energy Jobs
Allure of the southwest, uniqueness, balloon fiesta
Friendly people, slower pace of life
Culture and vibrancy
Reputation

CHAPTER 4 MOBILITY

Mobility in regional transportation networks is crucial for fostering economic growth, enhancing quality of life, and promoting sustainability across communities. Finding ways to move people and goods smoothly, safely, and efficiently throughout a region is the primary focus of a **Metropolitan Planning Organization (MPO)**. Effective mobility solutions contribute to reduced traffic congestion, lower environmental impact, and improved social inclusion by ensuring equitable access to destinations. As the **Albuquerque Metropolitan Planning Area (AMPA)** grows and evolves, investing in and maintaining robust transportation infrastructure remains essential for providing mobility to communities.

MRCOG Traffic Counts and Monitoring Program

Traffic counts are conducted on all federal-aid eligible roadways in the counties of Bernalillo, Tarrant, Sandoval, Valencia, and Southern Santa Fe and are coordinated through the MRCOG Traffic Counts and Monitoring Program. Within the AMPA, there are over 1,600 miles of roadway network with over 2,800 individual roadway segments. Traffic segments are counted on a periodic three-year cycle, resulting in approximately 1,000 counts being conducted each year. Roadways that are counted range from collectors to higher order arterials and are shown on the current highway functional classification system. The MRCOG Traffic Counts Program monitors current travel conditions and identifies consistent patterns and congestion hotspots.

This chapter highlights key programs and infrastructure that contribute to improved mobility in the region, including:

- Roadway systems
- Transit systems
- The Congestion Management Process (CMP)

4.1 Roadway System Performance

The vast majority of travel needs within the AMPA are currently met by motor vehicles, and the region's roadway network provides the primary means of travel within and through the region. The roadway network must be suited for local and regional trip-making, with adequate roadway capacity and network connectivity to avoid bottlenecks and minimize congestion while limiting rerouting in response to delays that adds unnecessary distance to trips.

The following section discusses overall travel demand on the roadway network, demand at river crossings, travel origins and destinations, and the functional classification system.

4.1a The State of Roadway Travel in the AMPA

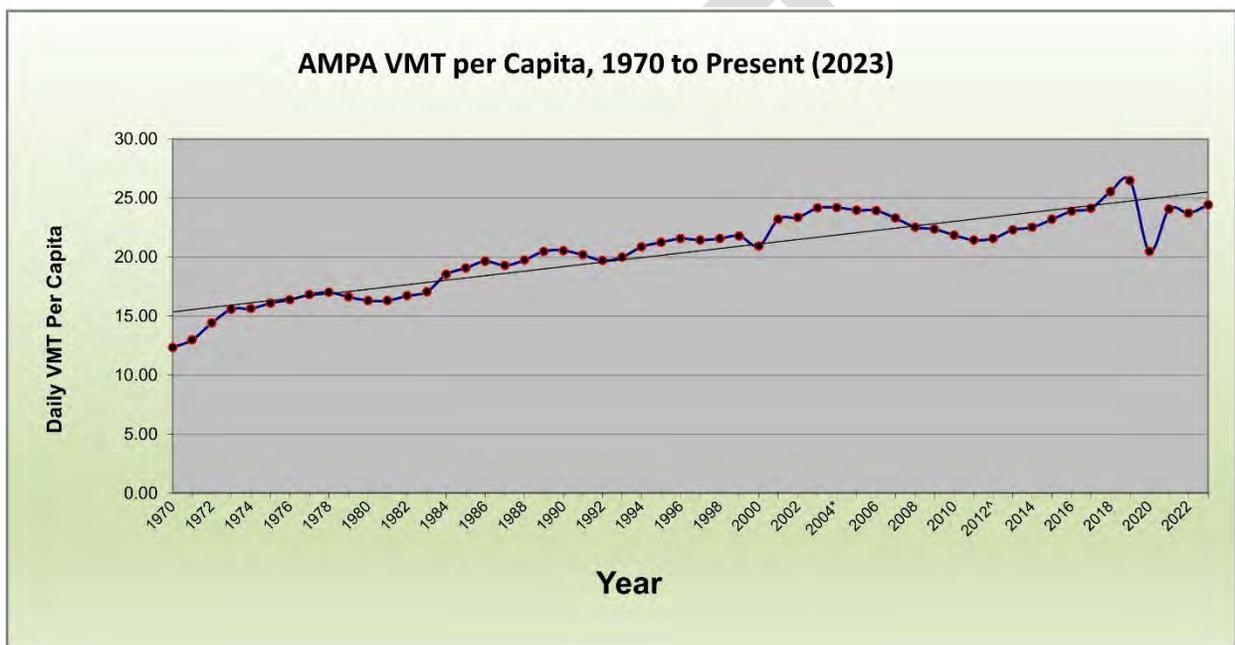
Regional Commuter Flows and Daily Travel Across the AMPA

Vehicle Miles Traveled (VMT) measures the total number of miles driven in the region and is a useful data point in assessing overall travel demand. The measure is often used to monitor how the transportation system best provides for reductions in trip making, not only in the quantity of trips,

but also the length of the trips made. VMT data are collected as part of the MRCOG Traffic Counts and Monitoring Program (see the sidebar for more description on the Traffic Counts Program).

As discussed in Chapter 2, while VMT in the AMPA was steadily increasing prior to 2019, VMT dropped drastically during the COVID-19 pandemic and has not returned to pre-pandemic levels (see Figure 25). Although VMT appears to have leveled off in recent years, it remains uncertain whether less travel on our roadways is a new norm or if historical growth trends will eventually resume. VMT per capita, which measures the number of miles driven on a per person basis, also seems to be stabilizing as shown in Figure 25, as population growth has slowed alongside vehicle trips.

Figure 25: AMPA VMT Per Capita



Source: MRCOG

In addition to lowering overall VMT, the pandemic has affected peak periods of travel. Travel demand during the afternoon peak period, which has historically been the time of highest travel demand, is now lower overall and spread throughout the afternoon hours.

Although long-term trends are not yet certain, a reduction in travel demand would have profound implications for roadway planning and system performance, creating opportunities for improving mobility and safety without costly capacity-adding projects.

For further discussion on the COVID-19 pandemic’s impact on travel demand, see Chapter 2.1a. For information on future travel demand forecasts, reference Chapter 3.

River Crossings

The 16 bridges spanning the Rio Grande are critical to the AMPA’s transportation network, allowing drivers to cross the river while separating traffic from the Rio Grande cottonwood forest that runs through the Rio Grande Valley. However, the bridges have limited roadway capacity and traffic

congestion across them is common. call for additional bridges does occur occasionally, and the Village of Los Lunas is planning for the construction of a new crossing south of NM 6. Aside from that project, no agency has expressed willingness to sponsor a new river crossing, likely because of the extraordinary financial expense, and potential disruption to the natural environment and surrounding neighborhoods, among other challenges. The table below shows the historic traffic volumes on the AMPA bridges. **It is noteworthy that, although overall travel remains below pre-pandemic levels, river crossing volumes surpassed pre-pandemic levels in 2023, possibly related to the continued imbalance of housing and jobs on the west and east sides of the river (see Chapter 2 section 2).**

Regional Vehicle Trip Intensity

Vehicle position and speed data from cell phones are now available to MRMPO and can be used to identify trip origins of travel activity. The heat map in **Figure X** shows areas of intensity in trip origins, with the warmer colors having a higher number of trip origins and cooler colors showing less trip activity. **Figure X** maps regional vehicle travel markets that serve the majority of travel in the region.

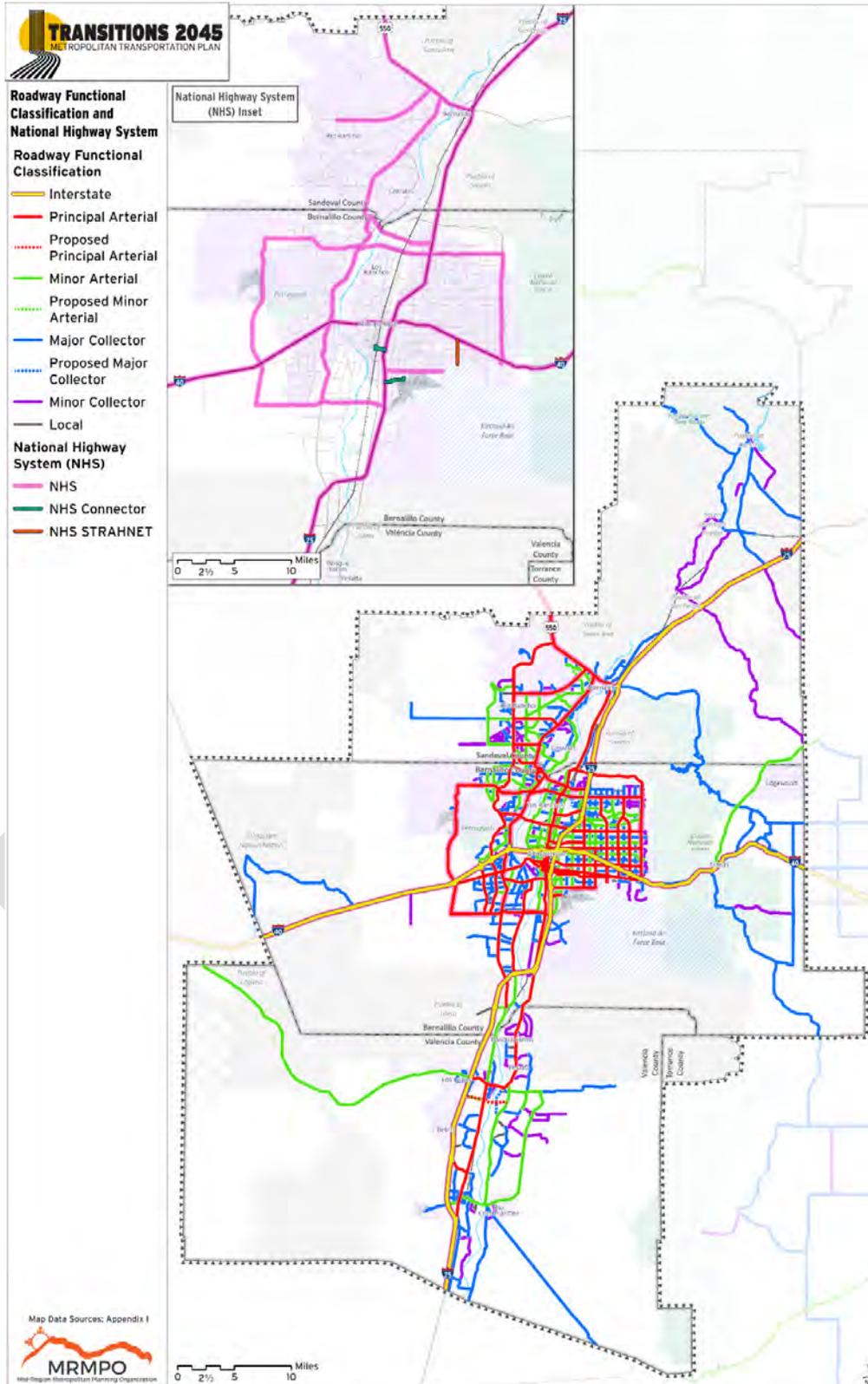
[Figures to be developed in subsequent draft of document]

Functional Classification System

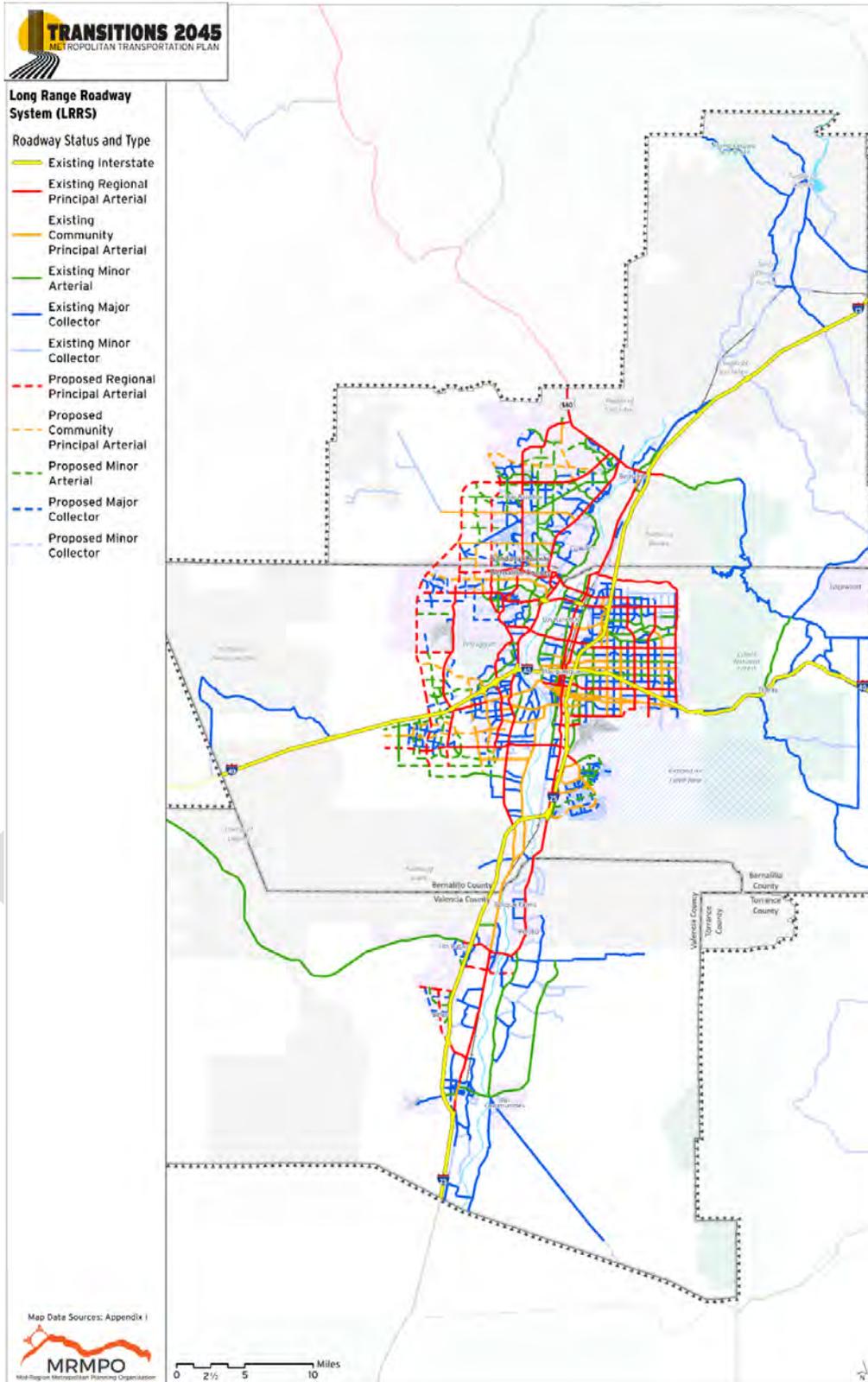
The functional classification system is a framework used to categorize roadways based on their role and function within a transportation network. This system classifies roads into different categories based on their capacity, connectivity, and purpose. Arterials are major roads designed for long-distance travel and high traffic volumes, while collectors gather traffic from local roads and distribute it to arterials. Local roads primarily serve residential and small-scale local traffic.

MRMPO along with the **New Mexico Department of Transportation (NMDOT)**, the **Federal Highways Administration (FHWA)**, and member agencies that own or maintain the roadway system coordinate in defining the Functional Classification of roadways in the AMPA. Factors considered include a roadway's VMT, the length of trips it serves, spacing of intersections and driveway access limits, roadway width, speed, and other technical design details. It is updated in conjunction with the 10-year U.S. Census, which helps the Functional Classification system in a metro area stay current with any new roadways, growth areas, or change in use of a roadway. The Functional Classification System is important to MRMPO's planning process because it helps define which roadways are eligible to receive federal funding.

Map 9: Roadway Functional Classification and National Highway System



Map 10: Long Range Roadway System (LRRS)



4.1b Transportation Systems Management and Operations (TSMO) and Intelligent Transportation Systems (ITS)

Transportation Systems Management and Operations (TSMO) is a set of integrated strategies that focus on operational improvements that help to restore and improve the performance of the existing transportation system.

TSMO makes more effective use of existing highway capacity with strategies that directly address both recurring and nonrecurring congestion. Recurring congestion is related to daily travel patterns, while nonrecurring congestion is caused by temporary disruptions like crashes or roadway construction. TSMO strategies contribute to smooth, reliable, and safe traffic flow on our roadways. They include planned multi-agency coordination and operations strategies such as integrated management of arterials and work zones, real-time conditions and traveler information, and incident management. These approaches improve network efficiency often at relatively low costs when compared to widenings and are an optimal strategy to achieve the mobility goal and objectives. Ideally, their implementation should be investigated before committing to the high cost of roadway widening.

Benefits of TSMO are shown in Figure 26.

Figure 26: Transportation Systems Management and Operations Benefits



Source: ITS JPO, 2024

Intelligent Transportation Systems (ITS)

One of the most effective and widely used TSMO strategies is Intelligent Transportation Systems, or ITS. This sub-strategy of TSMO augments traditional TSMO approaches by integrating advanced communications technologies into vehicles and infrastructure resulting in improved transportation operations, efficiency, and reliability. ITS can be thought of as the key to enabling TSMO to be “smart.” The state of the practice in TMSO has undergone massive progress in recent years driven by the ongoing integration of advanced technologies and communication systems with ITS.

Simply put, ITS improves travel throughput and system capacity without new construction. It does this by monitoring roadway flow conditions, providing real-time updates to travelers, and coordinating data across jurisdictions. Due to the complexities of collecting and sharing data between jurisdictions, ITS benefits greatly from the federally mandated Regional ITS Architecture, which ensures that ITS elements are deployed in a robust and coordinated manner.¹⁵ A wide range of ITS strategies are currently active in the AMPA and several are described below.

ITS Real-Time Services

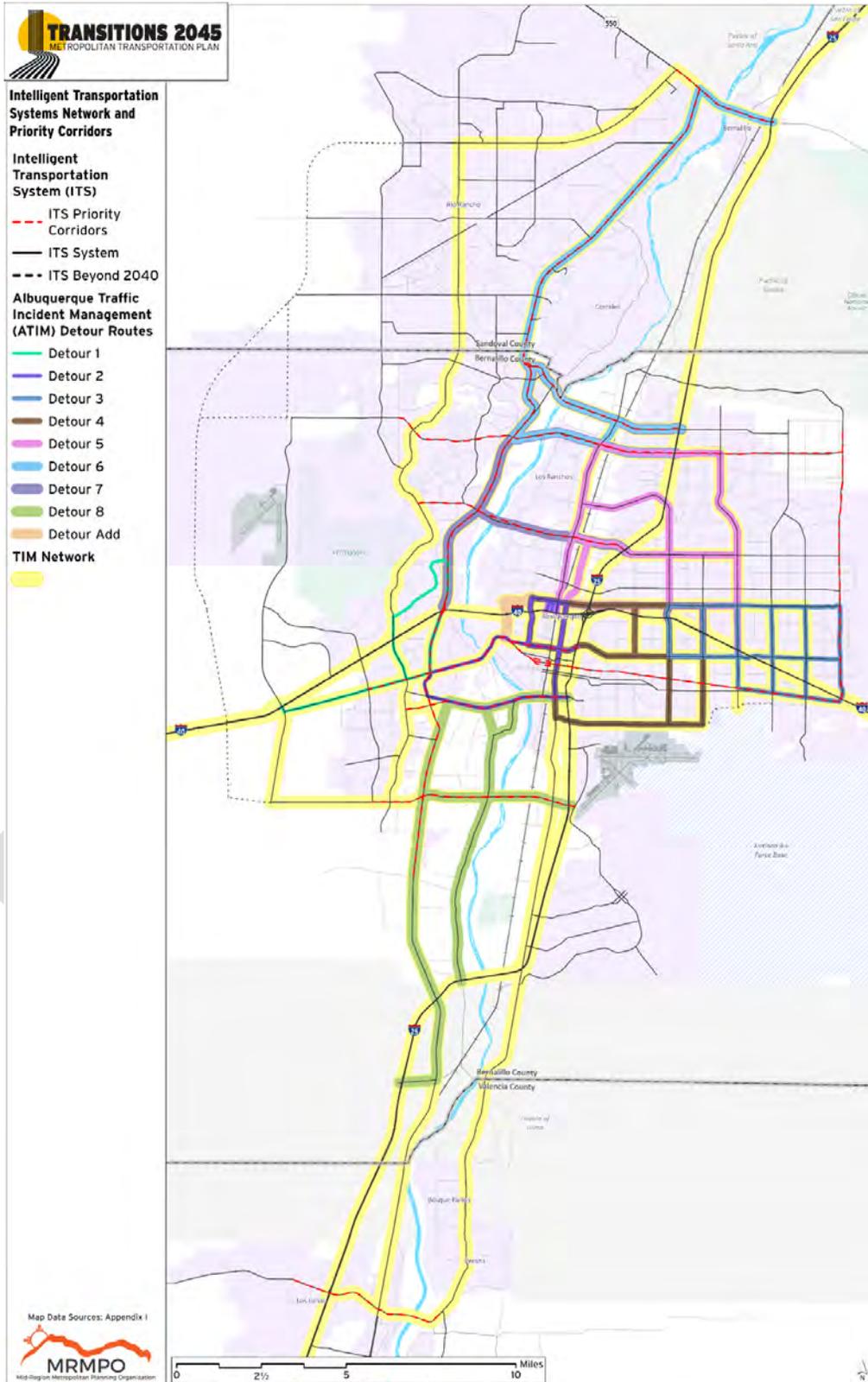
Real-time monitoring of roadway conditions is carried out through passive roadside detection with active management by roadway operators. This enables real time traveler information messaging displays on overhead boards, traffic signal timing adjustments, coordination with agencies and first responders, and travel information such as time estimates and hazardous conditions. AMPA agencies manage a range of ITS devices, including CCTV, third-party speed data, and dynamic message signs, which provide live data to travelers and other stakeholders. Messages are provided far enough in advance so that travelers are alerted to downstream conditions and have time to divert to a different route and avoid the congested area entirely.

ITS Corridors

The ITS Corridors Map highlights existing and planned ITS corridors and allows local governments and agencies to identify opportunities for ITS improvements. MRMPO's ITS Subcommittee further designates priority corridors for use in detailed project development. An evaluation matrix ranks corridors based on the value and viability of each ITS service. These prioritized corridors align with the Congestion Management Process (CMP), which is described later in this chapter, and promote ITS enhancements on critical travel routes in the region.

¹⁵ Regional ITS Architecture is required by the FHWA Final Rule, 23 CFR 940, to implement Section 5206(e) of the TEA-21 which requires that ITS projects funded through the Highway Trust Fund conform to ARC-IT and applicable standards. AMPA ITS Architecture: <https://www.consystec.com/ampa2023/web/index.htm>

Map 11: Intelligent Transportation Systems Network and Priority Corridors



Smart Mobility

Advancements in communications, including cell phones, travel apps, and in-vehicle technologies, now offer unparalleled access to travel data. Most new vehicles since 2016 are equipped with communication devices that are used in ITS to enhance traffic flow, safety, and travel experience. Real-time data on traffic congestion and roadway hazards is now widely available to travelers and agencies, and technologies in near-term development will enable vehicles to exchange information with traffic signals on such items as signal timing phases, other vehicles entering the intersections, pedestrians in the walkways, and other roadway-conditions information.

This convergence of new mobility technologies supporting advanced data collection, evolutions in transportation agency operations management strategies, and the ubiquitous presence of mobile devices and communications is creating what is referred to as “Smart Mobility.” Examples of ITS Smart Mobility applications in the AMPA include advanced traffic signal control systems and speed monitoring and management systems. For further detail on Smart Mobility and emerging technologies, see Section 4.1c.

ITS/TSMO Examples in the AMPA

Traffic Incident Management Plan (TIM)

The *Incident Management Plan for the Albuquerque Metropolitan Planning Area (2022)* is a coordinated plan to address disruptions in traffic flow resulting from crashes, secondary crashes, adverse weather conditions, and special events.¹⁶ Traffic incident planning and response involves law enforcement, fire, emergency medical services, towing and recovery, transportation/traffic communications, public media, and hazardous material response teams. The TIM includes a Concept of Operations that outlines the roles and responsibilities of all involved to ensure a coordinated response to incidents.¹⁷

Regional Transportation Management Center (RTMC)

The **Regional Transportation Management Center** was developed to assist with coordination between multiple jurisdictions and agencies. The RTMC houses multiple-agency transportation operations in a single co-located facility. The center consolidates monitoring and transportation management activities across jurisdictional boundaries, including:

- A single-room video wall comprised of Closed-Circuit Televisions (CCTVs) for shared viewing and monitoring of roadway conditions among all agency staff.
- Coordinated reporting of speeds and travel times during peak travel periods.
- Coordination of emergency response for traffic incidents or other hazards.

For every one minute a lane is closed there is a resulting six minutes of delay. The likelihood of secondary crashes (crashes resulting from the initial crash) increases by 2.8 percent for each minute the primary incident continues to be a hazard.

FHWA Traffic Incident Management Performance Measures Final Report

¹⁶ <https://www.mrcog-nm.gov/DocumentCenter/View/6225/Incident-Management-Plan-Final-ATIM>

¹⁷ <https://www.mrcog-nm.gov/DocumentCenter/View/6224/ATIM-Concept-of-Operations-Final>

- Reporting of hazardous travel conditions such as inclement weather, crashes, or construction-ahead notifications.

The RTMC, combined with the NMDOT's HELP Courtesy Patrols, can shorten emergency response times by as much as 25 percent on the interstates according to NMDOT's Highway Operations, resulting in reduced impacts of incident-related events and closures.

NMDOT HELP Courtesy Patrols

NMDOT's **Highway Emergency Lender Program (HELP)** Courtesy Patrol provides roadside assistance to stranded motorists with the goal of promoting safety and maintaining traffic flows. The area of coverage includes sections of I-25, I-40, and Paseo del Norte. HELP Courtesy Patrol is administered by NMDOT District 3, which relies on dispatch from the District 3 offices and the RTMC.

Enhanced Rest in Red

The City of Albuquerque piloted an **Enhanced Rest in Red** strategy on Lead Ave and Coal Ave to address speeding and crashes along these corridors. The system uses advanced signals combined with approaching vehicle speed detection. If the system determines an approaching vehicle is over the speed limit, the signal will quickly turn red, forcing the vehicle to slow down and stop at the intersection. Once the vehicle is stopped, the signal turns green. When the approaching vehicle's speed is within the speed limit, the signal remains green, the traveler does not have to stop, and speeds are managed safely.

The Enhanced Rest in Red system has been in place since early 2023. While it is too early to make a full assessment, so far there are indications of significant speeding reduction and safety improvements, some of which is likely also attributable to speed cameras installed along the corridor in the same year. The City of Albuquerque intends to expand the system to other corridors of the roadway network.

TSMO Planning Framework and Federal Programs

AMPA Regional ITS Architecture

The *AMPA Regional ITS Architecture Plan (2023)* supports coordinated efforts among various regional stakeholders to plan, design, deploy, operate, and maintain ITS. The ITS Subcommittee, described in more detail later in this chapter, manages and maintains the AMPA's Regional ITS Architecture for use in the local transportation planning. Periodic updates performed in close coordination with NMDOT and local stakeholders ensure that the document is kept current with regional and agency projects and priorities, as well as with the National ITS Architecture Standards.

ITS projects seeking federal assistance programmed in the TIP are subject to the United States Department of Transportation (USDOT) Systems Engineering certification and NMDOT project requirements. Systems Engineering for ITS involves a technical process that focuses on agency and system functional needs and outcomes. To assist member governments in meeting this federal requirement, MRMPO along with the NMDOT ITS Bureau and Federal Highway Administration developed online training resources available through the MRCOG and NMDOT websites. MRMPO's

Project Selection Process requires that any project with ITS must have Systems Engineering Certification or be included in the ITS Regional Architecture.

Integrating TSMO with the Metropolitan Transportation Planning Process The ITS Subcommittee, which is comprised of planning, engineering, and operational representatives from public sector agencies, is the primary planning technical group for ITS within the AMPA. The committee serves a crucial role in the review and formulation of **Transportation Improvement Program (TIP)** projects related to ITS. The committee evaluates all projects submitted for the TIP and MTP to determine if they include ITS elements, which are then mapped to the appropriate ITS Services.

Federal Programs

USDOT and the ITS Joint Program Office combined with the **National Highway Traffic Safety Administration (NHTSA)** have been in full support of expanding TSMO/ITS through several programs. Agencies in the AMPA participate in the **Strategic Highway Research Program (SHRP2)**, **Everyday Counts Program (EDC)**, and the **Real Time System Management Information Program (RTSMIP)**. These programs are summarized in Appendix X.

4.1c Mobility and Emerging Technologies

Advances in mobility technology can lead to improved resiliency, efficiency, and safety in the AMPA's transportation system, though local agencies often struggle to keep up with innovations from tech and auto companies. Emerging technologies include connected vehicles (CV), autonomous vehicles (AV), Smart Mobility, and automated freight and shipping.

These technological advancements are likely to occur during the MTP 20-year horizon period, and the region must proactively embrace these changes in programming its transportation system. Shifts in transportation infrastructure will be necessary, such as alternative refueling stations, connected vehicle-compatible infrastructure, modified land use and building design, and redesignations of the transportation space. Additionally, the AMPA region must balance these innovations with safety considerations.

Electric Vehicles

Electric vehicles are an emerging technology that the AMPA has embraced. Federal policy requires a shift to electric transportation that, according to the Electrification Coalition (2024) is expected to “create new jobs, reap financial savings for consumers and fleet operators, improve air quality, and reduce greenhouse gas emissions¹⁸”.

NMDOT has been actively planning and investing in electric vehicles across the state under the National Electric Vehicle Infrastructure program (NEVI), setting the tone by first prioritizing the infrastructure needs for a robust and connected charging network to ensure that all roadway users in electric vehicles will have reliable charging facilities available. Efforts are being mimicked by AMPA agencies that will support existing charging infrastructure already put in place by private companies such as Tesla, and others. Accordingly, MRMPO member agencies have followed suit

¹⁸ <https://electrificationcoalition.org>

and have developed or are developing their own plans, prepping the AMPA for a sustainable and efficient energy source for mobility needs well into the future.

Key stats for AMPA member agencies:

- Near term funding commitments by NMDOT approach \$120 million by summer 2025.
- The New Mexico Environmental Improvement Board (EIB) under the Clean Cars Rule requires that by 2026, 42 percent of dealer fleets in New Mexico be Zero Emissions Vehicles (ZEVs), and by 2032, 82 percent must be ZEVs. ZEVs include EVs, hydrogen fuel cell, and plug-in hybrids.
- City of Albuquerque's Zero Emissions First policy commits to replacing old city vehicles with EVs. Partnerships with local stakeholders provide public charging stations across the region.
- The City of Albuquerque has numerous local programs in support of EV deployments, including the Green Sticker Program for reduced parking fees for EVs, Electrified Dealer Program to support EV purchase and ownership.
- Bernalillo County is currently expanding its fleet of EVs and is now including the installation of charging stations.
- Bernalillo County Fire and Rescue recently acquired the state's first electric fire truck, planned for deployment in late 2024 or early 2025.
- The city of Rio Rancho supports EVs and has five public EV charging stations at high visibility locations across the municipality.

Connected Vehicles (CV)

Connected Vehicles refer to internet-equipped cars with advanced sensors that communicate with infrastructure, other vehicles, and cloud-based mobility applications. Early technological advancements include travel routing applications available through cell phones or installed in vehicles, enabling travelers access to real-time travel conditions and route planning capabilities. Since 2016, standard vehicles are equipped to allow them to interact with roadways and other vehicles through the following technologies: ¹⁹

Vehicle to Vehicle (V2V) – V2V is a wireless direct communication between vehicles, enabling them to exchange information and data with each other. This type of communication enhances a driver's perception by connecting them to the surrounding physical environment including proximity to other vehicles, speeds of other vehicles, and conditions data collected from other vehicles.

Vehicle to Infrastructure (V2I) - V2I Communications for Safety is the wireless exchange of critical safety and operational data between vehicles and highway infrastructure, intended primarily to avoid motor vehicle crashes and enable a wide range of other safety, mobility, and environmental benefits.

¹⁹ <https://www.transportation.gov/research-and-technology/how-connected-vehicles-work>

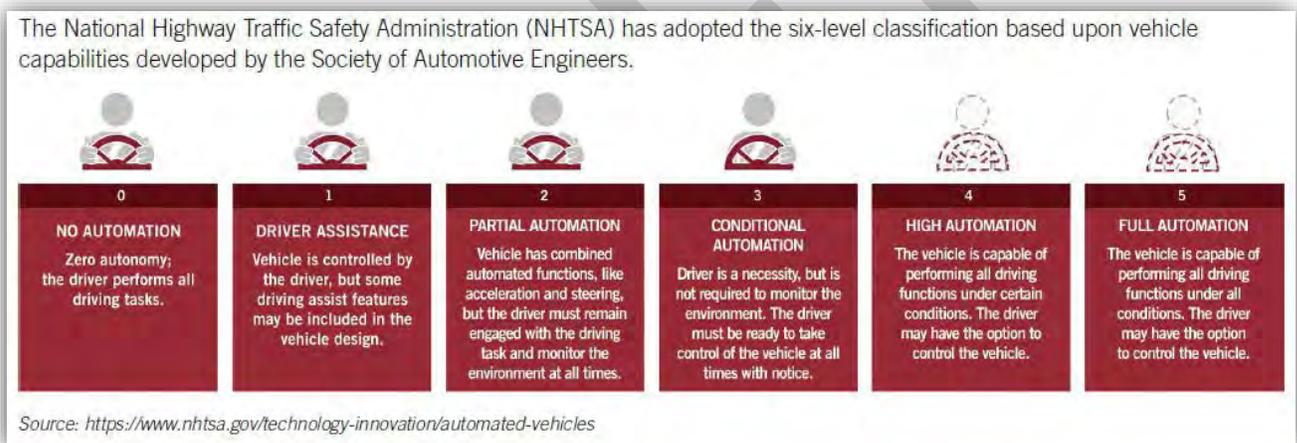
Vehicle to Everything (V2X) - Vehicle-to-Everything (V2X) is where a vehicle can share the information from its sensors, cameras and internal systems with other vehicles, nearby pedestrians, road infrastructure, and Smart City systems using wireless data connectivity. They generally encompass vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), and vehicle-to-pedestrian (V2P) communications, collectively known as “V2X.”

Connected vehicles also contribute to environmental sustainability by optimizing driving efficiency and reducing emissions.

Autonomous Vehicles (AV)

Autonomous Vehicles have varying levels of automation. The USDOT through the Society of Automotive Engineers (SAE) has established six levels of automation for AVs ranging from fully manual to fully automated, which correspond to the amount of driver interaction required to operate the vehicles.

Figure 27: NHTSA Established Automation Levels



Level 4 is the most advanced classification currently being developed and tested, while Levels 2 and 3 are the most advanced options available for purchase.²⁰ Key features of Level 3 include more extensive driver assistance systems, collision detection, lane departure warnings, and adaptive cruise management.

The autonomous vehicle market size has grown exponentially in recent years, according to a report by The Business Research Company in 2024. The report states it will grow from \$54.6 billion to

²⁰ *Autonomous Vehicles*. University of Oregon Urbanism Next.

\$73.5 billion in 2024.²¹ The Insurance Institute for Highway Safety predicts 3.5 million self-driving vehicles on U.S. roads in 2025, and 4.5 million by 2030.²²

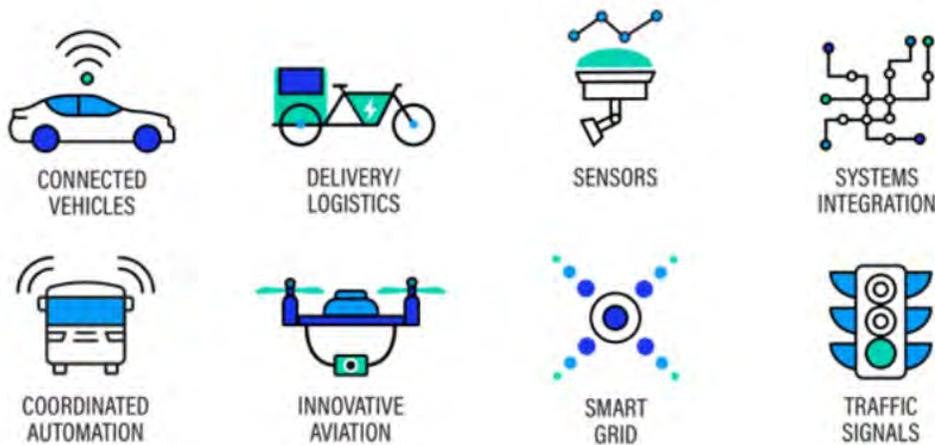
A report by the National League of Cities indicates that more than 50 percent of US cities are currently preparing to host AVs in their future.²³ MRMPO member agencies are following suit incrementally with signal equipment modernization, installation of advanced camera detection, and expansion of infrastructure communications. Additional advancements include pilot projects of advanced signal to vehicle communications that transmit signal timing and cycle phase information to vehicles to alert of pending signal phase changes.

The Smart Mobility Ecosystem

Smart Mobility refers to the integration of technology into the transportation system to create a more efficient, sustainable, and accessible ecosystem. Strategies discussed earlier in this section such as ITS/TSMO and AVs/CVs are considered Smart Mobility.

Below are key components of the USDOT’s SMART Grants Program (Strengthening Mobility and Revolutionizing Transportation), which provides grants to eligible public sector agencies to conduct demonstration projects focused on advanced smart community technologies and systems to improve transportation efficiency and safety:

Figure 28: USDOT SMART Grants Program Components



Source: FHWA Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program, 2022-26

²¹The Business Research Company,2024 ([https://www.thebusinessresearchcompany.com/report/autonomous-vehicle-global-market-report#:~:text=Autonomous%20Vehicle%20Market%20Size%202024,\(CAGR\)%20of%2034.7%25](https://www.thebusinessresearchcompany.com/report/autonomous-vehicle-global-market-report#:~:text=Autonomous%20Vehicle%20Market%20Size%202024,(CAGR)%20of%2034.7%25).)).

²² National Insurance Institute for Highway Safety. Autonomous Vehicles. Retrieved from <https://content.naic.org/insurance-topics/autonomous-vehicles>

²³ <https://www.nlc.org/wp-content/uploads/2018/10/AV-MAG-Web.pdf>

Other elements of fully integrated Smart Mobility in the near and long term future include:

- **Shared Mobility:** Shared Mobility refers to the sharing of transportation resources, such as car-sharing, bike-sharing, and ride-sharing services. These services aim to reduce the number of cars on the roads, thereby reducing congestion and pollution.
- **Electric Mobility:** Electric Mobility refers to the use of electric vehicles (EVs), such as electric cars and electric bikes, to reduce emissions from transportation. This includes the continued development and expansion of charging infrastructure and the promotion of electric vehicles and bicycles.
- **Active Mobility:** Active Mobility refers to the promotion of walking and cycling as modes of transportation. This includes the development of bike lanes, pedestrian-friendly streets, and other infrastructure to encourage active transport. It often includes advanced technologies such as mobile phone apps, connected sensors with infrastructure and vehicles (V2I and V2V). Active transportation is discussed in further detail in Chapter 6.
- **Mobility as a Service (MaaS):** MaaS refers to online platforms that allow transportation to be purchased on a per-ride or subscription basis. MaaS can integrate various modes of transportation, such as public transport, car-sharing, and bike-sharing into a single platform to provide a seamless and user-friendly transport experience.

By incorporating Smart Mobility elements into the Project Selection Process (PSP) for project programming at MRMPO, the AMPA is on the path to integrate Smart Mobility solutions, and additional opportunities for expansion will emerge in both the public and private sectors. Realistically, opportunities for Smart Mobility are within reach in the next 5- 10 years.

Freight and Shipping

Automation in Freight and Shipping

Freight companies have already begun to test and deploy automation. Due to a lack of national regulation, automated vehicles (including freight) are permitted in nearly all states, including New Mexico, unless specifically prohibited.

Torc Robotics has been testing autonomous self-driving freight in the AMPA for the past several years. Several key suppliers, including Amazon, Walmart, FedEx, UPS, and others, have also initiated automated freight transport for goods and services. Some estimates ambitiously predict that fully autonomous trucks will appear on highways by 2027.²⁴ Automated rail-to-truck and freight-to-warehouse operations may also be deployed in the near term.

Electric Vertical Take Off and Landing (eVTOLs) and Air Vehicles

EVTOLs are aircraft that use electric power to hover, take off, and land vertically. They are being tested for deployment as taxis, delivery vehicles, and for other applications. The Dallas Fort Worth International Airport plans to introduce eVTOLs as Air Taxis by 2026. Preliminary discussion at the Albuquerque Sunport in their Master Plan development is considering similar language and effort. For more information on eVTOLs, reference the 7.4: Goods Movement section.

²⁴ the Library of Congress “The Trucking Industry: Research Guide, Autonomous Trucking”

4.1d Existing Roadway Maintenance and New Asset Management Requirements

Roadways play a crucial role in economic development because they provide access to employment, health, education, recreation, and social services. Poorly maintained infrastructure increases costs, and deferring maintenance escalates the costs and risks associated with an aging transportation network. Investment in maintenance of transportation infrastructure today lowers the future cost of repair or replacement.

For the region to remain competitive in the national and global economy, it is essential that maintenance is prioritized above projects that add capacity to the network. Poor pavement and bridge conditions result in higher vehicle operating costs, delays in goods movement, increased commute times and increased fuel consumption and vehicle emissions. It is estimated that the U.S. has a backlog of \$830 Billion in highway repairs, highlighting the importance of discretion when making the decision to add to the existing roadway network.²⁵

The **Infrastructure Investment and Jobs Act (IIJA)**, also known as the **Bipartisan Infrastructure Law (BIL)**, formalizes the responsibility for State Departments of Transportation (DOTs) and Metropolitan Planning Organizations (MPOs) to integrate pavement management into their roadway management and maintenance operations. Pavement performance management is now integrated into the transportation planning process, and all states must utilize nationally defined performance measures for pavement and bridges on the National Highway System (NHS). DOTs and MPOs must report their pavement and bridge performance targets to the FHWA, which assesses progress towards state targets. MPOs are given the option to either adopt the NMDOT's performance targets or adopt their own. MRMPO has decided it is best to adopt the NMDOTs targets to ensure that the investment priorities pursued in the development of the AMPA TIP are consistent with those of NMDOT. See Chapter 11.2 for more information on federal performance measures and targets.

²⁵ https://highways.dot.gov/sites/fhwa.dot.gov/files/2023-05/FHWA_Strategic_Plan_05.25.23.pdf

NMDOT Transportation Asset Management Plan (TAMP)

The NMDOT’s ***Transportation Asset Management Plan (2022)*** includes:

1. Inventories of pavement and bridge conditions.
2. Identification of management objectives and measures.
3. Financial and investment strategies to address deficiencies across the system and sustain a desired state of good repair.
4. Periodic updates with 2 and 4-Year Performance Targets and annual monitoring reporting to FHWA.

The requirement applies only to the **National Highway System (NHS)**; however, NMDOT monitors conditions on all NMDOT-managed roadways on the federal aid system (see roadways map in section 4.1). MRMPO coordinates with NMDOT to prioritize pavement and bridge management projects through its Project Selection Processes (PSP) discussed in Chapter 11.

Local Agency Actions

Local agency pavement management systems are established within respective public works departments to monitor conditions and ensure that timely maintenance treatments can be deployed to avoid roadway deterioration. Agencies within the region are varied in their approach to pavement management systems. However, performance condition targets have been established by the NMDOT for monitoring purposes, and MRMPO has integrated maintenance of existing infrastructure into its PSP in support of meeting the targets in the TAMP.

Current Roadway and Bridge Condition

The NMDOT maintains an Asset Management database for all roadways and bridges, which was last updated in 2022. As of 2022, 88.1 percent of NMDOT-maintained roadways in the AMPA were assessed to be in fair to good condition, while 97.5 percent of bridge structures in the region are ranked as structurally sufficient. Only 2.5 percent of bridges are rated as either in need of rehabilitation or need replacement entirely.

NMDOT-Maintained Roadways Pavement Condition:

Good – 38.9%

Fair – 49.2%

Poor – 11.9%

According to the American Society of Civil Engineering’s *Report Card on America’s Infrastructure*, one-third of all roadways in America are in poor to mediocre condition, and more than a quarter of

NMDOT Data Collection

Although the BIL specifies that TAMPs involve at a minimum the interstates and the National Highway System (NHS), the NMDOT took this opportunity to collect condition data on the entire roadway transportation system for the year 2022. This dataset is ideal for a regional assessment as it presents a uniform and consistent methodology across all jurisdictional boundaries. MRMPO uses this dataset to assess pavement and bridge condition in the region. MRMPO coordinates with member agencies and the NMDOT to integrate asset management and life cycle performance targets into local project selection and programming.

all bridges are either structurally deficient or functionally obsolete.²⁶ System preservation among MRMPO member agencies is a high priority, which is consistent with the regional goals stated in this plan.

4.2 Transit and Mobility

4.2a Benefits of Transit

Transit is an equitable mode of transportation because it does not require an initial capital investment from users. Transit is therefore crucial for those who cannot afford a car or other private transportation, especially as it provides access to employment and daily destinations. The benefits of transit is summarized by the **American Public Transportation Association (APTA)**:

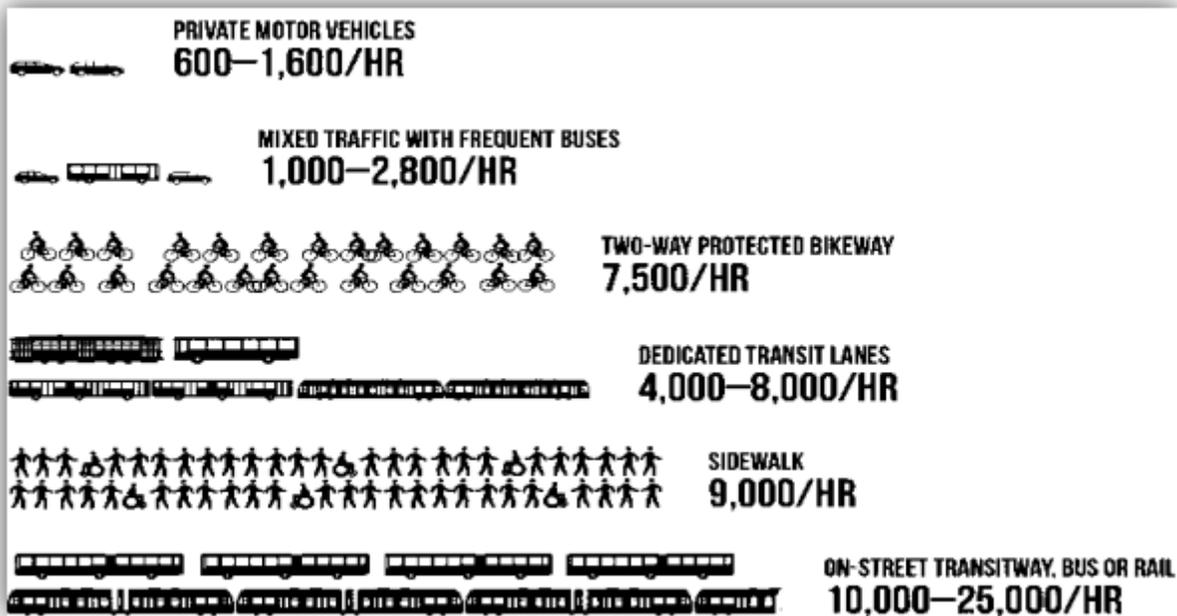
- Greater transportation mode choice
- Increased economic activity
- Access to employment, schools and universities, government services, health care, business, and industry
- Mobility for persons without access to a vehicle or who are not able to drive a vehicle
- Reduced congestion, which results in decreased travel times and fuel consumption
- Savings from lower gas and vehicle-related expenses
- Lower carbon and other pollutant emissions

Efficient People Movement

Transit moves people efficiently. Figure 29 represents how many people can be moved per hour using different modes. Transit is clearly a space-efficient way to move people through a region and holds promise as a strategy for alleviating congestion caused by high volumes of single occupancy vehicles.

²⁶<https://infrastructurereportcard.org>

Figure 29: The Capacity Of A Single 10-Foot Lane (Or Equivalent Width) By Mode At Peak Conditions With Normal Operations



Source : <https://nacto.org/publication/transit-street-design-guide/introduction/why/designing-move-people/>

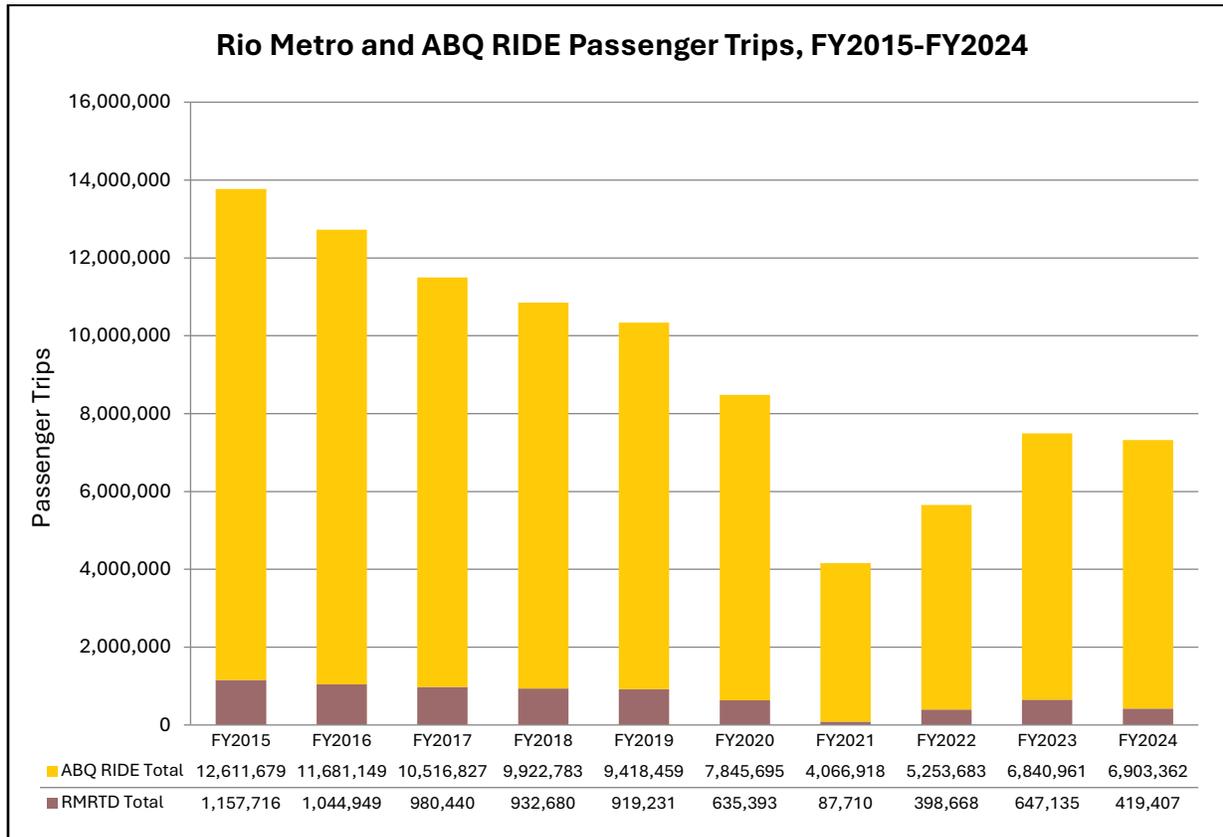
4.2b Fluctuations in Transit Ridership

Public transportation is a vital service for connecting people to goods and services in our region, particularly for those who do not own personal vehicles. However, transit ridership in the Albuquerque metropolitan area declined from 2014 to 2019 and sharply dropped with the arrival of the COVID-19 pandemic in 2020. Between 2019 and 2021 total transit ridership in the region declined by almost 60 percent. Passenger miles traveled during the same period dropped by 75 percent. While passenger trips and miles have begun to bounce back, public transit ridership is still well below that of the pre-pandemic levels.

There are numerous explanations for these fluctuations in transit ridership. In 2020 and 2021, the sudden decrease in transit ridership reflected national trends and was a result of the COVID-19 pandemic and associated stay-at-home orders. Even after those orders were lifted, hybrid work arrangements and off-peak commuting became common. Since 2021, an increase in operating costs and a staffing shortage has made it extremely difficult for regional transit agencies to provide frequent service and accessibility. The reduction in transit service has occurred alongside the lower ridership levels from 2022 to 2024 and contributed to the lower ridership.

Figure 30 shows the number of transit trips taken each year for the past 10 years on both the City of Albuquerque’s ABQ RIDE system and the Rio Metro Regional Transit District (RMRTD) system.

Figure 30: Rio Metro and ABQ RIDE Passenger Trips, FY2015-FY2024



Source: ABQ RIDE and Rio Metro Regional Transit District

4.2b Factors Behind Fluctuations in Ridership

COVID-19

The COVID-19 pandemic created the largest shock to the transit system in modern history. The stay-at-home orders starting in March 2020 led to a shift to remote work and significant changes to commute patterns. Between April 2019 and April 2020, transit ridership in the United States decreased by 81 percent. Additionally, 97 percent of 518 U.S. transit agencies reported reduced service to the Federal Transit Administration (FTA).

Since 2021, transit ridership in many other western mid-sized cities has been slowly increasing but has not yet returned to pre-pandemic levels. Ridership in the MRCOG region has exhibited similar trends. Albuquerque passenger trips in 2024 are only 71 percent of 2019 numbers. Similarly, passenger miles traveled in 2024 are at 61 percent of the levels in 2019. Importantly, only 63 percent of the service that was offered by ABQ RIDE in 2019 was provided on the transit network in 2024, according to an ABQ RIDE Forward report.²⁷ Despite the reduction in transit service, as of

²⁷ <https://abqrideforward.com/wp-content/uploads/2024/05/ABQ-RIDE-Forward-Recovery-Network-Report-High-Res-20240507.pdf>

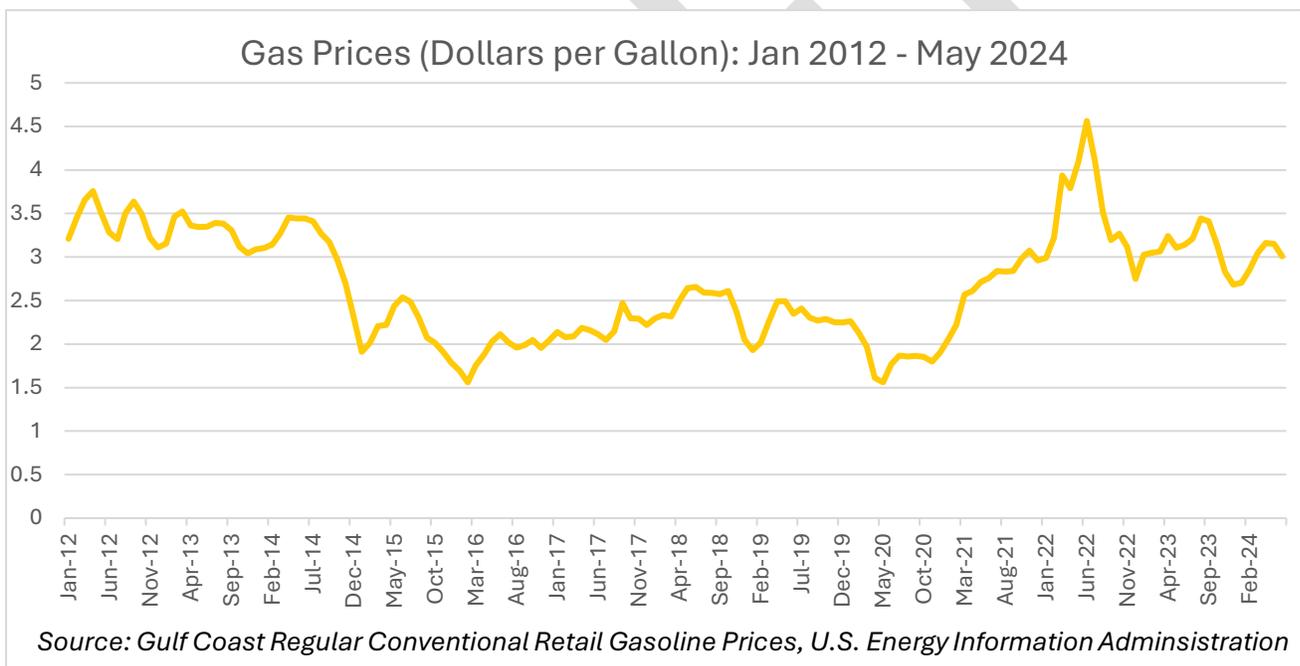
mid-2024 ridership numbers are the highest since March 2020, indicating a rebounding demand for transit despite operational challenges.

Reliance on Easy Credit and Low Gas Prices

In the Albuquerque metropolitan area, driving a car is the most convenient and fastest way to get around for most trips. In the past, transit has been attractive primarily because it is cheaper than owning and operating a car. When there are fewer barriers to financing a car and lower costs for operating a vehicle, it follows that more people will drive, and fewer will take transit. Research indicates that higher gas prices and gas price uncertainty correlates with higher transit ridership.²⁸ However, relying on easy credit and low gas prices to meet the public’s transportation needs may not be wise. In the event of an economic downturn and higher unemployment rates, affordable transportation becomes increasingly important as residents may struggle to afford vehicles and gasoline.

Figure 31 depicts average gas prices over time. Gas prices spiked in 2021, and although they have returned to a lower level, price fluctuations are common.

Figure 31: Gas Prices (Dollars per Gallon): Jan 2012 - May 2024



Operating Costs

The Albuquerque metropolitan area has faced significant challenges in maintaining public transit services due to rising operating costs. One of the most pressing issues is the difficulty in hiring and retaining essential personnel such as drivers and mechanics. This shortage has directly impacted the efficiency and reliability of public transportation services, forcing transit operators to provide less frequent service and even eliminate some transit lines. The city’s budget constraints have

²⁸ Chi, J. (2022). Asymmetric Gasoline Price Effects on Public Transit Ridership: Evidence from U.S. Cities. *Transportation Research Record*, 2676(5), 643-659. <https://doi.org/10.1177/03611981211069065>

made it increasingly difficult to offer competitive wages and benefits, further exacerbating the hiring crisis.

In addition to staffing issues, the city is struggling to cover other operating costs. Despite efforts to mitigate these challenges, the financial strain remains. The costs of maintaining and operating the transit system have continued to rise, with inflation and increased prices for goods and services adding to the burden. For example, the cost of vehicle maintenance and fuel has seen a significant uptick, putting additional pressure on the city's budget.²⁹ As a result, residents are experiencing reduced service levels, which affects their daily commutes and overall quality of life. Reduced service also contributes to lower ridership levels.

4.2c Regional Transit Partners

City of Albuquerque Transit Services (ABQ RIDE)

ABQ RIDE was founded from the City of Albuquerque's acquisition of the struggling, privately-operated Albuquerque Bus Co. and Suburban Lines in 1965. ABQ RIDE currently operates the following types of bus services within the City of Albuquerque and portions of the Village of Los Ranchos de Albuquerque and unincorporated Bernalillo County:

- **Two Bus Rapid Transit routes: Albuquerque Rapid Transit (ART)**, started service in November of 2019. These routes have dedicated lanes for about 9 miles, allowing them to be more consistent in terms of timing (reliability), and more frequent arrivals at each station (around every ten minutes). The routes operate with 60-foot articulated buses able to carry more passengers.
- **Twenty-one local routes:** Local routes operate primarily along arterial streets at both peak and mid-day hours and typically serve bus stops that are located one-quarter mile apart or less.
- **Paratransit:** ABQ RIDE's Sun Van paratransit provides door-to-door service in Albuquerque, the Village of Los Ranchos de Albuquerque, and portions of Bernalillo County for riders who have disabilities which prevent them from using regular bus service. This is offered based on federal requirements (49 CFR 37.131).
- **Micro-transit:** In the spring of 2024, ABQ RIDE began a one-year pilot program to provide micro-transit service in two zones, one in southwestern Albuquerque and one in the Near North Valley. Called **ABQ RIDE Connect**, the service provides door-to-door service on weekdays for the general public within each of these zones based on first-come, first-served scheduling (somewhat similar to services provided by Uber or Lyft but with the potential for rides to be shared with other riders for efficiency purposes). Micro-transit is a way to provide transit service in areas that, due to low population density or limited street connectivity, are difficult to serve effectively and efficiently with regular fixed-route bus service.

In Fiscal Year 2024, more than 95 percent of all ABQ RIDE passenger trips are supported by local route service and Albuquerque Rapid Transit routes.

²⁹ <https://www.cabq.gov/transit/documents/zero-fares-monthly-report-january-final.pdf>

Rio Metro Regional Transit District (RMRTD)

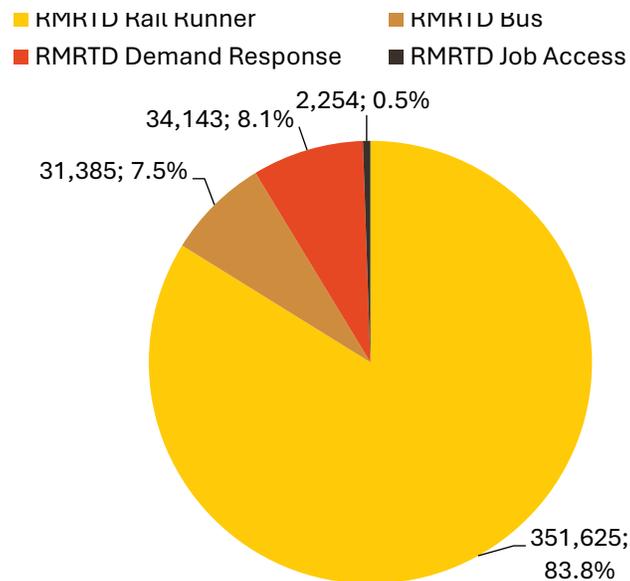
The **Rio Metro Regional Transit District (RMRTD)**, or Rio Metro, traces its origin to the New Mexico legislature’s passage of the Regional Transit District Act in 2003 and the start-up of the New Mexico Rail Runner Express commuter rail system in 2006. Rio Metro’s geography covers Bernalillo, Sandoval and Valencia counties which generally reflect the MPO boundaries. In 2008, voters in each of the three counties passed a 1/8-cent gross receipts tax dedicated to Rio Metro’s rail and bus transit services.

Rio Metro provides several transit services throughout the three-county region, and its combination of intercity, urban, suburban, and rural services reflect its large service area and diverse transit needs. Rio Metro’s far-reaching and regional transit network complements ABQ RIDE service. The Rail Runner, New Mexico’s only regional passenger rail network, connects Albuquerque’s urban areas to communities along the I-25 corridor and Santa Fe.

