Rio Rancho Bicycle and Pedestrian Transportation Master Plan

January 2011

City of Vision

City of Rio Rancho
Bicycle and Pedestrian Transportation Master Plan

Adopted by the City Council February 9, 2011

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This material is based upon work supported by the Department of Energy under Award Number DE-SC0002802.

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Executive Summary

WHY A BICYCLE AND PEDESTRIAN TRANSPORTATION MASTER PLAN?

Rio Rancho's vision for the future features walkable and bikeable neighborhoods in a community known for its recreational facilities and transportation options. Rio Rancho's residents and visitors will have access to healthy modes of transportation and a variety of recreational opportunities, making the most of the city's natural beauty and weather, which allow for year-round outdoor activities.

Achieving this vision will require a significant commitment on the part of the entire community—residents, businesses, elected officials, and City staff. This Bicycle and Pedestrian Transportation Master Plan (BPTMP or Plan) will guide the development of the bicycle and pedestrian network, helping City staff and elected officials to prioritize trail projects, achieve maintenance goals, build more bike lanes, and make pedestrian connections between neighborhoods and destinations.

OPPORTUNITIES FOR RIO RANCHO

This Plan provides standards and guidelines to ensure the development of high-quality biking and walking facilities throughout the city. Rio Rancho has the opportunity to build walkable and bikeable communities into the fabric of the city's newly developing neighborhoods. In existing neighborhoods, opportunities exist to expand the network of bike lanes and routes, and to make connections with arroyo trails, parks, schools, and shopping centers.

> In its current state, Rio Rancho's bicycle and pedestrian network features 41 miles of paths and trails, 31 miles of bike lanes, and almost 40 miles of bike routes.

Rio Rancho has the opportunity to become a Bicycle Friendly Community, through the diligent application of the policies, programs, standards, and guidelines contained in this Plan. The benefits of creating a strong multimodal transportation system that includes cars, bicycles, and pedestrians will include improved air quality, public health, economic development, and a reduction in greenhouse gas emissions.

KEY RECOMMENDATIONS FROM THE BICYCLE AND PEDESTRIAN TRANSPORTATION MASTER PLAN

The following recommendations are at the heart of the BPTMP:

- **Expand arroyo trails and trail access opportunities.**

  Rio Rancho's arroyos provide a remarkable opportunity for non-motorized transportation corridors and recreation facilities. The Plan recommends the completion of 50 miles of new trails and paths. Feasibility and project priority will be determined on a case-by-case basis using the Plan's Trail Decision Chart.

This Plan recommends the completion of 50 miles of new trails, at a cost of nearly $14 million.

- **Enhance and expand pedestrian connections to schools, parks, and shopping centers.**

  Schools, parks, and shopping centers in Rio Rancho's existing development areas need better pedestrian connections. Crossing improvements, enhanced landscaping and lighting, directional signage, and other amenities will encourage residents to make some of their trips on foot.

- **Complete the network of bicycle lanes on arterial roadways.**

  Rio Rancho's major roadways link together the entire city. Ensuring that cyclists have a safe and well-maintained place to ride on the city's roadways will help to increase bicycling for both transportation and recreation.

This Plan recommends approximately 82 miles of new bicycle lanes at a cost of just under $1 million.

- **Enhance and expand the network of bicycle routes.**

  "Share the road" signage, "sharrows," and other indications that a particular route is suitable for cyclists can encourage residents to make trips by bicycle. Connecting destinations like schools and parks to neighborhoods through an expanded and enhanced bicycle route network will encourage cycling for all ages and ability levels.

The Plan recommends 18 miles of new bicycle routes, at a cost of $27,000.

- **Make connections to other transportation modes.**

  Pedestrians and cyclists need other transportation modes to extend the distances they can travel. Safe and convenient connections are needed between pedestrian and bicycle facilities and transit stations and bus stops.

- **Design and build Complete Streets.**

  Consistent with the direction of the Comprehensive Plan, this BPTMP recommends the development of complete streets. Complete streets are designed to accommodate all roadway users and provide them with safe, attractive, and comfortable travel. Roadways recommended to become

complete streets are highlighted on the maps included in Chapter 2.

- **Seek new and innovative funding sources.**

  Building and maintaining Rio Rancho's bicycle and pedestrian network will require a combination of public and private funding. This Plan outlines a wide variety of funding sources, including new and innovative methods to raise the money needed to build trails, bike routes, and other facilities. The extent to which the City is able to find these new sources of funding and partner with other agencies and the private sector will affect how quickly the bicycle and pedestrian network can be completed.

Table ES.1: Reader's Guide to the Bicycle and Pedestrian Transportation Master Plan

Chapter	Purpose and Contents
Chapter 1: Introduction	This chapter provides an introduction to the Plan's goals and reviews the benefits of bicycling and walking. The chapter also provides an overview of existing conditions in Rio Rancho, focusing on the physical network and community input.
Chapter 2: Recommended Improvements	This chapter describes the priority projects recommended by the Plan and includes maps showing recommended improvement locations. Chapter 2 also includes recommended design guidelines for bicycle and pedestrian amenities.
Chapter 3: Goals, Policies, and Actions	This chapter provides the policy framework for the plan and includes design standards for bike and pedestrian facilities. Chapter 3 also includes a timeline and responsibility for policy implementation.
Chapter 4: Implementation	This chapter describes how implementation of the Plan will occur and provides cost estimate information for construction and maintenance of facilities. Chapter 4 also includes maintenance recommendations and information about funding opportunities.
Chapter 5: Regulatory Context	This chapter provides a brief overview of other planning documents that relate to and work in concert with the BPTMP.
Chapter 6: Public Outreach Results	This chapter provides additional results from the telephone and Web surveys as well as an overview of Task Force recommendations.

Chapter 1: Introduction

1. Introduction

1.1 PURPOSE AND NEED FOR A BICYCLE AND PEDESTRIAN TRANSPORTATION MASTER PLAN

The purpose of the Rio Rancho Bicycle and Pedestrian Transportation Master Plan (BPTMP; Plan) is to ensure that Rio Rancho is a safe and fun place to walk and bike for residents and visitors alike. As the city's development trends toward high-intensity nodes with more concentrated residential and commercial land uses, opportunities will be created for walkable neighborhoods, safer streets, and increased use of public transit.

The Rio Rancho Bicycle and Pedestrian Transportation Master Plan provides the community with a blueprint for increasing bicycle and pedestrian safety, implementing bicycle and pedestrian improvements for "complete streets," outlining community-specific benefits for bicycling and walking as alternative modes of transportation, and identifying trail and sidewalk connectivity issues and solutions. The Plan identifies funding opportunities and will be used together with the City's Comprehensive Plan to further the City's vision.

Communities across the United States are recognizing the growing need and multiple benefits of providing alternative transportation options for residents.

1.2 GOALS OF THE PLAN

GOALS

This Plan establishes three goals for bicycle and pedestrian travel in Rio Rancho.

BPTMP Goal 1. An interconnected and continuous pedestrian and bicycle network that provides safe and attractive options for both local and regional trips and that provides connections to Rio Rancho's neighborhoods, schools, parks, employment centers, and retail centers and to surrounding cities.

BPTMP Goal 2. A trail network that integrates the city's arroyos in a system of off-street multi-use trails for bicycle and pedestrian travel and recreation.

BPTMP Goal 3. A reduction in the number of vehicle miles traveled (VMTs) in Rio Rancho by increasing trips made by biking and walking.

The goals are supported by the policies and actions outlined in Chapter 3. In addition, the recommended capital improvements and design guidelines (Chapter 2) seek to achieve each of these goals.

ROLE OF THIS PLAN

The BPTMP carries out the direction of the City's Comprehensive Plan (2010) and works in concert with the Mid-Region Council of Governments (MRCOG) Regional Transportation Plan. The BPTMP also supports the City's partnerships with other public agencies that plan for bicycle and pedestrian improvements. Many City departments will be involved in the implementation of this Plan, with significant contributions from Development Services, Public Works, Parks, Recreation and Community Services, and City Administration. Additional information on implementation responsibility and regulatory context is included in Chapters 4 and 5 of the Plan.

1.3 BENEFITS OF BICYCLING AND WALKING

Increased physical activity leads to healthier lives, both physically and mentally. Easy and safe access to biking and walking as alternative forms of transportation helps to increase a community's physical fitness level which can reduce overall costs of healthcare, increase productivity, and attract businesses.

The physical environment also benefits from bicycle-friendly, walkable communities. Less traffic on the road means less congestion, better air quality, and reduced greenhouse gas emissions, thereby helping to reduce the effects of climate change. In addition, communities that adopt land-use policies with more of a multimodal transportation mindset lead to more convenience for residents, as some of their daily activities move closer to home. The following benefits may result:

- **Public Health:** Increases in light to moderate activity can lead to positive health benefits including reduced risk of heart disease, stroke, and other chronic and life-threatening illnesses. Physical activity can also improve mental health and lower healthcare costs as well.

- **Air Quality:** As people choose to bike or walk to their daily destinations, the vehicles that create substantial amounts of air pollution are removed from the road. An improvement in air quality can not only provide health benefits like decreases in asthma, but it can contribute to reducing the risks associated with climate change.

- **Economic Development:** Personal vehicles account for a large percentage of many families' incomes. Bicycling and walking are both affordable and healthy options that can reduce the cost of living and leave room for spending in other areas of the local economy.

- **Quality of Life:** Creating the conditions for a bikable and walkable community can significantly increase the community's livability. Opportunities for recreation and enjoyment of the natural environment are reflections of a high quality of life for residents.

ANTICIPATED GREENHOUSE GAS REDUCTION BENEFITS OF PLAN IMPLEMENTATION

Using the existing bicycle and pedestrian network as a baseline, it is possible to estimate the reduction in vehicle miles traveled and the corresponding reduction in greenhouse gas emissions that will result from Plan implementation. Should all of the new facilities shown on the Recommended Improvements maps (Chapter 2, **Figures 2.1** through **2.4)** be constructed by 2030, it is anticipated that greenhouse gas emissions will be reduced by 745.49 metric tons of CO_2e annually.[1] This is equal to an annual reduction of 997,481 vehicle miles traveled, or the following equivalents:

- 161 passenger cars not driven for one year,
- 1,715 barrels of oil saved,
- 19,383 tree seedlings grown for 10 years,
- the energy savings in one year from replacing standard light bulbs with 9,691 compact fluorescent bulbs,
- one year of electricity used by 144 households, or
- 149 hot air balloons.

An explanation of this calculation is included as Appendix A of this Plan.

[1] A metric ton of carbon dioxide equivalent (CO_2e) is the standard measurement of greenhouse gas emissions. This is equal to approximately 2,205 pounds of CO_2. See Appendix A for additional details.

1.4 EXISTING CONDITIONS FOR WALKING AND BIKING IN RIO RANCHO

Rio Rancho's topography, weather, scenic values, and existing bikeway network encourage 2 out of every 5 residents to ride their bicycles annually (2010 telephone survey). Additionally, 4 out of every 5 residents walked for recreation or transportation within the last year. The potential for increase in the number and frequency of bicycle and pedestrian trips is great, and 82% of survey respondents reported that their households would be likely to use additional paths and trails.

Rio Rancho's existing bicycle and pedestrian network is most complete in the southern areas of the city where established neighborhoods provide a more continuous roadway network. However, in older neighborhoods, the streetscape is more likely to have been designed without sidewalks, bike lanes, or other accommodations for bicycling and walking. Their absence is most problematic on arterial roadways where vehicles travel at high speeds and are able to make free right turns, which can be difficult for bicyclists and pedestrians to anticipate.

In Rio Rancho's new development areas, streets have been designed to accommodate bicyclists and pedestrians with roundabouts, shorter crossing distances, high-visibility crosswalks, share the road signage, and other features. Paths and trails have been constructed adjacent to new subdivisions, providing residents with greater transportation and recreation resources.

Throughout the city, walled subdivisions and commercial areas with parking along the street frontage provide a challenge for pedestrians. Pedestrians will seek direct routes and prefer those that offer amenities such as shade and landscaping. School-aged pedestrians also need crossing enhancements for safety and specific access to schools and to park and recreational destinations. Opportunities exist to increase and enhance pedestrian connections to destinations such as schools and shopping centers.

Rio Rancho's existing network of bicycle facilities is depicted in **Figures 1.1** through **1.4**, which show the existing need for bicycle and pedestrian improvements for each quadrant of the city. These maps show the existing need for increased walkability and bikeability by illustrating the "walkshed" or "bikeshed" around each of Rio Rancho's most common destinations for bicycle and pedestrian trips. The size of Rio Rancho's walksheds and bikesheds reflects the length of the residents' average walking or biking trip, as reported in the 2010 telephone survey (see Chapter 6 for an overview of the telephone survey or Appendix C for complete survey results). A Rio Rancho walkshed is a 1-mile radius from the destination. A bikeshed is a radius of 2 miles.

The bicycle and pedestrian needs summarized on each map (**Figures 1.1** through **1.4**) result from an analysis of facilities through mapping analysis, in the field, and with significant input and refinement from community input and Intermodal Task Force recommendations. This input is summarized in Chapter 6: Public Outreach Results. For planning purposes, the city has been divided into the four zones shown in **Figures 1.1** through **1.4**.

DEMAND FOR WALKING AND BICYCLING IN RIO RANCHO

Existing data on the number of Rio Rancho residents who walk and bicycle to work for transportation is limited.

The 2007 American Community Survey (ACS) identifies that 0.7% of Rio Rancho residents who work walk to work and 0.3% of residents who work bicycle to work. This United States Census-based source provides a good baseline figure for bicycling and walking demand, but does not tell the entire story. The ACS does not account for bicycling or walking that may occur as one leg of a multimodal trip. Furthermore, the source does not account for bicycling and walking trips that are made for recreation, for errands to shopping or other destinations, or for travel to school for children.

The 2010 telephone survey provides some refinement of this data, showing that approximately 4% of residents bicycle to work. However, this percentage does not directly correspond to the replacement of a daily vehicle trip, as the survey question was directed to account for the purpose of bicycle trips, rather than the mode of transportation to work.

This Plan establishes an objective of doubling the share of trips in Rio Rancho made by biking or walking by 2030. This objective translates to a minimum goal of 0.4% biking or 1.4% walking mode share by 2030.

With the implementation of the bicycle and pedestrian improvements outlined in this Plan, the City's Comprehensive Plan, and other regional planning documents, it is likely that mode share will rise to exceed the goal of doubling by 2030. Existing bicycle mode shares for bicycle-friendly cities such as Portland, Oregon, or Boulder, Colorado, range from 6% to nearly 10%. Closer to home, the City of Albuquerque's mode share has been rising, reaching 1.8% in 2008. The national average for bicycle mode share is 0.5% (American Community Survey 2008).

In order to estimate the anticipated reduction in greenhouse gas emissions from the implementation of this Plan, achievement of a bicycle mode share of 1.2% by 2030 is assumed.

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Northeast Rio Rancho Zone A

Bicycle and Pedestrian Needs

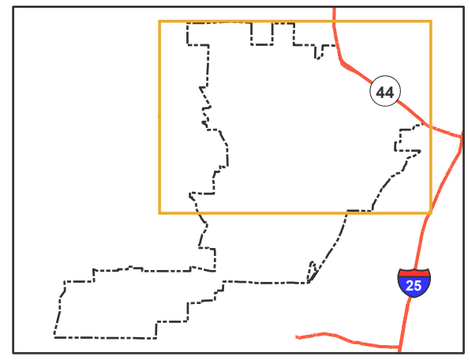
- Greater bicycle and pedestrian connections to commercial zones
  near Northern Boulevard and Unser and at Unser and Paseo del Volcan
- Connections to potential arroyo trail corridors
- Neighborhood connections to school for children traveling on foot and by bicycle
- Connections between existing bicycle facility segments and sidewalk gaps
- Greater concentration of bicycle and pedestrian facilities near future development nodes
- More walkable recreational destinations at the core of the northwest area
- More on-street north-south bikeway facilities
- Connections to future transit station near northwest border
- More residential off-street alternatives for bicycles and pedestrians near NM 528 and US 550

Bicycle | Pedestrian | Bike & Pedestrian

Northwest Loop Rd
Blue Grama Dr NE
Unser Blvd NE
Westphalia Blvd NE
Chayote Rd NE
Springer Dr NE
Enchanted Hills Blvd NE
Camino Encantadas
Progress Blvd NE
Wilpett Rd NE
King Blvd NE
Lincoln Ave NE
Nativitas Rd NE
Chayote Rd NE
Idalia Rd NE
10th St NE
Broadmoor Blvd NE
Paseo del Volcan NE
Venada Arroyo
Iris Rd NE
Rio Rancho Blvd NE
Willow Creek Rd NE
Riverside Dr NE
19th Ave NE
Cherry Rd NE
Montezuma Ave NE
Loma Colorado Blvd NE
Idalia Rd NE
Kim Rd NE
La Barranca Arroyo Dr
Saratoga Dr
528
Northern Blvd NE
Pat D'Arco Highway
Corrales Rd
Rainbow Blvd NE
0.5 0 0.5
MILES
N

Legend

- Development Nodes
- Grade Separation Crossings
- Principal Arterial
- Minor Arterial
- Collector/Private
- Bike Lane
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial Land Uses
- Walkshed
- Bikeshed
- City Limits



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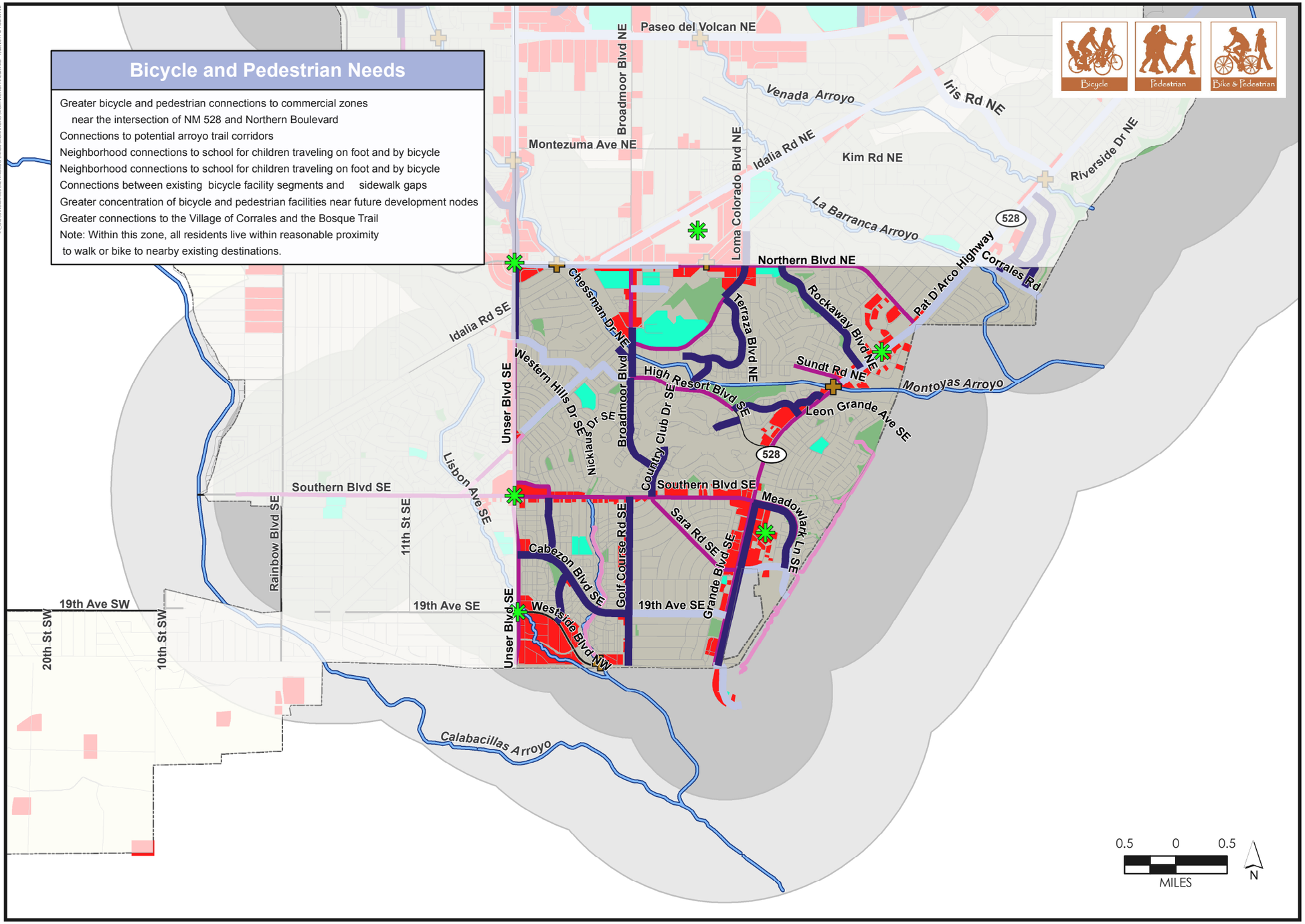
Southeast Rio Rancho Zone B

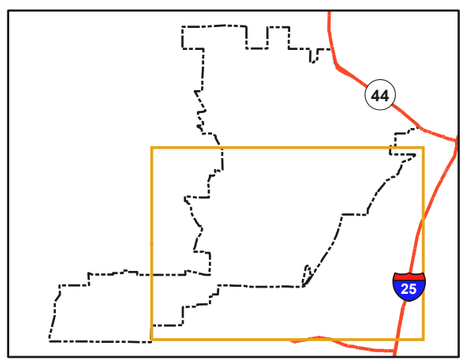
Bicycle and Pedestrian Needs

Greater bicycle and pedestrian connections to commercial zones near the intersection of NM 528 and Northern Boulevard
Connections to potential arroyo trail corridors
Neighborhood connections to school for children traveling on foot and by bicycle
Neighborhood connections to school for children traveling on foot and by bicycle
Connections between existing bicycle facility segments and sidewalk gaps
Greater concentration of bicycle and pedestrian facilities near future development nodes
Greater connections to the Village of Corrales and the Bosque Trail
Note: Within this zone, all residents live within reasonable proximity to walk or bike to nearby existing destinations.



Legend

- Development Nodes
- Grade Separation Crossings
- Principal Arterial
- Minor Arterial
- Collector/Private
- Bike Lane
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial
- Walkshed
- Bikeshed
- City Limits



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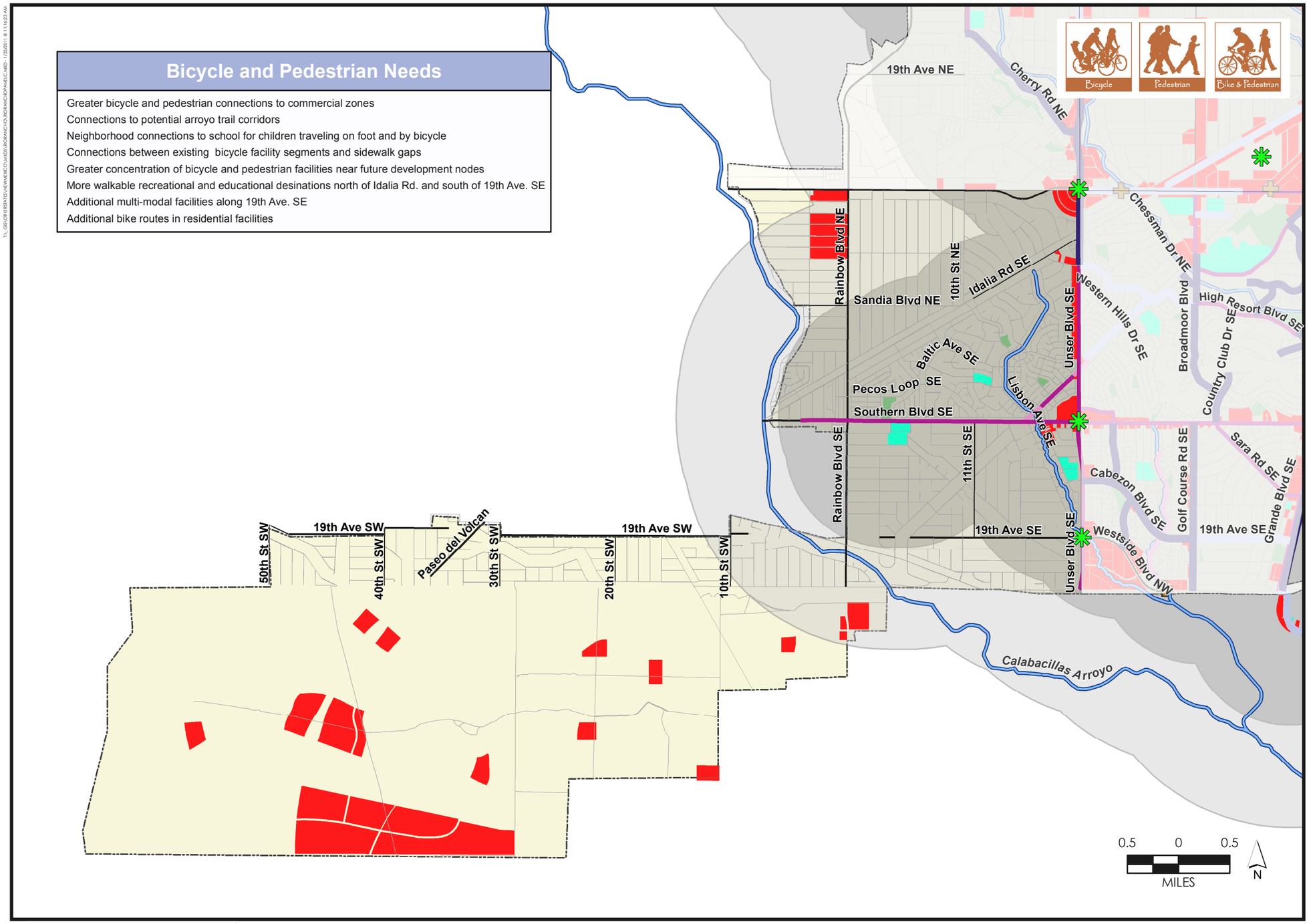
Southwest Rio Rancho Zone C

Bicycle and Pedestrian Needs

- Greater bicycle and pedestrian connections to commercial zones
- Connections to potential arroyo trail corridors
- Neighborhood connections to school for children traveling on foot and by bicycle
- Connections between existing bicycle facility segments and sidewalk gaps
- Greater concentration of bicycle and pedestrian facilities near future development nodes
- More walkable recreational and educational desinations north of Idalia Rd. and south of 19th Ave. SE
- Additional multi-modal facilities along 19th Ave. SE
- Additional bike routes in residential facilities



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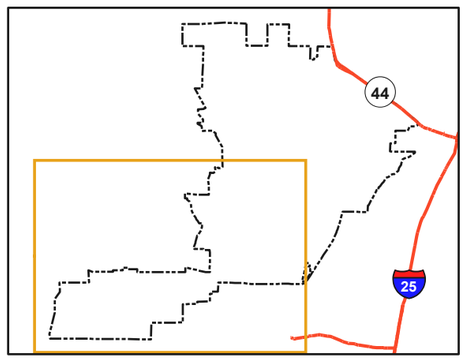
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial
- Walkshed
- Bikeshed
- City Limits



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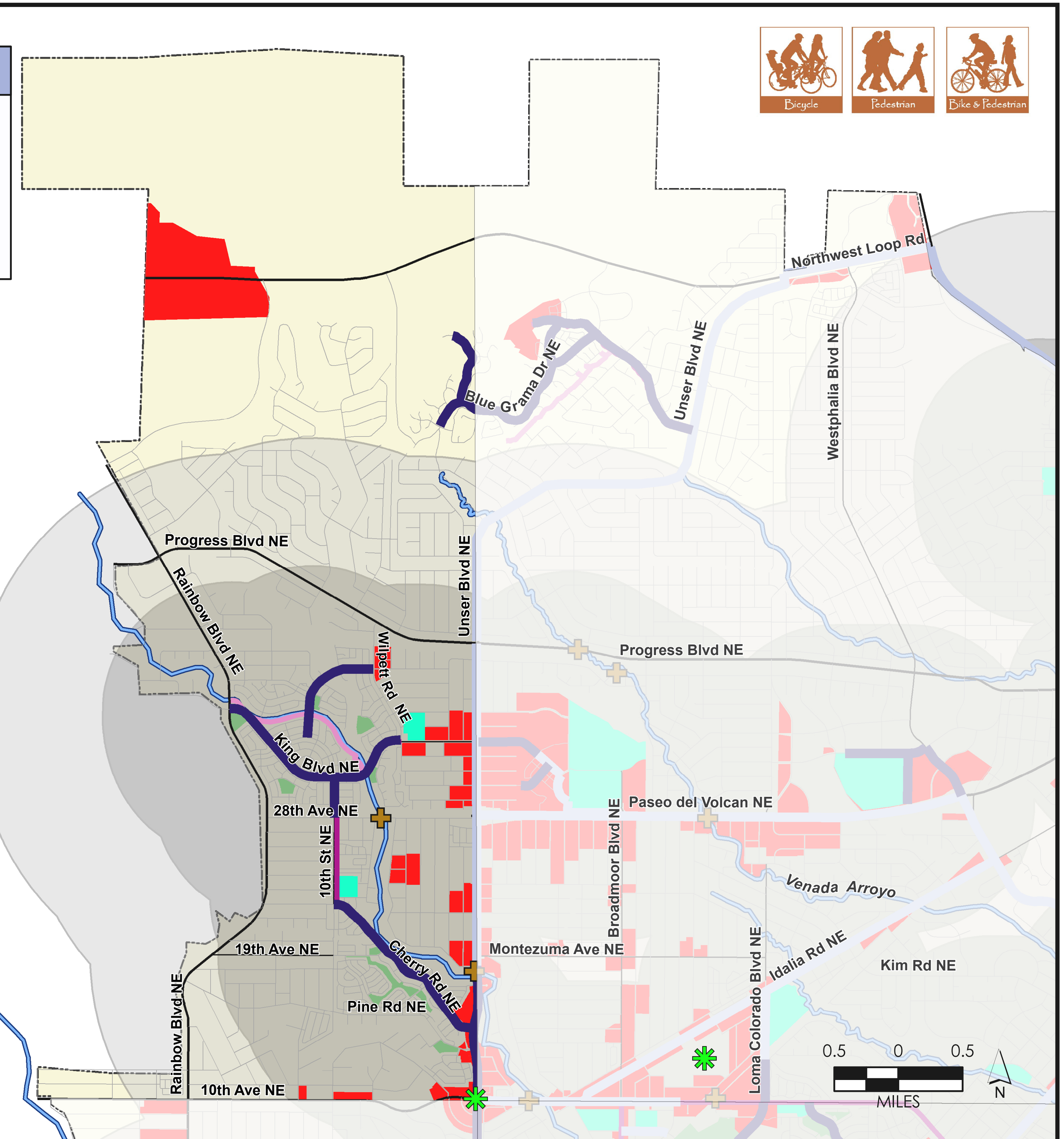
Northwest Rio Rancho Zone D

Bicycle and Pedestrian Needs

Greater bicycle and pedestrian connections to commercial destinations along Unser Blvd.
Connections to potential arroyo trail corridors
Neighborhood connections to school for children traveling on foot and by bicycle
Connections between existing bicycle facility segments and sidewalk gaps
Greater concentration of bicycle and pedestrian facilities near future development nodes
Greater access to educational and recreational destinations for neighborhoods north of Progress Blvd. and south of 19th Ave. ND



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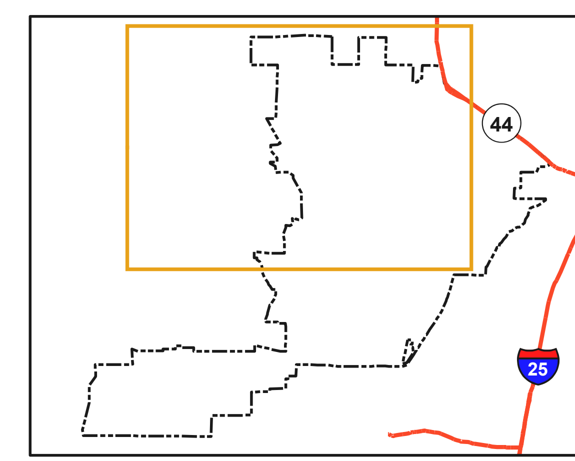
- Bikeshed
- City Limits



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City of Rio Rancho Bicycle and Pedestrian Master Plan

Chapter 2: Recommended Improvements

2. Recommended Improvements

2.1 INTRODUCTION

This chapter describes the types of projects recommended by this Plan to improve bicycling and walking in Rio Rancho. Maps are included to show key project locations (**Figures 2.1** through **2.4**). This chapter focuses on the facilities (trails, bike lanes, etc.) that will be built to improve walking and bicycling in Rio Rancho. Recommendations for the type of design of improvements are included as **Table 2.5.** Proposed policies and programs are addressed in Chapter 3: Goals, Policies, and Actions.

2.2 BICYCLE IMPROVEMENTS

Rio Rancho's cyclists ride most frequently during the warmer months of the year, from April through November. Residents ride for both recreation and commuting, though recreational riding is most prevalent, particularly in households with children. While maintenance of paths, trails, and bike lanes is generally good, residents surveyed believe there is room for improvement in the safety of intersections and crossings, keeping facilities free of debris, and maintaining trail and roadway surfaces.

A more complete and well-maintained bicycle network may encourage more residents and visitors to bicycle as an alternate mode of transportation. Greater opportunities for safe and efficient cycling routes will help first-time riders and experienced cyclists alike to ride more. Once implemented, the recommendations outlined below will expand and improve Rio Rancho's opportunities for walking and bicycling.

ON-STREET FACILITY RECOMMENDATIONS

Rio Rancho's opportunities for on-street bicycle facility improvements differ, depending on the intensity of existing development in a specific area. This difference in opportunity is particularly acute in areas where little or no development has occurred.

For existing development areas, the improvement of bicycle facilities will be more constrained than the development of new facilities alongside new roadways and buildings. The maps depicting recommended improvements for bicycle and pedestrian facilities focus on improvements to existing development areas.

New development area improvements will accommodate bicycles and pedestrians, though the specific improvement locations will be identified as part of future specific area planning documents.

Facility Improvements in Existing Areas

In older areas of the city with established roadways, opportunities exist for expansion of

dedicated on-street bicycle facilities. An example of this scenario is Sara Drive, between NM 528 SE and Southern Boulevard, where significant right-of-way exists to widen the roadway to allow for bicycle lanes in both directions. In the existing configuration, riders are sharing wide sidewalks with pedestrians. Adding dedicated bicycle lanes will enhance safety for both cyclists and pedestrians in this corridor, which is an important commuting link to and from Rio Rancho.

- **Existing areas may particularly benefit from intersection and crossing improvements.** Intersection and crossing improvement recommendations for bicyclists are depicted on **Figures 2.1** through **2.4** as opportunities for complete streets and trail access. These improvements will primarily take two forms:

  - **Intersection improvements where two large arterial roadways meet.** Lane restriping to provide bicycle turn lanes for left turns and dashed striping for through-bicycle lanes in instances where a dedicated right turn lane exists. (See **Table 2.5** for examples.)

  - **Crossing improvements at the intersection of a trail and a residential collector street.** These crossings may benefit from a mid-block refuge island or high-visibility striping. Additionally, trail crossing improvement should include signage warning trail users of the impending crossing and requiring a full stop from trail users before entering the roadway. (See **Table 2.5** for examples.)

According to the 2010 resident survey, the greatest perceived need for bicycling and walking facilities is in the southeast portion of the city. This area is located close to employment and commercial centers along the NM 528 corridor, and with largely level topography has great potential for increased walking and cycling.

Facility Improvements in New Development Areas

The City of Rio Rancho currently requires that all new roadway construction accommodate bicyclists with dedicated bicycle lanes. This requirement for new construction has meant that in areas of the city with recently constructed roadways, a good network of on-street facilities currently exists.

Rio Rancho's new development areas already use "sharrows" to indicate that cars and bicycles should share the road.

Residents of the new development areas in northern Rio Rancho report more unsafe intersections or crossings than residents of the southern portion of the city. It is recommended that intersection and crossing improvements outlined in the previous section be applied to new development areas as well.

Areas of Rio Rancho that are yet to be developed will also be required, through the policies contained in this Plan, the City's Comprehensive Plan, and relevant Specific Area Plans, to provide adequate on-street bicycle facilities.

Table 2.1 shows the highest priority recommended on-street bicycle facility projects. A comprehensive list of all projects depicted on the maps is included as Appendix D.

SUPPORT FACILITY RECOMMENDATIONS

A comprehensive on-street bicycle network must be supported by other facilities, in order to provide a viable transportation alternative for cyclists.

According to the 2010 resident survey, Rio Rancho cyclists are overall most concerned with the provision of safe cycling facilities. To enhance safety along bicycle lanes, it is recommended that lighting be installed at a frequency of no less than one-quarter-mile intervals. Additionally, landscaping that beautifies the streetscape without compromising cyclist safety is important. For example, plants that drop leaves or thorns, such as "goatheads," can puncture tires. For facilities where such vegetation is present, additional maintenance may be required and facilities should be designed with this issue in mind.

Bicycle parking is also an essential support facility that should accompany the expansion of bicycle lanes. Bicycle parking is discussed further at the end of this chapter.

2.3 PEDESTRIAN FACILITY IMPROVEMENTS

Pedestrian-friendly environments feature enough room to walk or travel comfortably and safely, landscaping for shade and visual interest, slow vehicle speeds, and safe and convenient crossings, and may feature a mix of land uses.

Rio Rancho's existing sidewalks vary in the type of improvement necessary to encourage additional pedestrian activity. Sidewalks in newly developed areas, such as those in Loma Colorado and within the Civic Center, are designed with pedestrians in mind. Landscaping and crossings encourage children and parents to walk to nearby schools and residents to walk for recreation and exercise.

In older neighborhoods of Rio Rancho, sidewalks may be uninviting to pedestrians, due to a lack of landscaping or little separation from vehicles traveling at high speeds.

Table 2.1: Priority On-Street Bicycle Facility Recommendations

Project Name	Facility Type	Length	Location and Parameters		Connection to Existing?	Possible ROW Needed?	Zone	Cost
		Miles	Start	End	(Y/N)	(Y/N)		
Northern Blvd	Proposed Lane	5.5	Loma Colorado Dr NE	Hondo Road SW	Yes	Yes	A, B, C, D	$66,729
Chayote Rd	Proposed Lane	3.6	US 550	Idalia Rd NE	Yes	No	A	$43,298
Rainbow Blvd	Proposed Lane	3.8	Northern Blvd NE	23rd Ave SE	Yes	No	C	$46,439
Idalia Rd NE	Proposed Lane	6.2	Northern Blvd NE	Hwy 528	Yes	Yes	A	$74,386
Progress Blvd	Proposed Lane	8.1	Venture Dr NW	Chayote Rd NE	No	No	A, D	$98,215
Chessman Dr NE	Proposed Lane	0.8	Powerline Trail	Idalia Rd NE	No	Yes	B	$9,880
Idalia Rd NE	Proposed Lane	2.6	Unser Blvd NE	Rainbow Blvd	No	No	C	$31,535
Southern Blvd SE	Proposed Lane	5.5	Rio Rancho Blvd SE	8th St SW	Yes	Yes	B, C	$65,956
Unser Blvd	Proposed Lane	4.5	Progress Blvd NE	Hawk Rd NE	Yes	Yes	A	$53,963
Unser Blvd	Proposed Lane	2.5	Progress Blvd NE	Farol Rd NE	Yes	Yes	D	$30,484
Westphalia Blvd NE	Proposed Lane	4.0	Northwest Corridor	Klamath Rd NE	Yes	No	A	$48,202
Idalia Rd	Proposed Route	0.6	Chessman Dr NE	Unser Blvd NE	Yes	No	B	$873
Idalia Rd SW	Proposed Route	1.0	Rainbow Blvd	Southern Blvd SW	No	No	C	$1,425
Western Hills Dr SE*	Proposed Route	1.7	Unser Blvd SE	Southern Blvd SE	Yes	No	B	$2,541
Baltic Ave SE/Pecos Loop*	Proposed Route	1.8	Lisbon Ave SE	Rainbow Blvd	No	No	C	$2,694

** Recommended Bike Boulevard*

Lack of landscaping and other amenities will discourage pedestrians from using sidewalks and trails.

