



Environmental Impact Statement - Executive Summary

1.0 Purpose and Need For Project

The Federal Highway Administration (FHWA), in cooperation with the New Mexico State Highway and Transportation Department (NMSHTD), has prepared this Final Environmental Impact Statement (FEIS) to incorporate changes to the Paseo Del Volcan Draft Environmental Impact Statement (DEIS) released for public comment in January 1998 (Keystone 1997). The document has been prepared in accordance with the National Environmental Policy Act of 1969 and Council on Environmental Quality (CEQ) guidelines, FHWA Technical Advisory 6640.8A, and the NMSHTD Location Study Procedures. The FEIS describes:

- the proposed action;
- the need for the proposed action;
- alternatives to the proposed action;
- consequences of the proposed action on the social, economic, cultural, and natural environment;
- measures, as appropriate, to avoid, minimize, or otherwise mitigate impacts of the proposed action; and
- the process used for involving federal, state, and local agencies and the general public affected by the proposed action.

Where applicable, analyses of environmental impacts associated with the proposed action that were presented in the DEIS have been updated in the FEIS. Major changes that have occurred to the project since publication of the DEIS include commitments for the NMSHTD to:

- depress the roadway facility near the Enchanted Hills Subdivision in Rio Rancho,
- construct noise walls at the Enchanted Hills and Northern Meadows subdivisions in Rio Rancho, and
- program a separate study to evaluate the transportation needs of the US 550 corridor between Paseo del Volcan and I-25. In addition to the above changes, relocations of individuals and families have become necessary due to development within the proposed corridor since the release of the draft EIS. Additional information on these elements of the project are discussed in the appropriate sections of the FEIS.

The FHWA and NMSHTD propose to establish a limited-access transportation corridor located in Bernalillo County and Sandoval County, New Mexico. This corridor, known as Paseo del Volcan, would traverse the west side of the Albuquerque metropolitan area and extend from I-40 west of Albuquerque to US 550 north of Rio Rancho. The proposed action includes establishing the corridor location, acquiring approximately 122 meters (m) (400 feet [ft]) of right-of-way for most of the length of the corridor and constructing a two-lane highway within the corridor. If the proposed action is authorized by FHWA, the NMSHTD intends to begin right-of-way acquisition in 2001 or 2002. The construction schedule for the two-lane facility has not been established and will be dependent on the availability of funding and construction priorities established by state and local governments, including the NMSHTD, Bernalillo County, Sandoval County, and the Cities of Albuquerque and Rio Rancho. The proposed action is consistent with the Albuquerque metropolitan area's financially-constrained 2020 Metropolitan Transportation Plan (2020 MTP) and current Transportation Improvement Program (TIP).

The proposed action is consistent with long-range transportation planning policies established by local governments for the urban area and would accommodate identified future transportation needs. Paseo del Volcan would connect I-40 and I-25 (via US 550) and would provide north-south access to the rapidly growing west side of the Albuquerque and Rio Rancho metropolitan area. As planned, this corridor would also be the western terminus of several east-west arterial roads proposed to serve the west side of the metropolitan area. The access provided by Paseo del Volcan would facilitate coordination of the transportation system and development within the corridor.



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The project study team, which includes the City of Albuquerque, the City of Rio Rancho, the Middle Rio Grande Council of Governments (MRGCOG) and other local agencies, recognizes that the future transportation needs within the Paseo del Volcan corridor should be considered at this time. Because of the rapid growth occurring in the project area, the NMSHTD and FHWA propose purchase of sufficient right-of-way to preserve a corridor for reasonably foreseeable future transportation improvements. This approach is consistent with the MRGCOG's corridor preservation plans for the Paseo del Volcan corridor.

The proposed action is needed to:

- facilitate and provide for orderly development in a rapidly growing area of Bernalillo County and Sandoval County;
- provide linkage to other existing and planned transportation facilities within the northwest subarea; and
- provide additional roadway capacity within the subarea. Each of these three needs is discussed in the following paragraphs.