Rio Metro services include:

- **New Mexico Rail Runner Express:** The Rail Runner is a commuter train that operates on 97 miles of track and connects several communities, including Belen, Los Lunas, Isleta Pueblo, Albuquerque, Sandia Pueblo, Town of Bernalillo, Kewa Pueblo, and Santa Fe. While primarily oriented to weekday commuter travel, the Rail Runner provides some evening and weekend service as well.
- **Commuter routes:** Five commuter bus routes in Sandoval County, four in Valencia County, and one in Bernalillo County connect residents to Rail Runner Stations and major commercial, educational, and employment destinations.
- **Dial-a-Ride:** Rio Metro provides Dial-a-Ride transit (also known as demand-response transit) to persons traveling within most of Valencia County and to senior citizens or disabled residents in Rio Rancho. Similar to paratransit, a trip must be requested one day in advance.
- **Job Access:** The Job Access program provides taxi rides and/or bus passes to Temporary Assistance for Needy Families (TANF), low-income, senior and other individuals with disabilities living in Bernalillo County who have limited transportation options to access work or job training opportunities.
- **Intergovernmental services:** Rio Metro has a funding arrangement with ABQ RIDE for routes connecting to the Rail Runner as well as overall system support. Rio Metro also provides funding for the New Mexico Department of Transportation’s Route 500, a park-and-ride

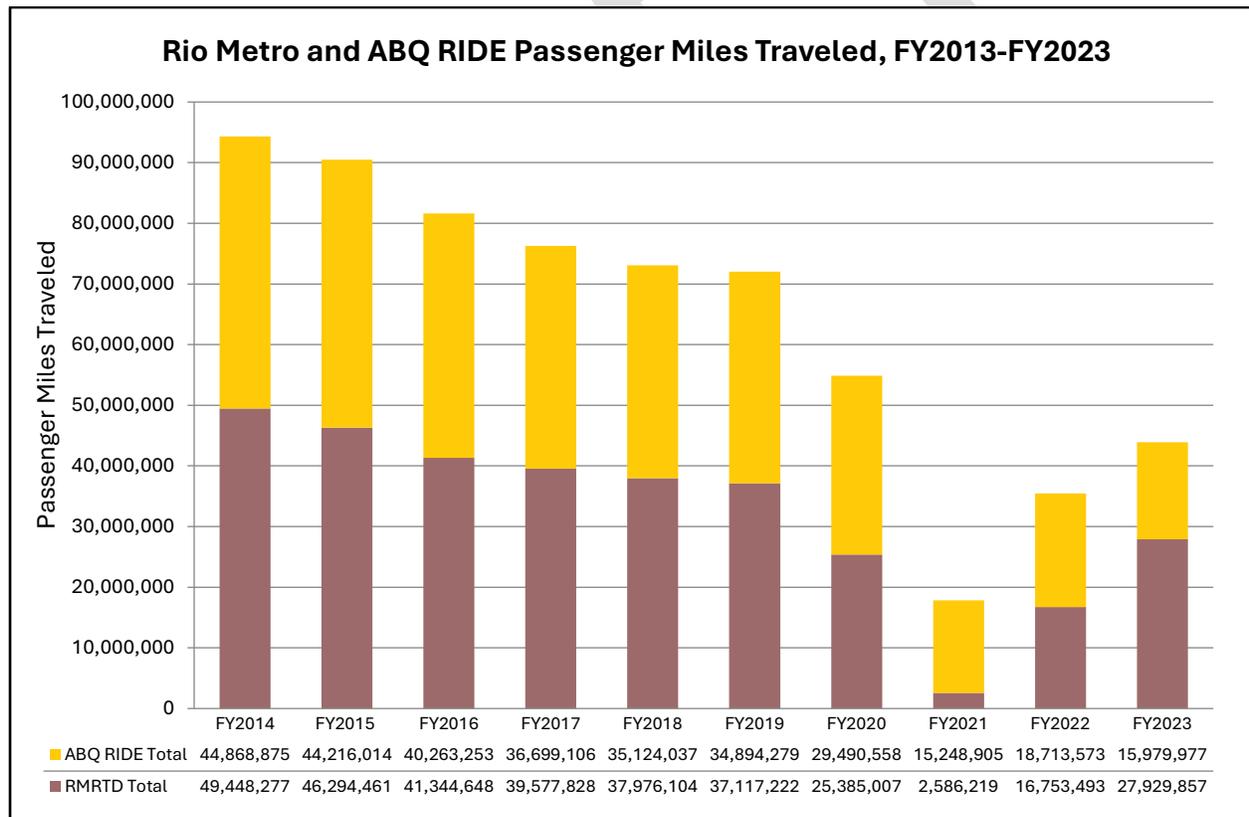
Figure 32: Rio Metro Regional Transit District Ridership



service that connects Albuquerque and the NM 599 Rail Runner Station in Santa Fe with Los Alamos.

Systemwide, Rio Metro provided 716,000 passenger trips in FY 2024, excluding ABQ RIDE trips attributable to Rio Metro funding. Most of these trips (594,000) were on the Rail Runner, which with an average passenger trip length of more than 42 miles, amounted to over 29,000,000 passenger miles traveled (PMT) for the year. While the Rail Runner ridership and passenger miles includes travel in Santa Fe County (therefore out of the MRCOG area) this travel is entirely along the north-south corridor, mirroring I-25 between Belen, Albuquerque, and Santa Fe. Rio Metro trips include Dial-a-Rid/demand-response (61,000) serving Valencia County, Rio Rancho / Corrales, and a small number in southern Bernalillo County with a combined average passenger trip length of 7.8 miles. Rio Metro bus routes accounted for almost an equal amount of passenger trips (56,000), though almost twice the PMT with an average trip length of 15.9 miles. Job Access services saw a relatively small number (5,000) of trips over the year.

Figure 33: Rio Metro and ABQ RIDE Passenger Miles Traveled, FY2013-FY2023



Paratransit Services

The Americans with Disabilities Act of 1990 requires that transit agencies providing fixed routes, such as ABQ RIDE’s Rapid Ride and local routes, also offer “complementary” and “comparable” paratransit service to persons with disabilities. ABQ RIDE’s Sun Van paratransit provides door-to-door service in Albuquerque and portions of Bernalillo County for riders who have satisfied eligibility requirements. Per federal requirements (49 CFR 37.131), paratransit service must be provided:

1. At least three-quarter miles from any fixed route
2. During the same hours and days as the fixed route
3. For a fare no more than twice the comparable fare of the fixed route
4. Based on reservations made the previous day
5. With no restrictions on trip purpose or the number or trips

Access for Elderly and People with Disabilities

Paratransit provides crucial access to the elderly and people with disabilities. The importance of paratransit is likely to grow considering that the population aged 65 or older in the AMPA is projected to increase by 60,000 by 2045. The popularity of paratransit service has grown steadily since the passage of the **Americans with Disabilities (ADA)** paratransit mandate, which requires that transit services are made available to individuals who are unable to use fixed-route transit systems due to a physical, visual, or mental impairment. This legislation dramatically increased the use and cost of paratransit services, however the passage of the ADA Act of 1990 did not provide additional funding to transit agencies to help them comply with this mandate.

Cost of Paratransit

The U.S. Government Accountability Office found in a 2012 report that a paratransit trip costs, on average, \$29.30, or roughly 3.5 times as much as an average fixed route trip.³⁰ The same report also found that the average cost of a paratransit trip had gone up 10 percent between 2007 and 2010. These numbers pose a troubling problem for transit agencies across the country. Transit providers must make do with the same operating costs despite the rising cost of meeting paratransit needs.

Other Transit Services or Amenities Offered - Park and Ride Lots

Park and ride lots offer a valuable transportation alternative, especially for those who live in suburban or rural areas far from transit service. Park and ride lots are parking areas next to transit stations that allow people to park their cars and ride transit into the city center. This reduces congestion on the most critical roadways leading to job centers. There are park and ride lots at several Rail Runner stations, enabling long distance commuters the option to more easily take the train. ABQ RIDE has several park and ride locations at transit centers. Two locations specifically cater to Westside residents looking for a transit alternative to driving downtown or to UNM. The map below shows ABQ RIDE park and ride facilities.

4.2d How Development Patterns Impact Transit

More compact land development helps reduce vehicle miles traveled in the region by bringing destinations closer together and in general works better for transit.³¹ Unfortunately, there are many land use-related barriers to efficient transit service that discourage cost-effective, local transit service in the region:

- As the footprint of the metro area continues to grow, it expands ABQ RIDE and Rio Metro's service areas and has the potential to dilute the level of service to existing areas if additional revenue is not generated to support this growing population and geographic area.

³⁰ https://wagner.nyu.edu/files/rudincenter/2016/09/INTELLIGENT_PARATRANSIT.pdf

³¹ <https://www.fhwa.dot.gov/fastact/factsheets/metropolitanplanningfs.cfm>

- Many areas of the AMPA are characterized by low-density, residential development with poor pedestrian connectivity.
- Poor pedestrian connectivity limits the number of individuals living within a walkable distance of a transit stop (desirably ¼-mile) as illustrated in the image below.
-

Figure 34: Walkability by Development Pattern



Thus, a bus must travel farther in this circuitous setting to reach the same number of riders that it might reach in higher-density neighborhoods aligned along a more linear corridor or with better pedestrian connectivity. A longer route requires more buses to maintain the same frequency as a shorter route, which exacerbates operating costs. Furthermore, a bus operating in ever-increasing congestion will experience declining average speeds. As average speeds decrease, and a bus takes longer and longer to complete its route, more buses will be required to preserve frequency. If additional buses cannot be supplied to offset increasing travel time, frequency will decrease, and ridership may decline.

In short, land use patterns, densities, and network connectivity are some of the strongest determinants of the viability and success of transit. This is evidenced by the fact that ABQ RIDE’s most successful routes (located primarily along the Central Avenue corridor) serve major activity centers with relatively high employment and population densities. This synergy is bolstered by the presence of a well-connected street grid and many neighborhoods that are home to more transit-reliant populations as well as more frequent service. Conversely, it is generally less efficient to

extend local bus service to low-density residential areas such as the Westside and far Northeast Heights.

This speaks to a common dilemma for transit providers: is it better to offer broad transit coverage over a geographic area or should the focus be on attaining high ridership (for example, by providing more frequent service in higher ridership areas)?

The trade-off between maximizing ridership or providing wide-spread coverage was a key factor in the ABQ RIDE Forward Study that resulted in the ABQ RIDE Forward 5-Year Recovery Network, discussed below.

4.3 Transit Opportunities and Strategies

There are several promising approaches that could be pursued to support transit in the region, including those which take a critical look at network design and land use strategies.

Network Design Opportunities

ABQ Ride Forward 5-Year Recovery Network

The ABQ Ride Forward Network Plan is a comprehensive initiative aimed at revitalizing Albuquerque’s public transit system over the next five years. Launched in 2022, this plan addresses evolving community needs and aims to maximize resource efficiency. The proposed “Recovery Network,” developed with input from the community and support from various partners, focuses on enhancing service frequency, extending operating hours, and improving weekend and evening services. The implementation of Automatic Passenger Counters (APCs) has helped ABQ RIDE better track ridership and optimize routes. Scheduled for phased implementation starting in Summer 2025, the plan seeks to balance high ridership and extensive coverage, ensuring that transit services reflect the values and priorities of Albuquerque residents.³²

Long Range Transit Network (LRTN)

Similar to the Long Range Bikeway System Map and the Long Range Roadway Network, the LRTN is an aspirational map that is meant to help develop the transit system over the long term, or beyond the horizon of the Transitions 2045 MTP.

Priority Transit Network (PTN)

The MTB passed a resolution (15-01) in January 2015 which included a 20 percent transit mode share goal by 2040 and requires the allocation of 25 percent of STP-U and CMAQ27 funds for “transit projects, or portions of projects, with substantial dedicated transit infrastructure” on a Priority Transit Network. The Priority Transit Network is shown below.

A future draft of this document will contain an analysis that shows mode share data on the PTN.

³² <https://www.cabq.gov/transit/transit-programs-projects/abq-ride-forward-network-plan>

Land-Use Supportive Opportunities

Transit Oriented Development (TOD)

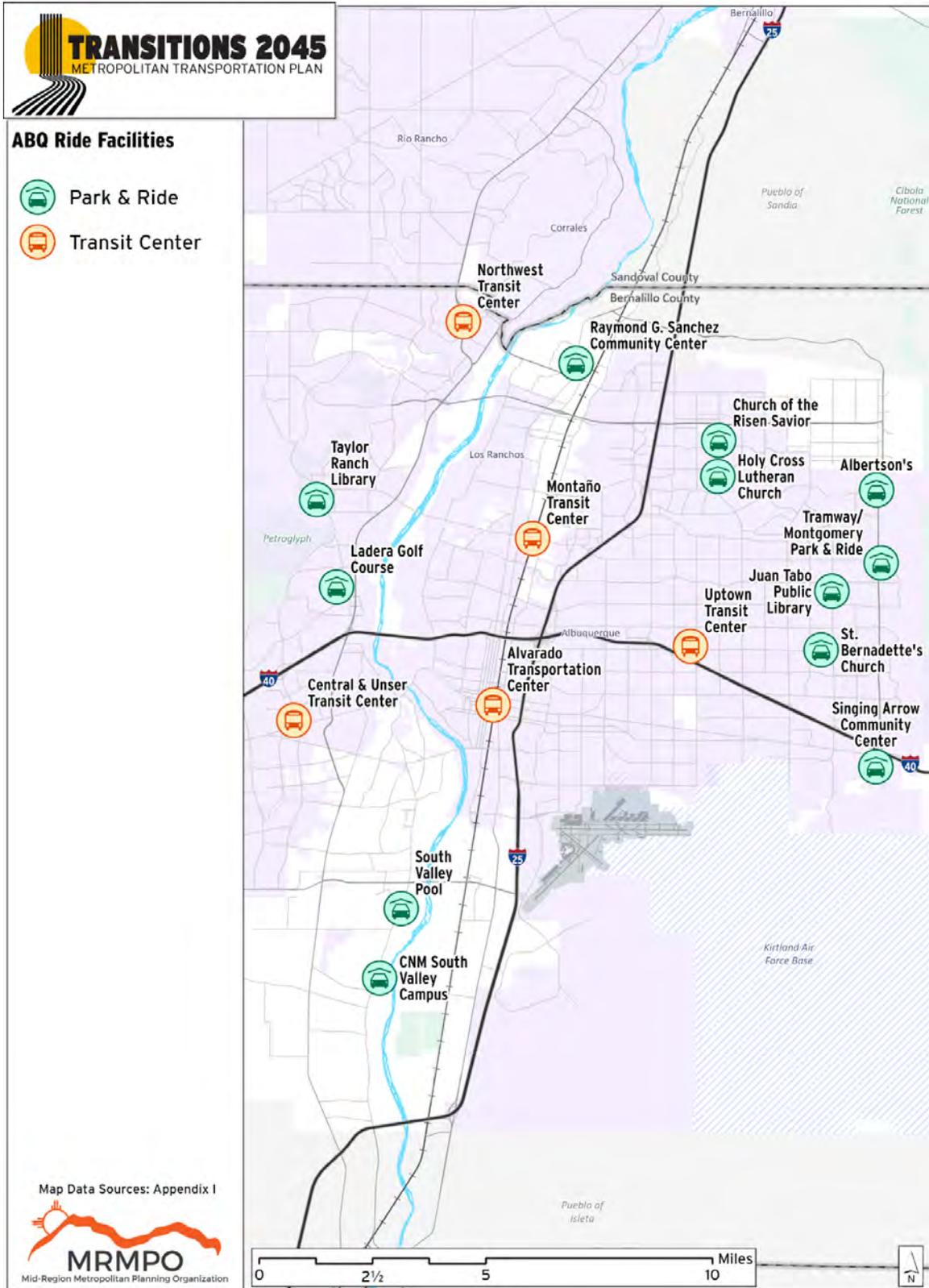
Transit Oriented Development (TOD) refers to the creation of compact, mixed used, and walkable communities focused on high quality transit connections.³³ These types of communities can reduce driving by residents up to 85 percent. Allowing dense, mixed-use development around transit stations increases the number of potential transit riders as well as destinations that can be easily reached using transit. For TODs to occur, local governments must encourage their development through land use planning, zoning laws, and building codes.

Centers and Corridors Framework

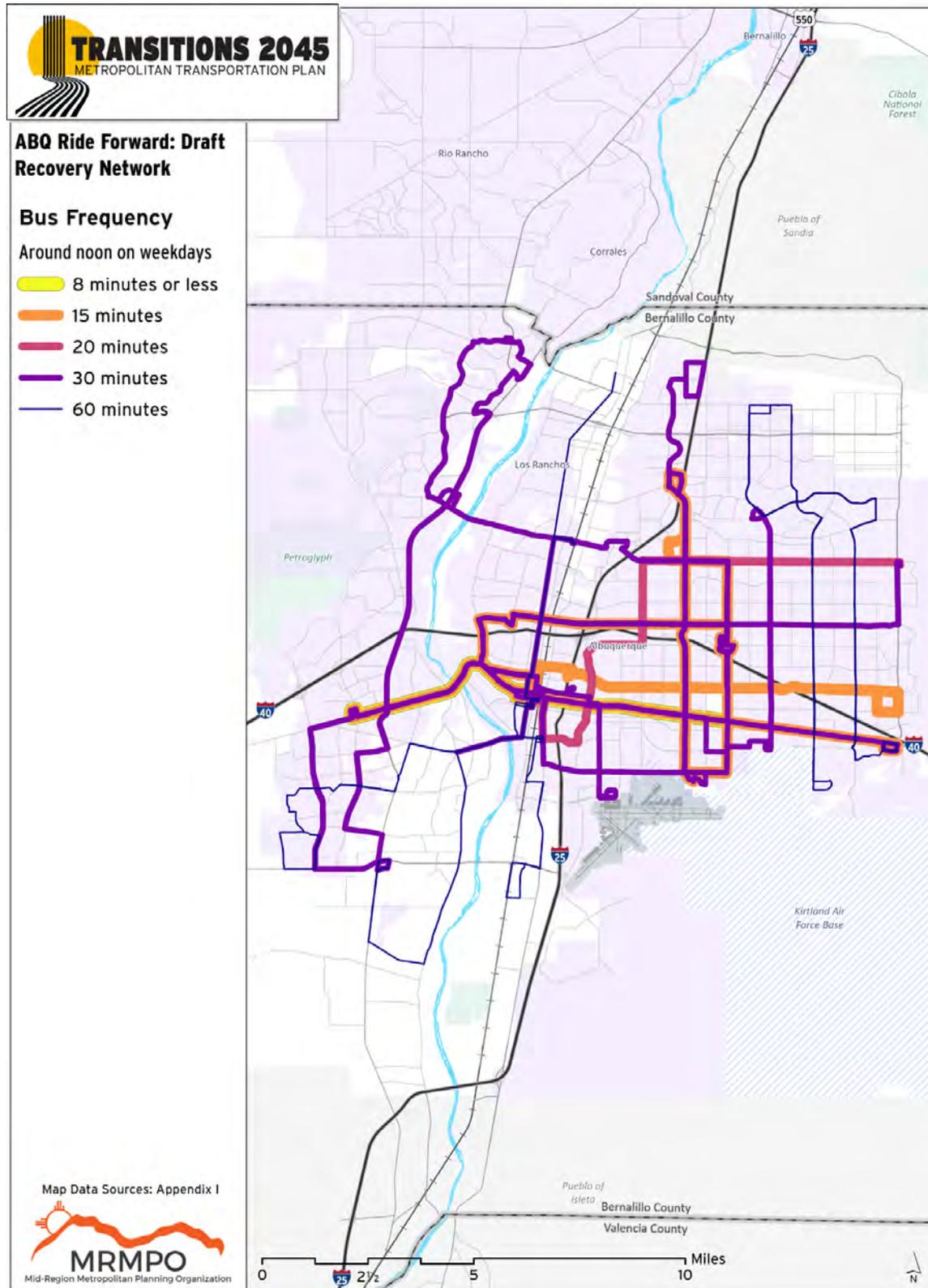
The Centers and Corridors framework supported by this MTP envisions higher density development along major corridors and connecting key centers throughout the region. Reliable transit service is crucial to supporting higher density mixed-use areas. Building higher density developments (meaning buildings that fit large amounts of usable square footage on limited land) usually requires relaxing parking requirements and relying on other forms of space-efficient transportation such as transit and walking. Many cities are relaxing zoning restrictions that control minimum parking requirements or height restrictions to support higher density areas. For example, the City of Albuquerque allows a 10 - 50 percent reduction in parking minimums for developments located near transit stops.

³³ <https://www.transit.dot.gov/TOD>

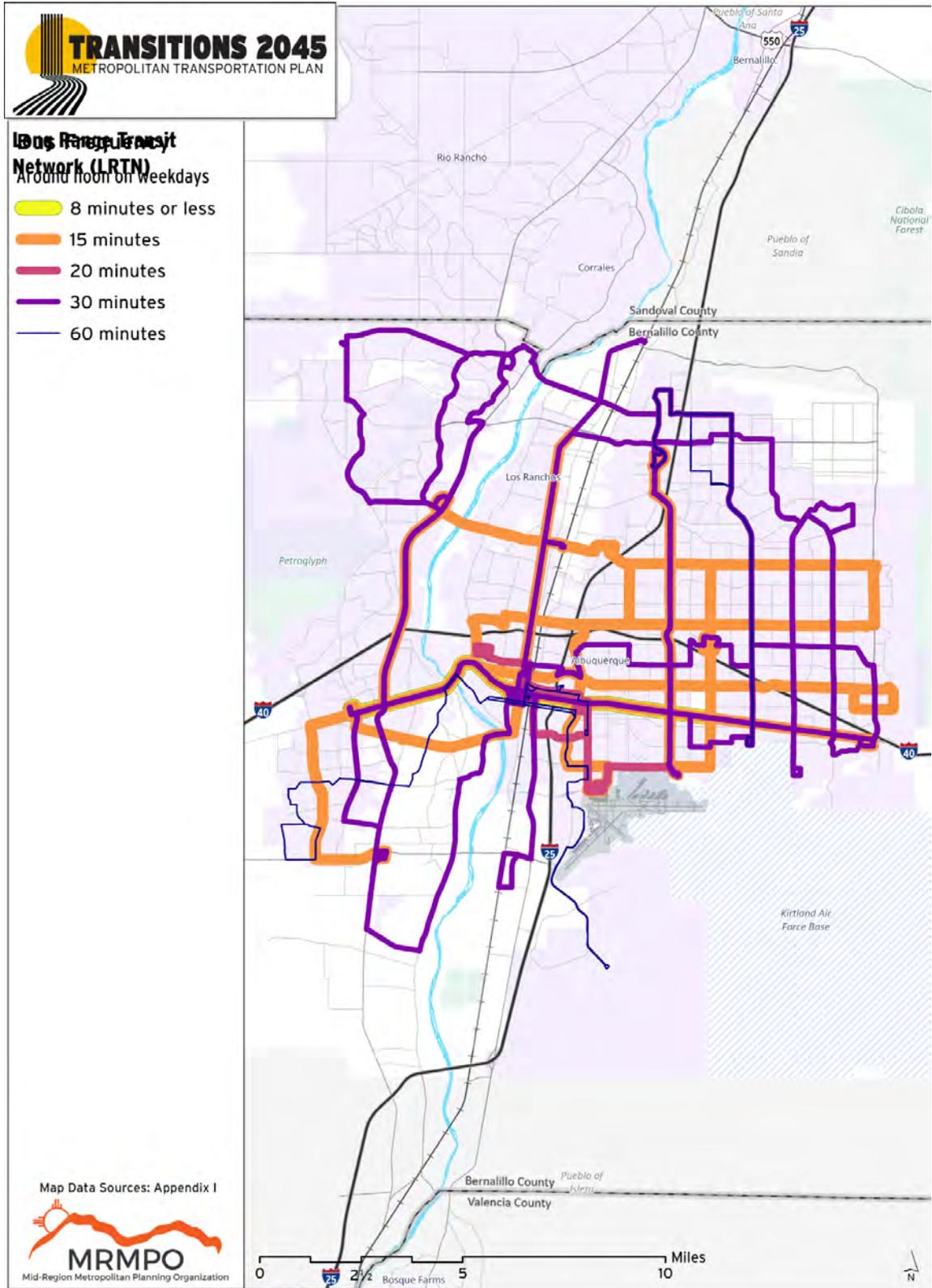
Map 12: ABQ Ride Facilities



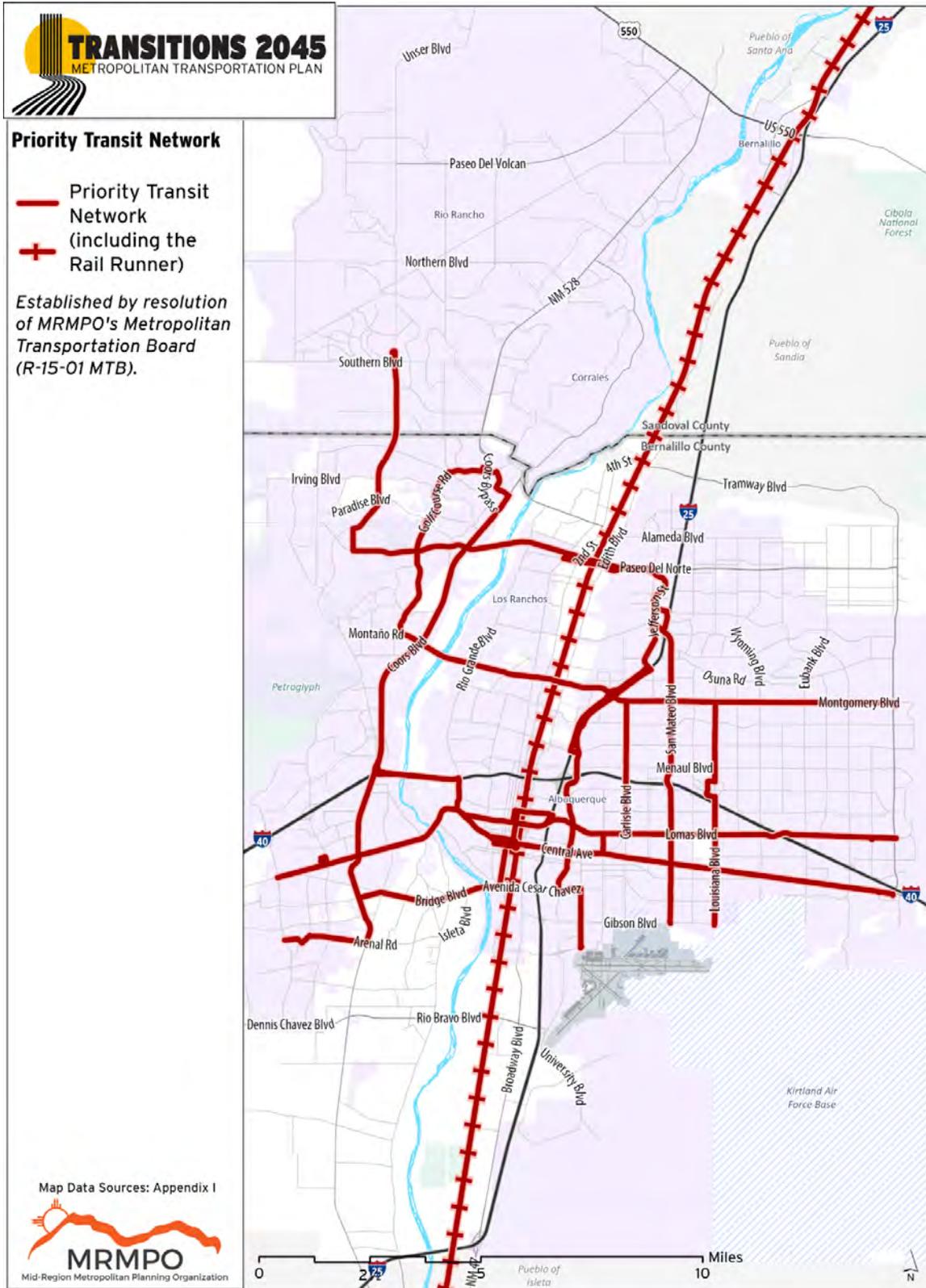
Map 13: ABQ Ride Forward: Draft Recovery Network



Map 14: Long Range Transit Network (LRTN)



Map 15: Priority Transit Network



4.4 Congestion Management Process Overview

The **Congestion Management Process (CMP)** is a regional approach for managing congestion and reducing its negative impacts. Congestion management does not always entail adding capacity to the roadway network; it also utilizes strategies such as improving transit networks, optimizing capacity through ITS, and reducing vehicles on the roadway through **Transportation Demand Management (TDM)**.

The region currently experiences congestion during peak commute times, especially on east/west corridors. Future growth in the region, even though relatively minimal, is expected to increase demand on the roadway network over the next 20 years, requiring a thoughtful approach by MRMPO and all member agencies involved in the transportation planning process. A wide range of supplemental roadway management strategies will be necessary to address the travel and mobility needs of the region. MRMPO's Congestion Management Process (CMP) Committee, comprised of technical experts from member agencies across the region, identifies regional transportation needs in response to congested data and develops prioritized strategies to manage congestion.

4.4a Congestion Management Process (CMP) and Federal Regulations

Federal regulations require that MPOs incorporate an “objectives-driven performance-based” CMP into regional transportation planning efforts. A CMP assesses the performance of the regional multimodal transportation system and recommends appropriate projects, programs, and strategies. It identifies the sources and extent of congestion, recommends strategies to manage congestion and improve mobility, and considers proposed transportation projects and programs.

Understanding the Congestion Problem

Transportation professionals' understanding of traffic congestion is evolving. A growing body of research points to the relationship between economic activity and congestion, showing that the cities with the highest gross domestic product (GDP) per capita also tend to have high levels of vehicle delay.⁷ Research has found that a region's economy is not necessarily negatively impacted by traffic congestion, and that economic productivity and jobs are both positively associated with high levels of traffic congestion.⁸

In fact, localized congestion may even be beneficial for businesses, or at least is a by-product of activity and an indication of the desirability of a place.⁹ Congestion metrics are also rightly criticized for comparing travel times to a set of abstract conditions that only exist in pre-dawn hours when few cars are on the roads.¹⁰

The Congestion Management Process approaches congestion as an issue to be managed rather than eliminated. Eliminating congestion is an unrealistic goal with numerous secondary drawbacks such as high project costs, reduced safety, and increased sprawl. However, congestion can be managed to improve travel time reliability, reduce frustration for drivers, and improve mobility for residents.

Data Collection and Performance-Based Planning

MRMPO collects and analyzes a series of data that is designed to measure congestion. The three principal data elements for the CMP include:

- **Volume-to-Capacity (V/C) ratios** – used to compare the observed traffic volume on a roadway segment to the intended roadway capacity.
- **Speed Differential** – used to understand travel time and delays associated with roadway segments and corridors based on the difference between observed speeds and posted speed limits, or free flow speeds.
- **Crash Rates** – frequency of crashes at individual intersections compared to the regional average.

Travel time and traffic counts data are available by time of day and can be used to determine whether the congestion is confined to certain times of the day and whether it is the result of a bottleneck or a prolonged stretch of congested traffic conditions. The congestion data serves as a baseline for understanding conditions by location and highlighting the corridors that merit attention. Crashes contribute to what is called non-reoccurring congestion and often end up closing down major roadways and diverting traffic. This data element is also used to determine the most unsafe intersections to help target funding for improving safety.

Multimodal Performance Measures

Federal regulations mandate that MPOs collect multimodal system performance measures as part of the CMP. The CMP collects data on transit and non-motorized travel modes through permanent counters on trails and spot counts using a video camera. Such data is critical when determining how meaningful a role these modes play in the regional transportation system. Similarly, questions of whether the region should focus on efficiency improvements or expand multi-modal opportunities can be better answered with an understanding of how all residents of the Albuquerque metro area travel around the region. An expansion of the multimodal traffic counts program continues to be a priority.

CMP Products

MRMPO's congestion management tools described below can be viewed on the MRCOG website on the Congestion Management Page.

- **CMP Corridor Rankings** – a table and map of the top congested corridors.
- **“A Profile in Congestion”** – a companion document to the rankings table that provides key data and roadway characteristics for each of the corridors on the CMP congested network.
- **Strategies Toolkit** – a document describing key congestion management strategies and the locations and situations in which implementation is appropriate. **Strategies Matrix** – a tool for member agencies to identify the most appropriate and highest priority congestion management strategies for each of the corridors in the CMP congested network (although this tool was developed for use with the Project Prioritization Process, it can be used as a reference by local governments in the development of all transportation projects).

4.4b CMP Corridor Rankings

Congestion data is collected across the metropolitan area on a recurring basis, and additional analysis is performed on 30 corridors and two Interstate facilities that comprise the CMP congested network. The data are used to develop a CMP corridor rankings table. The CMP corridor rankings are compiled into a biannual document entitled “A Profile in Congestion” and inform project selection.

The data shed light on the nature of congestion for the segments of each corridor. For instance, if congestion is the result of high traffic volumes, then appropriate strategies may include reduced

roadway demand through transit service expansion, enhancing bicycle and pedestrian modes, implementing other travel demand management techniques such as ridesharing or telecommuting, as well as capacity expansion under the right circumstances. By contrast, if congestion is the result of delay and slow speeds, then roadway inefficiencies may be addressed through operations improvements such as ITS deployment, the introduction of acceleration or deceleration lanes, or access management to reduce the number of vehicles or turning movements on a roadway.

Operations and maintenance strategies such as traffic signal optimization or installation of adaptive traffic signals can be effective for both types of congestion by improving the flow of traffic and increasing speeds, effectively adding capacity by moving more vehicles in the same amount of roadway space.¹²

The latest Corridor Rankings are currently under development by the CMP Committee.

4.4c Congestion Management Approaches

The ongoing challenge for the CMP is to determine the effectiveness of different approaches and encourage local governments to implement congestion management techniques in appropriate locations. Approaches to address roadway congestion and mobility in the region can be corridor specific or area/system-wide and can be summarized in the following broad categories:

- Travel Demand Management programs encourage alternatives to single occupancy vehicle travel, including mass transit options. Work from Home is considered a highly effective TDM strategy. Some private employers and public entities in the AMPA have elected to provide Work from Home options to their employees; regardless of the reason for providing this alternative, the rise in Work from Home has helped to mitigate congestion between 2020 - 2024. TDM strategies are discussed in further detail below.
- Incident Management includes using advanced technologies to enhance multi-agency coordination to manage traffic during adverse weather conditions, special events, or crashes. Travel route detour alerts alleviate congestion and improve emergency response times.
- Roadway Maintenance includes asset management systems to monitor the condition of roads and bridges, resulting in fewer construction delays over infrastructure lifecycles.
- Roadway Expansion includes adding capacity through lane restriping, widening projects to create additional lanes, roadway extensions or gap-connections, and the construction of new roadway facilities. These are captured in MRMPO's list of roadway expansion projects developed through the TIP with local agencies.
- Transportation Systems Management and Operations (TSMO) offers a variety of relatively low-cost improvements to enhance the functionality of the existing roadway system. Examples of TSMO include real time travel management and traveler information, advanced signal improvements and timing optimization, Smart Work Zones, and Intelligent Transportation Systems (see section 4.1).

Travel Demand Management (TDM)

Travel demand management (TDM) provides a complementary approach to addressing the functionality of the region's roadways by reducing the demand for vehicle travel in the first place. More specifically, TDM focuses on modifications in travel behavior through a range of strategies and incentive programs designed to take trips off the roads, reduce the length of trips, and shift trips to other times of day and alternative modes. The more viable transportation choices that are offered,

the more likely people will choose alternatives to driving alone, particularly for shorter trips. The challenge lies in creating and ensuring such options exist, in part through investments in transit, bicycle, and pedestrian infrastructure. Physical infrastructure strategies that support TDM efforts include the provision of High Occupancy Vehicle (HOV) lanes, High Occupancy Toll (HOT) lanes, bike facilities, sidewalks, and parking management strategies that reduce excess parking in some cases and maximize parking efficiency in others.

Examples of TDM in the metro area include bicycling encouragement events like Bike to Wherever Day and Bike thru Burque Week. Another example is ABQ RIDE's Guaranteed Ride Home Program, which gives commuters using alternative modes of transportation a ride home in case of an emergency.

Regions across the country are creating innovative public and private sector partnerships, introducing incentives, and taking advantage of changing travel preferences. While there are some modest efforts already in place in the region, there is much more that can be done.

4.5 Goals, Objectives, and Strategies

To address the mobility challenges our region faces and cultivate a transportation system that leads to improved Mobility in the region, the following goals, objectives, and strategies should be considered:

To be inserted in subsequent draft when the MPO finalizes goals, objectives, strategies

CHAPTER 5 SAFETY

This Transitions 2045 Metropolitan Transportation Plan (Transitions 2045 MTP) envisions a “safe and people-centered” regional transportation system. Transitions 2045 MTP sets forth goals related to mobility, active transportation, and equity. To meet these goals, safety-related objectives include the following:

1. Prioritize safety for all users of the transportation system.
2. Improve safety for bicyclists and pedestrians.
3. Provide safe and reliable routes to daily destinations.

This chapter provides an overview of the state of transportation safety in the region and the approach being used to address these roadway safety issues. Building off the recently updated Regional Transportation Safety Action Plan (RTSAP 2024), this chapter provides an overview of regional safety, including crash analyses, key strategies, and safety projects and programs. The RTSAP 2024 provides a framework to select safety projects that support the MTP vision and need for a safe people-centered regional roadway network.

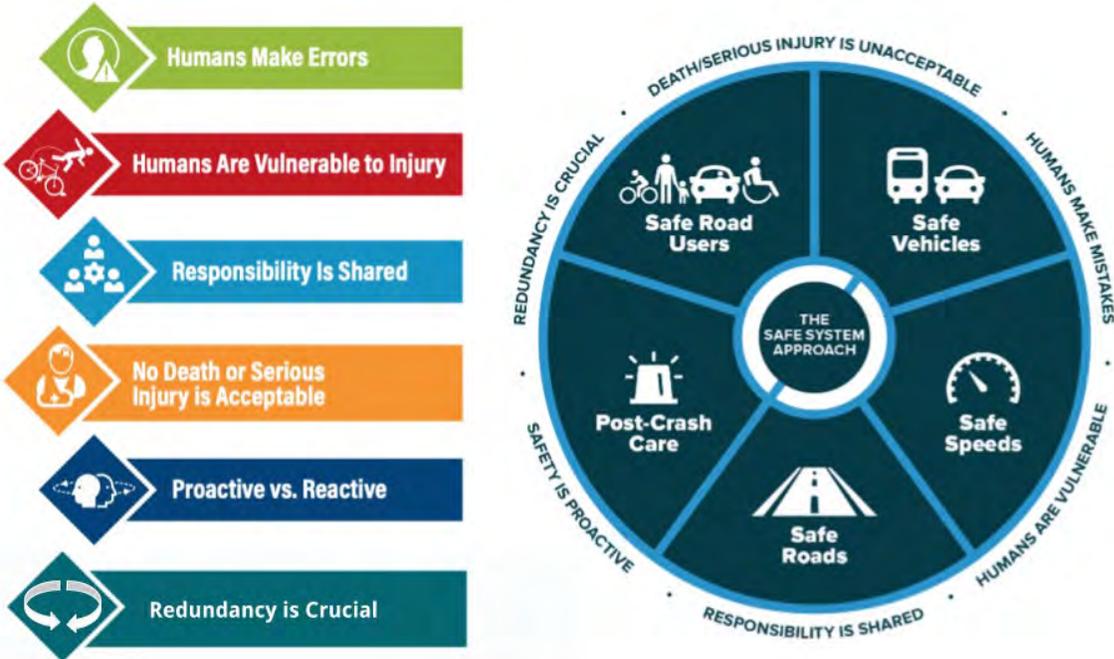
5.1 Vision and Approach

5.1a The Safe Systems Approach

The Federal Highway Administration (FHWA) offers a framework for addressing safety issues: the Safe System Approach, which is human-centered and proactively identifies and addresses crash risks. This approach recognizes that although humans make mistakes and are vulnerable, fatalities and injuries can be prevented.

This approach differs from past efforts by setting a goal of zero fatalities and serious injuries on the nation’s roadways. The approach places the onus not on individual road users, but advances shared responsibility with vehicle designers, transportation professionals, and emergency responders to implement approaches that stop fatal and serious injury crashes from happening in the first place.

Figure 35: FHWA Safe System Approach



Source: FHWA

VISION: THE REGION WILL BE PROACTIVE IN PREVENTING FATALITIES AND SERIOUS LIFE-ALTERING INJURIES, AND IN DOING SO PROVIDE SAFER MOBILITY FOR ALL MEMBERS OF OUR COMMUNITIES.

GOAL: ZERO TRAFFIC DEATHS BY 2040



5.1b Regional Transportation Safety Action Plan (RTSAP 202)

The RTSAP 2024 was adopted in August of 2024 by the MPO Policy Board. A comprehensive analysis of the regional crash data was done as a part of the RTSAP 2024 that included data from 2017 to 2021. For some crash statistics, data from 2022 is available, but most analyses were done through 2021. As noted, the RTSAP 2024 integrates the Federal Highway Administration’s Safe Systems Approach and provides its own vision and performance measures developed from public outreach and regional safety concerns, included here:

Table 15: Federal/State Performance Measures

Table 1. Federal / State Performance Measures

FEDERAL/STATE PERFORMANCE MEASURES
Reduce number of fatalities
Reduce rate of fatalities per 100 million vehicle miles traveled (VMT)
Reduce number of serious injuries
Reduce rate of serious injuries per 100 million VMT
Reduce number of non-motorized fatalities and non-motorized serious injuries

The performance measures outlined in the RTSAP 2024 include adopting the NMDOT state safety targets, and include customized regional performance measures. These regional performance measures are customized in that they were developed based on common types of crashes identified from the crash data analyses for the region. They include the following:

The purpose of the RTSAP 2024 is to serve as a federally eligible safety action plan for all of the local governments in the MRCOG region, especially the smaller communities, rural counties and Tribal governments that may lack the resources to prepare their own safety action plans. Consequently, the RTSAP 2024 enables local governments to directly apply for implementation grants through the federal Safe Streets and Roads for All (SS4A) program, as well as other federal or state grant programs that may require federally accepted safety action plans as a prerequisite.

Table 16: Regional Performance Measures

Table 2. Regional Performance Measures

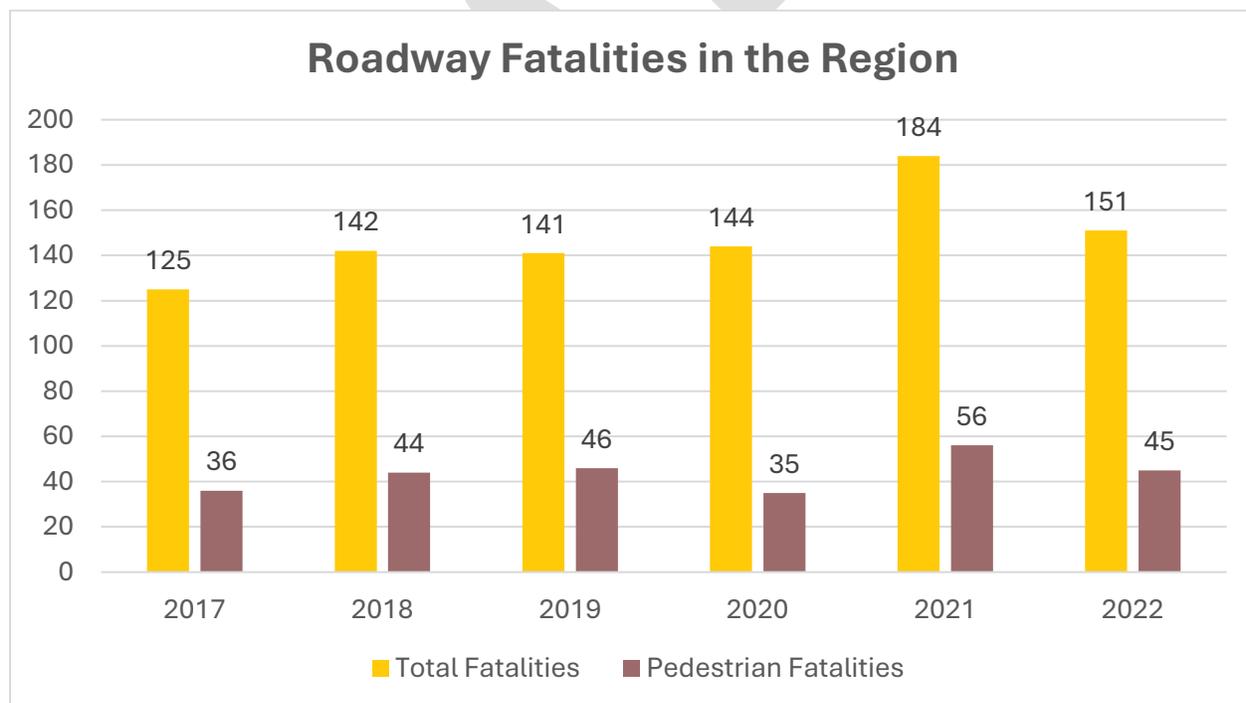
REGIONAL PERFORMANCE MEASURES
Decrease fatal rollover crashes in small urban and rural areas
Decrease fatal and injury pedestrian Involved crashes in the large urban areas (particularly in the more vulnerable communities identified in this plan)
Decrease alcohol/drug involved crashes
Decrease fatal and injury motorcyclist involved crashes
Decrease fatal and injury crashes for motorized and non-motorized travelers along high crash HFIN segments and at high crash HFIN intersections
Track number of items implemented from the RTSAP 2024 Safety Strategies Toolbox and Safety Project and Program List

5.1c State of Roadway Safety in the Region

In the *Dangerous by Design 2024* report produced by Smart Growth America, the Albuquerque metropolitan area is ranked #2 in the nation for pedestrian fatalities, and New Mexico tops the list as the #1 most dangerous state to be a pedestrian. Nationwide, large metro areas have become significantly more dangerous for pedestrians than they were a decade ago, and the MRCOG region is no exception. Adding to these grim statistics, a disproportionate amount of people are killed or seriously injured in crashes in historically disadvantaged communities. Albuquerque’s International District, an area of concentrated poverty and people of color, accounts for just five percent of the metro area’s population but makes up 23 percent of total pedestrian fatalities.

Traffic deaths are particularly high for pedestrians in the more urban areas of the AMPA, while rural areas see higher rates of traffic deaths in rollover crashes. Traffic fatalities are continuing to rise to unprecedented levels. There were 184 total traffic fatalities in the region in 2021, up 47 percent over the past five years despite the decline in vehicular travel due to the COVID-19 pandemic. One might expect fewer fatalities with less travel on the roadways, but the opposite is true. Fatalities did decrease to 151 in 2022, nevertheless this number is still higher than all previous years except 2021.

Figure 36: Roadway Fatalities in the Region



5.2 Regional Crash Data Trends

5.2a Fatality Rate per Vehicle Miles Traveled (VMT)

From 2017 to 2021, 736 people were killed in traffic crashes in the region and 46,375 people were injured. Of those 46,375 injuries, 2,207 were serious or incapacitating injuries (Class A). A particularly alarming statistic is that of the total number of fatal crashes in the region, 30 percent involve pedestrians, and those numbers are not getting any better.

What is perplexing about trends over these five years of data is that the number of fatalities did not go down in 2020 despite a 23 percent reduction in the region’s vehicle miles traveled (VMT). This reduction in VMT is due to the onset of the COVID-19 pandemic and the ensuing increase in working from home. In fact, the overall number of fatalities in the region increased slightly in 2020, and then increased the next year by another 28 percent. Pedestrian fatalities had a slight drop in 2020 before an unprecedented 60 percent surge in 2021.

Although 2020 saw a modest two percent increase in the number of fatal crashes, when combined with the dramatic reduction in VMT, this translates to a 31 percent increase in the fatality rate per 100 million VMT. When this trend was first noticed, many transportation professionals hoped it was an anomaly caused by the pandemic and that the fatal crash rate would decrease as traffic levels returned to pre-pandemic levels. In 2021, the Albuquerque metropolitan area VMT increased by about 18 percent, but the number of fatalities increased by 32 percent from 2020.

Many jurisdictions across the nation have noted the same trend in fatal crashes during 2020 and 2021. The pandemic may have created ideal conditions for risky driving behavior by taking traffic off the road, creating more opportunities for drivers to speed. Some of the most dangerous corridors in the region have low traffic volumes.

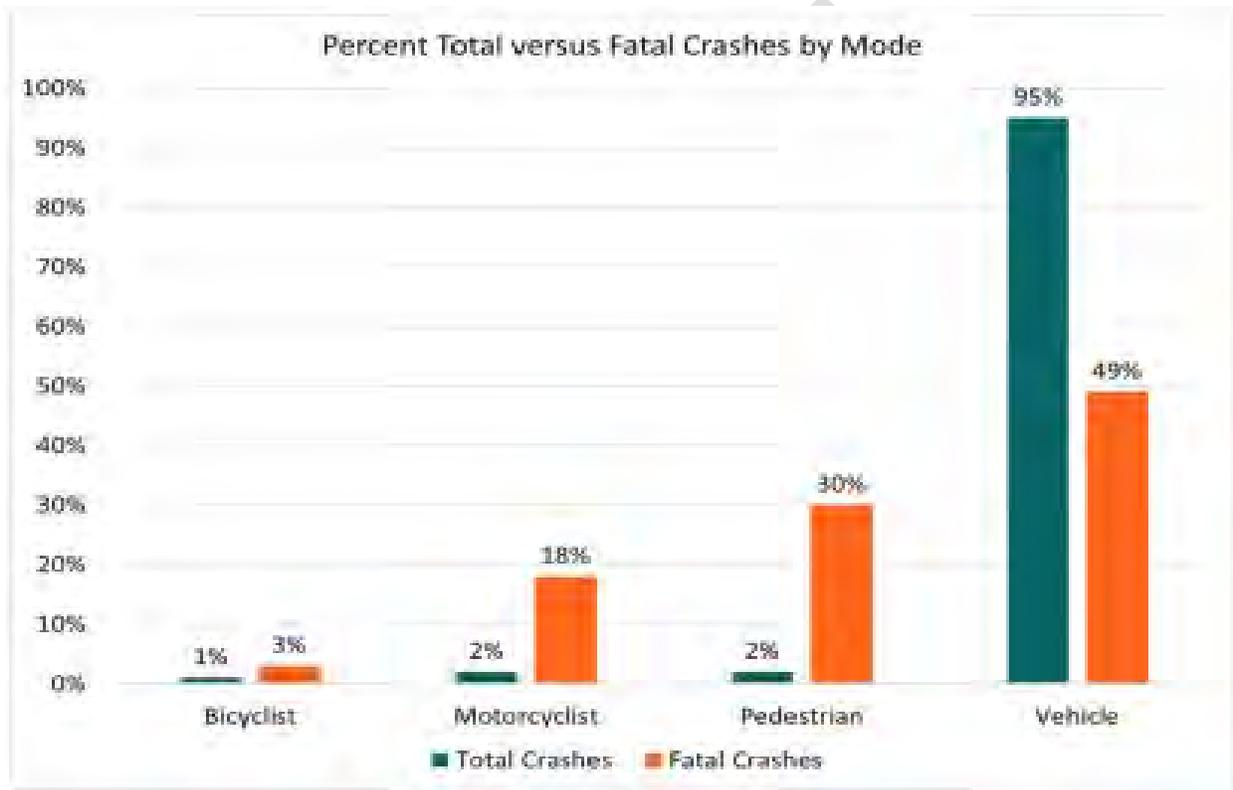
Table 17: Fatality Rate per Vehicle Miles Traveled (VMT)

Year	Fatal Crashes	AMPA VMT Annual (billions)	Fatality Rate per 100 Mil VMT	Year	Total Fatalities	Pedestrian Fatalities
2015	72	7.49	0.96	2017	125	36
2016	114	7.74	1.47	2018	142	44
2017	110	7.83	1.41	2019	141	46
2018	118	8.30	1.42	2020	144	35
2019	127	8.62	1.47	2021	184	56
2020	129	6.67	1.93	% change 2020 to 2021	28%	60%
2021	171	7.86	2.18			

5.2b Vulnerable Road Users (VRU)

Pedestrians and bicyclists are the most vulnerable road users. In the event of a crash, they are unprotected and more likely to suffer a severe injury or death than a vehicle occupant. Pedestrians, bicyclists, and motorcyclists all suffer disproportionately when it comes to crashes that result in fatalities. Only five percent of the MRCOG region’s overall crashes involve a pedestrian, bicyclist, or motorcyclist, yet these road users make up 51 percent of all fatalities.

Figure 37: Percent Total Versus Fatal Crashes by Mode



5.2c Roadway Character and Purpose

Roadway characteristics such as high-speed limits and number of lanes, coupled with low traffic volumes can create high-risk conditions. These roads become especially dangerous when combined with roadway context factors such as commercial activity, frequent street access points, and destinations that attract pedestrians, bicyclists, and transit users.

For example, Central Avenue east of San Mateo Boulevard is one of the most dangerous corridors in the region. The roadway has six lanes, yet most segments host 20,000 to 30,000 vehicles per day. This is low traffic compared to the region’s other six lane principal arterials like Montgomery Boulevard or Coors Boulevard. The low traffic volumes and wide roadway along this section of Central Avenue could encourage people to speed and drive dangerously. These characteristics, coupled with many driveways/street access points, high levels of pedestrian and transit activity, and increased risk-taking behavior during the pandemic have likely been major factors impacting the increase in fatal crashes.

5.2d Rural Roads and Single Vehicle Crashes

An increase in single motor vehicle fatal crashes in the region between 2017 and 2021 was observed. Oftentimes these types of crashes involve a vehicle leaving the roadway and striking a fixed object or overturning. Single vehicle fatalities nearly doubled between 2017 and 2020.

Single vehicle crashes are more common in rural areas, such as Valencia and Tarrant counties. Residents in rural areas drive longer distances to access goods and services than urban residents do. It is possible that rural residents suffer fatigue driving long distances, which increases the likelihood of a single vehicle crash. These crashes may also be due to an increase in speeding and reckless driving, distracted driving, or impaired driving.

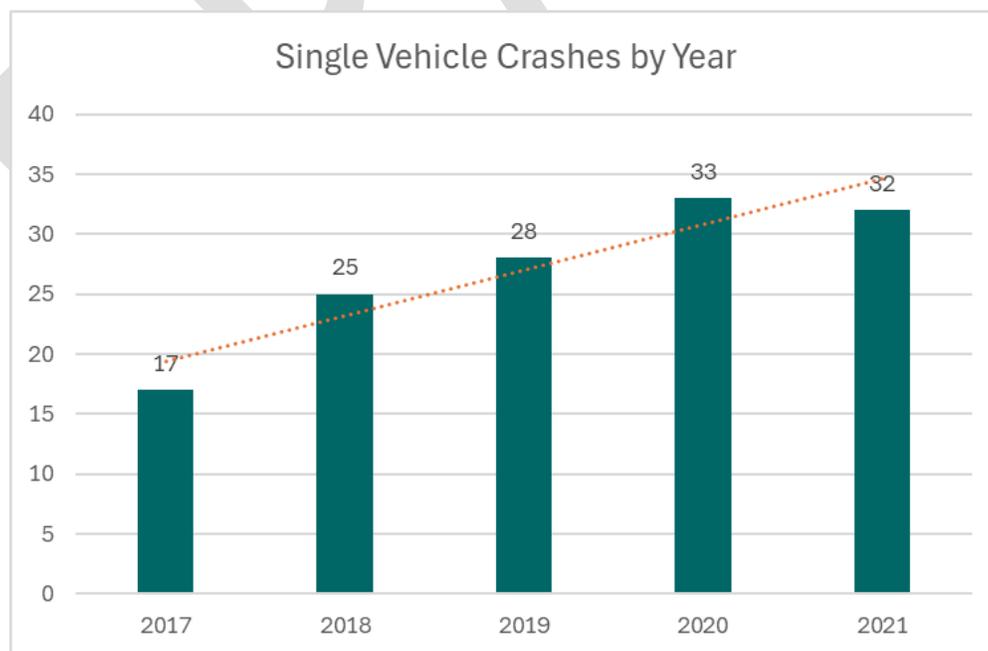
The top contributing factors (TCF) for single vehicle fatal and class A (incapacitating injury) crashes between 2017 and 2019* point to the type of risky behavior that often leads to these types of crashes. Thirty-two percent of all fatal and Class A single vehicle crashes involved alcohol, followed by excessive speed at 21 percent, and driver inattention at 11 percent.

Table 18: Top Contributing Factors (TCF) for Single Vehicle Crashes

Top Contributing Factor for Single Vehicle Crashes	Killed + Class A	% of Total
Alcohol/Drug Involved	77	32%
Excessive Speed	52	21%
Driver Inattention	27	11%

* TCF is only available up to 2019 due to a change in State policy for identifying contributing factors.

Figure 38: Single Vehicle Crashes by Year



5.3 Key Safety Strategies for the Region

5.3a Proven Safety Countermeasures (PSC)

The Federal Highway Administration (FHWA) Proven Safety Countermeasures (PSCs) are strategies that have been proven through studies undertaken in the United States to provide significant and measurable safety benefits.

PSCs are often used along specific roadway segments or intersections based on the types of crashes taking place and will indicate the expected decrease in these types of crashes. PSCs are primarily physical roadway infrastructure improvements but also include signal operation and planning elements such as Road Safety Audits, and local road safety plans. A number of PSCs including road diets, bicycle lanes, pedestrian hybrid beacons, roundabouts, Leading Pedestrian Intervals, and more, have been implemented in the region already.

The RTSAP 2024 identifies the use of the FHWA PSCs as an important strategy for reducing roadway fatalities and injuries in the region. The RTSAP 2024 lists 34 ready-to-go FHWA PSC applications supported by well-vetted studies showing the safety benefits. The following link provides a detailed description of the interventions and studies conducted for each proven safety countermeasure: <https://highways.dot.gov/safety/proven-safety-countermeasures>.

The following strategy has been identified for the region:

FHWA Proven Safety Countermeasures System Wide: Systemically adopt the use of FHWA PSCs into existing infrastructure improvement programs.

Table 19: Proves Safety Countermeasures (PSCs)

Proven Safety Countermeasures (PSCs)

STRATEGIES	FHWA ICON	DESCRIPTION	CMF INFORMATION	GUIDANCE
Left-Turn Conflict Reduction		Improved geometric design at intersections that reduce the number of severe crashes associated with left-turn movements. Highly effective designs include U-turns to complete certain left-turn movements such as the Restricted Crossing U-turn (RCUT) or the Median U-turn (MUT).	Two-way stop-controlled to RCUT 54% reduction in fatal and injury crashes. Signalized intersection to Signalized RCUT 22% reduction in fatal and injury crashes. Unsignalized Intersection to Unsignalized RCUT 63% reduction in fatal and injury crashes. MUT 30% reduction in intersection-related injury crash rate.	The RCUT is suitable for and adaptable to a wide variety of circumstances, ranging from isolated rural, high speed locations to urban and suburban high-volume, multimodal corridors. It is a competitive and less costly alternative to constructing an interchange.
Lighting		Increase visibility for all road users, especially at crossings and intersections. Ensure adequate illuminance levels and continuous lighting along roadway segments.	Lighting can reduce crashes up to 42% for nighttime injury pedestrian crashes at intersections. 33-38% for nighttime crashes at rural and urban intersections. 28% for nighttime injury crashes on rural and urban highways.	High concern for historically disinvested communities along destination rich corridors.
Local Road Safety Plans		Developing a plan that analyzes and prioritizes safety improvements on local roads.	25% reduction in county road fatalities in Minnesota. 17% reduction in fatal and serious injury crashes on county-owned roads in Washington State. 35% reduction in severe curve crashes in Thurston County, WA.	Particularly of importance in neighborhoods and rural and Tribal areas.
Longitudinal Rumble Strips and Stripes		Milled or raised elements on the pavement intended to alert drivers that their vehicle has left the travel lane. Rumble strips are markings placed over the rumble strips.	Center Line Rumble Strips: 44-66% reduction in head-on fatal and injury crashes on 2 lane rural roads. Shoulder Rumble Strips: 13-51% reduction in single vehicle, run-off-road fatal and injury crashes on 2 lane rural roads.	Rumble strips are relatively low-cost, and economic analyses have indicated benefit/cost ratios that exceed 100.

5.3b Reducing Speeding on our Roadways

In 2017, the National Transportation Safety Board (NTSB) “concluded that excessive speed is one of the most significant causes of both crashes and fatalities on U.S. roadways.”³⁴ NTSB recommendations include modernizing how speed limits are set to go beyond traditionally accepted performance measures such as only using only level of service or the 85th percentile (define here), and amending laws to use automated speed enforcement or lower speed limits in areas with high multimodal traffic.

When setting speed limits, the RTSAP 2024 highly recommends that agencies with the authority to do so consider more factors such as adjacent road characteristics, adjacent land use intensity and type, observed speeds, intersection and driveway spacing, pedestrian and bicycle facilities and use, complete streets concepts, and intersection sight distance requirements.

Consideration should also be given to differentiating policies based on rural, small town, and metropolitan conditions. Designating speed zones in specific areas (like school zones) where there is heavy pedestrian traffic is also recommended.

Vision Zero Cities

Many Vision Zero cities have lowered city speed limits (Vision Zero is the precursor to the Safe Systems Approach and includes the same goal to reduce fatalities to zero). Often, these cities have had to secure state legislative authority to do so. In 2014, New York City lowered the default speed limit from 30 mph to 25 mph unless otherwise posted. In early 2018, representatives from Portland, OR announced a speed reduction from 25 mph to 20 mph on residential streets, which comprise about 70 percent of the city’s streets. There is also an organization called 20’s Plenty for Us, which works toward assisting communities with setting mandatory 20 mph limit on most roads to create safer and more livable streets.

MUTCD Policy Change

In December of 2023, an update to the Manual of Uniform Traffic Control Devices (MUTCD), which governs the implementation of speed related traffic control devices, emphasized the importance — especially in urban areas and main streets — of considering crash history, the roadway context and geometry, and multimodal travel safety when determining the appropriate posted speed.

³⁴ <https://nacto.org/2017/08/15/federal-study-concludes-us-must-curb-speed>

Speed Management Strategies

As a part of the RTSAP 2024 plan the following strategies related to speed were identified (more description on the strategies can be found in the RTSAP 2024). These items do not include already identified PSC strategies.

Table 20: Speed Management Strategies

Setting Speed Limits
Chicanes / Chokers / Pinch Points
Four-way Stops / All-way Stops
Mini Roundabouts / Neighborhood Traffic Circles
Speed Hump and Raised Crossings
Speed Zones / Slow Zones
Anti-Speed Campaigns
Advanced Driver Assistance Systems (ADAS)
Green Wave Systems / Coordinated Signals
Rest on Red
Smart Work Zones
Speed Feedback Indicator Signs
Vehicular Technology Speed Detection

5.3c Designing Roadways

To develop streets that are safe for everyone, local agency design manuals may need to be updated and paired with informational campaigns on how to use new and safer roadway and intersection designs. When it pertains to roadway safety, education or enforcement in and of itself does not push the needle as much as slowing down traffic does. The Safe Systems Approach recognizes that human error is inevitable, and the responsibility for roadway safety does not solely depend on vulnerable roadway users or good driver behavior. There must be design changes in roadway infrastructure and advances in vehicle technology to make a significant difference in reducing deaths and serious injuries for all modes.

The RTSAP 2024 identifies some specific recommendations and strategies for better roadway design that focus on making intersections safer for all modes and designing corridors to be in harmony with their surrounding land use context. Specifically, these include adopting some Broad Design Principles and/or Context Sensitive Design Solutions such as MRMPO’s Long Range Transportation Systems Guide. Pedestrian and bicyclist crossings are also noted as a priority for improving safety in the region including items such as signals at key trail crossings, and more frequent crosswalks along arterial corridors.

Broad Design Principles consist of adopting some key principles that are employed *every time* a new street is being designed or redesigned and include items such as:

1. Narrow Vehicle Lanes
2. Crossings that Provide Easy Access to Transit
3. Compact Intersections
4. Short Pedestrian Crossings
5. Separated Areas for Vulnerable Roadway Users

Land Use Context

Context Sensitive Design Solutions (CSS) focuses on developing roadways that fit into their physical environment to improve safety and mobility. The Long Range Transportation System (LRTS) Guide developed by MRMPO provides recommendations for integrating land use context into the roadway design process by recommending that existing and future planned land use is evaluated when building or reconstructing roadways. Costly changes to the street in the future can be minimized by evaluating how the road will function in the future rather than having to retrofit it later. Local and Tribal governments in the region are encouraged to use the LRTS Guide in the design or redesign of their roadways, particularly if they have not already evaluated the land use context for the roadways within their jurisdiction.

The *Albuquerque & Bernalillo County (ABC) Comprehensive Plan* also identifies roadway types by looking at the current and future land use context adjacent to roadways. Their Centers and Corridors concept encourages growth in existing centers connected by corridors and aims to provide improved access and safer multimodal mobility. This comprehensive plan establishes five types of corridors for major roadways. These are Main Street, Premium Transit, Major Transit, Multimodal, and Commuter. According to the plan, the corridor types are “intended to balance the street system by identifying different streets that prioritize bicycling, walking, or transit use in and between Centers.” As a corridor moves through different land use contexts the design needs to change. Specifically noted in the plan is the reduction of travel speeds and improvement of pedestrian safety within Centers and next to low density neighborhoods.

