



PASO DEL NORTE TRAIL

October 2018

Prepared for:



**PASO DEL NORTE
HEALTH FOUNDATION**

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SITES
SOUTHWEST



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FOREWORD

The mission of the Paso del Norte Health Foundation (Health Foundation) is to lead, leverage and invest in initiatives, programs and policies that promote health and prevent disease in the Paso del Norte region. The vision of the Health Foundation is to ensure that the people in our binational, tri-state region have the knowledge, resources, support and environment to live happy, healthy and productive lives.

After receiving a request from the County of El Paso, the Health Foundation embarked on an important journey to meet our mission and vision: to create a master plan for the development of a county-wide trail that will change the face of our region. This trail, to be called the Paso del Norte Trail, will provide greater opportunities for walking, hiking and biking for users of all abilities, connect neighborhoods to schools, parks, worksites and other destinations, celebrate the Rio Grande river and the region's rich culture and history and become a regional attraction for residents and visitors alike.

To develop the Master Plan that defines the alignment and characteristics of a 60-mile county-wide trail, we listened to residents and stakeholders throughout the region through a series of public meetings, online surveys and small group sessions. The feedback was overwhelmingly positive and the input now embedded into the Master Plan.

This Master Plan provides a blueprint for the development of the Paso del Norte Trail and a way to make active living the easy choice for the residents of our region. We are proud to invest in the health of our community and look forward to working with you to build upon this next step.

Sharon Butterworth, Board Chair, Paso del Norte Health Foundation
Tracy Yellen, Chief Executive Officer, Paso del Norte Health Foundation





Chapter 1

INTRODUCTION

“El Paso del Norte” is more than just the historic name El Paso shared with its neighbor to the south, Ciudad Juárez, Mexico. It denotes a bi-national and inter-state region that focuses on the crossing point from Old Mexico into what is now West Texas and New Mexico, before there was ever such a distinction. “The Pass to the North” marked the crossing point of the Rio Grande for travelers and merchants following El Camino Real de Tierra Adentro—the 1600-mile Royal Road that reached from Mexico City to the Santa Fe, New Mexico region. Before that, it was also an established route for Native Americans from the pre-Columbian civilizations in Mexico to Chaco Canyon. Springing from roots planted along the ribbon of green that sliced through an otherwise arid environment, “El Paso del Norte” thrived for centuries before the formalization of an international border imposed a divide through the community. Despite this boundary, the region continues to revel in its international heritage and unique geography, serving as an urban oasis amid its environmentally unforgiving surroundings.

Like nationally-designated historic trails such as the El Camino Real, non-motorized trails are gaining stature in recognition of their combined recreation and health benefits. An initiative of Paso del Norte Health Foundation’s Healthy Eating and Active Living (HEAL) Priority Area, the proposed Paso del Norte Trail will span the length of El Paso County and provide dozens of neighborhoods and communities with access to the outdoors and linkages to community destinations.

The alignment was determined through extensive community and agency input and is intended to maximize connectivity via existing and other proposed trails.

The planned trail has already been able to leverage funding for trail development from the Paso del Norte Health Foundation (Health Foundation), El Paso Metropolitan Planning Organization (MPO), Texas Department of Transportation (TxDOT) and Community Development Block Grant Program (CDBG) with partnership support from the City of El Paso, El Paso Water, County of El Paso and El Paso Water Improvement District No. 1, with sections of the proposed trail already completed.



STUDY AREA

The Paso del Norte Trail corridor extends roughly 60 miles—the full length of El Paso County south along the Rio Grande, past the spine of the looming Franklin Mountains and Sunland Park, through the heart of Downtown El Paso, Medical Center of the Americas, Chamizal National Memorial, Playa Drain, and then southeast into the rural communities of the Mission Valley, past the historic missions, to the farmlands beyond. Given the breadth of the study area, for planning purposes the trail corridor has been divided into five trail districts, each with its own distinct character:

- Upper Valley District
- Downtown/UTEP District
- Zoo/Playa Drain District
- Mission Valley District
- Rio Grande Agricultural District

Each of these districts is described in more detail in Chapter 5.

A TRAIL FOR EVERYONE

This project is a community-driven, collaborative effort to develop a conceptual master plan for a county-wide trail in El Paso County. The goal is to develop a trail that will become a regional and national attraction by connecting communities, celebrating El Paso County's history and culture, highlighting the Rio Grande, promoting health and active living, and catalyzing economic development.

Why is this important? For residents to lead active, healthy lives, the physical environment must enable and encourage physical activity. Trails and outdoor recreation opportunities are an excellent way for people to get outdoors, exercise, and explore their neighborhoods. Completing a trail network that connects all of El Paso County has many benefits to residents, visitors, and the local economy. It will:

- Provide healthy opportunities for walking, biking, and other forms of non-motorized transportation for users of all abilities.
- Offer connections from communities to local businesses, places of employment, and other destinations, allowing residents to commute to work and use for daily errands.
- Encourage additional economic development and investment in areas adjacent to the trail.
- Celebrate the region's culture by weaving together history, natural areas, and neighborhoods.
- Become a community asset and attraction in and of itself, drawing tourists interested in exploring long distance trails simply for the adventure that they offer.

The project continues work originally envisioned as part of the Rio Grande Riverpark & Trail System in the 2000s. As will be described in more detail, the final recommended alignments were determined after extensive research, field reconnaissance, and coordination with local agencies, landowners, and user groups. Throughout the process, there were opportunities for residents to become engaged in the project and share their vision for a future trail.

The recommended concepts, themes, and trail alignment consider the needs and desires of multiple stakeholder groups and, when complete, will serve the entire region.

PROJECT TEAM

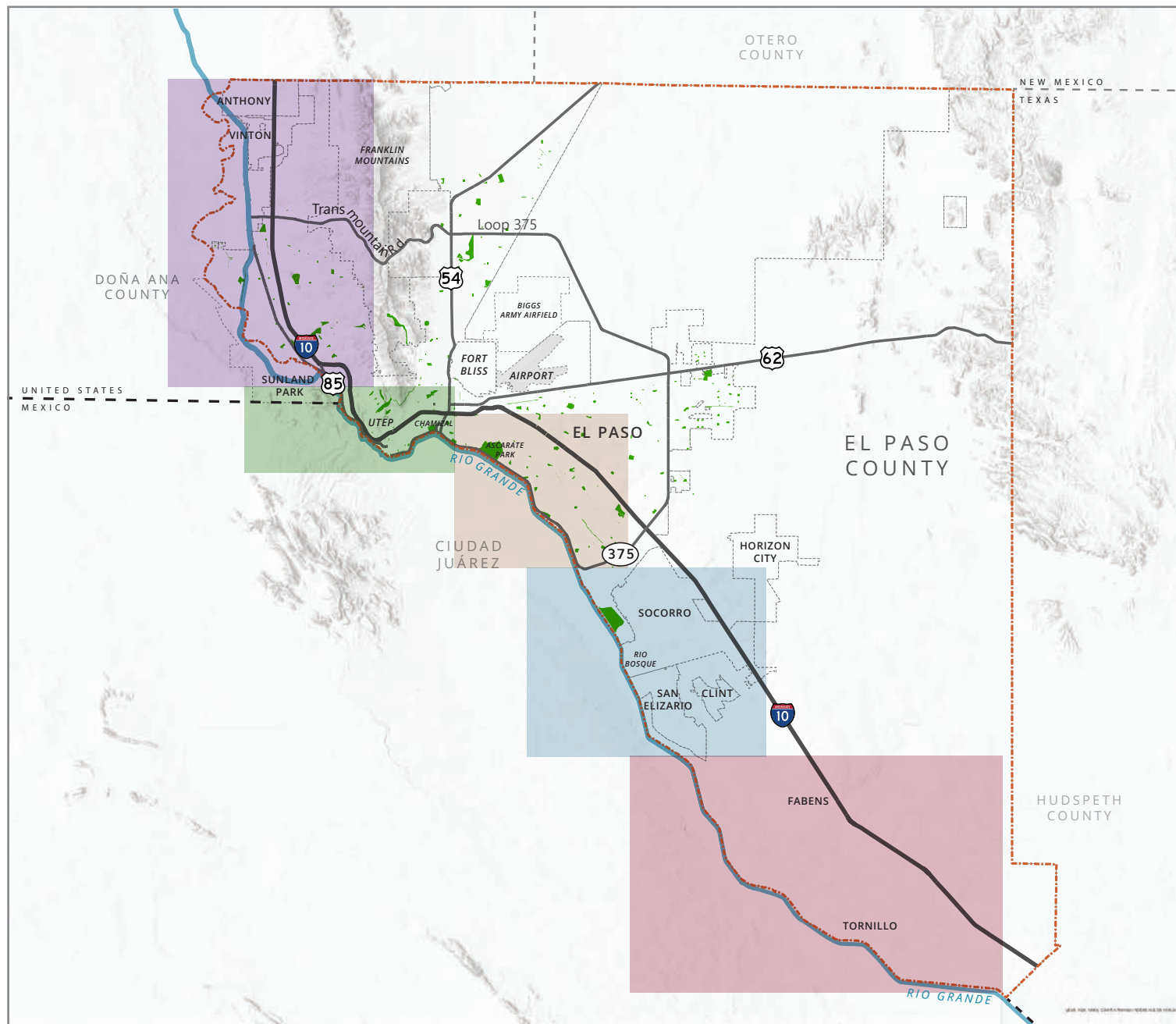
The initial vision for the Paso del Norte Trail came to the Health Foundation from the leadership at the County of El Paso. The development of the Paso del Norte Trail Master Plan was led by a great team of volunteers and staff from the County of El Paso, City of El Paso, El Paso Water, El Paso Water Improvement District No. 1, El Paso Metropolitan Planning Organization, Camino Real Regional Mobility Authority, Texas Department of Transportation, UTEP Institute for Healthy Living, Houghton Financial and Health Foundation with input and support from hundreds of residents and dozens of committed and engaged stakeholders. The Health Foundation contracted with Sites Southwest and Alta Planning + Design, Inc. to develop the conceptual master plan and associated documents. The project was further supported by a technical assistance grant from the National Parks Service's Rivers, Trails and Conservation Assistance Program.



FIGURE 1. PDNHF SERVICE REGION

PASO DEL NORTE TRAIL



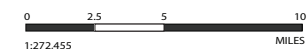


LEGEND

- Municipal Boundaries
- El Paso County Boundary
- International/State Boundary

TRAIL SEGMENT AREAS

- Upper Valley District
- Downtown/UTEP District
- Zoo/Playa Drain District
- Mission Valley District
- Rio Grande Agricultural District



MAP 1. EL PASO COUNTY OVERVIEW & DISTRICTS





Chapter 2

WHAT WE HEARD

This project was developed over the course of 17 months between May 2017 and October 2018. During this time, the project team conducted extensive public outreach that included a social media campaign, four rounds of public meetings, four smaller stakeholder meetings, interviews with community and agency stakeholders, a community survey, and ongoing project promotion. The feedback received from stakeholders was crucial in the development of trail amenities, needs, and the development of an overall vision for the county-wide Paso del Norte Trail. The results of the public outreach efforts are described in this chapter.



STAKEHOLDER MEETINGS

STAKEHOLDER KICKOFF MEETING

To kick off the planning for the project, the Health Foundation, the Institute for Healthy Living, and the consultant team held a stakeholder kickoff meeting on June 23rd, 2017 that gathered together elected officials, representatives from local government agencies, and other community leaders. As the initial meeting, the primary purpose was to introduce community leaders to the project and listen to their ideas for how the project could best serve the entire region.

The meeting was held at the Union Depot Train Station in the studio space for Texas Tech's School of Architecture extension program. Approximately 40 stakeholders worked together in small groups to brainstorm ideas for an overall "trail vision"—both the tangible and intangible elements that they would like to see as part of the county-wide trail. Stakeholders identified key destinations and opportunity sites on a map using stickers and markers. The meeting concluded with participants sharing the ideas they generated in the small groups and their overall vision for the project.

STAKEHOLDER INTERVIEWS

Due to the large number of local organizations, jurisdictions, and other interested parties involved in the planning and eventual implementation of this project, stakeholder interviews were crucial to learn about the key issues and opportunities presented by this project. Throughout August and



September 2017, the project team interviewed 28 individuals representing the following agencies and organizations to find out about specific trail needs and issues:

- City of El Paso Planning and Inspections Department
- City of El Paso Economic and International Development Department
- City of El Paso Parks and Recreation Department
- El Paso Community Foundation
- El Paso County
- El Paso County Water Improvement District 1 (referred to as the Irrigation District)
- El Paso Downtown Management District
- El Paso Historical Commission
- El Paso Independent School District
- El Paso Metropolitan Planning Organization
- El Paso Public Works Department
- El Paso Water Utility
- International Boundary and Water Commission
- Rio Grande Council of Governments
- Sun Metro Planning
- Texas Department of Transportation
- Tigua Indians/Ysleta del Sur Pueblo
- University of Texas at El Paso (UTEP)
- Velo Paso Bicycle-Pedestrian Coalition
- Winton Development



Stakeholders brainstorm trail routes at the Kickoff Meeting on June 23, 2017 at the Texas Tech School of Architecture.

The findings and insights from these interviews were invaluable to the trail alignment and informed key aspects of this master plan. Beyond the initial planning stages, the Health Foundation worked closely with all of these partners throughout the process to help determine the best alignment that makes use of existing infrastructure and serves many users.





PASO DEL NORTE TRAIL

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NATIONAL PARK SERVICE

The Health Foundation and City of El Paso were awarded a technical assistance grant from the National Park Service Rivers, Trails, and Conservation Assistance Program (NPS) to help with the connectivity and alignment of the Paso del Norte Trail from Sunland Park, New Mexico through Downtown El Paso to the Chamizal National Memorial. The NPS team provided some opportunities and recommendations for funding of the proposed infrastructure. They also helped the planning team develop the following goals for the alignment of this portion of the trail:

- **Distinctive places:** Conceive segments of the trail as distinctive cultural and natural places, telling unique stories.
- **Natural and cultural assets:** Highlight and promote natural and cultural assets, such as the Chamizal National Memorial, San Jacinto Plaza, museums, El Paso Zoo, UTEP, Rio Grande River, international border crossings, historic neighborhoods, and amenities for both residents and tourists. Utilize water, storm water, and irrigation infrastructure like the Rio Grande River and Franklin Canal to highlight natural systems in the city.
- **Connectivity:** Use the trail to connect all communities—north to south and east to west. Trail routes and facilities should support a safe active transportation system for the broader public.
- **Comprehensive amenities:** Include unique amenities that meet community needs while responding to active transportation needs. Allow the diversity of the city to influence the spaces through public art and other amenities. Make the visitor experience easy and pleasant with clear wayfinding and safe and comfortable facilities that are well maintained. Make

traveling the trail a destination in itself with unexpected experiences of discovery.

- **Healthy lifestyles:** Develop and promote programming designed to increase physical activity and improve health. Consider programs, messaging, and signage to help achieve health goals.

PUBLIC AND STAKEHOLDER MEETINGS

The NPS Rivers, Trails, and Conservation Assistance Program team worked with the Health Foundation, City of El Paso, and Sites Southwest/Alta to meet with a range of stakeholders to understand existing conditions and identify the best alignments that meet the overall goals of the trail including connectivity to historic, natural, and cultural spaces. They also hosted a public meeting at Bowie High School to gain an understanding from residents and community stakeholders on the trail alignment and amenities. The public meeting provided invaluable input on challenges and opportunities for the proposed trail, including connections from neighborhoods to schools and encouragement of an International Loop connecting El Paso and Ciudad Juárez, Chihuahua.

In addition to representatives from multiple neighborhoods and schools, stakeholder groups represented:

- Borderplex Alliance
- Camino Real Regional Mobility Authority
- City of El Paso (various departments)
- Chamizal National Memorial
- County of El Paso
- U.S. Customs and Border Protection
- U.S. Department of Homeland Security
- El Paso Central Business Association
- El Paso Community Foundation
- El Paso County Historical Commission



Participants provided input at the public meeting.

- El Paso County Water Improvement District No. 1 (Irrigation District)
- El Paso Downtown Management District
- El Paso Independent School District
- El Paso Metropolitan Planning Organization
- El Paso Museums and Cultural Affairs Department
- Housing Authority of the City of El Paso
- International Boundary and Water Commission
- Medical Center of the Americas Foundation
- State Senator Jose Rodriguez' Office
- Texas Department of Transportation
- Tom Lea Institute
- University of Texas at El Paso
- Velo Paso Bicycle-Pedestrian Coalition



PROJECT PROMOTION

A key component of this project, both for the initial planning work and for the future, is ongoing promotion of the possibilities for this trail. The project team worked together to develop a website, logo, branding, advertisements, online maps, social media announcements and other promotional materials to spread the word. These materials were used to announce meeting dates, gather feedback, generate community interest in the project, and share updates as the project evolved, while creating a recognizable identity for the trail.

In addition to online promotion, the Health Foundation networked with many of the communities and agencies along the trail alignment to energize the project and to seek guidance on the trail alignment.

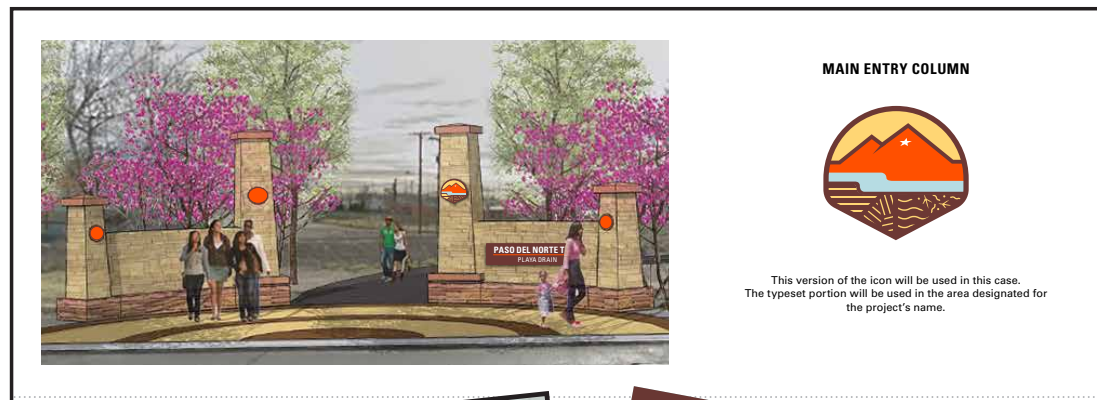


FIGURE 3. PROJECT BRANDING & PROMOTIONAL MATERIALS



COMMUNITY SURVEY

To develop a better understanding of individual needs and preferences for the trail, a 29-question online survey was created early in the process and was open for two months. The primary purpose of the survey was to gain a better understanding of the trail facilities that residents are currently using and the types of amenities they would like to see along a future trail. The survey was designed in conjunction with a survey developed for the Playa Drain project by the Institute for Healthy Living to include overlapping questions that would allow for eventual comparison. The survey was written in English and translated into Spanish and was available on the Paso Del Norte Trail website. It was promoted via public meetings and multiple social media outlets.

KEY SURVEY RESULTS

The survey received 345 responses; the vast majority (332) were in English. The largest percent of respondents (35 percent) have a less than 10-minute walk from their home to the nearest trail, however more than one-quarter of respondents do not live near any trails. It should also be noted that more than 60 percent of respondents walk approximately six times per week, and bike approximately twice per week, which is significantly more often than they use public transportation.

Most respondents support a county-wide trail system (80 percent) and 65 percent said they would use it. More than 70 percent of respondents think it is very important that future trails be completely separated from traffic. In terms of connections and access, more than 60 percent of respondents think the most important connection this new alignment should make is to existing parks and recreation trails. More than half of the respondents think the lack of connections to destinations or other trails and a lack of existing trails are the top factors discouraging trail use. More than 30 percent of respondents think that car traffic and/or unsafe street crossings are factors in discouraging trail use. Overall, respondents believe the existing access to trails is "poor", and the existing trails are "poor" to "okay".

The top three most important reasons for a new trail were:

1. *Exercise (more than 80 percent)*
2. *Getting into nature (60 percent)*
3. *Recreation (55 percent)*

The top four amenities that respondents would like to see on a new trail are:

1. *Shade*
2. *Benches/rest areas*
3. *Lighting for nighttime use*
4. *Restrooms*



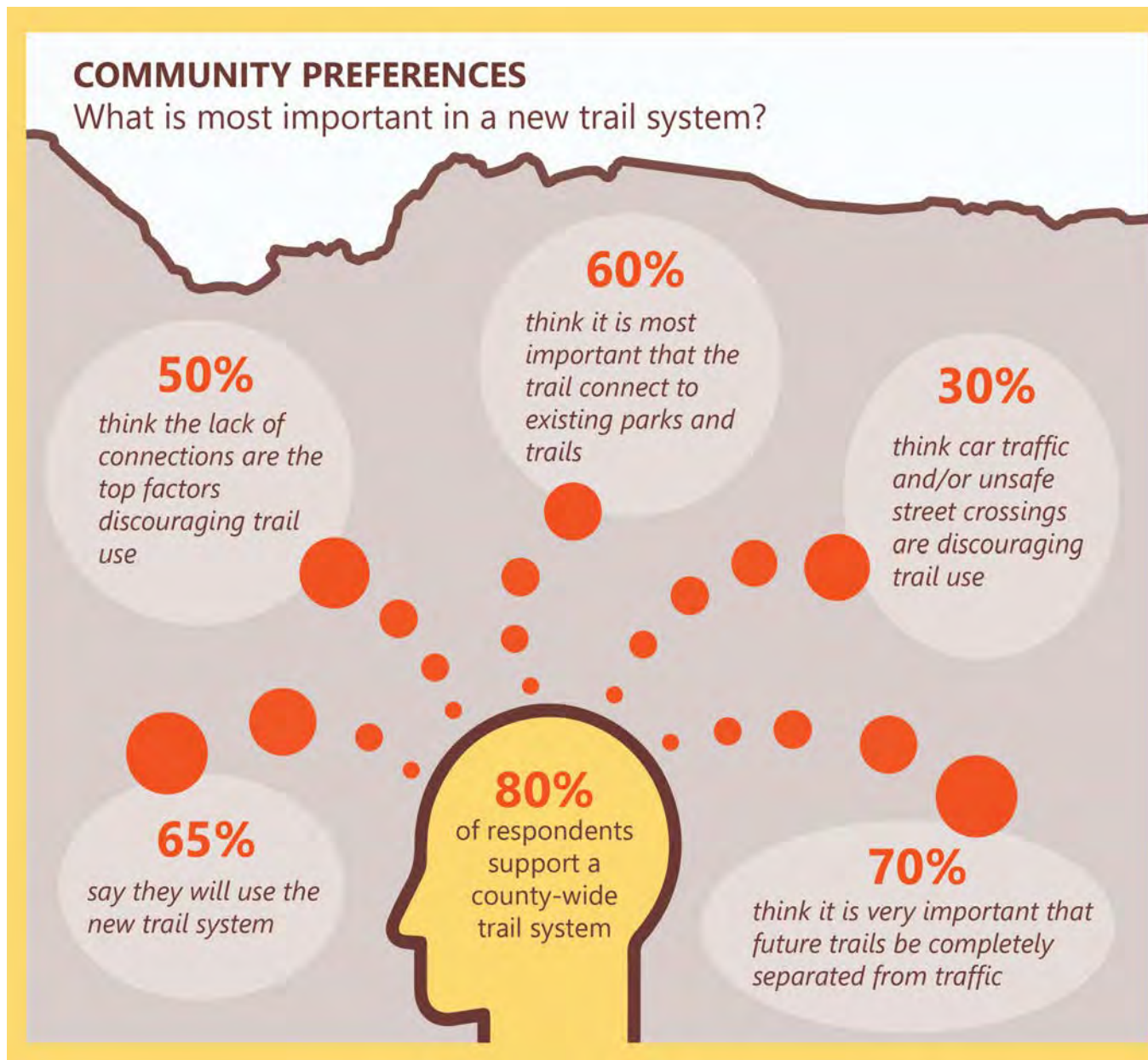


FIGURE 4. SURVEY RESPONSES



PUBLIC MEETINGS

AUGUST 2017

An initial round of public meetings were held in August 2017 to present the project to residents in El Paso County. The first of these meetings was held on the evening of August 9th at the El Paso Police Department (EPPD) Westside Regional Command Center in the Upper Valley. Approximately 50 people attended the meeting, which included a short presentation by the project team, followed by an hour-long question and answer session with attendees. In addition, using maps of the trail corridor, residents were able to point out specific destinations, alignments, and opportunity areas for the future trail similar to the stakeholder meetings.

A second meeting was held the following evening (August 10th) at the EPPD Mission Valley Regional Command Center. This meeting followed the same format as the first, although residents

in the Mission Valley had additional ideas and questions. Overall, feedback from both meetings complemented the findings from the stakeholder kickoff meeting, community survey, and information gathered at interviews. Some of the information gathered from these two meetings is shown in Figure 5.

JANUARY 2018

A third public meeting took place in January 2018 to provide an overview of the project, a brief history, and education on trails. This meeting was held in conjunction with the NPS and personnel from their Rivers, Trails, and Conservation Assistance Office at Bowie High School on January 25th, 2018. Through a presentation and supporting presentation boards, the overall framework and trail characteristics were described by the design team. Additionally, several presentation boards were created that used an interactive sticker voting method to poll attendees comfort levels on various trail types and contexts.



Participants listened to the presentation and participated in the discussion at the Westside Command Center.



FIGURE 5. PUBLIC MEETING IDEA BOARDS



Attendees were encouraged to fill out a survey and provide feedback on what was most important to them.

The vision that emerged from this meeting was three-fold:

1. Each trail segment should be designed according to its natural, historical, and cultural context and should highlight those resources.
2. The trail alignment should be sited with social and environmental justification so that all communities have access to safe routes for day-to-day activities.
3. The trail alignment and/or spurs off of it should connect to Transit Oriented Development areas to incentivize economic development and provide more connections to higher density areas.

The community participants also shared their highest priorities for amenities and trail features:

- Use recycled and local materials and solar power
- Make accessible to all users
- Make resources known with interpretive design features and markers that highlight them
- Trails should have a clear buffer from roadways and moving vehicles
- Prioritize connections to:
 - Rio Bosque wetlands
 - Missions and Mission Trail
 - Paisano/Asarco area
 - Bridge at American Dam
 - Tigua Indian's lands, including Ysleta Mission and south to San Elizario
 - Spurs to local destinations, including schools, shops, and parks
 - Linking existing bicycle routes



The Public Meeting at Bowie High School began with a presentation of trail characteristics.

Some challenges to the alignment were also shared:

- The rail yards in Downtown El Paso are barriers
- Maintenance of the entire route will be difficult to coordinate
- Mosquitos along the river and in rural areas
- Making trail crossings safe

JULY 2018

The final public meeting was held in July 2018 at the Pat O'Rourke Center in El Paso. At this open house, staff and consultants presented an overview of the project, the types of trails that will be included, and the overall trail alignment. Participants were encouraged to participate in a Q&A session.

Some of the questions, concerns, and ideas that were expressed included:

- **Phasing:** Interest in the time frame to complete the trail and how it will be funded. Connect existing trails and complete sections first.
- **Involvement:** Keep community informed on progress and involve El Paso Historical Commission, historical buildings, and UTEP in the design.
- **Amenities:** Include portable restrooms, pet waste stations, and landscaping.
- **Coordination:** Update the Open Space Master Plan with alignment and secure easements or rights-of-way where necessary.







Chapter 3

REGIONAL PROFILE

For more than last 150 years, the communities that make up the Paso del Norte Region—including the City of El Paso, Dona Aña County, the rural towns up and down the Rio Grande Valley, and Ciudad Juárez, Chihuahua—have developed around the unique border culture created by the relationship between the United States and Mexico. In the last 30 years, the region has grown rapidly, with international trade, manufacturing, and an influx of new residents driving both economic and population growth. These forces have led to significant changes in the region, and spurred new investments in physical infrastructure, community amenities, and revitalization of downtown El Paso and neighborhoods.

This chapter provides a brief history of the region and outlines some of the demographic, economic, and health-related trends to reveal how the region is changing. These trends provide evidence that now is the perfect time to invest in a trail system that will serve the entire region—especially those areas that have traditionally been underserved.



HISTORY

The Paso del Norte Region includes southern New Mexico, the City and County of El Paso, the Rio Grande river and the rural and agricultural areas along it, Native American influences, historic Spanish Missions, railways, and Ciudad Juárez, Chihuahua across the US-Mexican border. Brief histories of each are described as follows.

HISTORIC RIO GRANDE

The Rio Grande has long been a major travel corridor. Long before the Spanish explorers arrived in 1598 and began diverting the Rio Grande for irrigation, the river was a diverse wildlife habitat and was spread out over bosques, wetlands, and meadows.¹ After Elephant Butte Dam was constructed in 1916, the river became more constrained as its path was narrowed and moved to accommodate irrigation channels.

¹ Rio Grande Forgotten River, El Camino Real de Tierra Adentro, Groundwork El Paso, National Park Service, Bureau of Land Management

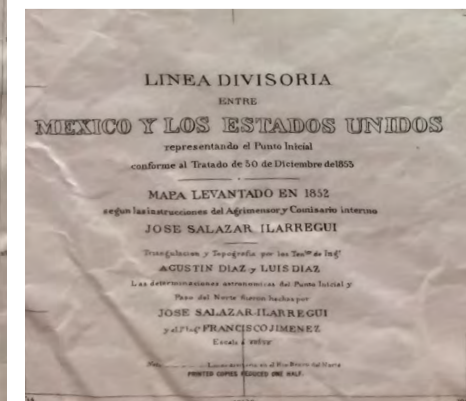
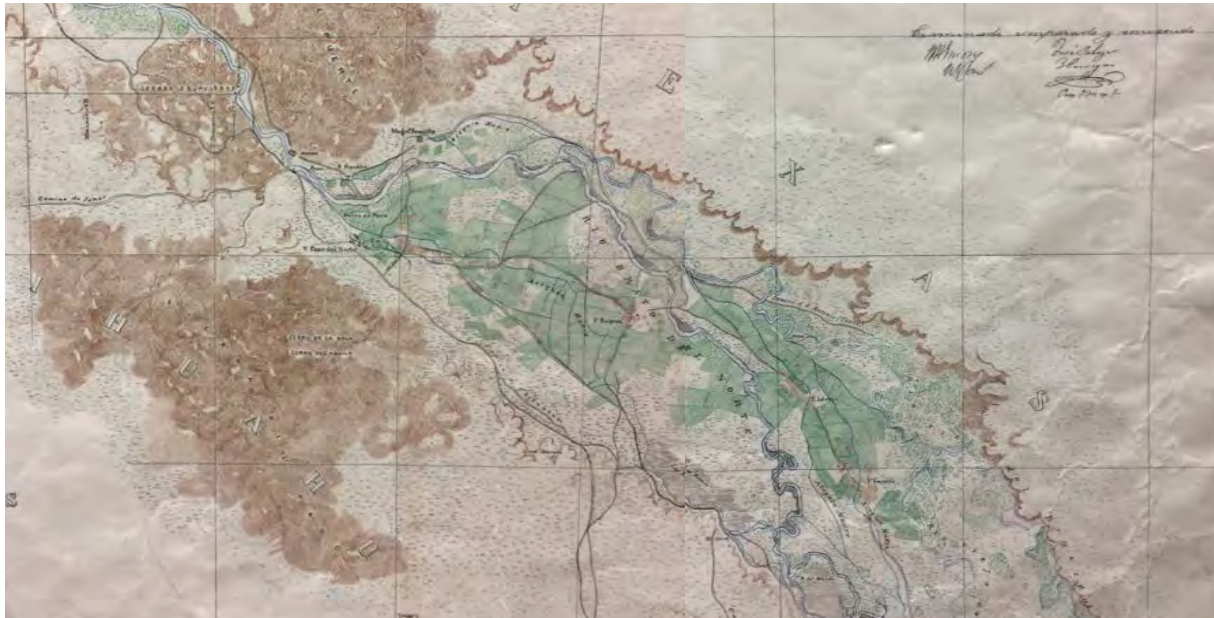
NATIVE AMERICAN SETTLEMENTS

The Manso, Suma, Piro, and Tigua Indian tribes settled in the Rio Grande Valley more than four centuries ago.² The Tigua established Ysleta del Sur in 1682 after leaving their previous settlement in Quarai (present day New Mexico) due to drought conditions.³ During the 1680 Pueblo Revolt, they were captured by the Spanish and settled and built the Ysleta del Sur Pueblo (which is 13 miles from present day downtown El Paso), the oldest government body in Texas. The Tigua built the acequia system that made farming in the region possible; they farmed wheat, corn, cattle, and horses. In 1863, President Lincoln recognized Pueblo tribes as sovereign nations and granted them land, except the Tigua because they were within a Confederate state. It was not until 1968 that the federal government recognized the Tigua's tribal status and granted land for the Tigua Reservation.

² http://www.elpasoinc.com/lifestyle/local_features/native-americans/article_617bf9fe-8243-11e0-96f5-0019bb30f31a.html

³ <http://www.ysletadelstupueblo.org/>

The "only legal and authoritative map" of the US-Mexico border accepted and adopted by both the United States and Mexico in 1852.



HISTORIC ROUTES AND SITES

By 1682, the Spanish and Pueblo Tribes had founded five Indian Missions along the river, including El Paso del Norte, San Lorenzo, Senecú, Ysleta, and Socorro;⁴ El Paso was the most prominent given its location on the El Camino Real—the 1,600-mile trade route that linked the Santa Fe Trail in San Juan Pueblo, New Mexico and Mexico City.⁵ Another Spanish settlement was San Elizario, once the county seat of El Paso County, and was a close second to El Paso in importance along the trade routes to the Santa Fe Trail.⁶ It was a rest stop during the gold rush in the late 1840s and was home to the Third Infantry during the Civil War. The city was most famous for the Salt War of San Elizario in 1877 which resulted in rights over salt deposits. The town has its greatest population today and is located 15 miles south of downtown El Paso.

4 http://www.elpasoinc.com/lifestyle/local_features/native-americans/article_617bf9fe-8243-11e0-96f5-0019bb30f31a.html

5 El Paso Parks and Recreation Master Plan, 2014.

6 <https://tshaonline.org/handbook/online/articles/hjs05>; Eugene O. Porter, San Elizario (Austin: Jenkins, 1973). W. H. Timmons, El Paso: A Borderlands History (El Paso: Texas Western Press, 1990).



Historic Ysleta Mission (above left) and San Elizario Chapel (above right). Courtesy of Skip Clark Collection

Historic El Paso (c. 1880-1890) (right)
Courtesy of El Paso Library

ONE REGION/TWO COUNTRIES

In 1848, the Treaty of Guadalupe Hidalgo established the Rio Grande as the US–Mexico boundary in Texas and the settlement of El Paso del Norte was split; eventually Franklin, on the US side became El Paso and El Paso del Norte on the Mexico side became Ciudad Juárez.⁷ The treaty also made the historic missions of Ysleta, Socorro, and San Elizario US territory. Map discrepancies resulted in dispute over land ownership of the Mesilla Valley north of El Paso, which was coveted for its rich soil and eventually was purchased by the US. The entire region and especially these border towns and cities have been shaped by the cultures and governments of both countries for centuries.

7 El Paso Parks and Recreation Master Plan, 2014.



RAILROAD LEGACY

In 1881, about a century after the steam locomotive was developed, the railroads that were built across the nation by Chinese laborers reached El Paso, transforming the trading center into a bustling city with amenities, such as electricity, gas, and telephone service, as well as theaters and other entertainment venues, a library and banks.⁸ Within one year, six railroads connected to El Paso, including the Mexican Central, which made trade and exports easier, provided many jobs, brought new investment, and increased El Paso's population from 700 to 10,000 people by 1890. The railroads allowed farmers and ranchers to distribute their produce and livestock well beyond the region. It also brought the mining industry to El Paso resulting in copper mines and refineries. A century later, El Paso continued to benefit from the railroads as a stopping point between Mexico and Canada.

8 <https://epcc.libguides.com/c.php?g=754275&p=5406155>



ENVIRONMENTAL FEATURES

TOPOGRAPHY & NATURAL FEATURES

The Rio Grande is likely the most distinguishable natural feature of the region and is a central theme throughout the entire trail alignment. The topography of El Paso and the surrounding region is characterized primarily by the flood plains of the Rio Grande Valley and its irrigation and drainage canals, punctuated by the adjacent Franklin Mountains east of the city, and Mount Cristo Rey to the west (see Map 2). The relatively low and flat character of the Rio Grande Valley provide optimal conditions for trails. Moving away from the river corridor, the terrain becomes much steeper creating less-desirable conditions for walking trails. These areas are more conducive for hiking and mountain biking.

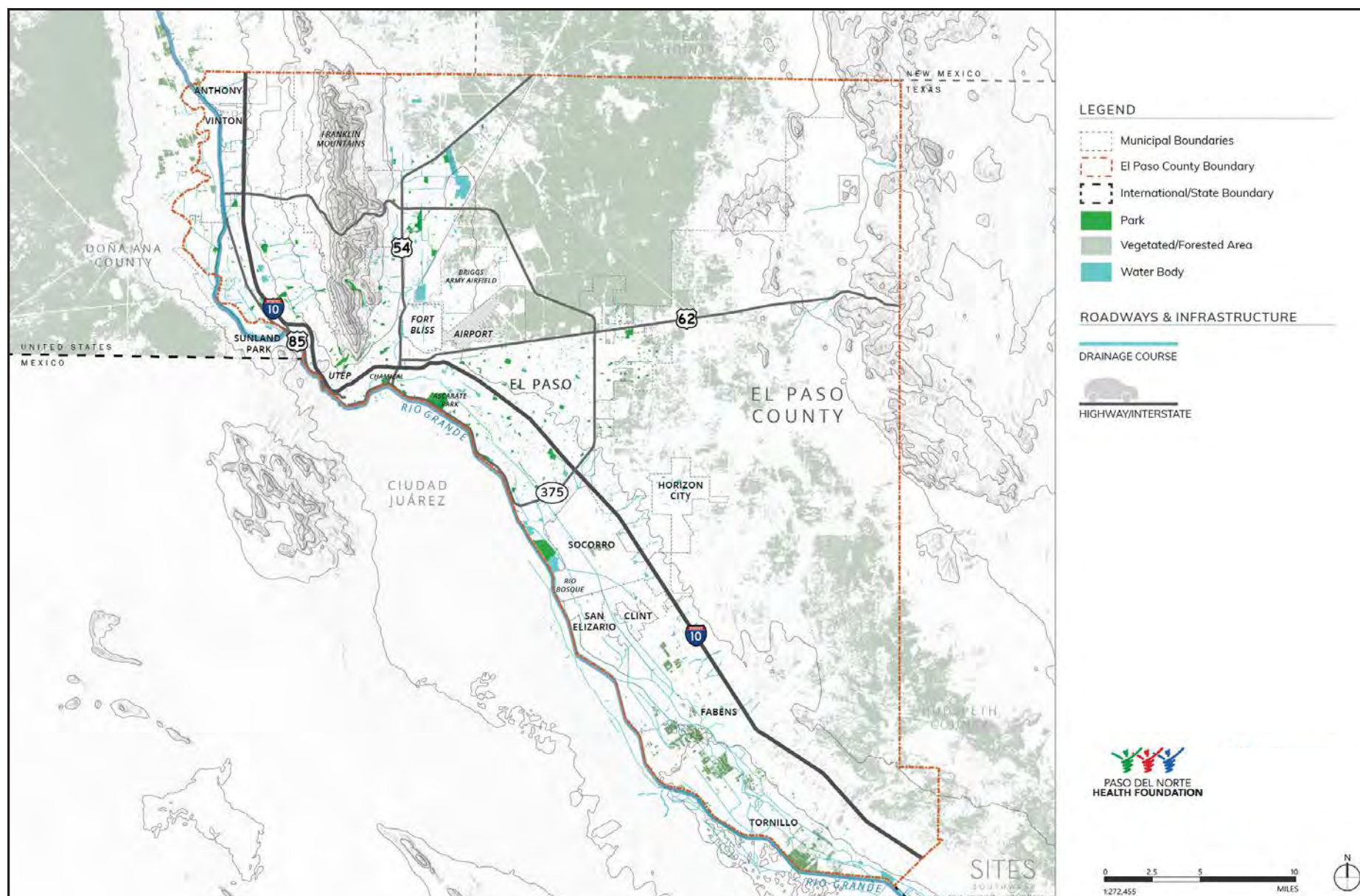


The Rio Grande River and its banks are defining features throughout the county.