Orderly Growth -

The northwest quadrant of the Albuquerque metropolitan planning area is among the fastest growing areas in the country. The intense growth of this subarea is demonstrated by the City of Rio Rancho, which encompasses the northerly portion of the Paseo del Volcan corridor. The unincorporated community of Rio Rancho Estates had a population of approximately 1,000 in 1970. Year 2000 census data show the population of the City of Rio Rancho as over 50,000. According to adopted 2020 socioeconomic forecasts prepared by the MRGCOG, the population of Rio Rancho and the surrounding area of Sandoval County is projected to be over 100,000 by the year 2020. While not quite as intense, the Bernalillo County portions of the Paseo del Volcan corridor are also experiencing rapid growth and are among the fastest growing subareas of the Albuquerque urban area. Recent but as of yet unofficial population projections prepared for the draft 2025 MTP indicate that growth trends for the western portions of the Albuquerque/Rio Rancho metropolitan area will continue.

If implemented, Paseo del Volcan would provide a major transportation corridor that provides efficient access to and that would serve the developing properties on Albuquerque's west side and in Rio Rancho. The corridor would facilitate and is consistent with on-going land use planning by city and county governments and would provide efficient access to the Double Eagle II Activity Center in Bernalillo County and several large subdivisions located in Rio Rancho. Discussions of land planning activities within the corridor are discussed in Chapter 3, Section 3.1.

System Linkage - Paseo del Volcan would connect other existing and planned roadways that comprise the regional transportation system. It would connect to and would be the eastern terminus for several major east-west corridors including Northern Boulevard, Southern Boulevard, McMahon Boulevard, Irving Boulevard, Paseo del Norte, and Ladera Drive. The overall roadway system has been planned and adopted by the MRGCOG to serve the long-range transportation needs of the region consistent with adopted growth policies and socioeconomic projections. If Paseo del Volcan is not implemented, the nearest north-south linkage between the east-west corridors would be Unser Boulevard—a roadway located several miles to the east of the Paseo del Volcan corridor. The resulting out-of-direction travel would add vehicle-miles-of travel to the system and potentially over-burden other arterials which already exist or that are planned for the future.

In addition to system linkage, Paseo del Volcan would provide direct access to Double Eagle II Airport from Albuquerque and Rio Rancho. Among other services, this airport serves corporate entities located in Rio Rancho, including Intel. Staff with the City of Albuquerque responsible for economic



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development and other, similar entities, are actively pursuing industrial and manufacturing tenants at this airport. Eclipse Aviation, a manufacturer of corporate jets recently committed to establish a manufacturing plant at Double Eagle II airport that may ultimately be the site of hundreds of jobs.

System Capacity -The 20-year growth projected for northwest Albuquerque and the Rio Rancho portion of Sandoval County would be accompanied by additional travel demand. Several aggressive land use development proposals are being considered for the area, including the Quail Ranch Master Plan, the Westland Development Sector Plan, and other development plans by American Realty and Petroleum Corporation Southwest (AMREP) and the Santa Ana Pueblo. Additional roadway infrastructure will be necessary in the area to serve future traffic generated by this projected development.

2.0 Public and Agency Involvement

An extensive process to inform and involve the public in planning for the Paseo del Volcan corridor has been undertaken by the NMSHTD. Since 1991, four open houses, four town meetings (in Bernalillo), and twelve meetings with community representatives have been held. Many other public actions by local governing bodies (e.g., resolutions) and citizens groups (e.g., petitions) have been undertaken to inform the public and provide input to the planning process.

The DEIS was released in January 1998, and a public hearing was held in February 1998 to provide opportunity for public and agency oral comments to the DEIS. More than 230 persons attended that hearing, 78 of whom made oral comments. In addition, about 150 written comments were received, most of which came from residents concerned about impacts to the Enchanted Hills subdivision in Rio Rancho. Approximately 30 issues and concerns were identified through comments by the public. A number of written comments were also received from private groups and organizations in support of the project. Fifteen agency letters included comments that varied from requests for coordination during construction to detailed questions about the DEIS.

The FEIS responds to public and agency comments to the DEIS. Chapters I and 2 clarify the proposed action and add further details about the project. In Chapter 3, analyses of potential impacts on noise levels, air quality, communities, and land use have been updated to reflect the currently proposed action and to address public and agency comments. Graphics have been improved to include aerial photography.