Crossing the Street

Multi-use trails and Bicycle Boulevards often intersect with wide, high speed arterial roadways that require a safe location to cross resulting in many pedestrian fatalities. In addition, long distances between intersections along an arterial limit are safe locations where pedestrians can cross. Through the outreach process for the RTSAP 2024 members of the public repeatedly indicated that crossing wide arterials felt very unsafe.

To help prioritize more frequent and safe crossing locations, the City of Albuquerque developed the *Bicycle and Trails Crossing Guide*. This guide includes a three-step decision making tool on how to best provide crossing treatments based on the specific roadway context, and a description of countermeasures such as visibility enhancements or types of signals. Roadway context can include factors such as width, speed, and traffic volumes. Some of the elements that help determine the appropriateness of a location for a crossing include distance from other crossings, proximity to transit, and safety conditions.

Furthermore, the City of Albuquerque’s Development Process Manual (DPM) takes into consideration the type of roadway as identified by their comprehensive plan and provides some

recommending spacing of crosswalks. For example, designated corridors such as a Main Street or a designated Activity Center are intended to have more frequent pedestrian crossings (shown in the table below) compared to other locations in order to improve safety and access for more vulnerable users.

Table 21: City of Albuquerque Pedestrian Crossing Locations Guidance

Location	Signalized Pedestrian Crossing	Designated Pedestrian Crossing
Downtown	660 FT	<400 FT
Activity Center	1,320 FT	<600 FT
Main Street	660 FT	<400 FT
Other Areas / Local Streets	2,640 FT	As Appropriate

Figure 33. City of Albuquerque Pedestrian Crossing Locations Guidance
Source: Table 2. DPM Guidance Pedestrian Crossing Locations

The RTSAP 2024 identifies the following roadway design strategies with some initial recommendations on how to prioritize them. More description on the strategies is included in the RTSAP.

Table 22: Roadway Design Strategies

Advanced Stop Bar / Lines
Automated Pedestrian Detection
Automated Pedestrian Recall
Bicycle Detection at Signalized Intersections
Bike Boulevards / Parallel Roadways
Bike Boxes and Two-Stage Turn Boxes
Bus Turnouts
Business Access Transit (BAT) Lanes
Contraflow Bike Lanes
Crossing Signs and Markings
Curb Radii Reduction
Curb Ramps
Demonstration Projects
Floating Bus Stops / Bus Islands
Interim Public Plazas
LED Lighting
Left-Turn Phasing
Multi-Use Trails / Pathways

No Right Turn on Red
Parking Restrictions at Crossings
Parklets
Pedestrian Countdown Signals
Pedestrian Crossing Signs In -Street
Pedestrian Lighting
Protected Intersections
PUFFIN Crossing: Pedestrian User-Friendly Intelligent Intersections (PUFFIN)
Slip Lane Reconfiguration / Removal
Transit Access Crossings
Transit Priority Lanes
Transit Stations and Shelters

5.4 Selecting Safety Priorities

MRMPO safety planning tools provide a process for identifying the location of high-risk locations based on crash data, traffic volumes, and access to important destinations like schools. The primary safety planning tools are the High Fatal and Injury Network (HFIN) and the Potential Road Diet Candidates map.

5.4a HFIN Data and Maps

The High Fatal and Injury Network (HFIN) is a map of the most dangerous corridors and intersections in the region based on the latest available crash data. Specifically, the HFIN illustrates the locations where an above average amount of people have been killed and injured. MRMPO developed this network as a planning tool in 2018 and updates the HFIN as new crash data becomes available. This type of evaluation helps target scarce funding and make more informed selections about where safety funds are spent.

HFIN corridors do not necessarily need to be prioritized over other locations, but rather the HFIN analysis suggests areas that warrant further investigation based on a high number of fatal and injury crashes. Engineering review and analysis is needed to determine if the location is appropriate for specific types of safety improvements, as well as the time frame required.

Why Use the HFIN?

Following in the footsteps of Vision Zero efforts, this type of crash analysis and map visualization has become a common way throughout the United States to present crash data to help prioritize locations that contain the most fatal and injury crashes. This type of prioritized network helps identify recurring patterns and can provide evidence as to why crashes are happening. The HFIN provides a clear visual tool to boost awareness of locations that need more attention.

The HFIN includes 5 years of crash data and is updated yearly, which provides insight into repeating patterns over time. When combined with the land use context, the Potential Road Diet Candidates,

and other types of crash analyses, it can be incredibly beneficial for identifying locations for safety improvements. Having some insight into the location and mode of crash can also be insightful for education and enforcement strategies. A deeper dive into characteristics of the roadway and the crash data reports is usually necessary for selecting the most beneficial safety strategies.

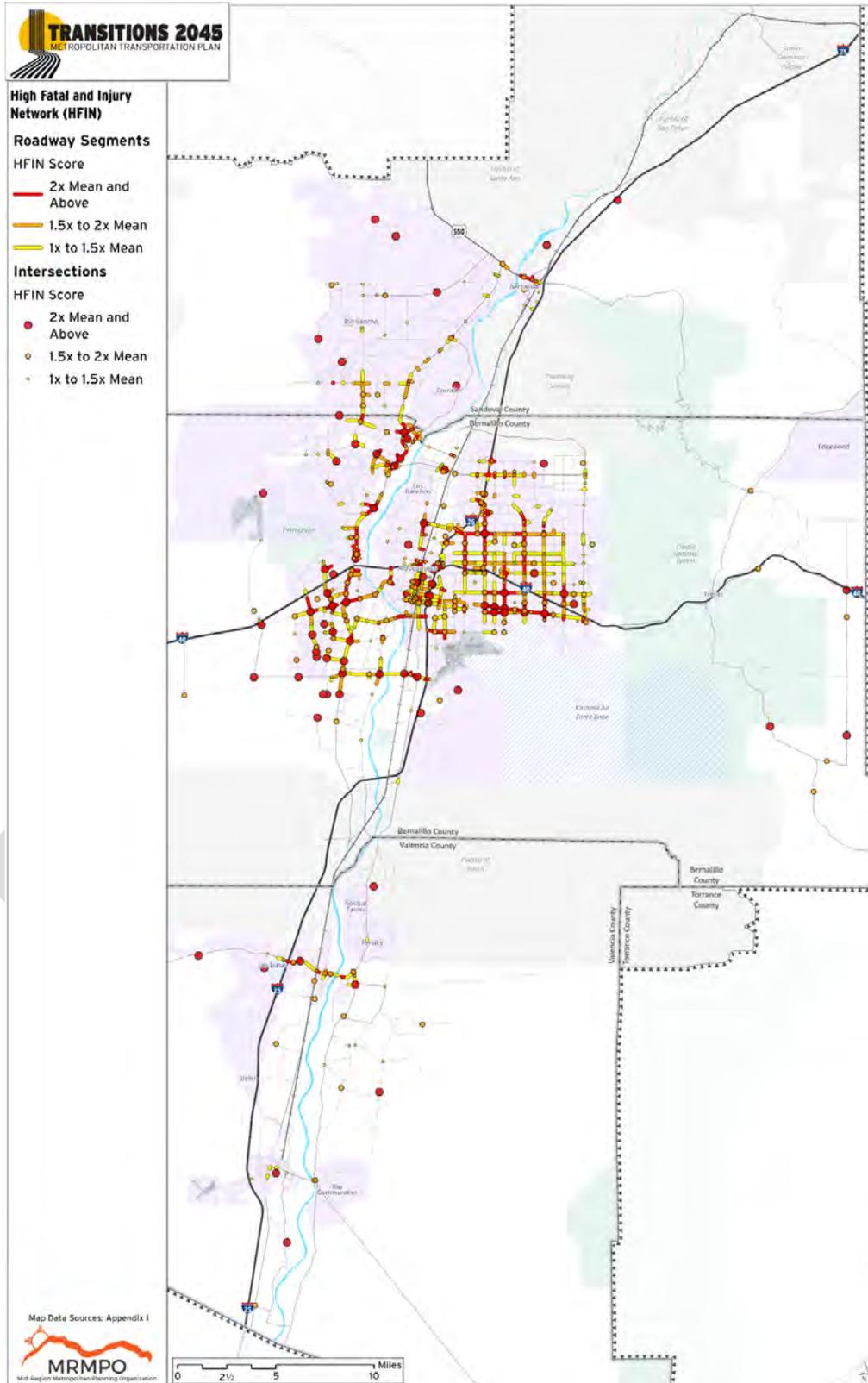
The following statistics make it clear as to why a targeted approach of improving the most dangerous roadways and intersections is recommended by Vision Zero and the Safety Systems Approach, and one of the most strategic approaches to enhancing roadway safety in the region.

The HFIN roadway segments with a score two times the regional mean or higher make up only 2.5% of the major roadway network but contain 26% of the fatalities and 40% of the injury crashes.

The HFIN roadway segments with a score simply above the regional mean make up only 8% of the major roadways but contain 47% of the fatal crashes and 64% of the injury crashes.

DRAFT

Map 16: High Fatal and Injury Network (HFIN)



5.4b Potential Road Diets

Road Diets have proven to be an effective strategy for improving safety along a corridor. A Road Diet is essentially a reallocation of roadway space that aims to reduce speeding and improve infrastructure and safety for other road users. The purpose of a Road Diet is to reconfigure streets to better serve the people who use them, whether they are motorists, people walking or bicycling.

The most common type of Road Diet takes an undivided 4 lane roadway and reconfigures it into a 3-lane roadway with one travel lane in each direction and a two-way left turn lane in the center. This reconfiguration decreases conflict points and provides 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 and safety on the roadside.

In small urban areas with populations around 17,000 and roadways with traffic volumes up to 12,000 (daily volume), post-road-diet crashes dropped about 47%. In larger metropolitan areas with populations around 269,000 and roadways with traffic up to 24,000 (daily volume), the crash reduction was roughly 19%. The combined estimate from the FHWA reviewed studies predict that accidents will decline an average of 29 percent after a 4-to-3 lane road diet.

Selecting Road Diet Candidates

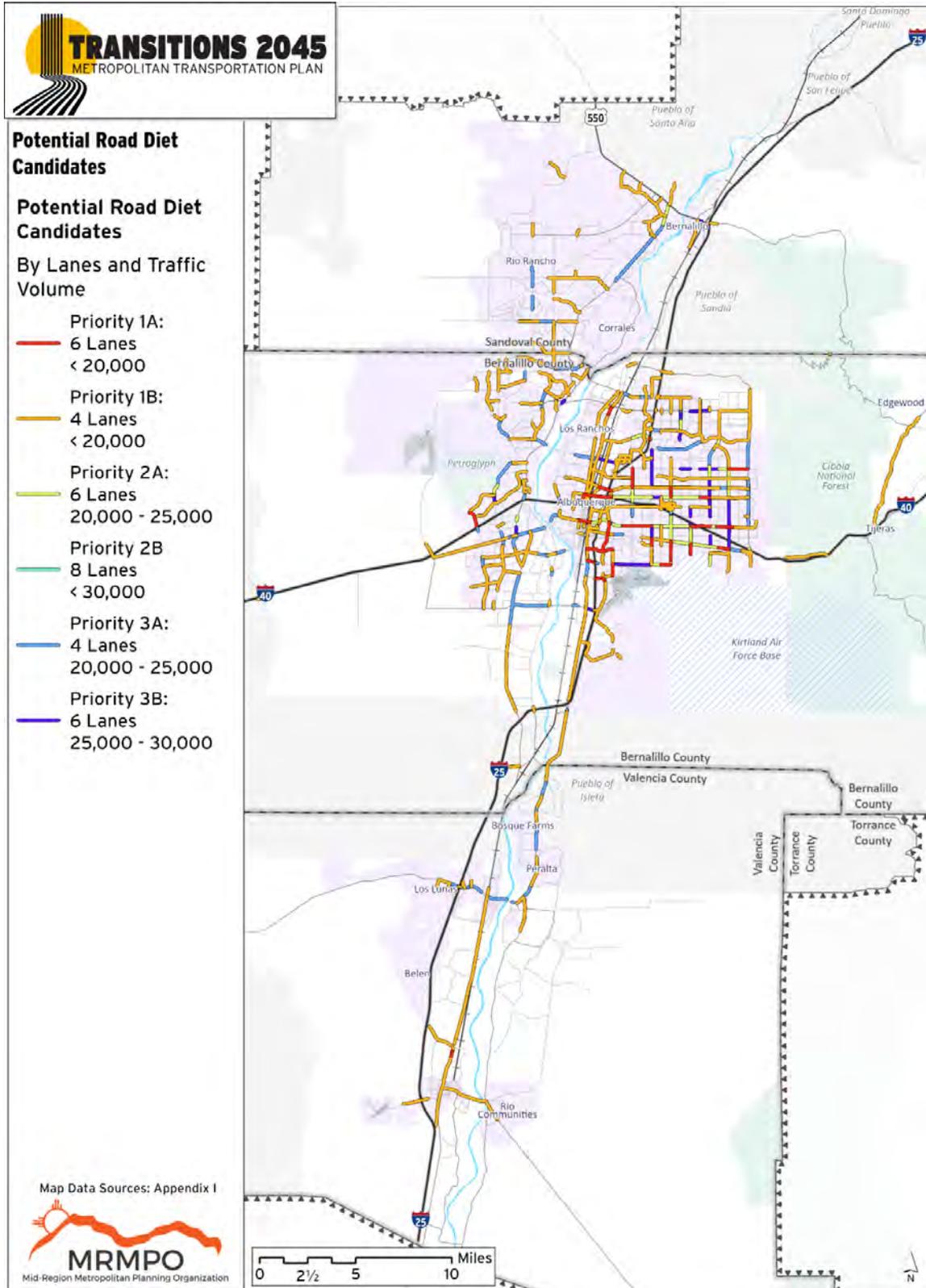
Each jurisdiction is likely to have a different land use context and roadway network that impacts the implementation of Road Diets. For example, some areas have a well-developed street grid that naturally supports travel for biking and walking and provides redundancy for driving, but in other locations there are limited travel options. Other challenges include community opposition or business access concerns. Strong leadership and knowledge of how these benefits may outweigh perceived negative impacts is needed to convey the benefits of Road Diets so that roadway safety can become a priority.

Five Lane and Larger Roadways

The FHWA does not have guidance on thresholds for converting 6 lane or larger roadways to 5 lanes (two lanes in each direction and a center turn lane). However, MRMPO analyses found that many 4 lane roads in the region support over 35,000 Average Daily Traffic (ADT). Furthermore, the average amount of traffic that existing 5 lane roadways holds in the region is 35,188 ADT. These two data points imply that converting a 6-lane roadway to a 5 lane roadway with 35,000 ADT is feasible. As a result, some considerations for reducing the number of lanes on 6 and 8 lane roadways to 5 lane roadways are provided using a threshold of a conservative 30,000 ADT.

The Potential Road Diet Candidates map included in this plan uses the latest available traffic volumes (2022). The determination of candidates is a data driven process that considers traffic volume and number of lanes on all major roads in the region. The Federal Highway Administration (FHWA) advises that roadways with 20,000 vehicles per day or less are appropriate candidates for road diets from 4 lanes to 3 lanes, but different agencies across the country have different thresholds that they find acceptable. MRMPO follows the FHWA suggestion of 20,000 Average Weekday Traffic (AWDT) as the upper limit for 4-to-3 lane changes but highlights roadways from 20,000 to 25,000 for 4 lane roadways as well. Many agencies throughout the U.S. have applied Road Diets to roadways up to 25,000 vehicles per day, and in some cases, like New York City, up to 30,000 AWDT.

Map 17: Potential Road Diet Candidates



5.4c Safety Projects and Programs

Recently, there have been some positive actions taken toward improving roadway safety such as the City of Albuquerque’s Vision Zero efforts, Bernalillo County’s Complete Streets work, Pueblo de Cochiti’s transportation safety planning, the Albuquerque Public School Vision Zero initiative, and the 2024 NMDOT Vulnerable Road User Safety Assessment, to name a few. These efforts are described in detail in the RTSAP 2024.

Similar to MRMPO’s MTP is NMDOT’s long-range statewide transportation plan, the New Mexico 2045 Plan, which includes Complete Streets strategies and recommends updates to guidance manuals to incorporate Complete Streets principles. Other long range NMDOT plans include the 2018 New Mexico Prioritized Statewide Bicycle Network Plan that identifies safety countermeasures such as road diets, rumble strips, and lane narrowing, and more recently, the 2021 Pedestrian Safety Action Plan that recommends proven safety countermeasures such as Pedestrian Hybrid Beacons and Leading Pedestrian Intervals.

Funding Sources

Safe Streets and Roads for All (SS4A) has provided a total of \$5B in federal funding to allocate to communities for safety related transportation investments between 2022 and 2026. There are two broad grant categories of Implementation and Planning and Demonstration. Funds from SS4A are awarded on a competitive basis. Eligible applicants include city or township governments, public and state-controlled institutions of higher education, Tribal governments (Federally recognized), special district governments, county governments, transit agencies, and independent school districts. Eligible applicants also include a Metropolitan Planning Organizations and a multijurisdictional group of entities.

The Highway Safety Improvement Program (HSIP) is a federal funding source facilitated by the NMDOT that’s purpose is to reduce traffic fatalities and serious injuries. Projects submitted must be data-driven with performance measures. The 2021 New Mexico Strategic Highway Safety Plan (SHSP) establishes goals, strategies, and emphasis areas for reference.

The New Mexico Transportation Alternatives Program (TAP) is a federal reimbursement program also facilitated by the NMDOT that can be used for both bicycle and pedestrian activities and infrastructure. To see more information about eligible projects reference the NM Active Transportation and Recreational Programs Guide.

NMDOT coordinates with local RTPOs and MPOs on soliciting TAP applications. Like the TAP, the NMDOT also facilitates Recreational Trails Program (RTP) funding, which focuses on recreational

The recent Vulnerable Road User Safety Assessment plan adopted by the New Mexico Department of Transportation (NMDOT) in 2024 brings attention to the fact that New Mexico repeatedly ranks the highest in pedestrian fatalities per capita in the nation. This plan emphasizes that the safety of pedestrians and other vulnerable road users must become a higher priority and creates a High Injury Network (HIN) for the state. Additionally, the plan guides the type of safety countermeasure (specific action or physical improvement) that will be most successful in reducing crashes. The intention is for planners and engineers to use these in developing a “short list” of potential safety countermeasures appropriate for specific crash types and locations.

facilities for activities such as hiking, equestrianism, cross country skiing, snowmobiling, and all-terrain vehicle riding.

RTSAP 2024 Safety Projects and Programs

A list of projects and programs were developed as part of the RTSAP 2024. Many of these are specific to a local agency and their safety priorities. The full list is provided in the RTSAP. However, MRMPO also developed a list that includes broad projects that could relate to all agencies and the State that are included here:

Table 23: RTSAP 2024 Safety Projects and Programs

Name	Description	Source	Type
Active Transportation Education Center	Develop a physical space and program where community members can come and learn about active transportation. Include training programs, bicycle maintenance, and pedestrian laws.	2024 RTSAP Process	Program
Bicycle Helmet Use	Provide bicycle helmet usage programs, e.g., the Helmet Your Head program.	Pueblo de Cochiti Tribal Safety Plan	Program
Bicycle Standards and Type Selection	Work with the MPO on identifying locations of certain types of bicycle facilities identified on the Long Range Bicycle System (LRBS) and develop a local process for identifying these and developing design standards. Consider NACTO guidelines.	2024 RTSAP Process	Program
Bike Boulevards / Parallel Roads	Plan and develop bike boulevards / parallel roadways to improve connectivity. Prioritize access to school locations. Refer to the Long Range Bicycle System (LRBS) or local bike plans.	Focus Groups / Public Responses	Program
Bike Share Program	Develop a bike share program that includes stations, bicycles, signs, kiosks, fare payment, communications and other bike share-related appurtenances and technologies as needed.	MTP	Program
Central Avenue in the International District	Corridor wide study of right-of-way, utilities, access management, and ADA / PROWAG deficiencies to be able to widen sidewalks, add trees, transit structures, and landscaping. City of Albuquerque is already working on this.	Focus Groups / Equity	Program

Name	Description	Source	Type
Collaboration with Central New Mexico Community College (CNM)	Coordinate with CNM to continue to improve access along University Avenue.	Focus Groups	Program
Communities of Concern Audits	Collaborate and use the existing information from Road Safety Audits conducted by the Healthy Here Active Living Group when developing new projects or programs.	Focus Groups / Equity	Program
Crosswalk Inventory and Policy	Address long distances between crossings for people walking (and biking) making it easier and safer for people to cross the street at signalized, unsignalized, and mid-block crossings. Start with data collection and developing a policy for distances.	Focus Groups / Technical Team / Public Responses	Program
Education for Construction Projects	Pair traffic / transportation education with new roadway construction projects.	2024 RTSAP Process	Program
ITS Regional Operations & Incident Management Enhancements (FY 2026-2040)	Enhance operations and incident management programs and facilities as needed. AMPA Wide. Focus on safety-related improvements and studies.	MTP	Program
Multi-jurisdictional Workshops and Trainings	Provide workshops and training on policies and design guidelines that support a safer transportation system such as the FHWA Safe Systems Approach, Vision Zero, Road Diets and Complete Streets.	2024 RTSAP Process	Program
Neighborhood Traffic Calming Guide	Narrowing lanes, bulb-outs, planting strips.	Focus Groups / Tech Team	Program
PNM and Utility Collaboration	Many street lighting projects require collaboration with local utility companies and sometimes will need MOUs to develop and implement projects.	Focus Groups	Program
Potential Road Diet Candidates	Use this map to prioritize and target locations for further study and implement roadway reconfigurations such as restriping roadways to add bike lanes, Business Access Transit (BAT) lanes, or parking.	Focus Groups / Technical Team / Public Responses	Program

Name	Description	Source	Type
Prioritizing ADA Improvements	Develop a study to prioritize access to schools, community centers, and parks when doing ADA upgrades and roadway reconfigurations. Consult High Fatal and Injury Network (HFIN).	2024 RTSAP Process	Program
Public Transport and Schools	Conduct a study that evaluates student use of public transportation to get to school.	Focus Groups / Schools	Program
Reevaluate Speed Limits	Reevaluate the process of setting speed limits. Provide default speed limits, designate slow/speed zones, and look at conflict density and land use context.	Focus Groups / Technical Team / Public Responses	Program
Region Wide Bicycle/Pedestrian Safety Education (Late Time Frame)	Increase bicycling and pedestrian safety awareness and promote shift to alternate modes of travel. Bernalillo, Sandoval, and Valencia Counties.	MTP	Program
Region Wide TDM (Late Time Frame)	Travel Demand Management programs and activities for Bernalillo, Sandoval, and Valencia Counties.	MTP	Program
Review Pedestrian Signal Timing	Review signal timing at high pedestrian crash locations to provide safer pedestrian crossing times and minimize conflicts with vehicular turning movements.	2024 RTSAP Process	Program
Review Access Management	Prioritize existing high crash High Fatal and Injury Network (HFIN) corridors to review access management and determine whether driveways could be combined or moved further away from the signalized intersections.	2024 RTSAP Process	Program
Review Signal Timing	Review yellow and all-red transitions times and adjust based on clearance distances and the latest practice.	2024 RTSAP Process	Program
Roundabouts	Evaluate roundabouts for high crash locations. Also consider skewed and multiple leg intersections. Prioritize in small urban and rural areas.	2024 RTSAP Process	Program
Safe Routes to School Activities	Safe Routes to School activities like Park and Walk, International Walk and Bike to	Focus Groups	Program

Name	Description	Source	Type
	School Day, bike trains, bike clubs, and bike rodeos.		
Safe System Public Education Campaigns	Public education piece that brings more attention to the Safe Systems Approach and Vision Zero, and why there is a need for new designs to create safer multimodal roadways.	Focus Groups / Public Responses	Program
School Active Transportation Education Programs	After school bicycle and pedestrian and safety education program.	Focus Groups	Program
Speed Racing Interventions (i.e. Montgomery / Montano / Louisiana)	Develop a process to address reduction of racing along wide arterial roadways. Consider equitable enforcement such as speed cameras. Consider Road Diets. Enhance lighting.	Public Responses	Program
Systemwide Proven Safety Countermeasures 1	Develop a process by which to deploy proven safety counter measures. Consider prioritizing by the HFIN corridors and intersections in vulnerable communities.	Focus Groups / Technical Team	Program
Systemwide Proven Safety Countermeasures 2	Integrate proven safety counter measures in all new roadway construction and maintenance.	Focus Groups / Technical Team	Program
Systemwide Signal Upgrades (i.e. Montgomery and San Mateo and Eubank Blvd and Chico Rd)	Identify high-risk intersections for studying upgrades that are needed to improve safety. This includes determining the ITS infrastructure needed to eliminate turning conflicts and improve signal automation and timing. Also include review of access management and potential for reducing crossing lengths for pedestrians.	RTSAP 2018 Site Visit	Program
Traffic Speed on State Roadways	Develop a comprehensive speed evaluation process for when these roadways intersect with local communities.	Focus Groups / Tribal	Program

Name	Description	Source	Type
Tribal Collaboration	Consistent meetings with Tribal Governments as there are a lot of staff changes in Pueblos. Make sure to keep up to date with contact lists and reach out regularly to connect with new staff/administration. Consider quarterly site visits.	Focus Groups / Tribal	Program
Tribal Technical Assistance	Work with Tribal Governments in NM to help them seek funding and oversee implementation.	Focus Groups / Tribal	Program
4 Way Stops	Remove traffic signals where not needed and provide 4-way stops where feasible. Look at opportunities to add pedestrian bulb outs to reduce pedestrian crossing lengths and improve pedestrian visibility. Compliment with on-street parking.	Focus Groups / Technical Team	Project
Area Safety Profile Priority Corridors	Improve Priority Corridors identified in an Area Safety Profile. Requires additional engineering study prior to implementation.	Safety Area Profile	Project
Area Safety Profile Priority Intersections	Improve Priority Intersection identified in an Area Safety Profile. Requires additional engineering study prior to implementation.	Safety Area Profile	Project
Bicycle Clearance at Intersections	Adjust minimum green times at locations where Bike Routes are identified to accommodate bicycle clearance of the intersection. On bicycle routes that intersect with very busy intersections provide bicycle detection or button where feasible. The MRMPO Long Range Bicycle System (LRBS) contains Bike Route designations.	2024 RTSAP Process	Project
Demonstration Projects	Test out temporary solutions with flexi-sticks and paint. Recruit volunteers to, for example, paint murals on intersections. Low-cost demonstration projects. Prioritize historically disinvested communities.	Public Responses	Project

Name	Description	Source	Type
Expand HAWK signals and LPIs	Prioritize best locations for High Intensity Activated Crosswalk (HAWK) signals and Leading Pedestrian Intervals based on existing infrastructure and locations of high crash risk. Install where there are already existing plans calling for this type of improvement.	Focus Groups / Technical Team / Public Responses	Project
Expand Trees and Shade	Develop a plan to systematically add more trees and shade particularly at transit stops and in historically disinvested communities. Use best practices for new development in an arid environment.	Focus Groups / Equity	Project
Leading Pedestrian Intervals (LPIs)	Introduce leading pedestrian phases to try and minimize right-turn on red conflicts at intersections with high crash rates and high transit travel. See MRMPO High Fatal and Injury Network (HFIN) and Long Range Transportation System (LRTS).	2024 RTSAP Process	Project
Left-Turn Conflicts at Intersections	Deploy Flashing Yellow Arrow indications to take advantage of conditional permitted left-turn phases to reduce pedestrian / permitted left-turn conflicts, this is particularly important at high crash intersections for pedestrians and heavy transit travel.	2024 RTSAP Process	Project
Main Streets (Rural and Tribal Areas)	Where state highways go through downtowns redesign these main streets to be more pedestrian oriented--i.e. fewer lanes, wider sidewalks, more and narrower crossings.	Public Responses / Area Safety Profiles	Project
Median Refuges	Investigate the potential for narrowing lanes to see if median refuges could be constructed thereby reducing pedestrian crossing lengths and improving safety.	Focus Groups / Technical Team / Public Responses	Project
Pedestrian Scale Lighting	Improve pedestrian scale lighting along corridors and at pedestrian crossings with high crash risk / HFIN identified, in particular this should be prioritized in historically disadvantaged communities.	Focus Groups / Public Responses	Project

Name	Description	Source	Type
	This may require further collaboration with local utility companies. MRMPO can aid on the location of these types of crashes.		
Safe Routes to School Connections	Install high visibility crosswalks and signal improvements around school locations based on severe crash data, historically disadvantaged communities, and school data identify priorities.	2024 RTSAP Process	Project
Sight Distance Priorities	For HFIN / high crash risk intersections review and improve limited sight distance especially at opposing permitted left-turn movements.	2024 RTSAP Process	Project
Small Urban and Rural Corridor Shoulders	In small urban and rural areas consider adding wider shoulder widths on future projects to accommodate pedestrians and bicycles.	2024 RTSAP Process	Project

DRAFT

CHAPTER 6 ACTIVE TRANSPORTATION

This chapter of the Transitions 2045 MTP focuses on pedestrian and bicycle mobility. Developing connected networks and safe conditions for walking and biking is critical for making these modes viable travel options in the region.

Benefits of Active Transportation

Increased rates of walking and bicycling provide many benefits for our region such as improved public health, economic advantages, and a healthier environment. As for public health benefits, New Mexico has followed the national trend of a dramatic rise in obesity rates in recent decades. In 2022, obesity prevalence in the state was 32.4 percent according to the CDC³⁵. Many studies in recent decades have documented the fitness and health benefits of active travel, including that it is an effective and practical way to increase daily physical activity, thereby helping reduce rates of overweight/obesity, heart disease, diabetes risk, hypertension, depression, and more while also reducing air pollution exposure to others³⁶. Currently, in the nation, less than one-quarter of children between the ages of 6 and 17 and adults get enough physical activity every day according to the CDC³⁷ and in New Mexico the physical inactivity rate is about 23.7 percent. A person can meet their daily physical activity needs by using active modes of transportation, and a moderate amount of physical activity is associated with a reduction in those ailments.

Economic benefits are gained from decreased transportation costs and health care costs and improved access to jobs and other destinations. Better active transportation networks can also support increased tourism and higher property values. And of course, shifts from vehicle trips to bicycle and pedestrian trips reduce greenhouse gas emissions and improve air quality.

6.1 Pedestrian and Bicycle Travel Conditions

6.1a Existing Conditions for Active Transportation in the AMPA

An overview of existing bicycle and pedestrian travel conditions in our area is available through the MRMPO's **Long Range Bikeway System (LRBS)** map, which illustrates existing bicycle facilities

Active transportation

describes human-powered transportation modes: walking, bicycling, wheelchair travel, skating, scootering, and taking transit as well as emerging modes such as power assisted e-bikes and e-scooters. Transit is classified as active transportation because a person generally walks or bikes to get to or from the transit trip; however, in this MTP, transit is addressed in the Mobility chapter (Chapter 4). This chapter classifies travel by wheelchair as pedestrian travel and categorizes both travel by electric bike and scooter (electric and non-electric) as travel by bicycle.

³⁵ (Source: <https://www.cdc.gov/obesity/php/data-research/adult-obesity-prevalence-maps.html>).

³⁶ (Source: <https://www.vtpi.org/nmt-tdm.pdf>)

³⁷ (Sources: https://americawalks.org/wp-content/uploads/2021/06/AW-Health-Benefits-of-Walking-5_28_edit-1.pdf ; <https://www.cdc.gov/healthyschools/physicalactivity/facts.htm>; <https://www.cdc.gov/physical-activity/php/data/inactivity-maps.html>)

and helps identify gaps in the region’s network. The map is updated with input from member agencies on a continual basis.

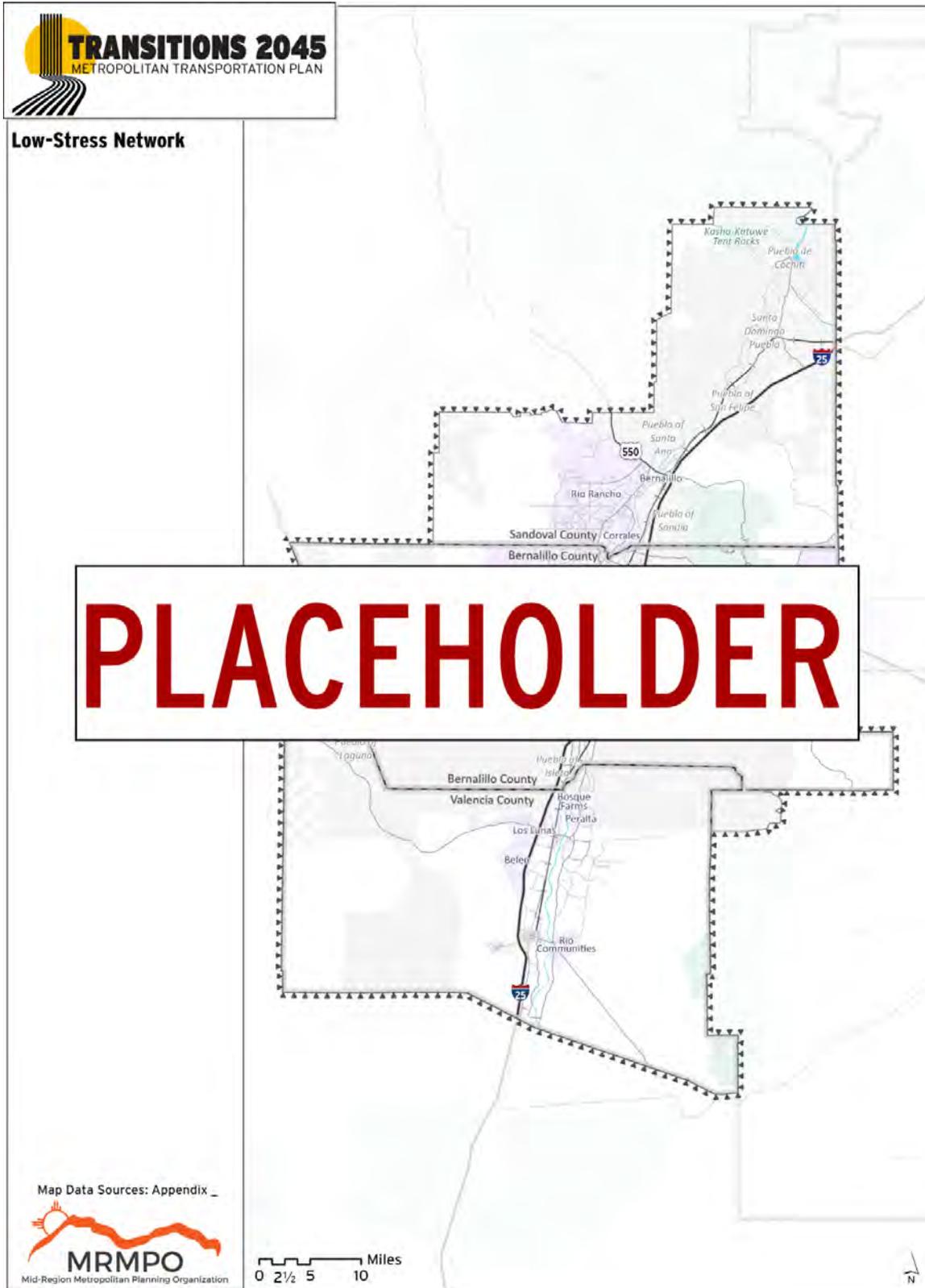
Many of the AMPA’s existing bicycle facilities (e.g., bicycle lanes, multiuse paths, bicycle boulevards) may not be comfortable for people of all ages and abilities. Creating a network that accommodates everyone, regardless of experience or skill level, is becoming standard practice and is needed to make bicycling a viable mode of transportation for everyone. **All ages and abilities facilities** are characterized as having lower levels of traffic stress, meaning lower traffic volumes and speeds or physical separation (such as a physically protected bike lane or an off-road multiuse trail). By mapping out the existing facilities with low levels of traffic stress, planners can identify gaps in the regional network and prioritize investments.

The following map reveals that although there are a relatively high number of existing facilities, the AMPA lacks a well-connected, low traffic stress network. Building out a low-stress network will require time, effort, collaboration, and investment.

Gaps in the regional low traffic stress bicycle network are shown in the following map:



Table 24: Low Stress Network (Placeholder)



Currently, the AMPA contains the following mileage of bicycle and pedestrian facilities:

Table 25: AMPA Bicycle and Pedestrian Facilities

	EXISTING MILEAGE
SIDEWALKS	1,600
Paved Trail	310
streets with dedicated bicycle facilities	319
streets without dedicated bicycle facilities	262
TOTAL	2,491

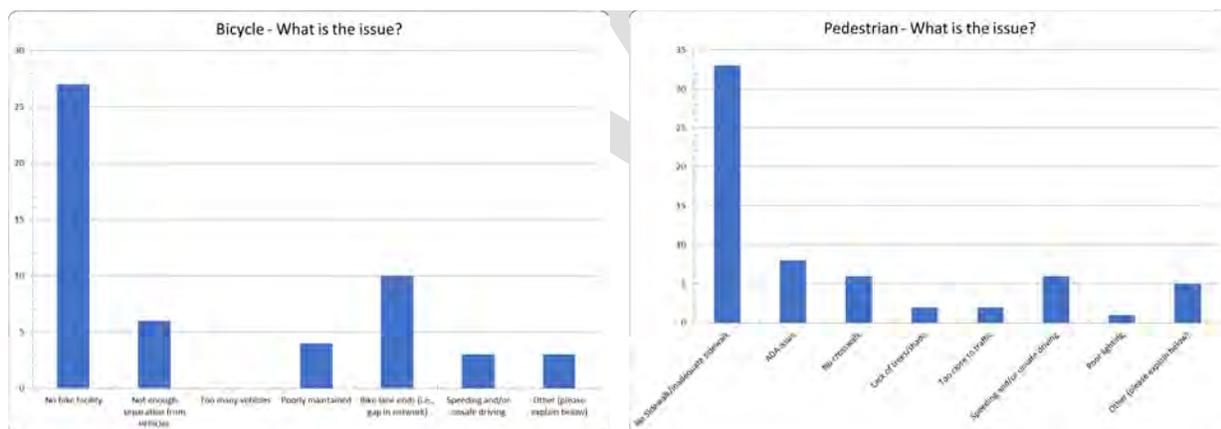
Public Perceptions

Surveying public opinion about perceived bicycle and pedestrian conditions can reveal qualitative information on the condition and comfort of these facilities. Results from an opinion survey conducted for the Transitions 2045 MPT highlights some key public opinions related to active transportation:

- There is strong support for active transportation facilities.
- There is a strong desire to prioritize safety for bicyclists and pedestrians.
- For bicyclists, not having a bicycle facility was the main issue reported when mapping areas of concern.

For pedestrians, lack of sidewalks (or insufficient sidewalks) was the main issue reported.

Figure 39: Bicycle and Pedestrian Issues



Annual “Bike to Work Day” (renamed “Bike to Wherever Day” in 2021) surveys reveal that most respondents ride for exercise or recreation rather than for transportation or utilitarian purposes (e.g., commuting to work, school, or for errands). This survey finding has been true for at least the last five years. Most recently in 2024, respondents cited that they ride because it is good exercise (93 percent) followed by it helps mental health (82 percent). Most respondents (53 percent) feel that conditions for cyclists are getting better over time while only five percent believe cycling conditions to be getting worse. This sentiment has been the same for the past five years. Main

difficulties reported are that it feels unsafe riding around vehicles (71 percent) and that the region lacks good routes connecting people to where they want to go (39 percent). As with past years, survey respondents indicated they would like to see more protected bike lanes built. Seventy percent of respondents reported that they would most like to see more protected bicycle lanes.

Accurately estimating the number of bicycle and pedestrian trips is difficult. From the 2022 American Community Survey, we gather that approximately 0.7 percent of work commutes in the AMPA are made by bicycle and approximately 1.5 percent are made by walking. Over time this percentage has changed very little (as shown in the table below).

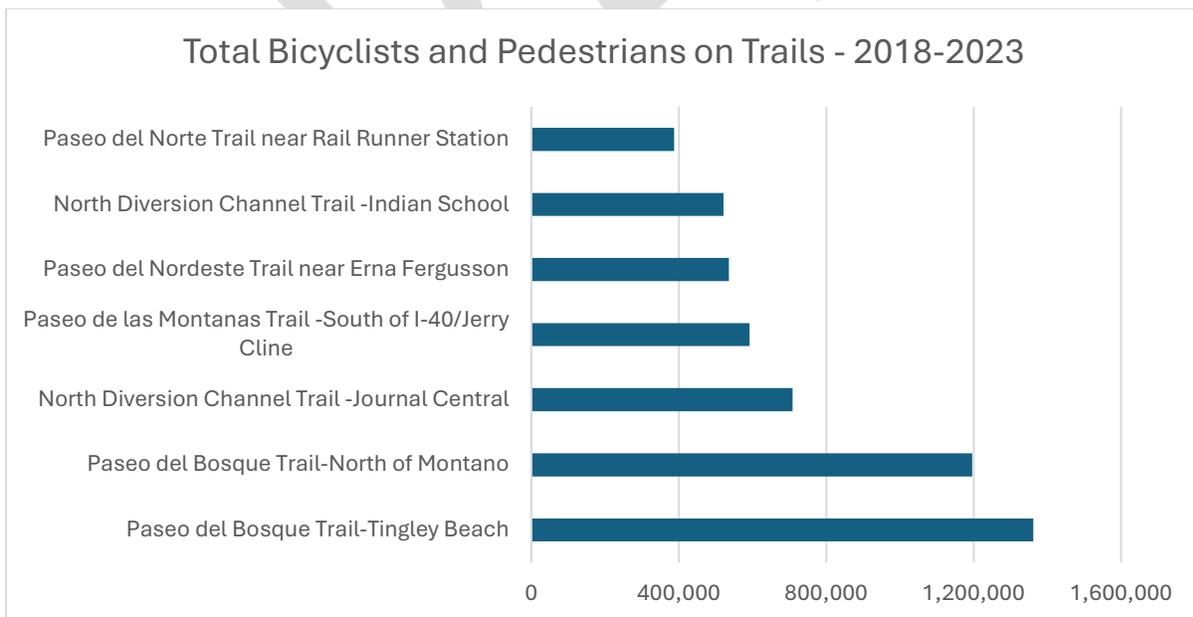
Table 26: Means of Transportation to Work, ACS 2022

MEANS OF TRANSPORTATION TO WORK	2018	2019	2021	2022
Walked	1.3%	1.5%	1.5%	1.5%
Bicycle	0.6%	0.8%	0.6%	0.7%

Source: American Community Survey, 2022

However, commute trips are only part of the story. Many other trips are made for reasons such as going to school, running errands, for entertainment, recreational purposes, medical appointments, and so forth. MRMPO maintains seven permanent bicycle counters in the region. These counters are another source of information about active transportation travel within the City of Albuquerque. Over the past five years, travel on the trails has fluctuated, but the counts reveal the trails receive a decent amount of travel, which could be both for recreational purposes and for utilitarian purposes (e.g., commuting, errands, etc.).

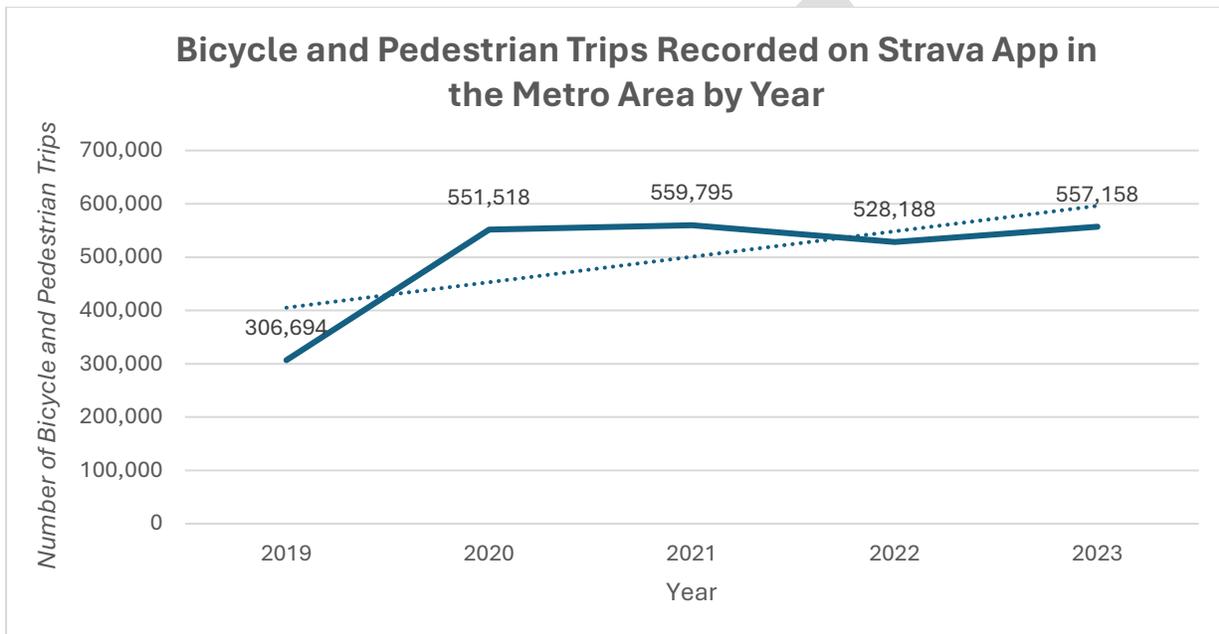
Figure 40: Total Bicyclists and Pedestrians on Trails - 2018-2023



Data collected from GPS-connected devices and aggregated through the Strava app (an app used by cyclists and pedestrians to record their activities) reveals additional information about travel in the metro area by active transportation modes. While there are many caveats and limitations to

Strava data, it is useful for gaining more insight into the number of trips occurring. Below is a summary of the number of trips recorded on Strava during the past five years. Strava also gives insights into the origins and destinations of bicyclists and pedestrians, revealing some of the most popular routes for bicycle and pedestrian trips. Such areas include the Paseo del Bosque Trail along the Rio Grande, the foothills and East Mountain area, Placitas, Tramway Rd, Alameda Blvd, Osuna Road/Bear Canyon Trail, the UNM area, downtown Albuquerque, the Four Hills area, and North Albuquerque Acres.

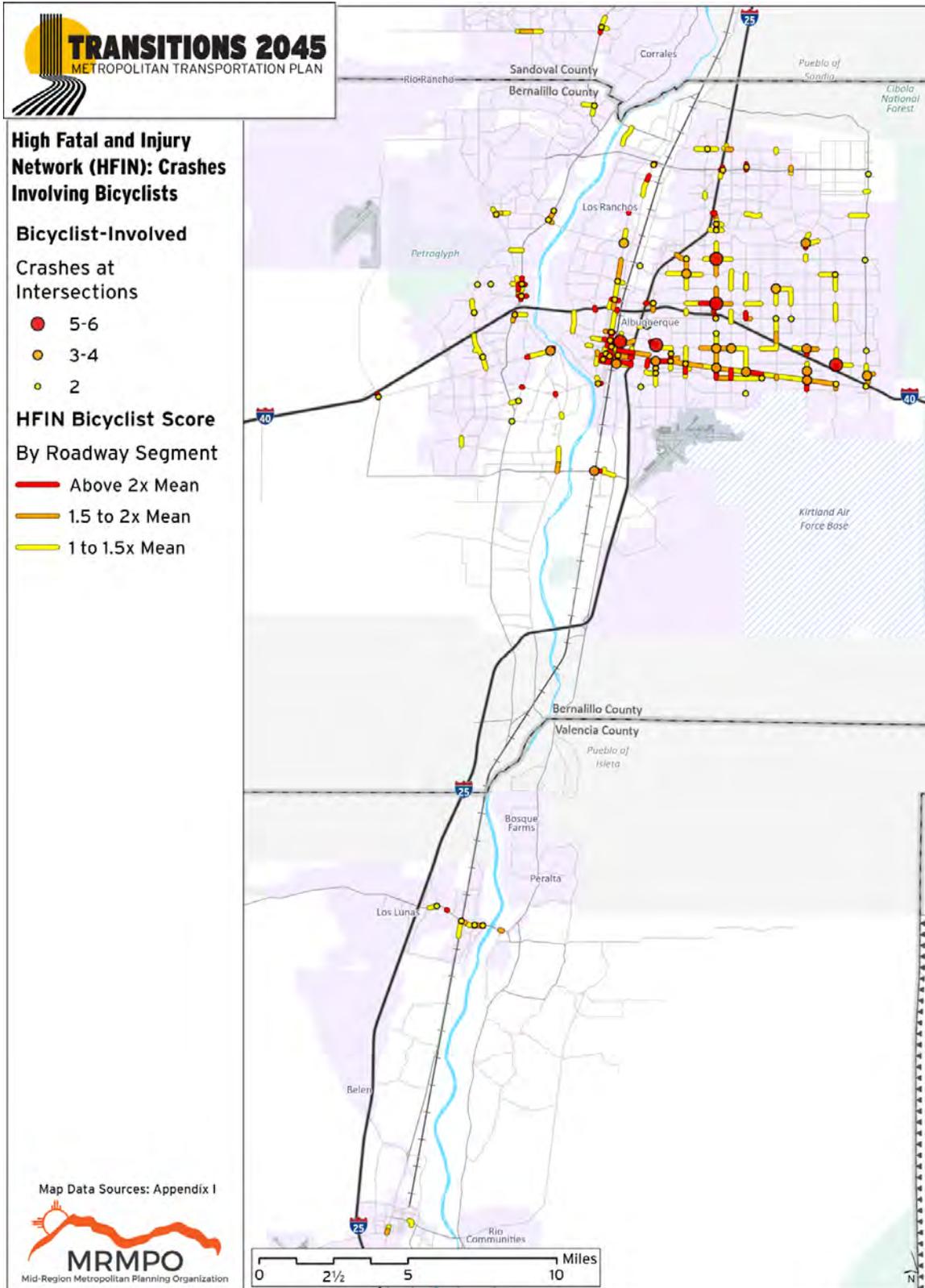
Figure 41: Bicycle and Pedestrian Trips Recorded on Strava App in the Metro Area by Year



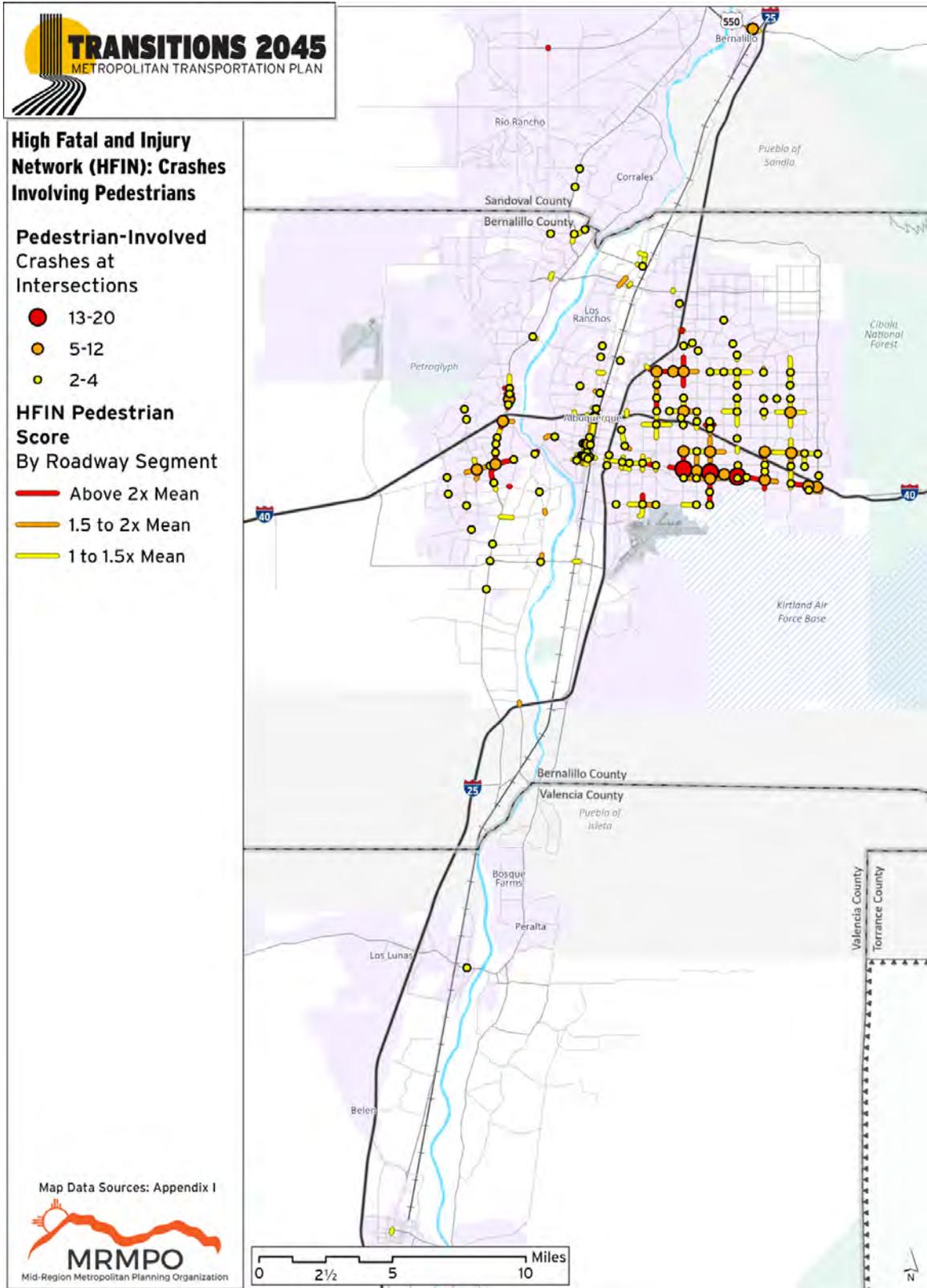
Safety Conditions for Active Transportation

Safety is a pressing problem in the AMPA, especially for the most vulnerable users; those traveling by bicycle and on foot or assisted mobility devices. The MRMPO **High Fatality and Injury Network (HFIN)** helps identify unsafe locations for all modes of travel, including for bicyclists and pedestrians in the AMPA. Locations of bicycle and pedestrian-involved crashes are shown in the map below:

Map 18: High Fatal and Injury Network (HFIN) - Crashes Involving Bicyclists



Map 19: High Fatal and Injury Network (HFIN) - Crashes Involving Pedestrians



As can be seen from the maps, many pedestrian crashes occur along the Central Avenue corridor, especially between San Pedro and Eubank and Juan Tabo to Tramway, as well as along Montgomery from I-25 to San Mateo. For bicyclists, problem areas include Central Ave near Louisiana and Girard, downtown, and the intersections of Montgomery Blvd and San Mateo Blvd, Menaul Blvd and San Mateo Blvd, Juan Tabo Blvd and Copper Ave, Lomas Blvd and Yale Blvd, and Lomas Blvd and Broadway Blvd.

6.2 Recent Enhancements to Active Transportation

6.2a Federal Laws, Programs, and Guidance

Federal surface transportation law requires **MPOs** to undertake multimodal transportation planning and improve the safety of transportation infrastructure, including for vulnerable road users like pedestrians and bicyclists. The federal law also allows state **Departments of Transportation (DOTs)** and MPOs to fund pedestrian and bicycle projects and activities from several transportation funding programs.

The USDOT “[encourages](#) transportation agencies to consider walking and bicycling *as equals* with other transportation modes, to provide transportation choices for people of all ages and abilities, and to go beyond minimum standards to provide safe, convenient, and comfortable active transportation networks³⁸”. To help transform these legal dictates into constructed reality, the federal government has recently made available substantial new funding for active transportation.³⁹ In addition, the US Access Board published **Public Right-of-Way Accessibility Guidelines (PROWAG)** to provide design guidance for accessible pedestrian facilities in the public right-of-way usable by people living with disabilities. PROWAG will be adopted by the United States Department of Transportation into the Department’s ADA regulations. The **Manual on Uniform Traffic Control Design (MUTCD)**, which dictates how everything from highway signs look to how crosswalks can be designed, also recently underwent a significant revision to be more bicycle- and pedestrian- friendly. The IJA (2021) created new active transportation programs and requirements, including requiring MPOs to fund or undertake Complete Streets planning activities; requiring states to complete vulnerable road user assessments; and prioritizing spending on safety when there are high levels of vulnerable road user fatalities and injuries. Other federal initiatives aimed at improving conditions for active transportation include:

- FHWA Safe Systems Approach and Focused Approach to Safety (previously described in Section 5.1b)
- Complete Streets Initiative - Complete Streets are streets designed and operated to enable safe use and support mobility for all users. Complete Street policies are set at the state, regional, and local levels and are frequently supported by roadway design guidelines.

³⁸ (Source: <https://www.transportation.gov/mission/office-secretary/office-policy/active-transportation/active-transportation>).

³⁹ More information on how MRMPO programs federal funding is included in Chapter 10.

- The FHWA now explicitly allows local governments to use certain federally-recognized design guidance documents (such as NACTO’s Urban Bikeway Design Guide), even when the State DOTs have not approved that guidance, in an effort to provide more design flexibility.
- **ADA Transition Plans** - ADA Transition Plans are required by the **Americans with Disabilities Act (1990)** to remove physical barriers to accessibility in transportation systems and facilities for people with disabilities. ADA Transition Plans should be updated periodically until the inventory of all accessibility barriers is eliminated. More information on local ADA Transition Plans is discussed in Section 6.2b.
- **Safe Routes to School** – This program promotes walking and bicycling to school through infrastructure improvements, enforcement, tools, safety education, and incentives. Plans and strategies can be implemented by a state DOT, MPO, local government, school district, or even a single school.

6.2b Local and State Planning Efforts

The Transitions 2045 MTP encourages policies, projects, and programs that support active modes of transportation. This section provides information on significant state and regional policies, plans, and projects related to active transportation, including those adopted since the previous publication of the Connections 2040 MTP in 2020.

Policies and Ordinances

- MRMPO Complete Streets Resolution. MRMPO’s policy board, the **Metropolitan Transportation Board (MTB)**, passed a Complete Streets resolution in 2011 that led to the development of MRMPO’s **Long Range Transportation Systems Guide, or LRTS Guide** (see Appendix X). The LRTS Guide provides Complete Streets guidance to ensure roadway designs consider land use context and the comfort and safety of all users of all abilities. The LRTS Guide promotes integrated infrastructure for bicyclists, pedestrians, and transit users and maps the long-range, unconstrained (or aspirational) transportation system for the roadway, transit, and bikeway networks.
- City of Albuquerque Complete Streets Ordinance. The City of Albuquerque’s Complete Streets Ordinance, published in 2015 and updated in 2019, requires all streets to be designed and built to efficiently serve all users – pedestrians, cyclists, transit riders, and motorists – and to make streets safer for all modes of transportation. It aims for cost-effective improvements to multimodal travel by capitalizing on opportunities that emerge through routine street maintenance and reconstruction projects. Examples of improvements accomplished through the program include the addition of new bike lanes and buffered bike lanes, road diets, refreshed crosswalks, and more. It also adopts, by reference, nationally-recognized standards for multimodal facilities to complement existing standards in the City of Albuquerque’s Development Process Manual. Since the ordinance’s adoption, there have been numerous successful Complete Streets improvements completed around the City. The ordinance was amended in 2024 to include policy to include green stormwater infrastructure in City medians and landscape buffers.
- Bernalillo County Complete Streets Ordinance. Bernalillo County also adopted a Complete Streets Ordinance in 2015. In 2023 the County adopted the Bernalillo County Technical Standards which include requirements for new development and capital projects. The

- City of Albuquerque’s Vision Zero (Year-in-Review/Action Plan Update). The Vision Zero Plan establishes traffic safety approaches and uses the HFIN to prioritize areas for targeted improvements. The Year-in-Review/Action Plan Update was approved by City Council in 2023.
- Albuquerque Public School’s Vision Zero for Youth Initiative. This Plan developed by APS includes a bicyclist safety curriculum and a public awareness campaign directed at drivers as well as support for Walking School Buses. The initiative will be implemented in all schools, elementary through high school.
- New Mexico Prioritized Statewide Bicycle Network Plan. NMDOT’s New Mexico Prioritized Statewide Bicycle Network Plan, or NM Bike Plan (2018) identifies a system of priorities and design guidance for bike facilities along highways in the state. Priorities for improvements within the AMPA include NM 165 in Placitas; NM 550 in Bernalillo; NM 347/Paseo del Volcan; NM 528/Pat d’ Arco Highway; NM 47/2nd Street/Broadway; NM 423/Paseo del Norte; NM 556/Tramway Boulevard; NM 45/Coors Boulevard; NM 550/Rio Bravo Boulevard; NM 314/Isleta Boulevard; and NM 6/Main Street in Los Lunas. The plan will be updated in the coming months.
- NMDOT Pedestrian Safety Action Plan. The Pedestrian Safety Action Plan was finalized in 2021 and provides a five-year framework of actions to reduce the number of pedestrian-involved injuries and fatalities in the state. The Plan has a system for tracking and reporting progress to help NMDOT assess whether it is on track for meeting its goals.
- NMDOT Vulnerable Roadway User Assessment. NMDOT completed a Vulnerable Road User Safety Assessment in 2023, a federal requirement of the Bipartisan Infrastructure Law. The assessment will help guide the use of Highway Safety Improvement Program funding, center safety in NMDOT projects, and can be used as a tool to reduce crashes impacting vulnerable users (i.e., a non-motorist who is walking, biking, or rolling, including highway workers in a work zone) in New Mexico.
- ADA Transition Plans. The Rehabilitation Act (1973) makes it illegal for the federal government, federal contractors and state and local governments receiving federal funds to discriminate on the basis of disability and requires state and local governments to ensure persons with disabilities have equal access to programs, services or activities receiving federal funding. This includes pedestrian facilities in the public right-of-way. To ensure transportation accessibility, local jurisdictions in the AMPA must build new facilities to meet ADA compliance standards and remove physical barriers where possible. 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 ADA⁴⁰.

⁴⁰ 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).

6.2c MTP Active Transportation Projects

The Transitions 2045 MTP project list includes a number of active transportation projects, including [X] bike/pedestrian projects out of [X] projects total, which amounts to approximately [X] percent of spending for that project type⁴¹. Below are some key past and active projects, most of which have been funded through their inclusion in the MTP and the TIP, or which are currently listed in the MTP and eligible for future TIP funding.

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, the TIP funds four phases which extend north to Alameda Boulevard and construction plans for the last phase (Phase 6) are being reviewed. The project includes green infrastructure/low impact development design, landscaping, wayfinding, and other trail amenities.

Albuquerque Rail Trail

The Albuquerque Rail Trail will be a seven-mile multiuse trail connecting downtown Albuquerque to surrounding neighborhoods, the Bosque Trail, transit, and cultural and entertainment destinations such as the Rail Yards, ABQ BioPark, and National Hispanic Cultural Center. The project is currently in the design phase, and several segments with independent utility have been funded through a combination of local, state, and federal funds.

Louisiana Blvd Vision Zero Project

The first phase of the project, completed in 2024, implemented a road diet along Louisiana Blvd from Gibson to Central; added separated and standard bike lanes along the corridor; and built curb extensions. A future phase of the project plans to install Pedestrian Hybrid Beacons at midblock locations along the corridor.

North Diversion Channel Trail Rehab

This project involves rehabilitating the eight-mile multiuse trail, including resurfacing, restriping, signage upgrades, selective widenings, safety features and other amenities as needed.

Paseo del Norte Widening

The Paseo del Norte Widening project includes bicycle and pedestrian improvements and ADA Compliance from Unser to Universe. It is set to begin construction in 2024.

