

RIO GRANDE CORRIDOR MASTER PLAN

DRAFT OCTOBER 8, 2010



DRAFT



RIO GRANDE CORRIDOR MASTER PLAN

an update to the 1989 Rio Grande Boulevard Corridor Plan

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...and hundreds of Albuquerque residents

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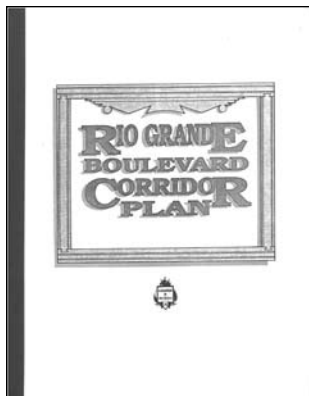
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PREFACE

The Rio Grande Corridor Master Plan is an update to 1989 Rio Grande Boulevard Corridor Plan and presents a vision for the future of this historic roadway through the heart of Albuquerque's North Valley.

Rio Grande Boulevard has the opportunity to become a model for corridor redevelopment. This plan is a comprehensive strategy for growth and redevelopment of the corridor between Mountain Road and Montañó Road; it seeks to improve the safety and operational efficiency for all modes of travel, while creating a more economically productive address. The plan envisions that Rio Grande Boulevard can be more than just improved; it can be one of the most memorable streets in America.

A consulting team comprised of town planners from Dover, Kohl & Partners, and transportation engineers from Hall Planning & Engineering, and Wilson & Company conducted an open planning process in July of 2010 to identify the ideas, needs and concerns of the community. Over 150 interested residents and stakeholders participated.



1. BACKGROUND

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STUDY AREA

The study area defined for the Rio Grande Corridor Master Plan includes the 3.2 mile stretch of Rio Grande Boulevard between Montaña Road in the north and Mountain Road in the south. Additionally, parcels and areas for potential redevelopment to the east and west of the boulevard were also examined, effectively creating an irregular and loosely defined study area. In total, approximately 285 parcels exist along the boulevard.

The thorough examination of background information, combined with photographing and measuring existing conditions prepared the planning team for creating a workable plan for the Rio Grande Corridor.



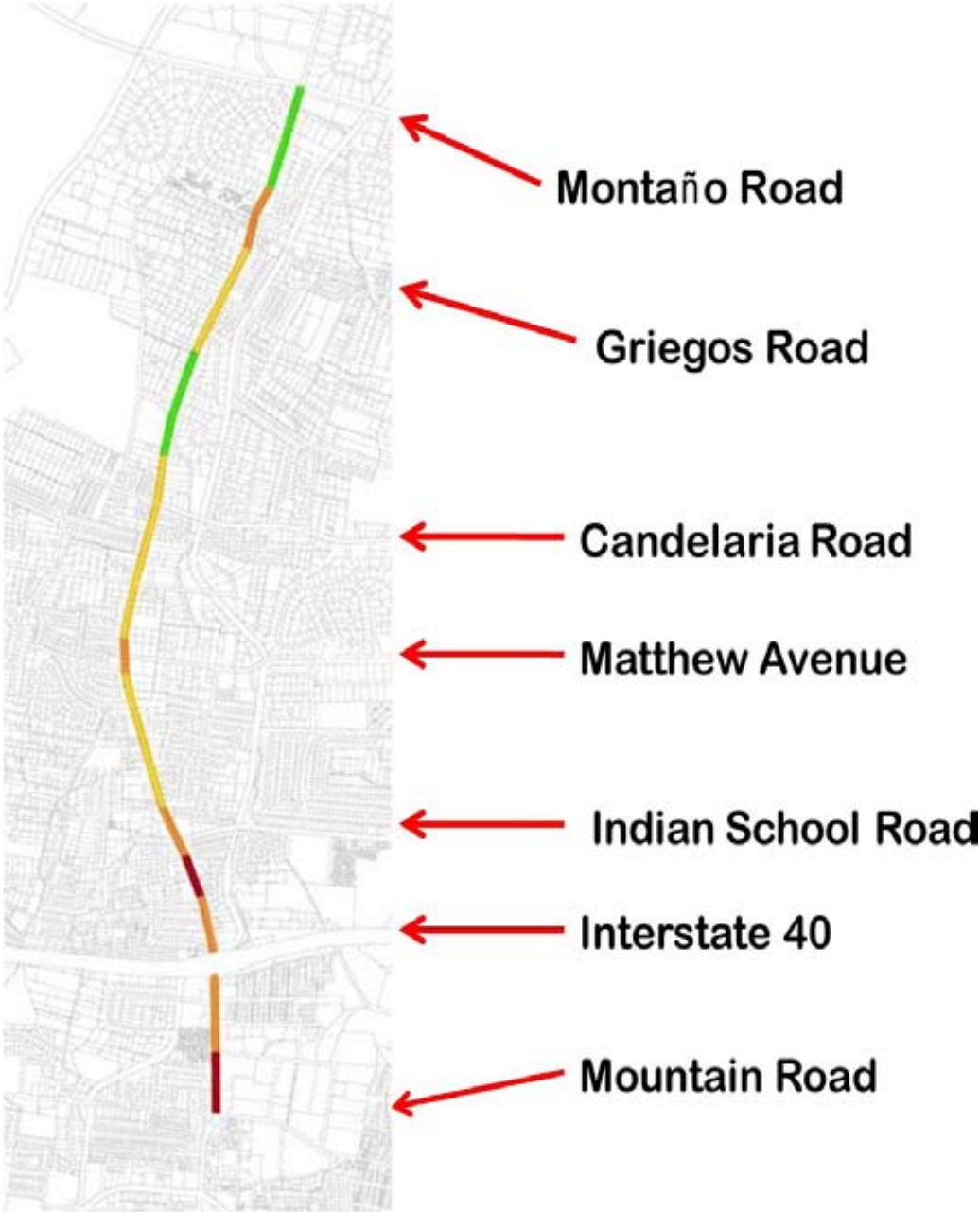
Aerial Image



Parcel Map

CORRIDOR CHARACTER AREAS

The design team identified four distinct character areas along the corridor during the charrette and through community involvement. Those character areas set the context for which the transportation design should accommodate. The four character areas described on the following pages in greater detail are: Scenic, Residential, Village and Town.



Rio Grande Boulevard Character Areas

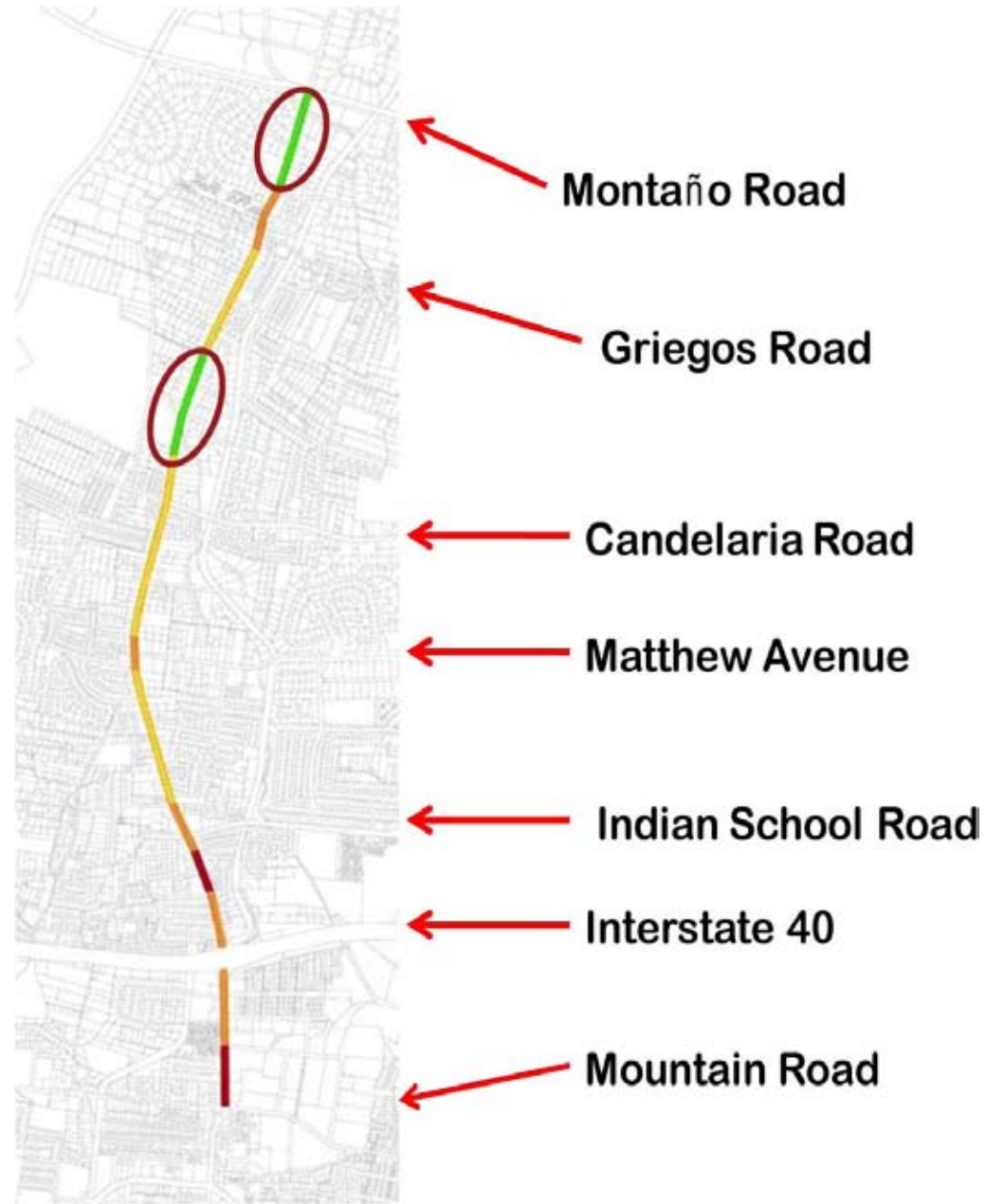
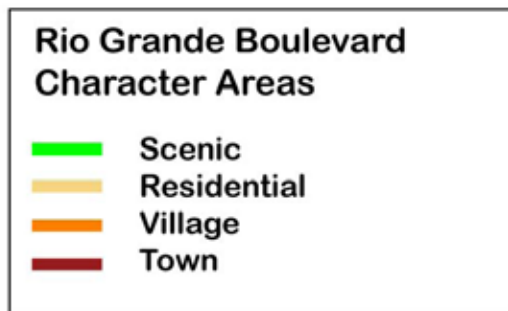
- Scenic
- Residential
- Village
- Town

Rio Grande Boulevard Character Areas

SCENIC AREA AND GENERAL STREET TYPE

The Scenic Areas, identified in the ovals, are located north of Candelaria Road. These are places where large lots exist along the boulevard, with largely agricultural uses and long views toward the West Mesa and the Sandia Mountains. Building heights are kept minimal, at one and two stories. The adjacent land uses are generally residential and agricultural in character. Opportunities for grand vistas are present in these areas.

The street section proposed for Rio Grande Boulevard in these areas should complement the scenic nature and intended character described above. A "General" Street type is proposed for this section of the corridor and is described in more detail below. In essence, the "General" Street will cater more to automobile users and operate at slightly higher speeds than other sections of the boulevard, recognizing that development pattern in these areas will generate less walkability.

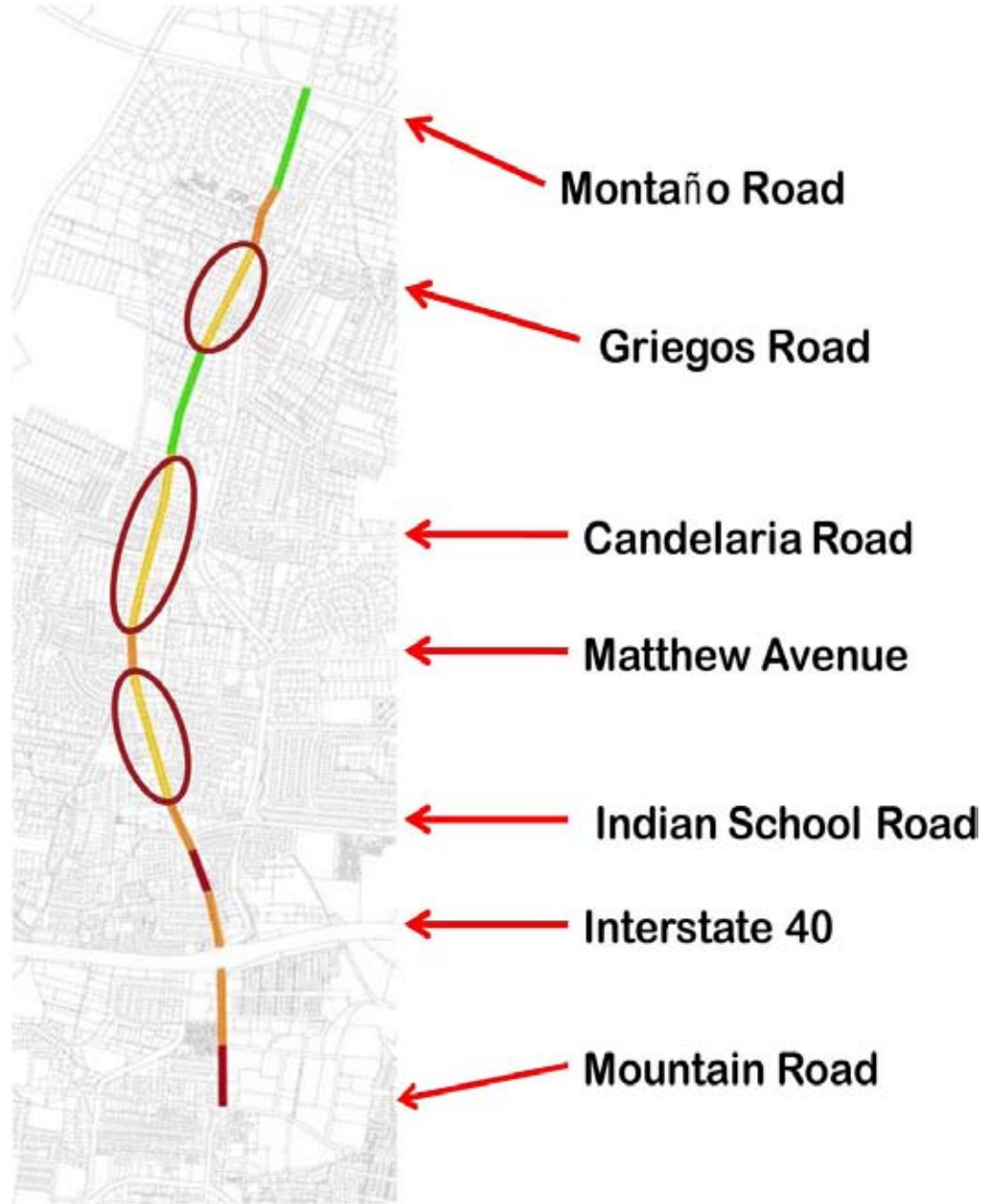
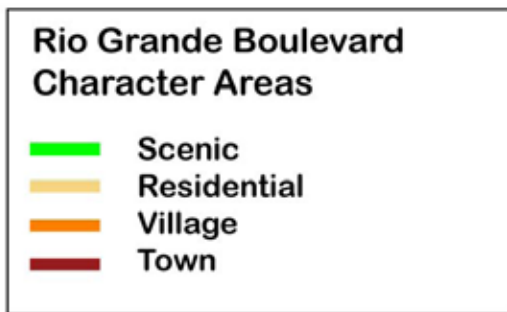


Rio Grande Boulevard Scenic Areas

RESIDENTIAL AREA AND GENERAL STREET TYPE

Shown at right, the Residential Area is the most predominant area type, representing the greatest part of the boulevard. These areas are those that historically have had smaller lots or frontage along the boulevard and are mostly single-family residential in character. Buildings are typically one to two stories and have varying set back depths from the street.

As the character of the Residential Areas is similar to that of the Scenic Area, the same "General" street type (see Section 4) is proposed to accommodate this section of the boulevard.

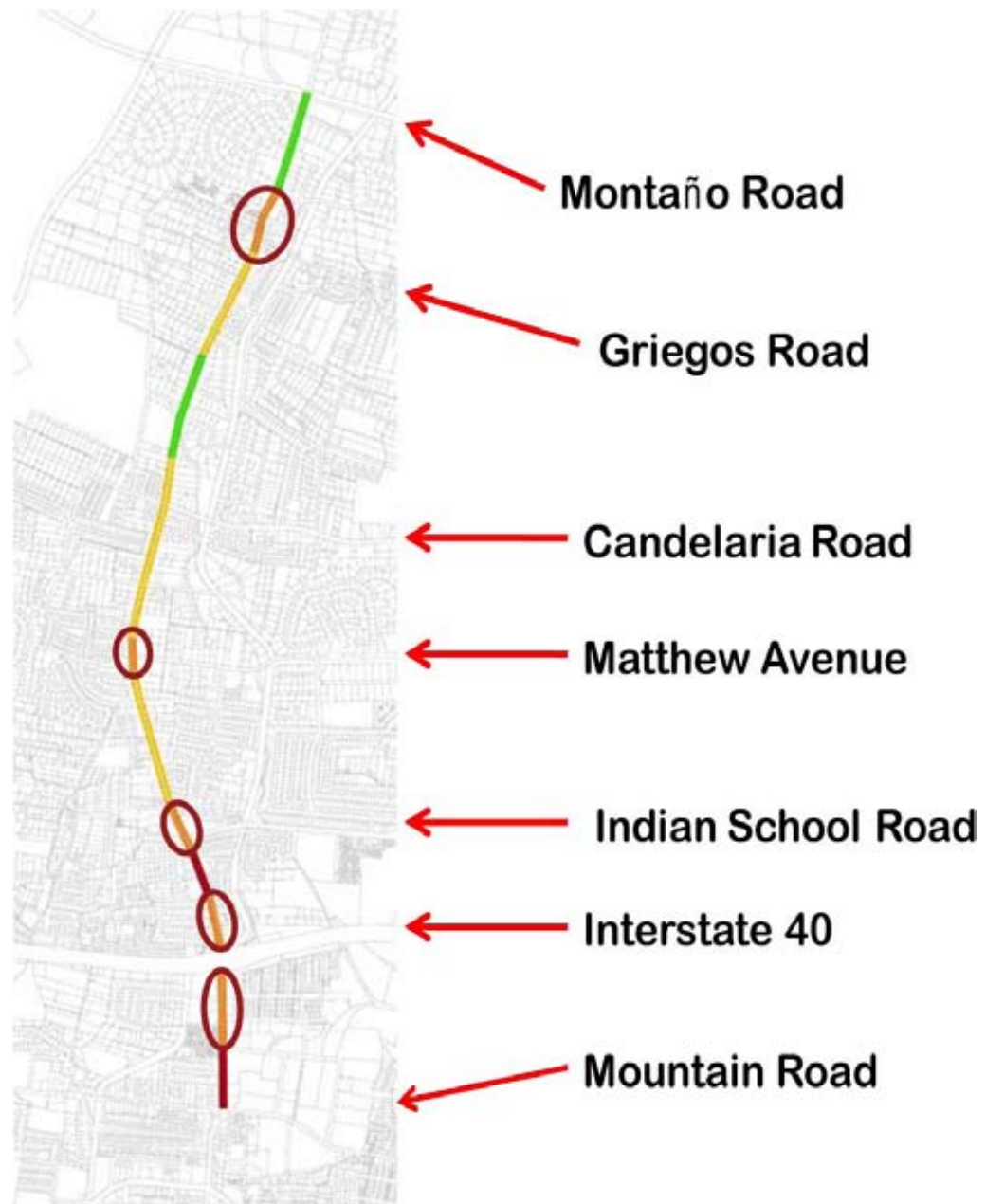
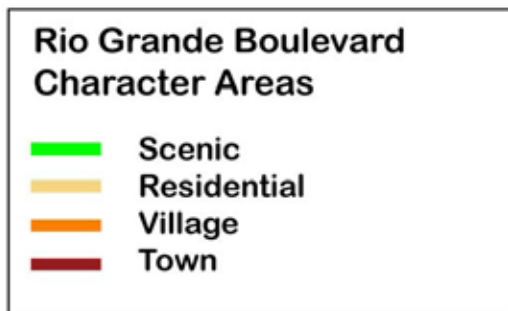


Rio Grande Boulevard Residential Areas

VILLAGE AREA AND VILLAGE STREET TYPE

The Village areas will have slightly more intense development pattern than the Residential Areas and will consist of buildings of two to three stories. Commercial land uses serving the neighborhood will provide an appropriate mix of uses. Buildings should front the street, providing greater walkability than the previous area types described.

A coordinating Village Street type (see Section 4) is proposed for these areas to better complement the intended character and provide greater levels of walking, bicycling and transit use. The design will promote motor vehicle target speeds of 30 mph.



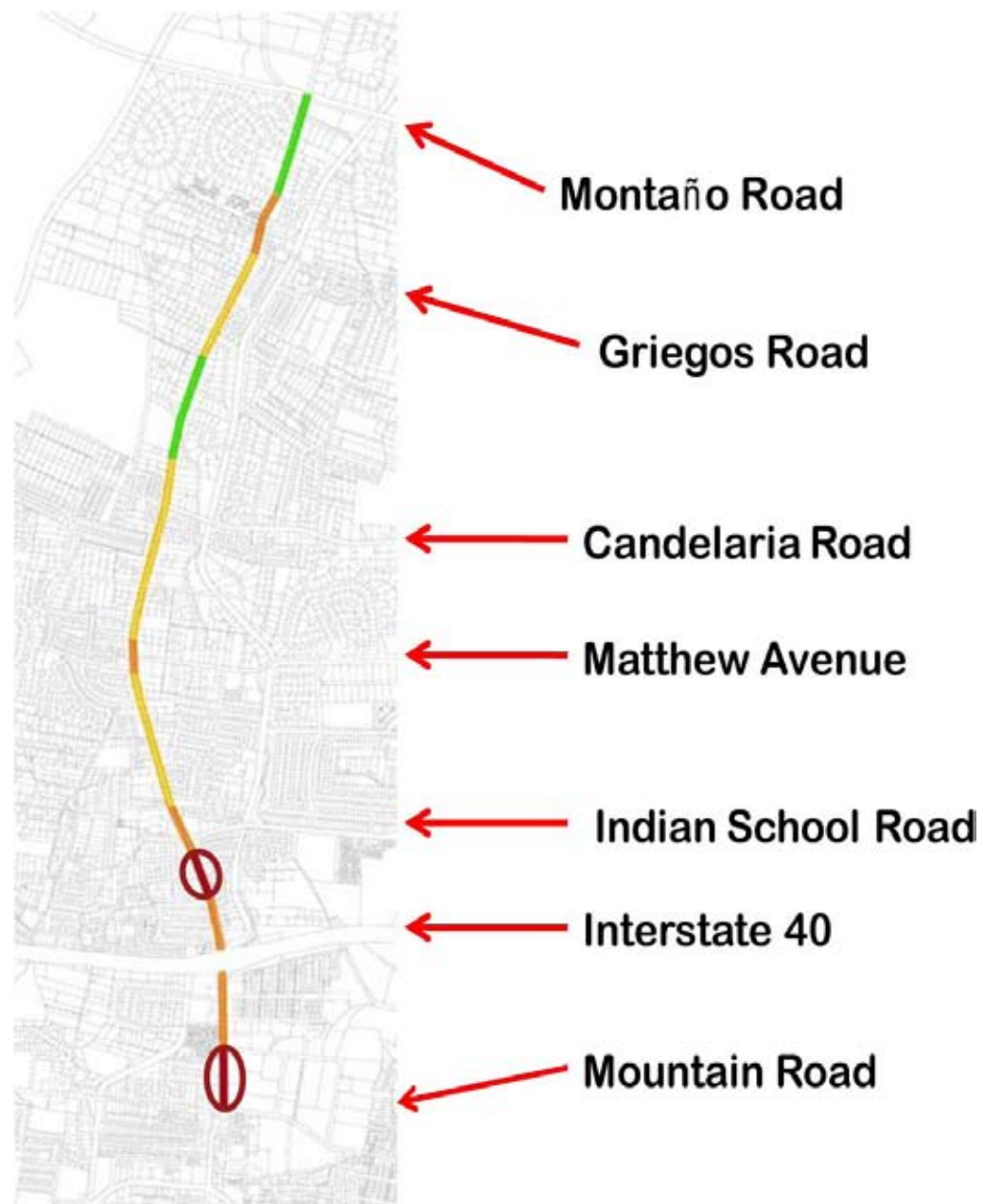
Rio Grande Boulevard Village Areas

TOWN AREA AND TOWN STREET TYPE

The least prevalent, yet most intense Character Area proposed for the boulevard are the two Town Areas. These Town areas are proposed adjacent to Albuquerque's Old Town and consistent with redevelopment potential at Los Duranes.

In the Town Areas, building heights of 2 to 4 stories will be common and will encompass a mix of uses, as well as a variety of residential types. Buildings will be located closer to the road, providing increased levels of walkability. More formal treatment of sidewalks and tree plantings should accompany the redesign of these sections of the boulevard.

The Town Street Type described in detail in Section 4 will best compliment this Area Type. Its design will promote the greatest degrees of walking, bicycling and transit use, slowing motor vehicles to a target speed of 25 mph.



Rio Grande Boulevard Town Areas

TRANSPORTATION ANALYSIS

The charrette held in July, 2010 included interviews with stakeholders to identify transportation issues, as well as an examination of the area's transportation context and technical feasibility of recommendations. HPE studied traffic speeds and street designs in the area, conducted interviews with the New Mexico Department of Transportation and City Engineering and Planning staff, and met with local citizens and citizen groups.

“Walkability,” as used in this effort, describes the extent to which places are comfortable for pedestrians, cyclists and transit users. Walkable places require a mix of uses, public spaces, a fine-grained network of connected streets that provides many options for travel, managed vehicle speeds and human-scaled development placing amenities and services within a quarter-mile radius of one's home. A walkable community is one that encourages the use of a mix of modes (pedestrian, bicycle, transit and motor vehicle). Walkable communities are created by a number of factors; a few are listed below:

- On-street parking
- Mixture of uses and densities
- Streets with managed speeds
- Connected network of streets
- Buildings fronting streets
- Sidewalks
- Narrow streets

Rio Grande Boulevard is a suburban arterial, ripe with history, tradition and natural beauty, whose priority is to function as an efficient means to move automobiles. This designation has disadvantaged other modes of travel such as walking, bicycling and tran-

sit use, which would otherwise thrive in this location. High-value redevelopment opportunities have been limited by this automobile-only purpose, as have opportunities for increased levels of walking, bicycling and transit use.

Traffic counts were obtained by the design team by traffic measurement hoses at ten locations along the study corridor conducted on June 15, 2010. The hose count data revealed volumes and speeds at these locations for a 24-hour period. The results of those counts are shown below in graph format. The graphs illustrate a couple of things. First, with a couple of exceptions, the tendency for the traffic to experience peak hour flows: one in the AM and one in the PM, as well as high periods during the noon hour. These traffic flows help planners understand the way in which the corridor functions and operates. The peak travel time traffic volumes must be accommodated by the proposed designs and indicate that the corridor is not being utilized as efficiently as possible, like corridors experiencing relatively flat volumes spread throughout the entire day. A couple of the counts nearer the interstate demonstrated more uniform traffic across the day (see Figures 8 and 9).

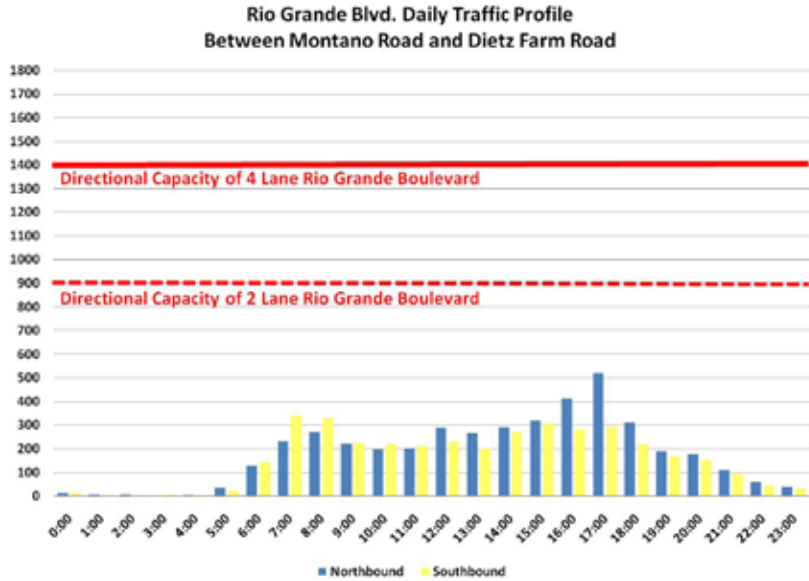


Figure 1: Daily Traffic Profile Montano Road to Dietz Farm Road

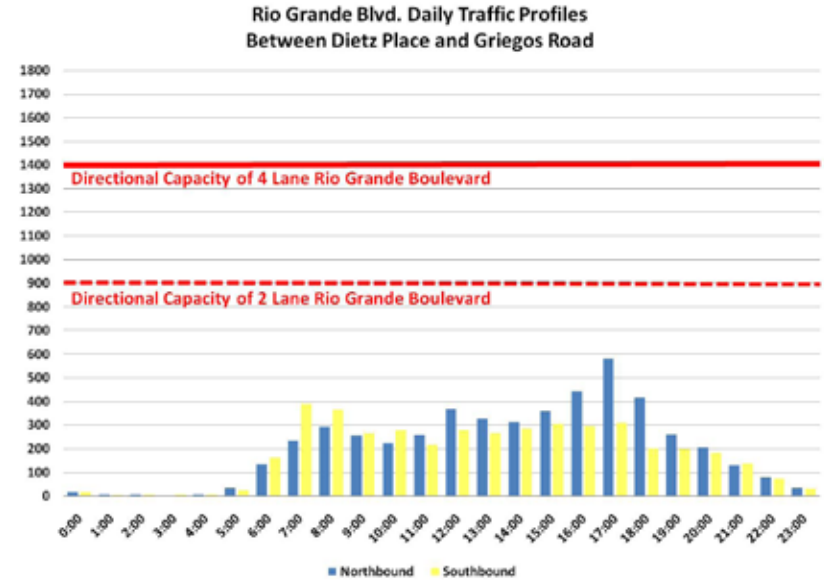


Figure 3: Daily Traffic Profile Dietz Place to Griegos Road

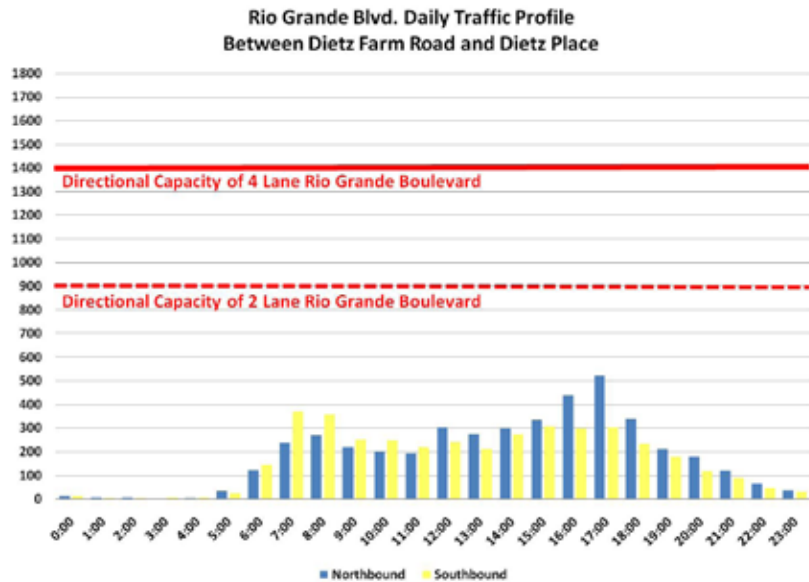


Figure 2: Daily Traffic Profile Dietz Farm Road to Dietz Place

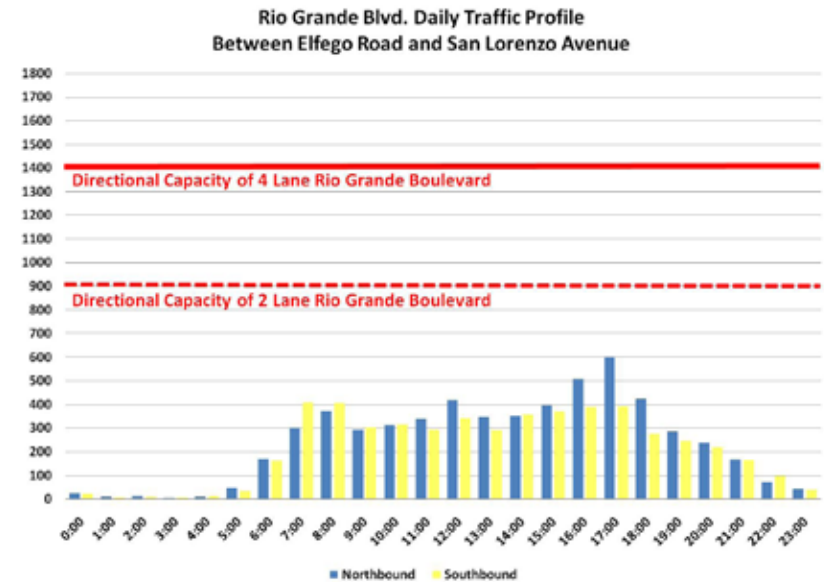


Figure 4: Daily Traffic Profile Elfego Road to San Lorenzo Avenue

**Rio Grande Blvd. Daily Profile
Between Artesanos Court and Oro Vista Road**

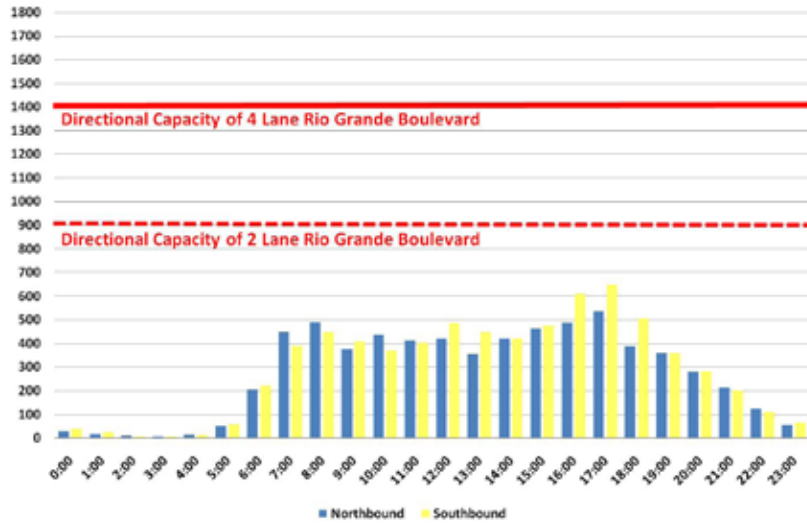


Figure 5: Daily Traffic Profile Artesanos Court to Oro Vista Road

**Rio Grande Blvd. Daily Traffic Profile
Between Plaza Vizcaya and El Nido Court**

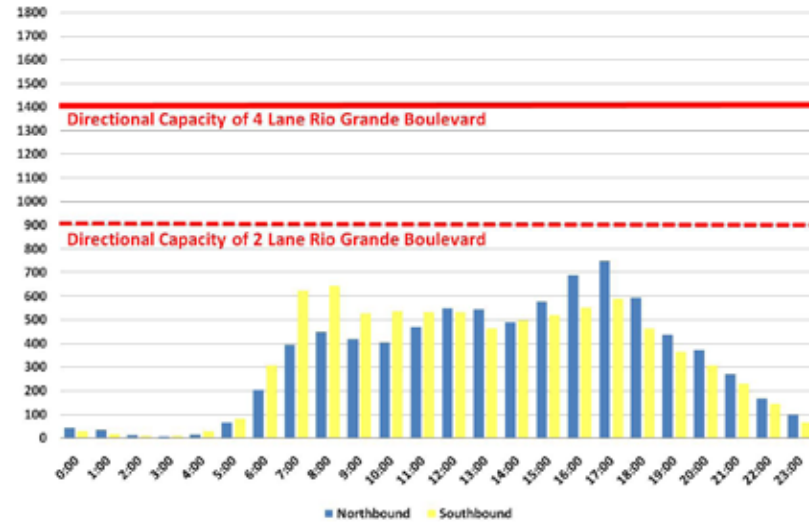


Figure 7: Daily Traffic Profile Plaza Vizcaya to El Nido Court

**Rio Grande Blvd. Daily Traffic Profile
Between Campbell Road and Vicic Road**

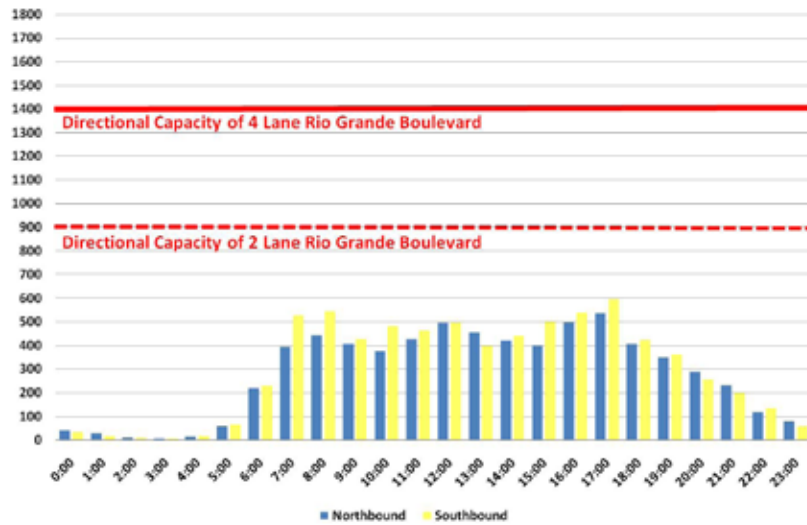


Figure 6: Daily Traffic Profile Campbell Road to Vicic Road

**Rio Grande Blvd. Daily Traffic Profile
Between Rice Avenue and San Francisco Road**

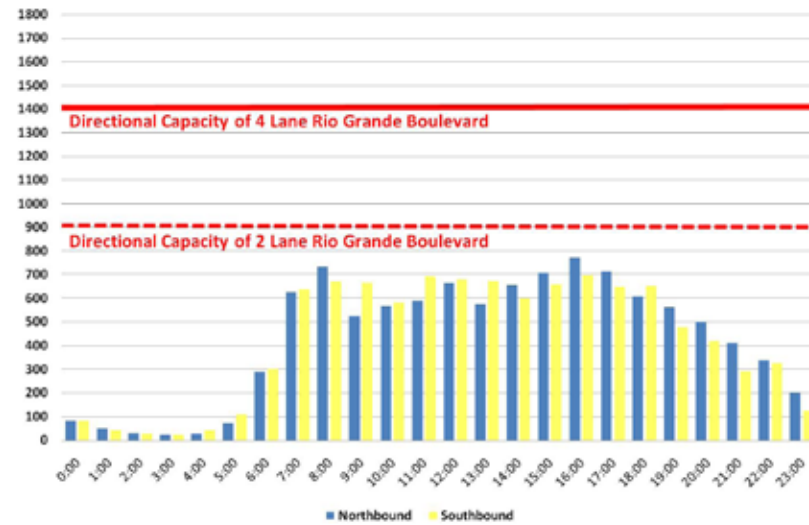


Figure 8: Daily Traffic Profile Rive Avenue to San Francisco Road

The second point these graphs illustrate is existing volumes versus the corridor’s capacity. Note the bars on the top of each graph demonstrate the capacity of a two-lane facility (with one travel lane in each direction) and of a four-lane facility (with two travel lanes in each direction). The capacity of the corridor was derived by taking a rough average of each intersection’s capacity as it was determined by SYNCHRO™, a traffic microsimulation program described in greater detail later. Nine hundred (900) vehicles per hour is a conservative capacity estimate based on assumptions for signal timing on Rio Grande Boulevard. Note that where the percentage of green time allowed on Rio Grande Boulevard (north and south) is greater, the capacity of the corridor at that location is greater as well.