Recommendations for improvements of the pedestrian environment in Rio Rancho are depicted on **Figures 2.1** through **2.4** as pedestrian connections. Pedestrian connection improvements such as pedestrian cut-through, mid-block, and high-visibility crossings and landscaping and lighting can encourage safe pedestrian travel in areas such as school and commercial zones. **Table 2.5**, Recommended Design Elements, provides examples of the pedestrian connection improvements that should be used to enhance these zones.

Table 2.2 shows the highest priority recommended pedestrian connection projects. A comprehensive list of all projects depicted on the maps is included as Appendix D.

Table 2.2: Priority Pedestrian Connection Recommendations

Project Description	Location	Zone	Cost
Additional and high-visibility crossings to improve safe routes to school (SRTS) at Vista Grande Elementary School	Chayote Road at Enchanted Hills	A	Variable
Access to retail and additional high-visibility crossings	NM 528 between Kim Rd NE and Iris Road/Riverside Drive	A	Variable
Complete sidewalk network on south side of Southern Blvd and add crossings between the school and Rainbow Park, including high-visibility mid-block crossings and other SRTS connections	Southern Blvd between Rainbow Road and Baltic Avenue SE	C	Variable
Sidewalk extension and crossing improvements	King Blvd from Unser Blvd to Wilpett Rd	D	Variable

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Northeast Rio Rancho Zone A

Recommended Improvements

- A — Trail Access Opportunity
- I — Intermodal Connection
- Pedestrian Connection
- Complete Street

Note: Improvement locations may not be specified in new development areas, pending future specific area planning. Master Plan policies (Chapter 3) provide for bicycle and pedestrian accommodation in these areas.

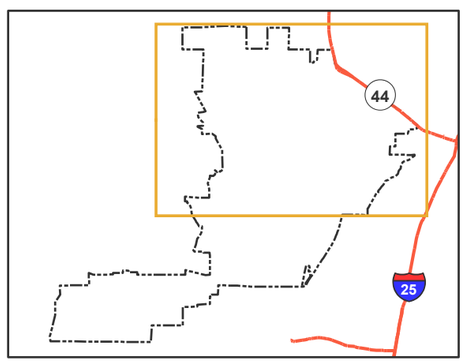
Bicycle | Pedestrian | Bike & Pedestrian

Legend

- Development Nodes
- Grade Separation Crossings
- Principal Arterial
- Minor Arterial
- Collector/Private
- Bike Lane
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Proposed Lane
- Proposed Route
- Proposed Path
- Proposed Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial Land Uses
- City Limits

Northwest Loop Rd
Blue Grama Dr NE
Unser Blvd NE
Westphalia Blvd NE
Chayote Rd NE
Springer Dr NE
Enchanted Hills Blvd NE
Camino Encantadas
Progress Blvd NE
Wilpett Rd NE
King Blvd NE
Lincoln Ave NE
Nativitas Rd NE
Paseo del Volcan NE
Idalia Rd NE
Willow Creek Rd NE
10th St NE
Broadmoor Blvd NE
Venada Arroyo
Iris Rd NE
Rio Rancho Blvd NE
Riverside Dr NE
19th Ave NE
Montezuma Ave NE
Cherry Rd NE
Kim Rd NE
Loma Colorado Blvd NE
La Barranca Arroyo Dr
Saratoga Dr
Northern Blvd NE
Pat D'Arco Highway
Corrales Rd
Rainbow Blvd NE
528

0.5 0 0.5
MILES
N



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Southeast Rio Rancho Zone B

Recommended Improvements

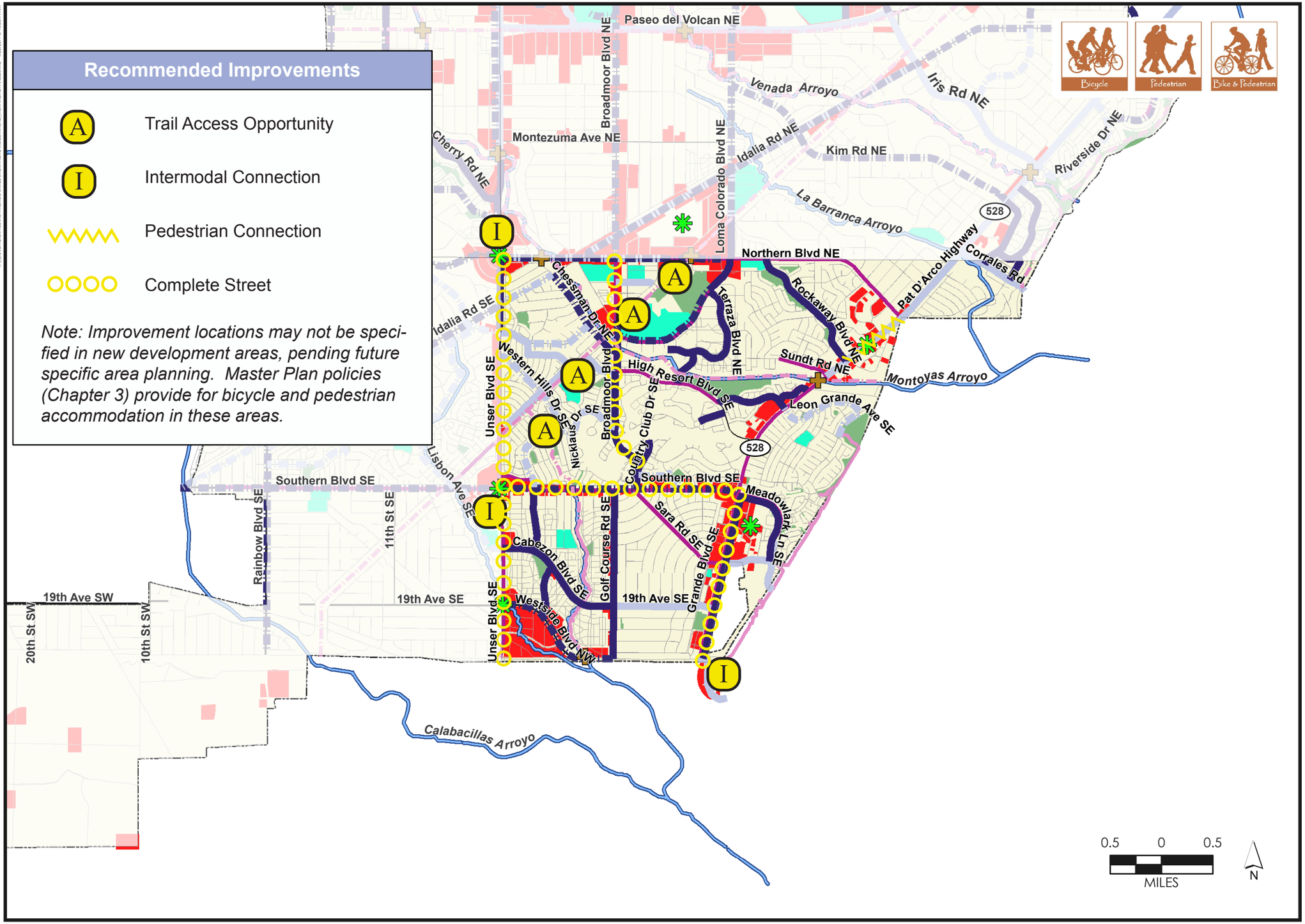
- A — Trail Access Opportunity
- I — Intermodal Connection
- Pedestrian Connection
- Complete Street

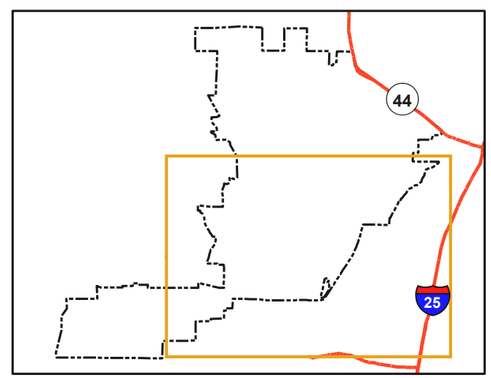
Note: Improvement locations may not be specified in new development areas, pending future specific area planning. Master Plan policies (Chapter 3) provide for bicycle and pedestrian accommodation in these areas.

Bicycle | Pedestrian | Bike & Pedestrian

Legend

- Development Nodes
- Grade Separation Crossings
- Principal Arterial
- Minor Arterial
- Collector/Private
- Bike Lane
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Proposed Lane
- Proposed Route
- Proposed Path
- Proposed Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial
- City Limits





City of Rio Rancho Bicycle and Pedestrian Master Plan

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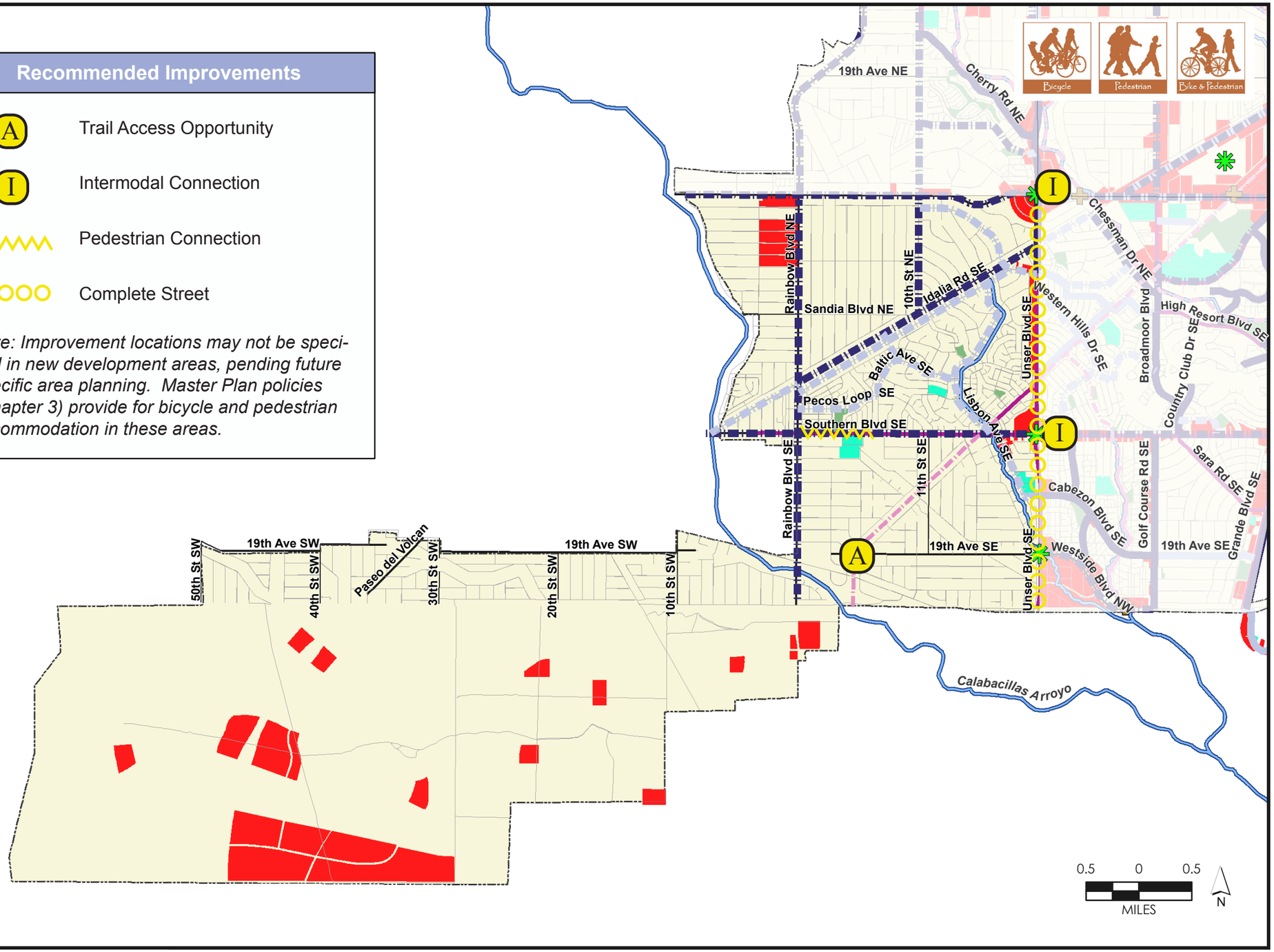
Southwest Rio Rancho Zone C

Recommended Improvements

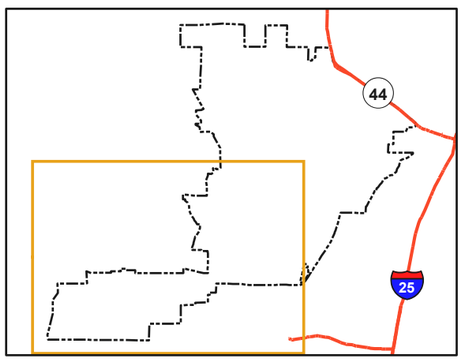
- (A) Trail Access Opportunity
- (I) Intermodal Connection
- Pedestrian Connection
- Complete Street

Note: Improvement locations may not be specified in new development areas, pending future specific area planning. Master Plan policies (Chapter 3) provide for bicycle and pedestrian accommodation in these areas.



Legend

- Development Nodes
- Grade Separation Crossings
- Principal Arterial
- Minor Arterial
- Collector/Private
- Bike Lane
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Proposed Lane
- Proposed Route
- Proposed Path
- Proposed Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial
- City Limits



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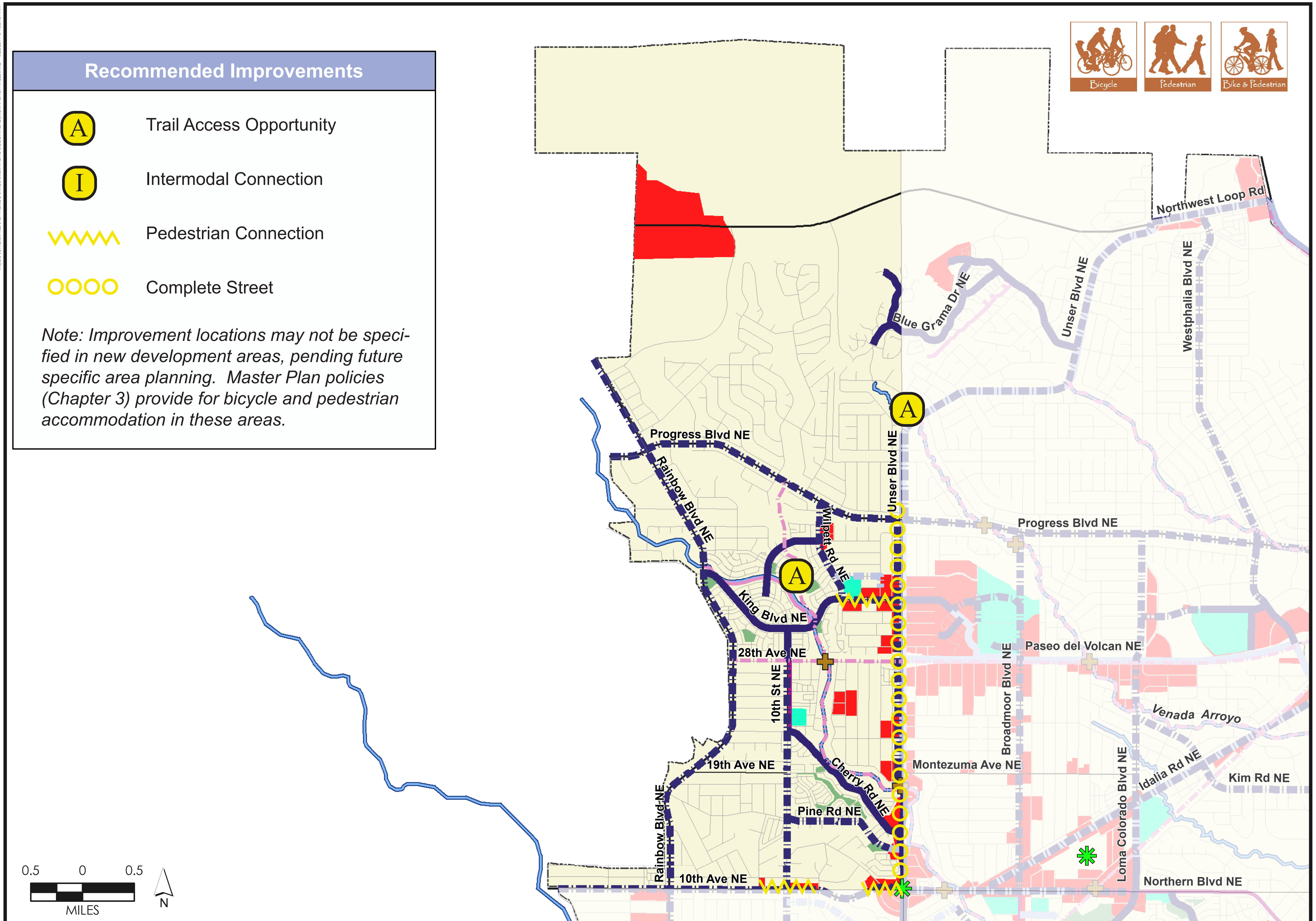
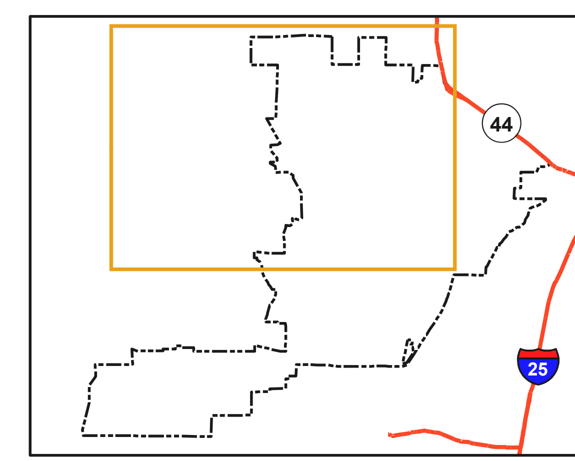
Northwest Rio Rancho Zone D



Legend

- Development Nodes
- Grade Separation Crossings
- Principal Arterial
- Minor Arterial
- Collector/Private
- Bike Lane
- Bike Route
- Bike Path
- Bike Trail
- Unpaved Trail
- Proposed Lane
- Proposed Route
- Proposed Path
- Proposed Trail
- Arroyo (with 75' buffer Impact Area)
- School
- Parks and Rec Properties
- Commercial Land Uses
- City Limits



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City of Rio Rancho Bicycle and Pedestrian Master Plan

2.4 MULTI-USE PATHS AND TRAILS

PATH AND TRAIL DEVELOPMENT

The majority of planned multi-use paths and trails in Rio Rancho run alongside the many arroyos weaving throughout the city. Arroyos present scenic corridors for walking and biking trails, with excellent opportunities for expansion with the goal of creating a comprehensive, regional network of arroyo trails.

The City of Rio Rancho has existing agreements with the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) to maintain existing arroyo trails, such as the Enchanted Hills Trail along the Venada Arroyo in the Enchanted Hills neighborhood.

Working collaboratively with SSCAFCA, the City has an opportunity to develop an extensive network of arroyo trails. However, not all arroyo land in SCCAFCA's ownership is suitable for a trail segment. Additionally, SSCAFCA's role in trail development is supportive, and the City will need to prioritize the trail segments for funding development. Trail construction is expensive relative to the construction of on-street bicycle facilities, and collaboration across agencies and jurisdictions will be essential to implementing the network.

This Plan presents a Trail Decision Chart (located in Chapter 4: Implementation) to assist the City in prioritizing trail development projects. This tool will help staff to see through the multitude of potential projects to identify trail segments that will be easy to implement and provide a significant benefit to the overall network. Trails with less benefit for greater cost may be developed as funding allows, but a prioritization system will help to ensure that trail development continues at a steady pace.

Maintenance of trails is currently shared by the City's Parks, Recreation and Community Services and Public Works departments and is addressed further in Chapter 4: Implementation.

Table 2.3 shows the priority trail and path development projects recommended by this Plan. A comprehensive list of all trail projects is included in Appendix D and depicted on **Figures 2.1** through **2.4.**

Table 2.3: Priority Trail and Path Recommendations

Project Name	Facility Type	Length		Location and Parameters		Connection to Existing?	Possible ROW Needed?	Zone	Cost
		Feet	Miles	Start	End	(Y/N)	(Y/N)		
Montoya's Arroyo Trail	Proposed Trail	39,430	7.5	King Blvd NE	Camino de la Tierra	Yes	Yes	A, B, D	$3,126,713
Powerline Trail	Proposed Trail	11,348	2.1	Southern Blvd SE	City Limit	Yes	Yes	C	$597,230
Rio Grande	Proposed Trail	16,364	3.1	Willow Creek Rd NE	Corrales Rd	No	Yes	A, B	$861,246
La Barranca Arroyo	Proposed Trail	44,564	8.4	Unser Blvd NE	Rio Grande	No	Yes	A	$2,345,568
Barranca's Arroyo Trail	Proposed Trail	8,442	1.6	Progress Blvd NE	King Blvd NE	No	Yes	D	$444,380
Venada Arroyo Trail	Proposed Trail	39,822	7.5	Unser Blvd NE	Hwy 528	No	Yes	A	$2,096,004
Paseo del Volcan	Proposed Trail	46,483	8.8	Rainbow Blvd NW	US 550	No	Yes	A, D	$2,446,727
Powerline Trail	Proposed Trail	36,560	6.9	Chayote Rd NE	Summer Winds Dr NE	No	Yes	A, B	$1,924,255
Nicklaus Channel Path	Proposed Trail	6,585	1.2	Powerline Trail	Cabezon Linear Park Bike Trail	Yes	Yes	B	$346,555
Willow Creek Rd	Proposed Path	5,215	1.0	Cabezon Dr NE	Spruce Mountain Loop NE	Yes	Yes	A	$128,121
US 550	Proposed Trail	9,043	1.7	Northwest Corridor	Chayote Rd NE	No	Yes	A	$476,061

SUPPORT FACILITY RECOMMENDATIONS

Multi-use paths and trails should have support facilities, as appropriate for their location and level of development. Trails running through urbanized areas of Rio Rancho, such as those adjacent to parks, should include amenities such as shade structures and benches.

At a minimum, Rio Rancho's trails should feature:

- Seating, every half mile
- Signage, at every key access point and key intersection
- Litter receptacle with dog waste station, every half mile

This trailhead can be redesigned to better accommodate cyclists with gates that allow bicycles to pass without the need to dismount.

TRAILHEAD PARKING

Trails that depart from or arrive in residential neighborhoods may need dedicated off-street parking areas. Parking should be considered in the design of any new trail or path facilities. The size and materials used in parking lot design may vary by location, based on level of anticipated trail use, sensitivity of habitat, anticipated maintenance level, and community input.

The trail access opportunities shown in **Table 2.4** are recommended for priority implementation. Because trail access requires additional feasibility study and community engagement, each access point location is general and for planning purposes only. Access opportunities are shown on each map with an "A".

Table 2.4: Priority Trail Access Opportunities

Access Point Location Description	Zone
Powerline Trail at Progress Boulevard near Lincoln Avenue and Chayote Road	A
Powerline Trail and Montoya's Arroyo Trail at Broadmoor Boulevard near Loma Colorado Boulevard	B
Powerline Trail at 19th Avenue	C
La Barrancas Arroyo Trail at UNM Campus, City Center	A

2.5 RECOMMENDED BICYCLE AND PEDESTRIAN DESIGN GUIDELINES

The design of bicycle paths and trails, lanes, and routes are outlined in Chapter 3 as standards. However, the overall environment for bicycling and walking can be greatly improved beyond the striping of a lane or paving of a trail through the use of other design elements. The recommendations that follow should be used to enhance bicycle and pedestrian facilities throughout Rio Rancho. Recommended improvement locations are shown as complete streets and pedestrian connections on **Figures 2.1** through **2.4**.

BICYCLE PARKING

Bicycle parking helps to make cycling a convenient and enjoyable mode of travel and recreation. Well-designed bicycle parking will augment the pedestrian streetscape and provide room for bicyclists to store their vehicles and pedestrians and other non-motorized travelers to move along the street. Well-designed bicycle parking will provide secure storage while minimizing the impact to landscaping and street furnishings.

Bicycle racks should:

- Support the bicycle in at least two locations
- Allow locking of the frame and at least one wheel with a U-lock
- Be securely anchored to the ground
- Be sturdy and resistant to wear and tear, weather, and vandalism

The following rack types meet each recommended criteria and are recommended for use in Rio Rancho (see also BPTMP Policy 8):

Other rack types may be suitable for different bicycle storage situations, such as bicycle cages, indoor storage, bicycle valet parking, and so forth. The acceptability of bicycle storage types beyond those recommended above should be evaluated on a case-by-case basis in locations where they are proposed.

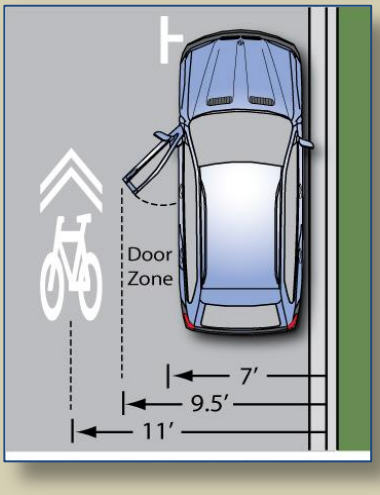
According to the 2009 resident survey, Rio Rancho's cyclists are only somewhat satisfied with secure bicycle parking at restaurants and shops.

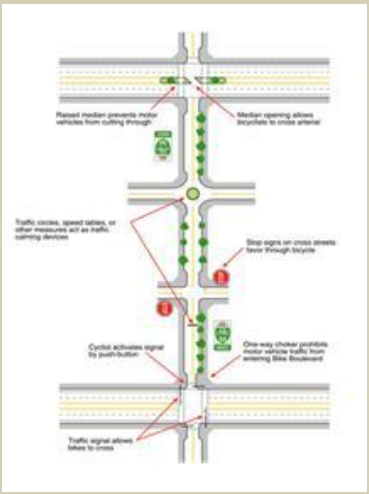
In areas with a high density of commercial businesses and a focus on the pedestrian streetscape, for example Downtown, in-street bicycle corrals may be considered. This option offers a concentration of bicycle parking that can serve surrounding businesses, without hindering pedestrian traffic and the location of sidewalk dining or other amenities.

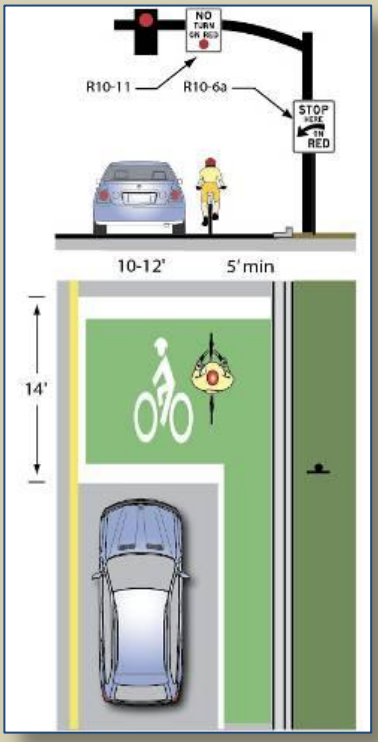
Short-term bicycle parking (bicycle racks) should be located no more than 50 feet from the cyclists' destination, for the convenience of the cyclist and to prevent bicycles from being locked to street furniture or other items closer to the destination. Bicycle racks should be well signed and convenient for cyclists.

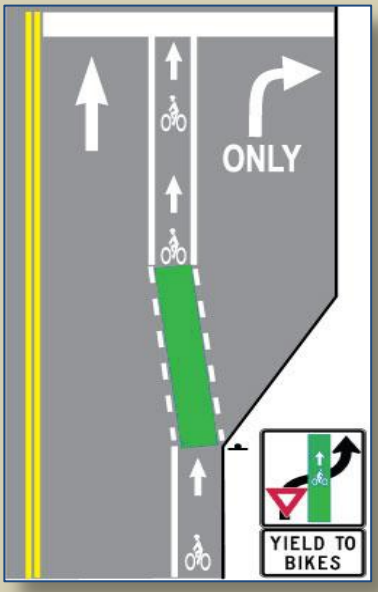
Bicycle parking in commercial zones may feature urban design elements that contribute to an attractive streetscape. These elements may provide additional functionality such as lighting or protection from weather.

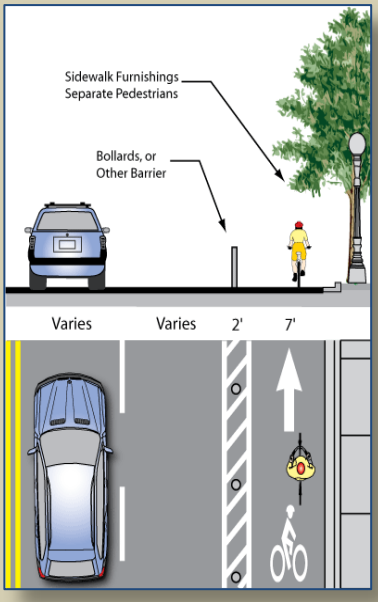
Table 2.5: Recommended Design Elements

Recommended Bicycle Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Bicycle Wayfinding Signage	• Should include key destinations such as schools, commercial districts, and parks, • Should include distances to each destination, • Should be installed at key access points and intersections incrementally throughout the bicycle network and at key intersections.	
Shared Use Arrows ("Sharrows ")	• Often used on streets where dedicated bike lanes are desirable but are not possible due to physical or other constraints. • Place strategically in the travel lane to alert motorists of bicycle traffic while also encouraging cyclists to ride at an appropriate distance from the "door zone" of adjacent parked cars. • Placed in a linear pattern along a corridor (typically every 100–200 feet), sharrows also encourage cyclists to ride in a straight line so their movements are predictable to motorists. • Place at least 11 feet from face of curb (or shoulder edge) on streets with on-street parking. • Place at least 4 feet from the face of curb (or shoulder edge) on streets without on-street parking. • Should not be used on roadways with a speed limit over 35 mph. • When used, the marking should be placed immediately after an intersection and spaced at intervals no greater than 250 feet thereafter. • To increase the life of the markings, place between vehicle tire tracks if possible.	 

Recommended Bicycle Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Bicycle Boulevards	• Treatments include five "application levels" based on their level of physical intensity, with Level 1 representing the least physically intensive treatments that could be implemented at relatively low cost. • Incorporate treatments to facilitate safe and convenient crossings where the route crosses a major street. • Work best in well-connected street grids where riders can follow reasonably direct and logical routes and when higher-order parallel streets exist to serve through vehicle traffic. • Consider repaving the street if potholes exist for constructing a bicycle boulevard. • Note: See Appendix D, Complete Project List, for bicycle boulevard project recommendations for Rio Rancho.	  

Recommended Bicycle Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Bicycle Boxes	• Should be 14 feet deep to allow for bicycle positioning. • Appropriate signage as recommended by the *Manual on Uniform Traffic Control Devices* (MUTCD) applies. Signage should be present to prohibit right turn on red and to indicate where the motorist must stop. • The bicycle box is generally a right-angle extension of a bike lane at the head of a signalized intersection. • Allow for bicyclists to move to the front of the traffic queue on a red light and proceed first when that signal turns green. • Motor vehicles must stop behind the white stop line at the rear of the bicycle box. • Can be combined with dashed lines through the intersection for green light situations to remind right-turning motorists to be aware of bicyclists traveling straight. • Install with striping only or with colored treatments to increase visibility. • Use of coloration substantially increases costs of maintenance over uncolored treatments. • Should be located at signalized intersections only. • Right turns on red should be prohibited in order to improve safety. • Should be used in locations that have a large volume of cyclists, and are often utilized in central areas where traffic is usually moving slowly.	 

Recommended Bicycle Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Colored Bike Lanes	• Include signage alerting motorists of vehicle/bicycle conflict points. • For use where the volume of conflicting vehicle/bicycle traffic is high and the conflict area is long. • Blue, green, and red are common colors used to make the bike lane stand out in conflict areas. • Colored bike lanes draw attention to conflict areas, increase motorist yielding behavior, and emphasize expectation of bicyclists on the road. • Colored bike lanes are not currently adopted as a standard marking in the U.S. • This treatment is not currently present in any state or federal design standards. May be used as a pilot project, in coordination and with the approval of the Federal Highway Administration.	  

Recommended Bicycle Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Cycle Tracks	• An exclusive bicycle facility that combines the user experience of a separated path with the on-street infrastructure of a conventional bike lane. • Cycle track widths are recommended to be a 7-foot minimum to allow for passing and a 12-foot minimum for a two-way facility. • Can be one way or two ways on one or both sides of a street and are separated from vehicles and pedestrians by pavement markings or coloring, bollards, curbs/medians, or a combination of these elements. • Provide increased comfort for cyclists, greater clarity about expected behavior, and fewer conflicts between bicycles and parked cars as cyclists ride inside the parking lane and space to reduce the danger of "car dooring." • Disadvantages include increased vulnerability at intersections, regular street sweeping trucks cannot maintain the cycle track (requires smaller sweepers), and conflicts with pedestrians and bus passengers can occur, particularly on cycle tracks that are undifferentiated from the sidewalk or that are between the sidewalk and a transit stop. • Should be placed along slower-speed urban/suburban streets with long blocks and few driveways or mid-block access points for vehicles. • When located on one-way streets, cycle tracks will have fewer potential conflicts than those on two-way streets. • Should be constructed along corridors with adequate right-of-way. • Sidewalks or other pedestrian facilities should not be narrowed to accommodate the cycle track, as pedestrians will likely walk on the cycle track if sidewalk capacity is reduced.	  

Recommended Bicycle Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
	• Pavement markings should be present to make it easy to understand where cyclists and pedestrians should be moving. • Cycle tracks create additional considerations at intersections but can be addressed by applying several treatments including protected phases at signals, advanced signal phases, access management, and unsignalized treatments.	

Recommended Pedestrian Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Street Furniture	• Benches encourage people to use the shared-use path or walkways by providing rest areas and viewpoints. • To accommodate people of all ages, benches should be 20 inches tall. • Benches can be constructed of stone or wrought iron.	  

Recommended Pedestrian Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Informational Kiosks and Pedestrian Maps	• Informational kiosks provide a variety of information such as rules of the road, emergency contact information, pedestrian maps, historical interpretation, and other valuable data. • Pedestrian maps should include the sidewalk and street network within a designated area and can also include points of interest, historical data, and city facts.	 
Bulbouts	Landscape bulbs • Reduce the crossing width of streets for pedestrians, making pedestrians more visible in a crosswalk, and add space to sidewalks that can be used for pedestrian amenities and activities. • Make pedestrian crossing more comfortable and safer because drivers are forced to slow down when they turn the corner.	 landscape bulb

Recommended Pedestrian Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
	Bus bulbs • Give bus riders more space to wait for buses and can include amenities like shelters and trees. • Allow for better visibility of transit riders waiting at stops. • Can be an effective traffic calming strategy for traffic adjacent to the curb.	 bus bulb
Curb Extensions	• Minimize pedestrian exposure during crossing by shortening crossing distance, and give pedestrians a better chance to see and be seen before crossing. • Appropriate for any crosswalk where it is desirable to shorten the crossing distance and there is a parking lane adjacent to the curb. • Can be used as bus stop locations to improve safety for transit riders. • Should be designed to transition between the extended curb and the running curb in the shortest practicable distance. • For efficient street sweeping, the minimum radius for the reverse curves of the transition is 10 feet and the two radii should be balanced to be nearly equal. • Should stop 1 foot short of the parking zone for bicycle safety.	
Wide and Continuous Sidewalks	• Should have a level, hard surface and be separated from motor vehicle traffic by a curb, buffer, or curb with buffer. • Continuous sidewalk networks improve mobility for all pedestrians and are particularly important for pedestrians with disabilities. • The preferred minimum sidewalk width recommended for safe routes to schools (SRTS) is 5 to 6 feet.	

Recommended Pedestrian Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Pedestrian Crossing Treatments	• Treatments can include automated detection, curb extensions, in-pavement lighting, flags, flashing beacons, HAWK signals, in-roadway signs, lane reductions, rumble strips, markings and legends, overhead signs, pedestrian railings, raised markers (with LEDs), refuge islands, street lighting, raised crossings, and various pavement treatments. • The type of treatment should be based on an evaluation of the crossing location that includes physical data collection and traffic data collection.	 
Median Refuge Islands	• For use where roadway to be crossed is greater than 50 feet wide or more than 4 travel lanes or where distance is less to increase available safe gaps. • Use at signalized or unsignalized crosswalks. • Must be accessible, preferably with an at-grade passage through the island rather than ramps and landings. • Should have a median "nose" that gives protection to the crossing pedestrian. • Should be at least 6 feet wide between travel lanes and at least 20 feet long. • When speed is higher than 25 mph, there should also be double centerline marking, reflectors, and "Keep Right" signage. • If landscaped, the landscaping should not compromise the visibility of pedestrians crossing in the crosswalk.	

Recommended Pedestrian Design Elements		
Recommended Facility or Design Treatment	**Key Elements or Considerations**	**Graphical Example**
Paseos	• Offer pedestrian passageways that add dimension and improve connections to the downtown pedestrian network. • Add to pedestrian interest and overall architectural quality of downtown areas. • Can expand retail opportunity by allowing side entrances to commercial spaces and by providing outdoor space for restaurants and cafes. • May be acquired by the City and be public property, or may be privately developed as part of a larger development project. • Locations should be as close to mid-block crossings as feasible.	

Chapter 3: Goals, Policies, and Actions

Bicycle

3. GOALS, POLICIES, AND ACTIONS

3.1 INTRODUCTION

The following are the goals, policies, and actions that the City will implement to create a comprehensive bicycle and pedestrian transportation system in Rio Rancho. These goals, policies, and actions are intended to be complementary to and supportive of the City's other primary planning documents, including:

- The City of Rio Rancho Strategic Plan;
- The City of Rio Rancho Comprehensive Plan;
- The Broadmoor Drive Specific Area Plan;
- The Del Norte Specific Area Plan;
- The La Barranca Specific Area Plan;
- The Lomas Negras Specific Area Plan;
- The Northern-Unser Specific Area Plan;
- The Paseo Gateway Specific Area Plan; and
- The Sierra Vista Specific Area Plan

The goals, policies, and actions of this Master Plan are consistent with those of the City's Comprehensive Plan. The Comprehensive Plan is referenced in this document and provides specific guidelines that must be followed when implementing this Plan.

3.2 GOALS

The following are the goals of the Bicycle and Pedestrian Transportation Master Plan. Decision-making will be guided by the policies in the next section; the recommended actions in this Master Plan will direct the City to carry out specific steps to achieve these goals.

Goals are a statement of a target, an ambition, or an end state toward which the City is working. Goals do not say *how* their target will be achieved—that is the purpose of policies and actions.

The goals below are listed as following:

- Goals specific to this Bicycle and Pedestrian Transportation Master Plan
- Citywide goals from the City of Rio Rancho Comprehensive Plan
- Goals specific to various areas of Rio Rancho from the Specific Area Plans adopted by the City

BICYCLE AND PEDESTRIAN TRANSPORTATION MASTER PLAN GOALS

BPTMP Goal 1. An interconnected and continuous pedestrian and bicycle network that provides safe and attractive options for both local and regional trips and that provides connections to Rio Rancho's neighborhoods, schools, parks, employ-ment centers, and retail centers and to surrounding cities.

BPTMP Goal 2. A trail system that integrates the city's arroyos in a system of off-street multi-use trails for bicycle and pedestrian travel and recreation.

BPTMP Goal 3. A reduction in the number of vehicle miles traveled (VMTs) in Rio Rancho by increasing trips made by biking and walking.

CITYWIDE COMPREHENSIVE PLAN GOALS

The following are the City's overall bicycle- and pedestrian-related goals from the Rio Rancho Comprehensive Plan that support this Master Plan. The reader should consult the Comprehensive Plan for additional information on these and other goals that may affect a given project or area.

Transportation Goals

CP Goal TR-2: A balanced transportation system that provides access to a variety of transportation options (automobile, transit, BRT, rail, bicycle and pedestrian facilities).

CP Goal TR-3: A safe transportation system.

Urban Design Goals

CP Goal UD-6: Support development that links neighborhoods and encourages the use of all modes of transportation.

CP Goal UD-7: Create subdivision linkages to open space recreational facilities.

