

Interstate Corridor Enhancement Plan



A Conceptual Framework

ICEPlan:

Prepared for:

City of Albuquerque
Planning Department
CIP/Public Art Program

in cooperation with:

**New Mexico State Highway
& Transportation
Department**

**Middle Rio Grande Council
of Governments**

**Bernalillo County, Zoning,
Building & Planning**

by:

Robert Peters, FAIA,
Architect

Martha Schwartz,
Landscape Artist

Edith Katz,
Landscape Architect

May, 2000



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Robert Peters, FAIA, Architect
Martha Schwartz, Landscape Artist
Edith Katz, Landscape Architect

I-40 EAST UPGRADE TEAM

Barbara Grothus, Artist
George Manus, Artist
Pietro Angel Paladini, Artist
Robert Peters, FAIA Architect
Willard Schroeder, Artist
Michael Wallace, Artist

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Jon Messier, Planning Department
Wendy E. Switzer, Planning Department
Gordon Church, CIP/ Public Art
Jane Sprague, CIP/ Public Art
Steve Harris, NMSHTD, District 3 Engineer
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Dennis Valdez, NMSHTD
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Pat Oliver-Wright, MRGCOG

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Ruth Connery, Neighborhood Coalition

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The Interstate Corridor Enhancement Plan (ICEPlan) was made possible by the efforts of many people. Special thanks are due to all who generously volunteered their time by participating in the Public Input Workshop and Public Open House. In addition, we appreciate the support of the New Mexico State Highway and Transportation Department, and Neighborhood, Business, and Civic Organizations. We look forward to continued interagency cooperation, and business and community support in implementing the concepts of the ICEPlan.

The ICEPlan is a conceptual framework. The Plan includes general concepts for the selected segments of the highway corridors and interchanges. A Physical Master Plan to develop specific designs for all segments of the I-25 and I-40 highway corridors and interchanges will follow. This Master Plan will also respond to the varied conditions along the highway corridors such as right-of-way width, land uses, and frontage roads.

The term "corridor" used throughout this document refers to the area of land within the public right-of-way, including connections of the Interstate highways to the city cross streets where interchanges between the two are built.



Executive Summary

Albuquerque's geography makes it unique among large American cities. Travelers experience the city first through our interstate highways, making them "gateways" to the city and New Mexico. The System Interchange (locally known as the "Big-I") puts Albuquerque at the crossroads of the highway system connecting Canada and Mexico and the east and west coasts. The importance of the interstate highways to Albuquerque's image cannot be overstated.

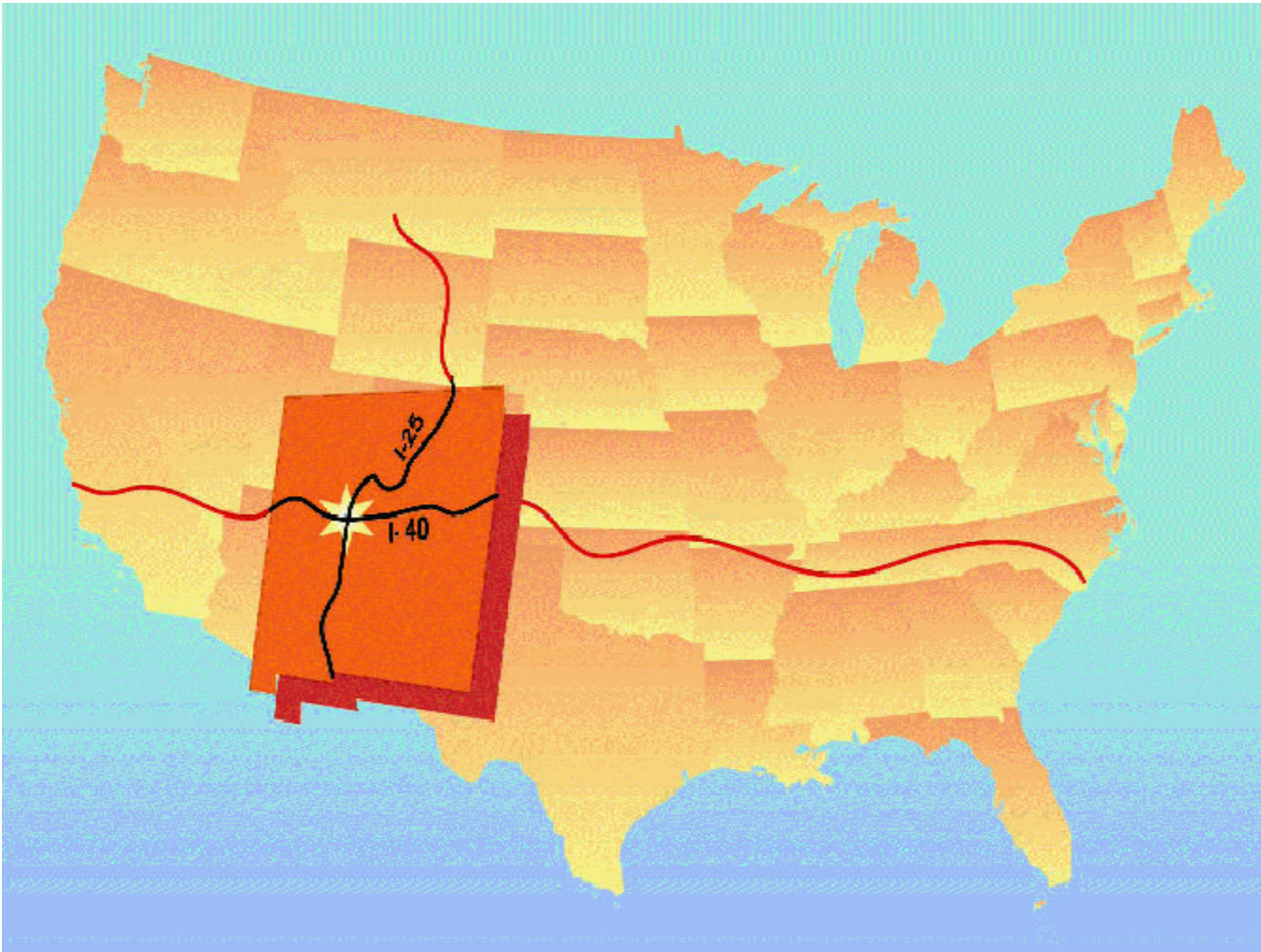
The urban highways we drive every day can be beautiful as well as functional. This value was strongly stated in a public opinion survey of 250 residents, professionals and businesses at a 1996 public conference entitled "Creating a Visual Image of Albuquerque". The survey documented concern for the visual appearance of our highways, arterial streets, and strip commercial development.

Addressing this concern, the City and the New Mexico State Highway and Transportation Department (NMSHTD) prepared the Interstate Corridors Enhancement Plan: A conceptual Framework (ICEPlan) with the Middle Rio Grande Council of Governments (MRGCOG) and Bernalillo County. The NMSHTD's \$1.5 billion, twenty year highway upgrade program for both I-25 and I-40 is an opportunity to improve their visual quality by implementing concepts developed in this Plan. The thirty-eight mile highway system includes segments of highway to be completely rebuilt, segments that will remain, and segments that will be retrofitted.

The City named a team of consultants, consisting of Albuquerque architect Robert Peters, FAIA, landscape artist Martha Schwartz of Martha Schwartz, Inc., Cambridge, Massachusetts, and Edith Katz, landscape architect, Santa Fe, to assist in developing design concepts for the interstate corridors.

The ICEPlan is a conceptual design framework for the interstate highway corridors through the Albuquerque Metropolitan Area. The Plan boundaries are: I-25, from Isleta Boulevard to Tramway Road, I-40, from Paseo del Volcan to east of the Carnuel Interchange.

I-25 and I-40 Cross Roads



Plan Intent

The intent of the ICEPlan is to improve the visual quality of the interstate highways and integrate them into the “cityscape” by incorporating aesthetics into engineering design. The Plan provides a framework which includes themes and design zones, and designates varied design importance to each interchange within the I-25 and I-40 highway corridors. Color palettes, planting materials, and siting of public art are also proposed for the two highway corridors.

The ICEPlan design concepts and themes were developed with considerable public participation. A one day conference, workshops, an open house, and interagency technical and interdisciplinary design teams provided much of the information that went into developing the ICEPlan, including the following vision statement:

Vision Statement

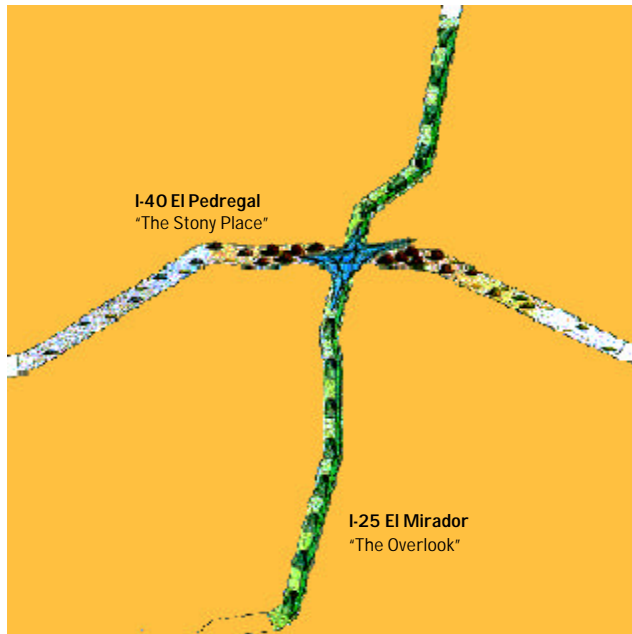
“To visually improve the Interstate Highways in the Albuquerque Metropolitan Area and to re-weave the highways into the city’s fabric, using designs that celebrate our multi cultures, integrate the natural and built environment, and provide continuity of design throughout the city.”

The vision statement, the design framework, and concepts developed in the Plan are consistent with the Albuquerque/Bernalillo County Comprehensive Plan goal to “maintain and improve the natural and developed landscape’s quality.”

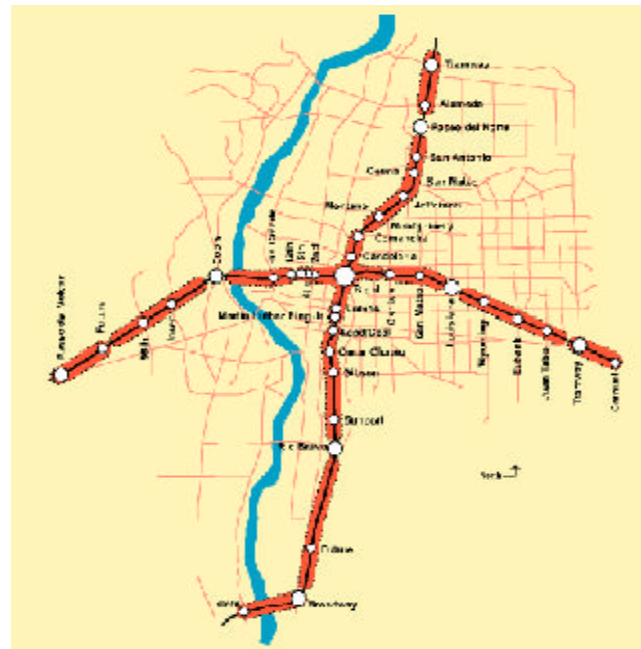
Plan Framework and Concepts

The Plan framework and concepts envision the interstate highways as a collective expression of the city. They celebrate the powerful and compelling landscape of New Mexico and link together the communities that make up the Albuquerque Metropolitan Area. Enhancement of the natural and built environment, such as the ICEPlan suggests, would improve the city’s visual appearance, economic vitality, civic pride and overall quality of life. The Plan recommends:

- Representation of an overall city-wide image along the highways, and individual community identity along city streets when they cross the interstate.
- Identification of two design themes; one for I-25 and one for I-40 that reflect the geography and geology of the city and their location in it. The design themes, choice of plant materials, and colors provide an experience of linear continuity.
- Creation of design zones to reflect urban character along the highways when they pass through the older built part of the city, and to reflect the natural character near the edges of the city when they pass by the mountains, the Petroglyph National Monument, and through the Isleta and Sandia reservations.



Design Themes



Design Zones

Design Framework

Design Zones

I - 25

1. South Gateway Zone
2. South Valley
3. South Urban Zone
4. Big - I
5. North Urban Zone
6. North Gateway Zone

I - 40

7. West Gateway Zone
8. West Mesa Zone
9. Valley Urban Zone
10. East Urban Zone
11. East Mesa Zone
12. East Gateway Zone

- Designation of design intensity for each interchange based on traffic volume, movement, and relationship to the character of the adjacent land use activities and major destinations via each interchange.
- Integration of architecture of bridge structures, landscaping, planting and public art into the highway engineering designs. The plant selection is primarily xeriscape requiring low to medium water use.
- Development of gateways to the city through public/private partnerships.

The ICEPlan is a conceptual design framework to guide the Interstate Highway Upgrade Program. To implement the ICEPlan design framework, the policy recommendations are as follow:

1. That the **aesthetic enhancement** of interstate highways be integral to the Interstate Highway Upgrade Program.

Implementation Policy Recommendations

2. That in order to respond to variations in highway corridor conditions, e.g. right-of-way widths, location of frontage roads, and the character of adjacent land use activities, a **Physical Master Plan** for the entire I-25 and I-40 highway corridors in the Albuquerque Metropolitan Area be prepared. The Physical Master Plan should include concepts for each interchange and every segment of both highways in accordance with the ICEPlan design framework. The Physical Master Plan will have more specific concepts to guide the design of each project. This Plan is necessary, because the Highway Upgrade Program has many projects which may be undertaken by different consultants.