3.0 Alternatives

Alternatives were developed with input from several sources including a technical study team assembled specifically for this project, resource agencies, communities, and property owners affected by the proposed action, and the general public. A variety of alternatives were considered and evaluated during the location study phase of this project. These alternatives include various highway alternatives, modal alternatives, and transportation systems management and travel demand management alternatives.

The existing roadway network serving the corridor is limited to an existing two-lane access roadway (Paseo del Volcan) serving Double Eagle II Airport and adjoining facilities. Several short sections of other minor roadways serving residential developments have also been constructed within the study area over the last decade. Major arterials that connect to the east-west arterial system and that serve longer distance trips do not exist, although sections of unpaved roads have been platted and constructed. For these reasons, the focus of the location study was on corridor alternatives that were consistent with the project need.



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However, transportation systems management strategies, travel demand management (TDM) strategies, and transit alternatives were also considered during the location study phase of the project.

Because the existing street system within the study corridor is fragmented, little if any benefit could be achieved from the implementation of transportation systems management strategies on the existing roadway network. Several TDM strategies are currently in operation in the portion of the study area that includes the City of Rio Rancho. Because the implementation of additional TDM strategies without roadway improvements would not serve the transportation needs of the area, the use of TDM strategies as a stand-alone alternative was eliminated from further consideration.

Various alignment alternatives were considered during the location study phase of the project. Based on the engineering, environmental, social, and economic analyses conducted during the location study phase and input received from the affected communities, alignments A-3, B-4, C-1, and C-2 were eliminated from further consideration. Alignment A-3 was eliminated primarily because of conflicts with Double Eagle II Airport plans and drainage concerns. Alignment B-4 was eliminated to address concerns of local neighborhoods and was replaced by B-5. The C-1 alignment was found unsuitable for the purpose and need of Paseo del Volcan. The C-2 alignment and the US 550 portion of Alignment C-3 were eliminated based on potential community impacts and anticipated transportation service issues.

The No Action Alternative is included in the environmental impact statement as a viable alternative and to serve as a baseline to which the impacts of other alternatives can be compared. The No Action Alternative assumes that Paseo del Volcan is not included as an element of the regional transportation system. Residential development is still expected to occur in the area. Traffic generated by this development will utilize the existing roadway network and other local streets that are constructed as the area is built out. It is also assumed that improvements to other major streets would be necessary to accommodate the additional travel demand resulting from growth.

Proposed Action

The proposed action involves the acquisition of right-of-way and construction of a two-lane roadway from I-40 to US 550. The proposed typical section of Paseo del Volcan is a two-lane, limited-access roadway for its entire length between I-40 and US 550. Intersections with major cross streets would be at-grade except at I-40 where an interchange would be constructed. A portion of the C-3 alignment (see below) would be depressed below the surrounding terrain. The proposed highway would have two 12-foot lanes and 8-foot shoulders. For planning purposes, the corridor is divided into three sections, referred to as the A, B, and C Alignments, with alternatives in each section.

Right-of-way for each alignment is assumed to be approximately 122 meters (400 feet) wide. The proposed right-of-way provides sufficient width for the construction of the two-lane highway according to the policies of the 2020 Metropolitan Transportation Plan plus additional width to accommodate other, currently unidentified, long-term (beyond year 2020) transportation improvements. These improvements could include highway widening and/or the implementation of other transportation modes such as high-capacity transit, high-occupancy vehicle lanes, and bicycle and pedestrian trails.



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A Corridor Alignment Alternatives

The A corridor includes the section of the Paseo del Volcan corridor between I-40 to just north of the Bernalillo County/Sandoval County line. Two alignment alternatives, A-1 and A-2, are considered in this section.

A-1 Alignment Alternative (preferred A Alignment)

This alternative begins at I-40, approximately 3.2 kilometers {km} (2 miles [mi]) west of the existing interchange for the existing haul road to Double Eagle II Airport. This alignment is east of Shooting Range Park at the western boundary of Double Eagle II Airport. North of Double Eagle II Airport, where Paseo del Volcan intersects with the proposed Paseo del Norte extension, the alignment turns northeasterly as it crosses into Sandoval County and terminates just south of Southern Boulevard. The A-1 alignment is 22.6 km (14 mi) long and would require 322 hectares (ha) (797 acres [ac]) of right-of-way at a cost of \$6,700,000. Approximate construction cost is \$18,300,000.

