



ALBUQUERQUE RAIL TRAIL **BARELAS SEGMENT** **CONCEPT PLAN**

APRIL 29, 2024



ACKNOWLEDGEMENTS

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THE BARELAS CONTEXT

The *Rail Trail Barelas Segment Concept Plan* proposes an attractive, inviting trail that expands the public realm, bolsters walking and bicycling access to community destinations, and celebrates the distinct history and culture of Barelas. By connecting the Paseo del Bosque trail along the Rio Grande to the Downtown segment of the Rail Trail beginning at the Rail Yards redevelopment site, the Barelas trail corridor creates an essential and exciting link in the regional trail network and the larger Albuquerque Rail Trail loop.

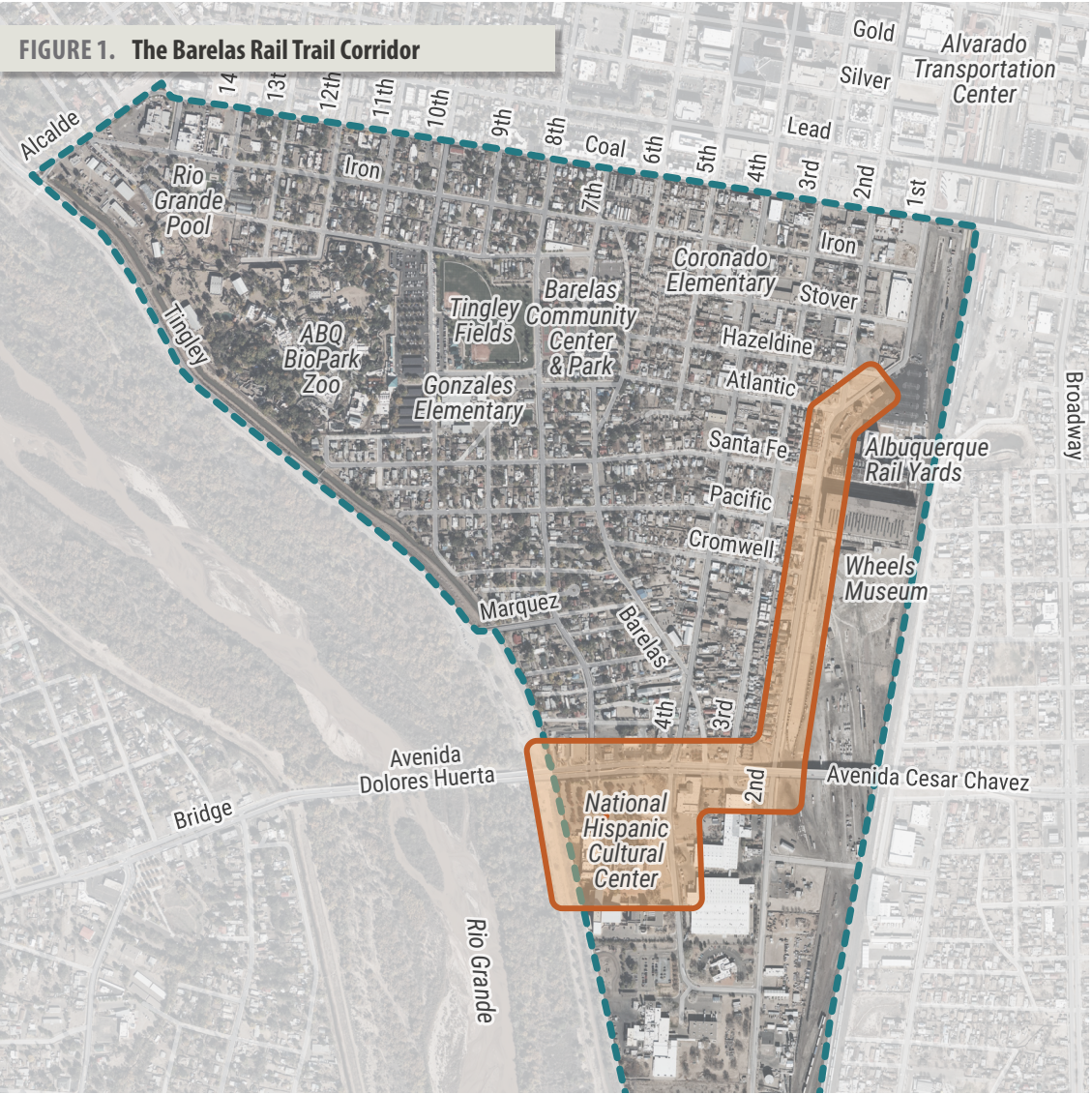
This plan builds on recent Rail Trail planning and design efforts and defines a concept for a trail segment tailored to the Barelas context. The first chapter explores the history, character, and urban fabric of Barelas, highlighting opportunities, challenges, and community priorities along and near the trail corridor. The second chapter recommends a concept for a signature urban trail through the neighborhood, defining a preferred alignment, typical cross sections, amenities, and crossing treatments. The final chapter identifies next steps and presents key information needed to support implementation.

Legend

-  Barelas Trail Corridor
 -  Barelas
-  1/2 Mile

Source: City of Albuquerque

FIGURE 1. The Barelas Rail Trail Corridor



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THE ALBUQUERQUE RAIL TRAIL

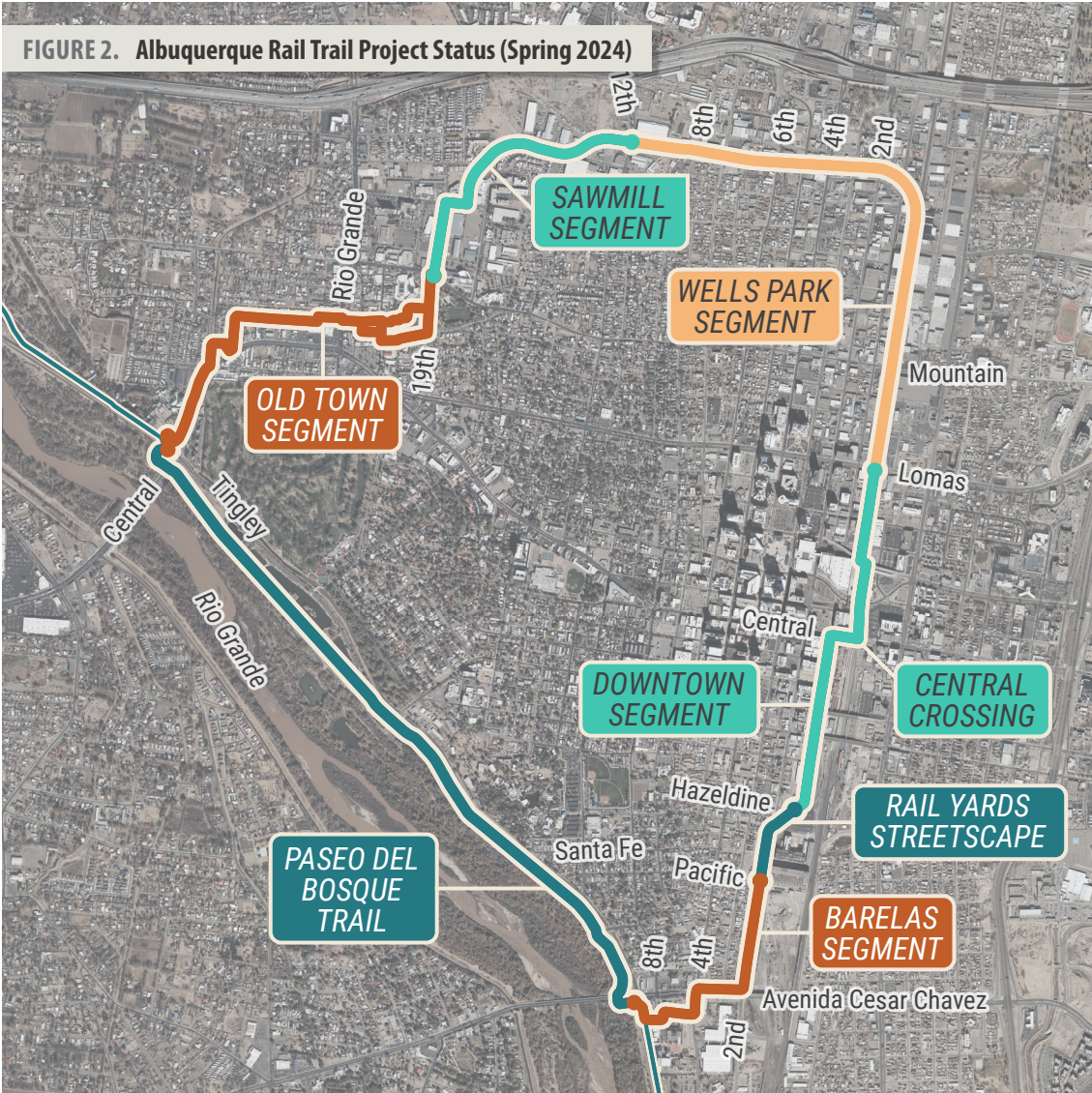
Albuquerque's goal of building a world-class urban trail system in and around the heart of the City is many years in the making. Over the past decade, the City explored and refined concepts for new trail corridors with the potential to strengthen the multimodal transportation networks, enhance the public realm, and catalyze the redevelopment of old industrial sites along the railroads. Several studies identified opportunities for trails along the north–south BNSF rail corridor on the eastern edge of Downtown and along the east–west spur extending through the Wells Park neighborhood to the rapidly developing Sawmill district.

Recently, the City unified and expanded upon these discrete planning efforts by defining a vision for an seven-mile trail loop encompassing portions of the BNSF rail corridor, the spur through Sawmill, and the existing Paseo del Bosque trail along the Rio Grande.

This plan recommends and defines a concept for the Barelas segment of the Albuquerque Rail Trail, which links the Paseo del Bosque trail to the BNSF rail corridor at the south end of the loop, as illustrated in Figure 2.

Legend

- Project Status (Spring 2024)
- Planning
 - Preferred Alignment (identified in previous plan)
 - In Design/In Construction
 - Existing/Completed



RAIL TRAIL MILESTONES

The City has made rapid strides toward bringing the Rail Trail to fruition in recent years. As of Spring 2024, the City has secured \$39.5 million in local, state, and federal funding for the trail, and continues to build on that momentum through planning, design, and construction projects. The timeline below highlights key milestones between 2021 and 2023.

- 2021
- Albuquerque Rail Yards streetscape improvements constructed
- 2022
- Rail Trail Framework Plan completed for Downtown
 - City awarded federal RAISE Grant funding for Downtown
- 2023
- Visioning completed for the 7-mile loop
 - Concept planning begins for the Barelas segment
 - Strategic planning for inclusive growth begins for the 7-mile loop
 - Concept planning begins for the Old Town segment
 - Design begins for Downtown, the Central Crossing, and Sawmill
 - Construction begins on the Central Crossing

- Project Phase
- Planning
 - Funding
 - Design
 - Construction

PAST PLANS

This plan builds upon recent efforts that establish a compelling vision for the Albuquerque Rail Trail.

RAIL TRAIL FRAMEWORK PLAN

The *Rail Trail Framework Plan* (March 2022) lays the groundwork for a signature urban trail through Downtown between the Albuquerque Rail Yards and Lomas Boulevard. The planning process engaged residents, businesses, and stakeholders in several nearby neighborhoods, including Barelas, and generated excitement for a new trail. The Barelas segment ties into the Downtown segment at the Rail Yards, and this plan tailors many of the *Framework Plan's* recommendations to the Barelas context to ensure a cohesive, integrated trail.

RAIL TRAIL VISIONING

The planning, design, and construction of the Rail Trail has taken on urgency since the City secured multiple sources of federal, state, and local funding in 2022. Building on the project's momentum, the City tasked Antoine Predock Architect with developing an overarching concept for the Rail Trail that celebrates what is special about Albuquerque. In July 2023, Antoine Predock Architect presented a cohesive vision for a signature urban trail loop linking the BNSF rail corridor and the Paseo del Bosque trail along the Rio Grande. This plan seeks to refine Antoine Predock Architect's vision for the Barelas segment and advance the project toward design and implementation.

ONGOING EFFORTS

The City is moving forward with multiple concurrent efforts that complement and relate to this plan.

RAIL TRAIL DESIGN

An interdisciplinary team of engineers, architects, landscape architects, and trail experts is actively designing the first pieces of the Rail Trail, namely the Downtown segment envisioned in the *Framework Plan*, an at-grade rail crossing at Central Avenue, and a trail through the Sawmill area. These projects will make key decisions about elements like the trail surface, trail amenities, and landscaping palettes, and many of these design choices will pertain to the Barelas segment.

ADVANCING INCLUSIVE GROWTH

The Rail Trail is a social infrastructure project that aims to expand transportation options, economic opportunities, and the public realm in Barelas and other neighborhoods. To ensure that surrounding communities benefit from this public investment, the City is undertaking a rigorous study that measures trends like rent, housing, and demographics in neighborhoods touched or impacted by the Rail Trail. The study will inform a strategic plan for inclusive growth that prioritizes affordable housing options, supports businesses, and integrates community-generated ideas into the Rail Trail. The City published a draft report—*Advancing Inclusive Growth through the Rail Trail*—in January 2024 for public comment. The report will be updated and finalized based on public input.

THE BARELAS CONTEXT

Located on the ancestral Tiwa homelands of the Pueblo people, the neighborhood of Barelas lies at the crossroads of vital, ever-changing trade routes and transportation corridors that brought together a unique mix of cultures, ideas, and ways of life over the course of centuries. Formative periods and key milestones in Barelas’ history shaped the distinct place we see today. The Rail Trail will celebrate and build upon this rich history by incorporating art, programming, and design elements that showcase what makes Barelas special and reflect the neighborhood’s culture and identity.

1000s–1500s: Indigenous Stewardship & Trade

Prior to the arrival of the Spanish, indigenous peoples developed a vast network of trade routes that extended to present-day Mexico and brought turquoise, copper, and other materials to the Rio Grande valley. The Pueblo people have protected and stewarded the land surrounding the Rio Grande in Albuquerque for centuries, and maintain deep connections to the land today.

“The single most important factor in Albuquerque’s transformation from a farming village to a commercial and industrial center...was the railroad.” – Chris Wilson¹

1600s–1800s: El Camino Real

El Camino Real de Tierra Adentro carried people, goods, and information between Spanish colonial capitals in Santa Fe and Mexico City. The 1,200-mile thoroughfare followed footpaths and trading routes established by indigenous peoples and utilized a natural ford across the Rio Grande near today’s Avenida Dolores Huerta bridge. Spanish settlers established new communities along El Camino, displacing and subjugating indigenous people to do so. Settlers developed small farming villages in Barelas and throughout the Rio Grande valley, building an extensive system of acequias (irrigation ditches) that support agriculture to this day.

1880: The Railroad

When the Atchison, Topeka and Santa Fe (AT&SF) Railroad linked Albuquerque and New Mexico to the rapidly expanding transcontinental railroad network, it transformed Barelas, the city, the region, and the state. It catalyzed the city’s growth into New Mexico’s preeminent economic hub and urban center, and spurred the development of Albuquerque’s downtown. The AT&SF Railroad built its regional operations center, administrative offices, maintenance and repair shops, and a roundhouse at the Albuquerque Rail Yards along 2nd Street in Barelas between 1914 and 1924. The Rail Yards provided jobs to residents of Barelas and nearby neighborhoods for decades, employing approximately 1500 workers at its peak.



The centuries-old El Camino Real, now a National Historic Trail in New Mexico and Texas, crossed the Rio Grande near the Avenida Dolores Huerta bridge in Barelas.
Source: Library of Congress



Workers traveled to and from the Albuquerque Rail Yards on 2nd Street in Barelas by foot, bicycle, and car.
Source: Library of Congress

- 1. Wilson, Chris, 1986, “The Historic Railroad Buildings of Albuquerque, an Assessment of Significance,” prepared for the Redevelopment Division, Planning Department, City of Albuquerque

1926: The Mother Road

4th Street, the primary commercial district through Barelas, became a part of the original Route 66 linking Chicago and Los Angeles. The route brought a wide variety of travelers through Barelas, supporting a flourishing array of businesses that served local residents and visitors alike.

1937: Route 66

Route 66 shifted to its current east–west alignment on Central Avenue a few blocks north of Barelas, becoming the first paved route across the state of New Mexico. As businesses along the corridor increasingly catered to drivers, Central Avenue became home to its iconic architecture and neon signs. As a consequence, many businesses along 4th Street struggled and declined, as many of these establishments had evolved to cater to Route 66 travelers.

1950s: The Rail Yards Closes

The Albuquerque Rail Yards closed its doors after the AT&SF railroad switched its trains from steam to diesel power. Barelas residents working at the maintenance and repair shops and related businesses lost their jobs, and employment opportunities in the neighborhood dwindled.

1960s: Interstate Highways

Interstate highways diverted traffic away from Route 66 and local commercial corridors like 4th Street, exacerbating the decline of economic opportunities in the neighborhood.

1970s: Urban Renewal

Urban renewal projects removed homes and buildings south of Avenida Cesar Chavez, displacing Barelas families living south of Bridge Boulevard. Large manufacturing buildings took the place of the adobe homes in this area, establishing a dramatic shift from residential to industrial land uses that persists today.

1997: Barelas Historic District

The Barelas-South Fourth Street Historic District was designated and listed in the National Register of Historic Places, laying the ground for future projects aimed at preserving and revitalizing the Barelas’ longtime commercial center.

2000: National Hispanic Cultural Center

The National Hispanic Cultural Center (NHCC) opened to the public, establishing a beautiful 20-acre campus along Avenida Cesar Chavez just south of the Fourth Street Historic District and just east of the Rio Grande. Governed by the State of New Mexico’s Department of Cultural Affairs, the NHCC offers exhibits, performances, and educational programing showcasing the work of Hispanic, Chicano and Latinx artists.

2014: Rail Yards Market Opens

The Rail Yards hosted its first public market featuring local vendors and artists, a series of events that continues seasonally today. After acquiring the site in 2007, the City of Albuquerque developed ambitious plans to revitalize and activate the site, and continues to roll out improvements to the public realm and expand programming.



The Red Ball Cafe and other businesses thrived along 4th Street for decades, but struggled as Barelas’ economy declined after World War II.
Source: Library of Congress

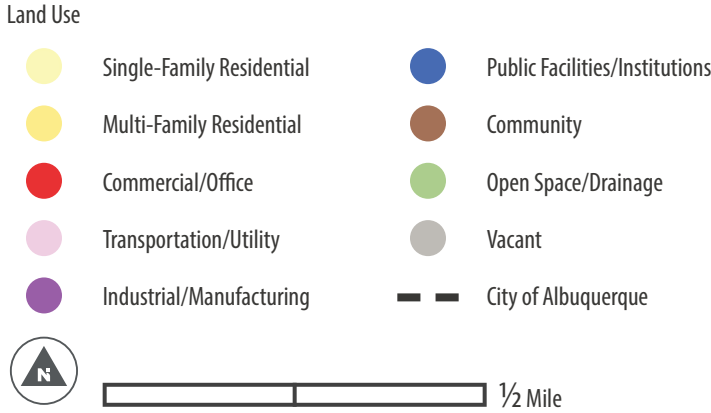


The Rail Yards Market, which showcases local vendors and artists every Sunday between May and October, is a popular weekend destination.

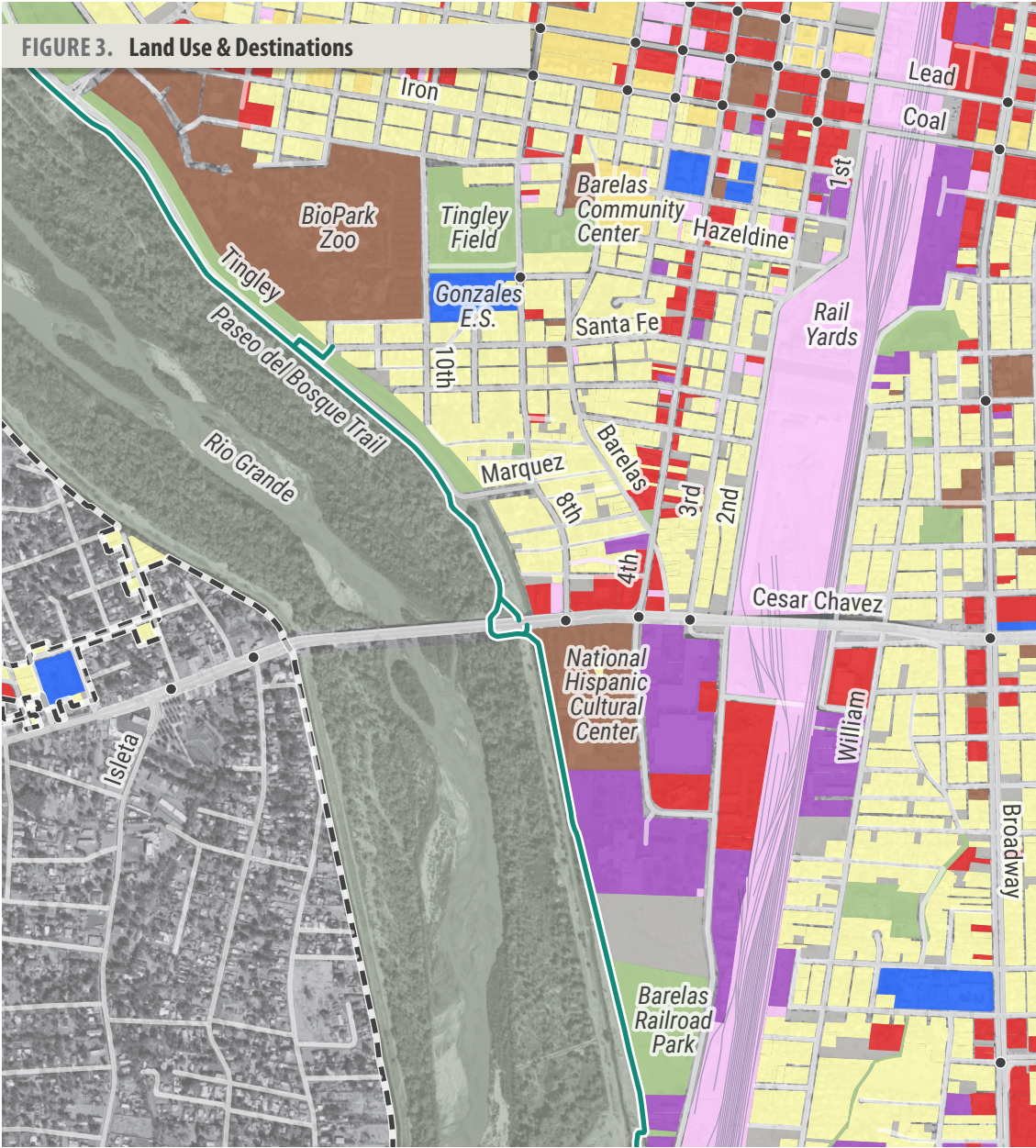
DESTINATIONS & LAND USE

Barelas is home to a diverse and vibrant mix of destinations and land uses, illustrated in Figure 3. Between Avenida Cesar Chavez and Coal Avenue, the urban fabric consists primarily of modest single family homes, many of which have stayed with the same families for generations. 4th Street remains the central commercial corridor in the neighborhood, and recent revitalization strategies have introduced new businesses and public space. Community and regional destinations such as the BioPark Zoo, Tingley Fields, the Barelas Community Center and Park, and Gonzales Elementary are concentrated along 10th Street and 8th Street just north of Santa Fe Avenue. South of Avenida Cesar Chavez, the National Hispanic Cultural Center and the Barelas Railroad Park lie along a pared down street network dominated by large industrial parcels. The Rio Grande and the BNSF rail corridor act as the western and eastern edges of the neighborhood, separating Barelas from South Broadway and western Albuquerque more broadly.