3. That a **Committee to implement the ICEPlan** and direct the Physical Master Plan be formed by the NMSHTD. The Committee should be jointly chaired by District 3 - Engineer and the City's Planning Department Director. In addition, its membership should include District 3 Highway Commissioner, Mayor, City Councilor, director of City Public Works Department and Parks Management Department, Bernalillo County Commissioner and Administrator. The role of the committee will be to implement the ICEPlan by providing leadership and guidance for securing capital and maintenance funding.

4. That the **Albuquerque Planning Department coordinate implementation** of the ICEPlan recommendations until NMSHTD forms a committee and completes the Physical Master Plan.

5. That the Interstate Highway Upgrade Program include **funding for the design and construction of enhancements** integral to the highway structure and landscaping. See page 87.

6. That for the duration of the Interstate Highway Upgrade Program, the City, Bernalillo County, MRGCOG and NMSHTD should allocate a percentage of **the Transportation Equity Act 21 (TEA 21) funds** for the enhancement of I-25 and I-40 by implementing this Plan. (See page 87)

7. That the City, Bernalillo County and NMSHTD establish an **"Enhancement Maintenance Trust Fund"** to provide an ongoing source of funding for the maintenance of landscaping and accent lighting. A percentage of project construction cost should be set aside to form this trust fund, with additional contributions from public agencies and the private sector.

8. That the **Adopt-a Highway program be expanded** to allow private sector financing of landscape maintenance along the highways.

9. That **collaboration** among public agencies, private businesses and community groups be fostered to establish public/private partnerships for special interchanges and the five Gateway Zones.

- Protect gateways from commercial encroachment through zoning, and if necessary, by purchasing open space reserves.
- Enhance the new Sunport Boulevard Interchange and its approach to the Albuquerque International Sunport as the fifth Gateway.

Transitional Interchanges

The four transitional high design intensity interchanges described on page 20 will be reconstructed separately and reconfigured from the present form. The design of these interchanges will reflect the thematic design concepts, and incorporate landscaping and special public art as proposed in this Plan. An architect, landscape architect, and artist on the design teams for each project will work with engineers in establishing the basic forms of the interchanges including bridge structures and landscaping. The aesthetic component of the design will be incorporated into the construction documents.

The Big-I (I-25 and I-40 Interchange)

The design and construction of the new System Interchange (the "Big I") will create an entirely new image for the "Crossroads of New Mexico". The on-grade north-south and east-west frontage roads allowing access to city streets crossing under the highways will create a special zone. This area, below the two highways, deserves special design attention with active City participation similar to that of the four transitional high design intensity interchanges. The formally landscaped berms and slopes, retaining walls, bridge support systems, lighting, and choice of colors will give a distinct image to the Big-I.

Design Zones and Interchanges

The landscape design of segments of the highway corridors and design of interchanges within each zone are to be consistent with the *El Mirador* theme of I-25 and the *El Pedregal* theme of I-40. The design features and color of jersey barriers, bridge girders, light poles, and sign posts will strengthen the concept of design zones.

The primary structures and architecture of bridge designs, other than transitional interchanges, are to be as similar as possible to provide a consistent visual image along the highways.

Noise Walls

The South Valley and East and West Mesa Zones have considerable vacant land, some of it is zoned residential. The future growth along the highway corridors in these zones should be carefully planned to preclude the need for noise walls. It is imperative that the City and County undertake a land use, zoning and noise study along the interstate highway corridors to ensure that future conflicts between residential use and noise are prevented. Alternative noise abatement measures, such as earth forms, drainage easements, landscaping, or a combination of these should be developed. New noise walls, when required should include landscaped setbacks with jersey barriers and follow Federal and State noise standards.

The ICEPlan was started in December, 1997. The draft plan was submitted for the public approval process in the summer of 1999 for adoption by the City, County, MRGCOG and NMSHTD. Until the Physical Master Plan is prepared, this Plan will guide the aesthetics of the Highway Upgrade Program. The City has already assisted the NMSHTD in implementing enhancement projects such as Juan Tabo Boulevard, Wyoming Boulevard, and the Central and Tramway Boulevard interchanges.

The plan concepts have also been widely presented to public agencies, business and professional groups, and coalitions of neighborhood associations. The Plan has received general public support, and the Greater Albuquerque Chamber of Commerce and the Economic Forum have formally passed resolutions in support of the concepts. The Governor of Sandia Pueblo sent a letter supporting the concepts.

Implementation of this Plan requires interagency cooperation along with a partnership between the public and private sectors. The Plan also includes funding, implementation, and maintenance recommendations. The Plan makes an important recommendation that a Physical Master Plan be developed in response to varied right-of-way conditions. The Physical Master Plan will develop design concepts for every segment and the remaining interchanges of both I-25 and I-40. These concepts will be developed within the framework established in this plan.

Schedule

Public Support

Plan Implementation



Urban Context

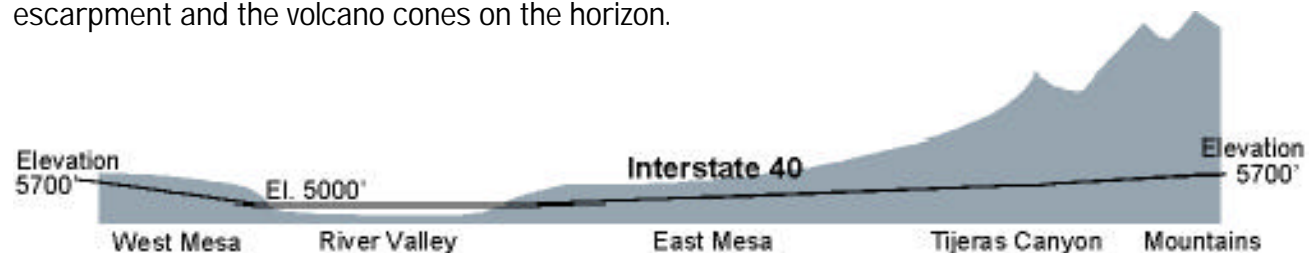
Section 1 : Context and Influences

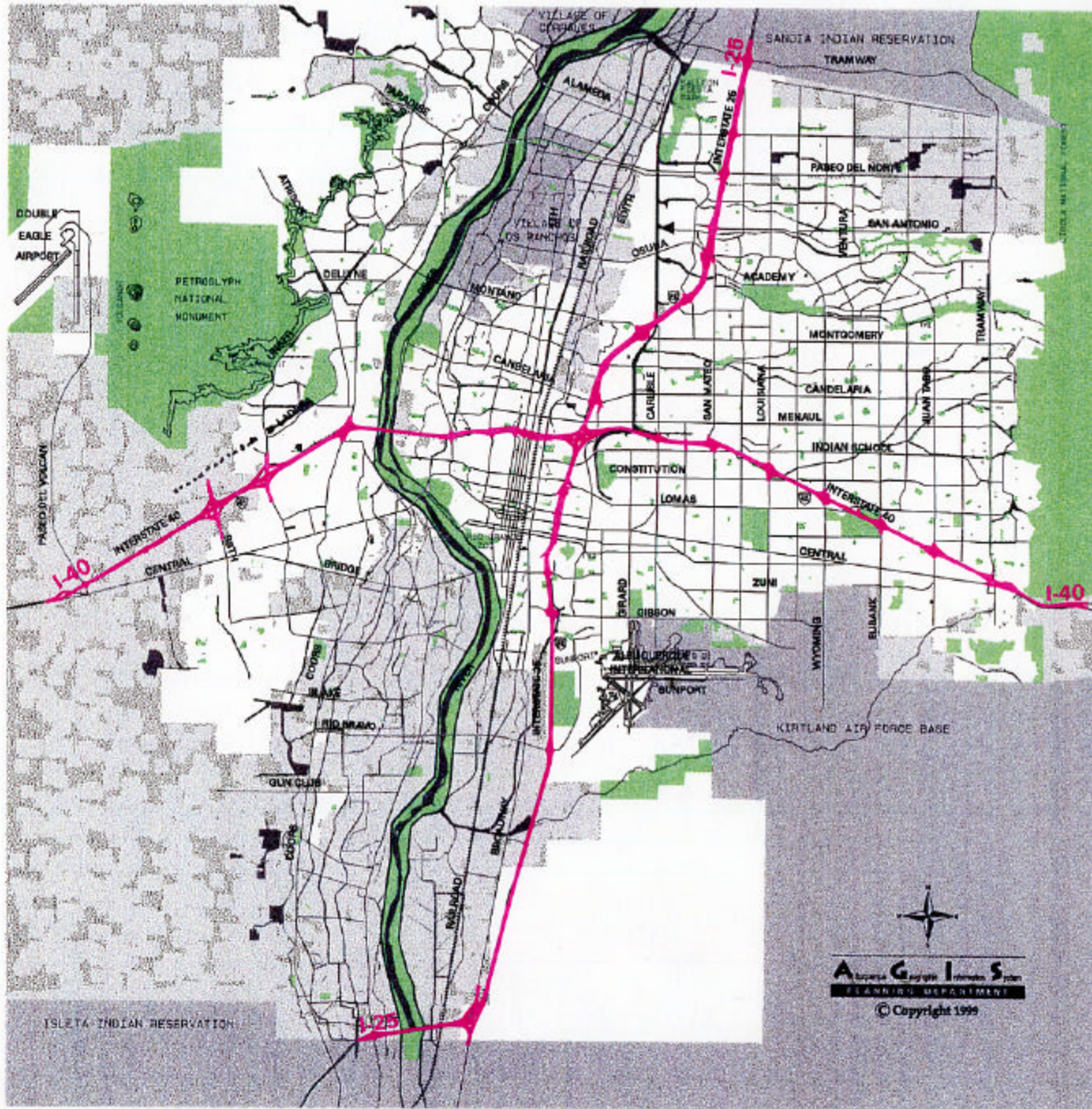
Albuquerque, more than any other large American city, offers citizens and visitors alike an opportunity to experience and understand its natural setting and urban form by traveling through it. That opportunity is most clearly provided along the city's Interstate Highway Corridors, traveling north-south on I-25 (the Pan American Highway), or east-west on I-40 (the Coronado Highway).

While moving through the city, its edges, clearly defined by geographic formations, are seen from changing vantage points. The Sandia and Manzano Mountain ranges to the east, the mesa escarpment and volcano cones to the west, and the river with its bosque running in a meandering north-south pattern through the city all serve as references to define one's position within the city.

I-25 follows the eastern edge of the river valley as it enters the city at the boundary of the Isleta Pueblo. It lies along the edge of the east mesa and exits the city at the Sandia Pueblo boundary.

I-40 generally parallels Route 66 (Central Avenue). The eastbound passage begins at elevation 5700 feet at Nine Mile Hill, unfolding a panoramic view of the city set against the Sandia and Manzano mountains. The highway descends to river level, at 5000 feet, crossing the Rio Grande valley and moving through the Big I. The long ascent toward Tijeras Canyon culminates at the entrance to the canyon, where the highway leaves the city at 5700 feet, the same elevation at which it entered the city. Westbound, the progression is the opposite, with the views of the city framed against the profile of the escarpment and the volcano cones on the horizon.





ICEPlan Area

LEGEND

- ICEPlan Area
- KIRTLAND AIR FORCE BASE BOUNDARY, VILLAGE OF LOS RANCHOS, VILLAGE OF CORRALES & INDIAN RESERVATIONS
- AREA OUTSIDE OF CITY LIMITS
- RIVER, ARROYOS & ACEQUIAS (DITCHES)
- PARKS & OPEN SPACE

Historic Influences

The middle Rio Grande valley was frequented by ancient hunters more than 10,000 years ago and settled by indigenous bands and tribes long before Spanish colonists first arrived here in the 16th century. Indians' and Spanish colonists' routes crisscrossed this region; some are still evident today.

Accounts from the 16th century vary, but claim between 12 and 16 inhabited Indian pueblos occupied what is now metropolitan Albuquerque. By 1680, only four remained. Today there are two, Isleta and Sandia. Two old pueblo sites are preserved at Coronado State Monument and Petroglyph National Monument, but most of the rest lie beneath modern metropolitan Albuquerque. For nearly 300 years, Albuquerque has influenced and been influenced by Indian tribes near and distant, and this interchange is increasing as the 20th century wanes.

Spanish and Mexican Periods

Travel and trade between this remote Spanish colony and Chihuahua, to the south, occurred along El Camino Real de Tierra Adentro (The Royal Road of the Interior Lands). Through Chihuahua, people and goods transited between Santa Fe and Spain and other Spanish colonies. Ox-drawn wooden carretas (carts) were the vehicle of choice—the rough terrain made other animals and vehicles impractical. When Mexico gained independence from Spain in 1821, El Camino Real was no longer a royal road and became known as the Chihuahua Trail.

Early Albuquerque was a small agricultural village and land grant in and near present-day Old Town. At its founding in 1706, La Villa de Albuquerque was made a seat of regional government despite an earlier grant across the Rio Grande at Atrisco. The two villages were similar neighbors for 175 years, but late 19th-century events built up Albuquerque while Atrisco's physical presence diminished. The adjoining map shows Albuquerque and Atrisco among other villages and pueblos whose names remain on today's local maps.

U. S. Territorial Period

The United States acquired New Mexico from Mexico in 1848, and during New Mexico's U.S. Territorial years Albuquerque was a stop on the overland Stage Route from Prescott, Arizona's territorial capital, and Santa Fe, the New Mexico capital. Cavalry units of U.S. Army moved through the territory along new and established routes connecting forts and garrisons, one of the latter being at Albuquerque.

Railroad tracks were first laid into the middle Rio Grande valley in 1880, passing 1 ½ miles east of what is now called Old Town. "New Albuquerque" was built near the railroad depot and shops, and its connection to Old Albuquerque was aptly named Railroad Avenue, but later changed to the current Central Avenue. The City of Albuquerque's original town site was platted with a grid of streets in 1891, but a few old, off-grid roads remained nearby, among them Carnuel (Mountain) Road, Bernalillo (Edith) Road, and Barelás Road.