A-2 Alignment Alternative

The A-2 alignment begins at I-40 at the alignment of the existing airport haul road and extends northerly for approximately 21 km (13 mi). It passes adjacent to the eastern boundary of Double Eagle II Airport and west of Petroglyph National Monument. As the alignment enters Sandoval County, it continues north on the western edge of Rio Rancho and terminates at its intersection with the A-1 alignment just south of Southern Boulevard. The A-2 alignment is 20.8 km (12.9 mi) long and would require 316 ha (782 ac) of right-of-way at a cost of \$8,100,000. Approximate construction cost is \$17,300,000.

B Corridor Alignment Alternatives

The B corridor includes the section of the Paseo del Volcan corridor from the northern terminus of the A corridor to a point approximately 5 km (3 mi) south of US 550. Two alignment alternatives, B-3 and B-5, are considered for this section.

B-3 Alignment Alternative (preferred B Alignment)

The B-3 alignment starts at the northern terminus of the A alignments just south of Southern Boulevard in Rio Rancho. The alignment proceeds north, skirting the western edge of the current Rio Rancho city limits and turns eastward through Rio Rancho in the vicinity of 28th and 29th streets. The terminus of this corridor is at the intersection of the B and C corridors, west of the Town of Bernalillo and within Rio Rancho, approximately 5 km (3 mi) south of US 550. The B-3 alignment is 21.7 km (13.5 mi) long and would require 409 ha (1,011 ac) of right-of-way at a cost of \$9,900,000. Approximate construction cost is \$13,900,000.

B-5 Alignment Alternative

The B-5 alignment starts at the northern terminus of the A alignments just south of Southern Boulevard in Rio Rancho. This corridor immediately turns northward to avoid a developed neighborhood and then follows the Southern Union natural gas pipeline right-of-way/Idalia Road in a northeasterly direction. The northern terminus of this corridor is at the intersection of the B and C corridors, west of the Town of Bernalillo and within Rio Rancho, approximately 5 km (3 mi) south of US 550. The B-5 alignment is 17.7 km (11.0 mi) long and would require 329 ha (814 ac) of right-of-way at a cost of \$8,300,000. Approximate construction cost is \$11,500,000.



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C Corridor Alignment Alternative

The C corridor includes the section of the Paseo del Volcan corridor from the northern terminus of the B corridor to US 550. This section includes a single alignment alternative -the C-3 alignment.

C-3 Alignment Alternative (preferred C Alignment)

The C-3 alignment starts at the northern terminus of the B alignments approximately 5 km (3 mi) south of us 550. The C-3 alignment corridor proceeds northeast, following the PNM powerline right-of-way to its northern terminus at its intersection with existing NM 44 west of NM 528. The portion of this alignment through the Enchanted Hills subdivision (approximately 1 mi) would be depressed approximately 2.5 to 3 m (8 to 10 ft) to reduce impacts to that community. The C-3 alignment is 9.5 km (3.1 mi) long and would require 64 ha (158 ac) of right-of-way at a cost of \$1,600,000. Approximate construction cost is \$3,100,000.

4.0 Affected Environment and Environmental Consequences of the Proposed Action Land Use

Through much of its length, the Paseo del Volcan study area encompasses: (1) lands that are currently undeveloped, and (2) areas developed or designated for municipal uses that involve large expanses of land (e.g., an airport, firing range, and several parks or open space areas). Several large subdivisions are found within the portion of the corridor that passes through the Rio Rancho metropolitan area. Several small commercial properties near I-40 are also present.

Much of the study area is within the boundaries of the West Side Strategic Plan (WSSP). The WSSP was adopted by the Albuquerque City Council on April 25, 1997 and by the Bernalillo County Commission on April 28, 1998. An emphasis of the WSSP is community-based urban form with areas designated for high-density community and village centers surrounded by lower density residential developments. Employment and services would be concentrated in the community and village centers with each of the centers connected by transportation corridors. Paseo del Volcan is included in the WSSP as a planned transportation corridor that would connect several community/village centers. Both the A-1 and A-2 alignments for the Paseo del Volcan corridor are identified within the WSSP.