AMPA-wide Youth Bicycle/Pedestrian Safety Education Program

This program increases youth safety in the AMPA through education on multimodal transportation and proper use of infrastructure. The program is run through the City of Albuquerque Parks and Recreation Department. Some of the programming included involves taking bike and pedestrian safety education to elementary - high schools in the metro area, providing bicycle helmets and other equipment along with logistical support for efforts promoting youth bicycle and pedestrian

⁴¹ Note that this figure includes projects that are classified primarily as Bike/Ped projects. Other non “Bike/Ped Projects” might include bicycle and pedestrian elements, however, those are classified primarily as other project types based on the purpose and scope of the project.

safety. The goal of this program is to increase safety of bicyclists and pedestrians while building excitement for active transportation among the youth in our community.

Coors Boulevard SW Pedestrian Safety Improvements

This Bernalillo County project includes the design and construction of safety countermeasures along nearly two miles of Coors Boulevard SW, including reducing lane widths, lowering speed limits, installing protected bike lanes, sidewalks, raised medians, corridor lighting, and improved crosswalks. The project is expected to be completed in 2025.

4th Street Revitalization Project

The second phase of the 4th Street Revitalization project is currently underway and is expected to begin construction in 2026. The project aims to improve safety, develop a unique identity for 4th Street, and keep and attract business in the village. The project will convert the four-lane road to two lanes with a center two-way left turn lane; include new ADA sidewalks and trails; install a roundabout; and add landscaping. The revitalization spans 4th Street from Pueblo Solano to Ranchitos Rd in Los Ranchos de Albuquerque.

4th Street Road Diet Project

Bernalillo County is completing design to implement a road diet along 4th Street NW that will go to construction in 2025. The project will incorporate the proven safety countermeasure of changing a four lane road with two lanes in each direction, no sidewalks or bicycle lanes into a three lane roadway with one lane in each direction, a center two-way left-turn lane, bicycle lanes and ADA compliant sidewalk with curb and gutter.

6.2d Advocacy Efforts

Regional active transportation advocates—including BikeABQ, Together 4 Brothers (T4B), Story Riders, Critical Mass, and Kidical Mass—champion infrastructure enhancements and encourage more people to use these modes for travel. Advocates play a strong role in highlighting needed improvements, celebrating progress, and creating a stronger culture of bicyclists and pedestrians that in turn helps to make those trips more common. Many advocates provide their experience and expertise and often provide thankless but helpful work such as attending committee meetings, submitting comments and testimonies, writing blog articles and letters to officials, and volunteering their time and resources to support the community.

6.3 The Future of Active Transportation in the Region: Opportunities and Strategies

The following section highlights recommended opportunities and strategies that align with the efforts of local governments and other partners in the AMPA.

6.3a Opportunities

Creating an All Ages and Abilities Network

A safe, well-connected, and pleasant active transportation network can improve safety, reduce congestion, improve health outcomes, and improve economic access and opportunity. Building facilities that work for bicyclists and pedestrians of all ages and abilities is a best practice and a

basic guidepost to achieve gains in multimodal comfort, safety, and trips taken. Historically, much of the planning and designing for bicyclist infrastructure (and that of pedestrians) has been for the “Strong and Fearless”⁴² type of riders, but the key to a designing a widely used bicycle network is to focus on “Interested but Concerned” riders. Mutliuse paths, protected bike lanes, bicycle boulevards, and other infastructure which separates bikers from vehicles can increase comfort, safety, and lead to more bicycle ridership.

The **Long Range Bikeway System (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). Based on the **National Association for City Transportation Officials (NACTO)** guide for “Designing for All Ages and Abilities” and the FHWA’s Bikeway Selection Guide, the LRBS focuses on creating more protected bikeway facilities that serve the “Interested but Concerned” riders discussed earlier. Ultimately, local governments will determine what type of facility to provide and are encouraged to choose options that lead to an all ages and abilities network, one that will enable hesitant riders to feel comfortable. The guidance below can be used by MRMPO member agencies when considering how and where to design new bicycle facilities.

Figure 43: Bicycle Rider Types



⁴² 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 44: Contextual Guidance for Selecting All Ages and Abilities Bikeways

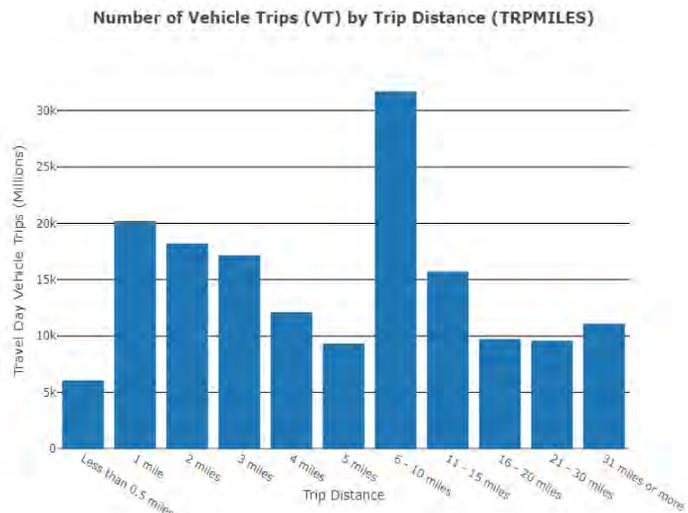
Roadway Context				All Ages & Abilities Bicycle Facility
Target Motor Vehicle Speed*	Target Motor Vehicle Volume (ADT)	Motor Vehicle Lanes	Key Operational Considerations	
Any		Any	Any of the following: high curbside activity, frequent buses, motor vehicle congestion, or turning conflicts†	Protected Bicycle Lane
≤ 10 mph	Least relevant	No centerline, or single lane one-way	Pedestrians share the roadway	Shared Street
≤ 20 mph	≤ 1,000 – 2,000		< 50 motor vehicles per hour in the peak direction at peak hour	Bicycle Boulevard
≤ 25 mph	≤ 500 – 1,500	Single lane each direction, or single lane one-way	Low curbside activity, or low congestion pressure	Conventional or Buffered Bicycle Lane, or Protected Bicycle Lane
	≤ 1,500 – 3,000			Buffered or Protected Bicycle Lane
	≤ 3,000 – 6,000			Protected Bicycle Lane
	Greater than 6,000	Multiple lanes per direction		Protected Bicycle Lane
Greater than 26 mph†	≤ 6,000	Single lane each direction	Low curbside activity, or low congestion pressure	Protected Bicycle Lane, or Reduce Speed
		Multiple lanes per direction		Protected Bicycle Lane, or Reduce to Single Lane & Reduce Speed
	Greater than 6,000	Any	Any	Protected Bicycle Lane
High-speed limited access roadways, natural corridors, or geographic edge conditions with limited conflicts		Any	High pedestrian volume	Bike Path with Separate Walkway or Protected Bicycle Lane
			Low pedestrian volume	Shared-Use Path or Protected Bicycle Lane

Source: nacto.org (<https://nacto.org/publication/urban-bikeway-design-guide/designing-ages-abilities-new/choosing-ages-abilities-bicycle-facility/>)

Capturing Short Trips

According to the 2022 National Household Travel Survey conducted by FHWA, more than half of vehicle trips taken were less than five miles. About 28 percent of driving trips are two miles or less, which is approximately a 12-minute bicycle ride, while 16 percent of driving trips are a mile or less, which is approximately a 20-minute walk. In other words, many trips being taken by car are of bikeable and walkable distances. Shifting these short trips to walking or biking could greatly increase the number of non-motorized trips in region, providing many benefits (air quality, personal health, and overall quality of life).⁴³ Increasing the rate at which people walk or bike instead of drive for a short trip is a realistic regional goal. It will require improving safety and comfort of sidewalks and bikeways near daily destinations, providing good bike parking, adequate lighting, and safe street crossings.

Figure 45: Number of Vehicle Trips (VT) by Trip Distance (TRPMILES)



Source: <https://nhts.ornl.gov/vehicle-trips>

Closing Gaps

Closing gaps in the bicycle and pedestrian networks (e.g., when a bike lane or sidewalk ends abruptly) is another effective strategy, providing better access to jobs, services, and other destinations such as schools, grocery stores, and recreation. The bicycle and pedestrian networks are not complete in the region and there are many known gaps that continue to pose barriers for these modes. Closing gaps and addressing physical barriers such as the river and interstates must be a regional focus. In recent years, new pedestrian and bicycle grade-separated crossings have addressed gaps. There are a range of ways to address gaps, from connecting bike and walking paths through cul-de-sacs, installing mid-block crossings, enhancing the comfort and accessibility of existing facilities, and adding bicycle lanes during scheduled repaving. Long-range, short-range, and community plans also provide an opportunity to identify gaps and then prioritize and address those gaps. In MRMPO’s Project Selection Process, projects that improve overall network connectivity or make a direct connection to an important regional destination are prioritized for TIP funding.

⁴³ Environmental Protection Agency 2015 article (EPA-420-F-15-021) published by the Office of Transportation and Air Quality

Improved Data Collection

MRMPO is responsible for collecting non-motorized counts within the AMPA and currently maintains seven permanent counters located on multiuse paths in the City of Albuquerque. In 2022, MRMPO made a commitment to expand its nonmotorized counts program in order to improve data on bicyclists and pedestrian activity and conducted a study that outlines a path forward to expand the nonmotorized data collection program. As a result of that study, MRMPO plans to install more counters in varied locations and facility types, recognizing that current data likely undercounts bike and pedestrian trips and that more accurate counts are needed to improve planning and funding of bicycle and pedestrian facilities. Richer data can also assist with before-and-after studies and identify trends and evaluate investments. The non-motorized counts program will be developed alongside MRMPO Traffic Counts program and will share resources and synergies with that program where possible.

Expanded Use of Micromobility Devices

Micromobility devices—such as electric bicycles, scooters, and self-balancing boards⁴⁴—are becoming more common in cities throughout the nation. Along with the use of these devices come new challenges and opportunities, including increased mode share for active transportation trips and the potential for shared micromobility programs in communities.

The City of Albuquerque passed an ordinance in 2024 to make the fee structure for shared micromobility operators less cost prohibitive. Shortly after, a micromobility company received a permit to install and testing e-scooters throughout the city. In addition, the City now requires 25 percent of stations to be located within high social vulnerability census tracts to improve equitable access to such programs. Continued development of a safe and connected bicycling network would support future shared micromobility efforts.

Micromobility provides new ways for people to get around and can remove barriers that might otherwise prevent people from taking active forms of transportation. Micromobility devices provide an additional option for short distance trips, especially if priced competitively and with links to transit: first- and last- mile transit connections can strengthen the multimodal transportation network. The widespread availability of micromobility devices can incentivize households to go car-free or car-light. When deployed in central business districts, bikes and scooters allow workers to grab lunch, run errands, or get between meetings in less time than it takes to drive or use transit. Micromobility also benefits tourist and visitor industries, extending the reach of guests to travel easily between hotels, cafes, museums, convention centers, and transit stops. In areas with low car ownership, micromobility can increase mobility options. Mitigating issues that arise from their use, such as safety, equity, and accessibility, will be necessary to support their usage.

Other ways in which local governments in the region are grappling with emerging issues with micromobility use is through the regulation of their use on different types of facilities. An ordinance passed by the City of Albuquerque in 2024 to address e-bike (and other power assisted devices)

⁴⁴ Powered micromobility vehicles are wheeled vehicles that must be fully or partially powered and which have a curb weight of less than 500 lbs and a top speed of less than 30 mph. They include powered bicycles, standing and seated scooters, self-balancing and non-self-balancing boards, and skates. Source: SAE International from SAE J3194™ Standard - TAXONOMY & CLASSIFICATION OF POWERED MICROMOBILITY VEHICLES. https://www.sae.org/standards/content/j3194_201911/

usage on trails was drafted in response to State legislation prohibiting their use on trails unless explicitly allowed by local governments. One strategy in the ordinance is to institute a 20-mph speed limit applicable to all bikes, scooters, and mobility devices regardless of whether they are electric or not. The goal is to find a balance between providing access and realistically maintaining safety.

6.3b Strategies

Enhanced Active Transportation Facilities

Active transportation networks can be enhanced by retrofitting or constructing facilities to improve their comfort and protection. This can be achieved through:

Physical separation - Existing buffered bike lanes can be enhanced with physical separation with the use of flex posts, bollards, curbs, planters, jersey barriers and other treatments. In addition, for new roadways, bike facilities can be multiuse paths adjacent but physically separate from the road. Whenever possible, physical separation should be considered when developing an All Ages and Abilities active transportation network.

Shade and landscape buffers - Street trees provide numerous benefits including traffic calming, reduced heat island effect, and more comfort for pedestrians. Landscape buffers placed in between the roadway and sidewalk provide space for street trees, allow more physical separation between pedestrians and vehicles, and improve comfort for pedestrians.

Green infrastructure - When possible, green infrastructure should be considered in the design of roadways. This includes bioswales in curb extensions/bulb outs, permeable pavement for sidewalks, bike lanes and parking lanes, which helps reduce runoff and treat stormwater. Green infrastructure reduces the need for gray infrastructure, or built drainage facilities, helps cool the surrounding area, and may be more effective than traditional gray infrastructure. Green infrastructure can make walking and bicycling more comfortable and inviting.

In addition, more visible crosswalk markings, enhanced pedestrian lighting, installation of enhanced street crossings, and the maintenance of existing bicycle and pedestrian facilities are all critically important enhancements to active transportation travel.

Improving Safety

The most important strategy for improving active transportation in the AMPA, especially for non-drivers, is addressing safety. New Mexico and the City of Albuquerque consistently rank as among the highest for pedestrian fatalities per capita, and bicycling fatalities, though lower than other states, still remain unacceptably high. Strategies for improving safety are discussed in the 2024 Regional Transportation Safety Action Plan and in Chapter 5 of this MTP.

Respondents to Transitions 2045 MTP surveys cited prioritizing safety for bicyclists and pedestrians as the top objective for the Active Transportation goal. Bike to Work Day survey results consistently concur, and safety is routinely emphasized as the highest priority.

Many agencies around the region are doing important work to improve traveling safety in their communities and collaboration has been increasing.

Approaches for Increasing Safety

Vision Zero Policies and Plans

Vision Zero is a commitment to create safer streets for all, whether walking, biking, driving, or taking transit, and regardless of age or ability. Track records of Vision Zero programs around the world and in the United States show that fatal and injury crashes can be reduced significantly with an adopted goal of zero fatalities and strategies aimed toward meeting that goal. The City of Albuquerque was the first government entity in the region to adopt a Vision Zero policy and plan, and MRMPO has included Vision Zero as guiding framework of its *Regional Transportation Safety Action Plan*. Bernalillo County’s updated Pedestrian Safety Action Plan incorporates a Vision Zero goal, and the New Mexico Department of Transportation is working toward a Vision Zero goal as well. Other jurisdictions and agencies in the region and state are taking meaningful steps to help address traffic violence in our communities.

Complete Streets

Complete Streets can help improve safety by considering the needs of all roadway users in the design, reconstruction, and rehabilitation of roadways. Although not every roadway has enough right-of-way to accommodate all forms of transportation, Complete Streets can provide connected networks that enable pedestrians, transit users, motorists, and bicyclists to travel around the region. For example, when it is not possible to add a bike lane on a road, a nearby parallel route could be developed to provide network connectivity.

The LRTS, discussed earlier in the chapter, provides Complete Streets guidance for local governments in the AMPA. Streets can be made more “complete” with the inclusion of proven safety countermeasures, such as bicycle lanes, walkways, pedestrian refuge islands, and road diets. Further discussion on proven safety countermeasures is on the FHWA’s website and in MRMPO’s RTSAP.

Education and Encouragement

In addition to design-oriented solutions, education and encouragement can also help attract more people to walking and bicycling.

Safe Routes to Schools

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. Safe Routes to Schools programs have proven effective for employing both engineering-based and encouragement-based efforts for getting more students to walk and bike to school, especially since those numbers have dropped dramatically compared to past generations.

Locally, APS has launched a district-wide Vision Zero for Youth Initiative that includes a bicyclist safety curriculum and a public awareness campaign directed at drivers as well as support for Walking School Buses. The initiative will be implemented in all schools, elementary through high school.

Safe Routes to School programming is also available through the Esperanza Bicycle Safety Education Center. Programming includes elementary school outreach, bike rodeos, and other programs aimed at teaching students about safely walking and biking.

Local Education and Outreach Efforts

In addition to Safe Routes to Schools programming, the Esperanza Bicycle Safety Education Center also provides trainings in community settings and free bicycle tune ups for Albuquerque residents.

There are also 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 Wherever Day (formerly Bike to Work Day) and Bike Through Burque events as well as grassroots efforts including Slow Roll 505, Kidical Mass, and the ABQ CiQlovía encourage more biking and walking for both new and existing active transportation users.

Figure 46: Children Scooting to School in Albuquerque



The **Center for Pedestrian and Bicyclist Safety (CPBS)** was recently created and is headquartered at UNM. It is a Tier-1 University Transportation Center funded by the US DOT. CPBS’s goal is to eliminate pedestrian and bicyclist fatalities and serious injuries through research and education.

The UNM Center for Injury Prevention Research and Education Look for Me campaign (funded by NMDOT) focuses on educating law enforcement agencies, community leaders, advocates, and the public on how to be safe when using transportation, with a particular focus on educating motorists to look for people on bike or foot.

Transportation Demand Management

Transportation Demand Management (TDM) refers to efforts aimed at reducing the number of vehicle trips or shifting when trips happen to help alleviate congestion. Examples include offering transit passes to employees; offering incentives to bicycle and walk to work, events, or school; and offering flexible work start times and work from home opportunities. There are and have been various active transportation-focused TDM efforts deployed in the region in past years. Existing programs could be expanded at a regional level to complement other active transportation planning and investments taking place in the AMPA. The City of Albuquerque’s Bikeway and Trail Facilities Plan outlines potential elements for a regional TDM program:

- Bike parking
- Private business incentives
- Bicycle benefits program
- End-of-trip facilities such as showers, lockers, and bike parking
- Safe Routes to Schools
- Bicycle encouragement events

Further discussion on TDM can be found in Section 4.3c.

Each MTP goal has a list of key strategies that are recommended as a toolbox for local governments and agencies to implement to help achieve the goals. The key Active Transportation strategies are shown below:

Table 27: MTP Active Transportation Strategies

Strategies
Creating an All Ages and Abilities Network
Design roadways and multimodal facilities that can be safely and comfortably used by people of all ages and abilities.
Enhanced Active Transportation Facilities
Combine land redevelopment with improvements to existing transportation facilities to better incorporate bicyclists and pedestrians.
Provide non-motorized access and safe routes to existing and potential recreational areas and open space.
Require new residential subdivisions to include sidewalk infrastructure and safe pedestrian and active transport routes, particularly to bus stops and schools.
Capturing Short Trips
Encourage siting of schools, including the location of internal ped/cyclist access points and routes, in a way that improves active transportation infrastructure.
Improve access to and within activity centers and transit corridors
It will require improving safety and comfort of sidewalks and bikeways near daily destinations, providing good bike parking, adequate lighting, and safe street crossings
Improving Safety
Develop and implement Vision Zero policies and plans
Design Complete Streets and complete multimodal networks
Use roundabouts and other intersection treatments and improved crossings where appropriate for increased safety for all vulnerable road users.
Closing Gaps
Fill in gaps in the bicycle and pedestrian networks, first targeting improvements near activity centers, EJ communities, schools, and parks.
Adopt/Update and implement land use policies, subdivision regulations, and building and site development design standards that promote walkability.
Connect neighborhoods to multi-use trails that are currently separated by a wall or drainage facility.
Improve the user experience for cyclists, pedestrians, and transit riders with useful and safe connections and design
Education and Encouragement
Safe Routes to Schools
Local Education and Outreach Efforts
Transportation Demand Management
Expanded Use of Micromobility Devices
Implement bike share programs in and among key activity centers and transit stations.
Improved Data Collection

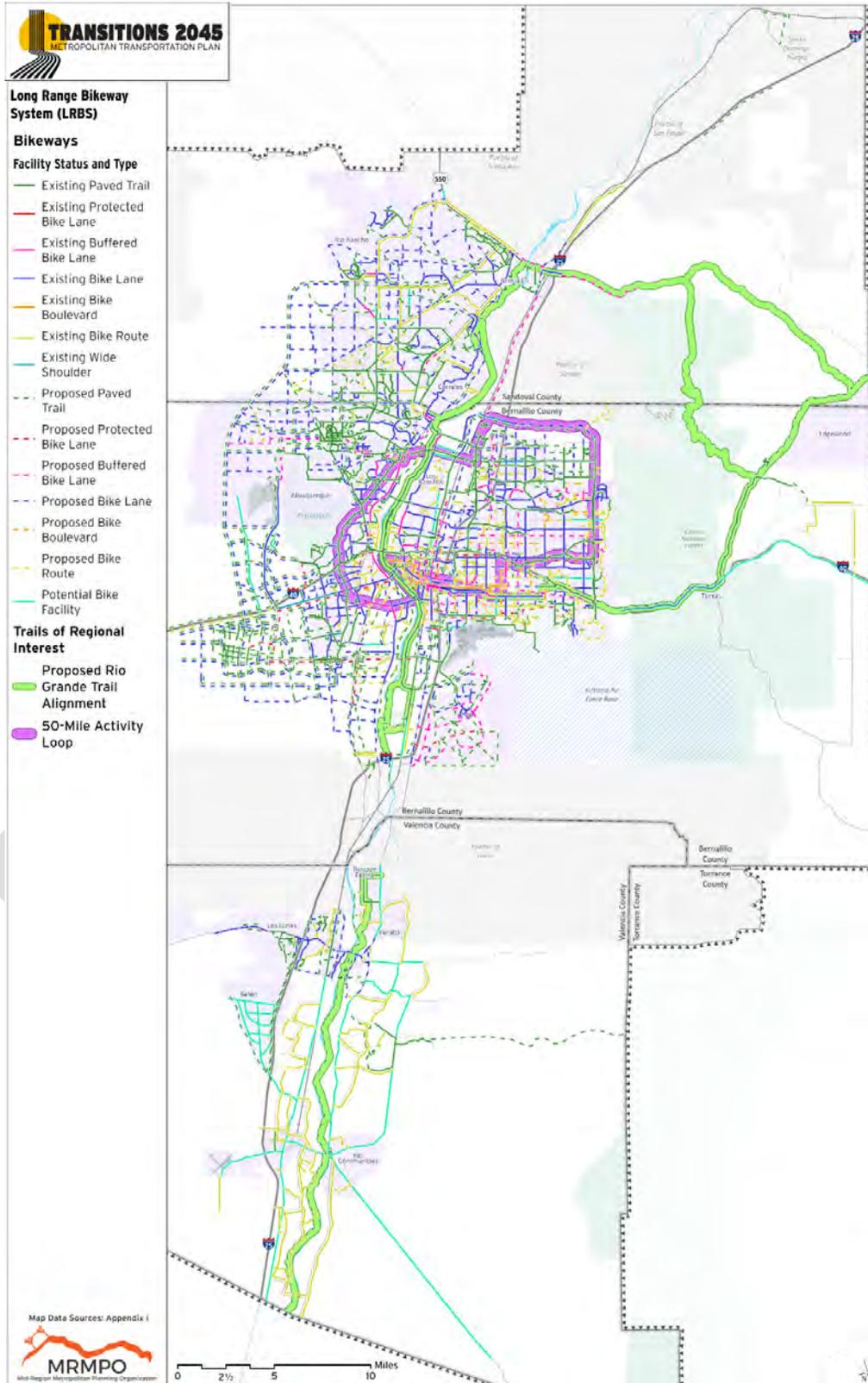
6.4 Goals, Objectives, and Strategies

To address the active transportation challenges our region faces and cultivate a transportation system that leads to improved Active Transportation in the region, the following goals, objectives, and strategies should be considered:

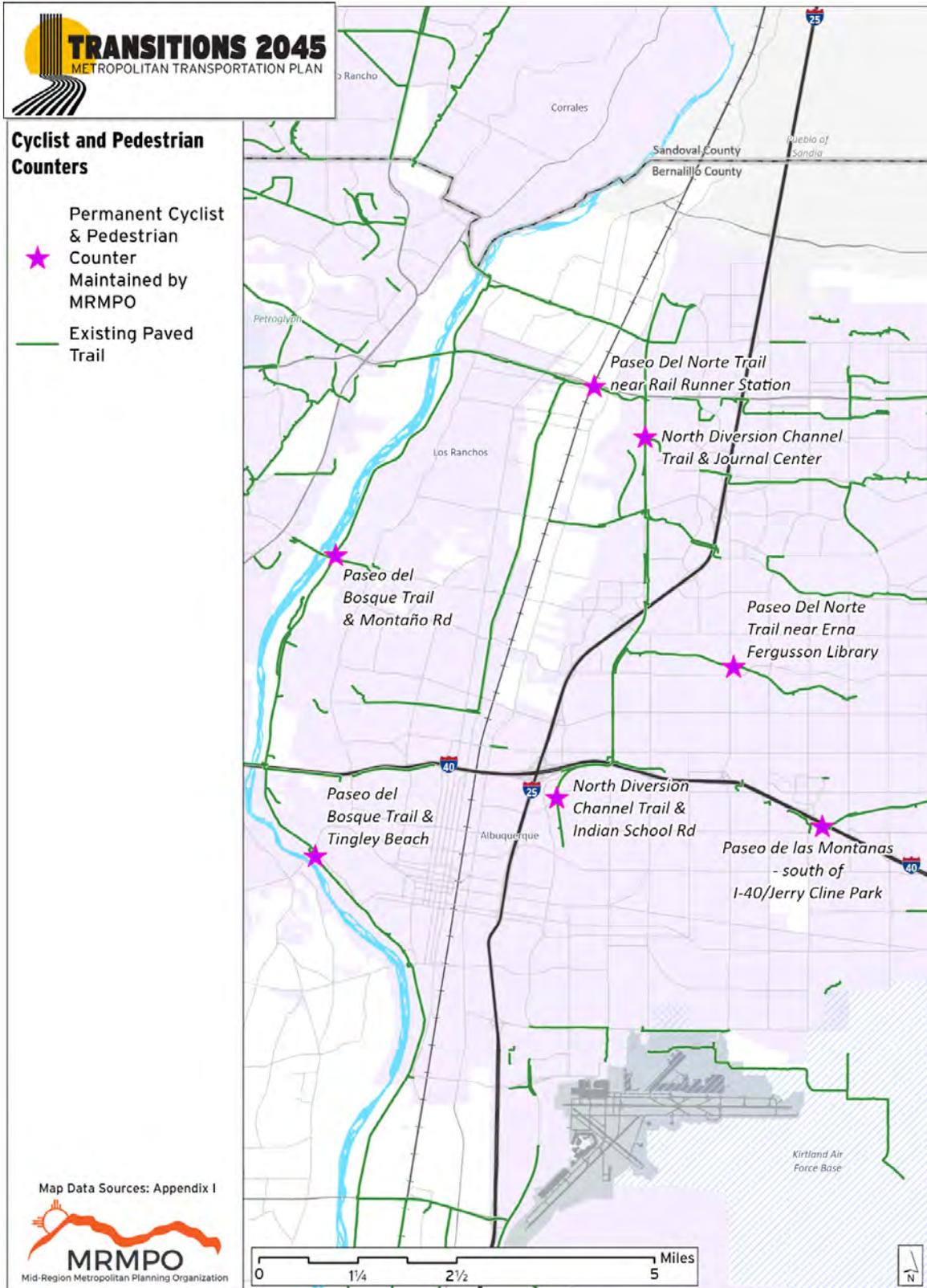
[PLACEHOLDER – table will be inserted when the MPO finalizes goals, objectives, strategies]

DRAFT

Map 20: Long Range Bikeway System (LRBS)



Map 21: Cyclist and Pedestrian Counters



CHAPTER 7 ECONOMIC VITALITY

This chapter discusses the economic impacts of transportation spending and outlines the **Mid Region Metropolitan Planning Organization (MRMPO)** process for prioritizing and funding transportation projects in the region. It also discusses major regional industries and how transportation spending can impact employment and business recruitment and retention, as well as how transportation spending can address commuting and multi-modal alternatives.

In addition, this chapter includes a discussion on housing affordability, including the **Infrastructure Investment and Jobs Act (IIJA)** requirements for **Metropolitan Transportation Plans (MTPs)** and a discussion of how housing affordability, transportation, and land use are intertwined. It highlights examples of new affordable housing projects, recent revitalization efforts, placemaking examples, and other ways communities in the metro area are creating vibrant, inclusive, sustainable neighborhoods.

7.1 Transportation and the Economy

Transportation investments can spur economic activity and contribute to long-term regional economic development, improving residents' lives by expanding job opportunities and improving access to goods. There are many ways transportation investments can impact a region's economy:

- Transportation spending contributes to an immediate economic boost by infusing the economy with transportation dollars and construction jobs.
- Improvements to transportation systems can make markets more competitive by making the transport of goods and services more efficient and less costly.
- Investments in transit or active transportation infrastructure, like sidewalks connecting residential areas to commercial corridors, can have positive economic impact by increasing consumer spending on retail and restaurants.⁴⁵
- The Federal Highway Administration (FHWA) estimates that for every dollar spent on roadway infrastructure maintenance, there is a return of \$5.20 in the form of lower vehicle repair costs, decreased delays, reduced fuel consumption, improved safety, lower long-term road and bridge maintenance costs, and reduced vehicle emissions due to improved traffic flow.

7.1 a Economic Impact of Transportation Spending

The **Transportation Improvement Program (TIP)** allocates federal transportation funds for regionally significant projects throughout the Albuquerque metropolitan area over a period of six years. The 2024 – 2029 TIP allocates an average of \$130M of federal dollars per year to transportation projects in the region. MRMPO modeled the economic impacts of this spending on maintenance and transportation infrastructure construction in the Regional Economic Model Inc (REMI) TranSight model to simulate how these funds impact the regional economy. In an average year, according to the REMI analysis, federally programmed funds for transportation projects in the

⁴⁵ [routes-to-destinations-economic-benefits.pdf](#)

region add 1,850 new jobs and \$125M to the Gross Regional Product (GRP). Table 28 shows the outputs of the REMIT Transight model. Reference Appendix X for details on the REMI model methodology.

Table 28: Economic Impacts of Federal Transportation Dollars

Category	2024	2025	2026	2027	2028	2029
Transportation Spending	\$130M	\$130M	\$130M	\$130M	\$130M	\$130M
Employment Growth	1,839	1,903	1,929	1,888	1,815	1,726
Population Growth	543	969	1,335	1,638	1,883	2,067
Gross Regional Product	\$119M	\$125M	\$129M	\$129M	\$125M	\$121M

In an average year, federally programmed funds for transportation projects in the region adds 1,850 new jobs and \$125M to the Gross Regional Product (GRP). These benefits ripple throughout the region each TIP cycle and its magnitude corresponds to the amount of federal funding available in a given year.

7.1 b. Strategic Investments

Transportation investments should improve the capacity for residents to access jobs with shorter travel times for all modes of travel, reduce congestion, and enhance multi-modal options. To support a region’s economic health – to recruit and retain employers and employees in the metro area and to encourage businesses already here to expand – transportation should be efficient and accessible. It should be safe and serve the needs of all modes as well as freight trips and deliveries. Importantly, multimodal options should be focused on supporting affordable or attainable housing. From the perspective of businesses who must move goods, transportation accessibility factors include access to markets, freight logistics, and adequate infrastructure. A manufacturing facility, for example, needs to bring in raw materials from suppliers and then export its finished products to distributors. These investments are often multi-jurisdictional efforts that involve public-private partnerships, including projects like the Bernalillo I-40 Trade Port and Los Lunas-based Central New Mexico Rail Park, described in Section 7.5 of this chapter.

Invest in creating vibrant places

Transportation investments can contribute to creating vibrant places and desirable commercial districts where local businesses can thrive. Streetscape improvements contribute to pedestrian and transit-friendly districts, such as Albuquerque Rapid Transit’s (ART transformation of Central Avenue in Nob Hill. Other efforts at creating vibrant places are discussed at length in this chapter in Section 7.4.

This MTP proposes about three dozen **Key Centers** to designate areas for targeted investments in expanding economic opportunity. Map 22 shows the location of these centers, and Table 29 organizes the proposed centers by category: Regional, Opportunity, Reinvestment, and Employment. Key Centers help set a vision for future regional travel that includes locations which currently are or may become concentrated centers for employment and development. These

centers are updated in this 2045 Transitions MTP to reflect member agencies’ local priorities and desirable areas for future investments.

Transportation investments, especially when closely coordinated with surrounding land use decisions, can promote density and diverse housing options.

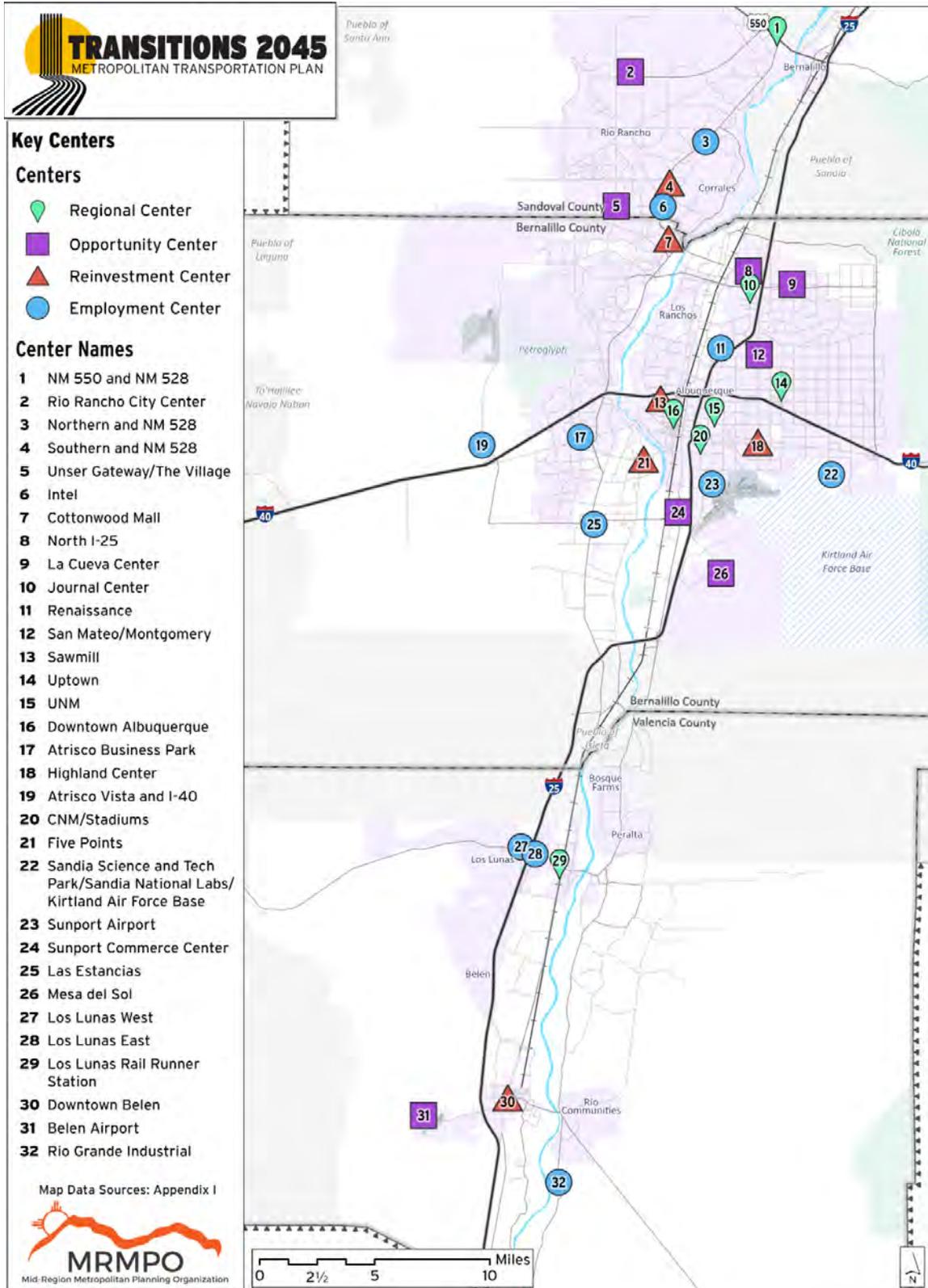
Table 29: Proposed Key Centers

Type of Center	Characteristics	Proposed Centers
Regional	Near transit Existing employers Mixed Use	NM 550/528 Journal Center Uptown UNM Downtown ABQ CNM/Stadiums Los Lunas RR Station
Opportunity	Currently underutilized Zoned to allow mixed-use	Rio Rancho City Center Unser Gateway/The Village North I-25 La Cueva Center San Mateo/Montgomery Las Estancias Sunport Commerce Center Mesa del Sol Belen Airport
Reinvestment	Existing hub to target for redevelopment or additional activity	Southern and 528 Cottonwood Mall Sawmill Hiland Center Five Points Downtown Belen

Type of Center	Characteristics	Proposed Centers
Employment	Business center or large single employer No plans for housing or land use change	Northern and 528 Intel Renaissance Atrisco Business Park Upper Petroglyphs Las Estancias Sandia/Kirtland Sunport Airport Los Lunas West Los Lunas East Rio Grande Industrial

DRAFT

Map 22: Key Centers



7.1c. Economic Development Agencies and Plans

Various plans in the AMPA inform regional economic development decisions. These include the [City of Albuquerque’s Economic Development Plan](#), [Rio Rancho’s Strategic Plan](#), the [Valencia County Comprehensive Plan](#), the [Jemez Valley Area Plan](#), Metropolitan Redevelopment Area plans, and tribal plans. In 2020, MRCOG published the [Comprehensive Economic Development Strategy \(CEDS\)](#), a five-year plan to build a more resilient metro economy.

Figure 47: Comprehensive Economic Development Strategy



7.2 Industry Sectors and Job Creation

Intro paragraph to this section needed – some ideas: The metropolitan area has several growing industries that bring jobs and economic development to the region. Transportation systems connect workers to their jobs, but also support consumer spending, tourism, and access to important services such as healthcare. Below, select industries from the CEDS are highlighted.

7.2a. Snapshot of Existing Industries

Manufacturing

The CEDS identifies manufacturing as the industry with the most opportunity for economic growth. With its high economic multiplier, good wages, and jobs with benefits, it is an industry the metro area wants to attract. Targeted transportation investments can make the region more appealing to manufacturers, who require seamless logistics and freight transportation networks. The MRCOG Transportation and Logistics Hub Study (2017) describes ways to leverage our region’s transportation infrastructure to support existing businesses and recruit new ones by making investments that leverage the trade gateways - air, rail, and highway - to build its manufacturing and technology economy.

The region has an opportunity to promote itself to manufacturers who want few business disruptions due to severe weather, and who require reliable and inexpensive renewable energy. The Albuquerque area enjoys an abundance of sunshine and relatively few natural disasters. The region has a low cost of solar and wind energy. All of these factors create an environment ripe for manufacturers who need competitive operations, distribution, and logistics. Food manufacturing, in particular, has a strong presence in the region.

Healthcare and Transportation

Health Care and Social Assistance is the largest employment industry in the metro area. It is also a sector with a high location quotient, meaning there is a high concentration of health care employment in the region compared to the national average.

Major hospitals are densely concentrated employment centers: Presbyterian Hospital has more than 14,000 employees at its healthcare facilities in New Mexico; UNM Health employs 7,000 professionals serving more than 450,000 outpatients a year; and Lovelace employs more than 3,000 – a third of whom work downtown. UNM Health’s Sandoval Regional Medical Center (built in 2012) and Presbyterian’s Rust Medical Center (completed in 2016) address the previous lack of healthcare facilities west of the river. Their construction contributed to improving the number of jobs on the Westside.

Figure 48: UNM Sandoval Regional Medical Center



At hospitals, traffic congestion peaks at morning and evening change of shifts as hundreds of medical workers get to and from work. **Addressing and alleviating rush hour congestion at these major employment centers could include considering shuttle services from hospitals to “spoke and hub” transit stations and developing park-and-ride commuting networks.** A spoke and hub or shuttle park-and-ride system could also be implemented at other major employment centers to alleviate congestion, including Intel and Sandia Labs.

Tourism and Outdoor Recreation

The Comprehensive Economic Development Strategy notes that outdoor recreation-related employment in the metro area grew faster than other sectors and that tourism makes up billions of dollars in state revenue. In the AMPA, tourism includes visits to monuments and museums, conventions, hotel stays, cultural visits, ecotourism, and outdoor recreation.

Various strategies to attract tourists to the metro region could focus on making it easy and fun for people to get around. **This may include better wayfinding to tourist destinations, such as coordinated marketing campaigns/visitors maps at New Mexico Rail Runner Express (Rail Runner) stops that service major tourist destinations. Other strategies could include E-bike rental hubs at Rail Runner stations and visitor destinations as well as shuttles from hotels in the downtown/Nob Hill/Balloon Fiesta Park areas to Sandia Crest or other outdoor spaces.** Maintaining and enhancing the multimodal trail system, especially trails that connect to outdoor recreation opportunities, and marketing those, would also promote those opportunities in the region.

The region’s hospitals facilitate medical tourism, with patients and families often choosing extended stay lodging and participating in traditional tourism activities. Though there is not currently a designation specific to tourism, any of the identified Key Centers – given an anchor destination – has the potential to attract and serve tourists and could benefit from prioritizing pedestrian access.

Agencies and partners such as Rio Metro Transit, cultural corridor partners, hotels, city cultural services, and the NM Department of Tourism should coordinate transportation and work to expand tourism infrastructure.

7.2b. Economic Focus Areas

Rural communities have an opportunity to capitalize on recreational tourism through their proximity to scenic outdoor assets like mountains, rivers, and mesas, which can provide opportunities for food and lodging businesses as well as adventure guides for skiing, rafting, mountain biking, and horseback riding. Jurisdictions can choose to make transportation investments that provide car-free access to outdoor recreation; the North Central Regional Transit District does this already with its 255 Mountain Trail Route, which runs 365 days a year from the South Capitol Rail Runner Station through downtown Santa Fe, along Hyde Park Road with stop at trailheads in the National Forest and ending at the Ski Santa Fe Upper Lot.

Urban areas can target transportation investments to alleviate congesting at major employment centers such as hospitals, the University of New Mexico, Sandia National Labs, and manufacturing facilities, including through the use of improved transit and park-and-ride facilities. Urban areas can also target transportation improvements to facilitate car-free tourism. Micromobility is a growing option for tourists to travel between attractions using motorized and non-motorized modes such as scooters and bike sharing.

Figure 49: Maxeon Solar



Source: Maxeon Solar via KUNM

7.3 Housing and Affordability

IIJA requirements for MTPs

The IIJA offers a variety of housing considerations for MPOs to take stock of as part of their MTP development process. MRMPO specifically addresses the following as part of this MTP update:

- Develop safe and efficient transportation systems that better connect housing and jobs.
- Promote consistency between transportation improvements and housing patterns.
- Incorporate population and housing distribution forecasts in any scenarios included in MTP.
- Require that affordable housing organizations be notified stakeholders with an opportunity to comment on the MTP.

In addition, MRMPO, at the invitation of the City of Albuquerque, partnered in the creation of a *Albuquerque Region Housing Needs Assessment (2024)*⁴⁶. This section of the MTP explores ways that new housing initiatives and land use pattern changes can contribute to improved transportation options and reveals some key findings from the housing needs assessment. It also

⁴⁶ Report is found on the MRCOG website: <https://www.mrcog-nm.gov/DocumentCenter/View/6321/Albuquerque-Region-Housing-Needs-Assessment-PDF>.

further develops this chapter's focus on integrating economic development with housing and transportation planning.

7.3a. Affordability trends

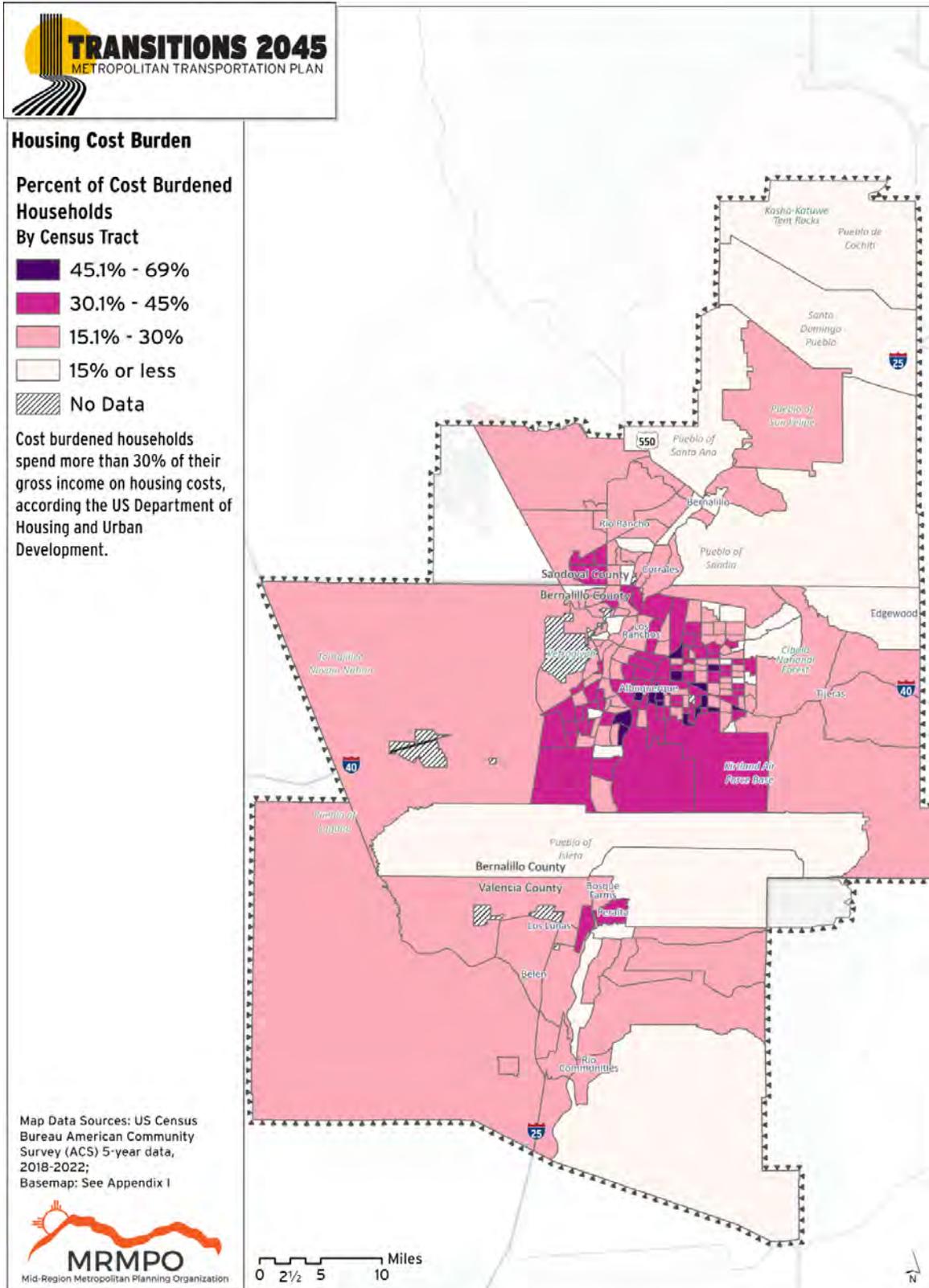
As noted in Chapter 2 of the Transitions 2045 MTP, high housing costs in the region have led to many cost-burdened households, now an estimated 31 percent in the region. The cost burden is much higher among renters than owners with 51 percent of renters considered cost-burdened compared to 22 percent of owners. Affordability for renters with median incomes has decreased, and as median home prices have increased, renters are increasingly finding home ownership out of reach.

Increased labor, construction, and infrastructure costs have contributed to the housing shortage. According to the *Housing Needs Assessment*, the region currently has a shortage of 22,000 units for extremely low-income households, and a projected need for nearly 60,000 units by 2045. Chapter 2 includes more discussion on the housing shortage and projected estimates for additional housing units needed in the region.

Providing infrastructure to sprawl is more costly than increasing service to existing areas or dense areas; factors include increased expenses in building out more miles of roadways and water, sewer, and power lines and the increased costs of providing solid waste services or public transportation options to low density areas further from the city core. While infill development can involve higher costs to developers than an empty lot at the city edge, infill contributes to a more efficient transportation system. Higher density is needed to support frequent transit, walkable neighborhoods, and bicycle connectivity, and is achieved by growing our cities inwards and upwards, rather than adding additional lower-density development at the edges of an urban boundary.

The relative proportion of the metro area's **aging population** is growing rapidly; according to the *Housing Needs Assessment*, people 65 and over will make up 22 percent of the AMPA population by 2045. The assessment further notes that the aging of the population has led to decreases in the average household size, which is projected to continue. The decrease in household size has significant implications for housing demand. For example, at a total population of one million, a reduction in the average household size from 2.1 to 2 requires around 23,800 additional homes to house the same one million in population.

Map 23: Housing Cost Burden



Aging populations have different housing and mobility needs and preferences which should be considered when planning for regional housing and transportation. Many older people are unable or prefer not to drive, which can make grocery shopping, attending medical appointments, and socializing a challenge. The Sun Van Paratransit Service in Albuquerque serves individuals who are unable to use fixed-route transit due to an eligible disability, but there is still a gap for seniors who don't drive but aren't eligible for the Sun Van service. Some communities around the nation have worked to fill this gap by providing regular grocery store shuttles aimed to serve seniors.

Many seniors would like to live close to their family but not necessarily in the same structure. Casitas, also known as accessory dwelling units, can provide independence, promote intergenerational connections, and free up larger houses for growing families when an older person is ready to downsize. Permitting accessory dwelling units as a permissive use in a municipal zoning code can increase density while meeting the needs and preferences of households with aging family members.

7.3b. Housing Our People

Creating More Housing

According to the *Housing Needs Assessment*, the region currently has a shortage of 22,000 units for extremely low-income households, and a projected need for nearly 60,000 units by 2045.

Diversifying Zoning and Housing Stock

Like most of the United States, the AMPA is dominated by single family residential neighborhoods, leading to a car-centric landscape, sprawl, and limited types of housing options. As the housing affordability crisis has shown, there is an urgent need to increase the supply and types of housing in the region, requiring more diverse housing options that will allow us to better adapt to growth in demand and demographic changes. Given that there is no statewide prohibition against exclusive? single family residential zoning in New Mexico, municipal and county jurisdictions must incentivize a diversity of housing types that provide more options to meet individual and family needs. The implementation of what is referred to by practitioners as “**Missing Middle Housing**” has immense potential to alleviate the area’s housing shortage and affordability crisis. It includes medium-density dwellings like townhomes and courtyard buildings, fourplexes, and stacked duplexes and triplexes. These types of units have been mostly illegal to build in residential communities over the past 60 years (hence “missing”). On the density spectrum of detached single-family to high-rise apartment buildings, these housing types are in the “middle” of the spectrum. They provide diverse housing options that support walkable neighborhoods and transit. Missing middle housing also helps meet different income and generational needs, allowing intergenerational families to live close but not in the same structure as each other.

In 2022, the City of Albuquerque launched the Housing Forward ABQ initiative to address the housing shortage and quickly increase the housing supply in the city. It included some proposals put forth by missing middle advocates, and some of these were incorporated into the Integrated Development Ordinance (IDO), the City’s zoning code. Housing Forward changes adopted into the IDO include making accessory dwelling units permissive and allowing for the conversion of office buildings and motels into multi-family dwellings. Housing Forward proposed other changes not currently adopted into the IDO including permissive duplexes in zones previously only permitted to allow single residences; increased building heights; and reduced parking minimums.

Co-housing, sometimes called cooperative housing or intentional community living, involves a series of private dwellings surrounding communal spaces (like a large kitchen/dining area) on a shared lot. The City of Albuquerque’s IDO allows for this type of low-density residential community through the “cottage development” land use; it is now permissive in several zones including R-1 and MX-T. The Acequia Jardin co-housing community in the North Valley, featuring 800 and 900 square foot floor plans, edible gardens, and all-hands-on-deck workdays, is one of just a few places in the metro region with the cottage development designation, though there are groups actively working to establish other cohousing communities.

MRMPO promotes **Transit Oriented Development (TOD)** to help local governments identify how transit stations – particularly Rail Runner stops -- can help meet housing, economic, and transportation goals. Transit Oriented Development is a block or neighborhood development typology that co-locates several land uses (like residential, commercial, and public space), creating a pedestrian-friendly area to attract residents, employers, and visitors. Higher density and taller buildings are often allowed in TOD designated areas, allowing them to grow denser than other neighborhoods. Benefits include increased housing choices, more transportation options for seniors and others who don’t drive, and reduced infrastructure needs that result in cost savings for local jurisdictions. The Lofts at Albuquerque High and the surrounding East Downtown (EDo) neighborhood is a good example of a vibrant, mixed-use, transit-oriented community where there is abundant housing, restaurants, retail, employment opportunities, and frequent transit service.

Transit oriented development is focused on the half mile (walking distance) around transit stations. Metro area Rail Runner stops with Station Area Plans include the Town of Bernalillo Station Area Plan, the Bernalillo County/Sunport Station Area Plan in the South Valley, the Los Lunas Station Area Plan, and the City of Belen Station Area Study.

Affordable Housing Supply by Area: Fair Share Analysis

Mixed-income and mixed-typology communities are shown to be beneficial to social outcomes in the general population. The *Housing Needs Assessment* conducted a fair share analysis to identify which areas in the region were under-supplying affordable housing and to determine where diverse types of housing should be allowed to create more regionally balanced, or fair, housing choices. It found that Bernalillo County provides a higher share of rental units than its share of total housing units, while the rest of the counties in the metro area provide lower shares of rental units. The study looked at Community Planning Areas (CPAs)⁴⁷ and found that the following CPAs provided a **lower share of rental units** compared to their total share of units: Northeast Mountains, North Rio Rancho, North Valley, Northwest Mesa, Northwest Acres, South East Mountains, South Rio Rancho, South Santa Fe (Greater Edgewood Area), South Valley, Southwest Mesa, and West Mesa. Further, the report found that:

- CPAs with the largest undersupply of rental units affordable to households with income below 30 percent Area Median Income (AMI) are Mid-Heights, North Rio Rancho, North Albuquerque, Northwest Mesa, and South Rio Rancho.
- CPAs with the largest undersupply of rental units affordable for households with income between 30 percent and 50 percent AMI include Foothills and North Albuquerque.

⁴⁷ Community Planning Areas (CPAs) track with census tract boundaries, including 12 CPAs in the City of Albuquerque, 2 CPAs in Rio Rancho, 1 CPA in Valencia County, and 7 CPAs in unincorporated Bernalillo County. From Albuquerque Region Housing Needs Assessment by Root Policy Research.

- CPAs with the largest undersupply of rental units affordable to households with income between 50 percent and 80 percent AMI include KAFB, North Rio Rancho, Northwest Mesa, and Southwest Mesa.

7.3c Affordable Housing Developers, Agencies and Organizations

The IIJA requires that MPOs include a list of affordable housing developers, agencies, and organizations in their MTP.

Affordable housing organizations

There are dozens of organizations working on affordable housing in the AMPA region. They are listed in Appendix X

Examples of Area Affordable Housing Projects

Rio Rancho

In Rio Rancho the first build-to-rent community, called the **Eleanor Rio Rancho Cabazon** (in progress), broke ground in 2024. Near Presbyterian Rust Medical Center, it's comprised of 126 homes ranging from 650 to 1500 square feet and, according to the builder, is targeted at young people who are "tired of living in an apartment and aren't quite financially ready to buy a home yet."⁴⁸ Rio Rancho's population has grown rapidly in recent years – and new stores, including grocery stores, are in development near the community along the Unser Gateway.

Figure 50: Felician Villa Senior Apartments



Source: felicianvillage.org

Also in Rio Rancho, a 66-unit affordable senior housing community called the **Felician Villa Senior Apartments** (in progress) will be built next to the Meadowlark Senior Center, near Southern and Coors. All units will be in a three-story building with coordination provided from Catholic Charities and funding from the Mortgage Finance Authority via Low Income Housing Tax Credits. The community will also offer reduced cost meals and education workshops on health for residents.⁴⁹

7.4 Vibrant Places

7.4a Streetscapes and Urban Design

Given the twin crises of housing affordability and climate change, urban design principles have begun to focus on undoing the previous half century's paradigm of zoning for car-centric, single-family suburbs and now trend toward denser, greener, more walkable and bikeable communities with enhanced transit. In the AMPA, we see these principles codified in the City of Albuquerque

⁴⁸ <https://www.bizjournals.com/albuquerque/news/2024/03/26/jlm-living-westway-homes-rio-rancho-build-to-rent.html>

⁴⁹ <https://www.felician.org/2024/04/09/felician-villa-new-senior-living-complex-in-rio-rancho/>

Comprehensive Plan, the Bernalillo County Comprehensive Plan, various City of Albuquerque Metropolitan Redevelopment Areas and Plans, and the Sandoval County Comprehensive Zoning Ordinance.

Land use typologies classify land based on various categories; in the City of Albuquerque's IDO, land use typologies include low-density residential, multi-family, mixed use, commercial retail, commercial services, office, industrial, institutional/medical, educational, airport, transportation, agricultural, parks and open space, drainage, vacant, utilities, community, and prison.

Land uses related to transportation in the metro area are guided by the Long Range Transportation Systems (LRTS) Guide, which presents guidelines for roadways that incorporate all modes of travel where possible and that are in harmony with the adjacent land use. It provides recommendations on better integrating planned land use into the roadway design process by making sure that existing and future planned land use is considered when building new roadways or retrofitting existing roadways. Future costly changes to the street can be minimized by better managing expectations around how the road will function in the future.

The LRTS Guide provides recommendations for improving roadway connectivity to reduce congestion, and for designing streets that safely accommodate as many users as possible, including bicyclists, pedestrians, and transit users.

The LRTS Guide is consistent with the Transitions 2045 MTP.

7.4b Placemaking Examples

Belen (In Progress)

In Valencia County, Belen has partnered with New Mexico MainStreet to pilot the state's first ever **Creative Economy JumpStart Program**, which develops local projects that support creative economy work. It builds upon existing local art and cultural assets to shape greater community-led projects. So far, this program includes art galleries, restaurants serving local food, and consignment shops in the downtown district. The program has also funded new sidewalks, better lighting, park benches, shade structures, and landscaping in the downtown area. The program also established kiosks to publicize upcoming arts and cultural events in Belen, including the many festivals and other events Belen is famous for: the Hispano Matanza, St. Patrick's Day Balloon Rally, Rio Abajo Days, and the Miracle on Main Street Festival.

Figure 51: Downtown Belen



Source TripAdvisor

Winrock Town Center (In Progress)

Construction is underway for the new Winrock Town Center, a significant redevelopment of a former shopping mall that is redesigned to become an open-air mixed-use development with restaurants, luxury apartments, medical offices, fitness center, office spaces, retail shops, and a hotel. It is centered around a community park with a playground and a lake. It features venues for live music, a bar with lake views, walking paths over water features, and a trolley so that people can park once and ride to their different destinations.

Figure 52: Winrock Town Center



7.4c MainStreet Organizations

The New Mexico MainStreet program enables local organizations to conduct economic development activities in hyper-local neighborhood areas. There are several existing MainStreet organizations in the AMPA, including Nob Hill, Downtown ABQ, Barelás, South Valley, and Belen. The Belen streetscape program example detailed above is an example of a MainStreet initiative. In addition, there are some newly designated MainStreet organizations, including along the San Pedro corridor near the Fairgrounds in Albuquerque, and one in Corrales.

San Pedro: The Revitalize San Pedro Partnership is a new Main Street organization focused on the San Pedro Corridor between I-40 and Central Avenue and four adjoining neighborhoods. In October 2022, the community developed a vision for the area as a “safe, well-lit, tree-lined, walkable, family-friendly community.” The vision also includes green spaces along alleys, festival lighting, banners, and public art. Recent accomplishments include developing an 18-month action plan, securing a \$3,000 grant and matching donations to host a Creative Placemaking Contest, launching a Pop-Up Promenade event with five participating businesses, and connecting corridor businesses to APD and appropriate city departments for improved service.

Corrales: Corrales MainStreet aims to preserve the village’s historic heritage while enhancing its economic vitality. A program of the New Mexico Economic Development Department, Corrales MainStreet supports creative entrepreneurs, small businesses, volunteers, and non-profits by connecting groups and individuals to resources, including grants and technical assistance on proposed projects. They help market and promote events, fundraisers, and businesses that align with the MainStreet goals. Unlike many Main Streets, the Village has no desire or plans to create a vibrant “downtown” economy; instead, it aims to help promote awareness, participation, and access to activities, services, retail, and creative work in the Village.

7.4d Redevelopment

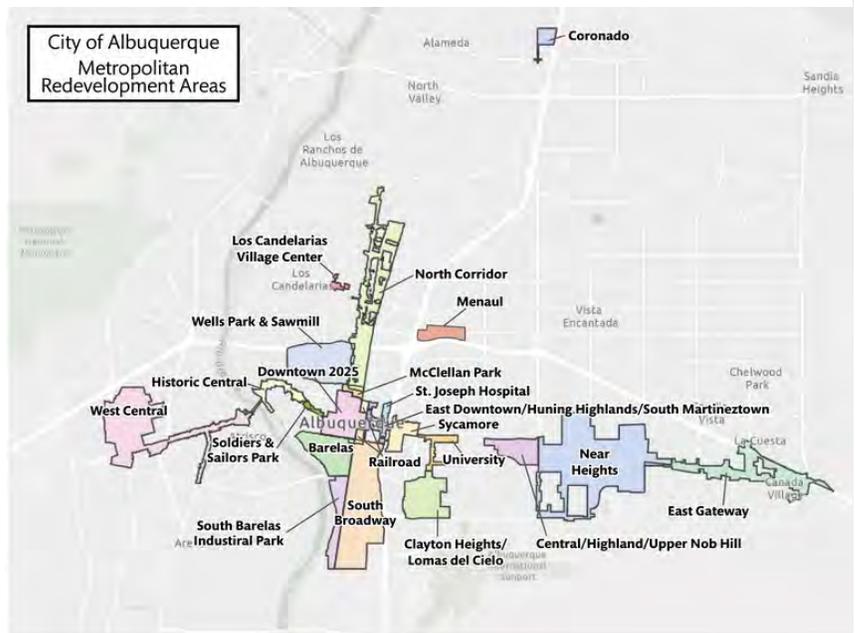
Urban infill and redevelopment in the metro area is incentivized by the City of Albuquerque’s Metropolitan Redevelopment Agency (“MRA”), which enables public-private partnerships to catalyze revitalization and growth in designated areas. See the adjacent map for current Metropolitan Redevelopment Areas in the City of Albuquerque. Metropolitan Redevelopment Areas must be found to have insufficient economic or development activity that warrants government incentives. For example, the MRA can issue a request for proposal inviting private developers to revitalize a city-owned vacant lot,

transforming it into housing, retail, or some other use which gives the neighborhood an economic boost. The MRA considers the desires of the surrounding community in deciding how to guide redevelopment of the parcel by using Metropolitan Redevelopment Area Plans to guide their activities. These Plans are developed with a high level of community input, and often address community concerns like housing shortages, including affordable housing in the form of multi-family or missing middle units; adaptive reuse to convert motels or office building into housing; and supportive and special needs housing. In addition, MRA projects focus on attractive design, enhanced streetscapes, sustainable infrastructure, and other ways to help residents and businesses thrive. Recent revitalization efforts include Harvard Drive south of UNM and Downtown Albuquerque.

Tax Increment Financing

Starting in fiscal year 2025, cities across the state can designate tax financing districts within designated Metropolitan Redevelopment Areas, which will allow them to capture up to 75 percent of the tax increment (the increase between the baseline tax receipts and the postconstruction value) from property and gross receipts taxes. In an analysis prepared for Albuquerque’s Metropolitan Redevelopment Agency, this legislation could potentially generate hundreds of millions of dollars for redevelopment projects over the next 20 years, allowing them to improve key areas of the city.

Figure 53: Albuquerque Metropolitan Redevelopment Areas



Albuquerque Rail Trail

The Albuquerque Rail Trail is a planned 7-mile multi-use trail through greater downtown Albuquerque. In addition to providing safe pedestrian and bicyclist infrastructure, the Rail Trail aims to activate and develop vacant land, encourage economic development for area businesses, and uplift the cultural heritage of historic Albuquerque neighborhoods. The project is in the TIP and will connect high-density neighborhoods to housing options via a safe off-street multiuse trail.