Parks and Recreation Goals

GOAL PR-1: Establish new and maintain existing recreation and senior centers, parks, trails and open space that foster a quality

community, support a strong economy, and meet the needs of current and future residents.

GOAL PR-2: Be responsive to the recreational needs of the community.

GOAL PR-3: Develop, operate, and maintain parkland, recreation facilities and senior centers in a sustainable manner.

GOAL PR-4: Modify existing parks and recreation facilities as needed to ensure safety, accessibility, and optimum use.

Designing for Pedestrians—From the Urban Design Element of the Rio Rancho Comprehensive Plan:

It is important to create roads and streetscapes with the pedestrian in mind, and encourage human scale design to form a walkable community. A key element to create a well rounded streetscape that promotes pedestrian activity is the creation of narrower streets, which in turn slows traffic and increases pedestrian safety, likewise broader landscape buffers and sidewalks can create the same sense of safety for pedestrians along streets with higher speed limits and traffic volumes.

3.3 POLICIES AND OBJECTIVES

The policies below are intended to guide decision-making on issues related to pedestrian and bicycle planning and facilities.

Citywide policies from the Rio Rancho Comprehensive Plan and policies specific to areas of the city governed by Specific Area Plans follow these general policies.

Policies provide guidance on the City's approach to an issue and help define how the City will respond to various issues. Policies may be used to express the City's preference on an issue, as in, *"The City encourages . . ."* In some cases, policies may be hard-and-fast rules (e.g., *"The City shall . . ."*); in others, they may provide more general guidance.

Objectives provide measurable milestones which serve as (1) steps toward achieving the City's bicycle and pedestrian goals, and (2) milestones whose status can be easily measured. Objectives serve as a "report card" for the City, helping Rio Rancho's decision-makers, planners, and residents measure progress and adjust priorities.

Actions are specific things that the City will do to implement the goals and policies in this Master Plan. In some cases, actions refer to a one-time plan or project (such as the adoption of an ordinance or the completion of a study); in others, the action is ongoing and will occur over a period of years.

BICYCLE AND PEDESTRIAN TRANSPORTATION MASTER PLAN POLICIES AND OBJECTIVES

BPTMP Policy 1: Encourage bicycle and pedestrian circulation and access around the city and at the neighborhood level through the design, installation, and maintenance of roadways and bicycle and pedestrian facilities, including bicycle racks and lockers at transit hubs.

BPTMP Policy 2: The City shall encourage an increase in bicycle ridership and pedestrian trips over automobile traffic, as a way to improve traffic safety, air quality, and the health of Rio Rancho residents.

BPTMP Objective 1: By 2030, double the share of trips in Rio Rancho made by bike or walking, compared to 2010 levels.

BPTMP Objective 2: By 2030, provide the following:

- An additional 50 miles of off-street multi-use bicycle/pedestrian trails
- An additional 81 miles of on-street bicycle lanes
- An additional 18 miles of on-street bicycle routes
- An additional 50 miles of sidewalks
- 20 bicycle lockers at transit stations

BPTMP Policy 3: Grade-separated crossings or enhanced at-grade crossings shall be provided where multi-use trail facilities intersect arterial roadways at key locations to maximize the safety and attractiveness of bicycling and walking routes. Where possible, grade-separated crossings are preferred.

Grade-separated crossings provide a safe way for bicyclists and pedestrians to cross over or under (as shown above) a major street.

BPTMP Policy 4: The City's roadway cross-sections shall be designed to safely accommodate vehicles, cyclists, pedestrians, and transit, a concept known as "complete streets."

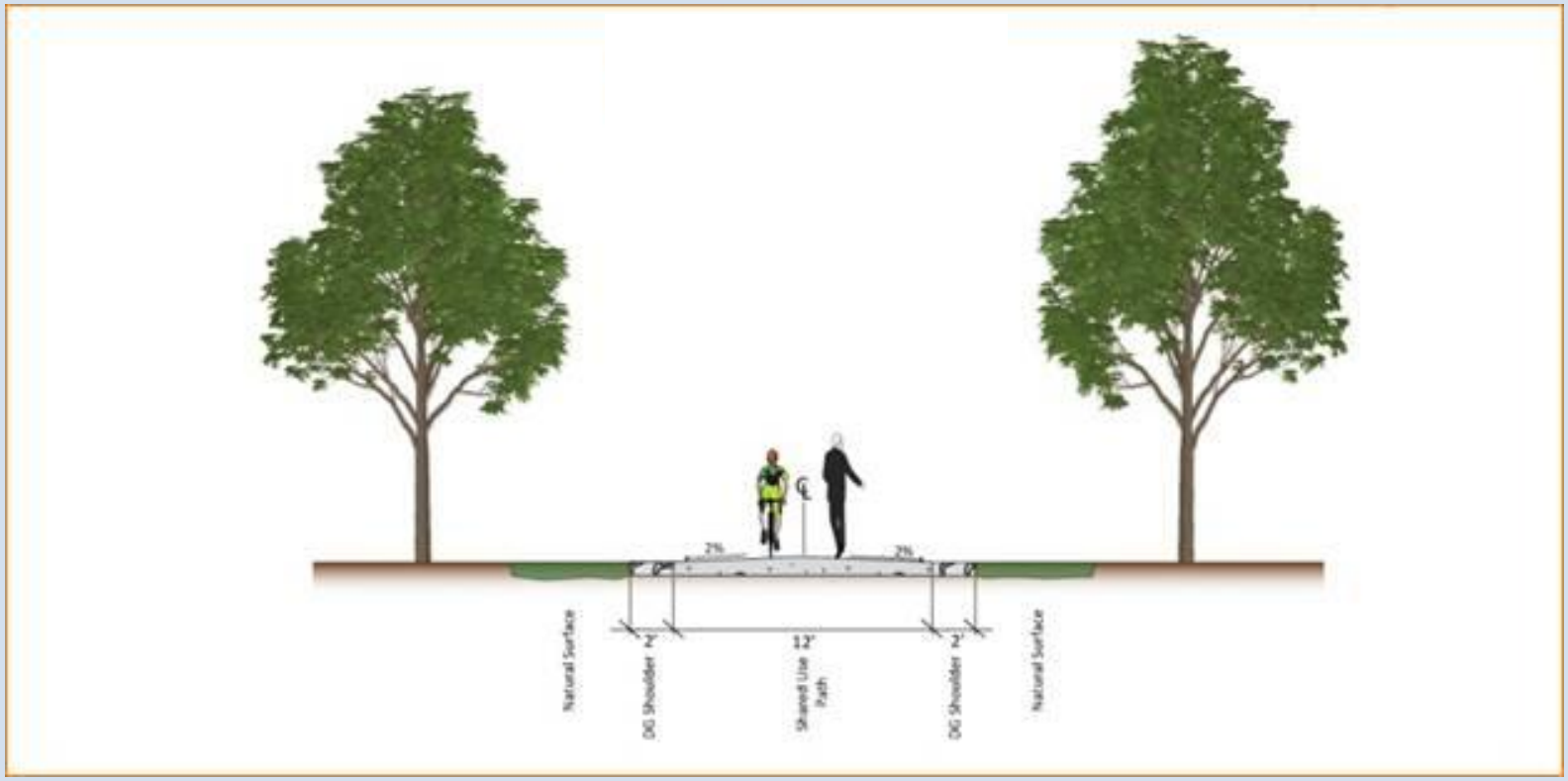
Complete streets safely accommodate vehicles, bicycles, and pedestrians.

BPTMP Policy 5: All bicycle facilities shall conform to standards published by the American Association of State Highway Transportation Officials (AASHTO).[1]

BPTMP Policy 6: The following are the City's design standards for pedestrian and multi-use trails:

[1] AASHTO's website is located at www.transportation.org.

Figure 3.1: Multi-Use Trail Design Standards



BPTMP Policy 7: The following are the City's design standards for on-street bicycle lanes on various street types, including:

- Local Street (**Figure 3.2: Policy 7.A)**
- Collector Street (**Figure 3.3: Policy 7.B**)
- Office Collector Street (**Figure 3.4: Policy 7.C)**
- 2-Lane Minor Arterial (**Figure 3.5: Policy 7.D**)
- 4-Lane Minor Arterial (**Figure 3.6: Policy 7.E**)
- 4-Lane Principal Arterial (**Figure 3.7: Policy 7.F**)
- 6-Lane Principal Arterial (**Figure 3.8: Policy 7.G**)

Note: In all of the figures below, landscaping and other features are shown for illustrative purposes only. Actual design components will be selected at the time that final plans are developed.

Figure 3.2: Policy 7.A – Local Street

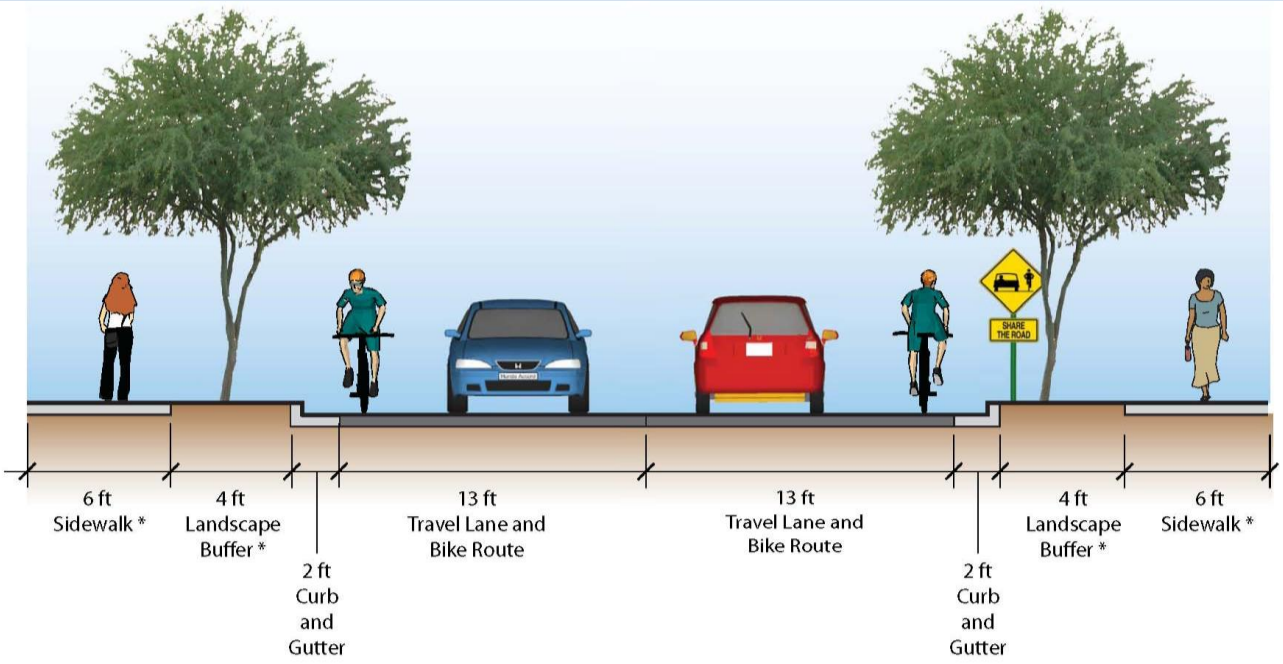


Figure 3.3: Policy 7.B – Collector Street

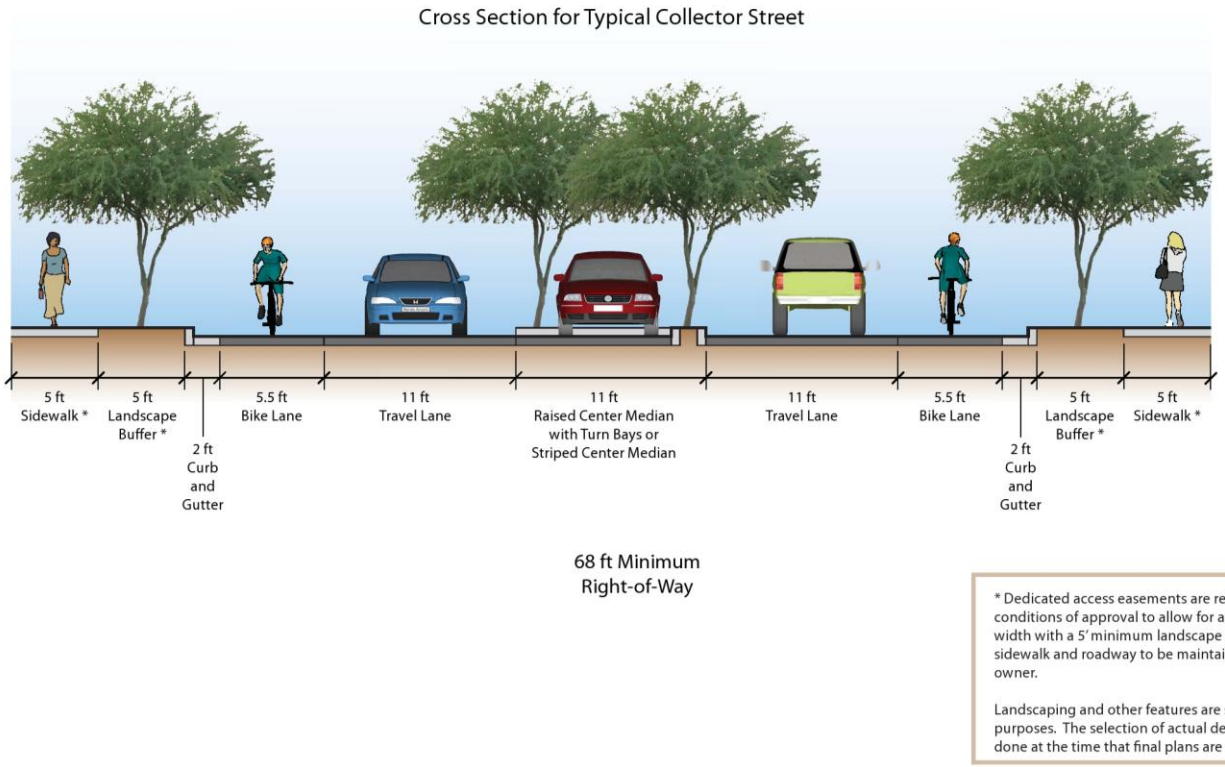


Figure 3.4: Policy 7.C – Office Collector Street

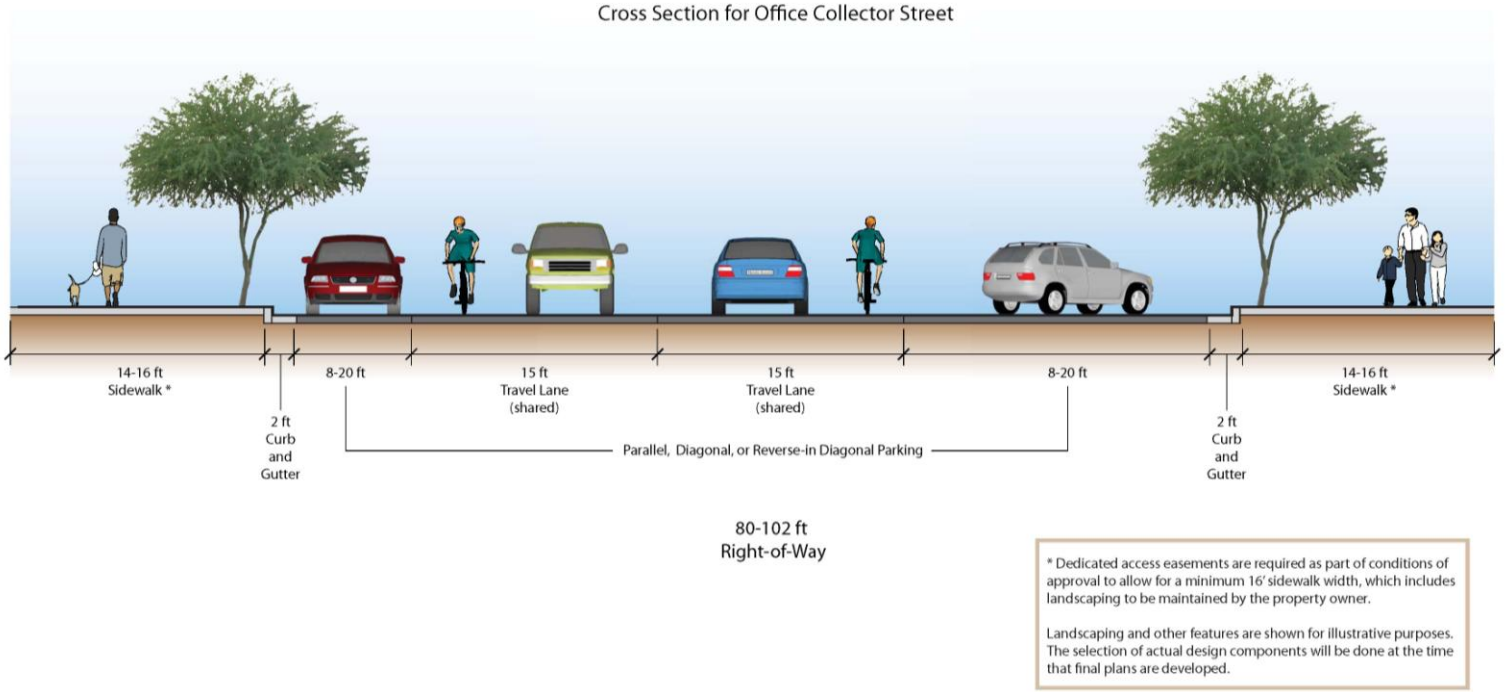


Figure 3.5: Policy 7.D – 2-Lane Minor Arterial

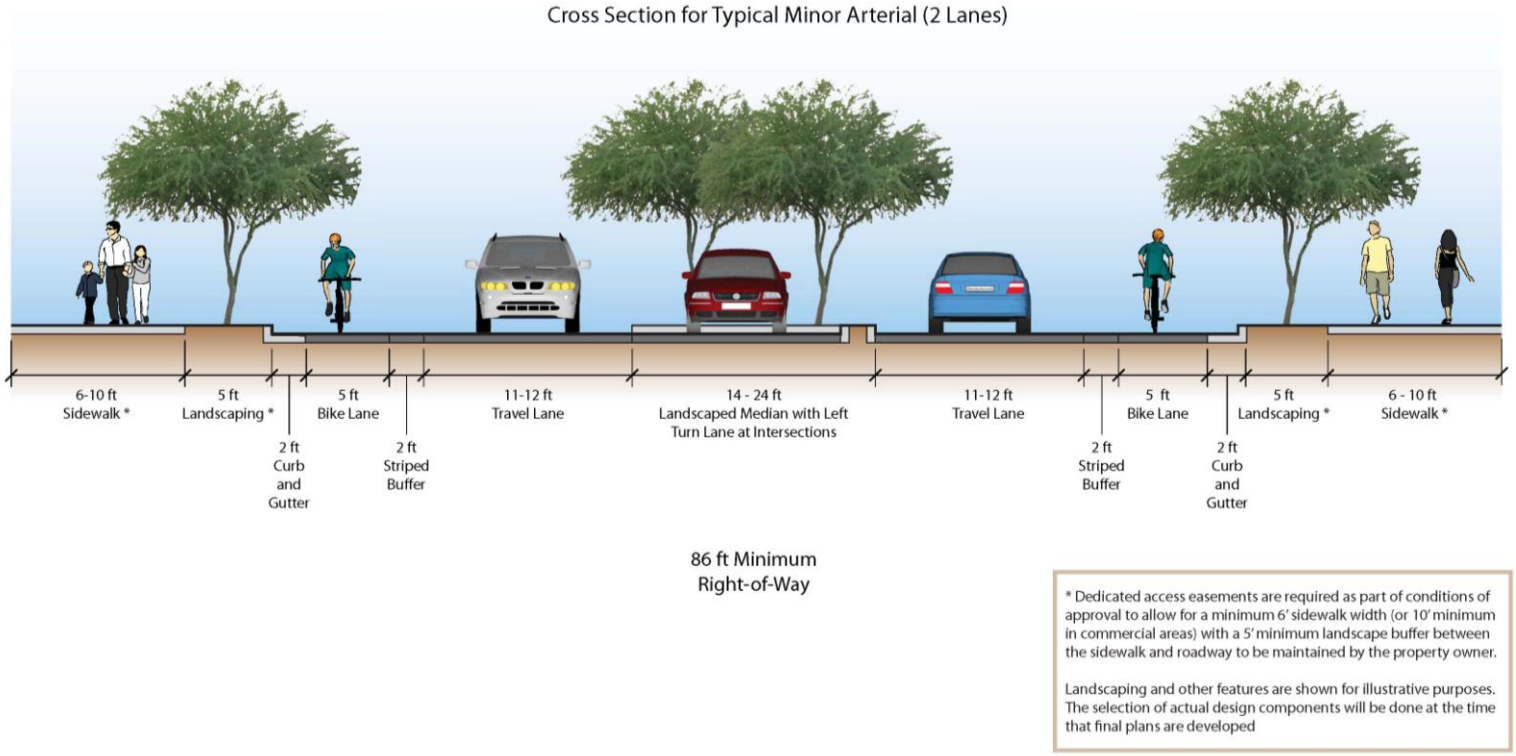


Figure 3.6: Policy 7.E – 4-Lane Minor Arterial

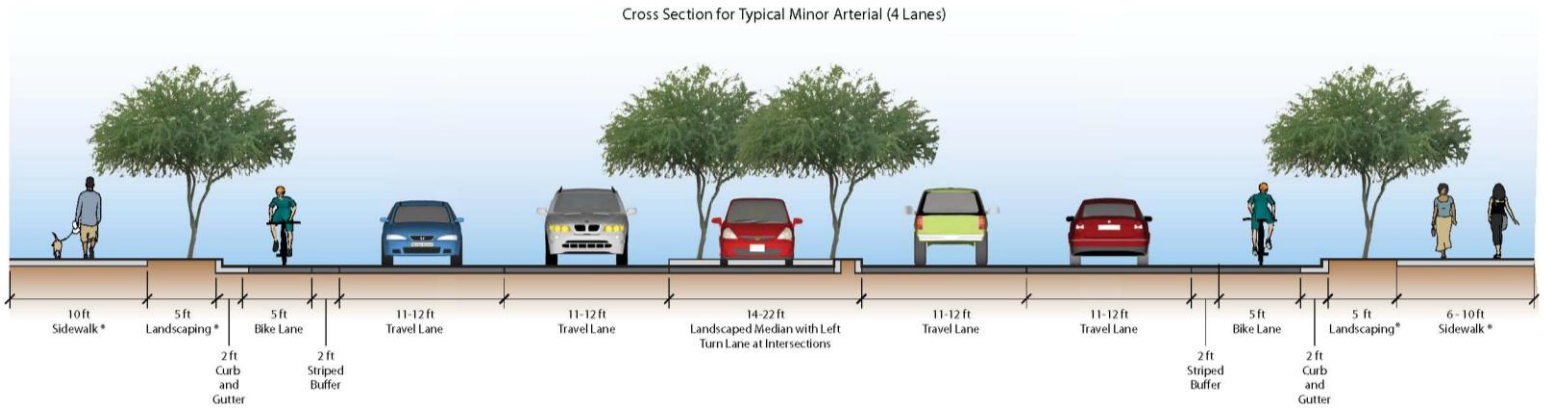


Figure 3.7: Policy 7.F – 4-Lane Principal Arterial

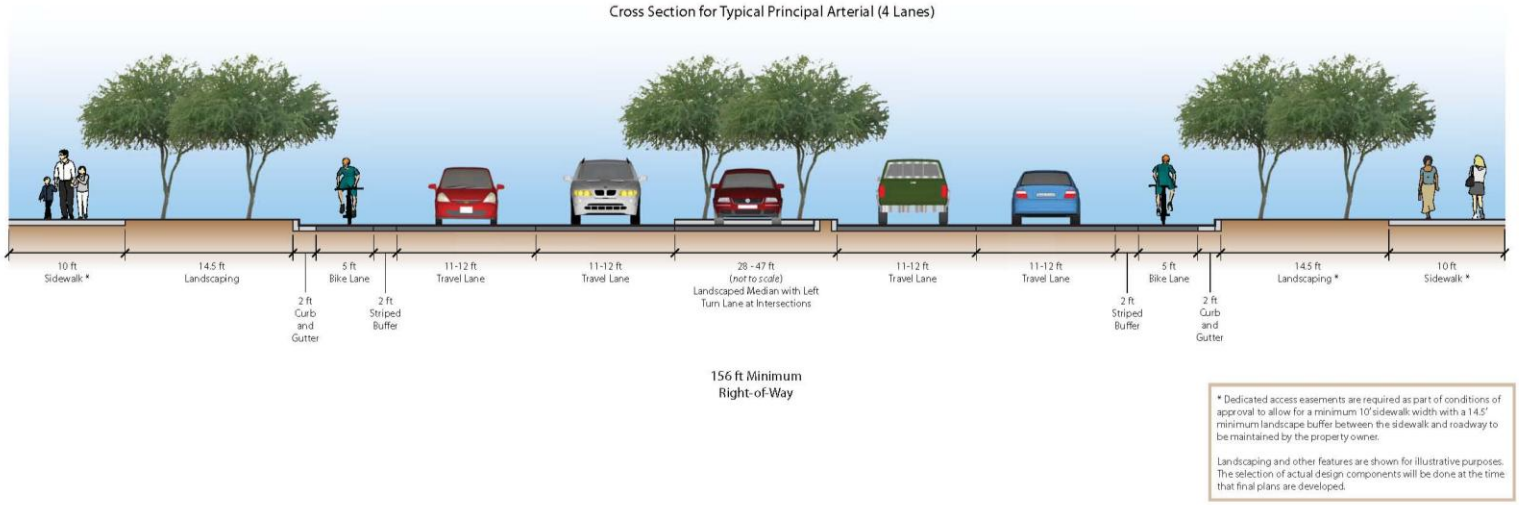
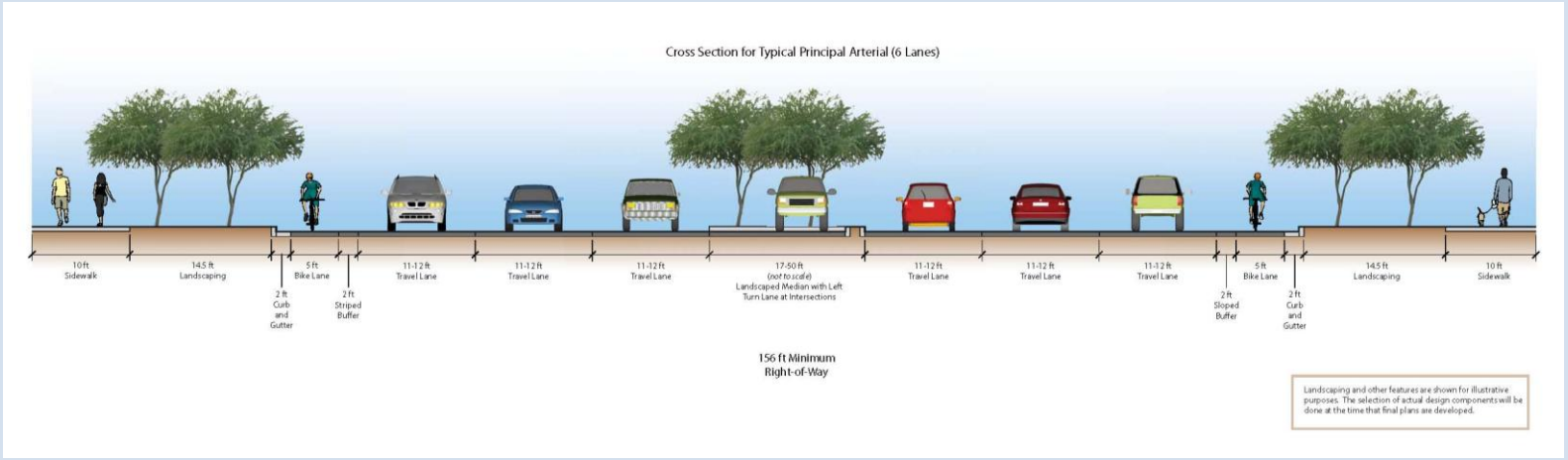
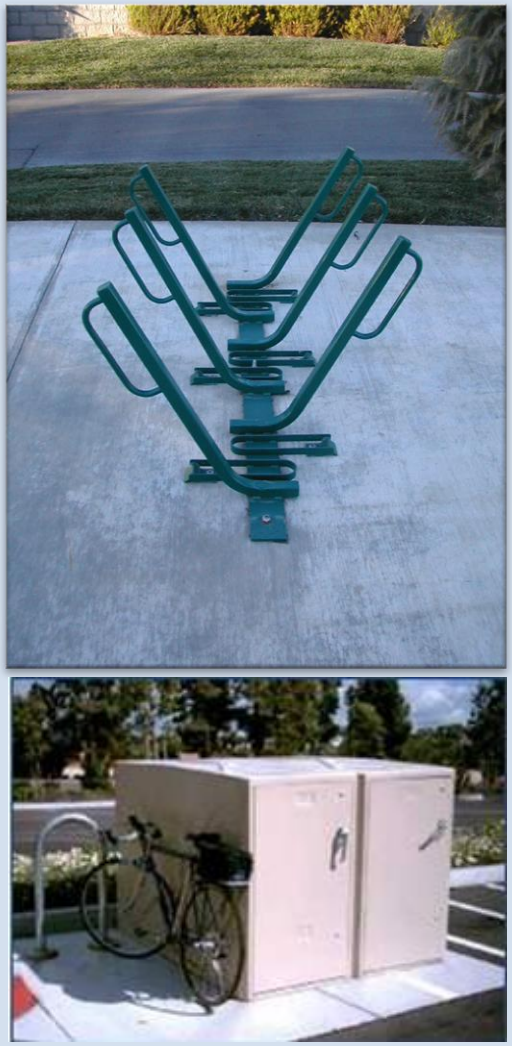


Figure 3.8: Policy 7.G – 6-Lane Principal Arterial



BPTMP Policy 8: The following policies and graphical depictions are the City's design standards for bicycle parking and locker facilities:

Figure 3.9: Policy 8.G – Bicycle Parking and Lockers



BPTMP Policy 9: Where it deems appropriate, the City shall require the dedication of right-of-way in addition to typical requirements to accommodate bicycle and/or pedestrian facilities.

BPTMP Policy 10: To maintain walkability and pedestrian safety, the City shall consider roadway width and roadway design features such as islands, pedestrian refuges, countdown timers, and other such mechanisms. This policy applies to new roadway construction and to existing roadways where pedestrian hazards may occur due to roadway design or width.

BPTMP Policy 11: Consider the development of facilities at key transit hubs and other locations, including restrooms, lockers, drinking fountains, park benches, bike racks/boxes, shade cover, and places for vendors to sell food and rent bicycles.

Bicycle Facilities

Bicycle facilities at transit hubs and other locations can provide a range of services, from secured parking to bicycle parts and supplies to coffee.

BPTMP Policy 12: The needs of pedestrians and bicyclists shall be routinely considered and, where practical, accommodated in all roadway construction and renovation projects.

BPTMP Policy 13: Where sufficient right-of-way is available, bicycle lanes should be added to city roadways:

- As major new roads are built and existing roads expanded, or
- When repaving or upgrading of the roadway occurs, provided that the bicycle facility would implement this Bicycle and Pedestrian Transportation Master Plan. The City shall encourage New Mexico Department of Transportation (NMDOT) to follow these same guidelines on state highways in Rio Rancho.

BPTMP Policy 14: The City shall encourage bicycle and pedestrian transportation through a comprehensive citywide wayfinding system and accompanying user map(s).

BPTMP Policy 15: The City shall, to the extent possible, program a capital and operational budget for the following items:

- Repairing cracks and bumps on sidewalks, bike lanes, and paved multi-use trails;
- Regular sweeping of on- and off-street bicycle facilities;
- Maintaining facilities at bridges, crossings, driveways, and underpasses;
- Ensuring continuity of routes in construction zones;
- Clearing debris and thorny "goatheads" from trails;
- Hotline for maintenance issues;
- Signs and markings at intersections and along bicycle routes; and
- Permanent staffing with responsibility for the facilities.

BPTMP Policy 16: The City of Rio Rancho shall work with local bicycle organizations, businesses, charities, the Rio Rancho Convention and Visitors Bureau, and bike advocacy groups to promote bicycle-related events and the creation of a nonprofit organization to encourage bicycle and pedestrian use in the city.

BPTMP Policy 17: The City supports the enforcement of traffic regulations for children and adult bicyclists. Enforcement should be viewed as reinforcement of educational programs. The City further supports mandatory safety training as an alternative to ticketing for children and adults.

BPTMP Policy 18: The City shall investigate the establishment of Prescription Trails in Rio Rancho.

Prescription Trails is a new program in New Mexico to provide a physical activity program to help people get healthier by getting them walking on local trails with prescriptions from their doctors. These trails are developed with cities' parks departments, healthcare organizations, and doctors and provide users with a walking trail guide in their local area to get them started on the path to better health.

BPTMP Policy 19: The City shall investigate the feasibility of a premier cycling/walking event in the city, to be co-sponsored by the City and other public and private organizations.

BPTMP Policy 20: The City shall consider opportunities to increase bicycle use among low-income families through programs such as "bicycle sharing" or bicycle giveaways to children.

CITYWIDE COMPREHENSIVE PLAN POLICIES

The following are the City's overall bicycle- and pedestrian-related policies from the Rio Rancho Comprehensive Plan. The reader should consult the Comprehensive Plan for additional information on these and other goals that may affect a given project or area.

Transportation Policies

Policy TR-1: Plan land uses to increase mode share and opportunities for multi-purpose trips (trip chaining) through proper location and design of transportation facilities.

Policy TR-2: Advocate for Rio Metro RTD to implement transit improvements concurrent with roadway improvements to improve access and frequency of service and to increase ridership potential and service area. Encourage development of regional high capacity transit including light rail and bus rapid transit.

Policy TR-3: Maintain levels of service consistent with City and regional goals. Reduce traffic congestion and enhance traffic flow through system management measures including: intersection improvements, intelligent transportation systems, incident management, signal priority, optimization and synchronization and other similar measures.

Policy TR-4: Support complete street designs in the upgrade of existing and the development of future areas of Rio Rancho.

Policy TR-5: Improve traffic safety through a comprehensive program of engineering, education, enforcement and to prioritize and mitigate high accident locations within the City.

Policy TR-6: Provide satisfactory levels of maintenance to the transportation system in order to preserve user safety and ensure facility aesthetics of the system is unimpaired.

Policy TR-7: Plan key arterial routes that are essential for the efficient movement of goods with freight in mind. Ensure adjacent land uses reflect freight route functions.

Policy TR-8: Coordinate transportation projects, policy issues, financing and development actions with all affected governmental units in the area.

Policy TR-9: Plan rights-of-way prior to development review and, where appropriate, officially secure them by dedication or reservation of property.

Policy TR-10: Support the design of streets and highways to respect surrounding land uses, natural features, and community amenities.

Policy TR-11: Ensure all rights-of-way and transportation facilities are ADA-compliant.

3.4 ACTIONS

Actions are specific steps that the City will take to implement the goals, policies, and objectives of this Bicycle and Pedestrian Transportation Master Plan. The following lists show actions adopted as part of this Master Plan, actions included in the Rio Rancho Comprehensive Plan, and actions from the City's various Specific Area Plans.

BICYCLE AND PEDESTRIAN TRANSPORTATION MASTER PLAN ACTIONS

BPTMP Action 1: Implement the Bicycle and Pedestrian Transportation Master Plan through a variety of methods as appropriate, including:

- Repaving;
- Restriping;
- Providing additional paving for bicycle lanes;
- The development and implementation of programs;
- The phased development of recommended bicycle/pedestrian trails and bicycle lane links;
- Development of a ten-year capital funding plan;
- Repaving and/or restriping of existing facilities to provide for new or improved bicycle lanes; and
- Cooperative agreements with other agencies (such as the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA)).

BPTMP Action 2: Provide ongoing maintenance and other services to keep the bicycle/pedestrian transportation system in a clean and safe condition.

BPTMP Action 3: On an ongoing basis, work to implement this Bicycle and Pedestrian Transportation Master Plan and work with SSCAFCA to complete the network of linear parks along the arroyos, including the following:[2]

- Bosque Trial along the Rio Grande;
- La Barranca Trail;
- Lomitas Negras Arroyo Trail;

[2] For a map and description of these facilities, please see the SSCAFCA Quality of Life Master Plan.

- Montoyas Arroyo Trail;
- Black Arroyo Trail; and
- Calabacillas Arroyo Trail.

BPTMP Action 4: Facilitate the creation of a community-based local bicycle advocacy group though the donation of meeting locations, event sharing, and other collaborative efforts.

BPTMP Action 5: Create programs for "bicycle sharing," bicycle giveaways, and similar programs in support of BPTMP Policy 20.

BPTMP Action 6: Update the City's standards and specifications to include the items in BPTMP Policy 10 (features to maintain bicycle and pedestrian safety) and to conform to the latest AASHTO standards. These items include:

- Median islands;
- Pedestrian refuges;
- Countdown timers and other such mechanisms and equipment;
- Restrooms;
- Lockers;
- Drinking fountains;
- Park benches;
- Bike racks/boxes;
- Shade cover; and
- Places for vendors to sell food and rent bicycles.

BPTMP Action 7: Create, update as needed, and distribute a map of bicycle and pedestrian facilities in Rio Rancho for use by bicyclists and walkers. Make the map available at City Hall, local stores, schools, and other locations throughout the city. The map should include:

- Pedestrian- and bicycle-friendly sidewalks and streets;
- Schools;
- Bike lanes;
- Recreational and commuting trails;
- City parks;
- Pools;
- Community centers;
- Libraries;
- Public transit; and
- Safety information (including laws and regulations related to bicycling and walking).

BPTMP Action 8: Establish a cooperative program with local bicycle shops to distribute safety information and a reduced price coupon (given at safety classes) for bicycle helmets at participating shops.

BPTMP Action 9: Review and update as necessary the City's ordinances, including the City Traffic Code, regarding bicycling and pedestrian travel.

BPTMP Action 10: Work with local health providers to implement a Prescription Trails system (as provided in BPTMP Policy 18).

BPTMP Action 11: Encourage local businesses to adopt parks and trails to improve and maintain. This helps give good publicity to local businesses and helps support the parks and trails.

BPTMP Action 12: The City should support and coordinate (planning and development infrastructure) with the NM Safe Routes to School program and Walk and Roll to School Day. These programs help school children become active walkers and bicyclists.

BPTMP Action 13: Provide (and update as necessary) bicycle education information on the City's website.

BPTMP Action 14: Seek grant funding for bicycle helmets, lights, and other safety equipment, and enlist the cooperation of local bicycle clubs, service clubs, etc., to distribute these items.

BPTMP Objective 3: Seek grants to enable the distribution of 300 bicycle helmets and lights per year to children and adults who would not otherwise be able to afford them.

BPTMP Action 15: Place bicycle safety information in local newspapers and magazines and in City-sponsored publications.

BPTMP Action 16: Apply to the League of American Bicyclists to become a Bicycle Friendly Community.

BPTMP Action 17: Conduct regular counts of pedestrians and cyclists at key locations. This information can be used to compare to later counts and measure the impact of the City's efforts to increase bicycling and walking.

BPTMP Action 18: Create and sustain a Pedestrian and Bicycle Safety Education program using LCI (League Cycling Instructor) certified instructors.[3]

CITYWIDE COMPREHENSIVE PLAN ACTIONS

The following are the transportation actions from the Rio Rancho Comprehensive Plan. The reader should consult the Comprehensive Plan for additional information on these and other actions that may affect a given project or area.

Action TR-1: Establish Complete Street standards for Rio Rancho.

Action TR-2: Preserve right-of-way by establishing right-of-way overlays and where appropriate, require developer dedication of right-of-way for transportation.

Action TR-3: Update and maintain street design standards and criteria for neighborhood traffic calming and optimize connectivity to major pedestrian/bike facilities and transit stations.

Action TR-4: Work with Rio Metro RTD to establish future high capacity transit corridors and station locations to target single-occupant vehicles commuting to and from City Center, major employment areas, recreational areas. This can be accomplished by creating and adopting station area land use plans to promote Transit Oriented Development and to define intermodal connectivity needs.

[3] LCI certification is offered by the League of American Bicyclists.

Action TR-5: Maintain a functional classification system that meets the City of Rio Rancho's needs and respects the regional needs of other agencies.