Historic Settlements of the Middle Rio Grande Valley



Statehood and Growth of the City

New Mexico achieved statehood in 1912. Most early Additions to New Albuquerque's original town site of 1891 were east of the railroad line and overlooked the Rio Grande floodplain. The trend continued well into the 20th-century, spurred partly by "highland" developments including sanatoriums and hospitals, the University of New Mexico, and the State Fairgrounds. Streetcar, bus, and automobile-related development moved to the east mesa and north and south in the Rio Grande floodplain along arterial roads.

New Mexico Route 1 and U.S. Route 66

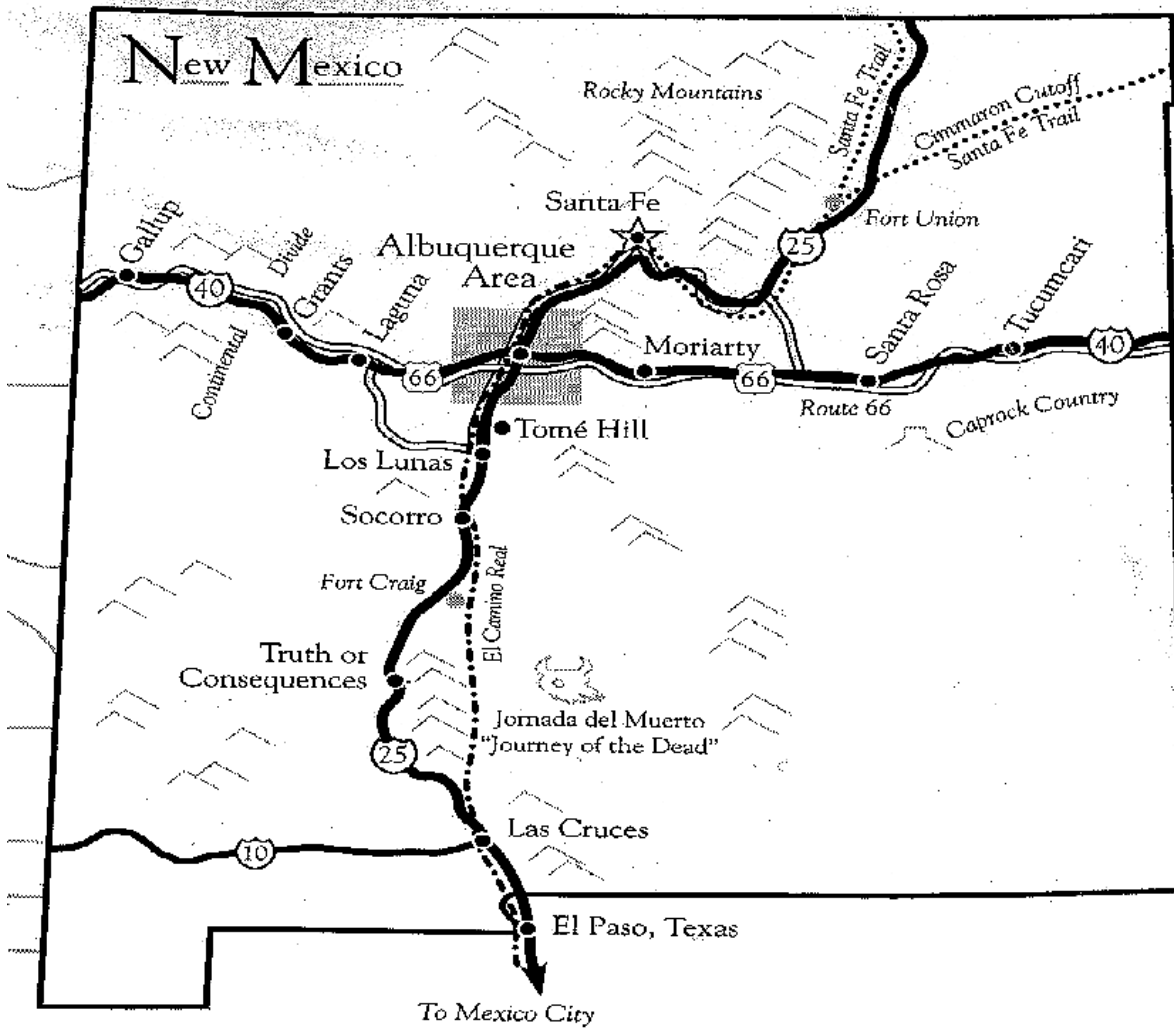
New Mexico Route 1 was designated in 1914, connecting Raton Pass with El Paso, Texas and passing through Albuquerque on a north-south alignment. It became a principal artery of the city and attracted commercial and residential development. Named El Camino Real by the State Highway Department due to its rough approximation of some of the earlier, Spanish royal road's alignment, New Mexico Route 1's local component became part of early Route 66. Its later federal designation was U.S. 85.

In 1926, when the Federal Highway Numbering System began, a combination of highways from Chicago to Los Angeles was designated U.S. Route 66. Originally routed circuitously through New Mexico, early Route 66 ran north-south through Albuquerque, passing along Isleta Road, Bridge, and Fourth Streets. In 1937, reassignment of the Route 66 designation in Albuquerque, coupled with new road building east and west of the city, brought Route 66 onto Central Avenue (east-west). The two local routes of Route 66 and related real estate development played heavily in Albuquerque's early 20th-century growth. Despite its decertification, the celebrated highway's importance in history, culture, and literature still plays in the identity of Albuquerque as a significant American place.

Crossroads of New Mexico

In 1956 the Federal Interstate Highway alignments were established and, construction began bringing I-40 through the city from east to west. Route 66 was decertified in 1985, making Interstate 40 the primary east-west highway in Albuquerque. I-40 was named the Coronado Freeway by the State Highway Commission to recall the west-to-east route of the Coronado Expedition, which traveled from Zuni to present-day Kansas via pueblos near present-day Bernalillo. Likewise, Interstate 25, part of a north-south route between Canada and New Mexico, was built through the city and named the Pan-American Highway. Today I-40 and I-25 are the modern-day representation of historic east-west and north-south routes.

The intersection of these two highways, known locally as the "Big I," has become the main crossroads of New Mexico. The map on the opposite page 15 illustrates historic and present day east-west and north-south highways in New Mexico passing through Albuquerque.



Historic & Present
Transportation Routes

Map prepared by:
Jan Underwood

Albuquerque
Tricentennial

Mayor Jim Baca's Inaugural Address of December 1, 1997 characterized Albuquerque as a community of medium size on the verge of becoming a major American city in the 21st century. At this critical moment in its history, Albuquerque will observe the 300th anniversary of its founding in 2006. As the Tricentennial year approaches, the interstate highway corridors, along with the revitalization of parts of the city, can define and enhance the city's image and identity for all its residents and visitors from near and far.



Section 2 : Design Framework

Corridor Design Framework

The interstate highways are envisioned as a collective expression of the city. They celebrate the powerful and compelling landscape of New Mexico and connect the communities that make up the Albuquerque Metropolitan Area. Enhancement of the natural and built environment, as the ICEPlan suggests, would improve the city's visual appearance, economic vitality, civic pride, and quality of life.

The use of the highway is a shared experience by Albuquerque citizens and visitors. This experience is one of many things which ties Albuquerque's communities together as a city. The highways have the potential to be a powerful and memorable experience. The natural New Mexico landscape provides an opportunity to integrate the highway corridors into the cityscape.

The I-25 and I-40 highway corridors are distinct in their topographic qualities. I-25, running north-south, follows the edge of the east mesa above the Rio Grande Valley and provides a consistent experience. It provides a continuous west-facing view over the city. I-40 descends from the western mesa, crosses the Rio Grande valley, and then continues to ascend toward the Sandia and Manzano Mountains and Tijeras Canyon to the east. It has a much more varied terrain than the moderate ascent of I-25. The geographic location of each highway offers a design opportunity to create two landscape experiences that provide separate identities for the two highways.

The corridor design framework is based, in part, upon the research contained in the Corridor Analysis and Interchange Analysis charts in Appendix 2, Page 98-103 .

Plan Area

The interstate highways through Albuquerque help structure the city's built form and visual character, and mark gateways that are passages into and out of the metropolitan area. They create access points to the city's major destinations, attract development along their linear routes and define the changing character of the city. This thirty eight mile system includes segments of highway to be completely rebuilt, segments that will remain, and segments that will be retrofitted.

ICE Plan

Driving the length of either I-25 or I-40 within the city optimally takes approximately 15 minutes. At highway speed, the eye and the mind register larger images, whereas small, intricate details become a blur. This highway scale and speed form the basis of the framework which employs a simple, bold approach that includes linear continuity for each highway corridor. The sculptural quality of the Southwestern landscape lends itself well to bold design concepts. The vastness of this landscape is another attribute which is critical to the formation of these design concepts.

The proposed framework augments Albuquerque's physical setting and community identity using design themes, design zones including gateways, interchange design intensities, color palettes, planting and landscape materials, public art, and highway aesthetic elements.

Within the linear continuity of each corridor, distinct zones are defined, based on the geography, topography, and location of highways in the surrounding city fabric, land use and the general landscape. As a planning concept, the design zones reflect the special and unique character of each highway segment and its adjacent community.

The highway corridors within the Albuquerque Metropolitan Area begin and end at points, easily identified by travelers, as the Gateways to the City. The geographic setting of these gateways offers an opportunity to celebrate entry into and exit out of the City. Citizens and visitors alike will have the experience of a permanent set of visual images signifying Albuquerque. Plantings within these zones will conserve and enhance the natural landscape.

The interchanges are places where the highway is punctuated by curves and bends to allow access and exit. These access points provide surplus right-of-way. This surplus land is proposed to be used to intensify the design themes for both I-40 and I-25. The larger expanses of land allow creating and sculpting larger land forms with more play in their configuration.

Within the I-25 corridor, the highway passes *over* most of the city streets, and within the I-40 corridor, the highway passes *under*, thus giving a unique character to each corridor. See map, page 19. **The bridge structures created by the underpasses and overpasses within each corridor are to be uniform in design as much as possible to provide consistency and visual continuity.**

Throughout the I-40 corridor, the highway passes under city streets except in the Valley Urban Zone. Thus, city streets form *overpasses* crossing the highway. The design on the bridge girders is seen from the highway.

Highway Scale

Design Zones

Urban Gateways

Interchanges

I-25 passes over the city streets with four exceptions. The city streets form underpasses crossing the highway, and bridge designs are seen from the city streets.

Color Palette

The rich high desert colors, typically associated with the American Southwest, are those found naturally in the New Mexico landscape. The framework proposes the use of these colors to strengthen the image of Albuquerque as a Southwestern city by using colors such as the muted reds, ochers and pinks of soils, the mauves, orange and purples of sunsets, the blues of the sky and the gray-greens of sage in the scheme. This will establish the association and identity of the highway corridors with the Southwest. The colors of the underpasses along I-25 and I-40 can reflect an adjacent neighborhood's identity.

Plant Palette

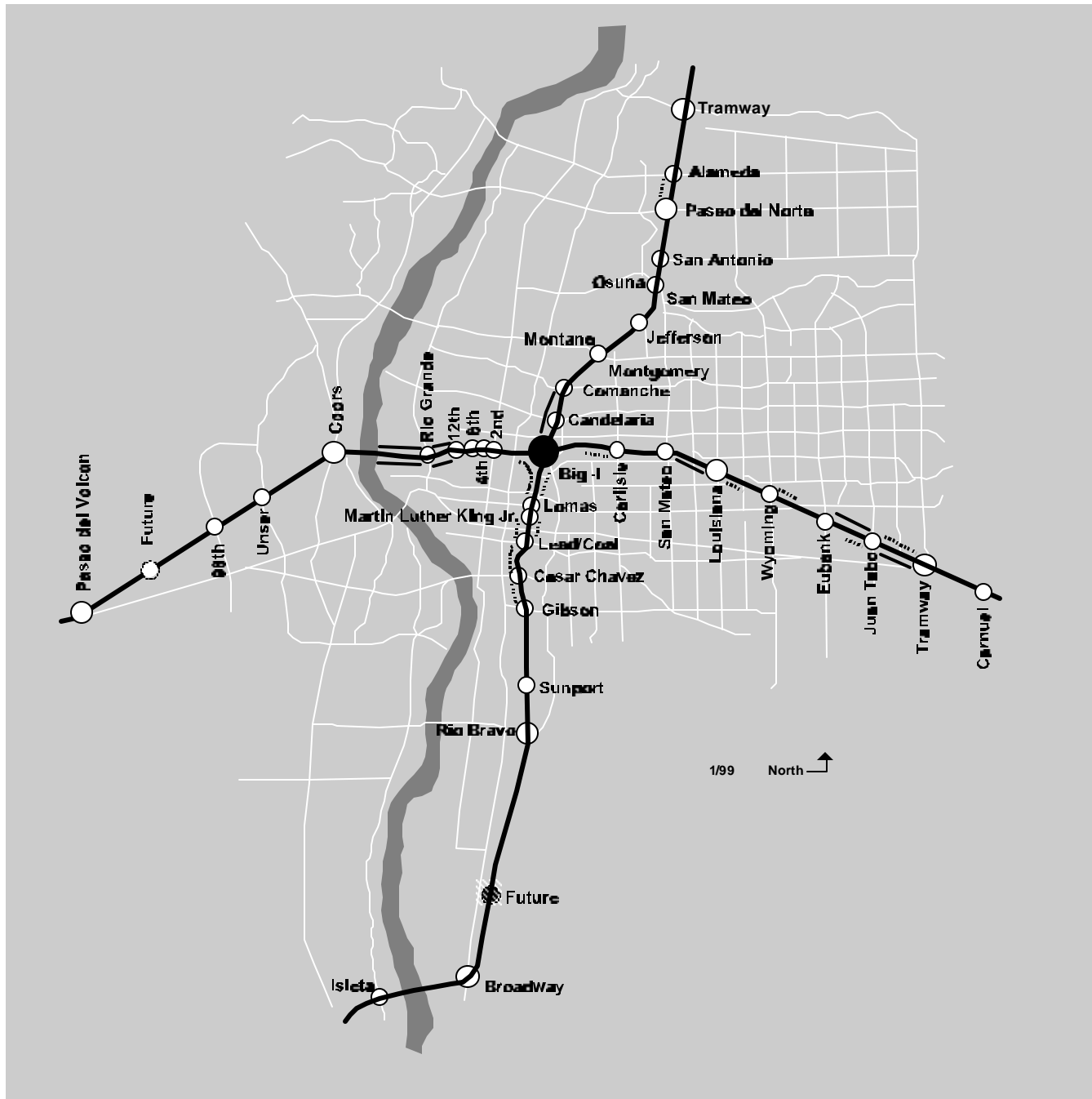
Plants for the I-25 and I-40 highway corridors are conceived as layers that continue to refine the development of the overall framework. Plants are an integral aspect of the character for each highway corridor. A separate plant palette will develop the individual identity of each highway corridor. The proposed planting becomes more formalized as one travels towards the center of the city through the urban zones.

