

Mid-Region Council of Governments

NEAR SOUTH VALLEY MULTIMODAL STUDY



FINAL
February 14, 2018



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Executive Summary

The Near South Valley Multimodal Study will guide the development of transportation facilities that provide for all modes of travel. The objective of this study was to evaluate and identify deficiencies in the existing network of streets, transit facilities, sidewalks, bike lanes, bike routes, and multi-purpose trails; identify projected future transportation problems and needs; evaluate and prioritize potential future improvement projects; and develop a list of recommendations for future multimodal transportation needs.

Sidewalk improvements should focus on making existing sidewalks accessible to all; this generally means that sidewalks without curb ramps or with obstructions within the accessible route should be corrected.

ABQ Ride leadership's near-term plans for transit improvements in the study area are to increase the frequency of service on Bridge Boulevard and to add bus shelters at existing stops on William Street and San Jose Avenue. Additional plans may involve installing bus benches and shelters at stops that serve as transfer points between routes, or stops near community centers.

The bulk of the recommendations in this study involve connections of existing bicycle facilities. The following projects are priorities agreed upon by the study team.

1. Sunport Boulevard Bicycle Connection from I-25 Northbound Ramps to Transport Street (City, \$500,000) - constructing a multi-use trail connection from the intersection of the northbound I-25 ramps and Sunport Boulevard to Transport Street.
2. 2nd Street to Bridge Boulevard Bicycle Connection (City, \$20,000) - building bike lanes on the connecting street between 2nd Street and Bridge Boulevard.
3. San Jose Avenue Bike Route from William Street to Broadway Boulevard (City, \$30,000) - designating San Jose Avenue between William Street and Broadway Boulevard as a bicycle route.
4. Broadway Boulevard Bike Lanes from Pacific Avenue to Santa Fe Avenue and from Iron Avenue to Lead Avenue (City, \$30,000) - completing the bike lanes on Broadway Boulevard from Pacific Avenue to Santa Fe Avenue and from Iron Avenue to Lead Avenue.
5. Santa Fe Avenue – 10th Street Bike Road and Atlantic Avenue Counterflow Cycle Track (City, \$50,000) - designating Santa Fe Avenue, 10th Street, and Atlantic Avenue as bike routes. Because Atlantic Avenue is one-way eastbound, the segment of Atlantic Avenue is envisioned as a two-way cycle track.
6. William Street-Pacific Avenue Bicycle Boulevard from Woodward Road to Edith Boulevard (City, \$300,000) - designating William Street north of Woodward Road to Pacific Avenue, and Pacific Avenue from William Street to Edith Boulevard, as a bicycle boulevard.
7. South Diversion Channel Multi-Use Trail from Rio Bravo Boulevard to Gibson Boulevard (City and County, \$8 million) - building a paved multi-use trail along the South Diversion Channel from Rio Bravo Boulevard to Gibson Boulevard. Several roadway undercrossings would be necessary.

Additionally, the study team recommends pedestrian/bicyclist crossing improvements at the following locations:

- Rio Bravo Boulevard/Prince Street
- Woodward Road/2nd Street (as it is undergoing design)
- Woodward Road/Hill Street-William Street (as it is undergoing design)

Finally, these connections should be considered as additions to long-range plans:

- East-West Trail Connection through the Barelbas Railroad Park Softball Fields
- Thaxton-Gibson Bicycle Connection
- San Jose to South Diversion Channel Trail Connection



1. BACKGROUND

The Near South Valley Multimodal Study will guide the development of integrated transportation facilities that provide for all modes of travel including vehicular, transit, pedestrians, bicycles, and rail. The study limits are shown in Figure 1, and are generally defined by the Rio Grande to the west, Interstate 25 (I-25) on the east, Salida Sandia (the southern border of the Valle de Oro National Wildlife Refuge [NWR]) on the south, and Lead Avenue on the north. The area is a diverse mix of neighborhoods with more densely populated residential and commercial properties located on the north side of the project area, becoming less dense and more industrial and agricultural to the south. Older portions of the area have been settled since around 1830, which has created a somewhat sporadic and haphazard assortment of streets, trails, sidewalks, and bicycle facilities. Portions of the study area are within the City of Albuquerque municipal boundaries and portions are in unincorporated areas of Bernalillo County. This study will provide a planning document for the project area to guide development of multimodal facilities in the future.

Objectives

The objective of the Near South Valley Multimodal Study is to identify roadway, pedestrian, bicycle, and transit needs and improvements consistent with the 2040 Metropolitan Transportation Plan (MTP) and other applicable planning documents. This study will:

- Evaluate the existing network of streets, transit facilities, sidewalks, bike lanes, bike routes, and multi-purpose trails.
- Identify deficiencies in the current multimodal system.
- Identify projected future transportation problems and needs.
- Evaluate and prioritize potential future improvement projects.
- Develop a list of recommendations for future multimodal transportation needs which may include:
 - Sidewalk additions where there are gaps
 - Enhanced pedestrian/bicyclist crossing locations
 - Trails to complete the trail network
 - Multimodal connections to the Valle de Oro NWR
 - Bicycle facilities to close gaps in the network or to link destinations
 - New transit facilities (e.g., bus stops) or service

2. EXISTING TRANSPORTATION CONDITIONS

Street Network

The South Valley area streets were developed during a range of different eras and therefore the streets vary in width and configuration. Streets are narrower and denser at the north end of the project limits. Major east-west streets in the project area include Lead Avenue, Coal Avenue, Bridge Boulevard, Gibson Boulevard, Woodward Road, Sunport Drive, and Rio Bravo Boulevard. Major streets that run north-south include 8th Street, 2nd Street, Broadway Boulevard, and I-25. Figure 1 shows an overview of the study area and the street classifications. Table 1 lists the existing right-of-way widths for major streets in the project area. Year 2015 average weekday traffic volumes for the Near South Valley study area are shown in Figure 2.



Figure 1. Near South Valley Multimodal Study Area

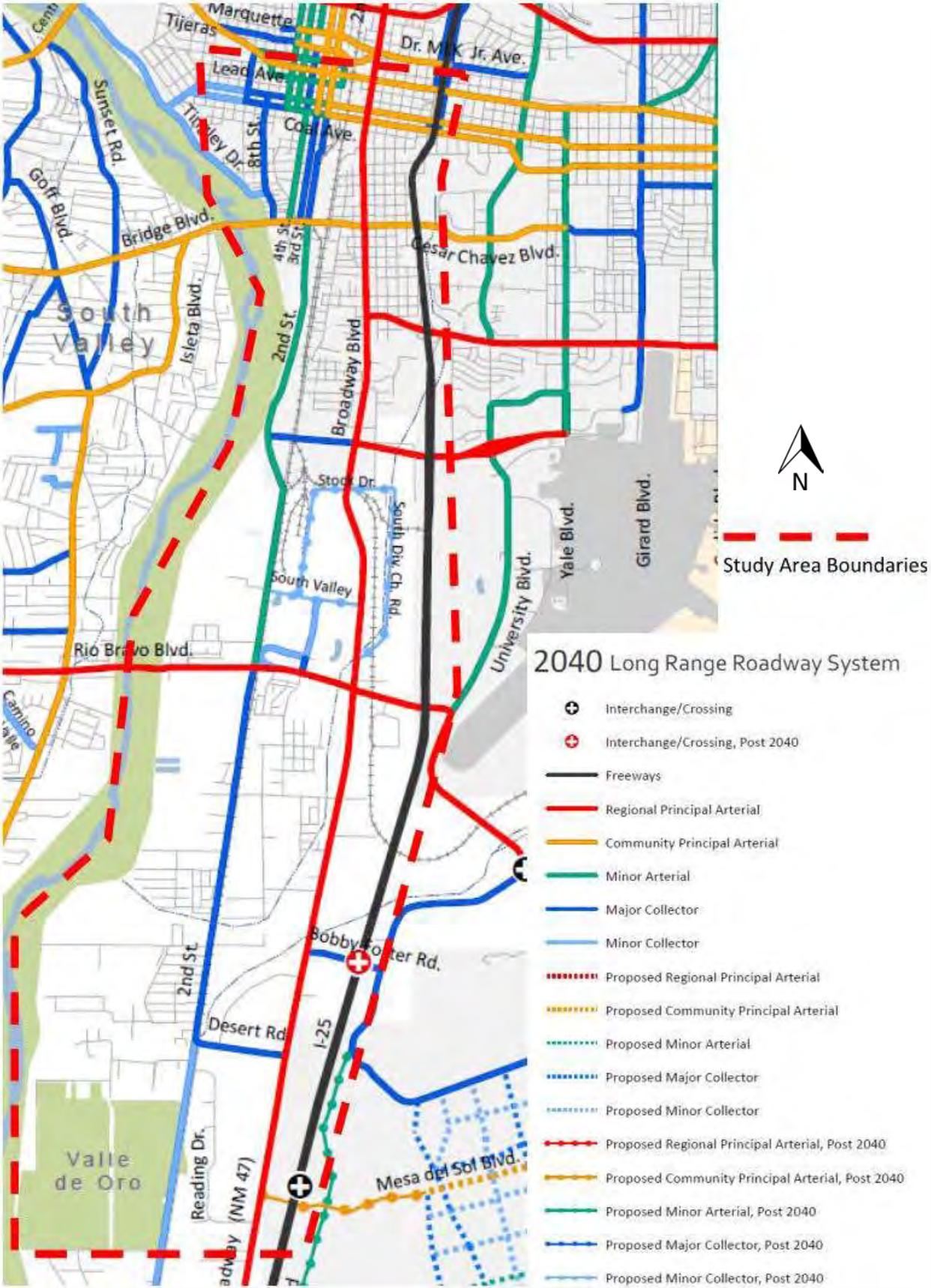


Figure 2. 2015 Average Weekday Traffic Volumes

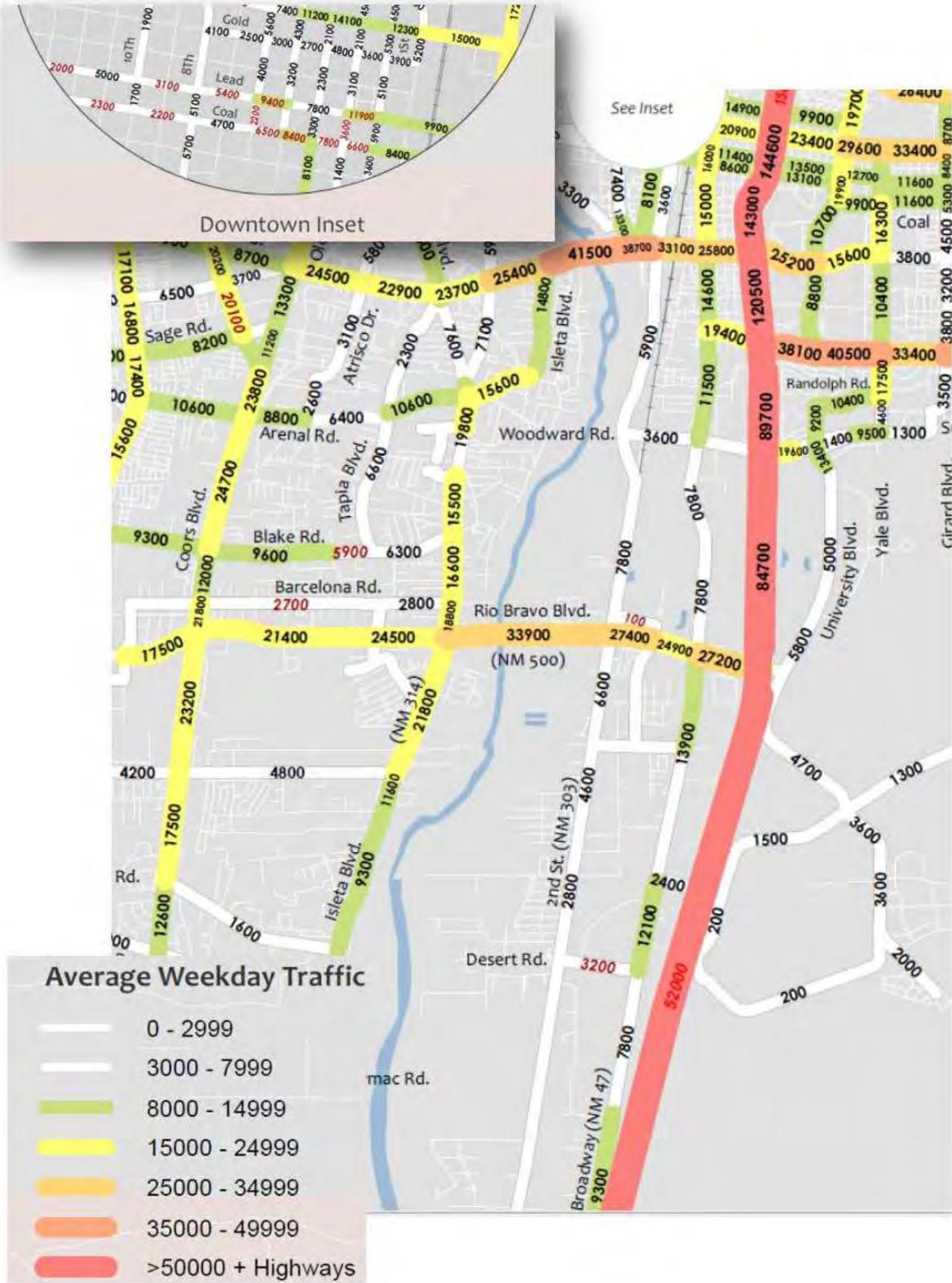


Table 1. Right-of-Way Widths of the Major Streets in the Study Area

Street	Right-of-Way Width
Lead Avenue	60'
Coal Avenue	60'
Bridge Boulevard-Cesar Chavez Boulevard	100'
Gibson Boulevard	100'
Woodward Road	80'
Rio Bravo Boulevard	Varies, 160' to 200'
8th Street	Varies, 50' to 70'
2nd Street	Varies, 60' to 70'
Broadway Boulevard	Varies, 90' to 200'
Interstate 25	Varies, 300' to 600'

Pedestrian Network

Portions of the South Valley area have fairly well-developed pedestrian networks while in other areas the pedestrian network is underdeveloped. Along Lead Avenue, Coal Avenue, and 8th Street, sidewalks are located on both sides of the road and are fairly wide (about four to nine feet) and in good condition. They have even surfaces and minimal cracking. A bridge spans over the railroad tracks from 2nd Street to Broadway Boulevard on both Lead Avenue and Coal Avenue and in this area on Coal Avenue sidewalk is provided only on the north side of the bridge; there is no sidewalk on the Lead Avenue bridge.

Bridge Boulevard-Avenida Cesar Chavez has a well-maintained sidewalk on the north side of the road and along most of the south side of the road. The sidewalk on the south side ends approximately 200 feet west of Broadway Boulevard.

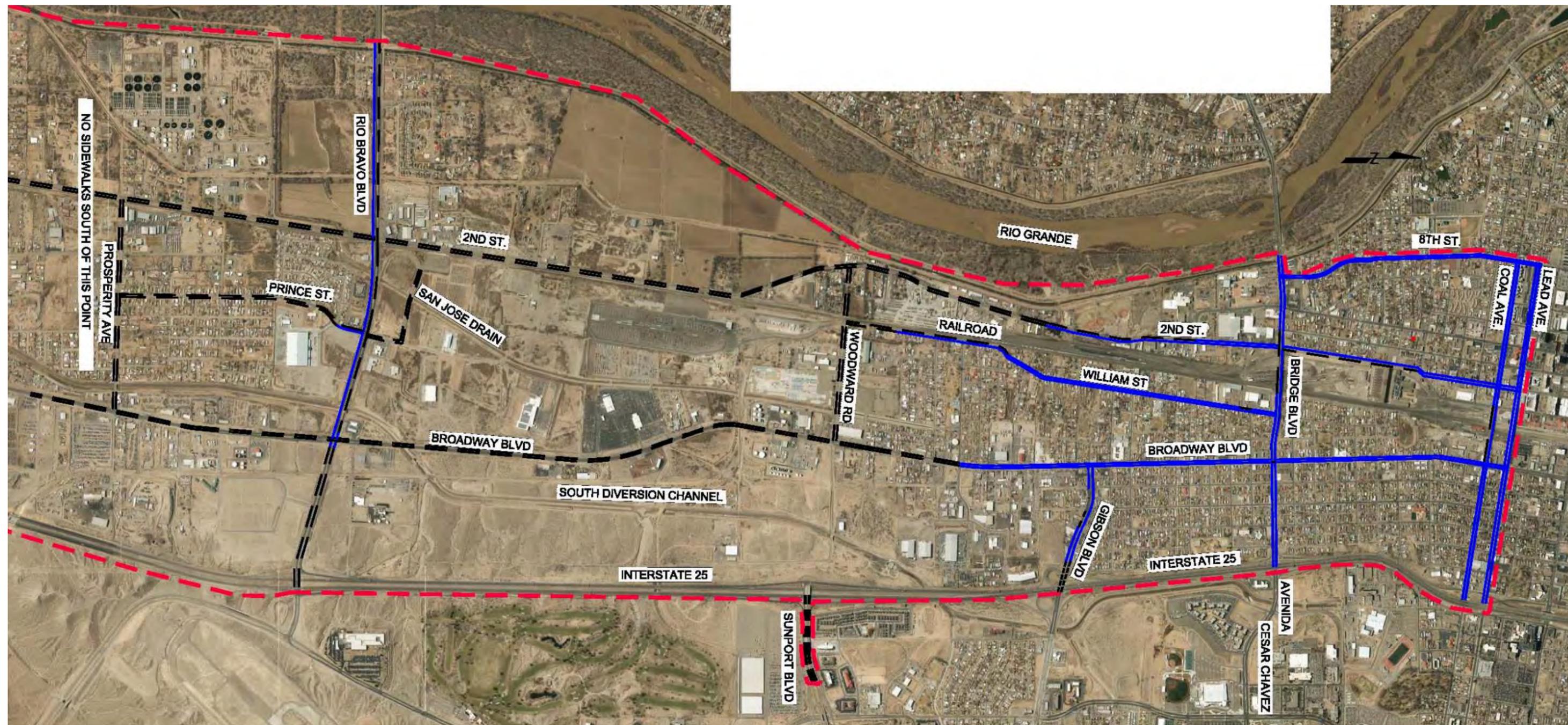
Gibson Boulevard has sidewalks on both sides of the road; however, in many places they are worn and cracking. On the south side of the road, the sidewalk is missing between Arno Street to approximately 200 feet east of Edith Boulevard.

Second Street has a sidewalk on the east side that extends from about 500 feet south of Southern Avenue to Trumbull Avenue, and also further north from Atlantic Avenue to Lead Avenue. On the west side of 2nd Street a sidewalk runs from 500 feet south of Southern Avenue to Lead Avenue. Second Street has no sidewalk (on either side) south of these locations.