Speed data was also collected with the hose counts. The speed data indicated that over a 24-hour period, the majority of drivers are traveling between 29 mph and 40 mph. Figure 11 on the next page illustrates the 85th percentile speeds along the corridor.

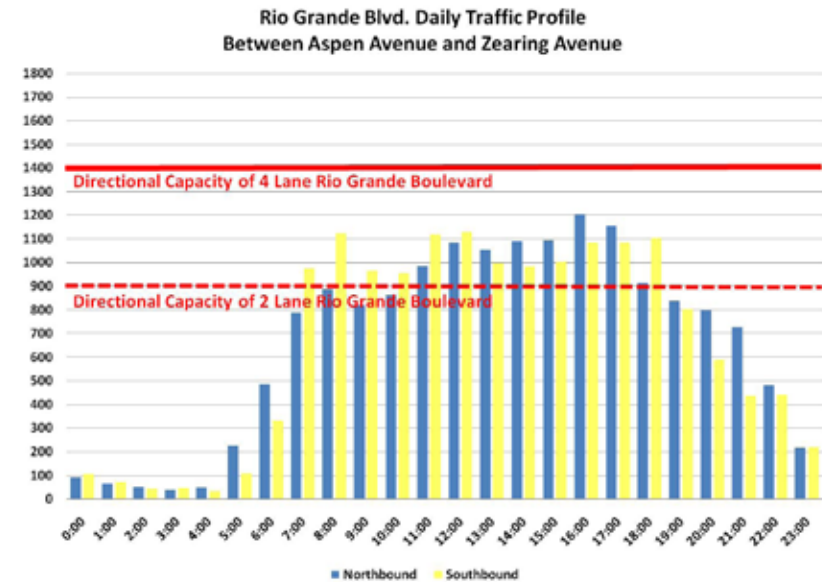


Figure 9: Daily Traffic Profile Aspen Avenue to Zearing Avenue

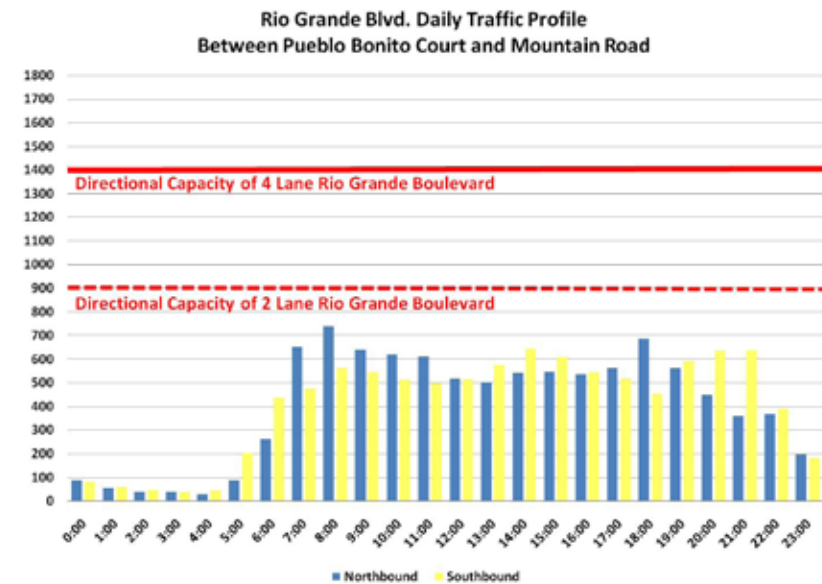


Figure 10: Daily Traffic Profile Pueblo Bonito Court to Mountain Road

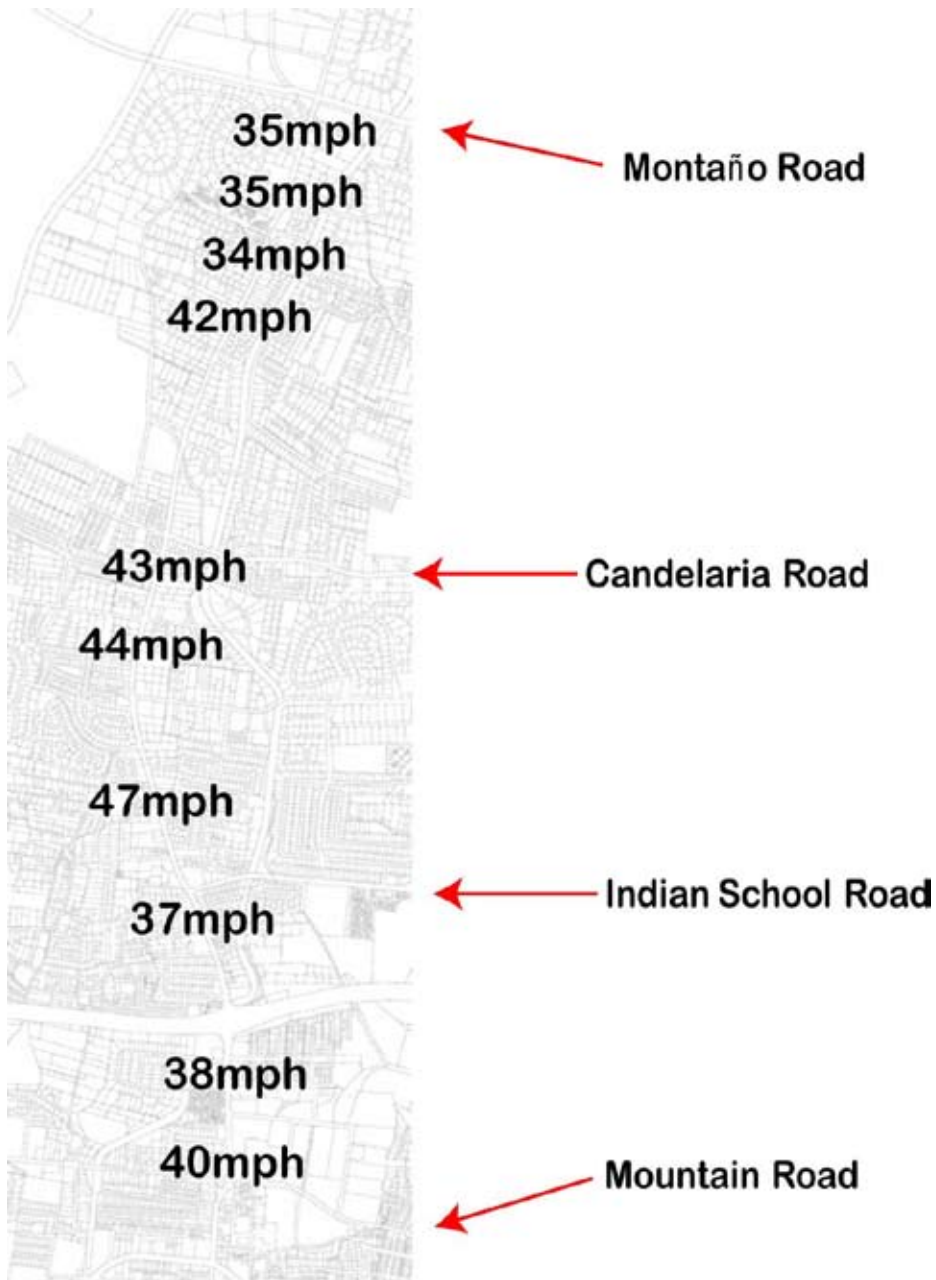


Figure 11: 85th Percentile Speeds

2. PROCESS

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CHARRETTE PROCESS

Community input is an essential component to the Rio Grande Corridor Master Plan. The main principles of the plan were formulated during a planning Charrette held July 9 - 14, 2010. This process included hands-on community brainstorming and an on-site design studio, a method referred to as “designing in public.” Hundreds of interested residents and stakeholders, including property owners, neighbors, merchants, developers, and community leaders participated throughout the week at various meetings and workshops, contributing their ideas to the plan. The planning team worked to identify points of consensus, and combine the various inputs received into a common vision for the future. Meetings and presentations throughout the week were used to present drawings and concepts in-progress, providing quick feedback to the team and allowing the plan ideas to evolve quickly.

This type of transparent planning process provides a solid foundation for the Master Plan. In the months following the Charrette, the plan ideas were further refined as additional information and feedback was been received, and this report was created. Ultimately, for the concepts and ideas to be implemented, it will require teamwork and collaboration from the plan’s many authors in the City of Albuquerque.

LOS DURANES COMMUNITY CENTER
2920 LEOPOLDO ROAD NW

Kick-Off Event
6:00pm - 7:30pm Friday July 9
Introduction to the project and an overview of planning principles

Hands-On Design Session
9:00am - Noon Saturday July 10
Come out and draw your vision for the future of the corridor


Open House
11:30am - 1:00pm Monday July 12
View the design team’s work-to-date and provide feedback

Work-in-Progress Presentation
6:00pm - 7:30pm Wednesday July 14
See work completed during the week

Council Services
City of Albuquerque
1 Civic Plaza NW
Albuquerque, NM

For more information
(505) 768-3159

you're invited.....



**RIO GRANDE
BOULEVARD
CHARRETTE**
JULY 9 - 14, 2010

WHAT IS A CHARRETTE?

Charrette is a French word that translates as “little cart.” At the leading architecture school of the 19th century, the École des Beaux-Arts in Paris, students would be assigned a tough design problem to work out under pressure of time. They would continue sketching as fast as they could, even as little carts, charrettes, carried their drawing boards away to be judged and graded. Today, “charrette” has come to describe a rapid, intensive and creative work session in which a design team focuses in a particular design problem and arrives at a collaborative solution. Charrettes are product-oriented. The public charrette is fast becoming a preferred way to face the planning challenges confronting American communities.

PRELIMINARY VISIT & MEETINGS / CHARRETTE STUDY AREA TOUR

Members of the team conducted a preliminary site visit to Albuquerque in April of 2010 where they met with City Council staff, neighborhood groups, stakeholders, and others in preparation for the Charrette. The meetings and interviews helped the team to begin to understand key issues and opportunities present along the Boulevard and its surrounding neighborhoods. At this time, members of the team also conducted an initial tour of the study area, photographing details of the streets, buildings, and open spaces, and gained further understanding of how the Boulevard functions today.

When the full planning team returned for the Charrette in July 2010, this study of the physical environment continued. Led by members of the steering committee, the team walked and drove the study area, photographing and taking notes of the conditions found on the Boulevard, its surrounding streets and the areas around each of the historic plazas that were once the villages along the trail that became Rio Grande Boulevard.



KICK-OFF PRESENTATION

On Friday, July 9, 2010, approximately 75 Albuquerque residents, business owners, and City officials gathered for a Kick-off Presentation at the Los Duranes Community Center. City Councilwoman Debbie O'Malley welcomed the crowd and introduced Joseph Kohl, principal of Dover, Kohl & Partners, and the planning team. Joe explained the calendar of upcoming events of the Charrette week, and stressed the importance of public involvement throughout the planning effort. He then provided a "food for thought" presentation which included background information on smart growth, the preservation of community character, and successful planning efforts in peer communities. The presentation also included a review of existing conditions in the Rio Grande Boulevard corridor. Rick Hall of Hall Planning & Engineering then reviewed the team's preliminary transportation analysis, introduced the "walkability index" (a method for rating the pedestrian experience of a street), and explained why designing streets to accommodate many modes of travel (walking biking, driving, and taking transit) is a vital part of sustainable planning. At the conclusion of the presentation, attendees provided information to the planning team using keypad polling devices (a sampling of the responses received are at right). The questions began to reveal how the community perceives the Rio Grande corridor today, how it is used, and hopes for the future. Further insight was gained from responses on "one word cards", which asked each attendee to describe their perception of the street today, and vision for the future using just one word. These cards were collected at the end of the evening's presentation and reviewed by the team.



ONE WORD THAT DESCRIBES RIO GRANDE BOULEVARD:

NOW: WIDE / FAST

IN THE FUTURE:

Village square
(In my vision)

ONE WORD THAT DESCRIBES THE FUTURE BOULEVARD:

CONNECTED

WHOLE
(In my vision)

SAMPLE KEYPAD POLLING RESPONSES:

HOW MANY CAR TRIPS PER DAY DO YOU MAKE ALONG RIO GRANDE BOULEVARD?

one: 11%
two: 38%
 three: 4%
four: 27%
 five: 7%
 over 5: 14%

THE AVERAGE CAR SPEEDS ALONG RIO GRANDE BOULEVARD ARE:

too fast: 71%
 not fast enough: 2%
 the appropriate speed: 27%

MY BIGGEST HOPE FOR RIO GRANDE BOULEVARD IS:

improved traffic patterns: 8%
 compatible with the neighborhood: 14%
 neighborhood gathering place: 6%
more walkable/bicycle friendly: 36%
 greater sense of safety: 14%
more attractive streetscape: 23%

HANDS-ON DESIGN SESSION

On Saturday, July 10, 2010, the community returned to the Los Duranes Community Center for the Hands-on Design Session. The intent of the Hands-on Design Session was to create an initial consensus and develop a long-range community vision for the future of the Rio Grande corridor. More than 60 people participated in the Saturday session, some of whom had attended the Kick-off Presentation. Joseph Kohl gave a short introduction and briefing, explaining the goals of the public design session, setting ground rules for the group planning process, and orienting people to the base maps. After the briefing, participants were organized into groups of about six to eight people. Each group joined a planning facilitator from the design team at a round table, where they were encouraged to write and draw on the base maps. The group planning process began with a discussion of needs and opportunities along the entire corridor, and continued as each group focused on a specific focus areas (Old Town North, Los Duranes, Matthew Avenue, Los Candelarias, and Los Griegos).

During the process participants utilized detailed base-maps of the corridor. In addition to aerial photography, the maps included information such as: rights-of-way, parcels, and buildings.

At the end of the workshop a spokesperson from each table reported the findings and major points of his or her group to the entire assembly. These presentations revealed many common ideas, and allowed the community and the planning team to begin to develop a set of common goals. In addition to the group presentations, each participant filled out an exit survey, which gave further insight to the interests and priorities of the community.



SAMPLE COMMUNITY HANDS-ON SESSION MAP:



HANDS-ON SESSION EXIT SURVEYS:

RIO GRANDE BOULEVARD CHARRETTE
ALBUQUERQUE, NEW MEXICO

Of the many ideas discussed this morning, which ones seem the most exciting to you?

① Similar to the idea of creating villages along village corridors, with different or special different sections including shops, services, technical things.

② I like to have carls @ larkin + north/south.

Do you have any additional ideas, not discussed today, that you would like the planning team to explore?
Picket parking, central pick-up/drop-off

What character should Rio Grande Boulevard have in the future?
Villages

Please write any additional comments (continue on back if needed)

Please leave this on the table by the end of the session.

RIO GRANDE BOULEVARD CHARRETTE
ALBUQUERQUE, NEW MEXICO

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RIO GRANDE BOULEVARD CHARRETTE
ALBUQUERQUE, NEW MEXICO

Of the many ideas discussed this morning, which ones seem the most exciting to you?

① Creation of a village between I-40 + Indian School rd. make it mixed-use in nature w/ shade - street trees + a street parking, utilize the street + berry utilization underground.

② Make it much more walkable corridor with lots of shade.

③ Slow down traffic with a street parking + roundabouts.

④ High bond connectivity with all other roads to encourage walking.

Do you have any additional ideas, not discussed today, that you would like the planning team to explore?

① Mix the plant material palette to match the character of the village → shade trees (not more shade).

② get rid of the bright LED light speed signs, they are annoying + way too bright at night.

③ encourage infill development at parking lot locations.

④ provide more community green space if there ditch bank type (what character should Rio Grande Boulevard have in the future) parks.

⑤ village-like character with much higher density in the street + houses of parking lot.

⑥ add cultural vitality, + mix of uses w/ retail + office uses retail.

⑦ low wall garden walls + high canopy plantings.

⑧ go down to a lanes north of Indian School.

⑨ allow for more density at larkin + RSB to reinforce village character.

Please write any additional comments (continue on back if needed)

① consider corridor + defining what

② slow down traffic + it has often completely out of control.

③ berry utilities/buses > it is janky looking.

④ street trees along entire corridor / avoid trees at village between I-40 + Indian School + high canopy shade trees at residential.

⑤ lawn side walks + safe sidewalks.

Please leave this on the table by the end of the day, or take to 303 440 0300. Thank you for your help and ideas.
Image credit to various, from Planning + Design + Urban Design teams, 10/10/2016

⑥ dress up streetcape consistency @ Old Town + provide shade for pedestrians.

“THANK YOU FOR ALL THIS WORK - I HOPE AND PRAY AT LEAST SOME OF THESE GREAT IDEAS GET IMPLEMENTED IN MY LIFETIME!”

-Hands-on Session Participant

SAMPLE RESPONSES FROM HANDS-ON SESSION EXIT SURVEYS:

OF THE MANY IDEAS DISCUSSED THIS MORNING, WHICH ONES SEEM THE MOST EXCITING TO YOU?

- narrowing Rio Grande north of Indian School to 2 lanes with wide sidewalks, planters & bike lanes
- pedestrian friendlier / bike friendlier
- roundabouts on Rio Grande as you go north from Old Town
- bringing back green (tree-d) feel to Rio Grande
- grocery store of a good size at Rio Grande & I-40, with other good commercial services and plenty of parking and convenient access
- real Old Town identity for segment south of freeway
- bury power lines
- re-establishment of the village history along Rio Grande Blvd.
- clustering town/village centers

DO YOU HAVE ANY ADDITIONAL IDEAS, NOT DISCUSSED TODAY, THAT YOU WOULD LIKE THE PLANNING TEAM TO EXPLORE?:

- parking for those coming to use ditch paths
- preserving agriculture
- linkage to larger plans for City mass transit
- developing common spaces for neighbors & visitors to interact
- give more incentives for small businesses
- preserve equestrian crossings on Rio Grande

WHAT CHARACTER SHOULD RIO GRANDE BOULEVARD HAVE IN THE FUTURE?

- series of villages & neighborhood scale shops
- the boulevard that defines Albuquerque
- rural, people-centric, eclectic
- rural north of Indian School & mixed-use south of Indian School
- child & senior friendly
- shaded, wide sidewalks, pedestrian and bike friendly

ON-SITE DESIGN STUDIO / OPEN HOUSE

From Sunday, July 11 through Wednesday, July 14, 2010, the design team continued to work with the community at an on-site design studio at the Los Duranes Community Center. Working within the project area allowed the planning team ready access to the study area during all hours and days of the week. The team observed day-to-day traffic patterns and experienced other details of everyday life in the Rio Grande corridor. At the studio, the team began to synthesize the many ideas heard from the community into a single cohesive plan. The team created a series of diagrams, drawings, and plans that clearly illustrated the initial concepts of the plan for the community.

Over 60 people visited the studio during an Open House held on Monday, July 12, 2010, to check on the team's progress. Table plans and drawings from the Hands-on Design Session were placed around the room for new community members to review as they joined the planning process. In addition, the team displayed initial ideas in-progress for review.

In addition to the open house, members of the design team met with key stakeholders and experts in scheduled technical meetings. The scheduled technical meetings included sessions with city staff, environmental groups, local business owners, and property owners. The open house and technical meetings served to shape the detailed elements of the plan and ensured that the ideas being processed were shared by many parties. As citizens and technical experts frequented the studio, they helped the planning team to develop and refine the initial concepts for the plan.



WORK-IN-PROGRESS PRESENTATION

On Wednesday, July 14, 2010, community members returned to the Los Duranes Community Center for the conclusion of the charrette, the Work-in-Progress Presentation. A crowd of over 80 people attended the event, eager to see the draft results of the process. Kelly Sanchez-Pare, from the Albuquerque City Council Office, welcomed the crowd, and introduced Joseph Kohl, who presented the work completed to-date. He presented the draft of the Plan, illustrating the possibilities for growth and change according to the vision identified by the community. Renderings of key locations helped attendees to envision the potential appearance of future infill and redevelopment along the corridor. Rick Hall of Hall Planning and Engineering spoke about transportation and street improvements, and explained how portions of the corridor could be put on a “road diet”, or narrowing of the travel lanes to achieve a more pedestrian and bicycle friendly environment. He also explained the potential benefits for design interventions at several key intersections, such as a roundabout at Candelaria Road and Rio Grande Boulevard. Tom Menicucci, from the Albuquerque City Council Office, concluded the presentation with a short summary of potential implementation / funding strategies.

The attendees were reminded that the ideas and concepts presented were still in draft form, and that community members must continue to offer input on the plan. After the presentation, residents were encouraged to review and offer further suggestions or input on the draft plans, which were displayed in the back of the room. Keypad polling was again used to gain feedback from those in attendance, as well as a written exit survey.



SAMPLE WORK-IN-PROGRESS EXIT SURVEY / KEYPAD POLLING RESPONSES:

OF THE MANY IDEAS PRESENTED TONIGHT, WHICH IDEAS DID YOU LIKE THE MOST?

- the road cross section is really good; love the ped/bike/motor vehicle balance
- two lanes on Rio Grande north of Indian School, slowing traffic
- village center for locally-oriented businesses, especially at Los Griegos
- the “square” at Mountain Road and Rio Grande Boulevard
- landscape with trees and wide sidewalks
- the analysis that went into the roundabout evaluations
- wider bike lanes
- on-street parking
- infill opportunities that create and/or reconnect to existing pedestrian and vehicular networks

DO YOU FEEL THE PLAN IS GENERALLY ON THE RIGHT TRACK?

yes: 59%
probably yes: 31%
probably not: 5%
no: 5%

3. FIRST PRINCIPLES

- PAGE 3.2 MAKE THE CORRIDOR WALKABLE
- PAGE 3.5 PROMOTE STREET ORIENTED ARCHITECTURE
- PAGE 3.6 PRESERVE AND ENHANCE THE TRAIL NETWORK ALONG THE DITCHES AND DRAINS
- PAGE 3.7 CONTINUE TO ADVANCE THE RECOMMENDATIONS SET FORTH IN THE 1989 PLAN



MAKE THE CORRIDOR WALKABLE

One of the key desires of North Valley residents is increased walkability. Residents would love the freedom and convenience of leaving their cars at home and walking to make purchases, go to the park with their children, or meet friends at a neighborhood restaurant or coffee shop. Today, activities such as these are difficult, if not impossible, to achieve due to the current state of Rio Grande Boulevard's street network and streetscape.

The existing design of the boulevard does not feature a comfortable pedestrian environment. Lacking are key elements for walkability, such as continuous sidewalks, appropriate street trees, and pedestrian-oriented destinations, thus limiting the vibrancy of the community.

One of the first considerations in achieving a walkable system is to ensure that a mix of housing, retail, office space, civic institutions, and public open space are located within a five-minute walk of one another. The second step is to ensure that an interconnected street system binds these uses together, so that pedestrians can choose the most convenient path. Finally, the streets that connect these various destinations must be designed for pedestrian use, with generous sidewalks, shade trees, protection from passing cars, and street-oriented buildings rather than parking lots. A detailed, 10-step plan for achieving walkable streets is outlined in the following pages. These features should be part of all future improvement projects along the corridor.



Conditions along Rio Grande Boulevard make for an environment which is hostile (and dangerous) for pedestrians.



Ample sidewalks separated from the roadway, shade, and frequent crosswalks are envisioned for a transformed, walkable boulevard.

1. Design for pedestrians first.

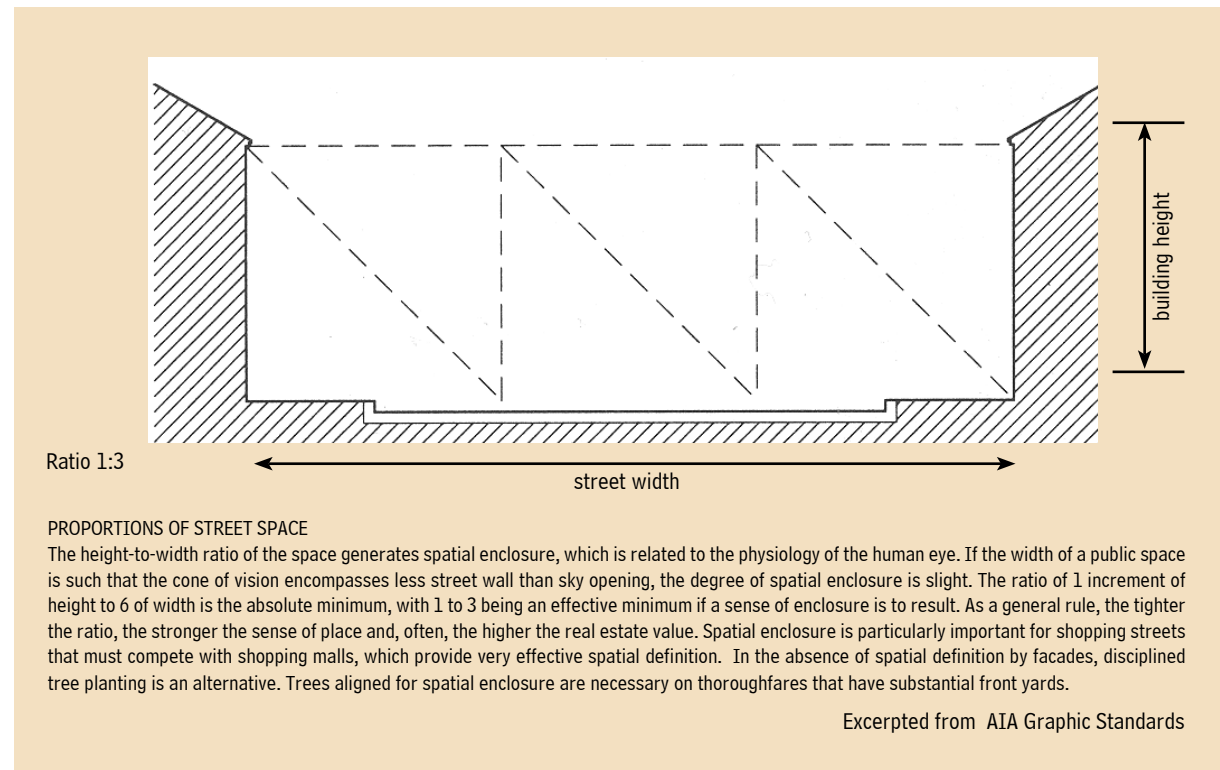
Great streets are designed to provide a high-caliber experience for pedestrians; once this is accomplished, they go on from there to accommodate all other required modes of travel.

2. Proportions matter.

A street should function as an outdoor room, surrounding its occupants in a space that is welcoming and usable. A 1:3 ratio for building height to street width is often cited as a minimum section for a sense of enclosure. Creating this sense of enclosure involves more than just narrow street width, however. There are well-defined eight-lane roads just as there are two-lane roads that seem to be impassable. Streets must be sized properly for their use and should be defined with appropriate building sizes. Street trees and furniture such as lighting also play a critical role in defining the space of the street.

3. Design the street as a unified whole.

An essential distinction of great streets is that the entire space is designed as an ensemble, from the travel lanes, trees and sidewalks, to the very buildings that line the roadway. Building form and character is particularly important in shaping a sense of place. The best streets invariably have buildings fronting them, with a particular height and massing that creates an appropriate sense of enclosure. The random setbacks generated by conventional zoning rarely produce this effect; form-based regulations must be put in place to control building form and placement. Furthermore, urban buildings must front the street with frequent thresholds such as doors, windows, balconies, and porches. These thresholds promote a lively streetscape, and ultimately provide passive security for pedestrians by focusing “eyes on the street.”



4. Include sidewalks.

Appropriately designed sidewalks are essential for active pedestrian life. Pedestrians will be more willing to utilize sidewalks if they are protected from automobile traffic. One of the simplest ways to buffer the pedestrian is to place street trees between the street and the sidewalk. Other street furniture such as streetlights, bus shelters, and benches occupy wider sidewalks and provide additional separation between pedestrians and automobile traffic. The width of the sidewalk will vary according to the location. On most single-family residential streets, five feet is an appropriate width, but streets with rowhouses and multi-family buildings requires a more generous side-

walk. On Main Streets, fourteen feet is an ideal sidewalk width, which must never fall below an absolute minimum of eight feet.

5. Provide shade.

Motorists, pedestrians, and cyclists typically prefer shady streets. Shade provides protection from heat and sun and contributes to the spatial definition of a street. Shade can be provided with canopy trees or architectural encroachments over the sidewalk. Canopy trees should be planted in a planting strip between the sidewalk and the street in order to provide continuous definition and shade for both the street and the sidewalk. Architectural encroachments over

the sidewalk such as awnings, arcades, and cantilevered balconies are another way to protect pedestrians from the elements and meanwhile shield storefronts from glare.

6. Make medians sufficiently wide.

Where divided thoroughfares are unavoidable, the medians must be generous enough to serve as a pedestrian amenity. A minimum median width of 8' will accommodate a row of street trees and will provide adequate refuge for pedestrians crossing a wide roadway.

7. Plant the street trees in an orderly manner.

Great streets are typically planted with rows of regularly-spaced trees, using consistent species. This formal tree alignment has a powerful effect; it at once shapes the space and reflects conscious design. More importantly, the shade produced by the trees will be continuous enough to make walking viable. Furthermore, the spatial impression of aligned trees also has a traffic calming effect.

8. Use smart lighting.

Streets should be appropriately lit for automobile and pedestrian safety. Pedestrians naturally avoid streets where they feel unsafe. Loosely-spaced, highway-scaled "cobra head" light fixtures do not provide appropriate light intensity and consistency for pedestrian well-being. More frequently-spaced, shorter fixtures more appropriate, and provide light beneath the tree canopy as street trees mature.

9. Allow on-street parking in suitable locations.

On-street parking buffers pedestrians from moving cars and calms traffic by forcing drivers to stay alert. Parallel parking is the ideal arrangement, because it requires the least amount of space and allows pedestrians to easily cross through the thin line of cars. Diagonal parking is acceptable on some shopping streets, as long as the extra curb-to-curb width is not achieved at the expense of sidewalk width. Parking located in front of a street-front business encourages people to get out of their cars and walk, and is essential to leasing street-oriented retail space.

10. Resist parking lots in front of buildings.

The bulk of a building's parking supply should occur behind the building. The conventional practice of placing surface parking lots in front of buildings results in a disconnected pedestrian environment. If current zoning regulations are reformed to provide "build-to" lines rather than mandatory front setbacks for commercial buildings, parking will be forced to the interior of the block. As a result, the pedestrian realm of the sidewalk will be defined by shop fronts and building entrances rather than parking lots.

EXAMPLES OF GREAT STREETS AROUND THE COUNTRY



Charleston, SC



Santa Fe, NM



Georgetown, CO

PROMOTE STREET-ORIENTED ARCHITECTURE

A unique, vibrant, and pedestrian-oriented neighborhood center is difficult to achieve without the support of street-oriented buildings. Buildings with street-oriented architecture shape the public space of the street and create comfortable, engaging places. This is in sharp contrast to the conventional commercial strip method of fronting the street with blank walls and parking lots. Street-oriented architecture has the added benefit of improving neighborhood safety by providing natural surveillance through doors and windows facing the street, better known as “eyes on the street.”

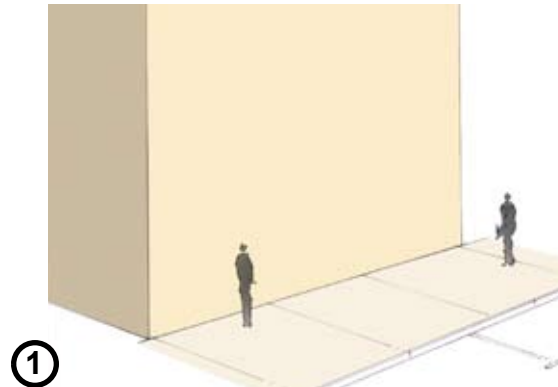
In order to create a continuous and comfortable pedestrian realm, buildings should be multi-story and built close to the street. Parking should be located on-street and in mid-block parking lots or parking garages that are lined with buildings. Buildings should front the street with primary building entrances, and generous shopfronts or windows, which serve to engage the pedestrian and promote street activity.

Once the correct placement and orientation of a building is achieved, materials and architectural details can enhance and support street life. Windows should be abundant and generously sized, and relate to the human scale. Brick or stonework, window and door surrounds, and intricate cornices can be used to express local architectural styles and to contribute to the liveliness of the public streetscape. Awnings, balconies, porches, and colonnades can serve to provide shelter from the sun and rain in a manner that contributes to the aesthetic of the street.

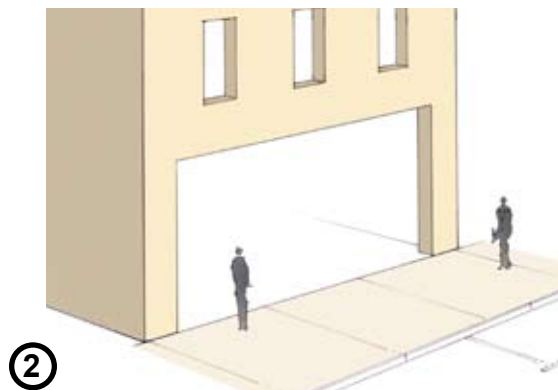
The best way to ensure that new development is street-oriented and contributes to the creation of a neighborhood center is to implement a form-based

zoning code. In contrast to conventional zoning, which uses abstract formulas to control development, a form-based code is a land development regulatory tool that places primary emphasis on the physical form of the built environment with the end goal of producing a specific type of “place.” The City of Albuquerque’s zoning ordinance should be amended to include a form-based code that will support appropriate infill development along Rio Grande Boulevard over time.

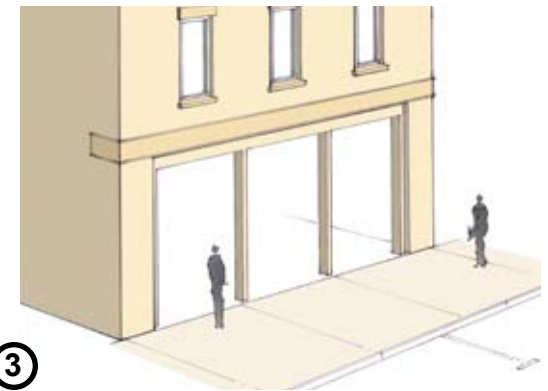
ANATOMY OF A STREET-ORIENTED SHOPFRONT



① The basic building mass - placed close to the street



② Generous shopfront with vertically-oriented windows above



③ Columns sub-divide the shopfront opening



④ Pedestrian-oriented entrance, signage and lighting



⑤ Awnings provide shade and rain protection

PRESERVE AND ENHANCE THE TRAIL NETWORK ALONG THE DITCHES AND DRAINS

The network of drains and ditches, along with their coinciding trails, are a defining characteristic of the North Valley and a major amenity to area residents. The trails system supports a wide range of activities, such as biking, running, dog walking and horse back riding. During the charrette, there was a strong desire from the community to maintain the trails in their current state and discourage paving, as was done along the Alameda Drain between Campbell Road and Matthew Avenue. The community needs to work closely with Middle Rio Grande Conservancy District to protect the unique character of the acequias and create additional connections to the trail network where possible and appropriate. This can be accomplished by remaining vigilant and resisting proposals to make trails impervious or harden the banks of these historic conduits. Users of the trails, as well as owners of adjacent properties, have a responsibility to keep this network intact and useful, so that it may continue to serve as an alternative to driving, and means of irrigation for local food production.



Citizens wish to retain the existing character of the drains and ditches.



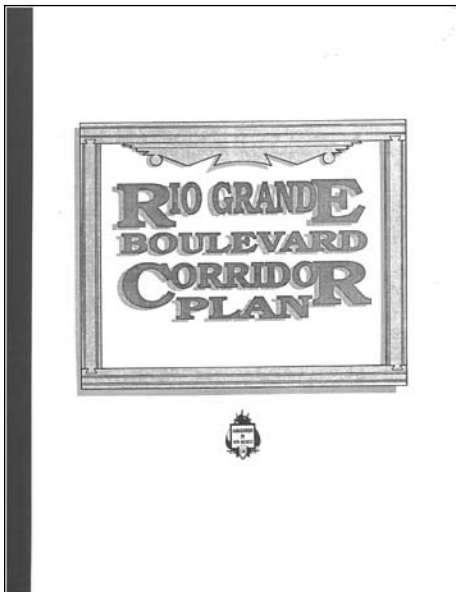
An important trail crossing for equestrians, across Rio Grande Boulevard near the intersection of Headingly Avenue, was identified as a location for improvement. In addition to better markings across the vehicular travel lanes (either as stripping or a different paving material), a wider median is also needed to allow horses to wait as they cross the road.



Diagram of existing ditches and drains in the North Valley area

CONTINUE TO ADVANCE THE RECOMMENDATIONS SET FORTH IN THE 1989 PLAN

The 1989 Rio Grande Boulevard Corridor Plan was created through extensive community cooperation and detailed action steps regarding urban design, land use, transportation, history, cultural heritage, and citizen involvement for the future of the boulevard. While the corridor has undergone much change and growth in the 20+ years since the plan was adopted, many of the goals have yet to be realized and remain as valid today as they were in 1989. The concerns of community members expressed during the charrette held in 2010 match many of the concerns and desires of the community addressed in the previous plan. Concerns for pedestrian comfort and safety were a top priority, and remain so today. Discussions of undergrounding overhead wires and eliminating utility poles have also persisted. While the current plan update seeks to address many of the same issues, as well as many new ones, the previous master plan should still be seen as a guiding document for the Rio Grande Corridor. A copy of the 1989 plan can be found in Appendix E.



PLAN GOALS AND OBJECTIVES

The plan's policies, regulations and projects are derived from plan goals and objectives developed by the citizen planning group and City of Albuquerque Planning Department staff. When translated into plan regulations and projects, the following goals will introduce visual order, visual interest and functional coherence on Rio Grande Boulevard while recognizing plan subarea differences.