Figure 54: Albuquerque Rail Trail



Source: City of Albuquerque MRA Website

7.5 Goods Movement

An efficient freight system plays a critical role in meeting the MTP’s goals of supporting the region’s economic vitality and creates a competitive edge by lowering delivery costs. For consumers in the area, improved access to goods raises their standard of living.

Synchronizing freight movement between modes enables a more efficient transfer of goods. The AMPA is strategically located with nationwide connections by road, rail, and air. Each mode is discussed below with considerations for how different modes can be integrated to move goods through and within the region.

7.5a Trucking

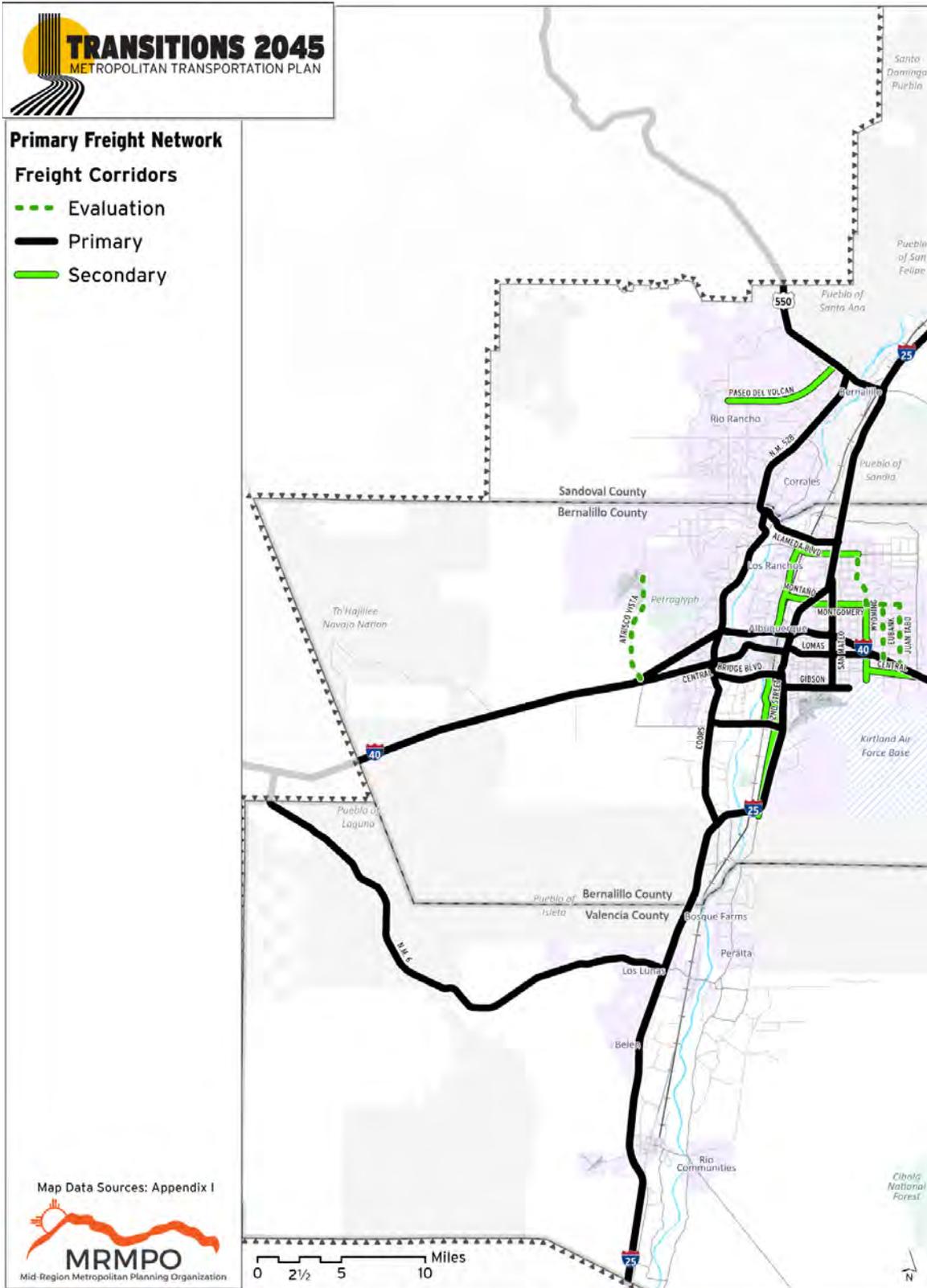
Interstate 40 (I-40), which bisects the AMPA, is a major interstate freight corridor. Commodity flows of 47,000 tons per year were reported in 2017, and demand is expected to reach approximately 86,000 tons by 2050.⁵⁰ This increase will strain the current truck roadway capacity.

Trucking within the AMPA

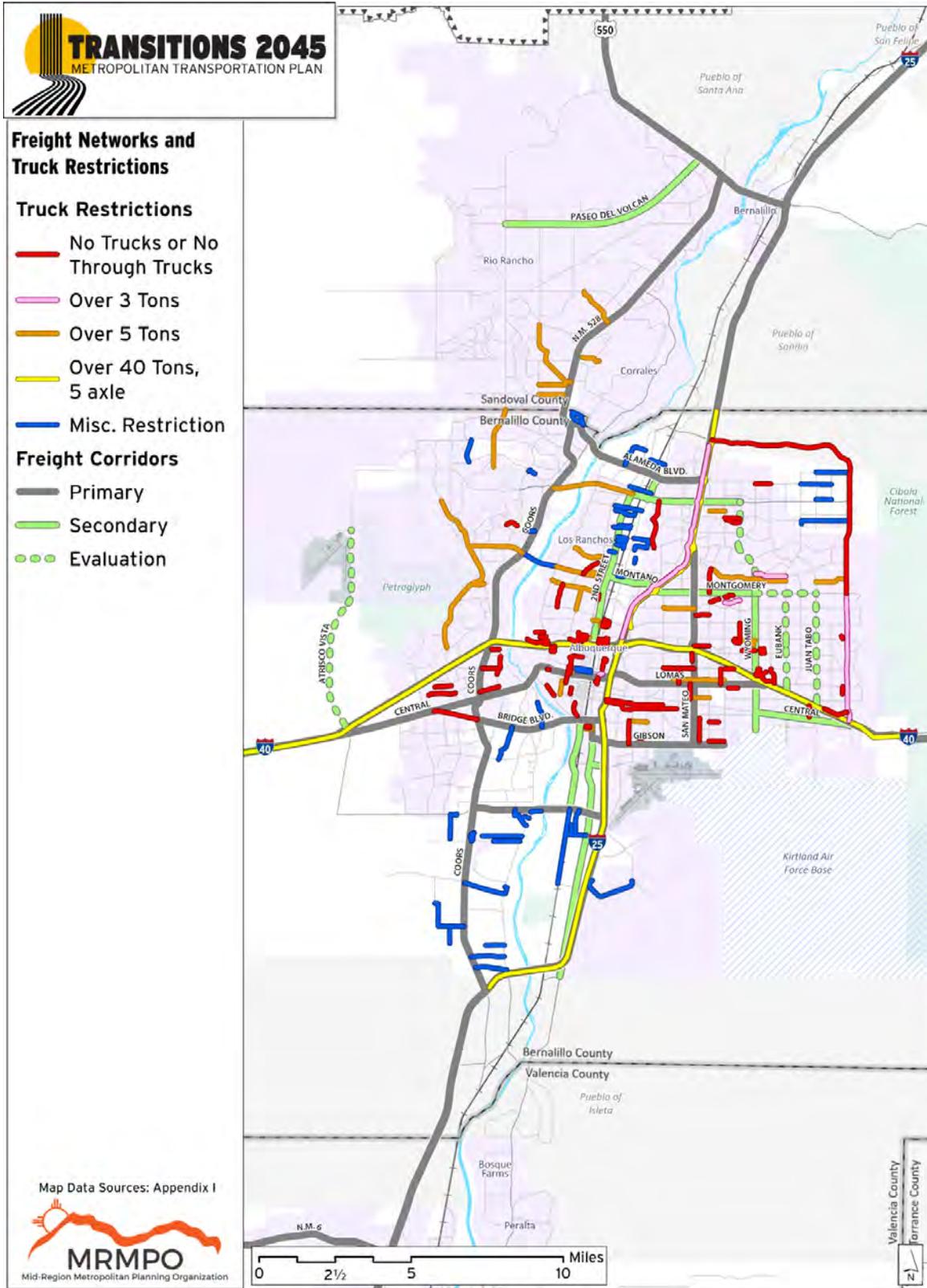
The roadway transportation system carries approximately 22.5 percent of freight Vehicle Miles Traveled (VMT) within the AMPA (Teralytics, 2022). Although interregional “pass through” freight constitutes approximate 90 percent of AMPA freight volumes, local needs within the AMPA also need to be considered. The region’s connected system of interstates, limited access arterials, local freight network, trucking support facilities, and parking locations are currently effective in serving goods movement. However, given the trending growth in freight movement, storage, online ordering and delivery services, improvements must be made to support growing freight demand and the AMPA’s economic growth into the future. For a more detailed discussion of freight trends and emerging technologies, see Chapter 4 (Section 4.1c). The Freight Network for the AMPA is shown in Map 24 below. This map is used for planning purposes only. Truck restrictions in the AMPA is shown in Map 25.

⁵⁰ Freight Analysis Framework 5.1

Map 24: Primary Freight Network



Map 25: Freight Network and Truck Restrictions



Link level truck flows are shown in the **Graphic 7XXX**. These data are for 2022, representing Average Annual Daily Traffic (AADT) of heavy-duty trucks (multi-unit trucks: FHWA classification 8 and above). Multi-unit truck travel is distributed on the interstates and to local origins and destinations on the AMPA regional arterial system. As this new data has never been available before to transportation agencies, it remains to be fully utilized in local and regional truck freight planning.

Truck Parking

Adequate truck parking is a critical component of the freight network, as it allows truckers to rest (truckers are federally mandated to rest after a certain number of hours of driving) and sleep. Without sufficient parking and rest areas for trucks, trucks can be limited in their ability to perform their job requirements and may become a hazard on the road with driving fatigue. The New Mexico Truck Parking Survey and Analysis (2024)⁵¹ recently identified the following statistics:

- Of the nine parking locations and 632 freight truck parking spaces in the AMPA, normal peak hour occupancy was at 76 percent.
- On I-40, freight trucks strain the capacity of existing truck parking areas. Parking demand on I-25 is more moderate.
- Although peak hour parking demand in the AMPA is still below capacity, incident related closures due to weather, crashes, or other significant closures present severe parking limitations as overflows shift trucks to the non-interstate roadways and facilities, causing major disruptions and congestion.

Freight Logistics Committee (FLC)

MRMPO has established a Freight Logistics Committee comprised of agency and private sector representation to serve as the regional forum for the intermodal movement of goods and freight within the MRCOG region.

The committee focuses on policy, intermodal efficiency, highway restrictions, and developing land parcels which could be considered for Cargo Oriented Development (COD). The FLC provides input and guidance to the Transportation Coordinating Committee (TCC) either as part of transportation program development for the TIP and MTP or as requested by MRMPO boards and committees. As freight tends to be a regional and interstate issue, the FLC coordinates with the broader NMDOT Freight Committee. However, most freight companies are privately owned and operated and have propriety data, limiting the effectiveness of freight planning at MRMPO.

Cargo Oriented Developments

(CODs) integrate rail, truck, and air freight logistics in designated Critical Freight Corridors. CODs are typically developed as a district and utilize existing industrial markets and workforces.

Projects and Local Planning Efforts

MRCOG Freight Logistics Hub Study

MRCOG facilitated a Transportation and Logistics Hub Study to assess the region's competitiveness and ability to attract freight-related industries. The study recommends strategies to improve the region's economic competitiveness and position it as an international transportation and logistics

⁵¹ <https://www.dot.nm.gov/planning-research-multimodal-and-safety/planning-division/multimodal-planning-and-programs-bureau/technical-and-freight-planning/>

hub. Although the study was completed in 2017, the findings have laid the groundwork for regional projects such as:

- **Freight Logistics Hubs** where shipments are collected, sorted, warehoused, and reloaded for further distribution.
- **Ports of Entry** designations that focus on transcontinental and international shipping and capitalize on proximity to the airport and other transportation assets.
- **Business Development Strategies** focused on creating a more targeted supply chain.

I-40 TradePort

The Bernalillo County TradePort focuses on creating a supply chain system of clean energy, logistics, and industrial hubs. It is part of the I-40 TradePort Corridor Partnership and under the USDOT's designation as a Regional Infrastructure Accelerator grant program.



The first phase begins at the Port of Los Angeles, California and ends in Albuquerque and aims to foster collaboration with key communities along the I-40 corridor to more efficiently and sustainably bring cargo from Los Angeles seaports eastward. Other multi-modal hubs in the initiative include Kingman, AZ, Winslow, AZ, Sandoval County, and the Village of Los Lunas. Led by private investment with multiple public and private partners, the initiative includes manufacturing and distribution locations adjacent to the logistics hubs and anticipates creating 60,000 jobs across Arizona and New Mexico along the hubs, with a goal of making rural areas more economically competitive.⁵²

The planned 6,000-acre truck mobility complex at the Bernalillo County Tradeport will include truck parking, clean energy fueling and charging hub, logistical support for transloading, sorting, inventory management, and other operational support. The facility will serve not only interstate goods movement, but also New Mexico in-state trucking logistics and market distribution needs. The grant effort includes working with Laguna Pueblo on safety considerations, coordinating freight movement through their land, and providing service for their region.

Amazon Fulfillment and Distribution Centers

Currently there are three Amazon Fulfillment locations in the AMPA: two in Albuquerque and one in Los Lunas. In addition there is a smaller distribution site at the Sunport.

Bernalillo County Sunport Commerce Center

Located southeast of the Sunport and close to downtown, the Bernalillo County Commerce Center is a large tract of land ideally positioned for processing, warehousing, and manufacturing. The location benefits from proximity to research institutions such as UNM, CNM, and Sandia National Laboratories (SNL), as well as the fertile agricultural South Valley, making this location ideal for products ranging from local produce to high tech hardware. The adjacent railroad, interstate, and Sunport cargo facilities allow products to be imported and exported easily.

⁵² <https://i40tradeportcorridor.com/>

TORC Robotics (Torc)

Torc is an autonomous truck company with operations in Albuquerque. They are leaders in autonomous trucking development and plan for the commercialization of self-driving trucks. Their fully outfitted semi-trucks have been testing autonomous operations on a 16-mile route on I-40 and I-25 for several years, with a safety driver in the cab. They anticipate a 2027 market launch. Further testing will remove the in-vehicle safety driver on an initial 400-mile freight lane in Texas between Laredo and Dallas; this will prove the implementation and economic viability of operating autonomous trucks in real world conditions. After establishing the Laredo-Dallas lane, Torc plans to expand its network to routes along I-40 and connect with key market areas including Phoenix, Albuquerque, Oklahoma City, St. Louis, Memphis, and Atlanta. The next phase of development would add regional expansions to El Paso, Houston, and Shreveport, La.⁵³

Torc’s virtual driver will be available with a modified version of the Freightliner Cascadia with redundant systems and components designed specifically to support autonomous driving. (Torc Robotics)

7.5b Rail

The AMPA is positioned at the junction of two significant national rail lines: Amtrak and BNSF Railway’s Southern Trans-Continental (Transcon) Line. For more information on Amtrak, reference section 4.2: Transit.

The Transcon Line is the busiest intermodal freight rail corridor in North America, connecting Los Angeles with Chicago. All the trains on this high-density rail corridor make a mid-route stop at the Town of Belen. The Transcon Line connects Belen to its El Paso Subdivision line, the only line it owns that crosses the Mexican border. This section of rail line parallels I-25, which connects Albuquerque through a five-hour truck drive to Interstate I-10, the El Paso metropolitan area, and Santa Teresa, New Mexico’s rapidly growing industrial center and Mexican border crossing.

In addition, several abandoned rails spurs in the AMPA branch off these regional lines and create opportunities to extend existing connections and provide future service to manufacturing and distribution sites. For example, the Kirtland Airforce Base’s unused rail spur has been identified in the Sunport Master Plan, Sunport South Master Plan, and the Mesa del Sol Master Plan to provide rail connections to future manufacturing growth in these areas.

Central New Mexico Rail Park

The BNSF-certified Central New Mexico Rail Park in Los Lunas is a 1,420 acre site (2.25 square miles) ready for manufacturing, warehousing, and distribution by rail-served industries. Five miles west of I-25 and along Highway 6, it is fully entitled, correctly zoned, and with designated utilities, with sites from 5 to over 400 acres available for purchase. The nearby Facebook Data Center is spurring industrial and manufacturing growth, which will help the rail park facility shipments reach larger markets within and outside of New Mexico.

⁵³ <https://www.ttnews.com/articles/torc-autonomous-launch-27>

Because it is already BNSF-certified, there is less development risk and a quicker development timeline. 96,709 people live within a 15-mile radius of the Rail Park, presenting an opportunity for a workforce without long commutes.⁵⁴

7.5c Air

The AMPA is served by two regional facilities; the Albuquerque International Sunport and the Double Eagle II municipal airport. The Sunport is less than two miles from I-25, and less than six miles from I-40 and the BNSF rail facilities in Albuquerque. In addition, the Sunport is home to a Foreign Trade Zone, which effectively amounts to a duty-free port. Currently, the main freight activity at the Sunport is through the carriers FedEx and United Parcel Service (UPS) and their partners. There is also an Amazon Air Cargo Facility operating as an intermodal hub supporting the region's two fulfillment centers.

Data from 2022 indicates that the Sunport serves over 115.6 million tons of cargo and nearly 5.4 million travelers annually. The airport is positioned within the New Mexico/Rio Grande Technology Corridor and coordinates with regional research and development (R&D) operations including KAFB, Sandia and Los Alamos National Labs, UNM and CNM, Intel & Meta, Northrop Grumman, Blue Halo, and Honeywell. Nearby investments that are increasing the manufacturing capacity and will utilize the integrated freight distribution network include the Aviation Center of Excellence (ACE), Universal Hydrogen with 500 employees, MaxQ with 1 million square feet of real estate, Northrop Grumman, and Maxeon Solar Technologies with \$1 billion invested and a projected 1,800 employees.

The Sunport Master Plan is currently being updated and envisions a high degree of industrial development. The plan will focus on opportunities to position the Sunport as a **multimodal distribution and industrial center (MDIC)**. The plan identifies four potential development pathways including:

- Manufacturing
- Food and agricultural processing
- Energy/green technology
- Warehousing/distribution

The plan identifies strengths and opportunities for the Sunport to expand manufacturing and commercial R&D in the AMPA. The airport's assets include undeveloped land, freight and industrial assets, the Kirtland rail spur, and its status as a U.S. Port of Entry and Foreign Trade Zone (FTZ). Additional plan outcomes will include accommodations for emerging travel technologies such as passenger Ride Hailing (Uber and Lyft), and Air Taxis. (See Side Bar).

eVTOL Air Taxis (Sidebar) EVTOLs are similar to helicopters but use electric power. They are being testing for deployment as taxis, delivery vehicles, and other applications. The FAA expects to authorize operations by 2028, and according to the Sunport Master Plan could be an integral part of future operations.

⁵⁴ <https://www.bnsf.com/bnsf-resources/pdf/ship-with-bnsf/rail-development/bnsf-premier-one-sheet-los-lunas-nm.pdf>

The Double Eagle II Municipal Airport, located approximately eight miles north of I-40 on Albuquerque’s West Mesa, serves the local and regional air market for general aviation. There are approximately 240 aircraft based at Double Eagle II and 120,000 annual takeoffs and landings comprising training, military, air ambulance, charter, private, and corporate flights. The facility has been identified for improvements including expanding the hanger capacity by 100 spaces and adding a 24/7 general aviation terminal that will serve private and charter flights. Also included in the planned expansion are plans for non-aeronautical uses on the city-owned land surrounding the airport such as commercial, light industrial, film and TV studio, educational, and renewable energy generation.

7.5 Goals, Objectives, and Strategies

To address the economic challenges our region faces and cultivate a transportation system that leads to Economic Vitality in the region, the following goals, objectives, and strategies should be considered:

[PLACEHOLDER – table will be inserted when the MPO finalizes goals, objectives, strategies]

DRAFT

CHAPTER 8 HEALTHY ENVIRONMENTS

A healthy environment supports the physical health of humans and a diversity of species. Biodiversity, or the variety of healthy species an environment can support, is perhaps the most significant measure of that environment’s resiliency and its ability to provide the ecosystem services that support life on earth. These services include the naturally occurring processes that would be extremely costly or impossible to engineer, such as food production; removal of harmful pollutants from the air, water, and soil; and mitigation of natural hazards such as flooding. As the transportation infrastructure of our region continues to develop, safeguarding a healthy environment is a necessity for our survival and quality of life - now, and into the future. This chapter outlines critical considerations in transportation planning to support the region’s environment.

8.1 Protect and Enhance

Transportation laws and infrastructure have developed as our understanding of the impacts of fossil-fuel powered transportation has advanced. Environmental social movements, increasingly progressive federal legislation, and new guidance from the **Federal Highway Administration (FHWA)** and **Federal Transit Administration (FTA)** have empowered **Metropolitan Planning Organizations (MPOs)** to integrate environmental considerations into transportation planning processes. To better understand the legal framework guiding this chapter’s content, the following subsection provides a brief history of relevant developments.

8.1a The National Environmental Policy Act

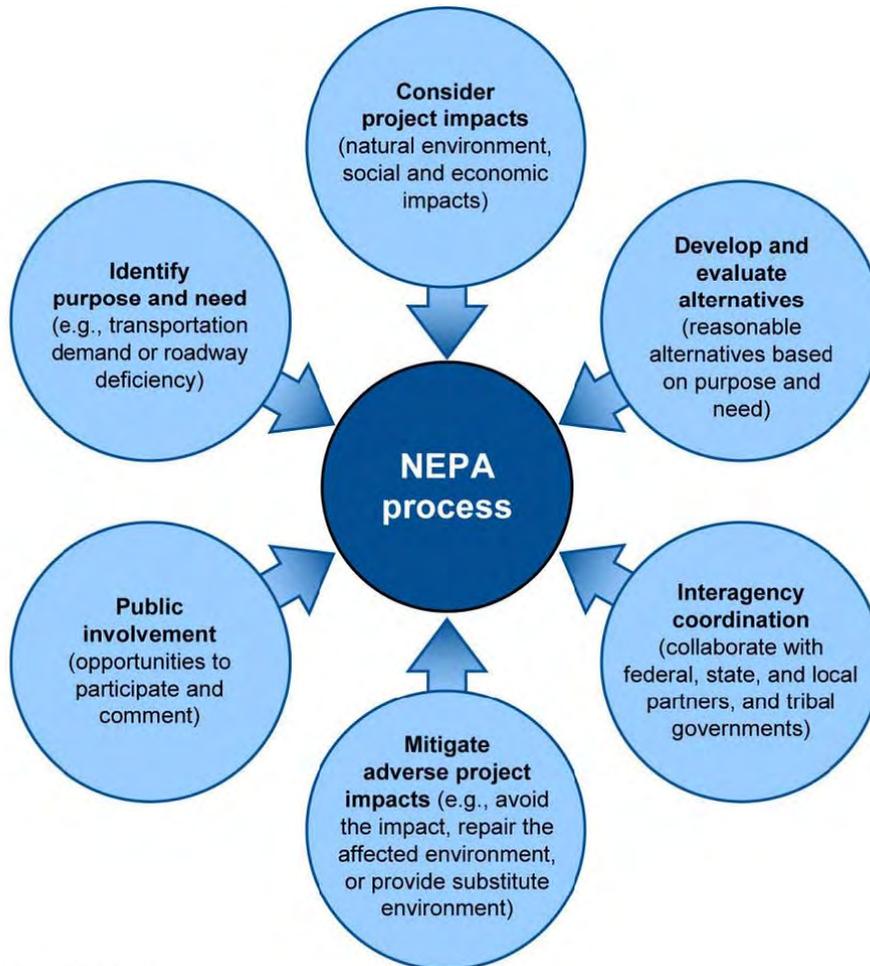
Since the **National Environmental Policy Act (NEPA)** was passed in 1969, federally funded transportation projects have been required to include an assessment of environmental impacts.

This assessment can take two main forms:

- **Environmental Assessment (EA):** This is a concise document that analyzes the potential environmental effects of a project. If the EA finds no significant impacts, a less-detailed document called a **Finding of No Significant Impact (FONSI)** is prepared.
- **Environmental Impact Statement (EIS):** This is a much more detailed document required for projects with potentially significant environmental impacts. The EIS analyzes the proposed action, alternatives, and potential environmental consequences. It also considers public comments and incorporates mitigation measures to minimize environmental harm.

In addition, NEPA requires the following as illustrated in the diagram below:

Figure 55: NEPA Process



Source: GAO. | GAO-15-71

This chart provides the general outline of NEPA requirements for transportation projects; the specific details of the review process can vary depending on a transportation project’s complexity.

8.1b Transportation Authorization Acts and the Code of Federal Regulations

The Transportation Authorization Acts have built upon NEPA to set a broad policy framework for transportation spending and programs. The acts typically define:

- Funding levels for transportation initiatives such as highways and public transit
- Eligibility criteria for receiving federal transportation funds
- Program goals, objectives, and requirements

Broadly, the Transportation Authorization Acts’ framework is translated into implementable rules through the Code of Federal Regulations (CFR), which spells out how transportation programs will

be administered, as well as specific requirements for project eligibility, planning processes, environmental reviews, and the reporting and compliance procedures for entities receiving federal transportation funds, such as MPOs. Transportation laws in recent decades have advanced the responsibility of MPOs to consider resiliency needs as well as environmental impacts.

Since the passage of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005, Metropolitan Transportation Planning (MTP) processes have been required to consider projects and strategies that protect and enhance the environment. The Moving Ahead for Progress in the 21st Century Act (MAP-21) confirmed the responsibility of MPOs to identify environmental health impacts of transportation activities and discuss mitigation strategies in the long-range planning process. **While MPOs must consider these environmental factors, the specific environmental requirements for individual projects are the responsibility of the implementing agency.**

The 2015 Fixing America's Surface Transportation Act (FAST Act) emphasized the national priority in addressing resiliency needs while minimizing transportation-related fuel consumption and air pollution. It mandates that long-range transportation plans include discussions on environmental mitigation activities, identifying potential areas for these activities, and collaborating with federal, state, and tribal agencies on wildlife and land management. Additionally, the act allows MPO evaluations of regional environmental needs to be considered in an implementing agency's project planning process.

The 2021 Infrastructure Investment and Jobs Act (IIJA) allocated 550 billion in new funding for infrastructure, including competitive grant programs to support clean transportation, resilience to extreme weather, and electric vehicle (EV) charging infrastructure. Executive Order 14008: "Tackling the Climate Crisis at Home and Abroad" created the Justice 40 Initiative, requiring that at least 40 percent of this new federal investment go to benefit traditionally underserved or disadvantaged communities. For more information on how this initiative applies to the Albuquerque Metropolitan Planning Area, see Chapter 9.

8.2 Planning and Environmental Linkages

Since 1978, agencies have been directed to integrate the NEPA process "at the earliest possible time" to minimize the chance for delays later in the process and "to head off potential conflicts" (40 CFR 1501.2). Section 168 of Title 23 United States Code (U.S.C.) allows for the integration of material from plans produced by MPOs, states, and transit agencies into the environmental review process. This section states that **"the Federal lead agency for a project may adopt and use a planning product in proceedings relating to any class of action in the environmental review process of the project."**

Planning and Environmental Linkages (PEL) is the name given to this approach in FHWA and FTA guidance. PEL is not required for MTPs, but it is an approach recommended by these agencies. Benefits of a PEL process include relationship building and stakeholder buy-in, improved information exchange, more efficient project management, and better environmental outcomes.

Federal agencies may incorporate source material produced by, or in support of, the transportation planning process into subsequent NEPA documentation either directly or by reference. This may

include information on early consideration and coordination regarding Environmental Justice concerns (see Chapter 9 for more about regional Environmental Justice considerations).

The term ‘planning product’ is defined in statute as, “a decision, analysis, study, or other documented information that is the result of an evaluation or decision-making process carried out by a metropolitan planning organization, State, or transit agency, as appropriate, during metropolitan or statewide transportation planning.”

8.3 Natural Resources

8.3a Our Regional Habitat

The AMPA covers approximately 3,101 square miles, located primarily within the Middle Rio Grande Watershed, which extends approximately from Cochiti Lake downstream to San Acacia.⁵⁵ “The Rio Grande Rift” shaped the region's unique landscape and ecology. The rift is a long, narrow depression in the Earth's crust formed by tectonic forces pulling the North American continent apart millions of years ago as the Earth's crust stretched and thinned. This process created a series of fault lines and volcanic activity, resulting in the dramatic mountain ranges and river valleys we see today.⁵⁶ The remnants of these ancient eruptions can be seen in the form of the “Three Sisters” volcanoes on the ancient lava-covered West Mesa, part of the Petroglyph National Park.⁵⁷ The following sections briefly describe the region’s soil, air, water, and wildlife to elevate the importance of these ecosystem elements and consideration for transportation project development. Climate projections, natural hazard vulnerability assessment and mitigation recommendations are discussed more extensively in section 8.4.

This Natural Resource Inventory online map collects geospatial layers from multiple databases to assist regional transportation infrastructure planning in being responsive to existing environmental conditions and protecting natural resources. It identifies currently protected lands, watershed basin boundaries, aquifer boundaries, surface waterbodies, critical habitat areas, land cover types, and eco-regions of the Albuquerque Metro Planning Area. Appendix X includes lists of the common, rare and endangered species of wildlife and vegetation found in the planning region.

The following sections focus on soil, air, water, and wildlife in turn, to describe how these important ecosystem elements may affect or be affected by transportation project development, and potential measures to avoid, minimize, and mitigate negative impacts. Climate projections, natural hazard vulnerability assessment and mitigation recommendations are treated more extensively in section 8.4.

⁵⁵ Middle Rio Grande Basin Study, USGS, January 1, 2005, Accessed from <https://www.usgs.gov/centers/new-mexico-water-science-center/science/middle-rio-grande-basin-study>

⁵⁶ Bryan, Kirk, et al. “Our growing understanding of the Rio Grande rift.” *New Mexico Earth Matters*, New Mexico Bureau of Geology and Mineral Resources, season-02 2012, geoinfo.nmt.edu/publications/periodicals/earthmatters/12/n2/em_v12_n2.pdf.

⁵⁷ <https://www.cabq.gov/parksandrecreation/open-space/lands/volcanoes#:~:text=Formed%20over%20100%2C000%20years%20ago%2C%20the%20volcanoes%20were,coated%20the%20surrounding%20landscape%20in%20a%20basalt%20caprock.>

8.3b Transportation Impacts on Air

Transportation is a major contributor to both air pollution and climate change because many air pollutants associated with fossil-fuel combustion are also greenhouse gases. **Greenhouse gases (GHGs)** are those that absorb energy, slowing or preventing the loss of heat into space. Transportation and industrial emissions of GHGs have created an unnaturally high concentration of GHGs in our atmosphere, which has led to a rapid warming the earth's atmosphere, causing what is known as climate change. These rapid changes to our atmosphere have exacerbated natural disasters, which may have otherwise occurred but might not be as extreme without human contributions to climate change.

The primary greenhouse gases emitted by fossil-fuel combustion engines include:

- **Carbon dioxide (CO₂)**
- **Methane (CH₄)**
- **Nitrous oxide (N₂O)**
- **Ozone (O₃)**

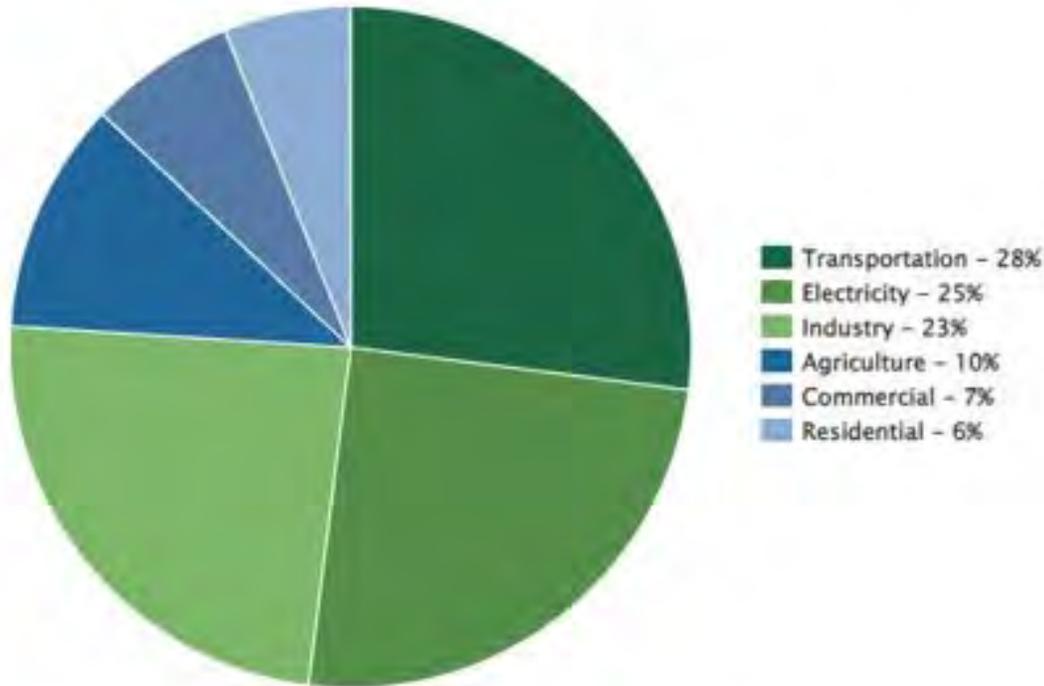
According to the *Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990–2022*, the transportation sector of the economy was the leading source of greenhouse gas emissions nationally – it was estimated to account for 28% of the national total, just ahead of the electricity production sector at 25%.⁵⁸

The 2019 New Mexico Climate Strategy report identified transportation as the second largest source of GHG emissions in the state and locally, the City of Albuquerque's 2020 Greenhouse Gas Emission Inventory also determined on-road transportation was the second leading source of greenhouse gas emissions, accounting for an estimated 33 percent of the total.⁵⁹ Stationary energy (energy that is used to power commercial, institutional and residential buildings) was the leading source at 55 percent.

⁵⁸ <https://www.epa.gov/greenvehicles/fast-facts-transportation-greenhouse-gas-emissions-city-of-albuquerque-ghg-inventory-3.pdf> (cabq.gov)

Figure 56: U.S. Greenhouse Gas Emissions by Sector

2022 U.S. GHG Emissions by Sector



Note: Totals may not add to 100% due to rounding. Transportation emissions do not include emissions from non-transportation mobile sources such as agriculture and construction equipment. "Other" sources include buses, motorcycles, pipelines and lubricants.

The **Clean Air Act (CAA)** governs air pollution control. It authorizes the **Environmental Protection Agency (EPA)** to set **National Ambient Air Quality Standards (NAAQS)** and establish regulations to achieve and maintain these standards. The EPA has set NAAQS for six common air pollutants known to have negative health impacts, referred to as criteria air pollutants: ozone, particulate matter, carbon monoxide, lead, nitrogen dioxide, and sulfur dioxide.

According to the EPA's latest **National Emissions Inventory (NEI)**, gasoline-fueled passenger trucks and diesel-fueled combination long-haul trucks are the leading source of mobile on-road criteria air pollutant emissions in the Albuquerque Metro Area. Combining county-level estimates for Bernalillo, Valencia, and Sandoval Counties produced the data shown in Table X below.

Table 30: AMPA Top Contributing On-road Mobile Sources of Criteria Air Pollutant Emissions

Pollutant	2020 CAP Emissions (Tons)	Vehicle Type	Fuel Type
Carbon Monoxide	20,232	Passenger Truck	Gasoline
Nitrogen Oxides	4,326	Combination Long-haul Truck	Diesel
Volatile Organic Compounds	1,388	Passenger Truck	Gasoline
PM10 Primary (Filt + Cond)	243	Combination Long-haul Truck	Diesel
PM2.5 Primary (Filt + Cond)	126	Combination Long-haul Truck	Diesel
Ammonia	103	Passenger Truck	Gasoline
Sulfur Dioxide	11	Passenger Truck	Gasoline

Source: EPA National Emissions Inventory 2020 Report Dashboard

The CAA develops regulations around transportation-related air pollutants, including vehicle emissions standards, fuel standards, and **mobile source air toxins (MSAT)** which are toxic air pollutants emitted from vehicles. Moreover, it calls for **State Implementation Plans (SIPs)** to achieve and maintain the NAAQS. Long range transportation plans such as this one are required to be in conformity with SIPs, and if an area is determined to be in nonattainment for a criteria air pollutant, transportation control measures are often a key component of these plans.

NAAQS standards apply to specific geographic areas designated by the EPA. These areas are classified as either attainment or nonattainment areas based on whether they meet the national ambient air quality standards.

Bernalillo County currently meets EPA-set standards for criteria pollutants. Weather conditions, population growth, and changes in transportation patterns can influence air quality; therefore, ongoing efforts to improve air quality and reduce emissions are essential. While NAAQS standards apply to specific geographic areas, the impacts of air pollution can extend beyond those boundaries, regional cooperation is essential for effective air quality management.

According to the EPA, ground-level ozone and airborne particles (particulate matter) are the two pollutants that pose the greatest threat to human health in the United States. These are also the most significant air quality issues locally. Seven New Mexico counties are nearing problematic ground-level ozone levels, which can contribute to respiratory illnesses and heart attacks, and disproportionately affect the state’s most vulnerable populations (see chapter 9 for more on this topic).

Federal Developments

At the federal governmental level, the Infrastructure Investment and Jobs Act (IIJA) of 2021:

- Led the U.S. **Departments of Energy (DOE)** and **Transportation (DOT)** to form the **Joint Office of Energy and Transportation (JOET)** to support building out a national **electric vehicle (EV)** charging network by providing technical assistance to states. The JOET recently launched driveelectric.gov to organize the resources offered to states and stakeholders to support EV

charging deployment, zero-emission fueling infrastructure, and zero-emission transit and school buses.⁶⁰

- Included more than \$1.2 billion in FY 2022 to develop the new formula Carbon Reduction Program specifically aimed at reducing transportation-related emissions. Under this program, state departments of transportation are required to develop carbon reduction strategies to support efforts to reduce transportation emissions and the funding is programmed support these efforts.
- Provided \$50 million in FY 2022 for a new Congestion Relief Program to provide competitive grants for projects in large cities that advance innovative and multimodal (like transit, biking, walking, or buses) solutions to relieve traffic congestion. These projects can help reduce highway congestion, lower economic and environmental costs related to congestion, and optimize the capacity of existing highway and transit systems.
- Funds and expands the existing Congestion Mitigation and Air Quality improvement program, providing \$2.5 billion in FY 2022 to support surface transportation projects and other related efforts (like bike share, scooter systems, and medium- and heavy-duty zero emission vehicles) that improve air quality and relieve congestion.⁶¹

Also, the FHWA published a greenhouse gas (GHG) emissions rule establishing a performance measure that required States and MPOs to set declining emissions targets for tailpipe CO₂ emissions on the National Highway System. Subsequently, twenty-two States filed two lawsuits challenging this rule. On March 27, the U.S. District Court for the Northern District of Texas vacated and remanded the Final Rule to DOT, in effect nullifying the rule Nationwide.

Regional Developments

In 2019, Governor Lujan Grisham signed Executive Order (EO) 2019-003 on Addressing Climate Change and Energy Waste Prevention, announcing that New Mexico will support the 2015 Paris Agreement Goals and set a statewide goal to reduce GHG emissions by at least 45 percent by 2030, relative to 2005 levels.⁶² This EO also created the Interagency **Climate Change Task Force (CCTF)** to direct the efforts of multiple state agencies to reduce GHG emissions, improve air quality, and protect natural resources. The CCTF identified transportation decarbonization as critical to reaching state's GHG reduction goals.

State agencies, including NMDOT, are working together to advance decarbonization strategies, with recent successes including the New Mexico Clean Cars Rule that was jointly adopted by the New Mexico **Environmental Improvement Board (EIB)** and the **Albuquerque-Bernalillo County Air Quality Control Board (AQCB)** in May 2022. Starting in calendar year 2026, 43% of all new passenger cars and light-duty trucks and 15% of all new commercial heavy-duty trucks shipped to New Mexico auto dealerships by national auto manufacturers must be zero emission vehicles. A **zero-emission vehicle (ZEV)** is a vehicle that does not emit exhaust gas or other pollutants from the onboard source of power, and can include plug-in hybrid electric vehicles, battery electric

⁶⁰ "DOE and DOT Launch Joint Effort to Build out Nationwide Electric Vehicle Charging Network." *Energy.gov*, www.energy.gov/articles/doe-and-dot-launch-joint-effort-build-out-nationwide-electric-vehicle-charging-network.

⁶¹ "Fact Sheet: Climate and Resilience in the Bipartisan Infrastructure Law | US Department of Transportation." *www.transportation.gov*, www.transportation.gov/bipartisan-infrastructure-law/fact-sheet-climate-and-resilience-bipartisan-infrastructure-law.

⁶² [EO 2019-003.pdf](https://www.governor.state.nm.us/wp-content/uploads/2019/01/EO_2019-003.pdf) [https://www.governor.state.nm.us/wp-content/uploads/2019/01/EO_2019-003.pdf\(state.nm.us\)](https://www.governor.state.nm.us/wp-content/uploads/2019/01/EO_2019-003.pdf(state.nm.us))

vehicles and hydrogen fuel-cell vehicles. These minimum percentages gradually increase over time (see Table 31 below).

Table 31: New Zero Emission Vehicles Rule Requirements for Delivery to New Mexico by the Automakers

Calendar Year	Model Year	Clean Car Rules	Clean Truck Rules		
			Class 2B-3	Class 4-8	Class 7-8
2025	2026		-	-	-
2026	2027	43%	15%	20%	15%
2027	2028	51%	20%	30%	20%
2028	2029	59%	25%	40%	25%
2029	2030	68%	30%	50%	30%
2030	2031	76%	35%	55%	35%
2031	2032	82%	40%	60%	40%
2032	2033		45%	65%	40%
2033	2034		50%	70%	40%
2034	2035		55%	75%	40%

The Clean Car Rule is projected to eliminate about 130,000 tons of greenhouse gases and over 1,700 tons of harmful ozone-forming air pollution in New Mexico by 2050. New Mexico has also invested over \$11.5 million in electric vehicle charging stations from State and federal funding sources and received an additional \$38 million in U.S. Department of Transportation federal grants (see section 4.1c in the Emerging Technologies chapter for more about electric vehicles).

Reducing transportation's impact on air quality and climate change requires a multifaceted approach involving individuals, governments, and industries. The 2023 NMDOT Carbon Reduction Strategy, developed in coordination with the state, MPOs, and Regional TPOs focuses on four key categories of activities, each of which plays a vital role in achieving our carbon reduction objectives:

1. Reducing Vehicle Miles Traveled
2. Reducing Emissions of Vehicles
3. Reducing Emissions from Operations and Materials
4. Carbon Sequestration

Specific actions identified for implementation by local agency partners to implement these strategies can be found in the 2023 NMDOT Carbon Reduction Strategy document.

8.3c Water

The construction of roads, bridges, and other transportation systems ultimately changes the proportion of impervious surface area. Covering land with materials like asphalt and concrete prevents rainwater from infiltrating the ground, reducing water available for groundwater recharge and leading to increased stormwater runoff, leading to erosion and flooding. Furthermore, transportation activities contribute to water pollution through the release of auto-related fluids like oil and antifreeze. Pollutants that fall onto city streets can be picked up and carried downstream to contaminate surface water bodies such as rivers and lakes. Fortunately, communities can install practices to help mitigate stormwater-caused impacts.

Green Streets

Traditional stormwater management systems along roads typically direct runoff into pipes or channels that often carry runoff great distances from where precipitation falls. In contrast, a green street incorporates a variety of green infrastructure practices that manage stormwater onsite, where (or very near to where) the precipitation falls. Green streets are those that incorporate **Green Stormwater Infrastructure (GSI)** – plants, trees, and structured landscape features designed to maximize the ability of healthy soils and vegetation to slow and absorb stormwater runoff – allowing it to percolate down to replenish groundwater supplies while at the same time filtering out sediment and pollutants. Beyond positive impacts on water, GSI can also support biodiversity, improve air quality, and lower ambient heat. Green infrastructure elements that re-create natural areas can be incorporated into almost all transportation projects.

Low-Impact Development (LID) is a related land use planning and engineering design approach that aims to reduce disruption of existing hydrological patterns and support natural processes to protect environmental health.

Regional Developments

Like transportation, water crosses boundaries and requires a cooperative, interjurisdictional approach. The Water Resources Board is part of the Mid-Region Council of Governments and is a multi-governmental body responsible for coordinating water programs, conducting regional water planning, and addressing water management challenges within the Albuquerque metro area.

The Arid LID Coalition is an interdisciplinary network of practitioners with nearly 200 members that represent more than 30 partnering public and private organizations. The Coalition’s mission is to increase the use of Green Stormwater Infrastructure and Low Impact Development (GSI/LID) practices in New Mexico through education, policy advocacy and demonstration projects that benefit nature and people. The role of the Coalition is to convene and coordinate among members of these various organizations, serving as a resource hub and collaboration platform for GSI research, design, construction, installation, and maintenance education, policy advocacy, and projects.⁶³

Many members of the Coalition are local government partners that manage the Municipal Separate Storm Sewer System (MS4) permit, regulated by the EPA and overseen by the New Mexico Environment Department. The MS4 permit is intended to help the region meet water quality standards, particularly addressing problematically high pollution present in the region’s stormwater runoff. This permit requires agencies to use best practices including GSI/LID, engage in public

⁶³ <https://aridlidcoalition.org/>

education about stormwater pollution prevention, manage pollution carried in stormwater discharged to the Rio Grande (including runoff from surface transportation), and much more.

8.3d Soil

Often overlooked, soil health is fundamental to a thriving environment. Healthy soil plays a critical role in regulating the vital processes that sustain us all including food production, water filtration and purification, flood control, climate and change mitigation. and animals.⁶⁴

Transportation infrastructure can have a negative impact on soil health in several ways⁶⁵:

- **Compaction:** Construction equipment can heavily compact soil, hindering water infiltration and plant growth.
- **Loss of Topsoil:** Building roads, railways, airports, and other transportation systems often involves clearing vegetation and removing the fertile topsoil layer in the grading process of leveling the ground for construction. Topsoil is key to biological activity and biodiversity in the region.
- **Impermeability:** Common construction materials like asphalt and concrete create a surface barrier over soil, preventing air and water from penetrating the ground to microorganisms below. This also alters surface hydrology, causing stormwater to run off and create flooding issues (see Section 8.4c for more on this issue).
- **Erosion:** Exposed soil without stabilizing vegetation is vulnerable to erosion from wind and water. This can wash away valuable topsoil, nutrients, and organic matter. Wind blown dust creates visibility issues for drivers and cause accidents. Fine particulate matter in the air can also harm eyes and lungs.
- **Pollution:** Traffic emissions, accidents involving spills, and even road maintenance activities can introduce pollutants like heavy metals, oil, and salt into the soil. These contaminants can harm soil microbes and hinder plant growth.

Soil classification can also impact transportation design needs, influencing decisions on foundation design and pavement materials. The **American Association of State Highway and Transportation Officials (AASHTO)** sets standardized guidelines for soil classification, ensuring consistency in engineering practices across transportation projects.

For those interested in recommendations to minimize damage and promote soil health during the implementation of transportation projects, please visit the EPA's [Construction Site Erosion and Sediment Control Management Measure Report](#).

There are several ways to minimize damage and even promote healthy soil in developing new transportation projects. The EPA provides [recommended practices to promote healthy soil](#).

⁶⁴ <https://nwdistrict.ifas.ufl.edu/phag/2019/04/12/healthy-soil-is-teeming-with-microscopic-life/>

⁶⁵ Roy, S. (2023). Transportation Infrastructure, Slope Instability, and Soil Erosion. In: Disturbing Geomorphology by Transportation Infrastructure. Earth and Environmental Sciences Library. Springer, Cham. https://doi.org/10.1007/978-3-031-37897-3_4

8.4 Climate Hazards

As discussed in 8.3, fossil fuel combustion for transportation is a top contributor of the greenhouse gases driving climate change. Climate change is altering fundamental weather patterns— affecting temperatures, water availability, and weather extremes. In New Mexico, it is causing more frequent and extreme wildfires, drought, flooding, and deadly heat waves. Developments like these are expected to continue, and likely worsen, as average temperatures rise.

Social and economic factors, such as discrimination, poverty, poor housing conditions, and health problems, can make communities even more vulnerable to the effects of climate change. Protecting lives and property from seriously destructive and life-threatening natural hazards such as these necessitates a comprehensive and proactive approach. This section explores the potential impacts of climate change on our communities and transportation infrastructure and presents strategies to reduce potential for harm and enhance resiliency.

8.4a Heat

Heat kills more people in the United States and accounts for a larger portion of the public health burden than all other weather hazards combined. In the Southwest, extreme heat is a serious and increasingly dangerous threat. According to the New Mexico Department of Health’s online Heat-Related Illness Dashboard, there were 338 heat-related emergency room visits in the Metro region, and 45 heat-related deaths statewide among New Mexico residents during the summer of 2024.⁶⁶ These numbers are an underestimate, as not all heat-related deaths fall under the purview of the **Office of the Medical Investigator (OMI)**.

Transportation infrastructure impacts and is impacted by extreme heat. Common construction materials like asphalt and concrete can absorb as much as 95% of the sun’s energy, which is then radiated back into the surrounding atmosphere, so that urbanized areas tend to get hotter and stay hot longer than rural areas.⁶⁷ This phenomenon, known as the “urban heat island effect,” can be exacerbated by:

- **Urban geometry:** Buildings can act as obstacles to reduce cooling wind flow.
- **Lack of vegetation:** Paved surfaces limit the availability of space for vegetation, which would otherwise contribute natural cooling effects like shade and evapotranspiration.
- **Anthropogenic heat:** The byproducts of human activity and machinery like cars, industrial facilities, and air-conditioning units that emit waste heat into the urban environment.⁶⁸

According to the Center for Disease Control (CDC), populations most at risk for heat-related illness and death include seniors, children, pregnant women, newborns, people who work outdoors, people without homes, and people with mental health conditions, chronic health conditions, and disabilities. In addition to risk of heat stroke, dehydration, and other heat-related illness during high

⁶⁶ <https://nmdoh-reports.shinyapps.io/HeatRelatedIllnessDashboard/>

⁶⁷ <https://www.reuters.com/graphics/CLIMATE-CHANGE/URBAN-HEAT/zgpormdkevdl/>

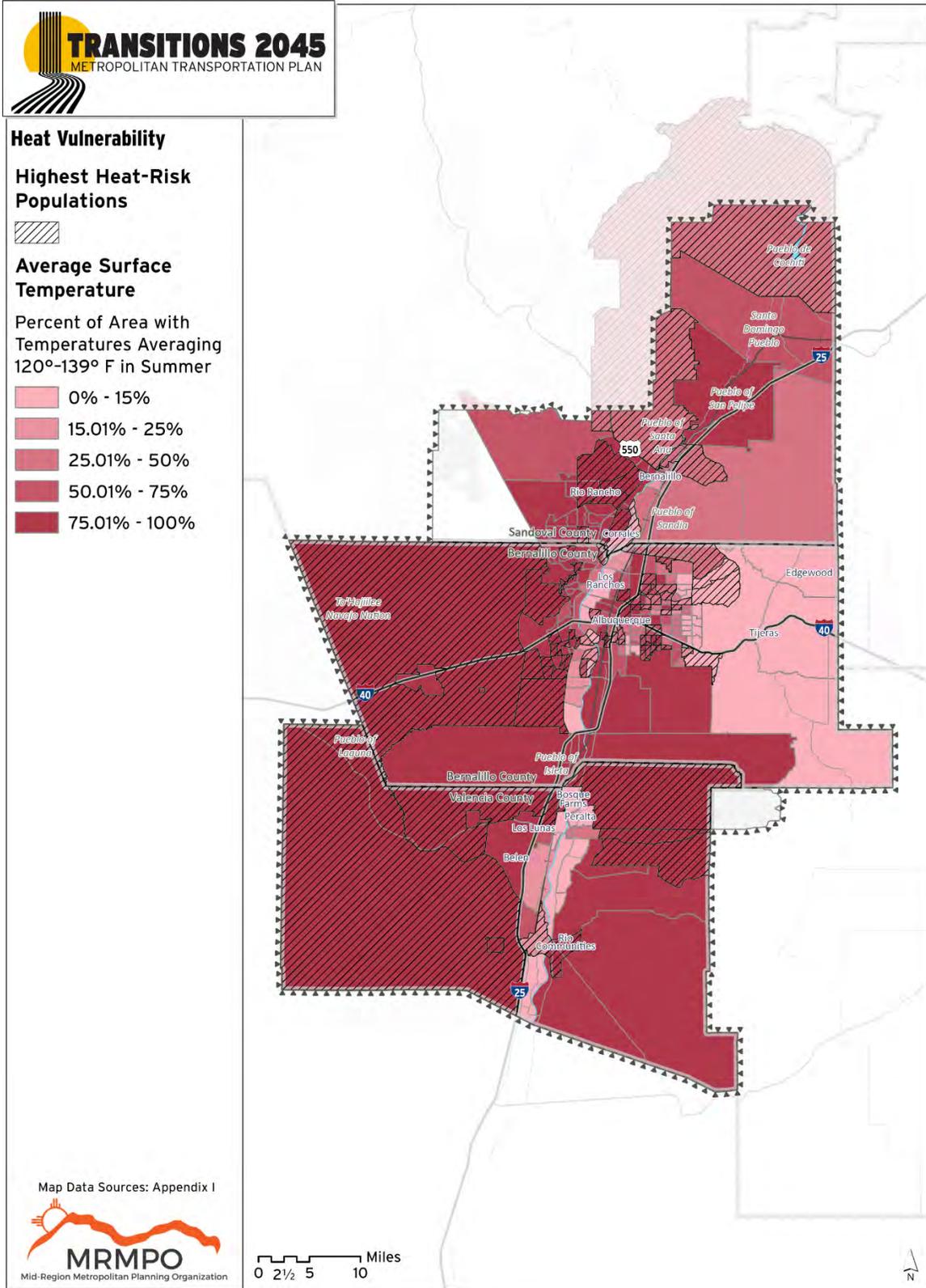
⁶⁸ <https://climate.mit.edu/explainers/urban-heat-islands>

heat days, physical impact (such as during a fall) with objects or surfaces with high surface temperatures like asphalt can lead to second degree burns.

To help identify priority areas for heat mitigation actions, the CDC's **Social Vulnerability Index (SVI)** was used to determine where in the AMPA those who are most susceptible to the dangers of extreme heat may also be exposed to the highest temperatures. Census tracts with the highest concentration of vulnerable populations are highlighted below. Additional analysis adds surface temperature readings taken by land satellite during summer months from 2013 to 2023. Tracts identified as priority areas are those where one or more vulnerable populations are concentrated and 75% or more of the area is exposed to surface temperatures from 120-130 degrees Fahrenheit on an average summer day.

DRAFT

Map 26: Heat Vulnerability



According to this data (summarized in Table 32 below), approximately 46 percent of the AMPA’s total population or 407,685 people live in an area with high exposure to extreme heat. Vulnerable populations are concentrated in high heat areas. For instance, though only 21% of the AMPA population are below 18 years of age, more than half (51%) of those live in high-heat areas.

Table 32: Population Demographics of Tracts with Highest Average Surface Temperatures

Heat-Vulnerable Populations	AMPA Totals	Percent of AMPA	Totals exposed to high heat	% exposed to high heat
Persons of Color	557,523	63%	277,373	50%
Minors (<18)	190,196	21%	97,120	51%
Persons below 150% poverty estimate	214,596	24%	93,738	44%
Seniors (65+)	156,336	18%	58,471	37%
Persons with a disability	135,011	15%	56,983	42%
Uninsured	70,626	8%	34,499	49%
Mobile homes	29,296	8%	11,945	41%
Households with no POV	21,743	6%	7,172	33%
Total Population	889,875	100%	407,685	46%

Nearly every community of color in the AMPA is more likely to be disproportionately exposed to high heat, as demonstrated in the table below.

Table 33: Race/Ethnicity of Persons of Color Living in High-Heat Areas

Race/Ethnicity	AMPA Population	Percent of AMPA	Exposed to High Heat	Percent Exposed
Black or African American	19,920	2.2%	11,261	57%
American Indian and Alaska Native	38,807	4.4%	19,712	51%
Hispanic or Latino (of any race)	447,845	50.3%	227,461	51%
Some Other Race	4,245	0.5%	2,173	51%
Native Hawaiian and Other Pacific Islander	525	0.1%	251	48%
Two or More Races	26,183	2.9%	10,399	40%
Asian	19,998	2.2%	6,116	31%
Total:	557,523	63%	277,373	50%

Source: ACS 2018-2022, U.S. Census Bureau

Extreme heat can also significantly impact transportation infrastructure in several ways:

- **Material Degradation:** In extreme heat, asphalt will soften and expand, leading to more rutting and potholes, particularly in high-traffic areas. Concrete and steel will expand and contract, leading to cracking and spalling, potentially causing structural damage or bridge failure.
- **Tire Failures:** Higher temperatures can increase tire pressure and wear, leading to more frequent dangerous blowouts. According to the National Transportation Safety Board, tire failures on cars and trucks cause more than 30,000 crashes annually in the U.S. and injure roughly 19,000 people. Summer driving accounts for the largest share of crashes.⁶⁹
- **Buckling:** Heat can cause railroad tracks and pavement to expand and lift from the ground beneath, sometimes with explosive force.
- **Reduced Vehicle Performance:** Heat can reduce engine performance, leading to decreased fuel efficiency and increased emissions.
- **Power Failure:** In extreme heat events, power grids can be overburdened and shut down, causing traffic signals to fail and dangerously disrupt traffic flows. This can also endanger vulnerable populations stuck at home without air conditioning.
- **Air travel disruption:** Airplanes are unable to take off from runways above a certain temperature.
- **Mode shift:** Unmitigated heat in urban areas can make walking and bicycling less attractive transportation alternatives, with both public health and greenhouse gas emissions consequences.

Preparing our communities for more frequent and extreme heat events and achieving resilience to urban heat requires effective coordination between several different disciplines, such as hazard mitigation, public health, emergency management, the energy sector, and various levels of government.

8.4b Wildfire

Recent years in New Mexico has seen massive wildfires that broke records for acres of land consumed. Many wildfires are caused by human activities, such as campfires, discarded cigarettes, equipment use, and intentional fire-starting. Climate-related factors like rising average temperatures and drought may have increased the intensity of such wildfires. The growing proximity of homes and other structures to flammable vegetation has increased the risks extensive property damage and loss of life.

For these reasons, the characteristics of Wildland-Urban Interface/Intermix (WUI) areas are used to identify where the risk of wildfires and attendant needs for hazard mitigation and emergency preparedness are greatest. The “WUI” is a critical area where humans and their development meet or intermix with wildland fuels.

Wildland-Urban Interface: These are areas that have a high density of homes and businesses directly adjacent to undeveloped wildland vegetation. Communities are within 1.5 miles of an area that is highly vegetated, less than 50 percent of the land is vegetation, and density is greater than 3 structures per acre.

⁶⁹ <https://www.scientificamerican.com/article/extreme-heat-can-ruin-your-road-trip-heres-how-to-prepare>

Wildland-Urban Intermix: In these areas, houses and businesses are scattered and intermingled with wildland vegetation. More than 50 percent of the land is vegetation, and density is greater than 1 house per 40 acres.

Using geographic information systems (GIS), the Silvis Lab of the University of Wisconsin integrated U.S. Census and USGS National Land Cover Data to map the Federal Register definition of WUI for the conterminous United States from 1990-2020 to inform both national policy and local land management concerning the WUI and associated issues. This data further sorts WUI zones into high, medium and low-density areas, with higher density naturally indicating higher risk. This dataset also includes estimates of population and housing in each calculated zone. Table 34 below displays the estimated regional totals.

Table 34: AMPA Population and Households residing in Wildland Urban Interface/Intermix

WUI Class/Zones	Population	% of AMPA Population	Households	% of AMPA Households
High-Density Interface	272,884	31%	106,383	30%
High-Density Intermix	1,179	0.1%	423	0.1%
Med-Density Interface	160,688	18%	60,177	17%
Med-Density Intermix	45,543	5%	17,045	5%
Low-Density Interface	7,343	1%	2,211	1%
Low-Density Intermix	22,682	3%	8,563	2%
Total in WUI	510,319	57%	194,802	54%
Total in AMPA	889,875	100%	358,984	100%

Fifty percent of the AMPA are located in “interface” areas, with 31 percent in “high density” interface areas. In general, the Wildland Urban Interface is often considered more dangerous than the Intermix, due to the higher density of structures and the potential for rapid fire spread to densely populated areas. However, both areas require careful planning, mitigation efforts, and community preparedness to reduce wildfire risks.

Wildfire and flooding risks are inter-related in ways that are crucial to understand for planning and implementing effective wildfire mitigation and flood management strategies. Wildfires can significantly increase the risk of flooding in several ways:

- **Loss of Vegetation:** Wildfires burn vegetation that normally absorbs rainfall, reducing runoff. Without this vegetation, the ground becomes charred and barren, unable to absorb water, which creates conditions ripe for flash flooding and mudflows.
- **Soil Erosion:** The intense heat from wildfires can cause soil to become hydrophobic (water repellent), leading to increased erosion. When it rains, the water cannot penetrate the soil, causing it to run off quickly and carry soil, ash, and debris with it.
- **Mudflows and Debris Flows:** This combination of heavy materials can move rapidly and cause significant damage to infrastructure, property, and pose threats to human safety.

- **Increased Runoff:** The lack of vegetation and the hydrophobic soil result in increased surface runoff, which can lead to more severe and sudden flooding, even in areas not traditionally prone to floods.
- **Long-Term Impact:** The increased flood risk can persist for several years until vegetation is restored, which can take up to five years or more.

8.4c Flood

Across the country, flash floods cause approximately 140 deaths and an average of \$5 billion in damages each year. Whether caused by heavy rain, thunderstorms, or winter storms, the results of flooding can be devastating. On June 29th, 2024, when the metro area experienced historic flooding, the Albuquerque Fire Rescue (AFR) responded to 142 calls from 8 p.m. to midnight. Flooding and power outages caused some roads to become impassable; shorted streetlights; and damaged two fire engines and three city buses.

According to the National Weather Service, more than half of flood-related drownings—more than 50 per year over the past decade—occur when someone drives into hazardous waste. It is never safe to drive or walk into flood waters. Roads may collapse during flood events, and just 12 inches of rushing water can carry away most cars.

To help identify where in the AMPA roads and homes may be most exposed to flood hazards, a GIS analysis was performed using the National Flood Hazard Layer (NFHL). The NFHL is a geospatial database produced by FEMA that contains current effective flood hazard data. The NFHL is used to support the National Flood Insurance Program (NFIP) and helps communities understand their flood risk.

While new construction in the 100-year flood zone is subject to design requirements meant to minimize flood damage and safety risk, development that adds impervious surface area within watershed drainage basins or catchment areas alters hydrology in sometimes unpredictable ways, increasing stormwater runoff volumes and creating challenges for flood control authorities. In July of 2021, the monsoon season in Belen dropped between 2.95 and 3.2 inches of rain in less than two hours one night. The excessive amount of rain in such a short amount of time caused a breach of the Highline Canal at Delgado Avenue, sending water surging into Belen and damaging roads, homes and businesses, prompting the state Governor to sign an emergency declaration.

In the AMPA, approximately 1,215 miles of roadway are in areas designated by the NFHL as having at least a 1% annual chance of flooding (also known as the 100-year floodplain). These include around 687 miles within the Major Road Network and 528 miles of local roads in flood zones. Many of these roads are either in mountainous areas where roads follow the lowest path through canyons, or in sloping areas like the Sandia foothills or below the western mesa where roads crisscross the paths of natural arroyos carved into the landscape through many years of stormwater flows.