Rio Bravo Boulevard has a short stretch of sidewalk located in the northwest quadrant of the Rio Bravo/Broadway intersection, where a convenience store has recently been built. Other than the sidewalks described in this section, none of the major streets including Woodward Road-Sunport Boulevard and points south has sidewalks. Figure 3 shows the locations of sidewalks along major facilities in the study area.



Figure 3. Inventory of Sidewalks along Major Streets



LEGEND

- SIDEWALK OR MULTI-USE TRAIL
- - - NO SIDEWALK
- - - STUDY AREA BOUNDARY

NOT TO SCALE



Bicycle Network

Bicycle facilities in the Near South Valley Multimodal Study area consist of bicycle lanes, multi-use trails, and bike routes marked by sharrows. Bike lanes are located on the north side of Lead Avenue (for westbound traffic, as Lead is one-way westbound) and the south side of Coal Avenue (for eastbound traffic, as Coal is one-way eastbound) from 8th Street to I-25. Eighth Street has bike lanes in both directions from Bridge Boulevard to Coal Avenue. Bridge Boulevard has bike lanes from the Paseo del Bosque Trail (Bosque Trail) to Broadway Boulevard and is designated as a bike route east of Broadway; however, members of the bicyclist community have raised comments about the adequacy of these facilities for bicyclists. Broadway Boulevard has bike lanes from San Jose Avenue to Bridge Boulevard-Avenida Cesar Chavez, and again farther north between Santa Fe Avenue and Iron Avenue.

Alcalde Place, Iron Avenue (from Alcalde to 7th Street), Stover Avenue (from 10th Street to 8th Street), and 10th Street (from Stover Avenue to Iron Avenue) are all designated bike routes. Second Street is a designated bike route and has sharrow pavement markings from Bridge Boulevard north to Silver Avenue, just north of the study area. Edith Boulevard is designated as a bike route north of Gibson. While there is some signing along Edith to indicate this designation, it is sparse and there are no pavement markings. The study area does not have any other established bike routes or bike lanes south of these facilities.

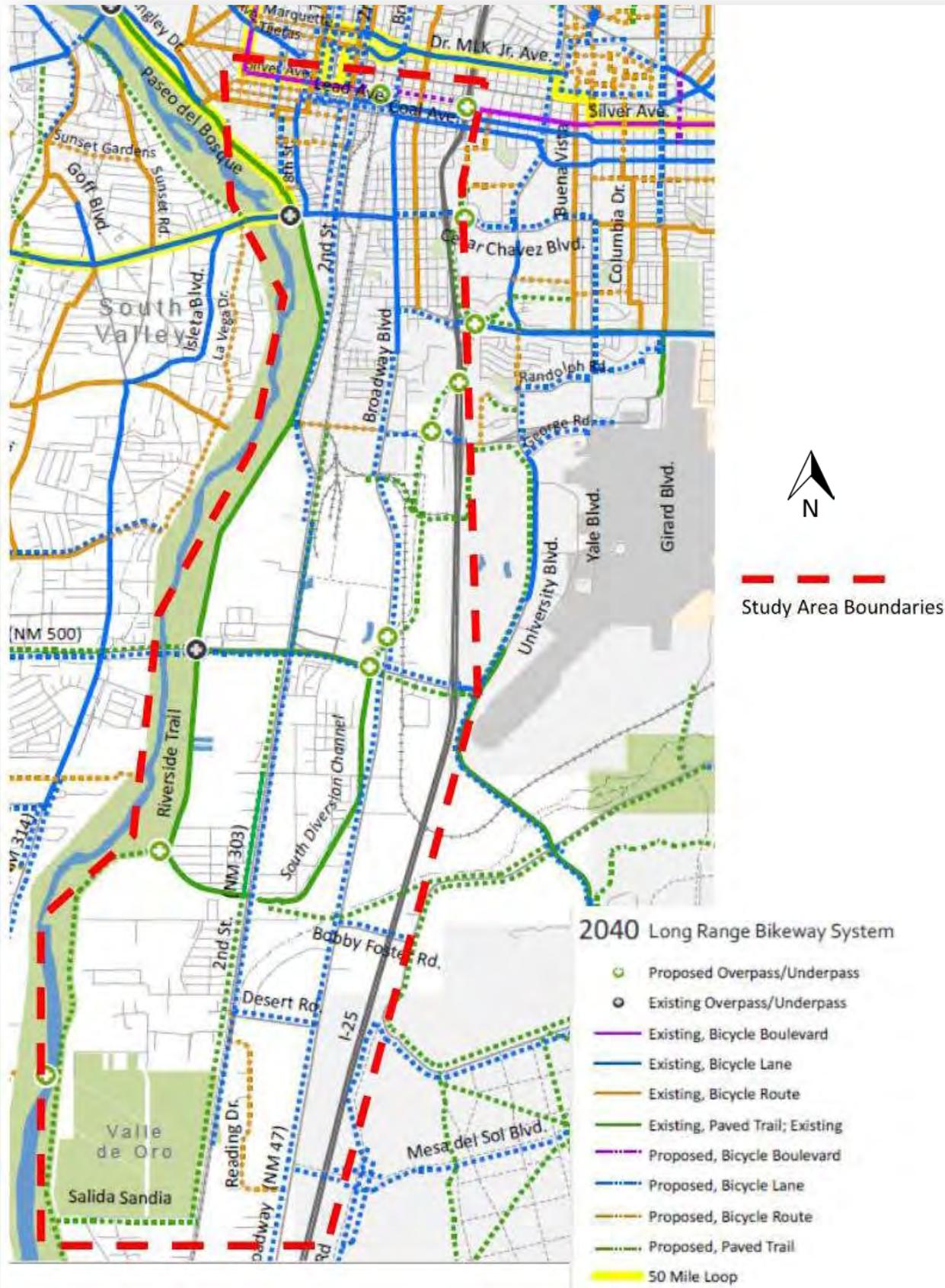


Sharrow Pavement Markings on 2nd Street

There are also paved multi-use trails in the southern portion of the study area, that are usable by both bicyclists and pedestrians. The Bosque Trail is a paved multi-use trail that runs parallel to the Rio Grande on its east side beginning on the north side of the South Diversion Channel and continuing all the way through the study area to the north. A short spur of multi-use trail has been constructed between the Bosque Trail and 2nd Street along an alignment that is an extension from Woodward Road. Rio Bravo Boulevard has a multi-use trail (the Chris Chavez Trail) along its south side from the Bosque Trail to Broadway Boulevard. The South Diversion Channel has a multi-use trail along its south/east side from the Bosque Trail to Rio Bravo Boulevard. In the past year, a multi-use trail has been built along the east side of 2nd Street from the South Diversion Channel to Prosperity Avenue, part of a larger plan to build a trail along 2nd Street to connect the Valle de Oro NWR to Rio Bravo Boulevard and other points north. Figure 4 shows the existing network of bicycle facilities in the study area.



Figure 4. Near South Valley Bicycle Network



Transit Network

The City of Albuquerque Transit Department (ABQ Ride) operates nine bus routes in the study area. The bus routes in the study area are shown in Table 2, and illustrated in Figure 5.

Table 2. Summary of Bus Routes in the Near South Valley Study Area

Street	Bus Route(s)
Lead Avenue	250, 217, 97, 53, 54
Coal Avenue	250, 217, 97, 53
Trumbull Avenue	16
San Jose Avenue	16
Bridge Boulevard	53, 54
Rio Bravo Boulevard	51, 222
Prosperity Avenue	51
8th Street	53
4th Street	54
2nd Street	51
Williams Street	16
Prince Street	51
Broadway Boulevard	16
Interstate 25	250, 96

The Alvarado Transportation Station is located just north of the study area and has buses that service all parts of Albuquerque. It also allows riders to transfer between City buses and the New Mexico Rail Runner Express commuter rail.

Passenger Rail

The New Mexico Rail Runner Express, operated by the New Mexico Department of Transportation (NMDOT), extends from Belen to Santa Fe and has 14 stations. One of these Rail Runner stops (the Bernalillo County/International Sunport station) is located in the study area near the northeast quadrant of the Rio Bravo Boulevard/2nd Street intersection (there is also an ABQ Ride bus stop here for Route 222). Train service runs seven days per week with seven stops per day during the weekday schedule.

Truck Freight

Some Near South Valley residents have asked what the impact of extending Sunport Boulevard from I-25 west to Woodward Road will have on traffic, especially truck traffic, on Gibson Boulevard and on Broadway Boulevard south of Gibson Boulevard. The Mid-Region Council of Governments (MRCOG) projects that traffic volumes in the area will grow considerably by the year 2035, even if Sunport Boulevard is not extended west of I-25. Table 3 shows the expected changes in volumes between the scenarios of “without” and “with” the extension of Sunport Boulevard to Woodward Road.

The projections show that traffic volumes are expected to be lower in the year 2035 on Gibson Boulevard and Broadway Boulevard south of Gibson Boulevard if the Sunport Boulevard Extension is constructed. This is reasonable, as drivers would now have another east-west route to take between I-25 and Broadway Boulevard and further west to 2nd Street. The Sunport Boulevard Extension would help relieve some of the traffic that now uses Rio Bravo and Gibson boulevards.



Table 3. Two-Way Weekday Traffic Volume Estimates

Street and Location	Year 2016 Volumes ¹	Year 2035 Volumes Without Sunport Extension ²	Year 2035 Volumes With Sunport Extension ³
Gibson Blvd east of Broadway Blvd	19,500	35,000	24,000
Broadway Blvd south of Gibson Blvd	11,600	44,000	35,000
Woodward Rd west of Broadway Blvd	3,600	14,000	21,000
Sunport Blvd Extension	n/a	n/a	26,000
Broadway Blvd south of Woodward Rd	8,800	32,000	34,000
2nd St south of Woodward Rd	9,000	29,000	34,000
Rio Bravo Blvd west of I-25	32,100	49,000	44,000

¹2016 Traffic Flows for the Greater Albuquerque Area, MRCOG

^{2,3}Sunport Boulevard Extension public meeting presentation, September 18, 2013

While it is clear that the Sunport Extension should lower traffic volumes in general on Gibson Boulevard and Broadway Boulevard south of Gibson Boulevard, some local residents have suggested that the addition of the Sunport Boulevard Extension could increase truck traffic on these roads. The rationale is that the new road would encourage development of industries that would generate truck traffic, but that the proposed seven percent grade on the new road would be too steep for truck drivers to use, thus sending them to Gibson Boulevard.

The proposed seven percent grade complies with AASHTO design guidance for urban arterial roadways, and is only slightly greater than the six percent grades that exist on Sunport Boulevard east of I-25 now. The new road will be able to accommodate heavy vehicles.

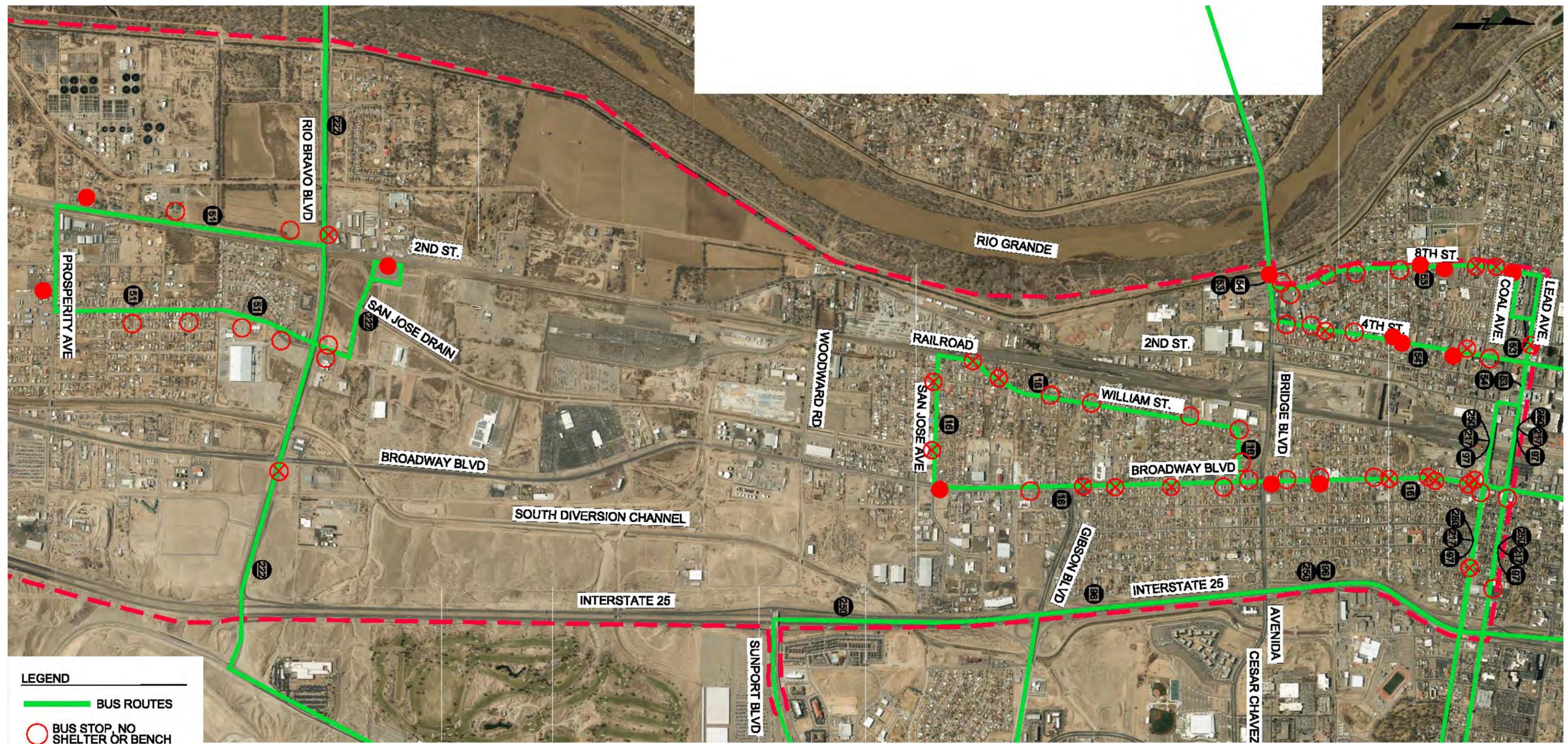
Additionally, zoning of the area adjacent to the new road will dictate the volume of truck traffic it generates, and in response to this concern, Bernalillo County is developing a design overlay plan for the San Jose/Mountain View area. This plan could decrease the scale and types of land uses that would result in negative impacts (such as heavy trucks) to nearby communities.

In summary, no data suggests that while the Sunport Boulevard Extension would result in lower general traffic volumes on Gibson Boulevard and Broadway Boulevard south of Gibson Boulevard, that it would result in a larger proportion of heavy vehicles than those roads have now.

If constructed, the Sunport Boulevard Extension could divert some trucks away from Gibson Boulevard and Broadway Boulevard (between Gibson Boulevard and Woodward Road) by creating a more direct route to Interstate 25. Some truck traffic would continue to use Gibson Boulevard as it would remain the most direct route for a few existing businesses to and from Interstate 25 (for example, the petroleum site on Commercial Street west of the Gibson Boulevard/Broadway Boulevard intersection).



Figure 5. Near South Valley Bus Routes and Stops



LEGEND

- BUS ROUTES
- BUS STOP, NO SHELTER OR BENCH
- ⊗ BUS STOP WITH BENCH, NO SHELTER
- BUS STOP WITH SHELTER
- 100 TRANSIT ROUTE NO.
- STUDY AREA BOUNDARY

NOT TO SCALE



3. EXISTING PLANS

The study area encompasses the boundaries of five sector plans as well as various other planning documents. Four of the sector plans were prepared by the City of Albuquerque and one was led by Bernalillo County. Summaries of the recommendations of the sector plans and other plans are presented below.

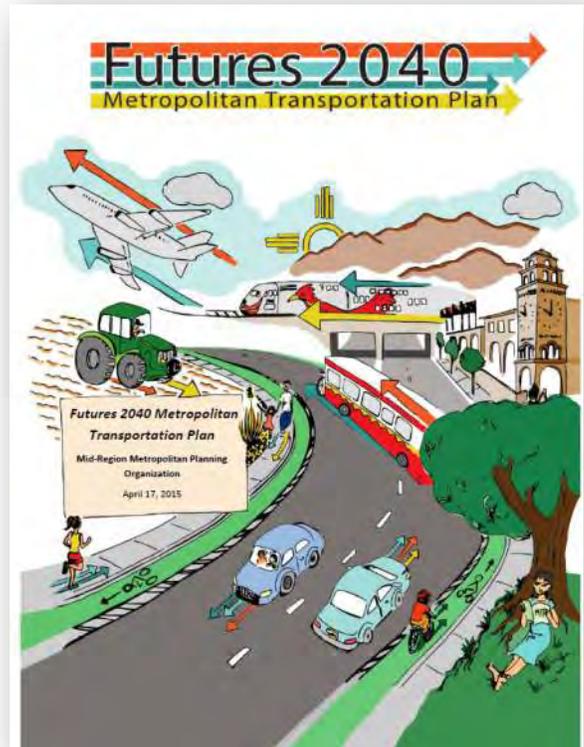
Futures 2040 Metropolitan Transportation Plan (MTP)

The Futures 2040 MTP represents a continuing, cooperative, and comprehensive transportation planning process to identify existing conditions, anticipate future needs, and prioritize projects that support the goals and objectives of the plan. The MTP contains a list of all transportation projects, including those for pedestrian and bicyclist improvements, proposed for implementation over the life-span of the plan. Figure 4 presented earlier in this report shows the existing and proposed bicycle and pedestrian improvement projects listed in the 2040 MTP and within this study's limits.

The Transportation Improvement Program (TIP) is a short-term plan that programs funding, particularly federal funding, for transportation projects. All projects within the Albuquerque Metropolitan Planning Area (AMPA) receiving federal highway or transit funding must be in the TIP. The TIP is the region's mechanism of allocating its limited transportation resources among the various transportation needs based on a clear set of short-term transportation priorities. Updated biennially, it sets the schedule for improvements to the region's transportation system over the next six years.