Legend



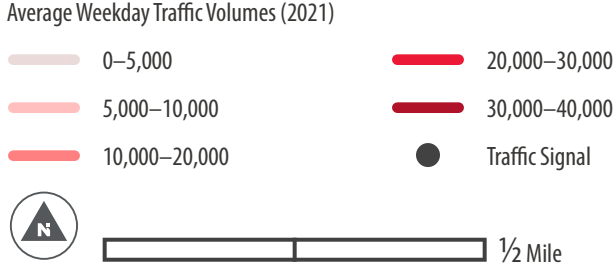
Sources: City of Albuquerque, Open Street Map



STREET NETWORK & TRAFFIC VOLUMES

Figure 4 highlights the corridors with the most vehicle traffic in Barelas. While several north–south streets extending into Downtown carry 5,000–10,000 cars per day, Avenida Cesar Chavez is by far the busiest roadway in Barelas. As one of the few bridges across the Rio Grande, the corridor serves as a regional thoroughfare, carrying over 30,000 cars per day. Although traffic flows freely for much of the day, the corridor experiences high levels of congestion at peak commuting hours, causing drivers to sit through delays. The traffic on Avenida Cesar Chavez presents both an opportunity and a challenge. Providing a spacious, separated trail near a major roadway can dramatically improve walking and bicycling options, as these types of corridors are places where people feel especially vulnerable walking on narrow sidewalks and bicycling in or alongside traffic. However, designing a trail close to a fast, busy roadway requires extra care and context-specific treatments to ensure a safe, pleasant experience that appeals to people of all ages and abilities. This plan evaluates several alignment options near Avenida Cesar Chavez and proposes a trail concept that acknowledges and addresses the multimodal demands along this corridor.

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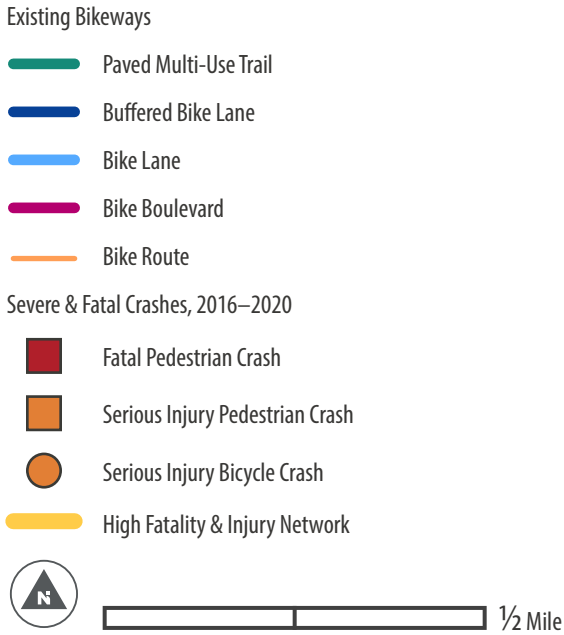
Sources: MRCOG, City of Albuquerque



BIKEWAY & TRAIL NETWORKS

The Barelvas transportation network includes a number of trails and on-street bikeways, illustrated in Figure 5. The Paseo del Bosque trail along the Rio Grande stands out as a popular and comfortable long-distance corridor that appeals to a broad range of users. The infrastructure on local streets, meanwhile, varies from block to block and does not provide robust, consistent, high-quality options for walking and bicycling throughout the neighborhood, highlighting the need for enhanced multimodal connections in Barelvas.

Legend



Sources: MRCOG, City of Albuquerque, Open Street Map



PASEO DEL BOSQUE TRAIL

The Paseo del Bosque trail along the Rio Grande is a popular, attractive corridor where people can walk, run, bike, and roll for miles in an environment that is fully separated from street traffic. The paved multi-use trail serves as a north–south spine in the regional active transportation network, providing a safe, comfortable option for traveling long distances by foot or by bicycle. Although the trail and the Rio Grande open space lie just west of Barelvas, the BioPark Zoo and the acequia along Tingley Drive separate the neighborhood from the trail and the river. Many Barelvas residents access the trail and surrounding open space via Santa Fe Avenue, where a trail bridge connects across the acequia. Barelvas neighbors organized and advocated for the construction of the Santa Fe trail bridge for years and were successful in 2014. The bridge, pictured below, is a testament to the community's determination and desire for convenient walking and bicycling routes to open space and other destinations.

ON-STREET BIKEWAYS

Outside of the Paseo del Bosque trail, Barelvas does not have a robust network of high-quality bikeways designed for people of all ages and abilities. Although Avenida Cesar Chavez, 2nd Street, and 8th Street feature bike lanes or are designated bike routes, these streets do not meet best practices for bikeway facilities, and many people feel uncomfortable bicycling in or directly alongside vehicle traffic on these fast, busy roadways.

MULTIMODAL SAFETY & VISION ZERO

As currently configured, the Avenida Cesar Chavez/ Avenida Dolores Huerta corridor is dangerous. The corridor is a part of the City's High Fatal and Injury Network, meaning it is among a select number of streets that account for a disproportionate share of severe and fatal crashes. Between 2016 and 2017, crashes seriously injured people walking and bicycling at the intersections of 8th Street and 4th Street, and a crash on the bridge over the Rio Grande killed a pedestrian in 2020. Improving multimodal infrastructure on or near Avenida Cesar Chavez can help reduce the safety risks of walking and bicycling along the corridor, which provides a critical connection between neighborhoods on either side of the river. Enhancing multimodal safety along the High Fatal and Injury Network corridor will also advance the City's commitment to Vision Zero and its ongoing work to eliminate traffic deaths and severe injuries.



A trail bridge crossing the acequia at Santa Fe Avenue connects Barelvas residents to the Paseo del Bosque trail and Rio Grande open space.

BIKEWAY & TRAIL FACILITIES PLAN UPDATE

The City is in the process of updating its *Bikeway & Trail Facilities Plan* for the first time in nearly a decade. The *Plan Update* will incorporate the proposed Rail Trail loop and recommend a cohesive network of on-street bikeway and paved multi-use trail projects that expand bicycling access to the Rail Trail and destinations across the City. The *Plan Update* focuses on high-comfort facilities that can make bicycling a safer and more appealing option for a wide range of bicyclists, including people who do not bike on City streets today. It also prioritizes improvements that appear plausible for the City to implement in the near term, provided that sufficient funding, staff time, and other resources are available. The final plan is anticipated in Summer 2024 and will require adoption by City Council.

ONGOING & UPCOMING PROJECTS

Several exciting sidewalk, bikeway, and streetscape projects led by the Barelas Community Coalition, the City of Albuquerque, and Bernalillo County are currently proposed or in design within the vicinity of the Barelas segment. Continuing to coordinate with and support these efforts can help the City and partner agencies leverage investments in walking and bicycling infrastructure and ensure strong integration between the Rail Trail and improvements along neighborhood streets and regional corridors.

Legend

Project Status (Spring 2024)

Planning

In Design

Existing/Completed

1/2 Mile

Sources: City of Albuquerque, Open Street Map



4TH STREET GREAT BLOCKS

The Barelas Community Coalition secured capital funding for sidewalk, streetscape, and placemaking improvements along 4th Street between Barelas Road and Coal Avenue. Funded in part by NM MainStreet, the community-led project aims to improve pedestrian safety, promote economic vitality, and celebrate the distinct history and culture of Barelas' commercial core. The project is proceeding in phases, with groundbreaking on the first phase anticipated in early 2024.

SILVER AVENUE BIKE BOULEVARD

City of Albuquerque Council Services is leading a project to enhance and extend the Silver Avenue Bike Boulevard between Nob Hill and Old Town. The project is in design as of Spring 2024. Improvements will include a separated two-way cycletrack on the Lead Avenue railroad overpass and a sidepath on Lead Avenue under I-25, which will provide critical connections between Barelas and Downtown and neighborhoods east of these regional barriers.

BRIDGE BOULEVARD

Bernalillo County is in the process of improving the Bridge Boulevard corridor between Coors Boulevard and 8th Street. The County implemented the first phase of the project, which added buffered bike lanes and enhanced sidewalks west of Goff Boulevard, in 2022. The County aims implement pedestrian improvements on the Avenida Dolores Huerta bridge extending to 8th Street in future phases of the corridor project, which will require additional planning, design, public input, funding, and coordination with NMDOT. These multimodal improvements can tie into Paseo del Bosque trail and the proposed Rail Trail loop east of the river. The project has the potential to create an invaluable regional connection for people walking and bicycling, and to transform the intersection of Avenida Dolores Huerta into a key nexus in the trail and bikeway network.

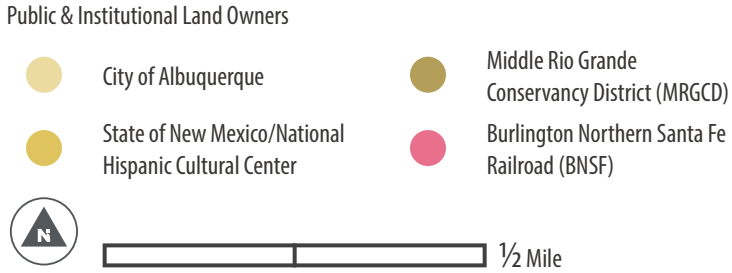
MAJOR LAND OWNERS

Figure 7 and Figure 8 show key land owners along and near the proposed trail corridor, highlighting parcels owned by public entities and railroads. The City of Albuquerque, the State of New Mexico, the Middle Rio Grande Conservancy District, and the Burlington Northern Santa Fe (BNSF) railroad all own property adjacent to the proposed trail corridor. The public and railroad properties open up opportunities for the City to reconfigure its own sites, pursue easements, and acquire property to allow for off-street trail alignments, a more spacious trail corridor, and enhanced public space.

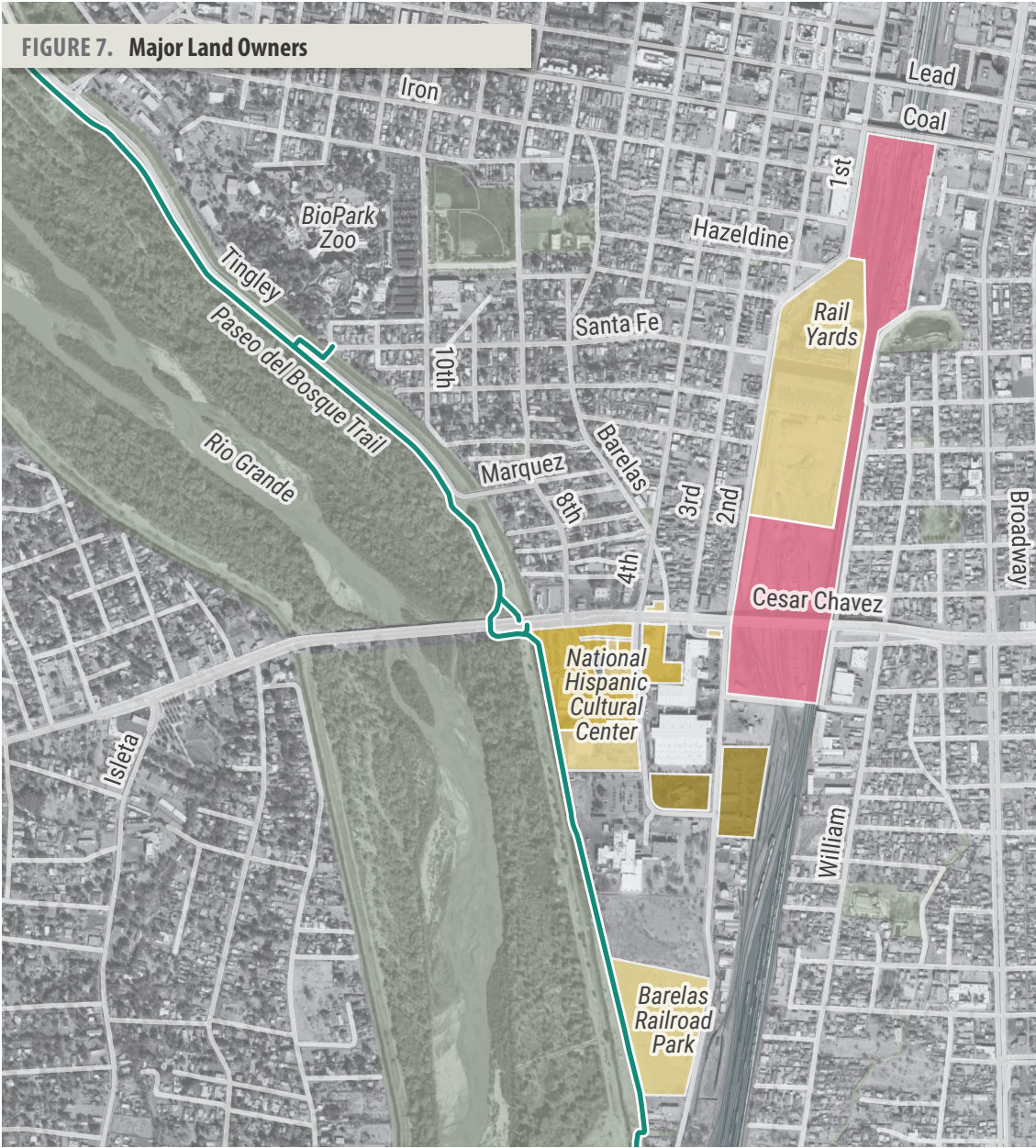
Along Avenida Cesar Chavez, alignments through the state-owned National Hispanic Cultural Center (NHCC) can separate the trail from the major roadway. This planning process engaged the NHCC about several potential trail alignments through their campus. The NHCC will continue to be a key stakeholder and integral partner as the project moves forward toward design and implementation.

On 2nd Street, acquiring or securing an easement through the BNSF property and utilizing City-owned Rail Yards property directly adjacent to the roadway can provide space for an enhanced amenity zone and maximize on-street parking.

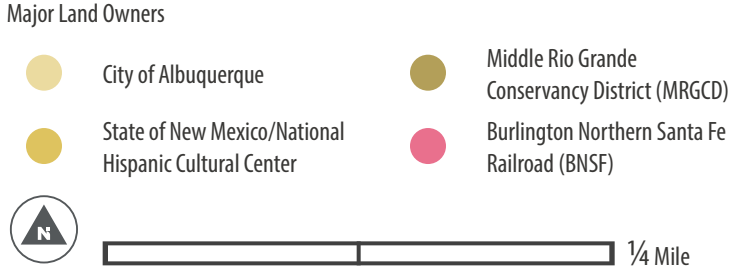
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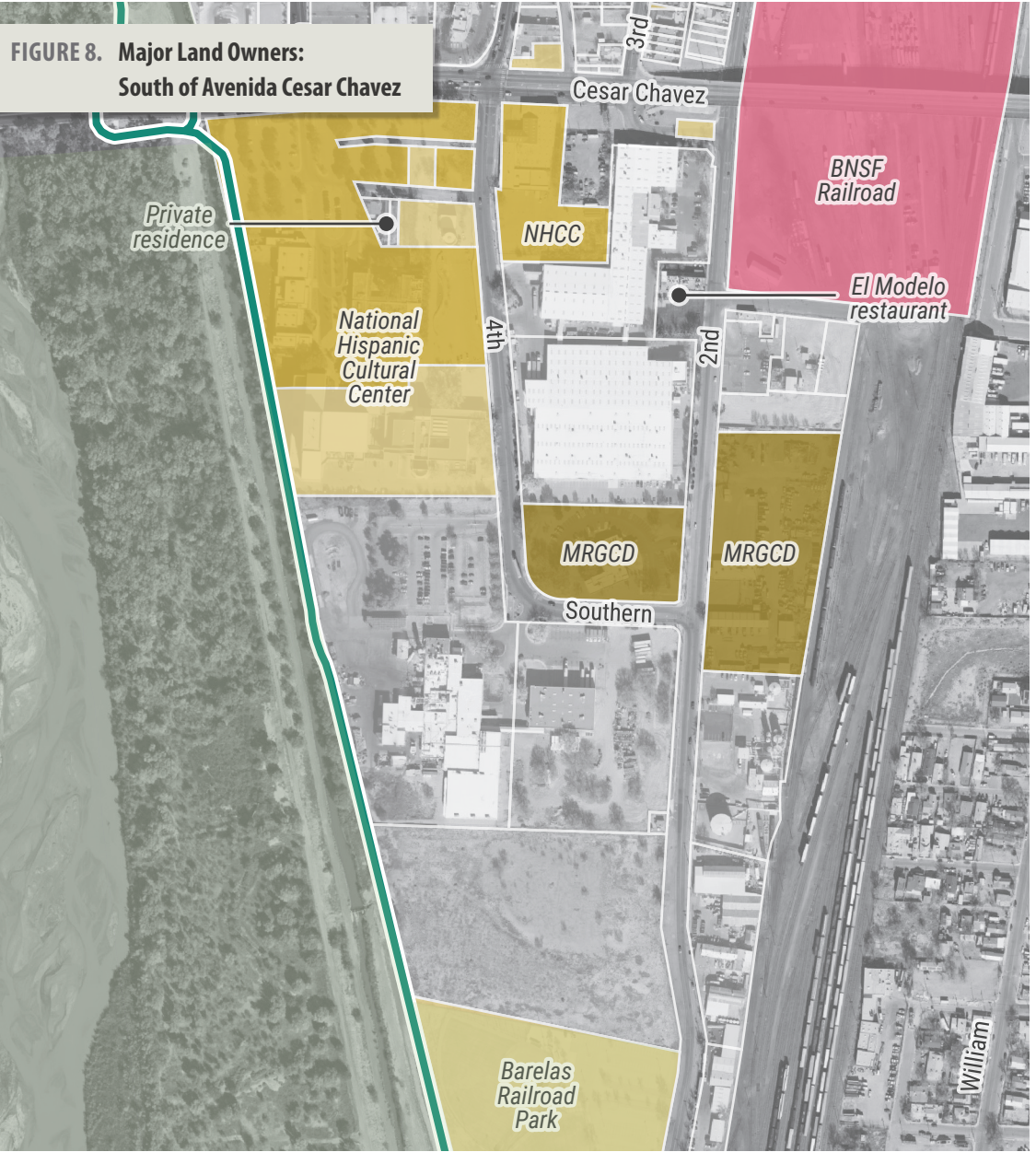
Source: Bernalillo County



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Source: Bernalillo County



COMMUNITY PRIORITIES

BARELAS OPEN HOUSE

This planning process included a public open house at the Barelas Community Center on Tuesday, September 26, 2023. Four stations at the open house focused on updating neighborhood residents and stakeholders about recent progress on the Rail Trail, building momentum for the project, and gathering community input about specific needs and opportunities along the Barelas segment. A total of 25 members of the public visited the open house, most of whom live in Barelas or other neighborhoods adjacent to the Rail Trail.

The study team conducted extensive outreach in advance of the meeting, which included inviting the Neighborhood Association, distributing flyers in the neighborhood, contacting local businesses and property owners, sending an email out to the City's Rail Trail listserv (which has over 600 contacts), and advertising the event on social media and other City listservs.

NEIGHBORHOOD CONNECTIONS

At one of the open house stations, attendees provided input on five topics related to neighborhood destinations, trail access, and walking and bicycling connections. Community input and feedback on the questions described here directly informed the Neighborhood Connections recommendations on page 56.

Barelas Open House Responses: Neighborhood Connections

ACCESS

Where would you like to access or enter the proposed trail from the neighborhood?

- Santa Fe Avenue trail bridge and the Paseo del Bosque trail
- Alcalde Place and the Paseo del Bosque trail
- Central Avenue and 1st Street
- Gold Avenue and 1st Street
- Lead Avenue and 1st Street
- Iron Avenue and 1st Street
- 8th Street and Avenida Dolores Huerta
- West of the Avenida Dolores Huerta bridge across the Rio Grande
- Barelas Community Center & Park

IMPROVEMENTS

What types of improvements would you like to see on Barelas streets connecting to the trail?

- Slower speeds and improved bike lanes on 8th Street
- A safer crossing of 8th Street at Santa Fe Avenue
- More speed bumps on 2nd Street between Pacific Avenue and El Modelo
- Bike facilities on Avenida Cesar Chavez heading east to I-25 and the University of New Mexico stadiums
- A connection on Santa Fe Avenue to 4th Street
- Isleta drain trail

DESTINATIONS

Where in Barelas do you like to go?

- Businesses and destinations along 4th Street
- Barelas Community Center
- Casa Barelas
- National Hispanic Cultural Center
- Downtown
- ART stations and the Alvarado Transit Center
- Rio Grande Pool

CONNECTIONS

Where in Barelas would you like to see improvements to help connect to the trail?

- Avenida Dolores Huerta bridge
- Bridge Boulevard and streets west of the river
- 8th Street and Santa Fe Avenue
- Coal Avenue near 14th Street

AVENIDA CESAR CHAVEZ POCKET PARK

How do you use the pocket park on Avenida Cesar Chavez between 4th Street and Barelas Road? How would you like to use this space?

- In conversations with project team staff, most attendees said they were unfamiliar with the park or did not currently use it.
- Some attendees expressed concerns about homelessness and encampments in the park.