A number of existing, somewhat informal connections already exist for pedestrians and cyclists.





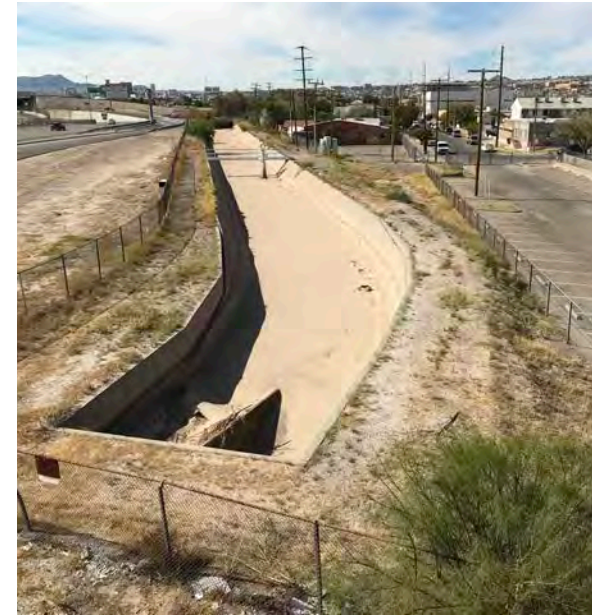
MAP 2. VEGETATED AREAS & WATER BODIES

INFRASTRUCTURE AND LAND USE

IRRIGATION CANALS & DITCHES

With few exceptions, the irrigation canals and drainage ditches in El Paso County are owned and managed by the El Paso County Water Irrigation District No. 1 (referred to as the Irrigation District). This system of channels includes 350 miles of canals and laterals, and 269 miles of drainage ditches (see Map 3).⁹ They provide a great opportunity for the Paso del Norte trail alignment as they offer links into the communities along the route. On many of the larger canals and ditches, the Irrigation District's right-of-way is approximately 100 to 120 feet, with 18- to 20-foot ditch bank service roads on both sides. In most locations, these ditch banks are wide enough to accommodate a 10 to 12-foot paved trail. However, because most canals are still used heavily for irrigation between March and October, these service roads are still active with service vehicles. In addition, some canals (such as the Franklin Canal) parallel or cross major roadways and have multiple crossings and lateral connections that complicate the designation of a safe, continuous trail route.

⁹ Information from the Irrigation District website: <https://www.epcwid1.org/index.php/organization/about-us>

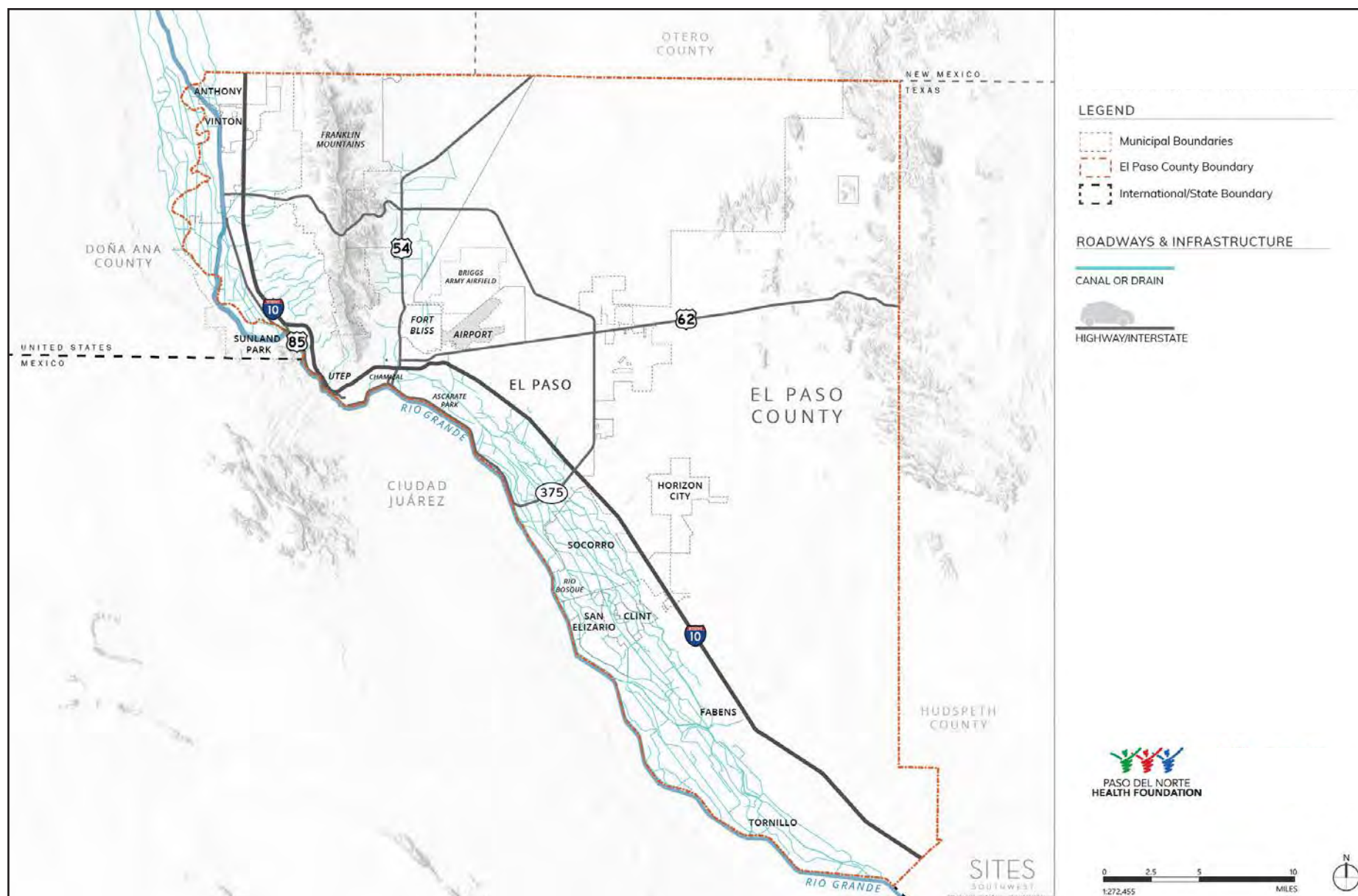


Canals and ditches traverse the county. Some are concrete channels and many have natural surfaces.



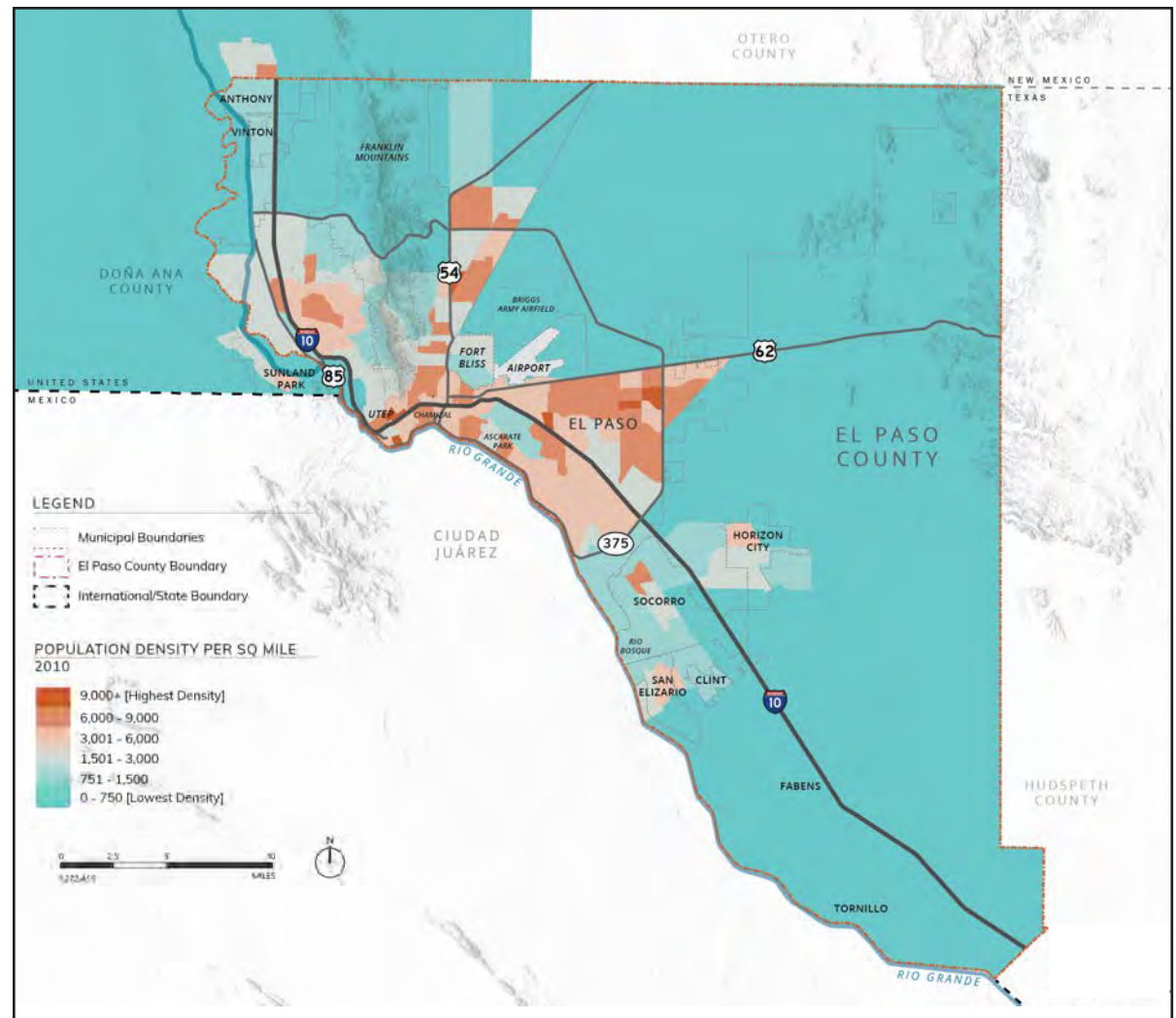
The ditch banks are used as informal connections for biking, walking, and horseback riding.





DEMOGRAPHICS, COMMUNITY HEALTH, AND GROWTH AREAS

The El Paso region is changing rapidly due to population growth and new development. With residents continuing to move into the area, the demographic and economic profiles of the region are shifting, opening up new opportunities, and creating new challenges. This section explores some of the regional demographics, health statistics, and growth trends that will inform the planning process for a county-wide linear trail.



MAP 4. EL PASO COUNTY POPULATION DENSITY

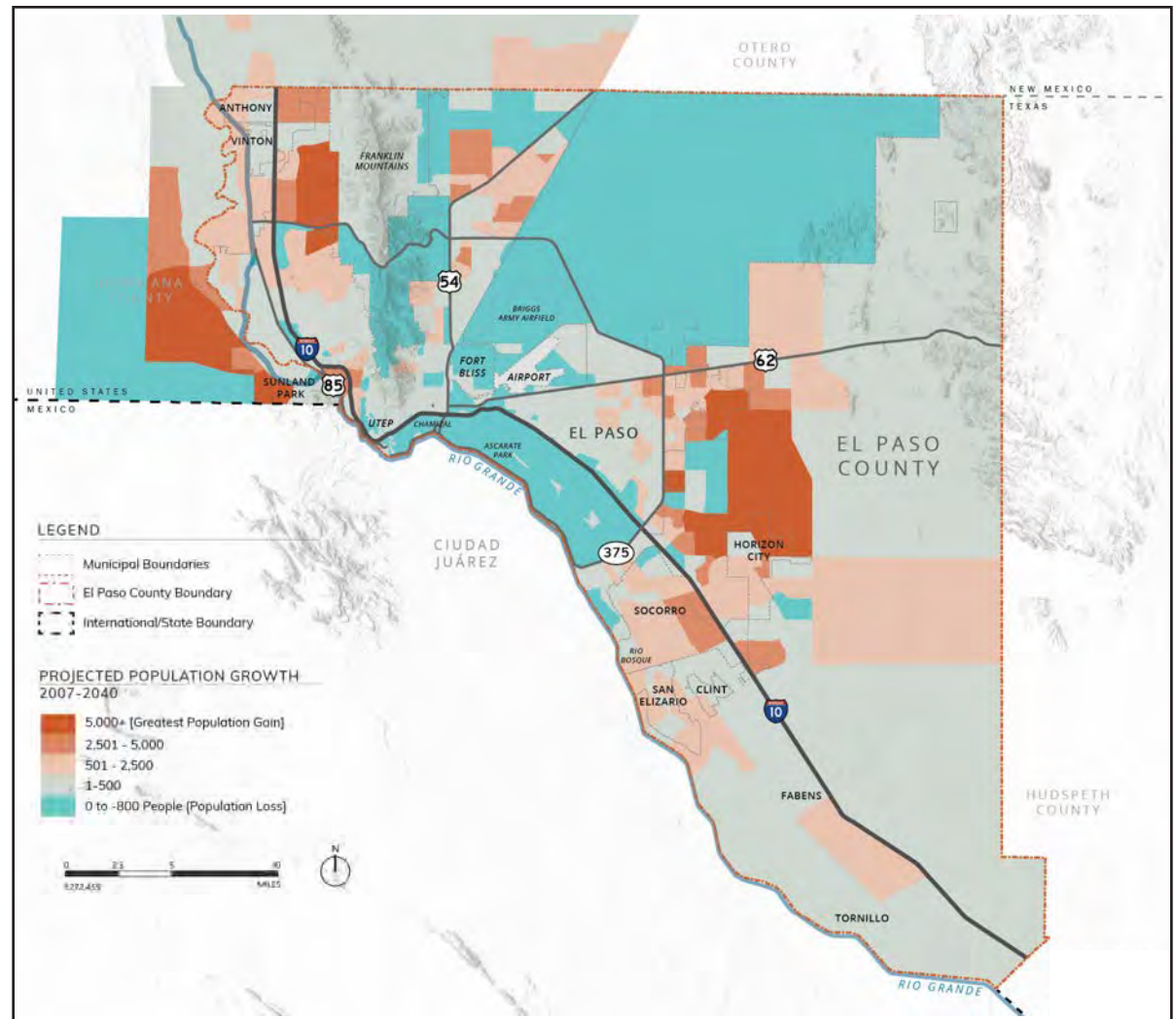


POPULATION & GROWTH TRENDS

The El Paso region has grown rapidly in the last 20 years, changing both the physical character and the underlying sociodemographic profile of the region. Between 2000 and 2010, El Paso County grew by 121,025 residents or about 18 percent to a total population of 800,647.¹⁰ In 2017, the estimated population for the County is 844,769 people.¹¹ By 2030, the population of the entire El Paso metropolitan area is projected to surpass 1 million people. This overall trend is important to understand because it reveals both the need and possible demand for a future regional trail.

As seen in Map 4, areas with the highest density in El Paso County are located primarily in the City of El Paso, including in Downtown, around UTEP, south of Ascarate Park, and in newer development in east El Paso. The population density of parts of Socorro and San Elizario are also fairly high, especially relative to other rural communities. Many of these pockets of higher density are in line with a potential trail route and show that a trail loosely following the course of the Rio Grande west of Interstate 10 would serve a large number of people.

However, as seen in Map 5, growth is projected to occur mainly on the outer edges of the City of El Paso as well as in Sunland Park, New Mexico. More densely populated areas within the Downtown, Central, and Mission Valley neighborhoods of El Paso are projected to see a decline in overall population.



MAP 5. POPULATION GROWTH AREAS 2007-2040

¹⁰ This is double the national average of 9.7 percent, but slightly below Texas's total growth of 20.6 percent.

¹¹ Healthy Paso del Norte data from Claritas, 2017.

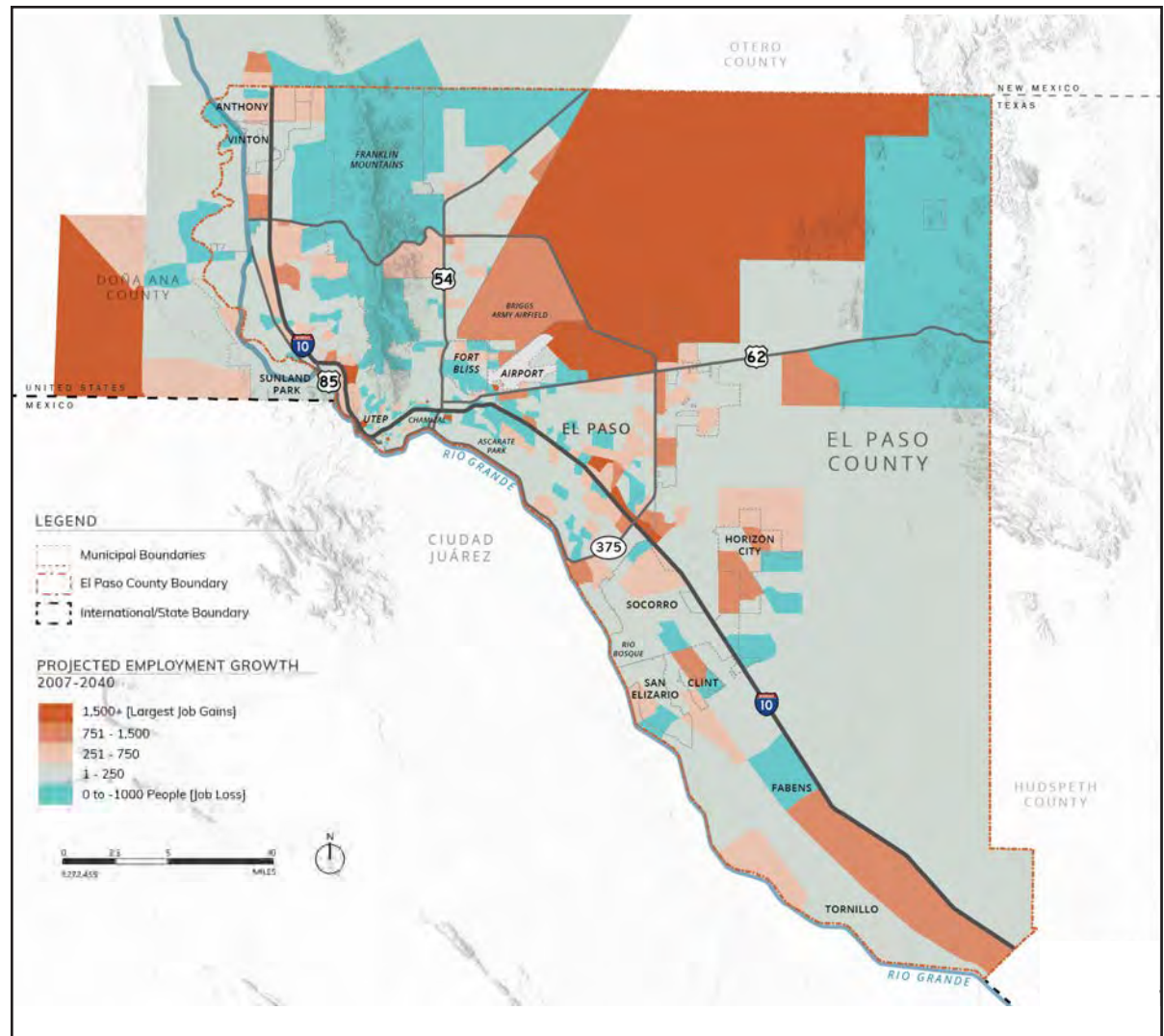


FUTURE GROWTH & ECONOMIC DEVELOPMENT AREAS

The El Paso Metropolitan Planning Organization (MPO) released population and employment projections to the year 2040 as part of their current Metropolitan Transportation Plan (MTP). The current plan (Horizon 2040) projects that population growth will continue to occur along the edges of the City of El Paso, especially in the Upper Valley, Northwest El Paso, East El Paso, and in Sunland Park, New Mexico. There is also some population growth projected for rural Mission Valley communities, and for pockets in older established neighborhoods. However, very little (or a small decline) is projected for the established neighborhoods in the Mission Valley, Downtown, and the developed areas of the Upper Valley/West El Paso.¹²

In terms of employment growth, new jobs are expected in major employment centers along Interstate 10, within Downtown, at UTEP, and in Sunland Park/Doña Ana County, New Mexico. Overall, job growth is fairly well distributed throughout the County, with both established urban areas as well as rural areas expected to retain jobs, along with growth in employment in newer or undeveloped areas of the County.

¹² Because these projections were completed based on 2007 as the base year and are in the process of being updated, they do not account for more recent changes in Downtown (reinvestment and urban redevelopment projects) that could increase the number of people living downtown in the future.



MAP 6. EMPLOYMENT GROWTH AREAS 2007-2040



DEMOGRAPHIC SUMMARY

ETHNIC DIVERSITY & ENGLISH LANGUAGE PROFICIENCY

As of 2017, El Paso County is a predominately Hispanic area, with 82.8 percent of individuals identifying as Hispanic or Latino. In terms of race, 92 percent of individuals identified as "White"; 3.9 percent identified as "Black or African American"; 1 percent of individuals identified as "American Indian and Alaska Native," "Asian," or "Two or More Races"; and persons identifying as "Native Hawaiian and Other Pacific Islander" were fewer than 1 percent.¹³ An estimated 70 percent of residents more than five years old speak Spanish (in addition to English), with 30.8 percent of the population (approximately 235,000 people) over five years old speaking English "less than very well." In addition, an estimated 212,112 people (about one-quarter of the population) are foreign-born.

¹³ <https://www.census.gov/quickfacts/fact/table/elpasocountytexas/PST045217>. These totals do not add up to 100 percent due to small percentages of other races. Generally, those who choose "some other race" in predominately Hispanic areas choose this option rather than "White" due to confusion over the way the Census splits race from ethnic identity (in this case, Hispanic ethnic identities).

AGE GROUPS

The El Paso region is home to a large number of relatively young residents, and a large number of households with children. The median age in 2015 was 32.4 years, which is lower than both the State of Texas (34.8) and national (37.6) median ages. The relatively young age of residents is an important factor to consider in the design and programming of a linear trail. This data suggests that a trail would potentially serve four primary age groups, with different needs and preferences:

Children & Youth (0-17): Children made up 28.0 percent of El Paso's County population in 2017.

Young Adults (18-34): Young adults make up 25.8 percent of the population and are beginning to enter the workforce, attend college, and start families.

Middle Age Adults (35-64): About 34.4 percent of residents are in this age group. They are still active and working.

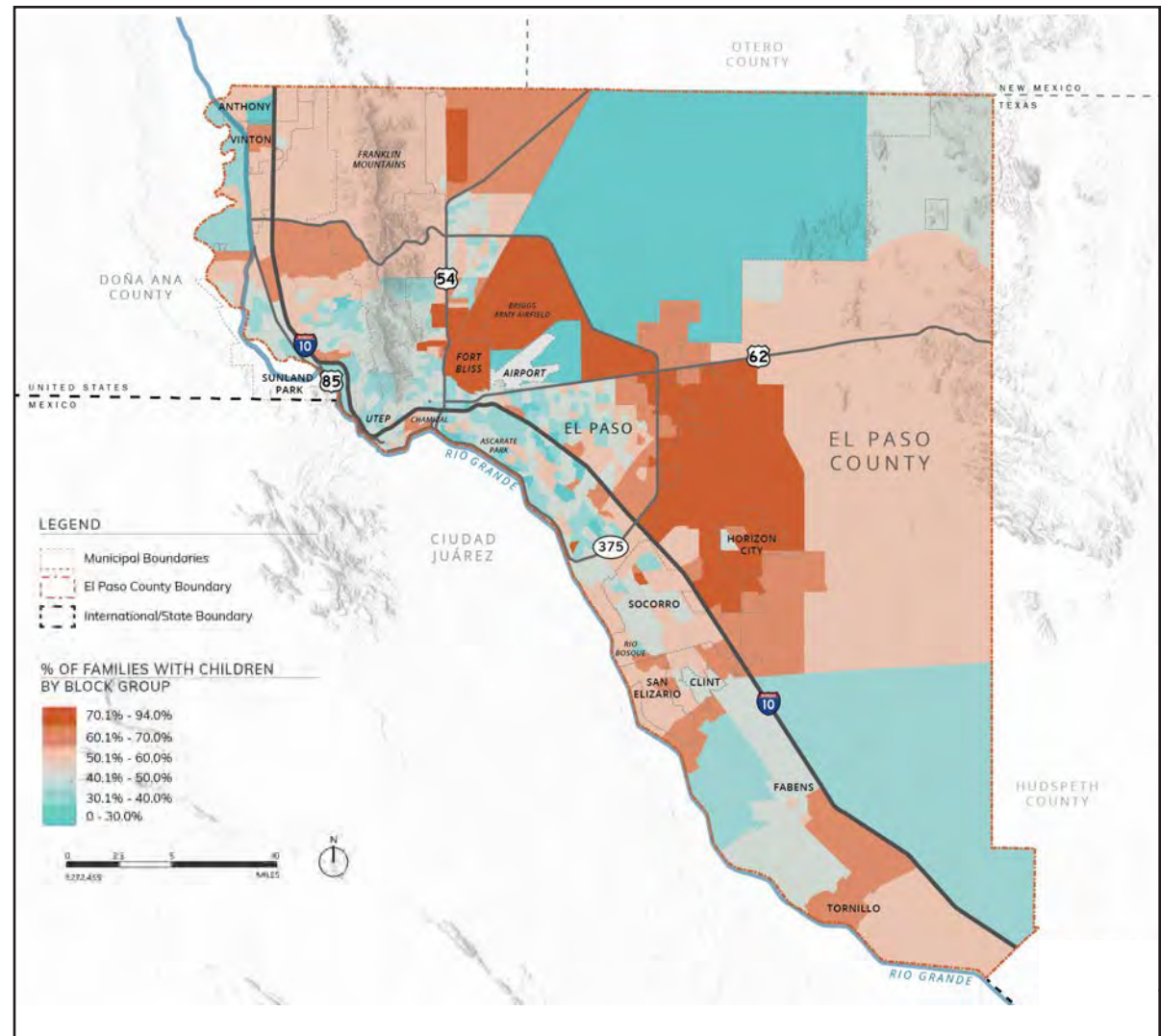
Seniors (65+): Seniors make up a growing percentage of the population and accounted for 11.8 percent of the County's population in 2017.



HOUSEHOLD CHARACTERISTICS

In 2010, there were 256,557 total households in El Paso County, with an average household size of 3.06 people.¹⁴ Of these households, 19.8 percent were single-person households, 24.9 percent were households with two people, and 55.3 percent were households with three or more people, including married couples and those with children. In addition to a younger population, El Paso is home to many families with children. Of all families, 60.6 percent had children living with them in 2010. Areas with higher percentages of families with children are primarily located in newer neighborhoods on the eastern edge of the El Paso City limits, as well as on and around Fort Bliss. The few exceptions are the Chamizal and Segundo Barrio neighborhoods adjacent to Downtown and a few pockets in the Mission Valley, including Socorro and San Elizario.

As expected, areas with a higher percentage of families with children correspond to Census Tracts with a higher youth population, as well as higher population densities. The opposite is true for areas to the east, north, and south of downtown, which in general have fewer households with children. Map 7 shows census block groups by percentage of families with children.



¹⁴ There were 196,625 family households in 2010, with an average family size of 3.56 people. Both the average household and average family sizes in El Paso are higher than the Texas and national averages.

MAP 7. PERCENTAGE OF FAMILIES WITH CHILDREN BY CENSUS BLOCK GROUP

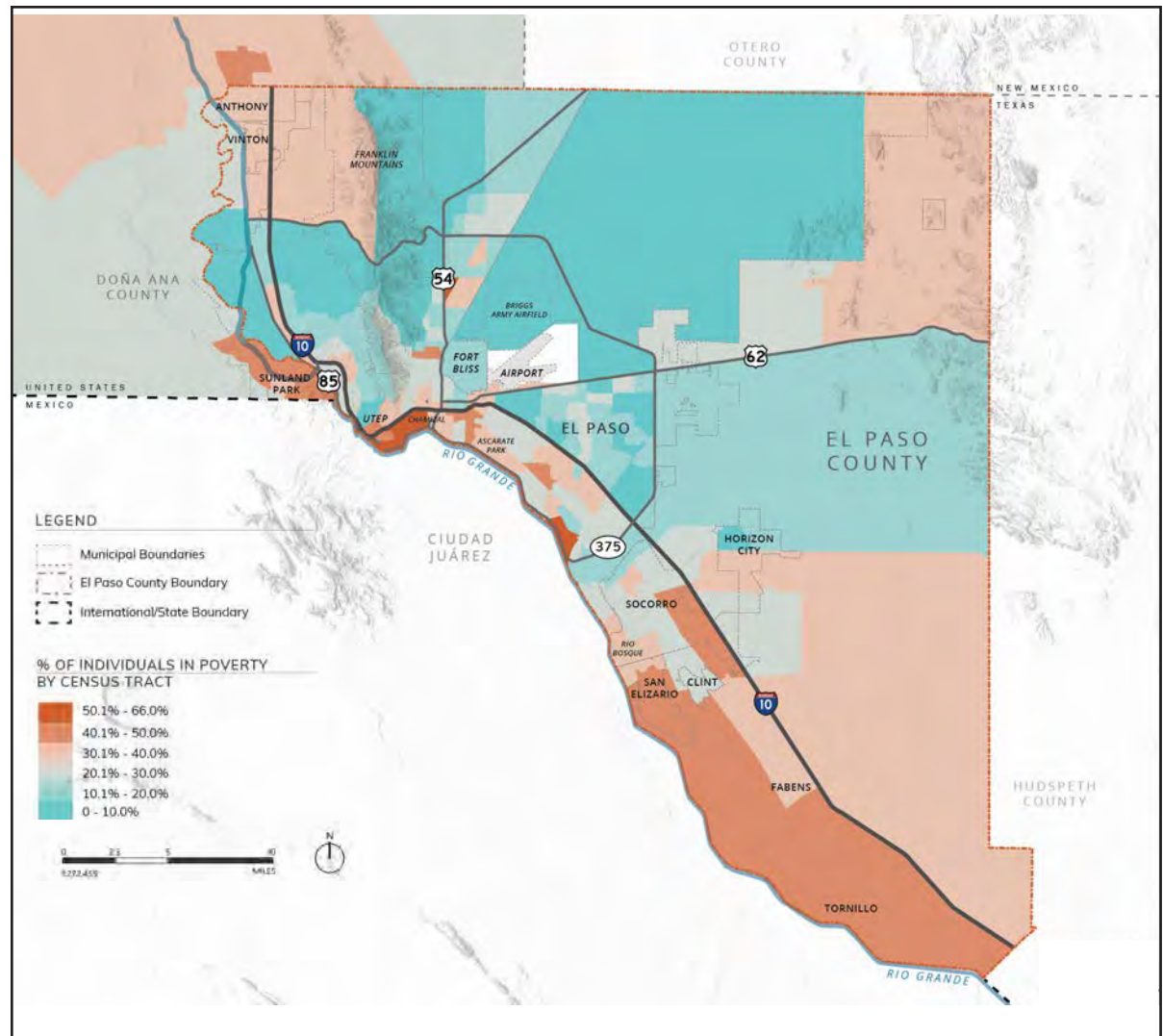


INCOME & POVERTY

Median household income in El Paso County is \$42,779, which is lower than the state of Texas median of \$57,227. The lower median income also corresponds to higher poverty rates for families—an estimated 43,655 families (or 20.6 percent) are below the federal poverty line. This is substantially higher than the state of Texas average of 13.7 percent.¹⁵

Areas with higher poverty rates are concentrated along neighborhoods close to the Rio Grande (see Map 8), including Anthony, New Mexico; Anthony, Texas; Sunland Park, New Mexico; Downtown El Paso neighborhoods including Chamizal; Mission Valley neighborhoods including Ysleta; and the communities further south including San Elizario and Tornillo. Areas with higher incomes and lower poverty rates are predominantly in the Upper Valley, to the northeast and in East El Paso neighborhoods, as well as in Horizon City.

¹⁵ About 16.1 percent of all families are below the poverty line and have children. Source: Healthy Paso del Norte data from Claritas, 2017.

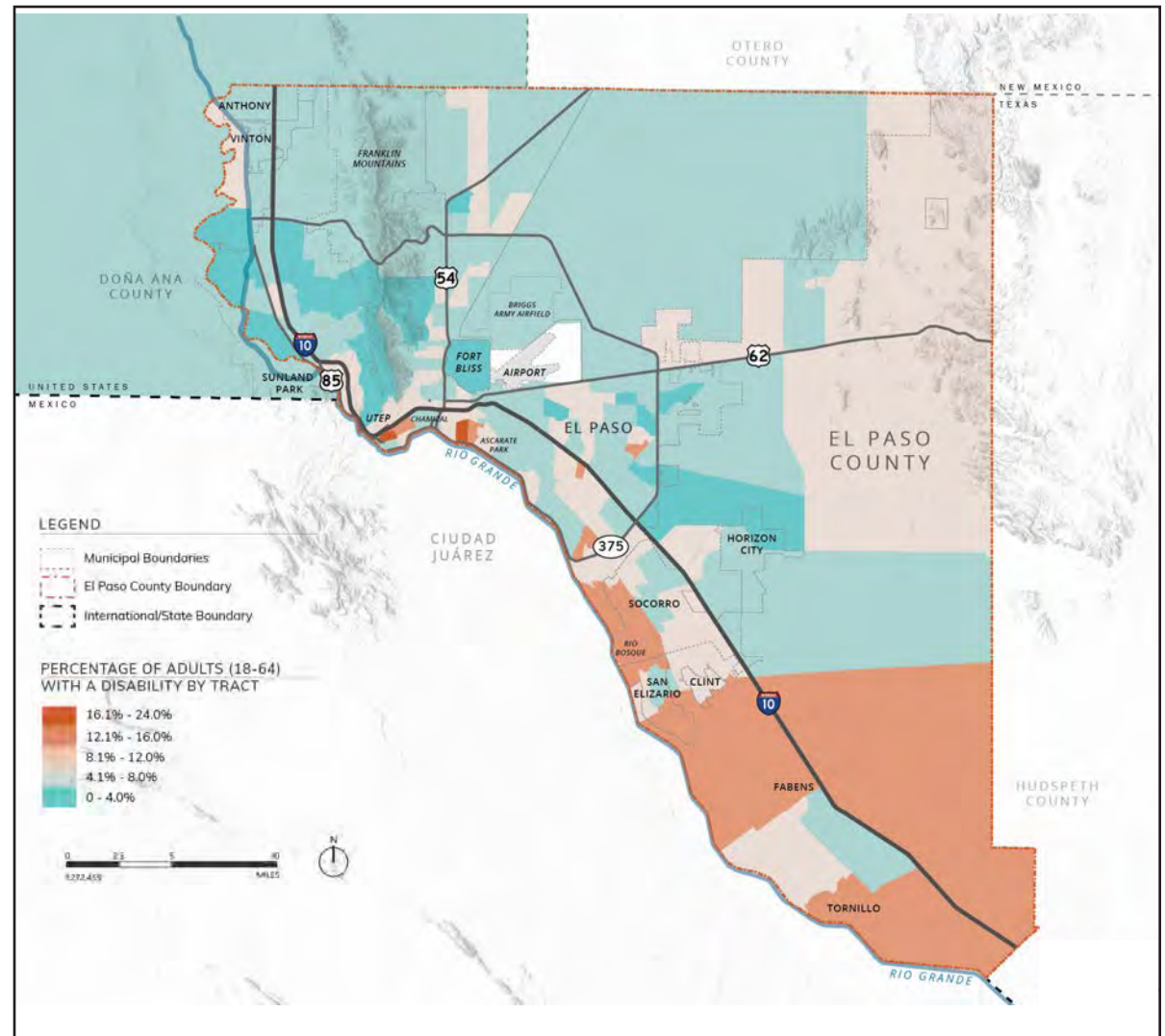


MAP 8. EL PASO PERCENTAGE OF INDIVIDUALS IN POVERTY BY CENSUS TRACT



PERSONS WITH DISABILITIES

People with disabilities include residents who have difficulties hearing, seeing, ambulatory difficulties, cognitive difficulties or difficulties with self-care and independent living. In El Paso County, the estimated number of people with a disability of any type is 106,925 people or about 13.3 percent of the total population—slightly higher than the national average (12.4 percent). About 60 percent of County residents over the age of 75 and 34 percent of residents between 65 and 74 have a disability, which shows that the needs of persons with disabilities are important to address in trail alignment and design, including safety considerations, access to trails, and access to trail facilities.