Other areas with a high percentage of road and tract area within flood hazard zones are found in the valleys and historic floodplain of the Rio Grande, where proximity to this important water source and gravity have assisted development of the historic acequia irrigation network and fed associated

agricultural practices for centuries. Consequently, the majority of the region’s farmland actively used for growing crops and raising livestock is within the 100-year floodplain.

The table below shows tracts where more than 50% of their area are in a flood zone.

Table 35: Demographic estimates for census tracts with more than 50% of area within 100-year floodplains

	Total Population	Households	Population with income below 150% poverty	Seniors (age 65+)	Minors (age 17 and younger)	Persons with a disability	Households with no vehicle
Tract more than 50% in 100-year flood zone	41,693	15,427	11,150	8,466	8,382	9,229	651

Source: 2022 Social Vulnerability Index, CDC

With climate change projections including more extreme rainfall events, the “100-year storm” may happen more frequently, so it is important to plan transportation and land development with flood implications in mind.

8.5 Exposure to Hazards & System Resilience

Protecting lives and property from natural hazards necessitates a comprehensive and proactive approach. This section explores the potential impacts of climate change on our communities and transportation infrastructure.

To help identify where the most critical transportation infrastructure assets in the region may also be most exposed and vulnerable to climate hazards, a geographic information systems (GIS) model was developed based on methodology used in the NMDOT’s Resilience Improvement Plan. Data layers representing relative hazard exposure for extreme heat, wildfires, flooding, and earthquakes were overlaid with measures of sensitivity to identify vulnerabilities, and then measures of criticality were overlaid with this to identify assets facing higher risk to consider for resiliency improvements.

Natural hazards and data layers used to quantify relative exposure levels included:

Table 36: Natural Hazard Data Layer Sources

Hazard	Data Name	Publishing Organization	Description
Wildfire	Wildland-Urban Interface Zones, 1990-2020	U.S. Forest Service	The Wildland-Urban Interface (WUI) is the area where houses meet or intermingle with undeveloped wildland vegetation. This makes the WUI a focal area for human-environment conflicts such as wildland fires, habitat fragmentation, invasive species, and biodiversity decline. Using geographic information systems (GIS), U.S. Census and USGS National Land Cover Data were integrated to map the Federal Register definition of WUI (Federal Register 66:751, 2001) for the conterminous United States from 1990-2020.
Flooding	2024 National Flood Hazard Layer	Federal Emergency Mgmt. Agency	The National Flood Hazard Layer (NFHL) is a geospatial database that contains current effective flood hazard data, produced by FEMA to support the National Flood Insurance Program.
Extreme Heat	Mean land surface temperatures during the hottest months of the year (Jul-August) from 2013-2023	MRMPO	Raster calculated from land satellite data retrieved through Google Earth Engine
Earthquake	NM Quaternary Faults	U.S. Geological Survey	This layer shows surface faults traces that are believed to be sources of M 6+ earthquakes during the Quaternary geologic period (past 1.6 million years).
Multiple	Expected Building Loss Rate, Natl. Hazards Risk Index, Climate and Economic Justice Screening Tool	Federal Emergency Mgmt. Agency	Expected building value at risk from losses due to fourteen types of natural hazards. These hazards have some link to climate change. They are: avalanche, coastal flooding, cold wave, drought, hail, heat wave, hurricane, ice storm, landslide, riverine flooding, strong wind, tornado, wildfire, and winter weather. The rate is calculated by dividing the building value at risk by the total building value.

Each data layer was reclassified with values between 1-5 for each measure (exposure, sensitivity, criticality) and overlapping layers were added together using raster analysis to calculate a relative risk value that was then imputed to links of the AMPA “major roads” network. NMDOT-owned roadways were excluded from this analysis because they are the focus of the statewide NMDOT Resilience Improvement Plan.

“Sensitivity” measures assess the extent to which an asset is damaged or disrupted when it is exposed to one or more hazards. For this analysis methodology, asset condition is used as the primary means of integrating sensitivity considerations because assets in better condition are less likely to experience disruption or damage from exposure to a hazard than assets in worse condition. The AASHTO Soil Classification System ratings discussed in the previous section were used as an additional sensitivity measure, with soils rated poorly for construction having an increased sensitivity value.

Measures of criticality or relative importance according to regional economic and human survival needs included population density, job density, land use classification, average weekday daily traffic, bus routes, and roads included in the regional freight network. The model builder made relative value judgements and then made adjustments through later iterations after the public review and consultation process provided additional feedback and insights for consideration.

8.6 Goals, Objectives, and Strategies

To address the environmental challenges our region faces and cultivate a transportation system that leads to Healthy Environments in the region, the following goals, objectives, and strategies should be considered:

[PLACEHOLDER – table will be inserted when the MPO finalizes goals, objectives, strategies]

CHAPTER 9 EQUITY

9.1 Introduction

Transportation is a key determinant of social and economic equity, and infrastructure investments can serve to connect and create shared prosperity or divide and further inequality. In the 20th century, the rise of the automobile and the construction of the Interstate Highway System provided greater mobility and access to opportunity for many, but whole neighborhoods were bulldozed, and their residents displaced to make way for it. It contributed to urban sprawl, air pollution, and the decline of public transportation - leading to increased reliance on cars, more dangerous streets for non-vehicle users, and further environmental degradation. The legacy of this nationwide infrastructure project still harms communities today - contributing to disparities in the distribution of the benefits and burdens associated with transportation infrastructure.⁷⁰

To help further regional progress towards equity and environmental justice, this chapter makes use of several federal data mapping tools to present an assessment of the current distribution of benefits and burdens associated with transportation in the Albuquerque Metro Planning Area (AMPA); to raise awareness of disparities where they may exist; and to identify potential priority locations for new investment and further corrective actions.

Prioritizing Equity

For the first time, the USDOT has centered furthering equity as a department-wide strategic goal, with the aim of reducing inequities across our transportation systems and the communities they affect.⁷¹ This is a result of **Executive Order 13985 - Advancing Racial Equity and Support for Underserved Communities Through the Federal Government**. It was the first executive order signed by President Joe Biden on January 20, 2021, and it directed agencies to review and assess their programs, policies, and regulations to identify barriers and opportunities for equity.⁷²

The following week, the President issued **Executive Order 14008 – Tackling the Climate Crisis at Home and Abroad**, creating the government-wide **Justice40 Initiative** which aims to deliver 40 percent of the overall benefits of new federal investments in climate and clean energy, including sustainable transportation, to “disadvantaged communities” (defined below).⁷³ This initiative allows the DOT and member government recipients of federal funds to identify communities that are most in need of support and prioritize them for investment in affordable, equitable, reliable, and safe transportation.

This order also directed the White House Council on Environmental Quality (CEQ) to develop a geospatial mapping tool to identify communities who may be:

⁷⁰ <https://www.history.com/news/interstate-highway-system-infrastructure-construction-segregation>

⁷¹ <https://www.transportation.gov/priorities/equity/equity-strategic-goal>

⁷² <https://www.whitehouse.gov/briefing-room/presidential-actions/2023/02/16/executive-order-on-further-advancing-racial-equity-and-support-for-underserved-communities-through-the-federal-government>

⁷³ <https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/executive-order-on-tackling-the-climate-crisis-at-home-and-abroad/>

- **Marginalized:** Lacking political and economic power, making it difficult for them to advocate for their needs.
- **Underserved:** Lacking access to essential services, such as healthcare, education, and transportation.
- **Overburdened:** Disproportionately exposed to environmental hazards, such as air pollution, water pollution, and toxic waste.

The Climate & Economic Justice Screening Tool (CEJST) utilizes data from multiple federal government data sources to compare indicators of the cumulative burdens area populations may face, such as climate change, energy, health, housing, legacy pollution, transportation, water and wastewater, and workforce development. The CEJST features an interactive map that allows users to explore data at the census tract level. Users can zoom in, search for specific areas, and view detailed information about each tract to help planners identify local issues and prioritize applicable transportation projects. A regionally focused version was developed by MRMPO to accompany this analysis and can be found on the MRCOG website on the Planning for Equity page.⁷⁴

In version 1.0 of the Climate and Economic Justice Screening Tool, communities are considered “disadvantaged” if they reside in census tracts that meet certain thresholds for at least one of the tool’s categories of burden, or if they are on land within the boundaries of Federally Recognized Tribes. The included categories of burden and associated indicators are summarized in Table 37 below:

⁷⁴ MRMPO tool can be found here:

<https://mrmpo.maps.arcgis.com/apps/instant/portfolio/index.html?appid=127b493302544a5d9e9ecd06dbb9ef8b>.

Table 37: Climate and Economic Justice Screening Tool Burdens and Indicators

Category	Environmental, climate, or other burdens	Socioeconomic burden
Climate change	<ol style="list-style-type: none"> 1. Expected agriculture loss rate \geq 90th percentile OR 2. Expected building loss rate \geq 90th percentile OR 3. Expected population loss rate \geq 90th percentile OR 4. Projected flood risk \geq 90th percentile (NEW) OR 5. Projected wildfire risk \geq 90th percentile (NEW) 	Low income*
Energy	<ol style="list-style-type: none"> 1. Energy cost \geq 90th percentile OR 2. PM 2.5 in the air \geq 90th percentile 	Low income*
Health	<ol style="list-style-type: none"> 1. Asthma \geq 90th percentile OR 2. Diabetes \geq 90th percentile OR 3. Heart disease \geq 90th percentile OR 4. Low life expectancy \geq 90th percentile 	Low income*
Housing	<ol style="list-style-type: none"> 1. Historic underinvestment = Yes (NEW) 2. Housing cost \geq 90th percentile OR 3. Lack of green space \geq 90th percentile (NEW) OR 4. Lack of indoor plumbing \geq 90th percentile (NEW) OR 5. Lead paint \geq 90th percentile 	Low income*
Legacy pollution	<ol style="list-style-type: none"> 1. Abandoned mine land present = Yes (NEW) OR 2. Formerly Used Defense Site (FUDS) present = Yes (NEW) OR 3. Proximity to hazardous waste facilities \geq 90th percentile OR 4. Proximity to Superfund or National Priorities List (NPL) sites \geq 90th percentile OR 5. Proximity to Risk Management Plan (RMP) sites \geq 90th percentile 	Low income*
Transportation	<ol style="list-style-type: none"> 1. Diesel particulate matter \geq 90th percentile OR 2. Transportation barriers \geq 90th percentile (NEW) OR 3. Traffic proximity and volume \geq 90th percentile 	Low income*
Water and wastewater	<ol style="list-style-type: none"> 1. Underground storage tanks and releases \geq 90th percentile (NEW) OR 2. Wastewater discharge \geq 90th percentile 	Low income*
Workforce development	<ol style="list-style-type: none"> 1. Linguistic isolation \geq 90th percentile OR 2. Low median income \geq 90th percentile OR 3. Poverty \geq 90th percentile OR 4. Unemployment \geq 90th percentile 	High school education < 10%

* Low Income = 65th percentile or above for census tracts that have people in households whose income is less than or equal to twice the federal poverty level, not including students enrolled in higher education **(NEW method of calculation)**

Source: CEJST Technical Support Document: <https://screeningtool.geoplatform.gov/en/downloads>

Understandably, utilizing the term “disadvantaged” may lead to feelings of frustration, alienation, or confusion. It is important to recognize that not every resident of an area designated as disadvantaged will be facing the same collection of challenges, and populations facing similar challenges also reside in areas not designated as disadvantaged. These tools simply provide a

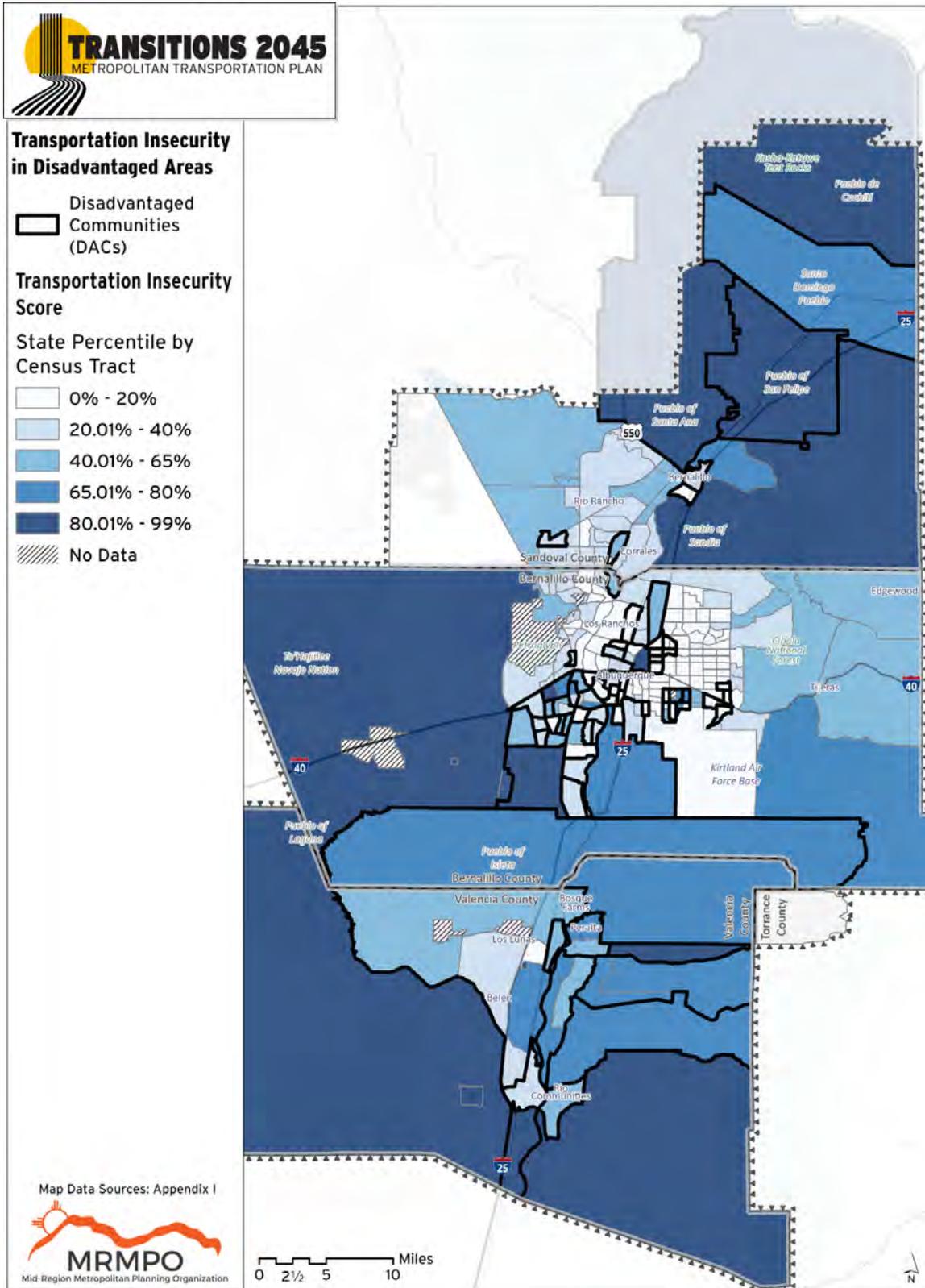


broad overview of geographic and socio-economic patterns that suggest a need for further attention and support. Policymakers should be sure to engage with community members in a collaborative manner and allow them to speak for themselves about their needs and priorities to avoid making false assumptions.

The USDOT Equitable Transportation Community (ETC) Explorer is another interactive web application that uses 2020 census tracts and data to explore the cumulative burden communities experience, as a result of underinvestment in transportation. It is designed to complement the CEQ's Climate & Economic Justice Screening Tool by providing users deeper insight into the Transportation Disadvantage component of that tool, and the ETC Explorer's Transportation Insecurity component, which combines measures of cost burden, safety, and relative access to needed services and points of interest. The map below presents this indicator as a state-level percentile value, along with AMPA tracts identified by the Climate and Economic Justice Screening Tool as Disadvantaged Communities (DACs).

DRAFT

Map 27: Transportation Insecurity in Disadvantaged Areas



9.2 Benefits and Burdens

Beyond more intangible benefits like the powerful sense of freedom and independence access to transportation can bring, a major benefit of transportation is the access it provides to what people need to survive and thrive – jobs for income, affordable housing, places of education, healthcare, shopping, and recreation. There are barriers that prevent these benefits from being equitably accessible to all. These barriers are more challenging to overcome for some than for others. Some communities are also more vulnerable and more exposed than others to the burdens of negative transportation impacts to environmental health, such as air pollution, noise, and urban heat. The following sections explore in more depth contributing factors to these differences and how they affect the region’s populations, and their transportation mode options.

9.2a Barriers to Access

The most common barriers to transportation access are affordability and safety. According to the Bureau of Transportation Statistics, transportation is the second largest household expenditure behind housing. Contributing factors to the high cost of transportation include car loans and associated interest payments; insurance costs; maintenance costs; license and registration fees; and fuel and parking costs. The cost burden of transportation often falls hardest on the lowest income households. **Residents of Disadvantaged Communities (DACs) of the AMPA spend an average of nearly 38 percent of household income on transportation, while this cost burden for all other households was merely 16 percent of household income.** Within Disadvantaged Census Tracts in the AMPA, approximately 10,767 households have no access to a personally owned vehicle (a rate 4.5 percent higher when compared to non-disadvantaged tracts in the region), while 73,560 people have an income below the poverty level (18 percent higher than non-disadvantaged tracts in the region).⁷⁵

Housing affordability also affects transportation cost burden. The phrase “drive ‘til you qualify” refers to the practice of home buyers moving further out from city centers or desirable neighborhoods until they find a location where they can afford to buy a house. Theoretically, the farther a home is from high demand, centrally located areas, the lower the cost to purchase or rent housing. However, the farther these residents must travel to reach points of interest then costs more in terms of time, fuel and vehicle wear and team. According to the Equitable Transportation Community data, **19 percent of commuters from Disadvantaged Communities drove upwards of 30 minutes daily on average, compared to 13 percent for the rest of the region.**

9.2b Safety

Because it is more affordable, low-income populations are more likely to rely on walking, biking, or the public transportation system. Demand for frequent service with stops in proximity to where populations are concentrated make transit service difficult to provide in rural areas. Lack of transit services can be a dangerously isolating factor for vulnerable populations without the ability to drive,

⁷⁵ These numbers were calculated by selecting tracts from the ETC Explorer within the CEJST Disadvantaged tracts and then using a weighted average by total households in each.

without access to a vehicle, or without the ability to use alternative transportation modes (like biking or walking). Average frequency of transit services per hour per square mile are 6.7 (e.g., 7 buses per hour per square mile) in non-DACs, and 10.7 (e.g., between 11 buses per hour per square mile) in DACs, so as one might expect, the more urban areas where most transit-dependent populations are concentrated are generally also better served by public transit.

Differential risks to personal safety are a significant barrier. Transit-riders, pedestrians, and bicyclists are all more exposed than automobile drivers to safety hazards of the urban environment - particularly those hazards caused by automobiles and their drivers. For several years in a row, Albuquerque ranked first in the nation for highest average annual pedestrian fatality rate per capita (in 2023 and 2024 it was ranked second, after Memphis, TN) according to *Dangerous by Design*, a report produced by Smart Growth America⁷⁶. Being a woman, LGBTQ, trans, or gender non-conforming person can also be a barrier to safe mobility, as studies and reports consistently show that these populations face a statistically disproportionate share of harassment or threats of violence when traveling alone. See Chapter 5 for a more detailed analysis of regional transportation safety.

Creating a safe environment for active transportation users (people who bike, walk, or roll) requires physical infrastructure investments, such as protected bike lanes, unobstructed and wide sidewalks, legible signage, and traffic signals. Underinvestment in disadvantaged tracts lead to entirely missing or poorly maintained and inadequate active transportation infrastructure. A GIS analysis of the Long-Range Bikeway System network produced some quantitative estimates for comparison of the regional distribution of bicycling infrastructure, summarized in Table 38 below:

Table 38: Comparative Distribution of AMPA Existing and Proposed Bike Facilities (Miles)

Existing Bike Facilities per Mile	Existing Bike Boulevard	Existing Bike Lanes	Existing Bike Routes	Existing Buffered Bike Lanes	Existing Paved Trails	Existing Protected Bike Lanes
Disadvantaged Community	2.6	72.3	98.0	8.4	77.3	0.3
Non-Disadvantaged Community	5.7	209.8	115.5	21.0	245.5	0.0
Difference:	-3.1	-137.5	-17.5	-12.6	-168.2	0.3
Proposed Bike Facilities	Proposed Bike Boulevards	Proposed Bike Lanes	Proposed Bike Routes	Proposed Buffered Bike Lanes	Proposed Paved Trails	Proposed Protected Bike Lanes
Disadvantaged Community	22.6	150.6	32.6	48.0	193.0	20.8
Non-Disadvantaged Community	20.0	319.1	71.1	38.6	357.6	14.6
Difference:	2.6	-168.4	-38.5	9.4	-164.6	6.1

⁷⁶ <https://smartgrowthamerica.org/dangerous-by-design/>

The table illustrates that there is a disparity in bicycle infrastructure provided in Disadvantaged Communities compared to non-disadvantaged communities.

Sidewalks that comply with design standards of the Americans with Disability Act (ADA) are critical to enable safe navigation of city streets, especially for people with different mobility or perception abilities. Many streets were designed and built either before the ADA or without consideration of the unique needs of such populations, leaving much of this infrastructure in need of significant investment to meet accessibility standards.

Estimated walk times to points of interest are 30 minutes longer on average in DACs.⁷⁷ Considering the average “walkable” distance for most Americans is about 1.5-2 miles, or 20-30 minutes at an average walking speed of 3 miles per hour, such distances can be a yet another significant barrier to access, particularly where pedestrian infrastructure is not provided.

Table 39: Comparative Walk Access

Comparative Walking Access	Estimated Walk Time to Adult Education (min)	Estimated Walk Time to Grocery Stores (min)	Estimated Walk Time to Medical Facilities (min)	Estimated Walk Time to Parks (min)	Estimated Walk Time to Primary Schools (min)
Disadvantaged	200	60	52	52	39
Non-Disadvantaged	126	49	41	28	34
Difference:	73	11	11	24	5

Sources: CEJST 1.0 and ETC Explorer

In some cases, areas may have been intentionally designed without sidewalks to discourage foot traffic and limit accessibility to certain demographics, thereby promoting exclusivity. This is a form of “environmental exclusion,” where infrastructure design may unintentionally further inequity. A similar GIS analysis for presence of absence of sidewalks (without sufficient data to indicate ADA-compliant conditions) found that sidewalk density, or miles of sidewalk per square mile, was 0.9 in DAC neighborhoods, and 2.8 everywhere else. Disadvantaged areas with the least sidewalks include much of the South Valley and other historically rural, unincorporated county and tribal lands outside of urbanized area boundaries. Non-DAC areas where sidewalks are mostly absent include Sandia Heights, Los Ranchos, Corrales, and much of Rio Rancho, which tend to be higher income and have higher rates of vehicle ownership.

⁷⁷ Walk times are estimated by calculating the average walk time from all block group centroids in a tract to the nearest two points of interest.

For pedestrians, cyclists, and people waiting at bus stops, proximity to traffic also means increased exposure to heat, noise, and air pollution. The following section considers further the regional distribution of these transportation-related burdens in relation to environmental justice considerations. See Section 8.4 on climate change hazards for a more detailed assessment of health risks associated with urban heat islands.

9.3 Environmental Justice

The concept of “environmental justice” arose from a social movement aimed at addressing a legacy of apparent biases in city planning decisions that led to a disproportionate burden of environmentally hazardous land uses in vulnerable communities. One example is the concentration of heavy industry in low-income neighborhoods and communities of color, which drives disproportionate health outcomes resulting from the cumulative impacts of air and water pollution on nearby populations. The social movement and activism of communities facing such discriminatory practices spurred the federal government to respond. In 1994, **Executive Order 12898, “Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations”** was issued, requiring Federal agencies to identify and address adverse human health or environmental effects resulting from their programs, policies, or activities on affected populations.

In 2023, **Executive Order 14096, “Revitalizing Our Nation’s Commitment to Environmental Justice for All,”** directs Federal agencies to strengthen their commitment to deliver environmental justice to all communities across America through scientific research, data, and meaningful engagement. The Environmental Protection Agency (EPA) provides the “Environmental Justice Screen” (EJ Screen) mapping application to assist regional policymakers in identifying areas of concern for environmental justice, including an assessment of transportation-related health burdens. The Mid Region Metropolitan Planning Organization (MRMPO) has developed a regionally focused tool using the EPA’s EJ Screen data for the ease of local planners and decision makers.

The table below summarizes average annual pollutant exposure for residents of EJ Priority Tracts and the rest of the AMPA, with values normalized to a common scale and weighted by population for comparison. Although the area and population size in EJ Priority Tracts is much less than the rest of the AMPA, this population is more burdened by each pollutant measured. “EJ Priority Tracts” are tracts in the AMPA where the population of persons of color or low-income households is at or above the 80th percentile compared to the rest of New Mexico. For more about each of the criteria pollutants associated with transportation, see section 8.# on Air Quality, and for more about how each pollutant is measured and their potential health impacts, see the EPA’s EJ Screen page and technical documentation.

Table 40: Comparative Exposure to EPA Criteria Air Pollutants with known Impacts to Health

Normalized Population Weighted Averages	Total Population	Particulate Matter 2.5	Ozone	Diesel particulate matter	Toxic Releases to Air	Traffic proximity	NO2
EJ Priority Tracts	197,192	0.82	0.67	0.42	0.18	0.32	0.68

Other Tracts	692,683	0.20	0.17	0.08	0.02	0.02	0.16
Difference	-495,491	0.61	0.50	0.34	0.17	0.30	0.52

Populations of these tracts include many who are also more vulnerable or susceptible to health impacts from air pollution, such as seniors, children, and persons with a disability. The table below disaggregates the tract totals of these populations for each area.

Table 41: Vulnerable Residents of EJ Priority Tracts

	Population	Persons of Color	Low Income Households	Persons with a Disability	Children (under 5 years old)	Seniors (65 and older)
EJ Priority Tracts	197,192	165,833	106,242	35,312	11,810	24,259
Other Tracts	692,683	391,690	186,769	99,699	33,893	132,077
Difference	-495,491	-225,857	-80,527	-64,387	-22,083	-107,818

The USDOT's Equitable Transportation Community (ETC) Explorer also includes health data from the Center for Disease Control's Places 2020 dataset. The table below summarizes crude prevalence (% of population) with recorded incidences of health issues known to be associated with air pollutant exposure, and which increase vulnerability to further harm from air pollution in those who have such conditions.

Table 42: Comparative Prevalence of Health Conditions Associated with Impacts of Air Pollutants

Crude Prevalence (% of population) with Health Issues	Asthma	Cancer	High Blood Pressure	Diabetes
EJ Priority Tracts	6.4	2.4	15.9	7.2
Other Tracts	2.2	1.4	6.1	2.2
Difference	4.2	1.0	9.8	5.0

Tract populations vary widely between tracts of varying sizes, so these values are again weighted by population to ensure that each tract's contribution to the overall average reflects its population size. This provides a more accurate representation for comparison of the health issue's prevalence in the population of each area. Again, this data indicates low-income households and persons of color are disproportionately exposed to transportation-related air pollutants and environmental health in these communities is disproportionately impacted. Map 28 below symbolizes the overlap or coincidence of asthma prevalence and proximity to high-volume traffic, with EJ Priority Tracts

highlighted for comparison. This shows that high prevalence of asthma can occur in areas without high traffic volume proximity, and there are a few tracts with high traffic volumes and no equivalent level of asthma prevalence, but coincidence of both conditions are high for much of the most populated areas of Albuquerque.

Proximity to high traffic volumes can often also mean exposure to volumes of noise – and exposure to noise can also have several significant health impacts, affecting both mental and physical well-being. Here are some of the key health effects research has found associated with prolonged exposure to unwanted volumes of sound:

Mental Health Impacts:

- Stress and Anxiety; sleep disturbance; irritability and frustration.

Physical Health Impacts:

Hearing Impairment; cardiovascular issues; Type 2 diabetes; respiratory problems; adverse birth outcomes. Other Health Impacts:

- Cognitive Impairments; immune system changes.

While geographic data on actual volumes of noise exposure are not available, a reasonable proxy is relative distance from common sources of noise. The ETC index includes some of these measures for comparison, summarized in the table below.

Table 43: Comparative Noise Exposure

Comparative Proximity to Noise Sources	% of tract within 1 mile of high-volume roads	% of tract within 1 mile of railways	% of tract within 5 miles of airports
EJ Priority Tracts	54.7	9.0	47.6
Other Tracts	48.2	11.8	49.0
Difference	6.5	-2.8	-1.4

This data indicates EJ Priority Tracts are relatively farther away from some noise sources than many other tracts, but property values are typically lower near railway tracks and airports, making homes in such areas more affordable for lower income households. Mitigating noise pollution in communities near high-traffic areas is crucial for improving residents' quality of life. Here are some effective strategies:

Noise-Compatible Land Use Planning:

- Avoid Noise-Sensitive Land Uses: Plan and regulate land use to avoid placing schools, hospitals, and residential areas near busy roads.
- Buffer Zones: Create green spaces or buffer zones between traffic and residential areas to absorb and reduce noise.

Source Control:

- Quieter Pavements: Use materials for road surfaces that reduce noise from tire-road interaction.
- Vehicle Regulations: Enforce noise emission standards for vehicles and restrict modifications that increase noise levels.
- Traffic Management: Implement measures like speed limits, traffic signal adjustments, and truck routing to minimize noise.

Noise Mitigation Measures:

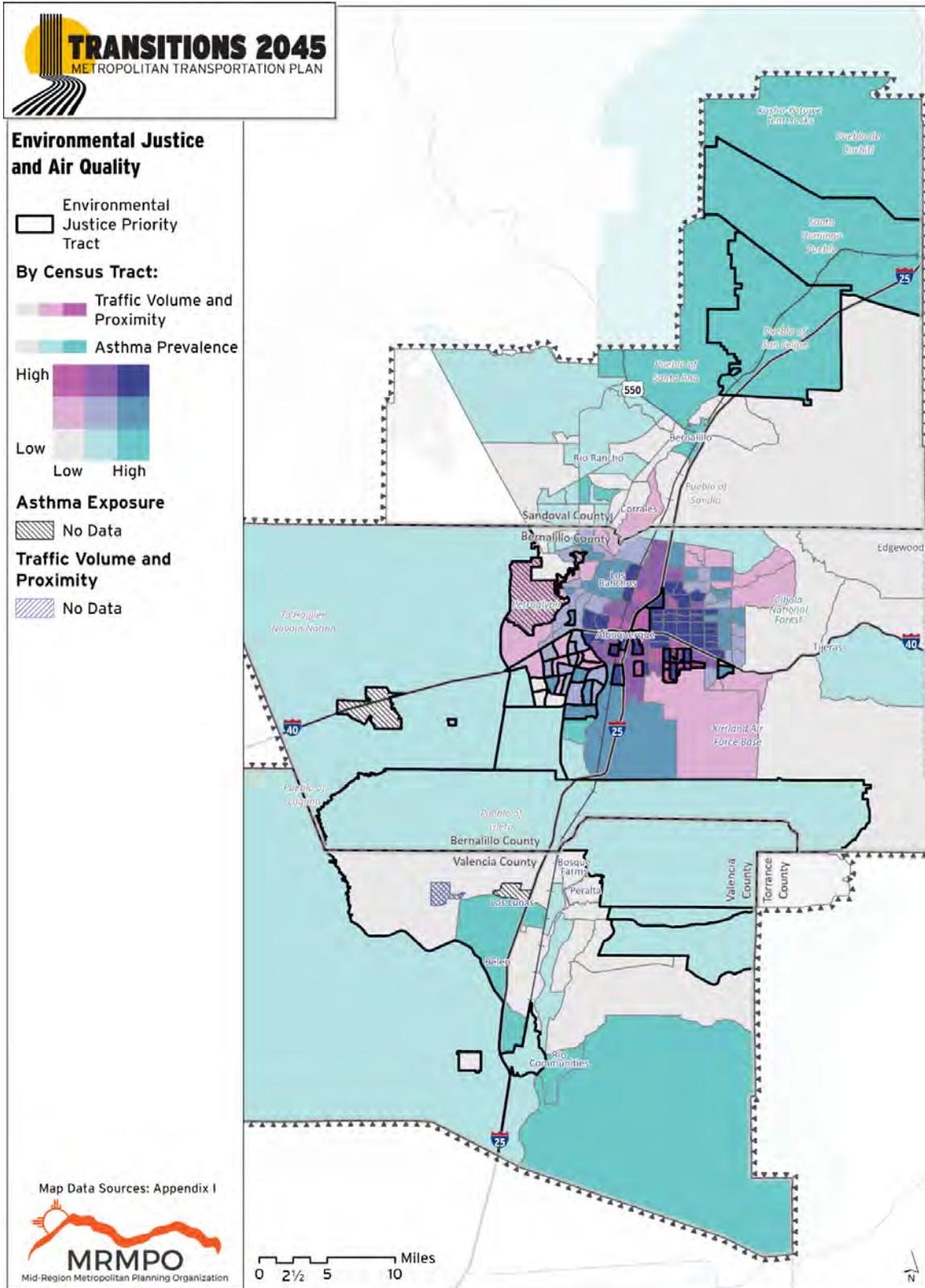
- Sound Barriers: Construct walls or barriers along highways to block noise from reaching residential areas.
- Depressing Highways: Build highways below ground level in sensitive areas to reduce noise exposure.
- Traffic Calming: Use speed bumps, roundabouts, and other traffic calming measures to reduce vehicle speeds and noise near highly populated residential areas.

Community Engagement:

- Public Awareness: Educate the community about noise pollution and its impacts.
- Feedback Mechanisms: Establish channels for residents to report noise issues and suggest improvements.

Implementing these strategies can significantly reduce noise and air pollution exposure to support a healthier environment for communities living near high-traffic areas. To improve equity, residents of EJ Priority Tracts should be given additional consideration in transportation project planning to avoid adding to the cumulative burden of these impacts on already overburdened areas.

Map 28: Environmental Justice and Air Quality



CHAPTER 10 FINANCIAL ANALYSIS

Financial analysis of the MTP is not only a federal requirement, but also good planning practice to ensure that planned transportation projects can be paid for with expected funding sources. This chapter will examine the projected revenues and expenditures for projects and programs in the region over the next 20 plus years. This MTP continues to place greater emphasis on maintenance and preservation of existing infrastructure with large-scale highway capacity and transit service expansions limited to strategic locations that provide greater long-term transportation and economic benefits. In addition, projects that advance safety and multimodal connections and which address inequities across the transportation network, are emphasized as well.

This chapter is still being developed with input from local agencies in the region. It will include information that demonstrates the plan is fiscally constrained, including revenues, expenditures, and projections. It will also include a summary of MTP projects.

**CHAPTER TO BE
DEVELOPED...**

CHAPTER 11 PLAN IMPLEMENTATION AND EVALUATION

11.1 Implementation of the MTP

Implementing a plan is essential to guide the maintenance and expansion of a safe, efficient, and pleasant transportation system, essentially bringing the planning practice to life. The MTP is implemented in various ways and through the help of numerous partners, most of which are government agencies. The primary implementation tools of the MTP are described below.

11.1a Transportation Project Selection and Funding

MTP Project List

One of the key products of the MTP is the MTP project list, a list of regionally significant transportation projects that are planned for the region over the next 20 years. This comprehensive project list is critical since a project must be included in the MTP to be eligible to receive federal funding.

The MTP project list is developed in an iterative and evolving manner. The list first builds off the previous MTP project list. Local agencies are asked to review the list and remove any projects from their jurisdiction that they no longer believe should be included, as well as identify any other changes that are needed such as project termini, phasing, and costs. During this first round of review, local agencies are also invited to propose new projects for inclusion.

In the recent past, MTP project lists primarily followed this process before being adjusted as necessary to meet fiscal constraint. For this MTP, the following new considerations have been included to help guide the development of the project list:

- **Problem area feedback as identified through public engagement and survey efforts:** Information on perceived problem areas was shared with local agencies to help inform project list development. This data also included ideas from the public on how to address the problems.
- **Travel demand model results of projected future roadway conditions:** This information was derived from projected socioeconomic data and the existing roadway network (what is known as a “No-Build scenario”) inputted into a travel demand computer model which allows for a projection of how the roadway network would perform under those conditions. This exercise helps identify where investments may be needed most.
- **Desired spending on different project types (safety, transit, capacity, bicycle and pedestrian, etc.):** In an effort to better align actual spending with desired spending, the public were asked how they would like to see transportation dollars spent. While project funding is more complex than the average citizen may realize, agencies were encouraged to take the public feedback into consideration as it provides valuable insights into regional spending priorities.

Projects included in the MTP are usually conceptual and require further vetting. Nevertheless, working to make the MTP project list more responsive to MTP goals and projected future conditions will elevate the most beneficial projects for selection consideration. Further vetting and more

detailed projects emerge through the Project Selection Process, which feeds into the Transportation Improvement Program.

TIP Project List

The Transportation Improvement Program (TIP) is a federally mandated, short-term plan that programs funding for transportation projects in the metropolitan area. For a project in the AMPA to receive federal funding, it must be included in the TIP. It must also be included in, or be consistent with, the MTP and must help the MPO achieve its performance measures, goals and targets (information on performance measures is included in section 11.2).

The TIP is the near-term implementation program for the MTP. The MTP provides a framework for development of the TIP, and the TIP serves as a tool for program and project implementation. The TIP can be used to track local, state, and federal transportation dollars (note that the TIP must also include non-federally funded projects that are considered “regionally significant”).

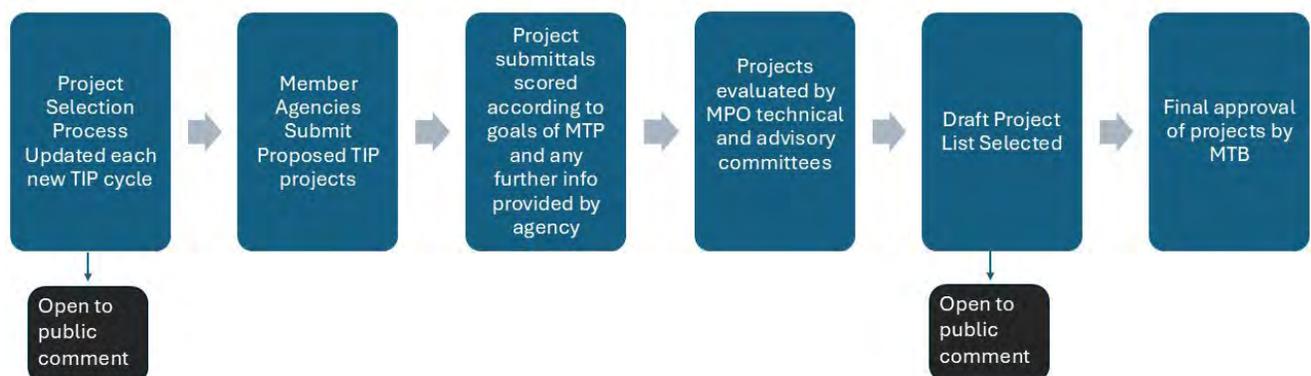
The TIP covers a six-year period, with the first four years constituting the “Federal TIP”, which is the federally mandated portion, plus two informational years. A “new” TIP is developed every two years by adding the next two subsequent fiscal years. Each fiscal year must be fiscally constrained, meaning that the amount of funds programmed must not exceed the amount of funds estimated to be available in each year⁷⁸.

A TIP, once adopted, is designed to make progress toward achieving the MTP goals and performance targets. A TIP shall include, to the maximum extent practicable, a description of its anticipated effect toward achieving the performance targets, linking investment priorities to those performance targets.

Project Selection Process

The Project Selection Process (PSP) is used to prioritize and select projects for funding through the TIP. As in most metropolitan areas, the need for transportation investment in the AMPA exceeds the funds available. Therefore, policy makers must carefully choose which projects move forward, prioritizing those that are likely to have the greatest beneficial impact on the overall transportation system. The PSP is a process developed by MRMPO that is used to evaluate transportation project submittals from member agencies for federal transportation funding.

Figure 57: Project Selection Process



⁷⁸ Read more about the TIP here: <https://www.mrcog-nm.gov/277/Short-Range-Plan-TIP>

Project submittals are scored according to the goals of the MTP and related criteria (see table below which shows the scoring criteria). Note that some criteria look similar but are distinct because they have different evaluation types, e.g., based on their location, a narrative, or whether they align with a defined strategies checklist. The PSP ensures that selected transportation projects are consistent with and will help meet the MTP goals vetted by local agencies and the public. Additionally, each agency proposing projects may provide further qualitative information to aid in the assessment of the various project proposals (e.g., the value of the project to the region, the community, or potential impacts) to help determine which projects should ultimately be programmed in the TIP. In practice, the project scores and ranking tables utilized in the PSP have emerged as a valuable tool and have resulted in an increase in funding for regionally significant and beneficial projects.

The PSP is updated with each TIP cycle as new data becomes available and new policies are introduced. New crash rates, traffic volume, and travel time data are available each year and are utilized to ensure projects are evaluated on the most recently observed transportation conditions. Updated socioeconomic data is also used when available.

Table 44: PSP Project Scoring Criteria

PSP Project Scoring Criteria	Economic Linkages
Optimized Mobility	Access to Destinations
Top Congested Corridors	Target Scenario
Intelligent Transportation Systems	Freight Network
Long Range Transit Network	Local Economic Development
People Movement	Access Strategies
Reliability	Financial Strategies
Congestion	Freight Strategies
ITS Infrastructure	Environmental Resiliency
Roadway Capacity Strategies	Flood Zones
ITS Strategies	Air Pollution
Transit Strategies	Tree Canopy
Active Transportation	Bridge Conditions
High Fatal and Injury Network	Natural Environment
Road Diet Candidates	Infrastructure Preservation
Pedestrian Composite Index	Critical Infrastructure
Long Range Bicycle System	Air Quality Strategies
Safety and Crash Reduction	Climate Change Strategies
Complete Streets/LRTS Guide	Preservation Strategies
Network Connectivity/Redundancy	Equity
Pedestrian and Bicycle Strategies	MRMPO Vulnerability Index
Education and Outreach Strategies	Addressing Equity
Geometric Safety Strategies	Equity Strategies

11.1b Other Implementation Mechanisms

Local Development Review

MRMPO reviews development proposals from local governments in the AMPA for consistency with the MTP. This review ensures new development and redevelopment in the region concurs with the goals of the MTP and is an example of the continuous implementation of the MTP that occurs. Many of the networks found throughout this document are consulted when development projects are submitted so that MRMPO feedback is closely tailored to the recommended tools and strategies that are located within this plan.

Long-Range Transportation Systems Guide

The Long-Range Transportation Systems (LRTS) Guide, discussed more in detail in Chapter 6 and found in the appendix of the MTP, is a design guidance document developed by MRMPO to assist in the design of roadways that meet the needs of users of all abilities and of all transportation modes. The design guidance as well as the aspirational, fiscally unconstrained long-range transportation system maps assist with implementing the goals of the MTP as well as safety-related objectives.

Regional Transportation Safety Action Plan

The Regional Transportation Safety Action Plan (RTSAP) is the MRMPO's regional plan for improving safety for the traveling public. The RTSAP includes recommended strategies that can help improve safety and a list of projects that local agencies have identified as important for enhancing safety. The RTSAP allows safety efforts to be implemented, as projects included in the RTSAP are eligible for federal Safe Streets for All grant funding (as well as funding from other sources). The RTSAP is a standalone plan which can be found on the MRCOG website, and is discussed in more detail in [SECTION REFERENCE].

11.2 MTP Project Evaluation Process

To ensure that TIP implements the MTP, makes progress toward achieving performance targets, and follows a performance-based approach, each of the MTP goals has been evaluated and linked to one or more of the national goals. Although each individual project may not always align with or help satisfy all established performance measures, together the suite of implemented projects should help achieve adopted targets. MRMPO's goal is to implement a program of projects that will collectively focus on improving surface transportation in the AMPA and help achieve federal performance and MTP goals.

There are various ways in which MRMPO's programs and regional projects are evaluated. This section provides an overview of the program and project evaluation process.

11.2a Federal performance measures

Federal law requires MPOs and state departments of transportation to incorporate performance-based planning and programming practices into their planning activities. Federal performance measures (PMs) relate to the following areas of transportation: safety, infrastructure condition, system performance, transit asset management, and public transportation safety. MPOs are required to set or adopt performance targets for these measures which relate to national transportation goals. Performance-based planning and regulations were set in the Moving Ahead for Progress in the 21st Century Act (MAP-21) and continued in subsequent federal transportation

law. The purpose of federal performance measures is to use performance data to support decisions that help achieve desired outcomes. MRMPO has coordinated with the New Mexico Department of Transportation (NMDOT) and transit agencies in the region on this aspect of plan development. The table below shows the federal performance measure areas and the national performance and MTP goals to which they relate.

Table 45: Federal Performance Measures, National Goals, and MTP Goals

Federal Performance Measure Areas	National Goal	MTP Goal
Safety (PM 1)	Safety	Active Transportation, Equity, Mobility, Economic Vitality
Pavement and Bridge Condition (PM2)	Infrastructure Condition	Mobility, Economic Vitality
System Performance (PM3)	System Reliability, Freight Movement and Economic Vitality	Mobility, Economic Vitality
Transit asset management	Environmental Sustainability	Equity, Healthy Environment
Public transportation safety		Equity

MRMPO tracks progress toward federal performance targets along with the NMDOT. The most recent data showing progress towards federal performance measure targets for PMs 1 through 5 is shown in the table below (additional detail on federal performance measures is found in Appendix X).

Table 46: MRMPO Federal Performance Measure Target Progress Measures

PM Number	Name	On target/off target?	Description	Metric	Goal Met	Current Actual	Target	Trend	Most Recent Year Reported
PM 1	Safety	Off	Safety performance measures track the number of fatalities and serious injuries for motorists and bicyclists and pedestrians over a five-year moving period.	Number of fatalities	No	512	450		2024
				Rate of Fatalities per 100 million vehicle miles traveled	No	1.889	1.689		2024
				Number of serious injuries	No	1037	1018.6		2024
				Serious injury rate per 100 million vehicle miles traveled	Yes	3.828	3.8		2024
				Number of Non-Motorized Fatalities and Serious Injuries	No	222.6	200		2024
PM 2	Infrastructure Conditions	On	Infrastructure Conditions	Percentage of bridges in "good" condition	Yes	36.2%	30%		
				Percent of bridges in "poor" condition	Yes	2.40%	3.30%		2021
				Interstate pavements in good condition	No	54.0%	55.0%		2021
				Interstate pavements in poor condition	Yes	1.7%	5.0%		2021
				Non-Interstate pavements in good condition	Yes	36.70%	34.20%		
				Non-Interstate pavements in poor condition	Yes	2.6%	12%		2021
PM 3	System Performance	On	System Reliability	Percent of person-miles on Interstate System that are reliable	Yes	98.50%	95.10%		2021

The most recent information showing progress towards federal performance measure targets for PMs 4 and 5 is shown in the table below:

Table 47: MRMPO Federal Performance Measure Target Progress

PM Number	Name	On target/off target?	Description	Metric	Goal Met	Current Actual	Target	Trend	Most Recent Year Reported	
PM 4	Transit Asset Management		ABQ RIDE-Percentage of non-revenue, support service, heavy equipment and maintenance vehicles that have met or exceeded their useful life benchmark	1. Supervisory/staff-support vehicles						
				2. Maintenance vehicles						
				3. Heavy equipment						
			Percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB	1. 40 foot buses						
				2. 60 foot buses						
				3. Para-transit vans						
			Rio Metro-Percentage of non-revenue, support service, heavy equipment and maintenance vehicles that have met or exceeded their useful life benchmark	1. Supervisory/staff-support vehicles	Yes	38%	50%			2023
				2. Maintenance vehicles	No	46%	33%			
			Percentage of revenue vehicles within a particular asset class that have either met or exceeded their ULB	1. Locomotives		0%	0%			
				2. Cab cars		0%	0%			
				3. Coach cars		0%	0%			
				4. Cutaway buses		65%	72%			
Percentage of facilities in an asset class scoring less than a 3 on the TERM scale	1. Administrative and maintenance facilities		0%	0%						
	2. passenger and parking facilities		0%	0%						
	3. Percentage of track segments with performance restrictions		0.50%	3%						
PM 5	Public Transportation Agency Safety Plan	Plans submitted by transit agencies and approved by MTB by due date	Plans submitted by transit agencies and approved by MTB by due date	Yes					2023	

Meeting targets for federal performance measures is a collaborative effort. Recent efforts taken in the AMPA that address the performance measures include the following:

- **Safety**
 - Funding of various safety-related projects in the AMPA: Funding for safety projects (projects primarily classified as safety projects) was approximately four percent of total project funding expenditures in the previous MTP. Some examples of safety-related projects that have received federal funding through the TIP include the APS Youth Vision Zero Initiative, the AMPA Wide Bicycle/Pedestrian Safety Education Program, mid-block crossings constructed on Louisiana Boulevard between Gibson and Central, and safety improvements made along Coors Boulevard between Gun Club Road and Blake Road.
 - Safety-related plans and efforts in the AMPA. Examples include the NMDOT Pedestrian Safety Action Plan and the City of Albuquerque Vision Zero Action Plan. A full list of such plans is included in the 2024 RTSAP.
- **Infrastructure Condition**
 - Funding of preservation and maintenance projects in the AMPA: Funding toward preservation and maintenance has increased in recent years through increased awareness on the part of MRMPO and regional partners of the importance of prioritizing the maintenance of existing infrastructure.
- **System Performance**
 - CMP products such as the Project Selection Process, CMP toolkit, and CMP strategies matrix; also ITS elements included in TIP projects (e.g., traffic information dissemination, roadway service patrols, and traffic surveillance)
- **Transit Asset Management and Public Transportation Safety**
 - The MTB-adopted transit set-aside supports transit projects, CABQ transit enhancement-related projects in the TIP and Rio Metro efforts for improving safety such as track improvements and positive train control, etc.

11.2b Regional Performance Measures

The MRMPO has developed regional performance measures to track progress on advancing the Goals and Objectives of the Transitions 2045 MTP. MRMPO intends to use these regional performance measures in addition to, and as a complement to, the federal performance measures to provide a more complete understanding of overall regional conditions and performance as project implementation takes place.

The following table illustrates the MTP goals, objectives, and performance measures as well as baseline measures and targets for which the region is aiming.

The intention of performance measures is to assess how well a region is attaining its desired planning outcomes. They help determine if changes in approach are needed or if satisfactory progress is being made. Regional performance measures help assess performance to identify and illustrate where changes are needed – through policy changes, funding allocation, and types of projects. Tracking progress toward targets can help the region adjust approaches and highlight areas where work with partners is needed to better meet targets, objectives, and goals.

Table 48: MRMPO Regional Performance Measures

Goal	Objective	Performance Measure	Current/Baseline	2045 Target
Mobility	Prioritize safety for all users of the transportation system	Funds programmed towards safety projects		
	Preserve and enhance existing infrastructure	Funds programmed towards preservation & maintenance		
	Enhance Transportation System Management & Operations	Annual hours of peak hour delay per capita		
	Support frequent transit service	Transit mode share		
	Advance emerging technologies in transportation	Number of smart intersections		
Active Transportation	Improve safety for bicyclists and pedestrians	Protected and buffered bike lane miles and enhanced crossings		
	Build connected bike and pedestrian travel networks	New bike lane miles/new sidewalk miles		
		Coordinate land use and transportation planning	Jobs / Housing Ratio	
Healthy Environment	Protect and enhance the natural environment	Air quality		
	Prevent disproportionate environmental impacts to low-income neighborhoods and communities of color	Rate of respiratory and other environmentally related illnesses in EJ priority tracts		
	Reduce transportation contributions to climate change	VMT		
	Protect public health and safety from the impacts of climate change	Land surface temperatures in heat priority areas		

Goal	Objective	Performance Measure	Current/Baseline	2045 Target
Economic Vitality	Support regional freight, logistics, and goods movement	Delay on freight corridors		
	Invest in creating vibrant places	Amount of investment in activity centers		
	Encourage diverse housing options	% of non-single-family homes in new housing stock		
Equity -	Provide safe and reliable routes to daily destinations	Non-motorized fatalities and serious injuries in EJ Areas		
	Increase access to green space and outdoor recreational opportunities	% of EJ households within ½ mile distance of a public park that can access the park using walkable network		
	Improve access to economic opportunity	Frequency of transit service/square mile		
	Expand access to affordable housing	Ratio of housing cost to income		

11.3 Recommended Strategies for Achieving the MTP Goals

Previously known as the Recommended Pathways in *Connections 2040*, the Transitions 2045 MTP Strategies have been revised to reflect updates of the MTP goals and current planning efforts and policies that are in alignment. The strategies update was a process that involved the participation of various stakeholders, including MRMPO staff and committees, transportation professionals, the public, and other experts. Overall, the key changes can be broken down into the following:

- Strategies organized by MTP goal
- Integration of new MTP Equity goal
- Integration of related Project Selection Process (PSP) strategies
- Overhaul of the language
- Removal of redundant strategies
- Addition of new strategies

While not all strategies are appropriate for all member agencies, this should be considered a toolbox from which jurisdictions and other entities can find appropriate regional strategies. MRMPO staff are available to assist with these efforts upon request. The following tables provide a

summary of the Key Strategies categorized by MTP goal. A complete list of strategies is available in Appendix X.

Active Transportation

- Provide non-motorized access and safe routes to existing and potential recreational areas and open space.
- Ensure the health and safety of the traveling public.
- Improve the user experience for cyclists, pedestrians, and transit riders with useful and safe connections and design.
- Design roadways and multimodal facilities that can be safely and comfortably used by people of all ages and abilities.
- Improve multi modal access to and within key centers and transit corridors.
- Encourage the siting of schools, including the location of internal ped/cyclist access points and routes, in a way that improves active transportation infrastructure.

Economic Vitality

- Encourage place-making, innovation, and the expression of community identity in centers and corridors and/or other Key Centers identified in the 2045 MTP.
- Incentivize redevelopment, transit-oriented development, and infill in order to maximize the utility of existing infrastructure.
- Support projects utilizing innovative technologies to improve regional competitiveness and sustainability.
- Promote a diverse mix of housing, in cost, unit types, and neighborhood settings targeting areas within walking distance of frequent transit routes.
- Encourage a mix of land uses (retail, housing, entertainment, etc.) and multimodal facilities in appropriate locations to encourage shorter and more active trips.

Equity

- Ensure transportation investments equitably distribute the benefits and burdens of transportation investments to help mitigate and reduce past impacts while avoiding new and future impacts.
- Design and adapt transportation systems to meet the different needs of people of all ages and abilities.
- Encourage affordable housing development near transit through creative incentives and funding mechanisms
- Target investment in street trees and shade structures to protect the most vulnerable populations from dangerous heat extremes.
- Provide equitable transportation access to regional medical services, senior centers, and multi-generational and community facilities.

Healthy Environment

- Work with nature to reduce environmental harm and support environmental health.
- Practice low-impact principles to make development sustainable.
- Protect critical wildlife habitats and culturally important natural areas.

- Provide for the mobility needs of wildlife by facilitating safe roadway crossings of migration corridors.
- Facilitate the decarbonization of transportation by further developing alternative fuel infrastructure.

Mobility

- Develop a long-range regional transit plan in coordination with public service agencies, municipalities, and developers that contains prioritized transit investments.
- Adopt mixed-use and higher-density zoning along transit corridors to support ridership.
- Conduct a complete streets analysis whenever restriping or resurfacing a roadway to identify opportunities for road diets and/or create improvements to the multimodal environment.
- Expand the use of transportation management and operations strategies such as Intelligent Transportation Systems (ITS).
- Prioritize existing infrastructure maintenance.

11.3a Survey Results

In the second MTP survey, MRMPO created an exercise where participants could rate the updated Key Strategies. The results for the main key strategy by goal category that resonated with the public the most are:

- **Active Transportation:** Improve the user experience for cyclists, pedestrians, and transit riders with useful and safe connections and design.
- **Economic Vitality:** Encourage a mix of land uses (retail, housing, entertainment, etc.) and multimodal facilities in appropriate locations to encourage shorter and more active trips.
- **Equity:** Encourage affordable housing development near transit through creative incentives and funding mechanisms.
- **Healthy Environment:** Protect critical wildlife habitats and culturally important natural areas.
- **Mobility:** Develop a long-range regional transit plan in coordination with public service agencies, municipalities, and developers that contains prioritized transit investments.

11.4 Next Steps

11.4a Topical MPO Next Steps

The role of the MTP and the metropolitan transportation planning process is to identify regional needs and assist member agencies in transportation infrastructure decision-making. Each MTP is another step toward a more complete and coherent understanding of the overarching challenges facing the region – transportation and otherwise – and the strategies that best address them. The MTP is updated regularly, which helps it remain a relevant and meaningful resource for member agencies and the public. The process and methodologies are continuously being revised as new information and ideas emerge and each MTP builds on the one that came before.

While the 2040 MTP investigated the relationship between alternative development patterns through its scenario planning process, the Transitions 2045 MTP examines a region growing at a slower rate and reconsiders priorities and approaches for investments that support mobility, the economy and environment, equity, and active transportation in the post-pandemic world.

The MTP will be updated again in five years and will contain new projections, analysis, goals, and objectives. For the time in between the approval of the Transitions 2045 MTP and the next update (the 2050 MTP), the MRMPO has identified several potential activities to pursue as well as opportunities to advance in-house tools and analytical capabilities. These steps should help to better inform transportation and land use investments and policy decisions. As always, these are regional efforts and will require participation from member agencies throughout the AMPA. Next steps are listed below by topic area, with the bolded statements representing the highest priority steps for each topic.

Mobility: Promote the safe and efficient movement of people and goods throughout the region

- **Collaborate with the CMP committee on before and after analyses of transportation projects including the effectiveness of ITS improvements, transit projects, etc.**
- Analyze fluctuations in travel demand during peak and off-peak periods to evaluate roadway capacity and potential for travel demand management strategies.
- Share best practices with member agencies from the NMDOT TSMO plan.
- Utilize the travel demand model and other technical tools to assess the anticipated benefits of MTP projects.

Active Transportation: Ensure safe and convenient ways to travel for people who cannot or choose not to drive

- **Expand the non-motorized counts program to include additional counters on different types of facilities to inform bike and pedestrian plans.**
- Use the regional Level of Traffic Stress tool to identify gaps in the bikeway network
- Develop network estimations from expanded counts program.
- Participate on inter-agency project teams to align planning efforts and safety strategies for active modes.

Healthy Environment: Incorporate climate change and environmental considerations into transportation planning and decisions

- **Improve data collection and tools on GHG monitoring and modeling**
- Publish the Hazard/Resilience Risk Map for use in agency planning efforts.
- Incorporate assessment of environmental impacts such as GHG emission estimates of proposed projects in the Project Selection Process
- Create a tool to evaluate and incorporate environmental impacts of proposed projects to be used in local development review map

Economic Vitality: Strategically invest in high-quality transportation systems that support the economic health of the region

- **Raise awareness around the Housing Needs Assessment to support affordable and diverse housing opportunities in the region.**
- Assist local agencies and economic development organizations by providing data and information to assist with improving economic vitality in the region.
- Collaborate with local agencies to align transportation planning efforts with projects designed to support and grow the economy.
- Monitor progress of targeted investments in Key Centers.

Equity: Improve safe and reliable transportation systems in traditionally underserved communities

- **Integrate the most recent disadvantaged and environmental justice priority tracts into MTP and TIP project selection processes.**
- Collaborate with member agencies to share mapping tools and findings on distribution of benefits and burdens of transportation investments.
- Target public engagement in underserved areas to hear more directly from affected communities about their transportation needs.
- Identify equity gaps in MPO planning process and programs and make continuous improvements.

Safety

- **Work with member agencies to implement the approved RTSAP and update it to align with local planning efforts.**
- Coordinate with NMDOT on the Target Zero initiative and Strategic Highway Safety Plan (SHSP).
- Participate in and support Safe Routes to Schools initiatives and efforts.
- Provide support to member agencies applying for safety funding opportunities including Safe Streets and Roads for All (SS4A) grants.

11.4b Legislative Priorities

[To be Developed in Subsequent Drafts of this Document]

Forthcoming Transitions 2045 MTP APPENDIX Documents

Note: Appendix documents for the Transitions 2045 MTP will be made available by the second round of public review (Final Draft MTP) in February 2025.