TRAIL AMENITIES

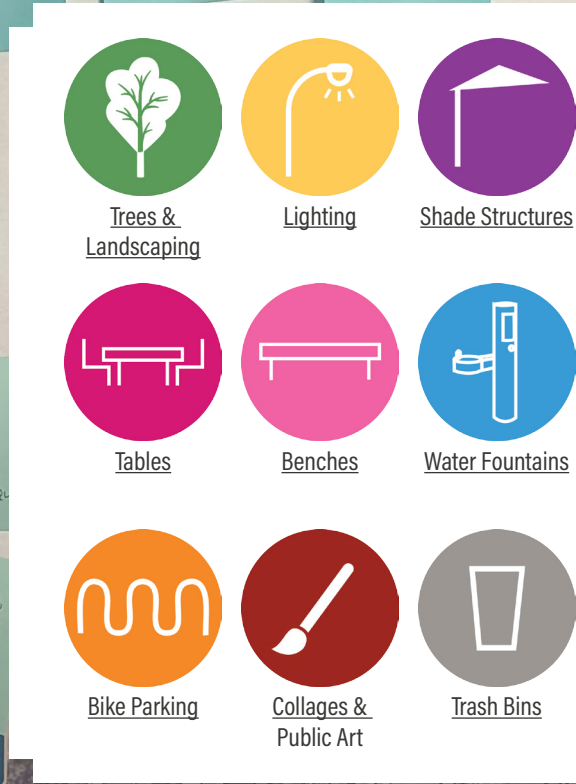
At another open house station, attendees provided input on ways to enhance the public realm by placing stickers to indicate where they hope to see different amenities. Figure 9 reflects those stickers and indicates strong public support for trees, shade, lighting, and public art along the full corridor, as well as benches, tables, bike parking, and water fountains near the Paseo del Bosque trail, the National Hispanic Cultural Center, and 2nd Street. The community interest in amenities highlights the importance of spacious cross sections and gateways with room for shade trees, lighting, art, and other enhancements.

Barelas Open House Responses: Amenities

Attendees suggested the following amenities:

- shade
- tree-lined paths
- restrooms
- water fountains
- a water park or sprinklers
- gardens with edible and medicinal plants like lavender, chocolate flower, fruit trees, and nut trees
- less rock in the landscaping
- abundant xeriscaping
- youth destinations
- a view tower
- family dismount safe zones
- wayfinding into Downtown and into the bosque
- dark skies lighting
- iconic images of local businesses like Barelas Coffee House, El Modelo, Red Ball Cafe, and Sanitary Tortilla Factory

FIGURE 9. Public Open House Trail Amenities Input



Open house attendees placed stickers to indicate where they hoped to see nine different types of trail amenities.

RAIL TRAIL FRAMEWORK PLAN OUTREACH

The *Rail Trail Framework Plan* for the Downtown segment north of the Rail Yards gathered valuable public input that pertains to the planning and design of the Barelas segment. The *Framework Plan* engaged residents, businesses, and stakeholders in Barelas and other neighborhoods surrounding the Downtown segment through a public meeting at the Rail Yards in June 2021 and two surveys in Summer 2021 and January 2022. A representative from the Barelas Community Coalition also served on the *Framework Plan's* steering committee, which advised on the alignment, design concepts, and the overarching strategy for the trail.

Public meeting attendees and survey participants expressed a strong desire for trees, shade, water features, lighting, and public art such as murals along the trail. Barelas residents and the broader public also provided input on potential programming options, indicating an interest in seeing food vendors and growers’ markets, music concerts, and temporary art installations such as seasonal light art along or near the trail in the future. Public meeting attendees also raised concerns about housing affordability, encouraging the City to consider affordable housing and other strategies to prevent and mitigate displacement surrounding the project. The City’s ongoing inclusive growth strategic planning will continue to emphasize the importance of affordable housing options and engage neighborhoods to generate ideas for programming that aligns with community interests.

TRAIL RECOMMENDATIONS

THE PROPOSED ALIGNMENT

The proposed alignment for the Barelas segment of the Rail Trail, shown in Figure 10, links the Paseo del Bosque trail to the Albuquerque Rail Yards via the National Hispanic Cultural Center, Avenida Cesar Chavez, and 2nd Street.

This chapter begins by briefly describing how the proposed alignment emerged as the preferred option through a screening process. It then provides an overview of key design principles for creating a safe, spacious, and resilient trail, as well as concepts for enhancing the public realm and establishing a distinct sense of place through recurring elements like landscaping, amenities, and public art. A detailed description of the alignment highlights key opportunities for hotspots and gateways, proposes typical cross sections, and recommends treatments for safe street crossings. The chapter concludes with recommendations for expanding trail access and improving walking and bicycling options in Barelas through supplemental trail connections and investments in sidewalks, bikeways, streetscapes, and crossings beyond the primary alignment.

Legend

• • • Proposed Barelas Trail Alignment

Project Status (Spring 2024)

— In Design

— Existing/Completed



1/4 Mile

FIGURE 10. Proposed Alignment



ALIGNMENT SCREENING & SELECTION

This planning process considered several options for a signature urban trail linking the National Hispanic Cultural Center (NHCC) and the Albuquerque Rail Yards. Early in the process, the planning team screened eight alignments (shown in Figure 11) to understand the universe of possibilities and support an informed recommendation for the preferred alignment.

The process screened and evaluated potential alignments relative to five goals developed by the project team and City staff. These five factors helped identify the alignments with the greatest opportunities to implement a spacious, appealing trail:

- **Pedestrian-friendliness.** Provide an appealing, and convenient route for people walking.
- **Bicycle-friendliness.** Provide an appealing and convenient route for people bicycling.
- **Connections.** Connect to neighborhood destinations.
- **Trail Feasibility.** Build a spacious signature trail with room for shade trees without severely disrupting existing parking and traffic patterns.
- **Property Ownership.** Utilize public street right-of-way and easements through public property, avoiding impacts to Barelas homes and businesses.

Legend

- Northern Alignment Options (1-3)
- Preferred Alignment Option (4)
- Southern Alignment Options (5-8)
- Existing Trails & Streetscape Improvements

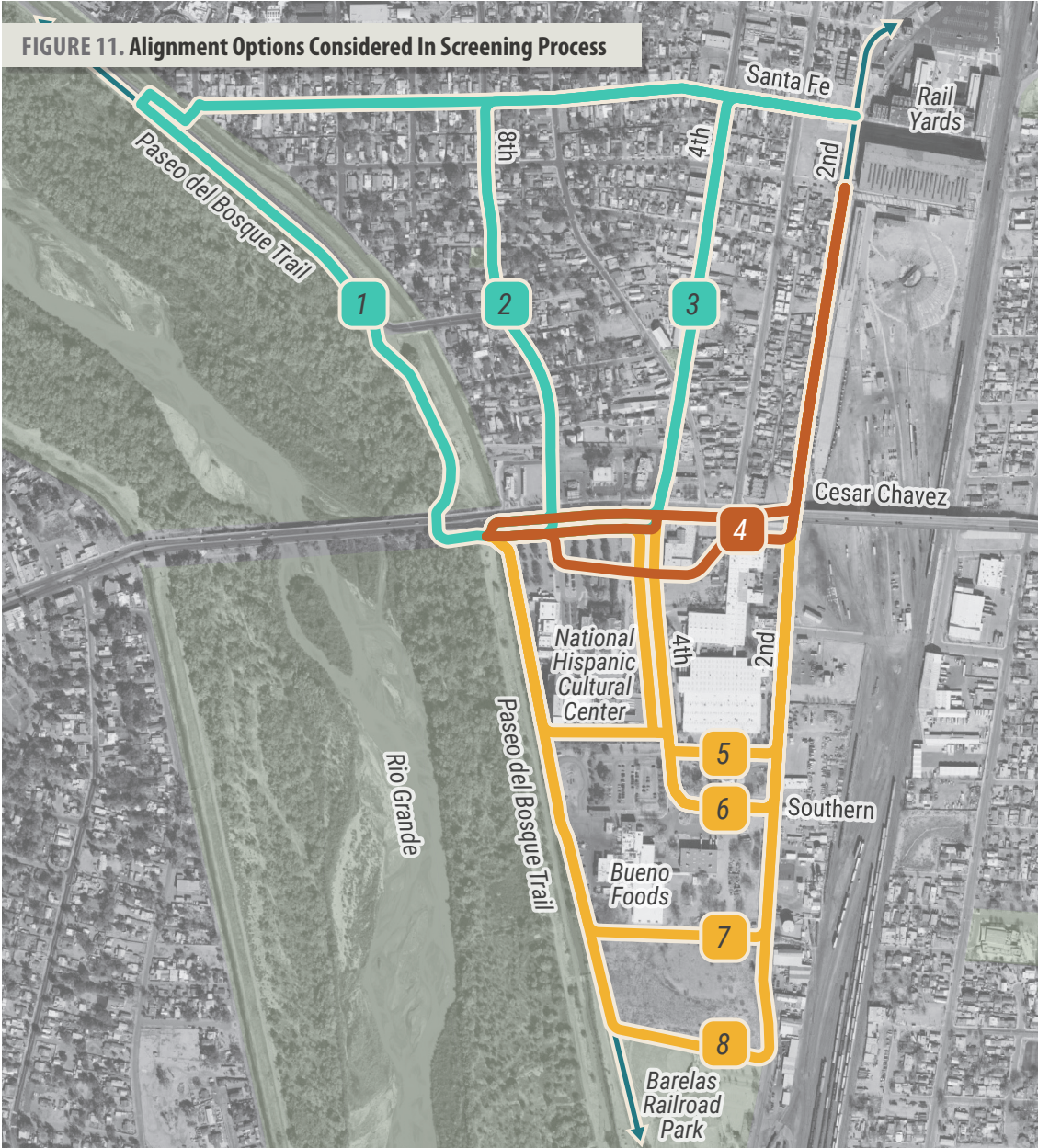


FIGURE 11. Alignment Options Considered In Screening Process

PROPOSED NORTHERN ALIGNMENTS

The alignments north of Avenida Cesar Chavez present major feasibility concerns, as illustrated in the alignment screening matrix (Table 1). Alignments 1–3 travel along residential and commercial neighborhood streets with frequent street and driveway crossings and narrow right-of-way. Due to these constraints, none of the key corridors north of Avenida Cesar Chavez—4th Street, 8th Street, and Santa Fe Avenue—can accommodate a trail of adequate width without removing parking outside of residences and businesses. The Key Trail Design Principles section on page 26 describes the minimum geometric standards considered when assessing trail feasibility as a part of the screening process.

Although they cannot accommodate a signature trail, these neighborhood streets provide valuable connections to destinations. Barelas residents stand to benefit greatly from enhanced walking

and bicycling infrastructure on these corridors. The Neighborhood Connections section on page 56 recommends bikeway, sidewalk, and streetscape improvements along all or part of Santa Fe Avenue, 4th Avenue, and 8th Avenue to support robust walking and bicycling options throughout Barelas.

PROPOSED SOUTHERN ALIGNMENTS

The alignments south of Avenida Cesar Chavez result in indirect routes between the NHCC and the Rail Yards. Alignments 5–8 deviate significantly out-of-direction, adding at least a quarter-mile and 5 minutes of walking time relative to the most direct route. While longer trail loops appeal to some recreational trail users, many people prefer direct routes for everyday walking and bicycling trips.

The longer southern routes may serve as valuable extensions or spurs of the Rail Trail system in the future, once the primary loop is in place. The Supplemental Trail Connections section on page

54 recommends two options for additional trails south of Avenida Cesar Chavez, including a trail through Barelas Railroad Park and along 2nd Street (Alignment 8).

THE PREFERRED ALIGNMENT

An alignment through the NHCC, along Avenida Cesar Chavez, and on 2nd Street (Alignment 4) emerged as the preferred option during the screening process. This alignment offers a direct route between the NHCC and the Rail Yards; accommodates a spacious trail with limited street and driveway crossings; and presents opportunities for easements that can provide space for shade trees, gateways, and amenities. The project team refined the specific route between the Paseo del Bosque trail and 2nd Street based on further conversations with the NHCC and with City engineering staff.

TABLE 1. Alignment Screening Matrix

Alignment	Pedestrian-friendliness	Bicycle-friendliness	Connections	Trail Feasibility	Property Ownership	Segment Length	Segment Walk Time	Rail Trail Loop Length
1 Paseo del Bosque • Santa Fe Avenue	✓	✓	✓	✗	✓	1.3 miles	26 minutes	6.3 miles
2 National Hispanic Cultural Center • 8th Street • Santa Fe Avenue	✓	✗	✓	✗	✓	0.8 miles	16 minutes	7.7 miles
3 National Hispanic Cultural Center • 4th Street • Santa Fe Avenue	✓	✗	✓	✗	✓	0.7 miles	14 minutes	7.5 miles
★ 4 National Hispanic Cultural Center • Avenida Cesar Chavez • 2nd Street	✓	✓	✓	✓	✓	0.7 miles	15 minutes	7.6 miles
5 National Hispanic Cultural Center • Middle Rio Grande Conservancy • 2nd Street	✓	✓	✓	✓	✓	1.1 miles	23 minutes	8.0 miles
6 National Hispanic Cultural Center • 4th Street • Southern Avenue • 2nd Street	✓	✓	✓	✓	✓	1.2 miles	24 minutes	8.0 miles
7 Paseo del Bosque • Bueno Foods • 2nd Street	✓	✓	✗	✓	✓	1.3 miles	26 minutes	8.2 miles
8 Paseo del Bosque • Barelas Railroad Park • 2nd Street	✗	✓	✓	✓	✓	1.5 miles	30 minutes	8.4 miles

KEY TRAIL DESIGN PRINCIPLES

This section outlines design principles related to trail and roadway geometry that form the basis for the typical trail cross sections recommended along the proposed alignment. These principles reflect best practices for the design of trails in urban environments and lessons learned from signature trail projects across the country, and align with design concepts on the Downtown and Sawmill segments of the Rail Trail loop. Applying these design principles consistently across the Rail Trail loop to the extent feasible can help ensure a cohesive, safe trail system where people of all ages and abilities are eager to walk and bike.



The Atlanta BeltLine is 14 feet wide. Photo credit: Christopher T. Martin

TRAIL GEOMETRY

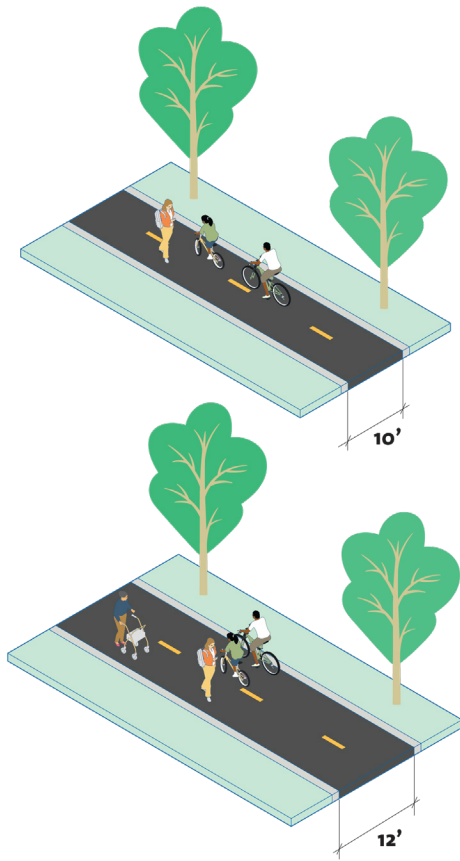
This section proposes minimum and preferred dimensions for trail and buffer widths based on the Ohio Department of Transportation’s *Multimodal Design Guide*, a 2023 document that reflects the state of the practice nationally. The proposed dimensions meet or exceed the minimum dimensions in the City of Albuquerque *Development Process Manual*.

The trail should be a minimum of 11 feet wide. At less than 11 feet, trails do not provide space for people to travel side-by-side and pass other users without increasing the potential for conflicts. At 11 feet, a trail can comfortably accommodate 150-300 people passing a single point in an hour.

Where space allows, the trail should be 14 feet wide to allow more people to safely share space. Wider trails accommodate a diverse range of users of different sizes and speeds and allow people to socialize while traveling side-by-side. At 12–15 feet, a trail can comfortably accommodate 300–500 people passing a single point in an hour. Many cities have widened popular trails to support more activity after witnessing congestion along facilities that were too narrow at initial construction.

Trail users require shy space (i.e., buffers or setbacks) from vertical elements and fixed objects. Trail users are not comfortable traveling extremely close to objects and vertical drop-offs. Accordingly, the intended operational space of the trail should be at least 2 feet away from continuous vertical elements like fences and building walls, and at least 1 foot from vertical curbs.

Where space allows, the trail should be set back 6–8 feet from the roadway to separate users from vehicle traffic. Wider buffers support level crossings of driveways that comply with accessibility standards without shifting or narrowing the trail. Wider buffers also provide space for shade trees, which encourage people to use the trail year-round.



A 10-foot trail does not provide space for people to travel side-by-side and pass other users.

CLIMATE RESILIENCE

As Albuquerque experiences higher and higher temperatures, designs that shield trail users from heat and provide opportunities to rest and hydrate will be the cornerstones of an inviting, year-round outdoor space. Strategies that can make the trail more resilient to extreme desert heat include:

- frequent shade trees and shade structures,
- plant species that can tolerate and thrive in warmer temperatures,
- waysides with shade and seating where people can pull off of the trail to rest,
- water fountains where people can hydrate, and
- “cool pavement” technologies to help reduce the temperature near the trail surface.



Shade trees and waysides with seating can encourage year-round trail use, even as summer temperatures climb.

EASEMENTS & RIGHT-OF-WAY

Easements expand the range of viable cross sections and support a spacious trail corridor and enhanced public realm. The proposed trail alignment travels alongside several public and vacant properties, which present opportunities for easements. Proposed cross sections, shown later in this chapter beginning on page 37, extend beyond the public right-of-way to demonstrate desired amenities and trail features. In some cases, easements may be necessary to implement the proposed cross sections in their entirety, and a formal boundary survey may be needed to confirm right-of-way prior to final design.



ROADWAY GEOMETRY

Narrower roadways encourage slower speeds. People feel more comfortable walking and bicycling along trails where the vehicles on adjacent streets are traveling at slower speeds. Narrowing vehicle travel lanes and the overall roadway supports a safe, comfortable trail experience by reinforcing slow vehicle speeds and opening up opportunities to reallocate roadway space to the trail corridor. The proposed cross sections adhere to preferred minimum lane widths aligned with the City of Albuquerque *Development Process Manual* and recent coordination with the City Traffic Engineer:

- 12-foot outside vehicle travel lanes, inclusive of the gutter
- 10-foot inside vehicle travel lanes
- 11-foot center turn lanes
- 7-foot parallel parking lanes, inclusive of the gutter

Maintaining existing curb lines reduces project costs. In locations with ample space for a 14-foot trail and 6–8-foot buffer for shade trees, the proposed cross sections often maintain the existing roadway width in order to save costs associated with relocating and rebuilding the curb and gutter.

Reconfiguring roadways can require providing accessible parking. The U.S. Access Board’s recently adopted *Public Right-of-Way Accessibility Guidelines (PROWAG)* requires that certain types of projects provide accessible parking spots. In many cases, 13-foot parking lanes are required to satisfy accessibility standards.

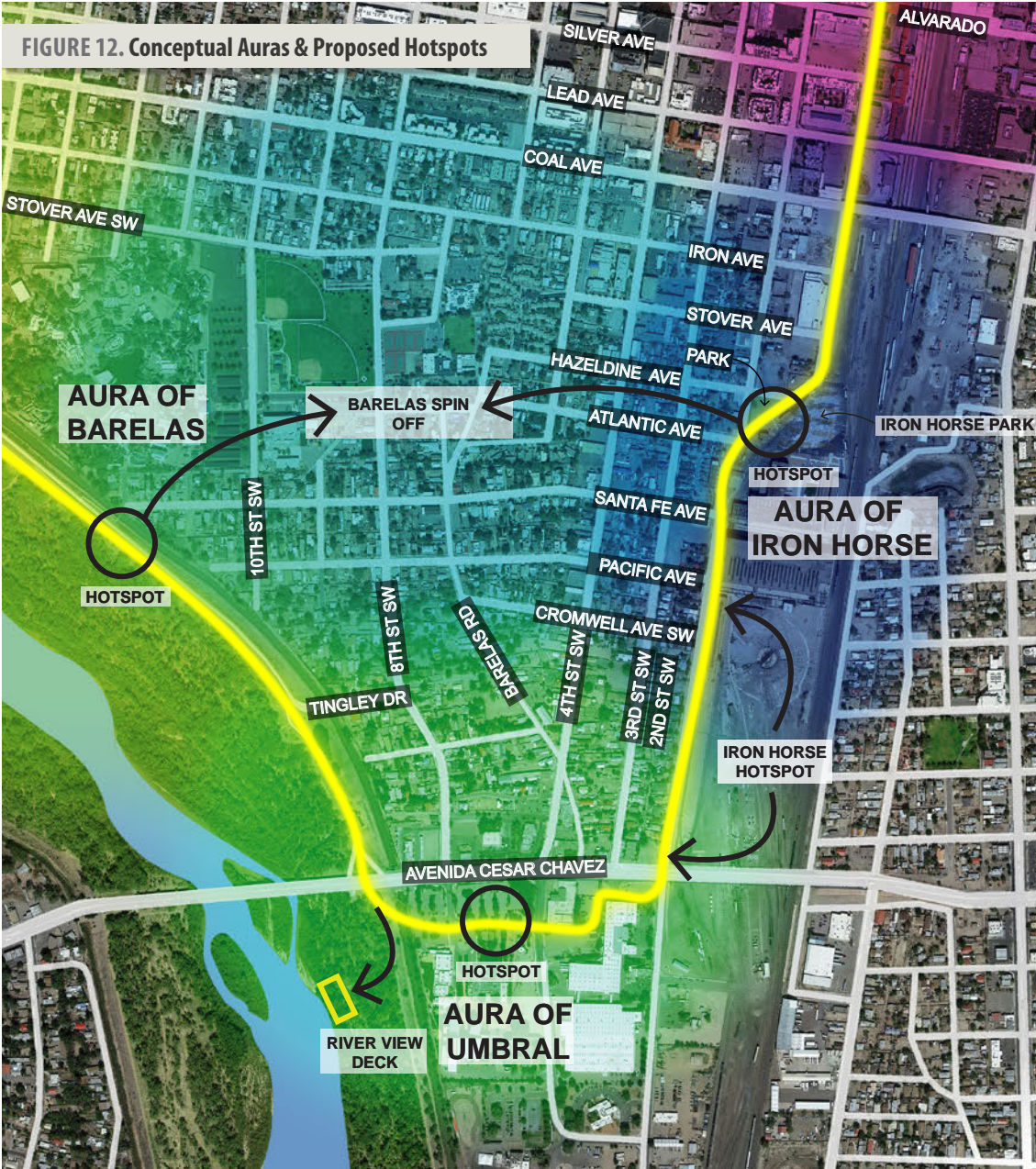
THE PUBLIC REALM

The Albuquerque Rail Trail is about more than traveling from point A to point B. The project aims to create places for people to relax, gather, and connect—to serve as a linear plaza and a linear park. The *Rail Trail Framework Plan* (March 2022) and the loop-wide visioning led by Antoine Predock Architect in Spring 2023, described in more detail on page 9, define a cohesive narrative and aesthetic vision for the seven-mile loop. These plans recommend enhancing the public realm through distinctive art, landscaping, and amenities that showcase the identities of the surrounding communities and unify the Rail Trail through recurring elements.