MAP 9. PERCENTAGE OF ADULTS (18-64) WITH A DISABILITY (OF ANY TYPE) BY CENSUS TRACT



COMMUNITY HEALTH INDICATORS & TRENDS

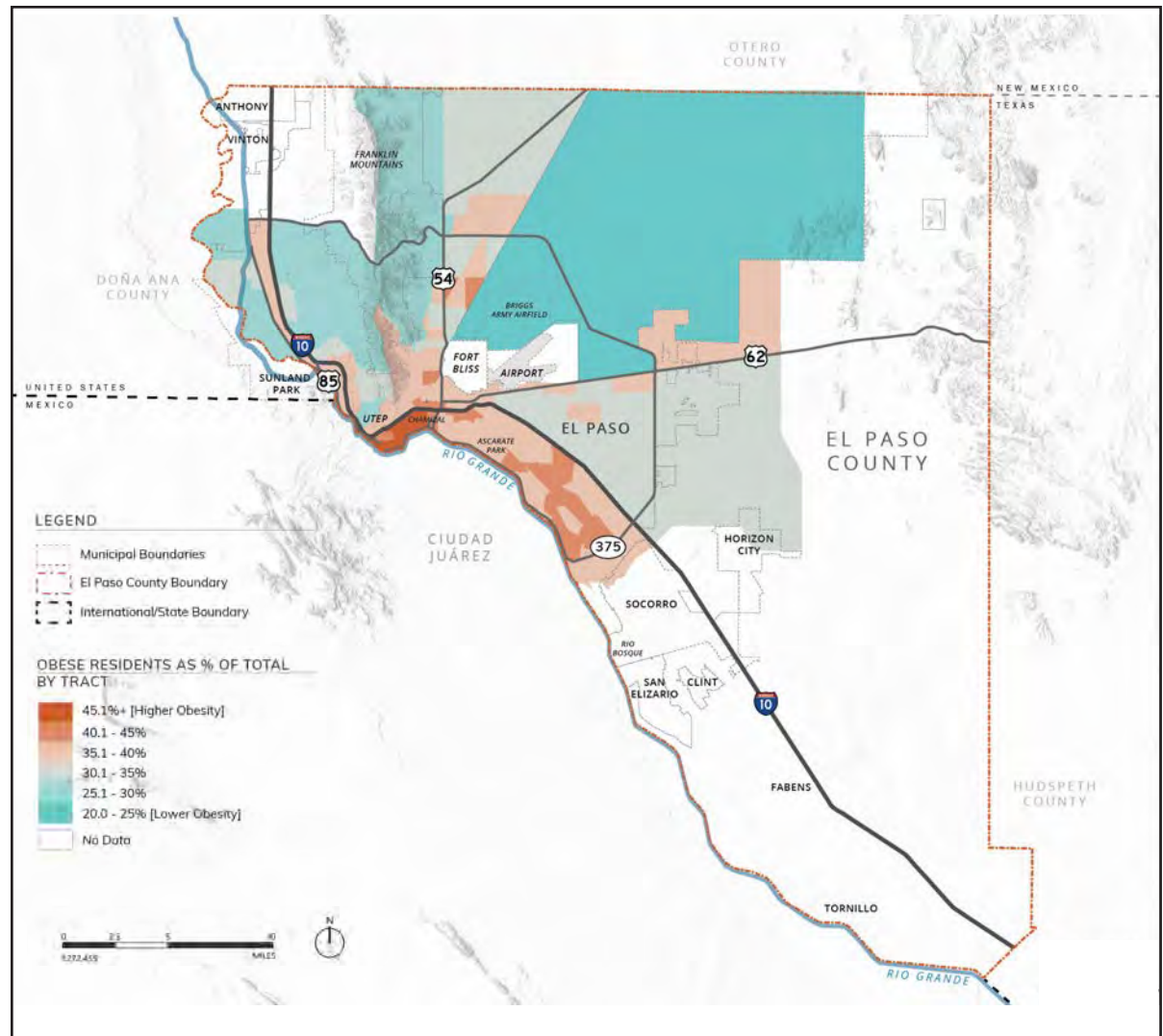
The Coalition for a Healthy Paso del Norte and the Institute for Healthy Living, have developed a website (<http://www.healthypasodelnorte.org>) that can be used to track health indicators for the entire region. This data shows how El Paso County's population is currently performing in terms of obesity, high cholesterol prevalence, food access, and the number of people who walk or take public transit to work.

Overall, the data compiled on the Healthy Paso del Norte website supports the priority of both the Health Foundation and this project to promote and increase access to active living options. As part of this overall goal, several indicators can be measured at the census tract level over time to record improvements to access to active transportation and health outcomes as a result of this project. A few key indicators are described below as they apply to neighborhoods in and around the proposed trail route.

ADULT OBESITY

Addressing obesity is a crucial need in El Paso and Doña Ana Counties. Although El Paso County has a similar percentage of adults who are obese compared to the national average (28.5 percent to 29.8 percent), these are still very high percentages that affect certain neighborhoods. As seen in Map 10, there are higher rates of obesity in Downtown neighborhoods and those in the Mission Valley west of Interstate 10 in areas where data is available. Unfortunately, higher rates of obesity are directly correlated with lower income neighborhoods, amplifying the need for recreation and active transportation options in these areas.

Although data does not exist for the rural communities in El Paso County, it can be assumed that some of the same trends with obesity may be prevalent in these areas due to fewer recreational amenities and active transportation networks.



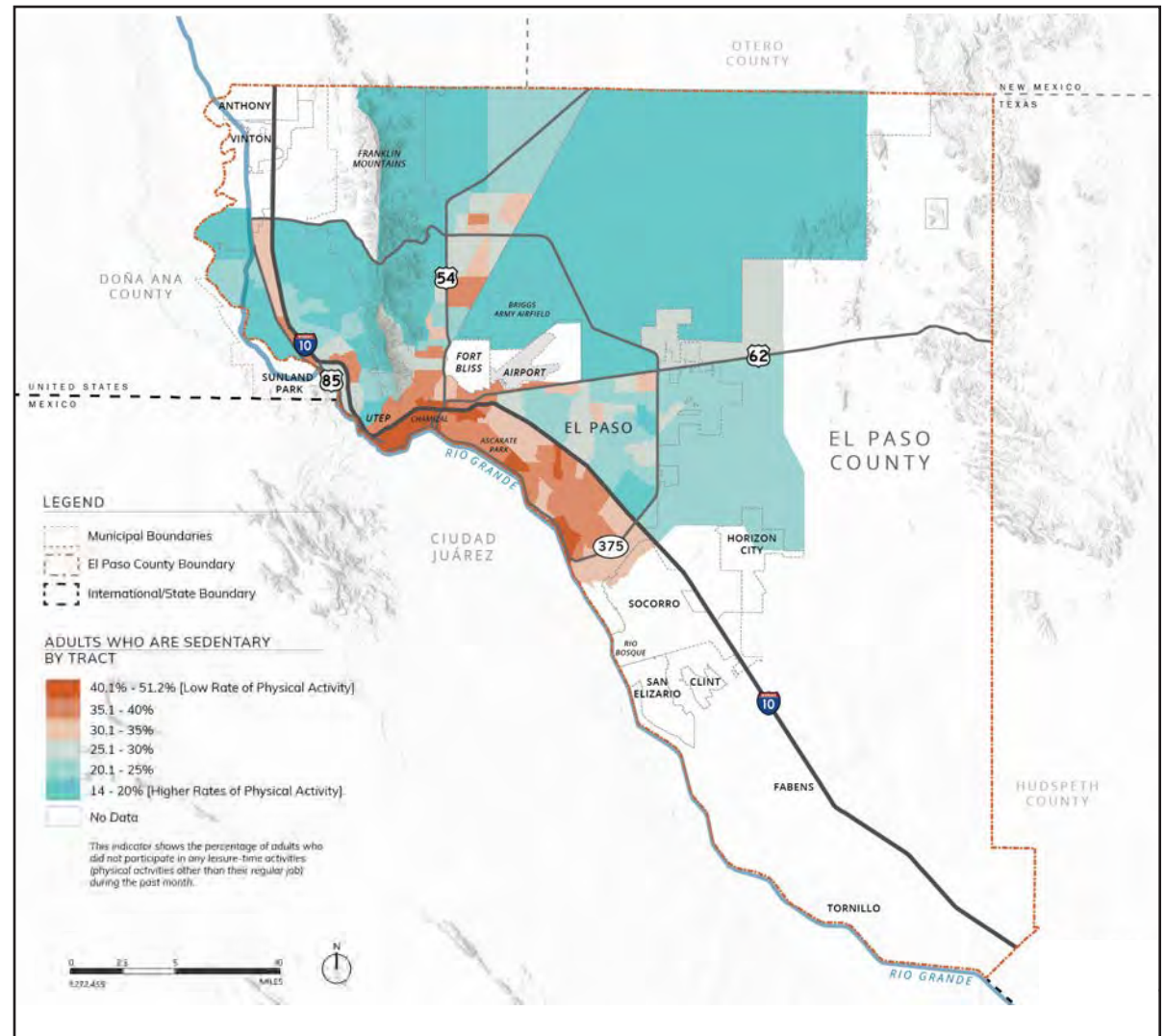
MAP 10. PERCENTAGE OF OBESE ADULTS BY CENSUS TRACT



PHYSICAL ACTIVITY

The percentage of adults in El Paso County who participated in monthly physical activities declined between 2011 and 2015. In 2015, an estimated 68.3 percent of adults engaged in a physical activity in the past month, compared to 77.3 percent in 2011. Although this data has a margin of error, they do show that El Paso County residents are engaged in lower levels of activity than other places in Texas and nationally.

The areas with the highest number of sedentary adults closely matches areas with a higher percentage of obese residents as well as areas with lower incomes. Once again, this data supports the need for additional recreational, exercise and active transportation options, especially in areas with lower incomes and higher densities.



MAP 11. PERCENTAGE OF ADULTS WHO ARE SEDENTARY BY CENSUS TRACT



LOW FOOD ACCESS

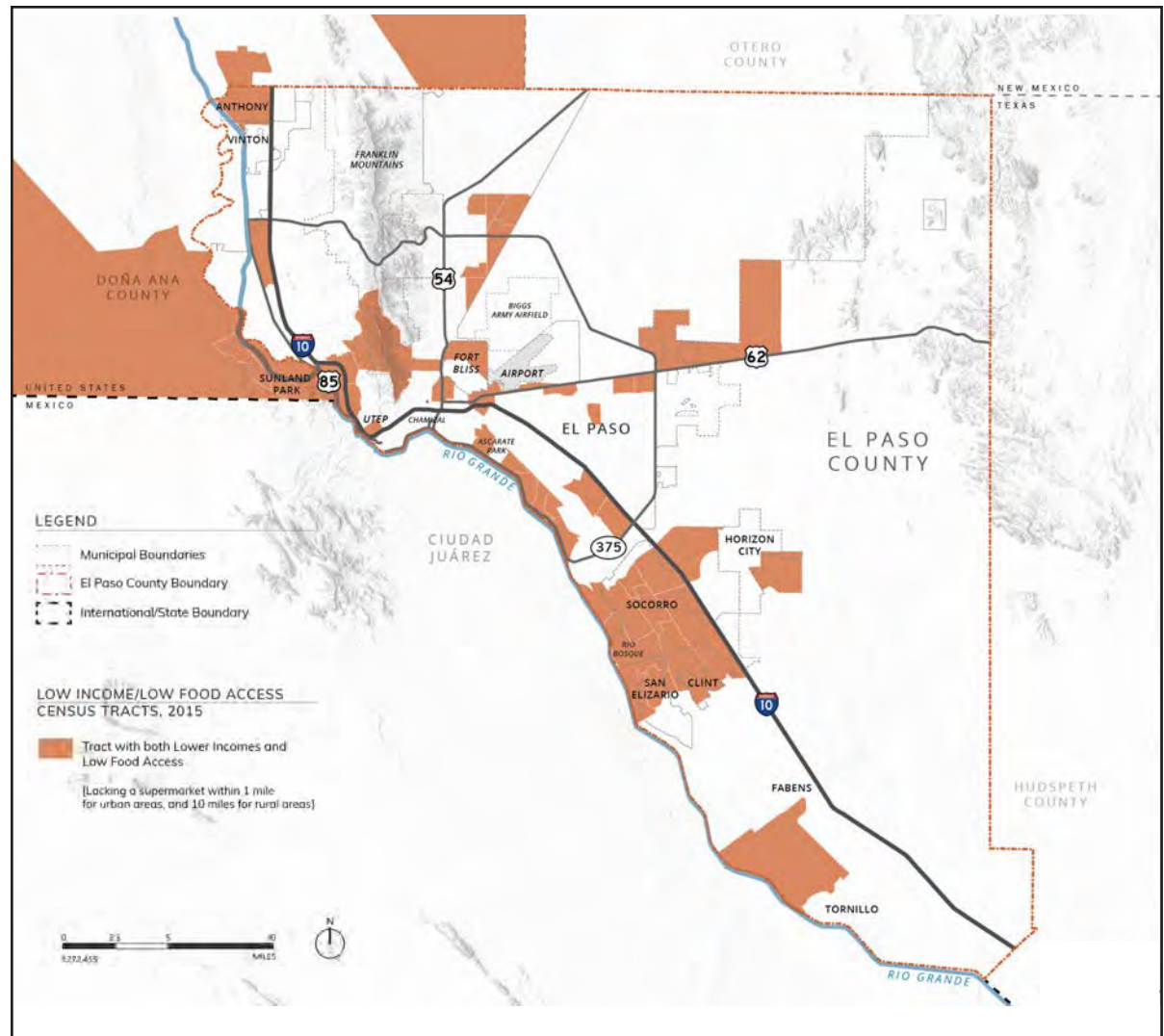
Neighborhoods with less physical access to grocery stores and markets with fresh foods may limit a household's ability to pursue a healthy diet. The USDA has developed a series of "food desert" maps that show areas with limited physical access to supermarkets, as well as areas with lower incomes. These two factors coupled together show areas where residences may find it harder to follow a healthy diet—due to higher food and transportation costs, longer travel distances to grocery stores, and generally lower availability to fresh foods.

As seen in Map 12, 57 Census Tracts (out of 202) in El Paso and Doña Ana counties have been flagged by the USDA as having both lower incomes and lack a supermarket within 1 mile (or 10 miles in rural tracts). Seven of these tracts are found in the Mission Valley, one is found near Ascarate Park, one adjacent to UTEP, and five are found in the Upper Valley/West El Paso. In addition, many of the rural communities along the Mission Corridor have been flagged as food deserts by the USDA. All the regional "food desert" census tracts that are located along the Rio Grande and most between the Rio Grande and Interstate 10 will be served by a county-wide trail.

To see more maps and explore this data online, please visit:

<https://www.pasodelnortetrail.org/maps>

<http://www.healthypasodelnorte.org>



MAP 12. CENSUS TRACTS IDENTIFIED BY USDA WITH LOWER INCOMES AND LOW FOOD ACCESS







Chapter 4

DEVELOPING THE TRAIL NETWORK

At just over 1,000 square miles, El Paso County contains a diverse array of landscapes and land uses. From the riparian lowlands and farmlands of the Mission Valley to the peaks of the Franklin Mountains, to the high plains and the abruptly jagged outcroppings at Hueco Tanks State Park beyond, its landscapes are as varied as its cultural influences. The intent of the Paso del Norte Trail Master Plan is not so much to try to directly connect all these places as it is to create a main corridor—a stem from which future branches can radiate out into the broader fabric of the community and beyond.



PLANNING CONTEXT

Beginning at the New Mexico–Texas border, the Paso del Norte Trail will span El Paso County, crossing many different physical contexts, from rural and suburban neighborhoods to very urban, high-density areas in Downtown, and back to rural farmlands. It will connect existing trails with new trails and include new loops or links in locations where local points of interest have been identified. The types of trails will vary from shared-use paths running along the river, levees, and irrigation canals to on-street facilities that will include sidewalks, bike lanes, and cycle tracks.

While primarily focused on providing trail access to and through the many and varied neighborhoods and communities throughout El Paso County, the trail alignment was also informed by the various physical, economic, and political conditions summarized in the preceding chapter. In order to maximize cost effectiveness wherever possible, the network will utilize existing trails or those that have already been planned and are in the queue for construction in the near future. These trails could be improved for better connectedness and integration into the Paso del Norte Trail in the future, however.

In order to bring the broad scope of the trail study area down to a more manageable scale and to match districts with themes that are emblematic of their culture, the roughly 60-mile corridor has been subdivided into five districts based on a broad set of subtle characteristics that help define each one and give it a unique sense of place, derived from the context and history of the surrounding area. Those districts are discussed in more detail in Chapter 5. This chapter describes the various

attributes of each type of trail that is proposed within the Paso del Norte corridor, and how the network will fit together to create a seamless and integrated trail.

CONNECTING THE DOTS

Rather than starting from scratch, the planning process for the Paso del Norte Trail began with an inventory of existing facilities and existing plans for new facilities. Within that framework, the planning team sought input for additional desirable connections, mapped points of interest, and consulted with landowner agencies and other stakeholders to determine the feasibility of utilizing various facilities for future trail development. Then the process became one of connecting the dots to create a continuous trail system that best met the objectives of the study.

EXISTING TRAILS

According to the City of El Paso's current Parks & Recreation Master Plan, as of 2014 there were 9.5 miles of formal "linear park" trails in the city, and 21.6 miles of jogging trails within the City's parks, for a total of just over 31 miles of official trails. Similarly, the 2016 City Bike Plan estimated that there were 30.6 miles of "shared-use paths" in the city. Of those existing trails, the highest percentage, relative to population density, lie in the Mission Valley (0.8 miles per 10,000 residents), while the lowest falls in the Northeast (0.3 miles per 10,000 residents). The remainder of the city has about half of the recommended level of service, which is targeted by the Parks & Recreation Master

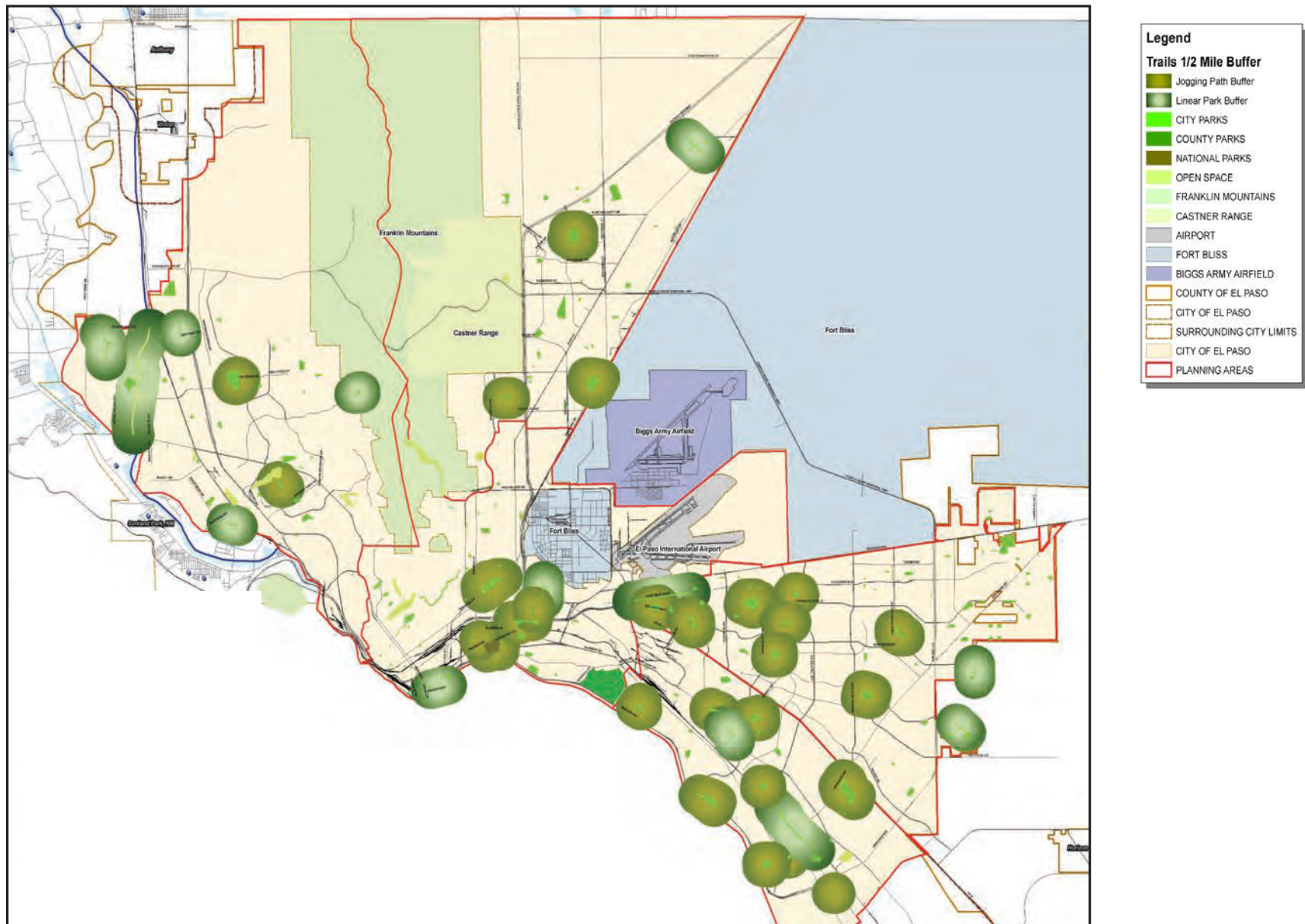
Plan at one mile of trail per 10,000 residents. Those totals do not include trails outside the city limits, or the numerous informal trails that residents may be using along irrigation canals, through utility easements, and into the mountains.

Map 13 gives a sense of the disconnected nature of the existing trail system in El Paso. Even with the half-mile buffers shown around each trail segment significant voids in service areas are evident. Not shown are more recent additions and trails extending into the county—primarily in the northwest. These include:

- The 10-mile Rio Grande Riverpark Trail that extends south from the state line near Anthony to just north of Country Club Road
- More than three miles of paved multi-use paths that follow both sides of the Interstate 10 frontage road (Desert Boulevard) from Westway Boulevard to the Transmountain Road
- Three more miles of paved trail along Transmountain from Interstate 10 to the Tom Mays Park Access Road (the Elizabeth F. Hernandez Memorial Hike and Bike Trail)
- The Pat O'Rourke Memorial Hike and Bike Trail that extends just over two miles along Resler Drive from Transmountain to Helen of Troy Drive.

Those facilities provide connections which may well be more valuable in the future than they are today, as they lie in areas of high projected population growth.





Source: 2014 Parks & Recreation Master Plan, City of El Paso & HALFF Associates, Inc.

MAP 13. MAJOR TRAILS & MULTIPURPOSE PATHWAYS

PROGRAMMED TRAILS

To address the need for more trails, both the City of El Paso and the County have been actively pursuing trail projects and investing in other bicycle and pedestrian improvements. In 2016, the El Paso Bike Plan was completed, and the City recently passed a resolution supporting 22 trail and trailhead projects throughout the El Paso. TxDOT has also been a willing partner in planning and developing additional trail facilities in conjunction with their ongoing highway construction projects, including a new trail segment north of Executive Center Boulevard being built as part of the Loop 375 extension. Other examples include the Paso del Norte Health Foundation working in partnership with the City of El Paso and El Paso Water to develop the 8.3-mile Playa Drain Trail, which was nearing completion at the time of this study. Some of these are discussed in more detail in the following section.

PROPOSED TRAILS

Gaps identified between the existing and programmed trail segments will be filled with newly proposed alignments. Factors influencing the proposed locations include recommendations from previous studies such as the Urban Land Institute (ULI), the El Paso Bike Plan, and input from National Park Service, user groups, stakeholders, and the general public, and are a direct result of efforts to connect as many attractions, amenities, and communities as possible along the way.

Nonetheless, despite best efforts, it is simply impossible to make every desired or desirable connection along the way. As a result, several communities and many neighborhoods along the Paso del Norte Trail corridor do not have direct connections to the planned trail alignment. Some communities have developed their own trails and would like to be able to connect those with the larger trail network. To that end, recommendations have been developed for interjurisdictional coordination of future trail connections (see Chapter 6). So while the original goal of this planning effort was the development of a single “linear” trail through the County, the groundswell of interest has dictated that it be developed as more of an interconnected network of spurs and loops rather than one main trail. Therefore, a hierarchy of trail classifications was developed.



Recent planning efforts have proposed trails throughout the county.



PRIMARY TRAIL ALIGNMENT

The primary trail alignment is the backbone and defining corridor of the Paso del Norte Trail. This primary trail sets the course through El Paso and its surroundings and is the one that all others will connect to. In some cases, the primary trail alignment is the least complex alternative to develop in the short term (often referred to as the “low-hanging fruit”)—one that will enable completion of the overall facility in a shorter time frame, and/or with less cost than an alternative route.

The primary trail is also the one that sets the thematic tone for the project and all other trails connected to it. It should include recurring trail themes, colors, materials, the Paso del Norte Trail logo, and overall feel.

SECONDARY TRAIL OR ‘LOOP TRAILS’

Secondary alignments take two forms. Some alignments identified as “secondary” may actually be preferable to the primary alignments identified on the maps, but may be segments that were deemed less feasible to construct in the foreseeable future, due to cost or availability of right-of-way. Other secondary alignments were identified as equally feasible parallel facilities that provide broader access to the trail, but which may not have been suitable for use as the main trail alignment. In some cases these also provide opportunities for “loops” within the trail system, which allow trail users to return to their starting point via a new route, rather than only having the option of retracing their steps over a single alignment.

ANCILLARY CONNECTIONS OR ‘SPUR TRAILS’

‘Spur’ trails refer to the relatively short trails that stem from the primary trail to connect directly to adjacent neighborhoods, amenities, mass transportation connections, historic sites, or other points of interest. These were primarily identified through public and stakeholder input.

TRAILHEADS

Trailheads are designated areas from which the trail can be accessed. These may be as simple as a gate and a sign, or, where space is available, may include facilities such as parking, benches or tables, shade structures, restrooms, signage, and kiosks with maps and other information about the trail. They are also considered key trail amenities and examples are shown later in this chapter.

TRAIL TYPES

To accommodate a multitude of trail uses, levels of mobility, and to respond to the surrounding conditions, a variety of trail types will be used throughout the length of the Paso del Norte Trail. In general, the trails that comprise the Paso del Norte Trail will be sized to accommodate anticipated levels of use, and surfaced with durable materials to maximize accessibility and reduce maintenance. Suggested parameters for each type of trail are described on the following pages. However, it should be noted that these are only guidelines, and may be adjusted as necessary. Trail designers are also encouraged to refer to the current version of the AASHTO Guide for the Design of Bicycle Facilities.



An example of a Spur Trail in the Rio Grande Bosque.



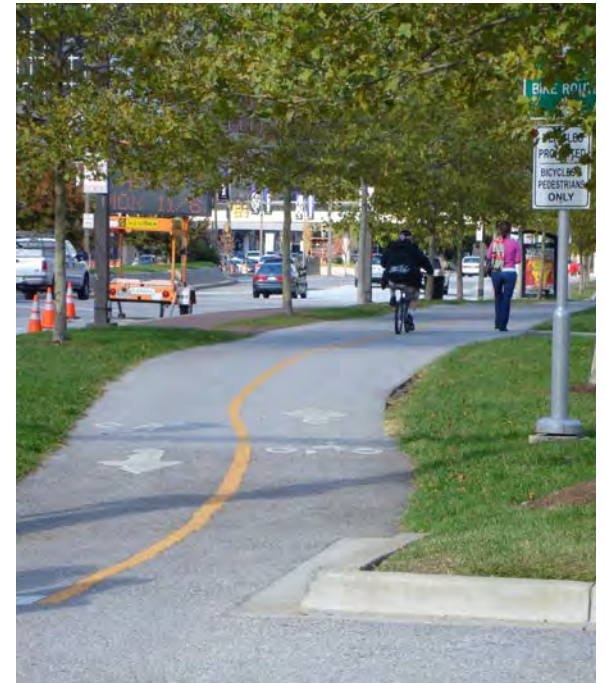
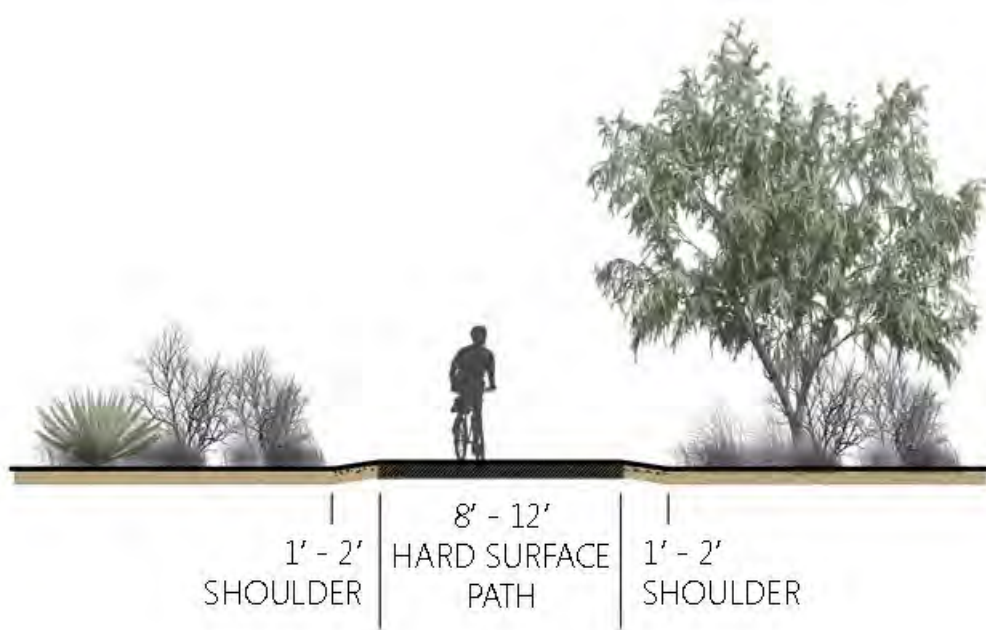
A Playa Drain Trailhead being constructed.



SHARED-USE TRAIL/PAVED

Within urban areas and other locations where high levels of use are anticipated, trails should be wide and hard-surfaced for maximum functionality and lifespan. As noted in the AASHTO Design Guidelines, shoulders that are clear of any obstacles are important to provide recovery areas. Striping of the surface is optional, but center striping can help define separation in high traffic areas, while edge striping provides additional visibility of the trail edge in low light conditions. In areas where adequate width is available, wider shoulders or a parallel soft-surface trail can enhance the experience of joggers who prefer not to run on pavement.

Trails in more rural areas should follow the same basic parameters as urban trails, with two exceptions. Since usage would typically be lower, surface widths can be narrowed, and unpaved shoulders may be widened to accommodate equestrians and other trail users who may prefer a softer surface. The second exception is that trails in rural areas are almost always soft-surfaced using chat or fine crushed gravels.



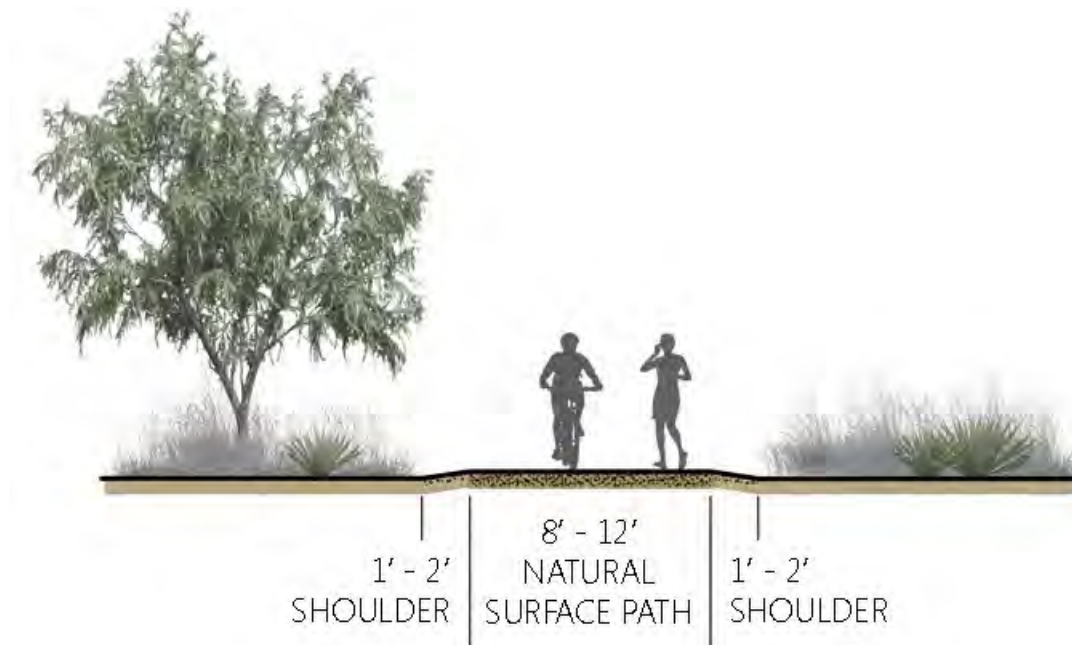
An example of a shared-use paved trail.

FIGURE 6. SHARED-USE TRAIL/PAVED



SHARED-USE TRAIL/NATURAL SURFACE

Another option for rural areas is an unpaved “natural” surface material. This type of surfacing may be necessary in locations, primarily along ditch roads, where insufficient width exists to accommodate separate tracks for a trail and maintenance vehicles. In those cases, a surface of stabilized or compacted small aggregates such as decomposed granite, gravel screenings/crusher fines, or brick dust will provide a durable surface that can be used by maintenance equipment without causing damage to the surface.



An example of a shared-use trail with a natural surface.

FIGURE 7. SHARED-USE TRAIL/NATURAL SURFACE



BACK-COUNTRY/SINGLE-TRACK TRAIL

Some of the spur trails identified are located in more rugged “backcountry” settings, which may not be suitable for paving. In those cases, a narrower single-track trail would be appropriate. Depending on the underlying ground type, additional surfacing materials may be desirable to improve stability and reduce erosion. Surfacing should be determined on a case-by-case basis.



An example of a single-track trail.



An example of a back-country trail used by equestrians.

FIGURE 8. BACK-COUNTRY/SINGLE-TRACK TRAIL



ON-STREET FACILITIES

Through the Downtown area, existing development precludes the implementation of separate shared-use trail facilities. In those locations, a variety of on-street facilities are proposed, following the general types and design guidelines identified in Appendix C of the El Paso Bike Plan. By combining safe bicycle facilities with functional sidewalks and clear wayfinding signage, these “complete streets” can accommodate nearly all users (with the exception of equestrians) and provide an effective continuation of the Paso del Norte Trail through the urban core.



An example of an on-street buffered bike lane (above).

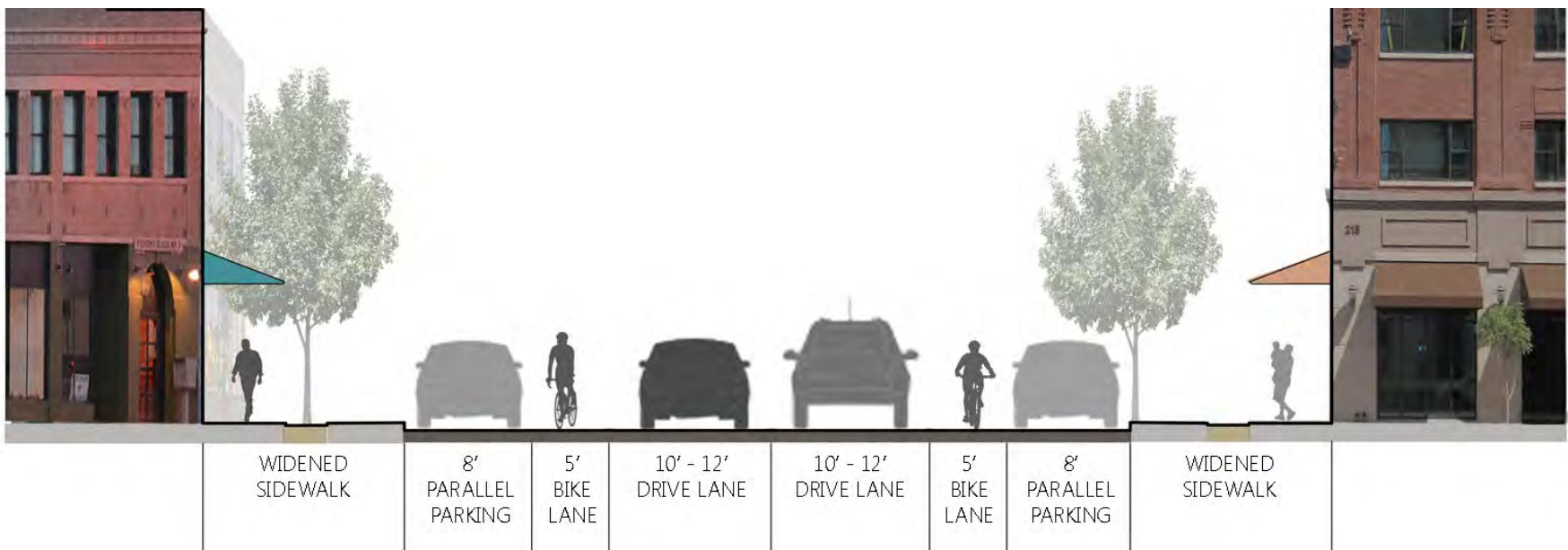


FIGURE 9. ON-STREET FACILITIES



TRAIL AMENITIES

The following types of amenities will be located along the Paso del Norte Trail. The specific amenities within each district are described in Chapter 5.



FIGURE 10. TRAIL AMENITIES





An example of signage marking a trailhead.



An example of a viewing platform.



Another example of a trailhead gateway feature.



An example of a shaded trail.



An example of interpretive signage.





