

Chapter 2 Project Alternatives

This chapter discusses the project alternatives, including the 1999 EA Preferred Alternative, the Preferred 3-Lane Alternative, and the No Build Alternative. All alternatives are assessed to determine if they meet the project need and purpose as identified in the previous chapter. The no build is discussed as required by NEPA to provide a baseline to which the positive and negative effects of the build alternatives are compared.

2.1 No Build Alternative

The No Build Alternative would maintain 4th Street and all its intersections in their existing alignments, lane configurations, and conditions. No improvements would be made to the roadway and intersections except for routine maintenance. Although routine maintenance activities could correct poor pavement conditions, the underlying causes for pavement deterioration (poor drainage) would remain; therefore, pavement would be expected to deteriorate again relatively quickly.

2.2 Build Alternatives

1999 EA Preferred Alternative

The 1999 EA Preferred Alternative evolved from a number of improvement alternatives that were considered by functional areas (character zones) along 4th Street based on traffic volumes, numbers of accidents, and land uses along the roadway. In addition to the roadway, improvements were also proposed at several intersections. These improvements varied from the Solar Road/4th Street Intersection, where improvements were limited to sidewalk and handicapped accessibility improvements, to full reconstruction and resignalization at several intersections. Full reconstruction and resignalization was proposed for the intersections of 4th Street with Ranchitos and El Pueblo Roads. These intersection improvements are shown in the 1999 EA.

Because of the offset intersection at Osuna Road/Chavez Road/4th Street, realignment alternatives were considered. The 1999 EA preferred an alternative that realigned Chavez Road north to match the existing Osuna Road alignment and eliminated the existing Chavez Road/4th Street intersection. Although this alternative was preferred, a Plaza alternative was also presented. The Plaza alternative added a circulation roadway between Chavez Road and the existing Northdale Shopping Center intersection at Osuna Road. This alternative derived its name from the area between the circulation roadway and Chavez Road that could be used as a Village plaza. The proposed improvements to the intersection of Osuna Road/Chavez Road/4th Street are shown in the 1999 EA.

For 4th Street roadway improvements, the 1999 EA preferred a five-lane roadway with raised center median, curb and gutter, and sidewalk south of Schulte Road. The new section centerline would have been offset approximately 8.5 feet west of the existing centerline. North of Schulte Road, a four-lane roadway with curb and gutter and sidewalk was preferred. The new section centerline north of Schulte Road would have been offset approximately 0.5 feet west of the existing centerline.

Preferred 3-Lane Build Alternative

Four differing roadway sections are proposed for the project area (see Figure 2.2-1). From Solar Road to Camino Español, the Preferred 3-Lane Alternative consists of one 11-foot southbound lane, two 11-foot northbound driving lanes to accommodate the PM peak traffic, a 12-foot center two-way left-turn lane, curb and gutter, a 6-foot sidewalk on the east side, and a shared pedestrian/bicycle facility (between Solar Road and Mullen Road) on the west side of the roadway (see Figure 2.2-1).

See Figure 2.2-1

Section between Solar Road and Camino Espanol

Section between Camino Espanol and Osuna Road

Between Camino Español and Osuna Road, the Preferred 3-Lane Alternative consists of one 11-foot southbound lane, two 11-foot northbound driving lanes, a 12-foot center two-way left-turn lane, curb and gutter, and a 6-foot sidewalk and 4-foot parkway with landscaping on both sides of the road (see Figure 2.2-1).

At Osuna Road, the outside traffic lane becomes a designated right-turn lane (see Figure 2.2-2). From Osuna Road north to Schulte Road, the Preferred 3-Lane Alternative consists of two 11-foot driving lanes and a 12-foot center two-way left-turn lane. On both sides of the roadway outside the driving lanes are 8-foot wide areas that will be used for either parallel parking or as a landscaped parkway, depending upon the location along the roadway. Curb and gutter and a 10-foot sidewalk is located outside the parking/parkway area on both sides of the roadway (see Figure 2.2-1).

From Schulte Road to Ortega Road, the Preferred 3-Lane Alternative consists of two 11-foot driving lanes, a 12-foot center two-way left-turn lane, and, on both sides of the roadway, a 4.5-foot paved roadway shoulder, a 6.5-foot grass-covered drainage swale, and a 5-foot hard-surfaced path for pedestrians (see Figure 2.2-1). A special section will be utilized between Green Valley Road and Tyler Road on the roadway's west side. To provide on-site business parking in this area, a curb and gutter and sidewalk section will be used.