The current TIP (2018-2023) includes the following projects that lie within this study area and may involve pedestrian and bicyclist improvements:

- NM 500 Rio Bravo Boulevard and 2nd Street Intersection Improvements (MPO #42.1)
- Valle de Oro/2nd Street Trail, Prosperity Road to Rio Bravo Boulevard (MPO #96.3)
- Sunport Boulevard Extension from Woodward Road to I-25 (MPO #437)
- University Boulevard Multimodal Improvements Phase II, George Road to Gibson Boulevard (MPO #854.1)
- Woodward Road Improvement Project from 2nd Street to Broadway (MPO #865.1)
- I-25 Rio Bravo Interchange Reconstruction from I-25 Exit 220 to 500 feet west of Broadway Boulevard (MPO #448.6)



Barelas Sector Development Plan – 2008, amended 2014

Figure 6 shows the boundaries of the sector development plans that cover neighborhoods in the study area. The Barelas Sector Development Plan is a City of Albuquerque plan located in the northwest corner of the project area. Action items related to multimodal travel listed in this sector plan are:

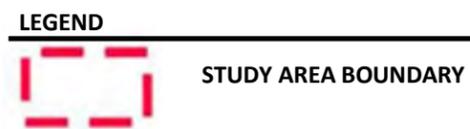
- Implement traffic calming on 2nd, 3rd, and 8th streets between Bridge Boulevard and Coal Avenue. Designs may possibly include curb bulbouts, enhanced pedestrian and bicycle crossings, on-street parking, landscaped traffic circles, widened sidewalks, landscaped buffers, lane widths commensurate with posted speeds, and chicanes.
- Extend the narrow gauge railway from the zoo to the National Hispanic Cultural Center.
- Design and install signs to direct traffic to use 4th Street to access and leave downtown.
- Evaluate bus schedules and service through Barelas. Consider staggering pick-up times on 8th and 4th streets.
- Develop pedestrian activated traffic signals with marked crosswalks at 4th Street/Stover Avenue and at 8th Street between Atlantic and Stover avenues.
- Install sidewalks where none exist, particularly along 2nd Street, Barelas Road, Santa Fe Avenue, and Cromwell Avenue.
- Survey existing sidewalks to determine which ones do not meet ADA accessibility standards and remedy any problems. In particular, sidewalks along Barelas Road between Pacific Avenue and 4th Street are in need of attention.
- Change the designation of 8th Street to a bike lane and build it. *(Note: this has been completed up to Coal Avenue.)*
- Add bike lanes on 2nd and 3rd streets.
- Designate Atlantic Avenue as a bike route from 2nd Street to 10th Street.



Figure 6. Near South Valley Area Sector Plan Boundaries



NOT TO SCALE



Bernalillo County/International Sunport Station Area Sector Development Plan - 2009

This Bernalillo County sector plan is located in the middle of the project area. Action items listed in the sector plan, and illustrated in Figure 7 below, are:

- Construct sidewalks, a multi-use trail, medians, and outer curb edges based on the ultimate right-of-way. Use large medians as pedestrian refuges.
- Construct the 2nd Street cross section with multimodal accommodations.
- Build multimodal accommodations on Prince Street and Camino del Tren.
- Construct sidewalks and outer curb edges on Broadway Boulevard based on the ultimate right-of-way.
- Reconstruct the Rio Bravo/2nd Street intersection to accommodate the ultimate right-of-way and enhance pedestrian crossings.
- Reconstruct the Rio Bravo/Broadway intersection to accommodate the ultimate right-of-way and enhance pedestrian crossings.
- Construct 12-foot concrete trails as shown in Figure 7, based on the final routing alignment.
- Create a pedestrian connection between Camino del Tren and 2nd Street, across from Rossmoor Road.
- Construct an overpass across 2nd Street and the railroad near the Sunport Rail Runner station for pedestrians and bicyclists.
- Construct a pedestrian/bicyclist underpass beneath Rio Bravo Boulevard along the San Jose Drain Trail.
- Construct a “Kiss and Ride” facility along 2nd Street near the train station.

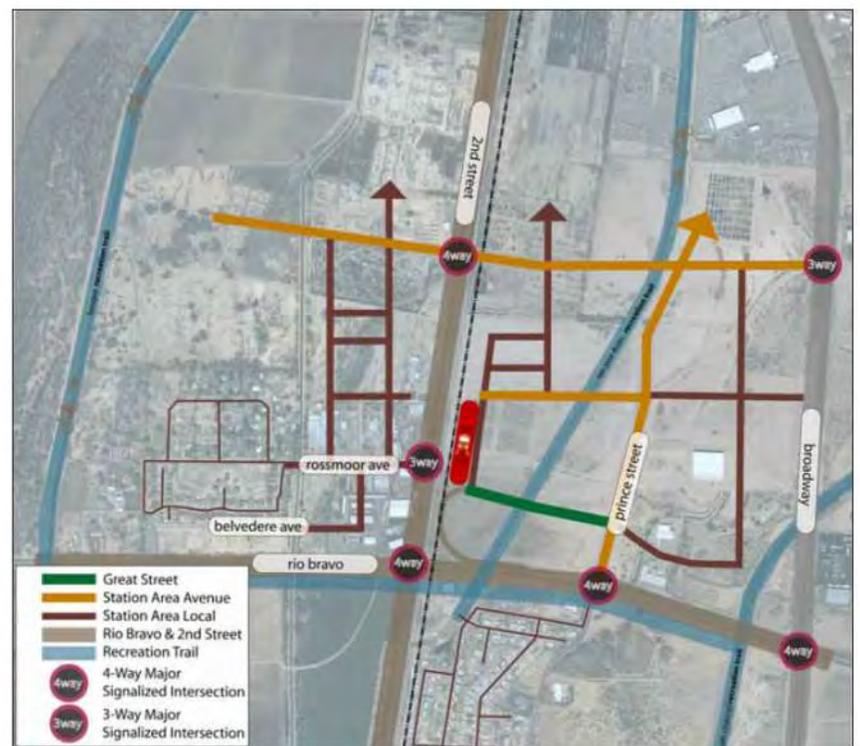
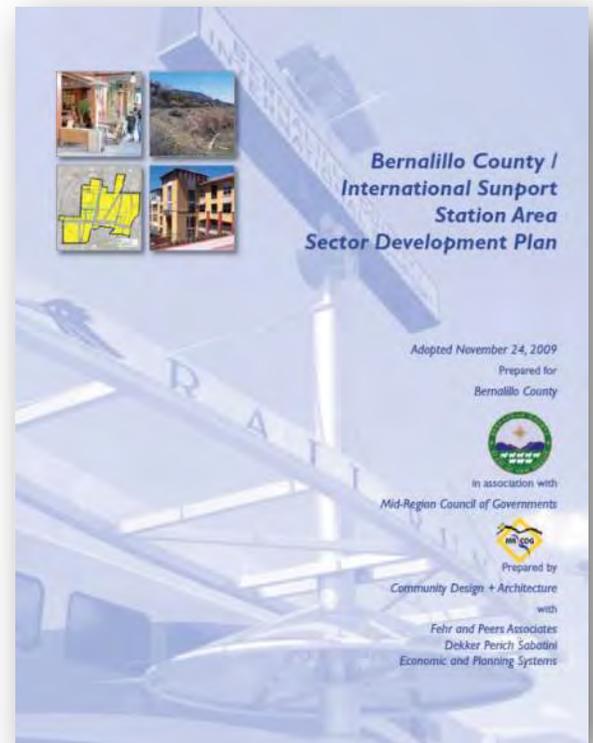


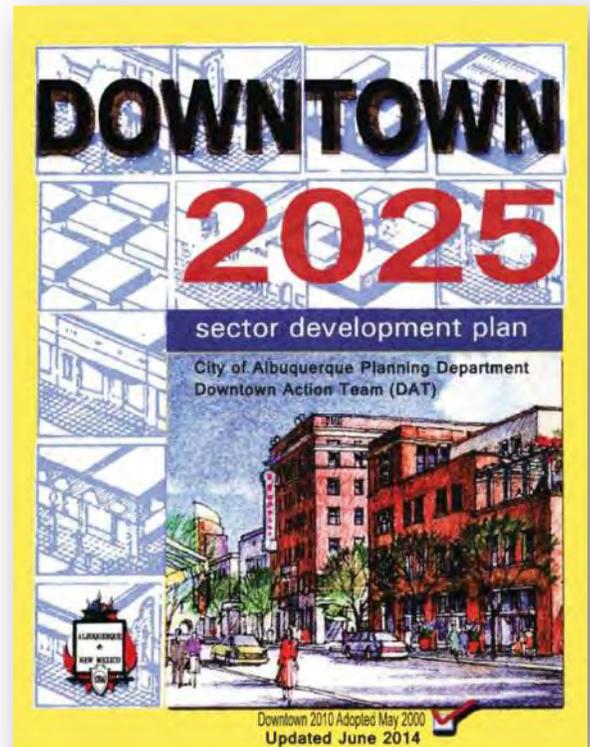
Figure 7. Recommendations from International Sunport Station Sector Development Plan



Downtown 2025 Sector Development Plan - adopted 2000, updated 2014

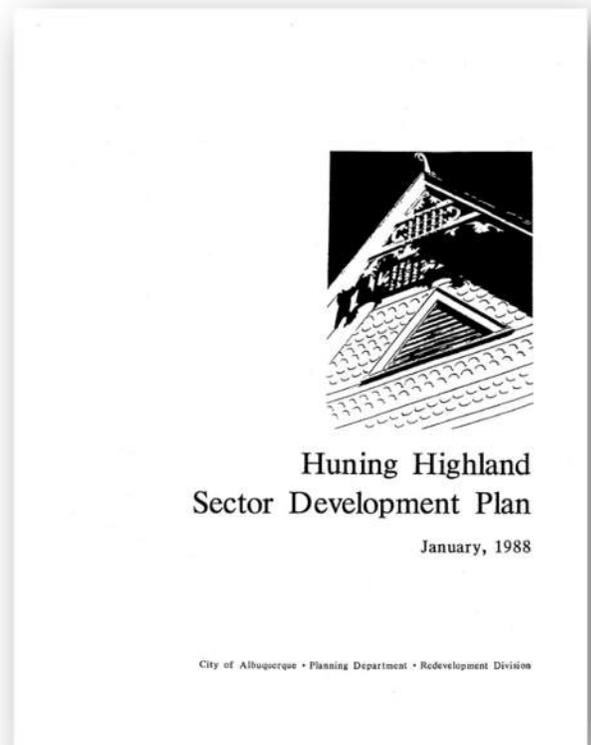
This City of Albuquerque sector plan includes the following regarding pedestrian facilities in the Near South Valley study area:

- Sidewalk widths shall be maximized in the available right-of-way. A minimum 48" sidewalk must be clear of any obstruction for the entire length of a property.
- Street trees must be provided to the extent that the sidewalk width permits.



Huning Highland Sector Development Plan - 1988

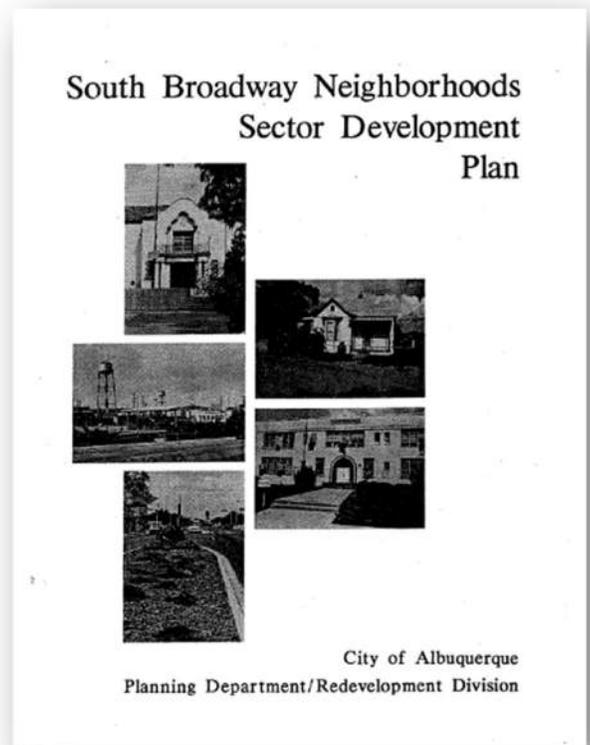
This plan only impacts a small portion of the study area. The plan recommends that traffic lanes on Lead and Coal avenues between Locust Street and Broadway Boulevard be reduced to three lanes, with the extra lane replaced by buffer landscaping and improved sidewalks. *(Note: This work has already occurred.)*



South Broadway Neighborhoods Sector Development Plan - 2002

Many of the improvements in this City of Albuquerque sector development plan have already been completed or are outdated. It includes the following regarding pedestrian facilities in the Near South Valley study area:

- The neighborhood is concerned with fast, heavy traffic on Edith Boulevard and on Walter, Arno, and Williams streets.
- Barelás Ditch is a historic acequia that could possibly be used as a pedestrian and bike path. Portions of the ditch are now being used by school children as a path. It connects the East San José School and the San José Church.
- If large-scale improvements such as the Gibson Boulevard extension are constructed, related pedestrian improvements in the area might incorporate the ditch right-of-way as a community link. *(Note: The Gibson Boulevard west extension is not being considered any longer.)*



City of Albuquerque Bikeways & Trails Facilities Plan - 2015

This document recommends completing the multimodal system with these improvements that fall within this study's limits:

Current High-Priority Projects

These are projects that the City currently has funding to design and construct, and that are programmed in the TIP. They have a high likelihood of being constructed in the next five to 10 years.

- Bike lanes on Río Bravo Boulevard from west of Empresa Drive to the I-25 Frontage Road
- Bike trail along Sunport Boulevard from University Boulevard to Transport Street

High-Priority Critical Links Projects

These are projects that will help to close gaps in the existing multimodal network. They were identified based on input from the City, stakeholders, and the public as projects that would bring the highest value and could possibly be constructed within the next 15 years with current funding rates.



- Bike route on Lead Avenue from Alcalde Place to 8th Street
- Bike lane on Lead Avenue from 8th Street to 2nd Street (on-going in 2017)
- Bike route on Coal Avenue from Alcalde Place to 8th Street
- Bike lane on Coal Avenue from 8th Street to 2nd Street (on-going in 2017)
- Bike lanes on 8th Street from Bridge Boulevard to Central Avenue (*Note: the bike lanes have now been constructed between Bridge Boulevard and Coal Avenue*)
- Bike lanes on 2nd Street from the Lagunitas Ditch to Marquette Avenue
- Bike lanes on Broadway Boulevard from Coal Avenue to Indian School Road
- Bike lanes on Avenida Cesar Chavez from Edith Boulevard to Yale
- Bike lanes on Gibson Boulevard from Broadway Boulevard to I-25
- Pedestrian-bicyclist overpass or underpass at Broadway/Rio Bravo, Broadway/South Diversion Channel, Sunport/South Diversion Channel, Gibson/I-25, and Avenida Cesar Chavez/I-25

Full Build-out Projects

These projects will complete the multimodal system in this study area, but at the current rate of funding may not all be fully constructed for 50 years.

- Bike lanes on 5th Street from Coal Avenue to Indian School Road
- Bike lanes on 3rd Street from Avenida Cesar Chavez to Coal Avenue
- Bike route on Iron Avenue from 7th Street to 4th Street
- Bike route on Atlantic Avenue from 10th Street to 2nd Street
- Bike route on the future reconstructed Woodward Road between 2nd Street and Broadway (*Note: the current Woodward Road plan has bike lanes in this area and is in the TIP*)
- Bike lanes on the future reconstructed Woodward Road between Broadway and Arno Street (*Note: the current Woodward Road plan has bike lanes in this area and is in the TIP*)
- Bike lanes on Broadway Boulevard from Stock Drive to Gibson Boulevard
- Bike lanes on Broadway Boulevard from south city limits to Desert Road
- Multi-use trail along the South Diversion Channel between Rio Bravo and Gibson boulevards



Bernalillo County Parks, Recreation & Open Space Facilities Master Plan (PROS Plan), 2015-2030

A portion of this study area is within what this master plan calls the “Mountain View-Mesa del Sol Neighborhood Community Area” (Figure 8 below). This master plan calls for a paved multi-use trail along 2nd Street from Rio Bravo Boulevard to the Valle de Oro Wildlife Refuge as well as around the Refuge, and a paved multi-use trail along the Riverside Drain from the South Diversion Channel to the Refuge (an extension of the Bosque Trail).

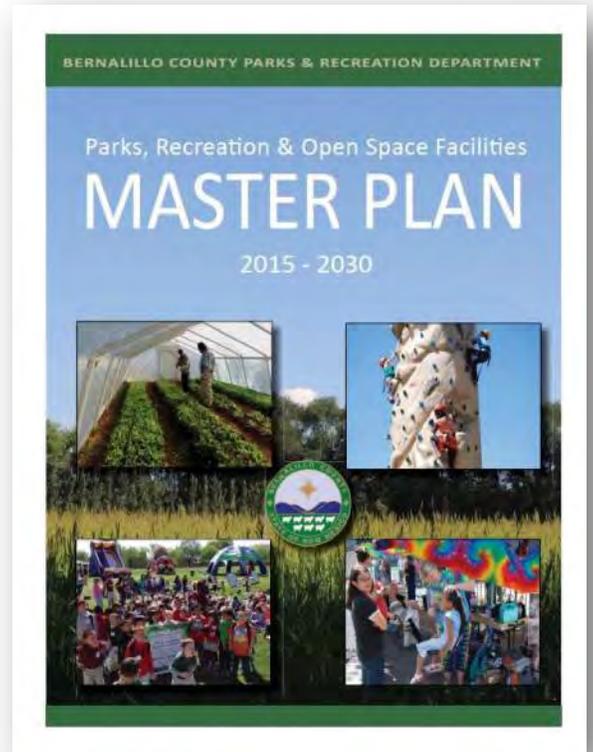
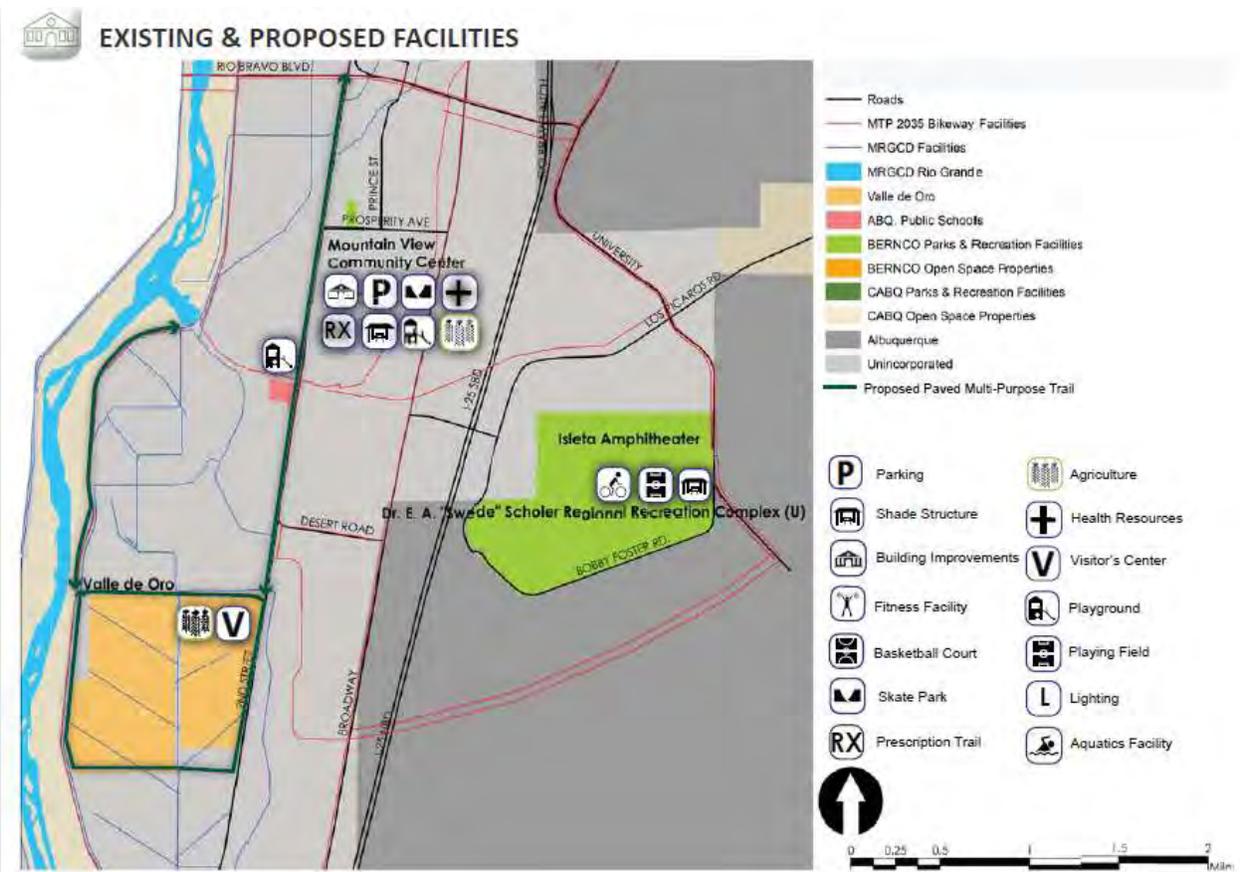