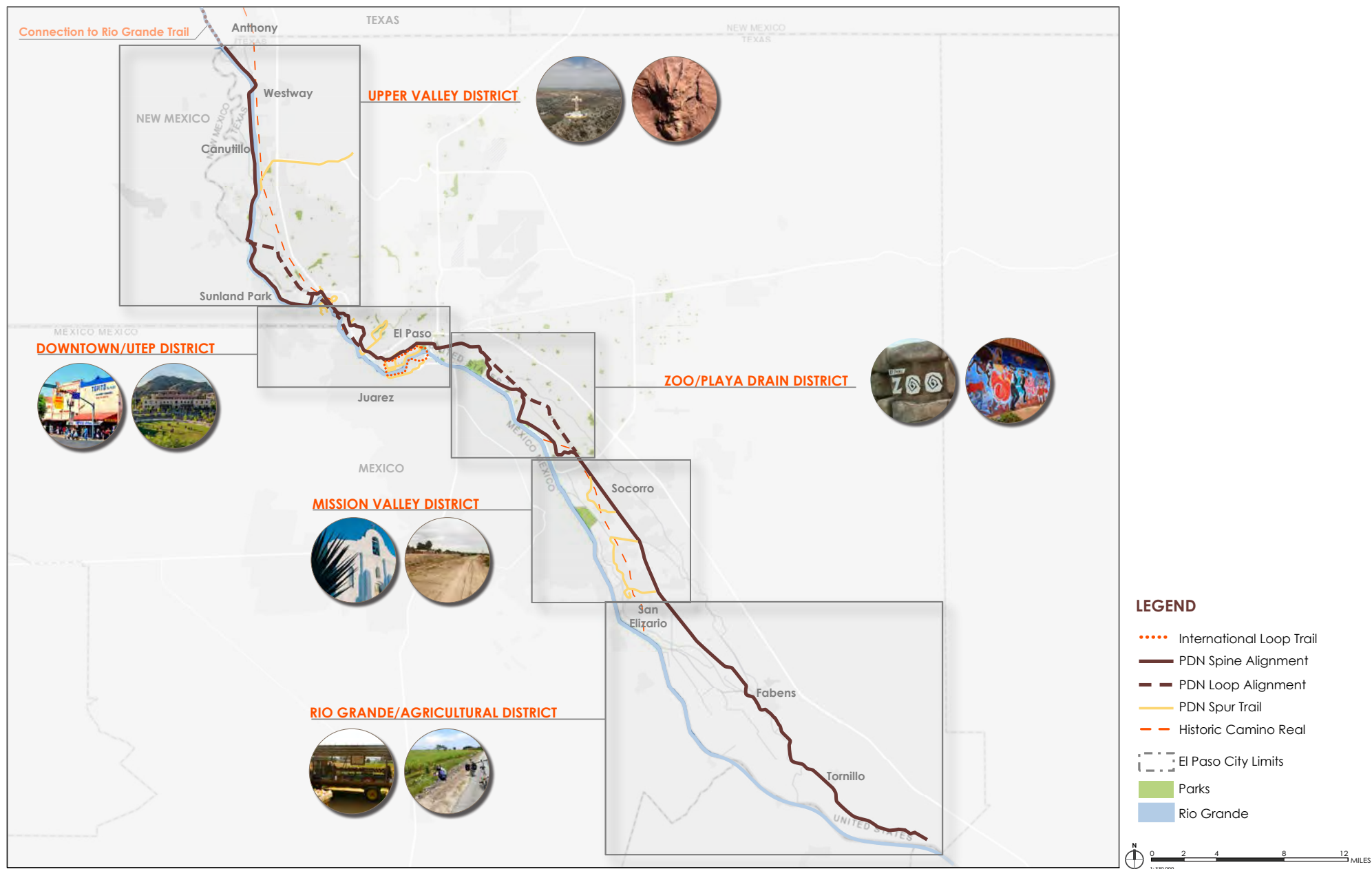


Chapter 5

TRAIL DISTRICTS AND SUB-DISTRICTS

The roughly 60-mile span of the Paso del Norte (PDN) Trail is divided into five distinct districts, each broadly defined by their unique geographical, historical, and cultural context, as well as various amenities and attractions that help define them. Each district is identified by the most predominant contextual influences within that district. The following sections present the recommended trail alignments within each district, moving from the northern-most extent of the project at the New Mexico–Texas border and meandering southeast, roughly parallel with the Rio Grande and ending at the County Line Lakes, about five miles southeast of the town of Tornillo.





MAP 14. TRAIL DISTRICTS OVERVIEW



FIGURE 11. TRAIL DISTRICTS & CHARACTER



UPPER VALLEY DISTRICT

The trail alignments in the Upper Valley District primarily follow the river from the New Mexico–Texas state line until reaching the area known as the 'Brick Company' property, which abuts the river south of Racetrack Drive, just below the elevated railroad trestles. Land along the river floodplain and on the levees within this district falls under the jurisdiction of the International Boundary and Water Commission (IBWC); however, while the IBWC has indicated that it generally supports joint-use of its facilities for trails, and several segments of existing trail have been built within the floodplain on their lands, according to IBWC staff some uncertainties remain about the exact limits of ownership and the extent of their jurisdiction along the Brick Company tract at the south end of this district.

CHARACTER

The Upper Valley District is characterized primarily as a rural river corridor and riparian habitat. An existing 10-mile river trail that was funded in part by the Health Foundation runs along the floodplain through much of this reach. Its location between the flood control levees on either side provide a sense of isolation from the adjacent community, offering views of the picturesque valley landscape and the Franklin Mountains rising in the distance. The somewhat sparse riparian vegetation and proximity to the river provides at least the perception of a cooling effect along the trail in this area, enhancing the riverine experience. Beyond the levees, the trail is flanked by agricultural lands for most of the northern reaches of the district, giving way to single family neighborhoods on both sides, which

culminate at the El Paso Country Club area before transitioning to the Sunland Park racetrack area and a more industrial context at the south end. A unique jurisdictional phenomenon occurs in this area, as the state line dividing New Mexico and Texas meanders back and forth across the river, following the historic (abandoned) river channel, resulting in several shifts in jurisdiction along the river's current channelized course and further blurring the distinctions of the superimposed map boundaries. The Paso del Norte Trail forms a natural extension of the planned Rio Grande Trail in New Mexico. This jurisdictional oscillation has recently led to cooperation between both states; they have begun to look at developing this area as a gateway between Texas and New Mexico, potentially providing a much larger user base for the Paso Del Norte Trail.



Views to the Rio Grande enhance the trail experience.



An existing paved trail in Rio Grande River Park.

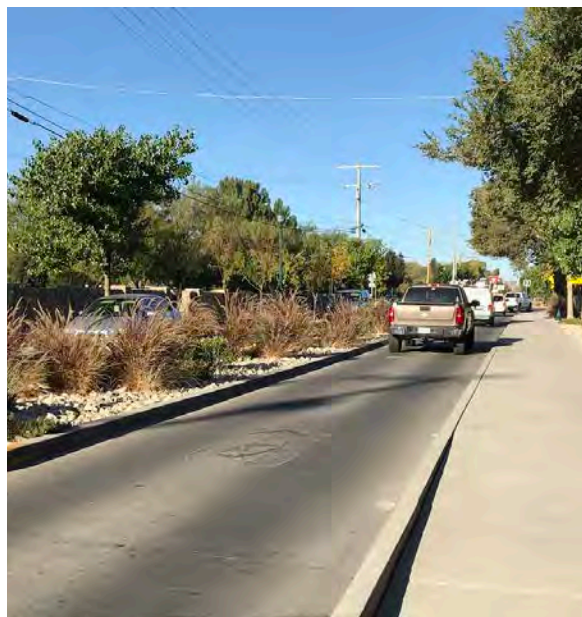


An unpaved levee maintenance road also serves as an informal trail.





The river floodplain is mowed regularly.



An existing bike/pedestrian path follows along Country Club Road.



The moon rise over the Franklin Mountains is visible from the Rio Grande River Park Trail.



The river floodplain remains a natural ecosystem.





KEY MAP

POINTS OF INTEREST

- Dinosaur Tracks
- El Paso Country Club
- Mt. Cristo Rey
- Montoya Drain Wetland (Proposed)

LEGEND

- PDN Spine Alignment (Existing or Funded)
- PDN Spine Alignment (Proposed)
- PDN Loop Alignment
- PDN Spur Trail
- Historic Camino Real
- Transportation Transfer Center
- Point of Interest
- School
- Trail Head (Proposed)
- El Paso City Limits
- Parks
- Rio Grande



MAP 15. UPPER VALLEY DISTRICT OVERVIEW

POINTS OF INTEREST

SUNLAND PARK DINOSAUR TRACKS



211 acres of land on the flanks of Mount Cristo Rey, near the borders of two countries and three states, is crisscrossed by numerous fossilized dinosaur tracks. Dated at 97 million years old, these footprints speckle the landscape and are a wondrous glimpse of the prehistoric past.

MONTOYA DRAIN WETLAND (PROPOSED)



This largely vacant former industrial site is being studied by the El Paso Water Utility as a proposed wetland to manage area runoff while providing enhanced wildlife habitat. Upon completion, the facility could offer additional opportunities for bird watching and other wildlife observation.

MOUNT CRISTO REY



Formerly known as the Cerro de los Muleros or Mule Drivers Mountain, this rugged 4,675-foot high peak is capped by a 29-foot tall limestone statue of Christ. This statue serves as a shrine to thousands of faithful in the West Texas, El Paso, and Southern New Mexico region.

EL PASO COUNTRY CLUB



This privately-owned social club within the Upper Valley Country Club neighborhood has a championship level 18-hole golf course.



See Map 15 for overall region alignments and legend.



MAP 16. UPPER VALLEY KEY MAP 1

TRAIL CONNECTIVITY

PRIMARY ALIGNMENTS

1.0 Rio Grande River Park Trail (Existing Shared-Use Path)

Beginning just south of Washington Street (near Anthony) the concrete-surfaced River Park Trail runs along the Rio Grande for roughly 10.5 miles, ending just north of Country Club Road. An additional 1.25-mile segment extends west from the bridge at Racetrack Drive, passing under Sunland Park Drive to a point opposite the Sunland Park racetrack grounds. An intervening 4.25-mile gap remains to be completed—most of which falls in New Mexico.

1.1 Rio Grande River Trail Extension (Funded Shared-Use Path)

The City of El Paso has budgeted \$155,000 to complete the portion of the missing Rio Grande River Trail that falls within Texas, extending it approximately one-third of a mile south from its current terminus adjacent to Meadow Oaks Drive to Country Club Road, where the state line again crosses the river.

1.2 Racetrack Road Segment (Proposed Shared-Use Path)

Heading east from the river, the proposed alignment would ascend onto the levee and follow Racetrack Drive towards Doniphan Drive via a paved side path, utilizing the existing wide shoulders of the roadway bridge to cross a drainage ditch approximately 900 feet south of Doniphan. (Since the state line falls roughly at Doniphan, this segment would also be in New Mexico.) At-grade crossings would be required at Doniphan and the railroad tracks that parallel it to the south. The existing signalized intersection at Doniphan and Racetrack will help facilitate this crossing.

LOOP ALIGNMENTS

1.3 Country Club to Montoya Main Lateral (Existing/Proposed Shared-Use Path)

This proposed loop will diverge from the Rio Grande River Park Trail at Country Club Road and head east approximately 1.3 miles via the Country Club shared-use paths (existing 8-foot wide concrete side paths on either side of Country Club Road). It will then head south along the Montoya Drain, winding through the El Paso Country Club area (which involves coordination with the Country Club) and surrounding neighborhoods to Sunland Park Drive. At that point, it will either continue through the racetrack property to Racetrack Drive (which would involve coordination of access through two currently fenced ditch crossings), or turn east along Sunland Park Drive to connect with Doniphan Drive. If the loop follows Sunland Park Drive, it would need to follow the west side of Doniphan to connect again with the primary alignment at Racetrack Drive, which would put it within the wide area between the road and the railroad tracks. The Sunland Park Drive/Doniphan Drive intersection would be the most difficult to negotiate for this alignment, due to the configuration of a dedicated right turn lane. It should also be noted that TxDOT was in the preliminary stages of a master plan for Doniphan Drive. Future plans may include reconfiguring the right turn lane, but if it does not, trail users would be relegated to using the street and sidewalk to negotiate this intersection. Should interstate jurisdictional issues delay or obstruct the implementation of the primary alignment through the Sunland Park area, as described above, this "loop" route could become a primary alignment, as it falls entirely within El Paso County.

SPUR TRAILS

1-A Mountain to River Trail (Partially Built/Funded Shared-Use Path)

A proposed trail spur that will connect the Franklin Mountains with the Rio Grande via Woodrow Bean Transmountain Drive and Borderland Road. Portions of this trail exist along Transmountain Drive and State Highway Spur 16, with the gaps programmed to be filled in the near future. At the intersection of Hwy 16 and Doniphan, the trail would turn south along Doniphan and cross the river on Borderland Road to connect with the Rio Grande River Park Trail.

1-B Artcraft Trail (Existing Shared-Use Path)

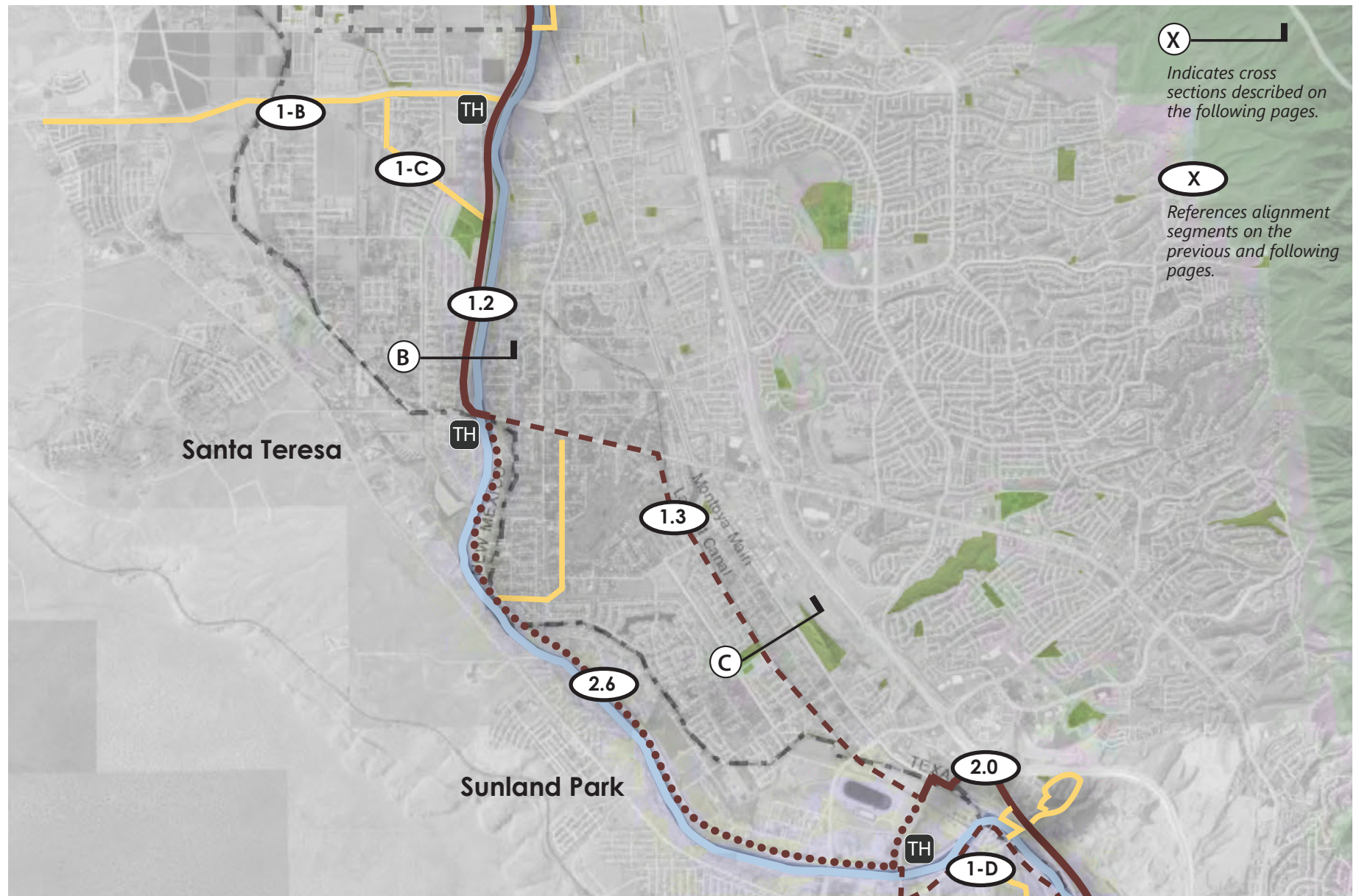
This rather unique facility runs along both sides of Artcraft Road from just west of the Rio Grande to the state line, and extends another two miles into New Mexico along the south side of the recently renamed Pete V. Domenici Memorial Highway. As noted below, it lacks only a ditch crossing to make it a major connection from the River Park Trail to the numerous neighborhoods

1-C Ellis/La Union Lateral Trail (Funded Shared-Use Path)

Located just south of Artcraft Road, this trail project recently approved by the City would extend from the River Park Trail approximately one mile northwest along the La Union irrigation lateral to a strip of park land that was once the Ellis Lateral. Completion of this connection will create a 1.5-mile trail loop connecting the Artcraft Trail to the Rio Grande River Park Trail.



See Map 15 for overall region alignments and legend.



MAP 17. UPPER VALLEY KEY MAP 2

1-D

**Mount Cristo Rey Trail (Existing/
Proposed Hiking Trail)**

Although located in New Mexico, the 211-acre tract surrounding Mount Cristo Rey was once owned by the Diocese of El Paso and now is owned by Insights El Paso Science Center. The original path up the mountain dates to 1934 when the monumental cross on its peak was first envisioned. A new proposed trail could connect the primary alignment with the visitor center at Mount Cristo Rey as well as providing access to the Dinosaur Tracks area. See page 53 for enlargement and context.

TRAILHEADS AND PUBLIC TRANSIT

A key shortcoming of the existing Rio Grande River Park Trail is the lack of trailheads and access points. Along its current ten-mile length, only one parking area exists which might be construed as a trailhead parking area—although that is actually intended to serve a nearby trail facility (see Artcraft Road Trailhead description below). The addition of trailhead access points at regular intervals along the trail would greatly enhance its accessibility and use.

Vinton Road Bridge Trailhead (Proposed)

There is currently unofficial parking access on the east side of the river, both north and south of Vinton Road, where the trail currently crosses from one side of the river to the other. One or both of these parking areas could be formalized to provide well-defined parking and other trailhead amenities adjacent to the bridge for access to the PDN Trail and the river.

**Artcraft Road Trailhead (Existing Parking/
Proposed Connection) Trailhead (Proposed)**

According to County GIS records, a currently-

undeveloped 3.8-acre property just northwest of the Country Club Road bridge appears to be under private ownership, zoned S-D/SPC for mixed or special use. Depending upon how the property is developed, it might be possible to request or require the provision of either dedicated or shared-use parking for a potential trailhead along the river. Alternately, the City or County might consider purchasing part or all of the site for that purpose.

Racetrack Drive Trailhead (Existing/Proposed)

Located in Sunland Park, New Mexico, there is an existing loosely-defined gravel parking lot with two paved ADA-accessible parking spaces west of the Racetrack Road bridge, north of the river, which serves the short segment of existing trail in this area, as well as eight picnic tables located along it. Formalization of this parking area with trail signage and other improvements would benefit the trail system. Additional parking and/or trailhead facilities may also be possible in conjunction with a new parking lot at the planned wetland/wildlife refuge facility northeast of the Racetrack Drive crossing.

Bus Stops

Currently City of El Paso bus stops are located just east of the Rio Grande on Borderland Road, on both sides of the river along Country Club Road, and south of the river along McNutt Road at both Sunland Park and Racetrack drives. There are also several stops in the vicinity of Sunland Park Drive and Doniphan Drive.

Westside Transfer Terminal

El Paso's Sun Metro Al Jefferson Westside Transfer Center lies approximately 2.5 miles east of the river along Country Club Road/North Mesa Street, just

east of Interstate 10. This public transportation hub provides connections to multiple bus routes across the city.

**NEARBY SCHOOLS AND
INSTITUTIONS**

Schools in walking distance include:

- Bill Childress Elementary School
- Canutillo Elementary School
- Canutillo Middle School
- Canutillo High School
- El Paso Community College – Northwest Campus
- Jose J. Alderete Middle School
- Jose H. Damian Elementary School
- Lincoln Middle School



Lincoln Middle School



TYPES

Shared-Use Path: A ten- to twelve-foot wide paved trail can accommodate multiple uses comfortably. Wide shoulders or a parallel unpaved trail can provide an alternative for trail users who prefer a softer surface.

Shared-Use Path along River Bank or Levee: The river banks (floodplain areas between the levees) provide a relatively even surface for the trail; however, due to the low, flat, grades in those areas, the trail surface should be elevated slightly above adjacent ground to minimize the potential for inundation and sediment deposition (which has been an ongoing problem for the existing segments of the River Park Trail). Given the low elevation of the trail between the levees along the Rio Grande, viewing platforms would provide an opportunity to view from a vantage point and may create an experience for trail users to interact with migrating wildlife and to observe the ecosystems of the river and riparian zone. These structures could reflect regional character and materials as well as integrate other amenities such as shade, seating, and bike repair stations.

An alternative to a floodplain alignment would relocate the path to tops of the adjacent levees. Levee tops also provide a relatively level and even surface for the trail, plus they offer an elevated vantage point for viewing the surrounding landscape. Surfacing would again be paved with asphalt or concrete, and widths would be similar, but a parallel unpaved maintenance road would likely be required. Trail grades up and down the levees for any lateral connections should remain below five percent to accommodate all users per ADA requirements. The parallel unpaved

Typical cross sections indicated by letters on previous maps.

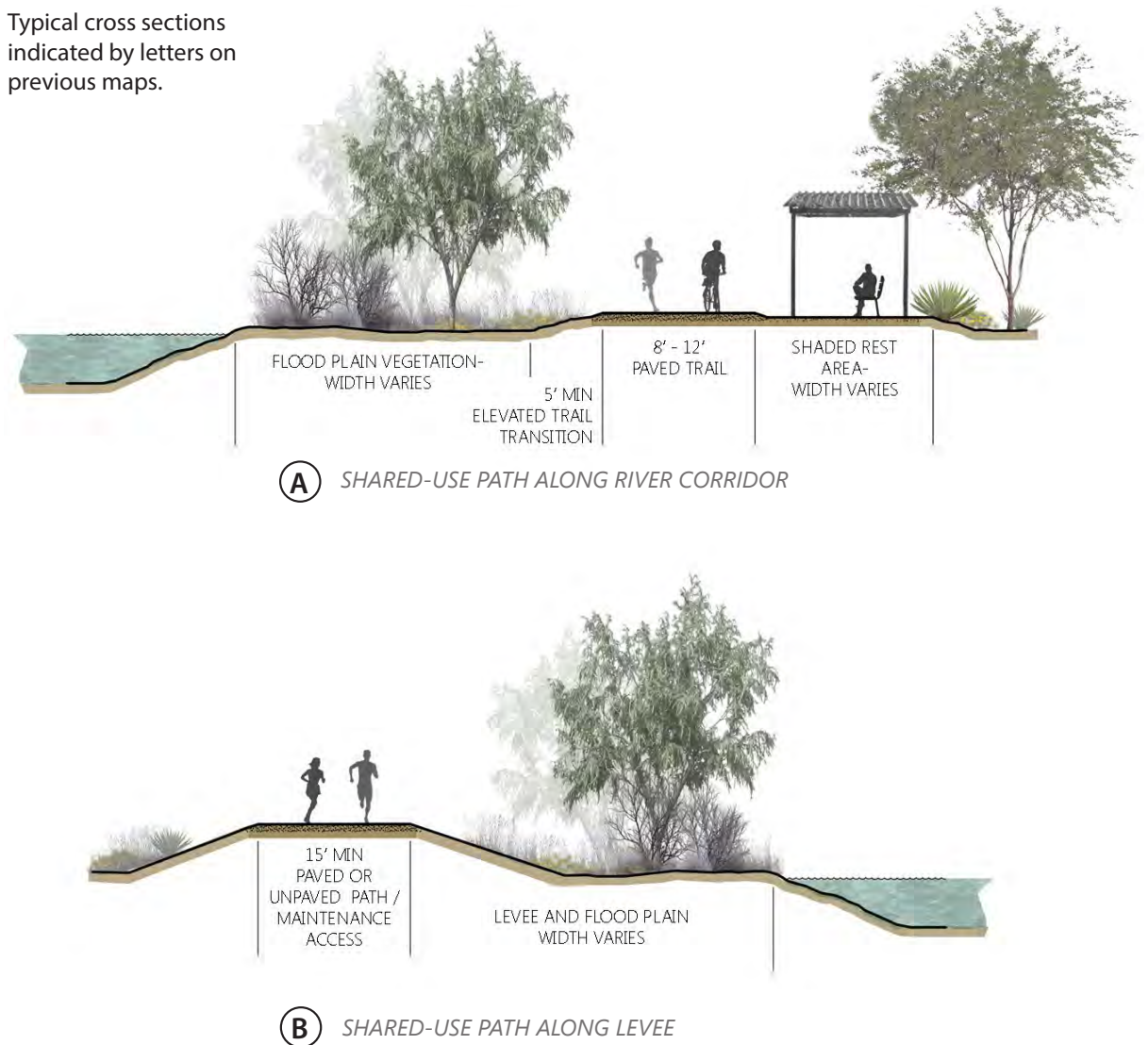


FIGURE 12. TYPICAL CROSS SECTIONS A & B – UPPER VALLEY



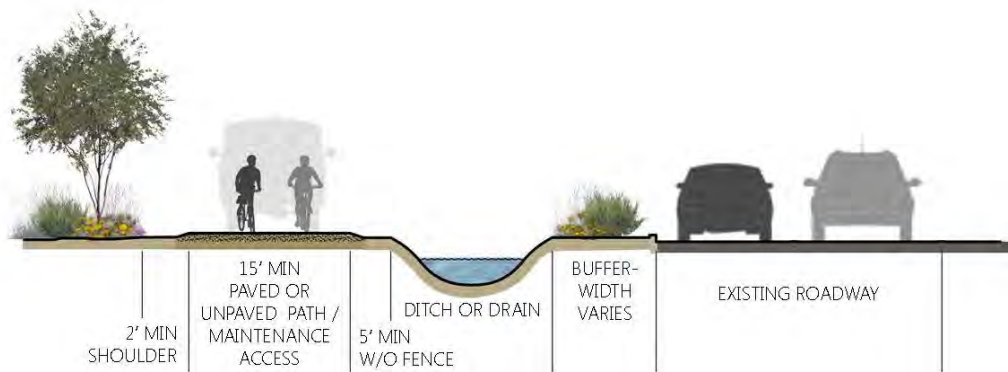
maintenance road can also accommodate runners and walkers who prefer a softer surface. For either the levee top or floodplain alignments, periodic shade nodes with seating should be added to allow trail users a chance to rest and get a reprieve from the intense sun typical of this area.

Shared-Use Path along Roadway: When located along a roadway, the trail configuration is known as a side path and should be set back at least five feet from the driving lane, and/or some form of separation (e.g., fencing, guardrail, etc.) should be added to distinguish the trail from the road. Care

should be taken to provide adequate signage at intersections to warn both drivers and trail users of potential conflicts when trail users are re-introduced to the road. Signalized intersections are also preferred for such crossings. Where the trail will cross existing railroad tracks, it should be brought close enough to the road so that it can take advantage of the existing crossing signal arms. In some cases, this may require narrowing the trail, with additional signage to warn of this condition.



Typical trail character along river corridor.



C SHARED-USE PATH ALONG ROADWAY CANAL

FIGURE 13. TYPICAL CROSS SECTION C – UPPER VALLEY



Typical trail character along levee.



TRAIL ENHANCEMENTS



Provide access to the Rio Grande.



Vistas of the Rio Grande from viewing platform.



Opportunities for public art on existing concrete structures.





Shaded rest stops.



Places to sit.



Enhanced trails and bike paths.



High and low-tech wayfinding options.



DOWNTOWN/UTEP DISTRICT

The Downtown/UTEP District is the most distinctly urban of the five districts, containing the highest density of attractions and amenities, and is also therefore the most complex. For simplicity, this district is described as two separate sub-districts in the following discussion. **UTEP** refers to the northern portion of the district and **Downtown** describes the southern half.

UTEP SUB-DISTRICT

CHARACTER

The UTEP section is characterized primarily by the University of Texas El Paso (UTEP), large industrial facilities, such as the power plant and waste water treatment facility, and rugged terrain along the Doniphan Road/Interstate 10 corridor. This area has a history of heavy industry exemplified by the railroads, the former ASARCO (originally formed as the American Smelting and Refining Company; now simply called ASARCO since its acquisition by a Mexican conglomerate) smelter property, and GCC (formerly CEMEX) cement plant. In contrast to these industrial sites, the main campus of UTEP is a highly urbanized area with a distinct campus identity and unique architectural building styles.



An aerial view shows the informal trail and road network near UTEP campus.





A potential on-street connection provides an opportunity for a future side path through UTEP campus.



In Downtown, the trail will be in the form of urban pedestrian pathways and on-street bicycle facilities.



The trail will have to navigate through underpasses.





POINTS OF INTEREST – UTEP



UNIVERSITY OF TEXAS EL PASO MAIN CAMPUS



UTEP's campus offers rich cultural resources including museums and galleries, the Chihuahuan Desert Botanical Garden and numerous music and theater performance spaces, as well as sports and recreational facilities. Don Haskins Center and Sun Bowl stadium serve as venues for both UTEP women's and men's intercollegiate athletic teams and major regional entertainment programming, ranging from traveling shows such as Cirque de Soleil to performing artists such as Elton John and the Rolling Stones.



FUTURE UTEP EXPANSION



Now owned by UTEP, the property formerly occupied by the ASARCO plant is being looked at for possible future student housing and other uses.



SMELTERTOWN AND SMELTERTOWN CEMETERY



Smelertown is the location of a small community that was developed by and for workers at the ASARCO smelter. The town was dismantled and residents relocated elsewhere in the 1970s, when the effects of exposure to lead and other pollutants from the smelter began to be understood. After the eventual closing of the plant in 1999 and demolition of the smokestacks in 2013, the most visible reminder of that past is the cemetery.



OLD FORT BLISS/HART'S MILL

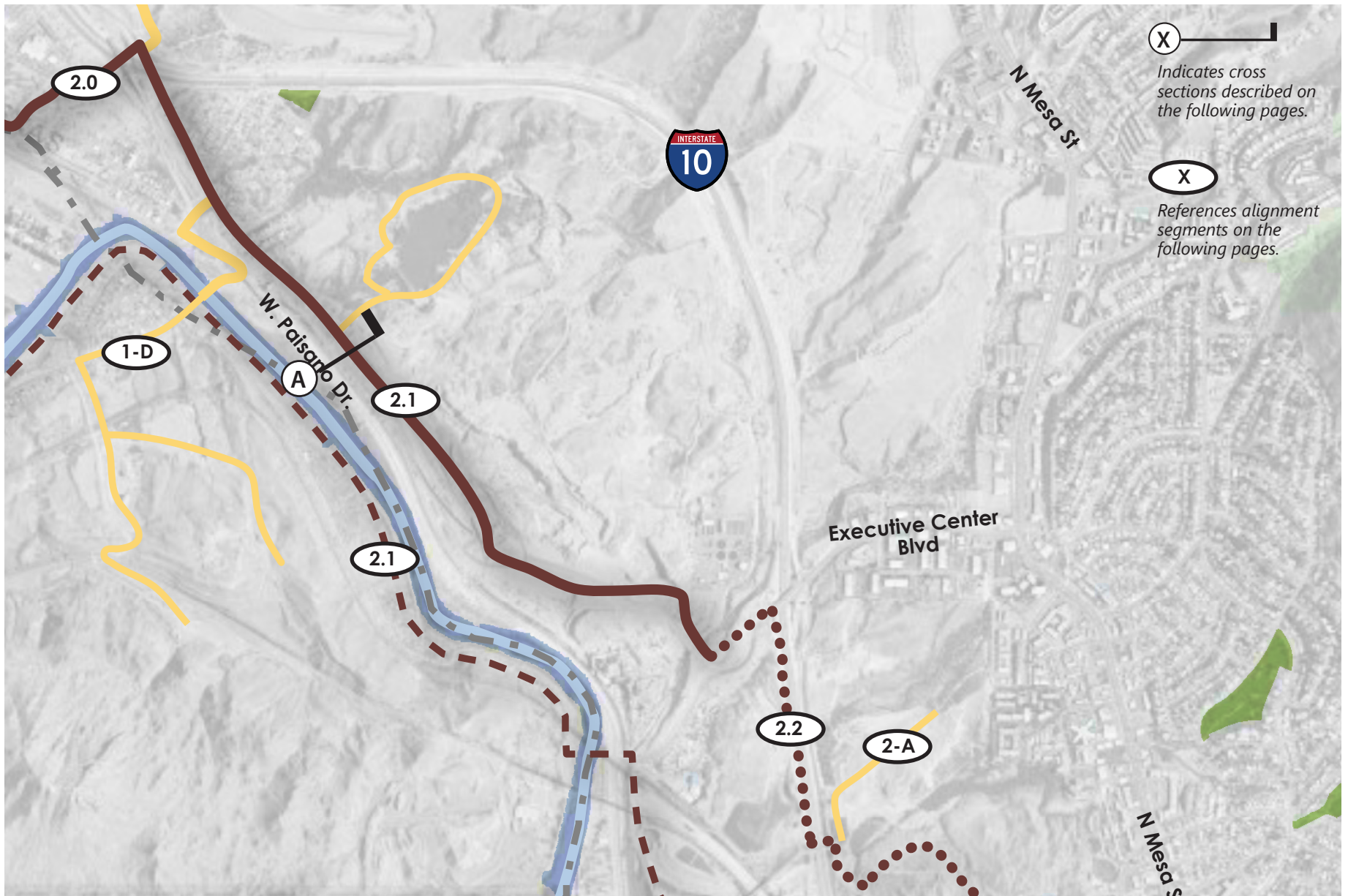


One of the most significant historic sites in the Southwest, this property encompasses the location of Oñate's original "Paso del Norte" crossing of the Rio Grande. The site was used prior to that time by the natives that traveled north and south along the Chihuahua trade route. It also includes Simeon Hart's grist mill, erected in 1849, which was the first industrial operation in El Paso, and historic Fort Bliss, where Buffalo Soldiers were stationed from 1866-1901. The adobe buildings at Old Fort Bliss are replicas of the original fort and serve as the center for a history program.



PASO DEL NORTE TRAIL

See Map 18 for overall region alignments and legend.



MAP 19. UTEP SUB-DISTRICT KEY MAP 1

TRAIL CONNECTIVITY

Through this reach the trail will meander along and under many of the Interstate 10, US Route 85, and Executive Center Boulevard overpasses as it makes its way towards the University area. Much of the terrain west of the University is rugged, undeveloped, and relatively steep.

PRIMARY ALIGNMENTS

2.0 Doniphan/Arroyo Alignment (Proposed Shared-Use Trail) TxDOT Shared-Use Path Extension at CEMEX Property along Paisano (Funded)

TxDOT has planned (and is currently constructing) an asphalt shared-use trail that will run underneath the new ramps being constructed for the intersection of West Paisano and Interstate 10. The trail will turn south and run parallel to West Paisano through the old CEMEX property (which will become a Boy Scout Camp) to the point where it intersects with Executive Center Blvd.

2.2 Executive Center to UTEP Segment (Proposed Shared-Use Trail)

Starting at Executive Center Boulevard, the proposed alignment turns northeast toward Interstate 10, and then south along the west side of Interstate 10 passing the Smeltertown cemetery, until it intersects with the existing 'Ore Bridge,' where it will cross the Interstate. East of Interstate 10 the trail begins to climb up a steep grade through the undeveloped property on the west side of the UTEP campus, following existing informal dirt roads up past the soccer fields at Charlie Davis Park and the Student Rec Center to Sun Bowl Drive. A possible constraint with this segment is the unknown future of the existing 'Ore Bridge'. To accomplish this alignment, a bridge crossing of Interstate 10 is critical. If the existing bridge cannot be used for any reason, there is an opportunity (albeit a much more costly one)

for an iconic new pedestrian bridge to span the freeway to make this connection—perhaps picking up on the theme established by UTEP's new steel "miner's pick" sculptures that bracket the roadway, for example. Similarly, if the current bridge can be used for the trail, there is opportunity to improve its aesthetics to enhance the visual identity of El Paso and showcase the PDN Trail.

2.3 Sun Bowl Drive – Student Rec Center to Schuster Avenue Segment (Existing/Proposed On-Street)

The proposed alignment follows Sun Bowl Drive from the recreation complex past the basketball and football stadiums, through several roundabouts, to West Schuster Avenue. From the Student Rec Center driveway to University Avenue the urban trail would utilize existing shared lane roadways (marked with "sharrows" to denote bikes share the road) and generally wide sidewalks. From University Drive to Schuster Avenue, the sharrows disappear, but the sidewalks continue. With some effort, this segment could be converted to a protected two-way cycletrack or sidepath.

2.4 Schuster Avenue – Sun Bowl to Prospect Street Segment (Proposed/ Existing On-Street)

Turning left on Schuster Avenue, the alignment passes through yet another roundabout before turning right on Prospect Street. Although Schuster Avenue is not striped for bike lanes, its overall pavement width is such that it could be restriped to accommodate them, or at a minimum sharrows could be added to indicate a shared-use facility. Of particular interest in this reach, the wide sidewalks along Schuster Avenue do not follow the roadway through the aforementioned roundabout; instead they drop down and go beneath the roundabout through a three-way connection that also links to two parking lots and a meandering stairway that rises up to the main campus.

2.5 Prospect Street – Schuster Avenue to Interstate 10 (Existing On-Street)

Prospect Street passes through the Sunset Heights neighborhood—an established residential area, with on-street parking, decent sidewalks, and continuous striped bike lanes—before crossing into the Downtown area. The urban trail alignment would follow the existing facilities along Prospect to another crossing of Interstate 10, where the trail passes into the Downtown sub-district.