The preferred alternative would involve acquisition of approximately 795 hectares (1966 acres) of vacant lands. Acquired lands would involve a mixture of public and private ownership. Approximately 1,570 undeveloped lots would be acquired for the preferred alternative. At the time the draft EIS was published in 1998, all of the parcels proposed for acquisition were undeveloped and unoccupied. Since that time, several mobile homes have been placed on lots within the portion of the B-3 alignment that follows 201th Street and 281h Street. The area where scattered mobile homes have been located generally begins near Southern Boulevard and extends to Rainbow Boulevard. Of the lots proposed for acquisition, eighteen have been developed as individual lots with mobile homes and prefabricated homes and would require relocation of individuals and families. Residences have also been placed within the B-5 alignment. Approximately 26 site-built houses and 4 mobile homes/prefabricated homes are within the proposed right-of-way for this alignment. Replacement housing and/or other vacant lots where mobile homes could be relocated are available within Rio Rancho and the surrounding area.

Right-of-way acquisition and relocations would be addressed on an individual basis according to the policies and procedures of the FHWA and the NMSHTD. Property acquisitions and relocations would be accomplished in conformance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Federal Public Law 91-646) and the Relocation



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Assistance Act (State Law Section 22-9A-1 to 22-9A-16). These laws establish a uniform policy for fair and equitable treatment of persons displaced as a result of federal- and state-assisted programs such as roadway right-of-way acquisition.

Socioeconomic Factors

Two residential subdivisions exist along the preferred alignments for the project, and little other residential or commercial development is present along any of the alignments. The B-3 alignment would pass adjacent to the Northern Meadows subdivision, and the C-3 alignment would be within an existing easement through the Enchanted Hills subdivision. There would be no relocations, disruptions to community cohesion, nor disproportionate effects to the elderly, low-income or minority-status populations from any of the five alignments.

None of the five alignments would result in acquisition of developed parks or open space. All alignments would improve overall access to the study area and to existing facilities.

Soils, Vegetation, and Wildlife Habitat

The Preferred Alternative (the A-1, B-3, and C-3 alignments) would include 795 ha (1,966 ac) of right-of-way acquisition, which would convert native habitat to transportation right-of-way. It is possible that all of this acreage could be disturbed during construction of the two-lane highway. Construction of a two-lane roadway would pave a maximum of 59 ha (148 ac) with the Preferred Alternative. This would be an irretrievable commitment of resources. Other land in addition to the paved portion would be temporarily disturbed during construction. Measures to reduce disturbance during construction and restore vegetation after temporary disturbance will be undertaken.

Threatened and Endangered Species

All of the alignments provides feeding habitat for the bald eagle, peregrine falcon and ferruginous hawk; the B and C alignments also have potential nesting habitat for ferruginous hawks. The five alignments provide suitable habitat for the loggerhead shrike, Texas horned lizard, mountain plover and Baird's sparrow, Santa Fe milkvetch and dune unicorn plant, and the B-3, B-5, and C-3 alignments also provide suitable habitat for the gray vireo. The northern portion of the B-3 alignment and the C-3 alignment could also potentially support the strong prickly pear and the plains pincushion cactus. The basalt outcrops adjacent to Petroglyph National Monument are suitable habitat for Toltec millipede, which is currently known to occur only in Chihuahua, Mexico, and along the rock escarpment west of Albuquerque, The C-3 alignment is suitable habitat for burrowing owls.

Protected species were not identified in any of the biological surveys conducted for the project alignments, Follow-up field reviews were conducted in October 2000 to determine if suitable habitat for the mountain plover occurs within the general alignment areas, The field reviews, which involved participation of USFWS personnel, concluded that suitable habitat for mountain plover does not currently exist within the corridor. Based on the initial surveys for threatened or endangered species and follow-up field reviews for mountain plover habitat, the USFWS concurred with the finding that the Paseo del Volcan project would have "no effect" on any species listed as threatened or endangered or on any areas designated as critical habitat under the Endangered Species Act. A copy of the concurrence letter from the USFWS is included in Appendix A.