This section summarizes strategies and concepts for the public realm included in the recent planning, visioning, and design efforts. The remainder of this chapter recommends locations for specific amenities and opportunities for enhanced public space along the proposed trail alignment in Barelás. The interdisciplinary team designing the first segments of the Rail Trail will refine concepts for many elements of the public realm on the Downtown and Sawmill segments, establishing precedents that pertain to Barelás.

“Auras celebrate the dynamic entities and identities intersected by the Trail and Hotspots.”

— Antoine Predock Architect



Source: Antoine Predock Architect



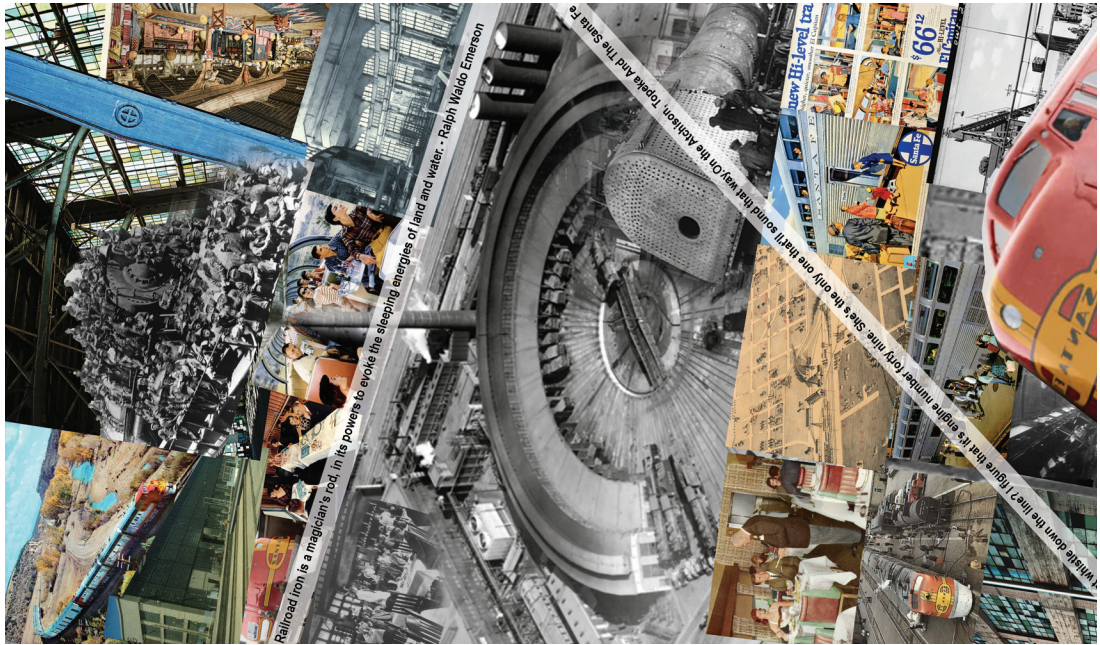
Source: Antoine Predock Architect

“Hotspots abstract the mythology and spirit of the Land of Enchantment, making us feel grounded in this place.”

— Antoine Predock Architect

HOTSPOTS & COLLAGES

Antoine Predock Architect's conceptual vision for the Rail Trail includes a series of hotspots along the trail that celebrate what makes Albuquerque special and encapsulate its auras. At hotspots, collages reflecting the distinct character and history of each place can create public spaces that feel uniquely Burqueño. For example, collages and linear installations showcasing railroad equipment used in decades past—i.e., “tech through the ages”—can contribute to the architectural and aesthetic experience of walking and bicycling along 2nd Street near the Rail Yards. This chapter recommends hotspots based on the vision of the design team.



Source: Antoine Predock Architect

GATEWAYS

Like hotspots, trail gateways provide opportunities to expand and enhance public space. At key entrances to the trail, architectural features like pavilions, monuments, and public art can invite people to the trail and establish an identifiable visual language across the loop. This chapter recommends gateways at locations where many people will access the trail and with ample space for amenities and entrance features.

In the recommendations that follow, proposed locations for hotspots and gateways are represented with the symbols:

- Proposed Hotspot
- Proposed Gateway

TREES & LANDSCAPING

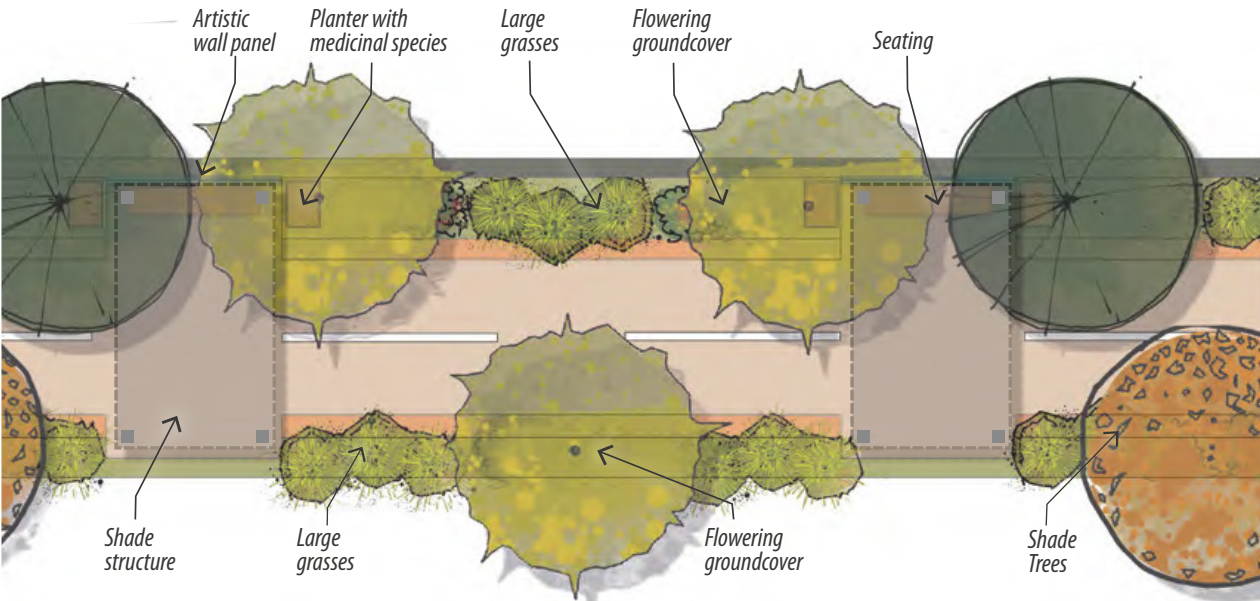
The *Framework Plan* recommends landscaping tailored to Albuquerque’s urban desert environment. An undulating landscape with trees, shrubs, ornamental grasses, and flowering ground covers planted in gravel can provide shade, visual interest, and a sense of movement along the corridor. At hotspots and gateways, enhanced landscape areas with seasonal color, planters with native medicinal species, and groves of trees can create appealing places to rest and gather.

LIGHTING

Lighting promotes safety and security along the trail while enhancing the pedestrian realm and increasing options for use as a commuting corridor. As a part of the design of the Downtown and Sawmill segments, designers specializing in artistic urban lighting will develop concepts and templates that can be applied and tailored to Barelas.



Lighting enhances safety and security, encouraging people to use the trail for transportation and as public space after dark.



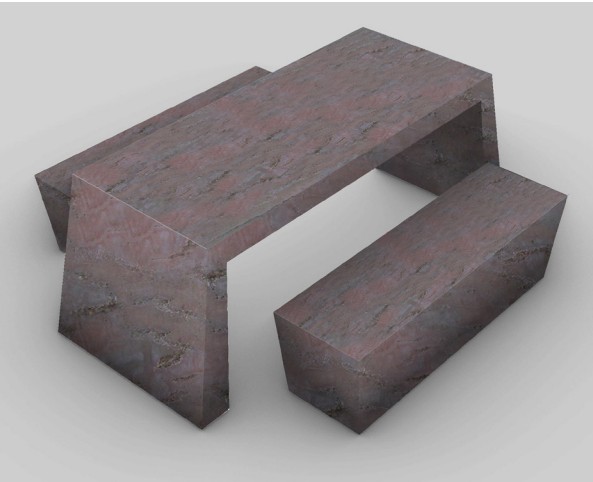
The *Framework Plan* recommends an undulating landscape palette on 1st Street through Downtown—a concept that is well-suited to Barelas.
Source: *Rail Trail Framework Plan*

SHADE STRUCTURES

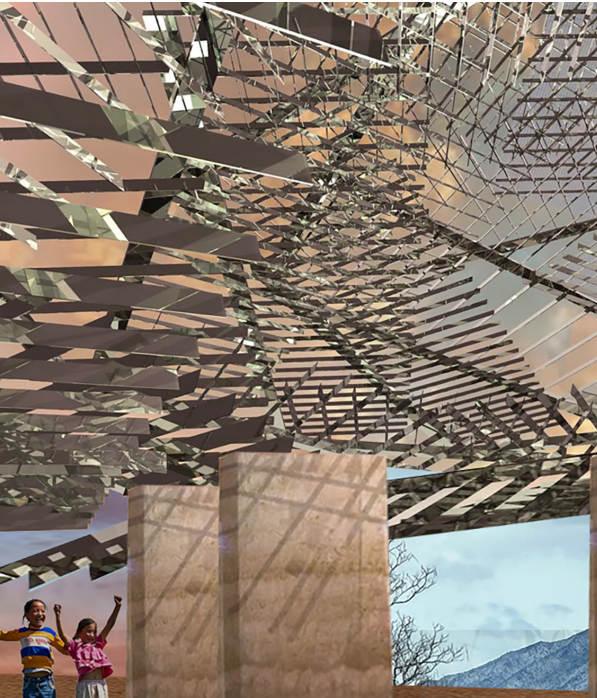
In addition to shade trees, architectural shade structures shield people from the desert sun and encourage year-round use of the trail. The design projects on the Downtown and Sawmill trail segments will refine concepts for custom shade structures. Like the collages at hotspots, shade structures will become an integral piece of the common visual language that spans the entirety of the seven-mile loop.

SITE FURNISHINGS

A consistent suite of amenities like benches, tables, water fountains, bike parking, and trash cans support functional, inviting public spaces where people can pause and gather along the trail.



The design team recommends a consistent suite of site furnishings and shade structures along the Rail Trail loop.
Source: Antoine Predock Architect



“U” racks allow bicyclists to secure their bicycle at two points and can be configured to maximize bike parking in constrained spaces.

PASEO DEL BOSQUE TRAIL

The pages that follow provide more detailed recommendations for individual segments of the trail, tracing the proposed Barelas alignment from the Paseo del Bosque trail to the Rail Yards.

AVENIDA DOLORES HUERTA TO NATIONAL HISPANIC CULTURAL CENTER

The Barelas segment begins just east of the Rio Grande, at the intersection of the Paseo del Bosque trail and the Avenida Dolores Huerta bridge—the site of the centuries-old El Camino Real crossing. Bernalillo County is studying options for enhanced pedestrian and bicyclist connections along Avenida Dolores Huerta and Bridge Boulevard that will tie into the Paseo del Bosque trail and the Rail Trail just east of the river. The confluence of these three corridors will transform this location into a key nexus in the City’s trail and bikeway networks, making it a prime site for a gateway and signature entrance.

Just south of Avenida Dolores Huerta, the proposed alignment utilizes the existing trail bridge that crosses the acequia. The alignment then follows the Paseo del Bosque trail south for another 200 feet before turning east into the National Hispanic Cultural Center (NHCC). The Rail Trail will enter the NHCC at the southern edge of its parking lot, north of the Domenici Education Building and the NHCC’s café. Creating an opening in the wall at the western edge of the parking lot will provide direct, all-day access between the Paseo del Bosque trail and the NHCC, and regrading the existing trail on both sides of this new access point will allow the trail to gradually ramp to meet the higher elevation of the parking lot at an accessible slope. This short piece of the Rail Trail will provide an off-street route between the NHCC and the open space surrounding the Rio Grande—a safe and appealing option for future trail users as well as the hundreds of elementary school students who walk between the two destinations on field trips each year.

FIGURE 13. Proposed Alignment: Paseo del Bosque Trail
Avenida Dolores Huerta to National Hispanic Cultural Center



TABLE 2. Proposed Dimensions: Paseo del Bosque Trail, Acequia trail bridge to National Hispanic Cultural Center

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet preferred 11 feet minimum	– Coordinate with Middle Rio Grande Conservancy District about regrading the Paseo del Bosque trail to meet the NHCC parking lot at an accessible slope of less than 5%
Landscaping	Preserve existing	– Consult an arborist about potential impacts to existing mature trees along the trail and the acequia
Graded Shoulder	5 feet preferred 2 feet minimum	– Provide a shoulder with a maximum cross-slope of 1:6 on both sides of the regraded trail – Provide a shy distance of at least 2 feet between the trail and the wall of the NHCC parking lot



A wall along the western edge of the parking lot separates the NHCC from the Paseo del Bosque trail today. The preferred alignment proposes creating direct access between the existing trail and the NHCC by creating an opening in the wall and regrading a segment of the existing trail to meet the parking lot at an accessible slope.



The alignment follows the existing Paseo del Bosque trail bridge across the acequia near Avenida Cesar Chavez.

NATIONAL HISPANIC CULTURAL CENTER &
MANUEL AVENUE

PASEO DEL BOSQUE TRAIL TO 4TH STREET

East of the Paseo del Bosque trail, the proposed alignment hugs the southern edge of the National Hispanic Cultural Center (NHCC) parking lot, providing access to the museum's main entrances as well as its café. Approaching 4th Street, the alignment transitions to public right-of-way on Manuel Avenue, a city street serving a vacant private residence embedded in the NHCC campus. As a public institution dedicated to elevating Hispanic, Chicano, and Latinx artists, the NHCC provides a unique opportunity and an ideal hotspot site for public art drawing on centuries of cultural exchange along El Camino Real.

This planning process engaged the NHCC in constructive exploratory conversations about opportunities to bring the Rail Trail to the front door of the campus. The NHCC and the State of New Mexico will continue to be integral partners in the planning, design, and implementation of this segment of the Rail Trail, and the City will coordinate with the NHCC regarding the ideal configuration of the trail through its campus.

FIGURE 14. Proposed Alignment: National Hispanic Cultural Center & Manuel Avenue, Paseo del Bosque Trail to 4th Street



Manuel Avenue is a city street embedded in the NHCC campus. It acts as one of the primary entrances to the NHCC parking lot along 4th Street.

TABLE 3. Proposed Dimensions: National Hispanic Cultural Center & Manuel Avenue

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet	– Coordinate trail surface with the NHCC – Align trail with the crossing of 4th Street
Landscaped Buffer	6+ feet	– Coordinate landscape palette and shade trees with the NHCC
Amenity Zone	TBD	– Coordinate design with the NHCC
Roadway or Parking Lot Narrowing	14–20 feet	– Coordinate parking lot modifications with the NHCC
Easement	20+ feet	– Reconfigure state-owned parking lot from Paseo del Bosque trail to Manuel Avenue/4th Street



The NHCC lies just east of the Rio Grande, but the campus is separated from the river and surrounding open space by an acequia built by Spanish settlers when Barelas was a farming village.

4TH STREET

MANUEL AVENUE TO AVENIDA CESAR CHAVEZ

East of the National Hispanic Cultural Center (NHCC) campus, the proposed alignment travels along 4th Street from Manuel Avenue to Avenida Cesar Chavez. The NHCC owns the property east of 4th Street along this segment, which includes an overflow parking lot and a warehouse currently used for storage. Activating the fenced-off public land between the right-of-way line and the warehouse presents an opportunity to create a more spacious trail corridor, as there is typically at least 10 feet of space between the edge of the sidewalk and the building. Narrowing 4th Street by removing the northbound dedicated right turn lane and adjusting lane widths as illustrated in Figure 16 will further expand the pedestrian realm.

At the southeast corner of the intersection of 4th Street and Avenida Cesar Chavez, empty space adjacent to the warehouse provides additional room for groves of trees, enhanced landscaping, benches and tables, and gateway features. The intersection acts as an entrance not only to the Rail Trail, but also to the NHCC and the 4th Street Historic District and Great Blocks project—the ideal site for a gateway and new public space that welcomes people to all three Barelas destinations.

Legend

- Proposed Trail Alignment
- Proposed Gateway

FIGURE 15. Proposed Alignment: 4th Street, Manuel Avenue to Avenida Cesar Chavez



FIGURE 16. Proposed Cross Section: 4th Street, Manuel Avenue to Avenida Cesar Chavez, Facing North

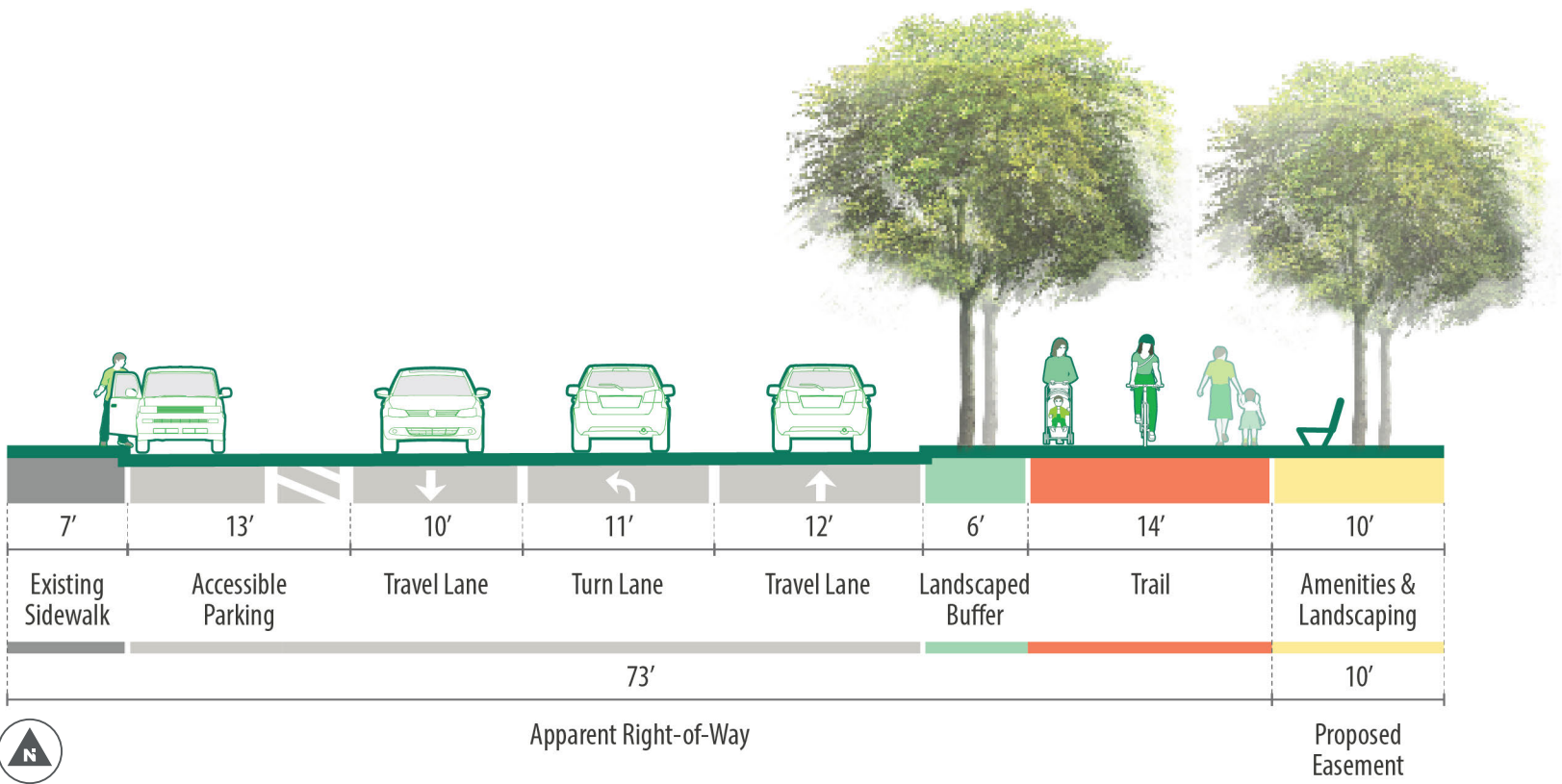


TABLE 4. Proposed Dimensions: 4th Street, Manuel Avenue to Avenida Cesar Chavez

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet	– Align trail with the crossing of Avenida Cesar Chavez
Landscaped Buffer	6 feet	– Plant undulating landscape palette with shade trees
Amenity Zone	10 feet	– Install a combination of landscape and hardscape – Coordinate design with the NHCC
Roadway Narrowing	13 feet	– Remove northbound right turn lane and adjust lane widths
Easement	10 feet	– Activate underutilized state-owned property adjacent to warehouse – Design a gateway in the undeveloped space at Avenida Cesar Chavez

The proposed cross section reflects apparent street right-of-way based on aerial measurements between the outer edges of the sidewalks and/or improvements such as fences. A formal boundary survey may be needed to confirm right-of-way prior to final design.

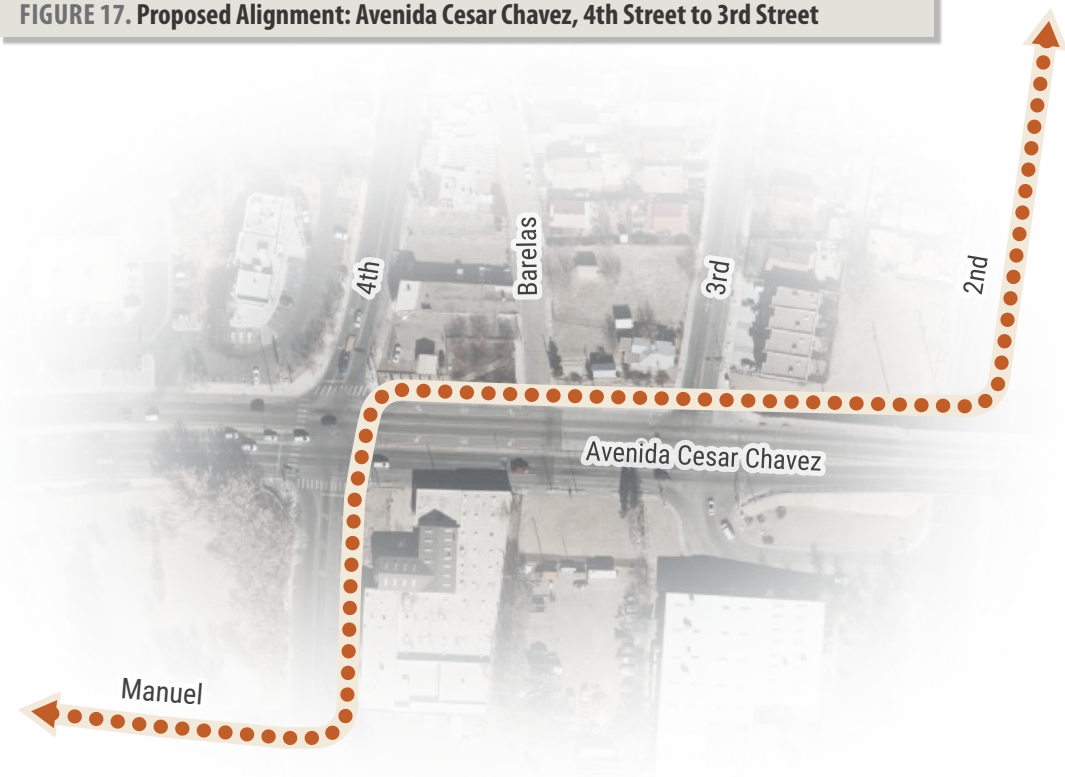
AVENIDA CESAR CHAVEZ

East of 4th Street, the proposed trail alignment travels along the north side of Avenida Cesar Chavez until 2nd Street. Given the high traffic volumes and peak-hour congestion on Avenida Cesar Chavez, this planning process invested particular time and care in exploring and assessing options for creating a safe, appealing trail without reducing vehicle capacity on the corridor.