Public Art

Public Art sites are important components of the highway corridor enhancement effort. The framework includes ten priority sites identified as sites for public art. These sites are:

- Five gateway zones; four at the city's boundaries; one from the International Sunport to I-25
- Four high design intensity interchanges
- The Big-I; I-25 and I-40 Interchange

The artwork for these sites may be freestanding or may be incorporated into designs of the highway aesthetic elements shown on pages 26, 27. The artwork may be mounted on special bases provided as additions to bridge structures or to the designs of other components of the corridors, and may mark specific interchanges or city streets intersected by a highway corridor.



Interchange Types: Underpass/Overpass and Noise Wall Locations

- I-25 over I-40
- Highway over city street (city street underpass)
- Highway under city street (city street overpass)
- Future interchange
- Existing Noise Wall
- - - Proposed Noise Wall

Design Zones

The concept of zones was initially proposed in an earlier report, *Project I – Landscape Master Plan for the Albuquerque Interstate System 1989*. The Project I Master Plan divided the I-25 and I-40 corridors into five plant zones and developed goals, strategies and a list of plants. The ICEPlan further evolves the idea of zones and recommends that they reflect the local history, culture, and geology. The Design Zones, including gateway zones, are shown on the accompanying Design Zones Map, page 21.

I-25 South Gateway Zone
South Valley Zone
South Urban Zone
North Urban Zone
North Gateway Zone

I-40 West Gateway Zone
West mesa Zone
Valley Urban Zone
East urban Zone
East Mesa Zone
East Gateway Zone

System Interchange: Big-I Interchange of I-25 and I-40

Transitional Interchanges

The design zones for each highway segment are punctuated by a major interchange expressing a special highway/street connection. The four major interchanges, the Paseo Del Norte and Rio Bravo Boulevard interchanges on I-25, and the Coors Boulevard and Louisiana Boulevard interchanges on I-40 are transitions between design zones. The Louisiana Boulevard interchange provides access to Uptown, and along with the other three interchanges links the four quadrants of the City through the highway and major arterial street system.

Urban Gateway Zones

Each gateway zone has four components; 1) a welcome sign announcing entry to the city; 2) special planting reflecting the identity of each gateway; 3) a public art feature; and 4) a visitor center. These elements will visually announce entering and leaving the Metropolitan Area.

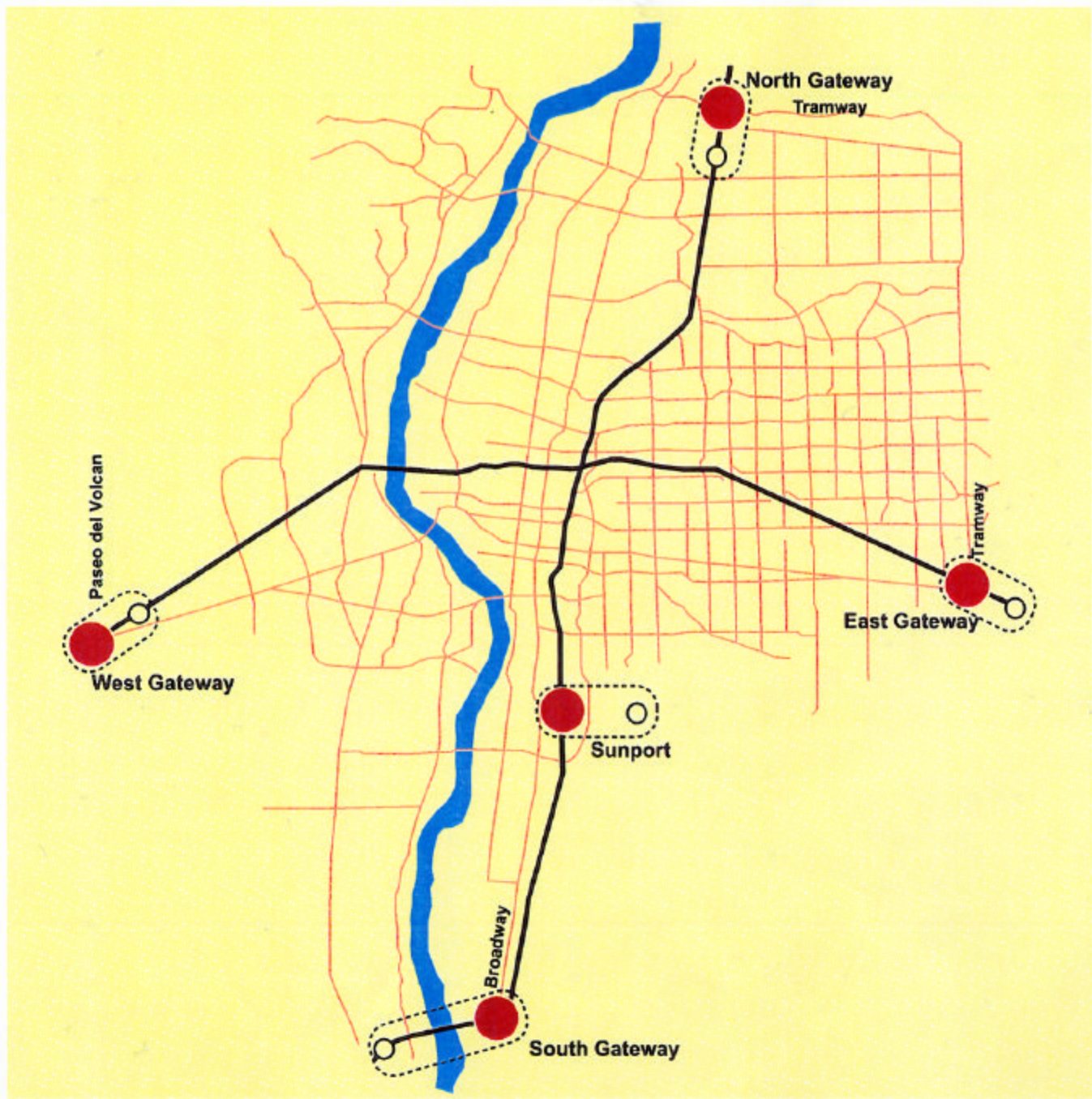
The gateway zones should reflect and augment adjacent indigenous landscape. A visitor center may be planned with other facilities for each gateway. The five Gateway Zones are centered around the following interchanges:

South Gateway	- I-25 and Broadway interchange
North Gateway	- I-25 and Tramway/Roy Avenue interchange
West Gateway	- I-40 and Paseo del Volcan/Central Avenue interchange
East Gateway	- I-40 and Tramway Boulevard/Central Avenue interchange
Sunport Gateway	- I-25 and Sunport Boulevard Interchange

Planting for the Gateways

The plant selection for each of the Gateway zones augments the indigenous character of the adjacent landscape. Simplicity is emphasized. Results should be bold with a few plant species used in very large mass plantings appropriate to the scale of the highway speed. By incorporating two or three representational plants, each of the four gateway zones will offer a chance to reveal the various landscape characteristics that define the edges of the city.

Urban Gateway Zone



Interchange Design Intensities

Each highway interchange is assigned one of the three levels of design importance. Within the linear continuity of each highway corridor, the design intensity conforms to the adjacent land uses. Interchanges are identified as High, Medium, or Low design intensity as reflected in the map on page 25. Varying levels of design significance are assigned to all interchanges within the I-25 and I-40 corridors based on their geographical placement in the network of city arterial street patterns, their form and spatial significance within the highway corridors, and their access to important destinations in the city. The three design levels are defined as follows:

High Design Intensity Interchanges

- provide access to regional activity centers
- provide primary access to both sides of the river
- mark entry to the city

The high design intensity interchanges articulate the identity of each highway corridor and mark the transition between design zones. The bridge design of these interchanges should reflect the city-wide urban character and it should be simple yet bold with special landscaping. The use of colors on these bridges may be more intense to accentuate them as major interchanges.

Medium Design Intensity Interchanges

- provide access to major employment centers
- provide access to major business activity centers
- provide access to major visitor attractions

Medium design intensity along I-40 will continue to be reflected by Pueblo Deco inset design motifs over the east west shoulder lanes and a continued design pattern on the pedestrian fences. The designs should reflect the identity of surrounding communities.

Low Design Intensity Interchanges

- serve residential neighborhoods
- discourage traffic through residential areas
- are used as a traffic management technique

The design intensity is reflected through inset design in the bridge girder over the shoulder lanes, and the length of art work on the pedestrian fences corresponds with the inset design.

Interchange Design Intensities



- High Design Intensity
- Medium Design Intensity
- Low Design Intensity

Highway Aesthetic Elements

The visual quality of the Interstate Highway Corridors is established by the design of primary and secondary highway aesthetic elements. These elements provide linear continuity and interchange identity along the highway corridors and community identity and pedestrian scale along the city streets. These elements are listed in the following charts.

The design and colors of the highway elements are selected to strengthen the identity of each highway corridor. This principal applies to primary and secondary Highway Aesthetic Elements.

ELEMENTS OF VISUAL QUALITY				
Principal Aesthetic Design Elements	Linear Continuity Along Corridors	Interchange Identity Along Corridors	Community Identity on Local Streets	Pedestrian Scale on Local Streets/ Public Places
Bridge Superstructures		X		
Bridge Abutments		X		
Bridge Piers		X		
Bridge Columns		X		
Retaining Walls	X	X	X	
Highway Medians	X			
City Street Medians			X	
Jersey Barriers	X		X	
Noise Walls	X		X	
On/Off Ramps		X		
Signage/Graphics		X	X	X
Public Art		X	X	X
Surface Paving			X	X
Design Motifs		X	X	x

Design configurations of existing and reconstructed interchanges within the Interstate Highway Corridors have been developed by the NMSHTD. Their designs, based on traffic movements and volumes between the highway and city streets, are shown in Appendix 1, page 96-97.

Design Configurations

ELEMENTS OF VISUAL QUALITY				
Secondary Aesthetic Design Elements	Linear Continuity Along Corridors	Interchange Identity Along Corridors	Community Identity on Local Streets	Pedestrian Scale on Local Streets/ Public Places
Bridge Railings			X	X
Pedestrian Fencing			X	X
Pedestrian Sidewalks				X
Pedestrian Street Crossings				X
Traffic Islands			X	
Turn Bays			X	
Lighting Standards	X	X	X	X
Headlight Screening Baffles	X			
Berm/Swales	X		X	X
Landscape Planting	X	X	X	X
Trail Design/Trail Surfaces			X	X
Street Furniture/Seating				X
Signage/Graphics		X	X	X
Public Art		X	X	X
Surface Paving			X	X
Design Motifs		X	X	X