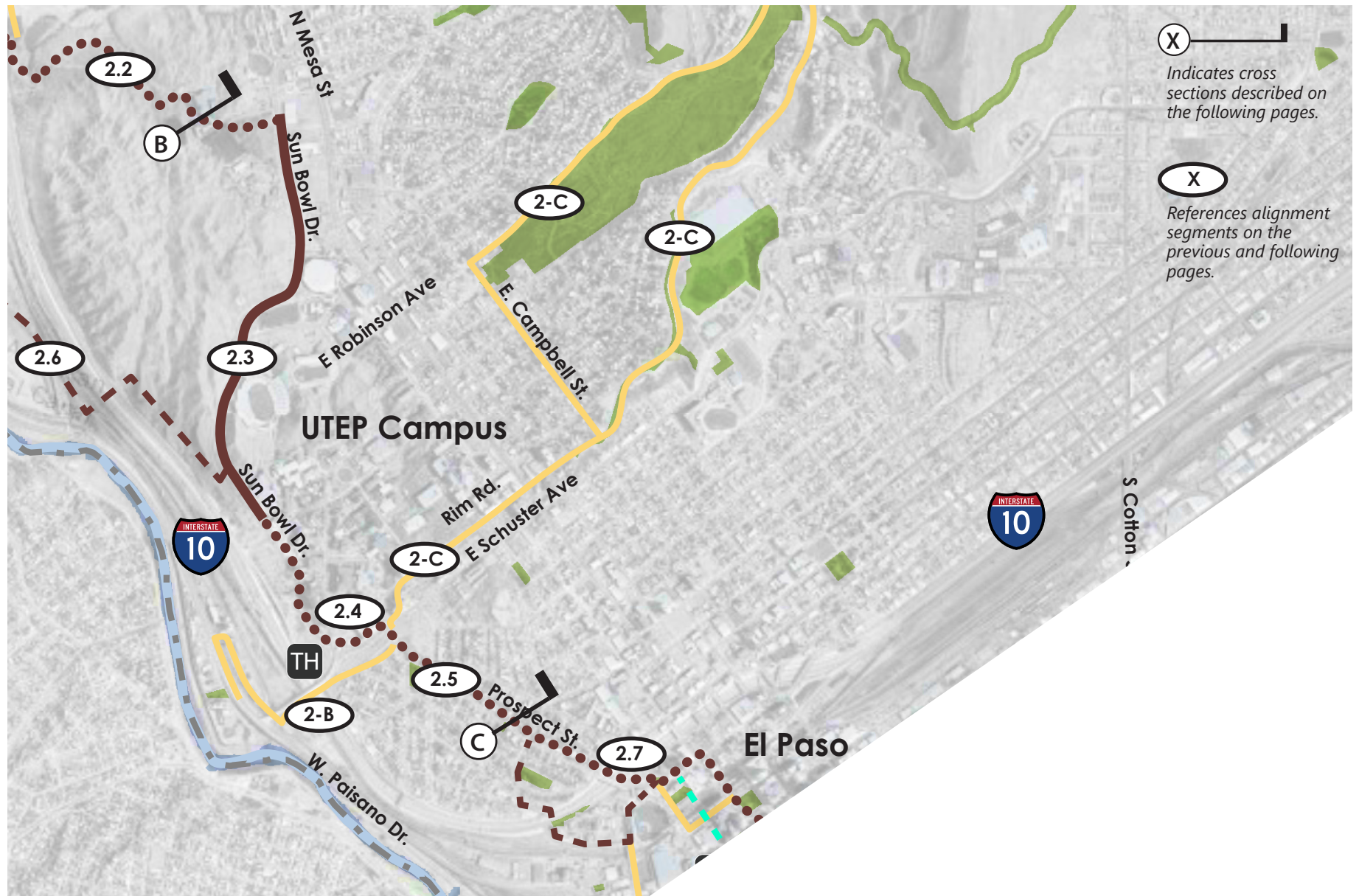
LOOP ALIGNMENTS

2.6 Brickland Road Loop (Proposed)

Diverging from the primary trail at Racetrack Drive, this loop crosses south over Rio Grande on the Racetrack Drive bridge and then heads east along the river's edge, crossing Anapra Road, and continuing south along Brickland Road along the river's edge. The alignment would cross under one or both of the elevated railroad trestles, and then cross east over the Rio Grande to Paisano Drive. Two options have been considered for this river crossing. Initial thoughts were that it could cross via an existing bridge known as the 'Brick Bridge' just south of the second railroad bridge; however, that bridge was recently reconstructed for use by the Border Patrol, and the new bridge did not make any accommodations for joint trail use. If shared use is not an option for that bridge, the other alternative would be to build a new river crossing between the two railroad trestles aligned with Executive Center Boulevard. This crossing location would better facilitate the use of the signalized intersection at Executive Center Boulevard and Paisano Drive, as well as the railroad tracks that run parallel to Paisano Drive. After crossing the railroad tracks, the trail would run south through the former ASARCO property (recently acquired by UTEP) and ultimately cross Interstate 10 to tie back into the primary alignment on Sun Bowl Drive.



See Map 18 for overall region alignments and legend.



MAP 20. UTEP SUB-DISTRICT KEY MAP 2

Depending on UTEP's eventual redevelopment plans for this area, several options may exist for the Interstate 10 crossing.

- **Option 1:** The first and simplest would be to stay to the north of the railroad tracks and continue along them to the southeast, rejoining the primary alignment at the 'Ore Bridge' Interstate 10 crossing discussed above.
- **Option 2:** Since two sets of railroad tracks bisect the property, it is likely that the redevelopment will ultimately include at least one grade-separated crossing of those tracks. If and when that occurs, a joint-use facility could be constructed that includes adequate width for a trail facility. From the east side of the tracks the trail could connect to the 'Ore Bridge' or a new crossing.
- **Option 3:** The trail would continue south along the west edge of the UTEP/ASARCO property, staying closer to the river as far as possible, before crossing the both Interstate 10 and the railroad tracks. This crossing is only feasible with the construction of a new (and lengthy) bridge—which would be another opportunity for an "iconic" statement.

A potential constraint to implementation of this loop is the American Eagle Brick Company property. As private property, it would require acquisition of an easement or right-of-way for the trail. While it would seem that keeping the trail close to the river might avoid that issue, even the IBWC—the agency controls the river and floodplain—seems unclear on who has the final say in this case. The uncertainty surrounding this issue influenced the recommendation to keep the primary alignment described above on the east side of the river.

SPUR TRAILS

2-A Future UTEP Student Housing Spur (Proposed Shared-Use Trail)

Just after crossing over the existing 'Ore Bridge' to the east side of Interstate 10, this spur could connect north and east into the future student housing area (proposed by UTEP), the Mission Hills and Montecillo neighborhoods, and businesses along Executive Center Boulevard. This connection from the primary alignment should be considered in any planning efforts of this development as it can serve as an asset for connecting the UTEP campus and greater PDN Trail network.

2-B Hart's Mill/Old Fort Bliss Spur (Proposed Shared-Use/On-Street)

This spur connects from the roundabout at Schuster Avenue via the Spur 1966 overpass west across Interstate 10 and the railroad tracks to Paisano Drive and into the Hart's Mill/Old Fort Bliss property. Although there is an existing shared-use sidepath that extends from Paisano Drive to the east side of the freeway, that path ends at a switchback ramp leading down to a UTEP parking area, leaving no option for connecting to the on-street alignment at Schuster Avenue. In order to make that connection, the shared-use path will need to be extended along the Spur 1966 roadway, or create an alternate route via Heisig Avenue to connect with the primary alignment at Prospect Street. This option would require minimal construction, since the first switchback landing on the ramp down to the parking area actually is almost level with and very close to Heisig Avenue. Construction of a short ramp from that landing east to Heisig Avenue would facilitate this connection at a much lower cost than extending a cantilevered path along Spur 1966.

2.6 Arroyo Park Spur (Proposed On-Street)

From the intersection of Schuster Avenue and Prospect Street, this spur jogs around the UTEP campus, connects to two hospitals (Providence and Las Palmas), connects to Rim Road, and follows this road east into the adjacent Rim-University and Kern Place neighborhoods to connect with park facilities at Tom Lea Upper Park and Billy Rogers Arroyo Park, as well as Scenic Drive at the south end of the Franklin Mountains. The loop is formed by continuing around the east end of Billy Rogers Arroyo Park and heading west again on East Robinson Avenue, before reconnecting to Rim Road via North Campbell Street. This loop offers attractive views of the city and foothills landscape.

TRAILHEADS AND PUBLIC TRANSIT

UTEP Campus Trailhead at Prospect Street/Sun Bowl Drive (Proposed)

A potential trailhead at this location could utilize existing parking at UTEP for PDN Trail access. Unless special provisions are made, use of this trailhead would be limited to those who possess a valid UTEP parking permit.

Bus Stops

Several City of El Paso bus stops are located within a block of the Sun Bowl alignment along North Mesa Street on the UTEP campus. Additional stops are located along Prospect at Schuster and Los Angeles Drive.

Glory Road Transfer Center

A Sun Metro bus transfer center is located approximately 0.3 miles east of Sun Bowl Drive along Glory Road, which runs between the football stadium and basketball arena. This facility offers connections to several local bus routes.



NEARBY SCHOOLS AND INSTITUTIONS

Schools in walking distance include:

- University of Texas El Paso
- El Paso Community College – Rio Grande Campus
- El Paso Conservatory of Music
- Vilas Elementary School

TPOLOGIES – UTEP

Shared-Use Path: A ten- to twelve-foot wide paved trail can accommodate multiple uses comfortably. Wide shoulders or a parallel unpaved trail can provide an alternative for trail users who prefer a softer surface.

Shared-Use Path at Underpass: In some cases, the trail will need to fit beneath highway overpasses between the roadway and bridge piers or abutments. Where adequate room exists, the tight spaces between the trail and the highway can be softened with a landscape buffer, and swales alongside the trail can capture runoff from the trail and/or roadway to sustain plantings. Where sufficient room for plantings is not available, the trail should be separated from the roadway by a curb or safety barricade of some sort (guardrail, post-and-cable, etc.).

Typical cross sections indicated by letters on previous maps.

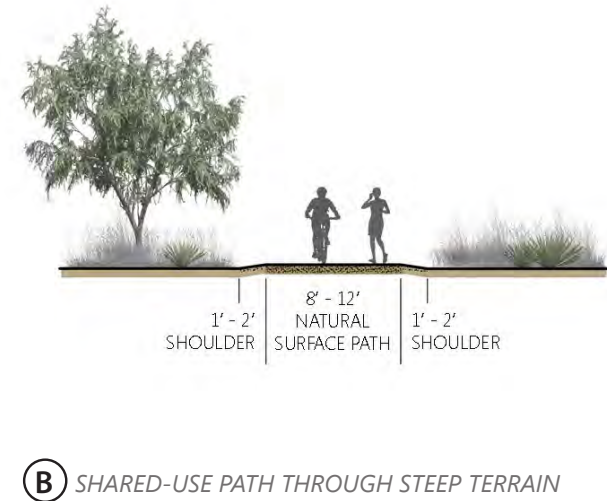
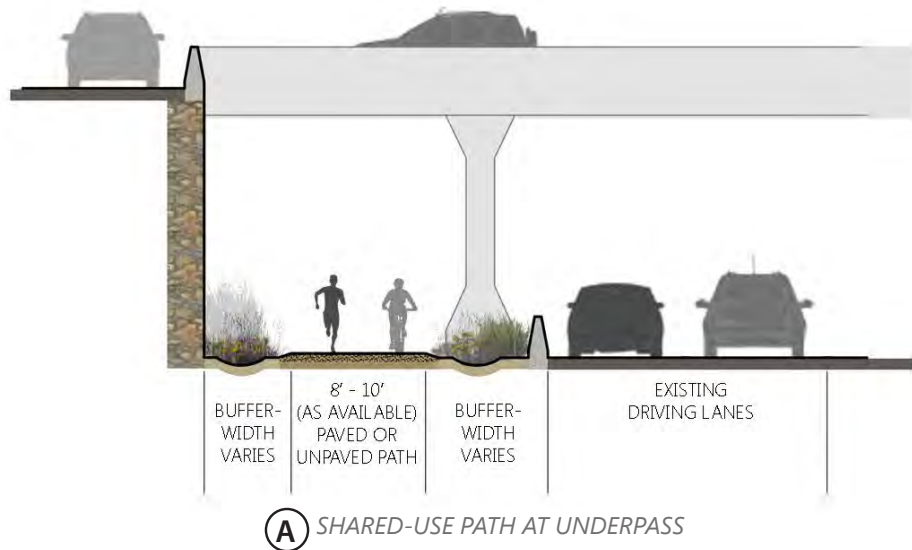


FIGURE 14. TYPICAL CROSS SECTIONS A & B – UTEP



Shared-Use Path through Steep Terrain: In areas near UTEP where the alignment will traverse steep and exposed hillsides, retaining walls and railings may be required to maintain grades under five percent. Periodic shade nodes with seating should be provided to allow trail users chance to rest and get a reprieve from the intense sun.

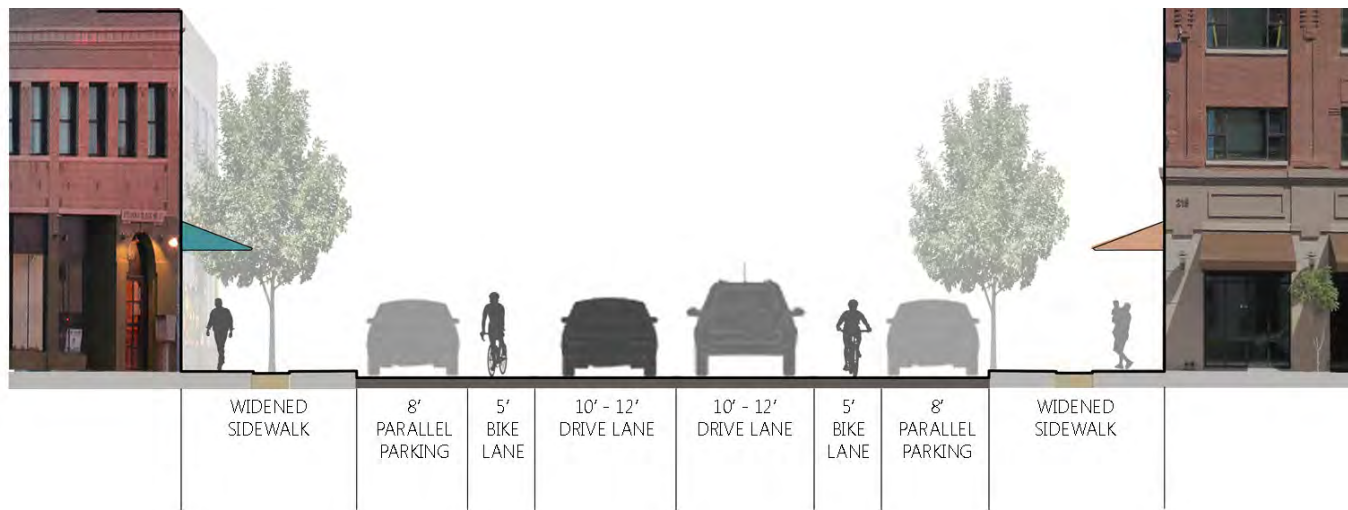
On-Street Bike Lanes with Sidewalks: Through the UTEP campus, existing conditions dictate that on-street facilities are utilized, at least in the short term. Currently part of the Sun Bowl alignment is marked for shared lanes intended to accommodate both cars and bicycles. This is a minimum level of designation; however, striped

lanes would be preferable for the entire reach. The route also includes fairly wide sidewalks through campus, so in the future it may be possible, with some utility relocations and minor right-of-way adjustments, to convert sidewalks on one or both sides of the road to shared-use side paths, changing this to an off-street segment.

South of UTEP, bike lanes and sidewalks already exist along Prospect Street, so all that would be required between Schuster and Interstate 10 is the addition of wayfinding signage.



Typical on-street bike lanes.



© ON-STREET BIKE LANES WITH SIDEWALKS

FIGURE 15. TYPICAL CROSS SECTION C – DOWNTOWN/UTEP



TRAIL ENHANCEMENTS – UTEP



There are many opportunities to utilize and improve underpasses for trails in this reach.



There are opportunities for single-track connector trails from UTEP to Billy Rogers Arroyo Open Space and Franklin Mountains.





The UTEP sub-district could use an iconic bridge. Some examples are shown.



"Share the road" markings called "sharrows" may be used on Downtown streets.



Co-located bike-share stations can attract new users.



DOWNTOWN/UTEP DISTRICT

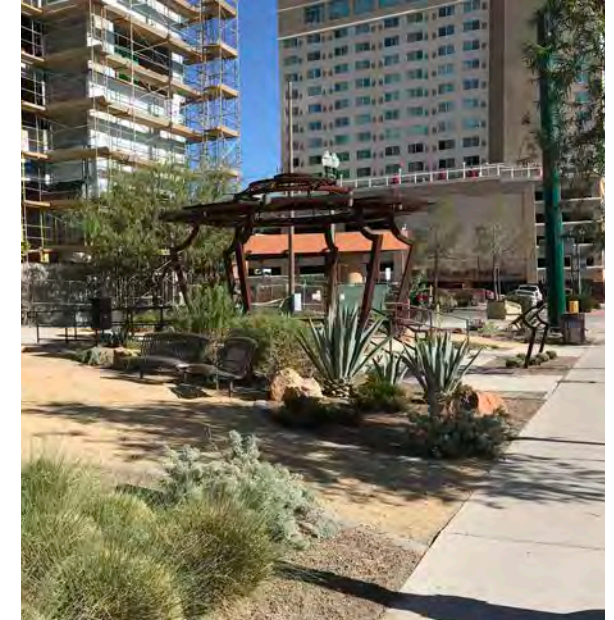
DOWNTOWN SUB-DISTRICT

CHARACTER

The Downtown area is characterized primarily by a highly urban context as it transitions from the UTEP campus toward the Downtown core. Gridded street patterns, compact neighborhoods, and a dense urban environment, as well as an array of attractions and amenities like museums, international marketplaces, iconic plazas, and vibrant murals, make this area the heart of the PDN Trail. Although the dense fabric also precludes development of any new off-street trail facilities, the very urban nature of the area invites passersby to experience it at the street level. To that end, several options for different loops are presented, to provide users with opportunities to experience the city and its International District at a variety of levels. Wayfinding will be critical to direct trail users to and through the various loops and options available to them.



El Paso's Downtown offers many pedestrian amenities.





The Downtown alignment will utilize existing streets and sidewalks.



Downtown's International District has an active street front.



Downtown has many transit connections.



As the trail leaves the Downtown core, it will follow ditch roads again.



POINTS OF INTEREST - DOWNTOWN

MURALS



The Downtown area offers an array of attractions, museums, and cultural sites within a small area. Famous for its historic neighborhoods, plazas, marketplaces, and murals, the Downtown core is a major anchor for the PDN Trail. The walking trail proposed in this section will link several of El Paso's most famous murals.

SOUTHWEST UNIVERSITY PARK



This baseball stadium home to the El Paso Chihuahuas is located in the heart of Downtown. The PDN Trail will provide pedestrian and bicycle access to the games and events held here.

EL PASO MUSEUM OF HISTORY DIGITAL WALL



Located at the entrance of the El Paso Museum of History, the 3-D Digital Wall is a vast collection of images and videos exploring El Paso's past and present. It showcases El Paso's people and its many cultures on giant 3-D touch-sensitive screens.

SAN JACINTO PLAZA



This historic park is located on the corner of Oregon Street and Mills Avenue at the center of Downtown. A fiberglass sculpture by Luis Jiménez honors the city's colorful past when real alligators graced San Jacinto Plaza.

SEGUNDO BARRIO MARKETS



El Segundo Barrio is among the oldest neighborhoods in El Paso County, and is considered the birthplace of the Chicano movement in West Texas. Historic murals decorate local businesses and residences throughout the barrio and recount the neighborhood's history— from agrarian past to urban present.





IL International Loop

The International Loop is intended to become a unique tourist attraction allowing visitors to visit both sides of the border between the United States and Mexico and creating an international trail experience. This loop will be comprised of alignments on both sides of the border—the Downtown El Paso Loop on the United State’s side and the Juárez Loop on Mexico’s side.

The loop will link the Chamizal monuments in both Texas and Mexico, commemorating the Chamizal border agreement at its eastern edge. The loop will also connect many other attractions making it easy to walk to numerous destinations (see Map 22). On the Mexican side, it will pass Gran Plaza Juan Gabriel, Campo Don Guillermo “Chucus” Olascoaga sports complex, Benito Juárez Stadium, and connections to various plazas and markets. On the American side, it will overlap with segments of the Downtown/Chihuahuita Walking Loop (described on page 82) and pass El Paso Museum of History, El Paso Museum of Art, Southwest University Park stadium, and El Paso Convention and Performing Arts Center.

The International Loop will provide opportunities for trail users to cross the border at two points—the Santa Fe Bridge and the Bridge of the Americas. The Santa Fe Bridge, no longer located on Santa Fe Street, connects El Paso Street in El Paso to Avenida Benito Juárez in Juárez. Together these streets combine to form the Paseo de las Luces corridor. The loop then follows Avenida Ingeniero David Herrera Jordan into Ciudad Juárez, Mexico and follows the Rio Grande corridor south through the Parque el Chamizal. It then crosses back over the border into the United States via the Bridge of the Americas, where it passes through the Chamizal National Memorial in El Paso and next to Magoffin Home State Historic Site.

MAP 22. INTERNATIONAL LOOP MAP

POINTS OF INTEREST - INTERNATIONAL LOOP

CHAMIZAL NATIONAL MEMORIAL (U.S.)



This 55-acre memorial park honors the peaceful resolution of the Chamizal Dispute—a century-long border dispute between the United States and Mexico that arose when flooding caused the Rio Grande to change its course between the cities of El Paso and Ciudad Juárez. The site serves as a cultural center containing a museum, art galleries, an indoor theater, an outdoor amphitheater, and soft-surfaced hike and bike trails throughout the park.

PARQUE EL CHAMIZAL (MEXICO)



Also in honor of the resolution of the Chamizal Dispute, a 220-acre memorial park, Parque Público Federal 'El Chamizal,' was created on the Mexican side of the international boundary.

MAGOFFIN HOME STATE HISTORIC SITE (U.S.)



Magoffin Home State Historic Site explores the stories of a multicultural family who actively participated in United States' expansion and settlement, military service, trade on the Santa Fe–Chihuahua Trail, Civil War turmoil and United States–Mexico relations. The 1875 home is a prime example of Territorial style architecture.

LA EQUIS (MEXICO)



The International Loop will run through Parque El Chamizal in Ciudad Juárez, Mexico and provide a view of "La Equis" or 'The X', a sculpture representing the integration of Spanish and Aztec cultures.

PASEO DE LAS LUCES 'PROMENADE OF THE LIGHTS' (U.S.)



Based on a concept dating from the 1980s, this corridor intended to create closer ties between the Downtown areas of El Paso and Juárez and celebrate the area's heritage. It is moving closer to fulfilling its original intent. Currently marked with blue signs denoting the corridor, it received new life in the form of a \$6.4 million investment approved by the El Paso City Council in early 2018.

ESTADIO OLIMPICO BENITO JUAREZ SOCCER STADIUM (MEXICO)



Estadio Olímpico Benito Juárez Soccer Stadium in Ciudad Juárez, Mexico is a multi-purpose stadium home of Fútbol Club Juárez and is used mostly for soccer matches and concerts. This popular destination will be accessed via the International Loop to serve both Juárez and El Paso.



See Map 21 for overall region alignments and legend.



MAP 23. DOWNTOWN SUB-DISTRICT KEY MAP

TRAIL CONNECTIVITY

PRIMARY ALIGNMENTS

2.7 ***Prospect Street – Interstate 10 to Santa Fe Street (Existing On-Street)***

Continuing from the UTEP sub-district, this existing on-street facility crosses Interstate 10 and continues to the intersection with North Santa Fe Street across from Cavalryman Triangle Park. Both sides of the two-way street have existing striped bike lanes. An important consideration for this segment is the unknown future for the bridge crossing Interstate 10. TxDOT is currently considering removal of the of the bridge as one of several options for reconfiguring roadways in the area. If removed, this may be an opportunity to construct a new (and potentially noteworthy) pedestrian bridge that spans Interstate 10 at that same location. Additionally, if the current bridge remains, there is opportunity to add signage or additional graphic enhancements to identity it as part of the PDN Trail.

2.8 ***Missouri Avenue – Oregon Street Segment (Proposed On-Street)***

Beginning at the intersection of Prospect and Santa Fe streets, the trail will jog south along Santa Fe Street approximately 150 feet to Missouri Avenue, where it will turn east for two blocks to Oregon Street. It will then follow Oregon Street south, passing San Jacinto Plaza, until it intersects with San Antonio Avenue. The Prospect/Santa Fe intersection is somewhat tricky, given the odd angle and the proximity to the Missouri Avenue intersection just to the south. Given that complexity, rather than directing cyclists through those intersections on the roadway, it might be

preferable to utilize the wide (approximately 15 feet) sidewalk on the west side of Santa Fe Street to make the short connection to Missouri Avenue. This area has been upgraded for heavy pedestrian use due to its proximity to Southwest University Park, the stadium where the El Paso Chihuahuas play.

Missouri Avenue presents another challenge, in that it is a one-way street with westbound traffic, only. The roadway currently accommodates two travel lanes and parallel parking on both sides. The preferred configuration for accommodating the RGT would be to eliminate the parking on one side of the street and add a buffered **two-way cycle track** on the south side of the road. If the addition of the cycle track option is not approved, the alternative would be to create a one-way bike lane loop using Santa Fe Street and Main Drive as the southbound and eastbound legs, and Oregon Street and Missouri Avenue as the northbound and westbound legs.

2.9 ***San Antonio Avenue – Magoffin Avenue Segment (Proposed On-Street)***

From Oregon Street, the alignment would turn east on San Antonio Avenue, jog south for five blocks, and then angle northeast onto the less heavily trafficked Magoffin Avenue. It would follow Magoffin Avenue for another ten blocks, passing the Magoffin Home State Historical Park and crossing an abandoned railroad spur just before jogging south for two block on Lee Street to rejoin on San Antonio Avenue. The paved portion of San Antonio Avenue ends after one block at Dallas Street; however, the trail would continue through the San Antonio right-of-way until intersection with another set of railroad tracks and the Franklin Canal.

2.10 ***Franklin Canal - Dallas Street to US Route 54 (Proposed Shared-Use Trail)***

Beginning at the convergence of the San Antonio right-of-way, Burlington Northern Santa Fe (BNSF) Railroad track, and the Franklin Canal, the trail will run east along the north bank of the Franklin Canal approximately one and a quarter-mile to the point where the canal dives underground at the US Route 54 (Patriot Freeway) interchange. This reach of the canal is highly urbanized and confined on both sides by fences with residential lots just beyond. It is also elevated above the surrounding land through most of the reach, and has multiple ramped road crossings that will complicate construction of the trail.

2.11 ***Franklin Canal Detour – US Route 54 Undercrossing (Proposed Shared-Use Trail)***

Since the Franklin Canal passes under US Route 54 in a culvert, the trail will follow the freeway embankment around the edge of the Zavala Elementary School property (which will require coordination with the school to reconfigure a corner of their parking lot) to Alameda Avenue, where it will cross under the highway, and then follow the east side of Gateway Boulevard back to the Franklin Canal. This alignment continues in the Zoo/Playa Drain District.



LOOP ALIGNMENTS

2.12 *Sunset Heights Loop (Proposed On-Street)*

This route will serve as both a loop and an alternate route or shortcut to get across Interstate 10, especially in the event that the Prospect Street freeway crossing is removed. The alignment diverges from Prospect Street at Los Angeles Drive, passes John Karr Park, and crosses Interstate 10 via an underpass on Missouri Avenue/Franklin Avenue to connect directly with the Downtown core west of the Southwest University Park stadium. At that point it turns south to follow the colorful pedestrian path along Durango Street, and then east along Overland Avenue to reconnect with the primary alignment on Oregon Street. The loop runs through the Sunset Heights neighborhood and will serve as a connection to this area.

2.13 *Downtown/Chihuahuita Walking Loop (Existing Pedestrian Paths/On-Street Sidewalks)*

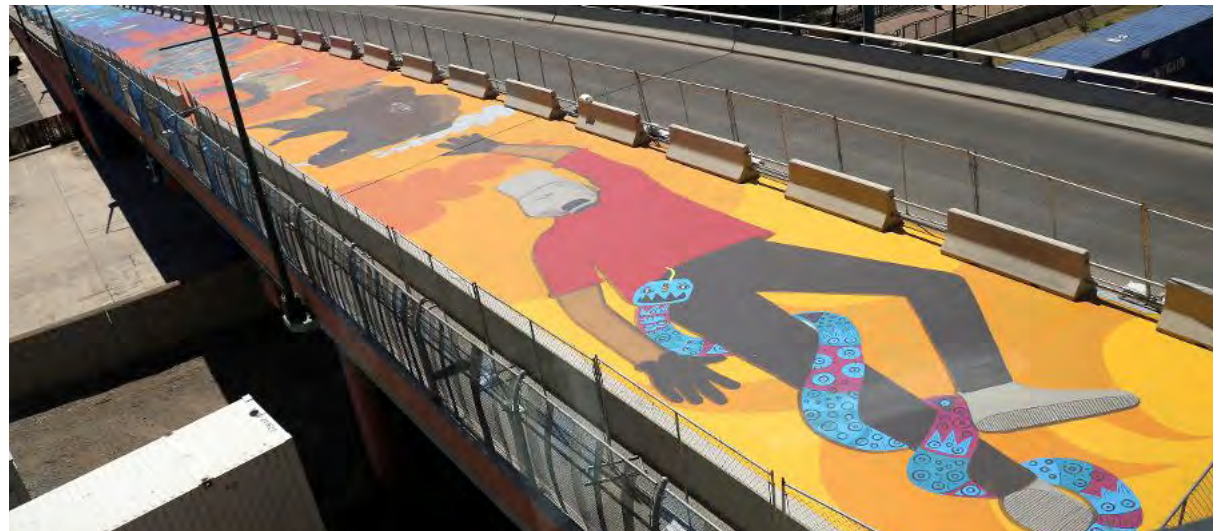
In order to better showcase El Paso's vibrant Downtown, a separate walking trail has been proposed that will provide linkages to numerous parks, schools, and cultural centers, as well as offer visitors a sampling of many of the historic neighborhoods in Downtown. Beginning at the intersection of Missouri Avenue and El Paso Street, the walking loop would take advantage of the mid-block pedestrian path that winds between the Main Library and the History Museum, passing Cleveland Square Park before rejoining El Paso Street for a block and crossing over the depressed Union Pacific Railroad tracks. At Main Drive the route again becomes an off-street pedestrian corridor that passes the El Paso Museum of Art, the Plaza Theater, and Pioneer Plaza. The route rejoins El Paso Street yet again, and continues

south through an area rich with classic border shops and markets, before turning east on 6th Avenue, just before the Santa Fe International Bridge. From 6th Avenue the walking trail jogs south two blocks to Olivas V Aoy Avenue/8th Avenue, at which point it heads east past Armijo Park, Library, and Recreation Center, and through the Avenue's medians—a linear park containing the Paseo de los Heros Park. At Saint Vrain Street, the route turns north for nine blocks, crossing the BNSF rail yards before jogging west at San Antonio Avenue to Virginia Street, where it rejoins the primary alignment along Magoffin Avenue.

2.14 *6th Avenue – Border Highway Loop (Proposed On-Street/Funded Shared-Use Trail)*

From the Oregon Street/San Antonio Avenue intersection, an alternate loop route can take trail users deeper into the international district, while providing access to more schools. It takes

advantage of a shared-use trail that is being planned by TxDOT. The loop continues south along Oregon Street as an on-street/sidewalk facility, and turns east on 6th Avenue, passing the La Fe Preparatory School and the Boys & Girls Club of El Paso to the Cotton Street/Nino Aguilera Street intersection. The trail would continue past the track and soccer field at Guillen Middle School along the west side of the Cesar Chavez Border Highway. Here TxDOT has planned a new shared-use trail in conjunction with the construction of a new grade-separated roadway bridge at Delta Drive and the BNSF railroad tracks, which will connect Guillen Middle School to Bowie High School and Chamizal National Memorial. From the Chamizal Memorial, the alignment would again become an on-street facility following San Marcial Street north to join the primary alignment along the Franklin Canal. A small existing pedestrian bridge would facilitate crossing of the canal to join the trail on the north side of the canal.



Durango Street Bridge Walkway

Source: El Paso Chihuahuas



SPUR TRAILS

2-D Rail Trail Spur (Proposed Shared-Use Trail)

A proposed trail would follow the existing railway line from the planned TxDOT Border Highway Trail along the BNSF railroad corridor west of Bowie High School north to the primary alignment along Alameda Avenue. Future extensions could take it through the Union Pacific yards south of Interstate 10 and all the way north to Memorial Park. This would be a long-term connection, as these railroad tracks are still used by the railroads.

TRAILHEADS AND PUBLIC TRANSIT

Downtown/San Jacinto Plaza Trailhead (Proposed)

Although parking options would be limited, a potential trailhead located adjacent to the plaza or in adjacent Downtown parking garages could provide bicycle parking for users of the PDN Trail and provide an opportunity to visit to Downtown or to attend events in the plaza. Signage and information kiosks would enhance its usability for this purpose.

San Antonio Trailhead at Franklin Canal (Proposed)

Although currently being used for trailer storage related to the recycling operation next door, there appears to be adequate room for a potential trailhead where Franklin Canal crosses the San Antonio Avenue right-of-way.

San Antonio Avenue/Stevens Street Trailhead (Proposed)

An empty lot on the south side of the Franklin

Canal at the Stevens Street on-ramp to the Interstate 110 frontage road could provide another opportunity for a trailhead parking area. Although Stevens Street becomes one-way southbound at the canal, the lot is also accessible from the east end of San Antonio Avenue, just before it dead-ends at the freeway embankment.

Chamizal National Memorial Trailhead (Existing Parking Lot)

The existing parking area in the park provides ready access to the trails within Chamizal National Memorial, which in turn connect to the proposed loop route along San Marcial Street. Information kiosks with trail signage and border crossing information could be added to facilitate the International Loop.

Bus Stops

Several bus stops are located at regular intervals along Oregon Street, San Antonio Avenue, and Magoffin Avenue. Although no stops are located along the Franklin Canal, there are two stops near the east end of this trail section's reach—one near the proposed San Antonio Avenue/Stevens Street trailhead, and one along the trail detour up to Alameda Avenue. Other bus stops are located throughout Downtown within easy walking distance of the various loop trail alignments.

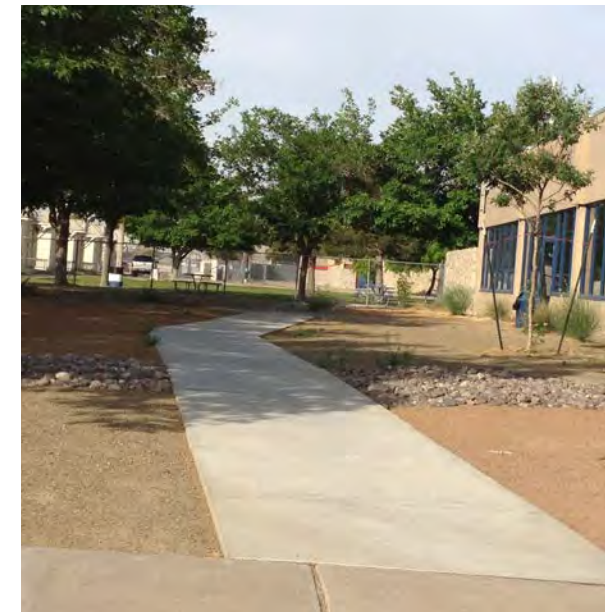
Bert Williams Downtown Santa Fe Transfer Center

Located on Santa Fe Street between 3rd and 4th avenues, this public transportation hub serves Downtown and is just a block from the proposed Downtown/Chihuahueta Walking Loop.

NEARBY SCHOOLS AND INSTITUTIONS

Schools in walking distance include:

- Texas Tech College of Architecture
- La Fe Preparatory School
- Aoy Elementary School
- Hart Elementary School
- Vista Hills Elementary School
- San Jacinto Adult Learning Center
- Guillen Middle School
- Douglass Elementary School
- Beall Elementary School
- Bowie High School
- Zavala Elementary School
- Lydia Patterson Institute



Bowie High School



TYOLOGIES – DOWNTOWN

Two-way Street with Designated Bike Lanes and Parallel Parking: Conventional bike lanes provide a striped lane for bicycle traffic while maintaining existing vehicle movement and parking. For a higher level of safety, these lanes can be widened and/or a buffer can be added to provide additional distance or physical barriers between bicycles and moving vehicles. Buffers can be in the form of flexible bollards or raised curbs; however, these buffers would not be possible in conjunction with on-street parking, such as along Prospect Street. Pedestrian access is accommodated through the use of adjacent sidewalks, which may require some improvements to meet ADA accessibility requirements.

Two-way Protected Cycle Track: A two-way cycle track is a physically separated on-street path that allows bicycle movement in both directions along one side of a road. Two-way cycle tracks share some of the same design characteristics as one-way bike lanes, but may require additional considerations at driveway and side street crossings, where drivers turning onto the street may only be looking in one direction. As with bike lanes, sidewalks typically provide pedestrian access along streets with cycle tracks.

Shared-Use Path on Urban Canal: As with other shared-use paths, a ten- to twelve-foot wide paved trail can accommodate multiple uses comfortably. Since the ditch banks are also used by maintenance vehicles, coordination with the maintaining agency would be required to determine whether maintenance can be done from one side of the ditch, reserving the other side for trail use, or whether the paved trail surface will also need to be able to withstand maintenance vehicular traffic. In either case, the unpaved ditch bank opposite the trail can provide an alternative for runners or other trail users who prefer a softer surface.

Typical cross sections indicated by letters on previous maps.

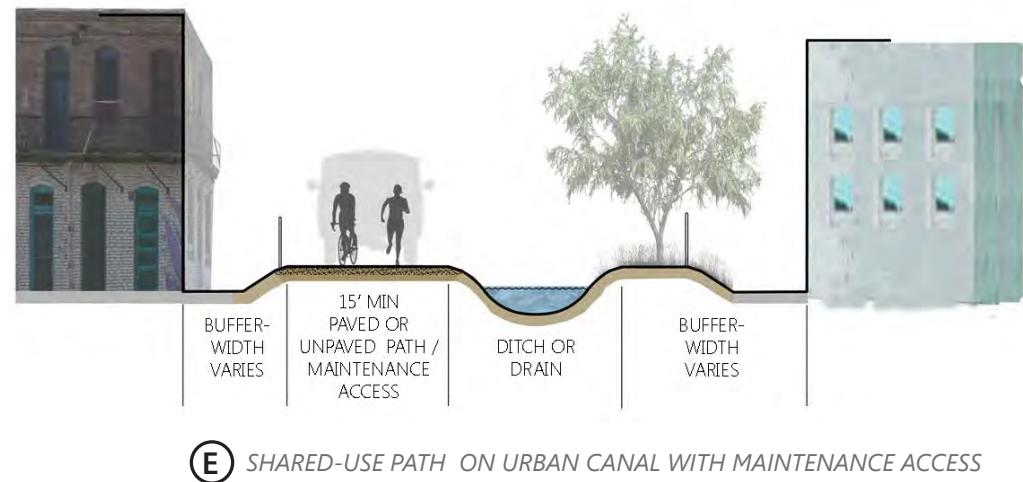
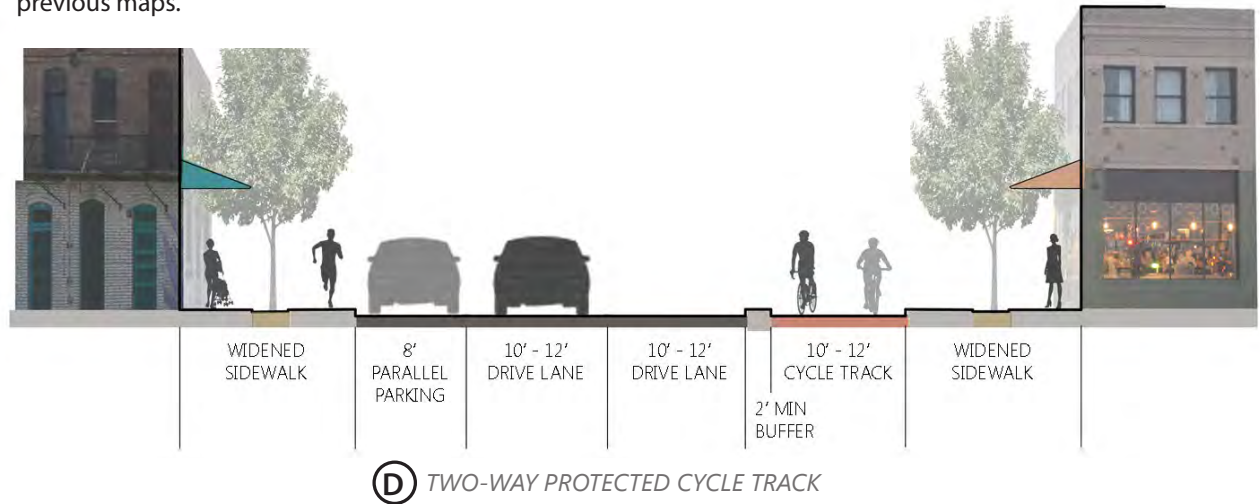


FIGURE 16. TYPICAL CROSS SECTIONS D & E – DOWNTOWN



TRAIL ENHANCEMENTS



Crosswalks and pedestrian paths offer opportunities for local artistic expression.