4TH STREET TO 3RD STREET

Expanding the trail corridor beyond the existing right-of-way can help resolve the distinct challenges on this segment. The City owns the properties immediately north of Avenida Cesar Chavez between 4th Street and Barelas Road, which are home to public art and a small park. Between Barelas Road and 3rd Street, the private properties fronting the north side of the street are vacant and appear unlikely to develop in the future. These two parcels measure less than 30 feet deep, limiting the viability of any type of future construction. Together, these public and vacant private properties present an opportunity to implement a spacious trail that is consistently set back from the street for the two blocks where the alignment runs directly alongside the at-grade roadway. Shifting the northern curb line of Avenida Cesar Chavez by narrowing wide driving lanes will help separate people walking and bicycling from motorists and encourage slower vehicle speeds.

FIGURE 17. Proposed Alignment: Avenida Cesar Chavez, 4th Street to 3rd Street



The small City park at the northeast corner of Avenida Cesar Chavez and Barelas Road can be reconfigured to accommodate a trail.

Legend

- Proposed Trail Alignment



FIGURE 18. Proposed Cross Section: Avenida Cesar Chavez, 4th Street to 3rd Street, Facing East

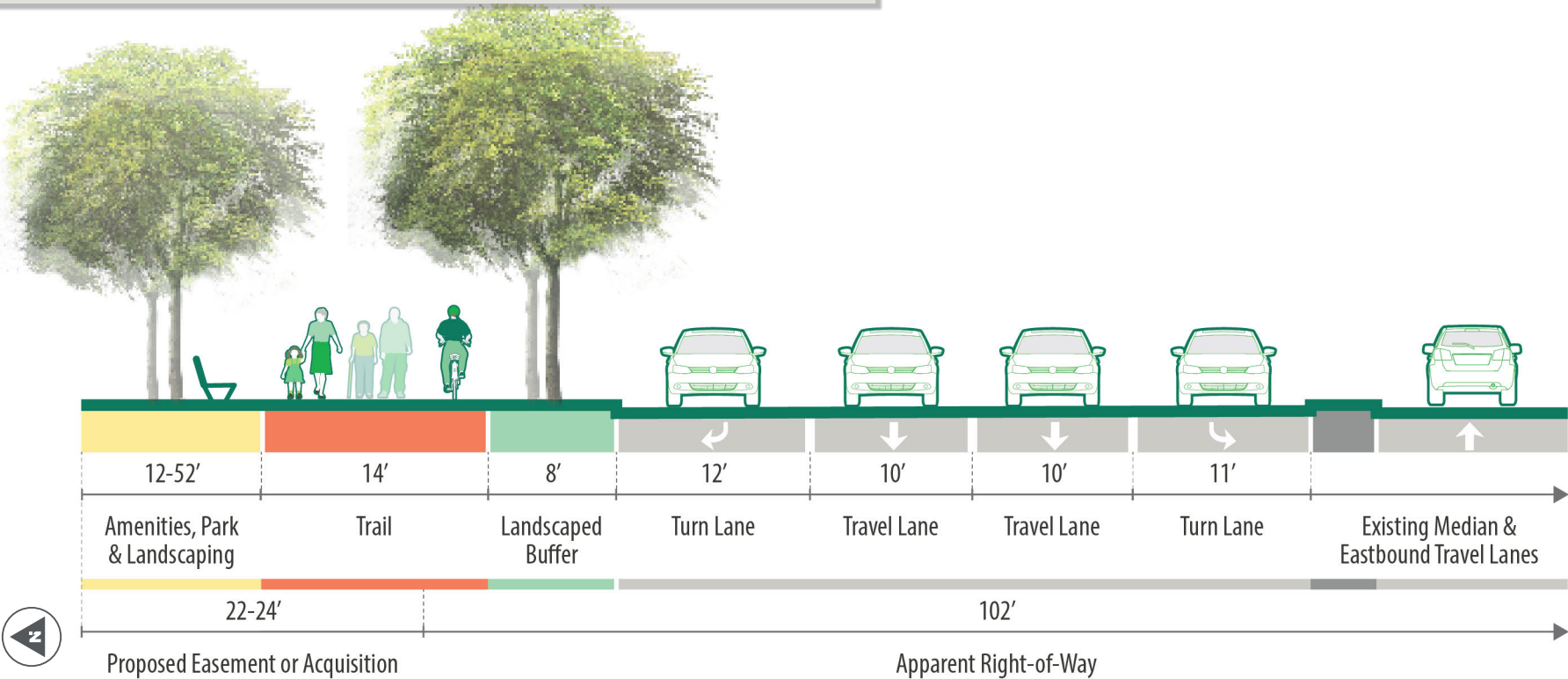


TABLE 5. Proposed Dimensions: Avenida Cesar Chavez, 3rd Street to 2nd Street

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet	<ul style="list-style-type: none">Relocate conflicting above-ground utilities in landscaped buffer or amenity zoneAlign trail with the crossings of Barelas Road and 3rd Street
Landscaped Buffer	8 feet	<ul style="list-style-type: none">Plant undulating landscape palette with shade treesAccommodate existing and relocated utilities
Amenity Zone	12 feet	<ul style="list-style-type: none">Install a combination of landscape and hardscapePreserve and relocate public art near 4th StreetConsult an arborist about impacts to existing mature trees in park
Roadway Narrowing	4 feet	<ul style="list-style-type: none">Narrow the westbound driving lanes
Easement or Acquisition	22–24 feet	<ul style="list-style-type: none">Reconfigure City property between 4th Street and Barelas RoadPursue vacant private property between Barelas Road and 3rd Street



Artwork celebrating Barelas at the northeast corner of Avenida Cesar Chavez and 4th Street can welcome people to both the Rail Trail and 4th Street.

The proposed cross section reflects apparent street right-of-way based on aerial measurements between the outer edges of the sidewalks and/or improvements such as fences. A formal boundary survey may be needed to confirm right-of-way prior to final design.

AVENIDA CESAR CHAVEZ RIGHT-OF-WAY

3RD STREET TO 2ND STREET

East of 3rd Street, the proposed trail alignment continues toward 2nd Street through an unutilized, unimproved section of public right-of-way immediately north of the Avenida Cesar Chavez railroad overpass. Here, the trail splits from the roadway and stays at or near ground-level, whereas Avenida Cesar Chavez ramps up and over the BNSF rail corridor before reconnecting with the street network at Broadway Boulevard. This short off-street connection offers striking views of the Rail Yards and the Sandia Mountains to the east, and completes the trail’s transition from the cottonwood forest along the Rio Grande to the industrial landscape along the rail corridor and 2nd Street. In addition to the backdrop of the Sandias, the wall of the Avenida Cesar Chavez rail bridge provides a blank canvas for murals or other forms of public art in the future.

Legend

•••• Proposed Trail Alignment



FIGURE 19. Proposed Alignment: Avenida Cesar Chavez, 3rd Street to 2nd Street



A strip of unimproved public right-of-way north of the Avenida Cesar Chavez railroad overpass connects directly to 2nd Street at ground level. The wall of the bridge opens up opportunities for public art facing the trail.



Approaching 2nd Street, the trail enters the industrial urban landscape of the BNSF rail corridor, with the backdrop of the Sandia Mountains to the east.

TABLE 6. Proposed Dimensions: Avenida Cesar Chavez, 3rd Street to 2nd Street

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet	<ul style="list-style-type: none">Regrade the unutilized right-of-way so that the trail transitions from 3rd Street to 2nd Street at an accessible slope of less than 5%Relocate conflicting guy wires and other above-ground utilities in landscaping and amenity zonesAlign trail with the crossings of 3rd Street and 2nd Street
Amenity Zone	8 feet	<ul style="list-style-type: none">Install a combination of landscape and hardscape on both sides of the trailPlant undulating landscape palette with shade treesAccommodate existing and relocated utilitiesUtilize the bridge wall for a mural or other form of public art
Graded Shoulder	5 feet preferred 2 feet minimum	<ul style="list-style-type: none">Provide a shoulder with a maximum cross-slope of 1:6 on both sides of the reggraded trailProvide a shy distance of at least 2 feet between the trail and the wall of the bridge

2ND STREET

North of the Avenida Cesar Chavez rail bridge, the proposed trail alignment travels along the east side of 2nd Street, running alongside the BNSF rail corridor past the monumental turnable and buildings of the Rail Yards. Antoine Predock Architect envisions this segment of trail as the site of an “episodic Hotspot with intermittent collage imprints in the pavement and strewn with linearly positioned [railroad] objects” like the gigantic mechanical parts that Barelas workers maintained at the Albuquerque Shops until the 1950s.

AVENIDA CESAR CHAVEZ OVERPASS TO CROMWELL AVENUE

The crossing of 2nd Street marks a dramatic transition in the trail experience and Albuquerque’s urban landscape. Here, the massive scale of aging rail infrastructure east of 2nd Street dominates the built environment, and stands in sharp contrast to the modest adobe homes on the west side of the street and throughout Barelas more broadly. Gateway features placed just northeast of the 2nd Street trail crossing can underscore this transition and signal the beginning of the trail along 2nd Street to passersby.

Purchasing (or securing an easement through) a vacant strip of BNSF railroad property and reconfiguring unimproved or underutilized pieces of the City-owned Rail Yards redevelopment site along 2nd Street will expand the available space for the trail, landscaping, amenities, and public art. Restriping 2nd Street with two lanes of on-street parking (including accessible spaces) will add parking capacity near the Rail Yards and along the trail.

Legend

- Proposed Trail Alignment
- Proposed Hotspot
- Proposed Gateway
- ⬆

FIGURE 20. Proposed Alignment: 2nd Street, Avenida Cesar Chavez to Cromwell Avenue

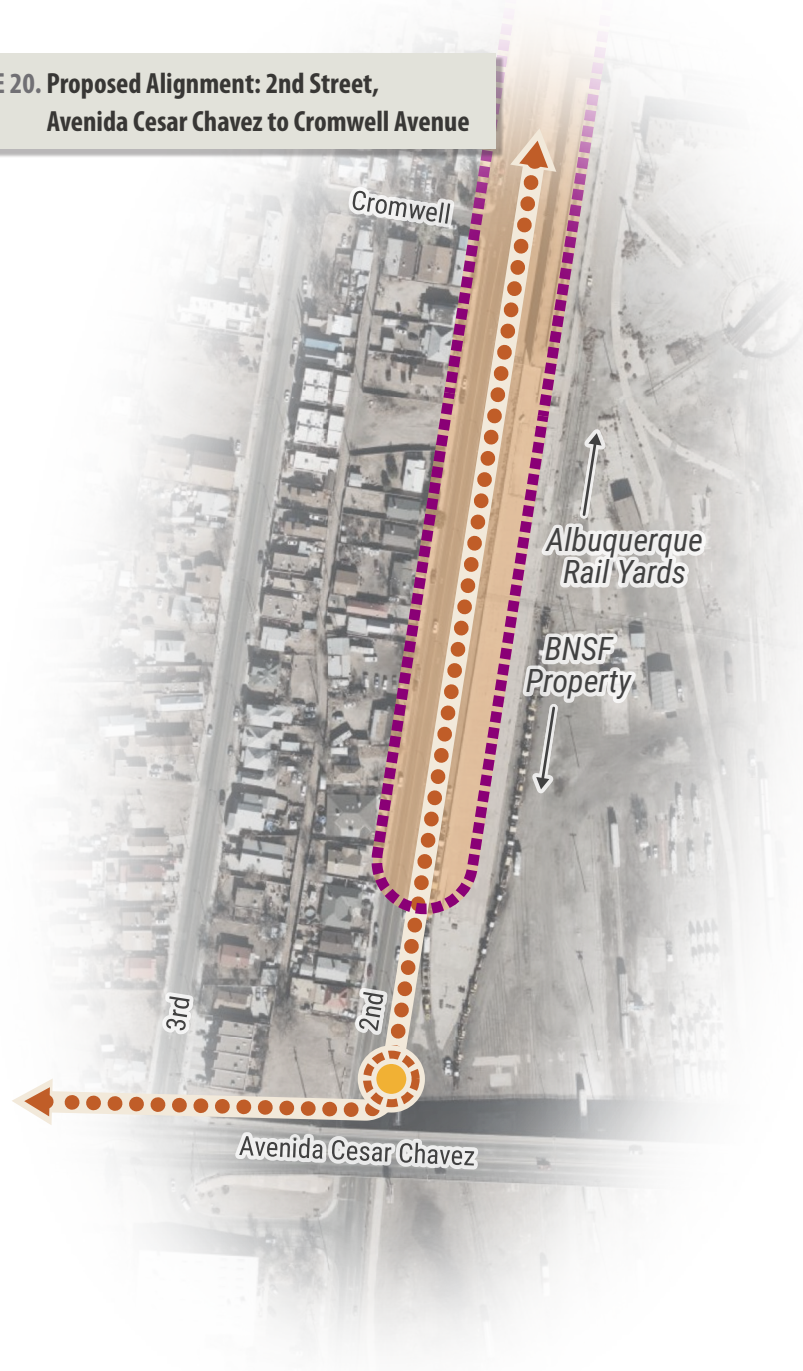


FIGURE 21. Proposed Cross Section: 2nd Street, Avenida Cesar Chavez to Cromwell Avenue, Facing North

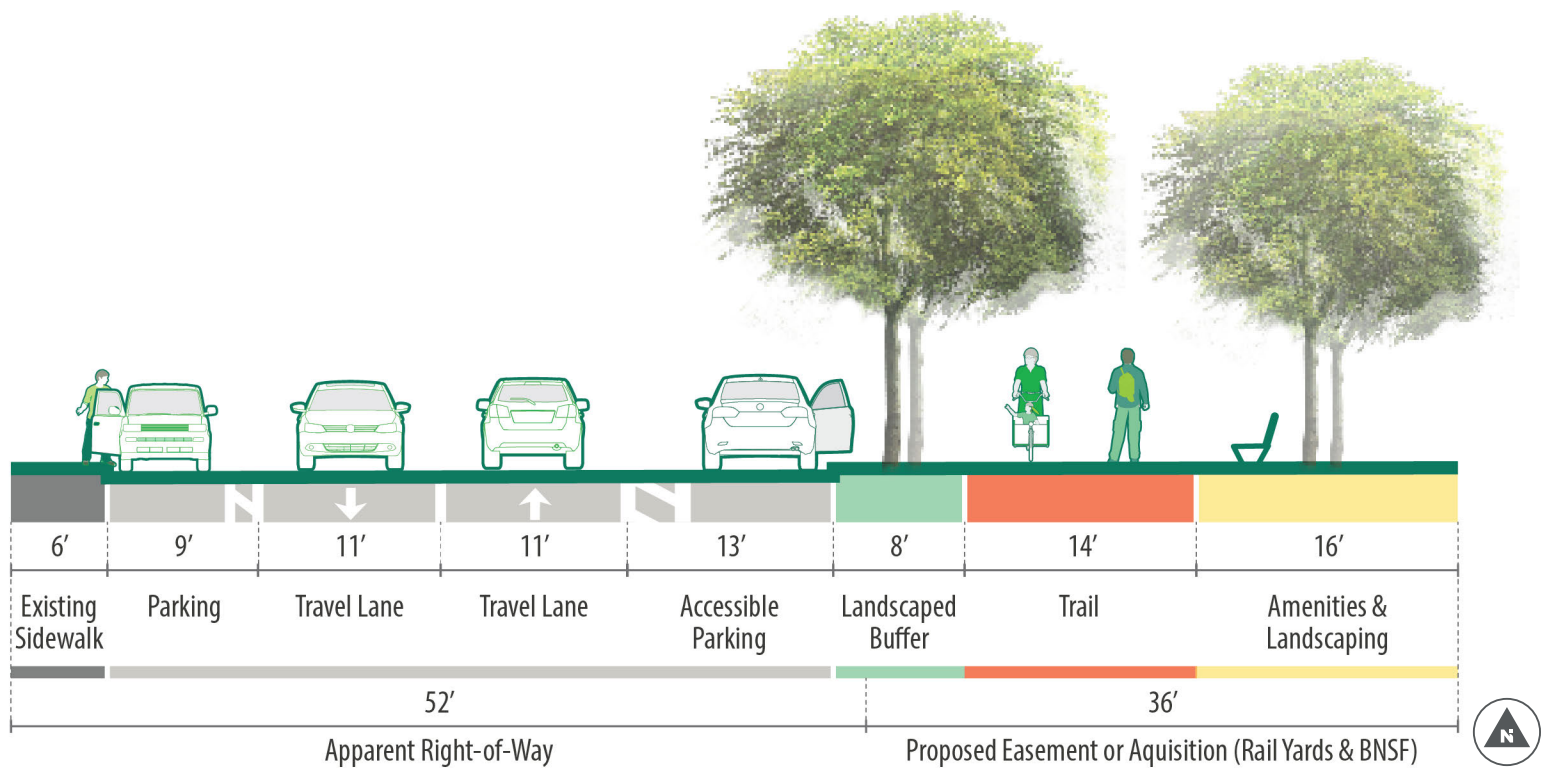


TABLE 7. Proposed Dimensions: 2nd Street, Avenida Cesar Chavez to Cromwell Avenue

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet	– Consider intermittent collages along or near the trail surface
Landscaped Buffer	8 feet	– Plant undulating landscape palette with shade trees – Accommodate existing streetlights – Salvage and repurpose abandoned above-ground railroad utilities
Amenity Zone	16 feet	– Install a combination of landscape and hardscape – Salvage and repurpose abandoned railroad infrastructure
Roadway	Maintain Existing	– Restripe existing roadway with accessible parking on the east side – Install speed tables and reduce the posted speed limit to 25 MPH
Easement or Acquisition	36 feet	– Pursue vacant BNSF railroad property north of Trumbull Avenue – Reconfigure Rail Yards property south of Pacific Avenue

The proposed cross section reflects apparent street right-of-way based on aerial measurements between the outer edges of the sidewalks and/or improvements such as fences. A formal boundary survey may be needed to confirm right-of-way prior to final design.

2ND STREET

CROMWELL AVENUE TO PACIFIC AVENUE

From just south of Cromwell Avenue to Pacific Avenue, a long, narrow warehouse on the Rail Yards site fronts 2nd Street. Today, this warehouse is the home of the Wheels Museum, a nonprofit organization with exhibits showcasing the evolution of transportation technology and Albuquerque’s urban development. The space between the roadway and the warehouse dock provides ample room for a spacious, shaded trail and amenity zones, without requiring the shifting of curb lines or the reconstruction of the roadway. The warehouse dock also creates an excellent venue to bring portions of the Wheels Museum outside through a continuation of the episodic hotspot showcasing railroad technology through the ages.

At Cromwell Avenue, the roadway narrows to 36 feet. Restriping the roadway with two lanes of parking remains feasible within the existing pavement section and can add parking spaces where they are most in demand—near the Rail Yards market and the redevelopment site’s primary entrance.