Action TR-6: Work with Rio Rancho area schools and the community to develop a safe routes to school system.

Action TR-7: Establish specific area non-single occupant vehicle modal targets for: the City Center, major employment areas, recreational areas, and future TOD areas consistent with regional goals.

Action TR-8: Implement travel demand management programs that work to shift traffic to off-peak travel hours.

3.5 IMPLEMENTATION

The table below provides basic guidance on the timing and responsibility for the implementation of the goals, policies, actions, and objectives of this Master Plan. This information is intended as a guide only; it is expected that the exact timing and responsibility for implementation will be adjusted over time as part of the City's regular budgeting process and in response to changing situations. For instance, the availability of grants or other funding will often affect when and how various aspects of this Master Plan can be implemented.

In the table below, the following abbreviations are used to identify various City of Rio Rancho departments. For brevity, some departments have been combined into a single category.

CMO – City Administration and City Attorney

DSD – Development Services

DPS – Police and Fire/Rescue

PRCS – Parks, Recreation and Community Services

PW – Public Works

PD - Police Department

Table 3.1: Implementation Table

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
GOALS						
BPTMP Goal 1: An interconnected and continuous pedestrian and bicycle network that provides safe and attractive options for both local and regional trips and that provides connections to Rio Rancho's neighborhoods, schools, parks, employment centers, and retail centers and to surrounding cities.	CMO DSD PRCS PW					■
BPTMP Goal 2: A trail system that integrates the city's arroyos in a system of off-street multi-use trails for bicycle and pedestrian travel and recreation.	CMO DSD PRCS PW					■
BPTMP Goal 3: A reduction in the number of vehicle miles traveled (VMTs) in Rio Rancho by increasing trips made by biking and walking.	CMO DSD PRCS PW	■				
POLICIES						
BPTMP Policy 1: Encourage bicycle and pedestrian circulation and access around the city and at the neighborhood level through the design, installation, and maintenance of roadways and bicycle and pedestrian facilities, including bicycle racks and lockers at transit hubs.	DSD PRCS PW	■				

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Policy 2: The City shall encourage an increase in bicycle ridership and pedestrian trips over automobile traffic, as a way to improve traffic safety, air quality, and the health of Rio Rancho residents.	DSD PRCS PW	■				
BPTMP Policy 3: Grade-separated crossings or enhanced at-grade crossings shall be provided where multi-use trail facilities intersect arterial roadways at key locations to maximize the safety and attractiveness of bicycling and walking routes. Where possible, grade-separated crossings are preferred.	DSD PW	■				
BPTMP Policy 4: The City's roadway cross-sections shall be designed to safely accommodate vehicles, cyclists, pedestrians, and transit, a concept known as "complete streets."	DSD PW	■				
BPTMP Policy 5: All bicycle facilities shall conform to standards published by the American Association of State Highway Transportation Officials (AASHTO).	PW	■				
BPTMP Policy 6: The following are the City's design standards for pedestrian and multi-use trails: (*see Figure 3.1 following Policy 6 for details)*	DSD PRCS PW	■				

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Policy 7: The following are the City's design standards for on-street bicycle lanes on various street types, including: • Local Street (Figure 3.2; Policy 7.A) • Collector Street (Figure 3.3: Policy 7.B) • Office Collector Street (Figure 3.4: Policy 7.C) • 2-Lane Minor Arterial (Figure 3.5: Policy 7.D) • 4-Lane Minor Arterial (Figure 3.6: Policy 7.E) • 4-Lane Principal Arterial (Figure 3.7: Policy 7.F) • 6-Lane Principal Arterial (Figure 3.8: Policy 7.G) (*see figures following Policy 7 for details)*	DSD PW	■				
BPTMP Policy 8: The following are the City's design standards for bicycle parking and locker facilities. *(see Figure 3.9 following Policy 8 for details)*	DSD PW	■				
BPTMP Policy 9: Where it deems appropriate, the City shall require the dedication of right-of-way in addition to typical requirements to accommodate bicycle and/or pedestrian facilities.	DSD PW	■				

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Policy 10: To maintain walkability and pedestrian safety, the City shall consider roadway width and roadway design features such as islands, pedestrian refuges, countdown timers, and other such mechanisms. This policy applies to new roadway construction and to existing roadways where pedestrian hazards may occur due to roadway design or width.	DSD PW	■				
BPTMP Policy 11: Consider the development of facilities at key transit hubs and other locations, including restrooms, lockers, drinking fountains, park benches, bike racks/boxes, shade cover, and places for vendors to sell food and rent bicycles.	DSD PRCS PW	■				
BPTMP Policy 12: The needs of pedestrians and bicyclists shall be routinely considered and, where practical, accommodated in all roadway construction and renovation projects.	DSD PW	■				
BPTMP Policy 13: Where sufficient right-of-way is available, bicycle lanes should be added to city roadways: • As major new roads are built and existing roads expanded, or • When repaving or upgrading of the roadway occurs, provided that the bicycle facility would implement this Bicycle and Pedestrian Transportation Master Plan. The City shall encourage	PW	■				

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
New Mexico Department of Transportation (NMDOT) to follow these same guidelines on state highways in Rio Rancho.						
BPTMP Policy 14: The City shall encourage bicycle and pedestrian transportation through a comprehensive citywide wayfinding system and accompanying user map(s).	DSD PRCS	■				
BPTMP Policy 15: The City shall, to the extent possible, program a capital and operational budget for the following items: • Repairing cracks and bumps on sidewalks, bike lanes, and paved multi-use trails; • Regular sweeping of on- and off-street bicycle facilities; • Maintaining facilities at bridges, crossings, driveways, and underpasses; • Ensuring continuity of routes in construction zones; • Clearing debris and thorny "goatheads" from trails; • Hotline for maintenance issues; • Signs and markings at intersections and along bicycle routes; and • Permanent staffing with the responsibility for the facilities.	CMO PRCS PW	■				

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Policy 16: The City of Rio Rancho shall work with local bicycle organizations, businesses, charities, the Rio Rancho Convention and Visitors Bureau, and bike advocacy groups to promote bicycle-related events and the creation of a nonprofit organization to encourage bicycle and pedestrian use in the city.	CMO PRCS	■				
BPTMP Policy 17: The City supports the enforcement of traffic regulations for children and adult bicyclists. Enforcement should be viewed as reinforcement of educational programs. The City further supports mandatory safety training as an alternative to ticketing for children and adults.	CMO DPS	■				
BPTMP Policy 18: The City shall investigate the establishment of Prescription Trails in Rio Rancho.	CMO PRCS		■[4]			
BPTMP Policy 19: The City shall investigate the feasibility of a premier cycling/walking event in the city, to be co-sponsored by the City and other public and private organizations.	CMO PRCS		■[5]			

[4] If found to be feasible, a separate implementation schedule will be developed.

[5] If found to be feasible, time frame will become "ongoing."

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Policy 20: The City shall consider opportunities to increase bicycle use among low-income families through programs such as "bicycle sharing" or bicycle giveaways to children.	CMO PRCS PD		■[6]			
ACTIONS						
BPTMP Action 1: Implement the Bicycle and Pedestrian Transportation Master Plan through a variety of methods as appropriate, including: • Repaving; • Restriping; • Providing additional paving for bicycle lanes; • The development and implementation of programs; • The phased development of recommended bicycle/pedestrian trails and bicycle lane links; • Development of a ten-year capital funding plan; • Repaving and/or restriping of existing facilities to provide for new or improved bicycle lanes; and • Cooperative agreements with other agencies (such as the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA)).	CMO PRCS PW	■				

[6] If found to be feasible, time frame will become "ongoing."

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Action 2: Provide ongoing maintenance and other services to keep the bicycle/pedestrian transportation system in a clean and safe condition.	CMO PRCS PW	■				
BPTMP Action 3: On an ongoing basis, work to implement this Bicycle and Pedestrian Transportation Master Plan and work with SSCAFCA to complete the network of linear parks along the arroyos, including the following: • Bosque Trial along the Rio Grande; • La Baranca Trail; • Lomitas Negras Arroyo Trail; • Montoyas Arroyo Trail; • Black Arroyo Trail; and • Calabacillas Arroyo Trail.	CMO DSD PRCS PW	■				
BPTMP Action 4: Facilitate the creation of a community-based local bicycle advocacy group though the donation of meeting locations, event sharing, and other collaborative efforts.	CMO PRCS	■				
BPTMP Action 5: Create programs for "bicycle sharing," bicycle giveaways, and similar programs in support of BPTMP Policy 20.	CMO PRCS		■[7]			

[7] Timing is for initial development of the program. Thereafter, time frame becomes "ongoing."

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Action 6: Update the City's standards and specifications to include the items in BPTMP Policy 10 (features to maintain bicycle and pedestrian safety) and to conform to the latest AASHTO standards. These items include: • Median islands; • Pedestrian refuges; • Countdown timers and other such mechanisms; • Restrooms; • Lockers; • Drinking fountains; • Park benches; • Bike racks/boxes; • Shade cover; and • Places for vendors to sell food and rent bicycles.	CMO DSD PRCS PW		■			
BPTMP Action 7: Create, update as needed, and distribute a map of bicycle and pedestrian facilities in Rio Rancho for use by bicyclists and walkers. Make the map available at City Hall, local stores, schools, and other locations throughout the city. The map should include: • Pedestrian- and bicycle-friendly sidewalks and streets; • Schools; • Bike lanes; • Recreational and commuting	CMO PRCS		■[8]			

[8] Timing is for initial development and distribution of the map. Thereafter, time frame becomes "ongoing."

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
trails; • City parks; • Pools; • Community centers; • Libraries; • Public transit; and • Safety information (including laws and regulations related to bicycling and walking);						
BPTMP Action 8: Establish a cooperative program with local bicycle shops to distribute safety information and a reduced price coupon (given at safety classes) for bicycle helmets at participating shops.	CMO PRCS		■[9]			
BPTMP Action 9: Review and update as necessary the City's ordinances, including the City Traffic Code, regarding bicycling and pedestrian travel.	CMO DPS PW PRCS		■			
BPTMP Action 10: Work with local health providers to implement a Prescription Trails system (as provided in BPTMP Policy 18).	CMO PRCS			■[10]		

[9] Timing is for initial development of the program. Thereafter, time frame becomes "ongoing."

[10] Timing is for initial development of the cooperative relationship with local health providers. Thereafter, a detailed time frame for development of the prescription trails system will be prepared.

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Action 11: Encourage local businesses to adopt parks and trails to improve and maintain. This helps give good publicity to local businesses and help support the parks and trails.	CMO PRCS	■				
BPTMP Action 12: The City should support and coordinate (planning and development infrastructure) with the NM Safe Routes to School program and the Walk and Roll to School Day. These programs help school children become active walkers and bicyclists.	CMO DSD PRCS PW	■				
BPTMP Action 13: Provide (and update as necessary) bicycle education information on the City's website.	CMO PRCS	■				
BPTMP Action 14: Seek grant funding for bicycle helmets, lights, and other safety equipment, and enlist the cooperation of local bicycle clubs, service clubs, etc., to distribute these items.	CMO PRCS	■				
BPTMP Action 15: Place bicycle safety information in local newspapers and magazines and in City-sponsored publications.	CMO PRCS	■				
BPTMP Action 16: Apply to the League of American Bicyclists to become a Bicycle Friendly Community.	CMO DSD PRCS PW		■			

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Action 17: Conduct regular counts of pedestrians and cyclists at key locations. This information can be used to compare to later counts and measure the impact of the City's efforts to increase bicycling and walking.	PW	■				
BPTMP Action 18: Create and sustain a Pedestrian and Bicycle Safety Education program using LCI (League Cycling Instructor) certified instructors.	PRCS		■[11]			
OBJECTIVES						
BPTMP Objective 1: By 2030, double the share of trips in Rio Rancho made by bike or walking, compared to 2010 levels.	CMO DSD PRCS PW					■
BPTMP Objective 2: By 2030, provide the following: • An additional 50 miles of off-street multi-use bicycle/pedestrian trails • An additional 81 miles of on-street bicycle lanes • An additional 18 miles of on-street bicycle routes • An additional 50 miles of sidewalks • 20 bicycle lockers at transit stations	CMO DSD PRCS PW					■

[11] Timing is for initial development of the program. Thereafter, the time frame will be "ongoing."

Bicycle and Pedestrian Master Plan Goal, Policy, or Action	Responsible Department	Implementation Time Frame				
		Ongoing	0–3 Years	4–6 Years	7–9 Years	10+ Years
BPTMP Objective 3: Seek grants to enable the distribution of 300 bicycle helmets and lights per year to children and adults who would not otherwise be able to afford them.	CMO PRCS	■				

Chapter 4: Implementation

4. IMPLEMENTATION

4.1 INTRODUCTION

This chapter of the Master Plan addresses the key issue of implementation—how to accomplish the ambitious goals set out in this Plan.

This chapter covers several key topics:

- Implementation Priority – How to determine the priority of a variety of projects so that available funding and effort can be directed to the most important projects.
- Role of Other Agencies – Notes on how other governmental agencies will play a role in implementing the City's Bicycle and Pedestrian Transportation Master Plan and making the trails system function better.
- Funding Sources – A wide variety of federal, state, and local funding sources are available to pay for the construction and/or maintenance of this Master Plan's facilities. This section provides an overview of potential funding sources and shows which sources apply to the various facilities the City plans to construct.

4.2 IMPLEMENTATION PRIORITY

Chapter 3 of this Master Plan provides a detailed listing of the goals, policies, and actions that the City will follow to implement this Plan, and includes a recommendation for the timing of each item. That listing provides a general overview of the priority for implementation of broad categories of facilities and actions.

On a project-specific level, decisions regarding the order in which facilities will be built will be based on issues of budget, safety, and the criteria shown in the Trail Decision Chart shown on the following page.

This bench on the Bosque, built as an Eagle Scout project, is one example of the variety of methods that can be used to implement this Master Plan.

4.3 TRAIL DECISION CHART

The table below provides a method to rank the priority of various potential trail projects. To use the chart, enter values for each item based on the answer to the question. The total value for each trail project can be used to rank potential projects in priority (very low to high) and within each priority rank (based on the numeric score; higher scores reflect a higher priority).

The rankings generated by this chart are a starting point; final decisions regarding the priority of any given trail project will be made by the City Council, through budget review and approval. This decision tool should be used in concert with the Mid-Region Council of Governments (MRCOG) Project Prioritization Process Guidebook for bicycle and pedestrian projects, included as part of their short-range planning, programming, and implementation for transportation projects.[1]

Table 4.1: Trail Decision Chart

No.	Question	Enter Value Here	Yes	No	Scoring Notes
1	Is the trail segment opportunity included in a regional or city plan?		1	0	
2	Does the trail segment connect to an existing trail on one end? Or on both ends?			0	One end = 1 Two ends = 2
3	If the trail segment is completed, will it result in a trail of longer than 3 miles?		1	0	
4	Is there adequate right-of-way for a multi-use path?		1	0	If "no" go to question 6
5	Are the soils in the project area suitable for multi-use trail construction? (see SSCAFCA soils map and chart in Quality of Life Master Plan)		1	0	
6	Are the soils in the project area suitable for an unpaved hiking trail?		1	0	*See note*
7	Does the project site have significant habitat or natural resource value?		1	0	

[1] Available at http://www.mrcog-nm.gov/images/stories/pdf/transportation/tip/PPP/Goal_2_Mobility_-_PedBike.pdf.

No.	Question	Enter Value Here	Yes	No	Scoring Notes
8	If yes, does the trail direct users away from habitat/resources that could be harmed by trail use?		2	-1	*See note*
9	If yes (#7), would trail construction harm sensitive habitat?		-2	0	*See note*
10	Does the project site have significant scenic resource value?		1	0	
11	Does the project site provide a connection to a park or other recreational resource?		1	0	
12	Does the project complete a safe route to school?		2	0	
13	Does the project site connect to a commercial or educational center?		1	0	
14	Is the land owned by the City?		3	0	
15	Is the land owned by SSCAFCA?		2	0	
16	Is the land owned by a willing seller?		1	0	
17	Is the land owned by an unknown or unwilling seller?		-1	0	
18	Does the site allow adequate room for trailhead parking?		1	-1	
19	Is the trail opportunity located in a bike- or walkshed with limited connectivity?		1	0	*See note*
20	What is the estimated cost of construction, per mile?		*See note*		
21	Are grade-separated roadway crossings needed?		0	1	
22	How many bridges or arroyo crossings are needed?		*See note*		
23	Is funding available for trail development?		*See note*	-1	
24	Are there "shovel-ready" plans for the trail?		3	0	

No.	Question	Enter Value Here	Yes	No	Scoring Notes
Trail segment score (Total of "Enter Value Here" column)					
Priority level for trail implementation is: More than 18 points: High Priority 10–17 points: Medium Priority 6–10 point: Low Priority 0–5 points: Very Low Priority					

Notes:
For item 6: If "yes," then contact partner group for development of unpaved hiking trail; if "no," then this trail segment is not suitable for development at this time.
For item 8: If "no," then this trail segment is not suitable for development at this time.
For item 9: If "yes," then this trail segment is not suitable for development at this time.
For item 19: See walk- and cyclezone needs maps in Chapter 1 for bike- and walkshed buffers. Limited connectivity is a walk/bikeshed with zero or one multi-use path or trail segment.
For item 20: If greater than $1 million/mile, then 0; if approximately $1 million/mile, then 1; if less than $500,000/mile, then 2.
For item 22: If more than two, then 0; if one, then 1; if none, then 2.
For item 23: If trail can be developed as a condition of approval (100% developer funded)=5; if trail can be 100% grant funded=4; if trail can be partially grant/privately funded=3; if general City funds are available=2.

4.4 ROLE OF OTHER AGENCIES IN IMPLEMENTATION

Implementation of the facilities shown in this Master Plan will involve cooperation with a number of other agencies whose plans and/or jurisdiction may overlap with the City's. These include:

- Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), whose arroyo system is planned to accommodate trails as well as providing flood protection
- New Mexico Department of Transportation, which maintains state highways in Rio Rancho
- City of Albuquerque and the Village of Corrales, whose extensive trail systems can provide connections from Rio Rancho to locations to the south
- The Middle Rio Grande Conservancy District (MRGCD) and Town of Bernalillo, landowners of potential key connections between existing segments

As noted in the following section, the federal government (as well as the State of New Mexico) is also a potential partner, with a variety of funding sources for bicycle and

pedestrian projects. Other partners may include the Pueblos, the Army Corp of Engineers, and the Bureau of Reclamation

4.5 COSTS TO IMPLEMENT AND MAINTAIN THE SYSTEM

The costs to construct and maintain bicycle and pedestrian facilities vary by type of facility constructed. In addition, the location of a particular facility, for example, a multi-use trail alongside an arroyo, may have additional costs due to grade-separated crossings or other special amenities for that facility. **Table 4.2** below shows the typical costs to construct the types of facilities recommended in this Plan. All costs are planning-level cost estimates. Actual future costs may vary as material and labor costs fluctuate.

Table 4.2: Estimated Construction Costs by Facility Type

Facility Type	Cost per Mile
Bicycle Lanes	$12,078
Bicycle Routes	$1,500
Multi-Use Trails	
a) Crusher Fine Surface	$129,677
b) Concrete Surface	$277,911
c) Asphalt Surface	$418,681

The costs to maintain facilities include more than simply repaving and sweeping. Trail maintenance also includes emptying trash cans, picking up litter/trash, trimming overgrowth, removing weeds, mowing and/or spraying, fixing fences, erecting/replacing signs, addressing vandalism and erosion, and occasional grooming of crusher fine trails with a bunker rake. The estimated costs to maintain new facilities at an existing level of maintenance are shown in **Table 4.3**.

Table 4.3: Estimated Maintenance Costs

Facility Type	Estimated Maintenance Cost
Bicycle Lanes	
Annual cost per mile	$6,099
Annual cost w/o reconstruction	$4,199
Bicycle Routes	
Annual cost per mile	$1,885
Annual cost w/o reconstruction	$900
Bicycle Path (adjacent to roadway)	
Annual cost per mile	$7,922
Annual cost w/o reconstruction	$4,120
Multi-Use Trails	
Annual cost per acre	$3,791
Annual cost per mile	$5,054

Maintenance costs are higher when facility repair and reconstruction are included in the estimate. Additional cost estimate details are included as Appendix B to this document.

COSTS FOR SYSTEM-WIDE IMPLEMENTATION

It is estimated that the construction of all bicycle and trail projects recommended by this Master Plan will require $15,808,341. The majority of this estimated cost is the result of the expense of trail project implementation. Bicycle routes are relatively inexpensive additions to the network. Bicycle lanes are also highly cost effective, providing dedicated bicycle facilities without the significant expense of trail construction. However, multi-use trails provide a facility for the greatest diversity of users and provide the greatest increase in connectivity between various parts of the city.

The City recognizes that some portions of the bicycle and pedestrian systems—generally, those that are off-street and involve purchasing land or right-of-way—will be more costly and difficult to implement. The importance of these off-street trails, however, is reflected in the Trail Decision Chart in this chapter, which acknowledges the value of these trails in providing important links in the system. Decisions about using City funds on various portions of the bicycle pedestrian system for on- and off-street facilities will need to continue to be informed by the use of the Trail Decision Chart so that a balanced and complete system is built.

A summary of the estimated cost to implement all recommended bicycle and trail projects is shown in **Table 4.4**.

Table 4.4: Costs for System-wide Implementation

Facility Type	Number of Miles	Cost to Implement All Recommended Projects
Bicycle Lanes	81.8	$988,387
Bicycle Routes	18.1	$27,095
Multi-Use Trails	50	$14,792,860
Total Cost		**$15,808,341**

4.6 RECOMMENDED MAINTENANCE PRACTICES

The costs identified in section 4.5 above indicate a standard level of facility maintenance. As a result of community input about existing facility maintenance, it is recommended that the following maintenance practices be implemented to improve the overall condition of bike lanes, routes, and trails.

RESTRIPING AND PAVEMENT MARKING

Facilities should be restriped or marked every 1 to 3 years, depending on wear and level of use.

SIGN REPLACEMENT

Signs should be replaced at least every 10 years or as information changes significantly.

SWEEPING

All on-street facilities should be swept once per month. Off-street facilities (trails and paths) should be swept once every 6 weeks to 2 months.

SEALING

All facilities should be resealed at least once every 4 to 5 years.

RECONSTRUCTION

Reconstruction should occur on an as-needed basis, for example, to respond to incidents such as extreme weather events or other unanticipated circumstances.

HAZARDOUS REPAIRS

Potentially hazardous repairs should be conducted within a 48-hour period, with priority given to high-traffic areas. Potentially hazardous situations, such as significant vegetation in the travel way, shall also be addressed in this time frame.

Reporting and Evaluation of Maintenance Issues

BPTMP Policy 15 establishes a maintenance hotline for bicycle and pedestrian facility issues. This hotline will provide the community with a means to report maintenance issues. Additionally, staff should evaluate the overall condition of facilities during ongoing maintenance activities. Needed improvements may be targeted to locations based upon maintenance reports from community members and staff.

The City will continue to employ the online reporting tool, the "Citizen Request Tracker", in identifying maintenance issues. In addition, the City will also review submissions through the Rio Rancho Observer's SeeClickFix application.

4.6 PRIORITY PROJECT IMPLEMENTATION AND FUNDING

Table 4.5 shows the funding opportunities for implementation of the highest priority projects. Priority projects are chosen based on overall system-wide needs, needs and vision articulated by community members through the 2010 resident survey, and the recommendations of the Intermodal Task Force. Funding opportunities are determined by inclusion in regional transportation planning programs, such as MRCOG's Transportation Improvement Program or Metropolitan Transportation Plan. Additionally, funding availability is determined by the type of project. Funding program details are provided in section 4.8.

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Table 4.5: Priority Project Funding Opportunities

	PROJECT NAME	FACILITY TYPE	LENGTH	LOCATION and PARAMETERS		2011-2015 TIP Project (Y/N)	2030 MTP Project (Y/N)	ZONE	COST	POTENTIAL FUNDING SOURCES
			Miles	Start	End					
TRAILS	Montoya's Arroyo Trail	Proposed Trail	7.5	King Blvd NE	Camino de la Tierra	No	Yes, from Unser to NM 528	A, B, D	$3,126,713	* Transportation Enhancement Activities (TE) * Hazard Elimination and Railway-Highway Crossing * Recreational Trails Program * National Scenic Byways Program * Highway Safety Improvement Program (HSIP) * Safe Routes to School (SRTS) * Transportation, Community, and System Preservation Program (TCSP) * Alternative Transportation in Parks and Public Lands * Community Development Block Grants (CDBG) * Land and Water Conservation Fund (LWCF) * New Mexico Legislature * Municipal Infrastructure Gross Receipts Tax * Special Assessment District (SAD) * Capital Improvement Program (CIP) * Parks, Recreation and Community Services Department * Developer Traffic Impact Fees * Grants * Contributions
	Powerline Trail	Proposed Trail	2.1	Southern Blvd SE	City Limit	No	No	C	$597,230	
	Rio Grande	Proposed Trail	3.1	Willow Creek Rd NE	Corrales Rd	No	No	A, B	$861,246	
	La Barranca Arroyo	Proposed Trail	8.4	Unser Blvd NE	Rio Grande	No	No	A	$2,345,568	
	Barranca's Arroyo Trail	Proposed Trail	1.6	Progress Blvd NE	King Blvd NE	No	Yes, from Unser to NM 528	D	$444,380	
	Venada Arroyo Trail	Proposed Trail	7.5	Unser Blvd NE	Hwy 528	No	Yes from Unser to Utility Easement	A	$2,096,004	
	Paseo del Volcan	Proposed Trail	8.8	Rainbow Blvd NW	US 550	No	No	A, D	$2,446,727	
	Powerline Trail	Proposed Trail	6.9	Chayote Rd NE	Summer Winds Dr NE	No	Yes, from County Line to Paseo del Volcan	A, B	$1,924,255	
	Nicklaus Channel Path	Proposed Trail	1.2	Powerline Trail	Cabezon Linear Park Bike Trail	No	No	B	$346,555	
	Willow Creek Rd	Proposed Path	1.0	Cabezon Dr NE		Spruce Mountain Loop NE		No	No	
	US 550	Proposed Trail	1.7	Northwest Corridor	Chayote Rd NE	No	No	A	$476,061	
LANES	Northern Blvd	Proposed Lane	5.5	Loma Colorado Dr NE	Hondo Road SW	Yes, from 34th street to Broad moor Blvd (Phase 1) and Broadmoor Blvd to Northern Blvd (Phase 2)	No	A, B, C, D	$66,729	* National Highway System (NHS) * Surface Transportation Program (STP) * Transportation Enhancement Activities (TE) * Hazard Elimination and Railway-Highway Crossing * Congestion Mitigation and Air Quality (CMAQ) Improvement Program * Highway Bridge Replacement and Rehabilitation Program (HBRR) * Federal Lands Highway Program * National Scenic Byways Program * State and Community Highway Safety Grants
	Chayote Rd	Proposed Lane	3.6	US 550	Idalia Rd NE	No	Yes, Paseo del Volcan to Enchanted Hills and Paseo del Volcan to Idalia	A	$43,298	
	Rainbow Blvd	Proposed Lane	3.8	Northern Blvd NE	23rd Ave SE	No	Yes, Northern to King	C	$46,439	

	PROJECT NAME	FACILITY TYPE	LENGTH	LOCATION and PARAMETERS		2011-2015 TIP Project (Y/N)	2030 MTP Project (Y/N)	ZONE	COST	POTENTIAL FUNDING SOURCES
			Miles	Start	End					
	Idalia Rd NE	Proposed Lane	6.2	Northern Blvd NE	Hwy 528	Yes, from Iris to NM 528	No	A	$74,386	* Highway Safety Improvement Program (HSIP) * Safe Routes to School (SRTS) * Transportation, Community, and System Preservation Program (TCSP) * Urbanized Area Transit Formula Grants * Transit Enhancement Activity (TEA) * Alternative Transportation in Parks and Public Lands * Community Development Block Grants (CDBG) * Land and Water Conservation Fund (LWCF) * New Mexico Department of Transportation * New Mexico Legislature * Municipal Infrastructure Gross Receipts Tax * Special Assessment District (SAD) * Capital Improvement Program (CIP) * Developer Traffic Impact Fees * Grants * Contributions
	Progress Blvd	Proposed Lane	8.1	Venture Dr NW	Chayote Rd NE	No	Yes, Rainbow to Unser	A, D	$98,215	
	Southern Blvd SE	Proposed Lane	5.5	Rio Rancho Blvd SE	8th St SW	No	No	B, C	$65,956	
	Unser Blvd	Proposed Lane	4.5	Progress Blvd NE	Hawk Rd NE	Yes, from Paseo del Volcan to King, Phase 2b (Farol to Paseo del Volcan) and 2c (King to Progress) not yet funded.	No	A	$53,963	
	Unser Blvd	Proposed Lane	2.5	Progress Blvd NE	Farol Rd NE	Yes, not yet funded	No	D	$30,484	
	Westphalia Blvd NE	Proposed Lane	4.0	Northwest Corridor	Klamath Rd NE	No	Yes, as Iris Road from Idalia to Paseo del Volcan	A	$48,202	
ROUTES	Idalia Rd	Proposed Route	0.6	Chessman Dr NE	Unser Blvd NE	No	No	B	$873	
	Idalia Rd SW	Proposed Route	1.0	Rainbow Blvd	Southern Blvd SW	No	No	C	$1,425	
	Western Hills Dr SE	Proposed Route	1.7	Unser Blvd SE	Southern Blvd SE	No	No	B	$2,541	
	Baltic Ave SE/Pecos Loop	Proposed Route	1.8	Lisbon Ave SE	Rainbow Blvd	No	No	C	$2,694	

4.8 LOCAL, STATE, AND FEDERAL FUNDING SOURCES

Bicycle and pedestrian projects are broadly eligible for funding from major federal-aid highway, transit, safety, and other programs, and must be designed and located pursuant to the transportation plans required of the State of New Mexico Department of Transportation and the Metropolitan Planning Organization (Mid-Region Council of Governments). A listing and description of potential sources are provided below, including reference to the applicable United States Code. Renewal of federal transportation legislation and use of the Highway Trust Fund are currently pending in Congress and could impact the level of funding and eligible projects. In addition to federal sources, other state and local funding sources are also identified.

A variety of federal, state, and local programs are available to fund the improvements called for in this Master Plan, as summarized below. **Table 4.6**, at the end of this chapter, provides a summary of how each source could be applied to various portions of the BPTMP.

In the past, Rio Rancho has received Surface Transportation Program funds (STP-E and STP-U), safety grants, and maintenance funds. The City has not used federal funds for bicycle-only projects. However, bicycle lanes have been funded by federal dollars as part of a larger road-widening project. Bicycle and pedestrian infrastructure has been constructed as part of specific development projects, in compliance with existing design standards. Funding for maintenance has helped to improve bicycle facilities by ensuring restriping is completed.

The following types of funding sources are addressed below:

FEDERAL-AID HIGHWAY PROGRAMS

National Highway System (NHS)

Funds may be used to construct bicycle transportation facilities and pedestrian walkways on land adjacent to any highway on the National Highway System, including interstate highways. (23 USC Section 217)

Surface Transportation Program (STP)

Funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways or non-construction projects (such as maps, brochures, and public service announcements) related to safe bicycle use and walking. Federal law added the modification of public sidewalks to comply with the Americans with Disabilities Act as an

activity that is specifically eligible for the use of these funds. (23 USC Section 217)

Transportation Enhancement Activities (TE)

Ten percent (10%) of each state's annual STP funds are set aside for the TE program. The law provides a specific list of activities that are eligible TEs and includes provision of facilities for pedestrians and bicycles, provision of safety and educational activities for pedestrians and bicyclists, and the preservation of abandoned railway corridors (including the conversion and use thereof for pedestrian and bicycle trails). (23 USC Section 101 (a)(35))

Hazard Elimination and Railway-Highway Crossing

Another 10% of each state's STP funds are set aside for the Hazard Elimination and Railway-Highway Crossing programs, which address bicycle and pedestrian safety issues. Each state is required to implement a Hazard Elimination Program to identify and correct locations which may constitute a danger to motorists, bicyclists, and pedestrians. Funds may be used for activities including a survey of hazardous locations and for projects on any publicly owned bicycle or pedestrian pathway or trail, or any safety-related traffic calming measure. Improvements to railway-highway crossings shall take into account bicycle safety. (23 USC Section 152)

Congestion Mitigation and Air Quality (CMAQ) Improvement Program

Funds may be used for either the construction of bicycle transportation facilities and pedestrian walkways or non-construction projects (such as maps, brochures, and public service announcements) related to safe bicycle use (23 USC Section 217 (a)). At this time, Rio Rancho does not receive these funds due to the air quality status. However, future funding may be available dependent on a change in air quality attainment status.

Highway Bridge Replacement and Rehabilitation Program (HBRR)

Funds may be used to replace and rehabilitate pedestrian walkways and bicycle transportation facilities on deficient highway bridges. If a highway bridge deck is replaced or rehabilitated, and bicycles are permitted at each end, then the bridge project must include safe bicycle accommodations. (23 USC 217(e))

Recreational Trails Program

Funds from the Federal Highway Administration's (FHWA's) Recreational Trails Program may be used for various trail projects. Of the funds apportioned to a state, 30% must be used for motorized trail uses, 30% for non-motorized trail uses, and 40% for diverse trail uses (any combination). (23 USC Section 206)

Federal Lands Highway Program

Provisions for pedestrians and bicyclists are eligible under the various categories of the Federal Lands Highway Program in conjunction with roads, highways, and parkways. Priority for funding projects is determined by the appropriate Federal Land Agency or Tribal government. (23 USC Section 204)

National Scenic Byways Program

Funds may be used for construction along a scenic byway of a facility for pedestrians and bicyclists. (23 USC Section 162 (c)(4))

FEDERAL HIGHWAY SAFETY PROGRAMS

Federal State and Community Highway Safety Grants

Pedestrian and bicyclist safety is funded by the United States Section 402 formula grant program. A state is eligible for these grants by submitting a performance plan (establishing goals and performance measures for improving highway safety) and a Highway Safety Plan (describing activities to achieve those goals). (23 USC Section 402)

Research, development, demonstrations, and training to improve highway safety (including bicycle and pedestrian safety) are carried out under the Highway Safety Research and Development program. (23 USC Section 403)

Highway Safety Improvement Program (HSIP)

The program serves to achieve a significant reduction in traffic fatalities and serious injuries on public roads, including improvements for pedestrian or bicyclist safety. Projects include highway safety improvement projects on publicly owned bicycle or pedestrian pathways or trails. (23 USC 148)

Safe Routes to School (SRTS)

SRTS focuses on the development of action plans or infrastructure improvements that improve safety and encourage more children to walk and bike to school. The program serves specific purposes including (1) to enable and encourage children, including those with disabilities, to walk and bicycle to school; (2) to make bicycling and walking to school a safer and more appealing transportation alternative; and (3) to facilitate the planning, development, and implementation of projects and activities that will improve safety and reduce traffic, fuel consumption, and air pollution in the vicinity of schools. The Federal SRTS Program is managed and administered by each state department of transportation with funding allotted annually to each state from FHWA in conjunction with federal-aid highway apportionments. (SAFETEA-LU Sec. 1404)

Transportation, Community, and System Preservation Program (TCSP)

TCSP provides funding for a comprehensive program including planning grants, implementation grants, and research to investigate and address the relationships among transportation and community and system preservation plans and practices, and examines private-sector-based initiatives. Pedestrian and bicycle projects meet several TCSP goals, are generally eligible for the TCSP program, and are included in many TCSP projects. (SAFETEA-LU Sec. 1117)

FEDERAL TRANSIT PROGRAMS

Urbanized Area Transit Formula Grants

Funding includes transit capital and planning assistance to urbanized areas with populations over 50,000. Operating assistance is also available to areas with populations of between 50,000 and 200,000. Transit funds can be used for improving bicycle and pedestrian access to transit facilities and vehicles. Eligible activities include investments in pedestrian and bicycle access to a mass transportation facility that establishes or enhances coordination between mass transportation and other transportation. (49 USC Section 5307)

Transit Enhancement Activity (TEA)

The Transit Enhancement Activity program is funded with a 1% set-aside of Urbanized Area Formula Grant funds designated for, among other things, pedestrian access and walkways, and bicycle access, including bicycle storage facilities and installing equipment for transporting bicycles on mass transportation vehicles. The set-aside is available for federally designated urbanized areas with populations of 200,000 and over. (49 USC Section 5307)

Alternative Transportation in Parks and Public Lands

Funds are used to enhance the protection of federally owned parks and public lands and increase the enjoyment of those visiting the parks and public lands. Eligible areas are limited to any federally owned or managed park, refuge, or recreational area that is open to the general public. Alternative transportation includes a non-motorized transportation system (including the provision of facilities for pedestrians, bicycles, and non-motorized watercraft). (49 USC 5320)

OTHER FEDERAL PROGRAMS

Community Development Block Grants (CDBG)

The U.S. Department of Housing and Urban Development (HUD) provides funds for community-based projects. Neighborhood-based bicycle facilities that improve local transportation options or help to revitalize neighborhoods may be eligible.

STATE SOURCES

New Mexico Department of Transportation

The Highway Department may provide funds to match federal-aid projects on New Mexico and U.S. highways within the Albuquerque metropolitan area using non-federal funding sources.

New Mexico Legislature

During its annual legislative sessions, funds could be provided for bicycle/pedestrian projects through special appropriation bills (e.g., capital requests or memorials).

LOCAL SOURCES

Municipal Infrastructure Gross Receipts Tax

The City imposes an excise tax equal to one-eighth percent (0.125%) of the gross receipts reported or required to be reported by any person engaging in business in the city

pursuant to the New Mexico Gross Receipts and Compensating Tax Act. Revenue from the municipal infrastructure gross receipts tax can be used for all municipal government services, including, but not limited to, administration, courts, public safety, planning, recreation, leisure services, streets, infrastructure, and drainage. (Chapter 37.03 of the City of Rio Rancho Municipal Code)

Special Assessment District (SAD)

Special Assessment Districts are a means to provide property owners with infrastructure that was not built at the time the subdivision was created. The City is reimbursed for the cost of the SAD improvements by the property owners directly benefiting from the improvements. Assessment payments made by property owners to the City are used to pay for bonds issued for the improvement work and associated issuance costs.

The City normally uses the Provisional Order Method for initiating Special Assessment Districts when it determines that creation of a district is necessary for the safety, health, and welfare of the community. This method does not require any votes or "buy-in" from the property owners. The Special Assessment District is created by the City Council. However, the City does poll the property owners to reflect their desire to participate in a Special Assessment District, and the results of this poll are presented to the City Council prior to their votes being cast. Under the Petition Method, the City may initiate a district if the owners of two-thirds of the benefiting properties petition the City requesting a district to construct improvements and assess the costs of improvements. This method requires the City to send certified mail to every property owner for their signature on the petition.

The City conducts SADs in accordance with state law, Chapter 3, Article 33 NMSA, 1978 Improvement Districts. The City Council must pass five resolutions in order for a SAD to start and ultimately for construction work to begin.

Capital Improvement Program (CIP)

The City may make dedication of (or continue to dedicate) a portion of road funding in the CIP to the construction or maintenance of new and existing bicycle facilities.

Parks, Recreation and Community Services Department

The City may make dedication of (or continue to dedicate) a portion of the department budget for the construction or maintenance of new and existing trails.

Developer Roadway and Trails Impact Fees

Rio Rancho developed an impact fee document in August 2005 providing the nexus between collection of impact fees from new development and the capital improvement projects that will benefit the development. The document contains road impact fees and bikeway and trail impact fees that could fund improvement projects through 2010. For each infrastructure type, a list of planned improvements with total costs over a 5-year period is provided. About $700,000 in growth-related costs for bikeway and trails projects were identified for funding by the impact fee.

In some instances, it may be mutually beneficial for the City and a particular private developer to agree upon a combination of development impact fees, fee credits, land dedication, and/or capital improvements in order to most effectively move a project forward. Allowing fee credits in lieu of fees will be at the discretion of the City. Traffic generation impact fees are typically tied to trip generation rates and traffic impacts from proposed development, and may be used to install bicycle facilities.

Grants

Funding may be available from organizations that could assist with the development of on-street and off-road walking and biking facilities. For example, there are private foundations with grant programs providing park and recreation funding. The National Recreation and Park Association (www.nrpa.org) and the Foundation Center (www.foundationcenter.org) maintain websites with information on grant opportunities.