Colorful overlays call attention to bike lanes.



A Downtown Walking Loop will provide a taste of El Paso's international flavor.



Murals can add to the local character.



There will be opportunities for parklets along the trail.



ZOO/PLAYA DRAIN DISTRICT

CHARACTER

Bounded by the US Route 54 (Patriot Highway)/ Interstate 110 interchange in the northwest and Zaragoza Road in the southeast, the Zoo/Playa Drain District is characterized by the transition from the urban context around the El Paso Zoo and the developing Medical Campus of the Americas to a semi-rural, industrial setting where canals still connect the older neighborhoods east of Downtown. The PDN Trail will run almost entirely along the drains and canals, with a few on-street connections connecting through neighborhoods and along parks where no canals exist.



Numerous irrigation and drainage canals offer many trail connection options.



The newly constructed Playa Drain Trail will serve single- and multi-family residential areas.





Ascarate Park is a centerpiece of this district.



Pueblo Viejo Linear Park offers ample trailhead parking and an existing path that follows the route of a former irrigation ditch.



An existing section of a shared-use path along Playa Drain at Shawver Park provides off-street bicycle facilities.





KEY MAP

POINTS OF INTEREST

- El Paso Zoo
- Ascarate Park
- Medical Campus of the Americas

LEGEND

- PDN Spine Alignment (Proposed)
- PDN Spine Alignment
- PDN Loop Alignment
- PDN Spur Trail
- Historic Camino Real
- Transportation Transfer Center
- Point of Interest
- School
- Trail Head
- El Paso City Limits
- Parks
- Rio Grande



MAP 24. ZOO/PLAYA DRAIN DISTRICT OVERVIEW

POINTS OF INTEREST



EL PASO ZOO



This 35-acre zoo is home to over 200 species of animals, from indigenous to exotic. Together with adjacent Washington Park, the zoo provides educational and recreational opportunities for local residents and visitors.



MEDICAL CAMPUS OF THE AMERICAS



The MCA campus is being developed by the non-profit Medical Center of the Americas Foundation as a “world-class biomedical campus” near the Interstate 10/110 interchange in El Paso. Encompassing several existing medical institutions, the foundation is working toward fulfilling a master plan to develop a cohesive 440-acre campus that will draw on the resources of the many nearby medical research and higher education institutions, including UTEP, Texas Tech University Health Sciences, New Mexico State University, and several universities in Ciudad Juárez.



J.P. SHAWVER PARK



This 30-acre park includes the William W. Cowan Aquatic Center, in addition to tennis and basketball courts, soccer and baseball fields, a covered playground, and a group picnic shelter. Situated between the Playa Drain and Loop 375 Expressway (Border Highway), it is across the street from one of the first built segments of the Playa Drain Trail alongside Independence Drive.



ASCARATE PARK AND LAKE



Totaling more than 400 acres, Ascarate Park features an 18-hole golf course and a 9-hole executive course, a 48-acre surface lake and lakeside boardwalk, fully-equipped aquatic center, playgrounds, and picnic facilities.



See Map 24 for overall region alignments and legend.



MAP 25. ZOO/PLAYA DRAIN DISTRICT KEY MAP 1

TRAIL CONNECTIVITY

PRIMARY ALIGNMENTS

3.0 **Franklin Canal – US Route 54 to Ascarate Park (Proposed Shared-Use Trail)**

Almost as soon as the Franklin Canal re-emerges from under US Route 54, it turns south and cuts through the middle of the El Paso Zoo. This provides a prime opportunity to connect to the popular destination; however, access control will need to be addressed at the two existing bridges that cross the canal, linking the two halves of the zoo. Once through the zoo, the alignment continues along the Franklin Canal as it runs parallel to Paisano Drive past Jefferson High School to Alameda Avenue. At this point, two options exist for continuing along the canal:

- **Option 1:** Cross Alameda Avenue via sidewalks along a newly constructed roundabout and continue along the canal behind several local businesses. This option would require an unprotected at-grade crossing of Paisano Drive (or would require a short detour up to the signalized Paisano Drive/El Paso Drive intersection).
- **Option 2:** Continue east along Alameda Avenue/Paisano Drive to a second roundabout (where Paisano Drive splits off to the north) and then follow Paisano Drive back to the canal. Although the configuration may be somewhat confusing, there are ten-foot wide sidewalks that could serve as the trail surface through both roundabouts, as well as “HAWK” signalized crosswalks for the actual road crossings.

After crossing Alameda Avenue and Paisano Drive, the trail follows the canal along El Paso Drive until El Paso rejoins Alameda Avenue near Delta Drive. The trail would cross under Delta Drive and continue another 800 feet to the Valley Gate

Lateral, where it would turn southwest toward Ascarate Park. The Valley Gate Lateral connection to the Playa Drain would require an at-grade, mid-block crossing of Alameda Avenue, which could be improved by adding HAWK signals like those at the two roundabouts to the west.

3.1 **Playa Drain Trail – Ascarate Park to Riverside High School (Funded Shared-Use Trail, Under Construction)**

Beginning in 2016, the Paso del Norte Health Foundation became involved in the development of a plan and design for a trail along the Playa Drain—a former underutilized irrigation and storm drainage channel that travels through the Mission Valley area of El Paso. The total length of the proposed trail alignment at this time is 8.3 miles, with the first phase consisting of a 3.4-mile segment that begins at Ascarate Park and travels south to Riverside Park/Riverside High School. Funding for construction of Phase 1 of the trail is through a partnership between the Paso del Norte Health Foundation, the City of El Paso, and the El Paso Water Utility. As designed, this segment of trail will end at Vocational Drive, along the north edge of the high school, where it will connect east to Alameda Avenue via widened sidewalks.

3.2 **Playa Drain Trail – Alameda Avenue Connection (Proposed On-Street/Shared-Use Trail)**

Since the Playa Drain no longer continues across the Riverside High School property, options for continuing beyond the school are limited. The in-progress Phase 1 segment described above ends at Vocational Drive and Alameda Avenue, and the Playa Drain resumes a short distance to the south, thus the most direct connection is to follow Alameda Avenue two blocks southeast where the Playa Lateral Canal crosses under the roadway. Alameda Avenue does not currently have bike

lanes, but crossing the busy roadway twice to take advantage of bike lanes (for westbound trail users) would not be recommended in any case; therefore a sidewalk connection would be the preferred solution. Existing sidewalks through this 1700-foot reach vary in width and are often supplanted by wide driveways into adjacent businesses, so sidewalk improvements such as widening and curb ramp replacement would be highly recommended. For trail users who are not comfortable traveling along a major arterial roadway, an alternative route along Mimosa Avenue and Knights Drive is described in the Loop Alignments section that follows.

3.3 **Playa Drain Trail – Alameda Avenue to Yarbrough Drive (Proposed Shared-Use Trail)**

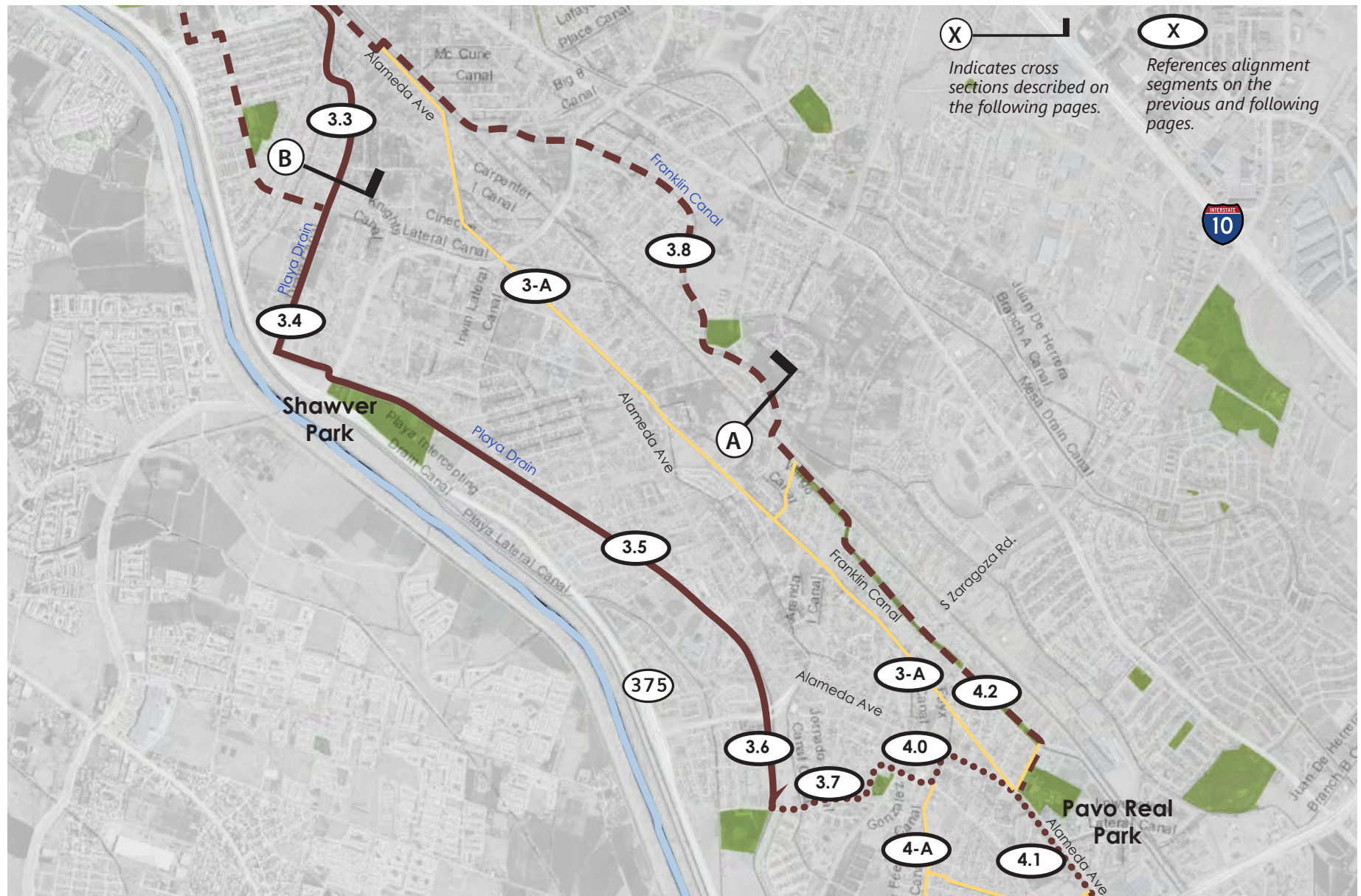
From Alameda Avenue, the primary alignment follows the Playa Lateral Canal for a short distance before jogging over along a small ditch that runs along the Cesar Chavez Academy property and rejoining the Playa Drain. From there the trail would follow the Playa Drain south almost to the Border Highway, where it again turns west and crosses South Yarbrough Drive via an at-grade crossing at Independence Drive.

3.4 **Playa Drain Trail – Yarbrough Drive to Whittier Drive (Existing Shared-Use Trail)**

In 2016, the City of El Paso constructed nearly a mile of paved trail along the northeast side of Independence Drive, in keeping with the Playa Drain Trail Master Plan that was concurrently under development. The trail provides local connections to J. P. Shawver Park across Independence Drive; however, the paved trail stops just short of the roadways at either end, so ramp construction would be needed to facilitate eventual incorporation into the PDN Trail system.



See Map 24 for overall region alignments and legend.



MAP 26. ZOO/PLAYA DRAIN DISTRICT KEY MAP 2

3.5***Playa Drain Trail – Whittier Drive to Ysleta High School (Proposed Shared-Use Trail)***

It should be relatively simple to extend the trail another half-mile from Whittier Drive to Ysleta High School, just east of South Davis Drive, following the same design parameters as the constructed segments to the west. However, the Playa Drain goes underground beneath the school property—a corridor that consists of driveways and parking lots that serve the high school sports fields and separate it from the adjacent Ysleta Middle School grounds. It may be possible to work with the school to develop a trail facility that continues across the school grounds; otherwise, on-street connections via Independence Drive to the west, or Alameda Avenue, to the east, would be the only alternatives.

3.6***Playa Drain Trail – Ysleta High School to Capistrano Park (Funded Shared-Use Trail, Under Construction)***

At the same time the Paso del Norte Health Foundation Phase 1 construction got underway, construction had already begun on another segment of paved trail extending from the southeast side of Ysleta High School approximately 0.8 miles east and south to Padilla Drive, opposite Capistrano Elementary School and Capistrano Park. This segment was funded by a Community Development Block Grant. Construction should be completed by the time the PDN Trail Master Plan document is released.

3.7***Padilla Drive to Socorro Road Connector (Proposed On-Street)***

Since further extension of a trail along the Playa Drain would be of limited use (and would dead-end at the 375 Loop Expressway/South Americas Avenue highway), an on-street connection between the Playa Drain and the Franklin Canal is proposed along Padilla Drive, Lone Star Place (passing Ysleta Park), and Socorro Road, continuing into the Mission Valley District (described in the following section). Bicycles would be accommodated along Padilla Drive with the addition of shared lane (“sharrow”) markings, while Lone Star Place and Socorro Road have adequate width to add striped bike lanes.

LOOP ALIGNMENTS**3.8*****Juan de Herrera Lateral Loop (Existing/Proposed Shared-Use Path with On-Street Connections)***

Where the primary alignment leaves the Franklin Canal near Ascarate Park, this loop would continue southeast along the Franklin Canal for another 2.7 miles to Rosedale Street. At Rosedale Street, the route would cross the railroad tracks and join the Juan de Herrera Main Lateral canal, looping past Marian Manor Elementary School and the adjacent park of the same name, to New Haven Drive. At New Haven Drive the route would become an on-street facility (although there may be sufficient right-of-way to add a side path along the east side of the road) which connects to Roseway Drive after crossing the Union Pacific tracks. Once across the tracks, the trail would turn southeast for two blocks to Pueblo Viejo Linear Park. A preferred alignment would add a shared-use side path between Roseway Drive and the railroad tracks, but if the road right-of-way is insufficient, the alternative would be an on-street connection. At North Davis Drive, the trail would shift into the park and follow an existing cinder/stone dust path that follows

the former route of the Middle Drain canal past a number of basketball courts, playgrounds, and picnic tables. The linear park continues past Zaragoza Road into the Mission Valley District (becomes 4.2, which is described in the Mission Valley District section).

3.9***Riverside High School Loop (Proposed On-Street/Shared-Use Trail)***

For trail users who may not be comfortable traveling even a short distance along busy Alameda Avenue, an alternative path around Riverside High School might be more to their liking. From the corner of Vocational Drive and Mimosa Avenue, where the primary alignment turns east to Alameda Avenue, this loop would instead travel south along Mimosa Avenue, between the high school and middle school properties, then turn east on Midway Drive, and south again on Knights Drive, past Thomas Manor Park and Elementary School and then meet the primary alignment along the Playa Drain again. Mimosa Avenue does not currently have bike lanes, but appears wide enough to add them without sacrificing any vehicle travel lane widths. Both Midway and Knights drives already are striped for bike lanes. Midway Drive offers buffered bike lanes, while Knights Drive has bike lanes with adjacent parallel parking. All three of the roadways have reasonably good sidewalks to serve pedestrians.

SPUR TRAILS**3-A*****Franklin Canal Spur***

This proposed trail spur would follow along the Franklin Canal from Rosedale Street south to Pavo Real Park. It would connect with the primary alignment at three points: Rosedale Street, Davis Drive, and Presa Place.



TRAILHEADS AND PUBLIC TRANSIT

Washington Park Trailhead (Existing Parking Lot)

Just north of the Franklin Canal as it turns south to pass through the zoo there is an underutilized parking lot in the southwest corner of Washington Park that could become a trailhead. A gated service drive crosses the canal to provide vehicular access into the zoo. It would need to be modified, along with the other zoo access control measures to enable pedestrian access.

New Park Trailheads (Newly Constructed)

Three trailheads have been built at area parks. The trailhead at Ascarate Park, a former baseball field, is situated very close to the beginning of the newly constructed first phase of Playa Drain Trail. Capistrano Park has a trailhead with parking across Padilla Drive from the Playa Drain Trail alignment. There is also a trailhead to the Playa Drain Trail at Riverside Park.

An existing, lightly used Mimosa Pond Trailhead (Proposed)

An empty lot just to the north of the municipal well pump station on Mimosa Avenue, north of Vocational Drive, appears to be well suited for a potential trailhead. The Playa Drain Trail itself will pass just north of the pump station within the lot, which is currently surfaced with recycled asphalt.

An existing small Hidden Valley Park Trailhead (Existing Parking Lot)

An existing small parking area in the southeast corner of Hidden Valley Park is located immediately adjacent to the Playa Drain Trail Phase

1 segment that is currently under construction. Only some signage and a few feet of sidewalk along Polo Inn Road would be required to turn this into an actual trailhead.

Shawver Park Trailhead (Existing Parking Lot)

As with the previous two proposed trailheads, an existing parking lot in J. P. Shawver Park next to the William W. Cowan Aquatic Center could serve as trailhead parking across Independence Drive from the existing segment of trail. With the addition of wayfinding signage, it could lead trail users to crosswalks at nearby Yarbrough Drive.

Pueblo Viejo Park Trailheads (Existing Parking Lots)

Several small parking lots within Pueblo Viejo Linear Park could serve as trailheads for the Juan de Herrera Lateral Loop Trail.

Bus Stops

Bus stops are located at regular intervals along Paisano Drive west of the Alameda roundabouts, which are easily accessed from the Franklin Canal alignment. East of the roundabouts, where the Franklin Canal diverges from the roadway, the Alameda BRT and bus stops are generally only accessible along Alameda Avenue at major road crossings. Along the Playa Drain alignment, this trend continues, with bus stops generally located within one to two blocks of each road crossing.

Mission Valley Transfer Center

This public transportation hub is located just two blocks from the primary alignment on-street route, where Socorro Road crosses Zaragoza Road.

NEARBY SCHOOLS AND INSTITUTIONS

Schools in walking distance include:

- Burleson Elementary School
- Henderson Middle School
- Cooley Elementary School
- Ascarate Elementary School
- Cedar Grove Elementary School
- Tejas School of Choice
- Riverside High School
- Riverside Middle School
- Cesar Chavez Alternative School
- Thomas Manor Elementary School
- Cadwallader Elementary School
- Rio Bravo Middle School
- Alicia R. Chacon Elementary School
- Marian Manor Elementary School
- Plato Academy Alternative School
- Ysleta High School
- Ysleta Middle School
- Ysleta Elementary School
- Ysleta Community Learning Center
- Center for Employment Training
- Capistrano Elementary School



Capistrano Elementary School

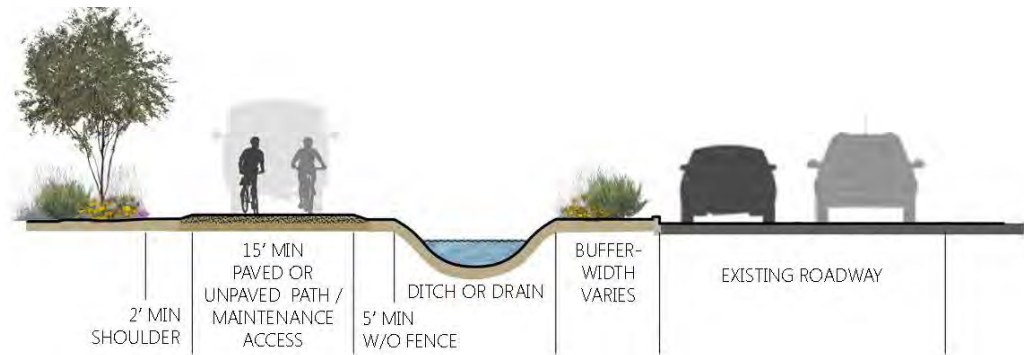


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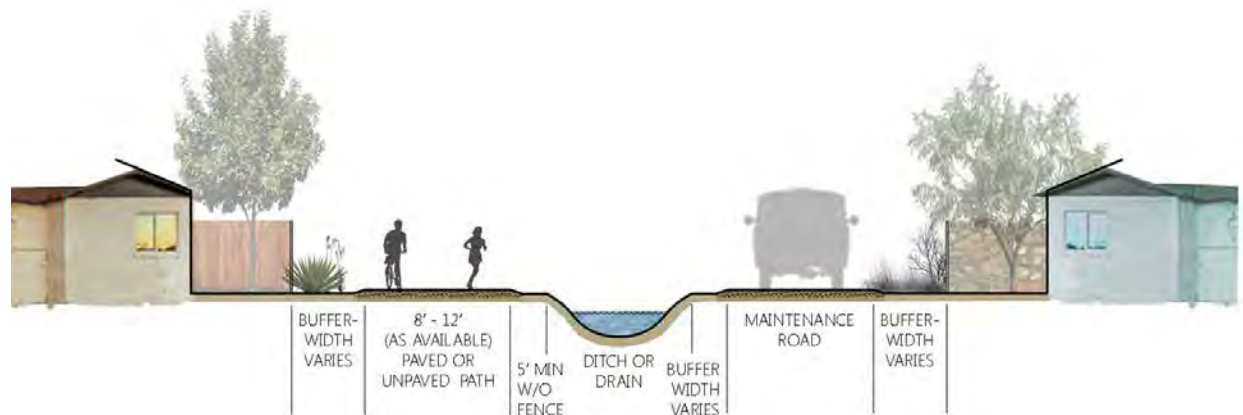
Shared-Use Path along Canal: A ten- to twelve-foot wide paved trail can accommodate multiple uses comfortably. Since the ditch banks are also used by maintenance vehicles, coordination with the maintaining agency would be required to determine whether maintenance can be done from one side of the ditch, reserving the other side for trail use, or whether the paved trail surface will also need to be able to withstand maintenance vehicular traffic. In either case, the unpaved ditch bank opposite the trail can provide an alternative for runners or other trail users who prefer a softer surface.

On-Street Bike Lane or Shared Route with Sidewalks: In several locations, existing conditions dictate that on-street facilities are utilized, at least in the short term. At a minimum, such routes should be marked for shared lanes intended to accommodate both cars and bicycles. Striped lanes would be preferable, and already exist in several locations. In others, it may be possible to restripe the roadway to include bike lanes, or, with some utility relocations and minor right-of-way adjustments, to convert sidewalks or wide shoulders to shared-use side paths on at least one side of the road, changing those segments to off-street facilities. If bike lanes or sharrows are used, sidewalks should be evaluated for ADA accessibility, and improved as necessary.

Typical cross sections indicated by letters on previous maps.



A SHARED-USE PATH ALONG CANAL AT ROADWAYS



B SHARED-USE PATH ALONG SUBURBAN CANALS WITH SEPARATE MAINTENANCE ACCESS

FIGURE 17. TYPICAL CROSS SECTIONS A & B – ZOO/PLAYA DRAIN



TRAIL ENHANCEMENTS



Scottsdale, Arizona has featured its canals with development and promenades fronting them.

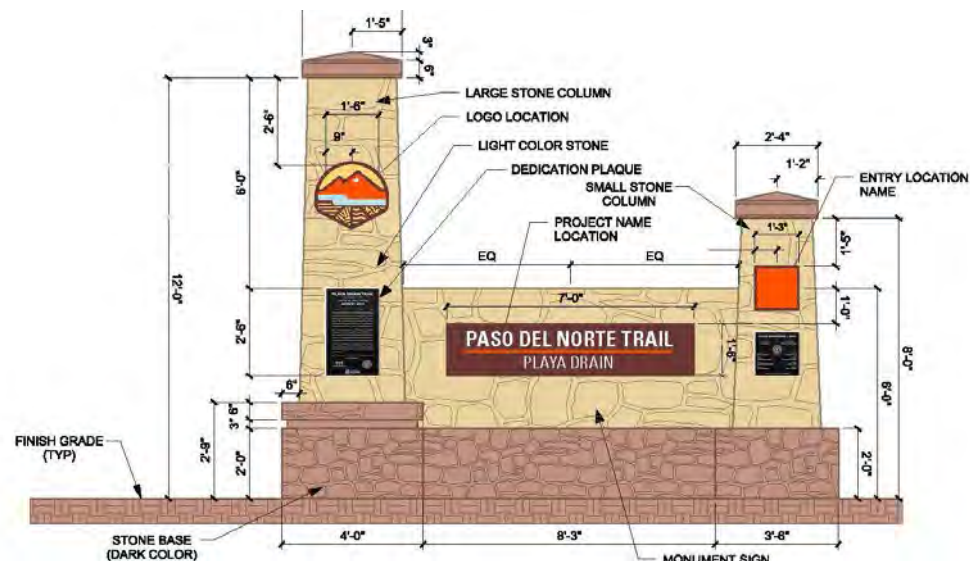


Trail connection through El Paso Zoo will require access control in form of grade-separated crossings or new manned entry gates (above). The canals in this area could become waterfront promenades like those in Scottsdale, Arizona (left).



There are opportunities for murals on underpasses.





Public art can mark the trail.

Consistent wayfinding and entry point signage will help people recognize and use the trail.



MISSION VALLEY DISTRICT

CHARACTER

Considered to be the oldest part of the El Paso urban area, the Mission Valley District is characterized primarily by a semi-rural context with scattered neighborhoods centered around the three historic missions at Ysleta, Socorro, and San Elizario. The PDN Trail will run primarily along drains and canals, with spur trails connecting to the three missions and the many neighborhoods, schools, and parks. It also will connect several small towns to each other. For the purposes of this plan, the Mission Valley District extends roughly from Zaragoza Road to San Elizario Road (east of the Franklin Canal) and Chicken Ranch Road (west of the Franklin Canal).



San Elizario Mission Chapel





Ditches and canals provide connections to and through communities in the Mission Valley District.



A street corner shows the local character of the Mission Valley.



Mission-style architecture is evident in both older (above) and newer (right) buildings in the Mission Valley.





KEY MAP

POINTS OF INTEREST

- Historic Missions
- Rio Bosque Park
- Capistrano Park

LEGEND

- PDN Spine Alignment (Existing or Funded)
- PDN Spine Alignment (Proposed)
- PDN Loop Alignment
- PDN Spur Trail
- Historic Camino Real
- Transportation Transfer Center
- Point of Interest
- School
- Trail Head
- El Paso City Limits
- Parks
- Rio Grande



MAP 27. MISSION VALLEY DISTRICT OVERVIEW

POINTS OF INTEREST

HISTORIC EL PASO MISSION TRAIL



Located in El Paso's Mission Valley, this trail is rich in history dating back more than 300 years. Largely supplanted by paved roads today, the trail connects the three adobe churches (missions) established by Spaniards who came north from Mexico to share their faith with the indigenous communities in the area. The Ysleta Mission, established in 1682, is the cornerstone of the Ysleta del Sur Indian Pueblo. Two miles southeast of Ysleta lies the Socorro Mission, which was established in 1691. Flooding in the 1830, which also left these communities on an island in the middle of the riverbed, destroyed both of the original church buildings, so Socorro's current mission structure, with its six-foot-thick adobe walls and massive wood roof supports (vigas), was rebuilt in 1843. While only nine years separates the settlements of Ysleta and Socorro, San Elizario was established much later, in 1789, five miles southeast of Socorro as a Spanish presidio (military garrison) originally named "San Elceario" after a French patron saint. The current San Elizario Chapel, rebuilt in 1877, is a notable example of late adobe church architecture in West Texas and New Mexico.

PAVO REAL PARK AND RECREATION CENTER



Situated along Alameda Avenue across from the Franklin Canal one-half mile north of Loop 375 Expressway, the 19-acre Pavo Real Park includes a variety of facilities offering many activities. In addition to sports fields, basketball courts, and a covered playground, the site also is home to the Ysleta Library, Farther Martinez Senior Center, an outdoor pool, with spray park options for both people and their pets, and an indoor recreation center. The park also abuts both Camino Real Middle School and Presa Elementary School.

RIO BOSQUE PARK



The 372-acre city park is managed by the UTEP Center for Environmental Resource Management (CERM) to preserve and enhance a tract of wetlands and riverside forest (bosque) that serves as a remnant of the ecosystems that were once prevalent along the Rio Grande through the border region. Home to over 200 species of birds, the park also offers excellent displays of spring colors when its wildflower blooms hit their peak.



See Map 27 for overall region alignments and legend.



MAP 28. MISSION VALLEY DISTRICT KEY MAP 1

TRAIL CONNECTIVITY

PRIMARY ALIGNMENTS

4.0

Socorro Road to Alameda Avenue Connector (Proposed On-Street/Shared-Use Path)

Continuing this on-street link between the Playa Drain and the Franklin Canal which began in the Zoo/Playa Drain District, the route would cross Zaragoza Road on Socorro Road and turn north along the Southside Feeder Lateral ditch, where a short shared-use trail segment is recommended, passing the Ysleta Pueblo del Sur between Socorro and Alameda roads. At Alameda Avenue, the route would turn east, continuing for several blocks to Presa Place, where Alameda Avenue crosses the Franklin Canal. As noted earlier, Socorro Road has adequate sidewalks and is wide enough to be for striped bike lanes. Alameda Avenue has intermittent curbs and only short stretches of sidewalk in this area, so improvements are recommended for both bicycle and pedestrian use.

4.1

Franklin Canal – Pavo Real Park to San Elizario Road (Proposed Shared-Use Path)

At Presa Place and the Pavo Real Park, the alignment rejoins the Franklin Canal, which runs along the west side of Alameda Avenue, for approximately 5.6 miles. At that point the canal alignment diverges from the roadway and travels south another 2.8 miles to San Elizario Road. This alignment continues into the Rio Grande Agricultural District, and will be further described in the next section. Ditch maintenance roads are fairly wide on both sides of the canal, so local preference (and concurrence of the ditch authority) should determine which side the trail is located. The only significant constraint is the point at which

the Franklin Canal diverges from Alameda Avenue, just south of Ernesto Serna Elementary School. The canal merges with the Dolan Drain on the west side, so a new bridge would be required over the Dolan Drain, if the trail were to continue on the west side of the canal beyond that point. There is an existing maintenance bridge over the Franklin Canal, which could be used to take the trail from the west to east side, if a west side alignment is desirable to the north.

LOOP ALIGNMENTS

4.2

Juan de Herrera Lateral Loop (Existing/Proposed Shared-Use Path with On-Street Connections)

This loop alignment begins near Ascarate Park within the Zoo/Playa Drain District (referenced as 3.8) and follows the Franklin Canal, Juan de Herrera Main Lateral, and Pueblo Viejo Linear Park to Zaragoza Road, where it crosses into the Mission Valley District. The existing path through Pueblo Viejo Park ends at Presa Place, at which point the route would head southwest via an on-street connection, past the Presa Elementary School and the Pavo Real Recreation Center, to rejoin the primary alignment along the Franklin Canal at Alameda Avenue.

SPUR TRAILS

4-A

Mount Carmel Cemetery Spur

This proposed trail loop would continue south from Capistrano Park along the Playa Drain, then along the Border Highway/Americas Avenue, and tie back into the primary trail through the cemetery.

4-B

Socorro Spur (Proposed Shared-Use Trails)

Members of the Tigua tribal community have proposed development of a spur trail network that loops west from the Franklin Canal, providing connection opportunities into the community of Socorro, with additional spurs to Rio Bosque Park, and south to the San Elizario Mission. The primary loop would follow the Socorro Lateral Canal from its turnout from the Franklin Canal approximately a half-mile southeast of Loop 375 Expressway where it would rejoin the Franklin Canal at Place Road, 2.5 miles farther south. This loop passes less than a quarter-mile from the Socorro Mission, providing relatively easy access on-street along Socorro Drive. The other proposed connections from the Socorro Lateral to Rio Bosque Park would follow existing roads, and/or travel cross country, as there are no existing facilities that would enable such a connection.

4-C

Socorro – San Elizario Connector (Proposed Shared-Use Trail)

A proposed connection between the Rio Bosque Park at Socorro and the community of San Elizario would follow the San Elizario Lateral from the southeast corner of Rio Bosque along the west side of Socorro Road and ending at Glorietta Road in San Elizario, very close to the mission there. An intermediate connection between the San Elizario Lateral and the primary alignment along the Franklin Canal, via the Franklin Feeder Canal, would serve to create shorter loop options from each community.



See Map 27 for overall region alignments and legend.



MAP 29. MISSION VALLEY DISTRICT KEY MAP 2

4-D

Tigua Spur (Proposed Shared-Use Trail)

A proposed spur would link the proposed trail along Rio Bosque (4-C) and the Tigua Skate Plaza to the primary alignment via the Franklin Feeder Canal.

4-E

San Elizario Spur (Proposed Shared-Use Trail)

The City of San Elizario has been coordinating with the El Paso County Water Improvement District No. 1 to develop a loop trail around their historic city center utilizing the District's ditches. An additional connection is proposed to the primary alignment on the Franklin Canal via an on-street or sidepath facility along San Elizario Road.

TRAILHEADS AND PUBLIC TRANSIT

San Elizario/Franklin Canal Trailheads (Proposed)

Two trailheads could be located at the upper and lower connections between the San Elizario Lateral and Franklin Canal. At the upstream connection, a triangle of vacant land just south of the ditch turnout on the west side of the Franklin Canal would require a bridge across the Franklin to provide access from Alameda Avenue. At the south end of the San Elizario Lateral Loop, a similar triangular tract sits at the intersection of Place Road and Melinda Street. Ownership and right-of-way would need to be verified for both tracts.

Bus Stops

Periodic County Transit bus stops are located along Alameda Avenue for the full length that the Franklin Canal runs alongside it, as well as within the communities of Socorro and San Elizario.

NEARBY SCHOOLS AND INSTITUTIONS

Schools in walking distance include:

- South Loop Elementary School
- Presa Elementary School
- Camino Real Middle School
- Western Technical Collage – East
- Socorro High School
- Salvador H. Sanchez Middle School
- Hueco Elementary School
- Escontrias Elementary School
- Keys Academy
- Rio Vista Education Center
- Socorro Middle School
- Ernesto Serna Elementary School
- Clint Middle School
- William David Surrat Elementary School



South Loop Elementary School

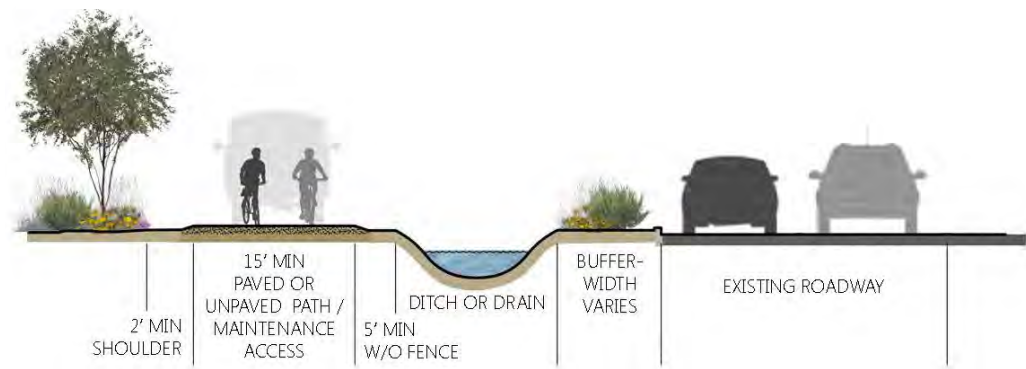


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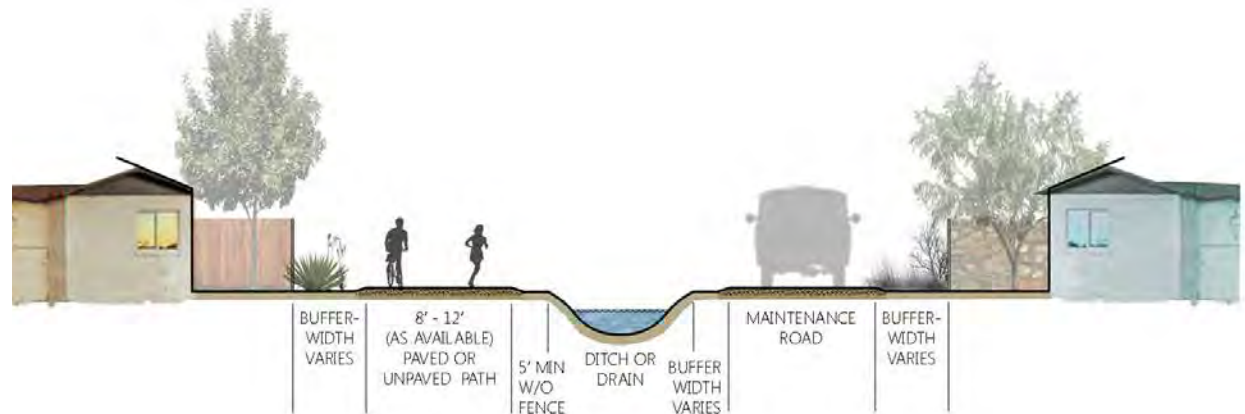
Shared-Use Path along Canal: A ten- to twelve-foot wide trail can accommodate multiple uses comfortably. Paved trails are generally preferred for shared-use facilities, but in more rural areas paved trails may not be cost effective, or necessary. Many long-distance trails (e.g. rail trails) have successfully used materials such as chat, screenings, decomposed granite, compacted crusher fines, brick or rock dust, or stabilized natural ground to provide a relatively stable and weather-resistant surface. Since the ditch banks are also used by maintenance vehicles, such materials may be able to support trail traffic and withstand heavier maintenance vehicular traffic without damage to the trail surface.

On-Street Bike Lanes or Shared Routes with Sidewalks: In several locations, existing conditions require on-street facilities for at least the short term. At a minimum, such routes should be marked for shared lanes intended to accommodate both cars and bicycles. Striped lanes would be preferable and are recommended wherever possible. If bike lanes or sharrows are used, sidewalks should be evaluated for ADA accessibility, and improved as necessary.

Typical cross sections indicated by letters on previous maps.