A. **URBAN DESIGN** - To develop a strong sense of place on Rio Grande Boulevard by reinforcing the existing physical qualities that contribute to the rural, residential or historical characters of each neighborhood in the plan area and to promote visual order and visual interest in the public right-of-way.

GENERAL TECHNIQUE: Establish a Design Overlay Zone with policies and regulations for the public area.

B. **LAND USE** - To ensure development uses through existing zoning.

GENERAL TECHNIQUE: Continue uses through existing zoning.

C. **TRANSPORTATION** - To promote travel on and across Rio Grande Boulevard.

GENERAL TECHNIQUES:

1. Minimize conflicts between pedestrians and bicyclists, including those using equestrian trails.
2. Link established trails with new boulevard design.
3. Encourage increased bus service.

D. **HISTORY AND CULTURE** - To preserve and enhance the historical and cultural landscapes and increase their visibility.

GENERAL TECHNIQUES:

1. Identify, explain and enhance the irrigation system, historic landmarks and boulevard.
2. Protect historic buildings and structures. (See Appendix B.)

E. **CITIZEN INVOLVEMENT** - To ensure public participation in the implementation phase of the plan.

GENERAL TECHNIQUE: Form advisory committees with representatives and other stakeholders.

Overhead Utilities

Between Central Avenue and Mountain Road, utility poles are located within the sidewalk to avoid historic properties. These utility poles obstruct pedestrian movement in the constrained public right-of-way and the attached overhead wires cause more visual clutter than any other element on the boulevard. Public Service Company of New Mexico is limited in its ability to locate these poles elsewhere. By studying the costs and benefits of placing utilities underground, policy makers will have sufficient information to determine whether this project should be undertaken. The Electric Facility plan includes project review process. (See rough cost estimates in Appendix E.)

Policy 8 - The City shall seriously consider whether overhead utilities should be removed and placed underground between Central Avenue and Interstate 40.

Landscaping

Landscaping in the public right-of-way along the Rio Grande Boulevard corridor's location in the valley, dry, sandy, high desert country Bernalillo County's oases. To support a relative abundance of native plants and private landscaping lend their beauty to the road right-of-way and in new development help to identify the boulevard's character.

To ensure landscape success in a confined space, these hardy plants should conserve Albuquerque's water supply. Resistant plants and/or plants with water table should be used.

Policy 9 - The Rio Grande Boulevard shall be planted with plants that are characteristic of the existing North Valley right-of-way shall be those listed in Appendix B. Other landscape plants shall be planted and maintained as indicated in the Ordinance. All landscape plants in the public right-of-way shall be reviewed by a landscape architect for compliance with the plan.

Regulations

General

7.A. Combine landscaping, street furniture, signs, utilities and street lighting to eliminate visual clutter and to free sidewalk areas of impediments. All street furniture shall comply with American National Standards Institute, Inc. Standard 4.4 Protruding Objects (ANSI A117-1980).

Bus Stops

7.B. All bus stops in Plan Subarea 2 and other bus stops at Candelaria Road and the Rio Grande Nursery shall have seating and trash receptacles. Simple shelters shall be located at South Plaza Street and the Campbell Ditch bus stops. Small scale public art that can be appreciated at close range by pedestrians may be incorporated where space is adequate. The art work should complement plan subarea character.

7.C. Bus benches shall be located at least six feet from the curb.

7.D. Benches and shelters shall be made of wood or wood and cast iron. Stucco adobe seats built into walls may be used as an alternative to benches.

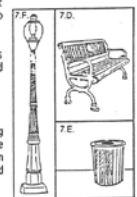
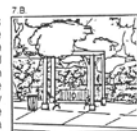
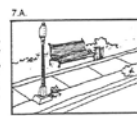
7.E. Trash receptacles shall be made of materials similar to those used in the benches and shelters.

Pedestrian Area Lighting

7.F. Twelve foot high black cast iron lighting fixtures similar in design to those used in the City parking lot at Central Avenue between Romero and San Felipe shall be installed between Central Avenue and Indian School Road.

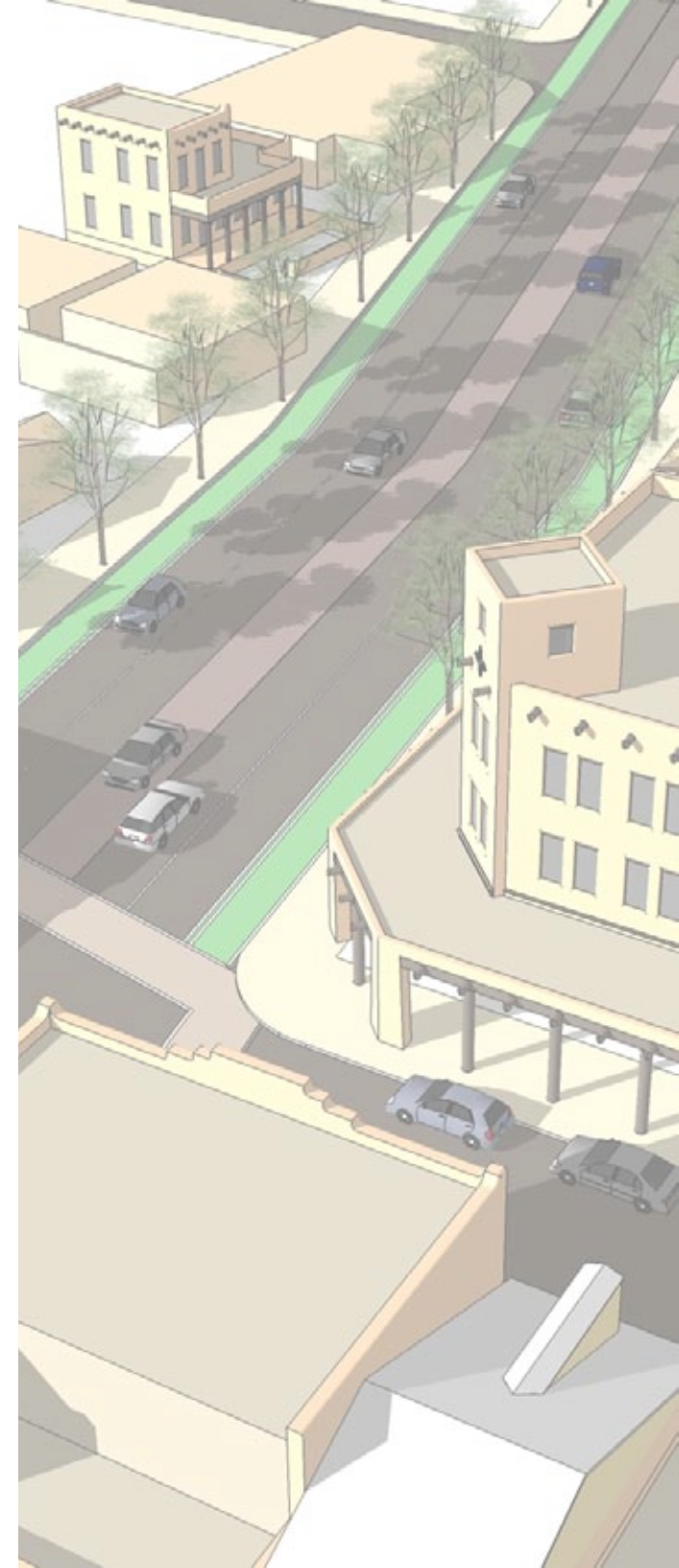
Information Signs

7.G. Signs identifying historic areas, ditches or other landmarks shall be made of varnished and/or painted wood similar in style and size to those used in the City parking lot at Central Avenue between Romero and San Felipe. All sign locations shall comply with ANSI A117-1980 Standard 4.4, Protruding Objects and 4.30, Signage.



4. THOROUGHFARE & KEY INTERSECTIONS

PAGE 4.2	OVERVIEW
PAGE 4.4	RECOMMENDATIONS
PAGE 4.12	STREET SECTION TYPE 1: GENERAL STREET
PAGE 4.13	STREET SECTION TYPE 2: VILLAGE STREET
PAGE 4.14	STREET SECTION TYPE 3: TOWN STREET
PAGE 4.16	KEY INTERSECTIONS
PAGE 4.21	CONCLUSION



OVERVIEW

CONVENTIONAL TRANSPORTATION ENGINEERING – THE ARTERIAL SYSTEM

Policies that promote walkability often stand in sharp contrast to suburban or conventional policies that were mono-modal; resulting in the singular use of the automobile for mobility. The places that are created by conventional transportation and parking policies promote higher speeds (serving the need of automobile users) and are not walkable or scaled to the human being. Much of America’s suburban land development pattern is highly influenced by street and highway networks: streets that are designed to move automobiles only lead to automobile-oriented land development (such as strip centers, with large parking lots and drive-through services). In contrast, multi-modal approaches to designing streets (i.e. for car, bikes and walking) yields pedestrian-friendly land development patterns, such as neighborhood-scale retail and dining, along with live/work townhomes and local civic facilities such as neighborhood churches, parks and schools. Highways designated as arterials change little as they approach developed areas. Generally speeds drop from 55 to 45/35 mph, but on-street parking is usually not allowed in emerging growth areas and is often removed from older parts of town. Arterial street designs, by definition, tend to exclude intersections with side streets of limited volume, leading to longer block size (600 to 1,000 feet and higher) and higher speeds 45 mph or more, both of which cause difficulty for pedestrians.

The arterial street term appeared as early as 1919 in the “American Highway Engineers’ Handbook” edited by Arthur H. Blanchard. The arterial function described therein by Nelson P. Lewis clearly anticipated that commercial streets 60 feet wide achieve

greater success than those 80 or 100 feet in width (p. 369). The early planners, therefore, never intended arterial streets to have “access to land” limited by subsequent design manuals. Finer grained street networks better serve urban peak travel demand due to multiple streets serving multiple modes – walking, cycling, transit and the motor vehicle.

VEHICULAR SPEED AND WALKABILITY

Vehicular speed is a key factor in urban design because it plays a critical role in the walkability of an area, due to its relationship with pedestrian fatalities. As shown in Figure 1, a pedestrian’s chance of being killed in a crash is graphed against vehicular speed. The graph indicates that pedestrian fatalities average 45% in a crash with a vehicle traveling at speeds of 30 mph, while pedestrian fatalities are almost double – 85% - in a crash with a vehicle traveling at 40 mph.

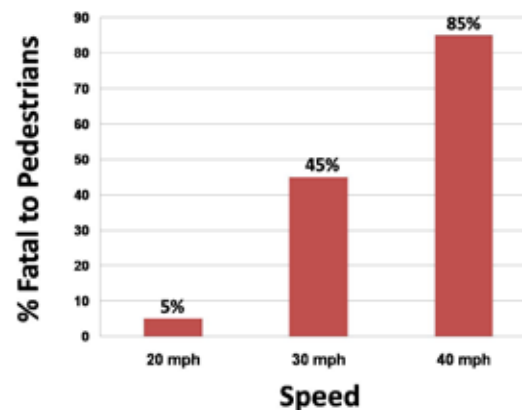


Figure 1: Percent of Crashes Fatal to Pedestrians, Related to Vehicle Speed. Source: U.K. Department of Transportation, Killing Speed and Saving Lives, London, 1987

A NEW PARADIGM – LAND USE FIRST, TRANSPORTATION SECOND

Urban places with greater safety, capacity and economic viability require pedestrians, bicycles, and transit vehicles as part of the mobility mix. To achieve these places, the patterns of proposed development must be specified first, during the community planning stage. Then, transportation plans for balanced mobility can be crafted with walkability considered first and vehicle mobility second (land use first, transportation second or “LU1-TR2”). This is not to imply that motor vehicle mobility will be dramatically reduced, but that pedestrians, exposed to the open environment are more vulnerable than are drivers, and solutions for their safety and comfort are more complex. Often, greater walkability yields only small reductions in vehicle capacity, even though vehicle speeds are lower. Generally, more streets per square mile result from a more open network and drivers can avoid the degree of peak hour congestion that occurs when a limited number of large streets break down.

COMMUNITY VISION

The urban design vision for Rio Grande Boulevard (see Figure 2), as described by the community and refined by the design team during the charrette, is a return to a more walkable structure, with a variety of housing types and places to shop and dine. This urban design vision is also an important part of the transportation design criteria for the Boulevard. Increasing the levels of walkability, bikability and transit usage requires managing traffic speeds to pedestrian friendly levels and ensuring connectivity of the street system. To accomplish this vision, the following transportation improvements for Rio Grande Boulevard are recommended:

- Redesign of Rio Grande Boulevard as walkable thoroughfares
- Reduction of the number of through lanes on northern Rio Grande Boulevard
- Intersection improvements, such as a round about at Candelaria Road and a classic plaza at Mountain Road
- Addition of parallel parking and street trees along the Boulevard, implemented at appropriate times and as properties redevelop and opportunities arise to eliminate curb cuts/driveways.

Transportation facilities provide excellent tools to support the community's future vision for Rio Grande Boulevard. Designing multi-modal transportation systems will compliment and support the land development patterns desired by the community, described above.

What factors contribute to an excellent pedestrian experience? Observations and design know-how



Figure 2: Rio Grande Boulevard Vision at Los Griegos

suggest the following prioritized features, the lowest number indicating the highest importance.

10. Narrower Streets
9. Street Trees
8. Lower Traffic Volumes
7. Sidewalks
6. Interconnected Streets
5. On-street Parking
4. Lower Traffic Speeds
3. Mixed Land Use
2. Buildings Fronting the Street
1. Small Block Size

These parameters have proven themselves in the field. When a majority of these are combined in one location, pedestrians are routinely seen.

RECOMMENDATIONS

One of the first items explored by the design team was the opportunity for a lane reduction or road diet along portions of Rio Grande Boulevard. A number of residents and stakeholders expressed a desire to implement a road diet on Rio Grande Boulevard and initial observations of the area indicated strong potential for a lane reduction.

Cities across the country have been implementing road diets in order to make them safer, more efficient and multi-modal. They provide opportunities for redeveloping a corridor in a pedestrian-friendly and urban manner, allocating a part of the street to other users besides to automobile. Road diets can increase the value of adjacent property and often lead to a decrease in the number and severity of crashes when implemented in appropriate locations.

It became apparent when reviewing the traffic counts described above, that a significant portion of the study corridor could operate efficiently with a lane reduction, without harming vehicular movement, having illustrated that there is excess capacity. The PM peak hour directional volumes were reviewed along the corridor to determine the degree to which excess capacity existed. Using traffic data provided by the Synchro® file, described in more detail in the following section, the amount of extra northbound service volume available on each segment of the roadway was calculated. Extra service volume is the result of subtracting existing volumes from the adjusted capacity (saturation flow rate multiplied by the green time allowed at the signal for that movement). Table 1 shows the results of this analysis and indicates there is ample extra service volume to consider analyzing the lane reduction and other thoroughfare improvements at the next level.

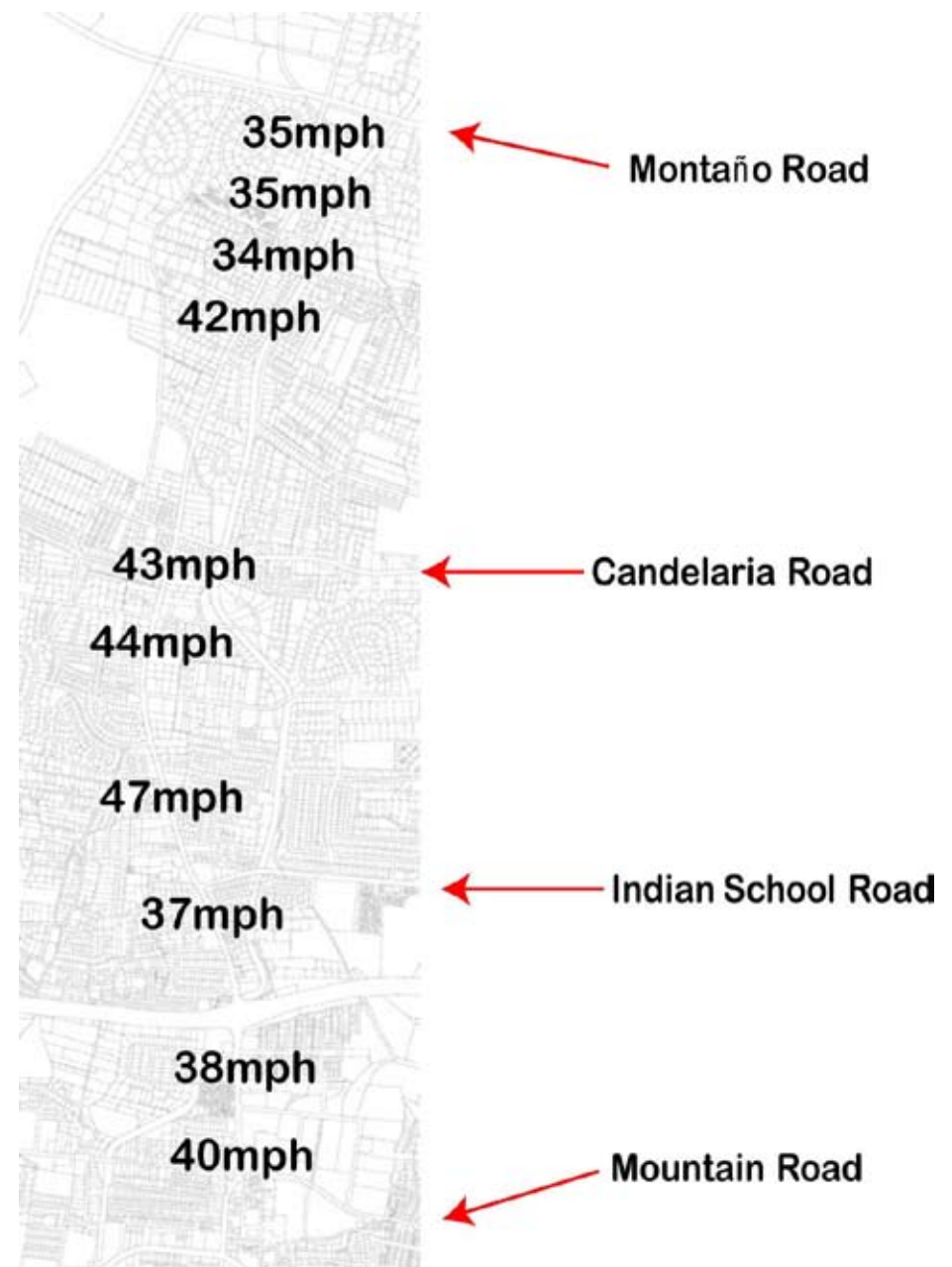


Figure 3: 85th Percentile Speeds

	Sat Flow Rate	Green Time (g/C)	Adjusted NB Capacity	Volume	Extra Service Volume
At Mountain Rd.	1583	0.40	633	536	97
At Bellamah Ave.	3522	0.60	2113	980	1133
At I-40 EB Onramp	3539	0.40	1416	866	550
At I-40 WB Offramp	3539	0.47	1663	566	1097
At Floral Rd.	3529	0.56	1976	810	1166
At Indian School Rd.	3539	0.56	1982	720	1262
At Matthew Ave.	3437	0.63	2165	630	1535
At Candelaria Rd.	3539	0.40	1416	620	796

Table 1: Capacity Analysis

Implementing the recommended street improvements, such as a lane reduction and addition of on-street parking, can be expected to have an impact on vehicle travel through the corridor, and measured as a change in the arterial level of service (LOS). The arterial LOS of both the existing and proposed conditions on Rio Grande Boulevard were calculated using Synchro®, a traffic microsimulation program from Trafficware, Inc. HPE created the base Synchro® file for use in this analysis.

PM peak hour traffic was distributed along the existing and proposed condition (using existing traffic). PM peak hour traffic was obtained from the recent traffic

counts described earlier in the report taken June 15, 2010. Synchro® analyzes intersection and link performance, but does not assign trips to the network dynamically based on traffic speed or congestion as MPO models do; trips were manually assigned to each intersection based on traffic counts taken for a recent project. The results of the two simulations were compared to analyze the impact of the proposed design of Rio Grande Boulevard on vehicular travel.

Following review of the existing Level of Service (LOS) of Rio Grande Boulevard according to existing condition, the file was adjusted to include the recommended improvements to the Boulevard. Using the same

volume inputs, Rio Grande Boulevard was analyzed as a two-lane thoroughfare north of Indian School Road and with the existing four-lane south of Indian School Road. A roundabout was included at Candelaria Road and the plaza, described later in the document was simulated at the intersection with Mountain Road.

The analysis illustrates that Rio Grande Boulevard will operate efficiently with the following acceptable levels of service, which is comparable to the existing condition.

	Existing LOS
At Mountain Rd.	B
At Bellamah Ave.	B
At I-40 EB Onramp	B
At I-40 WB Offramp	F
At Floral Rd.	B
At Indian School Rd.	B
At Matthew Ave.	A
At Candelaria Rd.	B

Table 2: Intersection LOS for Existing Conditions

	Proposed LOS
At Bellamah Ave.	C
At I-40 EB Onramp	B
At I-40WB Offramp	F
At Floral Rd.	B
At Indian School Rd.	B
At Matthew Ave.	B

Table 3: Intersection LOS for Proposed Conditions

Under the comparison, travel times decreased slightly in the proposed condition, while overall arterial level of service remained the same (Table 4). These results are shown in Figure 4 and Figure 5.

No trips were diverted from Rio Grande Boulevard in this analysis.

	Travel Time (seconds)		Arterial LOS	
	Existing	Proposed	Existing	Proposed
NB Rio Grande	310.6	261.9	C	C
SB Rio Grande	335.6	332.3	C	C

Table 4: Travel Time and Arterial Level of Service Comparisons

Arterial Level of Service: NB Rio Grande

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Romero St	III	30	22.9	32.6	55.5	0.17	11.1	E
Bellamah Ave.	III	30	24.8	8.0	32.8	0.20	21.4	C
I-40 EB Onramp	III	30	29.8	12.6	42.4	0.23	19.9	C
I-40 WB Offramp	III	30	10.3	8.6	18.9	0.07	12.7	E
Floral Rd.	III	30	13.8	9.1	22.9	0.10	15.4	D
Indian School Rd	III	30	33.0	27.7	60.7	0.26	15.4	D
Matthew Ave.	III	30	71.6	5.8	77.4	0.60	27.8	B
Total	III		206.2	104.4	310.6	1.62	18.8	C

Arterial Level of Service: SB Rio Grande

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Matthew Ave.	III	30	61.3	6.9	68.2	0.48	25.5	B
Indian School Rd	III	30	71.6	6.7	78.3	0.60	27.4	B
Floral Rd.	III	30	33.0	14.1	47.1	0.26	19.9	C
I-40 WB Onramp	III	30	13.8	8.6	22.4	0.10	15.8	D
I-40 WB Offramp	III	30	10.3	12.7	23.0	0.07	10.4	E
Bellamah Ave.	III	30	29.8	31.5	61.3	0.23	13.8	E
Mountain Road	III	30	24.8	10.5	35.3	0.20	19.9	C
Total	III		244.6	91.0	335.6	1.93	20.7	C

Figure 4: Arterial Level of Service Results for Existing Conditions

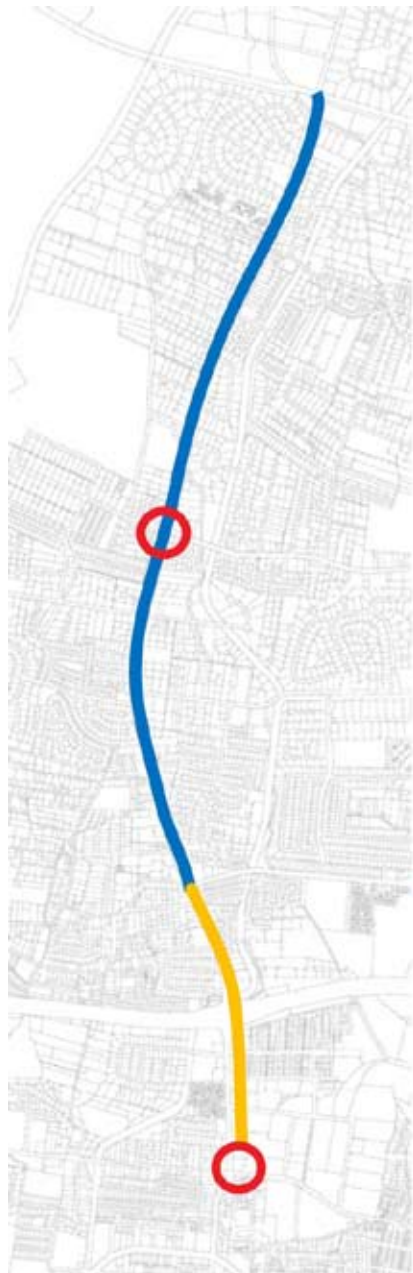


Figure 6: Proposed Road Diet

Arterial Level of Service: NB Rio Grande

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Bellamah Ave.	III	30	24.8	8.0	32.8	0.20	21.4	C
I-40 EB Onramp	III	30	29.8	12.6	42.4	0.23	19.9	C
I-40 WB Offramp	III	30	10.3	8.6	18.9	0.07	12.7	E
Floral Rd.	III	30	13.8	9.1	22.9	0.10	15.4	D
Indian School Rd	III	30	33.0	27.7	60.7	0.26	15.4	D
Matthew Ave.	III	30	71.6	12.6	84.2	0.60	25.5	B
Total	III		183.3	78.6	261.9	1.45	19.9	C

Arterial Level of Service: SB Rio Grande

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
Matthew Ave.	III	30	61.3	36.9	98.2	0.48	17.7	D
Indian School Rd	III	30	71.6	9.8	81.4	0.60	26.4	B
Floral Rd.	III	30	33.0	13.0	46.0	0.26	20.3	C
I-40 WB Onramp	III	30	13.8	8.6	22.4	0.10	15.8	D
I-40 WB Offramp	III	30	10.3	12.7	23.0	0.07	10.4	E
Bellamah Ave.	III	30	29.8	31.5	61.3	0.23	13.8	E
Total	III		219.8	112.5	332.3	1.74	18.8	C

Figure 5: Arterial Level of Service Results for Proposed Improvements

RECOMMENDATIONS

Based on the results of the Synchro analysis and detailed review of traffic along the corridor, it is recommended that Rio Grande Boulevard drop one travel lane in each direction from Indian School Road to Montañío Road, yielding a two lane street. Turn lanes will be utilized where appropriate with the rest of the street designed according to the descriptions below. South of Indian School Road, within the study area, should remain four lanes (two travel lanes in each direction) with the modifications described below.

Figure 6 illustrates the proposed configuration of Rio Grande Boulevard.

TRANSPORTATION DESIGN RECOMMENDATIONS

Given the past direction and general thinking of the day, conventional zoning and engineering standards, particularly traffic engineering, tended to focus on minimizing automobile delay. Emphasis on creation of a pedestrian environment emerged more recently. Automobile movement and pedestrian comfort are not mutually exclusive goals, but a lack of pedestrian-oriented design allows motor vehicle speed to prevent pedestrian activity. The thoroughfare types and other design elements described in this report are intended for both automobile and pedestrian efficiency, with narrow lane widths, on-street parking, and shorter curb radii, in contrast to conventional streets.

Following the paradigm of LU-1 TR-2, or Land Use First/Transportation Second, the design team created specific urban design concepts for new and redevelopment areas. Walkable thoroughfares were then created or adapted from existing street sections to serve these areas with appropriate vehicle speeds. The target speed for a walkable thoroughfare is 30 mph or less. The vast majority of streets can be retrofit within the existing curb lines to promote these lower speeds, while reducing the costs of redevelopment. The proposed walkable thoroughfares for Rio Grande Boulevard are described below.

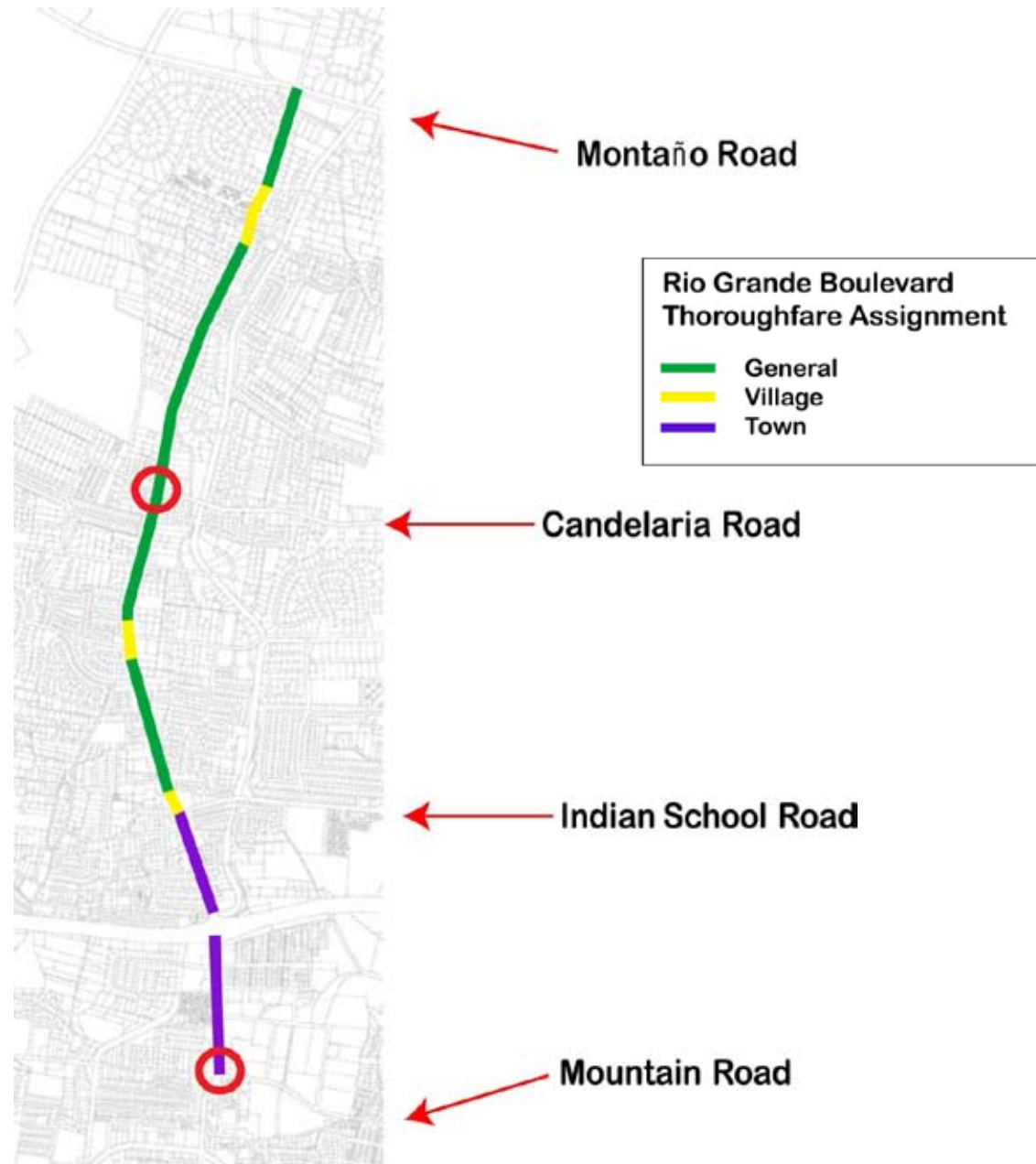


Figure 7: Rio Grande Boulevard Thoroughfare Assignment

As a note, all street widths are measured curb-face to curb-face. This “curb face” convention matches the practice of traditional street designers and stems from the majority of urban streets having on-street parking. Street lanes without parking, have wide bike lanes and are still measured to the face of curb, including the gutter pan.

Described in greater detail below, after a brief description of design elements, the proposed street sections for Rio Grande Boulevard are shown in their corresponding locations on Figure 7.

TRANSPORTATION DESIGN ELEMENTS

The following transportation design elements are utilized in the proposed redesign of Rio Grande Boulevard and are described below:

- Safety Strip
- Street Trees
- On-street Parking
- Bike Lanes
- Sharrows (Shared Lane Markings)
- Pedestrian and Bicycle Amenities

All help to regulate motor vehicle speeds, enhance walkability and support the proposed development pattern and desired context for the Boulevard.

SAFETY STRIP

A “safety strip” is a tool used by traffic engineers to manage vehicular speed while providing flexibility for atypical vehicle movements on a narrow thoroughfare, such as carefully passing a parking vehicle, or for emergency vehicle access (see Figures 8 and 9). Safety strips are made of a cobbled texture and

should be laid with vertical offsets of a quarter-inch to 1-inch making it possible, but uncomfortable, to drive on for long periods of time. Safety strips are placed between two lanes of opposite direction, and can function as an informal left-turn lane. The safety strip may also be used for temporary deliveries to adjacent businesses without stopping the flow of traffic.

STREET TREES

Street trees provide the much needed shade and protection for pedestrians. To the extent possible, native trees and plants should be planted. More formal treatment of trees should be utilized in the Town and Village sections, where more urban development is expected. In those locations, trees should be planted in grates or tree wells on the sidewalk. In the more scenic and residential sections, trees can be planted in a straight line along a planting strip between the motor vehicle travelway and sidewalk.

ON-STREET PARKING

As a note on parallel parking, studies have shown that a single parking space in front of a business can yield significant sales annually to that business. Bob Gibbs, considered one of the leading American urban retail planners, estimates that one parallel parking space can yield \$125,000-250,000 annually in gross annual sales for the adjacent business, depending on the number of daily turnovers. Gibbs states that each stall directly supports one small, urban business. Therefore, these spaces will provide great economic opportunities for local businesses and the City.



Figure 8: Safety Strip on Main Street, Columbia, SC



Figure 9: Safety Strip on Main Street, Columbia, SC

BIKE LANES

The bike lane is a 4'-6' lane along the right side of the street for use of bicyclists. Brought to the United States in the 1970's as a way to keep bicyclists out of the way of motorists (by keeping cyclists out of the regular travel lane), bicycle lanes have evolved from being quite treacherous, in terms of their design and implementation, to being a great benefit on high-speed urban arterials and rural roads, though still treacherous in urban street contexts.

During the 1980's and 1990's, bicycle lanes received a great deal of attention from the newly-established Bicycle Pedestrian Coordinators in various state departments of transportation and serious thought and consideration has been given to the design and operation of bike lanes. Bike lane treatment at intersections, for instance, has been revised over the years to help train cyclists to ride safely, rather than reinforce unsafe riding habits (such as attempting to turn left from the right-most lane). For high-speed roads, then, bicycle lanes are the preferred way to encourage and permit safe bicycle usage of the street.

Bike lanes are not ideal everywhere, specifically where they may conflict with short block lengths, driveway access and on-street parking. They should be used in appropriate settings and often in combination with other bicycle facilities, such as shared lanes identified by sharrows.

SHARROWS

Providing shared lane markings, such as a sharrow, will encourage greater bicycle use. A sharrow is a specific pavement marking and is used in each of the thoroughfare recommendations above. Sharrows indicate preferred routing and location for bicyclists within a thoroughfare travel lane and also indicate to motorists that cyclists are sharing the thoroughfare. Greater visibility of cyclists yields increased safety, especially in the vulnerable intersection turns area.

Sharrows are the preferred facility type for bicyclists on thoroughfares with posted speeds between 20 mph and 30 mph, particularly for streets with on-street parking. The sharrow pavement marking consists of a bicyclist or bicycle symbol with two chevrons on top, indicating the direction of travel (Figure 10). The sharrow should be located such that the center of the marking is along an imaginary line 5' away from the edge of the parking lane, if a parking lane is present, or 5' from the curb face if no parking lane is present.

On multilane thoroughfares, the sharrow is located in the rightmost lane. The sharrow should be placed at the beginning and end of each block and at least once mid-block. If desired, a sign indicating "Share the Road" or "Bicyclists Sharing Road" may also be used in conjunction with the sharrow. Figure 11 illustrates sharrows in use in Tallahassee, Florida. They are prevalent all over the country and guidance on sharrows has been provided in the Manual on Uniform Traffic Control Devices (MUTCD) 2009 update.



Figure 10: Sharrow Marking

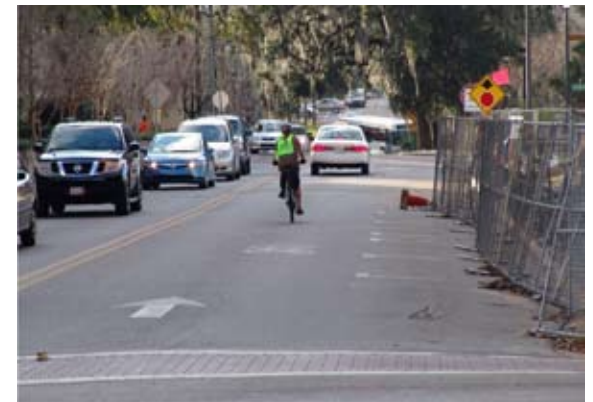


Figure 11: Sharrow

PEDESTRIAN AND CYCLIST AMENITIES

Bicycle parking is often overlooked but critical to encouraging bicycle usage. Ideally, bicycle parking should be provided in the front of a store or building, in plain sight, easily visible from inside the store or building. HPE recommends the simple “U” rack for bicycle parking (see Figure 12). The “U” rack is simply 2-inch or 3-inch diameter pipe, bent into a “U” shape, and anchored into the sidewalk like an upside-down “U”. A single rack can accommodate two bikes, one on either side, locked through the front wheel as well as the bike frame. Alternatively, the rack can accommodate up to four bikes if only the front wheels are locked to the rack, but the bikes will have no other support and will need kickstands to remain upright.

A minimum of one bicycle rack, capable of supporting two bikes within the public frontage for every five vehicular parking spaces, oriented parallel to the street, is recommended for installation. This will allow the parked bicycles to take up space between the tree wells, rather than block the sidewalk.



Figure 12: U-Racks Installed on a Sidewalk (Photo from Cycle Safe (tm) Bike Racks)

STREET SECTION TYPE 1: GENERAL STREET

The “General” Street Type is intended for use in the Scenic and Residential areas of the boulevard. The “General” Street type as shown in the illustration below, is designed for a target Speed of 35 mph, nearing the upper edge of pedestrian comfort and safety.

Using the existing street right of way, this street type has an 8’ sidewalk, a 10’ planting strip and a 6’ bike lane, all on each side of the street; a 10’ travel lane, one in each direction and a 12’ safety strip. The design of this “General” Street section will encourage motorists to drive at speeds around 35 mph, while complimenting the Scenic and Residential character areas along the boulevard.

The sidewalks in these sections could be more informal in nature and made of porous materials.

While redevelopment of adjacent parcels will occur over time, the redesign of these portions of the boulevard should occur at once, providing the optimal outcome for all users.