Dedicated Local Gross Receipts Tax

There is potential for a new local gross receipts tax that is dedicated to funding bicycle and pedestrian projects. A new tax would add on to the City's current gross receipts tax rate of 7.4375%. Of this rate, the City's share to the general fund is 2.9125%. The remaining 4.275% goes to the State (4.025%) and to Sandoval County (0.25%).

Actual gross receipts tax revenue for Rio Rancho in FY 2009–10 was $21.4 million. For each increment of one-sixteenth of one percent (0.0625%), the City's share of the gross receipts tax was about $460,000 in FY 2010. For a local option tax such as the municipal infrastructure gross receipts tax, proceeds from the tax may be dedicated to various types of infrastructure improvements, to repay obligation bonds, to municipal general purposes, to various public transit system purposes, or to economic development plans and projects. Because Rio Rancho already has this particular local option tax in place, any future increases to the municipal infrastructure gross receipts tax requires an election.

Debt Service

Bonds can be issued by Rio Rancho to help support specific projects. The bonds must have a relatively stable revenue stream to be sold to investors and pay back the principal and interest. There are five types of bonds that the City normally issues. Three of them are applicable to the financing of bicycle and pedestrian projects: General Obligation Bonds, Gross Receipts Revenue Bonds, and Special Assessment Bonds. A potential financing strategy could include passage of a new dedicated gross receipts tax that would provide the revenue stream for the City to issue gross receipts tax bonds. Alternatively, a bond issuance could be tied to the establishment of a special assessment that is levied to property owners who benefit from the improvements.

Contributions

Opportunities may present themselves where local landowners may negotiate with a city or the county to sell land to be used for recreational facility development. Contributions might also come from private companies or nonprofit organizations. Acquisition of right-of-way, wherever possible, can be in the form of an easement obtained by gift, exchange, or purchase with donated funds.

Note: Acquisition of right-of-way for bicycle or pedestrian facilities—or any other public facility—will need to meet the test of being reasonably related to the project's impacts and consistent with the City's Comprehensive Plan and this Bicycle and Pedestrian Transportation Master Plan.

Local Funding Strategies

To complement the development of the bicycle and pedestrian system, the City should consider funding pedestrian and bicycle improvements at the same time new roads are built or existing roads are retrofitted, as well as setting aside local funds that are dedicated to walking and biking improvements and possibly serving as matching funds for grants.

Table 4.6: Funding Source Applicability Chart

Funding Source	Facility Type		
	On-Street Facility	Pedestrian Facility	Multi-Use Paths and Trails
Federal-Aid Highway Programs			
National Highway System (NHS)	X	X	
Surface Transportation Program (STP)	X	X	
Transportation Enhancement Activities (TE)	X	X	X
Hazard Elimination and Railway-Highway Crossing	X	X	X
Congestion Mitigation and Air Quality (CMAQ) Improvement Program	X	X	X
Highway Bridge Replacement and Rehabilitation Program (HBRR)	X	X	
Recreational Trails Program			X
Federal Lands Highway Program	X	X	
National Scenic Byways Program	X	X	X

Funding Source	Facility Type		
	On-Street Facility	Pedestrian Facility	Multi-Use Paths and Trails
Federal Highway Safety Programs			
State and Community Highway Safety Grants	X	X	
Highway Safety Improvement Program (HSIP)	X	X	X
Safe Routes to School (SRTS)	X	X	X
Transportation, Community, and System Preservation Program (TCSP)	X	X	X
Federal Transit Programs			
Urbanized Area Transit Formula Grants	X	X	
Transit Enhancement Activity (TEA)	X	X	
Alternative Transportation in Parks and Public Lands	X	X	X
Other Federal Programs			
Community Development Block Grants (CDBG)	X	X	X
Land and Water Conservation Fund (LWCF)	X	X	X
State Sources			
New Mexico Department of Transportation	X	X	
New Mexico Legislature	X	X	X
Local Sources			
Municipal Infrastructure Gross Receipts Tax	X	X	X
Special Assessment District (SAD)	X	X	X
Capital Improvement Program (CIP)	X	X	X
Parks, Recreation and Community Services Department			X
Developer Traffic Impact Fees	X	X	X
Grants	X	X	X
Contributions	X	X	X

X – Funding source applies to the Facility Type

Chapter 5: Regulatory Context

5. Regulatory Context

The Bicycle and Pedestrian Transportation Master Plan is intended to complement and enhance local and regional efforts to provide bicycle and pedestrian infrastructure. Local and regional planning documents and programs have been considered in the development of the policies and implementation programs of the Bicycle and Pedestrian Transportation Master Plan. Additionally, interagency coordination between the organizations identified in this chapter is essential to achieving the goals of this Plan.

5.1 LOCAL AND REGIONAL PLANNING EFFORTS

MID-REGION COUNCIL OF GOVERNMENTS PLANS

The Mid-Region Council of Governments (MRCOG) is a multi-county governmental agency responsible for regional planning. The organization represents the counties of Bernalillo, Valencia, Torrance, Southern Santa Fe, and Sandoval and provides planning services in the areas of transportation, agriculture, workforce development, employment growth, land use, water, and economic development.

MRCOG is responsible for developing a Metropolitan Transportation Plan (MTP). The MTP is the region's long-range transportation plan. A long-range transportation plan provides projections and forecasts for population growth and transportation demand. The MTP also includes regionally significant transportation improvements that include regional bikeways, transit facilities, and pedestrian facilities.

MRCOG also administers federal transportation funding for the region, including funding sources for bicycle and pedestrian transportation improvement projects, through the short-term Transportation Improvement Program (TIP). Local projects may be evaluated for inclusion in the TIP, based on quantitative criteria developed by MRCOG and consistency with the MTP. Criteria are designed to measure the potential contribution of the project to achieving regional transportation goals.

Relationship to the Rio Rancho Bicycle and Pedestrian Transportation Master Plan

- The MTP addresses alternative, motorized transportation planning at a regional level, whereas the Bicycle and Pedestrian Transportation Master Plan addresses local non-motorized transportation options.
- MRCOG administers transportation funding and evaluates candidate projects by a number of criteria, which have been considered in the development of projects in this Master Plan.

- MRCOG and City of Rio Rancho bicycle and pedestrian planning documents complement one another as part of a larger regional solution for transportation.

CITY OF RIO RANCHO COMPREHENSIVE PLAN

The Comprehensive Plan was established in 2001 to help guide land use planning and community development. An update to the Comprehensive Plan was adopted in November 2010. The Comprehensive Plan is intended to be a working, living document maintained through an implementation, review, and monitoring process. It addresses many areas of planning including land use, urban design, transportation and circulation, infrastructure and capital facilities, environmental sustainability, housing, community services and public facilities, and economic development.

Relationship to the Rio Rancho Bicycle and Pedestrian Transportation Master Plan

- The Comprehensive Plan is a long-range plan that considers development trends over two decades, including bicycle and pedestrian circulation and urban design.

- The Bicycle and Pedestrian Transportation Master Plan is part of the implementation of the Comprehensive Plan, helping to develop the community's vision for alternative transportation.

CITY OF RIO RANCHO TRAFFIC ENGINEERING

The City of Rio Rancho Traffic Engineering division encompasses two groups: Traffic Engineering and Traffic Operations and Maintenance. The Traffic Engineering group oversees evaluation of and improvements to traffic-related infrastructure on city streets, like traffic signals, stop signs, speed limits, traffic signing, crosswalks, traffic counts and studies, and other traffic-related items. The Traffic Operations and Maintenance group maintains all traffic signals, school flashers, metered streetlights, signs, and traffic markings within the City of Rio Rancho.

Relationship to the Rio Rancho Bicycle and Pedestrian Transportation Master Plan

- The City of Rio Rancho Traffic Engineering division is part of the implementation of the Bicycle and Pedestrian Transportation Master Plan.

- The division will assist with maintaining bike paths and lane markings, and will help monitor bike lanes for safety.

- The division will also maintain sidewalks and multi-use paths within the right-of-way.

SSCAFCA QUALITY OF LIFE MASTER PLAN

The Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA) Quality of Life Master Plan for Watershed Parks identifies multi-use trail and other recreational initiatives to enhance outdoor enjoyment and provide

amenities for properties or neighborhoods adjacent to SSCAFCA lands. It takes a significant step toward realizing the vision of a comprehensive, connected system of joint use improvements along the arroyos in southern Sandoval County.

Relationship to the Rio Rancho Bicycle and Pedestrian Transportation Master Plan

- The Bicycle and Pedestrian Transportation Master Plan complements the Quality of Life Master Plan vision for recreation, alternative transportation, and wildlife habitat and cultural resource preservation in the region.
- The Bicycle and Pedestrian Transportation Master Plan recommends the implementation of many arroyo trails identified as part of SSCAFCA's Quality of Life Master Plan.
- SSCAFCA has and may continue to grant recreation easements through their property.

- City of Rio Rancho Parks and Recreation

The City of Rio Rancho Parks, Recreation and Community Services Department provides all cultural, athletic, entertainment, and quality of life services for the city such as parks facilities, youth and family programs, aquatics, special events and senior services. The Parks, Recreation and Community Services Department helps to manage and maintain many of Rio Rancho's trails.

Relationship to the Rio Rancho Bicycle and Pedestrian Transportation Master Plan

- The Bicycle and Pedestrian Transportation Master Plan works in conjunction with the department's goals and objectives to enhance recreation in the City of Rio Rancho.

Chapter 6: Public Outreach Results

6. Public Outreach Results

Community outreach played an important role in developing a Bicycle and Pedestrian Transportation Master Plan that accurately reflected the needs and desires of the community. Staff used the data collected from a community-wide telephone and website survey, as well as the recommendations from the Intermodal Task Force to help shape the Plan's policies and programs.

6.1 GODBE RESEARCH: TELEPHONE AND WEB SURVEY

TELEPHONE SURVEY

PMC worked with Godbe Research to conduct a community-wide telephone survey of 400 adult residents in the City of Rio Rancho. Interviews lasted 15 minutes each and were conducted in both English and Spanish from March 9 through March 14, 2010. The overarching objective for this survey was to gather input from residents to inform the planning process for the City's network of walking and biking trails within the city. More specifically, the survey goals included:

- Determine the bicycling and walking behavior of residents including frequency, trip purpose, and typical trip length.
- Identify the barriers to bicycling and walking.
- Estimate the likelihood of use of additional paths and trails.
- Assess important features of paths and trails.
- Identify any differences in opinions due to demographic and/or resident behavioral characteristics.

SURVEY SUMMARY AND RESULTS

4 out of 5 residents reported walking in Rio Rancho for recreation or transportation in the past year.

2 out of 5 residents reported bicycling in Rio Rancho for recreation or transportation in the past year.

Roughly twice as many households reported walking for recreation or transportation as compared to bicycling, and a majority of Rio Rancho residents indicated that they or a member of their household had walked for recreation or transportation within the last year. There were, however, a number of demographic differences. Residents who reported walking in Rio Rancho were more likely to be ages 25 and over, live in the south area of the city, have children in their household, and report a household income of $40,000 or more. In the same vein, residents who reported bicycling were more likely to have children in their household and report a

household income of $40,000 or more. Compared to overall results, a higher percentage of Hispanic residents reported bicycling. Bicycling rates were lower among residents ages 55 and over.

The survey indicated that residents mainly use paths and trails for bicycling and walking, with a smaller percentage using the paths for running and skateboarding.

Barriers to bicycling and walking varied based on household participation in the activity. For example, households that did not report a high level of participation indicated personal preference as the barrier as opposed to having problems with paths and trails. Although half of Rio Rancho's bicycling residents indicated there were no barriers to biking more often, the other half indicated a lack of bike lanes, maintenance-related issues, and traffic safety issues.

Time of year emerged as a significant barrier to bicycling, most likely because of the climate or the hours of daylight. The survey also revealed that residents mainly bicycle and walk for recreation or fitness, rather than transportation. For walking in the city, time of year was also a barrier though the results suggest that it is less of a barrier to walking than to bicycling.

82% of residents reported that their household would be "very likely" or "somewhat likely" to use additional paths and trails.

An overwhelming majority of households would be likely to use additional walking and biking paths and trails. Most people indicated that safety and maintenance were the most important features for trails and paths, whereas amenities were less important. Residents also indicated an overall satisfaction with the availability and maintenance of trails, although there was some indication that there is room for improvement. For example, lighting along paths and trails emerged as the highest priority for improvement efforts. Also, separating paths and trails from automobile traffic scored on the borderline of features that are a priority to improve.

WEBSITE SURVEY RESULTS

Following the telephone survey, the City continued to survey Rio Rancho residents for their input on bicycling and walking in the city with a website survey, which collected approximately 150 additional responses. Results from the Web survey showed similar trends to the telephone survey, with some minor differences.

Web survey participants tended to bicycle more often than the telephone survey participants, although their cycling behavior tended to be the same. Bicyclists rode more often in the warmer months of April through October, mostly for fitness and recreation. Barriers to bicycling were also similar to the telephone survey, where most participants agreed that traffic along the route and a lack of sidewalks and pathways prohibited them from cycling more often.

More participants walked in Rio Rancho mostly for fitness or recreation as compared to bicycling, although not by a large margin. Almost half of those who responded as having walked in the past year for recreation or as a mode of travel indicated that they did so during the colder months of November through March, which differed from those polled in the telephone survey. During the warmer months, walkers in Rio Rancho increased by close to 30%, a result that isn't surprising given the amount of daylight and more comfortable temperatures. Participants indicated that the major barriers to walking more often were a lack of sidewalks and paths and unsafe intersections and crossings. Walkers echoed the cyclists' opinion that another barrier was the amount of traffic and speed of traffic along current routes.

Eighty-two percent (82%) of survey participants answered that they would be very likely to use additional walking and/or bicycling paths if available. The important features varied but included safety of street intersections and crossings as the most important feature, with maintenance of path and trail surfaces a close second. Separation from automobile traffic and personal security and public safety also ranked as high priorities for trail features.

Half of the respondents were somewhat satisfied with the availability, maintenance, and features of current paths and trails in Rio Rancho.

A complete record of survey results is included as Appendix C of this Plan.

6.2 ADVISORY TASK FORCE FEEDBACK AND RECOMMENDATIONS

Recognizing the need for an improved system of bicycle and pedestrian trails, paths, and roadways in the City of Rio Rancho, the City Council approved the formation of the Intermodal Bike/Pedestrian Transportation Advisory Task Force in May 2009.

The Task Force met on a regular basis through 2009 and 2010 to hear presentations from experts, receive testimony from the public, and discuss in great detail the best plans and options for Rio Rancho. Through these efforts, the Task Force developed a series of recommendations that are targeted to supporting the further development of intermodal bicycle and pedestrian transportation.

The Task Force spent months getting input from various government organizations, private groups, and the general public. The organizations and groups included the Rio Rancho Parks, Recreation and Community Services Department, the Rio Rancho Public Works Department, the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA), the Rio Rancho Public Schools, the Mid-Region Council of Governments (MRCOG), the Albuquerque Parks and Recreation Department, and PMC, the developers of the new Rio Rancho Bicycle/Pedestrian Transportation Master Plan. The Task Force held a special public meeting on May 11, 2010, to solicit input from the public.

SUMMARY OF TASK FORCE RECOMMENDATIONS

The Task Force provided recommendations to the Rio Rancho City Council which were categorized by cost and impact. Recommendations were broken down into different groups: Advocacy, Education, Publications, Police and Fire Department Involvement, Intergovernmental Collaboration, Master Plan, Update Laws and Ordinances, and Prescription Trails.

LOW COST, HIGH IMPACT IMMEDIATE RECOMMENDATIONS

Task Force Recommendations: Advocacy

- Support for the formation of a nonprofit advocacy group to continue Task Force effort
- Work with local businesses to have them adopt parks and trails

Task Force Recommendations: Education

- Support NM Safe Routes to School program and Walk and Roll to School Day
- Have bicycle education information on the City website
- Provide bicycle safety flyers at libraries and parks
- Help distribute bicycle helmets and lights
- Provide bicycle safety information in local newspapers and magazines

Task Force Recommendations: Publications

- Get advertising support to publish a map showing parks, bicycle facilities, and walking trails
- Police and Fire department involvement
- Teach bicycle awareness in traffic safety school
- Allocate resources for police patrol of trails

Task Force Recommendations: Intergovernmental Collaboration

- Work with other government entities and agencies to plan, support, and fund bicycle and pedestrian infrastructure

Task Force Recommendations: Master Plan

- Develop Bicycle and Pedestrian Master Plan
- Add additional signage
- Apply to be a Bicycle Friendly Community

Task Force Recommendations: Update Laws and Ordinances

- Align bicycle laws and ordinances with Albuquerque (including cell phone law)

Task Force Recommendations: Prescription Trails

- Develop Prescription Trail program

HIGHER COST IMMEDIATE TASK FORCE RECOMMENDATIONS

Task Force Recommendations: Advocacy

- Contract services to promote bicycle education
- Work with nonprofit group to support a walking/cycling event

Task Force Recommendations: Education

- Work with schools to map paths and trails as part of the Safe Routes to Schools program
- Offer bicycle education classes

Task Force Recommendations: Master Plan

- Work with MRCOG to incorporate bicycle and pedestrian transportation into mass transit plans
- Have mandatory construction of bicycle lanes and sidewalks in new development
- Follow AASHTO standards for roads and bicycle lanes
- Provide for maintenance and improvement of existing facilities
- Start planning and budgeting for new facilities
- Start building trails as funds become available
- Conduct a user count of pedestrians and cyclists

HIGHER COST, LONG-TERM TASK FORCE RECOMMENDATIONS

Task Force Recommendations: Master Plan

Complete the Trail Network

- Bosque Trail along the Rio Grande
- La Baranca Trail
- Lomitas Negras Arroyo Trail
- Montoyas Arroyo Trail
- Black Arroyo Trail
- Calabacillas Arroyo Trail
- Venada Arroyo Trail

Develop End-User Facilities

- Restrooms
- Drinking fountains
- Bike racks/boxes
- Shade cover
- Places for vendors to sell food and rent bicycles

Appendix A

Appendix A: Rio Rancho Bicycle and Pedestrian Transportation Master Plan VMT and GHG Calculation

Estimate of GHG and VMT Reduction from Plan Implementation

		2010	2030
1	Population	80,000	120,008
2	Daily VMT per Capita	20.9	20.9
3	Annual Rio Rancho VMT	610,280,000	915,478,483
4	Baseline Bike Mode Share	1.20%	1.20%
5	Increase in Bike Commute per mile of bike lane (per 100,000 residents)	0.075%	0.075%
6	Total Miles of Bike Lane to be installed	0	100.88
7	Increase in Bike Commuting		9.08%
8	Annual Decrease in VMT		997,481
9	Annual Decrease in MTCO2e		745.49

Sources

1 *Population: Calculated annual growth rate between 2000 and 2050 based on 2000 census data and 2050 Rio Rancho Comprehensive Plan*

2 *Daily VMT per Capita (for Albuquerque metro region: http://www.cabq.gov/progress/2004-progress-report/2004-documents/vehicle.pdf)*

3 *Annual VMT: Daily per capita VMT x population x 365*

4 *Current Bike Mode Share (Albuquerque region): Adjusted from 2009 American Community Survey (http://factfinder.census.gov/servlet/ADPTable?_bm=y&-geo_id=31000US10740&-qr_name=ACS_2009_1YR_G00_DP3&-context=adp&-ds_name=&-tree_id=309&-_lang=en&-redoLog=false&-format=)*

5 *Increase in Bike Commuting: Dierkers, G., E. Silsbe, S. Stott, S. Winkelman, and M. Wubben. 2007. CCAP Transportation Emissions Guidebook. Center for Clean Air Policy. Washington, D.C. Available: http://www.ccap.org/safe/guidebook.php, as cited in California Air Pollution Control Officers Association (CAPCOA) 2008. CEQA and Climate Change.*

6 *Bike Lanes to be installed: Bike Plan*

7 *Increase in Bike Commuting: Calculation of the miles of bike lanes to be installed multiplied by the future population and increase in bike commute per mile of bike lane*

8 *Annual Decrease in VMT: Calculation of existing bike mode share multiplied by the increase in bike commuting and future annual VMT*

9 *Annual Decrease in $MTCO_2e$: Calculation of $MTCO_2e$ per mile of travel coefficient based on State of New Mexico GHG inventory and annual VMT*

From State of New Mexico GHG inventory

VMT	*19,000,000,000*
$MTCO_2e$	*14,200,000*
$MTCO_2e$ per mile of travel	*0.000747368*

http://www.nmenv.state.nm.us/cc/documents/CCAGFinalReport-AppendixD-EmissionsInventory.pdf

Appendix B: Maintenance and Construction Costs

City of Rio Rancho
Bicycle and Pedestrian Master Plan

Multi-Use Trails
Construction Cost Estimate

Item	Unit	Cost
Clearing & Grubbing	sq. yd.	$ 0.50
Grading[1]	sq. yd.	$ 1.48
Subgrade preparation	sq. yd.	$ 1.00
Base aggregate 6"	sq. yd.	$ 7.00
Stabilized crusher run fines[2]	sq. yd.	$ 2.25
Asphalt 3"	sq. yd.	$ 9.99
Concrete 6"	sq. yd.	$ 22.00
Right-of-way	sq. yd.	$ 100.00
Seating	each	$ 500.00
Signage	each	$ 150.00
Striping	Lin. Ft.	$ 0.40
Litter receptacle	each	$ 300
Doggie bag dispenser	each	$ 200
Landscaping	mile	
Fencing (pedestrian bicycle railing)	Lin. Ft.	$ 75.00
Planning & Environmental	percentage	20%
Engineering	percentage	15%
Construction management	percentage	5%

Unit costs from New Mexico Department of Transportation Average Unit Bid Prices-All Items (Jan.-Dec., 2009), where applicable

[1] $40 per cu.yd., average 1 cu.ft. of excavation/fill per sq. yd.

[2] $12 per ton, 120 lbs/cu. ft, 3" thick, lime stabilization

Multi-Use Trails
Construction Cost Estimate

Cost per mile

Crusher Fine Surface		sq. ft	sq. yd	Combined unit costs	Total per mile
Section	traveled way (12 ft.)	63360	7040	$ 2.25	$ 15,840
	overall (16 ft.)	84480	9387	$ 2.98	$ 27,986
Seating @ 1/8 mile interval					$ 4,000
Signage @ 1/8 mile interval					$ 1,200
Litter receptacle and doggie bag @ 1/8 mile interval					$ 4,000
Fencing/Railing 10% of trail					$ 39,600
			Sub-total		$ 92,626
			Planning & Environmental		$ 18,525
			Engineering & CM		$ 18,525
			Total cost per mile		**$ 129,677**

Concrete Surface					
Section	traveled way (12 ft.)	63360	7040	$ 16.99	$ 119,610
	overall (16 ft.)	84480	9387	$ 2.98	$ 27,986
Striping				$ 0.40	$ 2,112
Seating @ 1/8 mile interval					$ 4,000
Signage @ 1/8 mile interval					$ 1,200
Litter receptacle and doggie bag @ 1/8 mile interval					$ 4,000
Fencing/Railing 10% of trail					$ 39,600
			Sub-total		$ 198,508
			Planning & Environmental		$ 39,702
			Engineering & CM		$ 39,702
			Total cost per mile		**$ 277,911**

Asphalt Surface					
Section	traveled way (12 ft.)	63360	7040	$ 29.00	$ 204,160
	overall (16 ft.)	84480	9387	$ 2.98	$ 27,986
Ramps @ 1/8 mile					$ 16,000
Striping				$ 0.40	$ 2,112
Seating @ 1/8 mile interval					$ 4,000
Signage @ 1/8 mile interval					$ 1,200
Litter receptacle and doggie bag @ 1/8 mile interval					$ 4,000
Fencing/Railing 10% of trail					$ 39,600
			Sub-total		$ 299,058
			Planning & Environmental		$ 59,812
			Engineering & CM		$ 59,812
			Total cost per mile		**$ 418,681**

For Comparison:

City of Albuquerque Trails and Bikeways Facilities Plan, (1996):

Primary trails: $90,000 per mile

Secondary: $30,000 per mile

City of Las Cruces, 2005 PRMP: $275,000 per mile

Lanes Routes
Installation Cost Estimates

Item	Unit		
Bike Lane Striping 4" (retro-reflective paint)	ft	$	0.40
Center Striping 4" (retro-reflective paint)	ft	$	0.40
Symbol and arrow (retro-reflective plastic)	each	$	500
Signing			
Bike Lane/Route Signing	each	$	150
Bicycle Loop Detection[1]	each	$	1,500
Push button station		$	300
Pedestrian/Bicycle Ramp	each	$	2,000
Bike racks	each	$	400
Litter receptacle	each	$	300

Cost per mile

Bike Lanes-Arterials		Total per mile	
Striping		$	2,112
Pavement Markings @ 1/7 mile interval		$	3,500
Signage @ 1/7 mile interval		$	1,050
Bicycle Loop Detection @ 2 per mile		$	3,000
Push button station			
	Sub-total	$	9,662
	Planning & Environmental	$	1,932
	Engineering & CM	$	483
	Total cost per mile	**$**	**12,078**

[1]Complete: includes saw-cut, wiring, connection to controller

Cost per mile

Bike Routes		Total per mile	
Striping		n/a	
Signage @ 1/10 mile interval		$	1,500
	Sub-total	$	1,500
	Planning & Environmental	$	-
	Engineering & CM	$	-
	Total cost per mile	**$**	**1,500**

Annual Maintenance
Park Trails

Multi-use Trails

Current Trails		Area (acs)
Sierra Norte		3
Trailhead		2.5
Willow Creek		4.2
Dam Site		5.5
Enchanted Hills		22
Mountain View		5
Clayton Meadows Park Path		1
Los Rios		3
	total acres	46.2
average width		8
buffer (avg.)		4
	total average maintained width (ft)	12
	maintained miles	34.65

Maintenance Costs			
Personnel[1]		$	110,234
Fuel			5100
Materials & supplies			2000
Clothing			800
Crusher fines			5000
		$	123,134
	Current Acres		46.2
	Cost per acre	$	2,665
	Cost per mile	$	3,554

Other costs			
Vehicle capital costs			
Replace tractor every five years		$	12,000
Utility truck, ten years		$	5,000
Ranger patrol/regulation		$	30,000
Miscellaneous[2]		$	5,000
		$	52,000
			46.2
	Othe costs per acre	$	1,126
	Other costs per mile	$	1,501
	Total per acre	**$**	**3,791**
	Total per mile	**$**	**5,054**

[1] Fully-loaded cost of two positions. Work performed includes emptying trash cans, picking up litter/trash, trimming overgrowth, removing weeds, mowing and/or spraying, fixing fences, erecting/replacing signs, addressing vandalism and erosion, and occasional grooming of crusher fine trails with bunker rake.

[2] dog waste stations, benches, trash cans, signs, fencing

Annual Maintenance
Lanes, Routes, Paths

Bike Paths, Lanes and Routes

	Lanes	Routes	Paths
Striping & Pavement Marking	$ 2,806	n/a	$ 422
Signing	$ 70	$ 100	$ 80
Sweeping	$ 150	$ 67	$ 100
Overlay	$ 750	$ 469	$ 2,251
Sealing	$ 422	$ 264	$ 1,267
Reconstruction	$ 1,901	$ 985	$ 3,802
Annual cost per mile	**$ 6,099**	**$ 1,885**	**$ 7,922**
Annual cost w/o reconstruction	**$ 4,199**	**$ 900**	**$ 4,120**

Bike lane, route & path maintenance assumptions & unit costs

Overlay	frequency,years	cost per mile[1]	cost /mile/year
lanes	10	$ 7,502	$ 750
routes	16	$ 7,502	$ 469
paths	10	$ 22,505	$ 2,251
Sealing			
lanes	5	$ 2,112	$ 422
routes	8	$ 2,112	$ 264
paths	5	$ 6,336	$ 1,267
Reconstruction	percentage	cost per sq. ft.	
lanes, arterial streets	1%	$ 9	$ 1,901
routes, local streets	1%	$ 5	$ 985
paths	2%	$ 3	$ 3,802
Re-striping & marking	frequency, years	initial cost[2]	
Lanes	2	$ 5,612	$ 2,806
Routes	n/a	n/a	n/a
Paths	5	$ 2,112	$ 422
Sign replacements	frequency,years		
Lanes	15	$ 1,050	$ 70
Routes	15	$ 1,500	$ 100
Paths	15	$ 1,200	$ 80

Sweeping	lanes	routes	paths
Sweeping freq., per year	12	4	4
Production, miles per hour	4	3	2
Cost per hour[3]	$ 50.00	$ 50.00	$ 50.00
Cost per mile	$ 12.50	$ 16.67	$ 25.00
Cost per mile per year	$ 150.00	$ 66.67	$ 100.00

[1] Based on 1" overlay, $60/ton HMA SP-III; $0.10 sq. ft. for sealcoat; $40/ton for base aggregate

[2] Initial cost of striping, pavement markings and signage see unit costs for bikeway construction costs

[3] Includes operator, equipment, materials, supplies and fuel costs

Unit Costs

AC Pavement	Height (ft.)	Unit	Unit Cost	Cost/Sq. Ft.
Sub excavate & recompact	1	CY	$ 6.00	$ 0.22
Crusher fines	0.25	TON	$ 15.00	$ 0.23
overlay	0.08	TON	$ 60.00	$ 0.36
sealcoat				$ 0.10
Multi-use path 3"/8"				
Cl 2 Aggregate Base	0.67	CY	$ 40.00	$ 0.99
HMA-SP III	0.25	TON	$ 60.00	$ 1.11
Striping	n/a	SF	$ 1.00	$ 1.00
				$ 3.10
Local & Collector 5"/12"				
Sub excavate & recompact	1.5	CY	$ 6.00	$ 0.33
Cl 2 Aggregate Base	1	CY	$ 40.00	$ 1.48
AC - Type B*	0.42	TON	$ 60.00	$ 1.85
Striping	n/a	SF	$ 1.00	$ 1.00
				$ 4.66
Secondary Arterial 8"/16"				
Sub excavate & recompact	2	CY	$ 6.00	$ 0.44
Cl 2 Aggregate Base	1.33	CY	$ 40.00	$ 1.97
HMA-SP III	0.67	TON	$ 60.00	$ 2.97
Striping	n/a	SF	$ 1.50	$ 1.50
				$ 6.89
Prime Arterial 10"/24"				
Sub excavate & recompact	3	CY	$ 6.00	$ 0.67
Cl 2 Aggregate Base	2	CY	$ 40.00	$ 2.96
HMA-SP III	0.83	TON	$ 60.00	$ 3.69
Striping	n/a	SF	$ 1.75	$ 1.75
				$ 9.06

148 lbs/cf AC
120 lbs/cf fines

* based on 148 lbs/cf for AC

Medians		
Curb and mow strip (LF)	$	20.00
Landscaping (SF)	$	5.00
Paving (SF)	$	8.00

	Demo cost	Const. Cost:	
Sidewalk (sq. ft)	$ 2.00	$ 7.00	(including ped. ramps, driveways)
PCC Curb (lin. ft)	$ 2.50	$ 30.00	
AC Berm (lin. ft.)	$ 1.50	$ 12.00	
Cold plane AC (1" avg. depth)	$ 0.20		

Earthwork	Unit Cost	
Cut slopes (CY):	$ 9.00	
New embankment fill (CY):	$ 12.00	
Disposal off-site (CY):	$ 30.00	
Reveg. new cut/fill slope areas (SF)	$ 3.00	(including soil prep. & plant establishment period)
Erosion Control (SF)	$ 0.50	
Clear & Grubbing (SF)	$ 1.00	

Appendix C

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Appendix C

1. Introduction

1.1 OVERVIEW AND RESEARCH OBJECTIVES

The City of Rio Rancho commissioned PMC and Godbe Research to conduct a telephone survey of residents to help inform the planning for a comprehensive network of walking and biking paths and trails throughout the city. The study was designed with the following research objectives:

- Survey the current bicycling and walking behavior of residents, including frequency, trip purposes, and typical trip length;
- Identify the barriers to bicycling and walking;
- Estimate the likely use of additional paths and trails;
- Assess the importance of various features of paths and trails;
- Gauge satisfaction with specific features of current paths and trails; and
- Identify any differences in opinions due to demographic and/or resident behavioral characteristics.

1.2 METHODOLOGY OVERVIEW

Data Collection: Telephone interviewing

Universe: Approximately 55,726 adult residents in the City of Rio Rancho

Fielding Dates: March 9 through March 14, 2010

Interview Length: 15 minutes

Interview Languages: English and Spanish

Sample Size: 400

Margin of Error: ±4.9%

2. Executive Summary

2.1 BICYCLING AND WALKING IN RIO RANCHO

A majority of residents had walked in Rio Rancho, significantly more than those who had bicycled in the city. Given that walking requires no special equipment or skills, it is not unexpected that roughly twice as many households reported walking than bicycling.

- Fully 4 out of 5 residents indicated that they or a member of their household had walked in Rio Rancho for recreation or transportation within the past year.

- Close to 2 out of 5 residents reported that they or a member of their household had bicycled in Rio Rancho for recreation or transportation within the past year.

Demographics were a factor in residents' reported walking and bicycling.

- Residents who reported walking in the city were more likely to be ages 25 and over, live in the south area of the city, have children in their household, and report a household income of $40,000 or more.

- There were several similarities in the results on reported bicycling. The residents who reported bicycling in the city were more likely to have children in their household and report a household income of $40,000 or more. Additionally, a higher percentage of Hispanic residents and a lower percentage of residents ages 55 and over reported bicycling.

The survey indicated that residents mainly use paths and trails for bicycling and walking. Aside from these activities, 12% of the residents reported running on paths and trails in the city, and 9% reported skateboarding.

2.2 BARRIERS TO BICYCLING AND WALKING

Residents reported different barriers to bicycling, depending on whether their household participates in the activity.

- The households that had not bicycled most frequently reported personal preferences as barriers, rather than problems with paths and trails. These responses included the following: don't own a bike (20%); elderly, disabled, or health reasons (18%); prefer to drive (12%); and too busy (10%).

- Among the bicycling households, the most frequently cited barriers to bicycling more often were a lack of lanes and paths (25%), maintenance-related issues (11%), and safety issues with traffic (10%) and intersections (9%). Approximately half of the bicyclists reported that there is nothing that prevents their household from bicycling more often.

A similar pattern of responses emerged regarding barriers to walking, though fewer

walking households reported problems with sidewalks, lanes, and paths.

- The households that had not walked generally reported that they prefer to drive (29%); a lack of destinations nearby (19%); elderly, disabled, or health reasons (9%); or that they have to take care of children (8%). Since the most frequently mentioned barriers related to walking-as-transportation, the results suggest that these residents may benefit from messages that encourage walking for fitness or recreation.

- Among the walking households, the most frequently cited barriers were not enough sidewalks, lanes, and paths (13%) and weather (9%). Fully half of the walkers reported that there is nothing that prevents their household from walking more often.

2.3 TRIP CHARACTERISTICS AMONG BICYCLISTS

The results suggest that time of year may be a significant barrier to bicycling, either because of the climate or the hours of daylight.

- Overall, 72% of the households that bicycle reported doing so on a weekly basis during the warmer months of April through October.

- In comparison, just 37% of the bicyclists reported doing so on a weekly basis during the colder months of November through March. Further, 28% of the bicyclists reported that they never bicycle in Rio Rancho during the colder months.

The survey revealed that residents mainly bicycle for recreation or fitness, rather than transportation.

- Two-thirds of the households that bicycle reported the purpose of their trips as "recreation or play," and one-third reported "fitness or exercise."

- Similar to the results of the 2006–2008 American Community Survey, approximately 4% of residents as a whole had bicycled to work within the past 12 months.

- Although a more comprehensive assessment of bicycling to school is needed, the results suggest that a low percentage of children ride a bicycle to school. More specifically, 3% of the households with children in the survey reported bicycling to school.

To encourage bicycling as transportation, the City of Rio Rancho should emphasize trips that are 2 miles or less one way, since this distance reflects a majority of recreational rides.

- Overall, 56% of the residents reported that their household bicycles 2 miles or less on a typical one-way trip.

2.4 TRIP CHARACTERISTICS AMONG WALKERS

Time of year also may be a barrier to walking, either because of the climate or the hours of

daylight, though the results suggest that it is less of a barrier to walking than bicycling.

- Overall, 80% of the households that walk reported doing so on a weekly basis during the warmer months of April through October.

- In comparison, 53% of the walkers reported doing so on a weekly basis during the colder months of November through March. Just 16% of the walkers reported that they never walk in Rio Rancho during the colder months.

Here as well, the survey revealed that residents mainly walk for fitness or recreation, rather than transportation.

- Two-thirds of the households that walk reported the purpose of their trips as "fitness or exercise," and 40% reported "recreation or play."

- Similar to the results of the 2006–2008 American Community Survey, less than 2% of residents as a whole had walked to work within the past 12 months.

- Additionally, just 7% of the households with children in the survey reported "travel to/from school" as the purpose of their walking trips. As might be expected, the results suggest that walking to school is slightly higher among older children, ages 13 to 18 years.

To encourage walking as transportation, the City of Rio Rancho should emphasize trips that are 1 mile or less one way, since this distance reflects a majority of recreational walks.

- Overall, 63% of the residents reported that their household walks 1 mile or less on a typical one-way trip.

2.5 ADDITIONAL PATHS AND TRAILS

An overwhelming majority of households would be likely to use additional walking and biking paths and trails.

- Approximately 4 out of 5 residents reported that their household would be "very likely" (56%) or "somewhat likely" (26%) to use additional paths and trails.

- Residents ages 25 to 44 would be most likely to use additional paths and trails, with more than two-thirds of the residents in this age range being "very likely." Likely use of additional paths and trails tended to be higher among the Hispanic residents and households with children. Finally, likely use also was higher among the households that currently bicycle or walk in Rio Rancho.

The features of paths and trails that were most important to residents related to safety and maintenance, whereas path and trail amenities were relatively less important. Specifically, close to 9 out of 10 residents rated the following as "very" or "somewhat important":

- Safety of street intersections and crossings for pedestrians and bicyclists;

- Keeping paths and trails clear of broken glass, stickers, and other sharp objects;
- Personal security and public safety along paths and trails;
- Separation from automobile traffic;
- Maintenance of path and trail surfaces; and
- Lighting along paths and trails.

2.6 SATISFACTION WITH PATHS AND TRAILS

Although a majority of residents are satisfied with the availability and maintenance of walking and biking paths and trails in the city, the results suggest that there is an opportunity to improve residents' satisfaction.

- Overall, 3 out of 5 residents in the survey reported being "very satisfied" (24%) or "somewhat satisfied" (39%) with the availability and maintenance of paths and trails.
- On average, residents were less than "somewhat satisfied" with the 14 features of paths and trails tested in the survey. Although satisfied residents generally outnumbered dissatisfied residents, these results suggest room for improvement in path and trail features.

The following path and trail features earned the relatively lowest satisfaction scores:

- Availability of benches and other seating areas (60% satisfied);
- Separation from automobile traffic (59% satisfied);
- Maps, signs, and other information along paths and trails (56% satisfied);
- Availability of secure bicycle parking at restaurants, shops, and other destinations (51% satisfied);
- Availability of shade structures (51% satisfied);
- Lighting along paths and trails (44% satisfied); and
- Availability and maintenance of drinking fountains (37% satisfied).

2.7 PRIORITIES FOR IMPROVEMENT AND MAINTENANCE

The importance and satisfaction scores recommend a strategic approach to improving and maintaining path and trail features, emphasizing for improvement the more important features that earned relatively lower satisfaction scores.

- Lighting along paths and trails is the highest priority for improvement efforts. Although more than 4 out of 5 residents rated this feature as important, just 2 out of 5 residents were satisfied with lighting. If daylight hours are a barrier to bicycling and walking in Rio Rancho, lighting improvements may encourage these activities in November through March.

- Separating paths and trails from automobile traffic scored on the borderline of features that are a priority to improve. In this case, 95% of the residents rated it as important, but just 59% were satisfied with the current separation of paths and trails.

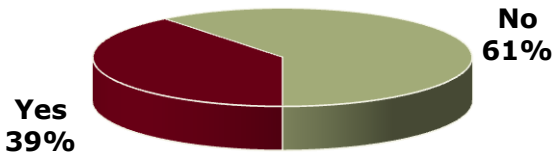
The following path and trail features were identified as a priority to maintain. Given that residents generally were less than "somewhat satisfied" with these features, they should be considered for improvement if resources are available.