Section 3: Design Concepts and Recommendations

I-25 Design Theme

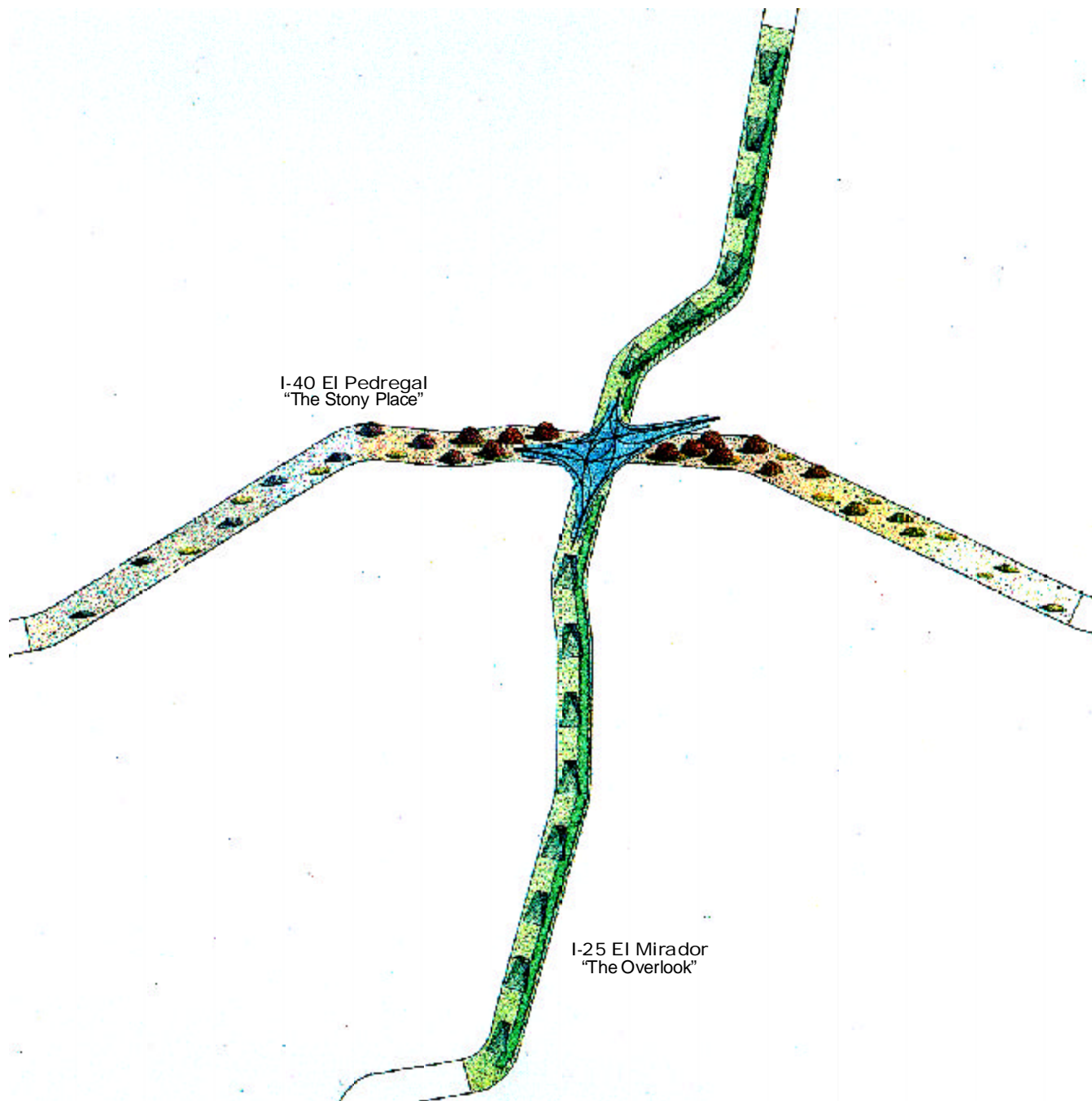
The Interstate highways through Albuquerque present visually distinct and contrasting experiences reflecting two separate, but related themes:

The design theme for I-25 is **botanical** in essence. Driving along I-25 at the edge of the east mesa is a consistent experience; therefore, the design is expressed continuously along the highway landscape. For much of its length, the highway provides consistent views west to the Rio Grande Valley; in Spanish *El Mirador*, the Overlook. The east side is higher and parallels the Sandia Mountains.

I-40 Design Theme

The design theme for I-40 is **geological** in its essence, abstracted from dry, rocky slopes and foothills and extinct volcanoes of New Mexico. Land forms and rock formations, reminiscent of the New Mexican landscape, are arranged along the highway, within right-of-way, medians, along sound walls and in inter-sections. These sculptural land forms are surfaced in gravel, stones, rocks and boulders with native grasses, in a variety of locally found materials and colors. I-40 is described as *El Pedregal*, The Stony Place.

The design concepts are developed for design zones, four highway corridor segments, and interchanges in both highway corridors. These concepts are described separately for the I-25 and I-40 highway corridors, and include illustrations for selected corridor segments and interchanges. The document separates the conceptual design for the Big I, and it is found after the I-25 and I-40 design concepts.



Corridor Themes

I-25 El Mirador "The Overlook"

Emphasis on Botanical Element, Plants

Colors Related to Plant Material: Green, Grey, Yellow

Uniform Intensity

Consistent Rhythm Throughout

Drought Resistant Trees, Sages and other Plants

Big Vistas, Big Views

Fields, Planes, Big Areas

I-40 El Pedregal "The Stony Place"

Emphasis on Geological Elements, Rock, Gravel, Stones

Colors Related to Geological Material: Grey, Red, Orange, Yellow, Brown

Intensity Increases as it Nears the Center

Rhythms Vary Relating to Local Conditions

Drought Resistant Grasses

Intimate Views

Individual Plants, Individual Conditions

Design Concepts

I-25: *El Mirador*, the Overlook

El Mirador theme is reflected by planting native trees on the uphill side (east) and a variety of sages towards the valley (west). I-25 design has rhythmic recurrences of land forms, specific to each location, but of similar vocabulary. The I-25 botanical theme includes rocks, where there are steep slopes, to prevent erosion. The earthworks along I-25 are covered with species from the rich native plant palette, creating an ever-changing, three-dimensional painting.

The *El Mirador* concept proposes that clusters of trees be planted on the east side (only) of the highway, directing views across to the valley and west mesa. This clustering will strengthen the *mirador* (overlook) concept which is inherent to the experience of driving northward along I-25, and looking west across the valley. Plantings for I-25 on the west side of the roadway will reflect the family of sages prevalent in the New Mexico landscape. The south and north gateway zones intensify the theme of *El Mirador*.

The desired effect of the trees is that of a rich, leafy canopy, medium scale and spreading character. The chief attribute of the selected tree (or trees) must be the ability to tolerate heat, low-water and virtually total neglect. Self propagation by suckering, in this instance, is of positive value, as it will help to create dense groupings. Pruning will be required to control density and protect views.

Sages are the essence of the West; their fragrance, the silvery foliage, and their adaptability to the climate and soils are indicative of the West. For example, the *Artemesia* family offers numerous beautiful plants which can be utilized to clothe berms and cover slopes at the western edges of the roadway.

Land Forms

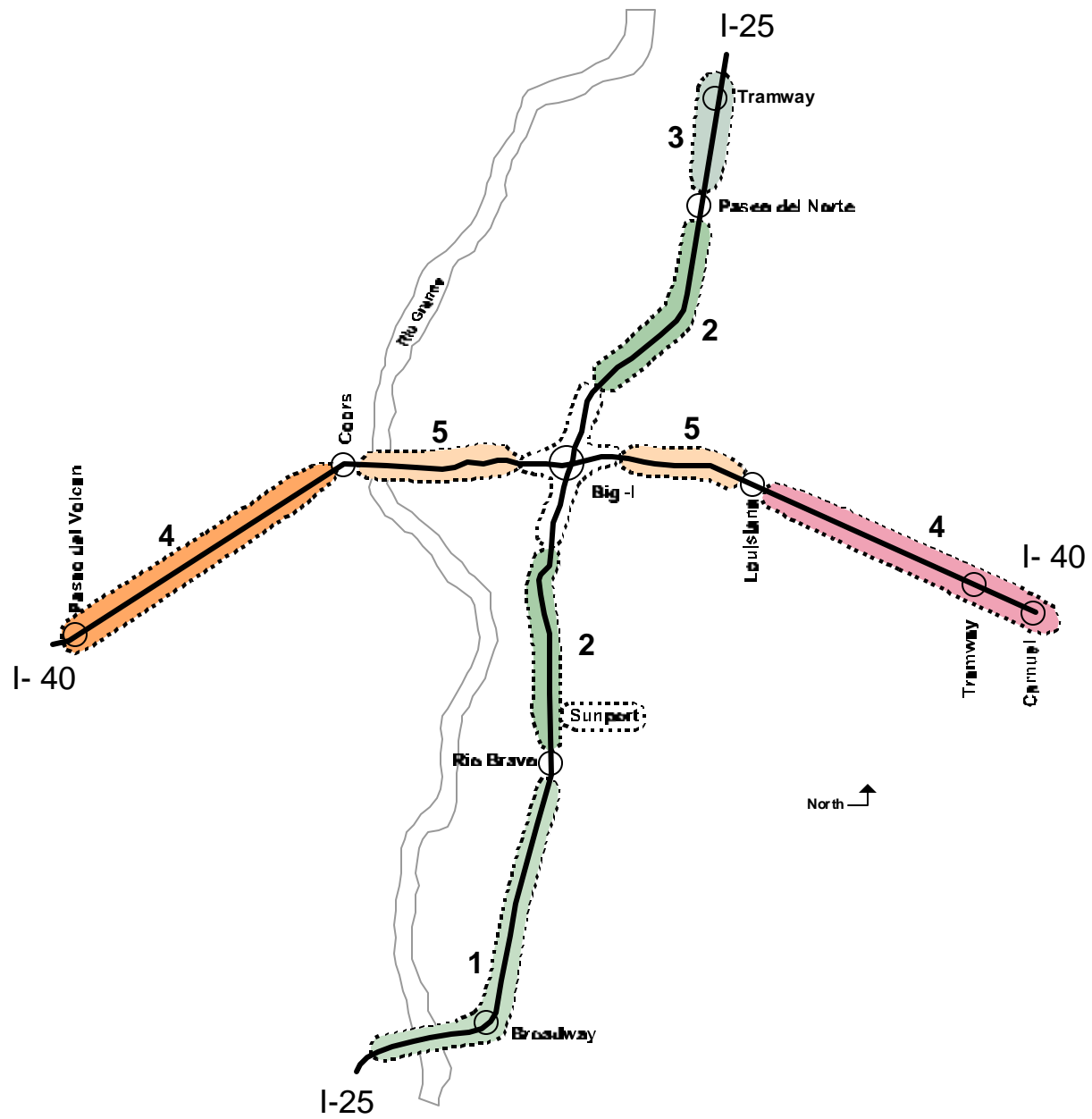
The *El Mirador* design for the I-25 segment passing through the South Valley, proposes land forms and median berms. The medians south of Rio Bravo Boulevard interchange are wide, allowing for the land forms. The *El Mirador* design for I-25 north of I-40 proposes medians that are narrow and defined by jersey barriers. Landforms thematic to the I-25 proposal are covered with a variety of sages. Additionally, modest variations can also be introduced in the form of intensely colored flowering ground covers such as those recommended in the "How-To Guide to Xeriscaping" (City of Albuquerque.)

I-25 Color Palette

Colors for I-25 are the gray-green tones for the higher, more arid northern segment of the corridor and transition into richer greens and yellow-greens for the lower, more agricultural southern segment of the corridor. Lighter and grayer tones are intended for bridge structures with more intense shades reserved for design insets, pedestrian fencing, railings, light standards and other metal elements to be coated or painted. The colors on underpass bridges facing the city streets will vary to reflect the character of the adjacent communities.

I-25 Public Art Sites

Public art locations on I-25 include interchanges which provide access to specific cultural and historic destinations. César Chávez Boulevard, for example, provides access to the Hispanic Cultural Center and to the South Valley. Central Avenue is recognized as an important entry to Downtown. This gateway is to be emphasized with markers visible both from highway level and street level. Both sides of the Central Avenue underpass are to celebrate Route 66 and the entry to Downtown going west and the University and Nob Hill going east.



I-25 & I-40 Color Scheme

Color	Zones
I-25 1	South Gateway & South Valley
2	South & North Urban
3	North Gateway
I-40 4	West & East Mesa
5	Urban Valley & East Urban

I-25 Design Zones (south to north) and Interchanges

South Gateway Zone:

The South Gateway welcomes travelers from the south to Albuquerque and from the north to the Isleta Pueblo. This gateway zone includes the bridge over the Rio Grande. The experience of entering Albuquerque starts on the approach to the Isleta Boulevard interchange. The zone traverses the river and east mesa, creating variations in the vista from bosque, river, valley, to the Mesa Del Sol bluff, and finally, the city. This sequence provides a variety of natural landscapes and has the potential for a dramatic introduction to the metropolitan area and to the Isleta Pueblo.

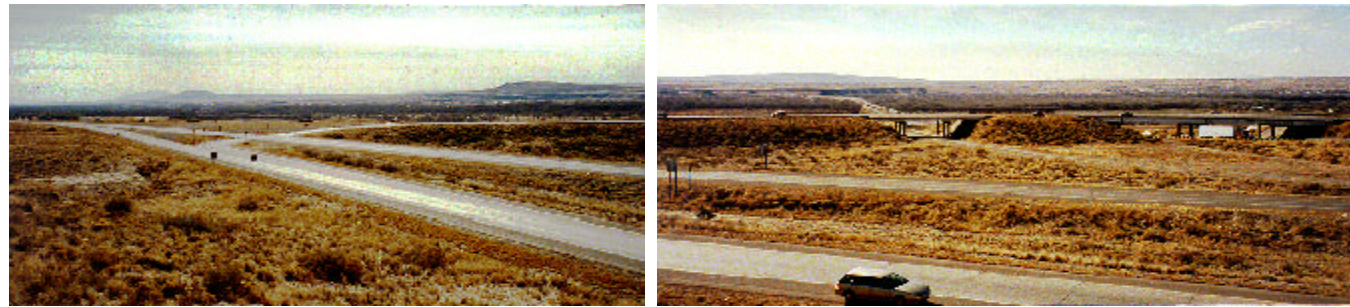
The Pueblo's plans to expand their present casino/resort and the State Land Office's plans to develop Mesa Del Sol, a master-planned community just east of I-25 and north of the Isleta Reservation Boundary, offers the opportunity to influence and develop this gateway zone.

Recommendations:

The design concept of sculpted landforms in the median continues in this zone, directing views to the river and bosque. The visitor center and an 'overlook' could be developed in cooperation with the State Land Office as part of the proposed Mesa Del Sol community.