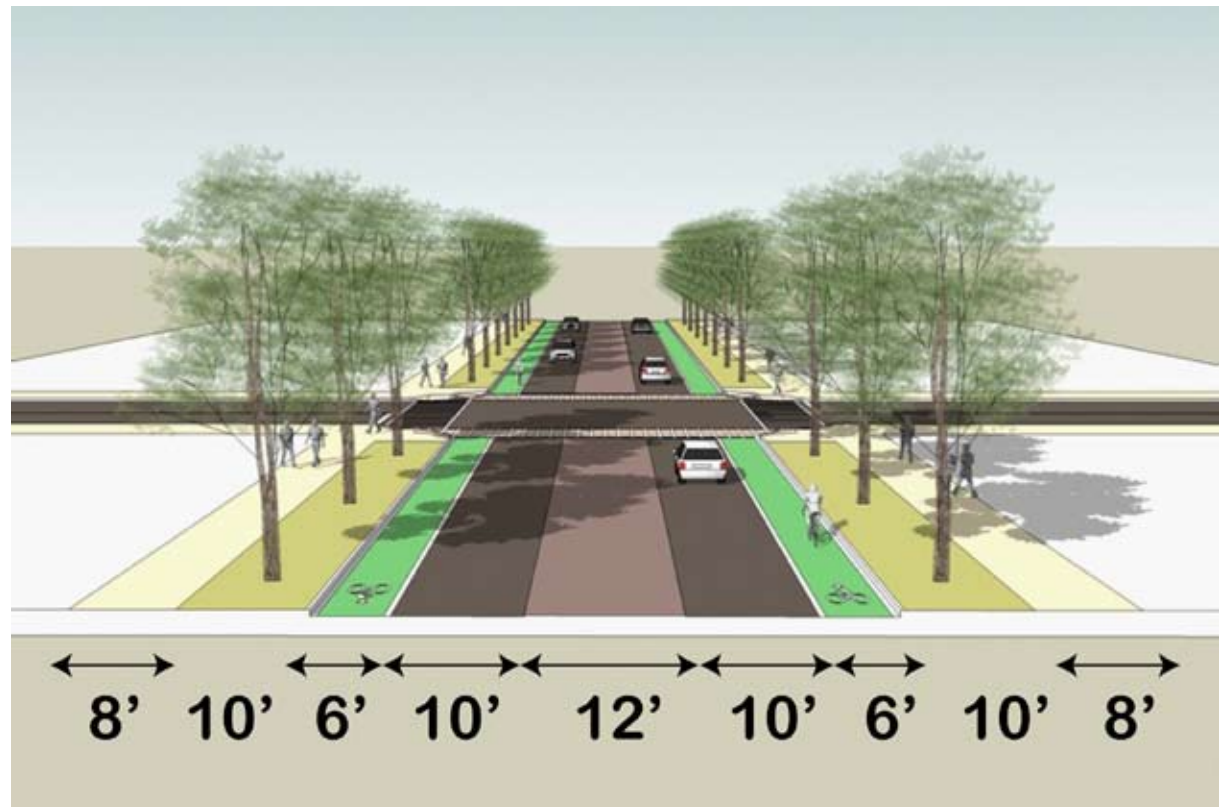


Figure 13: General Street Section

STREET SECTION TYPE 2: VILLAGE STREET

The “Village” Street Type is proposed for the Village Area segments of the Boulevard, north of Indian School Road where a lane reduction has been identified. The “Village” Street is designed for a target speed of 30 mph (Figure 14). The main difference in the design of the “Village” Street is the proximity of buildings fronting the street (shown in Figure 15) and more formal treatment of plantings (the narrower planting strip is less rural) and paved sidewalks.

Using the existing street right of way, this street type has an 8’ paved sidewalk, an 8’ planting strip and an 8’ bike lane, all on each side of the street; a 10’ travel lane, one in each direction and a 12’ safety strip. The design of this “Village” Street section will encourage motorists to drive at speeds around 30 mph, while complimenting the Village character areas along the boulevard.

The “Village” Street section provides a unique opportunity to transition over time into a more urban and walkable street. The following Figures 15 and 16 illustrate how the street can transform from a 30 mph street to a slower speed thoroughfare including on-street parking and a shared lane for bicyclists. This transition should only occur once the following has taken place:

- Transit is in place
- Land use is appropriate and demonstrates a need for on-street parking
- Vehicular speeds are slower, having been tamed by original adjustments in design
- A better traffic connection between I-40 and the Southwest Mesa is present.

The transition will create a more urban, multi-modal, speed controlled street.

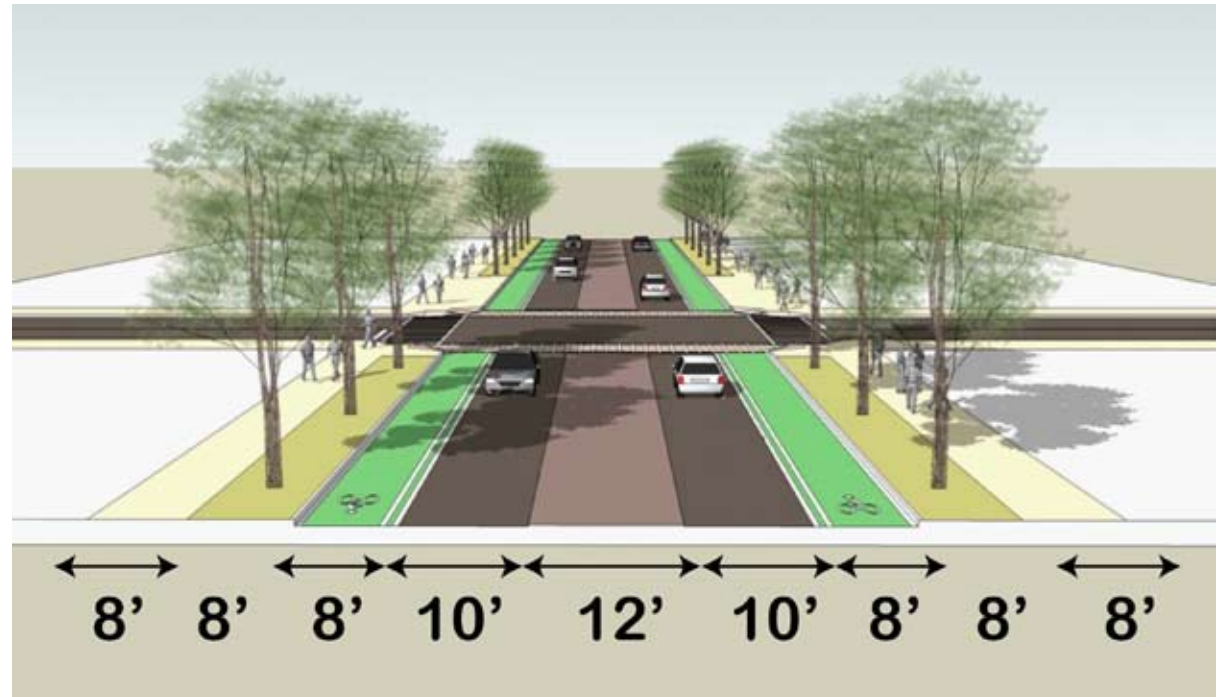


Figure 14: Village Street Section



Figure 15: Village Street View Showing 8' Bike Lane



Figure 16: Village Street View Showing Sharrow and On-street Parking

STREET SECTION TYPE 3: TOWN STREET

The “Town” Street Type is the most urban of the sections proposed, consistent with the character of the Town Areas along the Boulevard, as well as the Village areas closest to I-40, identified as remaining four lanes. The “Town” Street is designed for a target speed of 25 mph (Figure 17). The main difference in the design of the “Village” Street is the proximity and intensity of buildings fronting the street (shown in Figure 19) and more formal treatment of plantings (the narrower planting strip is less rural) and paved sidewalks.

The “Town” Street sections include four-travel lanes, as proposed after analyzing the potential for a road diet.

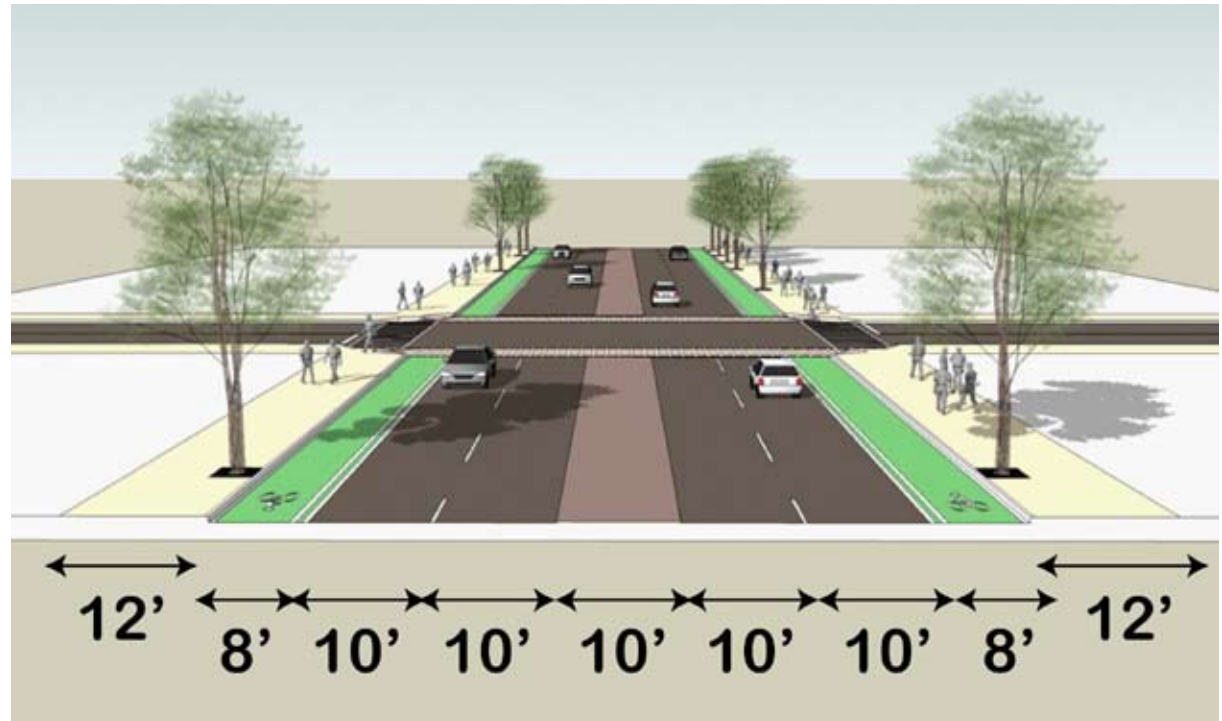


Figure 17: Town Street Section



Figure 18: Town Street View Showing Bike Lane

Using the existing street right of way, this street type has an ample 12' paved sidewalk including trees planted in wells and an 8' bike lane, all on each side of the street; two 10' travel lane, in each direction and a 10' safety strip. The design of this "Town" Street section will encourage motorists to drive at speeds around 25 mph, while complimenting the Town character areas along the Boulevard.

Similar to the "Village" Street section, the "Town" section provides opportunities for transitioning into a more urban thoroughfare, complete with on-street parking. Figures 18 through 20 illustrates transitioning the bike lanes into on-street parking. This transition should only occur when:

- Land use is appropriate and demonstrates a need for on-street parking
- Vehicular speeds are slower, having been tamed by original adjustments in design
- A better traffic connection between I-40 and the Southwest Mesa is present.



Figure 19: Town Street View Showing Bike Lane and Redevelopment



Figure 20: Town Street View Showing Sharrow and On-street Parking

KEY INTERSECTIONS

ROUNDAOBOUT ANALYSIS

The City has recently undertaken several Roundabout studies in the area, most significantly at the intersection of Rio Grande Boulevard and Candelaria Road. A full study for that roundabout has been prepared and was reviewed by the design team, along with the potential for roundabouts at several other intersections. The following discussion provides the design team's cursory review of the potential for roundabouts at the following intersections with Rio Grande Boulevard:

- Griegos Road
- Candelaria Road
- Matthew Avenue
- Indian School Road
- Mountain Road

Two specific items were analyzed to determine the potential for a roundabout at each of these intersections: volumes and design (ROW required).

GRIEGOS ROAD

The potential for a roundabout at the intersection of Griegos Road was analyzed. The primary issue discovered was the potential right of way impacts associated with constructing the roundabout. Figure 21 illustrates the impact a minimally-sized roundabout would have on the surrounding properties.

It was concluded that the benefits of a roundabout at this location would not offset the right of way impacts, and the destruction of the historic sense of place shaped by the older buildings situated close to the intersection.



Figure 21: The inside of the circle drawn at the intersection at Griegos Road is what would be needed for a roundabout at this location. This would drastically impact properties and buildings on all four corners.

CANDELARIA ROAD

While a good candidate for a roundabout, the intersection at Candelaria Road posed design issues, specifically in relation to the potential impacts to adjacent properties. The initial design of the roundabout is shown in Figure 22. This design substantially impacts the home in the southwest quadrant

The design team analyzed modifying the roundabout design by minimizing its circumference and shifting it slightly to the northeast (Figure 23), with positive results for the impacted properties.

It is recommended that the City continues to refine the design of Candelaria’s roundabout, given these recommendations to minimize impact to adjacent parcels.

MATTHEW AVENUE

Roundabouts operate most efficiently and improve traffic flow more effectively when there is an equal flow of traffic from all approached (legs entering the intersection or roundabout). Traffic volumes shown on Figure 24 to the right indicate an uneven distribution of traffic entering the intersection. The intersection would not benefit much from the construction of a roundabout and might negatively impact the ability of the westbound entering vehicles from accessing the intersection.



Figure 22: Candelaria Roundabout Initial Design



Figure 23: Candelaria Roundabout Modified Design

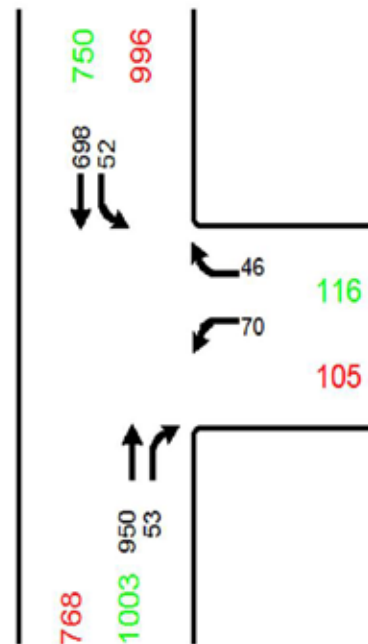


Figure 24: Traffic Volumes at Rio Grande Boulevard and Matthew Avenue



Figure 25: Intersection at Matthew Avenue Proposed Condition

INDIAN SCHOOL ROAD

Approximately 2,525 vehicles are entering the intersection of Rio Grande Boulevard and Indian School Road. A single-lane roundabout can handle roughly 2,500 vehicles. Greater traffic than that would often necessitate the need for a double-lane roundabout, which requires a substantially larger footprint.

Much like the discussion above related to right of way and property impacts, a roundabout at the intersection of Indian School Road would negatively impact a substantial amount of adjacent property, assuming the need for a double-lane roundabout, illustrated in Figure 26.

The design team, therefore, explored improvements to the signalized intersection, such as pedestrian crossings (Figure 27). The resulting redevelopment potential is illustrated in Figure 28.



Figure 26: Design of Potential Roundabout at Indian School Road



Figure 27: Design of Signalized Intersection at Indian School Road



Figure 28: Proposed Redevelopment at Indian School Road

MOUNTAIN ROAD

A roundabout at the intersection of Mountain Road presented a unique difficulty in the five-points configuration of that intersection, including Romero Street. A roundabout functions best when its legs (entry and exit points) are equidistant. So, roughly speaking a roundabout with five legs would need those legs to be located at 72-degrees along the circumference of the circle (360 degrees divided by 5 legs). The configuration of that intersection is less uniform, impacting the ability for vehicle to enter and exit the roundabout efficiently and smoothly (see Figure 29). Because of the inability to ensure smooth entering and exiting of the roundabout at this location, the design team identified alternatives that would improve the operations at this intersection, while complimenting the character of the area and its proximity to Old Town. The classic plaza emerged as an ideal treatment for this intersection and is described in detail in the following section.

In summary, HPE concluded that a roundabout would be most beneficial only at the intersection of Rio Grande Boulevard and Candelaria Road, while most others should remain signalized. The intersection at Mountain Road provides a unique opportunity to create a special place with a classic plaza design.

RIO GRANDE BOULEVARD AND MOUNTAIN ROAD PLAZA

Plazas are no strangers to the City of Albuquerque, with its rich history of plazas around the region, where neighborhoods centered on, including a number of them in the Rio Grande Boulevard study area. As mentioned above, the design team identified an opportunity for returning one the underperforming intersections along the Boulevard to this unique civic structure.

EXAMPLE OF A RECENTLY REDESIGNED PLAZA

The city of Montgomery, Alabama was originally constructed with two competing street grid systems. One grid ran parallel to the river, and the other perpendicular to the river. The meeting place of the two grids has created some unusual intersections and opportunities for public spaces. Court Street is one of the streets that follows the seam of these two grids from north to south, resulting in several odd intersections, including the intersection at Court Street and Dexter Avenue. In traditional town planning, these types of intersections and spaces have generally been regarded as wonderful opportunities to create terminated vistas, civic spaces, and other street designs that give a city a special flavor or character.

Prior to the mid-twentieth century, Court Street and Dexter Avenue formed this type of intersection, along with Montgomery Street and Commerce Street, creating a five-points intersection. Court Street continued north and south through the intersection. A beautiful copper fountain dedicated to Hebe, the goddess of commerce, was constructed in the center of the intersection. Pedestrian, trolleys, wagons, and automobiles all shared this civic space (see Figure 30). In the mid-twentieth century, however, Court Street was closed off south of Dexter Avenue and the fountain was enclosed in a modernist pedestrian mall. Dexter Avenue was rerouted for a higher-speed, higher volume connection to Commerce Street and Montgomery Street, using modern traffic signals. Most of the pedestrian-scale historic buildings around the intersection were torn down and replaced with modernist office buildings and high-rise buildings. The existing businesses, deprived of automobile traffic, withered and eventually died, leaving empty store fronts along this block of Court Street.

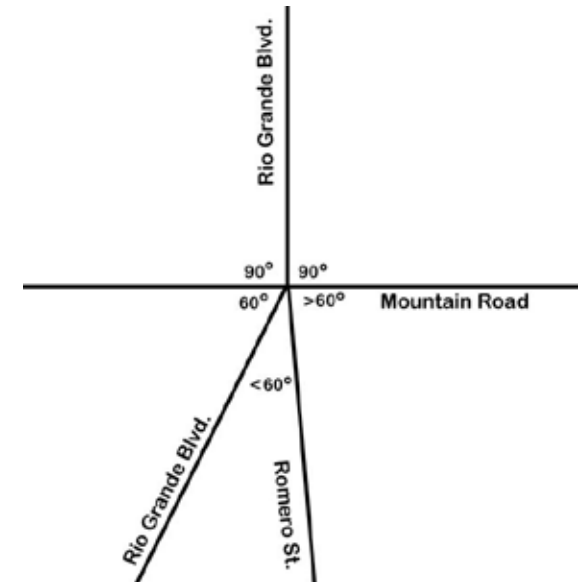


Figure 29: Angle of Legs at Intersection with Mountain Road



Figure 30: Court Street Plaza Past

As part of the recent downtown master plan for the City Court Street was reopened to traffic (Figures 31 through 33).

The modernist mall around the fountain was taken up and the intersection returned to its previous function as a plaza. Rough cobblestones slow vehicle traffic through the intersection, with the fountain serving as a central traffic circulator. The Court Street Plaza once again has become usable civic and commercial space.

RECOMMENDATION FOR OLD TOWN AT INTERSECTION WITH MOUNTAIN ROAD

The five-points intersection of Rio Grande Boulevard, Mountain Road and Romero Street provide a unique opportunity for a grand civic space such as a Plaza (Figure 34).

Designed like the one described above in Montgomery, the plaza would provide efficient movement for vehicles, while enhancing the comfort for pedestrians, bicyclists and transit users. Further engineering and design of the plaza is suggested, but initial review suggests that motorists yield upon approach and entering of the plaza, similar to how a roundabout would operate.

Moreover, the plaza here would provide a grand entrance to Rio Grande Boulevard and the adjacent Old Town. The opportunities to display art and host civic functions are nearly endless. As an option for the center, the Founding Statue at the entrance of Old Town could be relocated the short distance to this prominent position.



Figure 31: Court Street Plaza Illustration



Figure 32: Court Street Plaza Today



Figure 33: Court Street Plaza Today



Figure 34: Proposed Plaza at Mountain Road

CONCLUSION

Meetings with citizens, local officials, and business owners in the Rio Grande Boulevard area indicated a clear desire to transform portions of the Boulevard into a vibrant, walkable neighborhood place, while preserving much of its natural, scenic amenities. After analysis, the following items are recommended to achieve this vision:

- Redesign of Rio Grande Boulevard as walkable thoroughfares
- Reduction of the number of through lanes on northern Rio Grande Boulevard
- Intersection improvements, such as a roundabout at Candelaria Road and a classic plaza at Mountain Road
- Addition of parallel parking and street trees along the boulevard, implemented at appropriate times and as properties redevelop and opportunities arise to eliminate curb cuts/driveways.

5. DETAILS OF THE PLAN

PAGE 5.2	PLANNING FOCUS AREAS
PAGE 5.4	OLD TOWN NORTH FOCUS AREA
PAGE 5.8	LOS DURANES FOCUS AREA
PAGE 5.12	MATTHEW AVENUE FOCUS AREA
PAGE 5.13	CANDELARIA ROAD INTERSECTION
PAGE 5.14	LOS GRIEGOS FOCUS AREA



PLANNING FOCUS AREAS

The Rio Grande Corridor Master Plan intends to provide a comprehensive strategy to guide new and infill development along the boulevard. Fundamental to the plan is the transformation of the corridor into a classic, walkable “great street” with sidewalks, street trees, areas of on-street parking, and street-oriented buildings. In addition, the plan recommends improvements to special intersections along the boulevard and the creation of new public spaces. The recommendations for each of these Focus Area Master Plans are the main ideas that are used to implement the First Principles outlined in Section 3.

The plans are organized around a series of neighborhood centers. These centers are located at key intersections and each center forms the foundation of a complete corridor. This section explains in detail the intended evolution of those centers and includes specific recommendations for “Old Town North”, Los Duranes, the areas around the Matthew Avenue and Cadelaria Road intersections, and Los Griegos.

The neighborhood centers along the corridor, at right, are approximately a 5 minute walk from center to edge, or less. If streets are walkable, most people will walk a distance of approximately a quarter mile (1320 feet or 5 minutes) before turning back or opting to drive or ride a bike rather than walk.

This dimension is a recurring characteristic of the way people have settled towns for centuries. This distance relates to the manner in which people typically define the edges of their own neighborhoods. Of course, neighborhoods are not necessarily circular in design, nor is that desirable. The quarter mile radius is a benchmark for creating a neighborhood unit that is manageable in size and feel and



is inherently walkable. Neighborhoods of many shapes and sizes can satisfy the quarter mile radius test. Rio Grande Boulevard demonstrates the quarter mile radius principle with several distinct neighborhoods or centers, particular along the southern portion of the corridor. The Focus Area Master Plans show how to reinforce the identity and completeness of each of Rio Grande Boulevard’s neighborhoods with infill development and redevelopment.

The Focus Area Master Plans provide design details for the hypothetical build-out of the boulevard. Off the boulevard, on some larger parcels, new streets are proposed that will create pedestrian-scale blocks and, where possible, a parallel street network. New, tree-lined streets will provide equally for the pedestrian, bicycle and automobile. Civic buildings are to be located at prominent locations. New trails are planned to compliment and tie in with the current trail system along the ditches and drains. Parking is hidden at the rear of lots and at the centers of blocks (in structured parking where appropriate).

To accommodate the type of new development North Valley citizens want along the boulevard, the land development regulations need to be revised to focus on building form rather than just land use. The new regulations would be form-based and would have greater detail with regards to the physical design of the place residents want Rio Grande Boulevard to be. Proper regulations would provide certainty for neighbors and predictability for property owners, developers, and investors. Uncertainty is the great enemy of community character and revitalization. With revised regulations that focus on the end result of achieving the boulevard Albuquerque citizens want, everyone wins.



Los Griegos Focus Area (page 5.14)

Candelaria Road Intersection (page 5.13)

Matthew Avenue Focus Area (page 5.12)

Los Duranes Focus Area (page 5.8)

Old Town North Focus Area (page 5.4)

OLD TOWN NORTH FOCUS AREA

The Old Town North focus area connects the Rio Grande Boulevard corridor with historic Old Town Albuquerque. Priorities for this area identified during the charrette included improving the pedestrian environment (making it easier for both residents and tourists to walk from Old Town to destinations in this area), improving safety at the Rio Grande/Mountain Road intersection, and encouraging infill development that adds to the unique charm of this area.

The plan shows the pedestrian environment along Rio Grande Boulevard transformed; the street design includes four travel lanes, a “safety strip” in the center to accommodate turning movements, plus the introduction of bike lanes and wide sidewalks shaded by street trees or building colonnades. (The area reserved for bike lanes could also be on-street parking spaces; in this case, the outer most travel lane would become a sharrow, or shared bicycle and vehicular lane. For more information, refer to Section 4).

Proposed new buildings are located adjacent to the sidewalk, with parking located to the rear, further supporting a safer and inviting pedestrian environment. A range of uses, including retail, hotel, office, and a mix of residential types are appropriate for this area.

The intersection of Rio Grande Boulevard and Mountain road is shown with a shared space plaza. This design mandates very slow travel speeds for vehicles, allowing safer, easier movement for pedestrians and bicyclists. This design also introduces civic art to this important entrance to the historic Old Town.



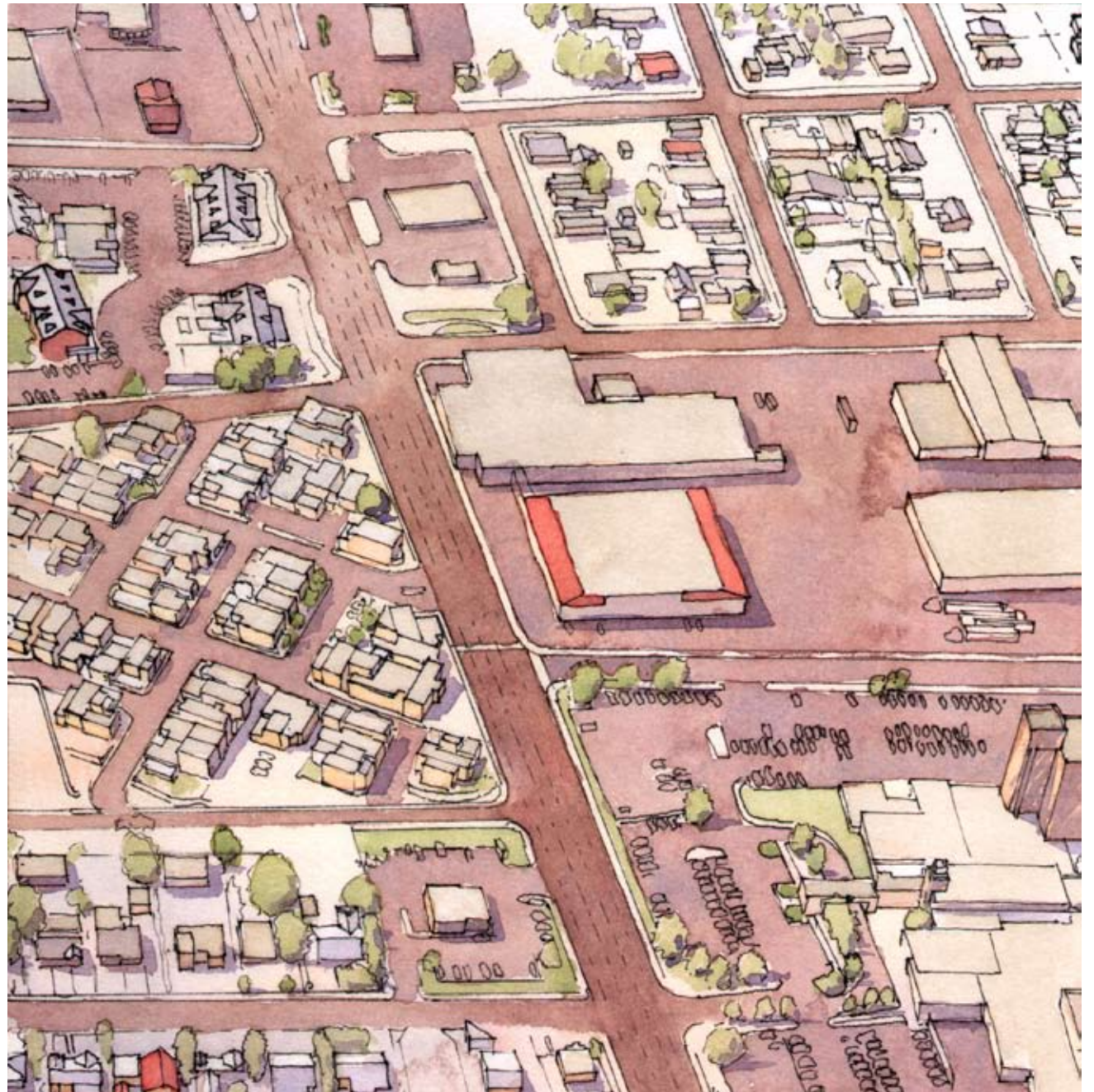
OLD TOWN NORTH FOCUS AREA

Plan Recommendations

- (A)** Infill buildings are street-oriented, lining wide tree-lined sidewalks, extending the high-quality pedestrian environment found in Old Town.
- (B)** Street trees should be planted, to provide shade and act as a buffer between pedestrians and the street.
- (C)** Parking for infill buildings is located to the side or rear.
- (D)** A new green can mark the entry to the Hotel Albuquerque; infill buildings on the perimeter of the property shield parking lots from the view of pedestrians on Rio Grande.
- (E)** New or redeveloped gas stations can be street-oriented, with convenience retail located along the street, and the gas pump canopy located to the rear.
- (F)** An addition to the Best Western hotel should address the street, with an activated facade (doors and windows facing the street) greeting arrivals from I-40. Parking can be consolidated in a structure to the rear.
- (G)** Redevelopment of Best Western parcel should also include improvements to the ditch to the west, as it passes under I-40.
- (H)** As industrial uses are relocated to other areas of the city, the street grid can be reconnected, and mixed-use neighborhoods introduced.
- (J)** Parking can be consolidated to common lots or structures, serving many destinations within a 5-minute walk. Potential sites for new parking include vacant industrial properties in Old Town North, and a proposed new deck (parking above and below grade) in the existing museum surface lot area.
- (K)** Enhancements to the area along I-40 can include new trees and trails for pedestrians.
- (L)** The intersection of Rio Grande Boulevard and Mountain Road is redesigned to be a shared space plaza. Pavers mark this unique location, and circulating vehicle speeds are very slow, allowing pedestrians and bicyclists to move safely across the plaza.



Right: Existing Conditions, Old Town North study area.





Left: Old Town North, in the future. Street improvements (safety strip, narrowed travel lanes, bike lanes or on-street parking, wider sidewalks, crosswalks, and street trees) allow tourists and residents to easily move through the area by car, foot, and bicycle. Infill development fills gaps in the streetwall, further enhancing the pedestrian realm. A system of secondary streets and rear alleys interconnect to give multiple routes through the neighborhood. Crosswalks should be provided at all intersections, and may be enhanced by a change in paving material.

LOS DURANES FOCUS AREA

The Los Duranes focus area is located just north of Interstate 40. Priorities voiced for this area included slowing traffic; creating a better environment for pedestrians and bicyclists on Rio Grande Boulevard; creating a “village center” mixed-use character.

The street design proposed for this area is the same as Old Town North: 4 lanes of travel with a “safety strip” in the center for turning movements. North of Indian School Road, this is proposed to transition to two lanes plus the safety strip. The goal is to provide the necessary number of lanes to accommodate vehicular needs, but not to devote more than is needed to the vehicular realm. A study of traffic count data demonstrates that the corridor north of Indian School Road can function satisfactorily with two lanes and the safety strip. By reducing the number of lanes, more of the street can be devoted to amenities for pedestrians and bicyclists, such as bike lanes, street trees, sidewalks, and on-street parking (which slows car travel speeds). For more information, refer to Section 4.

This study area includes an assembly of parcels under common ownership, just north of the Interstate and east of Rio Grande Boulevard. This common ownership presents an opportunity for redevelopment that introduces new street connections, open spaces, and larger footprint uses such as a grocery store, to serve the surrounding neighborhood (A neighborhood grocery was identified during the Charrette as a needed use for this area).



LOS DURANES NORTH FOCUS AREA

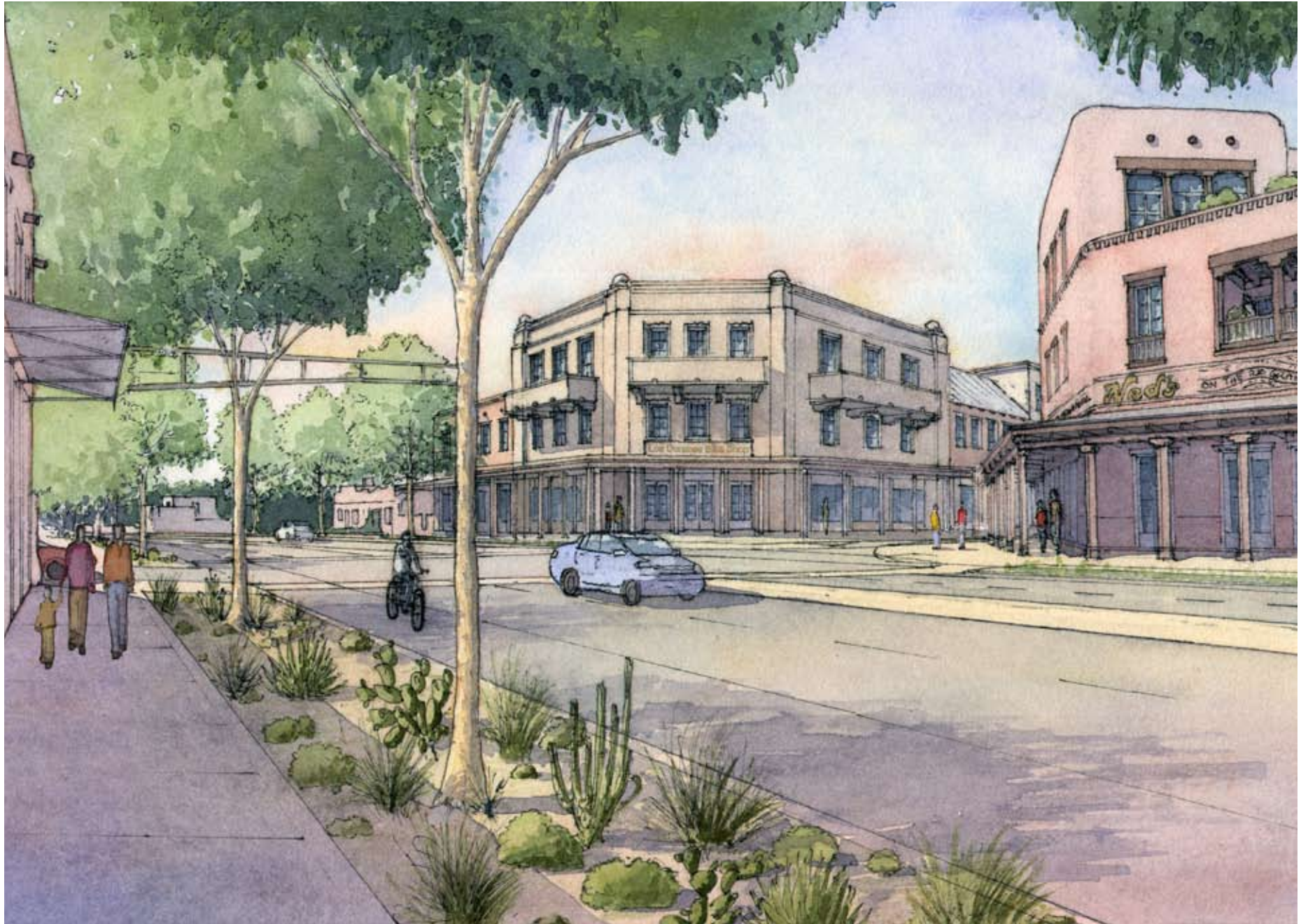
Plan Recommendations

- A** Infill buildings are street-oriented, lining wide tree-lined sidewalks, creating a high-quality pedestrian environment. New buildings on Rio Grande Boulevard can accommodate a variety of uses, and create a “village center” character.
- B** Street trees should be planted, to provide shade and act as a buffer between pedestrians and the street.
- C** Parking for infill buildings is located to the side or rear. Rear parking should be designed to allow for circulation across adjacent parcels.
- D** New buildings west of the Rio Grande corridor should not exceed 2 stories, consistent with the scale of the neighborhood and in accordance with the Los Duranes Sector Plan.
- E** North of Indian School Road, a “road diet” is proposed - reducing the number of vehicular lanes to dedicate more right-of-way space to pedestrians and bicyclists.
- F** A new neighborhood quarter is possible here due to an assembly of parcels to one owner. If this area redevelops, it should contain a connected network of streets, new green spaces, and mixture of uses.
- G** New streets are defined by the fronts of buildings, with parking accessed from the rear. When possible, streets are oriented to provide view corridors to the mountains.
- H** A mixture of residential unit types should be permitted, to provide diversity and choice for new residents.
- J** Community gardens are encouraged, providing opportunity for interaction and locally-grown food.
- K** This size of this site can accommodate a large footprint store, such as a grocery. Large footprint buildings should either be street-oriented (built to the edge of the sidewalk, with doors and windows facing the street, and parking to the rear); or alternatively, they can be embedded within the block, with liner buildings at the street edge (as illustrated). The goal is to have high-quality street spaces to support pedestrian activity, with no blank walls or parking lots in view.
- L** A new 2-story parking structure (with an additional level below ground) serves retail spaces.



On the following pages, please find the “before” (existing conditions) and “after” (showing potential redevelopment according to the principles of the plan) of the above view along Rio Grande Boulevard in the Los Duranes focus area.





MATTHEW AVENUE FOCUS AREA

The intersection of Matthew Avenue and Rio Grande Boulevard was identified as a potential neighborhood center. With existing popular businesses such as the La Montanita Co-Op Food Market, this area already draws residents of surrounding neighborhood. New street-oriented infill buildings can contribute positively to this village center. A proposed reduction of travel lanes in this area - from 4 through lanes to 2 - will further enhance the pedestrian realm. If possible, a new neighborhood public gathering space should also be created in this area (one option for this, a public parking plaza, is illustrated in the plan).

MATTHEW AVENUE FOCUS AREA

Plan Recommendations

- (A)** Infill buildings are street-oriented, lining wide tree-lined sidewalks, creating a high-quality pedestrian environment. New buildings on Rio Grande Boulevard clustered around this intersection should be permitted to accommodate a variety of uses, creating a "village center" character.
- (B)** Street trees should be planted, to provide shade and act as a buffer between pedestrians and the street.
- (C)** Crosswalks should be provided at key intersections.
- (D)** Parking for infill buildings is located to the side or rear.
- (E)** A "road diet" is proposed for this area - reducing the number of vehicular lanes to dedicate more right-of-way space to pedestrians and bicyclists. For more information, refer to Section 4.
- (F)** A common public gathering space would enhance this neighborhood center. One option where space is limited, illustrated here, is to provide a special paving surface within a public parking lot. During off-peak hours, this could become a public plaza, used for neighborhood gathering or special activities (such as a farmers market). In addition to aesthetic benefits, the pavers also provide environmental benefits for water infiltration.