- Safety of street intersections and crossings for pedestrians and bicyclists;
- Keeping paths clear of broken glass, stickers, and other sharp objects;
- Personal security and public safety along paths and trails; and
- Maintenance of path and trail surfaces.

3. Key Findings: Bicycling and Walking in Rio Rancho

3.1 BICYCLING IN THE CITY

As shown in the chart below, approximately 2 out of 5 residents reported that they or a member of their household had ridden a bicycle in Rio Rancho for recreation or to travel to a destination within the past year. On the other hand, 61% of the households had not ridden a bicycle within this time frame.



3.2 SUBGROUP COMPARISONS

To better understand residents' behavior and opinions, the results were analyzed by key demographic groups, and the example below highlights significant differences in reported bicycling. An analysis of these results is shown on the next page, and the bulleted points below provide general information on how to read the crosstabulation tables included in the text of the report.

	Age					Ethnicity		
	18 to 24	25 to 34	35 to 44	45 to 54	55 and over	Caucasian	Hispanic	Other
Resident count (n)	50	87	77	78	96	220	130	32
Yes	33.7%	39.2%	**53.9%**	**48.1%**	**23.6%**	**35.2%**	**52.1%**	**19.6%**
No	66.3%	60.8%	46.1%	51.9%	76.4%	64.8%	47.9%	80.4%

Shown above are the responses to bicycling in the city for age groups and ethnic groups. For example, 35% of the Caucasian residents reported that their household had bicycled ("Yes"), and 65% of the Caucasian residents reported that their household had not ("No"). Also shown is the number of residents within each demographic subgroup.

This table highlights the statistically valid differences between demographic subgroups at the 95% confidence level. In other words, we can be reasonably confident that the highlighted results reflect true differences

between groups of Rio Rancho residents, not merely differences among the sample of telephone survey respondents.

Highlighted in blue are the demographic group(s) that showed a significantly higher percentage response than the demographic group(s) highlighted in red. For example, a higher percentage of the Hispanic residents (52%) reported bicycling than the Caucasian residents (35%) and the residents of other ethnic backgrounds (20%).

There are times when the differences between responses are not statistically valid, and these percentages are shown in plain black text. For example, the residents ages 18 to 24 did not significantly differ in their reported bicycling from any other age groups.

Please note that analyses compare differences between demographic subgroups (the percentages across a row), rather than the differences within a demographic subgroup (the percentages within a column). Also, analyses compare only differences within a single demographic; 18-to-24-year-olds were compared to other age groups, but not to ethnic groups.

3.3 BICYCLING IN THE CITY: SUBGROUP COMPARISONS

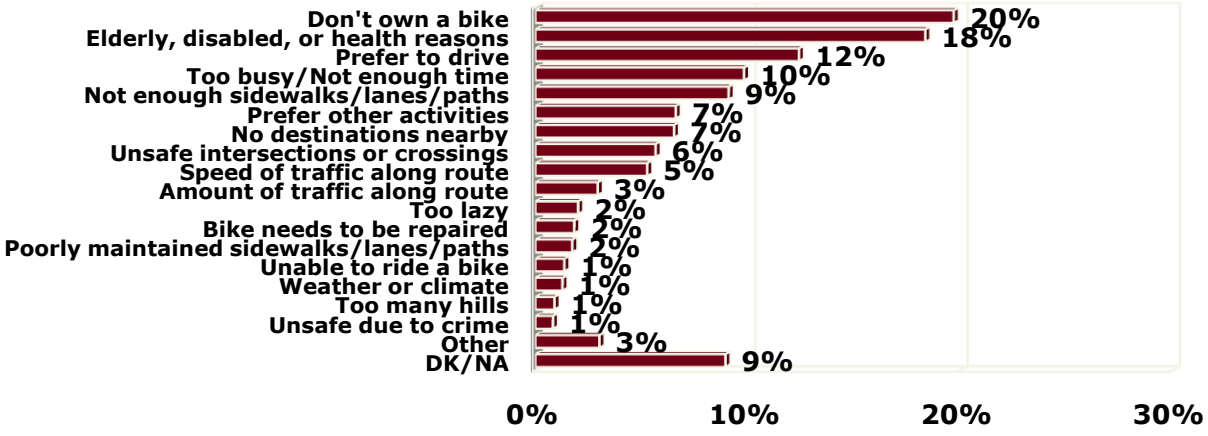
Overall, reported bicycling within the city was significantly higher among the residents ages 35 to 54, the Hispanic residents, those with children in their household, and the households with an annual income of $40,000 or more.

	Age					Ethnicity		
	18 to 24	25 to 34	35 to 44	45 to 54	55 and over	Caucasian	Hispanic	Other
Resident count (n)	50	87	77	78	96	220	130	32
Yes	33.7%	39.2%	**53.9%**	**48.1%**	**23.6%**	**35.2%**	**52.1%**	**19.6%**
No	66.3%	60.8%	46.1%	51.9%	76.4%	64.8%	47.9%	80.4%

	Children or Seniors in the Household			Annual Household Income		
	Children	Seniors	Neither	Less than $40,000	$40,000 to $60,000	$60,000 or more
Resident count (n)	212	91	120	102	71	133
Yes	52.9%	18.5%	29.2%	27.4%	49.0%	46.0%
No	47.1%	81.5%	70.8%	72.6%	51.0%	54.0%

3.4 BARRIERS TO BICYCLING

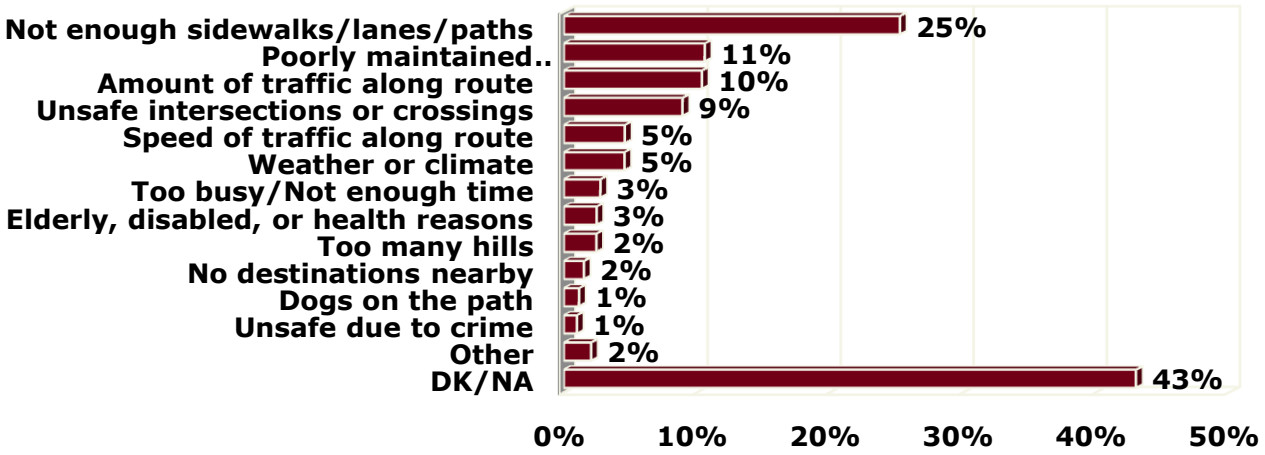
The households that had not bicycled in Rio Rancho (n = 243) were asked to describe the main reasons why. The most frequently mentioned barriers to bicycling largely reflect personal preferences, rather than problems with paths and trails. Specifically, the residents most frequently mentioned that their household does not own a bike (20%); that they are elderly, disabled, or cited health reasons (18%); and that they prefer to drive (12%). In comparison, fewer than 10% of the residents reported problems with the paths and trails, including not enough sidewalks, lanes, or paths (9%); unsafe intersections or crossings (6%); speed of traffic along route (5%); amount of traffic along route (3%); and poorly maintain sidewalks, lanes, or paths (2%).



Using Unser Boulevard and Northern Boulevard, the city was divided into four areas. When compared with the households in northeast Rio Rancho, a significantly higher percentage of those living in the northwest indicated "prefer to drive" as the main reason for not bicycling in the city.

	Area of Residence			
	Northeast	Northwest	Southeast	Southwest
Resident count (n)	79	42	68	44
Don't own a bike	21.9%	22.0%	16.5%	18.9%
Elderly, disabled, or health reasons	14.6%	17.1%	22.1%	14.4%
Prefer to drive	**4.7%**	**23.0%**	12.9%	17.9%
Too busy/Not enough time	17.6%	1.3%	5.4%	9.8%
Not enough sidewalks/lanes/paths	9.4%	4.3%	5.9%	18.3%

The residents who bicycle in the city (n = 157) were asked to describe anything that prevents their household from bicycling more often. In contrast to the barriers cited by non-bicyclists, the bicyclists most frequently mentioned problems with paths and trails. Specifically, they most frequently reported that there are not enough sidewalks, lanes, or paths (25%), maintenance-related issues (11%), or safety issues with traffic (10%) and intersections (9%). It is also important to note that close to half of the bicyclists reported that there is nothing that prevents their household from bicycling more often (DK/NA).



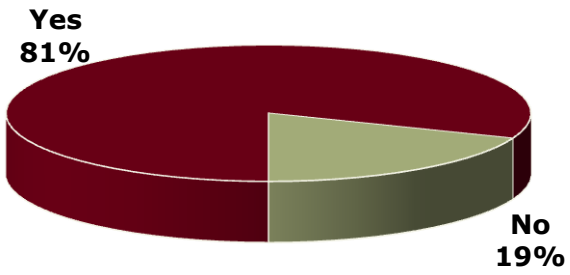
A significantly higher percentage of the residents living south of Northern Boulevard mentioned "poorly maintained sidewalks, paths or lanes" as the main barrier to bicycling more often, whereas their counterparts living in the north area of the city more frequently reported "unsafe intersections or crossings." At the same time, availability of sidewalks, lanes, and paths was the most frequently mentioned barrier regardless of area of residence.

	Area of Residence	
	North	South
Resident count (n)	73	74
Not enough sidewalks/lanes/paths	24.1%	29.9%
Poorly maintained sidewalks/lanes/paths	5.3%	17.4%

	Area of Residence	
	North	South
Amount of traffic along route	14.8%	6.8%
Unsafe intersections or crossings	15.0%	4.1%

3.5 WALKING IN THE CITY

Overall, 4 out of 5 residents stated that they or a member of their household had walked in Rio Rancho for recreation or to travel to a destination within the past year. Given that walking requires no special equipment or skills, it is not unexpected that roughly twice as many households reported walking (81%) than bicycling (39%).



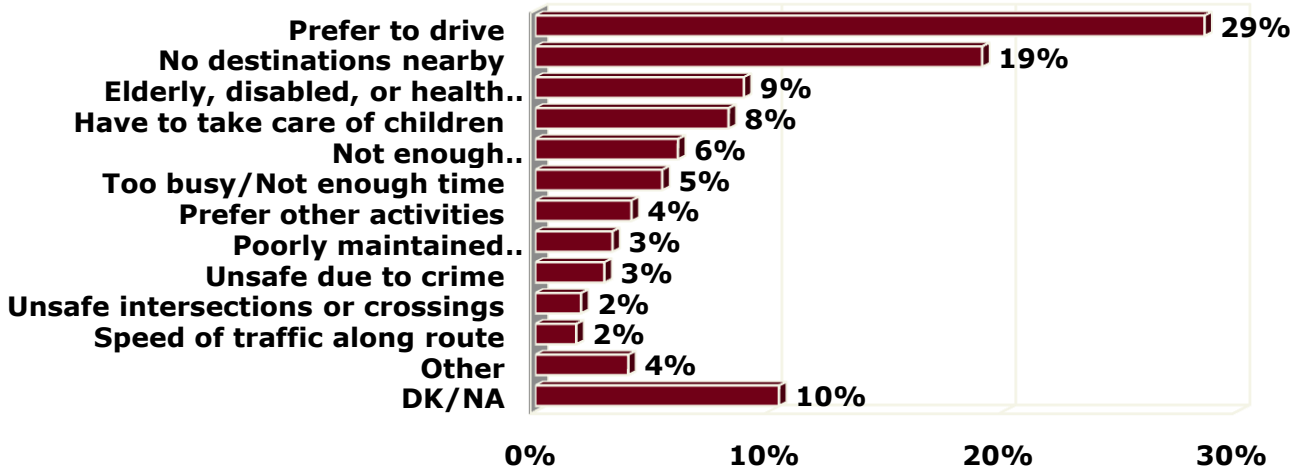
As shown in the tables below, the following demographic subgroups were more likely to report that their household had walked in the city within the past year: the residents ages 25 and over, households located south of Northern Boulevard, the households with children, and the households with annual income of $40,000 or more.

	Age					Area of Residence	
	18 to 24	25 to 34	35 to 44	45 to 54	55 and over	North	South
Resident count (n)	50	87	77	78	96	197	188
Yes	48.4%	86.4%	91.0%	81.6%	84.4%	76.2%	86.3%
No	51.6%	13.6%	9.0%	18.4%	15.6%	23.8%	13.7%

	Children or Seniors in the Household			Annual Household Income		
	Children	Seniors	Neither	Less than $40,000	$40,000 to $60,000	$60,000 or more
Resident count (n)	212	91	120	102	71	133
Yes	87.3%	79.5%	74.4%	72.8%	87.9%	90.9%
No	12.7%	20.5%	25.6%	27.2%	12.1%	9.1%

3.6 BARRIERS TO WALKING

The households that had not walked in the city (n = 76) were asked to describe the main reasons why. In response, these residents most frequently reported that they prefer to drive (29%) or that there are no destinations nearby (19%). Similar to the results on barriers to bicycling, a majority of these responses reflect personal preferences rather than problems with the paths and trails in Rio Rancho. Since the most frequently mentioned barriers related to walking-as-transportation, the results suggest that non-walkers may benefit from messages that encourage walking for exercise or recreation.

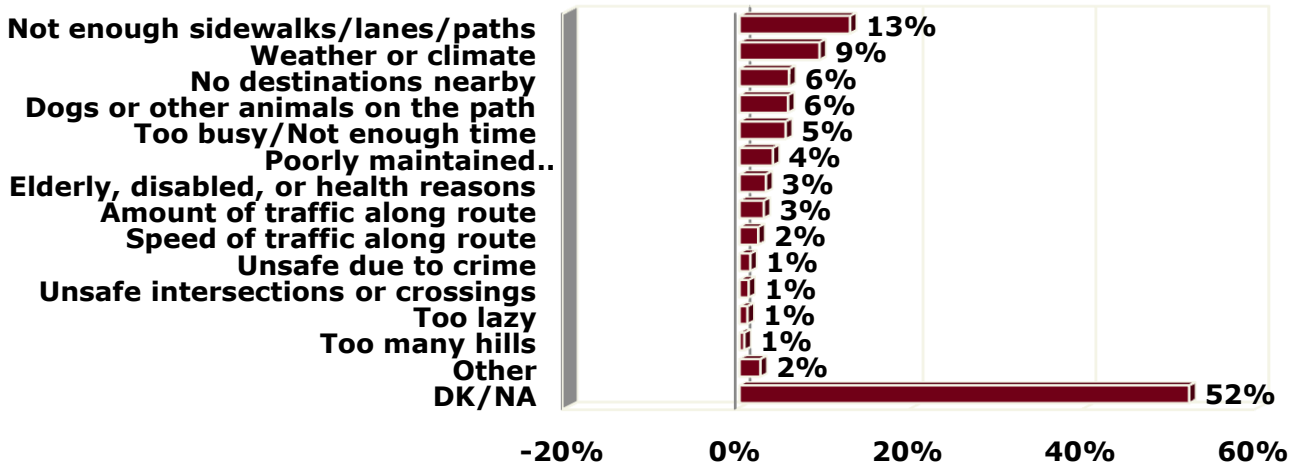


In terms of subgroup differences, a significantly higher percentage of the households located south of Northern Boulevard reported "elderly, disabled, or health reasons" as a barrier to walking, when compared with those located in the north.

	Area of Residence	
	North	South
Resident count (n)	47	26
Prefer to drive	33.2%	22.0%
No destinations nearby	19.8%	20.5%
Have to take care of children	12.2%	2.2%
Elderly, disabled, or health reasons	**2.3%**	**14.4%**

	Area of Residence	
	North	South
Not enough sidewalks/lanes/paths	4.6%	9.7%
Too busy/Not enough time	5.3%	6.3%

The residents who had walked in Rio Rancho within the past 12 months (n = 324) were asked if anything prevents their household from walking more often. In contrast to the barriers to more frequent bicycling, 13% of the walkers mentioned that there are not enough sidewalks, lanes, or paths, and just 4% mentioned maintenance-related issues. Fully half of the walkers reported that there is nothing that prevents their household from walking more often (DK/NA).

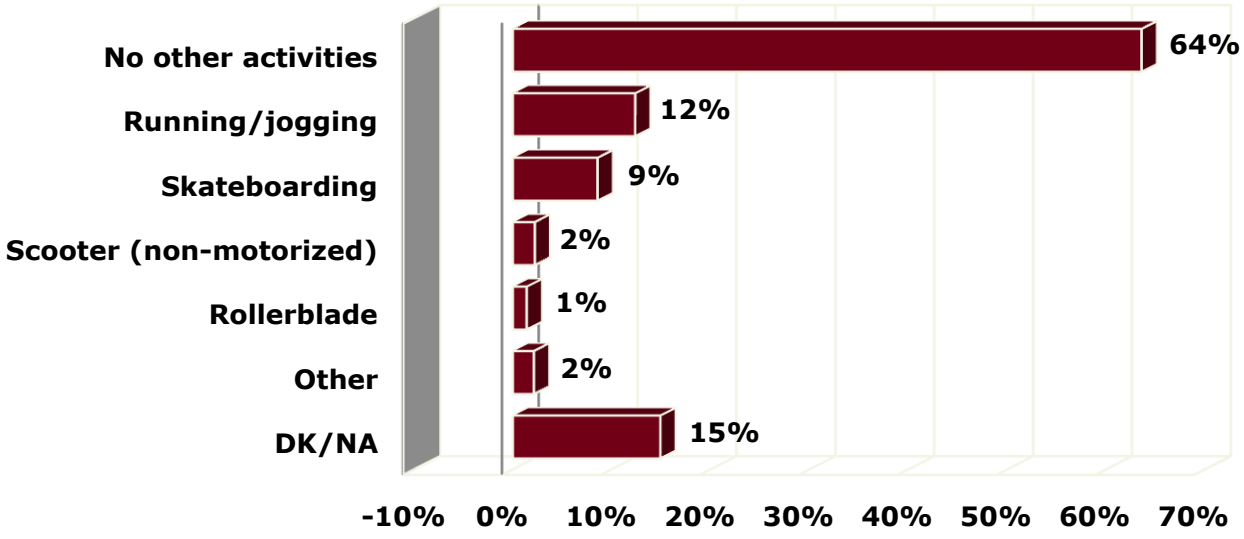


When compared with the households living south of Northern Boulevard, a significantly higher percentage of those living in the north mentioned "no destinations nearby" as the main barrier to walking more often.

	Area of Residence	
	North	South
Resident count (n)	150	162
Not enough sidewalks/lanes/ paths	9.3%	15.8%
Weather or climate	7.0%	11.7%
Dogs or other animals on the path	6.4%	5.3%
No destinations nearby	**9.6%**	**2.2%**
Too busy/Not enough time	3.8%	7.2%

3.7 OTHER ACTIVITIES ON PATHS AND TRAILS

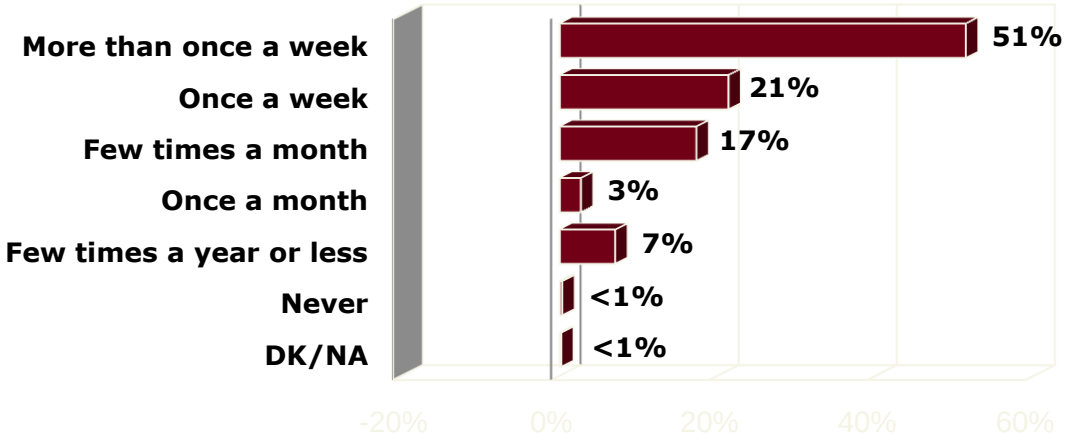
The survey indicates that residents mainly use paths and trails for bicycling and walking. The respondents were asked if their household had used paths and trails in the city for any other activities. In response, 64% of the residents reported that they had not. Only 12% reported using the paths and trails for running or jogging and another 9% had used paths or trails for skateboarding.


No other activities
Running/jogging
Skateboarding
Scooter (non-motorized)
Rollerblade
Other
DK/NA
64%
12%
9%
2%
1%
2%
15%
-10%
0%
10%
20%
30%
40%
50%
60%
70%

4. Bicycling Trip Characteristics

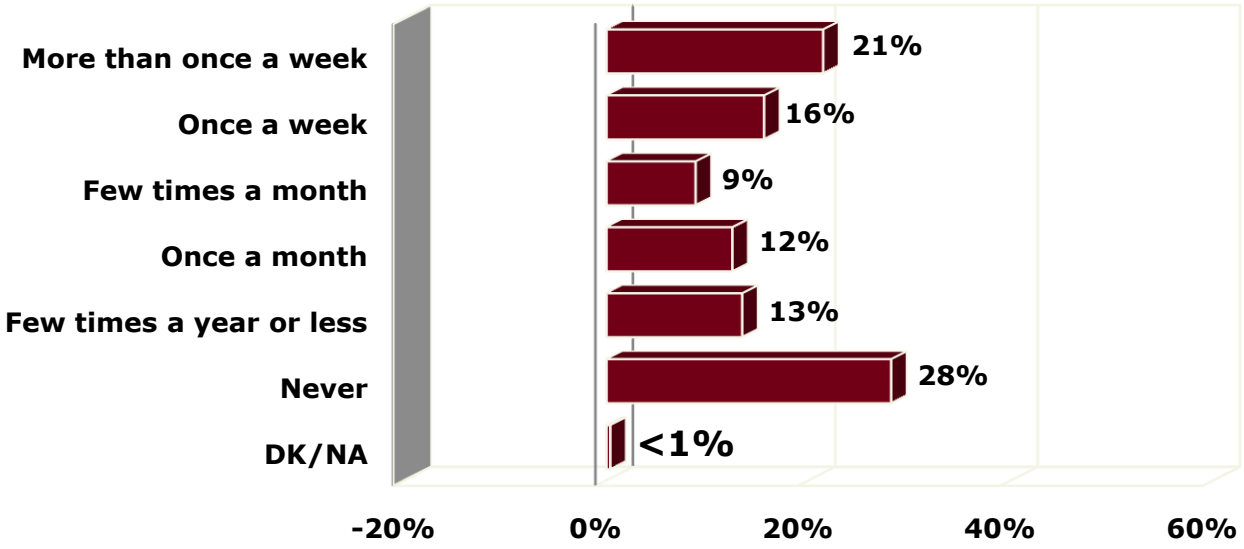
4.1 BICYCLING DURING WARMER MONTHS

The survey included a series of questions on bicycle trips for the residents who reported that their household had bicycled within the past year (n = 157). Approximately 7 out of 10 households that bicycle reported doing so at least once a week during the warmer months of April through October. Specifically, half of these households reported bicycling "more than once a week" and 21% indicated "once a week." Further, 17% mentioned that they bicycle a "few times a month."



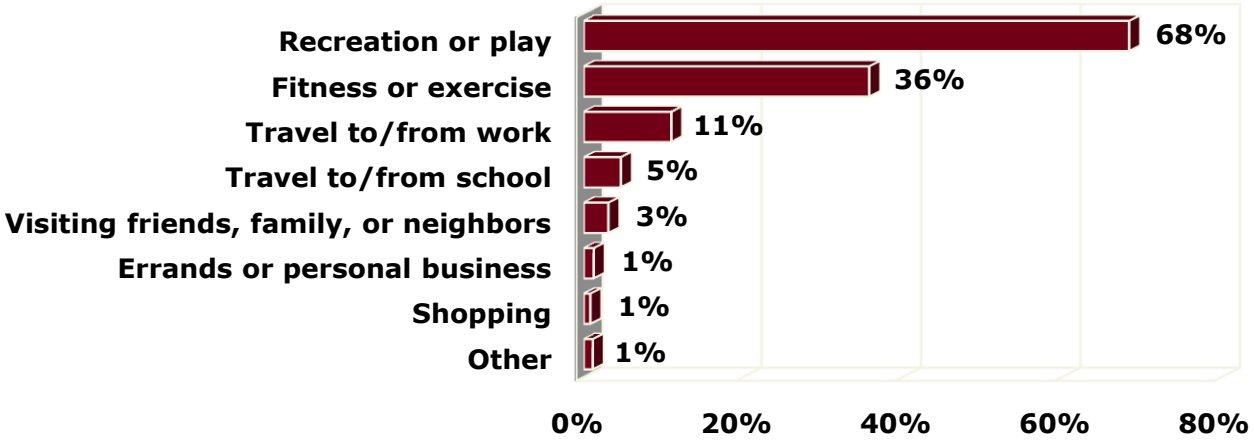
4.2 BICYCLING DURING COLDER MONTHS

The results suggest that the time of year may be a significant barrier to bicycling, either because of the climate or the hours of daylight. Approximately one-third of the households that bicycle (n = 157) reported doing so at least once a week during the colder months of November through March, half the percentage who reported bicycling on a weekly basis during the warmer months. Further, close to one-third of the households that bicycle reported that they "never" bicycle in Rio Rancho during the colder months.



4.3 TRIP PURPOSE

The survey revealed that residents mainly bicycle for recreation or fitness. More specifically, two-thirds of the households that bicycle (n = 157) reported the purpose of their trips as "recreation or play," and one-third reported "fitness or exercise." On the other hand, only 11% of these respondents reported that they bicycle to or from work, which translates to approximately 4% of residents as a whole. This finding reflects the results of the 2006–2008 American Community Survey conducted by the U.S. Census, which estimates that 2% of residents bicycle to work. Note that this question allowed the respondents to mention more than one trip purpose, and as such, the responses sum to more than 100%.



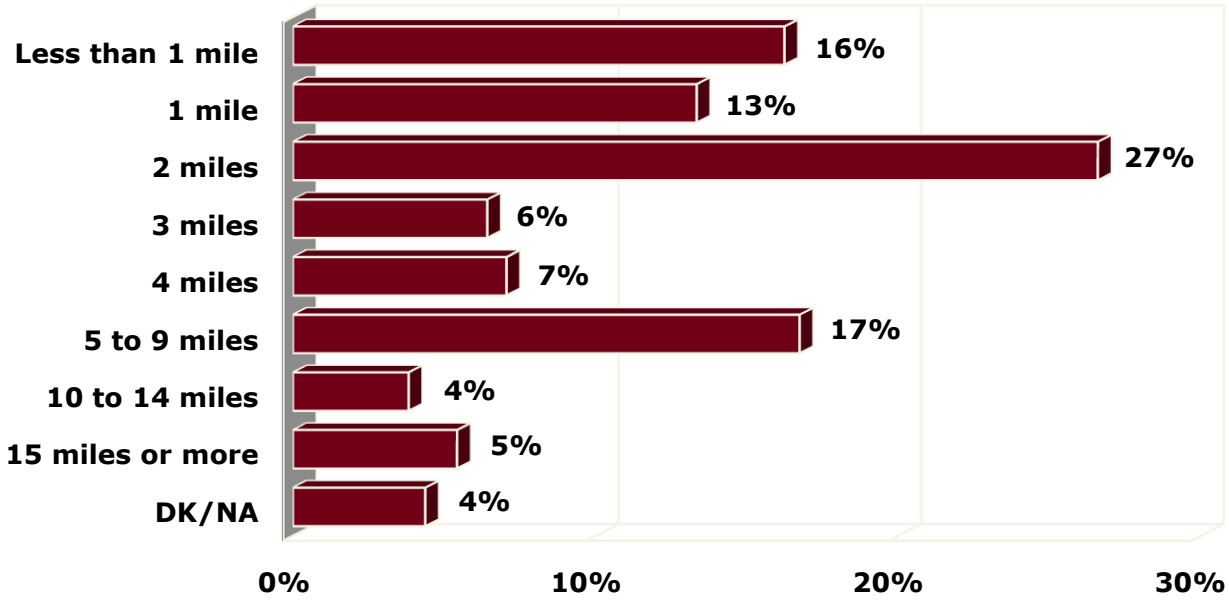
Looking at subgroups, a significantly higher percentage of the residents living in southwest Rio Rancho than in the northeast reported that they bicycle to or from work. However, the small sample size cautions against generalizing these results to the population of residents in these areas. Approximately 7% of these households with children reported bicycling to or from school, which translates to just 3% of households with children as a whole. Godbe Research recommends that Rio Rancho schools conduct a more comprehensive assessment of bicycling to school; however, the results of the telephone survey suggest that a low percentage of children bike to school.

	Area of Residence				Children or Seniors in the Household		
	Northeast	Northwest	Southeast	Southwest	Children	Seniors	Neither
Resident count (n)	43	19	53	19	112	17	35
Recreation or play	64.1%	58.4%	83.8%	60.3%	**79.7%**	67.7%	**35.5%**
Fitness or exercise	48.3%	45.7%	39.4%	23.4%	30.3%	52.7%	46.2%

	Area of Residence				Children or Seniors in the Household		
	Northeast	Northwest	Southeast	Southwest	Children	Seniors	Neither
Travel to/from work	1.7%	5.0%	4.8%	23.9%	4.2%	0.0%	35.8%
Travel to/from school	1.3%	14.8%	1.7%	15.4%	6.5%	5.3%	0.0%

4.4 ONE-WAY TRIP DISTANCE

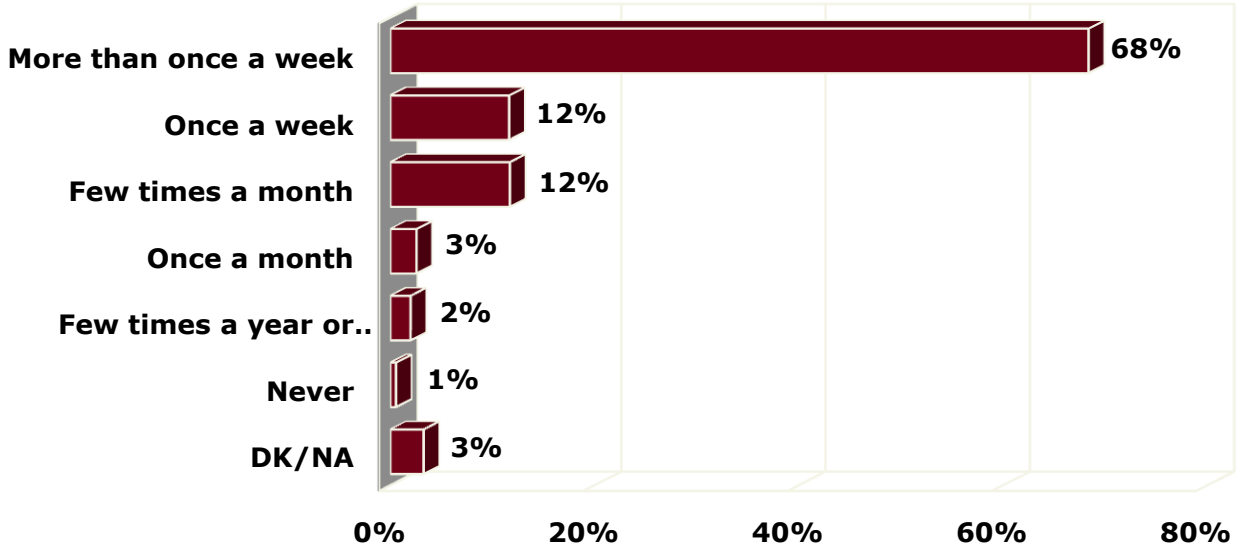
Overall, a majority of the households that bicycle (n = 157) take short trips of 4 miles or less one-way. In particular, 29% reported a one-way trip length of up to 1 mile, 27% reported 2 miles, and 13% reported 3 or 4 miles. In comparison, 17% reported that they bicycle 5 to 9 miles on a one-way trip and another 9% reported 10 miles or more.



5. Walking Trip Characteristics

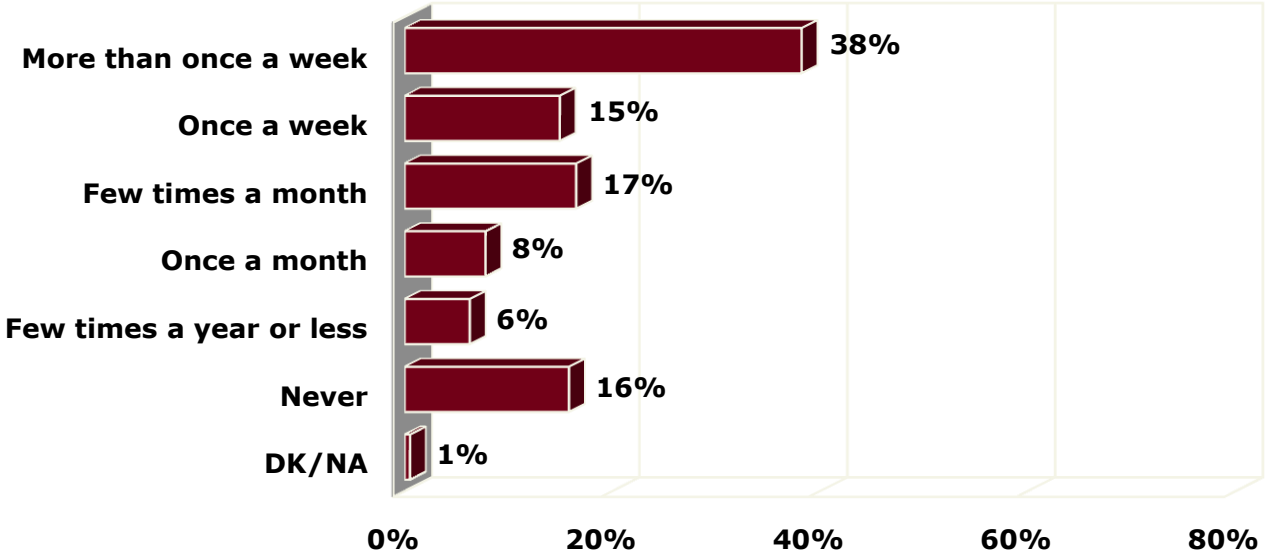
5.1 FREQUENCY DURING WARMER MONTHS

The survey also included a series of questions on walking trips for the residents who reported that their household had walked in Rio Rancho within the past year (n = 324). As shown in the following chart, 4 out of 5 walking households reported doing so on a weekly basis during the warmer months of April through October. Further, 15% reported that they walk on a monthly basis, and only 2% reported walking a "few times a year or less."



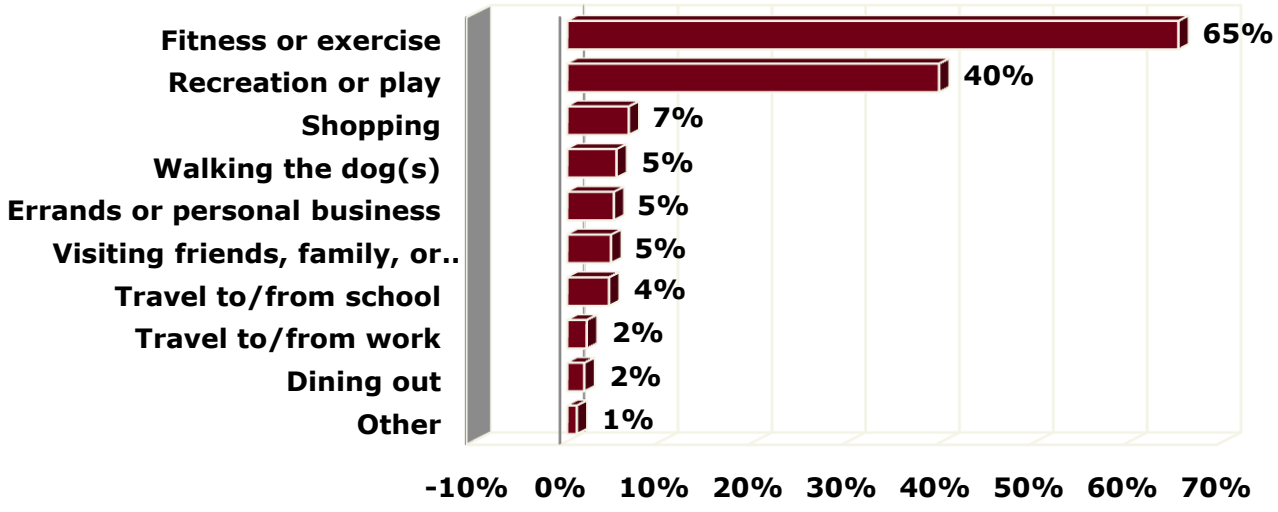
5.2 FREQUENCY DURING COLDER MONTHS

Similar to the pattern observed for bicycling, the results suggest that the time of year may be a barrier to walking. Approximately half of the households that walk (n = 324) reported doing so at least once a week during the colder months of November through March, close to 30% less than those who reported walking on a weekly basis during the warmer months. However, among walkers, just 16% reported that they "never" walk in Rio Rancho during the colder months.



5.3 TRIP PURPOSE

Again, the results suggest that residents mainly walk for fitness or recreation. More specifically, two-thirds of the households that had walked (n = 324) reported "fitness or exercise" as the trip purpose, and 40% reported "recreation or play." On the other hand, fewer than 10% of these respondents indicated walking as a form of transportation, including shopping (7%), errands or personal business (5%), and travel to or from school (4%) or work (2%).



Looking at subgroups, a higher percentage of the residents ages 45 and over reported "fitness or exercise" as the main purpose of their walking trips. Additionally, proportionately more of the 25-to-44-year-olds mentioned that they walk for recreation or play, whereas significantly more of the 18-to-24-year-olds indicated "walking the dog(s)," "visiting friends, family, or neighbors" and "travel to/from school." Also shown in the table below, a higher percentage of the Hispanic residents than the Caucasian residents reported "travel to/from school" as the main purpose of their walking trips.

	Age					Ethnicity		
	18 to 24	25 to 34	35 to 44	45 to 54	55 and over	Caucasian	Hispanic	Other
Resident count (n)	24	75	70	64	81	178	101	29
Fitness or exercise	**29.8%**	**60.5%**	**59.8%**	**65.6%**	**83.0%**	65.5%	67.3%	63.3%
Recreation or play	**10.3%**	**51.0%**	**59.7%**	**34.9%**	**25.1%**	40.5%	41.7%	37.4%
Shopping	0.0%	5.9%	7.1%	10.4%	5.3%	8.0%	4.1%	10.1%
Walking the dog(s)	**19.5%**	**2.7%**	**1.4%**	5.9%	5.9%	8.0%	1.3%	1.0%
Errands or personal business	0.0%	5.4%	5.9%	6.2%	3.8%	5.4%	4.7%	3.2%
Visiting friends, family, or neighbors	**15.9%**	0.0%	5.7%	7.7%	**1.8%**	3.9%	2.8%	1.1%
Travel to/from school	**34.8%**	0.0%	**6.5%**	**2.3%**	0.0%	**1.4%**	**11.8%**	0.0%

A higher percentage of the households in southwest Rio Rancho walked for fitness or exercise, and a lower percentage walked for recreation or play. Additionally, a higher percentage of the households in the southeast area reported "shopping" as the purpose of their walking trips. Otherwise, a higher percentage of the residents with an annual

household income of less than $40,000 reported "fitness or exercise" and "visiting friends, family, or neighbors" as their trip purpose, whereas proportionately more of their counterparts with a higher household income reported walking for recreation or play and to walk their dog(s).