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Prior to construction, additional field surveys will be conducted to assess any change in the project or changed condition, including revisions to listed threatened or endangered species that are in effect at the time of project construction. If any protected plant or animal species is identified in the project area as part of the pre-construction survey, the U.S. Fish and Wildlife Service and/or appropriate state agencies will be consulted to ensure appropriate measures are taken to avoid impacts to that species.

Water Resources

There are four large arroyo systems within the study area. All of these are ephemeral streams, with short- duration flows surface water flows associated primarily with summer thunderstorm events. Groundwater is located at a minimum depth of 61 m (200 ft). There are no wetlands in the study area.

Potential effects to water resources include increased sediment in storm water runoff during the construction of the facility and storm water runoff from the roadway. All of the alignment alternatives would incorporate adequately designed drainage structures. Final design for the project will include a detailed drainage analysis to address drainage issues associated with the project, and will likely include provisions for a number of drainage ponds to collect storm water flows from the roadway. Drainage structures included in the project will be designed in accordance with all pertinent area drainage plans and with input and coordination of the Albuquerque Metropolitan Flood Control Authority (AMAFCA) and the Southern Sandoval County Arroyo Flood Control Authority (SSCAFCA).

Planning and design of all drainage structures would require authorization from the Regulatory Branch of the U.S. Army Corps of Engineers, pursuant to Section 404 of the federal Clean Water Act. All conditions and requirements of Section 404 authorization for drainage crossings would be complied with in their entirety. These measures would ensure that floodplain capacity is not reduced and that floodplain management or development plans are not impaired. Effects on surface hydrology drainage channels would be minimized by constructing arroyo crossings to maintain bankfull channel dimensions and floodplain drainage patterns. Arroyo channels at crossings will not be excavated or widened to prevent destabilizing effects.

Air Quality

Sandoval County is currently in attainment of National Ambient Air Quality Standards (NAAQS). Bernalillo County is currently designated as an air quality maintenance area for carbon monoxide (CO). Based on the modeling analysis conducted for the project, implementation of the proposed action would not result in impacts to ambient CO concentrations at the three highest-volume intersections within the project area. Since significant adverse air quality effects were not identified at the three highest-volume intersections associated with the project, impacts would not be expected in other portions of the Paseo del Volcan project area.

The two-lane improvements proposed for Paseo del Volcan in the DEIS are included in the Albuquerque Metropolitan Area's 2020 Metropolitan Transportation Plan (MTP), and the project is consistent with the area's 2000-2005 Transportation Improvement Program. The 2020 MTP was found to conform with the State Implementation Plan (SIP) and was adopted by the Urban Transportation Planning Policy Board (UTPPB) on September 10, 1998 and amended in March 1999. Because the improvements associated with the project are included in the metropolitan area's conforming transportation plan and program, and because the air quality analysis conducted for the project did not identify CO levels in excess of federal ambient air quality standards, the Paseo del Volcan project conforms with the SIP for Bernalillo County.



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Dust control measures will be incorporated into the project design plans to mitigate dust during construction.

Noise

Three locations in the corridor are considered to be sensitive noise receptors. These land uses include the Petroglyph National Monument, located east of Alignment A-2, the Northern Meadows subdivision, located north of the B-3 alignment, and the Enchanted Hills subdivision, located adjacent to the C-3 alignment south of US 550.

Based on the noise analysis conducted for the project, noise levels at Petroglyph National Monument would not approach or exceed 57 dBA and would not increase by more than 10 dBA. Thus, noise impacts are not expected at the Monument. However, the approximate 4 dBA increase would be an audible increase in noise on the western edge of the monument, and traffic noise would likely be audible from the property.