Figure 8. Existing and Proposed Facilities in the Mountain View-Mesa del Sol Neighborhood Community Area



Bernalillo County Pedestrian and Bicyclist Safety Action Plan – 2012

The County's Safety Action Plan is a ten-year Rank 2 facility master plan that identifies many of the pedestrian and bicyclist issues by County planning areas. It includes an overview of existing plans, studies, and ordinances related to pedestrian and bicycle facilities; an inventory of existing facility needs; proposed policy changes; and proposed/ prioritized projects. The following recommendations apply to this study's area:

- Sidewalks should be a minimum of five-feet wide with a five-foot buffer. Bike lanes are to be a minimum of six-feet wide. Multi-use trails are to be a minimum of 10 feet wide.
- Intersections should be improved with continental crosswalk markings, adequate lighting, shortened crosswalk lengths with smaller turning radii, countdown walk signals, and signal timings set to accommodate the elderly and children. Midblock crossings at school and other locations may require refuge islands and beacons or signals.
- Alternative traffic calming devices to speed bumps may include chokers, traffic circles, diverters, chicanes, and islands.
- Transit stops should include ADA-compliant landings.
- Complete street design principles should be incorporated into all new roadway projects.

The Plan lists the following existing corridors in this study's area where sidewalks are needed:

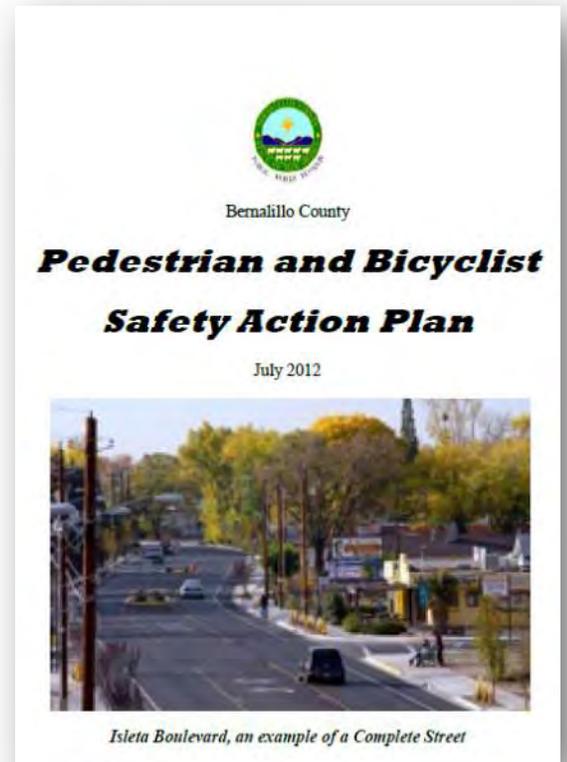
- Rio Bravo Boulevard from the Rio Grande to I-25
- Broadway Boulevard from Desert Road to Woodward Road
- Prince Street from Prosperity Avenue to Camino del Tren
- Prosperity Avenue from 2nd Street to Prince Street

The Plan cites that the following multi-use trails are called for as MRGCD or AMAFCA facilities:

- The extension of the Rio Bravo Boulevard trail to the west
- South Diversion Channel trail north to Sunport Boulevard
- The extension of the Rio Grande Bosque trail to the Isleta Pueblo boundary

The Plan cites the following existing corridors where bike lanes are needed:

- Broadway Boulevard from I-25 to Woodward Road
- 2nd Street
- Rio Bravo Boulevard from the Rio Grande to I-25
- Bike lanes are planned as part of the construction of the Sunport Boulevard extension from I-25 west to Broadway Boulevard



The Plan points out the following gaps in these South Valley bikeways and multi-use trails system that are within this study's boundaries:

- Chris Chavez Trail between South Diversion Channel and University Boulevard along Rio Bravo

The County's Pedestrian and Bicyclist Safety Action Plan culminates in a list of potential projects, which include the following that are located within this study's boundaries:

- Adding sidewalks, crosswalks, and lighting along Prince Street between Rio Bravo Boulevard and Camino del Tren
- Adding sidewalks, crosswalks, and lighting along Prosperity Avenue between 2nd Street and Broadway Boulevard
- Adding sidewalks, crosswalks, and lighting along Woodward Road between 2nd Street and Broadway Boulevard
- Adding sidewalks, bike lanes or wide shoulders, crosswalks, and lighting along Broadway Boulevard between Desert Road and Woodward Road
- Adding a multi-use trail, crosswalks, and lighting along 2nd Street from Desert Road to Woodward Road
- Extending the multi-use trail along the South Diversion Channel from Sunport Boulevard to Gibson Boulevard



Sunport Boulevard Extension Environmental Assessment and Traffic Operational Analysis of Woodward Road – 2014 and 2015

The Woodward Road traffic study shows two potential cross sections, shown in Figure 9 below, for Woodward Road between 2nd Street and Broadway Boulevard. Both have six-foot sidewalks next to the road’s outside curb. Both also show bike lanes. The three-lane “interim” cross section could provide buffered bike lanes, as there is eight feet of space available. The four-lane “ultimate” cross section would provide a six-foot, unbuffered bike lane.

The Sunport Extension Environmental Assessment shows bike lanes on Sunport from Broadway Boulevard to the I-25 northbound ramps, and shows sidewalks on both sides of Sunport from Broadway Boulevard to Arno Street.

New traffic signals are proposed at Woodward Road/2nd Street and at Sunport Boulevard and the I-25 northbound and southbound ramps.

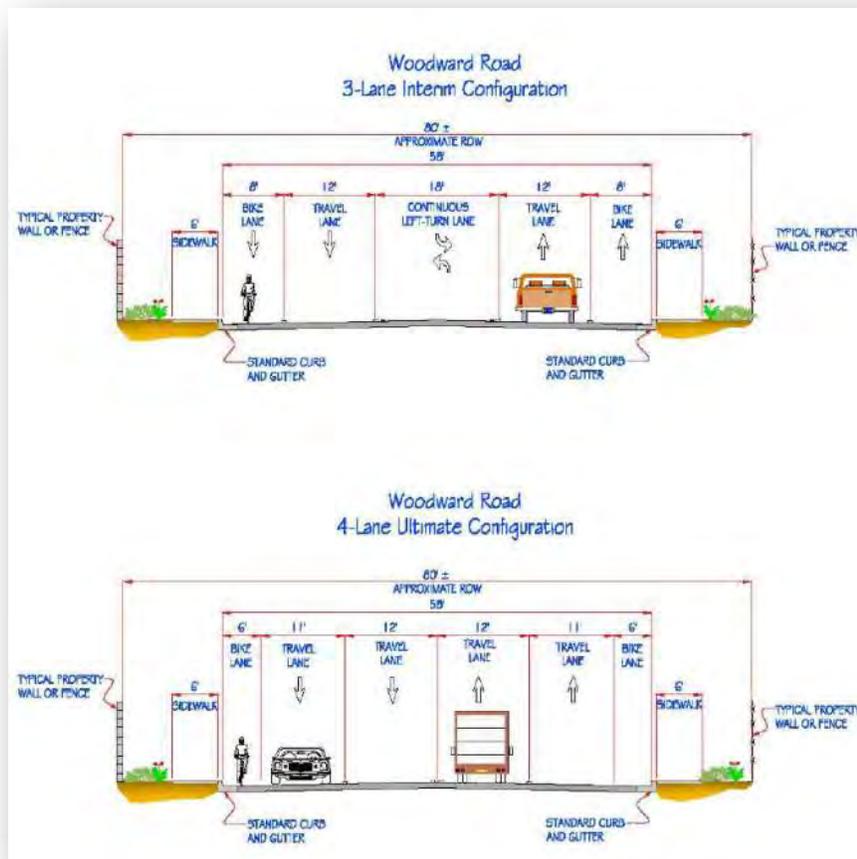
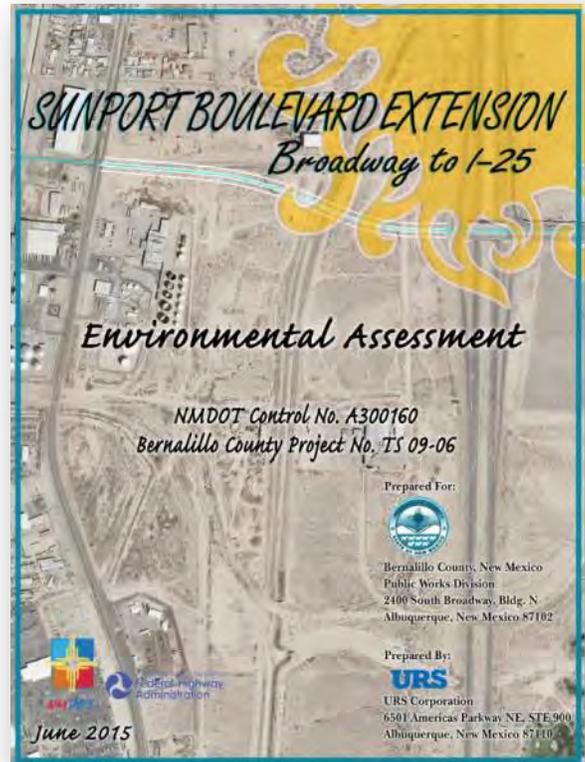
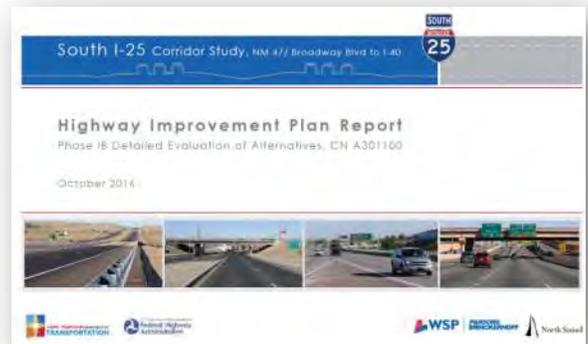


Figure 9. Proposed Woodward Road Typical Sections



NMDOT South I-25 Corridor Study, NM 47 to I-40 - 2016

This report states that with any reconstruction of South I-25, the NMDOT will accommodate the bicycle and pedestrian facilities shown in the 2040 Long Range Bikeway System Map. Additionally, within interchange areas, 10-foot sidewalks with five-foot buffers will be included where possible.



Barelas-South Fourth Street National Historic District

South 4th Street through the Barelas neighborhood, an old stretch of Route 66, is listed on the National Register of Historic Places. Pedestrian improvements, bike lanes, and traffic calming along 4th Street between Avenida Cesar Chavez and Coal Avenue were proposed but lost \$150,000 in funding in 2016 due to state budget cuts.



El Camino Real de Tierra Adentro National Historic Trail

Bernalillo County is pursuing funding to prepare a planning study for the El Camino Real Trail with the National Park Service. El Camino Real follows 2nd Street and the San Jose Drain as well as John Street to the Innovation Center. It also follows Bridge Boulevard across the Rio Grande into the Barelas neighborhood.



2nd Street SW Corridor Improvement Project - 2015

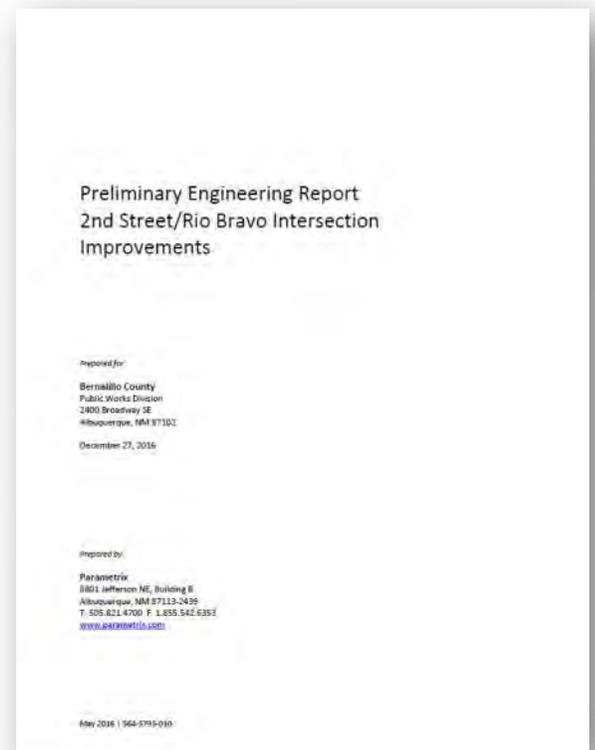
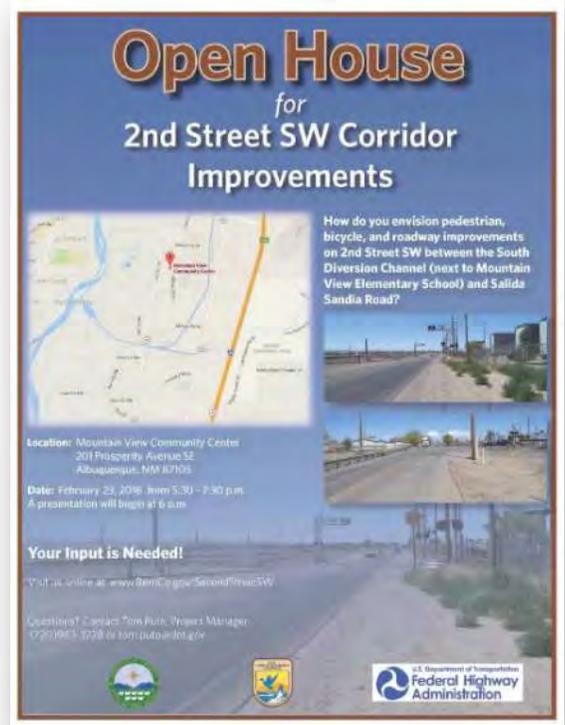
This project will design and construct a multi-use trail along 2nd Street from the Valle de Oro Wildlife Refuge entrance to Mountain View Elementary School (near the South Diversion Channel), reconstruct 2nd Street from the Valle de Oro Wildlife Refuge entrance to Desert Road, realign the Desert Road and 2nd Street intersection, and construct sidewalks along the west side of 2nd Street. The project is being administered by the Central Federal Lands Highway Administration and is being funded through Federal Land Access Program (FLAP) funds with matching funds from Bernalillo County.

This project will continue the multi-use trail that was constructed in 2016 along the east side of 2nd Street between the South Diversion Channel and Prosperity Avenue, another Bernalillo County project.

Preliminary Engineering Report: 2nd Street/Rio Bravo Intersection Improvements - 2016

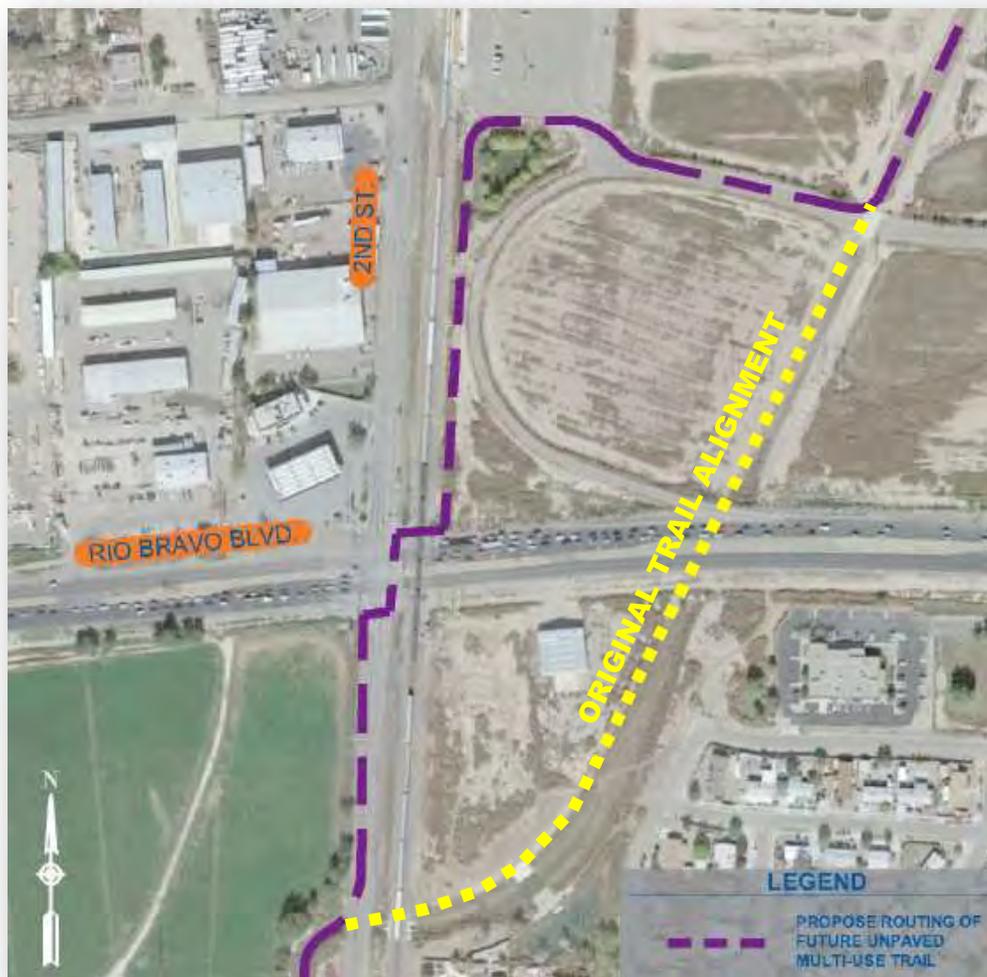
This report describes proposed improvements to the 2nd Street/Rio Bravo intersection. This project proposed adding the following improvements for pedestrians and bicyclists:

- Directional curb ramps at all four corners, with accessible pedestrian signals
- Ten-foot crosswalks for all legs of the intersection
- A six-foot sidewalk adjacent to the improvements made on the north side of Rio Bravo Boulevard (a multi-use trail is already in place along the south side of Rio Bravo east and west of 2nd Street)
- Pedestrian crossing gates at the railroad tracks
- Bicycle lanes (buffered lanes are recommended) on Rio Bravo Boulevard starting 950 feet west of 2nd Street, continuing through the 2nd Street intersection, and matching up to where the Rio Bravo interchange project introduces bicycle lanes
- Because bicycle lanes have been identified for 2nd Street in the 2040 Long Range Bikeway System, the appropriate pavement width will be provided on 2nd Street within the project area to accommodate future bicycle lane striping. However, the bicycle lane striping will not be installed as part of this project because of the existing lack of bicycle lanes to connect to the north and south.