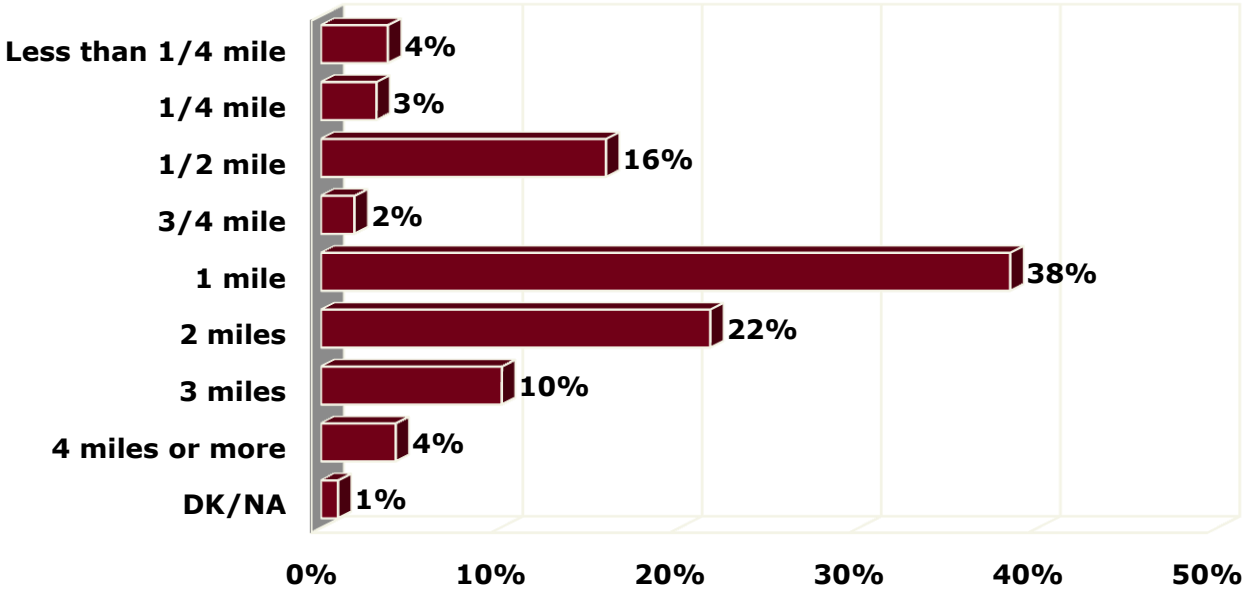
	Area of Residence				Annual Household Income		
	North east	North west	South east	South west	Less than $40,000	$40,000 to $60,000	$60,000 or more
Resident count (n)	97	48	105	55	75	62	121
Fitness or exercise	**60.8%**	67.0%	64.0%	**82.6%**	**80.4%**	63.6%	**62.6%**
Recreation or play	**47.3%**	**46.2%**	**43.4%**	**21.2%**	**30.0%**	37.0%	**51.7%**
Shopping	**1.9%**	0.0%	**11.7%**	8.9%	7.4%	10.0%	6.5%
Walking the dog(s)	9.7%	0.0%	5.8%	1.8%	**0.6%**	**10.2%**	5.2%
Errands or personal business	4.8%	0.0%	7.9%	3.9%	6.3%	5.9%	2.7%
Visiting friends, family, or neighbors	2.7%	8.0%	3.7%	5.4%	**10.2%**	2.9%	**1.6%**

Just 8% of the walking households with children reported "travel to/from school" as the purpose of their walking trips, which translates to 7% of households with children as a whole. As might be expected, the survey suggests that older children, ages 13 to 18 years, are more likely to walk to school than younger children.

	Children or Seniors in the Household			Ages of Children in the Household		
	Children	Seniors	Neither	0 to 5 years	6 to 12 years	13 to 18 years
Resident count (n)	185	72	89	71	99	86
Fitness or exercise	57.4%	70.2%	69.8%	58.5%	56.9%	52.7%
Recreation or play	**51.5%**	**29.6%**	**27.7%**	61.7%	56.1%	46.7%
Shopping	7.3%	6.0%	6.5%	2.9%	7.8%	10.2%
Walking the dog(s)	**0.4%**	**4.1%**	**14.9%**	0.0%	0.7%	0.0%
Errands or personal business	5.0%	2.1%	6.0%	7.8%	2.6%	1.2%
Visiting friends, family, or neighbors	4.7%	8.2%	5.8%	1.2%	3.9%	2.6%
Travel to/from school	7.8%	0.0%	0.0%	**2.5%**	**5.3%**	**12.7%**

5.4 TRIP LENGTH

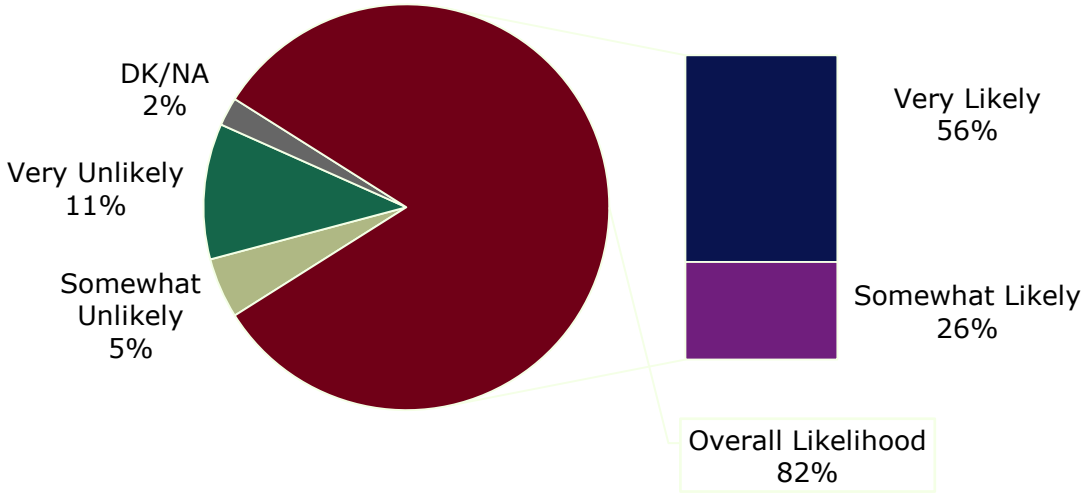
The households that walk (n = 324) most frequently reported one-way trips of 1 mile or less (63%). Otherwise, 22% of these households reported that they walk 2 miles on a one-way trip, and 14% reported 3 miles or more.


Less than 1/4 mile
1/4 mile
1/2 mile
3/4 mile
1 mile
2 miles
3 miles
4 miles or more
DK/NA
4%
3%
16%
2%
38%
22%
10%
4%
1%
0%
10%
20%
30%
40%
50%

6. Ratings of Paths and Trails

6.1 LIKELY USE OF ADDITIONAL PATHS AND TRAILS

In the next question, the residents were told that the City of Rio Rancho is developing a plan for a comprehensive network of walking and biking paths and trails throughout the city, and asked if their household would be likely to use additional paths and trails. In response, approximately 4 out of 5 households reported that they were "very likely" (56%) or "somewhat likely" (26%) to use the additional paths and trails. In contrast, 16% of the households surveyed were not likely to use these paths and trails. Note that the results for likely use of additional paths and trails are comparable with the proportion of Rio Rancho households that had walked within the past 12 months.



In terms of subgroups, a higher percentage of the women than the men were "somewhat likely" to use the additional paths and trails. Proportionately more of the 25-to-44-year-old residents were "very likely" to use the additional paths and trails, whereas significantly more of those ages 18 to 24 and 55 and over were "very unlikely" to use them. Meanwhile, a higher percentage of the 18-to-24-year-old residents than their counterparts ages 35 to 44 were "somewhat likely" to use additional paths and trails.

	Gender		Age				
	Male	Female	18 to 24	25 to 34	35 to 44	45 to 54	55 and over
Resident count (n)	192	208	50	87	77	78	96
Very likely	56.3%	55.3%	**38.7%**	**66.6%**	**71.8%**	51.3%	**45.9%**
Somewhat likely	**21.2%**	**31.0%**	**44.2%**	28.2%	**14.9%**	26.2%	25.4%
Somewhat unlikely	6.2%	3.5%	0.0%	2.4%	8.0%	7.1%	5.7%
Very unlikely	13.4%	8.5%	**17.1%**	**2.9%**	**5.2%**	8.7%	**21.0%**
DK/NA	2.9%	1.7%	0.0%	0.0%	0.0%	6.7%	2.0%

Overall, the proportions of residents who were "very likely" to use additional paths and trails were higher among the residents of Hispanic or other ethnic backgrounds and those with children in their household. Conversely, significantly more of the Caucasian residents, the households with seniors, and those who reported their household income as less than $40,000 a year were "very unlikely" to use the additional paths and trails.

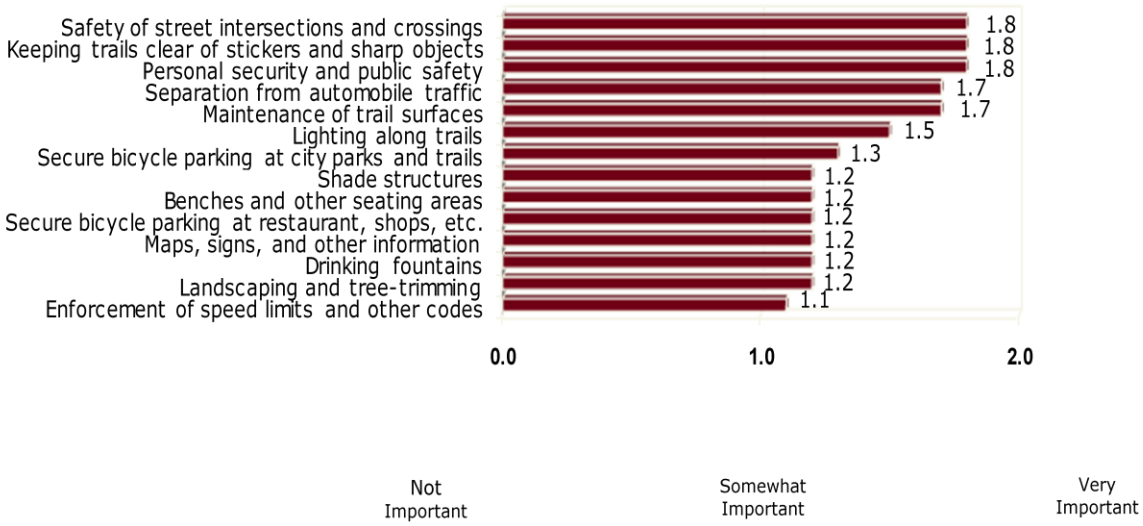
	Ethnicity			Children or Seniors in the Household			Annual Household Income		
	Caucasian	Hispanic	Other	Children	Seniors	Neither	Less than $40,000	$40,000 to $60,000	$60,000 or more
Resident count (n)	220	130	32	212	91	120	102	71	133
Very likely	**48.1%**	**66.5%**	**78.8%**	**63.9%**	**45.1%**	**50.1%**	61.7%	59.0%	60.2%
Somewhat likely	29.5%	25.9%	11.6%	26.8%	21.2%	27.8%	20.8%	27.2%	25.8%
Somewhat unlikely	7.2%	2.4%	0.8%	4.1%	3.8%	6.3%	2.1%	4.6%	7.1%
Very unlikely	**12.8%**	**4.2%**	8.8%	**4.1%**	**27.8%**	**11.7%**	**14.0%**	8.4%	**4.8%**
DK/NA	2.3%	1.0%	0.0%	1.1%	2.1%	4.1%	1.4%	0.8%	2.2%

Further, the likely use of additional paths and trails was directly related to the residents' current frequency of bicycling or walking in Rio Rancho. In particular, a higher percentage of the residents who had bicycled were "very likely" to use the paths and trails, whereas those who had not bicycled were more likely to report that they would be "very unlikely" to use these trails. Similarly, a higher proportion of the residents who had walked frequently were "very likely" to use the paths and trails, whereas those who had walked infrequently were "somewhat likely." Finally, proportionately more of those who had never walked in Rio Rancho were "somewhat likely" or "very unlikely" to use the additional paths and trails.

	Frequency of Bicycling			Frequency of Walking		
	Frequent	Infrequent	Never	Frequent	Infrequent	Never
Resident count (n)	114	42	243	259	53	78
Very likely	**80.5%**	**71.7%**	**41.4%**	**66.9%**	**43.3%**	**28.4%**
Somewhat likely	**10.7%**	**27.6%**	**33.5%**	**19.6%**	**37.1%**	**38.2%**
Somewhat unlikely	4.5%	0.0%	5.7%	4.1%	2.6%	9.2%
Very unlikely	**3.0%**	0.8%	**16.3%**	**7.5%**	13.1%	**21.7%**
DK/NA	1.4%	0.0%	3.1%	1.9%	4.0%	2.6%

6.2 IMPORTANCE OF PATH AND TRAIL FEATURES

The residents were then read a list of 14 features of walking and bicycling paths and trails, and asked to rate the importance of each to their household. On average, the features rated highest in importance address the safety and maintenance of paths and trails. In particular, at least 95% of the households surveyed rated the following features as "very" or "somewhat important": safety of street intersections and crossings for pedestrians and bicyclists; keeping paths and trails clear of broken glass, stickers, and other sharp objects; personal security and public safety along paths and trails; separation from automobile traffic; and maintenance of path and trail surfaces. Further, "lighting along paths and trails" was important to 88% of the residents. Amenities such as bicycle parking, shade structures, benches, and landscaping were relatively less important.



Note: The above rating questions have been abbreviated for charting purposes. The responses were recoded to calculate mean scores: "Very Important" = +2, "Somewhat Important" = +1, and "Not Important" = 0.

In keeping with the results on barriers to more frequent bicycling, the average resident living in the area north of Northern Boulevard attributed higher importance to safety of street intersections and crossings, as well as to personal security and public safety along paths and trails. Interestingly, several path and trail features were rated as more important by the households that bicycled or walked frequently, as well as those who had never bicycled or walked.

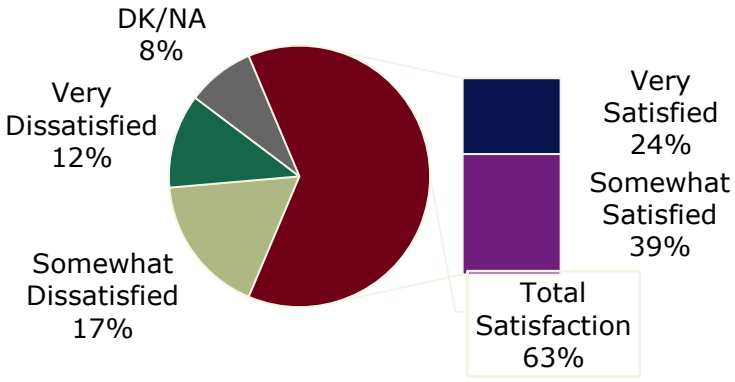
	Area of Residence		Frequency of Bicycling			Frequency of Walking		
	North	South	Frequent	Infrequent	Never	Frequent	Infrequent	Never
Safety of street intersections and crossings for pedestrians and bicyclists	**1.9**	**1.8**	1.8	1.7	1.8	**1.9**	**1.6**	1.8
Keeping paths and trails clear of broken glass, stickers, etc.	1.9	1.8	**1.9**	**1.6**	**1.8**	**1.9**	**1.5**	**1.8**

	Area of Residence		Frequency of Bicycling			Frequency of Walking		
	North	South	Frequent	Infrequent	Never	Frequent	Infrequent	Never
Personal security and public safety along paths and trails	**1.9**	**1.7**	1.7	1.6	1.8	1.8	1.6	1.7
Separation from automobile traffic	1.7	1.7	1.8	1.8	1.6	1.7	1.6	1.6
Maintenance of path and trail surfaces	1.7	1.7	1.7	1.7	1.6	**1.7**	1.7	**1.5**
Lighting along paths and trails	1.5	1.4	1.5	1.5	1.4	1.4	1.4	1.6
Availability of secure bicycle parking at city parks and along trails	1.3	1.3	1.4	1.1	1.3	**1.3**	**1.0**	**1.5**
Availability of shade structures	1.2	1.2	1.1	1.3	1.3	1.2	1.3	1.2
Availability of benches and other seating areas	1.2	1.2	1.1	1.1	1.3	1.2	1.1	1.2
Availability of secure bicycle parking at restaurants, shops, etc.	1.2	1.2	1.3	1.1	1.2	1.2	1.0	1.3
Maps, signs, and other information along paths and trails	1.2	1.2	**1.2**	**0.8**	**1.2**	1.2	**1.0**	**1.3**

	Area of Residence		Frequency of Bicycling			Frequency of Walking		
	North	South	Frequent	Infrequent	Never	Frequent	Infrequent	Never
Availability and maintenance of drinking fountains	1.2	1.1	1.1	1.3	1.2	**1.1**	1.1	**1.4**
Landscaping and tree-trimming along paths and trails	1.2	1.1	**1.3**	**0.9**	**1.2**	**1.2**	**0.8**	**1.2**
Enforcement of bicycling speed limits and other codes	1.2	1.1	**1.2**	**0.6**	**1.1**	**1.2**	**0.8**	1.1

6.3 SATISFACTION WITH CURRENT PATHS AND TRAILS

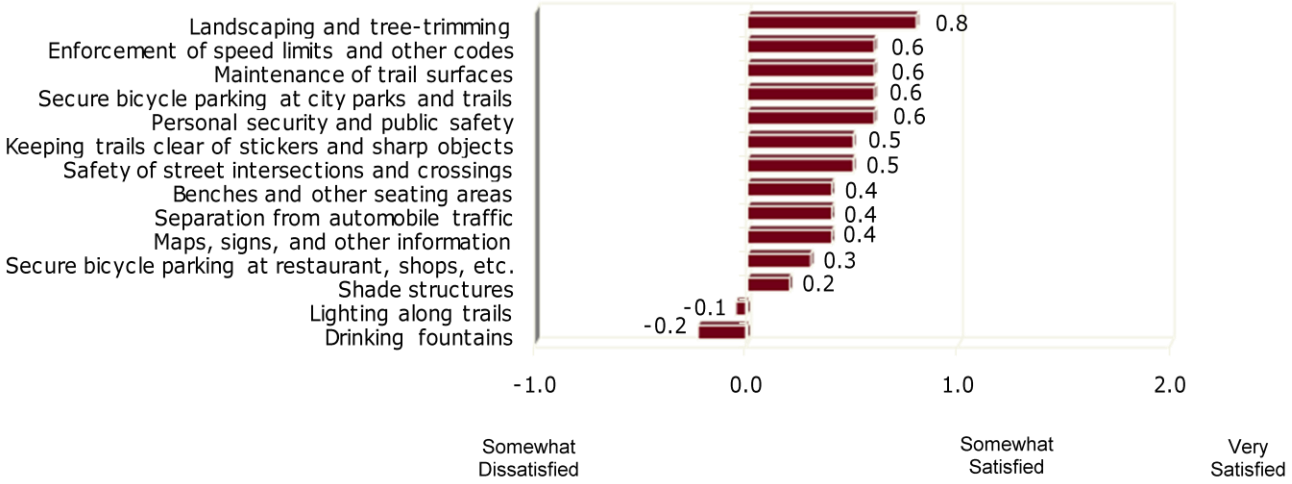
The survey revealed that Rio Rancho residents are generally satisfied with the availability and maintenance of walking and biking paths and trails in the city. In particular, 3 out of 5 residents in the survey reported being "very" (24%) or "somewhat satisfied" (39%) with the paths and trails. On the other hand, 29% indicated their dissatisfaction (12% "very dissatisfied" and 17% "somewhat dissatisfied"), while the remaining 8% did not have an opinion Note that there is a 2:1 ratio of satisfied to dissatisfied ratings.



Looking at subgroups, a higher percentage of the infrequent bicyclists and walkers were "somewhat dissatisfied" with the availability and maintenance of paths and trails in Rio Rancho, when compared with those who bicycled and/or walked frequently or never. Meanwhile, a higher percentage of the residents who never walked reported being "very satisfied" with the current paths and trails, when compared with those who walk frequently. In addition, a higher percentage of the residents living in Southwest Rio Rancho were "very dissatisfied" with the paths and trails when compared with those living in northeast and southeast areas.

	Frequency of Bicycling			Frequency of Walking			Area of Residence			
	Frequent	Infrequent	Never	Frequent	Infrequent	Never	North east	North west	South east	South west
Resident count (n)	114	42	243	259	53	78	122	61	121	64
Very satisfied	22.7%	12.6%	26.9%	**20.0%**	21.2%	**36.1%**	22.6%	22.0%	20.0%	30.0%
Somewhat satisfied	40.2%	30.4%	39.2%	41.6%	32.7%	36.6%	45.5%	47.2%	40.2%	26.1%
Somewhat dissatisfied	**17.3%**	**44.6%**	**12.5%**	**16.0%**	**39.1%**	**9.1%**	16.8%	10.7%	19.3%	16.1%
Very dissatisfied	15.8%	6.9%	10.5%	13.4%	4.3%	10.1%	**9.4%**	10.3%	**7.3%**	**24.6%**
DK/NA	4.1%	5.5%	10.9%	9.0%	2.7%	8.1%	5.7%	9.7%	13.2%	3.2%

In the next question, the residents were presented with the same 14 features of walking and bicycling paths and trails in Rio Rancho and asked to rate their satisfaction with each. On average, the residents were less than "somewhat satisfied" with the features tested in the survey (mean scores below 1.0). The features that earned higher satisfaction scores include landscaping and tree-trimming; enforcement of bicycling speed limits and other codes; maintenance of path and trail surfaces; secure bicycle parking at city parks and along trails; and personal security and public safety. Approximately 3 out of 5 residents were "very" or "somewhat satisfied" with these features. In comparison, the residents were slightly dissatisfied with the lighting along paths and trails, and the availability and maintenance of drinking fountains (as indicated by negative mean scores).



Note: The above rating questions have been abbreviated for charting purposes..
Responses were recoded to calculate mean scores: "Very Satisfied" = +2, "Somewhat Satisfied" = +1, "Somewhat Dissatisfied" = -1 and "Very Dissatisfied" = -2.

The residents of northwest Rio Rancho were less satisfied with lighting along paths and trails than the residents of the southeast. As indicated by negative mean scores, dissatisfied residents outnumbered satisfied residents for this feature in both the northwest and the southwest areas of the city.

	Area of Residence			
	Northeast	Northwest	Southeast	Southwest
Landscaping and tree-trimming along paths and trails	0.9	0.6	0.7	0.4
Enforcement of bicycling speed limits and other codes	0.8	0.4	0.5	0.5
Maintenance of path and trail surfaces	0.5	0.5	0.8	0.6
Availability of secure bicycle parking at city parks and along paths and trails	0.7	0.4	0.3	0.8
Personal security and public safety along paths and trails	0.4	0.4	0.7	0.6
Keeping paths and trails clear of broken glass, stickers, and other sharp objects	0.3	0.3	0.5	0.7
Safety of street intersections and crossings	0.6	0.6	0.5	0.3
Availability of benches and other seating areas	0.4	0.3	0.5	0.5
Separation from automobile traffic	0.4	0.5	0.5	0.3
Maps, signs, and other information along paths and trails	0.5	0.2	0.3	0.2
Availability of secure bicycle parking at restaurants, shops, and other destinations in Rio Rancho	0.3	0.2	0.2	0.4
Availability of shade structures	0.3	0.2	0.2	0.0
Lighting along paths and trails	0.0	**-0.6**	**0.3**	-0.2
Availability and maintenance of drinking fountains	-0.1	-0.6	-0.1	-0.5

6.4 SATISFACTION MATRIX 1

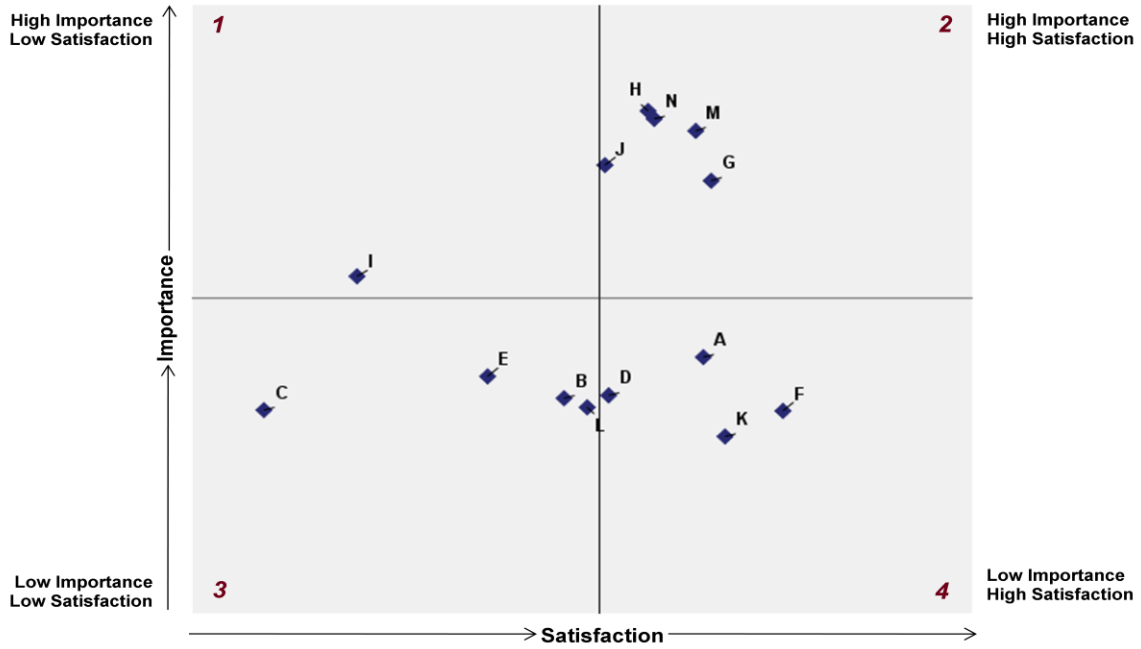
Based on the importance and satisfaction scores for the 14 features of walking and bicycling paths and trails, Godbe Research created a matrix to identify the priorities for improvement and maintenance. In the figure on the next page, the importance of each of the features are plotted along the vertical axis, such that the features that have a relatively higher importance score appear near the top, while the feature with lower importance appear toward the bottom of the graph. Similarly, respondents' satisfaction with these features are plotted along the horizontal axis, ranging from "very dissatisfied" on the left to "very satisfied" on the right. By plotting importance and satisfaction ratings together, the 14 tested path and trail features are classified into the four quadrants described in turn below.

Quadrant 1: The features in this quadrant were rated relatively low in terms of resident satisfaction but were relatively high in resident-rated importance. Classified in this quadrant is the feature (I) "lighting along paths and trails" and it is the ***highest priority for improvement efforts***.

Quadrant 2: Items in this quadrant (i.e., (G) maintenance of path and trail surfaces; (H) safety of street intersections and crossings for pedestrians and bicyclists; (J) separation from automobile traffic; (M) personal security and public safety along paths and trails; and (N) keeping paths and trails clear of broken glass, stickers, and other sharp objects) garnered relatively high satisfaction ratings and are also relatively more important to residents. As such, the City of Rio Rancho ***should maintain its efforts in these areas***.

Quadrant 3: Items in this quadrant have relatively low importance and low satisfaction ratings, and as such ***do not require urgent improvement***. They include the following features: (B) availability of secure bicycle parking at restaurants, shops, and other destinations in Rio Rancho; (C) availability and maintenance of drinking fountains; (E) availability of shade structures; and (L) maps, signs, and other information along paths and trails.

Quadrant 4: Finally, the following features received relatively high satisfaction ratings but were lower in terms of resident-rated importance: (A) availability of secure bicycle parking at city parks and along paths and trails; (D) availability of benches and other seating areas; (F) landscaping and tree-trimming along paths and trails; and (K) enforcement of bicycling speed limits and other codes along paths and trails. Therefore, these would be the ***second priority for maintenance***.



Please note that the chart above displays importance and satisfaction ratings in relative terms. For example, an item in the low importance/low satisfaction quadrant should not be read as being unimportant or garnering no satisfaction ratings in absolute terms. Instead, it has relatively low importance and low satisfaction ratings in comparison with the other walking and bicycling path and trail features.

In the table below, features highlighted in **RED** are priorities for improvement efforts; features highlighted in **BLUE** are priorities for maintenance.

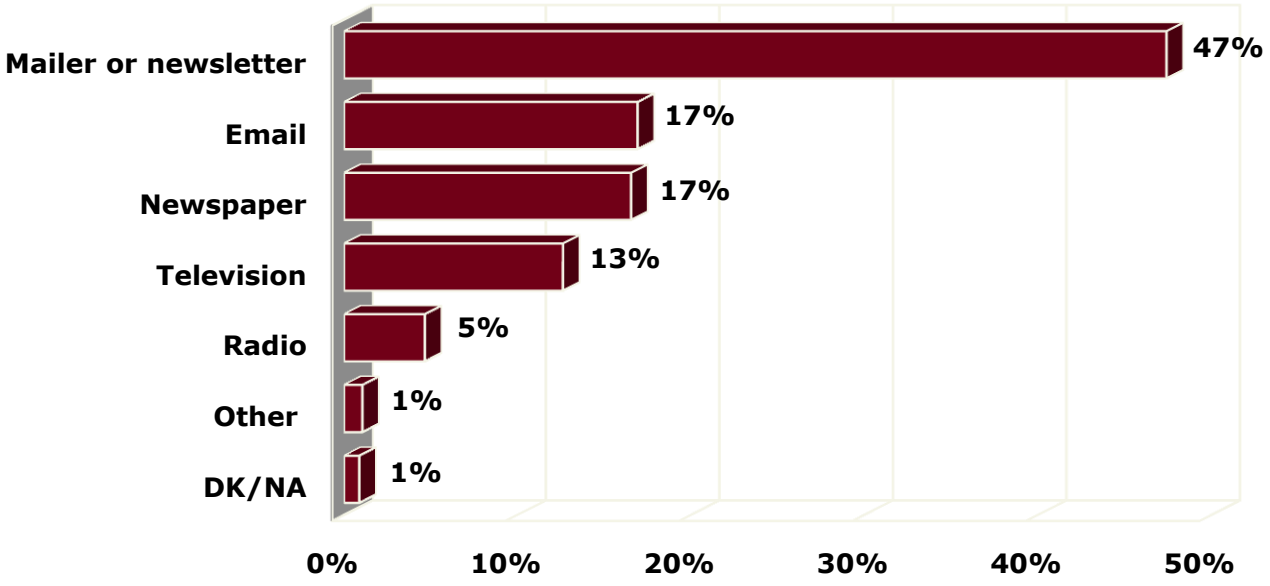
Features	Importance Score	Satisfaction Score	Features	Importance Score	Satisfaction Score
A. Availability of secure bicycle parking at city parks and along paths and trails	1.3	0.6	**H. Safety of street intersections and crossings for pedestrians and bicyclists**	**1.8**	**0.5**
B. Availability of secure bicycle parking at restaurants, shops, and other destinations in Rio Rancho	1.2	0.3	**I. Lighting along paths and trails**	**1.5**	**-0.1**

Features	Importance Score	Satisfaction Score	Features	Importance Score	Satisfaction Score
C. Availability and maintenance of drinking fountains	1.2	-0.2	**J. Separation from automobile traffic**	**1.7**	**0.4**
D. Availability of benches and other seating areas	1.2	0.4	K. Enforcement of bicycling speed limits and other codes along paths and trails	1.1	0.6
E. Availability of shade structures	1.2	0.2	L. Maps, signs, and other information along paths and trails	1.2	0.4
F. Landscaping and tree-trimming along paths and trails	1.2	0.8	**M. Personal security and public safety along paths and trails**	**1.8**	**0.6**
G. Maintenance of path and trail surfaces	**1.7**	**0.6**	**N. Keeping paths and trails clear of broken glass, stickers, and other sharp objects**	**1.8**	**0.5**

7. Communication Methods

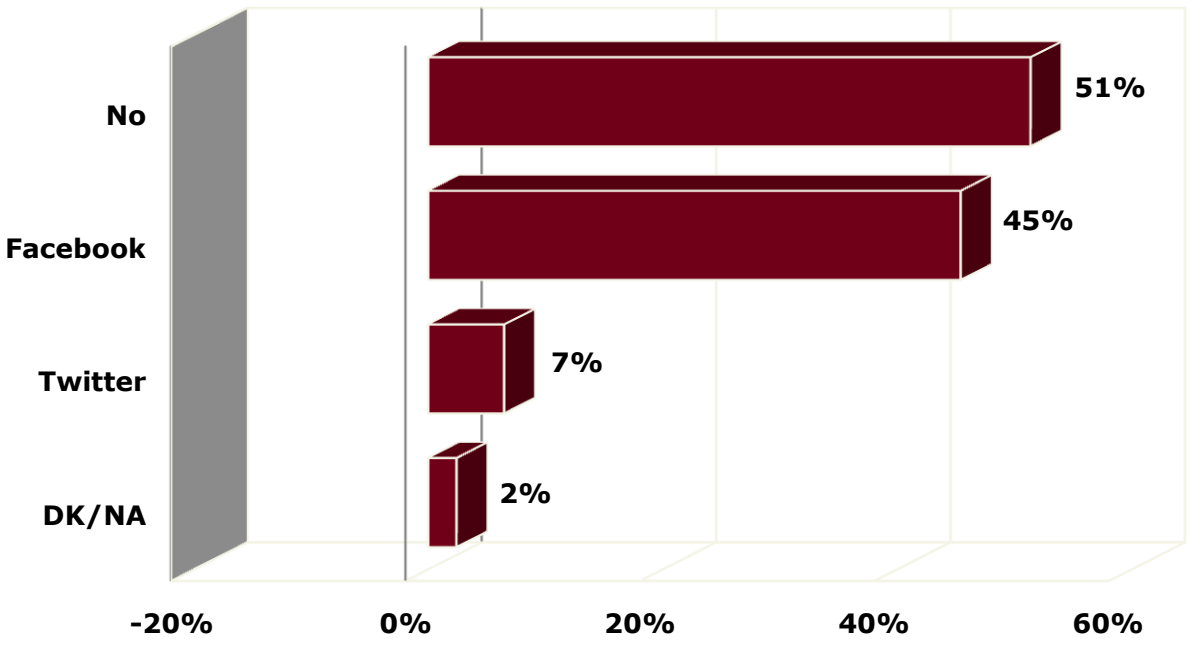
7.1 PREFERRED INFORMATION SOURCES

The residents were asked how they would prefer to receive information about City services and programs. In response, a majority indicated a preference for information through official City sources, including mailer or newsletter (47%) and City e-mail (17%). Otherwise, fewer than 1 out of 5 residents preferred receiving this information via other sources, such as newspaper (17%), television (13%), or radio (5%).



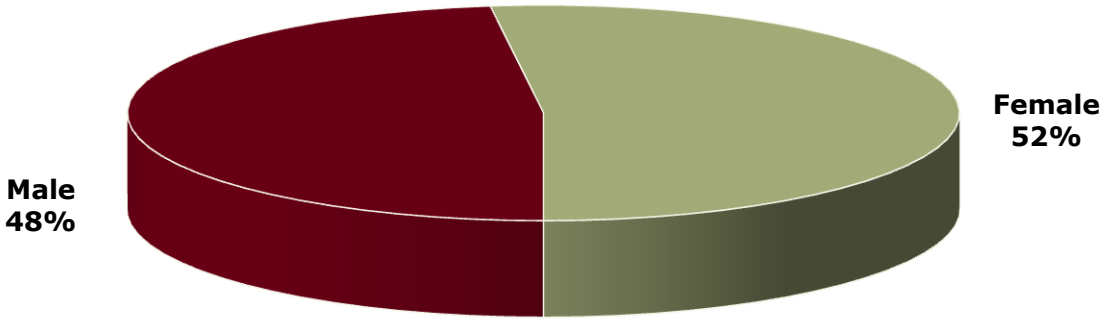
7.2 USE OF FACEBOOK AND TWITTER

As shown in the chart below, about half of the residents surveyed use Facebook (45%) or Twitter (7%). This result suggests that offering residents information on City services and programs through Facebook may be effective, so long as Facebook users are aware of the information.