Legend


- Proposed Trail Alignment
 - Proposed Hotspot
 - Rail Yards Streetscape Improvements (Completed)
- 

FIGURE 22. Proposed Alignment: 2nd Street, Cromwell Avenue to Pacific Avenue

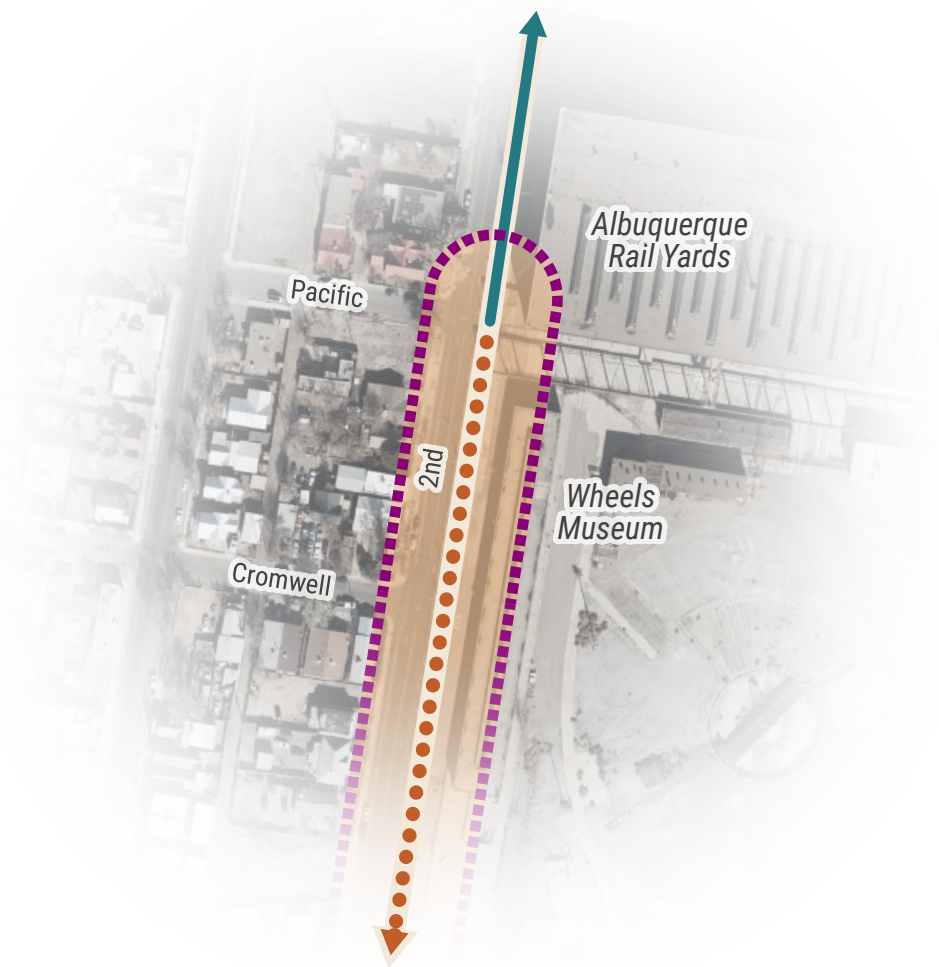


FIGURE 23. Proposed Cross Section: 2nd Street, Cromwell Avenue to Pacific Avenue, Facing North

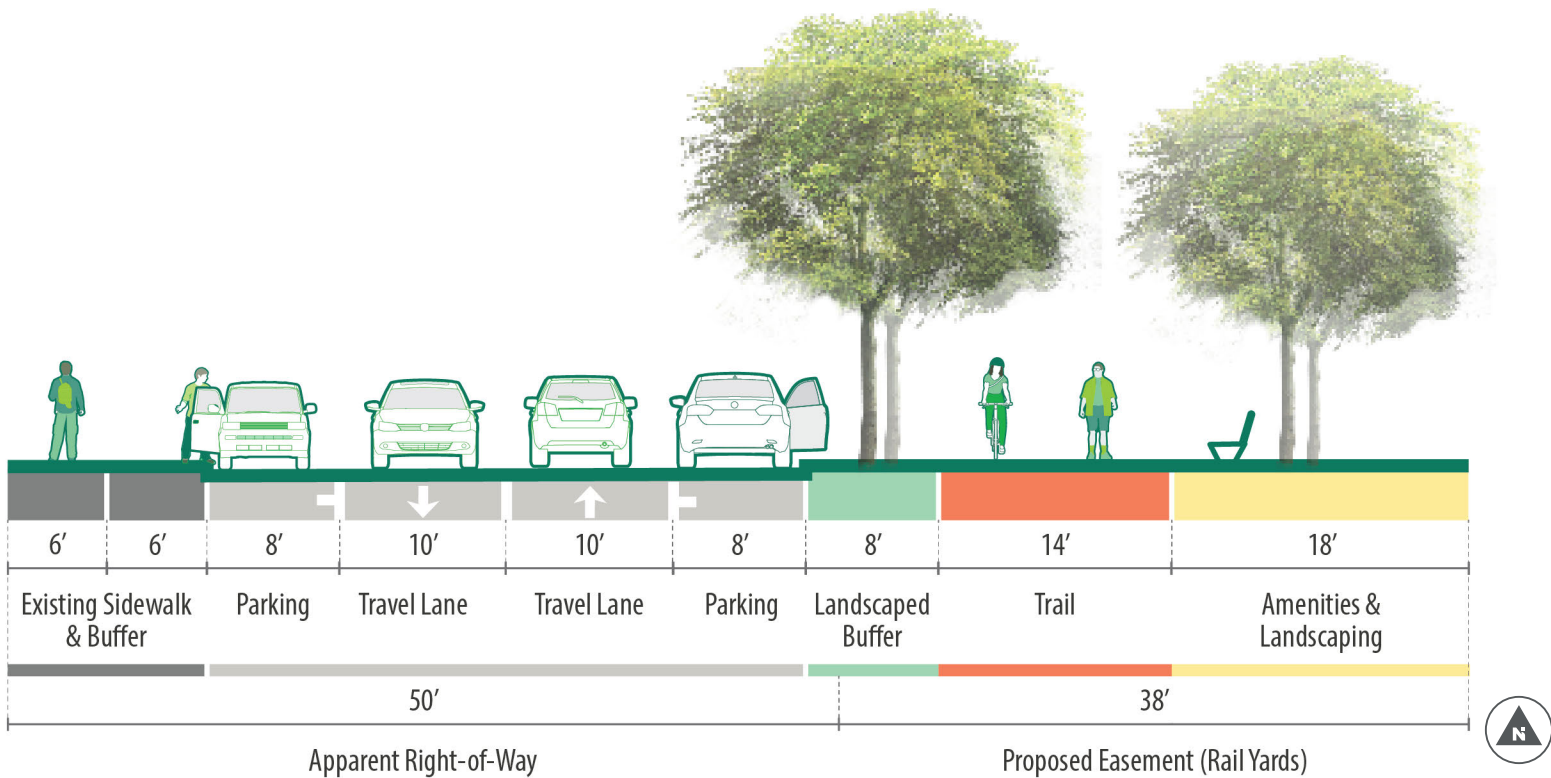


TABLE 8. Proposed Dimensions: 2nd Street, Cromwell Avenue to Pacific Avenue

Corridor Element	Typical Width	Implementation & Design Notes
Trail	14 feet	– Consider intermittent collages along or near the trail surface
Landscaped Buffer	8 feet	– Plant undulating landscape palette with shade trees – Accommodate existing streetlights – Salvage and repurpose abandoned above-ground railroad utilities
Amenity Zone	18 feet	– Install a combination of landscape and hardscape
Roadway	Maintain Existing	– Restripe existing roadway with parking on both sides
Easement	38 feet	– Reconfigure Rail Yards property south of Pacific Avenue

The proposed cross section reflects apparent street right-of-way based on aerial measurements between the outer edges of the sidewalks and/or improvements such as fences. A formal boundary survey may be needed to confirm right-of-way prior to final design.

2ND STREET

PACIFIC AVENUE TO HAZELDINE AVENUE

At Pacific Avenue, the Barelas segment of the Rail Trail ties into the recently constructed Rail Yards streetscape improvements. Completed in 2021, the streetscape project extends to Hazeldine Avenue, and includes a 10-foot sidewalk, landscaping, and lighting on the east side of 2nd Street. While significant modifications to the streetscape project are not recommended in the immediate future, modest changes and additions to the corridor can help integrate the streetscape improvements into the larger Rail Trail loop.

Legend

- Proposed Trail Alignment
 - Downtown Segment Trail Alignment (In Design)
 - Rail Yards Roundabout (In Design)
 - Rail Yards Streetscape Improvements (Completed)
-

FIGURE 24. Rail Yards Streetscape Improvements: 2nd Street, Pacific Avenue to Hazeldine Avenue



WELCOMING BICYCLISTS

Currently, pavement markings and signs along the Rail Yards streetscape project instruct bicyclists to dismount, indicating that the infrastructure is meant exclusively for pedestrians. Once the Downtown and Barelas segments of the Rail Trail are constructed, the 10-foot sidewalk should be converted into a shared-use trail. Opening this segment to bicyclists as soon as connecting trails are built will help establish the Rail Trail as a cohesive downtown trail system that welcomes bicyclists of all ages and abilities. Although wider trails improve comfort and support more activity, the existing 10-foot facility satisfies the minimum trail width in the City of Albuquerque *Development Process Manual* and can accommodate both bicyclists and pedestrians for this short, three-block segment. In the future, widening the trail or installing a second, parallel facility can create a more comfortable trail experience with ample space for people to travel side by side and pass one another at different speeds.



Signage and striping discouraging bicyclists from using the 10-foot sidewalk on the east side of 2nd Street should be removed after connecting segments of the Rail Trail open to the public.

TRAIL AMENITIES

Providing a consistent suite of amenities at regular intervals along the entirety of the Rail Trail loop can help unify the trail. Because the Rail Yards streetscape improvements preceded the idea and overarching vision for the seven-mile loop, it does not yet have many of the fixtures and furnishings proposed in the *Framework Plan* and ongoing design efforts. Adding amenities such as call boxes, water fountains, and benches where space allows will help create a seamless, integrated, and high-quality trail corridor.

ON-STREET PARKING

During Rail Yards events like the weekly Sunday markets, parking is in high demand. As activity at and around the Rail Yards continues to grow, the City can add parking on the east side of 2nd Street by narrowing the two travel lanes and restriping the existing pavement with the same typical roadway section proposed between Cromwell Avenue and Pacific Street (Figure 23). Reconfiguring the roadway with additional parking will also encourage slower vehicle speeds and further separate the trail from travel lanes.



Streetscape improvements including a 10-foot sidewalk, landscaping, and lights mounted to repurposed rails extend along the east side of 2nd Street from Pacific Avenue to Hazeldine Avenue.

RAIL YARDS ROUNDABOUT

Between Atlantic Avenue and Hazeldine Avenue, the Rail Yards streetscape project and the Rail Trail alignment veer east, transitioning from 2nd Street to 1st Street and crossing the primary entrance to the Rail Yards. This area is envisioned as a signature gateway to both the Rail Yards and the Rail Trail. The City recently acquired the triangle of land bound by 1st Street, 2nd Street, and Hazeldine Avenue in order to build a roundabout, which is in design as of Spring 2024. Figure 26 illustrates a conceptual design for the roundabout that provides smooth walking and bicycling routes between the trail and neighborhood streets in Barelas.

The Downtown segment of the Rail Trail envisioned in the Framework Plan begins at Hazeldine Avenue and heads north along 1st Street toward Central Avenue. The City secured federal RAISE grant funding for this segment and is proceeding with design as of Spring 2024, with construction anticipated as soon as Spring 2025.

Legend

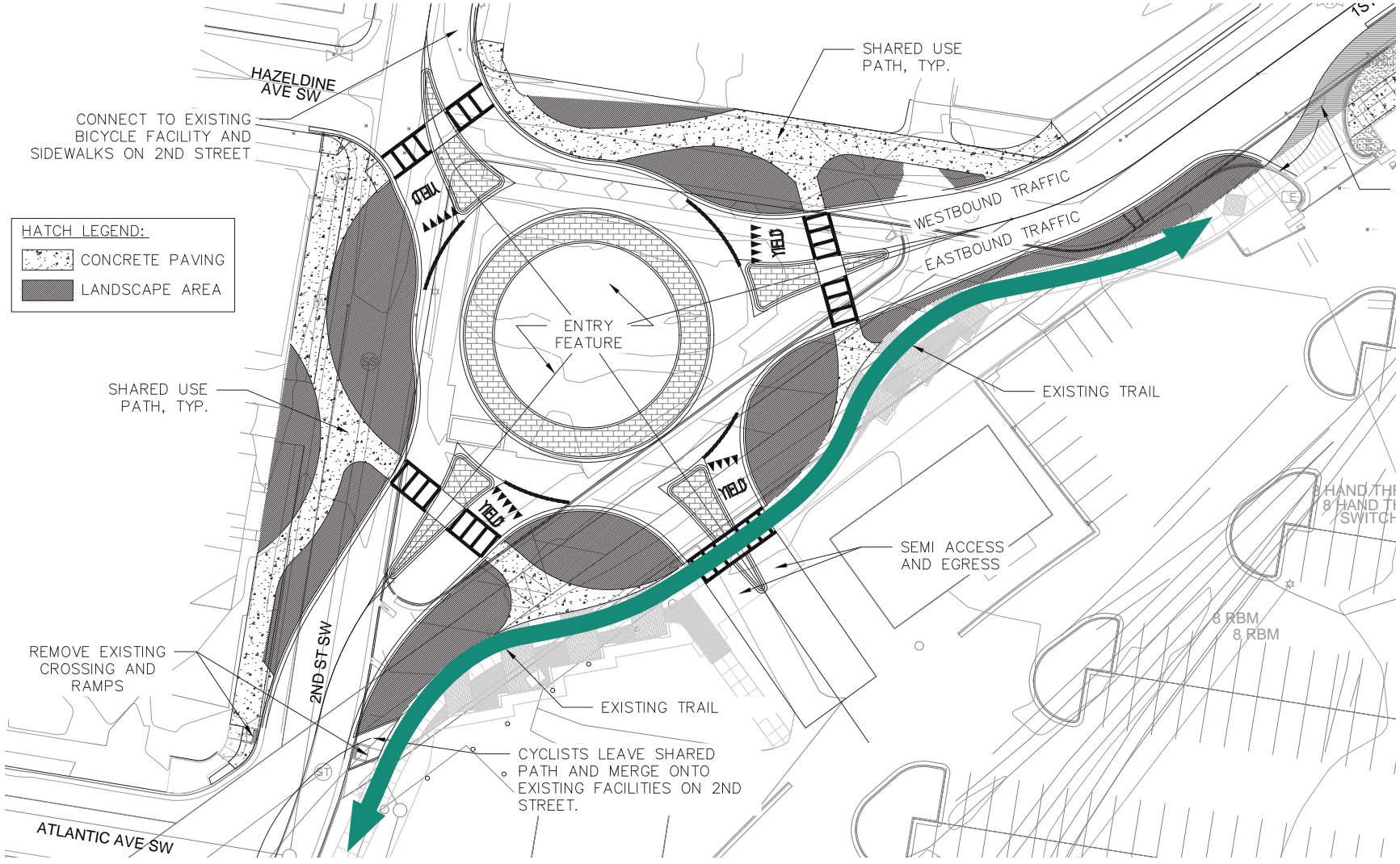
- Proposed Trail Alignment
- Proposed Gateway
- Proposed Hotspot
- Downtown Segment Trail Alignment (In Design)
- Rail Yards Roundabout (In Design)
- Rail Yards Streetscape Improvements (Completed)



FIGURE 25. Rail Yards Roundabout: 2nd Street/1st Street, Atlantic Avenue to Hazeldine Avenue



FIGURE 26. Proposed Concept: Rail Yards Roundabout



Source: Wilson and Company, Pland Collaborative

STREET CROSSINGS

In places where the trail intersects streets and driveways, providing safe, intuitive, and comfortable crossings is essential to building a trail that people of all ages and abilities can enjoy. Enhanced crossings that connect the trail to sidewalks and bikeways on nearby streets can support neighborhood access to the trail and destinations like businesses and parks. This section provides a brief overview of design treatments and strategies suited to street crossings along the Barelas segment. Appendix A provides more detailed recommendations for specific crossing locations.

RAISED CROSSINGS

Raised crossings, which provide a crosswalk at or near the elevation of the trail, support a comfortable trail experience and encourage motorists to drive slowly and yield to trail users.

RAPID RECTANGULAR FLASHING BEACONS

At uncontrolled crossings of streets with moderate motor vehicle speeds and traffic volumes, rapid rectangular flashing beacons (RRFBs) can be an effective treatment for improving motorist yielding. The City of Albuquerque's *Bicycle & Trails Crossing Guide* and the Federal Highway Administration's *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations* provide additional guidance regarding appropriate contexts for RRFBs and other treatments.

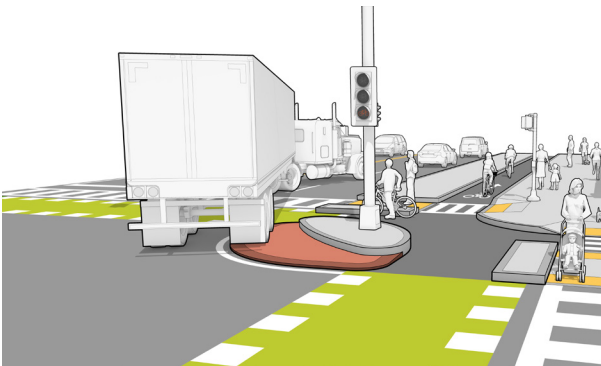
GEOMETRIC IMPROVEMENTS

The geometric configuration of trail crossings and adjacent streets can provide additional space for people walking and bicycling, reduce trail users' exposure to conflicts, and encourage slower motor vehicle speeds.

- **Curb extensions** (also called bulb-outs) shorten the length of the trail crossing, reducing the amount of time people walking and bicycling are exposed to conflicts with motor vehicles. Curb extensions narrow the roadway by extending the pedestrian realm into parking lanes or narrowing vehicle lanes approaching the crossing.
- **Tight street corner radii** (e.g., 15-foot radii) encourage drivers to make turns at a slower speed, giving them more time to see and yield to trail users and reducing the risk of severe crashes. At locations with high volumes of right turns by large vehicles like trucks, mountable truck aprons (pictured at right) can reduce typical turning speeds while still accommodating larger vehicles.
- **Setting the crossing back** from the parallel roadway can improve sight distance and encourage motorist yielding. Increasing the space between the trail and parallel roadway gives turning drivers more time to see trail users after they begin to turn and provides an area where they can yield to people walking and bicycling through the crossing.



Rapid rectangular flashing beacons (RRFBs) support safe trail crossings at unsignalized and uncontrolled intersections.



Mountable truck aprons encourage slower vehicle turning speeds while still accommodating larger vehicles.

NAVIGATING TURNS

At locations where the trail alignment turns at or near a street crossing, design treatments that provide visual cues and spacious trail geometry can help trail users navigate turns.

- **Distinct, consistent design elements** — like the trail and crosswalk surface, crosswalk markings, and wayfinding signage — can clarify the trail alignment near turns.
- **Wide trail corner radii** (e.g., 30-foot radii) allow bicyclists to travel through turns at typical speeds, reducing the risk that they will veer onto the opposite side of the trail while turning.
- **Widening crosswalks** and the trail itself near turns helps accommodate trail users traveling at a broad range of speeds. Especially in locations where right-of-way or other constraints result in a sharper-than-desired turns, a wider crossing and trail corridor provide space for people to pass one another and for bicyclists to soften their turns.



Visual cues including a distinct trail surface and crosswalk markings help users navigate turns along the Indianapolis Cultural Trail.

TRAIL-FRIENDLY SIGNAL TIMING

At signalized intersections, several signal timing strategies can enhance safety and improve the trail experience by reducing conflicts with turning vehicles and shortening wait times for people walking and bicycling.

- **Protected signal phasing** is essential to the safety and comfort of trail users. Protected phasing prohibits motorists from turning left across the trail when people walking and bicycling are permitted to cross along the trail, and vice versa. This typically relies on a dedicated left turn phase, which can in turn require signal modifications (such as longer mastarms) and roadway reconfiguration to accommodate a dedicated left turn lane.
- Retiming signals to provide **longer green times for trail crossings** improves travel times along the trail by increasing the likelihood that people walking and bicycling will encounter a green light when they arrive at the intersection. Implementing this strategy at most times throughout the week can improve many trail users' trips, even if impacts to motor vehicle congestion along the intersecting roadway pose a major concern at peak hours.

- **Automatic pedestrian recall** programs signals so that a green crossing signal occurs by default, rather than only after trail users push the pedestrian crossing button. Without automatic recall, trail users encounter a red light whenever they arrive at a signalized intersection, unless another person arrived at the intersection before them. This leads to longer travel times for people walking and bicycling—and occasionally to risky crossing decisions. Automatic recall, by contrast, reduces the time trail users spend waiting at intersections and encourages compliance. If concerns about motor vehicle congestion on the intersecting roadway make automatic recall an unattractive option at peak commuting hours, implementing the strategy on weekends and at less busy times of day can improve the trail experience for many users.

UNIVERSAL ACCESSIBILITY

Most trail users enter and exit the trail via intersecting streets. As such, improving walking and bicycling infrastructure in the immediate vicinity of street crossings welcomes people to the trail and supports an accessible, comfortable experience before and after people step foot on the trail. Designing sidewalks, curb ramps, and other improvements to meet the U.S. Access Board's recently adopted *Public Right-of-Way Accessibility Guidelines (PROWAG)* can ensure that a wide range of users—including people using mobility devices and with vision disabilities—can navigate these important trail access points.

BARELAS STREET CROSSINGS

Table 9 summarizes the recommended treatments for eight street crossings along the Barelas segment. The five crossings along Avenida Cesar Chavez between 4th Street and 2nd Street illustrated in Figure 27 lie along the primary trail alignment itself, whereas the three crossings along 2nd Street shown in Figure 28 connect to neighborhood streets. Appendix A provides more detailed recommendations describing specific treatments at the eight crossing locations.

TABLE 9. Proposed Crossing Treatments

	Raised Crossing	RRFBs	Geometric Improvements	Signal Modifications	Turning Treatments	Accessibility Treatments
4th Street	●	●	●	×	●	●
Avenida Cesar Chavez	×	×	●	●	●	●
Barelas Road	●	×	●	×	×	●
3rd Street	●	×	●	●	×	●
2nd Street @ Avenida Cesar Chavez	●	●	●	×	●	●
2nd Street @ Cromwell Avenue	●	●	●	×	×	●
2nd Street @ Pacific Avenue	●	●	●	×	×	●
2nd Street @ Santa Fe Avenue	●	●	●	×	×	●