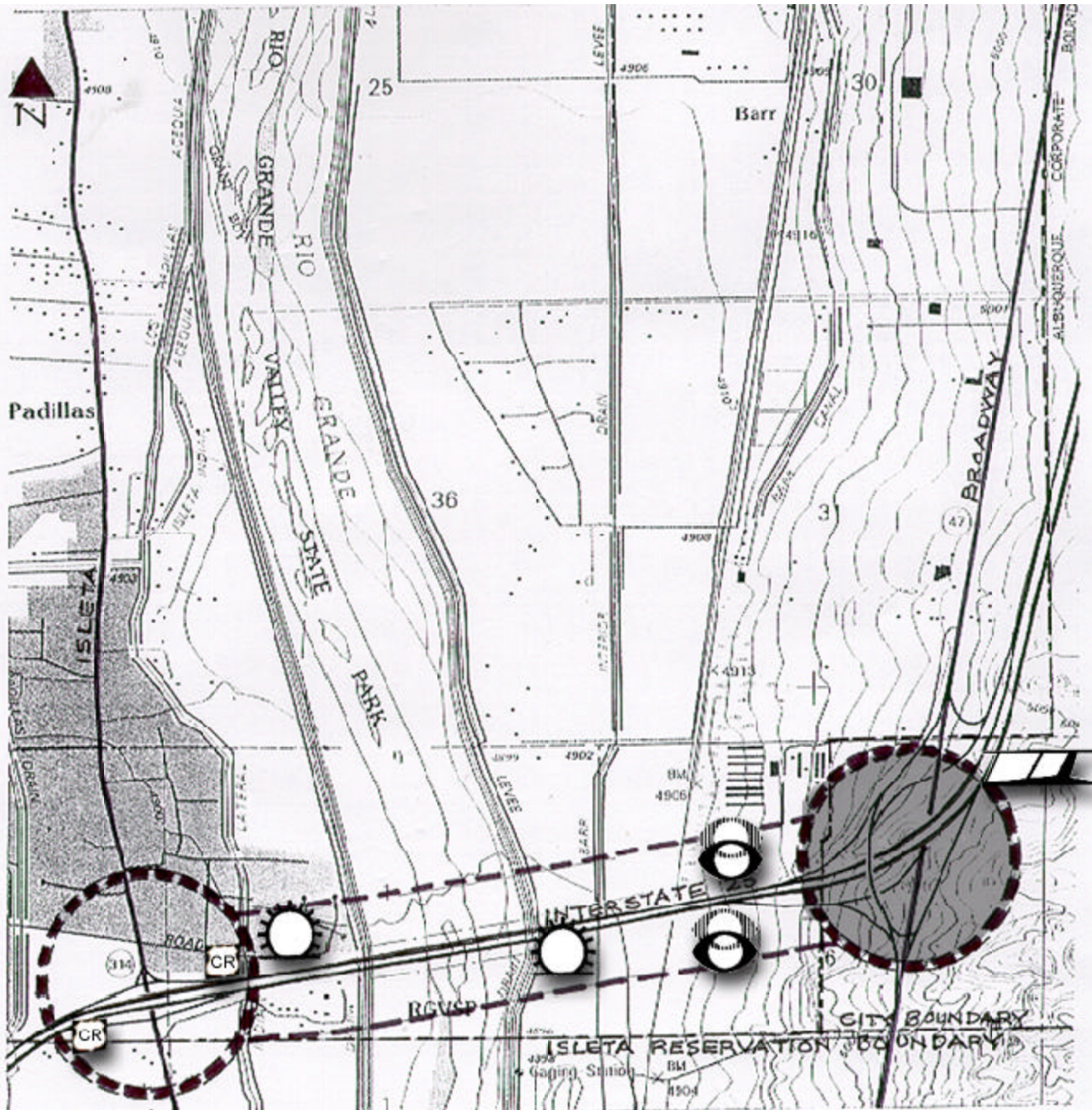
Plantings for the South Gateway:







At the south end of I-25, reference is made to the Rio Grande valley of New Mexico which is a predominant focus of the movement southward. Strong, large-canopied deciduous trees are recommended on the east edge of the highway to form a complementary effect to the northern gateway but with more emphasis on a horizontal spread.



I-25 @ Broadway Boulevard Interchange

South Gateway Zone



-  **Principal Interchange**
 - Broadway Boulevard
-  **Secondary Interchange**
 - Isleta Boulevard
- Adjacent Open Spaces**
 - Rio Grande Valley State Park
 - Isleta Indian Reservation
 - Mesa del Sol Master Plan Proposed Recreation center
- Proposed Gateway Design Elements**
 -  Welcome Sign
 -  Sculptural Element(s)
 -  El Camino Real Heritage Drive Sign/Marker
 -  Visitor Information Center - at Mesa del Sol Proposed Urban Center

South Valley Zone

Between the Broadway interchange and the Rio Bravo Boulevard interchange (nearly 5 miles), the highway corridor parallels the East Mesa's edge, approximately 100 feet in elevation above the valley floor. It travels below the 200 foot high escarpment along the western edge of Mesa Del Sol from the Broadway interchange and then crosses the mile-wide flood plain of the Tijeras Arroyo to the Rio Bravo Boulevard interchange.

There are presently no interchanges between Broadway Boulevard and Rio Bravo Boulevard. One bridge carries Bobby Foster Road over the highway and allows access from Broadway into the Tijeras Arroyo area where several city-owned facilities are located. Approximately 1.4 miles south, a proposed future interchange would connect Mesa Del Sol Parkway to the planned community atop the mesa.

Recommendations:

The South Valley Zone emphasizes the botanical theme of I-25, and the landforms are subtle and gentle to create a rhythm along the highway. The median in this zone is wide and open. The south portion of I-25 repeats the use of rhythmic and sculptural land forms in the median with the massing of trees along the eastern edge of the highway. Gaps left between the land forms provide changing views of the valley.

The plan and cross section views, on the opposite page, shows clusters of trees to the east and landforms with sages and grasses in the median. Specific recommendations for trees, shrubs and grasses are listed in the Plant Palette in Appendix 3, page 104-105.

South Valley Zone I-25 El Mirador



SAGE



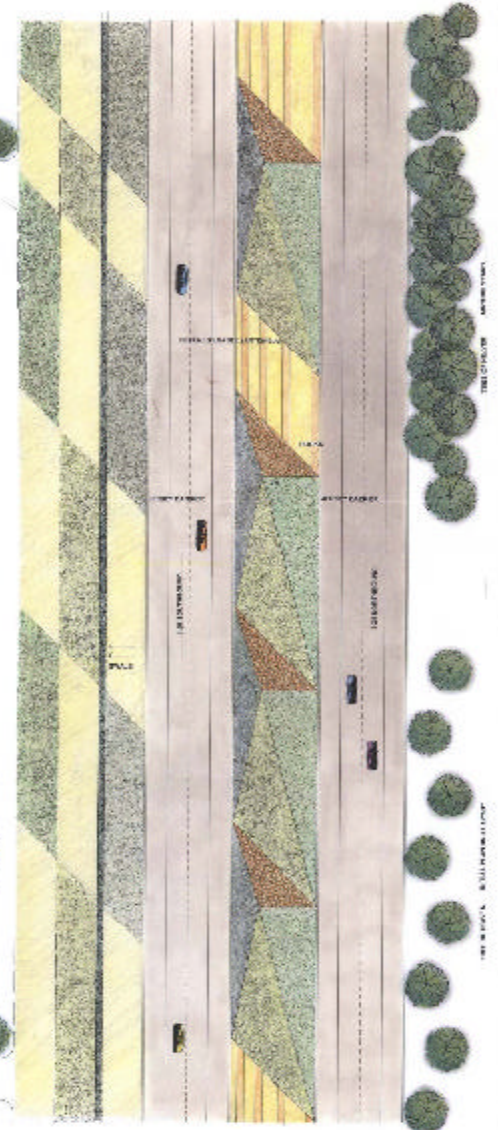
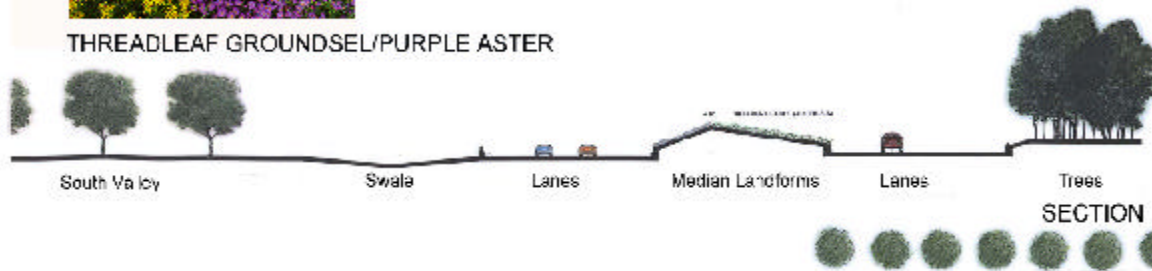
THREADLEAF GROUNDSEL/PURPLE ASTER



SKETCH OF
LANDFORM IN MEDIAN



LANDFORM



Rio Bravo Transitional Interchange

This interchange, similar to its northern counterpart, Paseo Del Norte, marks a distinct change in the highway corridor and signals entry into the urban zone from the south. The interchange will be rebuilt in a diamond configuration, offering a direct access route across the river to connect with Coors Boulevard, the principal north-south arterial street west of the Rio Grande.

Rio Bravo Boulevard, currently more rural in character than Paseo Del Norte, will play an increasingly important role in providing access to the south valley, and to future development along and west of Coors Boulevard.

Recommendation:

A concept for this high design intensity interchange is illustrated by a perspective looking north from the off-ramp, east side of the new bridge. Extensions of the bridge abutment walls create a sense of arrival and mark entry to the South Valley (west) and destinations to the east along University Boulevard including the future amphitheater at Mesa Del Sol. Fascia panels mask the bridge girder and edge of the bridge deck to create a simple "architectural" form within the landscape. Special color signifies this as the major interchange in the south quadrant.

South Urban Zone

Of the 6 mile stretch of this zone, approximately 1.75 miles from Rio Bravo Boulevard to the Sunport Boulevard interchange, is bordered by the University of New Mexico South Golf Course on the east and vacant land on the west. The remaining 4.25 mile segment, from Sunport Boulevard to Martin Luther King Jr. Avenue, has an urban character, with fewer commercial and industrial land uses than its counterpart North Urban Zone.

From Rio Bravo Boulevard north to the Martin Luther King Jr. Avenue, the highway crosses under the Sunport Boulevard interchange, the fifth "gateway" to the city. Moving north, I-25 provides access to the University of New Mexico's major sports facilities, Kirtland Air Force Base, and airport-related facilities. There is considerable vacant land along this segment of the highway. Further north, the highway crosses over Central Avenue, and is bordered by residential development and medical centers.

Rio Bravo Interchange



Future Interchange concept at Rio Bravo Blvd. off-ramp.



Rio Bravo blvd. approaching I-25.



I-25 bridge looking west.



I-25 Bridge looking east.

Recommendations:

Two interchanges from I-25 provide access to Downtown in this zone: Central Avenue (via the Martin Luther King Avenue interchange) and Lead and Coal Avenues. These interchanges and connecting front-age roads should be highlighted with special design elements including landscaping and lighting to mark entry to Downtown. The Central Avenue bridge structure design should mark entry to downtown and commemorate historic Route 66.

Other interchanges in this zone are Sunport Boulevard, Gibson Boulevard, and Avenida Cesar Chavez.



Downtown from I-25



Martin Luther King Jr. Bridge



Central Ave. Bridge

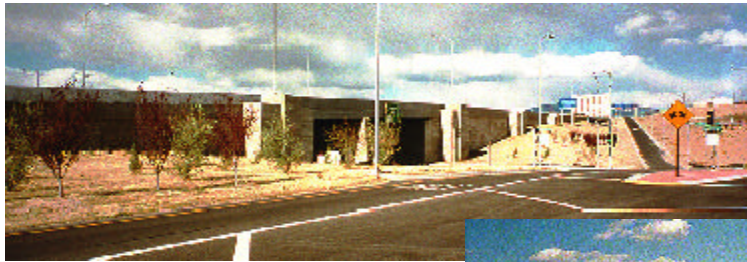
Sunport Gateway

The recently constructed Sunport Boulevard interchange provides direct access to and from Albuquerque International Sunport. Travelers arriving by air first experience the city as they leave the terminal and travel along Sunport Boulevard to I-25. The long descent toward the valley opens up a panoramic view of the western horizon and Downtown Albuquerque to the northwest.

Recommendations:

Enhancement of this experience could include placement of public artwork in the median of Sunport Boulevard and construction of a valley overlook at its terminus with the I-25 off-ramp.

Sunport Gateway



University Blvd. Underpass

Sunport Blvd. east toward Airport



Interchange Approach

West end of Sunport Blvd.



Sunport Blvd. Bridge

Northwest view to city



North Urban Zone

From Comanche/Griegos Road to Paseo Del Norte, the I-25 alignment turns northeast southwest. Both sides of the highway has institutional, commercial and industrial land uses. The built environment dominates the view in this zone. Frontage roads in this zone leave little room for extensive landscape in the 330 foot right-of-way.

Interchanges recently reconstructed within this zone include those at Montano/Montgomery Boulevard, Jefferson Street, Osuna/San Mateo Boulevard and San Antonio Boulevard; the highway passes under the first two streets and over the latter. These interchanges are to be retrofitted consistent with the I-25 design theme, and color and plant palettes.