CANDELARIA ROAD INTERSECTION

The intersection of Candelaria Road and Rio Grande Boulevard was identified as a safety concern by surrounding residents, due to the existing speed of traffic and inadequate pedestrian facilities. To address this concern, the introduction of a roundabout, in addition to a “road diet” in this area (which will reduce the number of travel lanes and add additional space for bike lanes, street trees, and wider sidewalks) is recommended. These street design changes will dramatically change the existing physical environment at this intersection.

CANDELARIA ROAD INTERSECTION

Plan Recommendations

- (A)** A roundabout is proposed for this intersection, to slow vehicular speeds in this area. The placement of the roundabout was carefully designed to provide deflection for oncoming vehicles, as well as to reduce impacts to surrounding property owners. For more information, refer to Section 4.
- (B)** A “road diet” is proposed for this area - reducing the number of vehicular lanes to dedicate more right-of-way space to pedestrians and bicyclists. For more information, refer to Section 4.
- (C)** Space for street trees is provided along Rio Grande Boulevard, to provide shade and act as a buffer between pedestrians and the street.
- (D)** Crosswalks are recommended for pedestrian safety. The crosswalks should be located one car length back from the entrance to the roundabout, where a pedestrian can make eye contact with the driver or an automobile.
- (E)** Key properties at the intersection are only minimally impacted by the new roundabout when carefully sized and positioned farther to the north and east.



LOS GRIEGOS FOCUS AREA

The area surrounding the intersection of Los Griegos Road and Rio Grande Boulevard was identified as a neighborhood center. The existing clustering of homes and businesses close to the street provide a sense of spatial enclosure not found in other areas of the boulevard. In addition, the existing Flying Star Cafe has become a popular neighborhood destination.

A “road diet”, or reduction of travel lanes from four to two, is proposed in this area, concluding at the Flying Star Plaza. This will help to slow travel speeds, and also provide space for other amenities, such as wider sidewalks, street trees, and the potential for bike lanes or on-street parking. At the Flying Star Plaza, the existing road treatment that was recently implemented (including a median, on-street parking, and street trees) can remain. In portions of this area, the existing right-of-way and building-to-building width becomes narrow; in these areas, it may be necessary to reduce the planned width of the planting strip and sidewalk, and to substitute shrubs, cactus, or other smaller plantings for street trees.

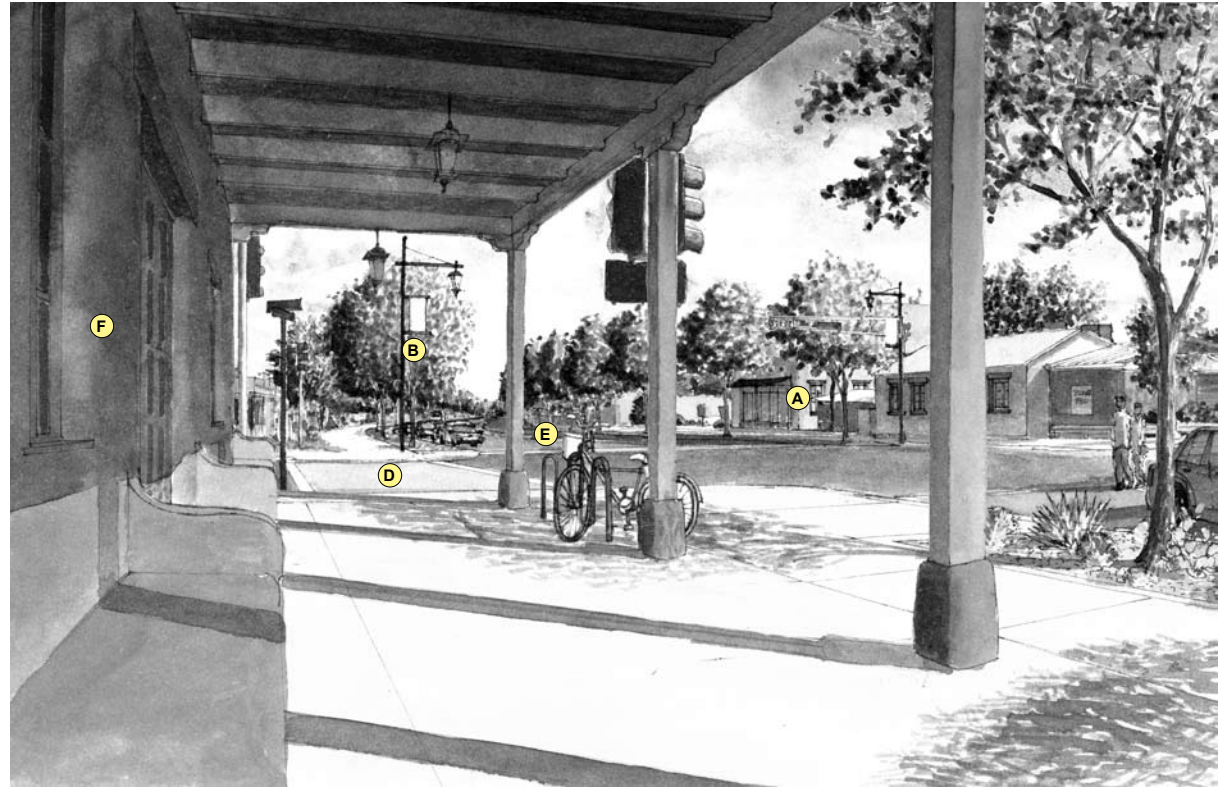
At the intersection of Los Griegos Road and Rio Grande Boulevard, new infill buildings can continue to reinforce the “village center” feel by filling in gaps in the streetwall. Redeveloped buildings should be required to have doors and windows to face the sidewalk / street, to activate the public space. A small property at the northeast of this intersection (vacant today) could be used for a small civic pavilion, perhaps housing a trailhead (with restrooms and refreshments) for bikers along the boulevard, as well as a bus stop. Small, informal neighborhood gathering spaces help to reinforce a sense of community, and should be included where possible at each of the neighborhood centers identified along the corridor.



LOS GRIEGOS FOCUS AREA

Plan Recommendations

- (A)** Infill buildings are street-oriented, lining wide tree-lined sidewalks, creating a high-quality pedestrian environment. New buildings on Rio Grande Boulevard can accommodate a variety of uses, and create a “village center” character.
- (B)** Street trees should be planted, where the right-of-way width permits, to provide shade and act as a buffer between pedestrians and the street.
- (C)** Parking for infill buildings is located to the side or rear. Rear parking should be designed to allow for circulation across adjacent parcels.
- (D)** Crosswalks should be provided at key intersections.
- (E)** A “road diet” is proposed for this area - reducing the number of vehicular lanes to dedicate more right-of-way space to pedestrians and bicyclists. For more information, refer to Chapter 5.
- (F)** A small vacant parcel could be utilized as a community gathering place. A pavilion located here could provide refreshments and/or restroom facilities for bikers along the corridor, as well as a covered bus stop.
- (G)** The existing streetscape in front of the Flying Star Plaza - including a median, street trees, and on-street parking, can remain.



On the following pages, please find the “before” (existing conditions) and “after” (showing potential redevelopment according to the principles of the plan) of the above view at the intersection of Rio Grande Boulevard and Los Griegos Road.





APPENDIX A

TRAFFIC COUNTS



Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande

VOLUME Between Montano and Dietz Farm

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		2	1	3
12:15		6	4	10
12:30		1	4	5
12:45		2	3	5
01:00		3	2	5
01:15		1	1	2
01:30		3	1	4
01:45		0	0	0
02:00		3	1	4
02:15		0	1	1
02:30		1	2	3
02:45		3	0	3
03:00		1	0	1
03:15		1	2	3
03:30		1	3	4
03:45		0	2	2
04:00		0	2	2
04:15		3	0	3
04:30		0	2	2
04:45		2	1	3
05:00		5	5	10
05:15		1	3	4
05:30		10	8	18
05:45		17	7	24
06:00		15	14	29
06:15		34	35	69
06:30		33	40	73
06:45		46	53	99
07:00		45	56	101
07:15		50	88	138
07:30		64	102	166
07:45		73	93	166
08:00		58	92	150
08:15		81	75	156
08:30		56	84	140
08:45		76	80	156
09:00		56	52	108
09:15		69	63	132
09:30		51	51	102
09:45		46	57	103
10:00		47	60	107
10:15		47	52	99
10:30		53	60	113
10:45		50	47	97
11:00		39	50	89
11:15		44	52	96
11:30		62	49	111
11:45		56	60	116
Total		1317	1520	2837
Percent		46.4%	53.6%	
Peak	07:30		07:15	07:30
Vol.		276	375	638
P.H.F.		0.852	0.919	0.961

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande

VOLUME Between Montano and Dietz Farm

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		76	52	128
12:15		62	68	130
12:30		61	49	110
12:45		88	60	148
01:00		74	71	145
01:15		69	40	109
01:30		77	41	118
01:45		47	50	97
02:00		68	80	148
02:15		74	55	129
02:30		82	64	146
02:45		67	72	139
03:00		75	76	151
03:15		102	75	177
03:30		74	79	153
03:45		70	78	148
04:00		85	84	169
04:15		95	85	180
04:30		117	55	172
04:45		117	60	177
05:00		136	85	221
05:15		143	80	223
05:30		126	69	195
05:45		114	56	170
06:00		93	50	143
06:15		81	55	136
06:30		71	60	131
06:45		65	53	118
07:00		60	50	110
07:15		42	40	82
07:30		35	40	75
07:45		52	37	89
08:00		51	39	90
08:15		40	38	78
08:30		45	39	84
08:45		40	36	76
09:00		34	31	65
09:15		24	23	47
09:30		29	18	47
09:45		23	19	42
10:00		19	9	28
10:15		14	15	29
10:30		14	12	26
10:45		12	7	19
11:00		12	11	23
11:15		13	12	25
11:30		10	4	14
11:45		5	4	9
Total		2983	2286	5269
Percent		56.6%	43.4%	
Peak	16:45		15:30	16:45
Vol.		522	326	816
P.H.F.		0.913	0.959	0.915
Grand Total		4300	3806	8106
Percent		53.0%	47.0%	
ADT		ADT 8,106	AADT 8,106	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Dietz Farm Rd and Dietz Pl

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		2	2	4
12:15		6	4	10
12:30		2	4	6
12:45		2	3	5
01:00		3	2	5
01:15		1	0	1
01:30		3	2	5
01:45		0	1	1
02:00		3	1	4
02:15		0	1	1
02:30		1	2	3
02:45		4	1	5
03:00		1	0	1
03:15		1	2	3
03:30		1	1	2
03:45		0	4	4
04:00		0	1	1
04:15		3	1	4
04:30		1	3	4
04:45		1	1	2
05:00		5	7	12
05:15		1	3	4
05:30		10	8	18
05:45		17	7	24
06:00		14	14	28
06:15		32	37	69
06:30		31	44	75
06:45		47	49	96
07:00		47	60	107
07:15		56	100	156
07:30		61	112	173
07:45		75	97	172
08:00		57	97	154
08:15		81	90	171
08:30		54	88	142
08:45		79	81	160
09:00		58	58	116
09:15		65	67	132
09:30		54	59	113
09:45		43	68	111
10:00		45	67	112
10:15		53	63	116
10:30		51	65	116
10:45		52	54	106
11:00		39	50	89
11:15		42	54	96
11:30		62	55	117
11:45		52	61	113
Total		1318	1651	2969
Percent		44.4%	55.6%	
Peak	07:30		07:15	07:30
Vol.		274	406	670
P.H.F.		0.846	0.906	0.968

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Dietz Farm Rd and Dietz Pl

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		80	58	138
12:15		69	66	135
12:30		56	44	100
12:45		98	72	170
01:00		74	69	143
01:15		75	41	116
01:30		79	51	130
01:45		48	51	99
02:00		69	85	154
02:15		75	57	132
02:30		83	64	147
02:45		70	68	138
03:00		73	77	150
03:15		106	79	185
03:30		78	78	156
03:45		78	74	152
04:00		92	86	178
04:15		95	82	177
04:30		128	70	198
04:45		124	59	183
05:00		137	83	220
05:15		143	74	217
05:30		125	79	204
05:45		118	67	185
06:00		98	51	149
06:15		88	59	147
06:30		80	59	139
06:45		73	64	137
07:00		58	68	126
07:15		57	43	100
07:30		40	34	74
07:45		57	35	92
08:00		55	30	85
08:15		44	23	67
08:30		41	34	75
08:45		39	31	70
09:00		40	28	68
09:15		25	21	46
09:30		34	19	53
09:45		22	20	42
10:00		21	12	33
10:15		14	16	30
10:30		18	11	29
10:45		12	8	20
11:00		12	9	21
11:15		12	11	23
11:30		9	6	15
11:45		3	5	8
Total		3125	2331	5456
Percent		57.3%	42.7%	
Peak	16:30		15:30	17:00
Vol.		532	320	826
P.H.F.		0.930	0.930	0.939
Grand Total		4443	3982	8425
Percent		52.7%	47.3%	
ADT		ADT 8,425	AADT 8,425	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

VOLUME

Between Dietz Pl and Griegos Rd

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		3	4	7
12:15		7	5	12
12:30		3	4	7
12:45		4	4	8
01:00		3	2	5
01:15		1	0	1
01:30		3	2	5
01:45		1	1	2
02:00		2	3	5
02:15		0	1	1
02:30		2	2	4
02:45		4	2	6
03:00		1	0	1
03:15		1	1	2
03:30		1	2	3
03:45		0	4	4
04:00		0	1	1
04:15		4	1	5
04:30		0	2	2
04:45		4	2	6
05:00		6	6	12
05:15		2	2	4
05:30		9	9	18
05:45		17	7	24
06:00		19	16	35
06:15		31	42	73
06:30		29	48	77
06:45		55	56	111
07:00		45	60	105
07:15		58	102	160
07:30		58	119	177
07:45		74	109	183
08:00		64	97	161
08:15		92	93	185
08:30		61	84	145
08:45		76	90	166
09:00		58	59	117
09:15		73	72	145
09:30		61	56	117
09:45		64	80	144
10:00		45	73	118
10:15		62	77	139
10:30		48	66	114
10:45		69	61	130
11:00		47	47	94
11:15		58	48	106
11:30		78	59	137
11:45		76	63	139
Total		1479	1744	3223
Percent		45.9%	54.1%	
Peak	08:00		07:15	07:30
Vol.		293	427	706
P.H.F.		0.796	0.897	0.954

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

VOLUME

Between Dietz Pl and Griegos Rd

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		102	73	175
12:15		98	70	168
12:30		80	62	142
12:45		87	73	160
01:00		87	80	167
01:15		88	62	150
01:30		92	53	145
01:45		61	71	132
02:00		73	70	143
02:15		76	58	134
02:30		87	73	160
02:45		76	85	161
03:00		85	72	157
03:15		108	76	184
03:30		89	83	172
03:45		77	74	151
04:00		89	82	171
04:15		98	72	170
04:30		128	73	201
04:45		128	68	196
05:00		165	82	247
05:15		145	76	221
05:30		147	74	221
05:45		124	77	201
06:00		119	47	166
06:15		102	52	154
06:30		102	45	147
06:45		92	58	150
07:00		79	54	133
07:15		68	42	110
07:30		41	53	94
07:45		72	50	122
08:00		57	50	107
08:15		45	44	89
08:30		65	41	106
08:45		40	47	87
09:00		37	47	84
09:15		27	30	57
09:30		36	30	66
09:45		30	30	60
10:00		19	24	43
10:15		22	21	43
10:30		23	16	39
10:45		15	12	27
11:00		11	10	21
11:15		12	9	21
11:30		9	7	16
11:45		3	5	8
Total		3516	2563	6079
Percent		57.8%	42.2%	
Peak	16:45		14:45	17:00
Vol.		585	316	890
P.H.F.		0.886	0.929	0.901
Grand Total		4995	4307	9302
Percent		53.7%	46.3%	
ADT		ADT 9,302	AADT 9,302	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

VOLUME

Between Elfecho Rd and San Lorenzo Ave

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		4	6	10
12:15		13	5	18
12:30		4	5	9
12:45		4	5	9
01:00		1	2	3
01:15		1	1	2
01:30		6	3	9
01:45		2	1	3
02:00		1	3	4
02:15		2	1	3
02:30		4	2	6
02:45		4	4	8
03:00		0	0	0
03:15		1	1	2
03:30		3	2	5
03:45		1	3	4
04:00		0	1	1
04:15		3	2	5
04:30		2	3	5
04:45		5	5	10
05:00		5	4	9
05:15		3	6	9
05:30		16	11	27
05:45		23	12	35
06:00		22	24	46
06:15		35	40	75
06:30		46	41	87
06:45		67	58	125
07:00		68	59	127
07:15		58	104	162
07:30		90	130	220
07:45		84	116	200
08:00		86	117	203
08:15		102	99	201
08:30		86	95	181
08:45		98	95	193
09:00		89	67	156
09:15		70	92	162
09:30		63	75	138
09:45		72	68	140
10:00		82	77	159
10:15		87	84	171
10:30		75	88	163
10:45		68	67	135
11:00		70	72	142
11:15		90	71	161
11:30		82	85	167
11:45		98	64	162
Total		1896	1976	3872
Percent		49.0%	51.0%	
Peak	08:15		07:15	07:30
Vol.		375	467	824
P.H.F.		0.919	0.898	0.936

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

VOLUME

Between Elfecho Rd and San Lorenzo Ave

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		110	82	192
12:15		110	100	210
12:30		90	80	170
12:45		108	79	187
01:00		81	87	168
01:15		92	77	169
01:30		96	72	168
01:45		78	54	132
02:00		93	104	197
02:15		84	77	161
02:30		93	92	185
02:45		83	84	167
03:00		91	88	179
03:15		118	92	210
03:30		87	95	182
03:45		100	94	194
04:00		106	102	208
04:15		118	98	216
04:30		140	94	234
04:45		144	95	239
05:00		169	103	272
05:15		152	112	264
05:30		150	95	245
05:45		128	81	209
06:00		116	70	186
06:15		113	73	186
06:30		101	64	165
06:45		94	69	163
07:00		87	76	163
07:15		65	65	130
07:30		62	48	110
07:45		72	57	129
08:00		81	59	140
08:15		48	66	114
08:30		58	45	103
08:45		51	50	101
09:00		43	62	105
09:15		46	39	85
09:30		41	33	74
09:45		37	31	68
10:00		22	32	54
10:15		23	31	54
10:30		16	20	36
10:45		11	14	25
11:00		17	10	27
11:15		13	16	29
11:30		9	7	16
11:45		5	6	11
Total		3852	3180	7032
Percent		54.8%	45.2%	
Peak	16:45		16:45	16:45
Vol.		615	405	1020
P.H.F.		0.910	0.904	0.938
Grand Total		5748	5156	10904
Percent		52.7%	47.3%	
ADT		ADT 10,904	ADT 10,904	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME Between Artesanos Ct and Oro Vista Rd

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		12	8	20
12:15		6	12	18
12:30		4	10	14
12:45		8	8	16
01:00		7	6	13
01:15		3	6	9
01:30		4	8	12
01:45		3	4	7
02:00		4	1	5
02:15		2	1	3
02:30		1	4	5
02:45		2	2	4
03:00		0	0	0
03:15		1	2	3
03:30		3	6	9
03:45		4	0	4
04:00		1	1	2
04:15		4	4	8
04:30		5	1	6
04:45		4	7	11
05:00		9	4	13
05:15		9	8	17
05:30		16	19	35
05:45		18	27	45
06:00		31	32	63
06:15		51	45	96
06:30		46	55	101
06:45		78	89	167
07:00		74	84	158
07:15		100	75	175
07:30		136	96	232
07:45		137	135	272
08:00		111	108	219
08:15		125	122	247
08:30		118	97	215
08:45		135	120	255
09:00		96	98	194
09:15		104	104	208
09:30		83	95	178
09:45		93	113	206
10:00		96	86	182
10:15		112	104	216
10:30		110	92	202
10:45		117	88	205
11:00		91	77	168
11:15		95	95	190
11:30		110	119	229
11:45		117	114	231
Total		2496	2392	4888
Percent		51.1%	48.9%	
Peak	07:30	07:45		07:30
Vol.	509	462		970
P.H.F.	0.929	0.856		0.892

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME Between Artesanos Ct and Oro Vista Rd

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		98	114	212
12:15		108	140	248
12:30		108	118	226
12:45		106	113	219
01:00		104	108	212
01:15		91	123	214
01:30		78	117	195
01:45		81	100	181
02:00		119	100	219
02:15		95	100	195
02:30		107	109	216
02:45		101	112	213
03:00		116	108	224
03:15		92	126	218
03:30		140	127	267
03:45		115	115	230
04:00		122	112	234
04:15		114	145	259
04:30		119	162	281
04:45		132	193	325
05:00		158	167	325
05:15		138	180	318
05:30		132	144	276
05:45		109	156	265
06:00		100	147	247
06:15		82	126	208
06:30		106	118	224
06:45		101	113	214
07:00		96	99	195
07:15		115	83	198
07:30		73	80	153
07:45		76	97	173
08:00		73	93	166
08:15		92	65	157
08:30		51	63	114
08:45		65	63	128
09:00		74	59	133
09:15		56	52	108
09:30		43	47	90
09:45		42	43	85
10:00		41	34	75
10:15		31	28	59
10:30		33	27	60
10:45		21	21	42
11:00		18	17	35
11:15		17	18	35
11:30		10	19	29
11:45		12	12	24
Total		4111	4613	8724
Percent		47.1%	52.9%	
Peak	16:45	16:30		16:30
Vol.	560	702		1249
P.H.F.	0.886	0.909		0.961
Grand Total		6607	7005	13612
Percent		48.5%	51.5%	
ADT		ADT 13,612	ADT 13,612	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Campbell Rd and Vicic Rd

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		8	14	22
12:15		13	7	20
12:30		11	6	17
12:45		9	7	16
01:00		8	6	14
01:15		6	3	9
01:30		9	5	14
01:45		5	3	8
02:00		1	4	5
02:15		2	2	4
02:30		4	1	5
02:45		2	2	4
03:00		0	0	0
03:15		3	1	4
03:30		5	3	8
03:45		0	4	4
04:00		1	1	2
04:15		4	5	9
04:30		1	5	6
04:45		8	6	14
05:00		3	14	17
05:15		8	13	21
05:30		22	20	42
05:45		26	20	46
06:00		32	33	65
06:15		49	56	105
06:30		52	60	112
06:45		86	80	166
07:00		81	87	168
07:15		71	106	177
07:30		96	160	256
07:45		147	173	320
08:00		111	128	239
08:15		117	147	264
08:30		102	122	224
08:45		114	147	261
09:00		106	112	218
09:15		104	99	203
09:30		92	105	197
09:45		105	109	214
10:00		89	111	200
10:15		102	125	227
10:30		97	112	209
10:45		88	134	222
11:00		81	98	179
11:15		105	117	222
11:30		119	123	242
11:45		122	125	247
Total		2427	2821	5248
Percent		46.2%	53.8%	
Peak	07:45	07:30		07:30
Vol.	477	608		1079
P.H.F.	0.811	0.879		0.843

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Campbell Rd and Vicic Rd

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		123	114	237
12:15		128	129	257
12:30		128	127	255
12:45		117	126	243
01:00		111	114	225
01:15		124	98	222
01:30		121	89	210
01:45		99	99	198
02:00		95	131	226
02:15		105	96	201
02:30		115	111	226
02:45		105	103	208
03:00		81	127	208
03:15		106	98	204
03:30		105	151	256
03:45		106	125	231
04:00		102	142	244
04:15		118	125	243
04:30		126	143	269
04:45		151	129	280
05:00		138	171	309
05:15		134	157	291
05:30		138	155	293
05:45		126	114	240
06:00		112	113	225
06:15		102	96	198
06:30		101	106	207
06:45		92	109	201
07:00		91	104	195
07:15		81	111	192
07:30		83	76	159
07:45		95	71	166
08:00		75	86	161
08:15		64	84	148
08:30		72	42	114
08:45		78	45	123
09:00		76	63	139
09:15		67	53	120
09:30		46	42	88
09:45		43	41	84
10:00		34	49	83
10:15		36	25	61
10:30		28	34	62
10:45		21	26	47
11:00		21	19	40
11:15		21	17	38
11:30		21	9	30
11:45		16	15	31
Total		4278	4410	8688
Percent		49.2%	50.8%	
Peak	16:45	16:45		16:45
Vol.	561	612		1173
P.H.F.	0.929	0.895		0.949
Grand Total		6705	7231	13936
Percent		48.1%	51.9%	
ADT		ADT 13,936	ADT 13,936	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Plaza Vizcaya and El Nido Ct

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 AM		11	13	24
12:15		13	8	21
12:30		10	3	13
12:45		10	6	16
01:00		5	4	9
01:15		8	3	11
01:30		13	5	18
01:45		7	4	11
02:00		2	5	7
02:15		2	1	3
02:30		5	1	6
02:45		2	2	4
03:00		0	1	1
03:15		1	1	2
03:30		4	3	7
03:45		1	4	5
04:00		4	2	6
04:15		3	10	13
04:30		1	6	7
04:45		6	11	17
05:00		5	16	21
05:15		10	16	26
05:30		21	24	45
05:45		30	24	54
06:00		29	50	79
06:15		49	66	115
06:30		47	83	130
06:45		78	108	186
07:00		81	114	195
07:15		74	132	206
07:30		103	173	276
07:45		135	205	340
08:00		107	163	270
08:15		120	161	281
08:30		100	143	243
08:45		121	176	297
09:00		123	123	246
09:15		103	138	241
09:30		100	129	229
09:45		93	138	231
10:00		92	123	215
10:15		110	135	245
10:30		106	131	237
10:45		96	149	245
11:00		96	128	224
11:15		115	135	250
11:30		127	131	258
11:45		132	137	269
Total		2511	3344	5855
Percent		42.9%	57.1%	
Peak	11:00			07:30
Vol.		470	702	1167
P.H.F.		0.870	0.856	0.858

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Plaza Vizcaya and El Nido Ct

Start Time	15-Jun-10 Tue	Northbound	Southbound	Total
12:00 PM		131	129	260
12:15		148	132	280
12:30		147	137	284
12:45		124	134	258
01:00		145	129	274
01:15		150	105	255
01:30		137	110	247
01:45		113	118	231
02:00		118	136	254
02:15		115	107	222
02:30		126	131	257
02:45		131	124	255
03:00		137	129	266
03:15		153	107	260
03:30		137	141	278
03:45		150	143	293
04:00		148	134	282
04:15		167	143	310
04:30		177	145	322
04:45		198	129	327
05:00		189	163	352
05:15		214	166	380
05:30		173	143	316
05:45		172	117	289
06:00		156	109	265
06:15		157	105	262
06:30		150	125	275
06:45		130	123	253
07:00		112	99	211
07:15		115	113	228
07:30		108	81	189
07:45		100	72	172
08:00		133	85	218
08:15		83	86	169
08:30		81	58	139
08:45		74	78	152
09:00		69	75	144
09:15		75	65	140
09:30		66	45	111
09:45		60	45	105
10:00		46	53	99
10:15		49	24	73
10:30		35	35	70
10:45		37	33	70
11:00		23	17	40
11:15		29	22	51
11:30		27	16	43
11:45		19	12	31
Total		5534	4728	10262
Percent		53.9%	46.1%	
Peak	16:30		16:30	16:30
Vol.		778	603	1381
P.H.F.		0.909	0.908	0.909
Grand Total		8045	8072	16117
Percent		49.9%	50.1%	
ADT		ADT 16,117	ADT 16,117	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Rice Ave and San Francisco Rd

Start Time	17-Jun-10		Total
	Thu	Northbound Southbound	
12:00 AM		25 25	50
12:15		19 22	41
12:30		21 21	42
12:45		17 13	30
01:00		9 16	25
01:15		12 11	23
01:30		18 5	23
01:45		10 9	19
02:00		6 5	11
02:15		8 6	14
02:30		9 8	17
02:45		7 7	14
03:00		7 2	9
03:15		7 7	14
03:30		3 5	8
03:45		5 7	12
04:00		7 4	11
04:15		5 13	18
04:30		7 13	20
04:45		8 13	21
05:00		11 16	27
05:15		13 28	41
05:30		20 33	53
05:45		27 32	59
06:00		40 32	72
06:15		55 75	130
06:30		82 86	168
06:45		111 108	219
07:00		93 123	216
07:15		177 141	318
07:30		170 181	351
07:45	186	194	380
08:00	186	149	335
08:15	192	145	337
08:30	185	180	365
08:45	172	197	369
09:00	146	175	321
09:15	127	157	284
09:30	121	164	285
09:45	130	169	299
10:00	143	149	292
10:15	148	147	295
10:30	139	123	262
10:45	137	162	299
11:00	130	174	304
11:15	157	159	316
11:30	142	170	312
11:45	159	190	349
Total	3609	3871	7480
Percent	48.2%	51.8%	
Peak	07:45	08:30	07:45
Vol.	749	709	1417
P.H.F.	0.975	0.900	0.932

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Rice Ave and San Francisco Rd

Start Time	17-Jun-10		Total
	Thu	Northbound Southbound	
12:00 PM		167 197	364
12:15		166 151	317
12:30		166 160	326
12:45		167 172	339
01:00		139 171	310
01:15		147 157	304
01:30		145 166	311
01:45		142 178	320
02:00		133 137	270
02:15		177 152	329
02:30		175 156	331
02:45		171 153	324
03:00		189 147	336
03:15		185 170	355
03:30		142 171	313
03:45		190 170	360
04:00		186 185	371
04:15		173 186	359
04:30	201	177	378
04:45	211	150	361
05:00	207	166	373
05:15	202	176	378
05:30	163	169	332
05:45	139	136	275
06:00	126	156	282
06:15	161	165	326
06:30	154	155	309
06:45	167	176	343
07:00	150	125	275
07:15	164	128	292
07:30	125	104	229
07:45	124	122	246
08:00	127	127	254
08:15	131	118	249
08:30	129	83	212
08:45	113	90	203
09:00	129	89	218
09:15	118	77	195
09:30	92	76	168
09:45	72	48	120
10:00	99	105	204
10:15	107	106	213
10:30	77	72	149
10:45	55	42	97
11:00	55	37	92
11:15	54	37	91
11:30	48	27	75
11:45	44	24	68
Total	6704	6242	12946
Percent	51.8%	48.2%	
Peak	16:30	15:45	16:30
Vol.	821	718	1490
P.H.F.	0.973	0.965	0.985
Grand Total	10313	10113	20426
Percent	50.5%	49.5%	
ADT	ADT 20,426	ADT 20,426	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Aspen Ave and Zearing Ave

Start Time	17-Jun-10		Total
	Thu	Northbound Southbound	
12:00 AM		33 32	65
12:15		21 30	51
12:30		22 23	45
12:45		14 21	35
01:00		15 20	35
01:15		23 20	43
01:30		11 21	32
01:45		16 11	27
02:00		15 15	30
02:15		22 12	34
02:30		5 9	14
02:45		10 7	17
03:00		5 8	13
03:15		8 14	22
03:30		14 11	25
03:45		12 13	25
04:00		8 5	13
04:15		9 5	14
04:30		10 13	23
04:45		22 10	32
05:00		30 25	55
05:15		37 21	58
05:30		83 20	103
05:45		77 43	120
06:00		77 39	116
06:15		107 73	180
06:30		142 85	227
06:45		160 135	295
07:00		162 130	292
07:15		179 250	429
07:30		208 280	488
07:45		240 316	556
08:00		191 289	480
08:15		235 284	519
08:30		232 265	497
08:45		228 286	514
09:00		209 240	449
09:15		218 242	460
09:30		182 256	438
09:45		211 228	439
10:00		218 224	442
10:15		212 253	465
10:30		202 231	433
10:45		230 247	477
11:00		237 280	517
11:15		230 247	477
11:30		242 285	527
11:45		277 306	583
Total		5351 5880	11231
Percent		47.6% 52.4%	
Peak	11:00	07:30	11:00
Vol.	986	1169	2104
P.H.F.	0.890	0.925	0.902

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Aspen Ave and Zearing Ave

Start Time	17-Jun-10		Total
	Thu	Northbound Southbound	
12:00 PM		294 277	571
12:15		252 301	553
12:30		271 279	550
12:45		267 271	538
01:00		274 237	511
01:15		253 272	525
01:30		268 259	527
01:45		259 231	490
02:00		255 212	467
02:15		270 255	525
02:30		288 253	541
02:45		278 264	542
03:00		302 234	536
03:15		264 244	508
03:30		248 246	494
03:45		281 279	560
04:00		324 267	591
04:15		294 248	542
04:30		298 280	578
04:45		289 290	579
05:00		354 283	637
05:15		280 275	555
05:30		282 263	545
05:45		240 262	502
06:00		246 275	521
06:15		241 282	523
06:30		215 294	509
06:45		211 252	463
07:00		221 227	448
07:15		219 237	456
07:30		197 177	374
07:45		200 163	363
08:00		187 146	333
08:15		185 162	347
08:30		216 139	355
08:45		209 141	350
09:00		199 135	334
09:15		212 102	314
09:30		197 96	293
09:45		119 104	223
10:00		155 114	269
10:15		140 157	297
10:30		102 94	196
10:45		85 75	160
11:00		81 64	145
11:15		54 63	117
11:30		53 49	102
11:45		29 43	72
Total		10658 9873	20531
Percent		51.9% 48.1%	
Peak	16:15	12:00	16:30
Vol.	1235	1128	2349
P.H.F.	0.872	0.937	0.922
Grand Total	16009	15753	31762
Percent	50.4%	49.6%	
ADT	ADT 15,753	ADT 15,753	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Pueblo Bonito Ct and Mountain Rd

Start Time	17-Jun-10		Total
	Thu	Northbound Southbound	
12:00 AM		25 28	53
12:15		25 18	43
12:30		21 21	42
12:45		18 14	32
01:00		12 12	24
01:15		19 20	39
01:30		17 14	31
01:45		9 13	22
02:00		16 15	31
02:15		9 16	25
02:30		9 8	17
02:45		6 7	13
03:00		8 6	14
03:15		10 7	17
03:30		9 12	21
03:45		12 12	24
04:00		5 7	12
04:15		6 7	13
04:30		6 9	15
04:45		11 20	31
05:00		15 27	42
05:15		19 36	55
05:30		15 77	92
05:45		40 64	104
06:00		32 73	105
06:15		60 90	150
06:30		70 130	200
06:45		101 142	243
07:00		112 121	233
07:15		159 111	270
07:30		184 107	291
07:45		197 137	334
08:00		197 136	333
08:15		205 140	345
08:30		177 167	344
08:45		159 119	278
09:00		169 162	331
09:15		151 146	297
09:30		174 128	302
09:45		146 109	255
10:00		164 121	285
10:15		166 111	277
10:30		156 136	292
10:45		134 145	279
11:00		186 135	321
11:15		138 139	277
11:30		161 137	298
11:45		127 86	213
Total		3867 3498	7365
Percent		52.5% 47.5%	
Peak	07:30	08:30	07:45
Vol.	783	594	1356
P.H.F.	0.955	0.889	0.983

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

VOLUME

Between Pueblo Bonito Ct and Mountain Rd

Start Time	17-Jun-10		Total
	Thu	Northbound Southbound	
12:00 PM		116 132	248
12:15		112 130	242
12:30		157 138	295
12:45		133 114	247
01:00		121 147	268
01:15		147 160	307
01:30		110 109	219
01:45		125 157	282
02:00		144 179	323
02:15		134 148	282
02:30		112 146	258
02:45		152 171	323
03:00		120 167	287
03:15		135 115	250
03:30		142 167	309
03:45		151 160	311
04:00		142 139	281
04:15		127 134	261
04:30		139 142	281
04:45		130 129	259
05:00		141 141	282
05:15		126 121	247
05:30		150 147	297
05:45		144 107	251
06:00		163 113	276
06:15		166 138	304
06:30		176 88	264
06:45		182 114	296
07:00		164 148	312
07:15		137 135	272
07:30		128 147	275
07:45		133 161	294
08:00		110 156	266
08:15		125 139	264
08:30		116 181	297
08:45		96 160	256
09:00		103 183	286
09:15		93 200	293
09:30		78 153	231
09:45		85 102	187
10:00		91 124	215
10:15		124 106	230
10:30		82 81	163
10:45		70 78	148
11:00		59 75	134
11:15		54 48	102
11:30		45 36	81
11:45		38 24	62
Total		5828 6290	12118
Percent		48.1% 51.9%	
Peak	18:15	20:30	14:00
Vol.	688	724	1186
P.H.F.	0.945	0.905	0.918
Grand Total		9695 9788	19483
Percent		49.8% 50.2%	
ADT		ADT 19,483	AADT 19,483

APPENDIX B

SPEED DATA



Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED
MPH

Between Montano and Dietz Farm

Table with columns: Start Time, 1-76, 999, Total. Rows include times from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED
MPH

Between Montano and Dietz Farm

Table with columns: Start Time, 1-76, 999, Total. Rows include times from 12 PM to 23:45.

Grand Total row with values: 219, 14, 296, 1679, 1528, 454, 95, 12, 3, 0, 0, 0, 0, 0, 4300

Stats section with data: 15th Percentile: 26 MPH, 50th Percentile: 30 MPH, 85th Percentile: 35 MPH, 95th Percentile: 39 MPH, Mean Speed(Average): 30 MPH, 10 MPH Pace Speed: 26-35 MPH, Number in Pace: 3207, Percent in Pace: 74.6%, Number of Vehicles > 25 MPH: 3771, Percent of Vehicles > 25 MPH: 87.7%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED
MPH

Between Montano and Dietz Farm

Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include time intervals from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED
MPH

Between Montano and Dietz Farm

Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include time intervals from 12 PM to 23:45.

Grand Total row with values: 180, 17, 186, 1693, 1424, 256, 43, 5, 2, 0, 0, 0, 0, 0, 0, 0, 0, 3806

15th Percentile : 26 MPH
50th Percentile : 30 MPH
85th Percentile : 35 MPH
95th Percentile : 38 MPH

Stats Mean Speed(Average) : 30 MPH
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 3117
Percent in Pace : 81.9%
Number of Vehicles > 25 MPH : 3423
Percent of Vehicles > 25 MPH : 89.9%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Montano and Dietz Farm

Northbound, Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include times from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Montano and Dietz Farm

Northbound, Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 45, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include times from 12 PM to 23:45.

Grand Total row with values: 399, 31, 482, 3372, 2952, 710, 138, 17, 5, 0, 0, 0, 0, 0, 0, 0, 0, 0, 8106.