- Proposed
- Constructed
- ×
- Not Recommended

FIGURE 27. Enhanced Crossings along Avenida Cesar Chavez

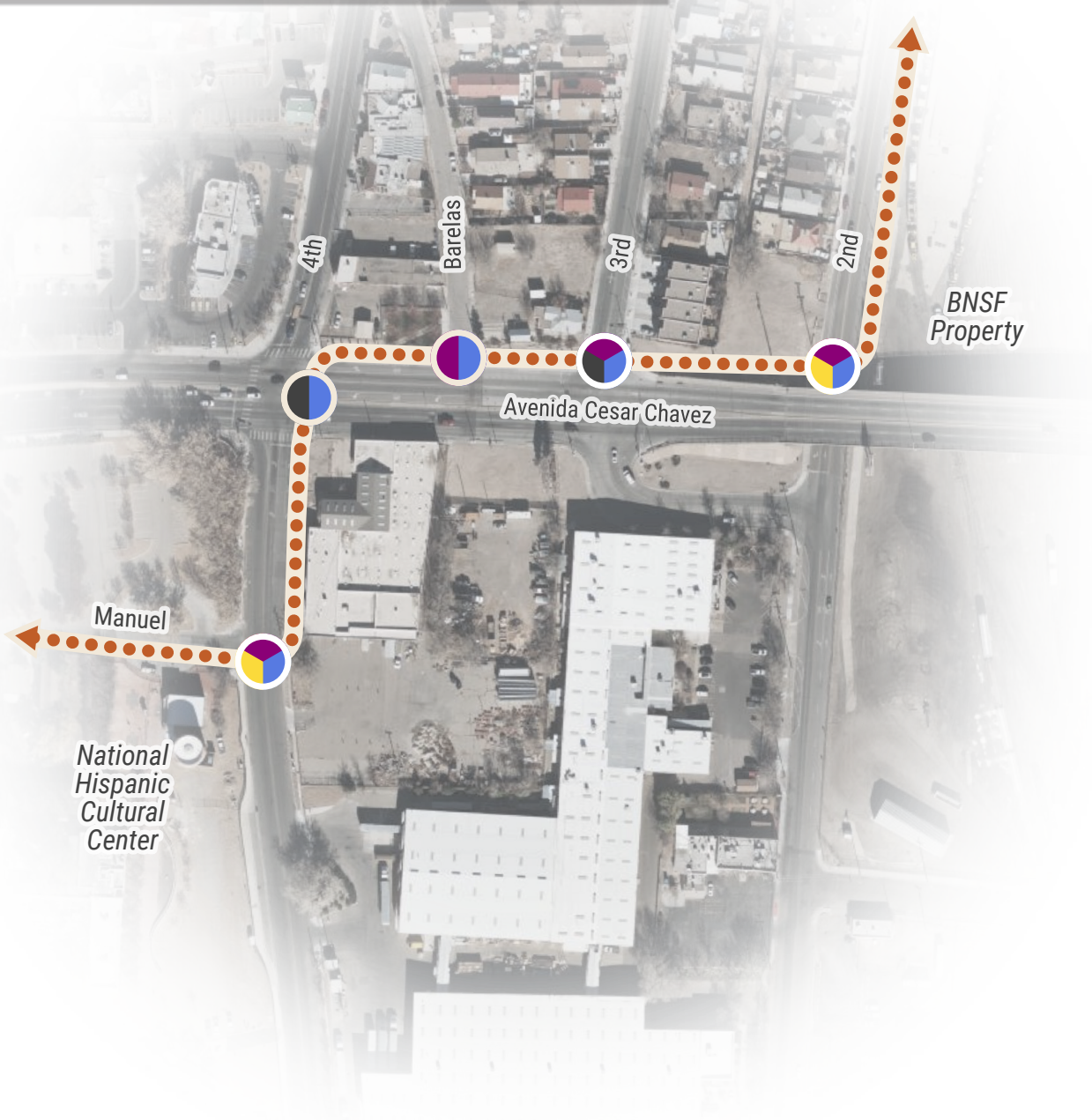
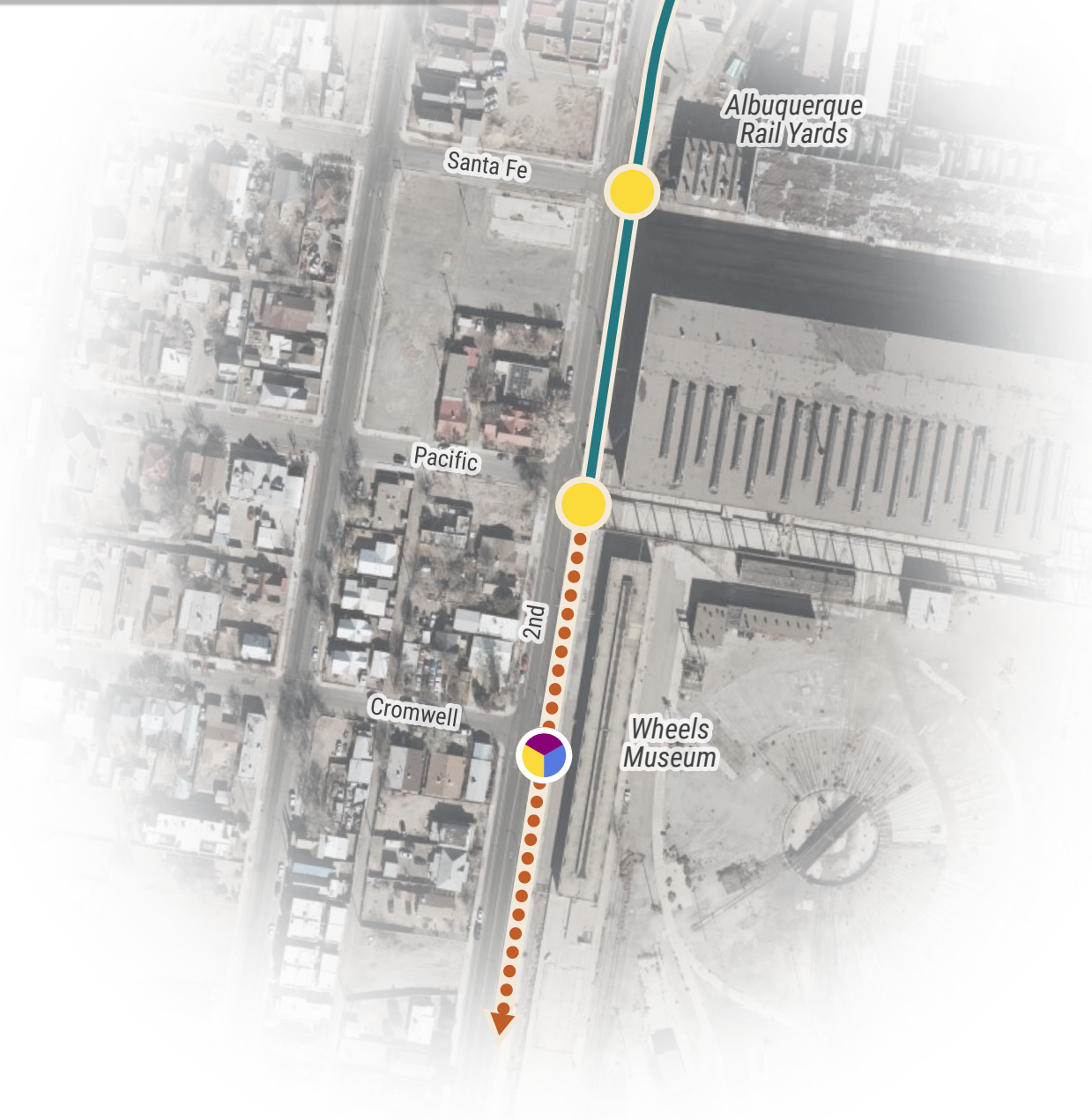


FIGURE 28. Enhanced Crossings along 2nd Street



The three crossings along 2nd Street between Cromwell Avenue and Santa Fe Avenue in Figure 28 link the trail to sidewalks on neighborhood streets. The Rail Yards streetscape project recently implemented raised crossings and geometric improvements at Pacific Avenue and Santa Fe Avenue. Installing RRFBs can further improve these crossings and promote motorist yielding to people using the crosswalk.

Legend

- Traffic Signal Improvements
 - Rapid Rectangular Flashing Beacon (RRFB)
 - Raised Crossing
 - Geometric Improvements
 - Multiple Crossing Treatments
 - Proposed Trail Alignment
 - Rail Yards Streetscape Improvements (Completed)
-

SUPPLEMENTAL TRAIL CONNECTIONS

The proposed trail through Barelas is a key component of the signature trail loop, as well as a promising spine in a growing citywide network of walking, bicycling, and placemaking investments. Two supplemental trail connections or “spurs” can build upon the primary alignment of the rail trail and the existing Paseo del Bosque trail, expanding the trail system, connecting to additional destinations, and providing options for longer-distance loops for recreational trail users.

Legend

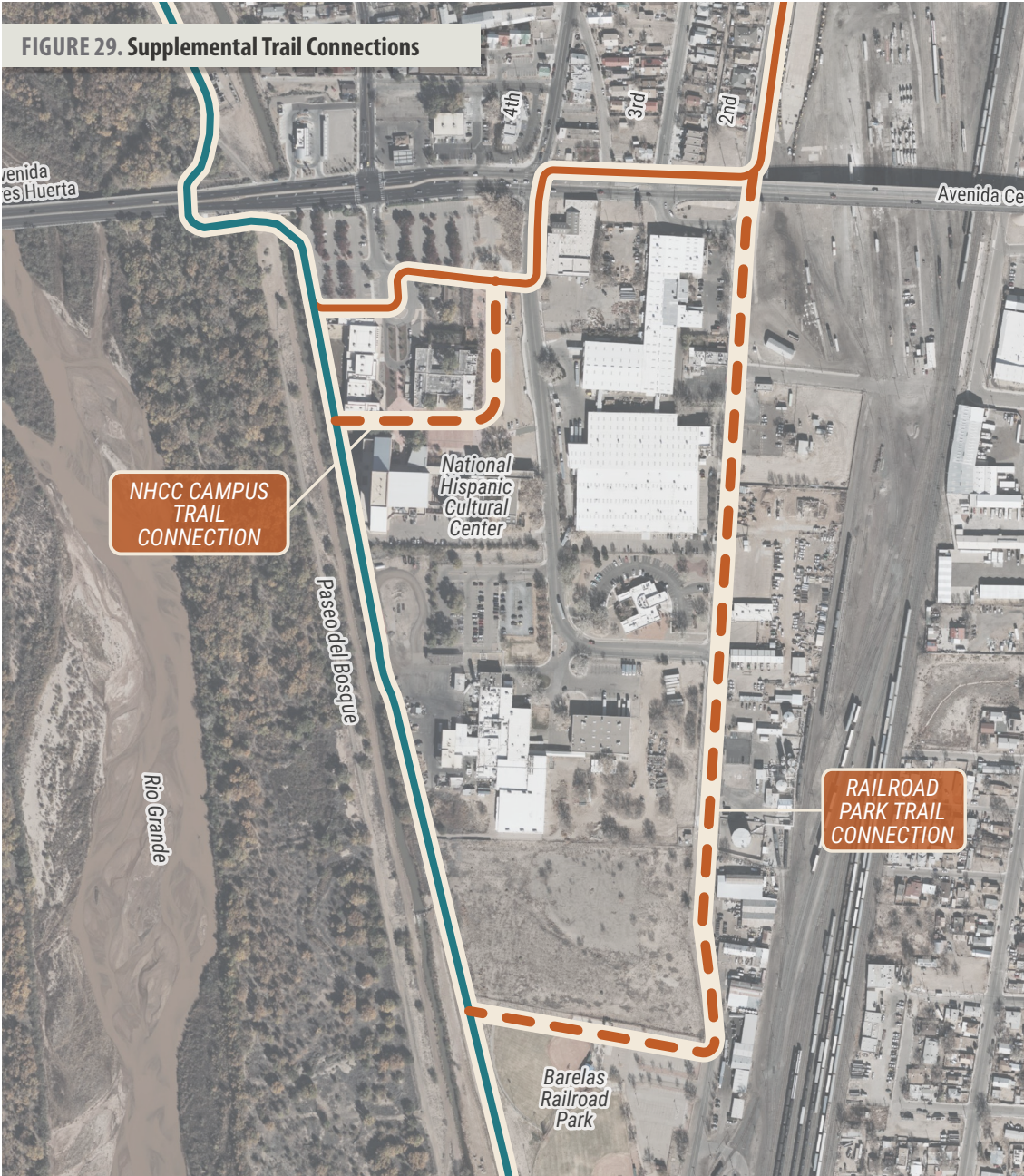
Proposed Supplemental Trail Connection

Proposed Rail Trail Alignment

Paseo del Bosque Trail

N

1/4 Mile



NATIONAL HISPANIC CULTURAL CENTER
CAMPUS CONNECTION

Just south of the primary alignment of the Barelas segment, the Rail Trail can connect to the heart of the National Hispanic Cultural Center (NHCC) during the hours that the campus is open to the public. South of the parking lot and Manuel Avenue, the NHCC campus features elegant buildings connected by plazas and promenades replete with public art, shade trees, and landscaping. Although this portion of the campus is closed to the public outside of the NHCC’s operating hours—and therefore an unsuitable option for the primary alignment of the trail—a supplemental trail connection looping through the campus can provide direct access to the NHCC’s buildings and plazas during the daytime and public events. This connection entails minor improvements along the western edge of the campus, including:

- a new access point between the Paseo del Bosque trail and the NHCC’s Plaza Mayor approximately 700 feet south of Avenida Cesar Chavez,
- reconstruction and regrading of the Paseo del Bosque trail in the vicinity of the new access point to meet the (higher) elevation of the NHCC at an accessible, ADA-compliant slope, and
- a paved trail for approximately 200 feet through the NHCC between the new access point and the Plaza Mayor.

East of this new access point, trail users can travel through the existing paved plazas and promenades to reconnect with the primary alignment of the Rail Trail near Manuel Avenue and 4th Street.

The opinion of probable cost on page 59 includes planning-level estimates for reconstruction and regrading of the Paseo del Bosque trail near the proposed access point, as well as wall modifications to accommodate direct access between the existing trail and the campus. Trail construction and amenities within the gated portion of the campus are beyond the scope of this plan and will be determined through close collaboration with the NHCC.



Existing artwork near the proposed trail entrance to the NHCC campus can act as a gateway, inviting people walking and bicycling along the Paseo del Bosque trail to the NHCC’s central plaza.

BARELAS RAILROAD PARK CONNECTION

Once the seven-mile Rail Trail loop is in place, Albuquerque can expand upon its downtown trail system with a supplemental connection through the Barelas Railroad Park and along 2nd Street. This southern connection can enhance multimodal access to the ballfields at the Barelas Railroad Park and give recreational Rail Trail users the option to extend their journey along an 8.4-mile loop. This potential future extension of the Rail Trail system includes:

- a new access point between the Paseo del Bosque trail and the Barelas Railroad Park approximately a half mile south of Avenida Cesar Chavez,
- a new paved multi-use trail through the Barelas Railroad Park between the Paseo del Bosque trail and 2nd Street, and
- a new paved multi-use trail along 2nd Street between the Barelas Railroad Park and the Avenida Cesar Chavez overpass, tying into the primary Rail Trail alignment through Barelas.

This connection is not captured in the opinion of probable cost in this plan and requires additional study and funding.

NEIGHBORHOOD CONNECTIONS

Enhancing neighborhood streets in the vicinity of the trail can help Burqueños connect to the places they treasure, like Barelás businesses and the community-driven Great Blocks project on 4th Street. This section recommends corridor improvements that will expand access to the trail and community destinations and strengthen sidewalk and bikeway networks in and around the neighborhood.

Legend

Proposed Neighborhood Connections

Proposed Trail Alignment

Other Projects

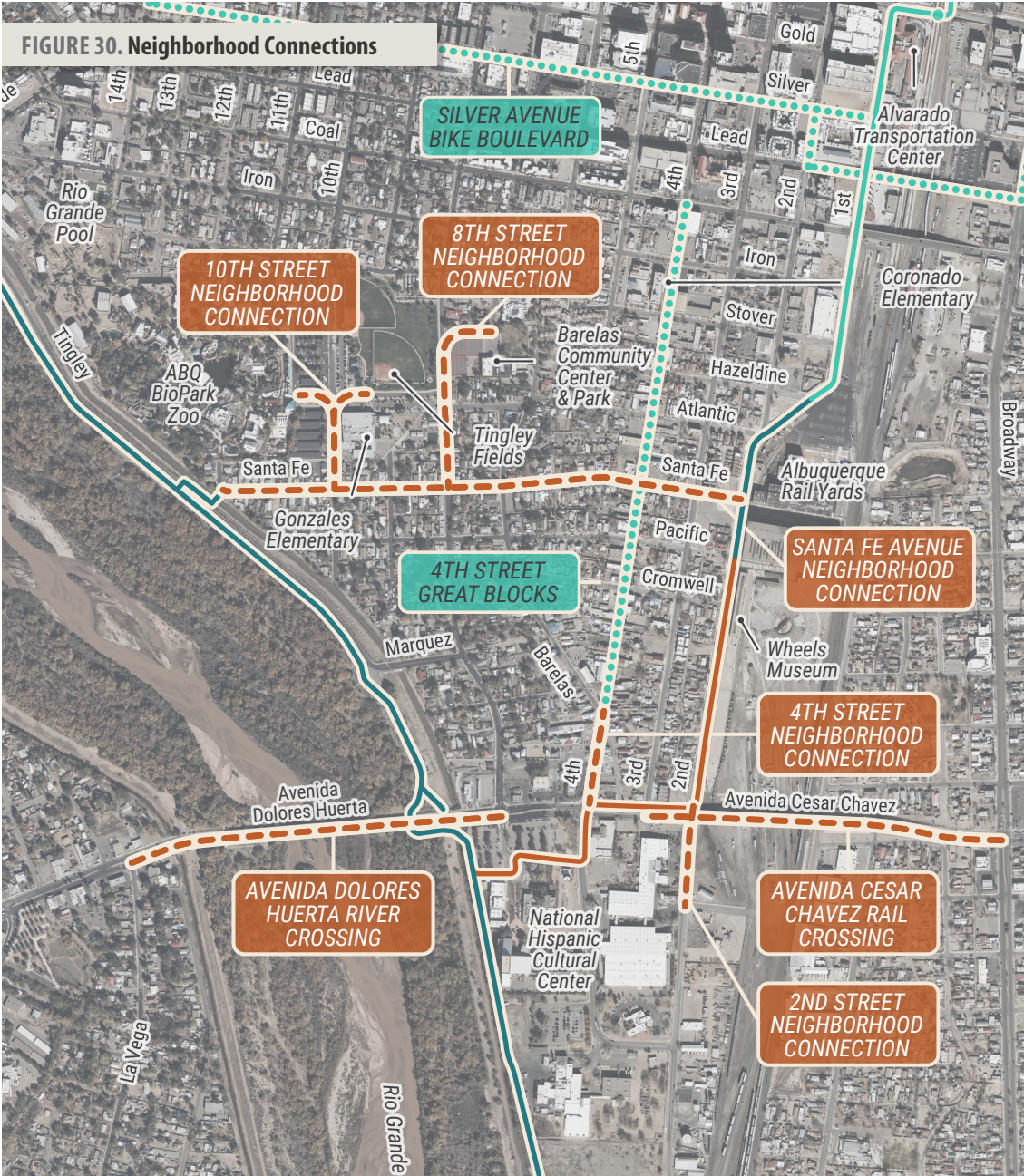
Project Status (Spring 2024)

Proposed

In Design

Constructed

1/2 Mile



SANTA FE AVENUE

Santa Fe Avenue travels east–west through the heart of Barelás, supporting access to destinations including the Albuquerque Rail Yards, businesses along 4th Street, the Barelás Community Center and Park, Gonzales Elementary School, Tingley Fields, and the ABQ BioPark Zoo. A trail bridge at the western end of the street crosses over the centuries-old acequia, connecting Barelás to the Paseo del Bosque trail, the Rio Grande, and the cottonwood forest at the river’s edge. The following improvements are recommended to enhance walking and bicycling conditions on this vital neighborhood corridor:

- Bike boulevard treatments between 2nd Street and the trail bridge at 12th Street, including an enhanced crossing of 8th Street
- Sidewalk, streetscape, and accessibility improvements between 2nd Street and 12th Street
- Roadway narrowing between Barelás Road and 12th Street to accommodate a more spacious pedestrian realm and accessible driveway crossings

2ND STREET

Just south of Avenida Cesar Chavez, the staple El Modelo restaurant lies on the west side of 2nd Street. Sidewalk, streetscape, and accessibility improvements are recommended on the west side of 2nd street between Trumbull Avenue and the primary trail alignment north of the Avenida Cesar Chavez overpass to connect to El Modelo.

4TH STREET

4th Street is the longstanding commercial core of Barelás, and the community-driven 4th Street Great Blocks project begins one block north of the proposed trail alignment at Barelás Road. The following improvements are recommended to bridge a short gap between the Rail Trail and the upcoming Great Blocks project and to provide an inviting pedestrian entrance to Barelás’ historic and vibrant Main Street:

- Sidewalk, streetscape, and accessibility improvements between Avenida Cesar Chavez and Barelás Road
- Roadway narrowing between Avenida Cesar Chavez and Barelás Road to accommodate a more spacious pedestrian realm

8TH STREET

8th Street runs north–south through Barelás, connecting to the National Hispanic Cultural Center and proposed trail alignment at Avenida Cesar Chavez, as well as to the Barelás Community Center and Park and Tingley Fields. Today, the narrow sidewalks and bike lanes paired with high volumes of fast-moving cars create uncomfortable walking and bicycling conditions. Although the street’s constrained right-of-way limits opportunities to expand the walking and bicycling facilities, select improvements are recommended to create more comfortable walking and bicycling conditions:

- Sidewalk, streetscape, and accessibility improvements between Santa Fe Avenue and Stover Avenue

- Traffic calming treatments between Avenida Cesar Chavez and Coal Avenue to encourage slower motor vehicle speeds adjacent to the existing bike lanes

10TH STREET

Just north of Santa Fe Avenue, 10th Street provides direct access to the ABQ BioPark Zoo, Dolores Gonzalez Elementary School, and Tingley Fields. Sidewalk, streetscape, and accessibility improvements are recommended between Santa Fe Avenue and Atlantic Avenue to connect to these destinations.

AVENIDA DOLORES HUERTA & AVENIDA CESAR CHAVEZ

Just west of the proposed trail alignment, Avenida Dolores Huerta spans the Rio Grande, serving as a critical river crossing. Likewise, just east of the proposed alignment, the Avenida Cesar Chavez overpass crosses the BNSF rail corridor and ties into to South Broadway. Longer term, trail bridges or other forms of pedestrian and bicycle improvements across both the river and the railroad can help connect Barelás and the Rail Trail system to neighborhoods west of the Rio Grande and South Broadway, supporting regional multimodal transportation options. Achieving these crossings will require extensive feasibility analysis and significant additional funding.

IMPLEMENTATION

OPINION OF PROBABLE COST

Table 10 presents an opinion of probable cost for the Barelas segment, which includes trail construction, crossing improvements, gateway and hotspot elements, landscaping, and amenities between Avenida Dolores Huerta and Hazeldine Avenue, excluding the funded Rail Yards roundabout project.

Opinions of probable cost were developed by identifying major pay items and establishing rough quantities to determine a rough order of magnitude cost. Additional pay items have been assigned approximate lump sum prices based on a percentage of the anticipated construction cost. Planning-level cost opinions include a 20% contingency to cover items that are undefined or are typically unknown early in the planning phase of a project. Unit costs are based on 2023 dollars and were assigned based on historical cost data from the City of Albuquerque's City Engineer's Estimated Unit Prices for Contract Items 2023 and recent unit costs developed for the Rail Trail Framework Plan and Sawmill Segment Rough Order of Magnitude Cost Opinion. *Cost opinions do not include easement and right-of-way acquisition; permitting, inspection, or construction management; surveying, geotechnical investigation, environmental documentation, special site remediation, escalation, or the cost for ongoing maintenance; or the design or construction of the neighborhood connections proposed on page 56.* A cost range has been assigned to certain general categories such as utility relocations; however, these costs can vary widely depending on the exact details and nature of the work. The overall cost opinions are intended to be general and used only for planning purposes. Toole Design Group, LLC makes no guarantees or warranties regarding the cost estimate herein. Construction costs will vary based on the ultimate project scope, actual site conditions and constraints, schedule, and economic conditions at the time of construction.