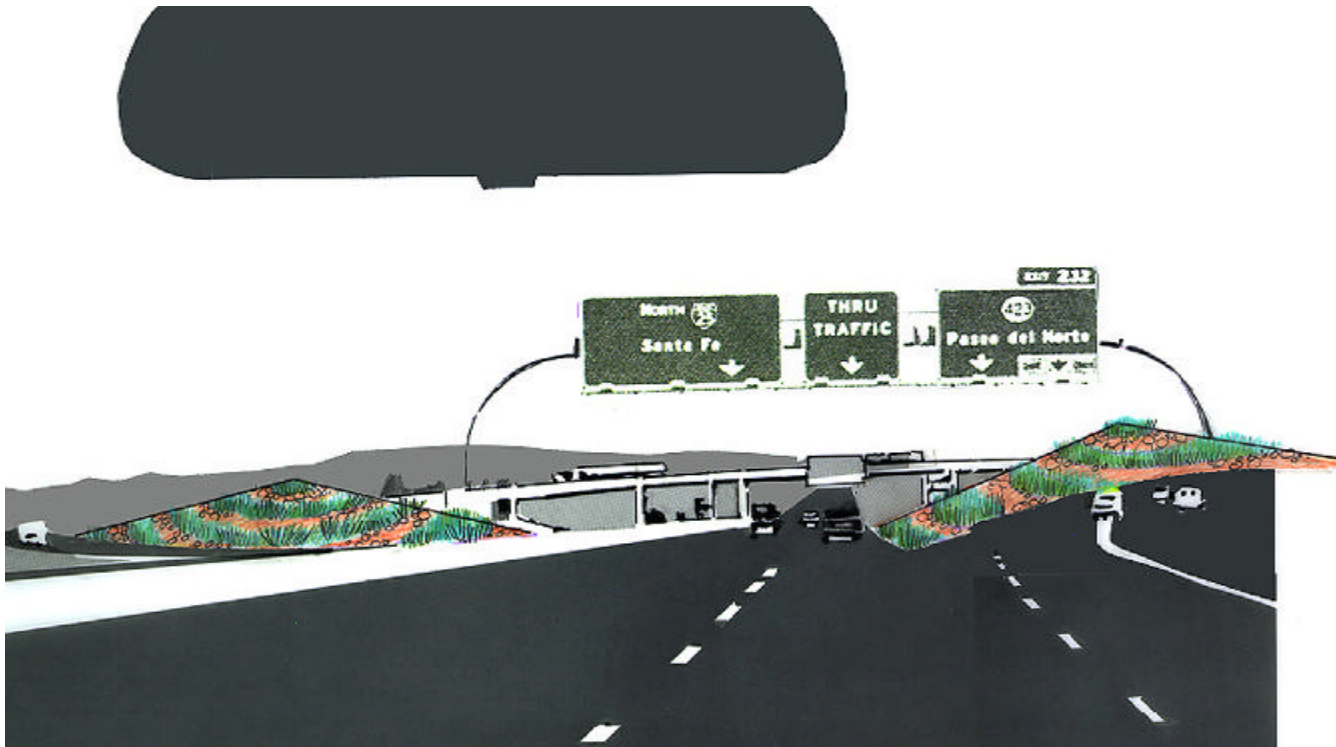
I-25



I-25

Paseo Del Norte Transitional Interchange

This interchange marks the transition from the Urban Zone to the North Gateway Zone. The highway passes under Paseo Del Norte and the bridge is seen in profile on approach. Paseo Del Norte crosses the entire city, from Tramway Boulevard at the foot of the Sandia Mountains to Golf Course Road at the base of the west mesa's volcanic escarpment. The completion of improvements from this interchange east to Tramway Boulevard will make Paseo Del Norte a limited access, divided roadway. The reconstruction of this interchange in a diamond/flyover configuration will result in it being one of the most distinctive interchanges in the I-25 corridor.



I-25 Theme at Paseo Del Norte Interchange

North Gateway Zone

The North Gateway is a two way gateway: to the Albuquerque Metropolitan Area going south and to the Sandia Pueblo leaving the City. This zone extends approximately 2 miles north of the Paseo Del Norte Boulevard interchange, remaining near elevation 5200 feet, about 200 feet above the valley floor. The zone ends 1000 feet north of the boundary between Sandia Reservation and Albuquerque. Although increasingly urbanized, this zone still retains some rural visual characteristics. Travelers experience the powerful forms of the mountains to the east and views over the valley to the west.

The highway crosses over Alameda Boulevard, resulting in uninterrupted views along the highway corridor. Open land west of I-25 allows impressive views toward and beyond the Balloon Fiesta Park at the western edge of the mesa.

Recommendations:

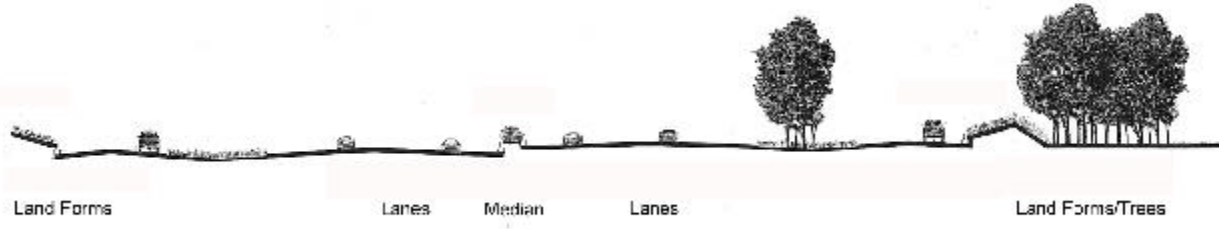
The North Gateway Zone reflects the "Sage Garden" theme. The botanical theme is strongly stated by the use of trees along the east side and sage covered land forms on the west side of the highway. Sculpted landforms augment an existing, naturally occurring pattern of mounding foothills through which I-25 passes just north of the City limits. As with the natural landscape, views to the west are intermittently interrupted or blocked by the foothills and then dramatically released to the vista to the west as the foothill recedes from view. The masses of trees, shown in the section on the opposite page, illustrate the concept of a grove-like dense planting, on the east side of the highway. These masses of trees will help to make the view to the west dominant, thus reinforcing the belvedere concept.

Entering the City, the land forms are above eye level, giving the sense of entering a compressed space as if passing through a gateway. It is a landscaped gateway, stopping the view with periodic gaps through which to see the valley below. As the land forms fade into the ground, the view suddenly opens to the entire valley.

To mark this gateway zone, the primary landscape elements are proposed for land adjoining the highway right-of-way, from Tramway Road to the Alameda Boulevard interchange. Landscaping within the highway corridor in this zone would be in the median at selected locations and on land between the mainline highway and the frontage road.

Proceeding north to the Sandia Indian Reservation, tree groves provide a backdrop to sage covered land forms. The north and south bound lanes are separated by a median of two-level jersey barriers. Consistent with the botanical theme, selected areas are designated for irrigated planting. Two alternative designs, planting or colored gravel in the median strip, are illustrated on page 45.

North Gateway Zone
I-25 El Mirador



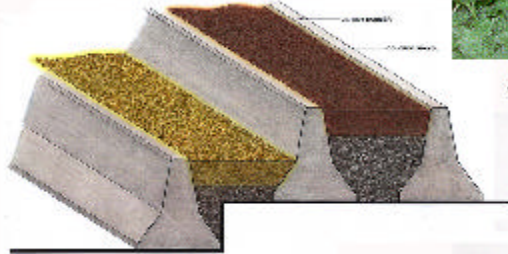
SECTION THROUGH HIGHWAY



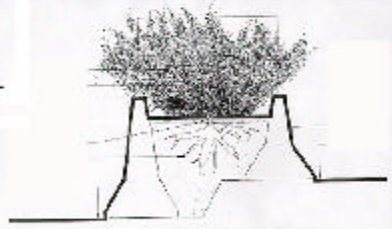
SOUTHERNWOOD SAGE



NEW MEXICO LOCUST



AXONOMETRIC OF MEDIAN WITH COLORED GRAVEL



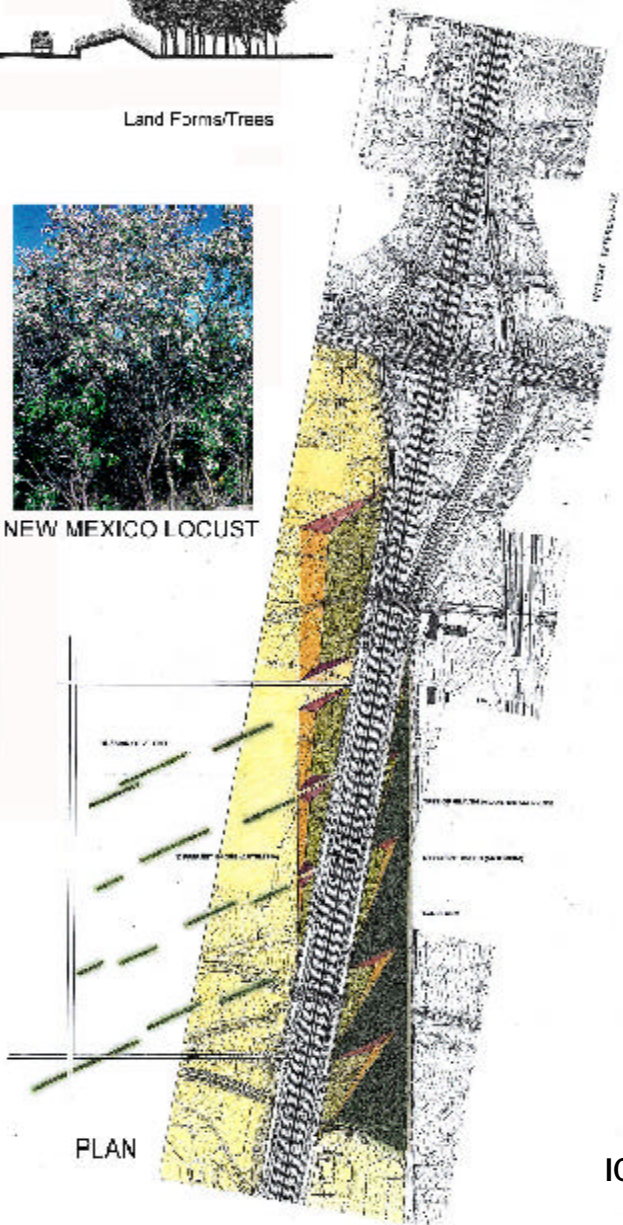
SECTION THROUGH MEDIAN



JERSEY BARRIERS



LANDFORM



PLAN

**Plantings for the North
Gateway:**

Jersey barriers are adapted to create a visually pleasing experience by placing colored gravel in the space formed by the barriers within the median. Irrigation would allow an alternative proposal for plants in the median. See page 45.

To the north, the I-25 gateway emerges from terrain that contains low, sensuous, mounding foothill forms studded with chamisa, sages, grasses and pinon trees. The deciduous trees for the gateway, which would be irrigated and thus different from the basic trees used to define the *mirador* concept, would be planted on both sides of the highway through the linear gateway space, emphasizing the sense of passage through this zone. Median plantings (irrigated) for the north gateway can be low water ornamentals and textures compatible with the sage garden concept.

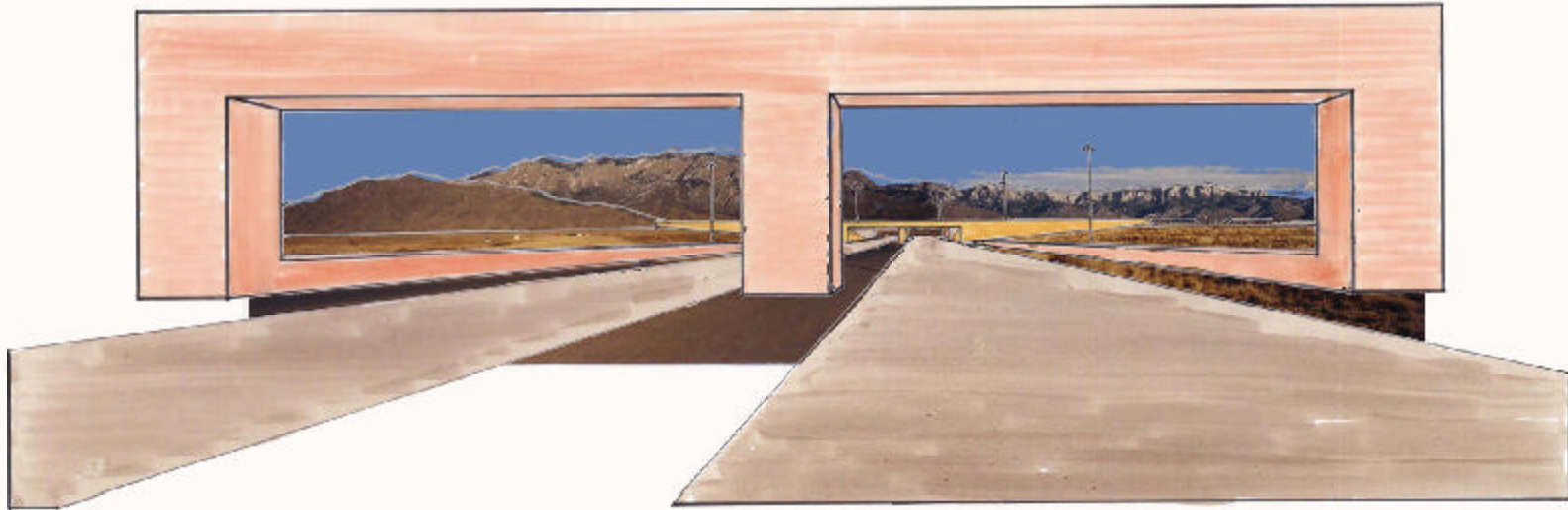
**Tramway Road/Roy
Avenue Interchange**

Traveling northward, the experience of leaving the city begins with the approach to the Tramway Road/Roy Avenue interchange. The interchange provides a gradual transition from the city to the Sandia Pueblo as the highway bridges over the intersecting street.

Recommendations:

The Tramway Road/Roy Avenue interchange is proposed as a high design intensity interchange. Conceptual studies include two views toward the interchange bridge looking east and west. The I-25 theme is emphasized by tree planting on the east side at highway level with sages intermixed on the west slope. Roy Avenue on the west penetrates a "gateway wall" marking the descent to the North Valley and access roads to Sandia Pueblo and Casino. A similar design on Tramway Road would indicate access to the Sandia Tram to the east and Balloon Park to the west. Jersey barriers extend the bridge form into the adjoining landscape and color intensity signifies a gateway zone interchange.