A SHARED-USE PATH ALONG CANAL AT ROADWAYS



B SHARED-USE PATH ALONG SUBURBAN CANALS WITH SEPARATE MAINTENANCE ACCESS

FIGURE 18. TYPICAL CROSS SECTIONS A & B – MISSION VALLEY



TRAIL ENHANCEMENTS



Regionally influenced site furnishings add character.



An example of a trailside seating area.



Wayfinding and informational signage can be formal or informal.



RIO GRANDE AGRICULTURAL DISTRICT

CHARACTER

As its name implies, the identity of the Rio Grande Agricultural District is derived from its agricultural heritage. Just south of San Elizario, scattered neighborhoods give way to uninterrupted vistas of farm fields and orchards. This picturesque agrarian landscape will make for an inviting trail experience as it passes through groves of pecan trees and past fields of cotton, hay, and alfalfa. With climate and fertility levels that have led some to compare the area with Egypt's Nile Valley, El Paso's Rio Grande Agricultural Valley offers the allure of potential co-development of an agritourism industry alongside its agricultural mainstays. As with the Mission Valley District, the PDN Trail will run primarily along the drains and canals connecting several small towns and terminating at County Line Lakes in the southeast corner of El Paso County.



Agricultural irrigation ditches and canals provide abundant trail connection options.





Source: Google Maps



Fruit and nut tree orchards are a large component of the valley landscape.

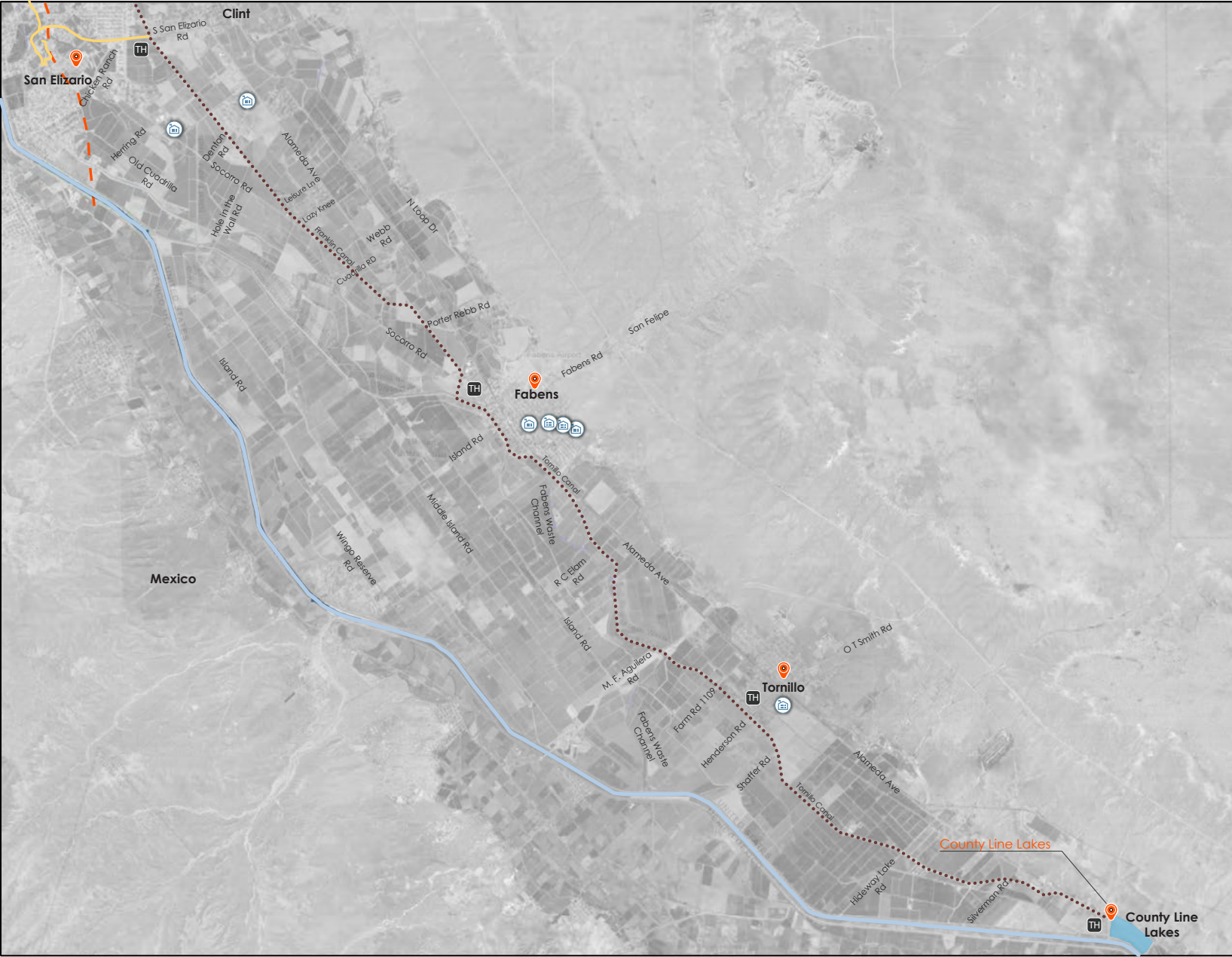


Agricultural fields flank the trail's alignment.



Some segments of the trail will be closely connected with the roadway.





KEY MAP

POINTS OF INTEREST

- County Line Lakes
- Agricultural Towns
Clint, Fabens, Tornillo

LEGEND

- PDN Spine Alignment
(Existing or Funded)
- PDN Spine Alignment
(Proposed)
- PDN Spur Trail
- Historic Camino Real
- Transportation Transfer Center
- Point of Interest
- School
- Trail Head (Proposed)
- El Paso City Limits
- Parks
- Rio Grande

MAP 30. RIO GRANDE AGRICULTURAL DISTRICT OVERVIEW

POINTS OF INTEREST

SAN ELIZARIO ISLAND

More of a curious historical fact than current geographic point of interest, maps still identify San Elizario Island (right) as the area of agricultural fields west of the communities of Fabens and Tornillo. This moniker dates from the time before the US–Mexico border was established in 1848, when the Rio Grande used to flow along the eastern edge of this floodplain, and the three mission villages upriver were actually situated along the southern banks of the river. However, flooding and natural meanders of the river channel created a second channel to the south of the three missions, leaving them on an island for a number of years. Eventually the northern channel stopped flowing, leaving the communities on the north side of the new river alignment, and effectively bringing them into the United States when the boundary was formalized. The only apparent reminder of this historic geographic shift is a series of island-themed roads that zigzag from Fabens down to the Tornillo border crossing: Island Road, Middle Island Road, Island Guadalupe Road, and Lower Island Road.



FABENS



Aside from the nearly endless agricultural scenery, the primary noteworthy features are the two towns that support the surrounding agriculture. The first and largest of these is Fabens, located approximately 15 miles southeast of the Loop 375 highway in El Paso. With a population of about 8,000, the town could provide a stopping point for trail users, offering several stores and restaurants for refreshments.

COUNTY LINE LAKES



(Left) This 100-acre reservoir located six miles southeast of Tornillo is comprised of a single body of water that is somewhat confusingly named "County Line Lakes." Topography maps indicate that at one time it may have been bisected by the Hudspeth Feeder Canal that appears to have been re-routed along its western edge. Wedged between Alameda Avenue and the international border, the lake itself reportedly is devoid of fish and offers no recreational opportunities, so water storage appears to be its only function.

(Right) Less than three miles southwest of Tornillo, a new border crossing was completed in 2014—although it does not appear to be open for business yet.

TORNILLO/MARCELINO SERNA PORT OF ENTRY



See Map 30 for overall region alignments and legend.



MAP 31. RIO GRANDE AGRICULTURAL DISTRICT KEY MAP 1



TRAIL CONNECTIVITY

PRIMARY ALIGNMENTS

5.0 Franklin/Riverside/Tornillo Canals (Proposed Shared-Use Trail)

Continuing south approximately seven miles from the Mission Valley District along the Franklin Canal, the trail turns onto the Riverside Canal at the town of Fabens. South of Fabens, the trail merges onto the Tornillo Canal where it continues until terminating at the County Line Lakes.

LOOP ALIGNMENTS

No loop alignments have been identified within this district; however, the area is laced with ditches and canals that interconnect, making informal loops of all sizes possible for trail users who wish to explore the area further.

TRAILHEADS AND PUBLIC TRANSIT

Fabens Trailhead (Proposed)

A vacant, one-acre tract of land along Alameda Avenue between the Mesa Drain and the Salitral Lateral, just north of 3rd Street, could be developed as a trailhead to provide access from Fabens to the PDN Trail. This would require approval of the ditch authority, and wayfinding signage would be important to help trail users negotiate the maze of canals that crisscross the surrounding area.

Tornillo – Aguilera Trailhead (Proposed)

Although no potential trailhead locations are readily apparent within the town of Tornillo because all of the land surrounding the ditch alignment are privately owned, it may be possible to secure approval to develop a trailhead within the excess right-of-way alongside M.F. Aguilera Road, which connects Alameda Avenue to the new border crossing. There appears to be an approximately six-acre tract of land that sits vacant just southeast of the new road bridge that crosses the primary alignment along the Tornillo Canal. It could be accessed from Alameda Avenue along the southeast side of Aguilera Road.

County Line Lakes Trailhead (Proposed)

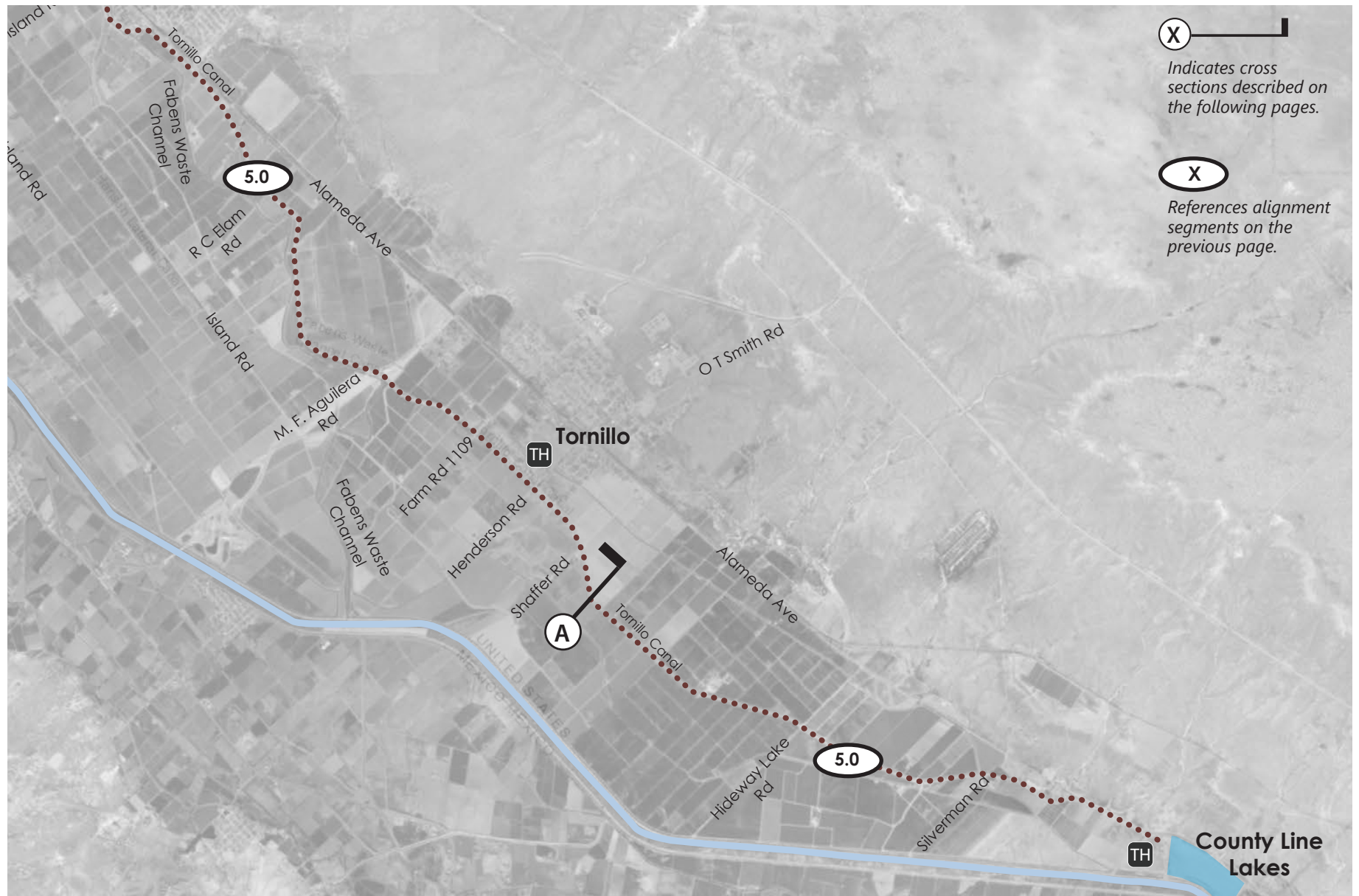
A trailhead at the southern terminus of the trail is highly recommended as a final stopping point, and pick-up location for those wishing to make the trek as a one-way trip. Amenities such as shade structures, picnic tables, and portable restrooms could make it a more desirable destination.

Bus Stops

Unfortunately, the nearest bus stop from the southern terminus of the trail is almost 19 miles NW at San Elizario Road. No bus stops are located within the Rio Grande Agricultural District, so trail users who wish to travel one-way on the route will need to arrange for pick-up by private parties or ride-sharing services.



See Map 30 for overall region alignments and legend.



MAP 32. RIO GRANDE AGRICULTURAL DISTRICT KEY MAP 2

NEARBY SCHOOLS AND INSTITUTIONS

Schools in walking distance include:

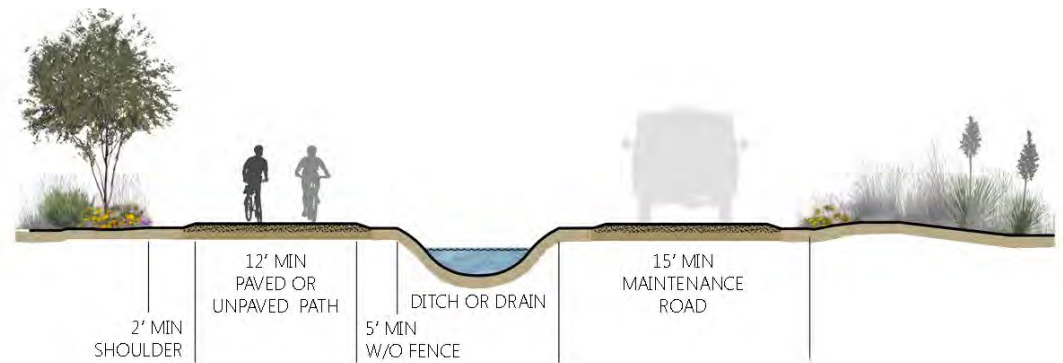
- Clint High School
- San Elizario High School
- Excell Adult Learning Center – San Elizario
- Josefa L. Sambrano Elementary School
- Lorenzo G. Loya Primary School
- O'Donnell Elementary School
- David Sublasky Head Start
- Cotton Valley Early College High School
- Fabens High School
- Fabens Middle School
- Tornillo High School
- Tornillo Junior High School
- Tornillo Elementary School



TYPOLOGIES

Shared-Use Path along Canal: A ten- to twelve-foot wide trail can accommodate multiple uses comfortably. Paved trails are generally preferred for shared-use facilities, but in more rural areas such as this, paved trails may not be cost effective, or necessary. Many long-distance trails (e.g. rail trails) have successfully used materials such as chat, screenings, decomposed granite, compacted crusher fines, brick or rock dust, or stabilized natural ground to provide a relatively stable and weather-resistant surface. Since the ditch banks are also used by maintenance vehicles, such materials may be able to support trail traffic and withstand heavier maintenance vehicular traffic without damage to the trail surface.

Typical cross section indicated by letter on previous maps.



A SHARED-USE PATH ALONG RURAL CANALS WITH SEPARATE MAINTENANCE ACCESS

FIGURE 19. TYPICAL CROSS SECTION A – RIO GRANDE AGRICULTURAL



A canal running along an orchard is typical in the Rio Grande Agricultural District.



TRAIL ENHANCEMENTS



The trail alignment provides opportunities for agritourism.



Interpretive signage can explain the significance of the area's historical and natural resources.

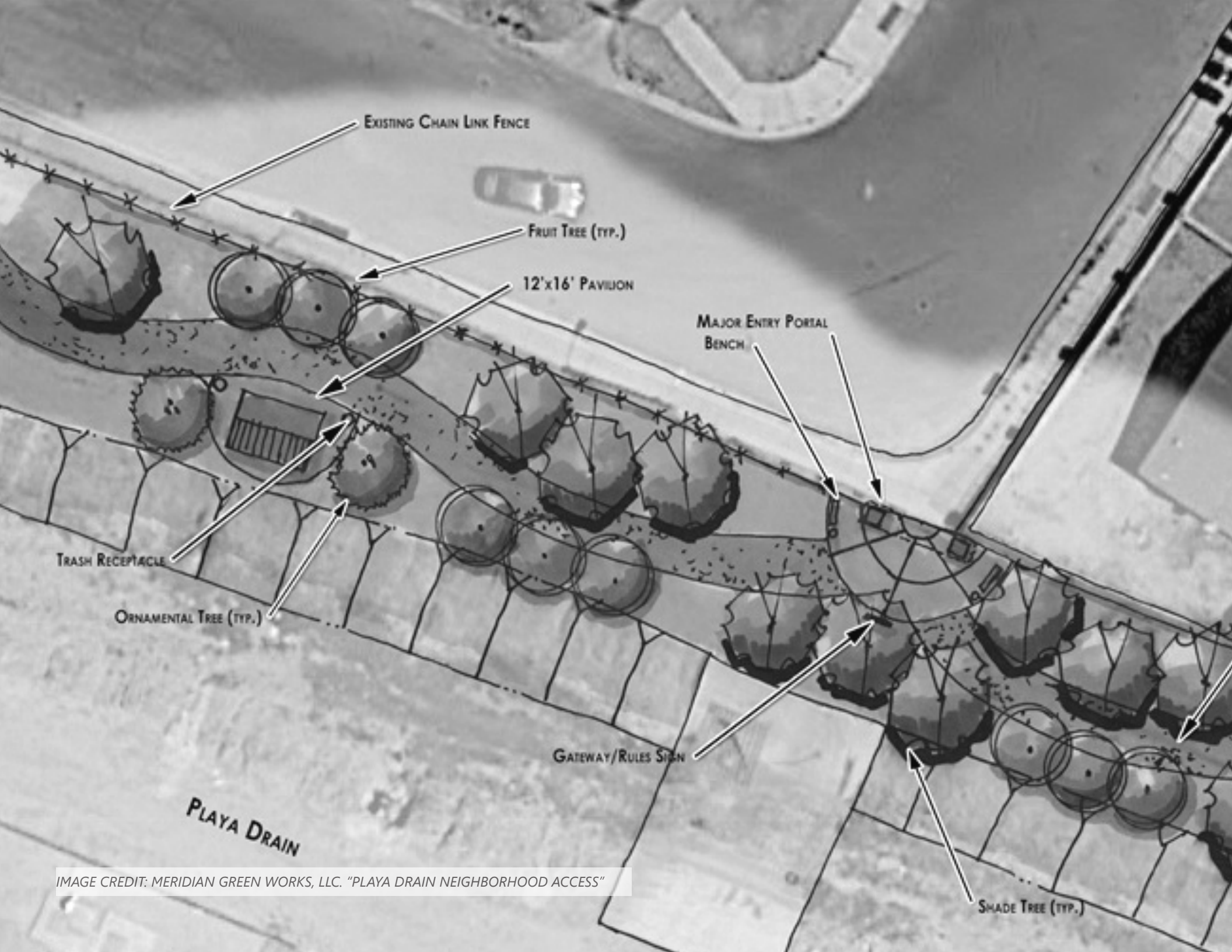


Shaded rest stops can be attractive trailside amenities.



Overlooks can offer views and wildlife sighting opportunities.





EXISTING CHAIN LINK FENCE

FRUIT TREE (TYP.)

12'x16' PAVILION

MAJOR ENTRY PORTAL
BENCH

TRASH RECEPTACLE

ORNAMENTAL TREE (TYP.)

GATEWAY/RULES SIGN

PLAYA DRAIN

SHADE TREE (TYP.)

IMAGE CREDIT: MERIDIAN GREEN WORKS, LLC. "PLAYA DRAIN NEIGHBORHOOD ACCESS"



Chapter 6

IMPLEMENTATION

As the breadth of the Paso del Norte Trail system grows, a cohesive approach to phasing, management, and funding of the trail to make it a county-wide asset will be increasingly important. This chapter provides guidance for trail oversight based on the unique characteristics of the Paso del Norte Trail. These unique characteristics include:

- **Incremental development:** Segments of the trail will be completed or designated as they become available, rather than in a continuous linear fashion and gaps will exist between designated segments.
- **Multiple landowners and managers:** Each segment of the trail is owned by different landowners and managers (City, County, TxDOT, Irrigation District, IBWC, etc.). Overall management of the trail will need to be a collaborative partnership with each entity.
- **Undefined resources:** While many potential funding sources exist for the Paso del Norte Trail, presently there is no dedicated source of funding for trail construction or ongoing operations and maintenance in existence to-date. The City of El Paso has committed to maintaining the Play Drain Trail. Future trail development will require a commitment to on-going operations and maintenance. The potential resources are identified in this chapter.
- **Fiscal stewardship:** Public funding for trails is limited, as is the case with any public improvement; trail stewardship from volunteers and others will be an important part of the trail management.



MANAGEMENT AND PHASING

ESTABLISHING A GOVERNANCE STRUCTURE

Management of trails usually starts with agreements between public agencies and often includes the creation of specific non-profits for the maintenance, volunteer management, and coordination of funds for the trail. There are a few different models to follow to establish an entity to proceed with implementing the trail. Efforts could be focused on forming a new non-profit, funding a position within another existing local agency, or creating a trails program within an existing non-profit (like the Paso del Norte Health Foundation as shown in Table 1. Regardless of the governance structure, some federal grants will require that the applicant be a government agency, in which case the government agency will be able to create a Memo of Understanding (MOU) with the non-profit or other agency to manage the grants on their behalf. The table below identifies the pros and cons of each.

The recommendations for management are identified in phases as actions needed to implement the trail system over time. The following sections identify immediate actions that should take place within the next one to two years. Actions that should take place in the next two to five years are referred to as mid-term actions. Ongoing actions should take place on an ongoing basis.

TABLE 1. MANAGEMENT STRUCTURE

Option	Pros	Cons
New Non-Profit	<ul style="list-style-type: none">Increased autonomy and single focus in building and maintaining the trail.	<ul style="list-style-type: none">Funding for operating costs and overhead can be significant challenge.Potential duplication of overhead costs.Start-up costs can be costly.
Funding a position within another existing local agency like an MPO	<ul style="list-style-type: none">Minimal start-up costs and effortMay be easier to secure grants	<ul style="list-style-type: none">May not have as much autonomy for decision-making, will have to work with local agency to achieve their goals along with PDN's.Need to ensure goals are aligned, stakeholder and community relationships and impressions are positive.
Creating a Trails Program within an Existing Non-Profit	<ul style="list-style-type: none">Efficient use of resources.Minimized start-up efforts and no duplicated costs with existing non-profit.Less funding pressure.	<ul style="list-style-type: none">Need to make sure mission fits within existing non-profit and that board and staff and major donors are all in agreement on funding and running the program and that there are no conflicts.



ESTABLISH A PASO DEL NORTE TRAIL NON-PROFIT

Immediate Action: The Paso del Norte Health Foundation should establish a non-profit that will play a leading role in the efforts to create the trail.

The benefits of a Paso del Norte Trail non-profit include:

- **Collaboration:** Trail non-profits are uniquely positioned to collaborate with the multiple stakeholder groups who are interested in this county-wide trail: local communities, city and state officials, federal government, Indian lands, government agencies, local trails biking groups, and tourists.
- **Accountability:** Particularly when multiple agencies manage the land, trail non-profits are a mission-driven outside force, dedicated to moving the facility/project forward.
- **Advocacy and Education:** Trail organizations recruit and work with volunteers, build momentum for the trail, and raise money, public awareness, and community support.
- **Common ground:** Trail non-profits are particularly savvy at balancing the needs of different trail user constituencies, such as hikers and mountain bikers. They offer a way for people from different user groups across the El Paso region to work together around common goals.
- **Inclusive:** Trail non-profits provide an inclusive approach to trail governance. Anyone who is passionate about the mission of the trail is encouraged to get involved in a variety of ways.

Trail Non-Profit Role

- Serve as 501c3 fundraising arm to raise money to fill the gaps in public funding.
- Advocate for public funding.

- Work collaboratively with the City and County of El Paso to create a promotional program for the Paso del Norte Trail.
- Lead volunteer recruitment and management efforts.
- Develop and lead supportive programming and larger community events.
- Work with the local governmental agencies and landowners to develop MOUs to fund, build, and manage segments of the trail. The MOUs should outline how the different entities agree to work together.
- Work with smaller individual land managers and private landowners through individual arrangements.
- Serve as a one-stop-shop for businesses and other groups seeking to hold events on the trail like the El Paso Marathon.
- Establish a grant writing program.

Trail Non-Profit Structure

The Board of Directors, staff, and important partners will create a system of checks and balances to govern the organization and trajectory of the Paso del Norte Trail. The trail's non-profit will serve as the advocacy, fundraising, and community-facing arms of the trail. Board members may also hold political power and provide links to local government.

- **Board of Directors:** The Paso del Norte Trail non-profit will need a Board of Directors, as required for all 501c3 non-profits. The board should include members who represent many different stakeholder groups and interests: environmental, social, health, political, historical, economic/business, and more. Board members can be 'working' board members that provide assistance with their expertise in getting tasks accomplished for the trail. Board members should also be connected to

the philanthropic and business community and be capable of making connections for major donations and funding relationships. The Paso del Norte Trail non-profit board can be comprised of either or both types of board members, it is also possible that some interested parties may not want to commit to a board role, but are willing to help, they can be committee members for various trail needs (e.g., technical, fundraising, awareness-raising, government interaction).

- **Staff:** Paid staff are essential for the success of the Paso del Norte Trail non-profit. At minimum staff positions must include an Executive Director and Coordinators to manage communication, advocacy, fundraising, trail building, volunteer recruitment, and event planning.
- **Committees:** Committees can be used to focus expertise and efforts on specific elements of the trail. Committees should be staffed by a combination of board members and staff members and can also include interested volunteers.

Successful Trail Non-Profits

The Delaware River Waterfront, Arizona Trail Association, Colorado Trail Foundation, Palmetto Conservation Foundation (South Carolina), and the North East Texas Trail are several examples of the many 501c3 trail non-profits that successfully work with government agencies, local officials, and community members to build and maintain long-distance trails. These examples provide "lessons learned" for the future Paso del Norte Trail non-profit.



The Delaware River Waterfront has been successful in Philadelphia. They have three waterfront corporations (non-profits) with significant control by the City of Philadelphia. Their board of directors is comprised of ‘working’ board members—experts in several areas that assist the non-profit.

These board members are very well connected within the community both politically and through their professional skill sets. This will help the trail group to overcome hurdles in building the trail in the most efficient manner. The roles include a management consultant, lending representatives, an academic dean and professor, design consultant, art consultant, local business owners, construction company owner, architecture firm partner, consultant with a background in finance and law, leaders of local advocacy groups, leaders within City staff and elected offices, and leaders within the local chambers of commerce and business community. Because this is such a high-powered board and scheduling can be difficult, meetings are set a year in advance at a set time and location and only occur quarterly.

The Arizona Trail Association (ATA) illustrates a successful transfer of governance from government bureaus to a trail non-profit, as well as how the mission shifts overtime from construction to maintenance and promotion.

The ATA was founded in 1994 to advocate for the trail, provide route info, organize volunteers, identify water and resupply points, and raise money. The Arizona Trail is governed by a partnership between the ATA and government bureaus, led by the USDA Forest Service. At the

beginning of the work building the trail, the government agencies held the majority of the responsibility, but over time much has been transferred to the ATA. The partnership between non-profit, state, and federal agencies is strategic and powerful.¹ The ATA now controls the state trail funding and manages the Trail Steward, who leads the development of the trail. The ATA has the lead role in managing, maintaining, and funding the trail, as the mission has shifted from construction to maintenance and promotion.

The Colorado Trail Foundation (CTF) provides a great example of how a trail non-profit can work closely with one main public partner to build and operate a long-distance trail. The CTF also highlights the power of leveraging private sector donations for a trail.

The Colorado Trail is governed by a partnership between the CTF and the USDA Forest Service outlined by a 2005 MOU. The CTF is responsible for trail development, maintenance, and continued improvement of the trail corridor, while the Forest Service is ultimately the decision maker for analysis, construction, restoration, and maintenance in accordance with their regulations. The Forest Service has delegated much of the actual work, but still maintains overall authority. The two organizations maintain a close working relationship.²

In contrast to most long-distance trails, the CTF is primarily funded by private sources, such as the Gates Foundation, REI, family foundations,

1 Interview with Matt Nelson. Executive Director, Arizona Trail Association. 8/18/17

2 2005 MOU between the Forest Service and the Colorado Trail Foundation

Colorado businesses, and individual donors. Their fundraising success is a result of the CTF’s trail branding, creative donor cultivation, Adopt-a-Trail Program, and numerous grant applications.

The Palmetto Conservation Foundation (PCF) is a great example of how a non-profit can build a trail across land owned by many different groups, including small, private land owners. Additionally, PCF’s work coordinating trail maintenance and their partnership with AmeriCorps provide guidance for the Paso del Norte Trail non-profit as they establish a regional volunteer and maintenance program.

PCF spearheads the Palmetto Trail planning, development, branding and communications. The trail is developed largely through publicly-owned lands, on public rights-of-way, and through easements for recreational use, including rail-trail conversions and access to protected lands. Where that is not possible, PCF relies on MOUs to reach agreement with a private property owner for trail access. Major trail management partners include the South Carolina Department of Parks, Recreation, and Tourism, and the US Forest Service.

Most maintenance is undertaken by the local entity that owns or operates the trail segment of the trail. PCF plays a major role in tracking maintenance needs and in organizing and leading volunteer maintenance efforts. This includes ongoing partnerships with AmeriCorps, and the establishment of the Palmetto Conservation Corps, a trail-based state AmeriCorps program.

The NorthEast Texas Trail (NETT) is a great example of how a non-profit can utilize volunteer committees to achieve their goals through



volunteer assistance and keeping their staff payroll low. The NETT Coalition Board has committees open to members of the public. These committees meet quarterly on the same day as a broader supporters' meeting. The Outreach Committee's purpose is education, advocacy, marketing strategy, and branding of the NorthEast Texas Trail. The Government and Legislative Committee serves as liaison between the NETT Coalition and local, State, and Federal government agencies and Legislators. The Grants and Funding Committee seeks sources of funding through foundation grants and partnerships with various community benefactors. The Design and Construction Committee creates and maintains a consistently favorable design of the physical attributes of the trail features to project a unified and consistent image of the NETT. Objectives include NETT signage, segment wayfinding signage, and trail corridor design attributes. The Long-Range Planning Committee aims to achieve the corporate, financial, and administrative goals of NETT. This is achieved by reviewing growth policies and plans, maintaining the organization's charitable status, responsibly making use of donations and gifts and adhering to the mission and vision of the NETT organization.

ROLES OF PUBLIC AGENCIES AND OTHER TRAIL PARTNERS

City and County Governments

Ongoing Action: Promote, maintain, and provide amenities along their section of trail.

Support from the City of El Paso and El Paso County governments is essential for ensuring the Paso del Norte Trail becomes a continuous, well-maintained, and widely-used trail. Officials should seek to implement overarching trail design

and management guidelines, while maintaining local character as recommended in this master plan. Local city and county governments should establish partnership agreements and clear lines of communication with the Paso del Norte Trail non-profit to coordinate around trail maintenance, volunteer needs, funding, and promotion of the trail. City and County governments should include building, maintaining, and promoting the Trail into their long-range transportation and comprehensive plans. They may also be able to connect the Paso del Norte Trail effort with the El Paso Metropolitan Planning Organization (MPO) that can prioritize Transportation Alternatives funding for projects that are along the Trail's route or ensure that the Trail projects, routing, and goals are incorporated into relevant City, County and regional plans.

El Paso County Water Improvement District No. 1 and the International Boundary and Water Commission

Immediate Action: Provide right-of-way easements, provide resources for trail construction and maintenance, and incorporate the trail into relevant planning documents and capital improvement programs.

The El Paso County Water Improvement District No. 1 (Irrigation District) and the International Boundary and Water Commission (IBWC) manage extensive networks of irrigation canals, ditches, and levees, such as the Franklin Canal and the Rio Grande, which occupy a large portion of the right of way. Undeveloped linear corridors like the Franklin Canal provide a unique opportunity for trail development. It will be important for the District and the IBWC to coordinate with the Paso del Norte Trail non-profit to establish easements for trail alignment and collaborate in trail design,



Franklin Canal, represented in a vintage postcard, has long been a popular public space.



construction, and maintenance that is compatible with irrigation infrastructure and the District's needs for ongoing maintenance access.

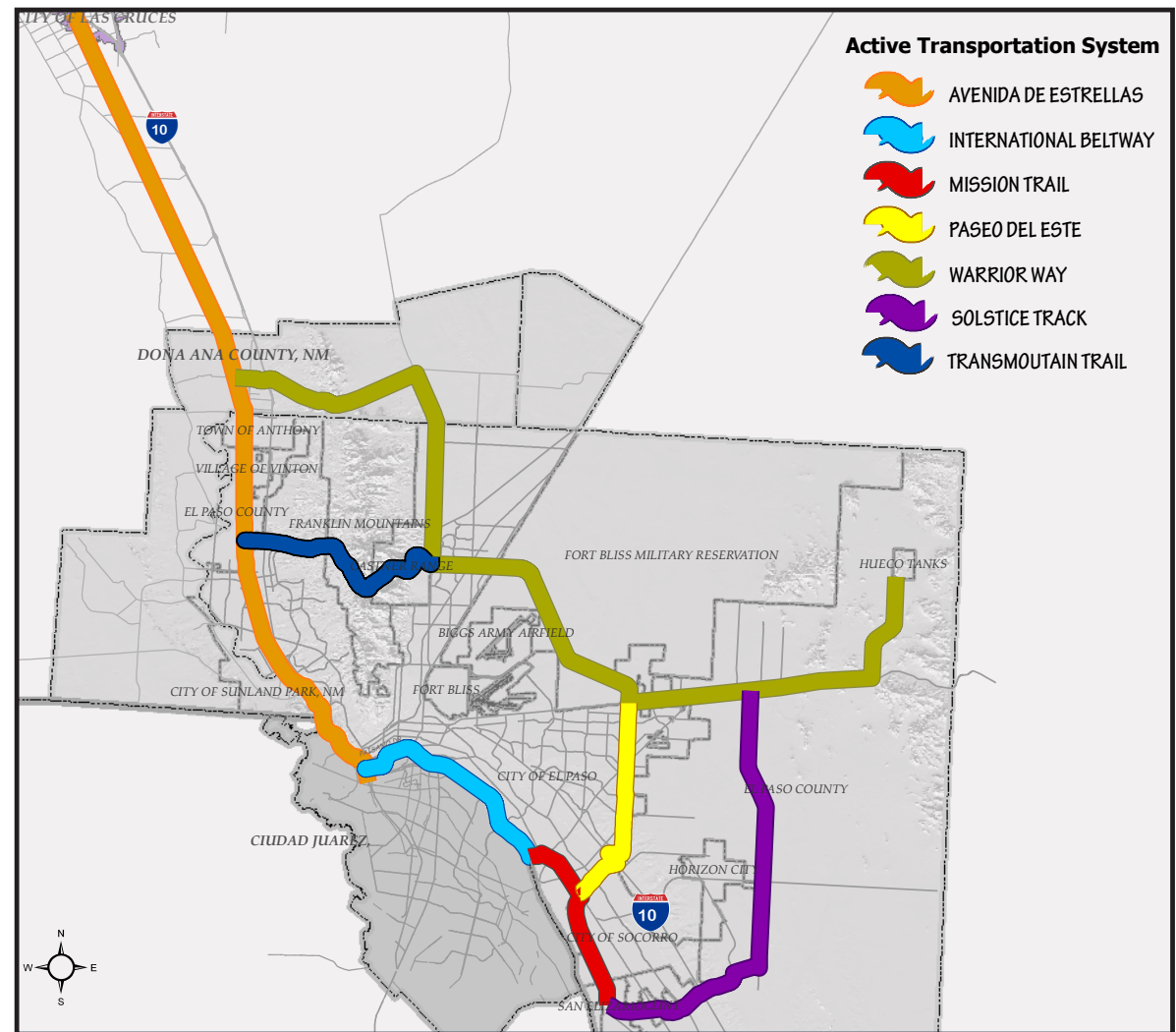
Regional Planning Agencies: El Paso Metropolitan Planning Organization, Rio Grande Council of Governments, Camino Real Regional Mobility Authority

Immediate and Ongoing Actions: Fund construction of the trail, promote the trail at the regional level, and ensure that the trail is incorporated into relevant planning documents, such as long-range transportation plans and unified planning work programs.

Regional planning institutions have access to federal and state transportation funds that can be allocated for trail construction. These funds should be used to construct the trail through local jurisdictions to provide an amenity for their constituents, bring in tourists, and spur economic development. In Florida, the MPO's Coordinating Committee has been instrumental in prioritizing and funding trail projects across nine counties and seven MPOs.³

The El Paso Metropolitan Planning Organization (MPO) has adopted an Active Transportation System (ATS) as shown (see Map 33). The Metropolitan Transportation Plan (MTP) for the region offers valuable insights into the EL Paso region and in fact includes solutions to air quality problems and transportation solutions for the region. The plan identifies 107 projects that should occur before the year 2045 in the county with a large proportion of projects near or on the Paso del Norte Trail area (see Map 34).