Stats section containing: 15th Percentile: 26 MPH, 50th Percentile: 30 MPH, 85th Percentile: 35 MPH, 95th Percentile: 39 MPH, Mean Speed(Average): 30 MPH, 10 MPH Pace Speed: 26-35 MPH, Number in Pace: 6324, Percent in Pace: 78.0%, Number of Vehicles > 25 MPH: 7194, Percent of Vehicles > 25 MPH: 88.7%.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

Between Dietz Farm Rd and Dietz Pl

SPEED MPH

Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows represent time intervals from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

Between Dietz Farm Rd and Dietz Pl

SPEED MPH

Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows represent time intervals from 12 PM to 23:45.

Grand Total row with values: 494, 85, 181, 676, 711, 166, 15, 2, 1, 0, 0, 0, 0, 0, 0, 0, 0, 3982

Stats
15th Percentile : 18 MPH
50th Percentile : 30 MPH
85th Percentile : 35 MPH
95th Percentile : 38 MPH
Mean Speed(Average) : 27 MPH
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 2740
Percent in Pace : 68.8%
Number of Vehicles > 25 MPH : 3109
Percent of Vehicles > 25 MPH : 78.1%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

SPEED MPH

Between Dietz Place and Griegos

Table with columns: Start Time, 0, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 9999, Total. Rows include times from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

SPEED MPH

Between Dietz Place and Griegos

Table with columns: Start Time, 0, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 9999, Total. Rows include times from 12 PM to 23:45.

Grand Total row with values: 104, 79, 560, 2075, 1164, 158, 39, 9, 1, 9, 10, 8, 5, 86, 4307

15th Percentile : 25 MPH
50th Percentile : 29 MPH
85th Percentile : 34 MPH
95th Percentile : 39 MPH

Stats Mean Speed(Average) : 31 MPH
10 MPH Pace Speed : 26-35 MPH
Number in Pace : 3239
Percent in Pace : 75.2%
Number of Vehicles > 25 MPH : 3564
Percent of Vehicles > 25 MPH : 82.7%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

Between Elfejo Rd and San Lorenzo Ave

SPEED MPH

Southbound

Table with columns: Start Time, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 999, Total. Rows include times from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

Between Elfejo Rd and San Lorenzo Ave

SPEED MPH

Southbound

Table with columns: Start Time, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 999, Total. Rows include times from 12:00 PM to 23:45.

Grand Total

- 15th Percentile : 27 MPH
50th Percentile : 36 MPH
85th Percentile : 41 MPH
95th Percentile : 45 MPH
Mean Speed(Average) : 33 MPH
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 3362
Percent in Pace : 65.2%
Number of Vehicles > 35 MPH : 2752
Percent of Vehicles > 35 MPH : 53.4%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

SPEED MPH

Between Elfego Rd and San Lorenzo Ave

Northbound, Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	70	71	75	76	999	Total
6:15/10	0	0	1	0	3	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
00:15	2	0	0	0	5	10	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
00:30	0	0	0	0	2	0	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
00:45	0	0	0	0	2	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
01:00	2	0	1	2	10	26	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
01:15	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
01:30	0	0	0	0	0	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
01:45	0	0	0	0	2	1	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
02:00	0	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
02:15	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
02:30	0	0	0	0	1	2	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
02:45	0	0	0	0	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
03:00	0	0	0	0	1	10	3	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
03:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
03:30	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
03:45	0	0	0	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
04:00	0	0	0	1	0	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
04:15	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
04:30	0	0	0	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:45	0	0	0	1	3	3	1	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	
05:00	0	0	0	1	3	5	4	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
05:15	0	0	0	0	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
05:30	2	0	2	2	6	11	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	27	
05:45	2	0	0	3	5	12	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	
06:00	4	0	2	6	21	25	15	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	80	
06:15	2	0	0	3	7	25	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
06:30	5	0	0	2	15	45	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75	
06:45	4	0	1	3	22	55	35	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	125	
07:00	11	0	3	13	62	152	74	13	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	333	
07:15	6	0	2	7	16	52	35	8	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	127	
07:30	7	0	1	10	29	66	37	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	
07:45	9	1	1	7	39	104	45	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	220	
08:00	13	1	4	3	37	87	34	13	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	200	
08:15	35	2	8	27	121	309	151	42	12	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	709	
08:30	12	2	3	9	32	81	50	9	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	203	
08:45	9	2	0	9	35	99	35	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	201	
09:00	13	1	4	11	31	80	33	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	181	
09:15	13	0	4	11	32	91	31	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	193	
09:30	47	5	13	39	130	351	149	35	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	778	
09:45	18	2	3	9	36	60	19	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	156	
10:00	12	3	3	10	42	59	24	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	
10:15	14	3	2	9	31	57	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	138	
10:30	15	1	0	8	30	57	23	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	140	
10:45	9	9	8	36	139	233	85	21	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	596	
11:00	23	1	3	15	45	44	26	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	159	
11:15	11	2	5	8	46	56	32	6	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	171	
11:30	13	3	2	13	41	60	23	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	163	
11:45	5	2	5	4	38	60	18	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135	
12:00	52	8	15	40	170	220	99	16	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	628	
12:15	17	2	4	10	44	42	20	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142	
12:30	8	1	3	11	49	66	19	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	161	
12:45	21	1	3	8	43	70	16	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	167	
13:00	24	0	4	9	42	55	27	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162	
Total	70	4	14	38	178	233	82	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	632	
Total	280	28	66	207	853	1569	667	151	41	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	3872	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

SPEED MPH

Between Elfego Rd and San Lorenzo Ave

Northbound, Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	45	46	50	55	56	60	65	66	70	71	75	76	999	Total
12 PM	24	0	0	3	15	51	63	30	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	192
12:15	20	2	4	17	45	79	34	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	210
12:30	17	1	1	10	46	57	32	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170
12:45	14	5	3	9	47	77	28	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	187
13:00	75	8	11	51	189	276	124	18	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	759
13:15	18	1	1	11	34	76	24	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
13:30	13	1	4	14	42	62	26	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
13:45	11	0	3	14	40	69	21	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	168
14:00	14	0	1	7	34	47	25	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	132
14:15	56	2	9	46	150	254	96	19	4																

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

Between Artesanos Ct and Oro Vista Rd

SPEED MPH

Northbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include times from 6:15/10 to 11:45 and a Total row.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

Between Artesanos Ct and Oro Vista Rd

SPEED MPH

Northbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include times from 12 PM to 23:45 and a Total row.

Grand Total row with values: 342, 26, 28, 202, 1426, 2922, 1315, 284, 46, 15, 1, 0, 0, 0, 6607

15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Stats Mean Speed(Average) : 36 MPH
10 MPH Pace Speed : 31-40 MPH
Number in Pace : 4348
Percent in Pace : 65.8%
Number of Vehicles > 35 MPH : 4583
Percent of Vehicles > 35 MPH : 69.4%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Artesanos Ct and Oro Vista Rd

Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include time intervals from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Artesanos Ct and Oro Vista Rd

Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows include time intervals from 12 PM to 23:45.

Grand Total row with values: 538, 6, 33, 171, 1281, 2992, 1560, 360, 54, 6, 4, 0, 0, 0, 0, 7005

Stats section with values: 15th Percentile: 32 MPH, 50th Percentile: 38 MPH, 85th Percentile: 43 MPH, 95th Percentile: 47 MPH, Mean Speed(Average): 36 MPH, 10 MPH Pace Speed: 36-45 MPH, Number in Pace: 4552, Percent in Pace: 65.0%, Number of Vehicles > 35 MPH: 4976, Percent of Vehicles > 35 MPH: 71.0%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Artesanos Ct and Oro Vista Rd

Northbound, Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows represent time intervals from 6:15/10 to 11:45.

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Artesanos Ct and Oro Vista Rd

Northbound, Southbound

Table with columns: Start Time, 15, 16, 20, 21, 25, 26, 30, 31, 35, 36, 40, 41, 45, 46, 50, 51, 55, 56, 60, 61, 65, 66, 70, 71, 75, 76, 999, Total. Rows represent time intervals from 12 PM to 23:45.

Grand Total row with values: 880, 32, 61, 373, 2707, 5914, 2875, 644, 100, 21, 5, 0, 0, 0, 0, 13612

15th Percentile : 32 MPH
50th Percentile : 38 MPH
85th Percentile : 43 MPH
95th Percentile : 46 MPH

Stats Mean Speed(Average) : 36 MPH
10 MPH Pace Speed : 36-45 MPH
Number in Pace : 8789
Percent in Pace : 64.6%
Number of Vehicles > 35 MPH : 9559
Percent of Vehicles > 35 MPH : 70.2%

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Campbell Rd and Vicic Rd

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total
6/15/10	0	0	0	0	3	7	2	2	0	0	0	0	0	0	0	14
00:15	0	0	0	0	2	3	1	1	0	0	0	0	0	0	0	7
00:30	0	0	0	0	2	1	2	0	1	0	0	0	0	0	0	6
00:45	0	0	0	0	1	3	2	1	0	0	0	0	0	0	0	7
01:00	0	0	0	0	6	13	9	4	2	0	0	0	0	0	0	34
01:15	0	0	0	1	0	3	1	1	0	0	0	0	0	0	0	6
01:30	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	3
01:45	0	0	0	0	1	2	1	0	1	0	0	0	0	0	0	5
02:00	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	3
02:15	0	0	0	0	1	2	5	2	1	1	0	0	0	0	0	17
02:30	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	4
02:45	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	2
03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
03:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:30	0	0	0	0	1	0	2	0	0	0	0	0	0	0	0	3
03:45	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	4
04:00	0	0	0	0	2	3	3	0	0	0	0	0	0	0	0	8
04:15	0	0	0	1	0	1	2	1	0	0	0	0	0	0	0	5
04:30	0	0	0	0	1	2	2	0	0	0	0	0	0	0	0	5
04:45	0	0	0	0	1	0	2	1	2	0	0	0	0	0	0	6
05:00	0	0	0	2	1	5	5	4	0	0	0	0	0	0	0	17
05:15	0	0	1	1	7	3	1	1	0	0	0	0	0	0	0	14
05:30	0	0	0	1	3	2	5	2	0	0	0	0	0	0	0	13
05:45	1	0	0	1	2	9	4	2	1	0	0	0	0	0	0	20
06:00	1	0	2	4	14	20	15	9	2	0	0	0	0	0	0	67
06:15	0	2	1	2	6	10	9	2	0	1	0	0	0	0	0	33
06:30	0	0	1	1	9	18	16	10	1	0	0	0	0	0	0	56
06:45	3	0	0	6	7	18	15	7	2	0	2	0	0	0	0	60
07:00	4	0	0	2	11	21	28	12	2	0	0	0	0	0	0	80
07:15	7	2	2	11	33	67	68	31	5	1	2	0	0	0	0	229
07:30	2	0	2	2	10	31	32	6	2	0	0	0	0	0	0	87
07:45	8	1	0	2	14	25	43	12	1	0	0	0	0	0	0	106
08:00	5	1	1	4	13	61	64	8	2	1	0	0	0	0	0	160
08:15	6	0	0	1	24	54	62	19	6	1	0	0	0	0	0	173
08:30	21	2	3	9	61	171	201	45	11	2	0	0	0	0	0	526
08:45	5	0	0	3	20	50	38	11	1	0	0	0	0	0	0	128
09:00	7	0	0	5	23	50	50	11	0	1	0	0	0	0	0	147
09:15	8	0	1	6	19	44	39	5	0	0	0	0	0	0	0	122
09:30	10	1	2	1	18	46	49	16	4	0	0	0	0	0	0	147
09:45	30	1	3	15	80	190	176	43	5	1	0	0	0	0	0	544
10:00	5	0	1	4	20	46	25	9	2	0	0	0	0	0	0	112
10:15	10	0	0	4	18	36	22	8	1	0	0	0	0	0	0	99
10:30	11	1	1	8	29	32	18	5	0	0	0	0	0	0	0	105
10:45	9	1	0	5	25	30	32	5	2	0	0	0	0	0	0	109
11:00	35	2	2	21	92	144	97	27	5	0	0	0	0	0	0	425
11:15	6	2	2	11	22	44	12	10	2	0	0	0	0	0	0	111
11:30	7	0	1	7	21	53	29	6	1	0	0	0	0	0	0	125
11:45	5	0	1	5	21	47	18	13	2	0	0	0	0	0	0	112
12:00	11	0	1	6	32	39	31	13	0	1	0	0	0	0	0	134
12:15	29	2	5	29	96	183	90	42	5	1	0	0	0	0	0	482
12:30	7	0	0	5	20	36	22	8	0	0	0	0	0	0	0	98
12:45	2	0	1	5	21	47	30	9	2	0	0	0	0	0	0	117
13:00	5	0	1	3	27	42	35	8	2	0	0	0	0	0	0	123
13:15	5	0	2	8	22	42	31	14	0	1	0	0	0	0	0	125
13:30	19	0	4	21	90	167	118	39	4	1	0	0	0	0	0	463
Total	142	9	21	115	477	971	789	248	40	7	2	0	0	0	0	2821

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Campbell Rd and Vicic Rd

Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	999	Total
12 PM	7	0	1	4	21	34	32	11	3	1	0	0	0	0	0	114
12:15	10	0	2	7	20	42	37	9	1	1	0	0	0	0	0	129
12:30	7	0	1	5	28	38	34	13	1	0	0	0	0	0	0	127
12:45	7	1	1	4	20	50	35	8	0	0	0	0	0	0	0	126
13:00	31	1	5	20	89	164	138	41	5	2	0	0	0	0	0	496
13:15	6	0	0	5	19	46	30	8	0	0	0	0	0	0	0	114
13:30	10	0	3	6	14	36	24	5	0	0	0	0	0	0	0	98
13:45	5	0	0	7	13	27	27	7	1	1	1	0	0	0	0	89
14:00	26	0	3	22	69	139	112	26	1	1	1	0	0	0	0	400
14:15	11	0	0	7	24	52	24	13	0	0	0	0	0	0	0	131
14:30	2	0	0	2	19	40	27	6	0	0	0	0	0	0	0	96
14:45	6	0	1	1	22	41	26	10	3	1	0	0	0	0	0	111
15:00	19	0	0	7	13	24	33	6	1	0	0	0	0	0	0	103
15:15	38	0	1	17	78	157	110	35	4	1	0	0	0	0	0	441
15:30	29	0	2	1	21	35	28	11	0	0	0	0	0	0	0	127
15:45	17	0	0	4	16	35	16	7	2	1	0	0	0	0	0	98
16:00	26	0	3	6	29	44	34	8	1	0	0	0	0	0	0	151
16:15	17	0	2	3	13	46	31	13	0	0	0	0	0	0	0	125
16:30	89	0	7	14	79	160	109	39	3	1	0	0	0	0	0	501
16:45	25	0	1	10	19	36	40	8	2	1	0	0	0	0	0	142
17:00	20	2	0	5	20	37	29	10	1	1	0	0	0	0	0	125
17:15	32	0	2	6	17	41	38	7	0	0	0	0	0	0	0	143
17:30	31	0	0	3	15	46	25	7	2	0	0	0	0	0	0	129
17:45	108	2	3	24	71	160	132	32	5	2	0	0	0	0	0	539
18:00	29	0	0	1	21	64	45	11	0	0	0	0	0	0	0	171
18:15	33	0	1	5	17	45	36	16	4	0	0	0	0	0	0	157
18:30	38	0	0	2	21	48	36	7	3	0	0	0	0	0	0	155
18:45	26	0	0	1	12	31	31	10	2	0	0	0	1	0	0	114
19:00	126	0	1	9	71	188	148									

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

**SPEED
MPH**

Between Plaza Vizcaya and El Nido Rd

Northbound	Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
	6/15/10	0	0	0	0	2	4	5	0	0	0	0	0	0	0	11
	00:15	0	0	0	0	2	5	4	2	0	0	0	0	0	0	13
	00:30	0	0	0	0	1	1	6	2	0	0	0	0	0	0	10
	00:45	1	0	1	0	1	4	2	1	0	0	0	0	0	0	10
	01:00	0	0	0	0	1	3	0	0	0	1	0	0	0	0	5
	01:15	0	0	0	0	1	0	5	2	0	0	0	0	0	0	8
	01:30	0	0	0	1	2	5	3	2	0	0	0	0	0	0	13
	01:45	0	0	0	0	0	2	4	1	0	0	0	0	0	0	7
	02:00	0	0	0	0	1	3	8	15	5	0	1	0	0	0	33
	02:15	0	0	0	0	0	0	1	1	0	0	0	0	0	0	2
	02:30	0	0	0	0	0	1	1	0	3	0	0	0	0	0	5
	02:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
	03:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	03:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
	03:30	0	0	0	0	1	1	2	0	0	0	0	0	0	0	4
	03:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	04:00	0	0	0	0	1	2	3	0	0	0	0	0	0	0	6
	04:15	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
	04:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
	04:45	0	0	0	0	0	2	3	0	1	0	0	0	0	0	6
	05:00	0	0	0	1	1	0	2	1	0	0	0	0	0	0	5
	05:15	0	0	0	0	2	4	4	0	0	0	0	0	0	0	10
	05:30	1	0	0	2	0	11	3	3	1	0	0	0	0	0	21
	05:45	1	0	0	0	1	4	15	5	3	1	0	0	0	0	30
	06:00	2	0	0	3	4	19	24	9	4	1	0	0	0	0	66
	06:15	2	0	0	1	2	8	7	8	1	0	0	0	0	0	29
	06:30	3	0	1	0	1	15	13	14	1	1	0	0	0	0	49
	06:45	4	0	0	1	1	11	19	8	3	0	0	0	0	0	47
	07:00	8	0	0	0	2	20	32	9	7	0	0	0	0	0	78
	07:15	17	0	1	2	6	54	71	39	12	1	0	0	0	0	203
	07:30	5	0	0	0	5	13	28	22	8	0	0	0	0	0	81
	07:45	5	0	0	0	2	7	39	13	6	1	1	0	0	0	74
	08:00	7	0	0	0	2	20	38	27	9	0	0	0	0	0	103
	08:15	15	1	0	1	4	31	42	27	12	2	0	0	0	0	135
	08:30	32	1	0	1	13	71	147	89	35	3	1	0	0	0	393
	08:45	11	1	0	0	1	26	30	33	4	1	0	0	0	0	107
	09:00	9	0	2	1	7	36	41	20	4	0	0	0	0	0	120
	09:15	3	0	0	0	0	38	34	17	7	1	0	0	0	0	100
	09:30	16	0	0	0	3	29	48	21	3	0	1	0	0	0	121
	09:45	39	1	2	1	11	128	153	91	18	2	1	0	0	0	448
	10:00	10	0	1	0	3	19	61	24	4	1	0	0	0	0	123
	10:15	8	0	0	0	6	23	44	15	7	0	0	0	0	0	103
	10:30	9	0	0	0	6	28	34	16	6	1	0	0	0	0	100
	10:45	4	0	0	1	2	25	32	22	4	3	0	0	0	0	93
	11:00	31	0	1	1	17	95	171	77	21	5	0	0	0	0	419
	11:15	8	0	0	0	2	24	39	14	4	1	0	0	0	0	92
	11:30	13	0	0	1	5	34	37	18	1	1	0	0	0	0	110
	11:45	8	0	0	2	8	26	39	19	4	0	0	0	0	0	106
	12:00	14	0	0	0	5	25	36	14	1	1	0	0	0	0	96
	12:15	43	0	0	3	20	109	151	65	10	3	0	0	0	0	404
	12:30	10	0	0	0	1	8	46	24	5	2	0	0	0	0	96
	12:45	12	0	0	0	8	36	39	16	3	0	1	0	0	0	115
	13:00	12	0	1	0	2	29	61	18	3	1	0	0	0	0	127
	13:15	19	0	0	0	1	27	59	22	4	0	0	0	0	0	132
	13:30	53	0	1	0	12	100	205	80	15	3	1	0	0	0	470
	Total	218	2	6	12	94	609	965	464	119	19	3	0	0	0	2511

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

**SPEED
MPH**

Between Plaza Vizcaya and El Nido Rd

Northbound	Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
	12 PM	10	0	0	0	5	32	44	30	9	1	0	0	0	0	131
	12:15	12	0	0	2	4	38	52	32	8	0	0	0	0	0	148
	12:30	19	0	1	0	5	35	50	26	11	0	0	0	0	0	147
	12:45	10	0	0	0	0	18	61	31	3	1	0	0	0	0	124
	13:00	51	0	1	2	14	123	207	119	31	2	0	0	0	0	550
	13:15	11	0	0	1	6	29	68	25	5	0	0	0	0	0	145
	13:30	16	0	0	0	8	38	62	21	5	0	0	0	0	0	150
	13:45	16	0	0	1	10	36	42	25	5	2	0	0	0	0	137
	14:00	6	0	0	0	7	27	43	29	1	0	0	0	0	0	113
	14:15	49	0	0	2	31	130	215	100	16	2	0	0	0	0	545
	14:30	6	0	0	0	5	31	48	22	4	2	0	0	0	0	118
	14:45	8	0	0	0	5	28	42	27	5	0	0	0	0	0	115
	15:00	9	0	0	0	8	20	46	34	8	1	0	0	0	0	126
	15:15	11	0	1	1	4	25	52	30	6	1	0	0	0	0	131
	15:30	34	0	1	1	22	104	188	113	23	4	0	0	0	0	490
	15:45	11	0	1	0	1	26	51	37	8	2	0	0	0	0	137
	16:00	13	0	0	1	1	26	62	43	5	2	0	0	0	0	153
	16:15	14	0	0	0	1	40	48	26	7	1	0	0	0	0	137
	16:30	14	0	1	4	1	30	61	32	6	1	0	0	0	0	150
	16:45	52	0	2	5	4	122	222	138	26	6	0	0	0	0	577
	17:00	10	0	0	1	1	28	59	38	9	1	1	0	0	0	148
	17:15	17	0	0	0	4	3	41	62	31	7	2	0	0	0	167
	17:30	20	4	7	3	10	45	53	32	3	0	0	0	0	0	177
	17:45	19	0	0	1	0	34	88	45	9	2	0	0	0	0	198
	18:00	66	4	7	9	14	148	262	146	28	5	1	0	0	0	690
	18:15	22	0	0	1	3	21	94	38	8	2	0	0	0	0	189
	18:30	16	0	1	0	3	45	104	38	7	0	0	0	0	0	214
	18:45	16	0	0	0	1	24	88	41	3	0	0	0	0	0	173
	19:00	8	0	0	0	4	23	88	44	4	1	0	0	0	0	172
	19:15	62	0	1	1	11	113	374	161	22	3	0	0	0	0	748
	19:30	10	0	0	0	1	28	77	30	9	1	0	0	0	0	156
	19:45	5	0	1	0	3	21	69	50	7	0	1	0	0	0	157
	20:00	14	0	1	1	8	31	61	31	3	0	0	0	0	0	150
	20:15	9	0	0	1	1	20	61	32	4	1	0	1	0	0	130
	20:30	38	0	2	2	13	100	268	143	23	2	1	1	0	0	593
	20:45	10	0	0	3	5	23	38	28	3	2	0	0	0	0	112
	21:00	8	0	0	2	0	33	44	20	7	1	0	0	0	0	115
	21:15	8	0	0	1	3	21	55	17	3	0	0	0	0	0	108
	21:30	5	0	1	0	3	22	46	21	2	0	0	0	0	0	100
	21:45	31	0	1	6	11	99	183	86	15	3	0	0	0	0	435
	22:00	7	1	1	3	10	40	45	23	3	0	0	0	0	0	133
	22:15	7	0	0	1	4	26	31	11	2	1	0	0	0	0	83
	22:30	4	0	0	1	5	18	37	12	2	1	0	0	0	0	81
	22:45	0	0	0	0	9	23	27	9	2	0	0	0	0	0	74
	23:00	22	2	1	5	28	107	140	55	9	2	0	0	0		

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

**SPEED
MPH**

Between Plaza Vizcaya and El Nido Rd

Southbound

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
6:15/10	0	0	0	0	2	5	4	1	0	1	0	0	0	0	13
00:15	0	0	0	0	0	2	3	2	0	0	1	0	0	0	8
00:30	0	0	0	0	0	2	0	1	0	0	0	0	0	0	3
00:45	0	0	0	0	0	1	3	2	0	0	0	0	0	0	6
01:00	0	0	0	0	2	10	10	6	0	1	1	0	0	0	30
01:15	0	0	0	0	0	2	0	2	0	0	0	0	0	0	4
01:30	0	0	0	0	0	1	1	1	0	0	0	0	0	0	3
01:45	0	0	0	0	0	2	3	0	0	0	0	0	0	0	5
02:00	0	0	0	0	0	1	1	2	0	0	0	0	0	0	4
02:15	0	0	0	0	0	6	5	5	0	0	0	0	0	0	16
02:30	0	0	0	0	0	2	1	1	0	0	0	0	0	0	5
02:45	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:00	0	1	1	0	0	4	1	2	0	0	0	0	0	0	9
03:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03:30	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
03:45	0	0	0	0	0	1	2	0	0	0	0	0	0	0	3
04:00	0	0	0	0	0	3	1	0	0	0	0	0	0	0	4
04:15	0	0	0	0	0	5	4	0	0	0	0	0	0	0	9
04:30	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
04:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	2
05:00	0	0	0	0	0	1	3	4	2	1	0	0	0	0	11
05:15	0	0	0	0	1	3	7	12	4	1	1	0	0	0	29
05:30	0	0	0	0	0	3	7	2	4	0	0	0	0	0	16
05:45	1	0	0	0	1	0	5	4	0	0	0	0	0	0	16
06:00	1	0	0	0	1	0	6	11	4	1	0	0	0	0	24
06:15	0	0	0	0	0	1	8	9	5	0	1	0	0	0	24
06:30	2	0	0	0	2	4	26	27	17	1	1	0	0	0	80
06:45	0	0	0	0	3	3	16	18	9	0	1	0	0	0	50
07:00	1	0	1	1	4	12	32	9	5	1	0	0	0	0	66
07:15	5	1	1	0	4	23	28	13	4	3	1	0	0	0	83
07:30	7	1	0	0	2	4	24	3	0	1	0	0	0	0	108
07:45	13	2	2	6	15	75	120	55	12	5	2	0	0	0	307
08:00	2	1	0	0	2	27	55	23	3	0	0	0	0	1	114
08:15	7	0	0	0	2	6	27	60	27	2	1	0	0	0	132
08:30	12	0	0	1	5	35	84	29	6	0	1	0	0	0	173
08:45	13	0	0	0	8	51	89	36	7	1	0	0	0	0	205
09:00	34	1	0	3	21	140	288	115	18	2	1	0	0	1	624
09:15	9	0	0	2	11	47	70	20	3	1	0	0	0	0	163
09:30	9	0	0	1	9	37	74	28	3	0	0	0	0	0	161
09:45	8	0	0	1	0	4	40	63	20	5	2	0	0	0	143
10:00	12	0	0	1	6	60	56	32	7	2	0	0	0	0	176
10:15	38	0	1	4	30	184	263	100	18	5	0	0	0	0	643
10:30	7	1	1	1	8	36	41	22	4	2	0	0	0	0	123
10:45	5	1	0	1	12	41	52	18	7	1	0	0	0	0	138
11:00	5	1	0	0	7	38	50	19	8	1	0	0	0	0	129
11:15	10	2	2	1	8	38	50	25	2	0	0	0	0	0	138
11:30	27	5	3	3	35	153	193	84	21	4	0	0	0	0	528
11:45	5	1	2	1	14	47	35	12	3	3	0	0	0	0	123
12:00	10	0	1	0	12	48	53	10	1	0	0	0	0	0	135
12:15	6	0	0	2	6	46	47	19	4	1	0	0	0	0	131
12:30	12	1	0	1	9	50	53	18	4	1	0	0	0	0	149
12:45	33	2	3	4	41	191	188	59	12	5	0	0	0	0	538
13:00	8	0	1	0	8	49	40	16	6	0	0	0	0	0	128
13:15	6	0	0	0	13	57	50	7	2	0	0	0	0	0	135
13:30	10	0	0	1	14	40	45	14	6	1	0	0	0	0	131
13:45	13	0	2	0	14	44	38	20	6	0	0	0	0	0	137
14:00	37	0	3	1	49	190	173	57	20	1	0	0	0	0	531
Total	184	11	13	24	200	991	1284	504	103	25	4	0	0	1	3344

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

**SPEED
MPH**

Between Plaza Vizcaya and El Nido Rd

Southbound

Start Time	15	20	25	30	35	40	45	50	55	60	65	70	75	999	Total
12 PM	5	0	0	2	16	34	51	18	2	0	1	0	0	0	129
12:15	5	0	0	1	10	36	58	17	3	2	0	0	0	0	132
12:30	12	0	0	1	8	47	50	16	2	1	0	0	0	0	137
12:45	4	0	2	0	10	50	53	14	1	0	0	0	0	0	134
13:00	26	0	2	4	44	167	212	65	8	3	1	0	0	0	532
13:15	8	2	0	4	13	33	51	15	2	1	0	0	0	0	129
13:30	6	1	1	0	11	36	42	6	2	0	0	0	0	0	105
13:45	8	0	2	1	13	29	35	19	2	1	0	0	0	0	110
14:00	4	0	2	1	4	33	44	23	7	0	0	0	0	0	118
14:15	26	3	5	6	41	131	172	63	13	2	0	0	0	0	462
14:30	7	0	0	0	9	40	55	20	5	0	0	0	0	0	136
14:45	6	0	0	2	11	27	48	11	2	0	0	0	0	0	107
15:00	2	0	0	0	14	54	42	15	4	0	0	0	0	0	131
15:15	11	1	0	4	10	29	46	16	6	1	0	0	0	0	124
15:30	26	1	0	6	44	150	191	62	17	1	0	0	0	0	498
15:45	9	0	0	2	11	50	36	18	3	0	0	0	0	0	129
16:00	3	2	1	3	15	34	30	15	2	2	0	0	0	0	107
16:15	9	0	0	0	16	50	48	14	3	1	0	0	0	0	141
16:30	5	0	2	0	8	54	53	18	3	0	0	0	0	0	143
16:45	26	2	3	5	50	188	167	65	11	3	0	0	0	0	520
17:00	9	0	1	2	7	44	47	20	3	1	0	0	0	0	134
17:15	6	1	0	1	14	45	51	17	4	1	3	0	0	0	143
17:30	13	1	3	8	15	55	34	16	0	0	0	0	0	0	145
17:45	15	0	0	2	12	50	29	15	6	0	0	0	0	0	129
18:00	43	2	4	13	48	194	161	68	13	2	3	0	0	0	551
18:15	13	0	0	1	13	54	65	15	2	0	0	0	0	0	163
18:30	7	1	3	4	7	56	57	26	5	0	0	0	0	0	166
18:45	9	0	1	1	22	46	43	19	2	0	0	0	0	0	143
19:00	7	0	0	1	7	38	51	11	1	0	0	0	0	1	117
19:15	36	1	4	7	49	194	216	71	10	0	0	0	1	0	589
19:30	6	0	0	0	10	44	37	10	2	0	0	0	0	0	109
19:45	7	0	1	2	6	34	38	11	4	1	1	0	0	0	105
20:00	11	1	2	2	2	39	51	15	2	0	0	0	0	0	125
20:15	2	2	0	0	8	35	51	15	7	2	1	0	0	0	123
20:30	26	3	3	4	26	152	177	51	15	3	2	0	0	0	462
20:45	6	0	0	0	8	27	44	11	3	0	0	0	0	0	99
21:00	7	0	1	2	10	39	38	13	2	1	0	0	0	0	113
21:15	4	1	0	1	9	22	28	13	3	0	0	0	0	0	81
21:30	2	0	1	0	3	26	23	13	3	1	0	0	0	0	72
21:45	19	1	2	3	30	114	133	50	11	2	0	0	0	0	365
22:00	3	0	0	1	9	27	35	8	1	0	1	0	0	0	85
22:15	5	0	0	0	4	37	27	10	3	0	0	0	0	0	86
22:30	3	0	0	1	10	26	13	4	0	1	0	0	0	0	58
22:45	2	1	0	4	13	33	19	5	1	0	0	0	0	0	78
23:00	13	1	0	6	36	123	94	27	5	1	1	0	0	0	307
23:15	1	0	0	2	19	30	19	4	0	0					

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

**SPEED
MPH**

Between Plaza Vizcaya and El Nido Rd

Northbound, Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
6/15/10	0	0	0	0	0	0	4	9	9	1	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	24
00:15	0	0	0	0	0	2	7	7	4	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	21	
00:30	0	0	0	0	0	1	3	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
00:45	1	0	1	0	1	5	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16	
01:00	1	0	1	0	8	24	27	11	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	74	
01:15	0	0	0	0	0	0	3	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
01:30	0	0	0	0	0	1	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
01:45	0	0	0	0	1	2	7	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18	
02:00	0	0	0	0	0	3	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
02:15	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	
02:30	0	1	0	0	0	1	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
02:45	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
03:00	0	1	1	0	0	6	3	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
03:15	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
03:30	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	
03:45	0	0	0	0	0	1	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
04:00	0	0	0	0	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
04:15	0	0	0	0	0	1	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
04:30	0	0	0	0	0	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	
04:45	0	0	0	0	0	2	2	6	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
05:00	0	0	0	0	1	4	13	18	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
05:15	1	0	0	0	1	4	7	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
05:30	2	0	0	0	3	0	17	14	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26	
05:45	1	0	0	0	2	12	24	10	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	45	
06:00	4	0	0	0	5	8	45	51	26	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	54	
06:15	2	0	0	0	4	5	24	25	17	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	146	
06:30	4	0	2	1	5	27	45	23	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	79	
06:45	9	1	1	1	5	34	47	21	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	115	
07:00	15	1	0	2	6	44	74	33	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	
07:15	30	2	3	8	21	129	191	94	24	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	186	
07:30	7	1	0	0	7	40	83	45	11	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	510	
07:45	12	0	0	2	8	34	99	40	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	195	
08:00	19	0	0	1	7	55	122	56	15	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	206	
08:15	28	1	0	1	12	82	131	63	19	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	276	
08:30	66	2	0	4	34	211	435	204	53	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	340	
08:45	20	1	0	2	12	73	100	53	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1017	
09:00	18	0	2	2	16	73	115	48	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	270	
09:15	11	0	1	0	4	78	87	37	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	281	
09:30	28	0	0	1	9	89	104	53	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	243	
09:45	77	1	3	5	41	313	416	191	36	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	297	
10:00	17	1	2	1	11	55	102	46	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1001	
10:15	13	1	0	1	18	64	96	33	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	246	
10:30	14	1	0	0	13	66	84	35	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	241	
10:45	14	2	2	2	10	63	82	47	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	229	
11:00	58	5	4	4	52	248	364	161	42	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	231	
11:15	13	1	2	1	16	71	74	26	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	947	
11:30	23	0	1	1	17	82	90	28	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	215	
11:45	14	0	0	4	14	72	86	38	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	245	
12:00	26	1	0	1	14	75	89	32	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	237	
12:15	76	2	3	7	61	300	339	124	22	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	245	
12:30	18	0	1	0	9	57	86	40	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	942	
12:45	18	0	0	0	21	93	89	23	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224	
13:00	22	0	1	1	16	69	106	32	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	
13:15	32	0	2	0	15	71	97	42	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258	
13:30	90	0	4	1	61	290	378	137	35	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	289	
13:45	90	0	4	1	61	290	378	137	35	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1001	
Total	402	13	19	36	294	1600	2249	968	222	44	7	0	0	0	1	5855												

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd

**SPEED
MPH**

Between Plaza Vizcaya and El Nido Rd

Northbound, Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
12 PM	15	0	0	0	2	21	66	95	48	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	260	
12:15	17	0	0	3	14	74	110	49	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280	
12:30	31	0	1	1	13	82	100	42	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	284	
12:45	14	0	2	0	10	68	114	45	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	258	
13:00	77	0	3	6	58	290	419	184																				

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Rice Ave and San Francisco Rd

Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	76	999	Total
6/17/10	0	0	0	0	6	12	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25
00:15	0	0	0	0	1	14	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
00:30	0	0	0	1	4	9	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
00:45	0	0	0	0	5	5	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
01:00	0	0	0	1	16	40	19	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	81
01:15	0	0	0	2	5	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
01:30	1	1	1	0	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
01:45	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
01:45	0	1	0	0	3	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
02:00	2	2	4	0	9	12	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	41
02:15	0	0	0	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
02:30	0	0	0	1	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
02:45	0	0	0	1	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
03:00	0	0	0	0	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
03:15	0	0	0	0	2	8	5	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	26
03:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
03:45	0	0	0	0	1	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
04:00	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:15	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
04:30	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
04:45	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
05:00	0	0	0	0	1	12	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
05:15	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
05:30	0	0	0	1	2	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
05:45	0	0	0	1	5	2	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
06:00	0	0	0	1	1	5	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13
06:15	0	0	0	3	9	13	14	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43
06:30	0	0	0	1	5	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
06:45	0	0	0	0	3	14	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28
07:00	2	0	2	2	5	10	10	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
07:15	0	0	0	0	1	14	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
07:30	2	0	3	10	43	37	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109
07:45	3	0	1	0	13	10	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32
08:00	2	1	2	7	26	29	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	75
08:15	5	0	1	3	29	32	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	86
08:30	7	0	2	3	28	48	12	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	108
08:45	17	1	6	13	96	119	34	12	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	301
09:00	7	0	2	5	41	56	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123
09:15	17	0	1	23	36	47	15	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	141
09:30	23	1	3	11	82	46	14	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	181
09:45	21	0	6	22	66	63	14	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	194
10:00	68	1	12	61	225	212	52	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	639
10:15	11	1	7	15	61	43	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149
10:30	13	0	3	8	74	38	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	145
10:45	19	0	7	23	80	53	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	180
11:00	19	1	5	32	97	36	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	197
11:15	53	2	22	78	312	170	33	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	671
11:30	18	0	2	42	71	31	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	175
11:45	11	0	7	27	76	31	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	157
12:00	12	2	1	26	84	35	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	164
12:15	10	0	3	25	91	34	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	169
12:30	51	2	13	120	322	138	18	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	665
12:45	9	1	1	30	67	35	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	149
13:00	13	0	3	31	73	21	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	147
13:15	11	0	6	25	52	25	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123
13:30	3	1	6	27	78	38	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162
13:45	36	2	16	113	270	119	23	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	581
14:00	12	0	10	33	83	29	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	174
14:15	17	1	8	48	54	22	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	159
14:30	19	1	4	24	84	33	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	170
14:45	13	0	5	33	88	44	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	190
15:00	61	2	27	138	309	128	24	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	693
Total	290	12	109	576	1659	980	207	33	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3871