Appendix A: MTP Project List

Appendix B: Illustrative Projects List and Projects of Regional Interest

Appendix C: Financial Plan Detail

Appendix D: IJJA Federal Performance Measures and Targets

Appendix E: Recommended Strategies

Appendix F: Public Participation Plan and Evaluation

Appendix G: Common, Rare and Endangered Species of Wildlife and Vegetation in the Region

Appendix H: Long Range Transportation System Maps

Appendix I: Federal TSMO Programs

Appendix J: Affordable Housing Providers

Appendix K: Forecast Methodologies

Appendix L: DRAFT Document Maps and Data Sources for Maps *(included in this DRAFT document)*

Appendix M: Acronyms

Appendix N: MTP Companion Documents

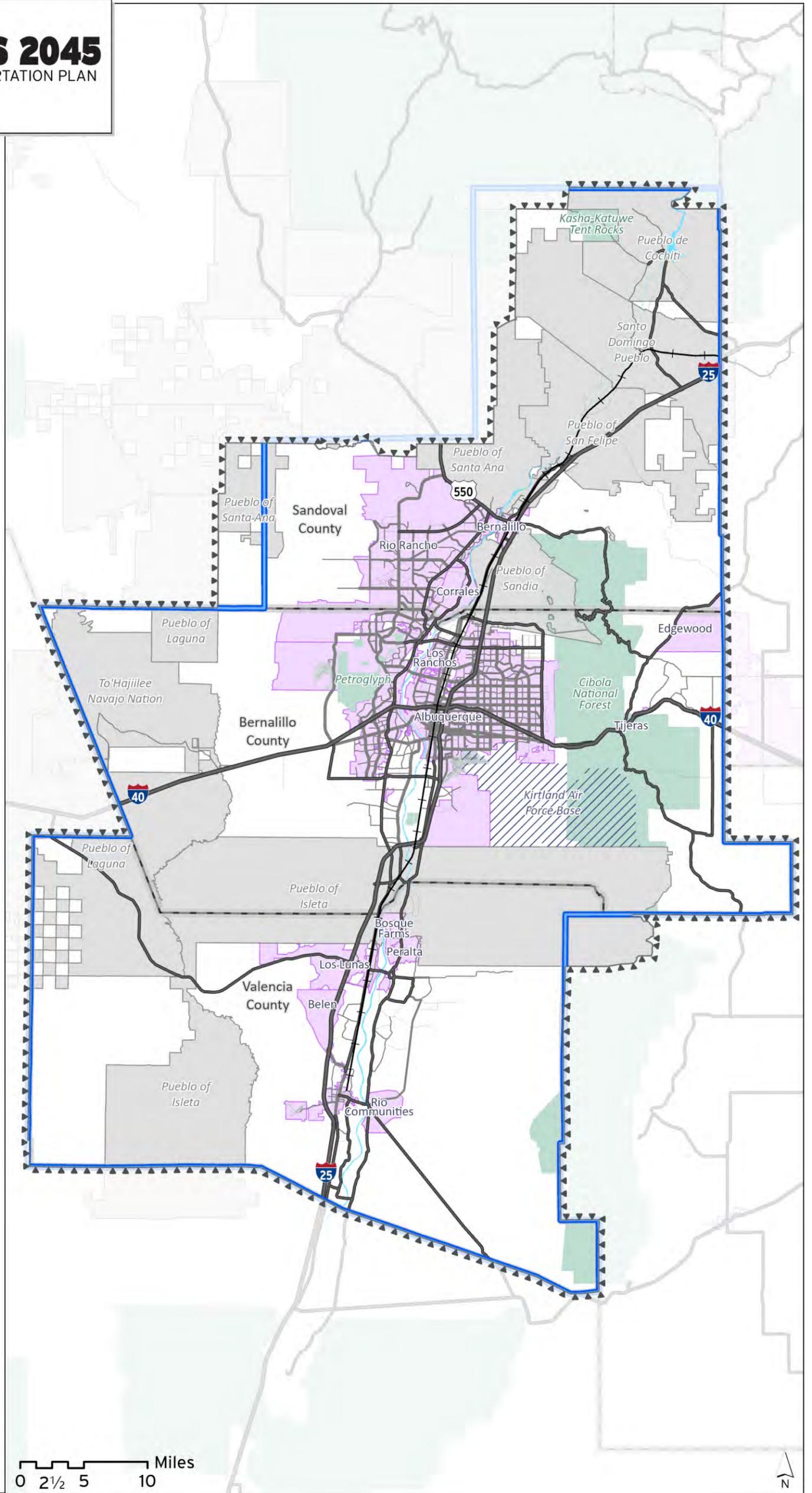
- **Transportation Improvement Plan (TIP)**
- **Project Selection Process (PSP)**
- **Public Participation Plan (PPP)**
- **Regional Transportation Safety Action Plan (RTSAP)**
- **Long Range Transportation Systems Guide (LRTS Guide)**



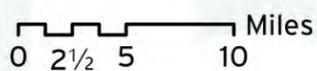
APPENDIX L: DRAFT DOCUMENT MAPS and DATA SOURCES FOR MAPS

Albuquerque Metropolitan Planning Area (AMPA) Boundaries

- AMPA Boundary
- Tribal Area
- NMDOT District 3
- County Boundary
- Municipality
- Interstate
- US Highway
- State Highway
- Other Road
- Rail Runner
- Airport
- Kirtland Air Force Base (KAFB)
- Rio Grande
- Nationally Protected Areas (National Forests, Monuments, Parks, and Wildlife Refuge)



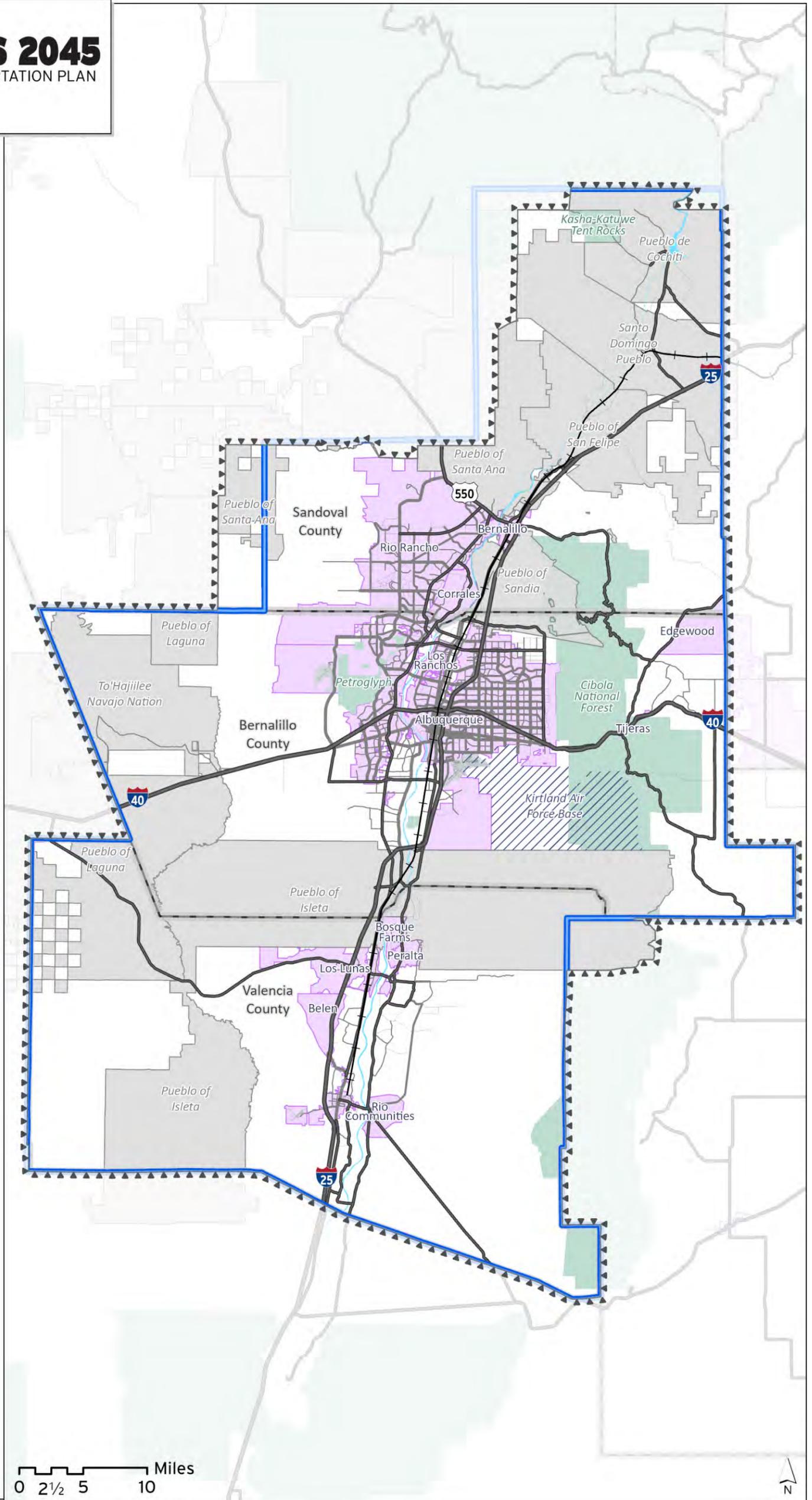
Map Data Sources: Appendix _





Albuquerque Metropolitan Planning Area (AMPA) Boundaries

- AMPA Boundary
- Tribal Area
- NMDOT District 3
- County Boundary
- Municipality
- Interstate
- US Highway
- State Highway
- Other Road
- Rail Runner
- Airport
- Kirtland Air Force Base (KAFB)
- Rio Grande
- Nationally Protected Areas (National Forests, Monuments, Parks, and Wildlife Refuge)



Map Data Sources: Appendix I



0 2 1/2 5 10 Miles

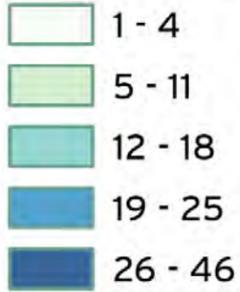




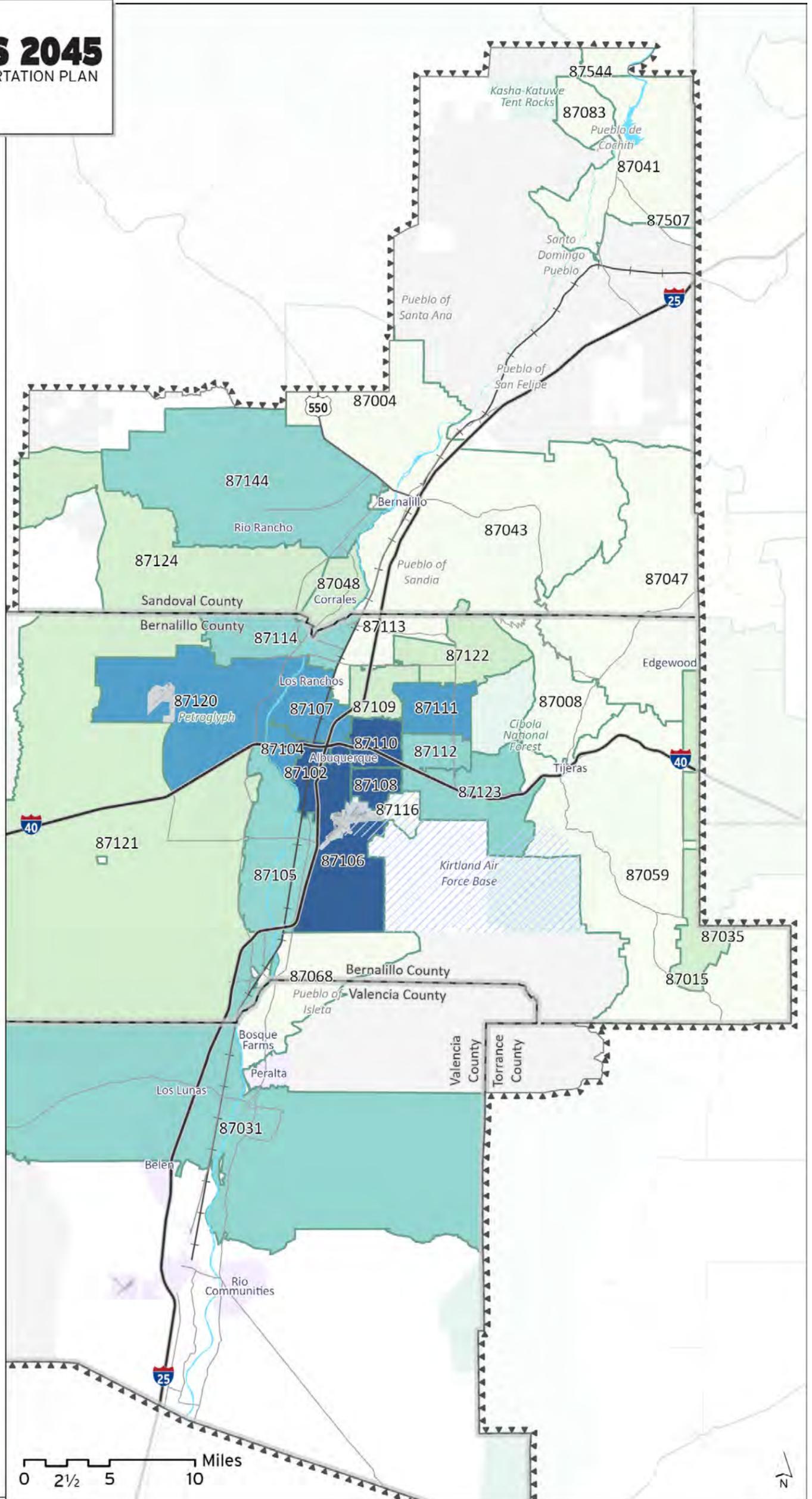
Responses to MTP Public Surveys by ZIP Code - Place of Residence

ZIP Code Tabulation Areas*

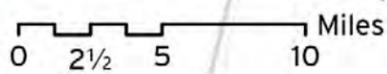
Number of Responses



* ZIP Code Tabulation Areas (ZCTAs) are approximate representations of United States Postal Service (USPS) ZIP Code delivery areas. ZCTAs are produced by the US Census Bureau. The USPS does not produce maps or mappable datasets of ZIP Codes at this time. For additional information, please refer to US Census Bureau and the USPS.



Map Data Sources: Appendix I

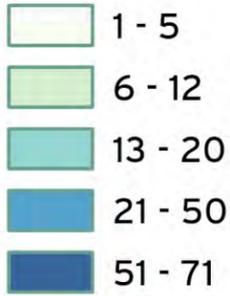




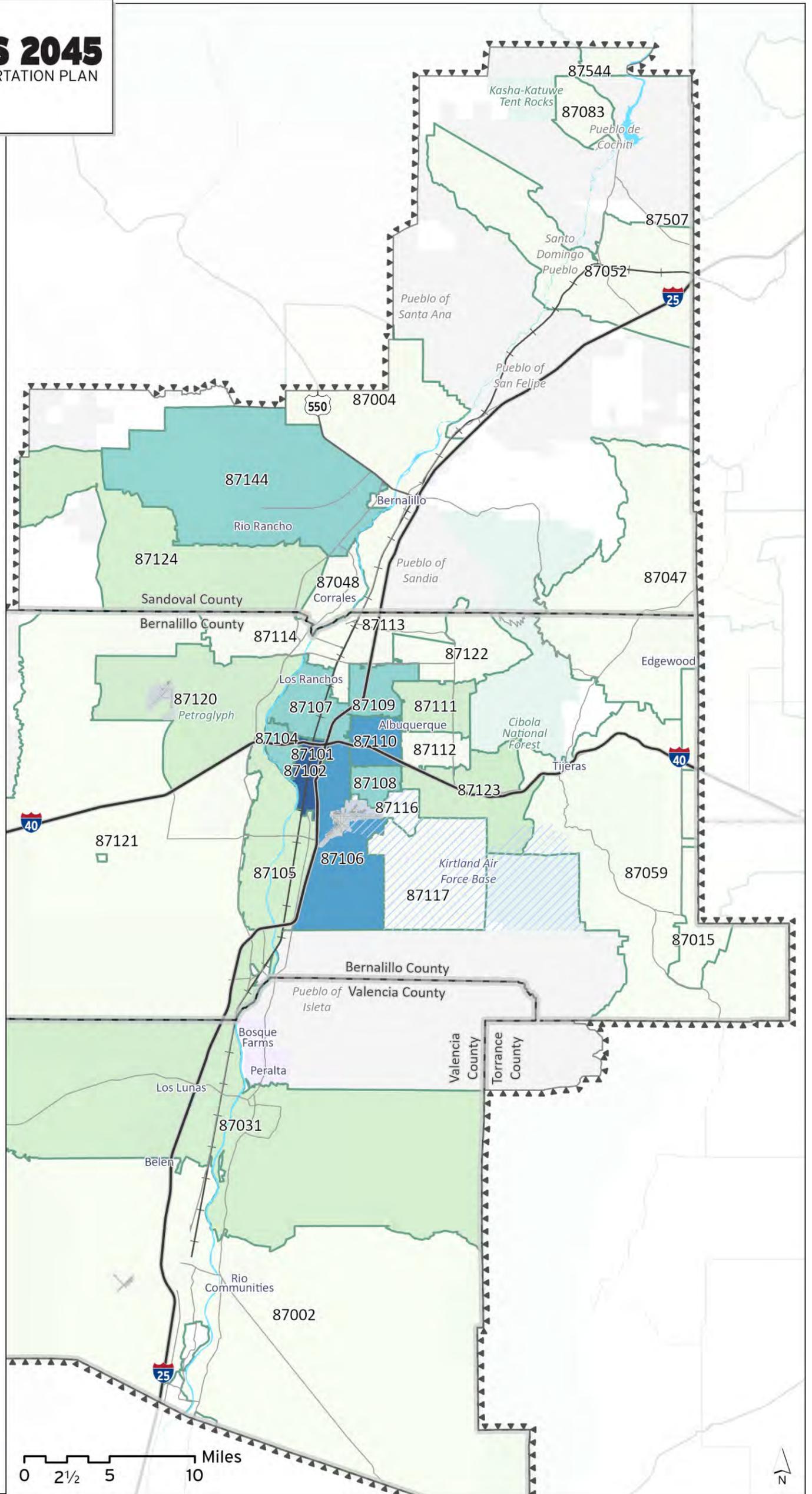
Responses to MTP Public Surveys by ZIP Code - Place of Work/School

ZIP Code Tabulation Areas*

Number of Responses



* ZIP Code Tabulation Areas (ZCTAs) are approximate representations of United States Postal Service (USPS) ZIP Code delivery areas. ZCTAs are produced by the US Census Bureau. The USPS does not produce maps or mappable datasets of ZIP Codes at this time. For additional information, please refer to US Census Bureau and the USPS.



Map Data Sources: Appendix I

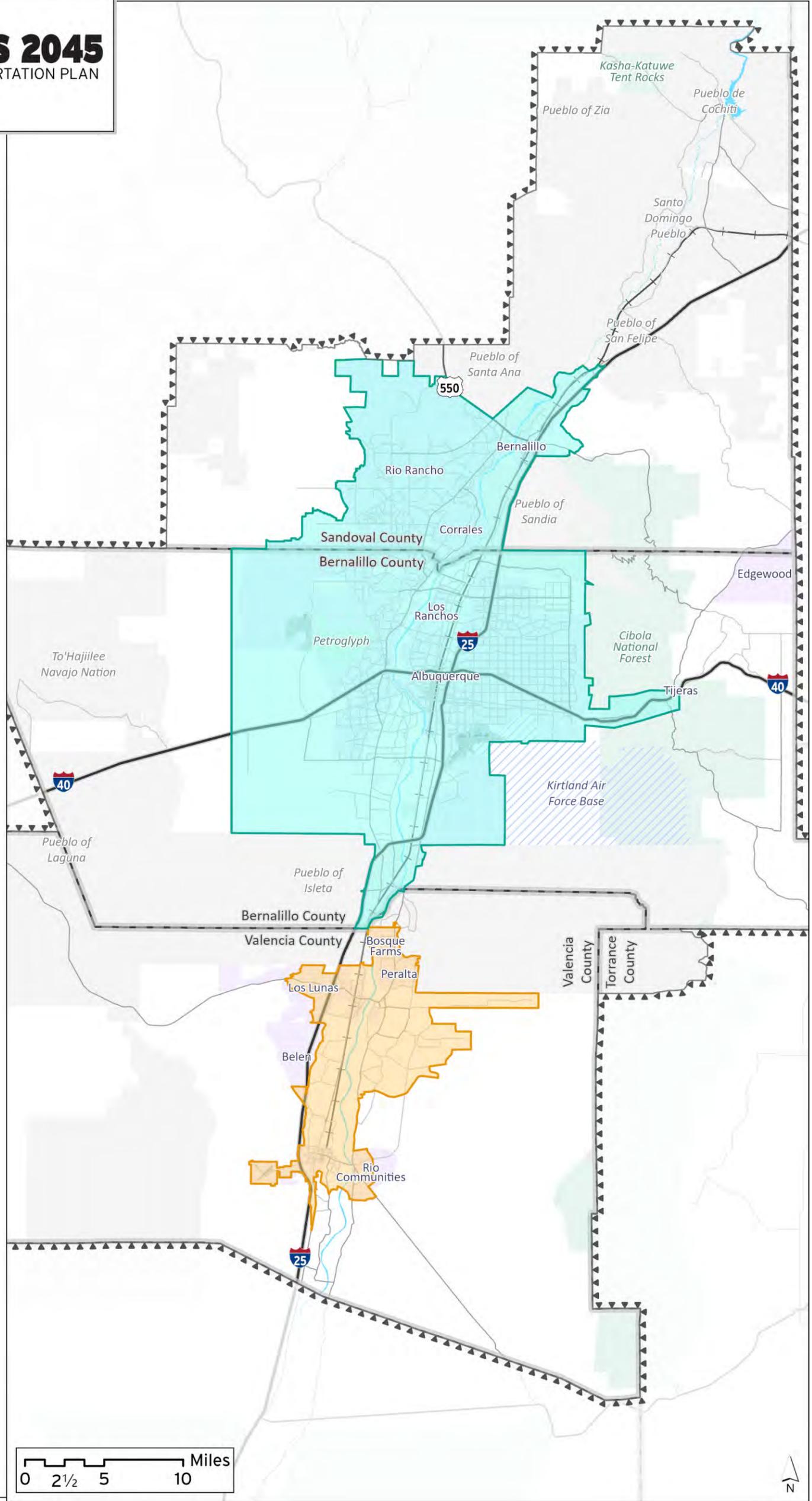




Urban and Rural Areas

- Albuquerque Large Urban Area
- Los Lunas Small Urban Area

Rural Areas include all areas outside of the Urban Areas.



Map Data Sources: Appendix _

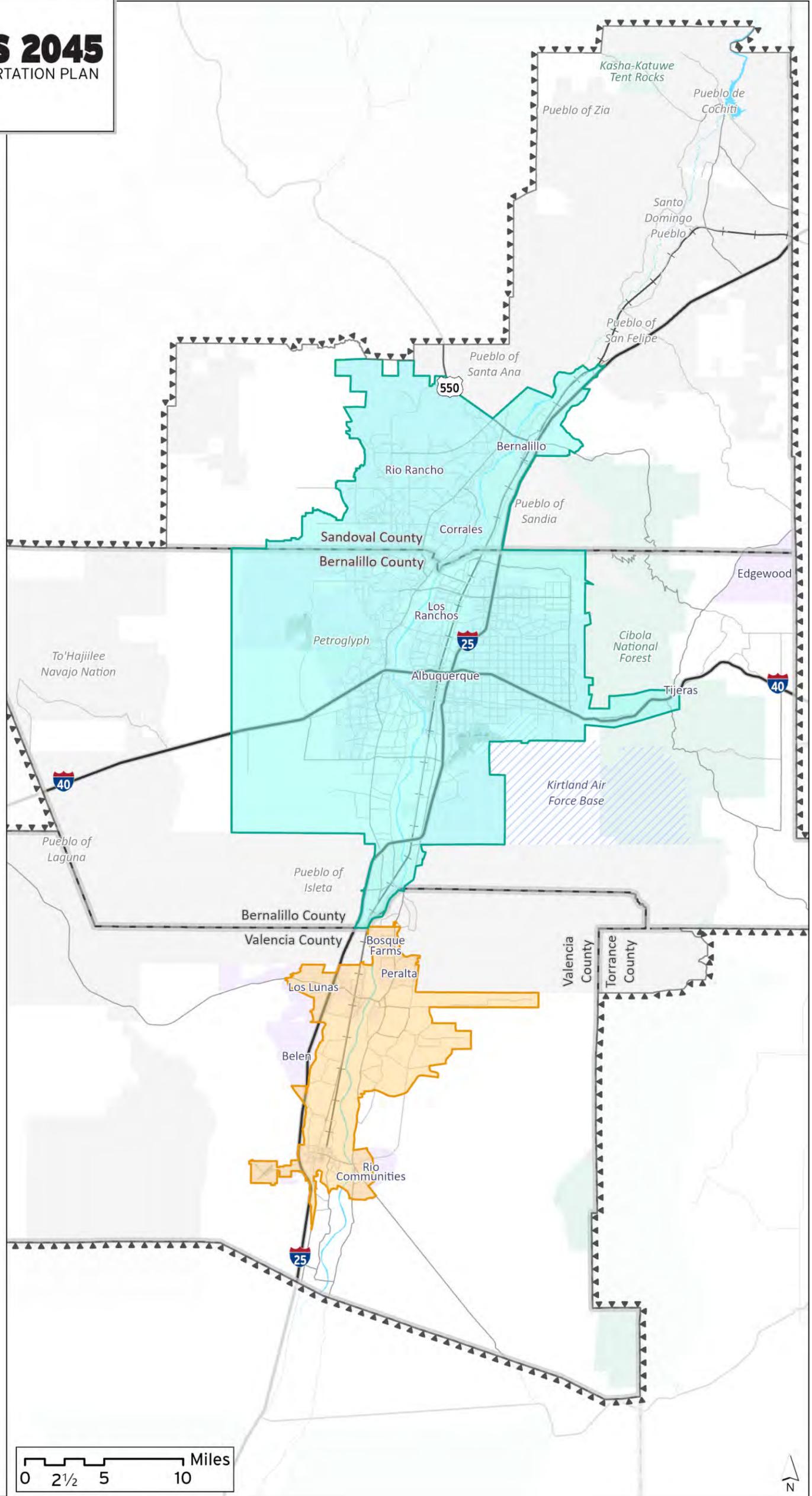




Urban and Rural Areas

- Albuquerque Large Urban Area
- Los Lunas Small Urban Area

Rural Areas include all areas outside of the Urban Areas.



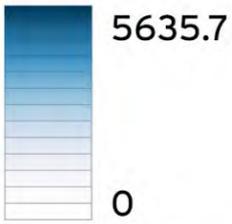
Map Data Sources: Appendix I





Household and Job Densities (2020)

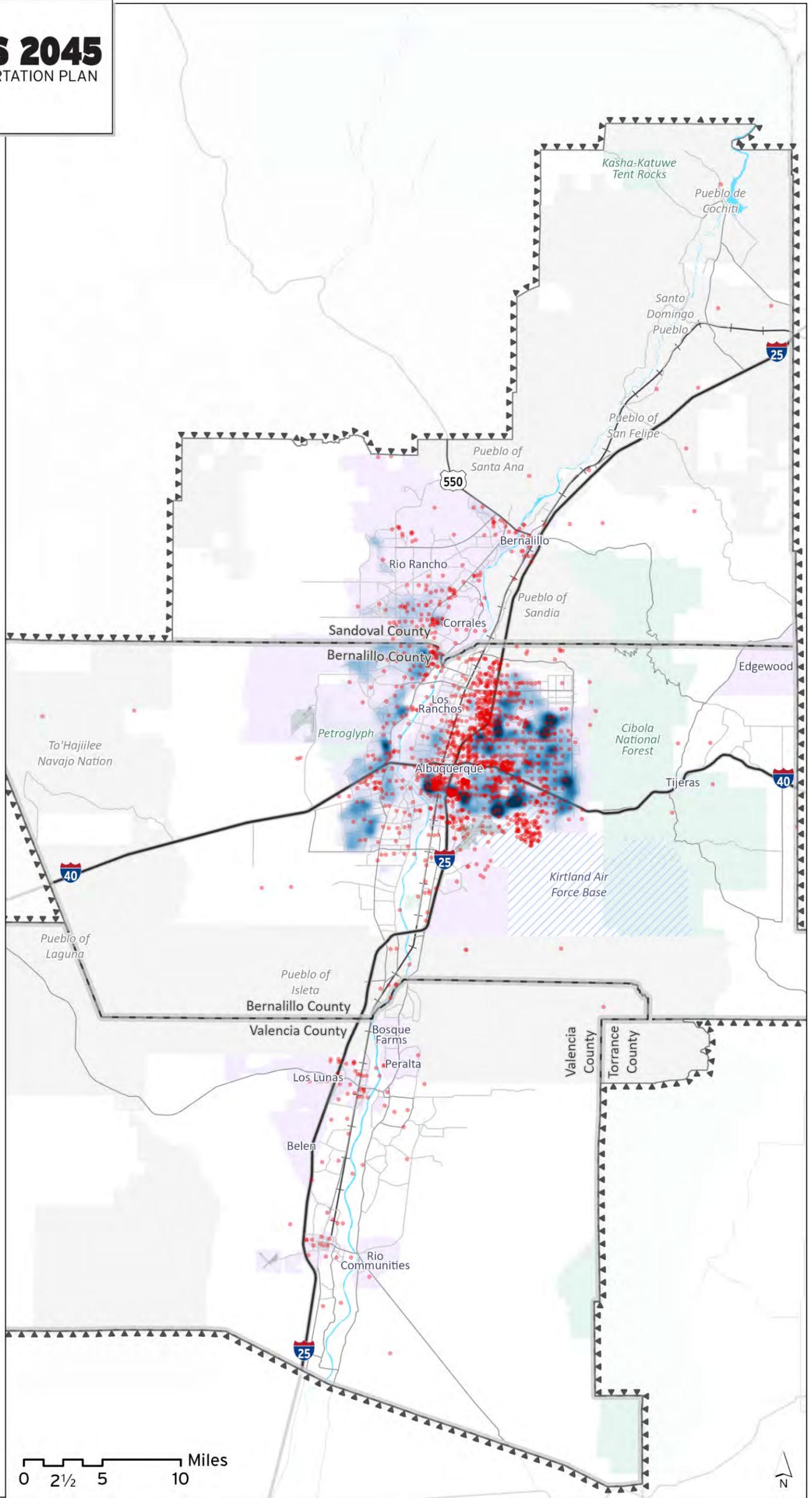
**Households (2020)
Per Square Mile**



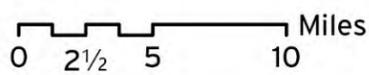
**Jobs (2020)
1 Dot = 250 jobs**

Density*

* Dots do not show exact locations. Dot density shows the density of jobs in an area.

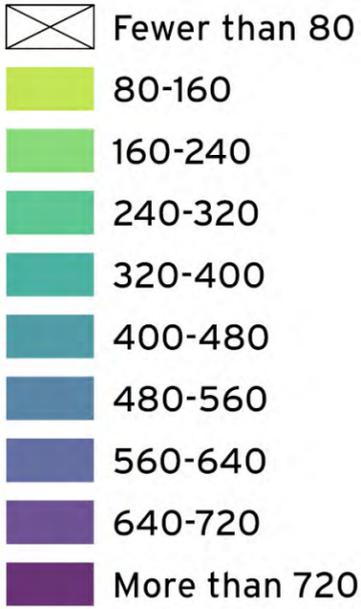


Map Data Sources: Appendix I

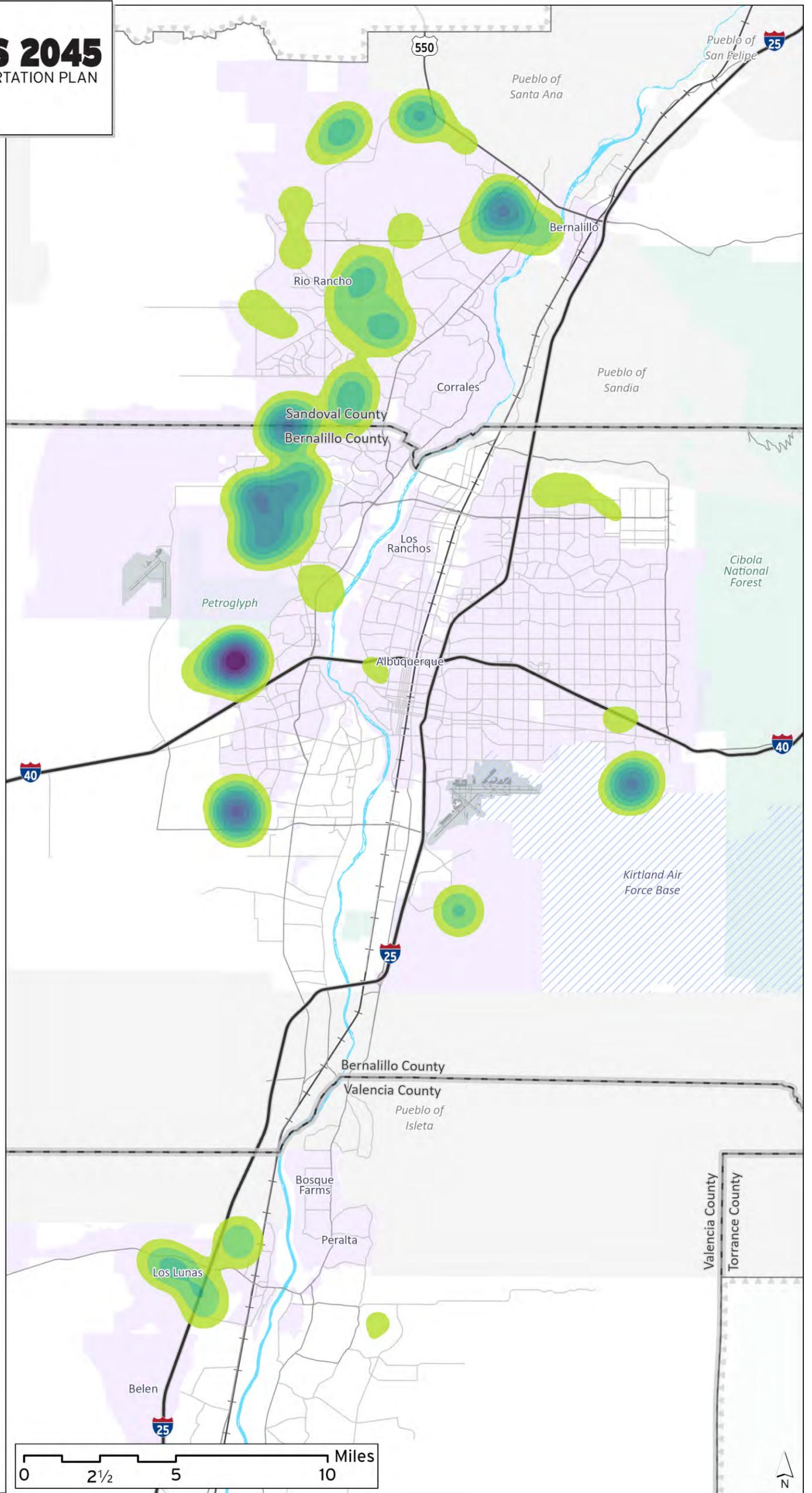


New Single Family Housing Construction

Permitted Units Per Square Mile



Maximum: 804.1 units/sq. mi.

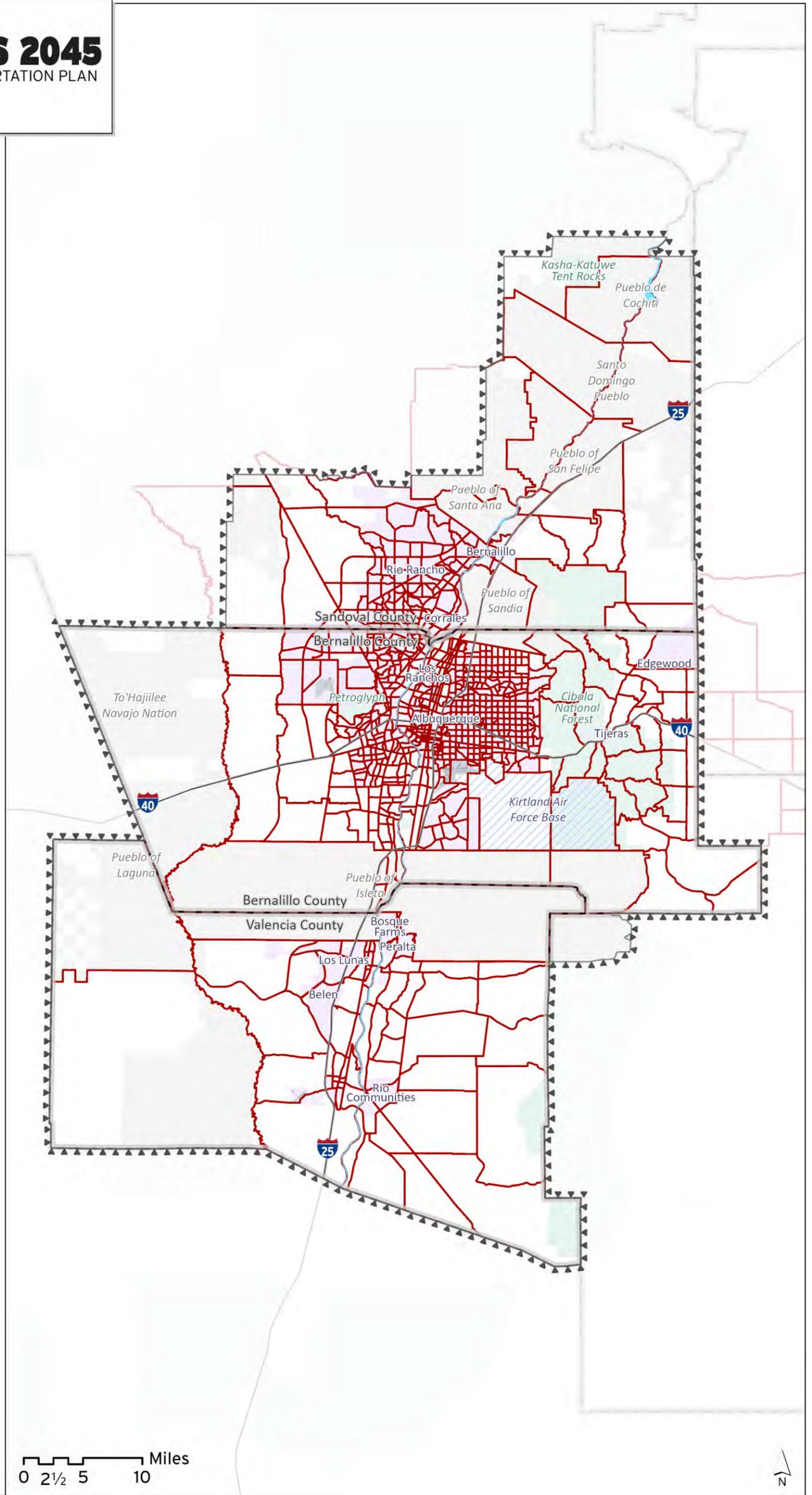


Map Data Sources: Appendix I



**MRMPO Data Analysis
Subzones**

 Subzone



Map Data Sources: Appendix I



0 2 1/2 5 10 Miles



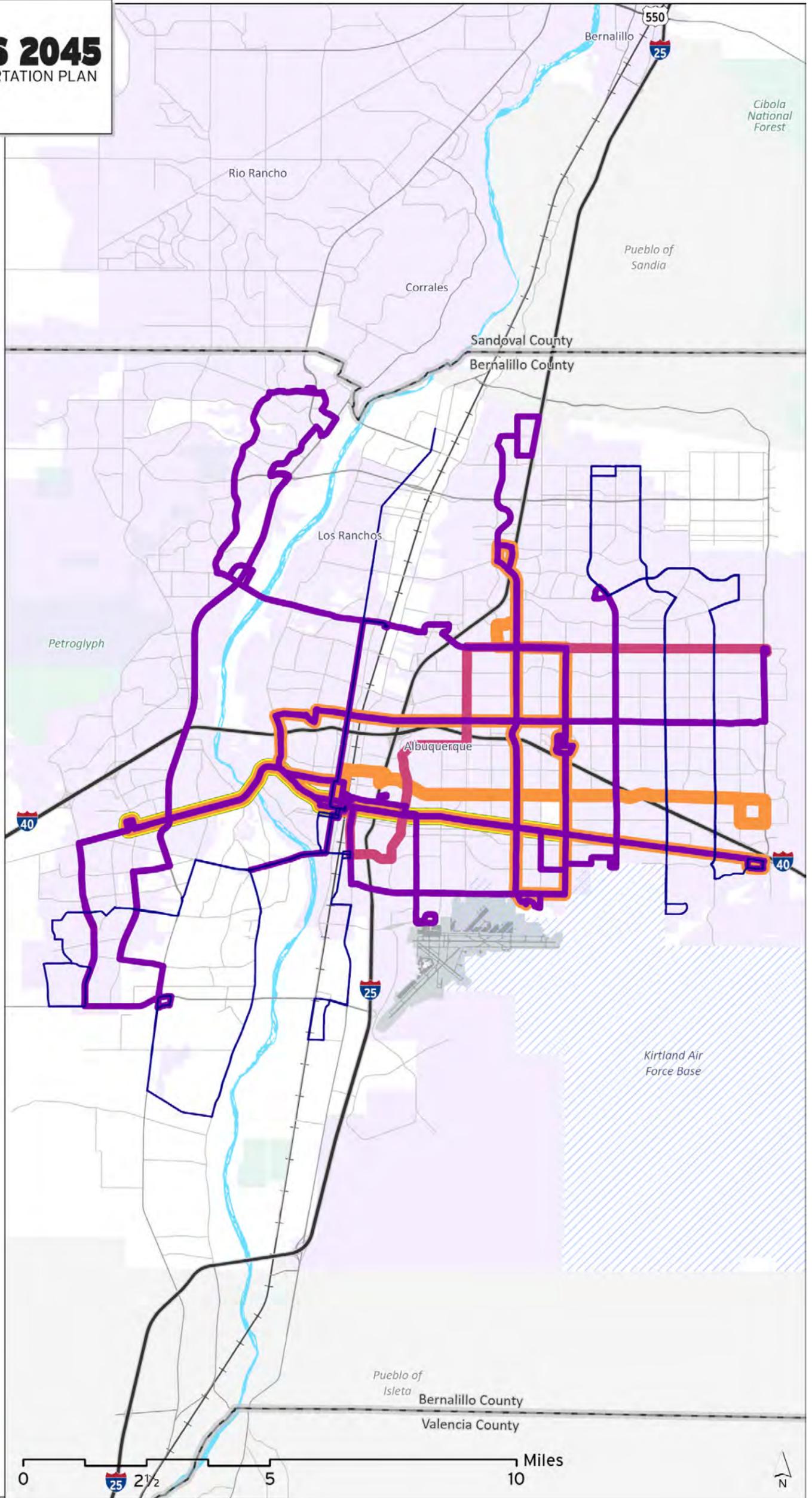


ABQ Ride Forward: Draft Recovery Network

Bus Frequency

Around noon on weekdays

- 8 minutes or less
- 15 minutes
- 20 minutes
- 30 minutes
- 60 minutes



Map Data Sources: Appendix I



Roadway Functional Classification and National Highway System

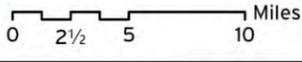
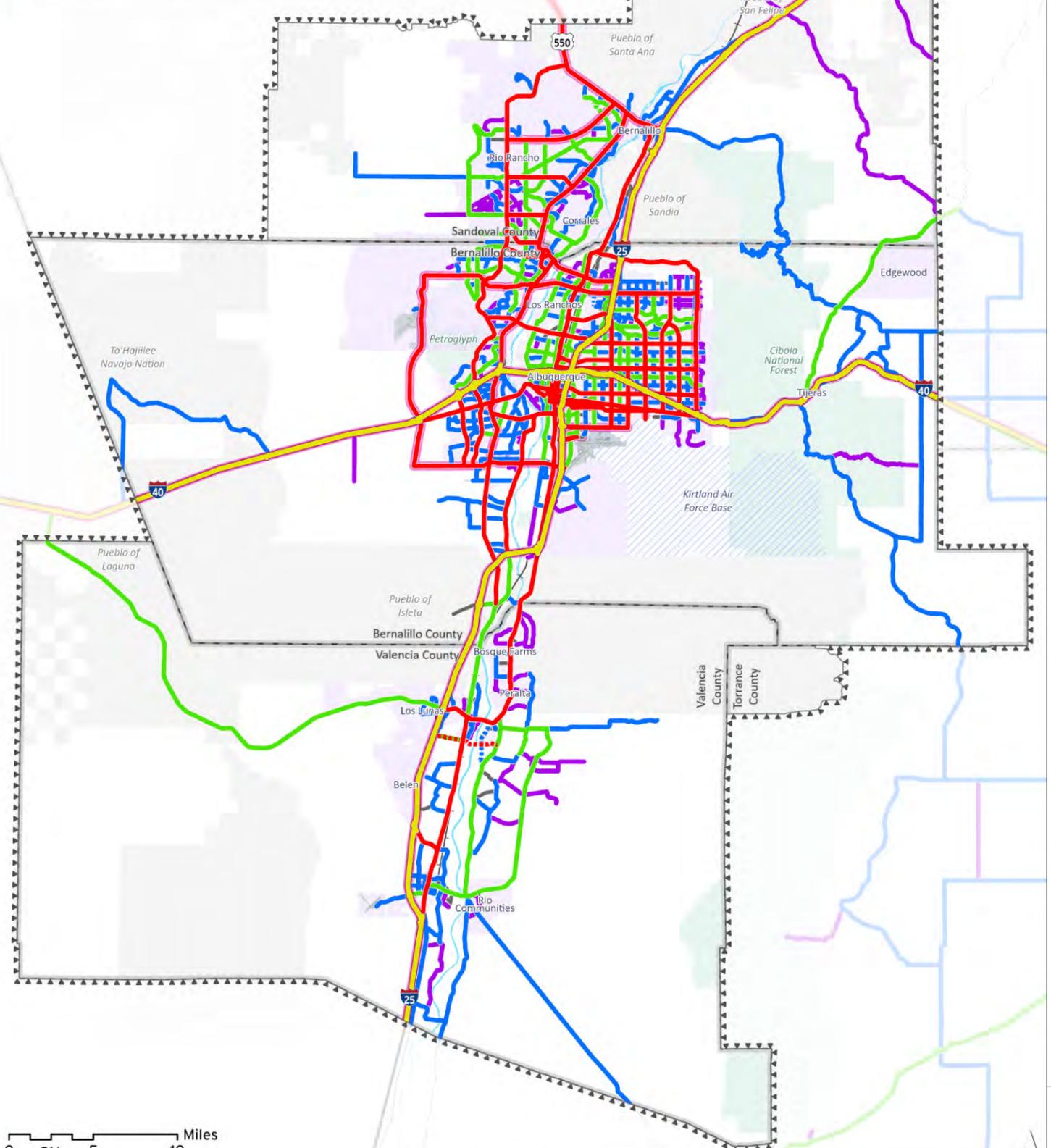
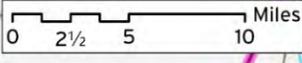
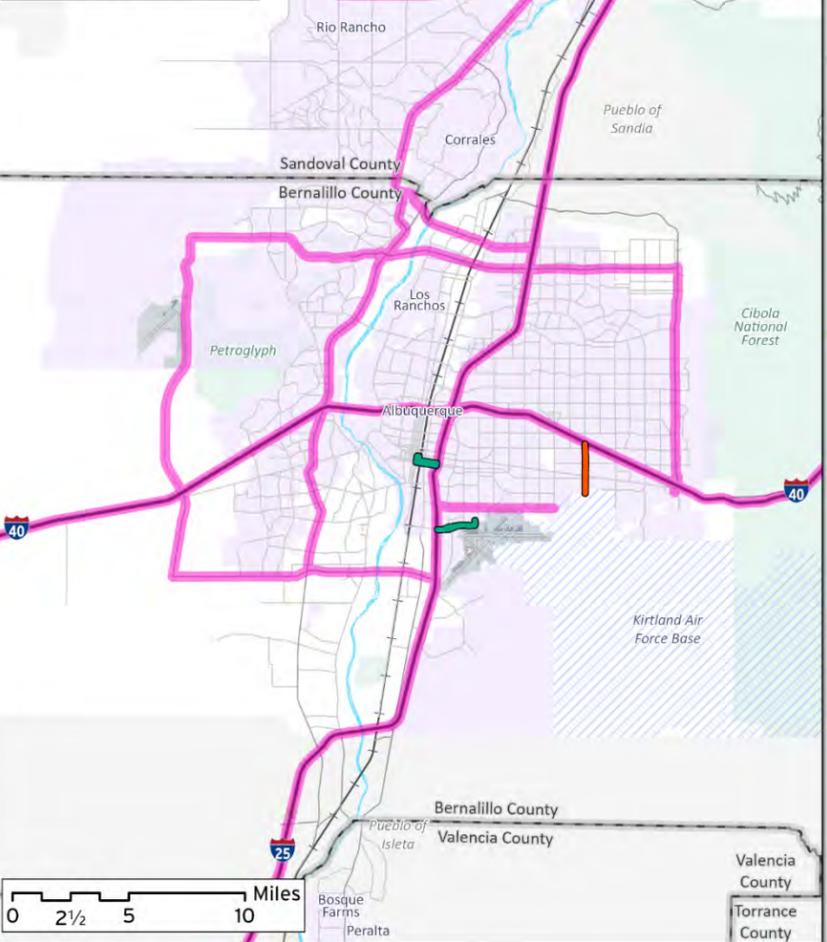
Roadway Functional Classification

- Interstate
- Principal Arterial
- - - - Proposed Principal Arterial
- Minor Arterial
- - - - Proposed Minor Arterial
- Major Collector
- - - - Proposed Major Collector
- Minor Collector
- Local

National Highway System (NHS)

- NHS
- NHS Connector
- NHS STRAHNET

National Highway System (NHS) Inset



Map Data Sources: Appendix I

Intelligent Transportation Systems Network and Priority Corridors

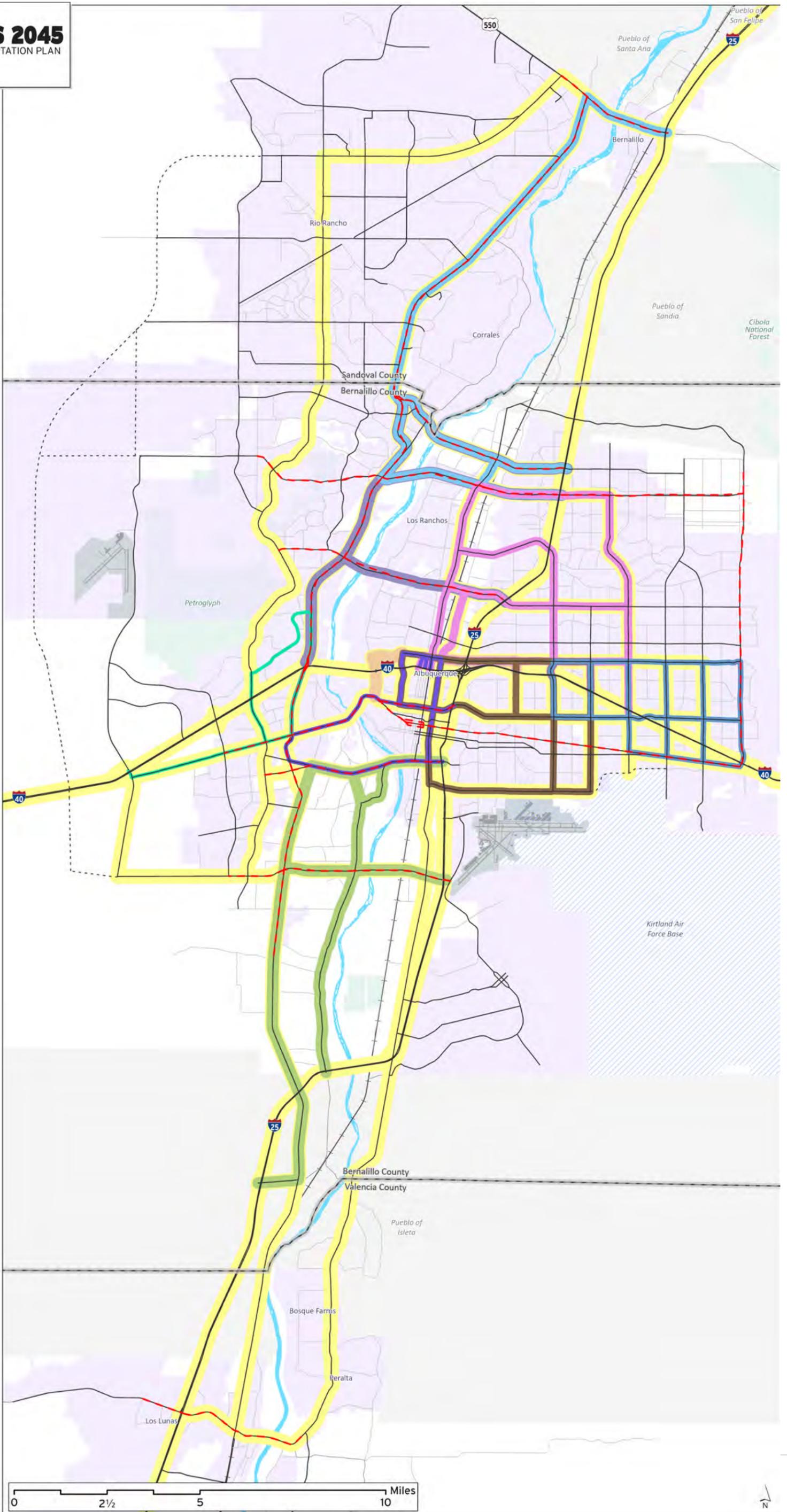
Intelligent Transportation System (ITS)

- - - ITS Priority Corridors
- ITS System
- - - ITS Beyond 2040

Albuquerque Traffic Incident Management (ATIM) Detour Routes

- Detour 1
- Detour 2
- Detour 3
- Detour 4
- Detour 5
- Detour 6
- Detour 7
- Detour 8
- Detour Add

TIM Network



Map Data Sources: Appendix I

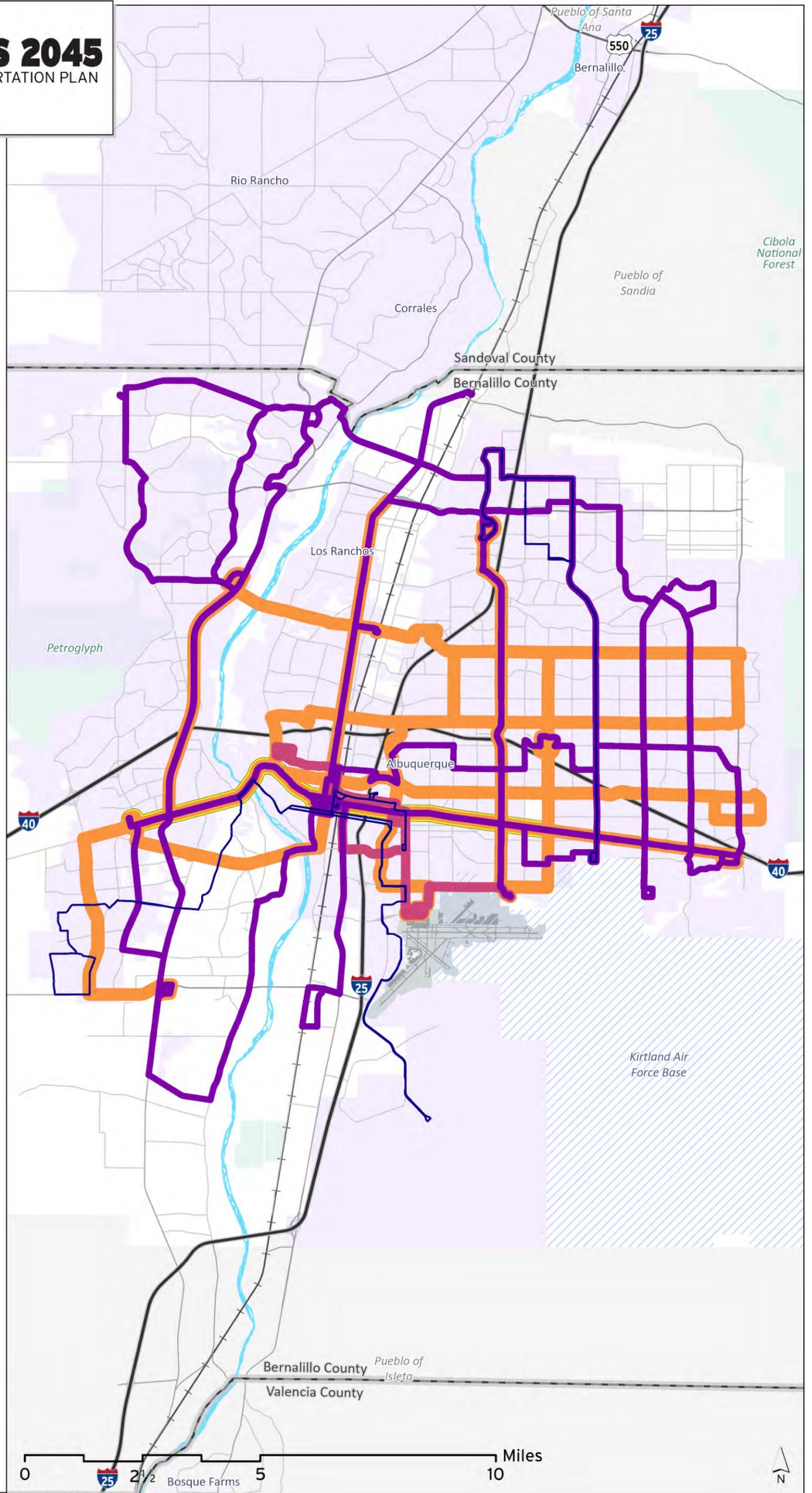


Long Range Transit Network (LRTN)

Bus Frequency

Around noon on weekdays

- 8 minutes or less
- 15 minutes
- 20 minutes
- 30 minutes
- 60 minutes



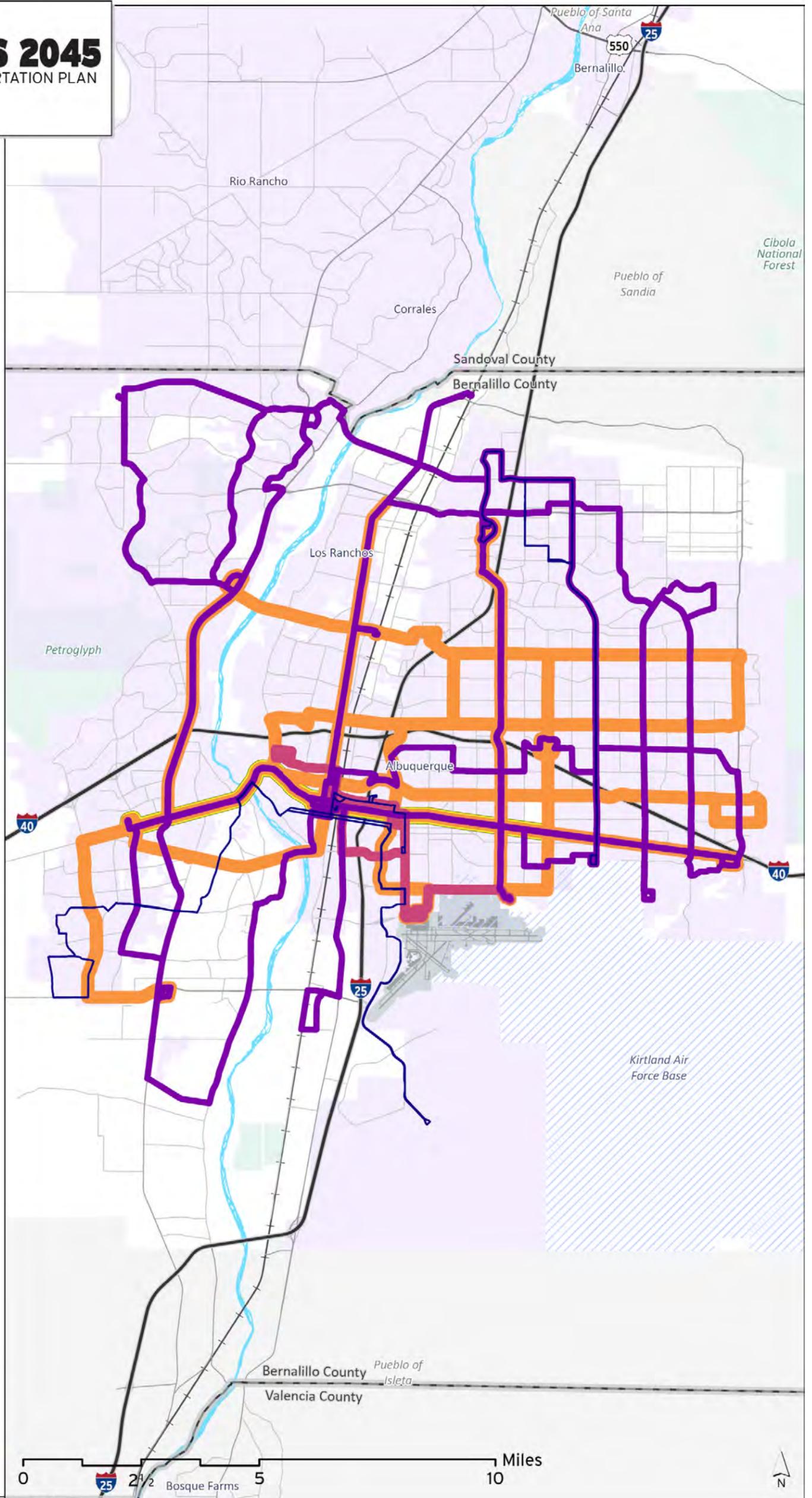
Map Data Sources: Appendix _





Long Range Transit Network (LRTN)
Around noon on Weekdays

- 8 minutes or less
- 15 minutes
- 20 minutes
- 30 minutes
- 60 minutes



Map Data Sources: Appendix I

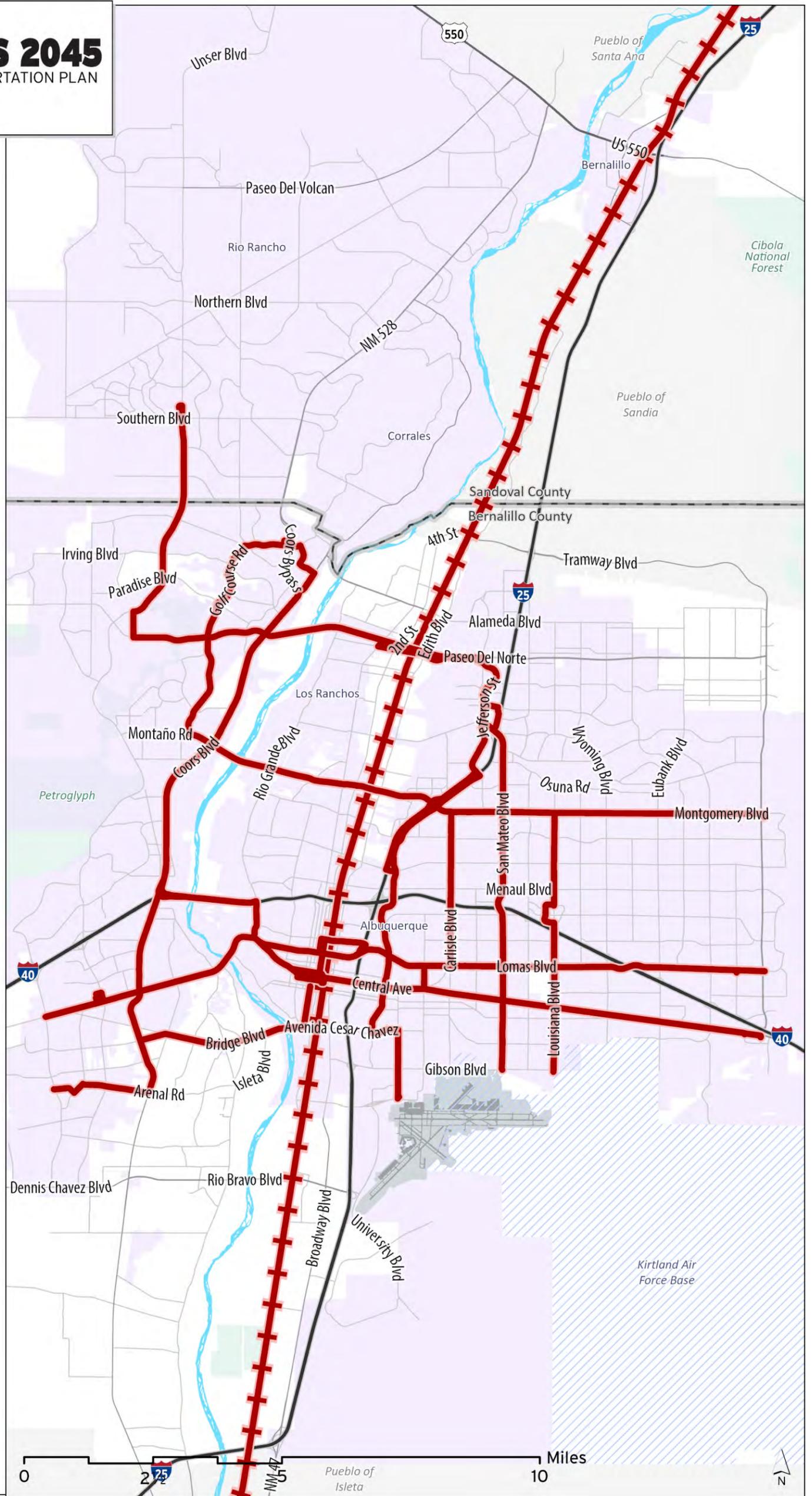




Priority Transit Network

-  Priority Transit Network
-  (including the Rail Runner)

Established by resolution of MRMPO's Metropolitan Transportation Board (R-15-01 MTB).