The 2040 Long Range Bikeway System map shows a future unpaved multi-use path running along the San Jose Drain, crossing 2nd Street approximately 600 feet south of Rio Bravo Boulevard and crossing Rio Bravo Boulevard approximately 600 feet east of 2nd Street. To avoid having the San Jose Drain trail cross at these mid-block locations, or accommodating the trail crossings with an overpass or underpass, this report recommends diverting the trail alignment from crossing 2nd Street and Rio Bravo midblock as planned and instead continuing along the west side of 2nd Street north to Rio Bravo Boulevard. At Rio Bravo Boulevard, the San Jose Drain trail would then use the existing trail crossing of 2nd Street on the south leg of the intersection. From the southeast corner of the Rio Bravo Boulevard and 2nd Street intersection, San Jose Drain trail users would then use the existing crosswalk on the east leg of the intersection to cross Rio Bravo, head east across the tracks along the north side of Rio Bravo Boulevard, and then connect to a future multi-use trail which would continue on the east side of the tracks and head north to the Rail Runner Station. After reaching the Rail Runner station, the trail could run along Camino del Tren to rejoin the original San Jose Drain Trail alignment. Figure 10 shows this alternative alignment.

Figure 10. Recommended Routing of Future Unpaved Shared Use Path



Albuquerque Rail Yards Master Development Plan - 2014

This master plan for the historic Albuquerque Rail Yards shows connectors where existing east-west streets currently terminate at the Rail Yards site. The “Perpendicular Walk” is a primary east-west pedestrian connector that extends Santa Fe Avenue onto and through the Rail Yards site, adjacent to the historic Transfer Table, and on into the South Broadway neighborhood via a bridge over the active rail lines. This extension of Santa Fe Avenue also provides a pedestrian connection west, from South Broadway through the site to former historic Route 66 along 4th Street in the Barelás neighborhood.



The proposed Cromwell Avenue at-grade pedestrian rail crossing is a second proposed connector for the South Broadway community that will align with the proposed rebuilt smokestack and connect to the rebuilt roundhouse.

These pedestrian connectors proposed as part of the Rail Yards redevelopment are shown in Figure 11 below, which is excerpted from the master plan.

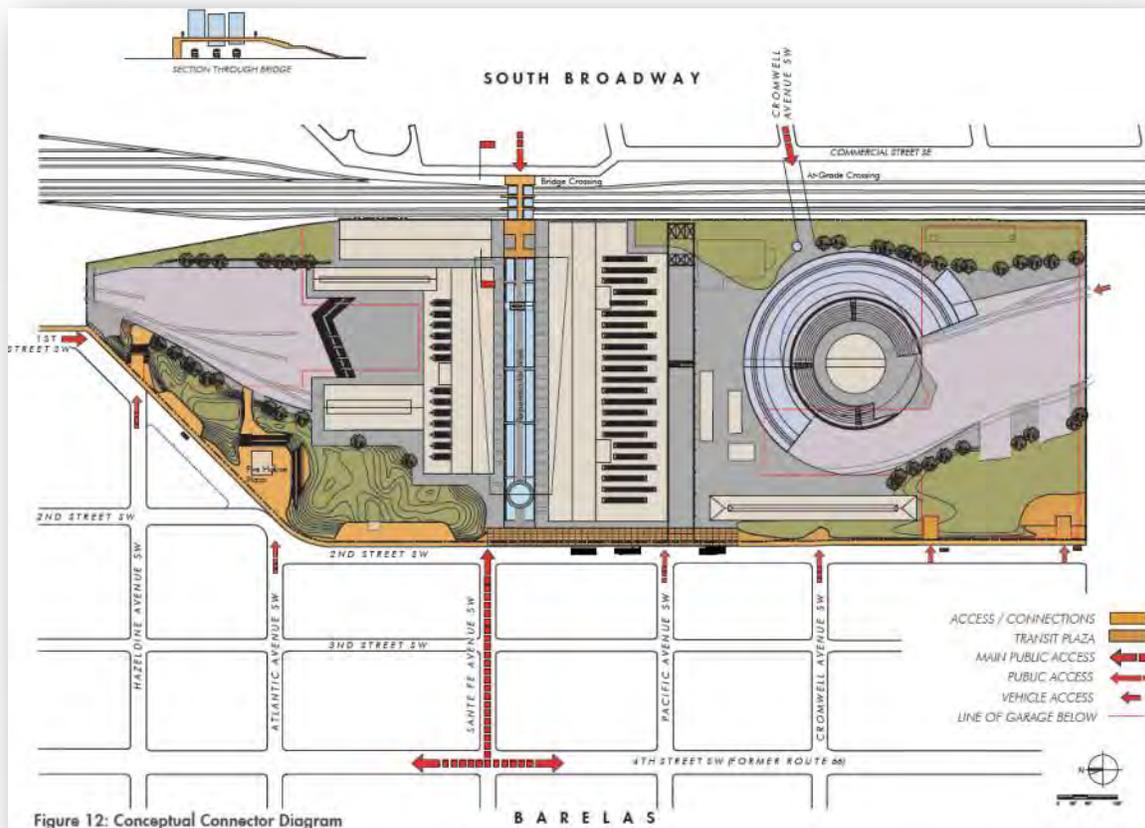


Figure 11. Conceptual Connector Diagram from Rail Yards Master Plan



4. IDENTIFICATION OF GAPS IN THE NEAR SOUTH VALLEY MULTIMODAL SYSTEM

An identification of gaps requires a picture of what exists and a vision of what is desired. Figure 12 shows the existing network of bicycle and trail facilities in the study area, along with these “imminent” projects that are funded through the TIP or otherwise:

- Bike lanes on Lead and Coal avenues between 2nd Street and 8th Street (on-going, City-funded projects)
- Sidewalks and bike lanes along Woodward Road and the Sunport Boulevard extension between 2nd Street and I-25 (2018-2023 TIP MPO #865.1 funded for \$4.8 million and MPO #437 funded for \$16.9 million with Surface Transportation Program-Urban [STP-U] and local bonds)
- Bike route on Transport Street, multi-use trail along Sunport Boulevard, and multi-use trail and bike lanes along University Boulevard (University Boulevard Multimodal Improvements Phase II, MPO #854.1, funded for \$3.2 million in the 2018-2023 TIP with STP-U and local bonds)
- Sidewalk, trail and bike improvements at the Rio Bravo/2nd Street intersection (MPO #42.1 funded for \$2.3 million in the 2018-2023 TIP with STP-U and local bonds)
- Multi-use trail and bike lane improvements along Rio Bravo Boulevard between the South Diversion Channel and I-25 (MPO #448.6 funded for \$17.4 million in the 2018-2023 TIP with National Highway Performance Program [NHPP], STP-Flex, and State funding)
- Multi-use trail addition along 2nd Street between the Valle de Oro NWR and the South Diversion Channel (funded in the 2016-2021 TIP with \$12.5 million in Federal Land Access Program and County funds).
- Multi-use trail addition along 2nd Street between Prosperity Avenue and Rio Bravo Boulevard (MPO #96.3 funded for \$380,000 in the 2018-2023 TIP with STP-U and local bonds).
- South Valley Quiet Crossing near 2nd Street and Prosperity Avenue, with a truck acceleration lane and trail on 2nd Street and sidewalks across the railroad tracks (funded with year 2014 capital outlay funds).

The information shown in the previous sections of this report documents what other studies have determined to be the “desired” multimodal network in the Near South Valley study area. Figure 13 shows what the network would look like at buildout if all of these recommendations were put into place.



Figure 12. Existing Bicycle and Transit Facilities in the Study Area (south map)

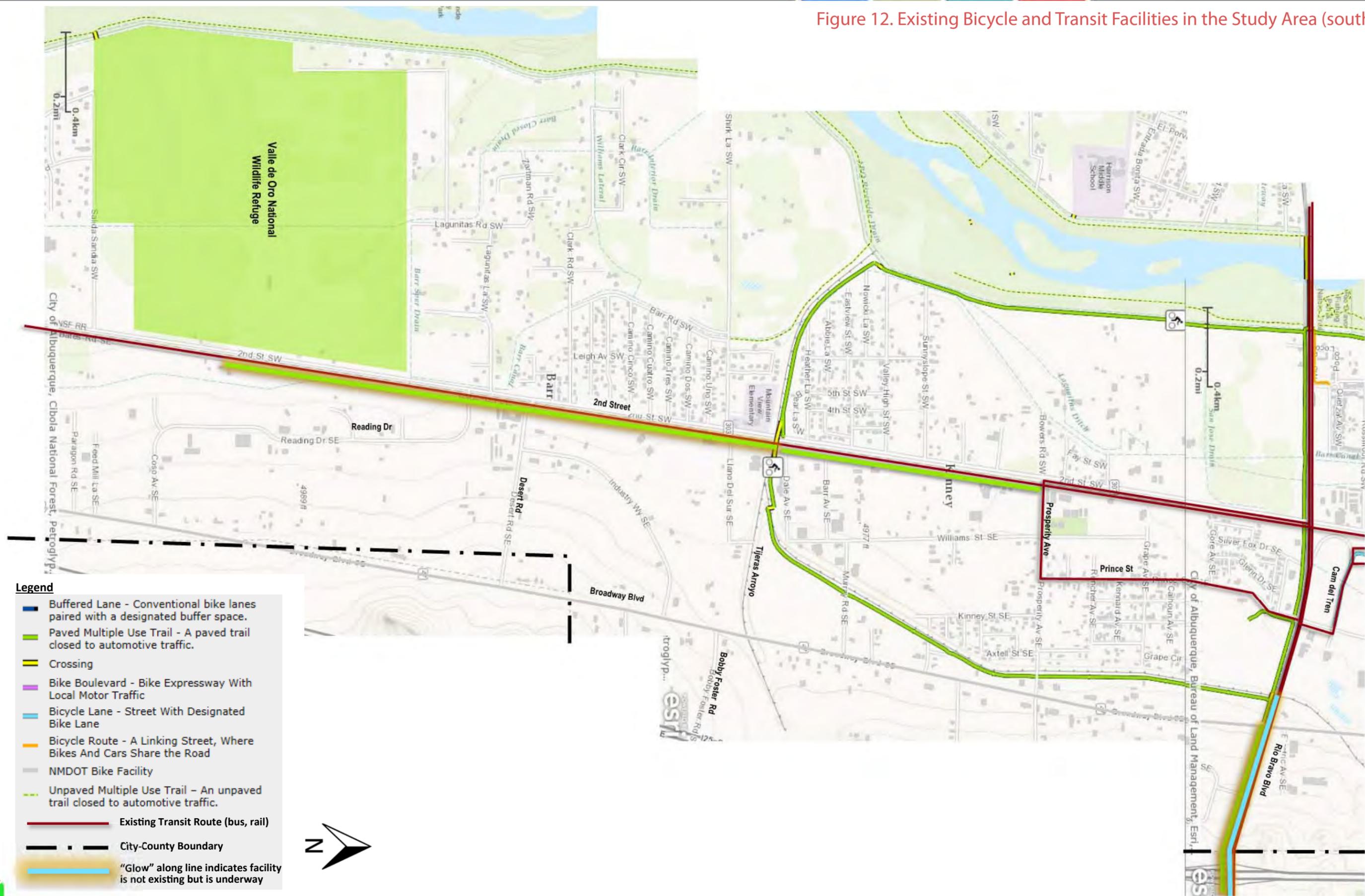


Figure 12, cont'd. Existing Bicycle and Transit Facilities in the Study Area (north map)

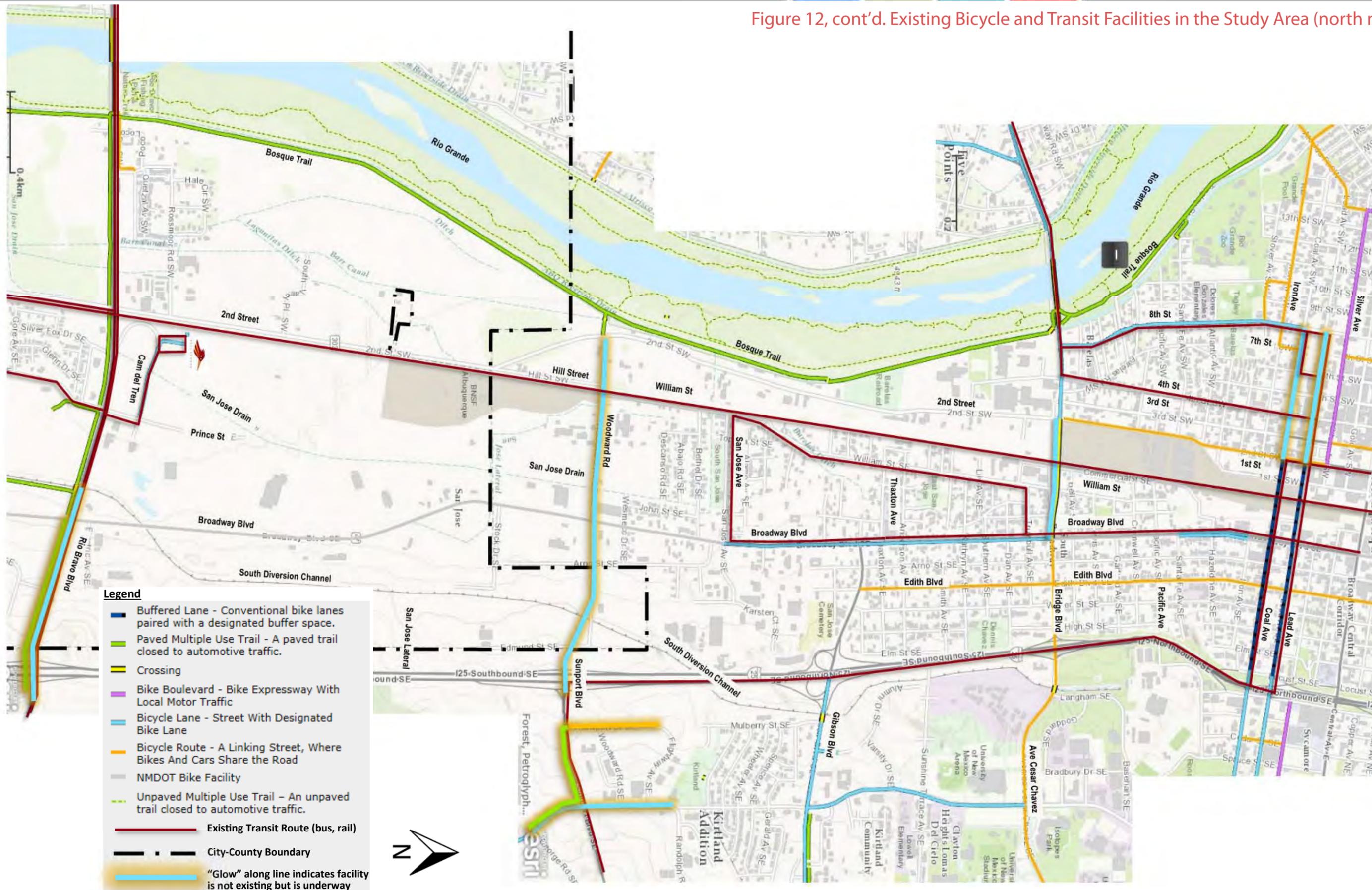


Figure 13. Bicycle and Transit Facilities in the Study Area at Planned Full Buildout (south map)