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Aspen Ave and Zearing Ave

Northbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	999	Total
6/17/10	1	0	1	0	13	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	33
00:15	2	1	1	2	2	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21
00:30	1	0	1	3	4	9	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
00:45	2	0	0	0	3	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
01:00	6	1	3	5	22	41	10	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90
01:15	0	0	0	0	5	7	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
01:30	0	0	1	1	14	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23
01:45	0	0	0	1	3	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11
02:00	0	3	2	1	5	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	16
02:15	0	3	3	3	27	16	10	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	65
02:30	0	0	1	1	3	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
02:45	1	2	2	2	6	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
03:00	0	0	0	0	0	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
03:15	1	2	3	5	16	14	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
03:30	0	0	0	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
03:45	1	0	0	0	1	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
04:00	2	0	0	0	7	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14
04:15	0	0	0	1	2	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12
04:30	3	0	0	1	11	19	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39
04:45	1	0	0	0	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8
05:00	1	0	0	0	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9
05:15	0	0	2	1	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10
05:30	1	0	2	7	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22
05:45	3	0	4	3	19	14	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49
06:00	3	1	2	1	11	8	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30
06:15	1	0	0	1	11	17	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	37
06:30	3	0	2	12	24	29	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	83
06:45	3	0	3	13	12	24	13	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
07:00	10	1	7	27	58	78	32	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	227
07:15	4	2	8	3	16	20	19	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77
07:30	11	1	5	11	26	39	9	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	107
07:45	11	10	14	29	35	30	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	142
08:00	20	4	6	28	35	46	17	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	160
08:15	46	17	33	71	112	135	56	15	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	486
08:30	13	6	17	23	51	35	11	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	162
08:45	19	4	12	38	55	37	13	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	179
09:00	28	1	23	41	62	33	18	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	208
09:15	22	6	18	54	61	55	18	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240
09:30	82	17	70	156	229	160	60	11	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	789
09:45	24	4	25	34	57	35	8	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191
10:00	33	4	24	45	72	45	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	235
10:15	35	6	23	58	61	39	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	232
10:30	26	11	21	46	66	40	16	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228
10:45	118	25	93	183	256	159	43	9	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	886
11:00	19	8	26	47	73	27	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	209
11:15	27	8	20	59	66	34	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	218
11:30	24	7	27	33	56	29	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	182
11:45	20	13	23	51	67	30	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	211
12:00	90	36	96	190	262	120	20	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	820
12:15	21	6	28	64	54	38	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	218
12:30	35	16	28	42	60	22	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	212
12:45	25	11	28	43	62	31	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	202
13:00	24	7	30	49	64	46	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230
13:15	105	40	114	198	240	137	24	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	862
13:30	34	17	46	63	26	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	237
13:45	24	8	34	51	78	25	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	230
14:00	32	7	25	50	83	40	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242
14:15	31	9	36	70	91	33	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	277
Total	121	41	141	217	315	124	23	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	986
Total	585	183	567	1059	1567	1017	296	63	9	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	5351

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Aspen Ave and Zearing Ave

Northbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	66	70	71	75	999	Total
12 PM	41	16	33	83	89	28	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	294
12:15	40	33	54	58	41	25	1	0	0	0</																	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Aspen Ave and Zearing Ave

Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	70	71	75	76	999	Total
6/17/10	2	0	0	0	2	11	13	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	32	
00:15	0	0	1	2	14	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30	
00:30	0	0	0	0	7	14	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	23	
00:45	0	0	0	4	9	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
01:00	2	0	1	8	41	40	10	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106	
01:15	0	0	1	0	8	10	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
01:30	0	0	1	1	6	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
01:45	1	0	0	2	11	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
02:00	2	1	0	1	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
02:15	3	1	2	4	26	31	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	
02:30	0	0	0	1	7	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15	
02:45	0	0	0	1	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	
03:00	0	0	0	1	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	
03:15	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
03:30	2	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7	
03:45	1	0	0	0	1	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
04:00	1	1	1	1	0	4	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	
04:15	0	0	0	1	4	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	
04:30	4	0	0	1	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
04:45	6	1	1	2	14	18	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	46	
05:00	0	0	0	0	0	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
05:15	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
05:30	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	
05:45	0	3	0	2	11	14	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	13	
06:00	2	0	3	2	6	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	
06:15	0	1	2	0	5	10	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	21	
06:30	2	2	1	0	5	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	20	
06:45	3	4	0	1	12	14	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	
07:00	7	7	6	3	28	43	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	109	
07:15	2	2	2	5	8	14	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	39	
07:30	3	1	4	7	18	24	16	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	73	
07:45	5	3	7	7	19	30	12	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	85	
08:00	10	3	2	8	41	51	17	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	135	
08:15	20	9	15	27	86	119	49	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	332	
08:30	7	5	5	9	32	46	20	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	
08:45	9	2	7	23	89	92	23	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	250	
09:00	13	5	23	38	88	81	29	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280	
09:15	20	7	27	61	108	72	20	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	316	
09:30	49	19	62	131	317	291	92	15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	976	
09:45	17	15	12	44	92	77	24	7	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	289	
10:00	18	1	18	58	87	76	21	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	284	
10:15	25	6	16	45	86	67	16	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	265	
10:30	19	7	6	60	122	53	15	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	286	
10:45	70	29	52	207	387	273	76	19	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1124	
11:00	16	8	16	47	90	51	11	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	240	
11:15	13	18	31	64	66	38	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	242	
11:30	18	14	32	71	86	33	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	256	
11:45	48	19	46	57	47	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	228	
12:00	95	59	125	239	289	129	29	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	966	
12:15	24	18	38	44	82	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	224	
12:30	58	27	30	58	65	13	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	253	
12:45	7	11	25	51	75	50	12	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	231	
13:00	10	7	29	59	71	54	12	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	247	
13:15	99	63	122	212	293	131	30	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	955	
13:30	17	9	33	66	84	58	12	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	280	
13:45	12	13	18	50	92	49	11	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	247	
14:00	18	9	18	86	93	45	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	285	
14:15	21	20	57	76	97	30	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	306	
14:30	68	51	126	278	366	182	40	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1118	
Total	430	242	512	1116	1879	1283	353	58	5	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5880	

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

**SPEED
MPH**

Between Aspen Ave and Zearing Ave

Southbound

Start Time	15	16	20	21	25	26	30	31	35	36	40	41	45	46	50	51	55	56	60	61	65	70	71	75	76	999	Total
12 PM	14	13	45	81	72	33	17	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	277	
12:15	20	21	57	74	81	39	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	301	
12:30	19	5	34	72	82	56	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	279	
12:45	17	16	29	73	87	40	8	1	0	0	0	0															

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Aspen Ave and Zearing Ave

Northbound, Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
6/17/10	3	0	1	2	24	27	7	1	0	0	0	0	0	0	65
00:15	2	1	2	4	16	21	5	0	0	0	0	0	0	0	51
00:30	1	0	1	3	11	23	4	0	2	0	0	0	0	0	45
00:45	2	0	0	4	12	10	4	2	1	0	0	0	0	0	35
01:00	8	1	4	13	63	81	20	3	3	0	0	0	0	0	196
01:15	0	0	1	0	13	17	2	1	0	0	0	1	0	0	35
01:30	0	0	2	2	20	14	5	0	0	0	0	0	0	0	43
01:45	1	0	0	3	14	10	3	1	0	0	0	0	0	0	32
02:00	2	4	2	2	6	6	4	1	0	0	0	0	0	0	27
02:15	3	4	5	7	53	47	14	3	0	0	0	1	0	0	137
02:30	0	0	1	4	8	11	6	0	0	0	0	0	0	0	30
02:45	1	2	2	3	14	7	4	1	0	0	0	0	0	0	34
03:00	0	0	0	1	7	3	3	0	0	0	0	0	0	0	14
03:15	2	0	0	0	8	5	2	0	0	0	0	0	0	0	17
03:30	3	2	3	8	37	26	15	1	0	0	0	0	0	0	95
03:45	1	0	0	0	2	8	2	0	0	0	0	0	0	0	13
04:00	2	1	1	0	5	10	3	0	0	0	0	0	0	0	22
04:15	2	0	0	1	11	8	2	0	1	0	0	0	0	0	25
04:30	4	0	0	2	7	11	0	0	1	0	0	0	0	0	25
04:45	9	1	1	3	25	37	7	0	2	0	0	0	0	0	85
05:00	1	0	0	0	3	7	1	1	0	0	0	0	0	0	13
05:15	1	0	0	0	8	5	0	0	0	0	0	0	0	0	14
05:30	0	3	2	2	8	8	0	0	0	0	0	0	0	0	23
05:45	1	0	2	3	11	8	5	2	0	0	0	0	0	0	32
06:00	3	3	4	5	30	28	6	3	0	0	0	0	0	0	82
06:15	5	1	5	3	17	19	3	2	0	0	0	0	0	0	55
06:30	1	1	2	1	16	27	9	1	0	0	0	0	0	0	58
06:45	5	2	3	12	29	37	12	3	0	0	0	0	0	0	103
07:00	6	4	3	14	24	38	21	6	4	0	0	0	0	0	120
07:15	17	8	13	30	86	121	45	12	4	0	0	0	0	0	336
07:30	6	4	10	8	24	34	23	6	0	0	1	0	0	0	116
07:45	14	2	9	18	44	63	25	4	1	0	0	0	0	0	180
08:00	16	13	21	36	54	60	23	4	0	0	0	0	0	0	227
08:15	30	7	8	36	76	97	34	7	0	0	0	0	0	0	295
08:30	66	26	48	98	198	254	105	21	1	0	1	0	0	0	818
08:45	20	11	22	32	83	81	31	10	0	1	0	0	0	0	292
09:00	28	6	19	61	144	129	36	6	0	0	0	0	0	0	429
09:15	41	6	46	79	150	114	47	4	1	0	0	0	0	0	488
09:30	42	13	45	115	169	127	38	6	0	1	0	0	0	0	556
09:45	131	36	132	287	546	451	152	26	1	2	0	0	1	0	1765
10:00	41	19	37	78	149	112	32	11	0	0	1	0	0	0	480
10:15	51	5	42	103	159	121	32	5	1	0	0	0	0	0	519
10:30	60	12	39	103	147	106	24	6	0	0	0	0	0	0	497
10:45	45	18	27	106	188	93	31	6	0	0	0	0	0	0	514
11:00	197	54	145	390	643	432	119	28	1	0	1	0	0	0	2010
11:15	35	16	42	94	163	78	18	3	0	0	0	0	0	0	449
11:30	40	26	51	123	132	72	14	2	0	0	0	0	0	0	460
11:45	42	21	59	104	142	62	7	1	0	0	0	0	0	0	438
12:00	68	32	69	108	114	37	10	1	0	0	0	0	0	0	439
12:15	185	95	221	429	551	249	49	7	0	0	0	0	0	0	1786
12:30	45	24	66	108	136	52	11	0	0	0	0	0	0	0	442
12:45	93	43	58	100	125	35	10	0	1	0	0	0	0	0	465
13:00	32	22	53	94	137	81	13	1	0	0	0	0	0	0	433
13:15	34	14	59	108	135	100	20	6	1	0	0	0	0	0	477
13:30	204	103	236	410	533	268	54	7	2	0	0	0	0	0	1817
13:45	51	26	79	112	147	84	17	1	0	0	0	0	0	0	517
14:00	36	21	52	101	170	74	20	3	0	0	0	0	0	0	477
14:15	50	16	43	136	176	85	16	5	0	0	0	0	0	0	527
14:30	52	29	93	146	188	63	10	1	0	1	0	0	0	0	583
14:45	189	92	267	495	681	306	63	10	0	1	0	0	0	0	2104
Total	1015	425	1079	2175	3446	2300	649	121	14	3	2	1	1	0	11231

Wilson & Company

4900 Lang Ave. NE
Albuquerque, NM 87109
505-348-4000

Site Code: Rio Grande Blvd.

SPEED MPH

Between Aspen Ave and Zearing Ave

Northbound, Southbound

Start Time	1	16	21	26	31	36	41	46	51	56	61	66	71	76	Total
	15	20	25	30	35	40	45	50	55	60	65	70	75	999	
12 PM	55	29	78	164	161	61	21	0	2	0	0	0	0	0	571
12:15	60	54	111	132	122	64	9	1	0	0	0	0	0	0	553
12:30	58	15	86	150	147	81	11	2	0	0	0	0	0	0	550
12:45	45	34	57	134	178	74	12	4	0	0	0	0	0	0	538
13:00	218	132	332	580	608	280	53	7	2	0	0	0	0	0	2212
13:15	55	27	76	135	126	80	12	0	0	0	0	0	0	0	511
13:30	58	17	68	135	170	70	7	0	0	0	0	0	0	0	525
13:45	40	17	39	105	204	104	16	2	0	0	0	0	0	0	527
14:00	56	31	54	134	136	67	11	1	0	0	0	0	0	0	490
14:15	209	92	237	509	636	321	46	3	0	0	0	0	0	0	2053
14:30	41	18	49	120	138	89	12	0	0	0	0	0	0	0	467
14:45	37	15	56	144	172	77	17	6	1	0	0	0	0	0	525
15:00	69	36	70	118	158	72	15	2	1	0	0	0	0	0	541
15:15	59	34	61	115	166	91	15	1	0	0	0	0	0	0	542
15:30	206	103	236	497	634	329	59	9	2	0	0	0	0	0	2075
15:45	63	17	88	135	134	82	14	3	0	0	0	0	0	0	536
16:00	42	24	56	132	157	81	13	3	0	0	0	0	0	0	508
16:15	48	30	74	111	141	72	15	3	0	0	0	0	0	0	494
16:30	36	25	65	149	182	87	15	1	0	0	0	0	0	0	560
16:45	189	96	283	527	614	322	57	10	0	0	0	0	0	0	2088
17:00	39	15	76	175	185	85	15	1	0	0	0	0	0	0	591
17:15	55	19	67	149	163	76	12	1	0	0	0	0	0	0	542
17:30	36	21	39	183	182	88	24	5	0	0	0	0	0	0	578
17:45	51	35	65	144	179	83	19	3	0	0	0	0	0	0	579
18:00	181	90	247	651	709	332	70	10	0	0	0	0	0	0	2290
18:15	72	50	110	195	145	59	6	0	0	0	0	0	0	0	637
18:30	53	31	74	144	172	68	12	1	0	0	0	0	0	0	555
18:45	44	9	73	144	174	82	19	0	0	0	0	0	0	0	545
19:00	38	18	57	132	133	104	19	1	0	0	0	0	0	0	502
19:15	207	108	314	615	624	313	56	2	0	0	0	0	0	0	2239
19:30	35	23	57	119	172	95	18	2	0	0	0	0	0	0	521
19:45	37	8	70	129	166	100	12	1	0	0	0	0	0	0	523
20:00	41	19	45	131	156	96	19	1	0	0	1	0	0	0	509
20:15	30	14	40	113	155	93	17	1	0	0	0	0	0	0	463
20:30	143	64	212	492	649	384	66	5	0	0	1	0	0	0	2016
20:45	27	17	42	104	137	102	17	1	1	0	0	0	0	0	448
21:00	37	20	46	105	139	85	21	0	2						

APPENDIX C

SYNCHRO ANALYSIS OF EXISTING CONDITIONS



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	50	10	10	925	640	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr	0.977				0.980	
Fit Protected	0.960			0.999		
Satd. Flow (prot)	1747	0	0	3536	3468	0
Fit Permitted	0.960			0.999		
Satd. Flow (perm)	1747	0	0	3536	3468	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	765			552	274	
Travel Time (s)	17.4			12.5	6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	11	11	1005	696	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	1016	805	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			24	24	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 42.7% ICU Level of Service A
 Analysis Period (min) 15

Rio Grande Boulevard
Existing Conditions

10/7/2010




Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	26	20	522	260	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95
Fr	0.903				0.989	
Fit Protected	0.986			0.998		
Satd. Flow (prot)	1659	0	0	1859	3500	0
Fit Permitted	0.986			0.998		
Satd. Flow (perm)	1659	0	0	1859	3500	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	355			762	1192	
Travel Time (s)	8.1			17.3	27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	28	22	567	283	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	0	0	589	305	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 49.7% ICU Level of Service A
 Analysis Period (min) 15

Rio Grande Boulevard
Existing Conditions

10/7/2010




Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Volume (vph)	10	1020	10	40	20	10	25	516	25	40	236	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95
Frt	0.999				0.980		0.994				0.995	
Fit Protected					0.972		0.998				0.993	
Satd. Flow (prot)	0	1861	0	0	1774	0	0	1848	0	0	3497	0
Fit Permitted					0.972		0.998				0.993	
Satd. Flow (perm)	0	1861	0	0	1774	0	0	1848	0	0	3497	0
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	478				530		844				762	
Travel Time (s)	10.9				12.0		19.2				17.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1109	11	43	22	11	27	561	27	43	257	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1131	0	0	76	0	0	615	0	0	311	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0				0		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop		Free				Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	102.8%
ICU Level of Service	G
Analysis Period (min)	15

Rio Grande Boulevard
Existing Conditions

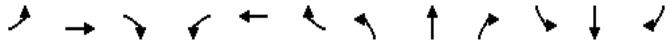
10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Volume (vph)	10	20	10	120	50	20	15	536	55	20	270	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.966				0.957		0.988				0.995	
Fit Protected	0.988		0.950				0.999				0.997	
Satd. Flow (prot)	0	1778	0	1770	1783	0	0	1839	0	0	1848	0
Fit Permitted	0.947		0.728				0.990				0.950	
Satd. Flow (perm)	0	1704	0	1356	1783	0	0	1822	0	0	1761	0
Right Turn on Red			Yes				Yes				Yes	
Satd. Flow (RTOR)	11				22		15				5	
Link Speed (mph)	30				30		30				30	
Link Distance (ft)	348				488		1114				844	
Travel Time (s)	7.9				11.1		25.3				19.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	22	11	130	54	22	16	583	60	22	293	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	130	76	0	0	659	0	0	326	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12				12		0				0	
Link Offset(ft)	0				0		0				0	
Crosswalk Width(ft)	16				16		16				16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	4				8		2				6	
Permitted Phases	4				8		2				6	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Maximum Green (s)	16.0	16.0		16.0	16.0		26.0	26.0		26.0	26.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	16.0		16.0		16.0		26.0		26.0		26.0	
Actuated g/C Ratio	0.32		0.32		0.32		0.52		0.52		0.52	
v/c Ratio	0.08		0.30		0.13		0.69		0.36		0.36	
Control Delay	10.2		15.2		10.1		13.5		8.3		8.3	
Queue Delay	0.0		0.0		0.0		0.0		0.0		0.0	
Total Delay	10.2		15.2		10.1		13.5		8.3		8.3	
LOS	B		B		B		B		A		A	

Rio Grande Boulevard
Existing Conditions

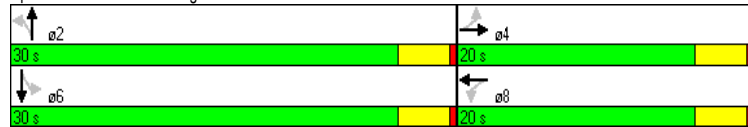
10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay		10.3			13.3			13.5			8.3	
Approach LOS		B			B			B			A	

Intersection Summary	
Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	50
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	12.0
Intersection LOS:	B
Intersection Capacity Utilization:	55.7%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 9: Griegos Rd. & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↑↓		↑↓			↑↓
Volume (vph)	10	20	620	15	10	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.910		0.997			
Fit Protected	0.984					0.999
Satd. Flow (prot)	1668	0	3529	0	0	3536
Fit Permitted	0.984					0.999
Satd. Flow (perm)	1668	0	3529	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	559		703			1114
Travel Time (s)	12.7		16.0			25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	22	674	16	11	424
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	690	0	0	435
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary	
Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization:	28.0%
ICU Level of Service:	A
Analysis Period (min):	15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Volume (vph)	10	10	620	10	10	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.998			
Fit Protected	0.976					0.999
Satd. Flow (prot)	1694	0	3532	0	0	3536
Fit Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	3532	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	313		858			703
Travel Time (s)	7.1		19.5			16.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	674	11	11	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	685	0	0	439
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 28.1% ICU Level of Service A
 Analysis Period (min) 15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕		↔	↕
Volume (vph)	10	10	620	10	10	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.998			
Fit Protected	0.976					0.999
Satd. Flow (prot)	1694	0	3532	0	0	3536
Fit Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	3532	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	517		528			858
Travel Time (s)	11.8		12.0			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	674	11	11	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	685	0	0	439
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 28.1% ICU Level of Service A
 Analysis Period (min) 15

Rio Grande Boulevard
Existing Conditions

10/7/2010

	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖		↕			↕
Volume (vph)	10	10	620	10	10	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.998			
Flt Protected	0.976					0.999
Satd. Flow (prot)	1694	0	3532	0	0	3536
Flt Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	3532	0	0	3536
Link Speed (mph)	30		30			30
Link Distance (ft)	546		1426			528
Travel Time (s)	12.4		32.4			12.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	674	11	11	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	685	0	0	439
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 28.1% ICU Level of Service A
 Analysis Period (min) 15

Rio Grande Boulevard
Existing Conditions

10/7/2010

	↖	→	↘	↙	←	↗	↖	↑	↘	↙	↓	↖
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↔	↘	↖	↕	↕	↖	↕	↕	↖	↕	↕
Volume (vph)	0	0	300	0	300	0	0	620	0	0	404	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	100		0	150		150	150		0	150		0
Storage Lanes	1		0	1		1	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.850										
Flt Protected												
Satd. Flow (prot)	1863	1583	0	1863	1863	1863	1863	3539	0	1863	3539	0
Flt Permitted												
Satd. Flow (perm)	1863	1583	0	1863	1863	1863	1863	3539	0	1863	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		262										
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			606			707			1426	
Travel Time (s)		11.5			13.8			16.1			32.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	326	0	326	0	0	674	0	0	439	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	326	0	0	326	0	0	674	0	0	439	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Right	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm			Perm		Perm	Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8		8	2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0	20.0	20.0		20.0	20.0	
Total Split (s)	20.0	20.0	0.0	20.0	20.0	20.0	20.0	20.0	0.0	20.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0		16.0	16.0	16.0	16.0	16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5	3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5	0.5	0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0	5.0	5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0	11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0	0	0	0		0	0	
Act Effct Green (s)		16.0			16.0			16.0			16.0	
Actuated g/C Ratio		0.40			0.40			0.40			0.40	
v/c Ratio		0.41			0.44			0.48			0.31	
Control Delay		4.2			11.1			10.3			9.0	

Rio Grande Boulevard
Existing Conditions

10/7/2010

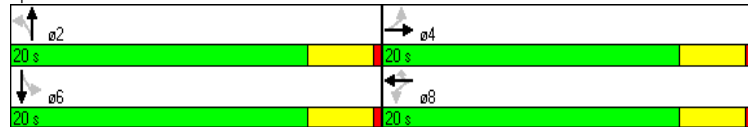


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay		0.0			0.0			0.0			0.0	
Total Delay		4.2			11.1			10.3			9.0	
LOS		A			B			B			A	
Approach Delay		4.3			11.1			10.3			9.0	
Approach LOS		A			B			B			A	

Intersection Summary

Area Type:	Other
Cycle Length:	40
Actuated Cycle Length:	40
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.48
Intersection Signal Delay:	9.0
Intersection LOS:	A
Intersection Capacity Utilization:	42.4%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 20: Candelaria Rd. & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



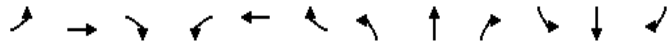
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕	↕	
Volume (vph)	10	10	20	620	690	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932				0.998	
Fit Protected	0.976			0.998		
Satd. Flow (prot)	1694	0	0	3532	3532	0
Fit Permitted	0.976			0.998		
Satd. Flow (perm)	1694	0	0	3532	3532	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	632			643	707	
Travel Time (s)	14.4			14.6	16.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	22	674	750	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	696	761	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization:	41.6%
ICU Level of Service:	A
Analysis Period (min):	15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕			↕		↗	↗		↗	↗	
Volume (vph)	20	20	20	50	10	10	20	610	20	100	530	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0	0	0	0	0	50	0	0	50	0	0
Storage Lanes	0	0	0	0	0	0	1	0	0	1	0	0
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt		0.955			0.980			0.995			0.983	
Fit Protected		0.984			0.966		0.950			0.950		
Satd. Flow (prot)	0	1750	0	0	1763	0	1770	3522	0	1770	3479	0
Fit Permitted		0.984			0.966		0.950			0.950		
Satd. Flow (perm)	0	1750	0	0	1763	0	1770	3522	0	1770	3479	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		571			543			1200			643	
Travel Time (s)		13.0			12.3			27.3			14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	22	54	11	11	22	663	22	109	576	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	76	0	22	685	0	109	652	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	40.7%
Analysis Period (min)	15
	ICU Level of Service A

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↗		↗			↗
Volume (vph)	100	20	630	150	100	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.977		0.971			
Fit Protected	0.960					0.992
Satd. Flow (prot)	1747	0	3437	0	0	3511
Fit Permitted	0.960					0.722
Satd. Flow (perm)	1747	0	3437	0	0	2555
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	15		86			
Link Speed (mph)	30		30			30
Link Distance (ft)	768		765			1200
Travel Time (s)	17.5		17.4			27.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	22	685	163	109	543
Shared Lane Traffic (%)						
Lane Group Flow (vph)	131	0	848	0	0	652
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases						6
Minimum Split (s)	20.0		20.0		20.0	20.0
Total Split (s)	20.0	0.0	45.0	0.0	45.0	45.0
Total Split (%)	30.8%	0.0%	69.2%	0.0%	69.2%	69.2%
Maximum Green (s)	16.0		41.0		41.0	41.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0		5.0		5.0	5.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	16.0		41.0		41.0	41.0
Actuated g/C Ratio	0.25		0.63		0.63	0.63
v/c Ratio	0.30		0.39		0.40	0.40
Control Delay	19.8		5.8		6.9	6.9
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	19.8		5.8		6.9	6.9
LOS	B		A		A	A

Rio Grande Boulevard
Existing Conditions

10/7/2010

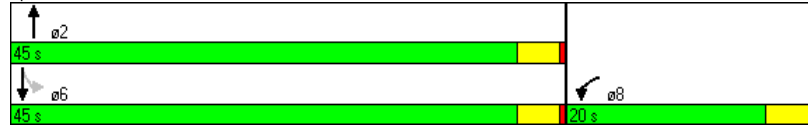


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Approach Delay	19.8		5.8			6.9
Approach LOS	B		A			A

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.40
Intersection Signal Delay:	7.3
Intersection Capacity Utilization:	55.7%
Analysis Period (min):	15
Intersection LOS:	A
ICU Level of Service:	B

Splits and Phases: 28: Matthew Ave. & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↕	↕	↔
Volume (vph)	10	10	10	770	590	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932				0.997	
Fit Protected	0.976			0.999		
Satd. Flow (prot)	1694	0	0	3536	3529	0
Fit Permitted	0.976			0.999		
Satd. Flow (perm)	1694	0	0	3536	3529	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			877	765	
Travel Time (s)	11.1			19.9	17.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	837	641	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	848	652	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization:	38.3%
Analysis Period (min):	15
ICU Level of Service:	A

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	20	20	10	780	590	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr't	0.932				0.997	
Flt Protected	0.976			0.999		
Satd. Flow (prot)	1694	0	0	3536	3529	0
Flt Permitted	0.976			0.999		
Satd. Flow (perm)	1694	0	0	3536	3529	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1204			614	895	
Travel Time (s)	27.4			14.0	20.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	11	848	641	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	0	0	859	652	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	38.6%
ICU Level of Service A	
Analysis Period (min)	15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	160	70	720	130	100	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	50	
Storage Lanes	2	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	0.97	1.00	0.95	1.00	1.00	0.95
Fr't		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	3539	1583	1770	3539
Flt Permitted	0.950				0.319	
Satd. Flow (perm)	3433	1583	3539	1583	594	3539
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		76		141		
Link Speed (mph)	30		30			30
Link Distance (ft)	874		977			614
Travel Time (s)	19.9		22.2			14.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	76	783	141	109	554
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	76	783	141	109	554
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	35.0	35.0	35.0	35.0
Total Split (%)	36.4%	36.4%	63.6%	63.6%	63.6%	63.6%
Maximum Green (s)	16.0	16.0	31.0	31.0	31.0	31.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	16.0	16.0	31.0	31.0	31.0	31.0
Actuated g/C Ratio	0.29	0.29	0.56	0.56	0.56	0.56
v/c Ratio	0.17	0.15	0.39	0.15	0.33	0.28
Control Delay	15.2	5.3	18.2	8.9	9.8	6.7

Rio Grande Boulevard
Existing Conditions

10/7/2010

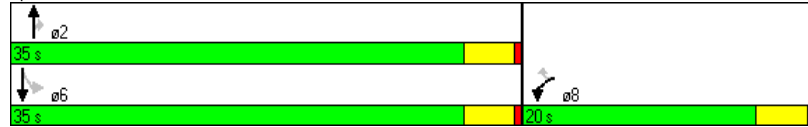


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	5.3	18.2	8.9	9.8	6.7
LOS	B	A	B	A	A	A
Approach Delay	12.2		16.8			7.2
Approach LOS	B		B			A

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.39
Intersection Signal Delay:	12.7
Intersection LOS:	B
Intersection Capacity Utilization:	40.0%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 34: Indian School Rd & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔	↔	↔	↕	↕	↔
Volume (vph)	50	10	10	960	730	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.977				0.977	
Fit Protected	0.960			0.999		
Satd. Flow (prot)	1747	0	0	3536	3458	0
Fit Permitted	0.960			0.999		
Satd. Flow (perm)	1747	0	0	3536	3458	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	819			274	205	
Travel Time (s)	18.6			6.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	11	11	1043	793	141
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	1054	934	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization:	43.6%
ICU Level of Service:	A
Analysis Period (min):	15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕↑	↕↓	
Volume (vph)	50	50	30	806	660	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932			0.998		
Fit Protected	0.976			0.998		
Satd. Flow (prot)	1694	0	0	3532	3532	0
Fit Permitted	0.976			0.998		
Satd. Flow (perm)	1694	0	0	3532	3532	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	590			395	977	
Travel Time (s)	13.4			9.0	22.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	33	876	717	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	909	728	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 56.7% ICU Level of Service B
 Analysis Period (min) 15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔			↕↑	↕↓	
Volume (vph)	10	10	56	810	660	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932			0.988		
Fit Protected	0.976			0.997		
Satd. Flow (prot)	1694	0	0	3529	3497	0
Fit Permitted	0.976			0.865		
Satd. Flow (perm)	1694	0	0	3061	3497	0
Right Turn on Red	Yes					Yes
Satd. Flow (RTOR)	11				27	
Link Speed (mph)	30			30	30	
Link Distance (ft)	980			518	395	
Travel Time (s)	22.3			11.8	9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	61	880	717	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	941	780	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Perm					
Protected Phases	4			2	6	
Permitted Phases	2					
Minimum Split (s)	20.0		20.0	20.0	20.0	
Total Split (s)	20.0	0.0	35.0	35.0	35.0	0.0
Total Split (%)	36.4%	0.0%	63.6%	63.6%	63.6%	0.0%
Maximum Green (s)	16.0		31.0	31.0	31.0	
Yellow Time (s)	3.5		3.5	3.5	3.5	
All-Red Time (s)	0.5		0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0		5.0	5.0	5.0	
Flash Dont Walk (s)	11.0		11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0		0	0	0	
Act Effct Green (s)	16.0		31.0	31.0	31.0	
Actuated g/C Ratio	0.29		0.56	0.56	0.56	
v/c Ratio	0.04		0.55	0.39		
Control Delay	10.8		9.1	14.1		
Queue Delay	0.0		0.0	0.0		
Total Delay	10.8		9.1	14.1		
LOS	B			A	B	

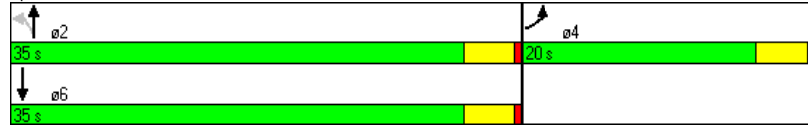
Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Approach Delay	10.8			9.1	14.1	
Approach LOS	B			A	B	
Intersection Summary						
Area Type:	Other					
Cycle Length:	55					
Actuated Cycle Length:	55					
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green						
Natural Cycle:	40					
Control Type:	Pre-timed					
Maximum v/c Ratio:	0.55					
Intersection Signal Delay:	11.3			Intersection LOS: B		
Intersection Capacity Utilization:	57.4%			ICU Level of Service B		
Analysis Period (min)	15					

Splits and Phases: 40: Floral Rd. & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↔	↔	↔	↔	↔			↔	↔
Volume (vph)	0	297	0	400	10	300	350	566	0	0	570	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	150		150	0		0	150		0
Storage Lanes	0		0	1		1	1		0	0		1
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Frt					0.980	0.850						0.850
Flt Protected				0.950	0.960		0.950					
Satd. Flow (prot)	0	0	0	1681	1595	1504	1770	3539	0	0	3539	1583
Flt Permitted				0.482	0.485		0.391					
Satd. Flow (perm)	0	0	0	853	806	1504	728	3539	0	0	3539	1583
Right Turn on Red			Yes			Yes		Yes		Yes		Yes
Satd. Flow (RTOR)					19	194						109
Link Speed (mph)		30			30			30				30
Link Distance (ft)		919			1070			351				518
Travel Time (s)		20.9			24.3			8.0				11.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	323	0	435	11	326	380	615	0	0	620	109
Shared Lane Traffic (%)				47%		10%						
Lane Group Flow (vph)	0	323	0	231	248	293	380	615	0	0	620	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Left	Right
Median Width(ft)		12			12			12				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Perm		Perm	Perm					Perm
Protected Phases		4			8			2				6
Permitted Phases				8		8	2					6
Minimum Split (s)		20.0		20.0	20.0	20.0	20.0	20.0			20.0	20.0
Total Split (s)	0.0	20.0	0.0	20.0	20.0	20.0	25.0	25.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	44.4%	0.0%	44.4%	44.4%	44.4%	55.6%	55.6%	0.0%	0.0%	55.6%	55.6%
Maximum Green (s)		16.0		16.0	16.0	16.0	21.0	21.0			21.0	21.0
Yellow Time (s)		3.5		3.5	3.5	3.5	3.5	3.5			3.5	3.5
All-Red Time (s)		0.5		0.5	0.5	0.5	0.5	0.5			0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		5.0		5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0			0	0
Act Effct Green (s)		0.0		16.0	16.0	16.0	21.0	21.0			21.0	21.0
Actuated g/C Ratio		0.00		0.36	0.36	0.36	0.47	0.47			0.47	0.47
v/c Ratio		no cap		0.76	0.83	0.44	1.12	0.37			0.38	0.14
Control Delay				34.0	40.8	6.7	104.6	8.6			8.6	2.4

Rio Grande Boulevard
Existing Conditions

10/7/2010

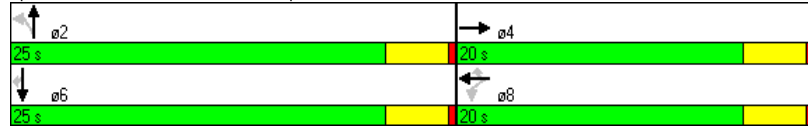


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay	Error			34.0	40.8	6.7	104.6	8.6			8.6	2.4
LOS	F			C	D	A	F	A			A	A
Approach Delay	Err			25.8			45.2				7.7	
Approach LOS	F			C			D				A	

Intersection Summary

Area Type:	Other
Cycle Length:	45
Actuated Cycle Length:	45
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	Err
Intersection Signal Delay:	Err
Intersection LOS:	F
Intersection Capacity Utilization Err%	ICU Level of Service H
Analysis Period (min)	15

Splits and Phases: 44: I-40 WB Onramp & Rio Grande



Rio Grande Boulevard
Existing Conditions

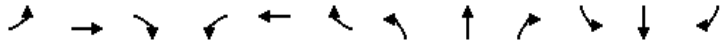
10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↔	↔					↕	↕	↕	↕	↕
Volume (vph)	50	10	300	0	0	0	0	866	340	100	870	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt		0.850						0.850				
Flt Protected		0.960						0.950				
Satd. Flow (prot)	0	1788	1583	0	0	0	0	3539	1583	3433	3539	0
Flt Permitted		0.960						0.250				
Satd. Flow (perm)	0	1788	1583	0	0	0	0	3539	1583	903	3539	0
Right Turn on Red		Yes				Yes			Yes			Yes
Satd. Flow (RTOR)		46							370			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		978			863			412			351	
Travel Time (s)		22.2			19.6			9.4			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	11	326	0	0	0	0	941	370	109	946	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	326	0	0	0	0	941	370	109	946	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm						Perm	Perm		
Protected Phases		4						2			6	
Permitted Phases	4		4					2		6		
Minimum Split (s)	20.0	20.0	20.0					20.0	20.0	20.0	20.0	
Total Split (s)	20.0	20.0	20.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0					16.0	16.0	16.0	16.0	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0	0	0	0	
Act Effct Green (s)		16.0	16.0					16.0	16.0	16.0	16.0	
Actuated g/C Ratio		0.40	0.40					0.40	0.40	0.40	0.40	
v/c Ratio		0.09	0.49					0.66	0.43	0.30	0.67	
Control Delay		8.0	10.8					12.6	3.1	11.1	12.7	
Queue Delay		0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay		8.0	10.8					12.6	3.1	11.1	12.7	
LOS		A	B					B	A	B	B	

Rio Grande Boulevard
Existing Conditions

10/7/2010

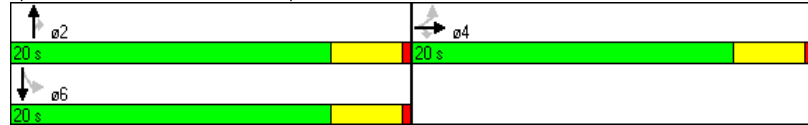


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach Delay	10.3						9.9			12.5		
Approach LOS	B						A			B		

Intersection Summary

Area Type:	Other
Cycle Length:	40
Actuated Cycle Length:	40
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.67
Intersection Signal Delay:	11.0
Intersection LOS:	B
Intersection Capacity Utilization:	49.3%
ICU Level of Service:	A
Analysis Period (min):	15

Splits and Phases: 47: I-40 WB Offramp & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔			↔			↔			↔		
Volume (vph)	20	10	20	50	1020	20	50	1166	50	50	1070	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.946		0.997		0.994		0.994		0.994		0.994	
Fit Protected	0.980		0.998		0.998		0.998		0.998		0.998	
Satd. Flow (prot)	0	1727	0	0	1853	0	0	3511	0	0	3511	0
Fit Permitted	0.980		0.998		0.998		0.998		0.998		0.998	
Satd. Flow (perm)	0	1727	0	0	1853	0	0	3511	0	0	3511	0
Link Speed (mph)	30		30		30		30		30		30	
Link Distance (ft)	649		441		418		412		412		412	
Travel Time (s)	14.8		10.0		9.5		9.4		9.4		9.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	54	1109	22	54	1267	54	54	1163	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	55	0	0	1185	0	0	1375	0	0	1271	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0											
Link Offset(ft)	0											
Crosswalk Width(ft)	16		16		16		16		16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop		Stop		Free		Free		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization:	135.6%
ICU Level of Service:	H
Analysis Period (min):	15