Proposed improvements to two intersections under the Preferred 3-Lane Alternative do not differ substantially from those in the 1999 EA Preferred Alternative. Geometric reconstruction and resignalization is still proposed at the 4th Street/Ranchitos Road and the 4th Street/El Pueblo Road intersections. A modern roundabout was also presented in the 1999 EA for the intersection of 4th Street and Ranchitos Road.

Traffic signals will be added to three intersections to produce traffic platoons. This platooning of traffic will create gaps in traffic that will allow vehicles to enter 4th Street from intersecting streets and driveways. New traffic signals are proposed for 4th Street at its intersections with Schulte Road (west leg of the offset intersection), Pueblo Solano Road (east leg of the offset intersection) and Los Ranchos Road.

A modified Plaza concept at the intersection of Osuna Road/Chavez Road/4th Street is proposed. The only substantial difference in design from the prior Plaza concept is that the circulation roadway connects to Chavez Road at a point approximately 150 feet farther west than the Plaza alternative from the 1999 EA (see Figure 2.2-2).

The Preferred 3-Lane Alternative places increased emphasis on bicycle and pedestrian facilities. Hard-surfaced pedestrian paths and/or sidewalks will be provided throughout the project area. These facilities will be constructed in compliance with the Americans with Disabilities Act (ADA) and its resultant regulations. Textures will be used in crosswalks to visually delineate pedestrian crossing areas to approaching motorists.

Sidewalk improvements between Solar Road and Mullen Road will construct a facility of extra width (12 feet [3.7 m]) on the west side of the roadway to accommodate a shared pedestrian and bicycle facility. Although Guadalupe Trail is a bicycle route throughout this area, Guadalupe Trail is discontinuous between Solar Road and Mullen Road. As a result, 4th Street is used to connect the two discontinuous pieces of Guadalupe Trail. However, with proposed 4th Street roadway improvements, there will be insufficient width for bicycles and motor vehicles to safely share the roadway. To prevent excessive right of way acquisition and to eliminate the need for bicyclists to enter the roadway for a short distance and then cross the roadway to connect to Guadalupe Trail, a shared pedestrian and bicycle facility will be constructed. The shared facility will be striped and signed to minimize conflicts between bicyclists and pedestrians.

See Figure 2.2-2

This shared pedestrian and bicycle facility will provide a connection for bicycles between the discontinuous portions of Guadalupe Trail by using the extra width shared facility and residential streets (Solar Road, Harmony Lane, Floretta Road, Kensington Drive, and Grecian Avenue). Although the connection is provided, it requires approximately 0.8 mi (1.3 km) of out-of-direction travel by bicyclists, which is not recommended by the City of Albuquerque. During final design, the City of Albuquerque has agreed to work with project designers to further improve this connection and minimize out-of-direction travel.

In addition, additional shoulder width was provided in the section from Schulte Road to Ortega Road. Although designated bicycle lanes will not be provided, the 4.5-foot paved roadway shoulders north of Schulte Road will allow bicyclists to make trips between destinations within the Village. In the 3-Lane Preferred Alternative, the roadway shoulders have been widened to meet FHWA requirements for bicyclist use. The widened shoulder meets the bike criteria as discussed in the Guide for the Development of Bicycle Facilities, prepared by the AASHTO Task Force on Geometric Design, and endorsed by FHWA. The Greater Albuquerque Recreational Trails Committee (GARTC) has expressed their concerns during the design process. Their comments will be incorporated into the final roadway design. Refer to the attached agency letter dated 14 March 2000. The economic importance of the roadway to the Village imposed constraints upon the type of bicycle facilities provided. Provision of dedicated bicycle lanes would have required the acquisition of additional properties. As a result, loss of Village gross receipt revenues and the impact to businesses through acquisitions and relocations of businesses could be quite substantial. This portion of 4th Street is not designated as an existing or planned bicycle route, lane, or trail on the Long Range Bikeway System map for the Albuquerque Urban Area (map dated April 3, 2001).