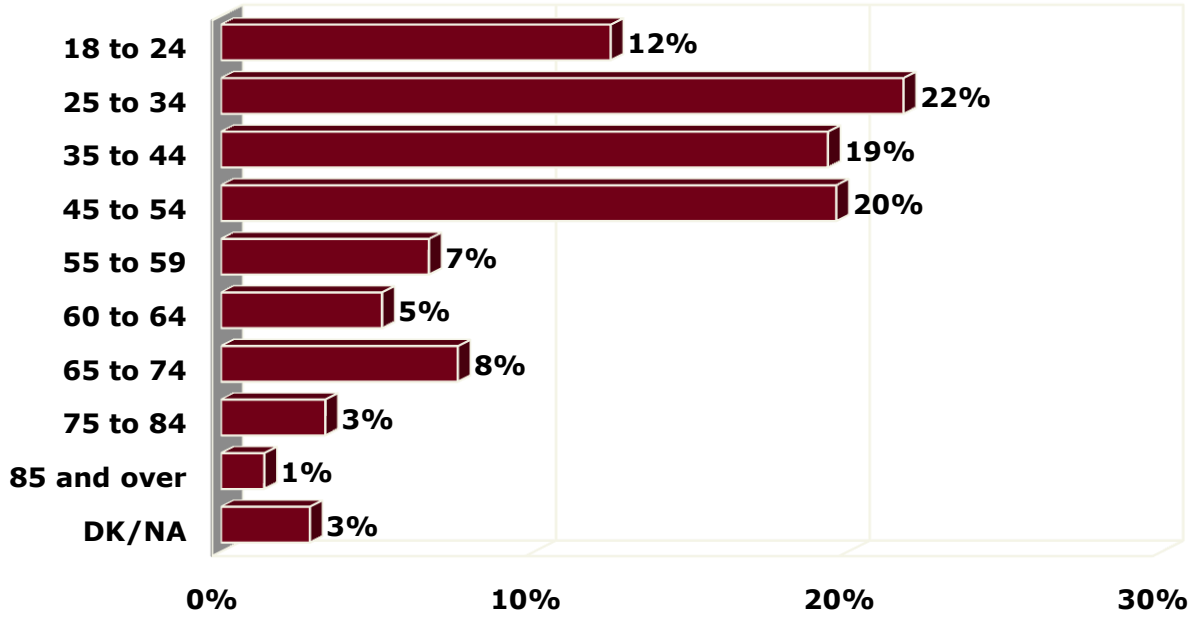

No
Facebook
Twitter
DK/NA
51%
45%
7%
2%
-20%
0%
20%
40%
60%

8. Additional Respondent Information

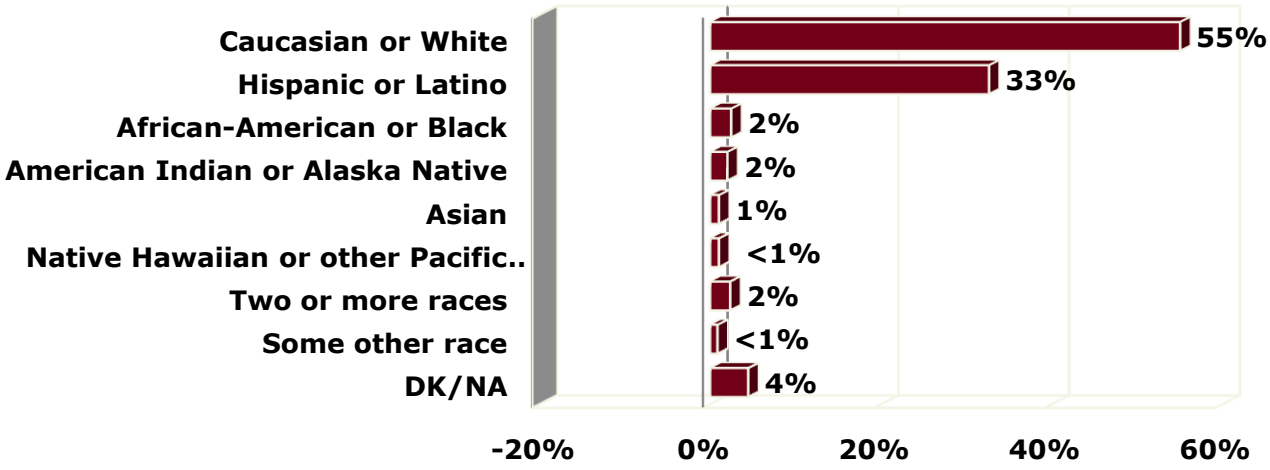
8.1 GENDER



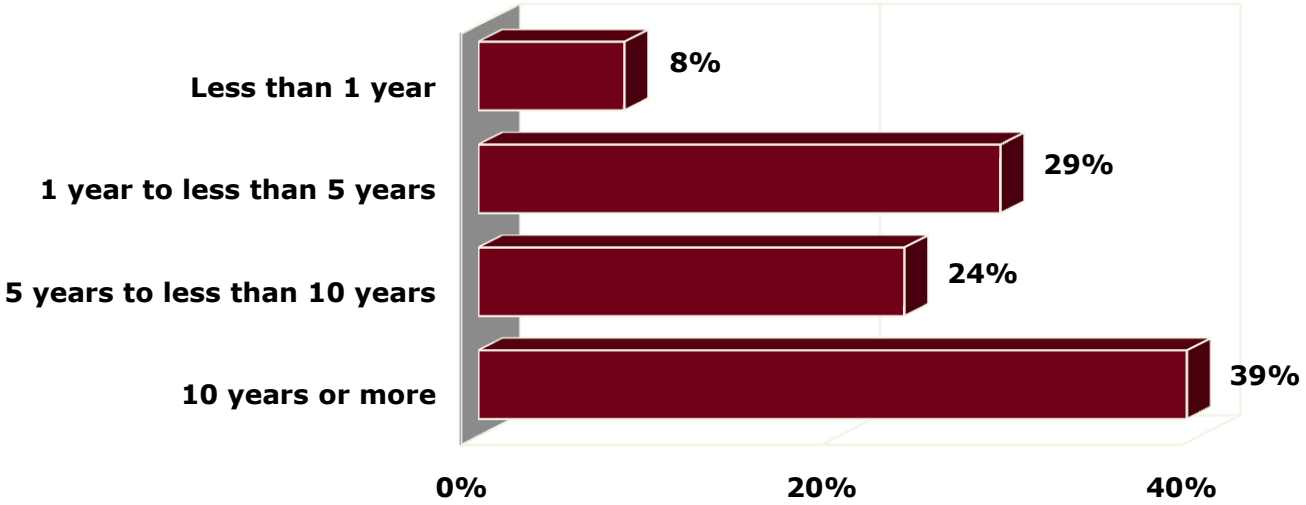
8.2 AGE



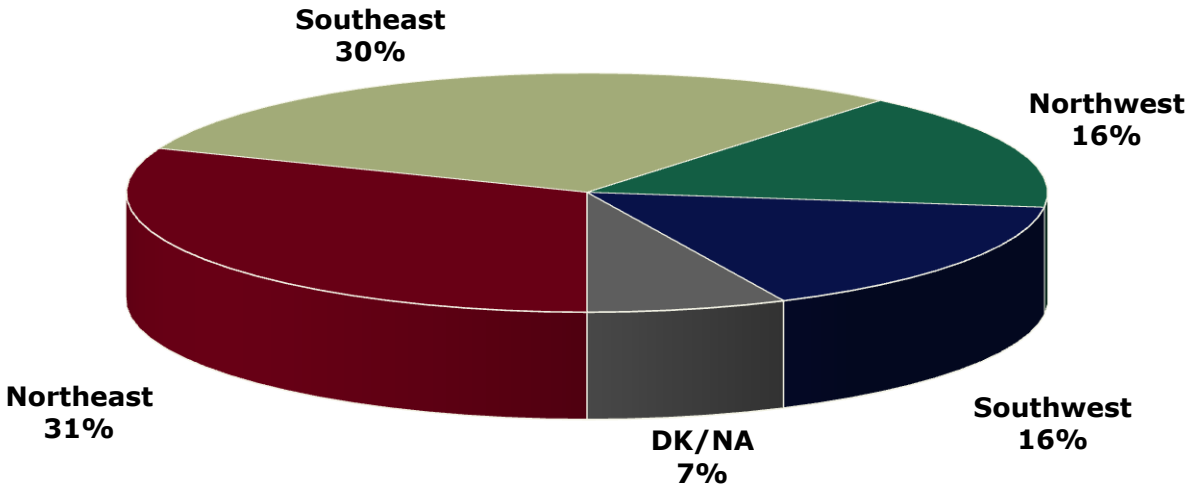
8.3 ETHNICITY



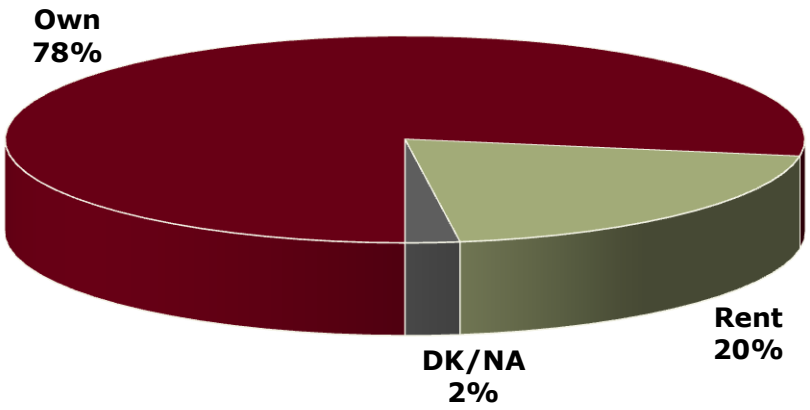
8.4 LENGTH OF RESIDENCE



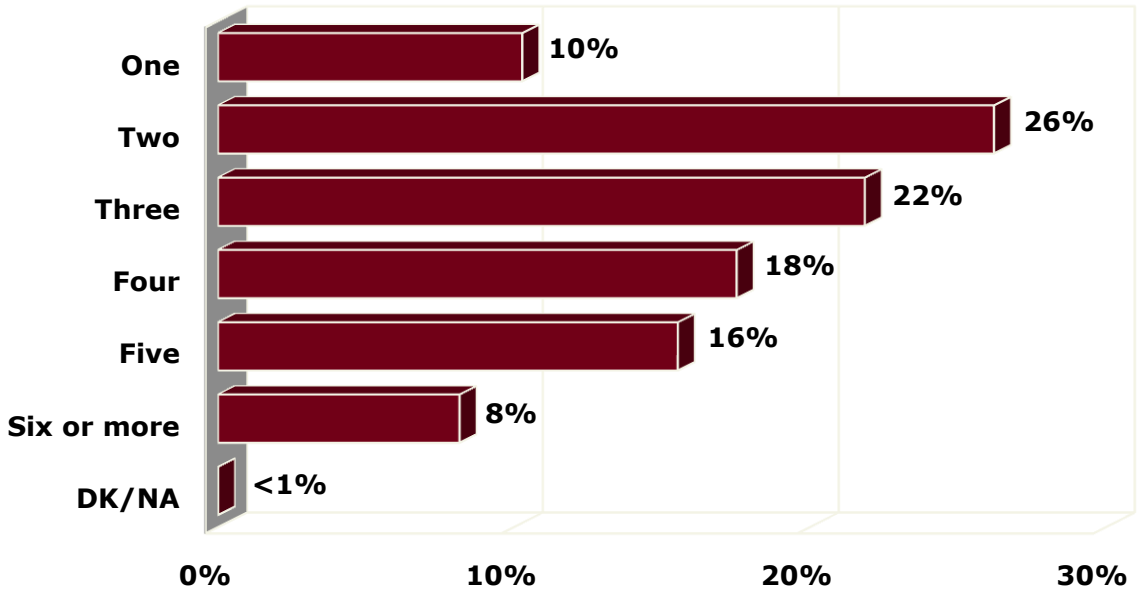
8.5 AREA OF RESIDENCE



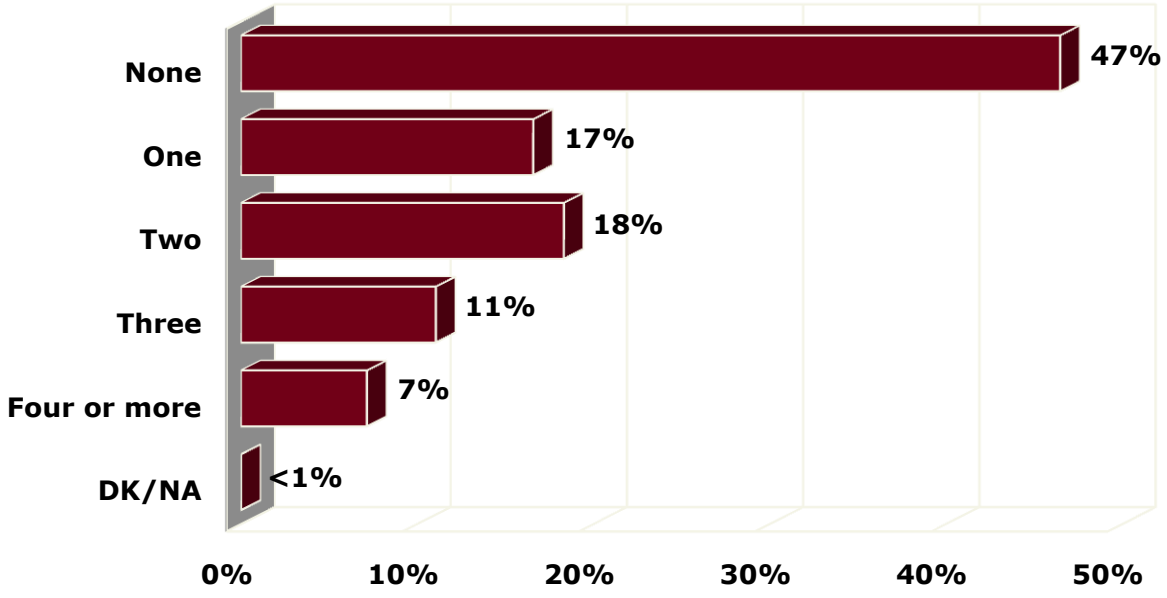
8.6 HOMEOWNERSHIP STATUS



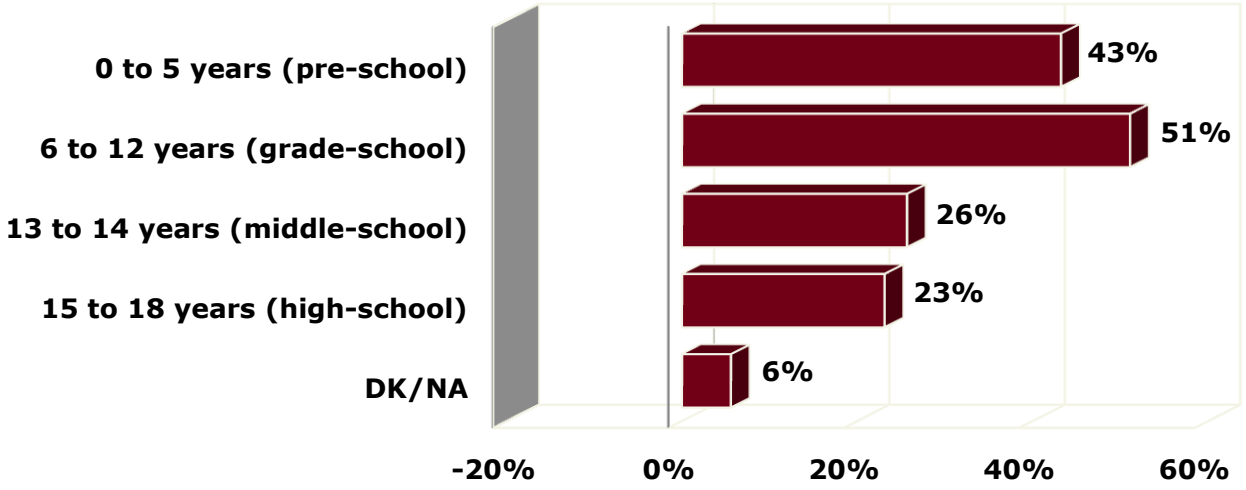
8.7 NUMBER OF HOUSEHOLD MEMBERS



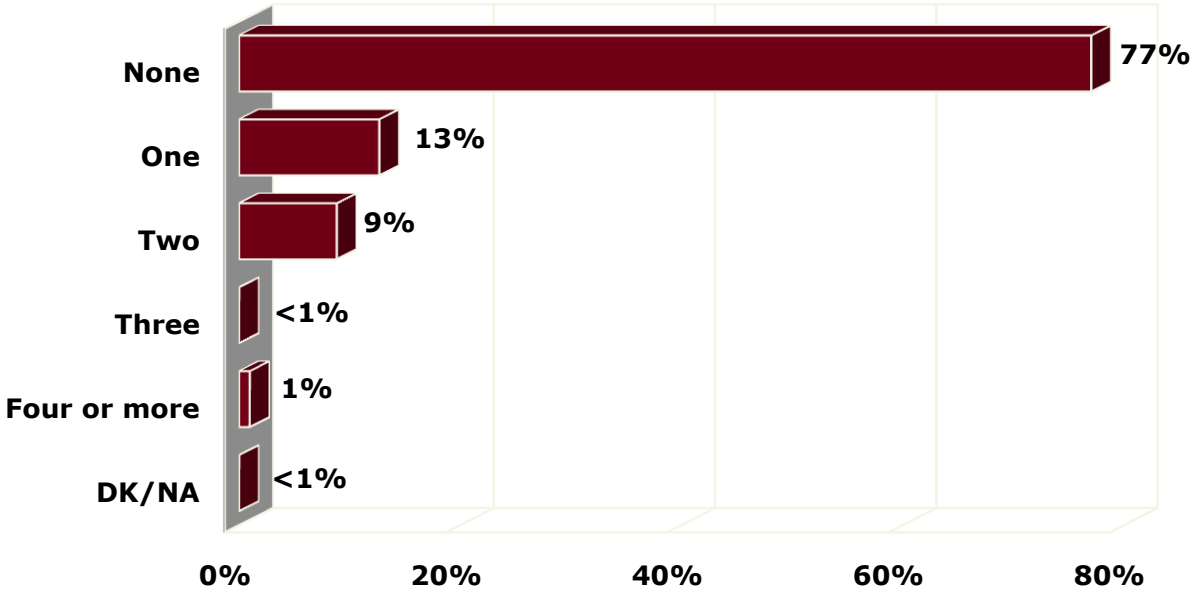
8.8 CHILDREN IN THE HOUSEHOLD



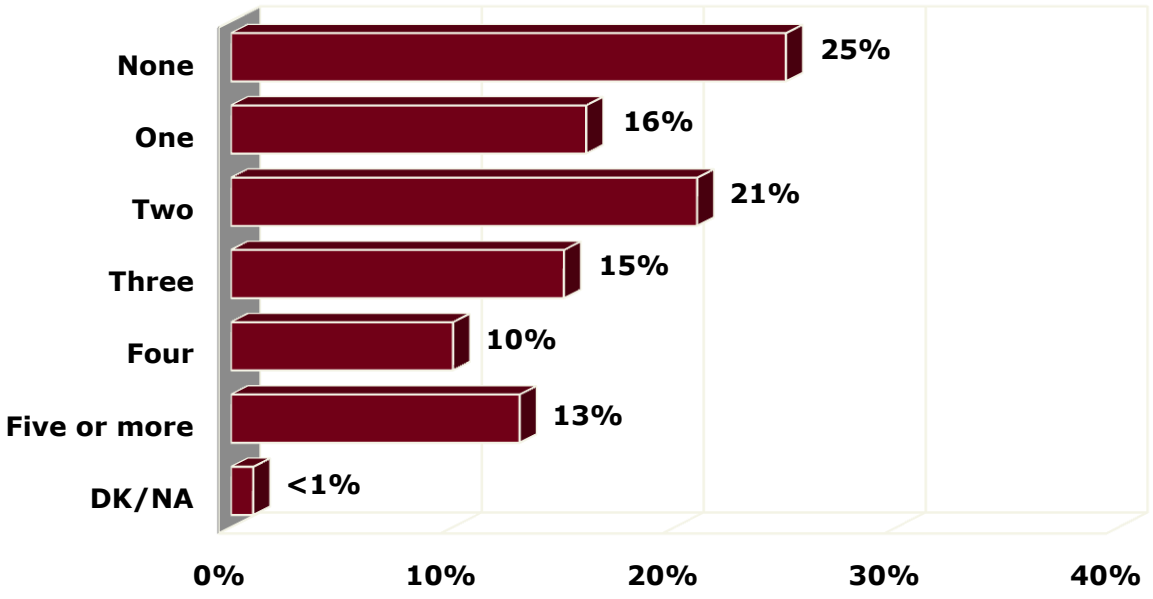
8.9 AGES OF CHILDREN IN THE HOUSEHOLD



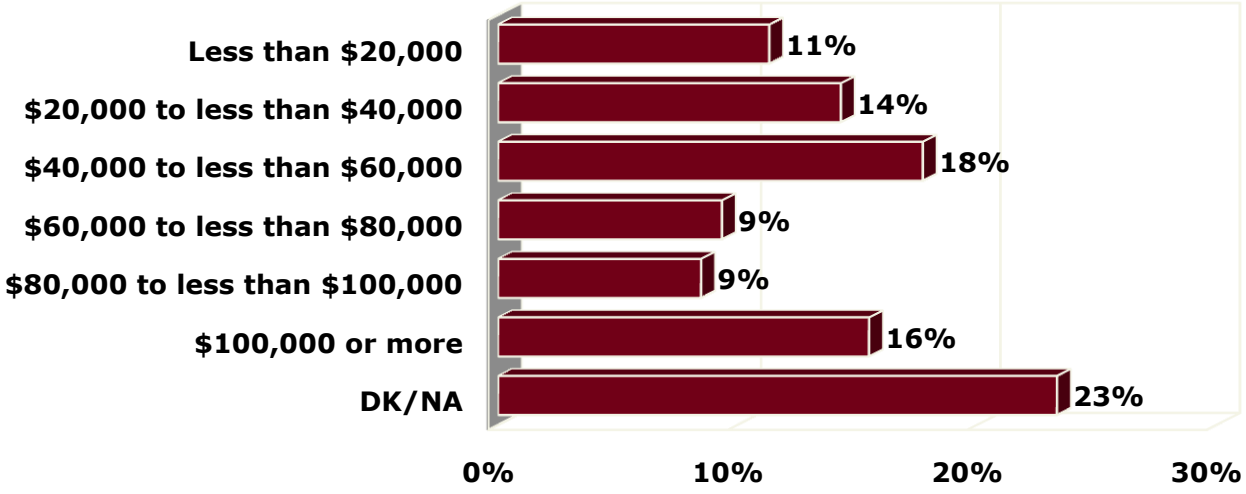
8.10 SENIORS IN THE HOUSEHOLD



8.11 BICYCLES IN THE HOUSEHOLD



8.12 ANNUAL HOUSEHOLD INCOME



9. Methodology

9.1 SURVEY PARAMETERS

Overall, 400 residents in the City of Rio Rancho completed the telephone survey, representing a total universe of approximately 55,726 adult residents in the city (based on the 2006–2008 American Community Survey estimates). These study parameters resulted in a margin of error of plus or minus 4.9%. Interviews were conducted from March 9 through March 14, 2010. The average interview time was approximately 15 minutes, and the survey was offered in English and Spanish.

9.2 SAMPLE AND WEIGHTING

Once collected, the sample of residents was compared with the adult resident population in the City of Rio Rancho to examine possible differences between the demographics of the sample of respondents and the actual universe. The data were weighted to correct any differences, and the results presented are representative of the adult resident characteristics in terms of gender, age, and ethnicity.

9.3 QUESTIONNAIRE METHODOLOGY

To avoid the problem of systematic position bias, where the order in which a series of questions is asked systematically influences the answers, several questions in the survey were randomized such that the respondents were not consistently asked the questions in the same order. The series of items in Questions 17 and 20 were randomized to avoid such position bias.

Question 18 was open-ended and the residents' verbatim responses have been coded to allow multiple response categories. Similarly, Questions 4, 6, 7, 11, 13, 14, 15, 22, and G allowed the residents surveyed to mention multiple responses. For this reason, the response percentages sum to more than 100, and these represent the percentage of the residents who mentioned a particular response, rather than the percentage of total responses.

9.4 MARGIN OF ERROR

Because a survey typically involves a limited number of people who are part of a larger population group, by mere chance alone there will almost always be some differences between a sample and the population from which it was drawn. These differences are known as "sampling error" and they are expected to occur regardless of how scientifically the sample has been selected. The advantage of a scientific sample is that we are able to calculate the sampling error. Sampling error is determined by four factors: the population size, the sample size, a confidence level, and the dispersion of responses.

The following table shows the possible sampling variation that applies to a percentage result reported from a probability type sample. Because the sample of 400 residents was drawn from the estimated population of

approximately 55,726 adult residents in the City of Rio Rancho, one can be 95% confident that the margin of error will not vary, plus or minus, by more than the indicated number of percentage points from the result that would have been obtained if the interviews had been conducted with all persons in the universe. As the table on the next page indicates, the margin of error for the aggregate responses of the sample of 400 residents is between 2.9% and 4.9%.

This means that, for a given question with dichotomous response options (e.g., Yes/No) answered by all 400 residents, one can be 95% confident that the difference between the percentage breakdowns of the sample and those of the total population is no greater than 4.9%. The percentage margin of error applies to both sides of the answer, so that for a question in which 50% of the respondents said yes, one can be 95% confident that the actual percentage of the population that would say yes is between 45% (50 minus 4.9) and 55% (50 plus 4.9).

The margin of error for a given question also depends on the distribution of responses to the question. The 4.9% refers to dichotomous questions where opinions are evenly split in the sample with 50% of respondents saying yes and 50% saying no. If that same question were to receive a response in which 10% of the respondents say yes and 90% say no, then the margin of error would be no greater than plus or minus 2.9%. As the number of respondents in a particular subgroup (e.g., age) is smaller than the number of total respondents, the margin of error associated with estimating a given subgroup's response will be higher. Due to the high margin of error, Godbe Research cautions against generalizing the results for subgroups that comprise 25 or fewer respondents.

n	Distribution of Responses				
	90%/10%	80%/20%	70%/30%	60%/40%	50%/50%
800	2.1%	2.8%	3.2%	3.4%	3.4%
700	2.2%	2.9%	3.4%	3.6%	3.7%
600	2.4%	3.2%	3.6%	3.9%	4.0%
500	2.6%	3.5%	4.0%	4.3%	4.4%
400	**2.9%**	**3.9%**	**4.5%**	**4.8%**	**4.9%**
300	3.4%	4.5%	5.2%	5.5%	5.6%

n	Distribution of Responses				
	90%/10%	80%/20%	70%/30%	60%/40%	50%/50%
200	4.2%	5.5%	6.3%	6.8%	6.9%
100	5.9%	7.8%	9.0%	9.6%	9.8%

9.5 READING CROSSTABULATION

The questions discussed and analyzed in this report comprise a subset of various crosstabulation tables available for each question. Only those subgroups that are of particular interest or that illustrate particular insights are included in the discussion. These crosstabulation tables provide detailed information on the responses to each question by demographic and behavioral groups that were assessed in the survey. A typical crosstabulation table is shown here.

A short description of the item appears on the left-hand side of the table. The item sample size (n = 400) is presented in the first column of data under "Total."

The results to each possible answer choice of all respondents are presented in the first column of data under "Total." The aggregate number of respondents in each answer category is presented as a whole number, and the percentage of the entire sample that this number represents is just below the whole number. In this example, among the total respondents, 97 residents reported "very satisfied," and this number of respondents equals 24% of the total sample size of 400. Next to the "Total" column are the other columns representing responses from the male and female residents. The data from these columns are read in exactly the same fashion as the data in the "Total" column, although each group makes up a smaller percentage of the entire sample.

		Gender		
		Total	Male	Female
Are you satisfied or dissatisfied with the walking and biking paths and trails in Rio Rancho?	Total	400	192	208
	Very satisfied	97	55	41
		24.2%	28.9%	19.9%
	Somewhat satisfied	154	67	87
		38.5%	34.7%	42.0%
	Somewhat dissatisfied	69	31	38
		17.3%	16.1%	18.4%
	Very dissatisfied	47	22	24
		11.7%	11.7%	11.6%
	DK/NA	33	17	17
		8.4%	8.7%	8.1%

9.6 SUBGROUP COMPARISONS

To test whether or not the differences found in percentage results among subgroups are likely due to actual differences in opinions or behaviors—rather than the result of chance due to the random nature of the sampling design—a "z-test" was performed. In the headings of each column are labels, "A," "B," "C," etc., along with a description of the variable. The "z-test" is performed by comparing the percentage in each cell with all other cells in the same row within a given variable (within Gender in the pictured table, for example).

The results from the "z-test" are displayed in a separate table below the crosstabulation table. If the percentage in one cell is statistically different from the percentage in another, the column label will be displayed in the cell from which it varies significantly. For instance, in the adjacent table, a significantly higher percentage of the men (29%) reported "very satisfied" than the percentage of women (20%). Hence, the letter "B," which stands for "female" residents, appears under Column "A," which stands for "male" residents. The letters in the table indicate the differences where one can be 95% confident that the results are due to actual differences in opinions or behaviors reported by subgroups of respondents.

It is important to note that the percentage difference among subgroups is just one piece in the equation to determine whether or not two percentage figures are significantly different from each other. The variance and sample size associated with each data point are integral to determining significance. Therefore, two calculations may be different from each other, yet the difference may not be statistically significant according to the "z" statistic.

		Gender		
		Total	Male	Female
Are you satisfied or dissatisfied with the walking and biking paths and trails in Rio Rancho?	Total	400	192	208
	Very satisfied	97	55	41
		24.2%	28.9%	19.9%
	Somewhat satisfied	154	67	87
		38.5%	34.7%	42.0%
	Somewhat dissatisfied	69	31	38
		17.3%	16.1%	18.4%
	Very dissatisfied	47	22	24
		11.7%	11.7%	11.6%
	DK/NA	33	17	17
		8.4%	8.7%	8.1%

		Gender	
		Male	Female
		(A)	(B)
Are you satisfied or dissatisfied with the walking and biking paths and trails in Rio Rancho?	Very satisfied	B	
	Somewhat satisfied		
	Somewhat dissatisfied		
	Very dissatisfied		
	DK/NA		

9.7 UNDERSTANDING A MEAN

In addition to the analysis of the percentage of the responses, some results are discussed with respect to an average score. To derive the overall importance of a path and trail feature, Q17 for example, a number value was assigned to each response category, in this case, "Very Important" = +2, "Somewhat Important" = +1, "Not Important" = 0. The number values that correspond to residents' answers were then averaged to produce a final score that reflects the overall importance of that feature. The resulting mean score makes the interpretation of the data considerably easier.

In the crosstabulation tables for Questions 17 and 20 of the survey, the reader will find mean scores. These mean scores represent the average response of each group. The table to the right shows the scales for each corresponding question. Responses of "DK/NA" were not included in the calculations of the means for any question.

Question	Measure	Scale	Values
Q17	Importance Ratings	+2 to 0	+2.0 = "Very Important" +1.0 = "Somewhat Important" 0.0 = "Not Important"
Q20	Satisfaction Ratings	+2 to -2	+2.0 = "Very Satisfied" +1.0 = "Somewhat Satisfied" -1.0 = "Somewhat Dissatisfied" -2.0 = "Very Dissatisfied"

9.8 MEANS COMPARISONS

Only those subgroups that are of particular interest, or that illustrate a particular insight, are included in the discussion within the report with regard to mean scores. A typical crosstabulation table of mean scores is shown in the adjacent table.

The aggregate mean score for each item in the question series is presented in the first column of the data under "Total." For example, among the survey respondents (n = 400), the feature A, "Availability of secure bicycle parking at city parks and along paths and trails," earned a mean score of 1.3. Next to the "Total" column are other columns representing the mean scores assigned by the respondents grouped by gender.

The data from these columns are read in the same fashion as the data in the "Total" column. To test whether two mean scores are statistically different, a "t-test" is performed. As in the case of the "z-test" for percentage figures, a statistically significant result is indicated by the letter representing the data column.

	Gender		
	Total	Male	Female
A. Availability of secure bicycle parking at city parks and along paths and trails	1.3	1.2	1.4
B. Availability of secure bicycle parking at restaurants, shops, and other destinations in Rio Rancho	1.2	1.1	1.3
C. Availability and maintenance of drinking fountains	1.2	1.1	1.2

	Gender	
	Male	Female
	(A)	(B)
A. Availability of secure bicycle parking at city parks and along paths and trails		A
B. Availability of secure bicycle parking at restaurants, shops, and other destinations in Rio Rancho		A
C. Availability and maintenance of drinking fountains		

Appendix D: Complete Projects List

Bicycle facility improvement projects

Priority?	Bike Blvd (Y/N)		PROJECT NAME	FACILITY TYPE	LENGTH Feet	LENGTH Miles	LOCATION and PARAMETERS Start	LOCATION and PARAMETERS End	2011-2015 TIP Project (Y/N)	2030 MTP Project (Y/N)	ZONE	COST
Yes		TRAILS	Montoya's Arroyo Trail	Proposed Trail	39430	7.5	King Blvd NE	Camino de la Tierra	No	Yes, from Unser to NM 528	A,B,D	$ 3,126,713
Yes			Powerline Trail	Proposed Trail	11348	2.1	Southern Blvd SE	City Limit	No	No	C	$ 597,230
Yes			Rio Grande	Proposed Trail	16364	3.1	Willow Creek Rd NE	Corrales Rd	No	No	A,B	$ 861,246
Yes			La Barranca Arroyo	Proposed Trail	44564	8.4	Unser Blvd NE	Rio Grande	No	No	A	$ 2,345,568
Yes			Barranca's Arroyo Trail	Proposed Trail	8442	1.6	Progress Blvd NE	King Blvd NE	No	Yes, from Unser to NM 528	D	$ 444,380
Yes			Venada Arroyo Trail	Proposed Trail	39822	7.5	Unser Blvd NE	HWY 528	No	Yes from Unser to Utility Easement	A	$ 2,096,004
Yes			Paseo del Volcan	Proposed Trail	46483	8.8	Rainbow Blvd NW	US-550	No	No	A,D	$ 2,446,727
Yes			Powerline Trail	Proposed Trail	36560	6.9	Chayote Rd NE	Summer Winds Dr NE	No	Yes, from County Line to Paseo del Volcan	A,B	$ 1,924,255
Yes			Nicklaus Channel Path	Proposed Trail	6585	1.2	Powerline Trail	Cabezon Linear Park Bike Trail	No	No	B	$ 346,555
Yes			Willow Creek Rd	Proposed Path	5215	1.0	Cabezon Dr NE	Spruce Mountain Loop NE	No	No	A	$ 128,121
Yes			US-550	Proposed Trail	9043	1.7	Northwest Corridor	Chayote Rd NE	No	No	A	$ 476,061
Yes			Northern Blvd	Proposed Lane	29170	5.5	Loma Colorado Dr NE	Hondo Road SW	Yes, from 34th street to Broad moor Blvd (Phase 1) and Broadmoor Blvd to Northern Blvd (Phase 2)	No	A,B,C,D	$ 66,729
Yes			Chayote Rd	Proposed Lane	18928	3.6	US-550	Idalia Rd NE	No	Yes, Paseo del Volcan to Enchanted Hills and Paseo del Volcan to Idalia	A	$ 43,298
			Westside Blvd NW	Proposed Lane	6908	1.3	Golf Course Rd SE	Unser Blvd SE	No	No	B	$ 15,798
			30th St.	Proposed Lane	18347	3.5	Progress Blvd NE	Nothern Blvd NE	No	No	A	$ 41,970
			40th St/Terrene Rd NE	Proposed Lane	16660	3.2	Progress Blvd NE	Huron Dr NE	No	No	A	$ 38,105
			10th St NE	Proposed Lane	17465	3.3	20th Ave NE	Idalia Rd NE	No	Yes	C,D	$ 39,953
Yes			Rainbow Blvd	Proposed Lane	20304	3.8	Northern Blvd NE	23rd Ave SE	No	Yes, Northern to King	C	$ 46,439
			Rainbow Blvd NW	Proposed Lane	30397	5.8	Vermillion Rd NE	Northern Blvd NE	No	No	D	$ 69,531
			Camino Molinaro	Proposed Lane	3694	0.7	Main St NE	30th St NE	No	No	A	$ 8,454
			N Dog Leg	Proposed Lane	1461	0.3	Civic Centre Circle NE	33rd Ave NE	No	No	A	$ 3,346
			Proposed ROAD	Proposed Lane	1459	0.3	30th St NE	Civic Centre	No	No	A	$ 3,333
			Enchanted Hills Blvd	Proposed Lane	15500	2.9	Chayote Rd NE	HWY 528	No	No	A	$ 35,460
			Nativitas	Proposed Lane	14102	2.7	Enchanted Hills Blvd NE	Idalia Rd NE	No	No	A	$ 32,259
Yes			Idalia Rd NE	Proposed Lane	32520	6.2	Northern Blvd NE	HWY 528	Yes, from Iris to NM 528	No	A	$ 74,386
Yes		LANES	Progress Blvd	Proposed Lane	42938	8.1	Venture Dr NW	Chayote Rd NE	No	Yes, Rainbow to Unser	A,D	$ 98,215
			Chessman Dr NE	Proposed Lane	4321	0.8	Powerline Trail	Idalia Rd NE	No	No	B	$ 9,880
			Idalia Rd NE	Proposed Lane	13786	2.6	Unser Blvd NE	Rainbow Blvd	No	No	C	$ 31,535
Yes			Southern Blvd SE	Proposed Lane	28836	5.5	Rio Rancho Blvd SE	8th St SW	No	No	B,C	$ 65,956
Yes			Unser Blvd	Proposed Lane	23590	4.5	Progress Blvd NE	Hawk Rd NE	Yes, from Paseo del Volcan to King, Phase 2b (Farol to Paseo del Volcan) and 2c (King to Progress) not yet funded.	No	A	$ 53,963
Yes			Unser Blvd	Proposed Lane	13325	2.5	Progress Blvd NE	Farol Rd NE	Yes, not yet funded	No	D	$ 30,484
			Willow Creek	Proposed Lane	6823	1.3	HWY 528	Riverside Dr NE	No	No	A	$ 15,604
			Lincoln Ave NE	Proposed Lane	4614	0.9	Chayote Rd NE	Nativitas Rd NE	No	No	A	$ 10,556
			Loma Colorado	Proposed Lane	6066	1.1	Terraza Blvd NE	Broadmoor Dr SE	No	No	B	$ 13,877
Yes			Westphalia Blvd NE	Proposed Lane	21071	4.0	Northwest Corridor	Klamath Rd NE	No	Yes, as Iris Road from Idalia to Paseo del Volcan	A	$ 48,202
			Northwest Lp	Proposed Lane	6181	1.2	Hawk Rd NE	US-550	No	No	A	$ 14,143
			Laban Rd NE	Proposed Lane	3088	0.6	Terrene Rd NE	Nutmeg Rd NE	No	No	A	$ 7,065
			Kim Rd NE	Proposed Lane	16255	3.1	HWY 528/Rio Rancho Blvd NE	40th St NE	No	No	A	$ 37,187
			15th Ave NE	Proposed Lane	5828	1.1	10th St NE	Santa Clara Rd NE	No	No	D	$ 13,334
			King Blvd NE	Proposed Lane	3182	0.6	Unser Blvd NE	Wilpett Rd NE	No	No	D	$ 7,283
			Wilpett Rd NE	Proposed Lane	5264	1.0	Progress Blvd NE	King Blvd NE	No	No	D	$ 12,041
	Y		Lisbon Ave SE	Proposed Route	9199	1.7	Tulip Rd SE	Southern Blvd SE	No	No	C	$ 2,613
	Y		Tulip Rd SE	Proposed Route	12276	2.3	Abrazo Rd NE	Rainbow Blvd	No	No	C	$ 3,488
	Y		Abrazo Rd NE	Proposed Route	12463	2.4	Chessman Dr NE	10th St NE	No	No	B,C	$ 3,540
yes			Idalia Rd	Proposed Route	3074	0.6	Chessman Dr NE	Unser Blvd NE	No	No	B	$ 873
yes			Idalia Rd SW	Proposed Route	5016	1.0	Rainbow Blvd	Southern Blvd SW	No	No	C	$ 1,425
			Chayote Rd NE	Proposed Route	5676	1.1	Idalia Rd NE	Iris Rd NE	No	No	A	$ 1,613
			Riverside Dr NE	Proposed Route	6606	1.3	HWY 528	HWY 528	No	No	A	$ 1,877
			Leon Grande Ave SE	Proposed Route	4602	0.9	Rio Rancho Blvd SE	Villa Verde Ct SE	No	No	B	$ 1,308
			Villa Verde Dr SE	Proposed Route	1753	0.3	Leon Grande Ave SE	Palmas Altas Dr SE	No	No	B	$ 498
			Nicklaus Dr SE	Proposed Route	3329	0.6	Broadmoor Dr SE	Lema Rd SE	No	No	B	$ 947
Yes	Y		Lema Rd SE	Proposed Route	1171	0.2	Nicklaus Dr SE	Western Hills Dr SE	No	No	B	$ 333
			Western Hills Dr SE	Proposed Route	8946	1.7	Unser Blvd SE	Southern Blvd SE	No	No	B	$ 2,541
			Oakmount Dr SE	Proposed Route	2628	0.5	Country Club Dr SE	Southern Blvd SE	No	No	B	$ 747
			Veranda Rd SE	Proposed Route	4139	0.8	Southern Blvd SE	Unser Blvd SE	No	No	C	$ 1,176
Yes	Y		Baltic Ave SE/Pecos Loop	Proposed Route	9483	1.8	Lisbon Ave SE	Rainbow Blvd	No	No	C	$ 2,694
			Arizona Sr SE	Proposed Route	1490	0.3	Idalia Rd SE	Baltic Ave SE	No	No	C	$ 423
			Pine Rd NE	Proposed Route	618	0.1	Santa Clara Rd NE	Unser Blvd NE	No	No	D	$ 176
			34th Ave NE	Proposed Route	2903	0.6	Wilpett Rd NE	33rd Ave NE	No	No	D	$ 825
			Total Mileage			**149.9**						**$ 15,808,341**

Pedestrian and intersection improvement projects

Yes			Pedestrian access improvements	additional and high visibility crossings to improve SR2S at Vista Grande Elementary School	--	--	Chayote Road at Enchanted Hills	--	No	No	A	Variable
			Pedestrian access improvements	additional and high visbiltiy crossings and signage for park	--	--	Paseo del Volcan between Enchanted Hills and Camino Encantadas	--	No	No	A	Variable
Yes			Pedestrian access improvements	access to retail and additional high visibiltiy crossings	--	--	NM 528 between Kim Rd NE and Iris Road/Riverside Drive	--	No	No	A	Variable
			Pedestrian access improvements	additional connections and access impeovements to retail and future development node	--	--	NM 528 between Rockaway Blvd NE and Northern Blvd	--	No	No	B	Variable
Yes			Pedestrian access improvements	complete sidewalk network on south side of Southern Blvd and add crossings between the school and Rainbow Park, including high visibility mid-block crossings and other SR2S connections	--	--	Southern Blvd between Rainbow Road and Baltic Avenue SE	--	No	No	C	Variable
Yes			Pedestrian access improvements	Sidewalk extension and crossing improvements	--	--	King Blvd from Unser Blvd to Wilpett Rd	--	No	No	D	Variable
			Pedestrian access improvements	Pedestrian access to future development node	--	--	Northern Blvd from 10th St NE to Unser Blvd	--	No	No	D	Variable

Access Point Priorities

Yes			Trail access	Powerline Trail at Progress Boulevard near Lincoln Avenue and Chayote Road	--	--	dependant on trail construction	--	No	No	A	Variable
Yes			Trail access	Powerline Trail and Montoya's Arroyo Trail at Broadmoore Boulvard near Loma Colorado Boulvard	--	--	dependant on trail construction	--	No	No	B	Variable
Yes			Trail access	Powerline Trail at 19th Avenue	--	--	dependant on trail constructio	--	No	No	C	Variable
			Trail access	La Barrancas Arroyo Trail at UNM C	--	--	dependant on trail constructio	--	No	No	A	Variable

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SPECIAL THANKS TO FRIENDS OF RIO RANCHO OPEN SPACE FOR USE OF LANDSCAPE PHOTOS