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕			↕			↕			↕		
Volume (vph)	100	10	50	10	10	100	10	1066	10	50	990	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	0		150	0		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.958			0.888			0.999			0.987	
Fit Protected		0.970			0.996						0.998	
Satd. Flow (prot)	0	1731	0	0	1648	0	0	3536	0	0	3486	0
Fit Permitted		0.970			0.996						0.998	
Satd. Flow (perm)	0	1731	0	0	1648	0	0	3536	0	0	3486	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		523			627			410			418	
Travel Time (s)		11.9			14.3			9.3			9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	11	54	11	11	109	11	1159	11	54	1076	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	131	0	0	1181	0	0	1239	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control	Stop				Stop		Free				Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	87.9%
Analysis Period (min)	15
	ICU Level of Service E

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↕		↕		↕	
Volume (vph)	10	100	980	30	200	850
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0	0		0	75	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.877		0.995			
Fit Protected	0.995					0.991
Satd. Flow (prot)	1625	0	3522	0	0	3507
Fit Permitted	0.995					0.562
Satd. Flow (perm)	1625	0	3522	0	0	1989
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	104		9			
Link Speed (mph)	30		30			30
Link Distance (ft)	784		205			410
Travel Time (s)	17.8		4.7			9.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	109	1065	33	217	924
Shared Lane Traffic (%)						
Lane Group Flow (vph)	120	0	1098	0	0	1141
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type				Perm		
Protected Phases	8		2			6
Permitted Phases	6					
Minimum Split (s)	20.0		20.0		20.0	20.0
Total Split (s)	20.0	0.0	40.0	0.0	40.0	40.0
Total Split (%)	33.3%	0.0%	66.7%	0.0%	66.7%	66.7%
Maximum Green (s)	16.0		36.0		36.0	36.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0		5.0		5.0	5.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	16.0		36.0		36.0	36.0
Actuated g/C Ratio	0.27		0.60		0.60	0.60
v/c Ratio	0.24		0.52		0.96	0.96
Control Delay	6.9		8.0		31.5	31.5

Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Queue Delay	0.0		0.0			0.0
Total Delay	6.9		8.0			31.5
LOS	A		A			C
Approach Delay	6.9		8.0			31.5
Approach LOS	A		A			C

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	19.3
Intersection LOS:	B
Intersection Capacity Utilization:	74.1%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 56: Bellamah Ave. & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	EBL	EBT	EBR2	WBL	WBT	WBR	SBL	SBT	SBR	SBR2	NEL2	NEL
Lane Configurations	↔↔	↕↕		↔↔	↕↕		↔↔	↕↕	↔↔	↕↕		↔↔
Volume (vph)	100	50	50	90	200	300	75	0	500	75	50	536
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0			150		0	150		0			150
Storage Lanes	2			1		0	2		1			1
Taper Length (ft)	25			25		25	25		25			25
Lane Util. Factor	0.97	0.95	0.95	1.00	0.91	0.91	0.97	0.95	0.95	1.00	1.00	1.00
Frt		0.925			0.910			0.850	0.850			
Fit Protected	0.950			0.950			0.950					0.950
Satd. Flow (prot)	3433	3274	0	1770	4628	0	3433	1504	1504	0	0	1770
Fit Permitted	0.439			0.684			0.250					0.948
Satd. Flow (perm)	1586	3274	0	1274	4628	0	903	1504	1504	0	0	1766
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)		54			161					54		
Link Speed (mph)		30			30			30				30
Link Distance (ft)		921			795			552				903
Travel Time (s)		20.9			18.1			12.5				20.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	54	54	98	217	326	82	0	543	82	54	583
Shared Lane Traffic (%)									58%			
Lane Group Flow (vph)	109	108	0	98	543	0	82	315	310	0	0	637
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Right	Left	Left
Median Width(ft)		24			24			24				12
Link Offset(ft)		0			0			0				0
Crosswalk Width(ft)		16			16			16				16
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	9	15	15
Turn Type	Perm			Perm		Perm		Perm		Perm		Perm
Protected Phases		4			8			6!				2!
Permitted Phases	4			8			6		6		2	
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0	20.0		20.0	20.0
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	20.0	0.0	20.0	20.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)	16.0	16.0		16.0	16.0		16.0	16.0	16.0		16.0	16.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5	3.5		3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5	0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0	5.0		5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0	0		0	0
Act Effct Green (s)	16.0	16.0		16.0	16.0		16.0	16.0	16.0		16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40		0.40	0.40	0.40		0.40	0.40
v/c Ratio	0.17	0.08		0.19	0.28		0.23	0.52	0.49		0.52	0.90
Control Delay	8.7	4.7		9.1	6.0		10.0	13.0	10.5		10.5	32.6

Rio Grande Boulevard
Existing Conditions

10/7/2010

	↗
Lane Group	NER
Lane Configurations	ⓧ
Volume (vph)	50
Ideal Flow (vphpl)	1900
Storage Length (ft)	150
Storage Lanes	1
Taper Length (ft)	25
Lane Util. Factor	1.00
Frt	0.850
Flt Protected	
Satd. Flow (prot)	1583
Flt Permitted	
Satd. Flow (perm)	1583
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	0.92
Adj. Flow (vph)	54
Shared Lane Traffic (%)	
Lane Group Flow (vph)	54
Enter Blocked Intersection	No
Lane Alignment	Right
Median Width(ft)	
Link Offset(ft)	
Crosswalk Width(ft)	
Two way Left Turn Lane	
Headway Factor	1.00
Turning Speed (mph)	9
Turn Type	Perm
Protected Phases	
Permitted Phases	2!
Minimum Split (s)	20.0
Total Split (s)	20.0
Total Split (%)	50.0%
Maximum Green (s)	16.0
Yellow Time (s)	3.5
All-Red Time (s)	0.5
Lost Time Adjust (s)	0.0
Total Lost Time (s)	4.0
Lead/Lag	
Lead-Lag Optimize?	
Walk Time (s)	5.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	16.0
Actuated g/C Ratio	0.40
v/c Ratio	0.09
Control Delay	8.0

Rio Grande Boulevard
Existing Conditions

10/7/2010

	↗ → ↘ ↙ ← ↕ ↓ ↓ ↔ ↖ ↗ ↘
Lane Group	EBL EBT EBR2 WBL WBT WBR SBL SBT SBR SBR2 NEL2 NEL
Queue Delay	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
Total Delay	8.7 4.7 9.1 6.0 10.0 13.0 10.5 32.6
LOS	A A A A A B B C
Approach Delay	6.7 6.5 11.6 30.7
Approach LOS	A A B C

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 0 (0%), Referenced to phase 2:NEL and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 0.90

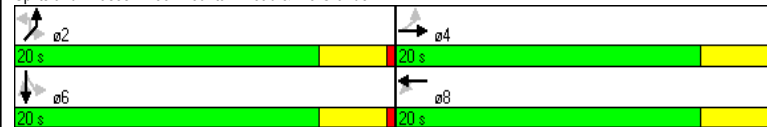
Intersection Signal Delay: 15.5 Intersection LOS: B

Intersection Capacity Utilization 71.6% ICU Level of Service C

Analysis Period (min) 15

! Phase conflict between lane groups.

Splits and Phases: 58: Mountain Road & Rio Grande



Rio Grande Boulevard
Existing Conditions

10/7/2010



Lane Group	NER
Queue Delay	0.0
Total Delay	8.0
LOS	A
Approach Delay	
Approach LOS	
Intersection Summary	

APPENDIX D

SYNCHRO ANALYSIS OF PROPOSED CONDITIONS



Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	50	10	10	925	640	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr't	0.977				0.980	
Fit Protected	0.960			0.999		
Satd. Flow (prot)	1747	0	0	3536	3468	0
Fit Permitted	0.960			0.999		
Satd. Flow (perm)	1747	0	0	3536	3468	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	765			552	274	
Travel Time (s)	17.4			12.5	6.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	11	11	1005	696	109
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	1016	805	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	42.7%
ICU Level of Service	A
Analysis Period (min)	15

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	26	20	522	260	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr't	0.903				0.990	
Fit Protected	0.986			0.998		
Satd. Flow (prot)	1659	0	0	1859	1844	0
Fit Permitted	0.986			0.998		
Satd. Flow (perm)	1659	0	0	1859	1844	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	355			762	1192	
Travel Time (s)	8.1			17.3	27.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	28	22	567	283	22
Shared Lane Traffic (%)						
Lane Group Flow (vph)	39	0	0	589	305	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	53.7%
ICU Level of Service	A
Analysis Period (min)	15

Rio Grande Boulevard
Proposed Conditions

10/7/2010



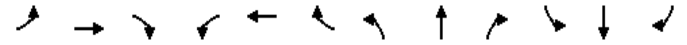
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔		↔		↔		↔		↔		↔	
Volume (vph)	10	1020	10	40	20	10	25	516	25	40	236	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.999		0.980		0.994		0.995		0.995		0.995	
Fit Protected			0.972		0.998		0.993					
Satd. Flow (prot)	0	1861	0	0	1774	0	0	1848	0	0	1840	0
Fit Permitted			0.972		0.998		0.993					
Satd. Flow (perm)	0	1861	0	0	1774	0	0	1848	0	0	1840	0
Link Speed (mph)	30		30		30		30		30		30	
Link Distance (ft)	478		530		844		762					
Travel Time (s)	10.9		12.0		19.2		17.3					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	1109	11	43	22	11	27	561	27	43	257	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1131	0	0	76	0	0	615	0	0	311	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0		0		0		0		0	
Link Offset(ft)	0		0		0		0		0		0	
Crosswalk Width(ft)	16		16		16		16		16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Sign Control	Stop		Stop		Free		Free		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	94.2%
Analysis Period (min)	15
ICU Level of Service	F

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↔		↔		↔		↔		↔		↔	
Volume (vph)	10	20	10	120	50	20	15	536	55	20	270	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.966		0.957		0.988		0.995		0.995		0.995	
Fit Protected	0.988		0.950		0.999		0.997					
Satd. Flow (prot)	0	1778	0	1770	1783	0	0	1839	0	0	1848	0
Fit Permitted	0.947		0.728		0.990		0.950					
Satd. Flow (perm)	0	1704	0	1356	1783	0	0	1822	0	0	1761	0
Right Turn on Red			Yes		Yes		Yes					
Satd. Flow (RTOR)	11		22		15		5					
Link Speed (mph)	30		30		30		30					
Link Distance (ft)	348		488		1114		844					
Travel Time (s)	7.9		11.1		25.3		19.2					
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	22	11	130	54	22	16	583	60	22	293	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	44	0	130	76	0	0	659	0	0	326	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	12		12		0		0		0		0	
Link Offset(ft)	0		0		0		0		0		0	
Crosswalk Width(ft)	16		16		16		16		16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15	9	15	9	15	9	15	9	15	9
Turn Type	Perm		Perm		Perm		Perm		Perm		Perm	
Protected Phases	4		8		2		6					
Permitted Phases	4		8		2		6					
Minimum Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	30.0	30.0	0.0	30.0	30.0	0.0
Total Split (%)	40.0%	40.0%	0.0%	40.0%	40.0%	0.0%	60.0%	60.0%	0.0%	60.0%	60.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	26.0	26.0	26.0	26.0	3.5	3.5	3.5	3.5
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Act Effct Green (s)	16.0		16.0		26.0		26.0					
Actuated g/C Ratio	0.32		0.32		0.52		0.52					
v/c Ratio	0.08		0.30		0.69		0.36					
Control Delay	10.2		15.2		13.5		8.3					
Queue Delay	0.0		0.0		0.0		0.0					
Total Delay	10.2		15.2		13.5		8.3					

Rio Grande Boulevard
Proposed Conditions

10/7/2010

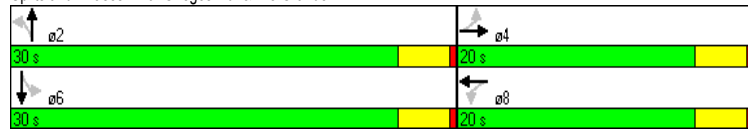


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
LOS		B		B	B			B			A	
Approach Delay		10.3			13.3			13.5			8.3	
Approach LOS		B			B			B			A	

Intersection Summary

Area Type:	Other
Cycle Length:	50
Actuated Cycle Length:	50
Offset:	0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle:	50
Control Type:	Pretimed
Maximum v/c Ratio:	0.69
Intersection Signal Delay:	12.0
Intersection Capacity Utilization:	55.7%
Analysis Period (min):	15
Intersection LOS:	B
ICU Level of Service:	B

Splits and Phases: 9: Griegos Rd. & Rio Grande



Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔	↔	↑	↔	↔	↔
Volume (vph)	10	20	620	15	10	390
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.910		0.997			
Fit Protected	0.984					0.999
Satd. Flow (prot)	1668	0	1857	0	0	1861
Fit Permitted	0.984					0.999
Satd. Flow (perm)	1668	0	1857	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	559		703			1114
Travel Time (s)	12.7		16.0			25.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	22	674	16	11	424
Shared Lane Traffic (%)						
Lane Group Flow (vph)	33	0	690	0	0	435
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization:	43.5%
Analysis Period (min):	15
ICU Level of Service:	A

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕
Volume (vph)	10	10	620	10	10	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932		0.998			
Fit Protected	0.976					0.999
Satd. Flow (prot)	1694	0	1859	0	0	1861
Fit Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	313		858			703
Travel Time (s)	7.1		19.5			16.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	674	11	11	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	685	0	0	439
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.2%
Analysis Period (min)	15
ICU Level of Service A	

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕
Volume (vph)	10	10	620	10	10	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932		0.998			
Fit Protected	0.976					0.999
Satd. Flow (prot)	1694	0	1859	0	0	1861
Fit Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	517		528			858
Travel Time (s)	11.8		12.0			19.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	674	11	11	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	685	0	0	439
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.2%
Analysis Period (min)	15
ICU Level of Service A	

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	10	10	620	10	10	394
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.932		0.998			
Fit Protected	0.976					0.999
Satd. Flow (prot)	1694	0	1859	0	0	1861
Fit Permitted	0.976					0.999
Satd. Flow (perm)	1694	0	1859	0	0	1861
Link Speed (mph)	30		30			30
Link Distance (ft)	546		1426			528
Travel Time (s)	12.4		32.4			12.0
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	674	11	11	428
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	685	0	0	439
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Sign Control	Stop		Free			Free

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.2%
ICU Level of Service A	
Analysis Period (min)	15

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	300	0	300	0	0	620	0	0	404	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t		0.865										
Fit Protected												
Satd. Flow (prot)	0	1611	0	0	1863	0	0	1863	0	0	1863	0
Fit Permitted												
Satd. Flow (perm)	0	1611	0	0	1863	0	0	1863	0	0	1863	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		504			606			707			1426	
Travel Time (s)		11.5			13.8			16.1			32.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	326	0	326	0	0	674	0	0	439	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	326	0	0	326	0	0	674	0	0	439	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary

Area Type:	Other
Control Type:	Roundabout
Intersection Capacity Utilization	57.9%
ICU Level of Service B	
Analysis Period (min)	15

Rio Grande Boulevard
Proposed Conditions

10/7/2010



Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	10	20	620	690	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.932				0.998	
Fit Protected	0.976			0.998		
Satd. Flow (prot)	1694	0	0	1859	1859	0
Fit Permitted	0.976			0.998		
Satd. Flow (perm)	1694	0	0	1859	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	632			643	707	
Travel Time (s)	14.4			14.6	16.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	22	674	750	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	696	761	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 58.8% ICU Level of Service B
 Analysis Period (min) 15

Rio Grande Boulevard
Proposed Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	20	20	50	10	10	20	610	20	100	530	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	50		0	50		0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.955			0.980			0.995			0.983	
Fit Protected		0.984			0.966		0.950		0.950		0.950	
Satd. Flow (prot)	0	1750	0	0	1763	0	1770	1853	0	1770	1831	0
Fit Permitted		0.984			0.966		0.950		0.950		0.950	
Satd. Flow (perm)	0	1750	0	0	1763	0	1770	1853	0	1770	1831	0
Link Speed (mph)		30			30		30		30		30	
Link Distance (ft)		571			543		1200		643		643	
Travel Time (s)		13.0			12.3		27.3		14.6		14.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	22	54	11	11	22	663	22	109	576	76
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	66	0	0	76	0	22	685	0	109	652	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0		12		12		12	
Link Offset(ft)		0			0		0		0		0	
Crosswalk Width(ft)		16			16		16		16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop		Free		Free		Free	

Intersection Summary

Area Type: Other
 Control Type: Unsignalized
 Intersection Capacity Utilization 56.5% ICU Level of Service B
 Analysis Period (min) 15

Rio Grande Boulevard
Proposed Conditions

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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	W		T			T
Volume (vph)	100	20	630	150	100	500
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr _t	0.977		0.974			
Fit Protected	0.960					0.992
Satd. Flow (prot)	1747	0	1814	0	0	1848
Fit Permitted	0.960					0.590
Satd. Flow (perm)	1747	0	1814	0	0	1099
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	15		36			
Link Speed (mph)	30		30			30
Link Distance (ft)	768		765			1200
Travel Time (s)	17.5		17.4			27.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	22	685	163	109	543
Shared Lane Traffic (%)						
Lane Group Flow (vph)	131	0	848	0	0	652
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		12			12
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases					6	
Minimum Split (s)	20.0		20.0		20.0	20.0
Total Split (s)	20.0	0.0	45.0	0.0	45.0	45.0
Total Split (%)	30.8%	0.0%	69.2%	0.0%	69.2%	69.2%
Maximum Green (s)	16.0		41.0		41.0	41.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0		5.0		5.0	5.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	16.0		41.0		41.0	41.0
Actuated g/C Ratio	0.25		0.63		0.63	0.63
v/c Ratio	0.30		0.73		0.94	0.94
Control Delay	19.8		12.6		36.9	36.9
Queue Delay	0.0		0.0		0.0	0.0
Total Delay	19.8		12.6		36.9	36.9

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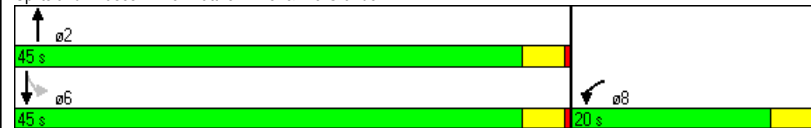


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
LOS	B		B			D
Approach Delay	19.8		12.6			36.9
Approach LOS	B		B			D

Intersection Summary

Area Type:	Other
Cycle Length:	65
Actuated Cycle Length:	65
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.94
Intersection Signal Delay:	22.9
Intersection Capacity Utilization:	90.9%
ICU Level of Service:	E
Analysis Period (min):	15

Splits and Phases: 28: Matthew Ave. & Rio Grande



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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	10	10	10	770	590	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frts	0.932				0.998	
Fit Protected	0.976			0.999		
Satd. Flow (prot)	1694	0	0	1861	1859	0
Fit Permitted	0.976			0.999		
Satd. Flow (perm)	1694	0	0	1861	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	489			877	765	
Travel Time (s)	11.1			19.9	17.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	11	837	641	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	848	652	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	58.5%
ICU Level of Service	B
Analysis Period (min)	15

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Proposed Conditions

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	20	20	10	780	590	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frts	0.932				0.998	
Fit Protected	0.976			0.999		
Satd. Flow (prot)	1694	0	0	1861	1859	0
Fit Permitted	0.976			0.999		
Satd. Flow (perm)	1694	0	0	1861	1859	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	1204			614	895	
Travel Time (s)	27.4			14.0	20.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	22	11	848	641	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	44	0	0	859	652	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			12	12	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	59.0%
ICU Level of Service	B
Analysis Period (min)	15

Rio Grande Boulevard
Proposed Conditions

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	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖↗	↗	↑	↘	↙	↓
Volume (vph)	160	70	720	130	100	510
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Storage Length (ft)	0	0		0	50	
Storage Lanes	2	1		1	1	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	1.00
Frt		0.850		0.850		
Fit Protected	0.950				0.950	
Satd. Flow (prot)	3433	1583	1863	1583	1770	1863
Fit Permitted	0.950				0.197	
Satd. Flow (perm)	3433	1583	1863	1583	367	1863
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)		76		141		
Link Speed (mph)	30		30		30	
Link Distance (ft)	874		977		614	
Travel Time (s)	19.9		22.2		14.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	174	76	783	141	109	554
Shared Lane Traffic (%)						
Lane Group Flow (vph)	174	76	783	141	109	554
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	24		12		12	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type		Perm		Perm	Perm	
Protected Phases	8		2			6
Permitted Phases		8		2	6	
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	35.0	35.0	35.0	35.0
Total Split (%)	36.4%	36.4%	63.6%	63.6%	63.6%	63.6%
Maximum Green (s)	16.0	16.0	31.0	31.0	31.0	31.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0
Act Effct Green (s)	16.0	16.0	31.0	31.0	31.0	31.0
Actuated g/C Ratio	0.29	0.29	0.56	0.56	0.56	0.56
v/c Ratio	0.17	0.15	0.75	0.15	0.53	0.53

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Proposed Conditions

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	↖	↗	↑	↘	↙	↓
Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	15.2	5.3	27.7	8.9	19.7	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.2	5.3	27.7	8.9	19.7	9.8
LOS	B	A	C	A	B	A
Approach Delay	12.2		24.8			11.4
Approach LOS	B		C			B

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	55
Control Type:	Pretimed
Maximum v/c Ratio:	0.75
Intersection Signal Delay:	18.3
Intersection LOS:	B
Intersection Capacity Utilization:	58.0%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 34: Indian School Rd & Rio Grande



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Proposed Conditions

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	50	10	10	960	730	130
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr't	0.977				0.977	
Fit Protected	0.960			0.999		
Satd. Flow (prot)	1747	0	0	3536	3458	0
Fit Permitted	0.960			0.999		
Satd. Flow (perm)	1747	0	0	3536	3458	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	819			274	205	
Travel Time (s)	18.6			6.2	4.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	11	11	1043	793	141
Shared Lane Traffic (%)						
Lane Group Flow (vph)	65	0	0	1054	934	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	43.6%
ICU Level of Service	A
Analysis Period (min)	15

Rio Grande Boulevard
Proposed Conditions

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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	50	50	30	806	660	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Fr't	0.932				0.998	
Fit Protected	0.976			0.998		
Satd. Flow (prot)	1694	0	0	3532	3532	0
Fit Permitted	0.976			0.998		
Satd. Flow (perm)	1694	0	0	3532	3532	0
Link Speed (mph)	30			30	30	
Link Distance (ft)	590			395	977	
Travel Time (s)	13.4			9.0	22.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	54	33	876	717	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	108	0	0	909	728	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12			0	0	
Link Offset(ft)	0			0	0	
Crosswalk Width(ft)	16			16	16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Sign Control	Stop			Free	Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	56.7%
ICU Level of Service	B
Analysis Period (min)	15

Rio Grande Boulevard
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Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	↔		↕		↕	
Volume (vph)	10	10	56	810	660	58
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.932		0.988		0.988	
Flt Protected	0.976		0.997		0.997	
Satd. Flow (prot)	1694	0	0	3529	3497	0
Flt Permitted	0.976		0.865		0.865	
Satd. Flow (perm)	1694	0	0	3061	3497	0
Right Turn on Red	Yes				Yes	
Satd. Flow (RTOR)	11				27	
Link Speed (mph)	30		30		30	
Link Distance (ft)	980		518		395	
Travel Time (s)	22.3		11.8		9.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	11	61	880	717	63
Shared Lane Traffic (%)						
Lane Group Flow (vph)	22	0	0	941	780	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(ft)	12		0		0	
Link Offset(ft)	0		0		0	
Crosswalk Width(ft)	16		16		16	
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9	15			9
Turn Type	Perm					
Protected Phases	4		2		6	
Permitted Phases	2					
Minimum Split (s)	20.0		20.0		20.0	
Total Split (s)	20.0	0.0	35.0	35.0	35.0	0.0
Total Split (%)	36.4%	0.0%	63.6%	63.6%	63.6%	0.0%
Maximum Green (s)	16.0		31.0		31.0	
Yellow Time (s)	3.5		3.5		3.5	
All-Red Time (s)	0.5		0.5		0.5	
Lost Time Adjust (s)	0.0		0.0		0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0		5.0		5.0	
Flash Dont Walk (s)	11.0		11.0		11.0	
Pedestrian Calls (#/hr)	0		0		0	
Act Effct Green (s)	16.0		31.0		31.0	
Actuated g/C Ratio	0.29		0.56		0.56	
v/c Ratio	0.04		0.55		0.39	
Control Delay	10.8		9.1		13.0	
Queue Delay	0.0		0.0		0.0	
Total Delay	10.8		9.1		13.0	

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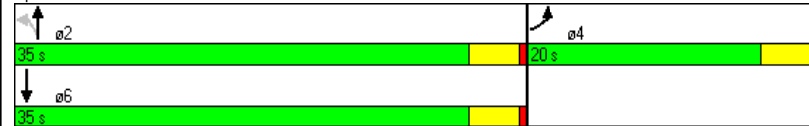


Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
LOS	B		A		B	
Approach Delay	10.8		9.1		13.0	
Approach LOS	B		A		B	

Intersection Summary

Area Type:	Other
Cycle Length:	55
Actuated Cycle Length:	55
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green
Natural Cycle:	40
Control Type:	Pretimed
Maximum v/c Ratio:	0.55
Intersection Signal Delay:	10.9
Intersection Capacity Utilization:	57.4%
ICU Level of Service:	B
Analysis Period (min):	15

Splits and Phases: 40: Floral Rd. & Rio Grande



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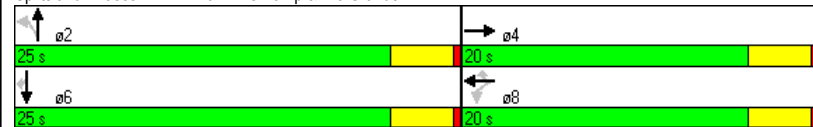
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations				↖	↔	↗	↖	↕	↗		↕	↗
Volume (vph)	0	297	0	400	10	300	350	566	0	0	570	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0	0	0	150	0	0	0	0	150	0	0	0
Storage Lanes	0	0	0	1	0	0	0	0	0	0	0	1
Taper Length (ft)	25	25	25	25	25	25	25	25	25	25	25	25
Lane Util. Factor	1.00	1.00	1.00	0.95	0.91	0.95	1.00	0.95	1.00	1.00	0.95	1.00
Fr _t				0.980	0.850						0.850	
Fit Protected				0.950	0.960	0.950						
Satd. Flow (prot)	0	0	0	1681	1595	1504	1770	3539	0	0	3539	1583
Fit Permitted				0.482	0.485	0.391						
Satd. Flow (perm)	0	0	0	853	806	1504	728	3539	0	0	3539	1583
Right Turn on Red			Yes		Yes			Yes			Yes	
Satd. Flow (RTOR)				19	194							109
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		919			1070			351			518	
Travel Time (s)		20.9			24.3			8.0			11.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	323	0	435	11	326	380	615	0	0	620	109
Shared Lane Traffic (%)				47%		10%						
Lane Group Flow (vph)	0	323	0	231	248	293	380	615	0	0	620	109
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		12			12			12			12	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type				Perm		Perm	Perm					Perm
Protected Phases		4			8			2				6
Permitted Phases				8		8	2					6
Minimum Split (s)		20.0		20.0	20.0	20.0	20.0	20.0			20.0	20.0
Total Split (s)	0.0	20.0	0.0	20.0	20.0	20.0	25.0	25.0	0.0	0.0	25.0	25.0
Total Split (%)	0.0%	44.4%	0.0%	44.4%	44.4%	44.4%	55.6%	55.6%	0.0%	0.0%	55.6%	55.6%
Maximum Green (s)		16.0		16.0	16.0	16.0	21.0	21.0			21.0	21.0
Yellow Time (s)		3.5		3.5	3.5	3.5	3.5	3.5			3.5	3.5
All-Red Time (s)		0.5		0.5	0.5	0.5	0.5	0.5			0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		5.0		5.0	5.0	5.0	5.0	5.0			5.0	5.0
Flash Dont Walk (s)		11.0		11.0	11.0	11.0	11.0	11.0			11.0	11.0
Pedestrian Calls (#/hr)		0		0	0	0	0	0			0	0
Act Effct Green (s)		0.0		16.0	16.0	16.0	21.0	21.0			21.0	21.0
Actuated g/C Ratio		0.00		0.36	0.36	0.36	0.47	0.47			0.47	0.47
v/c Ratio		no cap		0.76	0.83	0.44	1.12	0.37			0.38	0.14

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Control Delay				34.0	40.8	6.7	104.6	8.6			8.6	2.4
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	0.0
Total Delay		Error		34.0	40.8	6.7	104.6	8.6			8.6	2.4
LOS		F		C	D	A	F	A			A	A
Approach Delay		Err		25.8			45.2				7.7	
Approach LOS		F		C			D				A	
Intersection Summary												
Area Type:	Other											
Cycle Length:	45											
Actuated Cycle Length:	45											
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green											
Natural Cycle:	50											
Control Type:	Pretimed											
Maximum v/c Ratio:	Err											
Intersection Signal Delay:	Err						Intersection LOS: F					
Intersection Capacity Utilization Err%:							ICU Level of Service H					
Analysis Period (min):	15											

Splits and Phases: 44: I-40 WB Onramp & Rio Grande



Rio Grande Boulevard
Proposed Conditions

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↕	↗					↕	↗	↘	↘	↕
Volume (vph)	50	10	300	0	0	0	0	866	340	100	870	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	1.00	0.97	0.95	1.00
Frt			0.850						0.850			
Fit Protected		0.960								0.950		
Satd. Flow (prot)	0	1788	1583	0	0	0	0	3539	1583	3433	3539	0
Fit Permitted		0.960								0.250		
Satd. Flow (perm)	0	1788	1583	0	0	0	0	3539	1583	903	3539	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			46						370			
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		978			863			412			351	
Travel Time (s)		22.2			19.6			9.4			8.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	11	326	0	0	0	0	941	370	109	946	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	65	326	0	0	0	0	941	370	109	946	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			24			24	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Turn Type	Perm		Perm					Perm	Perm			
Protected Phases		4						2			6	
Permitted Phases	4		4					2	6			
Minimum Split (s)	20.0	20.0	20.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	0.0
Total Split (s)	20.0	20.0	20.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0					16.0	16.0	16.0	16.0	
Yellow Time (s)	3.5	3.5	3.5					3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5					0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0					5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0					11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0					0	0	0	0	
Act Effct Green (s)		16.0	16.0					16.0	16.0	16.0	16.0	
Actuated g/C Ratio		0.40	0.40					0.40	0.40	0.40	0.40	
v/c Ratio		0.09	0.49					0.66	0.43	0.30	0.67	
Control Delay		8.0	10.8					12.6	3.1	11.1	12.7	
Queue Delay		0.0	0.0					0.0	0.0	0.0	0.0	
Total Delay		8.0	10.8					12.6	3.1	11.1	12.7	

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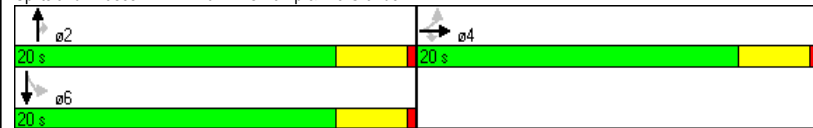
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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)												
Ideal Flow (vphpl)												
Lane Width (ft)												
Lane Util. Factor												
Frt												
Fit Protected												
Satd. Flow (prot)												
Fit Permitted												
Satd. Flow (perm)												
Right Turn on Red												
Satd. Flow (RTOR)												
Link Speed (mph)												
Link Distance (ft)												
Travel Time (s)												
Peak Hour Factor												
Adj. Flow (vph)												
Shared Lane Traffic (%)												
Lane Group Flow (vph)												
Enter Blocked Intersection												
Lane Alignment												
Median Width(ft)												
Link Offset(ft)												
Crosswalk Width(ft)												
Two way Left Turn Lane												
Headway Factor												
Turning Speed (mph)												
Turn Type												
Protected Phases												
Permitted Phases												
Minimum Split (s)												
Total Split (s)												
Total Split (%)												
Maximum Green (s)												
Yellow Time (s)												
All-Red Time (s)												
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)												
Flash Dont Walk (s)												
Pedestrian Calls (#/hr)												
Act Effct Green (s)												
Actuated g/C Ratio												
v/c Ratio												
Control Delay												
Queue Delay												
Total Delay												

Splits and Phases: 47: I-40 WB Offramp & Rio Grande



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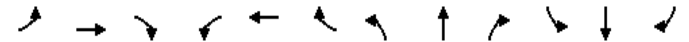
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕		↕		↕		↕		↕		↕	
Volume (vph)	20	10	20	50	1020	20	50	1166	50	50	1070	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.946		0.997		0.994		0.994		0.994		0.994	
Fit Protected	0.980		0.998		0.998		0.998		0.998		0.998	
Satd. Flow (prot)	0	1727	0	0	1853	0	0	3511	0	0	3511	0
Fit Permitted	0.980		0.998		0.998		0.998		0.998		0.998	
Satd. Flow (perm)	0	1727	0	0	1853	0	0	3511	0	0	3511	0
Link Speed (mph)	30		30		30		30		30		30	
Link Distance (ft)	649		441		418		412		412		412	
Travel Time (s)	14.8		10.0		9.5		9.4		9.4		9.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	11	22	54	1109	22	54	1267	54	54	1163	54
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	55	0	0	1185	0	0	1375	0	0	1271	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0		0		0		0		0	
Link Offset(ft)	0		0		0		0		0		0	
Crosswalk Width(ft)	16		16		16		16		16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9		15		9		15		9	
Sign Control	Stop		Stop		Free		Free		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	135.6%
Analysis Period (min)	15
ICU Level of Service	H

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↕		↕		↕		↕		↕		↕	
Volume (vph)	100	10	50	10	100	100	10	1066	10	50	990	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0		0		0		150		0	
Storage Lanes	0		0		0		0		0		0	
Taper Length (ft)	25		25		25		25		25		25	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt	0.958		0.888		0.999		0.987		0.987		0.987	
Fit Protected	0.970		0.996		0.996		0.998		0.998		0.998	
Satd. Flow (prot)	0	1731	0	0	1648	0	0	3536	0	0	3486	0
Fit Permitted	0.970		0.996		0.996		0.998		0.998		0.998	
Satd. Flow (perm)	0	1731	0	0	1648	0	0	3536	0	0	3486	0
Link Speed (mph)	30		30		30		30		30		30	
Link Distance (ft)	523		627		410		418		418		418	
Travel Time (s)	11.9		14.3		9.3		9.5		9.5		9.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	11	54	11	11	109	11	1159	11	54	1076	109
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	131	0	0	1181	0	0	1239	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)	0		0		0		0		0		0	
Link Offset(ft)	0		0		0		0		0		0	
Crosswalk Width(ft)	16		16		16		16		16		16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9		15		9		15		9	
Sign Control	Stop		Stop		Free		Free		Free		Free	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	87.9%
Analysis Period (min)	15
ICU Level of Service	E

Rio Grande Boulevard
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Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↔		↕			↕
Volume (vph)	10	100	980	30	200	850
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12
Storage Length (ft)	0	0		0	75	
Storage Lanes	1	0		0	0	
Taper Length (ft)	25	25		25	25	
Lane Util. Factor	1.00	1.00	0.95	0.95	0.95	0.95
Frt	0.877		0.995			
Fit Protected	0.995					0.991
Satd. Flow (prot)	1625	0	3522	0	0	3507
Fit Permitted	0.995					0.562
Satd. Flow (perm)	1625	0	3522	0	0	1989
Right Turn on Red		Yes		Yes		
Satd. Flow (RTOR)	104		9			
Link Speed (mph)	30		30			30
Link Distance (ft)	784		205			410
Travel Time (s)	17.8		4.7			9.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	109	1065	33	217	924
Shared Lane Traffic (%)						
Lane Group Flow (vph)	120	0	1098	0	0	1141
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(ft)	12		0			0
Link Offset(ft)	0		0			0
Crosswalk Width(ft)	16		16			16
Two way Left Turn Lane						
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15	9		9	15	
Turn Type					Perm	
Protected Phases	8		2			6
Permitted Phases						6
Minimum Split (s)	20.0		20.0		20.0	20.0
Total Split (s)	20.0	0.0	40.0	0.0	40.0	40.0
Total Split (%)	33.3%	0.0%	66.7%	0.0%	66.7%	66.7%
Maximum Green (s)	16.0		36.0		36.0	36.0
Yellow Time (s)	3.5		3.5		3.5	3.5
All-Red Time (s)	0.5		0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0		5.0		5.0	5.0
Flash Dont Walk (s)	11.0		11.0		11.0	11.0
Pedestrian Calls (#/hr)	0		0		0	0
Act Effct Green (s)	16.0		36.0		36.0	36.0
Actuated g/C Ratio	0.27		0.60		0.60	0.60
v/c Ratio	0.24		0.52		0.96	

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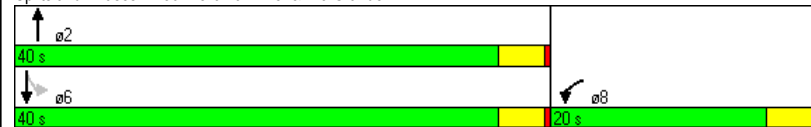


Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Control Delay	6.9		8.0			31.5
Queue Delay	0.0		0.0			0.0
Total Delay	6.9		8.0			31.5
LOS	A		A			C
Approach Delay	6.9		8.0			31.5
Approach LOS	A		A			C

Intersection Summary

Area Type:	Other
Cycle Length:	60
Actuated Cycle Length:	60
Offset:	0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
Natural Cycle:	65
Control Type:	Pretimed
Maximum v/c Ratio:	0.96
Intersection Signal Delay:	19.3
Intersection LOS:	B
Intersection Capacity Utilization:	74.1%
ICU Level of Service:	D
Analysis Period (min):	15

Splits and Phases: 56: Bellamah Ave. & Rio Grande

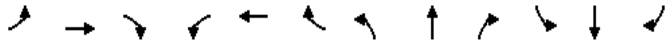


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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑			↑			↕			↕	
Volume (vph)	100	50	50	90	200	300	50	536	50	75	500	75
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Storage Length (ft)	0		0	0		0	150		150	150		0
Storage Lanes	0		0	0		0	0		0	0		0
Taper Length (ft)	25		25	25		25	25		25	25		25
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Fr _t		0.966			0.931			0.988			0.983	
Fit Protected		0.976			0.992			0.996			0.994	
Satd. Flow (prot)	0	1756	0	0	1720	0	0	3483	0	0	3458	0
Fit Permitted		0.976			0.992			0.996			0.994	
Satd. Flow (perm)	0	1756	0	0	1720	0	0	3483	0	0	3458	0
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		921			795			903			552	
Travel Time (s)		20.9			18.1			20.5			12.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	54	54	98	217	326	54	583	54	82	543	82
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	217	0	0	641	0	0	691	0	0	707	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			0			0	
Link Offset(ft)		0			0			0			0	
Crosswalk Width(ft)		16			16			16			16	
Two way Left Turn Lane												
Headway Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Turning Speed (mph)	15		9	15		9	15		9	15		9
Sign Control		Stop			Stop			Yield			Yield	

Intersection Summary

Area Type:	Other
Control Type:	Unsignalized
Intersection Capacity Utilization	80.9%
ICU Level of Service	D
Analysis Period (min)	15

APPENDIX E

1989 RIO GRANDE BOULEVARD CORRIDOR MASTER PLAN