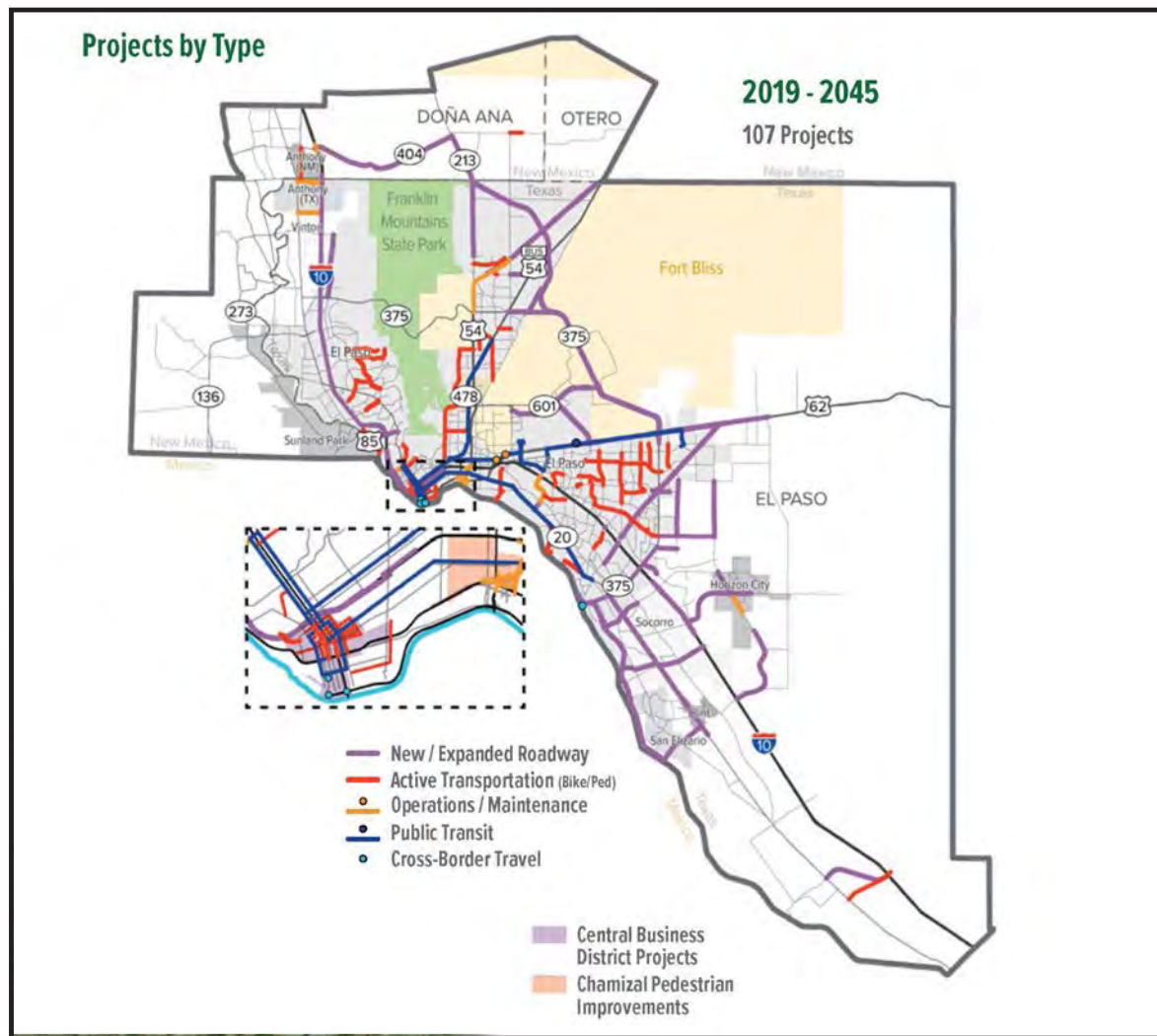
³ <http://tbarta.com/en/chairs-coordinating-committee/about/chairs-coordinating-committee>



Source: El Paso Metropolitan Planning Organization

MAP 33. EL PASO MPO'S ACTIVE TRANSPORTATION SYSTEM





Source: El Paso Metropolitan Transportation Plan, Destino 2045

Non-Profit Partnerships

Immediate Action: Partner with fellow non-profits by cross-promoting programming and sharing best practices for trail advocacy.

The Paso del Norte Trail non-profit should partner with other advocacy groups that have aligned interests in trails, conservation, the Rio Grande River, and community development to coordinate marketing and advocacy efforts and to support events. Collaboration strategies include sharing initiatives through group communication channels, holding coordination meetings, and potentially jointly organizing an event or other action. The Bi-Annual Texas Active Transportation and Trails Conference held by Bike Texas is a great opportunity for non-profits and other trail partners to gather, learn from one another, and coordinate for the years ahead.

Local Businesses

Ongoing Action: Contribute funding and/or volunteer with the Paso del Norte Trail non-profit or other trail partner.

Businesses who want to show they are invested in the community should contribute financially to building the trail or by volunteering their time. High-profile, well-designed trails spur economic development and boost quality of life, which brings direct benefits to the regional business community. Businesses should consider participating in a proposed Adopt-a-Trail program to help keep a specific section of trail clean and maintained. By adopting a trail, businesses get state-wide philanthropic publicity that will be directly beneficial to their reputation in the community. Local businesses that could be advocates include businesses that are related to cycling, sports, and health.

MAP 34. METROPOLITAN TRANSPORTATION PLAN PROJECTS



Public Improvement Districts

Mid-term Action: The downtown segments of the Paso del Norte Trail could be a benefit to any Public Improvement Districts (PIDs) that are a part of downtown redevelopment efforts.

Portions of the downtown trail alignments could be co-managed by any existing or proposed PIDs like the Downtown Management District (DMD) and Tax Investment R Zone (TIRZ) that are spearheading downtown development or development in any other more densely populated parts of the city.

Neighborhood Associations

Ongoing Action: Involve neighborhood associations in the promotion and maintenance of the Paso del Norte Trail.

The interest and commitment of neighborhood associations will encourage use of the Paso del Norte Trail, as well as ongoing support and ownership from community members. Their involvement will be important throughout all five districts, but particularly in the more urban areas where the trail's primary alignment and spurs connect to community destinations, schools, and parks.

Volunteers

Ongoing Action: Cultivate a body of volunteers to attend events, assist with trail maintenance, and advocate on behalf of the Paso del Norte Trail.

A strong contingent of dedicated volunteers is essential for the Paso del Norte Trail to become a reality. There is a strong interest in the Paso del Norte Trail in El Paso. Volunteers are invited to help in as small or large a role as they wish. The Paso Del Norte Trail non-profit will create and maintain a streamlined volunteer portal on the trail website

as a one-stop-shop for people interested in getting involved. Volunteers can help by:

- Communicating with elected officials on behalf of the trail
- Sharing information on social media
- Attending a trail clean-up or maintenance event
- Assisting with non-profit administrative tasks
- Stepping into a leadership role with the Paso del Norte Trail non-profit

Neighboring States and Countries

Immediate Action: Partner with the Rio Grande Trail, New Mexico State Parks, Municipality of Ciudad Juárez, and groups along the state border to connect the Rio Grande Trail segments to the Paso del Norte Trail.

Trail advocates and public officials in New Mexico have both expressed interest in linking the Rio Grande Trail segments with the Paso del Norte Trail. The first meeting took place in El Paso in the summer of 2018 and there is good synergy beginning. The International Trail Planning that is taking place in Ciudad Juárez, Mexico could also be a great partner for setting apart the Paso del Norte Trail from others in the country and potentially creating the first international trail in North America along the Mexican border.



Volunteers build a section of trail in Colorado.

PROMOTING THE VISION

This section of the chapter will offer trail promotion recommendations towards three targeted outcomes that balance those short- and long-term steps: trail usage, "friendraising," and fundraising. Trail usage is about getting people out using the trail and ensuring they have a positive experience. "Friendraising" covers building partnerships and recruiting volunteers. Finally, fundraising encompasses seeking grants and sponsor dollars to the support the trail non-profit, fund trail development, and pay for trail maintenance.

TRAIL USAGE

A good trail will market itself over time, but a new one requires marketing and promotion to highlight experiences offered on the trail. As the Paso del Norte Trail begins to take shape, branding and marketing will be essential to get people out enjoying the trail segments that already exist. A strong, identifiable, positive public perception of the trail will build support for ongoing efforts to complete the trail across the whole county.

Trail Branding

Immediate Action: Develop a unified brand that is pervasive across different aspects of the trail—from promotional materials to wayfinding signage to the look and feel of trail heads.

For a trail, a brand influences the user experience. It includes the logo and signage, and conveys a purpose, a sense of safety and comfort, as well as denotes the trail's programming, funding, sponsors, and supporters. It goes beyond the trail logo that has already been developed. Everything from how an email is written to the attitude of a person answering the phone reflects a brand.





Example of a wayfinding signage package.

For a long-distance trail that links many different trails and systems, each with their own alternative names, creating a **unified overarching brand will be essential for building awareness and for user navigability**. The Pacific Crest Trail (PCT) is an excellent example of unified branding done well and cohesively over thousands of miles of trail. The PCT's logo and signs are located along the route according to very specific design guidelines; the signs do not replace the local trail names. The PCT uses "reassurance markers" (logos on trees or signs) at intersections to avoid replacing existing wayfinding wherever possible. In addition to an overarching brand for the whole trail, it may be important to consider sub-brands for the five districts to more closely reflect the identities of those areas. The Playa Drain branding that has already been used is a good example of this.

Consistent Online Presence

Immediate Action: Develop and maintain a consistent online presence through the trail website, social media, and relevant trail apps.

The Paso del Norte Trail non-profit should either utilize the website that was created as part of this project planning or create a new website.

The website should be updated regularly with new and accurate content to encourage repeat visits. The website should reflect the branding of the trail and offer useful resources for trail users, partners, volunteers, and sponsors. Given the many land managers along the trail, establishing opportunities within the website to link directly to a land manager's websites for trail maintenance or user information, or to have that information automatically populate the Paso del Norte Trail website, will be critical.

Rather than creating a new, independent app, the Paso del Norte Trail non-profit can leverage existing resources for a more efficient way to share information broadly to users. The following are examples of popular trail apps, where up-to-date trail information is directly accessed by users:

- **AllTrails (free):** Allows users to search based on location for nearby trails, use GPS to navigate on the trail, view high quality maps, post photos of scenic places, and connect with other users.
- **MapMyHike (free):** Allows users to map trails, view popular treks, connect with other users, and use health tracking technology.
- **CycleMap (free):** Users can plan and get detailed information about bike routes, learn about points of interest and amenities along routes, discover new routes and use them offline.
- **EQUITrail (\$4.99):** Users can view and download equestrian trail maps and share trail information with other users.
- **TrailForks (free):** Provides interactive mountain bike trail maps with topographic layer, access information, points of interest, trail popularity and ratings, compass, and GPS tracking.

FRIENDRAISING

Volunteer Programs and Events

Immediate Action: The Paso del Norte Trail non-profit should work with state, regional, and local partners to organize and implement community events and cultivate volunteers to help build, maintain, and promote the trail.

In a coordinated effort across the corridor, trail managers should work with the trail non-profit to host National Trail Day events on as many segments of the existing trail as possible. Special events are a useful tool for inviting new users to experience the trail and obtaining media attention. By organizing many events across the trail corridor, the trail's magnitude and potential will be evident. The Palmetto Conservation Foundation has used this event planning strategy to successfully raise the profile and garner statewide interest in South Carolina. A variety of national organizations host larger scale efforts such as volunteer vacations.

In 2016, the Pacific Crest Trail Association leveraged \$2.5 million in volunteer hours, highlighting the powerful potential impact created by cultivating a strong network.⁴ These approaches could create similar impacts for Paso Del Norte Trail supporters.

⁴ Larabee, Mark. The PCTA goes to Washington on behalf of Trails. 2/24/17. <https://www.pcta.org/2017/pcta-goes-washington-behalf-trails-45776/>

Volunteer events accomplish small improvement projects, engender a sense of ownership, and create ambassadors for the trail.



Employment Opportunities

Immediate Action: The Paso del Norte Trail non-profit should strive to team with AmeriCorps to create employment opportunities that enhance the trail and conservation efforts.

The Palmetto Conservation Foundation's volunteer partnership with AmeriCorps is an excellent example for how the Paso Del Norte Trail non-profit could create employment opportunities and training for west Texas youth, while simultaneously building and maintaining the trail. Palmetto's Conservation Corps launched in 2016. The group's crews have maintained and built numerous sections of trail, as well as responded to natural disasters and learned about environmental conservation.

Call on Trail Users

Immediate Action: Engage the coalitions of existing trail users to help spread the word about the Paso del Norte Trail and serve as trail ambassadors.

The Paso Del Norte Trail non-profit should tap into existing user coalitions, such as Velo Paso Bicycle-Pedestrian Coalition, Neighborhood Associations, the El Paso Bicycle Club, EP Cyclists, mountain bike groups, equestrian groups and El Paso bicycle, as volunteers and trail ambassadors. This model has proven successful with other long-distance trails and has the potential to lessen user group conflict by creating joint stewards of a shared resource.

FUNDRAISING

Targeted Media Relations

Immediate Action: The Paso del Norte Trail non-profit should use targeted media relations to celebrate success and show progress towards a completed trail. Ideal coverage will make being a part of the vision irresistible and serve as a fundraising tool.

Stories that resonate across the state and region, such as National Trail Day events, economic impact study results, or sponsorship campaign launches, should be the focus of press releases and press conferences. Earned media is also a great tool for giving valuable credit to trail sponsors.

Brochures and Promotional Collateral

Immediate Action: Local community partners, volunteers, the Paso del Norte Trail non-profit and others should use a brochure and an Annual Trail Report to serve as a marketing tool and project update for advocacy purposes.

The Paso del Norte Trail non-profit should create a brochure, website, and Annual Trail Report and provide regular updates (every two years). The promotional materials provide a basis for developing sponsor and donor handouts, as well as annual benchmarking report to show progress in trail development, fundraising, and friendraising. Recognizing measurable success is an important step towards making the case for potential funders and long-term resource partners.

Sponsor Benefits Program

Immediate Action: The Paso del Norte Trail non-profit should develop a trail sponsor program and Adopt-a-Trail program.

The trail sponsor program should feature different ways that businesses, foundations, and individuals can advertise their financial contributions to the trail. Sponsors at different levels will be recognized on the trail website, printed materials, collateral (patches, stickers, water bottles, t-shirts, etc.) and potentially verbally as a part of media coverage. The trail non-profit must work closely with the Paso del Norte Trail Commission, all partner land managers along the trail, and other key stakeholders to decide which parts of the trail they are willing to "sell" to sponsors. For example, the Palmetto Conservation Foundation allows sponsors to brand physical pieces of infrastructure (such as the Advance America Bridge or the Blue Ridge Electric Co-op Passage) while other trails, like the Colorado Trail Foundation are very successful at leveraging donations and sponsorships without displaying logos or branding trail infrastructure. Sponsor contributions have the potential to fund large percentages of the trail. For example, in 2015, the Arizona Trail Association received 37 percent of its annual operating budget from private sponsor, partially through its successful Adopt-a-Trail program and the Colorado Trail Foundation received over 80 percent.





An example of promotional collateral.

LAND ACQUISITION AND PROPERTY AGREEMENTS

Once the governance structure is in place, it will be important to have a plan to work with existing property owners to integrate the critical segments or properties needed to complete the entire 60 miles of Paso del Norte Trail. Understanding that segments will be completed or designated incrementally as available, rather than in a continuous linear fashion, gaps will likely exist between designated segments.

Multiple landowners and managers will continue to own and manage segments of the trail, however in some cases it may be necessary to acquire property or create property agreements or MOUs to ensure the Trail's long-term continuity. There could be different types of ownership and responsibility breakdowns. One agency could own the land, another could own the trail, and varying agencies or departments could be responsible for different aspects of operations and maintenance (trash removal vs. vegetation maintenance, for instance). There could also be cost-sharing agreements to cover operations and maintenance costs.

MOUs typically outline the obligations of the non-profit and public agency partners and describe how parties plan to work together. As budgets shrink, there is increasing pressure to replace public funding with volunteer hours and private contributions. Additionally, when multiple agencies manage the land, it can be useful to have an outside group coordinate and ensure the project moves forward.

BRICK COMPANY PROPERTY

A plan to acquire the American Eagle Brick Company private property in the Upper Valley District will likely be needed to allow the trail to cross this section of the County using the 'Brick Bridge.' If acquisition is determined infeasible, the trail can be located on the east side of the Rio Grande which would result in a less direct connection.

FORMER ASARCO PROPERTY

Coordination with the University of Texas El Paso (UTEP), which purchased the former ASARCO property, will be necessary to plan for the trail alignment and possibility an iconic bridge on the property. An MOU that defines the trail alignment and how the trail is used, managed, and marketed could be helpful to ensure Paso del Norte Trail is continuous.

IRRIGATION DISTRICT

Ongoing coordination with the El Paso County Water Improvement District 1 (referred to as the Irrigation District) will be necessary since the district owns and operates miles of waterways and adjacent rights-of-way throughout the county. An MOU similar to that described with UTEP will also be helpful for these properties. Funding for these trail improvements will be hinged on the type of improvements made (for example, concrete lining of waterway channels may not be funded by all sources).



American Eagle Brick Company Property's 'Brick Bridge'.



MANAGING TRAIL USE

CUSTOMER SERVICE: CREATING A COURTEOUS TRAIL ENVIRONMENT

Agencies and organizations successful at keeping trails conflict-free identify proactive outreach and engagement, combined with on-trail user information and management. These strategies are important and effective for creating a safe and courteous trail environment. Responsibility for creating this positive, safe environment will be shared between the Paso del Norte Trail non-profit and land managing agencies. The non-profit will take the lead on positive messaging and creating a courteous culture, while the trail managing agencies will use their pre-existing mechanisms for enforcing regulations.

Education and Outreach

Ongoing Action: Use positive messaging to advertise clear, enforceable trail rules and regulations regarding staying on designated trails, rights-of-way, warning when overtaking, speed limits, etc. Negotiate with local trail section partners to create one cohesive set of rules for the trail.

For example, instead of posting a sign saying, "Don't speed" post one that states, "Please travel at a safe speed." Numerous studies show positive messaging achieves better overall compliance from road and trail users.⁵ For the Paso del Norte Trail this messaging should be proposed to all partner agencies given the number of jurisdictions that the trail will traverse.

⁵ Hoekstra, Tamara and Wegman, Fred. "Improving the effectiveness of road safety campaigns: Current and new practices." IATSS Research. November 22, 2010.

Immediate and Ongoing Action: Train staff and volunteers that a friendly trail environment will foster a positive experience for users and preempt user group conflict.⁶

Pair this approach with enforcement strategies such as monitoring, warnings, radar, and citations.

Ongoing Action: Create a "Trail Rangers" or "Trail Ambassadors" program where volunteers can hand out local restaurant gift cards or other rewards for good trail behavior and report vandalism or maintenance issues. Involve different trail user group members as volunteers or paid Trail Rangers.

The Fred Marquis Pinellas Trail, in Florida, has a successful application-based Trail Ranger Program. Many program volunteers are retirees from the neighboring community who enjoy the opportunity to patrol the trail by bike or on foot. The Rangers provide information to visitors, and assist with light maintenance, and special events. Participation requires completing a certification course and 100 hours of service in the first year. Volunteer efforts are supported by law enforcement, because they cannot enforce speeding violations or other crimes.

Ongoing Action: Use the website and social media to share up-to-date information about changes to trail regulations, maintenance, and closures.

Provide information to users about rules, policies, and advice for trail user respect, right-of-way requirements, courtesy, routes, destinations, and conditions. The non-profit should link to land managing agency websites with up-to-date information about trail conditions. This approach will save the non-profit from needing to devote as many hours keeping their website up to date.

⁶ Trail Use Conflict Study. California State Parks Road and Trail Change in-Use Evaluation Process, prepared June 2012 by Alta Planning + Design

Trail Design

Conflicts on trails (especially on paved but also soft surface trails) tend to center on the speed differential of trail users with different skills and desired uses compared to other users, and on slower users blocking the trail. User conflicts can be a particular challenge at trail and loop junctions and entry points, and at activity areas and other stopping points. Overall, actual accidents between trail users are quite rare. However, trail design, in addition to outreach and education, can facilitate a positive user experience and create consistency among different managing agencies.

Immediate Action: Design the trail using best practices that encourage good trail user behavior and avoid user conflict.

1. **Tread Width and Passing Space.** Provide sufficient width of the trail tread and existing or created space to allow users to pass each other, either as a continuous condition, or as passing spaces at defined intervals. This also includes vertical clearance from overhanging trees and objects.
2. **Sight Distance.** Include adequate length of the trail visible ahead to the user. This is particularly important to resolve in conjunction with speed control features, turns, and sinuous layout.
3. **Turn Radius.** Create a minimum inside radius of turns to ensure that they can be comfortably negotiated.
4. **Speed Control Features.** Install pinch points, choke points, trail anchors, technical trail features, 'stiles', and other elements specifically designed to limit users' speeds.
5. **Gradient.** Apply design limits or variations in the gradient of the trail to allow for multiple uses.



6. **Trail Layout and Classification.** When considering trail suitability for multiple uses, factor the level of use of the trail, availability of alternative trails and routes, and the potential for trails to primarily serve one or multiple user types.⁷

7 For Additional design guidelines, refer to the following sources: AASHTO Guide for the Design of Bicycle Facilities, 2012; FHWA Separated Bike Lane Planning and Design Guide, 2015; FHWA Manual on Uniform Traffic Control Devices (MUTCD), Part 9, Bicycle Facilities, 2009 amended; US Access Board Final Guidelines for Outdoor Developed Areas, 36 CFR Part 1191

Guide for the Development of Bicycle Facilities

2012 • Fourth Edition



AASHTO Bicycle Facilities Guidelines.

SPECIAL EVENT USES

Immediate and Ongoing Action: Institute special event usage guidelines and requirements to proactively plan for large events.

When special events are hosted on a passage of the Paso del Norte Trail, a single day with a large volume of hikers, runners (El Paso Marathon), or mountain bikers can create substantial maintenance issues, as well as conflicts with other users of the trail. The Paso del Norte Trail non-profit should establish special event guidelines or requirements as outlined below. They can work with a specific trail passage landowners and/or land managers and local agency staff to review the guidelines and establish event-specific requirements for any company or organization seeking to host an event on the Trail.

Special Event Usage: Guidelines

To ensure a successful event for all involved parties, guidelines should specify:

- Which sections of the trail are available for special events and which are not.
- What types of events are permissible or prohibited (from mountain bike races to mud runs to scavenger hunts).
- Which months of the year or days of the week are available or restricted for special events.

Special Event Usage: Requirements

To ensure a successful event for all involved parties, requirements should specify:

- A meeting with Paso del Norte Trail non-profit staff and volunteers and the landowner/land manager at least four weeks prior to the event.
- A special event usage fee and/or a negotiated donation amount to be provided to a Trail Maintenance Fund.

- Maintenance activities that need to occur within a set time frame after the event to restore the trail's condition and repair any damage (this could occur as a volunteer workday organized by the event promoter).
- Opportunity for the Paso del Norte Trail non-profit to advertise at the event.
- Permission for the Paso del Norte Trail non-profit to contact the event attendees (once) with an email inviting them to become members of and/or volunteer for the organization.

FUNDING SOURCES

A goal of the Paso del Norte Trail is that it be a destination-worthy trail that functions as a local recreation and transportation trail and becomes a place of pride and positive focus for El Paso County.

There are multiple funding sources that are available for active transportation projects such as this. Given the scope of this project and phasing time line, segments of the trail will most likely be funded using a variety of different mechanisms.

The following approach to funding is advised:

- The approach must be diverse and creative.
- Teaming with local and State funding agencies will be necessary; they usually require matching funds.
- Phasing will be important.
- Typically, trails are funded by a combination of private and public (State and Federal) funds.



FEDERAL FUNDING SOURCES

The federal government has numerous programs and funding mechanisms to support bicycle and pedestrian projects, most of which are administered by the US Department of Transportation in cooperation with state and regional entities. The following federal programs are made available to local communities in Texas through state and regional entities, including Texas Department of Transportation, Texas Department of Parks and Wildlife, the El Paso Metropolitan Planning Organization.

FIXING AMERICA'S SURFACE TRANSPORTATION ACT

Congress passed a five-year transportation bill in 2015 called the Fixing America's Surface Transportation (FAST) Act. The FAST Act provides funding for eligible bicycle projects through multiple funding programs already in existence in prior federal transportation bills. Bicycle project eligibility typically requires a local match of at least 20 percent and must meet federal design standards. The FAST Act now recognizes NACTO design guidelines in addition to AASHTO and state design standards for bicycle facilities, providing cities with added flexibility for the design of projects.

SURFACE TRANSPORTATION BLOCK GRANT PROGRAM

The FAST Act replaced the Transportation Alternatives Program (TAP) funding with a set-aside of funds under the Surface Transportation Block Grant Program (STBG). The Federal Highway Administration (FHWA) will refer to these funds as the TA Set-Aside. Eligible activities and projects

include on- and off-road pedestrian and bicycle facilities, infrastructure projects improving access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trails projects, safe routes to school projects, and projects for planning, designing, or constructing boulevards or other roadways largely in the right-of-way of former divided highways.

CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT

Congestion Mitigation and Air Quality Improvement (CMAQ) funds transportation projects to reduce ozone and carbon monoxide pollution and meet national ambient area air quality standards (NAAQS) in Clean Air Act non-attainment areas. The construction of pedestrian and bicycle facilities using CMAQ funding must explicitly provide a transportation function.

BETTER UTILIZING INVESTMENTS TO LEVERAGE DEVELOPMENT

Earlier in 2018, the Better Utilizing Investments to Leverage Development (BUILD) replaced the pre-existing Transportation Investment Generating Economic Recovery (TIGER) grant program. This grant is targeted on investments in surface transportation infrastructure that will have a significant local or regional impact. Paso del Norte Trail is a good candidate to receive BUILD funding since BUILD funds roads, bridges, or inter-modal transportation; seeks to support access in rural areas; and evaluates projects based on their safety, economic competitiveness, quality of life, environmental protection, state of good repair, innovation, partnership, and ability to get other non-Federal funding.

LAND AND WATER CONSERVATION FUND (LWCF)

The goal of the Land and Water Conservation Fund is the creation and maintenance of high quality recreation resources through the acquisition and development of public outdoor recreation areas and facilities. The program operates on a reimbursing basis. The local sponsor matches 50 percent of the project cost prior to applying for the grant. After the project is approved, the sponsoring park and recreation board receives a reimbursement of 50 percent of the actual project costs. Applicants must submit a bill to the grant coordinator to request the federal share of the cost throughout the grant term.

COMMUNITY DEVELOPMENT BLOCK GRANT PROGRAM

While not traditionally viewed as a source of funding for bicycle and pedestrian projects, the Community Development Block Grant (CDBG) program provides money for streetscape revitalization and other improvements that can enhance walking and bicycling. Federal CDBG grantees may use funds for:

- "Acquiring real property
- Reconstructing or rehabilitating housing and other property
- Building public facilities and improvements, such as streets, sidewalks, community and senior citizen centers and recreational facilities
- Paying for planning and administrative expenses, such as costs related to developing a consolidated plan and managing Community Development Block Grants funds
- Providing public services for youth, seniors, or the disabled
- Initiatives such as neighborhood watch programs."



STATE FUNDING SOURCES

TEXAS PARKS & WILDLIFE'S RECREATION GRANTS

The Texas Parks & Wildlife Department provides local agencies and organizations with a variety of funding sources to develop places and programs that support recreation activities and connect Texans to the state's diverse and abundant natural resources. The Outdoor and Indoor Recreation Grants each provide a 50-percent funding match for local units of governments to acquire and develop parkland, renovate existing public recreation areas, and construct recreation centers, nature centers, and other park facilities.

LOCAL GOVERNMENT FUNDING & BONDS

While state and federal funding sources for bicycle and pedestrian projects and programs continue to be in short supply and high demand, local funds can often be the most reliable funding source to get a project done or develop an encouragement or education program. In addition, local funding is often required as match for external funding sources.

BOND CAMPAIGNS

Another funding source option is initiating a municipal or county bond campaign. Often used to fund schools and public facilities, including parks, trails, and street/road/sidewalk construction, bonds must be approved in an election. The purpose, amount, rate of interest, and date of maturity must be specified before it gets on the ballot.

CAPITAL IMPROVEMENT PROGRAM

As with most cities, El Paso has limited funds with which to implement bicycle and pedestrian projects and programs. By creating a dedicated set-aside in the Capital Improvement Program, the City can focus, prioritize, and plan for capital expenditures for trails, on-street bikeways, and other projects that improve conditions for walking and bicycling. This set-aside may also be used as a local match for external funding sources, or as contributory towards bicycle and pedestrian elements of larger projects. Dedicated funding sources for supporting education and encouragement programs could also be established within the other city budgets such as those for public safety, facility development and maintenance, and parks and recreation.

Additionally, the City can and does utilize bond funding for both Capital Improvement projects as well as Quality of Life projects.

SPECIAL DISTRICTS

In 1987, the State of Texas passed into law the Public Improvement District Assessment Act, which allows counties and municipalities to levy and collect special taxes to finance public infrastructure that promotes economic growth and development. A Public Improvement District can be established for the construction of street and sidewalk improvements; park, recreation and cultural improvements; the creation of pedestrian malls; public safety and security; landscaping and aesthetic improvements; and a host of other capital projects.

Additionally, a city can create special districts called Municipal Management Districts, Tax Increment Reinvestment Zones, Parking Benefit Districts, and Transportation Reinvestment Zones. Each of these

districts can serve as a financing tool to support improvements through bonds, taxes, assessments, impact fees, or other funds.

TRANSPORTATION IMPROVEMENT PROGRAM

The El Paso MPO also identifies funding for years in advance through their Transportation Improvement Program (TIP). The MPO identifies the transportation projects and strategies from the Metropolitan Transportation Plan (MTP) that it plans to undertake over a four-year period. All projects within the MPO jurisdiction receive federal funding and all of them must be in the TIP. The TIP is the region's way of allocating its limited transportation resources among the various capital and operating needs of the area, based on a clear set of short-term transportation priorities. The TIP is updated every five years in air quality attainment areas or every four years in non-attainment or maintenance areas. In cases where a metropolitan area is designated as a non-attainment or maintenance area, the plan must conform to the SIP for air quality. Under federal law, the TIP:

- Covers a minimum four-year period of investment;
- Is updated at least every four years;
- Is realistic in terms of available funding and is not just a "wish list" of projects. This concept is known as fiscal constraint;
- Conforms with the State Implementation Plan (SIP) for air quality in non-attainment and maintenance areas;
- Is approved by the MPO and the governor of Texas; and
- Is incorporated directly, without change, into the Statewide Transportation Improvement Program (STIP). The TIP and the STIP must be consistent with each other.



CHARITABLE GRANTS FROM LOCAL FOUNDATIONS AND CORPORATIONS

Other local foundations and corporations supporting health, well-being, or quality of life issues could team with Paso del Norte to contribute funding.

TRAIL MAINTENANCE

A multi-use trail is a unique public facility because it blends two distinct purposes. It is a non-motorized transportation corridor that in many respects must be managed like a street to assure user safety; it is also a greenway serving a variety of recreational user groups.

It is likely the Paso del Norte Trail will be considered a joint- or shared-use facility, defined as a paved trail open to the general public for recreation and non-motorized transportation purposes in a corridor that serves other transportation functions.

Effective trail maintenance is critical to the overall success and safety of any trail system. Maintenance activities typically include pavement stabilization, landscape maintenance, facility upkeep, sign replacement, mowing, litter removal and painting. As referenced earlier in the management section, successful maintenance program requires continuity and often involves a high level of community participation. Routine maintenance on a year-round basis will not only improve trail safety, but will also prolong the life of the trail. The benefits of a good maintenance program are far-reaching and may be:

- An effective advertisement to promote the trail as a local and regional recreational resource.

- An effective deterrent to vandalism, litter and encroachments.
- Necessary to preserve positive public relations between the adjacent landowners and managing agency.
- Efficient in enforcing regulations on the trail. Local clubs and interest groups will take pride in their trail and will be more apt to assist in protection of the trail.
- Helpful in improving safety along the trail.

ONGOING MAINTENANCE

Ongoing trail maintenance likely includes the following activities: vegetation management, surface repair and sweeping, fence repair, removal of litter and dumped materials, signage repair, and debris removal after storm events. These activities are described in detail in the following sections and could become part of the property agreements with individual property owners.

VEGETATION MANAGEMENT

In general, visibility between trailside plantings should be maintained to avoid creating a feeling of enclosure. This will also give trail users good, clear views of their surroundings, enhancing the aesthetic experience. Under-story vegetation near the trail will be maintained at a height of less than 36 inches. Selection and placement of trees will minimize vegetative litter on the trail as well as root uplifting of pavement. Vertical clearance along the trail will be periodically checked, and any overhanging branches will be pruned to a minimum vertical clearance of 10 feet.

Measures to protect the trail, include bi-annually (or as needed) mowing along both sides of the trail to prevent invasion of plants into the pavement and shoulder areas. Wherever possible, vegetation control should be accomplished by mechanical means or hand labor. Where this is not

feasible a limited application of a state-approved herbicide may be effective.

SURFACE REPAIR AND SWEEPING

The trail surface will be kept free of debris, especially broken glass and other sharp objects, loose gravel, leaves and stray branches. Trail surfaces will be swept monthly. Soft shoulders will be well maintained to maximize usability. Cracks, ruts and water damage will be repaired as they are discovered during inspection. Where drainage problems exist along the trail, ditches and drainage structures will be kept clear of debris to prevent wash-outs along the trail and maintain positive drainage flow. Checks for erosion along the trail will be made during the wet season, and immediately after any storm that brings flooding to the area.

REMOVAL OF LITTER AND DUMPED MATERIALS

Staff or volunteers will remove litter along the trail. Litter receptacles will be placed at primary access points such as trailheads, as shown in the plan. Vehicle barriers, regulatory signage and enforcement of fines should control dumping as much as possible. When dumping does occur, it will be removed as soon as possible to prevent further occurrences. Neighborhood volunteers, friends' groups, alternative community service crews, or inmate labor crews may be considered in addition to maintenance staff. An Adopt-a-Trail program can be set up for organizing community maintenance for segments of the trail.

SIGNAGE REPAIR

Signs will be replaced along the trail on an as-needed basis so they remain representative of the overall trail branding and are legible and intact.



MAINTENANCE OF LIGHTS

Bulbs will be replaced as they burn out and light fixtures will be inspected at monthly intervals and repaired or replaced when required to maintain safety on the trail.

MAINTENANCE SCHEDULE

SHORT-TERM MAINTENANCE FREQUENCIES

Table 2 specifies the estimated frequency that each of the maintenance activities should take place.

LONG-TERM TRAIL MAINTENANCE

In addition to ongoing maintenance, long-term maintenance will be necessary. Based on observations and analysis of existing asphalt trails, if asphalt trails are incorporated, the pavement surfacing will need an overlay or extensive replacement and renovation every 25 to 30 years. However, this extensive replacement could be mitigated and the expense reduced with preventative maintenance measures such as slurry sealing every five to eight years to prevent surface raveling.

The cost of extending the life of existing asphalt by crack repair and slurry sealing are relatively small compared with reconstruction or overlay. Slurry sealing is estimated at \$5,000 to \$10,000 per mile. The cost of reconstructing an asphalt trail if the condition has become deteriorated would cost approximately \$350,000 to \$1,000,000 per mile.

TABLE 2. SUGGESTED MAINTENANCE SCHEDULE

Item	Suggested Frequency
Fence/barrier repair and replacement	Immediate
Lighting replacement/repair	As needed
Remove fallen trees	As needed
Water plants	As needed
Bollard replacement	As needed
Sign replacement/repair	As needed
Trash disposal	As needed, twice a week
Graffiti removal	Weekly/or as reported
Weed control	Monthly
Pavement sweeping	Monthly
Planted Tree, Shrub, trimming/fertilization	6 months- 1 year
Debris removal	Bi-annually or as needed
Shoulder pruning*	Bi-Annual – Fall/Spring
Clean drainage system	Annual
Maintain benches, site amenities	1 year
Maintain irrigation lines/replace sprinkler components	1 year/as needed
Pavement marking replacement	1-3 years
Pruning to maintain vertical clearance	Annually – Winter or as needed
Pavement sealing	5-8 years
Lighting inspection and repair	Monthly or as reported
* Additional maintenance may be required.	

MAINTENANCE VEHICLES

Typical maintenance vehicles for the trail will likely be light pick-up trucks or small utility vehicles. A mechanical sweeper is recommended to keep the trail clear of loose gravel and other debris. Care should be taken when operating heavier equipment on the trail to avoid breaking the edge of the trail surface.



Typical asphalt trail replacement/repair (above left). A trail in need of maintenance (above right).



NATIONAL DESIGNATION OF TRAILS

In recent decades, many states have decided to highlight their unique recreation opportunities and natural landscapes by creating their own cross-state trails. Many of these have achieved one of the national trail designations outlined in the National Trail System's Act of 1968, which made it federal policy to promote trails by providing financial assistance, support of volunteers, and coordination with other stakeholders. As a result, 11 national scenic trails and 19 national historic trails have been established by law (and are administered by the National Park Service, the USDA Forest Service, and the Bureau of Land Management, depending on the trail); almost 1,300 national recreation trails have been recognized by the Secretaries of Agriculture and Interior and seven side-and-connecting trails have also been certified. Should the Paso del Norte Non-profit seek to cross into New Mexico, the following trail designations could be sought:

National Scenic Trails are 100 miles or longer, continuous, primarily non-motorized routes of outstanding recreation opportunity. Such trails are established by Act of Congress and have a designated National Scenic Trail Administrator who champions the project and coordinates between different jurisdictions.

National Historic Trails commemorate historic (and prehistoric) routes of travel that are of significance to the entire nation. They must meet all three criteria listed in Section 5(b)(11) of the National Trails System Act. Such trails are established by Act of Congress. These trails allow for motorized use.



National Recreation Trails, also authorized in the National Trails System Act, are existing regional and local trails recognized by either the Secretary of Agriculture or the Secretary of the Interior upon application. They do not need approval from Congress. Trail distances range from less than a mile to 485 miles in length. NRTs are open to foot traffic, watercraft, bicycles, in-line skates, wheelchairs, cross-country skis, and off-road recreation vehicles such as motorcycles, snowmobiles, ATVs, and four-wheel drive vehicles.

American Discovery Trails are a proposed new national trail designation that would recognize trails that link urban places with backcountry trails in natural environments.

NATIONAL TRAIL DESIGNATION BENEFITS

The National Trail designation of any type helps streamline coordination between land managing agencies, prioritizes the trail for federal money and maintenance, spurs private donations, brings tourism to rural and urban areas, and opens the option to share information easily with other National Trails through the Partnership for National Trails Systems.

NATIONAL TRAIL DESIGNATION CHALLENGES

One challenge sparked by a National Trail designation is the need to update an existing trail to meet sustainability design standards, including a maximum trail grade. Additionally, adding a federal agency partner also introduces a higher level of bureaucracy to efforts to fund and maintain a trail.

PASO DEL NORTE TRAIL DESIGNATION OPPORTUNITIES

National Scenic Trail designation may not be an option if the Paso del Norte Trail includes segments that are along a road or allows other motorized use, however National Historic Trail designation could be an option because it does allow for motorized sections of trail. The deadline to apply for this designation is November 1, annually, and National Park Service can assist in the nomination process.