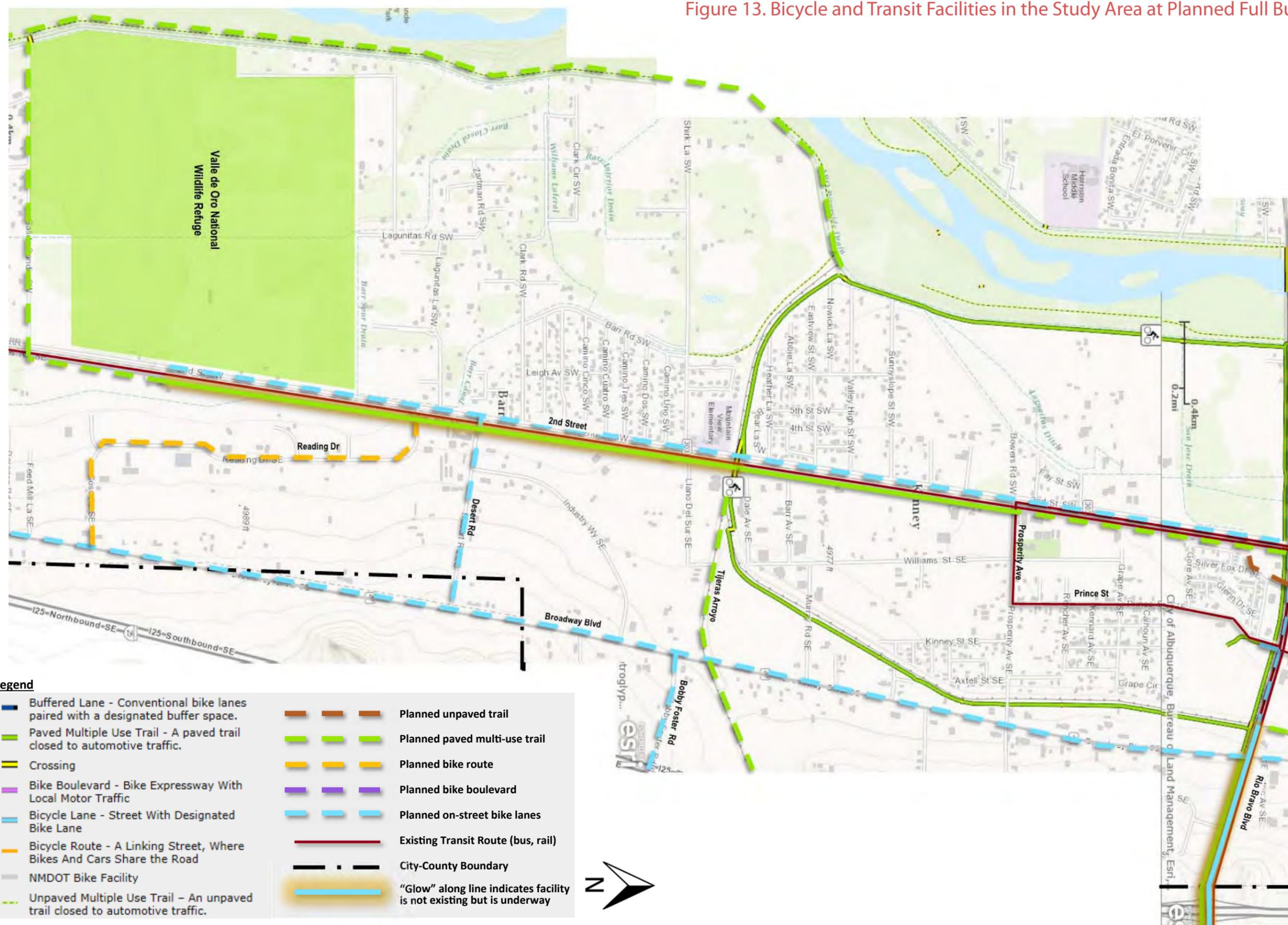
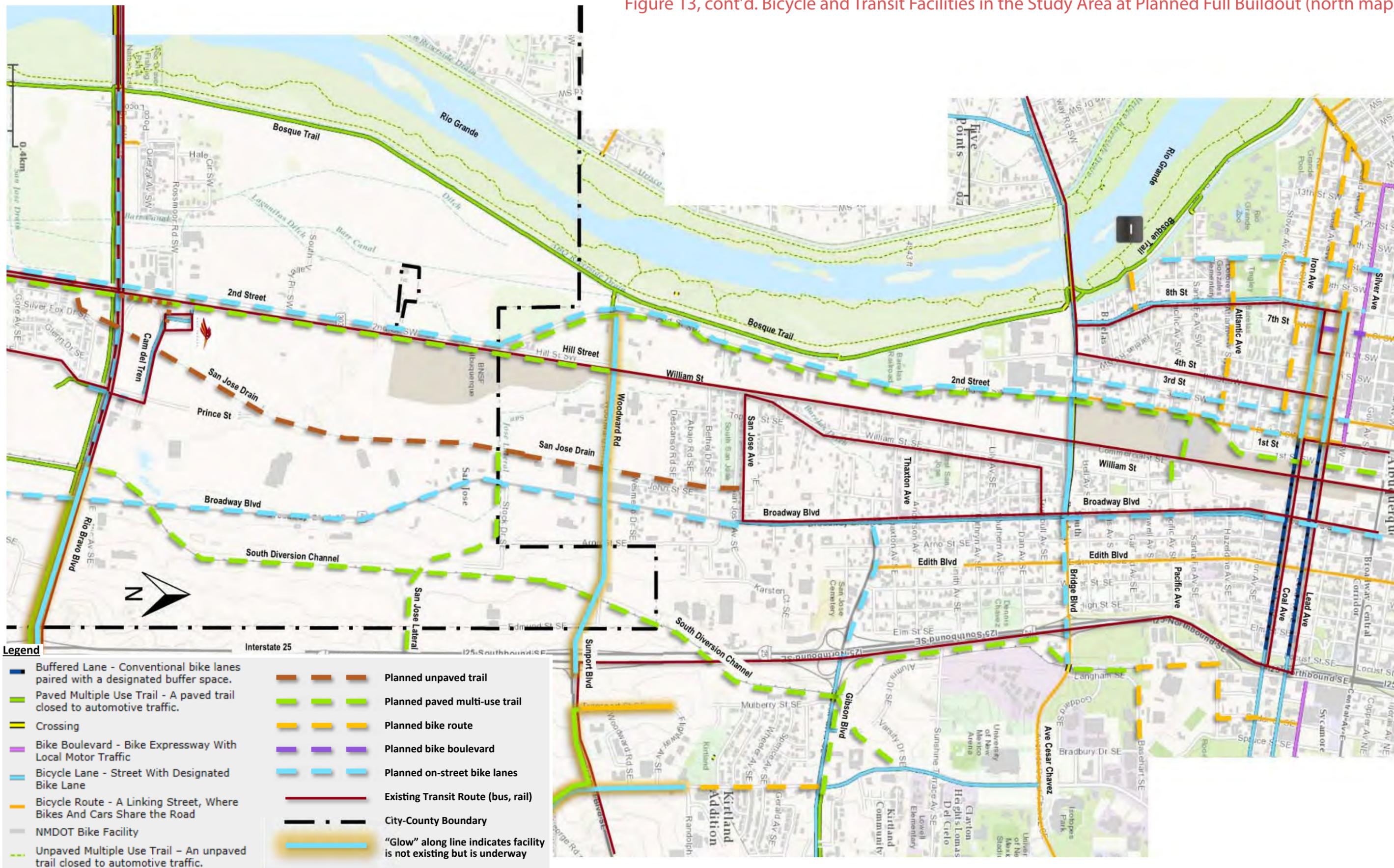


Figure 13, cont'd. Bicycle and Transit Facilities in the Study Area at Planned Full Buildout (north map)



5. PROPOSED PROJECTS

Unfortunately, designing and constructing the complete network will take decades due to funding and other constraints. Projects must be prioritized to make the best use of limited funding. Accordingly, the study team developed a list of priority projects that would make the best use out of the existing infrastructure as well as imminent projects. They are listed in the sections below.

Bridging Sidewalk Gaps

Figure 3 presented earlier in this report shows the field inventory of sidewalks taken along the major streets in the study area. Priority should be placed first on making existing sidewalks accessible to all. This generally means that sidewalks without curb ramps or with obstructions within the accessible route should be corrected. Bridging gaps in non-accessible routes with accessible sidewalks does not make the best use of existing infrastructure.

The following paragraphs address the study team's recommendations regarding sidewalk gaps.

- Coal Avenue and Bridge Boulevard both have segments with no sidewalk on one side of the street. However, the missing sidewalk segments along Coal and Bridge are both on bridges, which would be more difficult and expensive to add. It is not recommended to add these portions of sidewalks until a larger bridge reconstruction project occurs.
- Where 2nd Street has no sidewalk along its east side north of Trumbull Avenue, there are no homes or other reasons for pedestrians to need to walk on that side of the road, because it is adjacent to the fenced-off Rail Yards property. When the Rail Yards are redeveloped, they will include pedestrian facilities on that side of 2nd Street. It is not recommended to add sidewalk here at this time.
- Second Street has no sidewalk on either side of the road starting just north of the Barelvas Railroad Park softball fields and going south. This part of 2nd Street does not have curb and the shoulders are heavily used for parking during game days at the softball fields. Until the cross section of 2nd Street is reconstructed to a more "urban" section, it is not recommended to install sidewalks along it in this area.
- The plans for the Woodward Road-Sunport Boulevard extension project include sidewalk on both sides of the road from 2nd Street to Arno Street (one block east of Broadway), but not farther east across I-25. Sidewalk farther east is not recommended as there are no sidewalks at the I-25/ Sunport interchange or along Sunport Boulevard to the east.
- Gibson Boulevard has no sidewalk along portions of its south side near Edith Boulevard. Utility poles and a fire hydrant are located in the middle of the sidewalk that does exist on that side of the road now. Additionally, it appears that some property lines on the south side of Gibson Boulevard may extend all the way to the outside driving lane. For these reasons it is not recommended to add sidewalk on this side of the roadway until a larger project to reconstruct Gibson and the I-25/ Gibson interchange occurs.
- Farther east through the I-25/Gibson interchange, "desire trails," paths where there is no sidewalk but where foot traffic has visibly eroded the landscape, can be seen. However, the bridge over the South Diversion Channel east of I-25 currently has no accessible sidewalk across it. This bottleneck is unlikely to be remedied until the entire interchange is reconstructed, something that will not occur for several years. Consequently, adding accessible sidewalk to Gibson on the west side of I-25 through the interchange does not add much value to the system at this time.
- Broadway Boulevard has no sidewalk on either side of the road south of San Jose Avenue. Like 2nd Street, Broadway does not have curb and the shoulders are used for parking. Until the cross



section of Broadway is reconstructed to an urban section, it is not recommended to install sidewalks south of San Jose Avenue.

- Rio Bravo Boulevard has sidewalk on the north side only for a small segment near a convenience store located at the northwest quadrant of Broadway and Rio Bravo; however, it already has a multi-use trail on its south side, which will be lengthened as part of the upcoming I-25/Rio Bravo interchange project. Pedestrians can use the multi-use trail and consequently no additional sidewalk is recommended in the study area along Rio Bravo.
- Prosperity Avenue and Prince Street are collector streets with bus service. It is recommended that sidewalks be added to both streets.
- The Barelás Sector Plan makes specific recommendations for the installation of sidewalk on some of its local roads: Barelás Road, Santa Fe Avenue, and Cromwell Avenue. It also recommends surveying and reconstructing sidewalks along Barelás Road between 4th Street and Pacific Avenue to ensure they meet accessibility guidelines.

The Long Range Transportation System Guide (LRTSG) was developed by the MRCOG in response to a growing need for transportation networks to provide multimodal options for all users. The LRTSG suggests that adding or improving sidewalks should be considered not only as part of new construction, but during maintenance projects as well. In its Roadway Design Guidelines, the LRTSG includes sidewalks on both sides of the road along all suburban and urban streets classified as collectors or higher. Ideally, these sidewalks would be separated from the nearest driving lane with a buffer space. Accordingly, these streets in the study area should have sidewalk on both sides once they are improved: Prince Street, Camino del Tren, Prosperity Avenue, Desert Road, and Bobby Foster Road.

Bridging Transit Gaps

ABQ Ride leadership states that no changes are proposed to the existing City bus routes in the study area in the near term. In the long-term, the City hopes to work with the County to improve the frequency of service on Bridge Boulevard, in accordance with County plans for the corridor.

The City is considering adding bus shelters at existing stops on William Street and San Jose Avenue. It would be desirable to improve the more heavily-used bus stops that may currently only consist of a bus stop sign. Specifically, it has been recommended that bus benches and shelters be built at stops that serve as transfer points between routes, or stops near community centers. In the study area, these are:

- North of Rio Bravo on Prince Street (bus route 222). Because this is outside of the City, a cost-sharing arrangement with the County or the Rio Metro Regional Transit District would be necessary.
- On San Jose Avenue west of Broadway (Jack Candelaria Community Center).
- At the southeast quadrant of Broadway Boulevard and Thaxton Avenue (East San Jose Elementary School). This location has right-of-way constraints.
- At the northwest quadrant of William Street and Ogle Avenue (Herman Sanchez Community Center). This location has right-of-way constraints.
- At the northeast quadrant of William Street and Trumbull Avenue (South Broadway WIC Office). This location has right-of-way constraints.

Bridging Bikeways Gaps

The bulk of the recommendations in this study involve connections of existing bicycle facilities. The projects on the following pages are priorities as agreed upon by the study team.



1. Sunport Blvd Bicycle Connection from I-25 Northbound Ramps to Transport St

This project would involve constructing a multi-use trail connection from the intersection of the northbound I-25 ramps and Sunport Boulevard to Transport Street. It is not in any existing planning documents.

Current Connections

Currently there are no bicycle facilities on either end of this connection; however, two funded projects may be underway soon. The first project is the Sunport Boulevard extension. This project will build bike lanes on Sunport Boulevard starting at the northbound I-25 ramps and going west. The second project is the University Boulevard Phase II project, which will be constructing a multi-use trail from where Transport Street underpasses Sunport Boulevard to University Boulevard. Neither project calls for a connection between the two facilities.

Required Improvements

Because of the grade differential between the end of the bike lanes on the Sunport/I-25 overpass and the beginning of the multi-use trail at Transport Street (shown conceptually on the next page), these improvements will involve considerable design and construction, including:

- Accommodating bike crossings from a two-way trail on one side of the road to one-way bike lanes on either side of the road at the proposed new traffic signal at Sunport/I-25
- Protection of bicyclists on the I-25 northbound off-ramp with guard rail
- Construction of a paved trail long enough to not exceed maximum grades from the I-25 overpass to Transport Street

Comments

Without this connection, bicyclists on the new Sunport Boulevard extension bike lanes could ride on the concrete shoulders of Sun-



port between I-25 and University Boulevard, and double back to Transport Street via the new multi-use trail.

Cost Estimate

\$500,000

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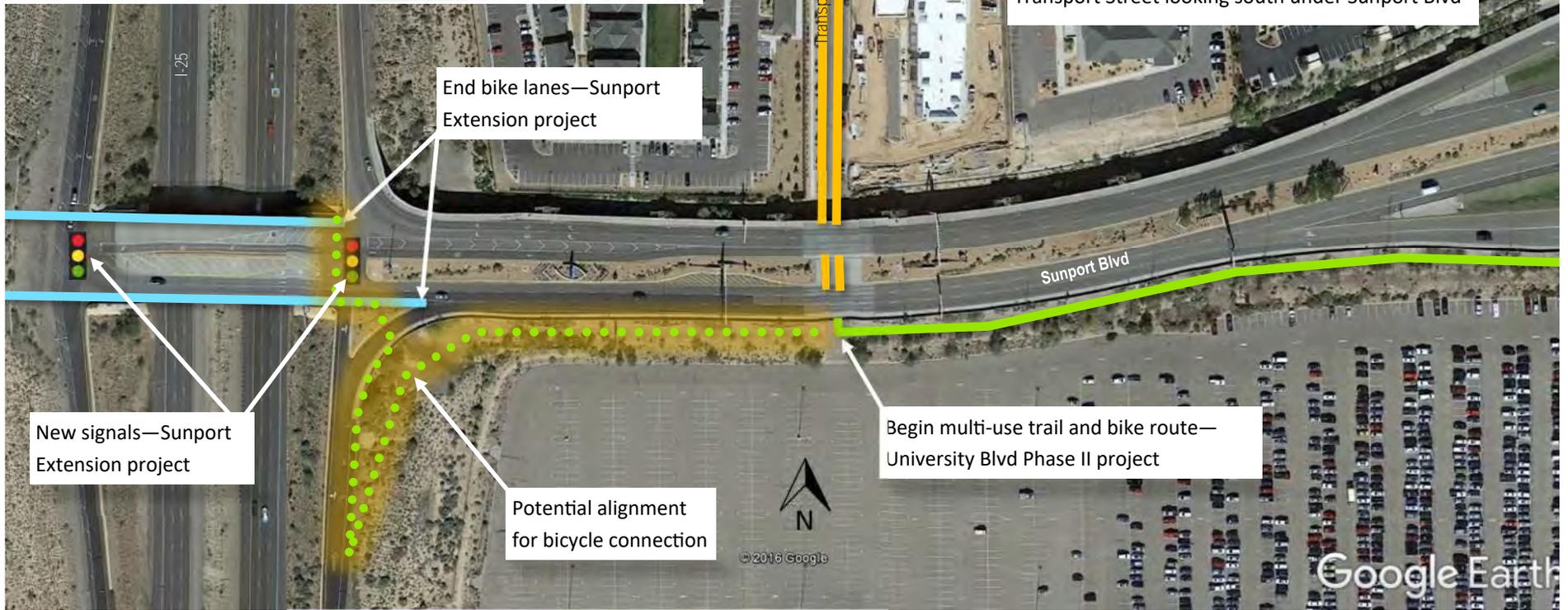
1. Sunport Blvd Bicycle Connection from I-25 Northbound Ramps to Transport St (cont'd)

Legend

	Buffered Lane - Conventional bike lanes paired with a designated buffer space.		Proposed unpaved trail
	Unpaved Multiple Use Trail - An unpaved trail closed to automotive traffic.		Proposed paved multi-use trail
	Crossing		Proposed bike route
	Existing/funded paved multi-use trail		Proposed bike boulevard
	Existing/funded bike route		Proposed on-street bike lanes
	Existing/funded bike boulevard		Existing Transit Route (bus)
	Existing/funded on-street bike lanes		Existing Transit Route (rail)
	Proposed project terminus		City-County Boundary
			"Glow" along line indicates the facility proposed on that page



Transport Street looking south under Sunport Blvd



2. 2nd Street to Bridge Blvd Bicycle Connection

This project would involve building bike lanes on the connecting street between 2nd Street and Bridge Boulevard. The proposed project is not in any existing planning document.

Current Connections

Second Street currently has sharrow pavement markings to the north of this connection. Bridge Boulevard has bike lanes to both the east and west.

Future Connections

The long range plan calls for bike lanes on 2nd Street both north and south of this connection; consequently, this connection will still be a need after the 2nd Street bike lanes are built. Also, if and when the Rail Yards are redeveloped, this bicycle connection will take cyclists from down below at the level of the Rail Yards up to Bridge Boulevard and its grade-separated crossing of the tracks.

Required Improvements

The street width along the connection is wide enough and currently striped for three lanes (a through lane in each direction and a turning lane at each intersection). The vehicular volumes

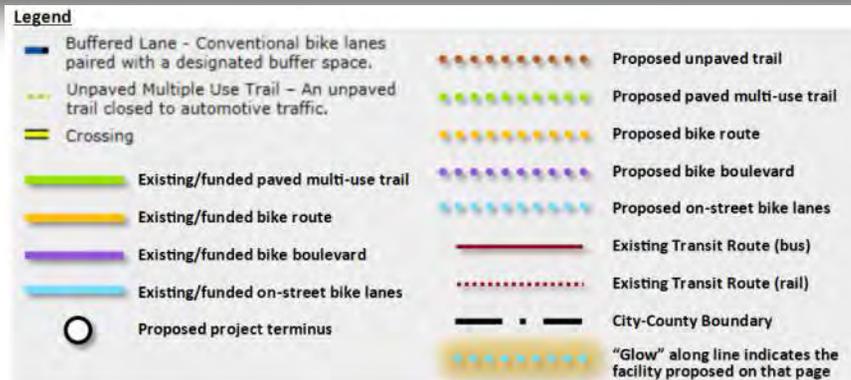


2nd Street connection to Bridge Boulevard, looking west

along this connection are low enough that the center turning lane could be removed, and the roadway restriped to consist of a buffered bike lane and a through lane in each direction. A concept drawing is shown on the next page.