Future noise levels in Northern Meadows subdivision (B-3 Alignment) and the Enchanted Hills subdivision (C-3 alignment) are expected to be approximately 62 dBA after construction of the preferred alternative. Although these noise levels would not approach or exceed FHWA's 67 dBA threshold for residential uses, an increase in noise greater than 10 dBA is expected as a result of the new facility. Therefore, noise abatement is recommended for these areas. Based on the noise studies completed to date, 10 foot tall noise walls are proposed for the Northern Meadows and Enchanted Hills subdivisions. The final location, height and aesthetic treatment of noise walls will be determined after additional analysis and public input has been obtained in the final design phase of the project.

Cultural Resources

Forty-three archaeological sites were identified within or extending into the corridors for preferred alternative alignments. Twenty-six of the 43 were previously recorded, and 17 were newly identified. Thirty isolated occurrences (IOs) were also recorded. No Traditional Cultural Properties (TCP) were identified. Twelve of the 26 previously recorded sites have either been removed or could not be identified by cultural remains nor specific locations. No additional investigation is recommended for these 12 sites. For these remaining 31 sites within the preferred alternative alignments, four sites are located in Alignment A-1, 20 sites are located in Alignment B-3, and seven sites are located in Alignment C-3.

On June 20, 2000, the State Historic Preservation Officer (SHPO) provided concurrence regarding the eligibility or potential eligibility to the National Register of Historic Places (NRHP) of 26 cultural properties within or adjacent to the preferred alignment for the Paseo del Volcan project. A copy of the concurrence received from the SHPO is provided in Appendix A (Volume II) of this FEIS. In accordance with the SHPO concurrence, the NMSHTD will complete a testing program for each of these 26 sites that have the potential to yield important archeological information. A project-specific testing plan will be developed for each of these sites that cannot be avoided in the final design phase of the project.

As requested by the SHPO in their June 2000 letter, additional investigations and documentation have been provided regarding a World War II Bombing Target (LA 103054) identified in the study area as part of the cultural resources investigations. During informal consultations, the Historic Preservation Division informed the NMSHTD that the bombing site is likely to yield information and is eligible in the National Register of Historic Places on the basis of criterion "d" (36 CFR 60.4). Because it is unlikely the bombing range site can be avoided



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during construction, an appropriate mitigation strategy for this site will be developed in consultation with the NM Historic Preservation Division prior to construction. A copy of the concurrence received from the SHPO regarding the bombing target is provided in Appendix A (Volume II) of this FEIS.

Section 4(f) Properties

At least two Section 4(f) properties are present within the Paseo del Volcan project area, Shooting Range Park and Petroglyph National Monument on the A-1 and A-2 alignments, respectively. A proposed park in Enchanted Hills would abut the southern side of the C-3 alignment. Several other proposed parks are near the B alignments but would not be affected by land acquisition. No lands would be acquired from Shooting Range Park, Petroglyph National Monument, or the proposed park in Enchanted Hills for the respective alignments, so no there would be no direct effects to these properties. Minor effects from noise and changes in visual resources from Petroglyph National Monument would occur.

Visual Resources

Visual resources within the project area include the natural upland desert areas, broken by arroyos and mesas, with distant views of the Sandia Mountains in the east. Of particular visual interest in the southern portion of the project area is the basalt flow and volcanic features associated with the Petroglyph National Monument area. Visual effects from the proposed roadway alignment in this area would be minimal. The highway would be depressed through Enchanted Hills, and thus less visible than an at-grade facility.

Cumulative Effects

The Paseo del Volcan project, combined with future development expected for Albuquerque's West Mesa and Rio Rancho areas, will result in cumulative effects to vegetation and wildlife resources in the general area. Most of these development activities reflect the changing regional economy and land-use patterns of the greater Albuquerque region and would occur without the Paseo del Volcan project. The project would facilitate, and possibly accelerate, the growth expected in these areas according to adopted land use policies and plans established by the City of Albuquerque, Bernalillo County, and the City of Rio Rancho. Conversion of lands associated with future development near Paseo del Volcan will far exceed the land conversion necessary for the project [795 ha (1,966 ac)]. However, land conversions required for the Paseo del Volcan project, combined with the magnitude of development expected in the general area, will cumulatively convert substantial areas of land that are currently undeveloped to urban uses, and thus reduce the amount of natural habitat in the study area. These effects are considered an unavoidable consequence of growth in the Albuquerque/Rio Rancho metropolitan area.

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