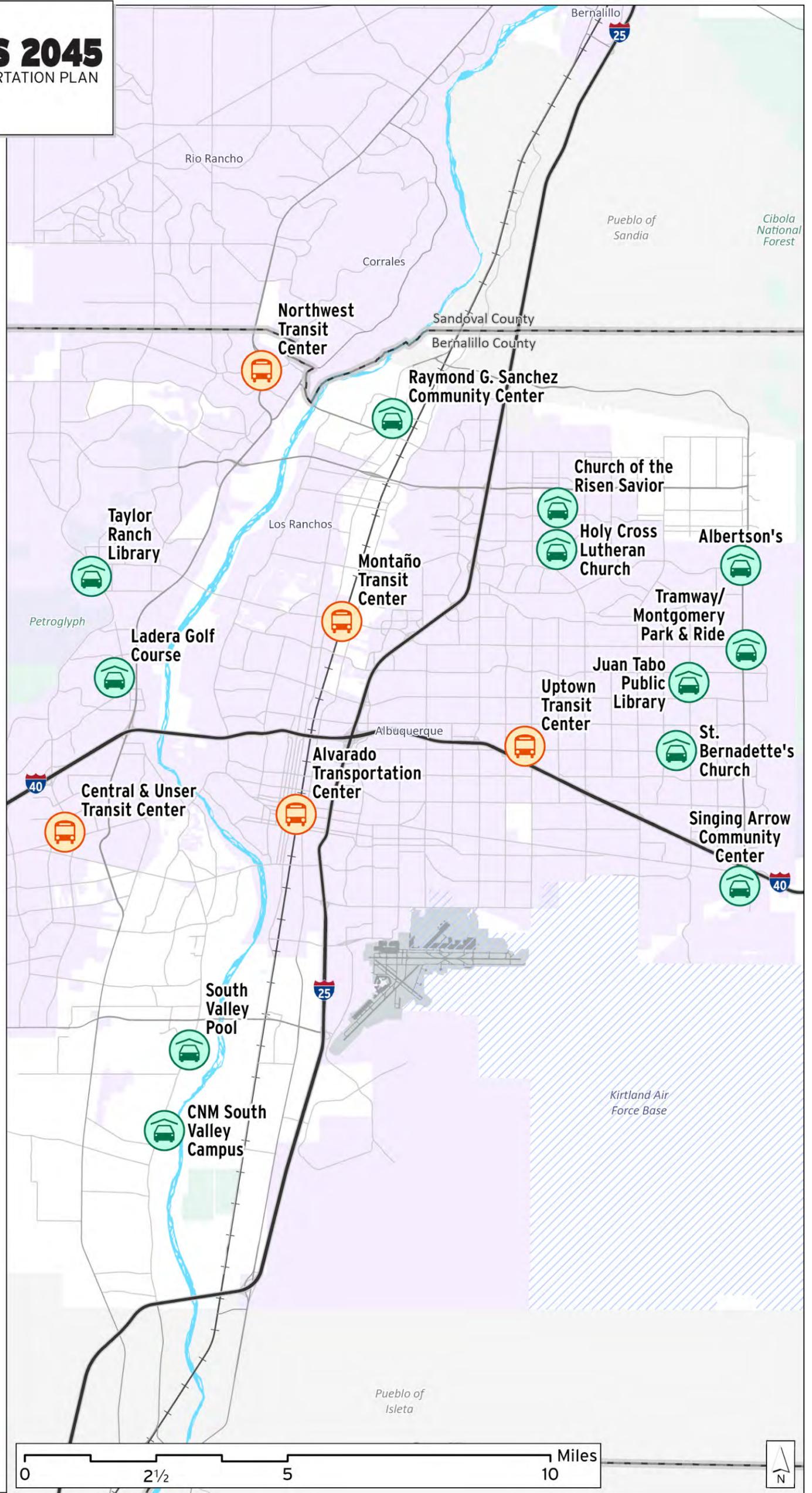
Map Data Sources: Appendix I



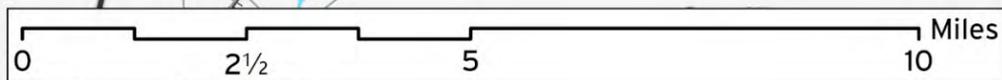


ABQ Ride Facilities

-  Park & Ride
-  Transit Center



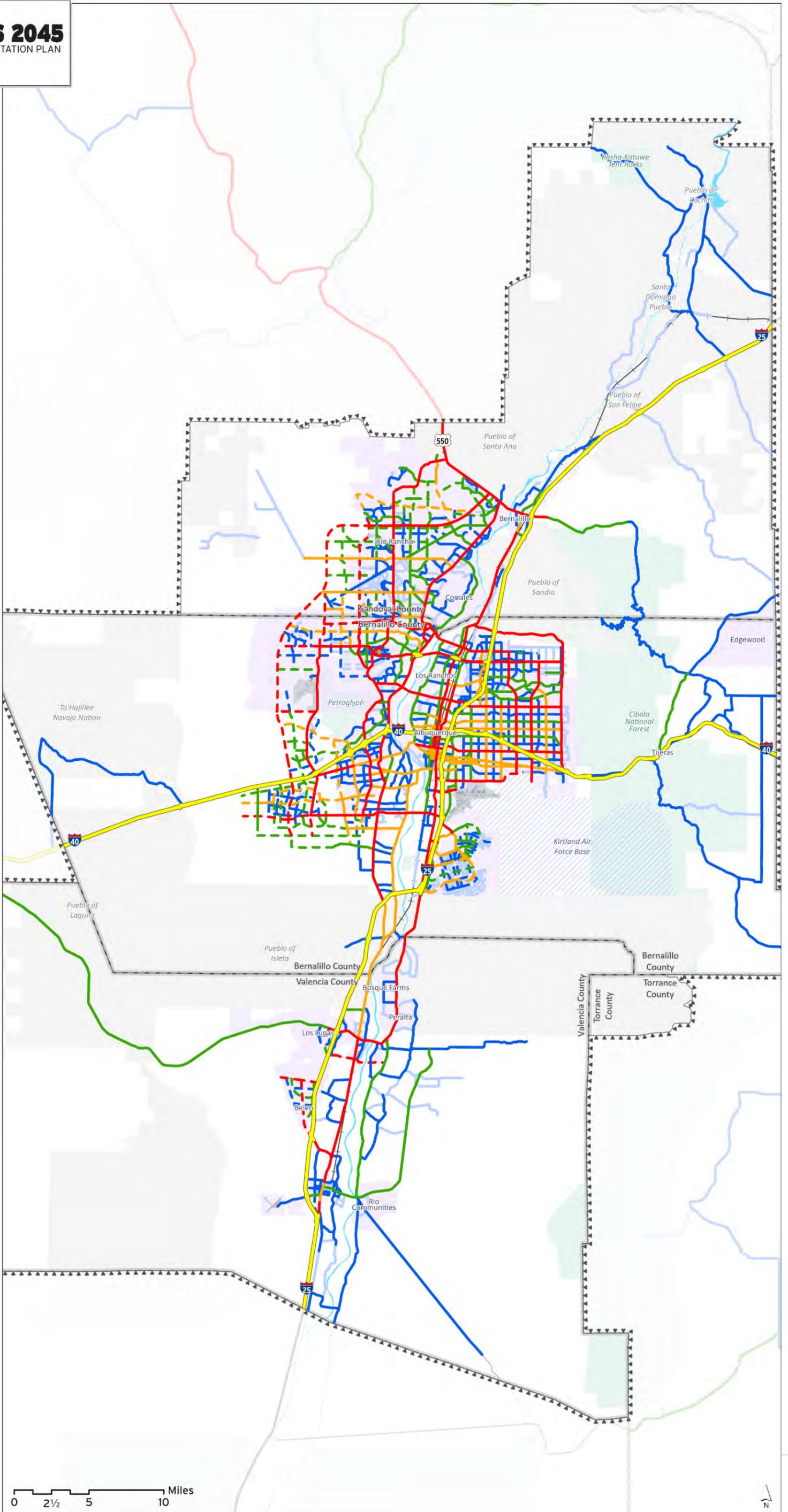
Map Data Sources: Appendix I



Long Range Roadway System (LRRS)

Roadway Status and Type

- Existing Interstate
- Existing Regional Principal Arterial
- Existing Community Principal Arterial
- Existing Minor Arterial
- Existing Major Collector
- Existing Minor Collector
- Proposed Regional Principal Arterial
- Proposed Community Principal Arterial
- Proposed Minor Arterial
- Proposed Major Collector
- Proposed Minor Collector



Map Data Sources: Appendix I

High Fatal and Injury Network (HFIN)

Roadway Segments

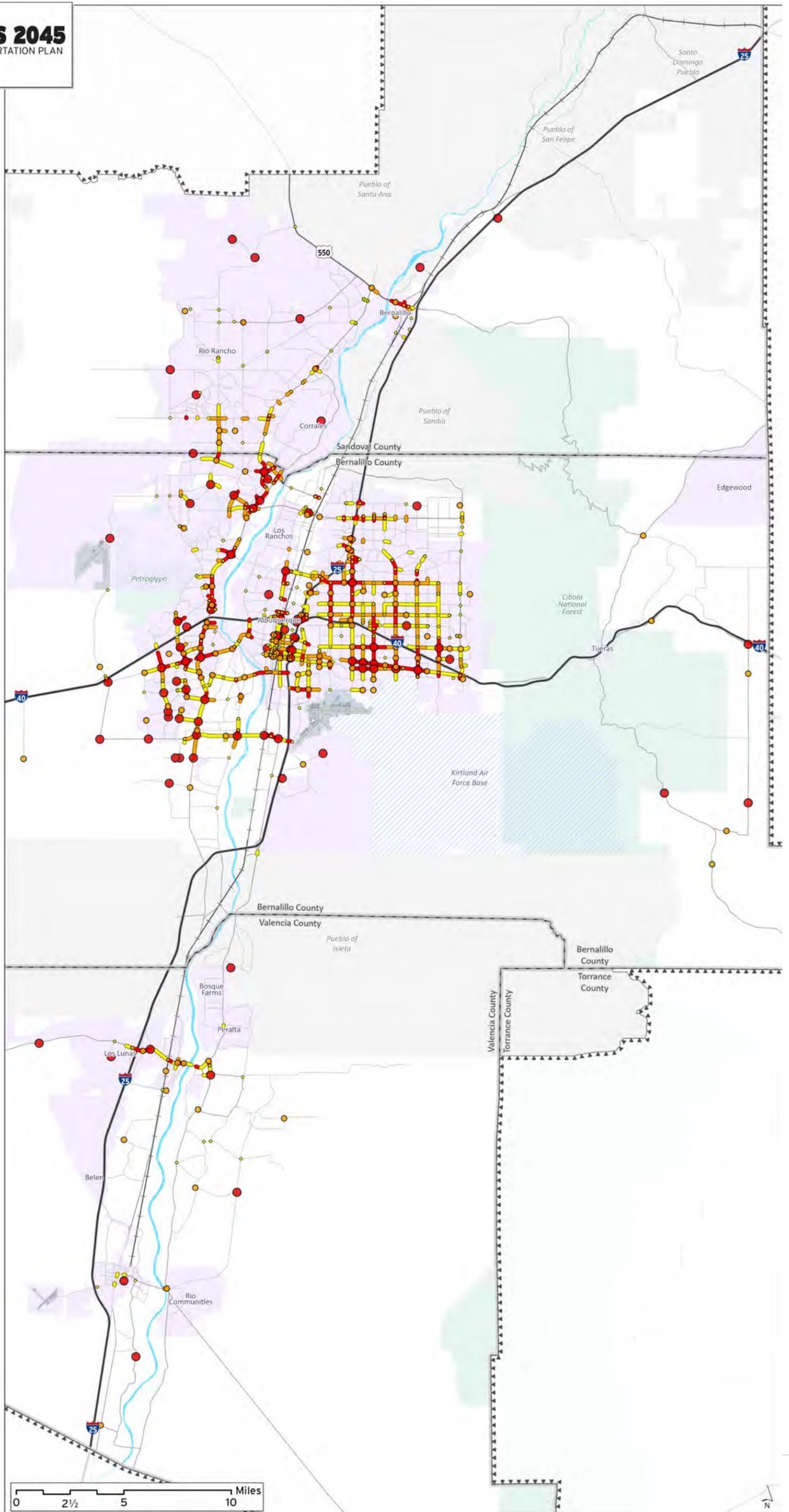
HFIN Score

- 2x Mean and Above
- 1.5x to 2x Mean
- 1x to 1.5x Mean

Intersections

HFIN Score

- 2x Mean and Above
- 1.5x to 2x Mean
- 1x to 1.5x Mean



Map Data Sources: Appendix I

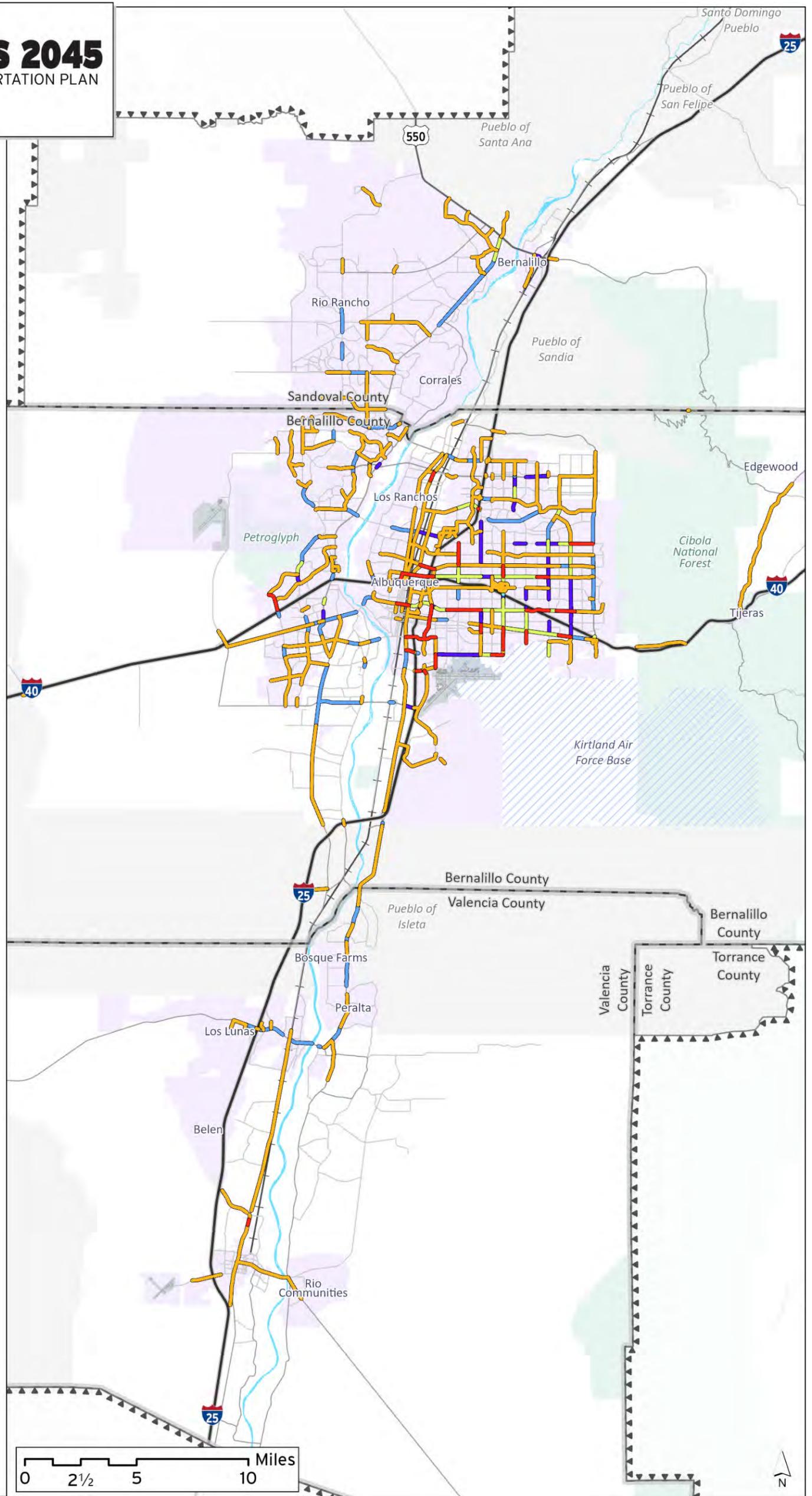


Potential Road Diet Candidates

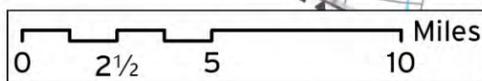
Potential Road Diet Candidates

By Lanes and Traffic Volume

- Priority 1A:
6 Lanes
< 20,000
- Priority 1B:
4 Lanes
< 20,000
- Priority 2A:
6 Lanes
20,000 - 25,000
- Priority 2B:
8 Lanes
< 30,000
- Priority 3A:
4 Lanes
20,000 - 25,000
- Priority 3B:
6 Lanes
25,000 - 30,000



Map Data Sources: Appendix I





High Fatal and Injury Network (HFIN): Crashes Involving Bicyclists

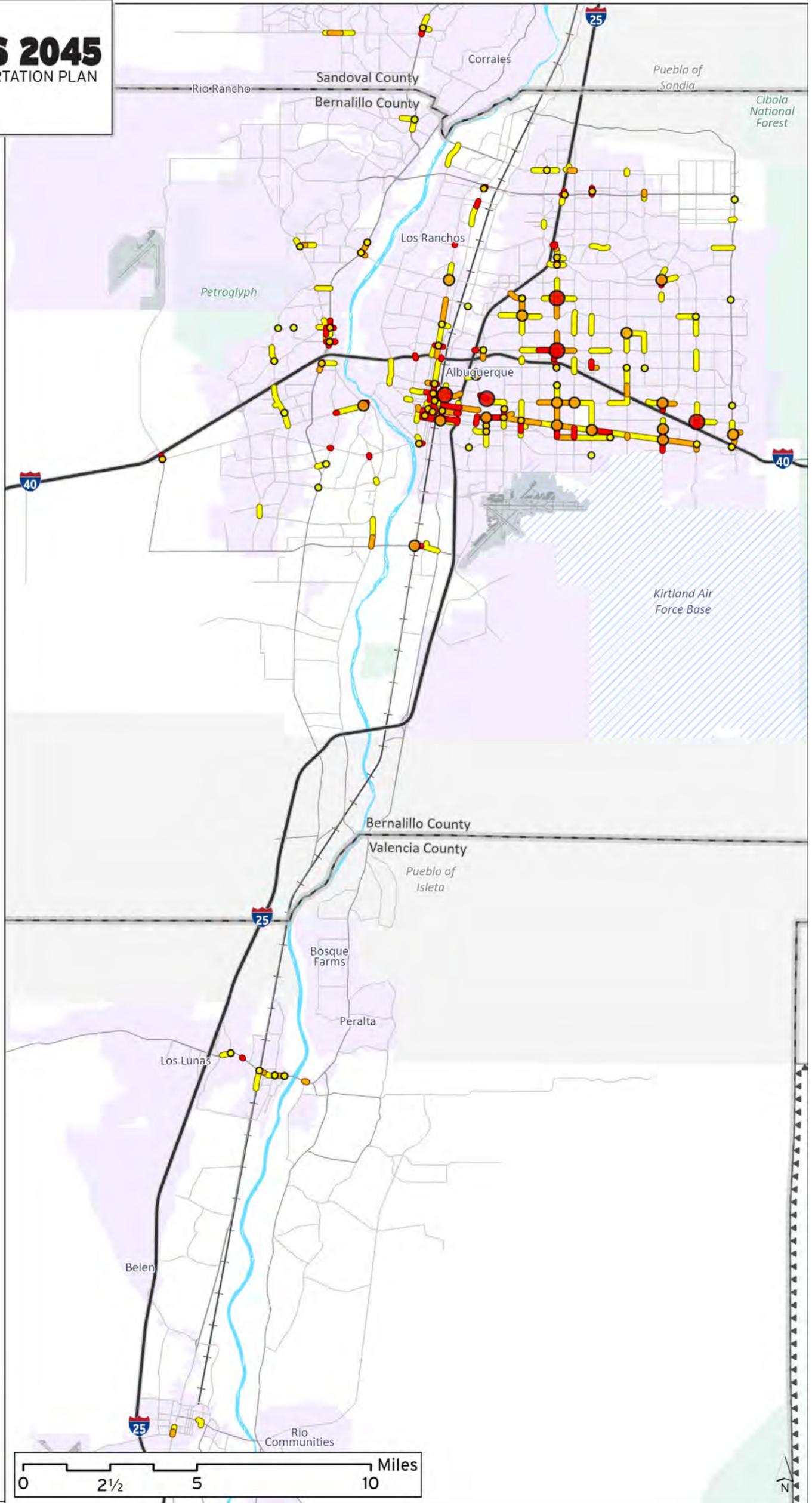
Bicyclist-Involved

Crashes at Intersections

- 5-6
- 3-4
- 2

HFIN Bicyclist Score By Roadway Segment

- Above 2x Mean
- 1.5 to 2x Mean
- 1 to 1.5x Mean



Map Data Sources: Appendix I



Long Range Bikeway System (LRBS)

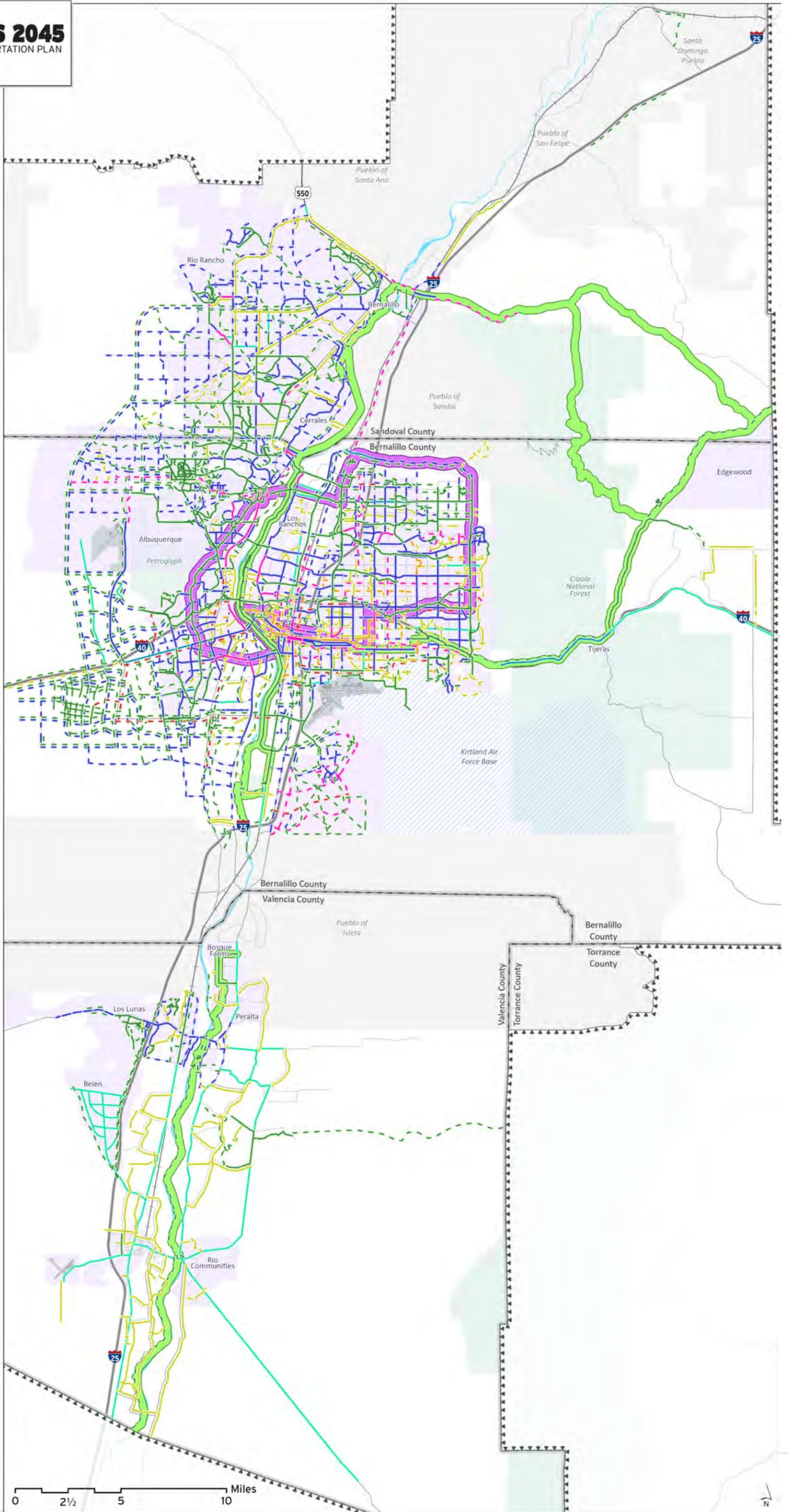
Bikeways

Facility Status and Type

- Existing Paved Trail
- Existing Protected Bike Lane
- Existing Buffered Bike Lane
- Existing Bike Lane
- Existing Bike Boulevard
- Existing Bike Route
- Existing Wide Shoulder
- - - Proposed Paved Trail
- - - Proposed Protected Bike Lane
- - - Proposed Buffered Bike Lane
- - - Proposed Bike Lane
- - - Proposed Bike Boulevard
- - - Proposed Bike Route
- Potential Bike Facility

Trails of Regional Interest

- Proposed Rio Grande Trail Alignment
- 50-Mile Activity Loop



Map Data Sources: Appendix I



High Fatal and Injury Network (HFIN): Crashes Involving Pedestrians

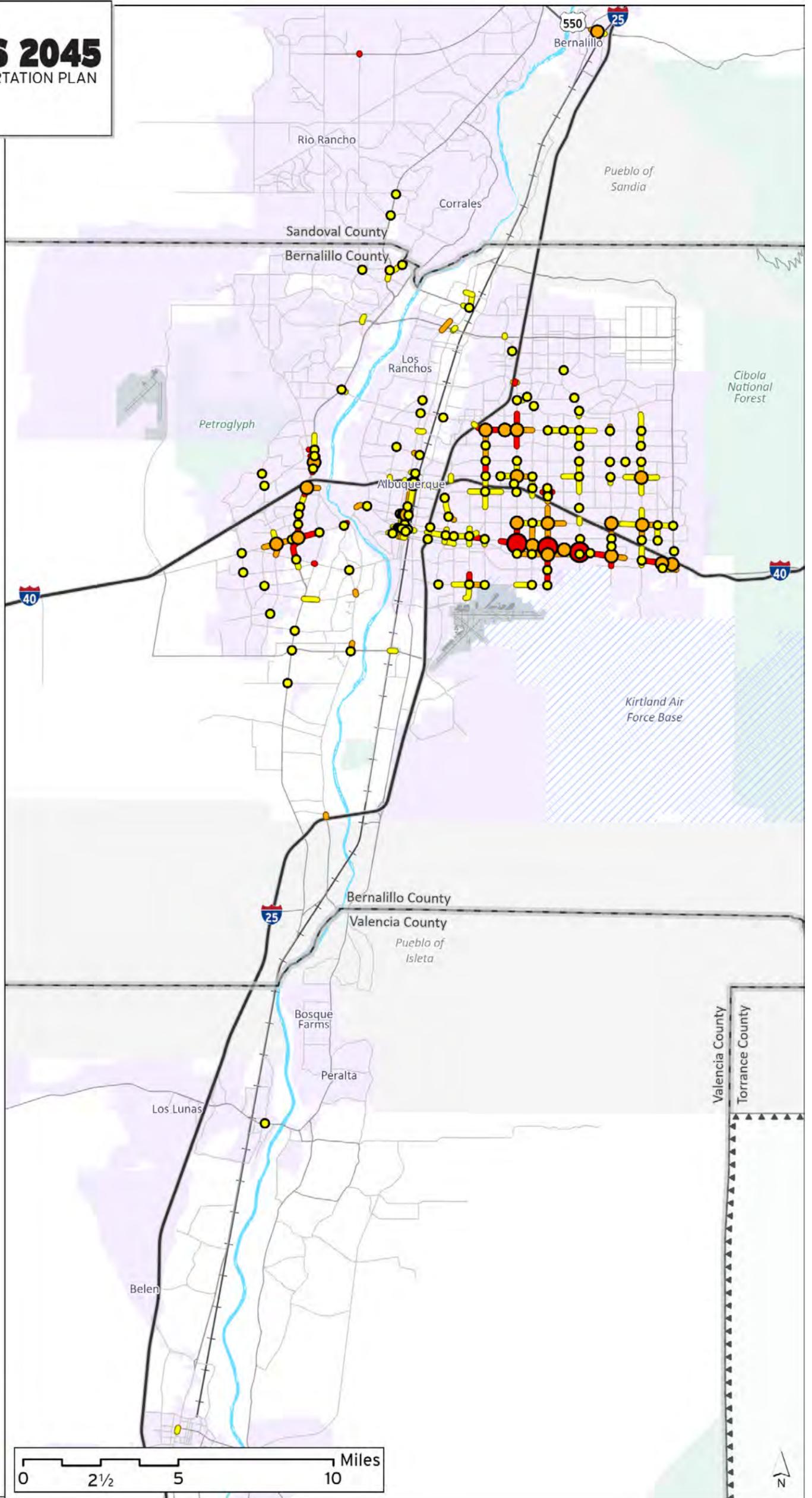
Pedestrian-Involved Crashes at Intersections

- 13-20
- 5-12
- 2-4

HFIN Pedestrian Score

By Roadway Segment

- Above 2x Mean
- 1.5 to 2x Mean
- 1 to 1.5x Mean



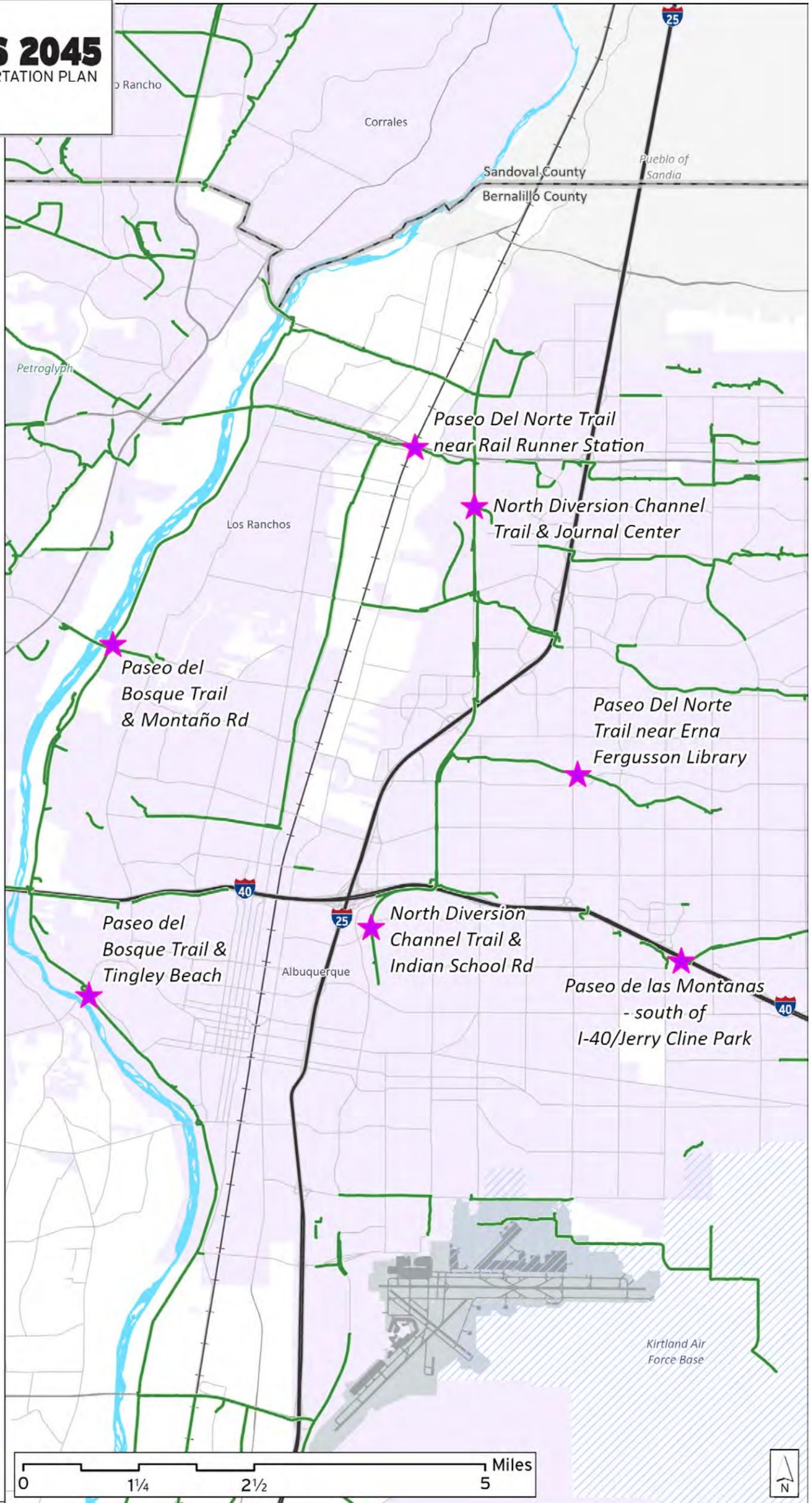
Map Data Sources: Appendix I



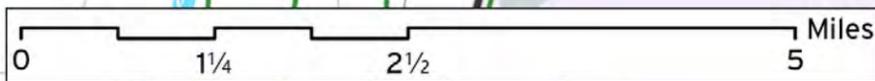


Cyclist and Pedestrian Counters

-  Permanent Cyclist & Pedestrian Counter Maintained by MRMPO
-  Existing Paved Trail



Map Data Sources: Appendix I

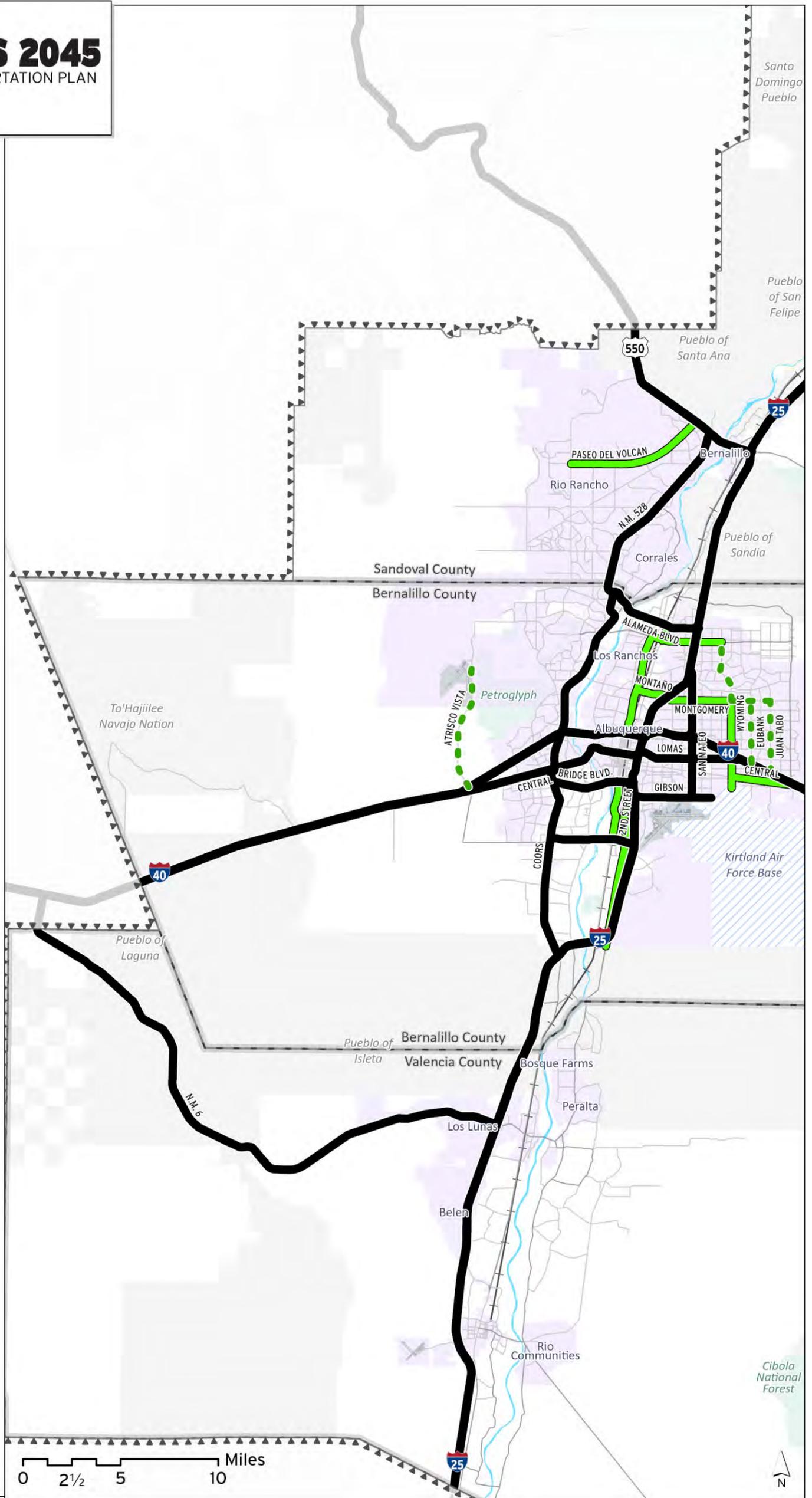




Primary Freight Network

Freight Corridors

- - - Evaluation
- Primary
- Secondary



Map Data Sources: Appendix I



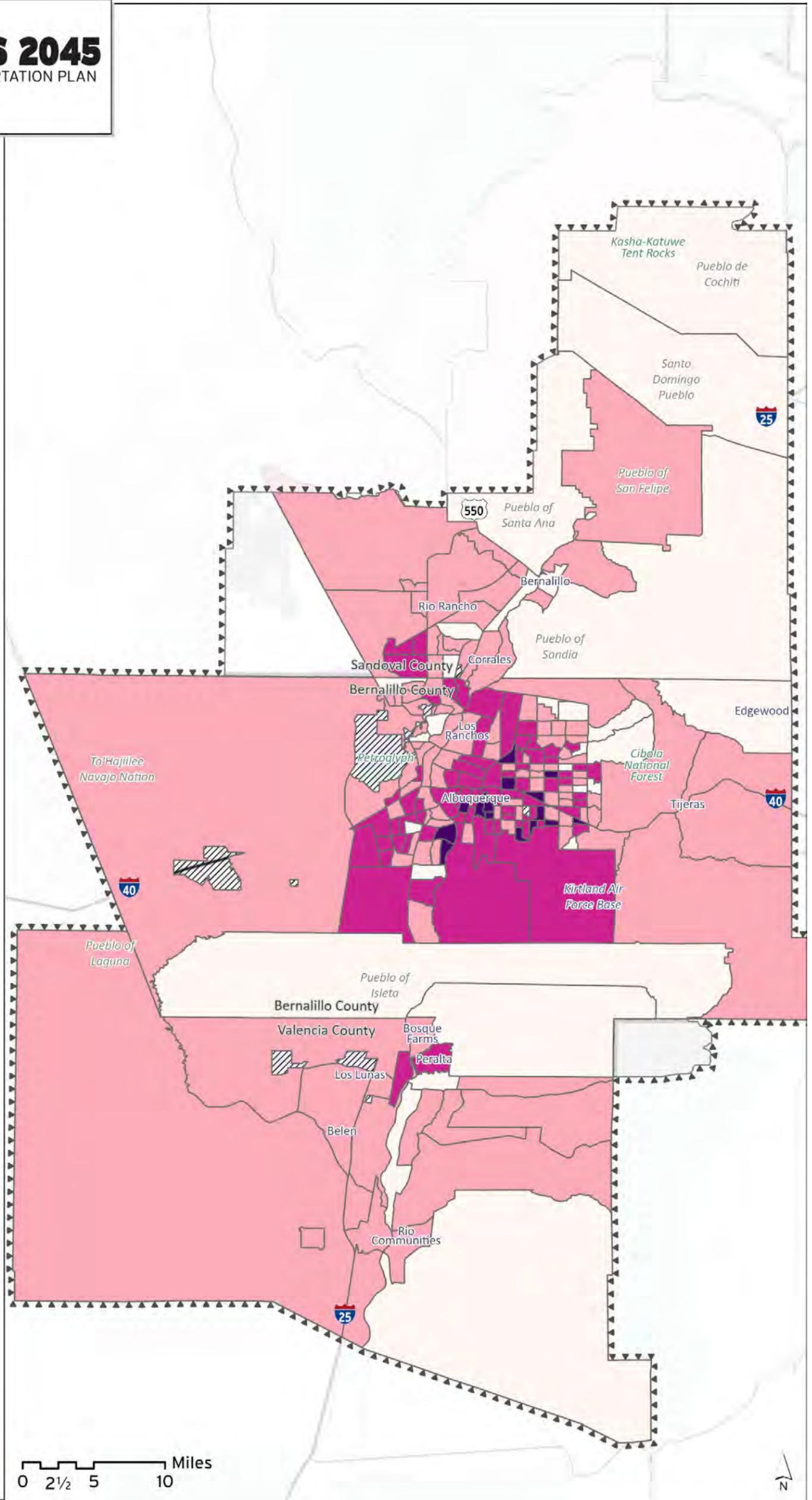


Housing Cost Burden

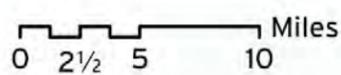
Percent of Cost Burdened Households By Census Tract

- 45.1% - 69%
- 30.1% - 45%
- 15.1% - 30%
- 15% or less
- No Data

Cost burdened households spend more than 30% of their gross income on housing costs, according to the US Department of Housing and Urban Development.



Map Data Sources: US Census Bureau American Community Survey (ACS) 5-year data, 2018-2022;
Basemap: See Appendix I





Key Centers

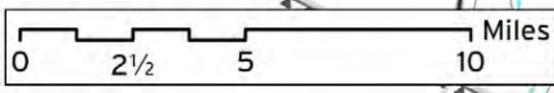
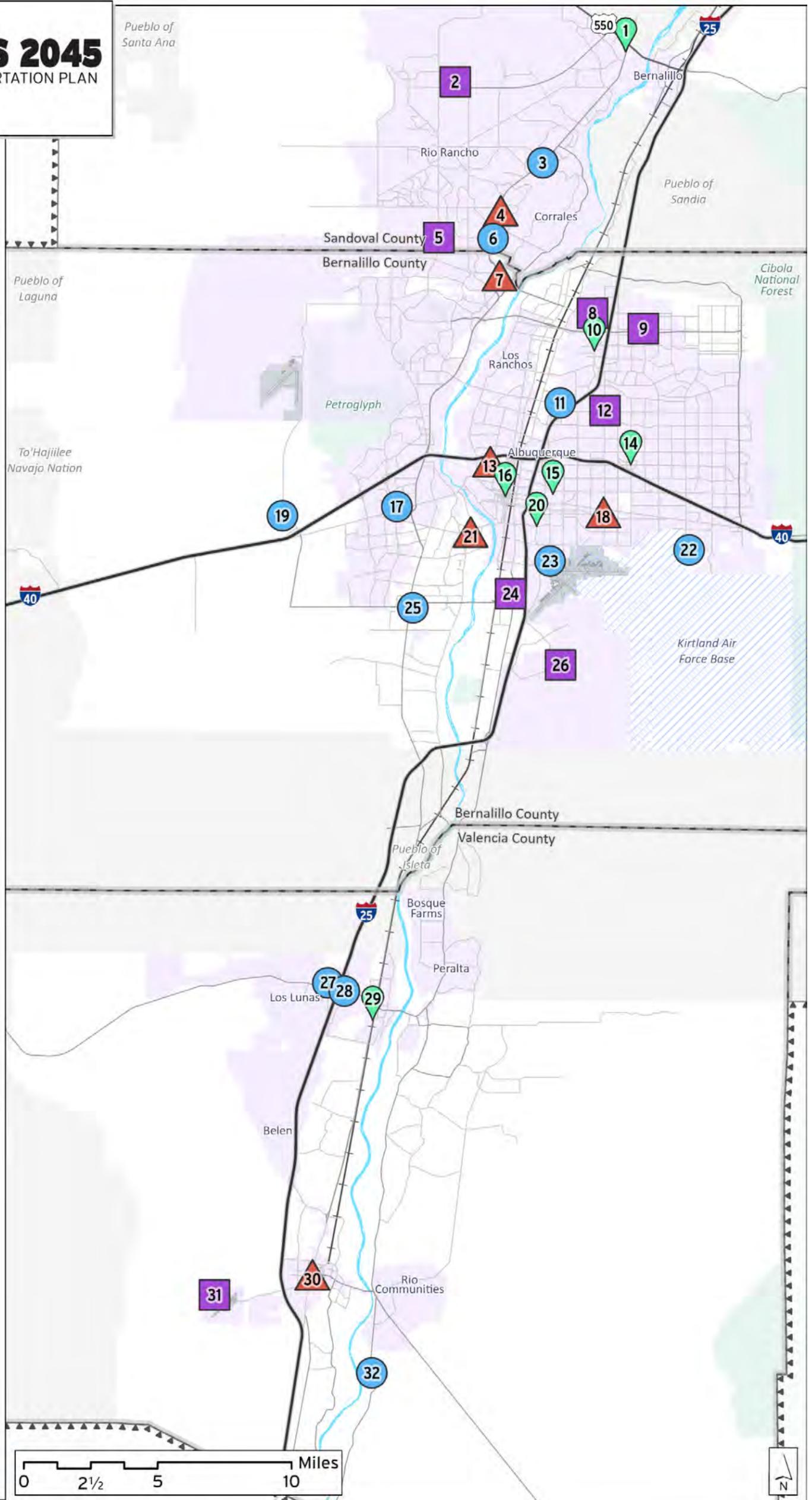
Centers

- Regional Center
- Opportunity Center
- Reinvestment Center
- Employment Center

Center Names

- 1 NM 550 and NM 528
- 2 Rio Rancho City Center
- 3 Northern and NM 528
- 4 Southern and NM 528
- 5 Unser Gateway/The Village
- 6 Intel
- 7 Cottonwood Mall
- 8 North I-25
- 9 La Cueva Center
- 10 Journal Center
- 11 Renaissance
- 12 San Mateo/Montgomery
- 13 Sawmill
- 14 Uptown
- 15 UNM
- 16 Downtown Albuquerque
- 17 Atrisco Business Park
- 18 Highland Center
- 19 Atrisco Vista and I-40
- 20 CNM/Stadiums
- 21 Five Points
- 22 Sandia Science and Tech Park/Sandia National Labs/Kirtland Air Force Base
- 23 Sunport Airport
- 24 Sunport Commerce Center
- 25 Las Estancias
- 26 Mesa del Sol
- 27 Los Lunas West
- 28 Los Lunas East
- 29 Los Lunas Rail Runner Station
- 30 Downtown Belen
- 31 Belen Airport
- 32 Rio Grande Industrial

Map Data Sources: Appendix I





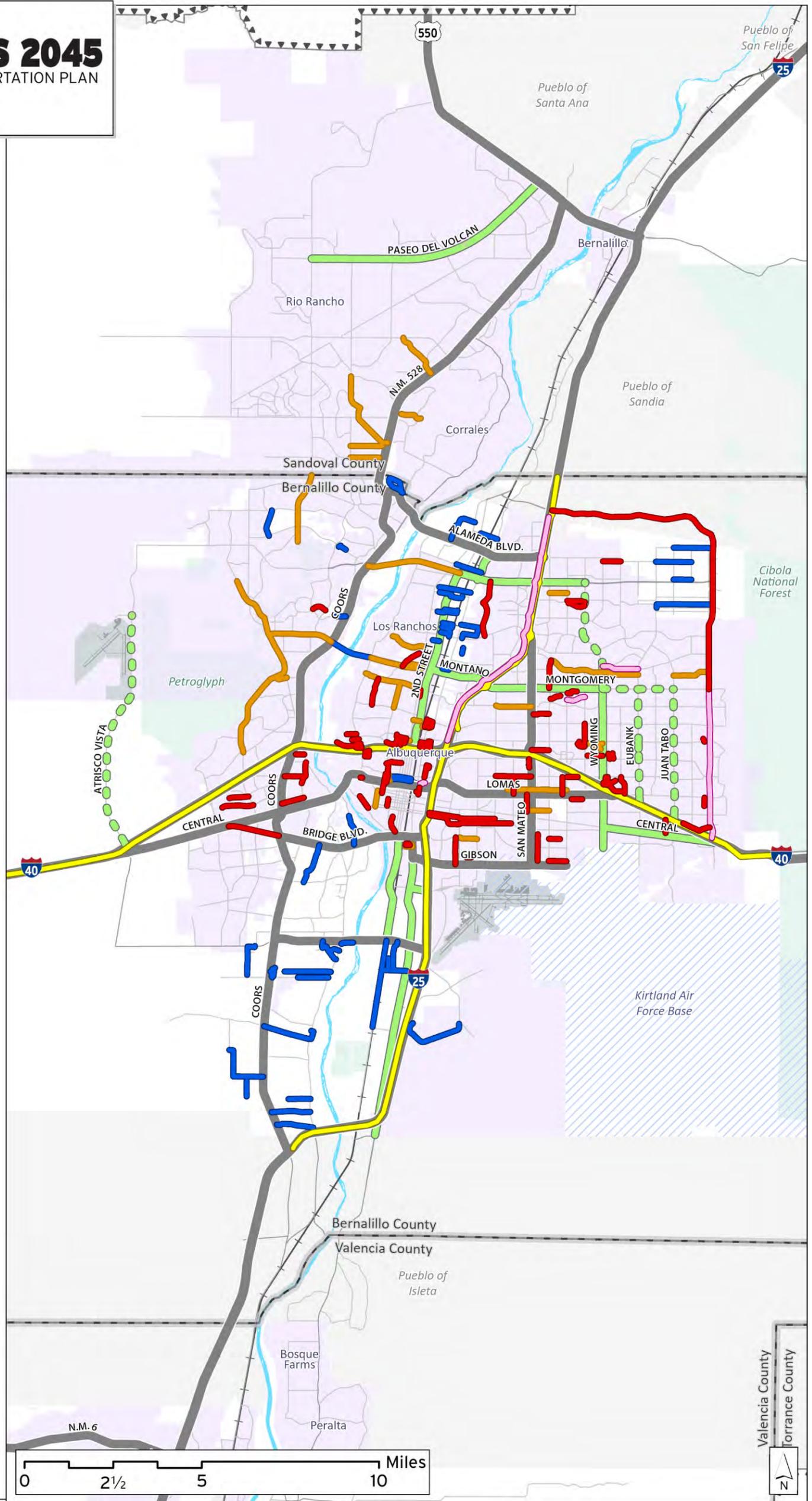
Freight Networks and Truck Restrictions

Truck Restrictions

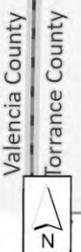
- No Trucks or No Through Trucks
- Over 3 Tons
- Over 5 Tons
- Over 40 Tons, 5 axle
- Misc. Restriction

Freight Corridors

- Primary
- Secondary
- Evaluation



Map Data Sources: Appendix I





Heat Vulnerability

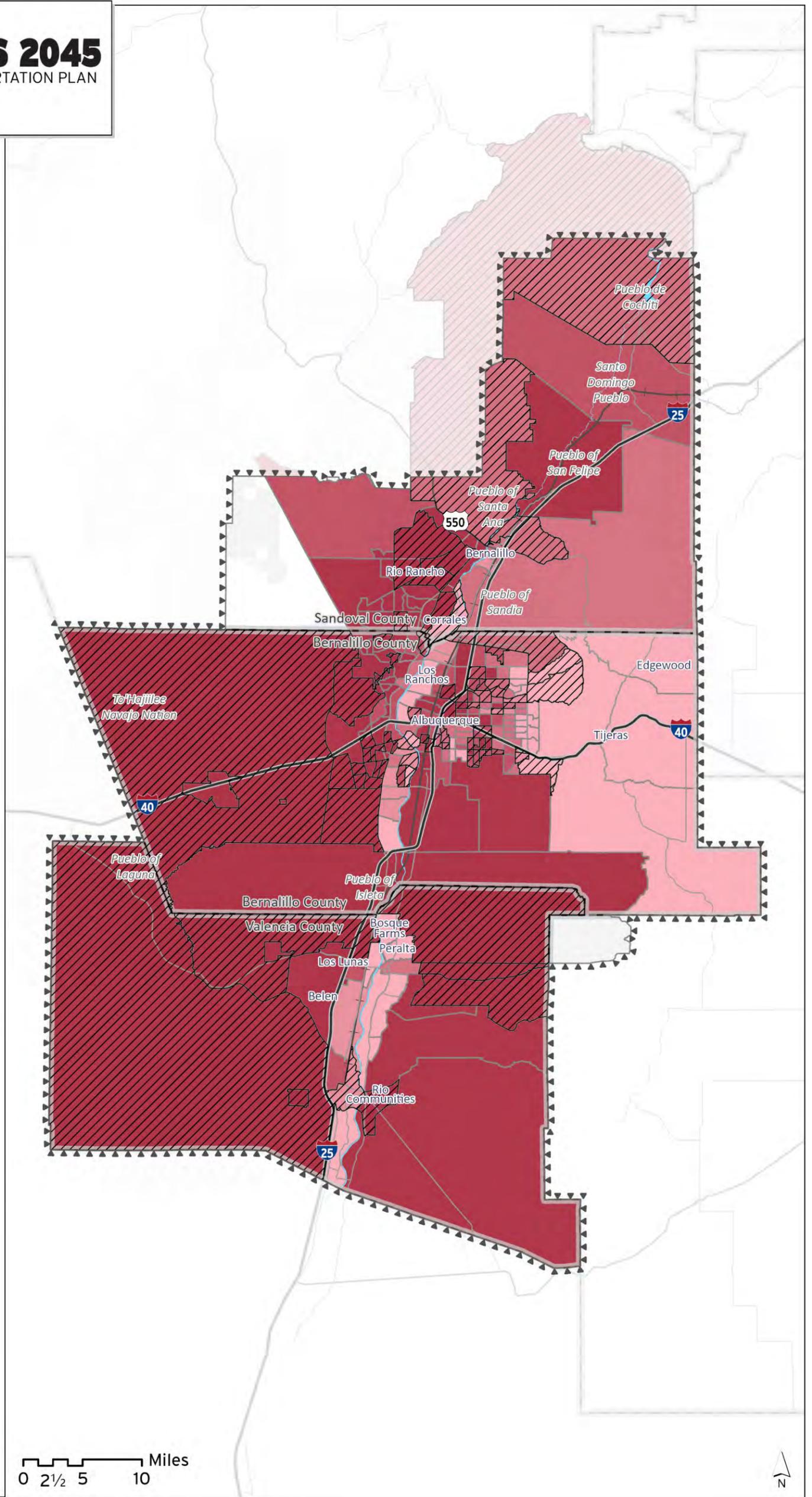
Highest Heat-Risk Populations



Average Surface Temperature

Percent of Area with Temperatures Averaging 120°-139° F in Summer

-  0% - 15%
-  15.01% - 25%
-  25.01% - 50%
-  50.01% - 75%
-  75.01% - 100%



Map Data Sources: Appendix I



0 2 1/2 5 10 Miles





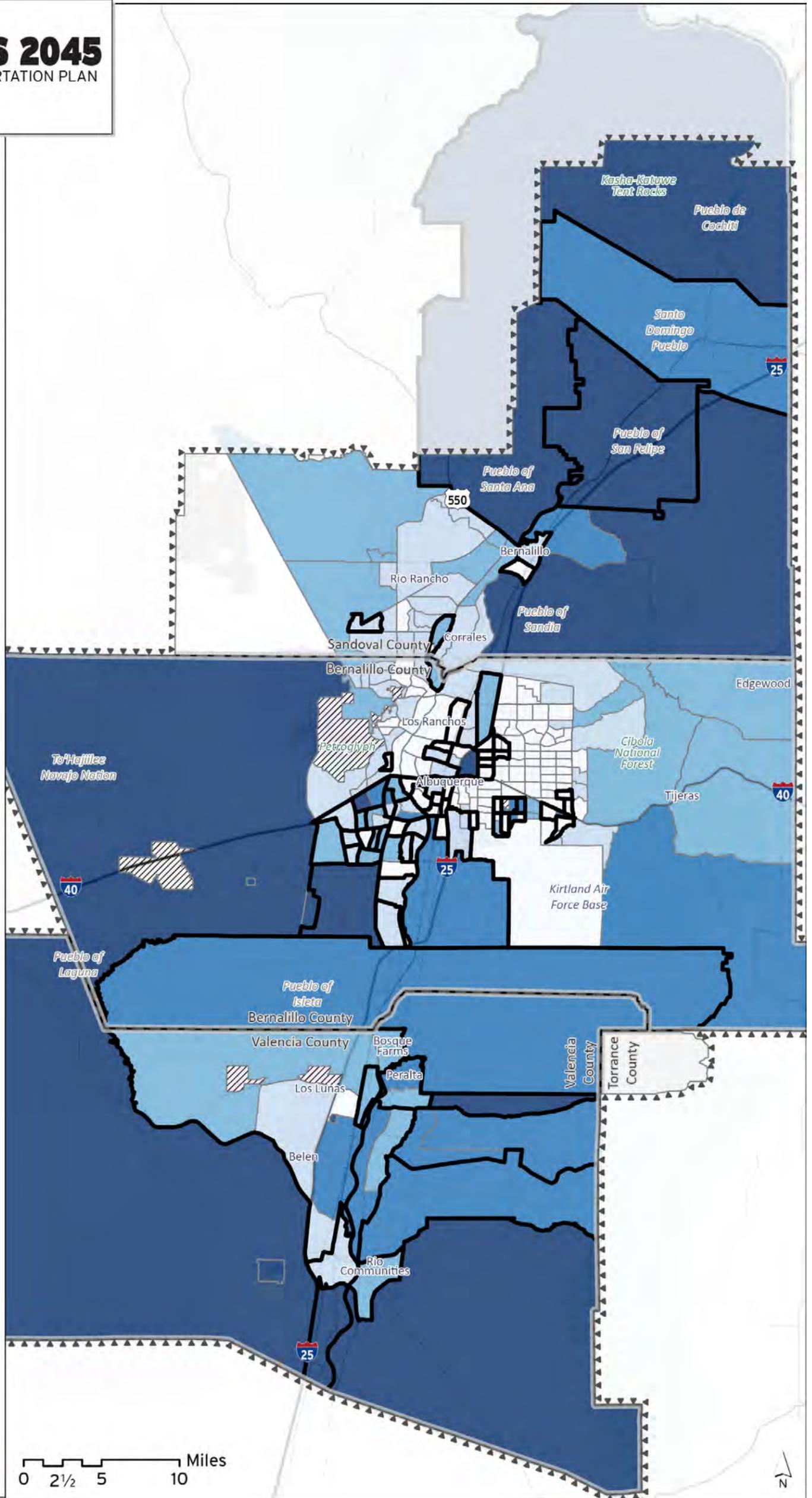
Transportation Insecurity in Disadvantaged Areas

Disadvantaged Communities (DACs)

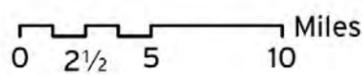
Transportation Insecurity Score

State Percentile by Census Tract

- 0% - 20%
- 20.01% - 40%
- 40.01% - 65%
- 65.01% - 80%
- 80.01% - 99%
- No Data



Map Data Sources: Appendix I





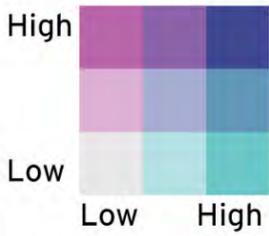
Environmental Justice and Air Quality

Environmental Justice Priority Tract

By Census Tract:

Traffic Volume and Proximity

Asthma Prevalence

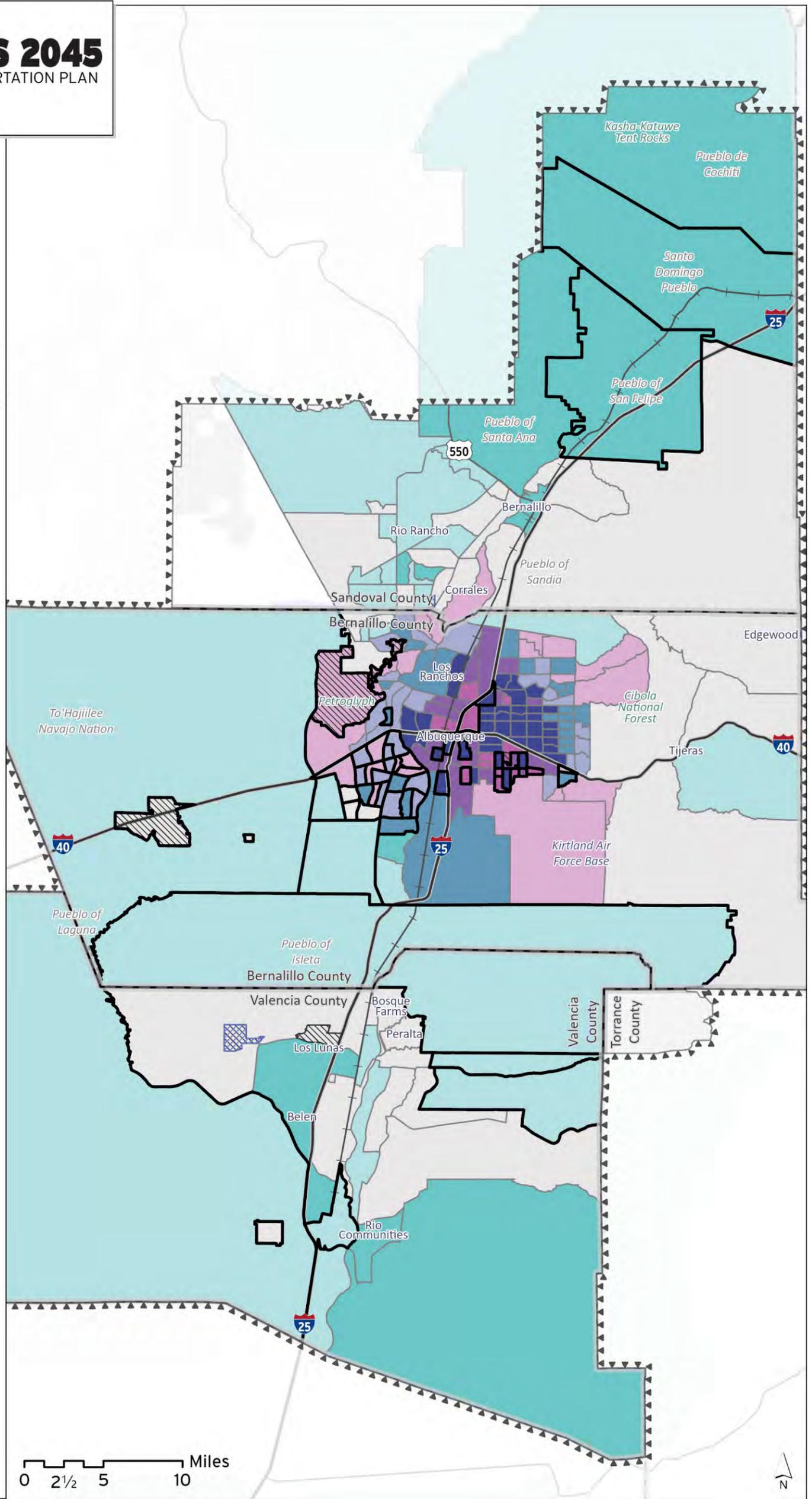


Asthma Exposure

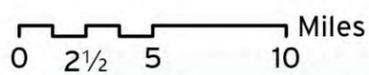
No Data

Traffic Volume and Proximity

No Data



Map Data Sources: Appendix I



Data Sources for Maps in the Transitions 2045 Metropolitan Transportation Plan

MRMPO staff would like to recognize the entities listed here for their contributions – including data, software, and methods – to the maps in this document.

NB: This is not an exhaustive list of sources. It summarizes major sources. In some cases, a specific division within an agency or major dataset is listed. In other cases, data may have come from a variety of sources or divisions within the listed agency. Additional citations may appear on individual maps within the Plan document. For information about a particular map or feature, please contact MRMPO.

- Tribal, Regional, County, Municipal, and other agencies and planning partners in the Albuquerque Metropolitan Planning Area and MRCOG region.
- Bureau of Land Management (BLM)
- Esri
- Federal Highway Administration (FHWA)
- Google Earth Engine
- NASA Applied Remote Sensing Training Program (ARSET)
- National Agriculture Imagery Program (NAIP)
- National Park Service (NPS)
- New Mexico Department of Finance and Administration
- New Mexico Department of Transportation (NMDOT)
- New Mexico Taxation and Revenue Department
- OpenStreetMap contributors
- The Nature Conservancy
- U.S. Census Bureau
- U.S. Department of Agriculture Forest Service
- U.S. Department of Defense
- U.S. Department of the Interior, Bureau of Indian Affairs
- U.S. Department of Transportation (USDOT)
- U.S. Environmental Protection Agency (EPA)
- U.S. Fish and Wildlife Service (FWS)
- U.S. Geological Survey (USGS)
- University of New Mexico Geospatial and Population Studies