Comments

Without this connection, bicyclists may ride in the driving lanes.



Cost Estimate

\$20,000

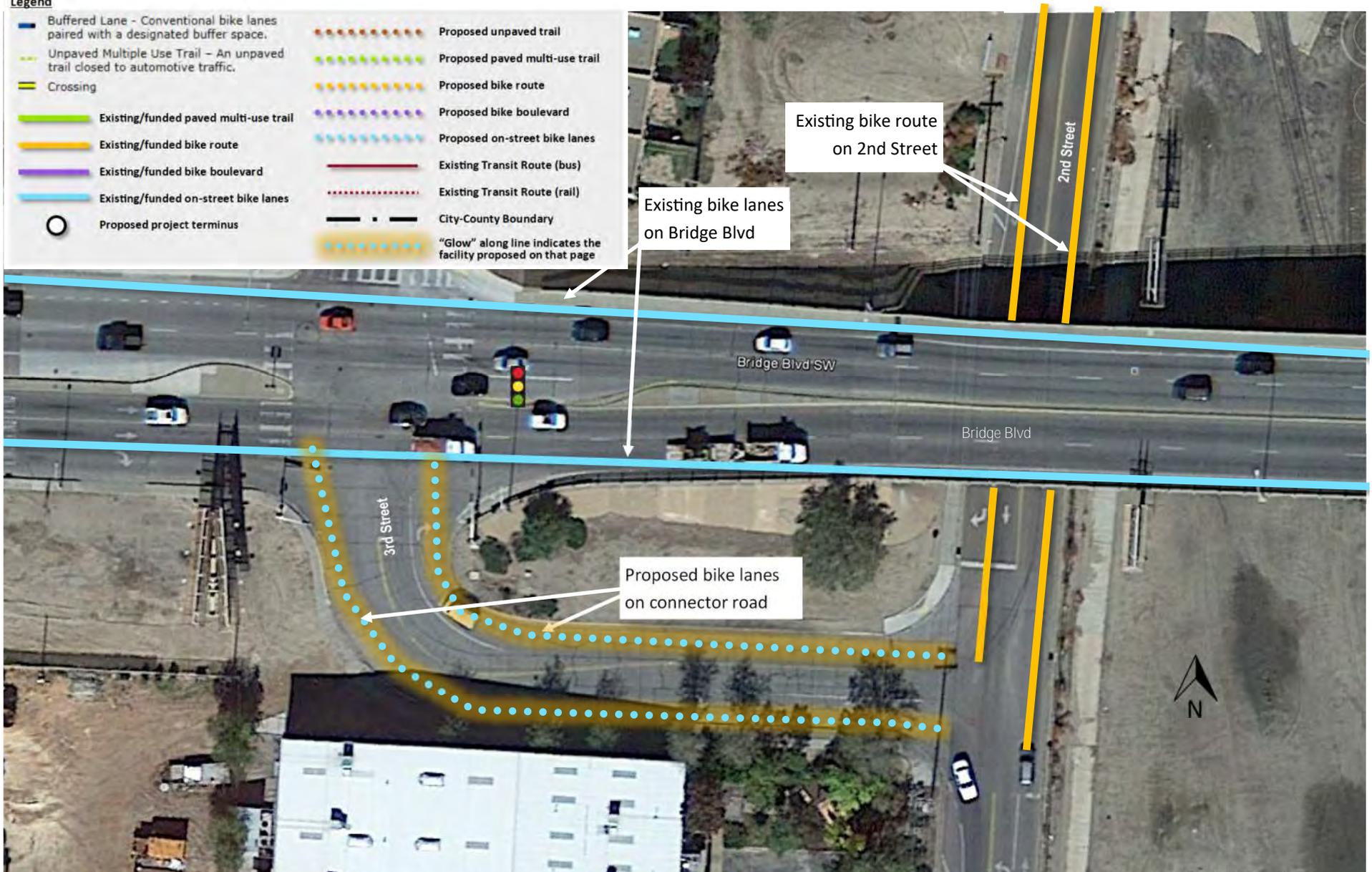
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2. 2nd Street to Bridge Blvd Bicycle Connection (cont'd)

Legend

	Buffered Lane - Conventional bike lanes paired with a designated buffer space.		Proposed unpaved trail
	Unpaved Multiple Use Trail - An unpaved trail closed to automotive traffic.		Proposed paved multi-use trail
	Crossing		Proposed bike route
	Existing/funded paved multi-use trail		Proposed bike boulevard
	Existing/funded bike route		Proposed on-street bike lanes
	Existing/funded bike boulevard		Existing Transit Route (bus)
	Existing/funded on-street bike lanes		Existing Transit Route (rail)
	Proposed project terminus		City-County Boundary
			"Glow" along line indicates the facility proposed on that page



3. San Jose Ave Bike Route from William St to Broadway Blvd

This project would involve designating San Jose Avenue between William Street and Broadway Boulevard as a bicycle route. It is not in any current planning documents. San Jose Avenue is a low-volume roadway with speed humps and a posted speed limit of 25 mph.

Current Connections

On the west side, riders on San Jose Avenue would connect to the William Street Bicycle Boulevard (another recommended short-term project from this study). On the east side riders can access the bike lanes on Broadway Boulevard. There is a traffic signal at the intersection of Broadway Boulevard and San Jose Avenue.

Future Connections

The future proposed San Jose Drain Trail (an unpaved trail) has its northern terminus at the

South San Jose Park/Jack Candelaria Community Center, which fronts San Jose Avenue on this block.

Required Improvements

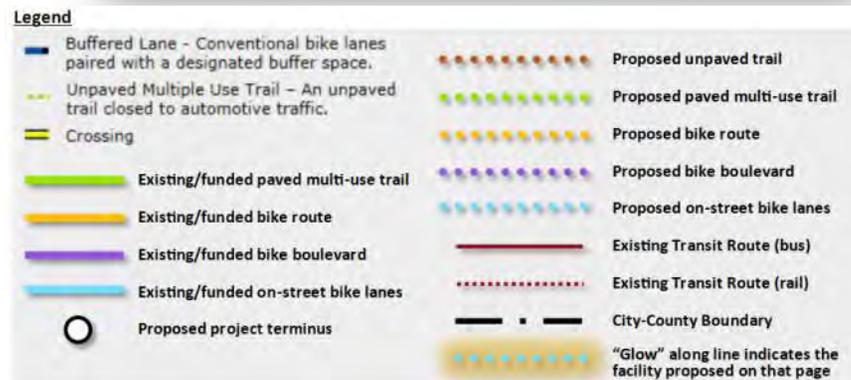
- Designation on City website maps and printed maps
- Bicycle route signs
- Sharrow pavement markings

Comments

Providing this connection for bicyclists provides a less expensive connection option to building the bike lanes that are shown in the long range plan on Broadway Boulevard between Woodward Road and San Jose Avenue.

Cost Estimate

\$30,000



San Jose Avenue looking east by South San Jose Park



4. Broadway Blvd Bike Lanes from Pacific Ave to Santa Fe Ave and from Iron Ave to Lead Ave

This project would involve completing the bike lanes on Broadway Boulevard from Pacific Avenue to Santa Fe Avenue and from Iron Avenue to Lead Avenue. These bike lanes are shown as existing or proposed on the 2040 Long Range Bikeway System map.

Current Connections

On the south end, cyclists on the Broadway Boulevard bike lanes could access the William Street-Pacific Avenue bicycle boulevard (another recommended project from this study). To the north, riders can access the westbound bike lane on Lead Avenue and the eastbound bike lane on Coal Avenue.

Future Connections

The 2040 Bikeway System map shows bike lanes on Broadway to the south of Pacific Avenue and to the north of Lead Avenue, to which these would connect.

Required Improvements

- Roadway restriping to create bike lanes

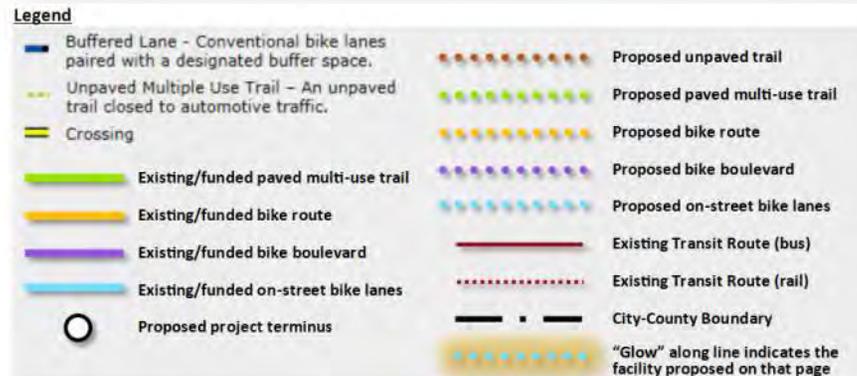
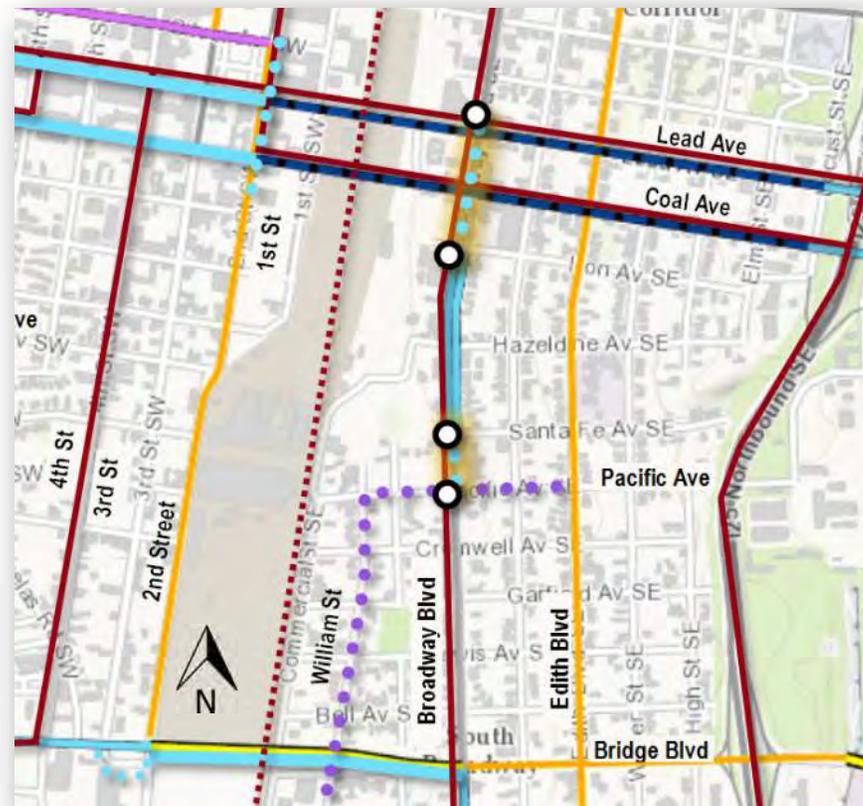
Comments

The Long Range Bikeway System map incorrectly shows that continuous bike lanes are already in place along Broadway Boulevard from Bridge Boulevard to Coal Avenue, but the two segments involved as part of this proposed project do not currently have bike lanes.

The Long Range Bikeway System map shows bike lanes proposed on Broadway Boulevard between Bridge Boulevard and Pacific Avenue as well; however, the proposed William Street bicycle boulevard project described elsewhere in this report would be a low cost alternative to these bike lanes.

Cost Estimate

\$30,000



Cyclist on Southbound Broadway Sidewalk at Coal Avenue



5. Santa Fe Ave—10th St Bike Route and Atlantic Ave Counterflow Cycle Track

This project would involve designating Santa Fe Avenue, 10th Street, and Atlantic Avenue as bike routes. Because Atlantic Avenue is one-way eastbound, the segment of Atlantic Avenue is envisioned as a two-way cycle track (see next page). Tenth Street in this area is shown with future bike lanes, and Atlantic Avenue in this area is shown as a future bike route, on the 2040 Long Range Bikeway System map.

Current Connections

On the west end of the route, riders could connect to the Bosque Trail. The zoo and Tingley Park are located at the 10th Street/Atlantic Avenue intersection, and the Barelás Community Center is nearby. Eighth Street already has bike lanes at the Atlantic Avenue intersection that riders can use to travel north and south.

Future Connections

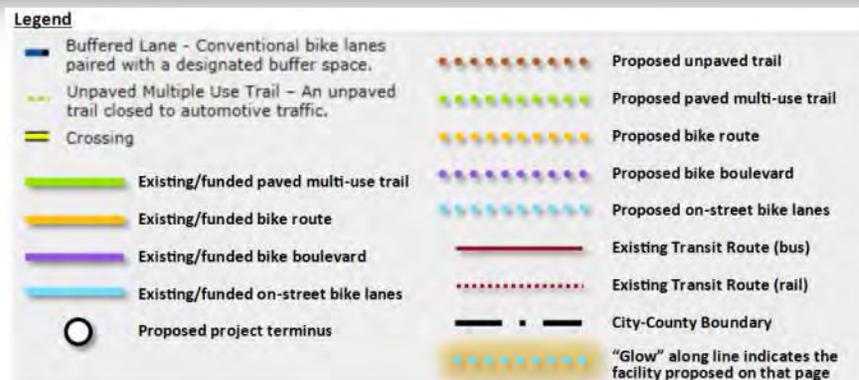
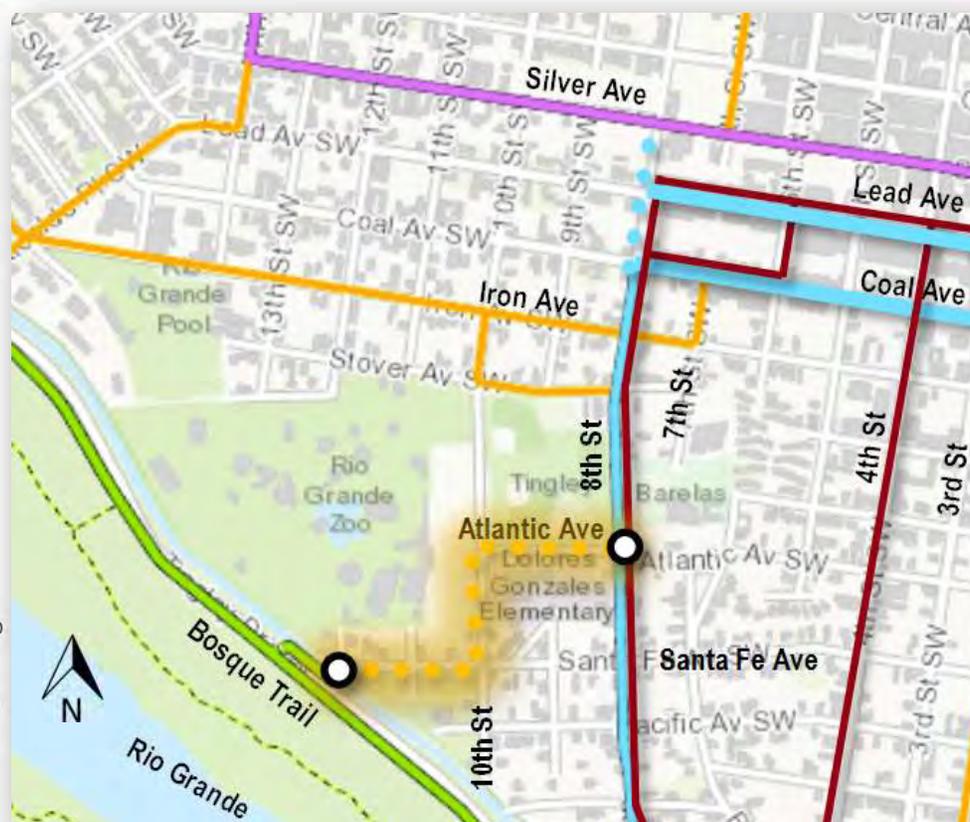
The 2040 Long Range Bikeway System map shows bike lanes on 10th Street to the

north and south of this segment. Additionally, the map shows a bike route on Atlantic Avenue continuing east of 8th Street to 2nd Street.

Required Improvements

- Signs and pavement markings to indicate the path’s designation as a bike route
- Along Atlantic Avenue, the existing 30-foot pavement width could be restriped for two 10-foot eastbound driving lanes and one 10-foot two-way cycle track.
- Improvements at the 10th Street/Atlantic and 8th Street/Atlantic intersections would be required to allow bicyclists to travel counterflow on Atlantic, and to warn drivers of these counterflow cyclists.

(continued on next page)



Santa Fe Avenue Connection to the Bosque Trail



5. Santa Fe Ave—10th St Bike Route and Atlantic Ave Counterflow Cycle Track (cont'd)

Legend

Buffered Lane - Conventional bike lanes paired with a designated buffer space.	Proposed unpaved trail
Unpaved Multiple Use Trail - An unpaved trail closed to automotive traffic.	Proposed paved multi-use trail
Crossing	Proposed bike route
Existing/funded paved multi-use trail	Proposed bike boulevard
Existing/funded bike route	Proposed on-street bike lanes
Existing/funded bike boulevard	Existing Transit Route (bus)
Existing/funded on-street bike lanes	Existing Transit Route (rail)
Proposed project terminus	City-County Boundary
	"Glow" along line indicates the facility proposed on that page



Comments

Substantial improvements have been made to provide the connection from the Bosque Trail to Santa Fe Avenue, but Santa Fe Avenue is not shown on the City's bike maps as either an existing or proposed route. This project would rectify that.

Cost Estimate

\$50,000

Example of two-way buffered cycle track on a one-way street



6. William St –Pacific Ave Bicycle Boulevard from Woodward Rd to Edith Blvd

This project would involve designating William Street north of Woodward Road to Pacific Avenue, and Pacific Avenue from William Street to Edith Boulevard, as a bicycle boulevard. Both are low-volume roadways with speed humps and a posted speed limit of 25 mph. The project is not in any current planning documents.

Current Connections

On the south side, riders on William St. would connect to the new bike lanes on Woodward Road. From there they can travel west to the Bosque Trail. On the north side, riders can access the bike lanes on Broadway Boulevard (another recommended short-term project from this study) or can cross Broadway at the existing traffic signal and continue east to the Edith Boulevard bicycle route.

The study team has received support for this bicycle boulevard concept from members of GABAC.

Future Connections

Currently, William Street crosses under Bridge Boulevard and there is no connection between the two except a staircase in the northwest quadrant. In the future, the two routes could be connected.

(continued on next page)



6. William St –Pacific Ave Bicycle Boulevard from Woodward Rd to Edith Blvd (cont'd)

Additionally, the Rail Yards Master Plan shows potential future east-west pedestrian and bicycle connections at Cromwell Avenue and Santa Fe Avenue. These would be an easy connection to William Street via Commercial Street.