Currently, Route 10, a regular bus service route, provides transit service on 4th Street. The transit service travels from downtown Albuquerque to just past Alameda Boulevard where it turns around. It is the only transit in the area providing service north of Comanche Road. Route 10 currently provides 30 bus stops within the 4th Street project limits. According to John Parker, Service Developer for the SunTran Bus System, it is one of the busiest bus routes in the City of Albuquerque. It is also one of two routes that is operational on Sunday. SunTran data indicated that an average of 4.5% of all ridership throughout the city utilizes Route 10 servicing 4th Street. Also, ten percent of the total bike rack utilization is on Route 10. Transit improvements will consist of providing a total of 28 bus pull-outs in the locations as described in the 1999 EA. Since transit provisions are unchanged from the 1999 EA Preferred Alternative, no additional consultations occurred.

The Preferred 3-Lane Alternative also proposes changes in drainage improvements over those recommended in the 1999 EA. Minor changes include the use of grass-covered roadway swales instead of curb and gutter to transmit runoff throughout most of the project area. However, changes in the provision of stormwater retention facilities have also resulted that are primarily the result of the completion of the *North Valley Drainage Management Plan* for the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) in December 2000 and are not the result of project design modifications. The recommendations of the *North Valley Drainage Management Plan* have been incorporated into this project and include installation of drop inlets and a storm drain trunk line along 4th Street and lateral lines to connect cross streets. These facilities will transport stormwater to a series of fenced, aboveground stormwater retention facilities located along the corridor that were identified and investigated in the 1999 EA. These retention facilities are capable of containing a 100-year rainfall event. Sixteen areas located every 600 ft (183 m) were included in the 1999 EA. However, all of these facilities may not be required. If all of these facilities are utilized, they will require 14.4 acres of easement along the corridor.

The Village of Los Ranchos will work with AMAFCA to coordinate their efforts to utilize stormwater retention facilities previously proposed in the 1999 EA. Where possible, areas previously

identified in the 1999 EA will be utilized. No environmental impacts were identified with these areas in the 1999 EA. If alternatives areas are needed, the Village of Los Ranchos commits to coordinate with AMAFCA to obtain the appropriate environmental clearances for those areas.

Due to the length of the project area, and funding limitations and availability, improvements to 4th Street will be phased.

2.3 Summary

The planned improvements to 4th Street will correct deficiencies of poor pavement conditions, existing and future traffic operations, roadway design, drainage, roadway safety, roadway lighting, and will stimulate the local economy. Table 2.3-1 summarizes and compares the 1999 EA Preferred Alternative to the Preferred 3-Lane Alternative.

**Table 2.3-1
Summary of Planned Improvements**

Type of Improvement	No Build Alternative	1999 EA Preferred Alternative	Preferred 3-Lane Alternative
Roadway	No roadway improvements	Solar Road to Schulte Road: 5-lane roadway with raised center median, curb and gutter, and sidewalk Schulte Road to Ortega Road: 4-lane roadway, curb and gutter, and sidewalk	Solar Road to Osuna Road: one southbound lane, two northbound lanes, a center two-way left turn lane, curb and gutter, and sidewalk Osuna Road to Schulte Road: 3-lane roadway, parallel parking or landscaped parkway, curb and gutter, and sidewalk Schulte Road to Ortega Road: 3-lane roadway, paved roadway shoulder, drainage swales and pedestrian path
Intersections	No intersection improvements	Sidewalk and handicapped accessibility at Solar Road. Geometric reconfiguration & resignalization at 4 th Street/Chavez Road/Osuna Road, 4 th Street/Ranchitos, and 4 th Street/El Pueblo Road	Sidewalk and handicapped accessibility at Solar Road Geometric reconfiguration & resignalization at 4 th Street/Chavez Road/Osuna Road, 4 th Street/Ranchitos, and 4 th Street/El Pueblo Road New signalized intersections at Schulte Road West, Pueblo Solano Road East, and Los Ranchos Road; dedicated left- and right turn lanes
Drainage	No drainage improvements	Curb & gutter throughout project area, project provides retention facilities	Curb & gutter; roadside swales; project provides retention facilities
Bicycle	No bicycle improvements	Shared pedestrian/bicycle facility between Solar Road and Mullen Road on the west side of the roadway, no other provisions	Shared pedestrian/bicycle facility between Solar Road and Mullen Road on the west side of the roadway Intra-village trips accommodated by paved roadway shoulder
Pedestrian	No pedestrian improvements	Sidewalks	Sidewalks and hard-surfaced pedestrian paths