TABLE 10. Opinion of Probable Cost

Item	Unit	Unit Cost	Quantity	Cost
Mobilization	ALLOW	—	—	\$360,000
Demolition	ALLOW	—	—	\$480,000
Earthwork	ALLOW	—	—	\$160,000
Utility	ALLOW	—	—	\$100,000
Broadband	ALLOW	—	—	\$150,000
Layout & Staking	ALLOW	—	—	\$100,000
Traffic Control	ALLOW	—	—	\$240,000
Flood Protection & NPDES Permitting	ALLOW	—	—	\$70,000
Curb & Gutter	LF	\$35	1,540	\$54,000
Pavement Markings	ALLOW	—	—	\$32,000
Trail Surface	SF	\$15	75,785	\$1,137,000
Enhanced Trail Surface	SF	\$50	8,975	\$449,000
Landscape Area	SF	\$6	45,380	\$272,000
Enhanced Landscape Area	SF	\$10	13,700	\$137,000
Fencing	LF	\$60	2,660	\$160,000
Enhanced Fencing	LF	\$120	200	\$24,000
Trees	EA	\$500	300	\$150,000
Site Furnishings	ALLOW	—	—	\$260,000
Custom Shade Structure	EA	\$75,000	8	\$600,000
Gateway Features	EA	\$150,000	4	\$600,000
Trail Lighting & Call Boxes	ALLOW	—	—	\$510,000
Wayfinding Signage	ALLOW	—	—	\$70,000
4th Street @ Manuel Avenue	EA	\$150,000	1	\$150,000
Avenida Cesar Chavez @ 4th Street	EA	\$1,000,000	1	\$1,000,000
Barelas Road @ Avenida Cesar Chavez	EA	\$150,000	1	\$150,000
3rd Street @ Avenida Cesar Chavez	EA	\$150,000	1	\$150,000
2nd Street @ Avenida Cesar Chavez	EA	\$150,000	1	\$150,000
2nd Street @ Cromwell Avenue	EA	\$150,000	1	\$150,000
2nd Street @ Pacific Avenue	EA	\$30,000	1	\$30,000
2nd Street @ Santa Fe Avenue	EA	\$30,000	1	\$30,000
Construction Items Subtotal				\$7,925,000
Construction Contingency	%	20%		\$1,585,000
NMGRT	%	7.75%		\$737,000
Construction Total				\$10,247,000
Design	%	12%		\$1,230,000
Construction & Design Total				\$11,477,000

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EASEMENTS & RIGHT-OF-WAY

Securing easements, lease agreements, or acquisitions through public and vacant properties will support a spacious trail corridor and enhanced public realm, as shown in the proposed cross sections in the Trail Recommendations chapter. Figure 31 and Table 11 illustrate and provide additional details regarding proposed right-of-way needs and property ownership along the alignment to support future planning, coordination, and design efforts.

It is important to note that the opinion of probable costs for construction presented in Table 10 does not include costs associated with easements, lease agreements, or acquisitions. Negotiating easements with or acquiring additional right-of-way from private property owners (including BNSF) may add to total project costs.

Legend

Proposed Easements

Private Property

State of New Mexico/National Hispanic Cultural Center Property

City of Albuquerque Property

Optional Easement (see notes for Table 11)

Proposed Trail Alignment

Existing Trails & Streetscape Improvements

¼ Mile



TABLE 11. Proposed Easements & Right-of-Way Needs

Map Key	Property Owner	Proposed Easement Location	Proposed Easement Extents	Proposed Easement Width ¹	Implementation Notes
1	State of New Mexico/National Hispanic Cultural Center (NHCC)	South side of NHCC parking lot	Paseo del Bosque trail to 4th Street ²	20–30 feet	– Reconfigure state-owned parking lot to accommodate a 14-foot trail and shade trees
2		East side of 4th Street	Manuel Avenue to Avenida Cesar Chavez	10–60 feet	– Activate unutilized property adjacent to warehouse to support the proposed cross section (see Figure 16 on page 37) – Design a gateway in undeveloped space at Avenida Cesar Chavez
3	City of Albuquerque	North side of Avenida Cesar Chavez	4th Street to Barelás Road	22–24 feet	– Reconfigure City property to support the proposed cross section (see Figure 18 on page 39)
4	Private Property	North side of Avenida Cesar Chavez	Barelás Road to 3rd Street	22–24 feet	– Pursue vacant private property to support the proposed cross section (see Figure 18 on page 39)
5	BNSF Railway	East side of 2nd Street	Trumbull Avenue to 500 feet south of Cromwell Avenue ³	36 feet	– Pursue vacant BNSF railroad property to support the proposed cross section (see Figure 21 on page 43)
6	City of Albuquerque	East side of 2nd Street	500 feet south of Cromwell Avenue to Pacific Avenue	36–38 feet	– Reconfigure Rail Yards property to support the proposed cross sections (see Figure 21 on page 43 and Figure 23 on page 45)

1. The proposed easement widths reflect apparent street right-of-way based on aerial measurements. A formal boundary survey will be needed to confirm right-of-way needs prior to final design.
2. The need for an easement along Manuel Avenue through the National Hispanic Cultural Center parking lot approaching 4th Street will depend on the proposed cross section.
3. An easement through BNSF property along 2nd Street between Trumbull Avenue and the Avenida Cesar Chavez overpass can support a supplemental trail connection to Barelás Railroad Park in the future (see Figure 29 on page 54) but is not required to implement the proposed alignment of the Barelás segment.

NEXT STEPS

Achieving a signature, world-class trail system that transports people out of the everyday and showcases what is special about Albuquerque requires an organized approach to project delivery, a strong commitment to strategic planning, and a clear-eyed view of the trail's potential to shape downtown area neighborhoods. The City should advance the Barelás segment toward implementation by pursuing the steps outlined in Table 12, which capture best practices and lessons learned from signature trail projects implemented by cities across the country.

TABLE 12. Implementation Matrix

	Implementation Strategy	Implementation Action Item	See Also
Delivering a Signature Trail	Continue interdepartmental and interjurisdictional coordination. Proactively involve all agencies with a stake in or influence over components of the Barelás segment.	– Coordinate with the Middle Rio Grande Conservancy District about regrading the Paseo del Bosque trail to meet the elevation of the National Hispanic Cultural Center parking lot	– Paseo Del Bosque Trail on page 32
		– Coordinate with the National Hispanic Cultural Center about: – the alignment and design of the trail through their parking lot, along Manuel Avenue, and along 4th Street – securing an easement through the State-owned parking lot and underutilized space along 4th Street – a supplemental trail connection through the heart of the campus	– National Hispanic Cultural Center & Manuel Avenue on page 34 – 4th Street on page 36 – Supplemental Trail Connections on page 54
		– Coordinate with the Department of Municipal Development about: – reducing the speed limit on 2nd Street to 25 MPH between Avenida Cesar Chavez and Cromwell Avenue – the proposed crossing treatments and signal timing changes at Avenida Cesar Chavez and 4th Street, which may require a traffic study	– Table 7 on page 43 – Appendix A: Crossing Treatments on page 65
		– Coordinate with Parks & Recreation about reconfiguring the City-owned pocket park along Avenida Cesar Chavez	– Avenida Cesar Chavez on page 38
		– Coordinate with BNSF about acquiring or securing an easement through railroad property along 2nd Street	– 2nd Street on page 42
		– Coordinate with Albuquerque Rail Yards and the Wheels Museum about reconfiguring City-owned property along 2nd Street	– 2nd Street on page 42
	Secure dedicated funding for the Barelás segment.	– Identify local construction funding sources, such as GO Bonds, that can serve as a local match for grants	– Opinion of Probable Cost on page 59
		– Seek capital outlay funding from the State	
		– Identify and apply for state, federal, and nonprofit grants	
		– Identify and apply for funding for public art	
		– Identify funding for broadband along the trail	
	Develop state-of-the-art design standards that designers can apply to the Barelás segment and across the loop.	– Incorporate recent design decisions related to trail surface, landscaping, fencing, wayfinding, lighting, and gateways from the Sawmill and Central segments into the design of the Barelás segment and across the seven-mile loop.	– Key Trail Design Principles on page 26 – The Public Realm on page 28 – Street Crossings on page 50 – Ohio DOT Multimodal Design Guide – Fall Line Trail (Central Virginia) – Joe Louis Greenway (Detroit, MI)
		– Establish gold-standard design guidance based on multimodal transportation research and international best practices to prioritize a consistently safe, connected, and accessible trail experience through a variety of off-street and on-street contexts.	
	Build a public-facing project tracking tool.	– Develop a public website with up-to-date maps to build momentum, proactively answer questions, and provide transparency around the project.	– Bayou Greenways (Houston, TX)

TABLE 12. Implementation Matrix

	Implementation Strategy	Implementation Action Item	See Also
Planning for Long-Term Success	Create a brand for the trail.	– Translate the Rail Trail Design Team's vision into a distinct and recognizable brand for the trail.	– The Public Realm on page 28 – Joe Louis Greenway (Detroit, MI) – Atlanta BeltLine
	Pursue an art plan.	– Develop a loop-wide art plan that incorporates community-generated ideas, engages local artists, celebrates the identity of Barelás and other neighborhoods, and creates meaningful places to learn and explore.	– The Barelás Context on page 10 – The Public Realm on page 28 – Indianapolis Cultural Trail (see Comprehensive Plan for Public Art RFQ)
	Develop and implement a public outreach plan.	– Encourage active participation from a variety of stakeholders and robust civic engagement in the next phases of design and implementation of the Barelás segment and other portions of the loop.	– ATX Walk Bike Roll (Austin, TX; see Appendix A.3 in linked document)
	Continue strategic planning for inclusive growth.	– Pursue an equity framework plan that acknowledges and addresses the historic disinvestment in neighborhoods surrounding the Rail Trail.	– Advancing Inclusive Growth on page 9 – Joe Louis Greenway (Detroit, MI; see Chapter 3 in linked document) – Reimagine Middle Branch (Baltimore, MD) – Atlanta BeltLine – ATX Walk Bike Roll (Austin, TX; see Appendix A.1 and A.2 in linked document)
		– Incorporate public feedback and community priorities into the Advancing Inclusive Growth through the Rail Trail recommendations.	
		– Prioritize affordable housing and affordable transportation options on and around the trail loop.	
		– Implement strategies to engage and support local businesses along the Rail Trail.	
		– Integrate community-generated ideas into the design of and programming along the Rail Trail.	
	Develop a long-term sustainable governance model.	– Consider and implement governance strategies that encourage public and private investment and build collective ownership.	– Great Rivers Greenway (St. Louis, MO)
	Develop a long-term sustainable funding model.	– Consider and pursue funding options, such as a tax increment district or bond initiative, that can evolve with the project over time.	– Buffalo Bayou Partnership (Houston, TX) – Houston Parks Board
	Develop a long-term management and maintenance plan.	– Pursue sustained funding for trail maintenance. In the long run, the most expensive component of a successful signature trail system is maintenance.	– Great Rivers Greenway (St. Louis, MO) – Razorback Greenway (AR)
Reorienting Around Trails	Support multimodal connections.	– Coordinate and collaborate with ongoing and future efforts by the City and others—including the City's ongoing update to the Bikeway & Trail Facilities Plan—to build additional trails, on-street bikeways, sidewalks, and transit connections that tie into and provide neighborhood access to the trail loop.	– Ongoing & Upcoming Projects on page 16 – Supplemental Trail Connections on page 54 – Neighborhood Connections on page 56
		– Coordinate the 4th Street Great Blocks project and prioritize pedestrian improvements on 4th Street between Avenida Cesar Chavez and Barelás Road to link the Rail Trail to the Great Blocks project on Barelás' Main Street	
	Commit to trails-oriented development.	– Coordinate with Bernalillo County's Bridge Boulevard corridor project to advance multimodal improvements along the Avenida Dolores Huerta bridge.	
		– Coordinate and collaborate on economic development plans, projects, and opportunities with the relevant City departments and other partners. – Encourage collaboration among residents, City leaders, community development organizations, developers, and others to implement site-specific and district-wide plans that support equitable economic development along and around the trail.	– Indy Cultural Trail – Dallas Katy Trail

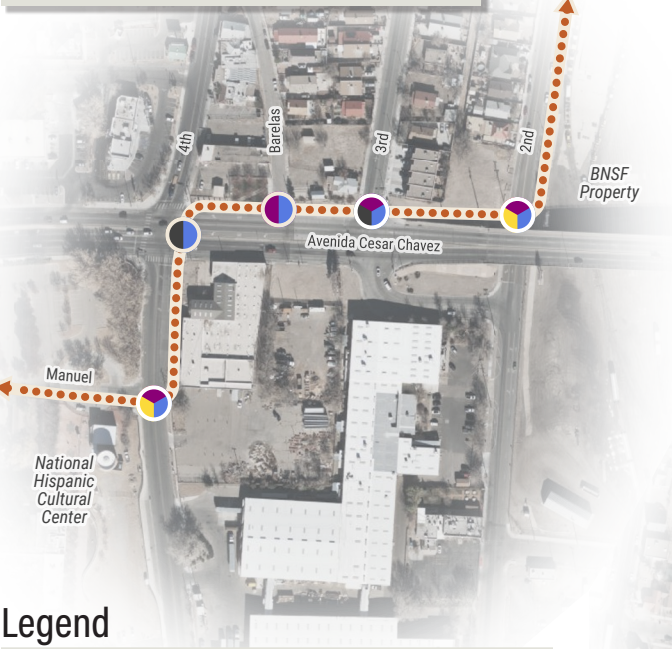
APPENDIX A: CROSSING TREATMENTS

This appendix outlines recommendations for specific treatments at eight crossings along the proposed alignment. It is intended as a resource to support coordination and for designers and engineers to consider and refine as the project moves toward implementation. The opinion of probable costs for construction presented in Table 10 includes planning-level cost opinions for the proposed improvements at these eight crossings documented in this appendix.

The recommendations chapter of this report includes brief descriptions of trail crossing design principles and treatments suitable for crossings along the Barelas segment of the Albuquerque Rail Trail beginning on page 50. The following resources provide additional guidance related to crossing treatments:

- City of Albuquerque’s *Bicycle & Trails Crossing Guide*
- Federal Highway Administration’s *Guide for Improving Pedestrian Safety at Uncontrolled Crossing Locations*
- U.S. Access Board’s *Public Right-of-Way Accessibility Guidelines (PROWAG)*
- Ohio Department of Transportation’s *Multimodal Design Guide*

FIGURE 32. Enhanced Crossings



Legend

- Traffic Signal Improvements
- Rapid Rectangular Flashing Beacon (RRFB)
- Raised Crossing
- Geometric Improvements (see page 50)
- Multiple Crossing Treatments
- Proposed Trail Alignment
- Rail Yards Streetscape Improvements (Completed)



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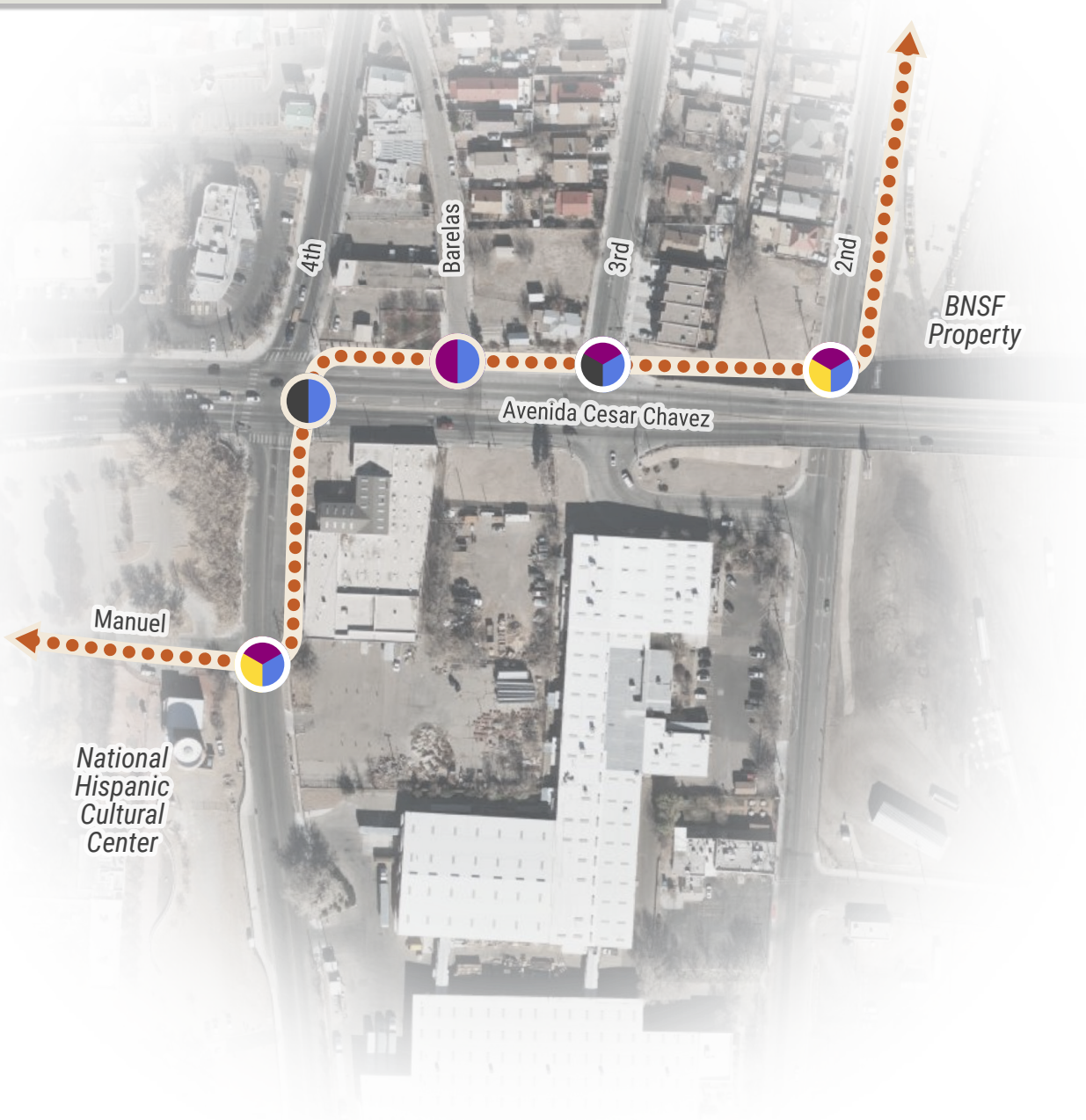
4TH STREET @ MANUEL AVENUE

- Raised trail crossing of 4th Street just south of the Manuel Avenue entrance to the National Hispanic Cultural Center parking lot
- RRFBs and advanced pavement markings
- Geometric improvements including tighter street corner radii and curb extensions on the west side of 4th Street north and south of the Manuel Avenue entrance
- Visual cues and wayfinding to clarify the trail alignment where it turns
- Spacious trail geometry—including a wide crosswalk and wide corner radii along the trail alignment—to help bicyclists navigate the turn
- Sidewalk improvements on 4th Street as needed to provide accessible walking routes within 50–100 feet of the crossing
- Accessible crossing of the Manuel Avenue entrance to the National Hispanic Cultural Center parking lot

Legend

- Traffic Signal Improvements
- Rapid Rectangular Flashing Beacon (RRFB)
- Raised Crossing
- Geometric Improvements (see page 50)
- Multiple Crossing Treatments
- Proposed Trail Alignment
- See page 50 for a more detailed description of proposed typical crossing treatments

FIGURE 33. Enhanced Crossings along Avenida Cesar Chavez



AVENIDA CESAR CHAVEZ @ 4TH STREET

- Trail crossing of Avenida Cesar Chavez on the east side of 4th Street
- Geometric improvements including curb extensions on all approaches and tighter street corner radii at all corners
- Protected signal phasing prohibiting southbound left turns while trail users are crossing
- Reconfiguring southbound 4th Street with a dedicated left turn lane and a shared right-turn/through lane to enable protected signal phasing
- Replacing the mastarm facing southbound 4th Street on the southwest corner to allow for a dedicated left turn signal
- Trail-friendly signal timing strategies such as automatic pedestrian recall and a longer crossing phase, which can be implemented on weekends and less congested times if traffic congestion is a concern during peak hours
- Visual cues and wayfinding to clarify the trail alignment where it turns
- Spacious trail geometry—including a wide crosswalk and wide corner radii along the trail alignment—to help bicyclists navigate the turn
- Upgrading and relocating pedestrian signals and push buttons on all corners to align with crosswalks and meet accessibility standards
- Relocating the mastarm facing northbound 4th Street on the northeast corner to provide an accessible, unobstructed sidewalk
- Sidewalk improvements on 4th Street and Avenida Cesar Chavez as needed to provide accessible walking routes within 50–100 feet of the crossing

BARELAS ROAD @ AVENIDA CESAR CHAVEZ

- Raised trail crossing of Barelas Road on the north side of Avenida Cesar Chavez
- Geometric improvements including tighter street corner radii and curb extensions on both sides of Barelas Road
- Relocating inlets on Barelas Road as needed to allow for a setback trail crossing
- Relocating the guy wire supporting above-ground utilities on the west side of Barelas Road to allow for an unobstructed crossing
- Sidewalk improvements on Barelas Road as needed to provide accessible walking routes within 50–100 feet of the crossing

3RD STREET @ AVENIDA CESAR CHAVEZ

- Raised trail crossing of 3rd Street on the north side of Avenida Cesar Chavez
- Upgrading and relocating pedestrian signals and push buttons on the north side of Avenida Cesar Chavez to align with a setback trail crossing and meet accessibility standards
- Relocating the utility cabinet on the east side of 3rd Street to allow for an unobstructed crossing
- Uninstalling the north–south pedestrian crosswalk (and affiliated pedestrian signal infrastructure) across Avenida Cesar Chavez, which does meet with accessibility standards
- Geometric improvements including tighter street corner radii and curb extensions on both sides of 3rd Street
- Sidewalk improvements on 3rd Street as needed to provide accessible walking routes within 50–100 feet of the crossing

2ND STREET MIDBLOCK CROSSING

- Raised trail crossing of 2nd Street immediately north of the Avenida Cesar Chavez overpass
- RRFBs and advanced pavement markings
- Curb extensions on both sides of 2nd Street
- Visual cues and wayfinding to clarify the trail alignment where it turns
- Spacious trail geometry—including a wide crosswalk and wide corner radii along the trail alignment—to help bicyclists navigate the turn
- Sidewalk improvements on 2nd Street as needed to provide accessible walking routes within 50–100 feet of the crossing

2ND STREET @ CROMWELL AVENUE

- Raised crossing of 2nd Street on the south side of Cromwell Avenue, tying into sidewalks west of the trail
- RRFBs and advanced pavement markings
- Geometric improvements including tighter street corner radii and curb extensions on both sides of 2nd Street
- Sidewalk improvements on Cromwell Avenue and the east side of 2nd Street as needed to provide an accessible pedestrian route within 50–100 feet of the crossing
- Accessible crossing of Cromwell Avenue on the west side of 2nd Street

Legend





-  Rapid Rectangular Flashing Beacon (RRFB)
-  Raised Crossing
-  Geometric Improvements (see page 50)
-  Multiple Crossing Treatments
-  Rail Trail Alignment
-  Rail Yards Streetscape Improvements (Completed)
-  See page 50 for a more detailed description of proposed typical crossing treatments

FIGURE 34. Enhanced Crossings along 2nd Street



2ND STREET @ PACIFIC AVENUE

- RRFBs and advanced pavement markings to complement the raised crosswalk and geometric improvements installed as a part of the Rail Yards streetscape improvements
- Sidewalk improvements on Pacific Avenue and the east side of 2nd Street as needed to provide accessible walking routes within 50–100 feet of the crossing

2ND STREET @ SANTA FE AVENUE

- RRFBs and advanced pavement markings to complement the raised intersection and geometric improvements installed as a part of the Rail Yards streetscape improvements
- Sidewalk improvements on Santa Fe Avenue and the east side of 2nd Street as needed to provide accessible walking routes within 50–100 feet of the crossing