Required Improvements

- Designation on City website maps and printed maps
- Bicycle boulevard signs—route signs and “Speed Limit 18” signs
- Bicycle boulevard pavement markings and sharrows

Comments

Providing this connection for bicyclists provides a less expensive connection option to building the bike lanes that are shown in the 2040 Long Range Bikeway plan on Broadway Boulevard between Woodward and San Jose and between Bridge Boulevard and Pacific Avenue. Consideration should be given to providing a sidewalk on the east side of William Street for the 900 feet north of Woodward, where it is missing. (There is no sidewalk on the west side of William Street.)

Cost Estimate

\$200,000 for signing and striping improvements to create bicycle boulevard

\$100,000 to complete sidewalk on the east side of William Street between Woodward Road and Bethel Avenue



William Street looking north



7. South Diversion Channel Multi-use Trail from Rio Bravo Blvd to Gibson Blvd

This project would involve building a paved multi-use trail along the South Diversion Channel from Rio Bravo Boulevard to Gibson Boulevard. While the corridor is there, it is owned by AMAFCA. This project is shown on the 2040 Long Range Bikeway System map.

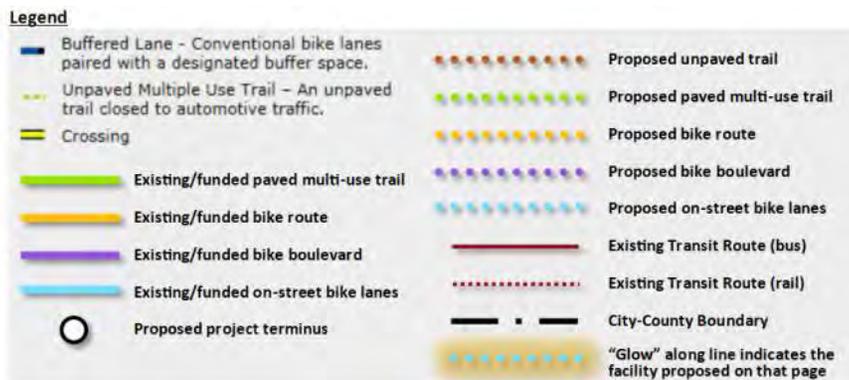
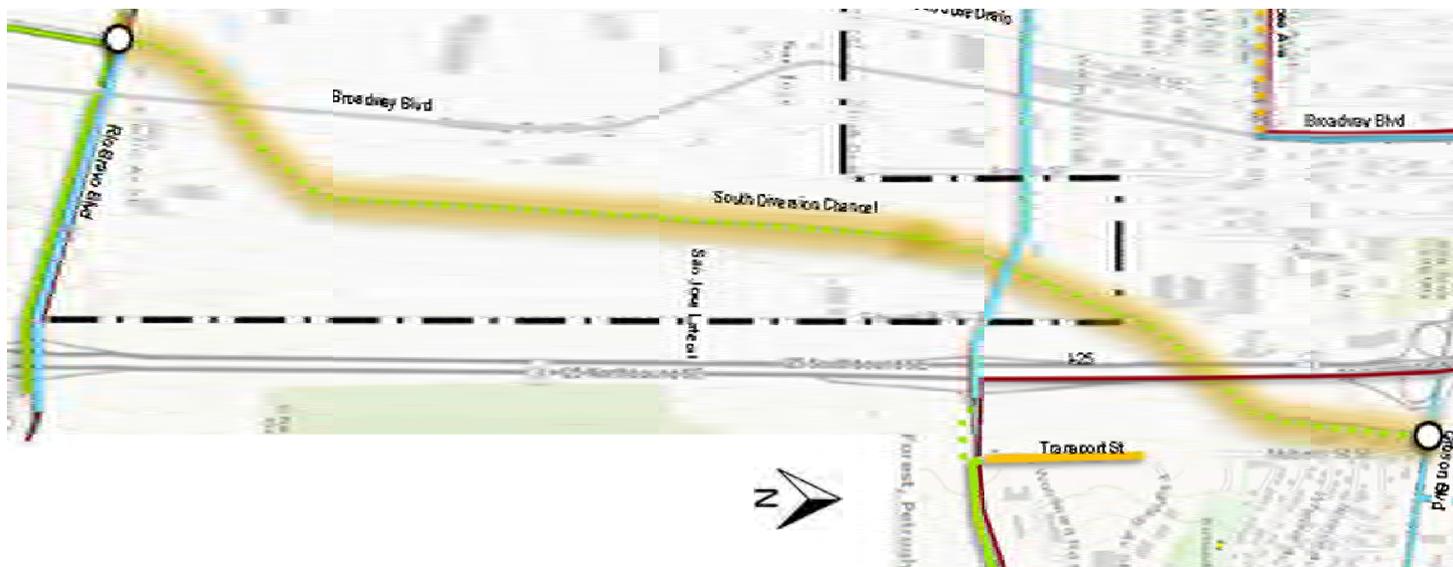
Current Connections

On the south end, trail users could access the existing trail along the east side of the South Diversion Channel (the Chavez Loop). The upcoming I-25/Rio Bravo reconstruction project will be building bike lanes and a multi-use trail on Rio Bravo that can be used by those on the trail. Finally, users of a trail along the South Diversion Channel could access the new bike lanes that will be built as part of the Sunport Extension.

Future Connections

In the future this trail could connect cyclists to bike lanes on Broadway Boulevard and to a multi-use trail along the San Jose Lateral. Both of these connections are shown on the 2040 Long Range Bikeway System map.

(continued on next page)



7. South Diversion Channel Multi-use Trail from Rio Bravo Blvd to Gibson Blvd (cont'd)

Required Improvements

- Construction of a paved multi-use trail along the channel.
- Several trail crossings of laterals and drainageways using prefabricated trail bridges
- Major crossings at Rio Bravo, Broadway, the railroad, Sunport, and I-25.

Expected Benefits

Between the new proposed bike lanes crossing I-25 at Sunport Boulevard and the existing bike lanes crossing I-25 at Lead and Coal avenues is a span of about two miles where there are no formal bikeways crossing I-25 (until the Avenida Cesar Chavez and Gibson Boulevard interchanges are rebuilt). The South Diversion Channel would provide a crossing of I-25 in this stretch for use by both pedestrians and cyclists, and creates a much needed northeast-to-southwest route.

Cost Estimate

About \$8 million, which includes trail undercrossings at Rio Bravo Boulevard, Broadway Boulevard, the railroad, the Sunport Boulevard extension, and I-25.



South Diversion Channel under Broadway Blvd, looking southwest



Enhanced Pedestrian and Bicyclist Crossings

The study team has recommended improvements to the following locations where pedestrians must cross higher volume/higher speed streets, due to existing conditions or as a result of implementing other recommendations in this study:

Rio Bravo/2nd Street (part of on-going project)

With the proposed and existing multi-use trail taking pedestrians and bicyclists south to the Valle de Oro NWR, the location of the Rail Runner station at the northeast quadrant of this intersection, and new bike lanes on all legs of the intersection, there will be a need for improved pedestrian and bicyclist crossings at this intersection. However, these improvements are already part of an on-going, funded project.

Rio Bravo/Prince Street

Although signalized, this intersection currently does not have crosswalks for the north-south movements, nor does it have pedestrian push buttons or signal heads for any movement except the trail across the south leg. Because the Rail Runner station is located to the north of this intersection, and bus stops, multi-use trails, and residences are located on the south, this intersection should be fitted with accessible pedestrian crossing equipment as a top priority.

Intersections along Woodward Road

The Woodward Road improvement project (an extension of Sunport Boulevard) may be under design soon. The design for this road should accommodate all of the pedestrian and cyclist maneuvers that have been discussed in this report, including:

- At the west end, the connection of the new bike lanes and sidewalks on Woodward Road to the new multi-use trail connection from 2nd Street to the Bosque Trail. A signalized intersection has been proposed at the intersection of Woodward Road and 2nd Street.
- Near where Woodward Road crosses the railroad tracks it also intersects with Hill Street to the south and William Street to the north. Hill Street has a multi-use trail shown along it in the 2040 Bikeway Plan, and William Street is proposed (in this study) as a new bike boulevard. Additionally, there is a city bus stop at the intersection of Woodward and William. This intersection will need to be carefully designed to accommodate all of these different users and their crossings.

In the Barelás Neighborhood

The Barelás Sector Plan lists specific locations where pedestrian crossings should be improved, including 4th Street/Stover Avenue and 8th Street between Atlantic and Stover avenues. The Sector Plan specifically recommends pedestrian hybrid beacons (PHBs, also known as HAWK signals) at these locations, but they would both need to be studied in more detail to see if this would be the recommended treatment.



Additional Multimodal Projects

Through the process of this study, several recommendations have been made for improvements to the existing multimodal network in the Near South Valley area. Additionally, the following are missing links in the future multimodal system that are recommended for addition to the long-range plan.

East-West Trail Connection through the Barelvas Railroad Park Softball Fields

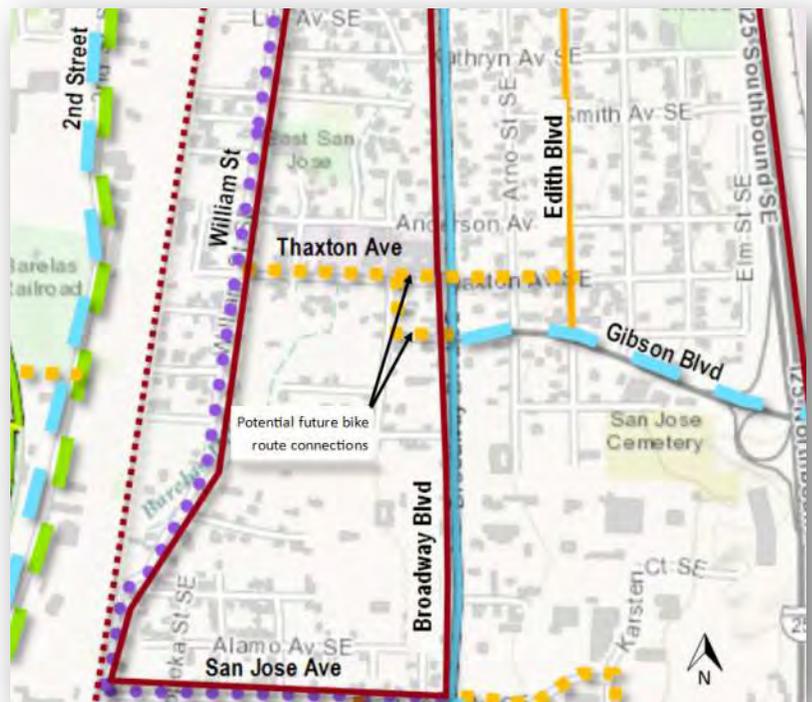
The Barelvas Railroad Park is bordered by the existing Bosque Trail on its west side and 2nd Street on its east side. The 2040 Long Range Bikeway plan shows bike lanes on 2nd Street in the future. A multi-use trail connecting these two facilities in the area of the Railyard Park would allow cyclists a route between the two. The trail might go through the center of the park, or farther south through a lot that is owned by the City of Albuquerque, as shown in the exhibit to the right.



Thaxton-Gibson Bicycle Connection

The 2040 Long Range Bikeway Plan shows bike lanes on Gibson Boulevard through the I-25 interchange and ending at Broadway Boulevard, which would also have bike lanes. If the William Street bike boulevard is implemented, it would be useful to connect the Gibson bike lanes to William Street via a bike route.

A concept is shown in the exhibit to the right. Thaxton Avenue is a low-volume, low-speed local road with speed humps. A westbound cyclist on Gibson could turn right onto the existing Edith Boulevard bike route and then turn left onto Thaxton. The intersection of Thaxton Avenue and Broadway Boulevard does not have a traffic signal, but because it is near the East San Jose Elementary School, there are signs and pavement markings and during some hours of the day, a school zone speed limit enforced. A cyclist on the proposed William Street bike boulevard could travel east on Thaxton, turn right onto John Street and then turn left onto Miles Road, which intersects Broadway Boulevard at a signal across from Gibson.



San Jose to South Diversion Channel Trail Connection

The 2040 Long Range Bikeway Plan shows a multi-use trail along the South Diversion Channel south of Gibson, and that project is also a priority from this study. If and when this trail is built, it might be useful to provide a connection from the intersection of Broadway Boulevard/San Jose Avenue, where there currently are bike lanes (on Broadway) and there is a proposed bike route (recommended in this study, on San Jose Avenue). Furthermore, the Broadway and San Jose intersection is signalized. The new connection to the east of Broadway could consist of a simple bike route (sharrows and pavement markings) on the low-volume, low-speed roads of San Jose Avenue and Karsten Circle. Where Karsten Circle ends in a cul-de-sac, easements would be required for the trail and its connection to the trail along the South Diversion Channel. A concept is shown in the exhibit below.



6. CONCLUSION

Several multimodal projects are already planned, funded, and/or under construction in the study area. The conclusion of this study is that the region should focus on seven priority pedestrian and bicycle projects that will begin to close the gaps in the Near South Valley network and make the best use of existing facilities. Two pedestrian-bicyclist connection projects should also be given high priority. Additionally, there are several projects not listed in any existing planning document that should be considered for inclusion when long-range plans are updated. Investing in complete streets and a complete network will contribute towards safe, interconnected, and livable neighborhoods that offer transportation choices for all City and County residents.



The priority projects are:

1. Sunport Boulevard Bicycle Connection from I-25 Northbound Ramps to Transport Street (City)

This project is considered high priority because of the upcoming final design of projects involving bicycle facilities on either end of the missing segment: the County-led Sunport Boulevard extension to the west, and the City-led University Boulevard Multimodal Improvements Phase II project to the east. Ideally the design and construction of the missing segment would occur as part of one or both of these other two projects; however, the missing segment of trail is within City limits.

The following four projects are considered priorities because they are relatively low cost and would fill gaps in the existing multimodal system:

2. 2nd Street to Bridge Boulevard Bicycle Connection (City, \$20,000)

3. San Jose Avenue Bike Route from William Street to Broadway Boulevard (City, \$30,000)

4. Broadway Boulevard Bike Lanes from Pacific Avenue and Santa Fe Avenue and from Iron Avenue to Lead Avenue (City, \$30,000)

The segment of Broadway Boulevard from Gibson Boulevard to Coal Avenue, which includes these missing portions of bike lane, is currently undergoing study as a City Council on-call project. Addressing the missing bicycle facilities is part of the scope of the study.

5. Santa Fe Avenue – 10th Street Bike Road and Atlantic Avenue Counterflow Cycle Track (City, \$50,000)

Other priority projects include:

6. William Street-Pacific Avenue Bicycle Boulevard from Woodward Road to Edith Boulevard (City, \$300,000)

While estimated at a cost of \$300,000, designating William Street as a bicycle boulevard could be much less expensive, if improvements are limited to designating the road as a bicycle boulevard on printed and online maps and installing a few guide signs along the way. The \$300,000 cost includes both substantial signing and pavement markings along the two-mile stretch (\$200,000) and \$100,000 for the installation of sidewalk along the east side of the street for the first 900 feet north of Woodward Drive. The sidewalk is not critical to the road's use as a bicycle boulevard.

7. South Diversion Channel Multi-Use Trail from Rio Bravo Boulevard to Gibson Boulevard (City and County, \$8 million)

While costly, the last project is considered a priority because it serves as both a north-south and an east-west connection for the South Valley. It would provide a formal pedestrian and bike crossing of I-25 in the two-mile spacing between Sunport Boulevard and Coal Avenue, where these users can cross now. The cost estimate is high not only because the project is long – 2.5 miles, but because the new trail will have to pass under several major roadways and a railroad. While not desirable, some of the crossings (e.g., the railroad, Broadway and Sunport boulevards) could be made at-grade temporarily until funds are available to grade-separate them. This project has also been designated as a priority because its alignment crosses the Sunport Boulevard extension, the final design of which is currently underway. The design should allow for a future undercrossing, or potential near-future at-grade crossing, of a South Diversion Channel trail.



The 2018-2023 TIP includes several potential funding sources for regional bicycle facilities; the funding by year is shown in Table 4 below. The priority projects listed above may be candidates for these funding sources.

Table 4. Potential Funding Sources for Near South Valley Gap Priority Projects

MPO#	CN	Project Name	2018	2019	2020	2021
100.5	A300705	AMPA-Wide Bicycle Facilities, Programs & Activities			\$175,562	
100.6	A300706	AMPA-Wide Bicycle Facilities, Programs & Activities				\$175,562
141	A302030	AMPA-Wide Bicycle Facilities, Programs & Activities	\$204,822			
141.1	A302031	AMPA-Wide Bicycle Facilities, Programs & Activities		\$204,822		
802.1	A300142	Gap Closure for On-Street Bicycle Facilities				\$1,141,152

Other potential funding mechanisms include these federal funding sources available for bicycle and pedestrian projects:

- TAP (Transportation Alternatives Program)
- RTP (Recreational Trails Program)
- HSIP (Highway Safety Improvement Program)

Local funding sources are also available. Voters recently approved a general obligation (GO) bond for parks and recreation, and a GO bond for streets that includes a mandated five percent set-aside (\$1.488 million) for trails and bikeways.

The following pedestrian connections are also considered priorities:

Rio Bravo/Prince Street Pedestrian Crossings

Although signalized, this intersection currently does not have crosswalks for the north-south movements, nor does it have pedestrian push buttons or signal heads for any movement except the trail across the south leg. Because of the pedestrian generators north and south of the intersection, it should be fitted with accessible pedestrian crossing equipment as a priority.

Prosperity Avenue and Prince Street Sidewalks

Prosperity Avenue and Prince Street are both collector streets with bus service, and sidewalks should be added to both streets.

Connections along Woodward Road

This is another instance of connections considered a priority because the roadway design will be underway soon. The design of the Woodward Road improvement project (an extension of Sunport Boulevard) should accommodate all of the pedestrian and cyclist maneuvers that have been discussed in this report. This includes east-west connections at the west end of Woodward across 2nd Street and on to the Bosque Trail, and north-south connections near the railroad tracks to link future facilities on Hill Street and William Street.



Finally, these connections should be considered as additions to long-range plans:

East-West Trail Connection through the Barelas Railroad Park Softball Fields

A multi-use trail connecting future bike lanes on 2nd Street to the existing Bosque Trail through the Railroad Park would allow cyclists a route between the two.

Thaxton-Gibson Bicycle Connection

Bicycle facilities on Thaxton Avenue, John Street, and Miles Road would connect the proposed bicycle boulevard on William Street with the proposed bicycle lanes on Gibson east of Broadway.

San Jose to South Diversion Channel Trail Connection

This proposed trail connection would link existing and proposed bicycle facilities on Broadway Boulevard and San Jose Avenue to the future multi-use trail along the South Diversion Channel.