Tramway
Road/Roy Avenue



Roy Avenue looking east toward I-25



Tramway Road looking west to I-25

**North Gateway
Zone**



Arroyo Landscape



View East approaching the North Gateway



Alameda Blvd. East to I-25 Bridge and Mountains

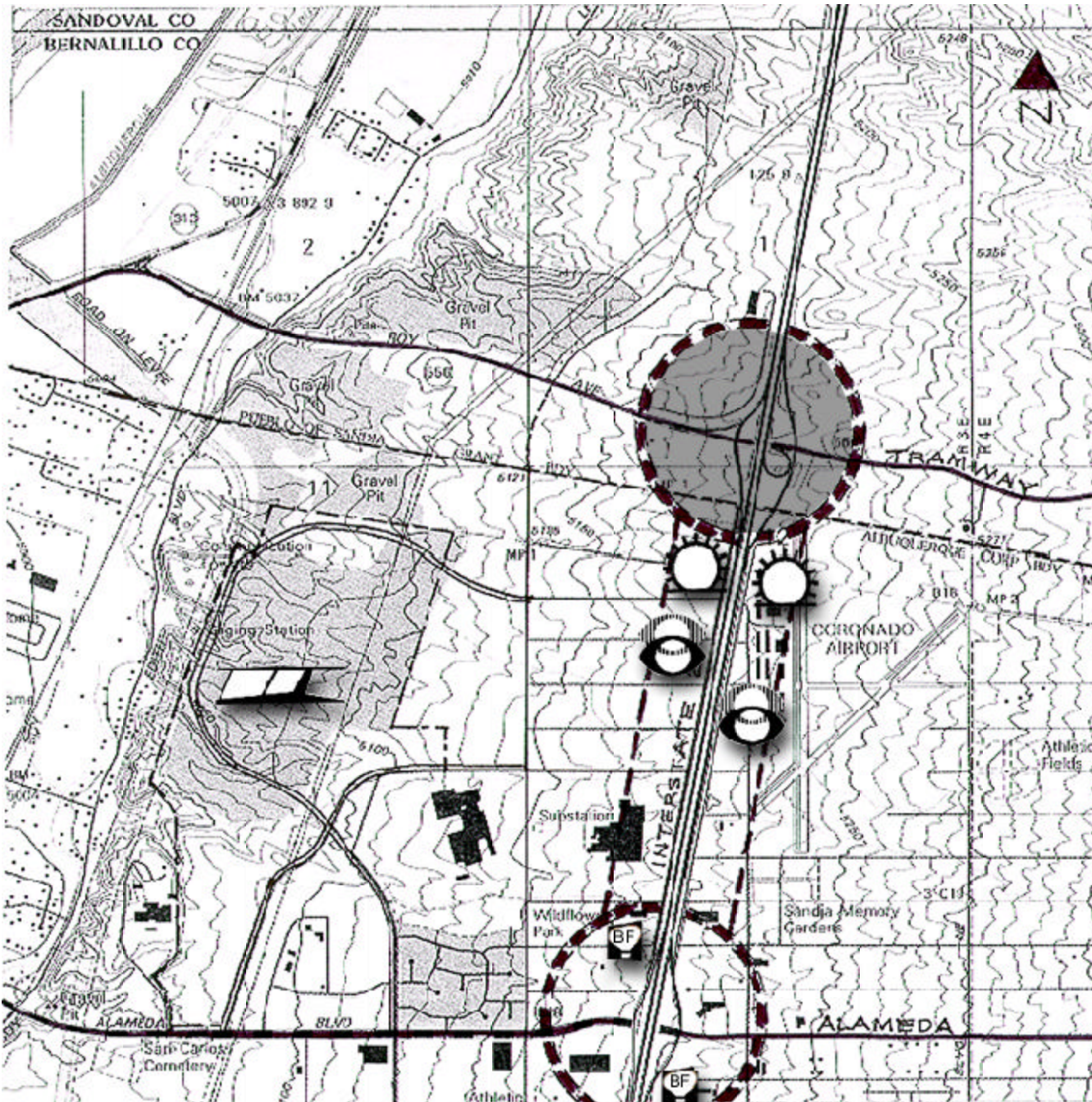


Prairie Grasses



Tramway Road approaching I-25

North Gateway Zone







Principal Interchange
 • Tramway Road/Roy Ave.

Secondary Interchange
 • Alameda Boulevard

Adjacent Open Spaces
 • Sandia Indian Reservation
 • Balloon Fiesta Park
 • Proposed Landscape Setback Zones

Proposed Gateway Design Elements

-  Welcome Sign
-  Sculptural Element(s)
-  Balloon Fiesta Park & Museum Signs
-  Visitor Information Center at Proposed Balloon Museum

I-40: *El Pedregal*; The Stony Place

Design Concepts

The *El Pedregal* rock garden theme is an abstraction of geological characteristics of New Mexico: dry, rocky slopes, mountainous land forms, and grassy foothills. The earthworks along I-40 are constructed primarily from granular materials (rock, gravel, boulders). The I-40 rock garden theme also includes native grasses and wild flowers.

Land and Rock Forms

The color of the land and rock forms gradually change as one moves along the highway. The rock forms color the landscape in a subtly changing experience. The gradient of sculpted land and rock forms is tailored to the surrounding grades. The use of sculpted land and rock forms emphasizes special features and provides a setting for the magnificent panoramic eastward view of the city from the lookout at the top of Nine Mile Hill, the westward view to the volcano cones forming Petroglyph National Monument, or the eastward view to the Rio Grande valley. The design intensifies as one approaches the center of the city. That is, the land and rock forms get larger and closer together and the stones that make up the land forms get larger. The introduction of sculptural land forms occurs along both highways and ties I-40 and I-25 together.

Plant Palette

The planting theme for *El Pedregal* is grasses and yuccas. The form and texture of grass foliage has been selected to provide strong contrast to the rocks and gravels. Grasses have also been chosen because, similar to the sages, there are a number of native species which can be grown from seed, and they have a high degree of ornamental value. These grass species are tolerant of heat, drought, and alkaline soils, and require little care.

In addition to grasses, other plants that are evocative of the desert southwest are recommended for their beautiful and exotic leaf forms. Yuccas and agaves, in particular, require little water, tolerate heat, and have grass-like leaves in the form of needles. These can be used in specific locations to augment the I-40 rock garden concept. Ornamental species are appropriate to the more urban section of this corridor and are recommended in locations as noted below.

There are many beautiful native grasses that have ornamental value when placed within the context of the corridor design theme. Low water requirements, heat tolerance and erosion control, make these tough plants a favored selection. Showcasing these plants would also heighten perception of the uniquely beautiful family of plants which are prevalent throughout New Mexico and the Southwest. The characteristic narrow and blade-like forms of grasses blend well with the yuccas and agaves which, complement each other when combined with the proposed rock garden forms and gravel materials.

I-40 El Pedregal Plant Palette



The existing I-40 landscape has the greatest contrasts at the two gateways. The western gateway zone reflects the hot, dry desert ecology, therefore, plants from the families of cacti, yuccas and agaves are recommended to accentuate this quality. At the eastern end, the plant selection accentuates the entrance or exit at the higher elevations, reflecting canyon and rocky foothills landscape.

Additional plant material for both corridors pertains to the finest textural grain, compared to trees, shrubs and grasses, and consists of intense color designed to further individualize the two corridors. These plant materials correspond to perennial or wildflower color. Color is used in a large-scale, 'environmental' manner to be seen at high speed. Intensive seeding would occur over extensive areas along the highways with a designated plant or combination of plants. Each corridor has its own color theme that will be augmented by the proposed selection of wildflowers.

I-40 Color Palette

Colors for I-40 are chosen from sunset rust, brown, and tan shades, with accents of grey, blue, and orange colors as contrast toward the escarpment. Toward Tijeras Canyon, the accents are pinks to purples representing the reflected sunset light as seen during the approach to the foothills. A limited range of colors is proposed within each design zone. The colors facing city streets on the underpasses could vary to enhance community identity, historic character, or destinations.

The bridges along I-40 associated with each exit are to be painted the same colors as the land or rock forms. Aesthetic elements such as jersey barriers and light poles will have same color to provide linear continuity along the highway. The bridge colors within each design zone will be similar to strengthen the design zone concept. The Louisiana Boulevard and Coors Boulevard interchange bridges will have intense colors to mark the transition between zones.

I-40 Public Art Sites

Along I-40, Unser Boulevard provides access to the Petroglyph National Monument, Rio Grande Boulevard to Old Town/Museums, and Louisiana Boulevard to the Uptown Area. These three locations are designated as primary public art sites. The 4th Street Overpass designated as *El Camino Real*/Heritage Drive, 2nd Street and 3rd Streets as gateways to Downtown Albuquerque are potential public art sites. Additionally, the 12th Street Overpass is a site for a mural as an access to the Indian Pueblo Cultural Center. Other neighborhood streets which are bisected by the corridors and elements which may be part of those corridors such as sound walls, culverts, etc. may also be sites for murals or smaller art projects related to local, neighborhood identity.

West Gateway Zone



Petroglyphs



Approaching Unser Blvd.



Rock Spillway



La Boca Negra Canyon



Lava Rock Forms



Escarpment



Petroglyph

West Gateway Zone

I-40 Design Zones (west to east) and Interchanges

The dramatic experience of entering the City from the west begins atop the Ceja Mesa at the exit from I-40 to Central Avenue. To emphasize this welcoming of the traveler to Albuquerque, the future design of the Paseo Del Volcan Boulevard bridge over the highway should frame the journey eastward to the crest of Nine Mile Hill, which provides a magnificent panoramic view of the city against the backdrop of the Sandia and Manzano Mountains.

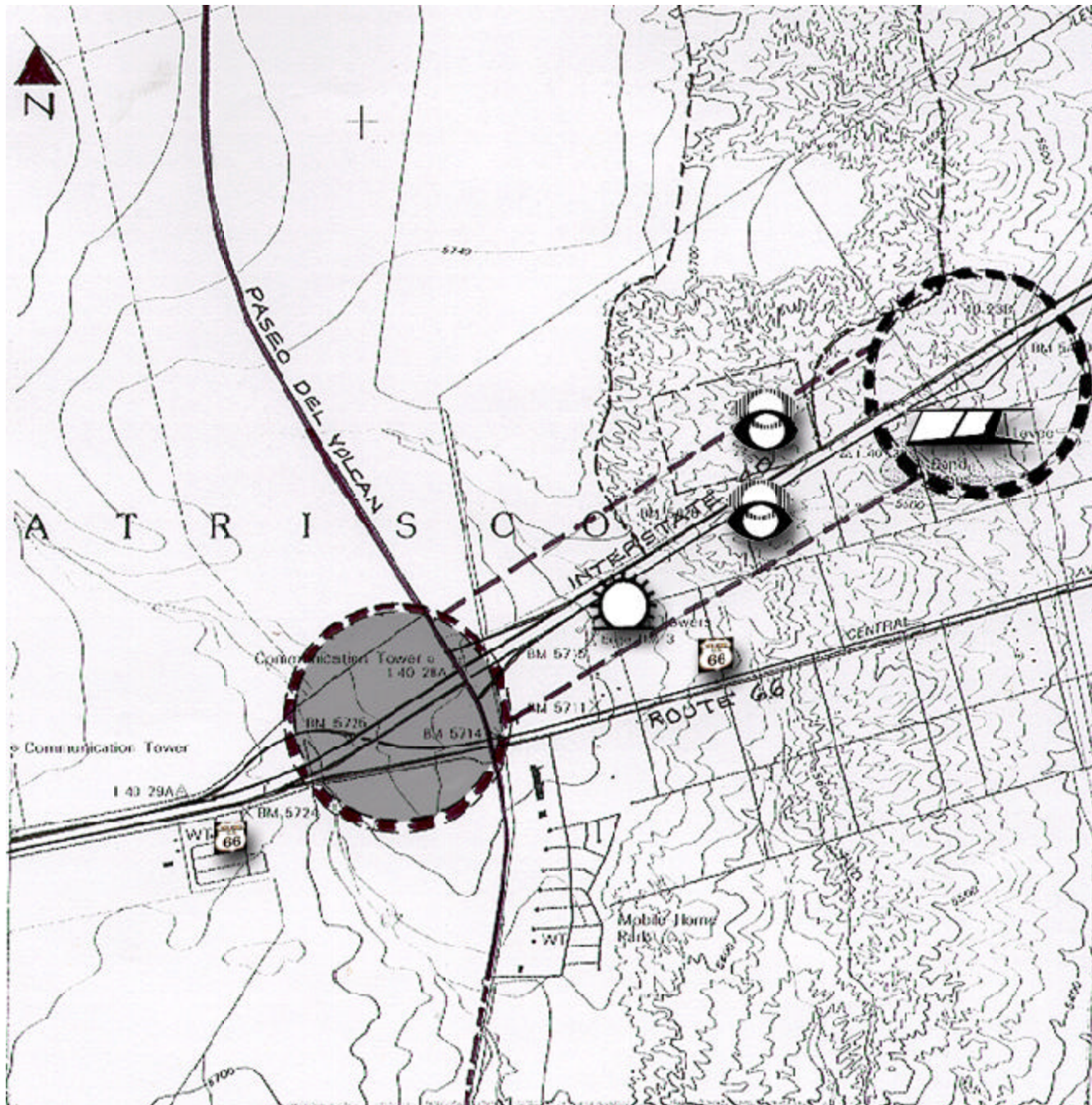
The views of the city become more prominent during a descent of approximately 150 feet to the scenic lookout (presently closed). This site provides an opportunity for a visitor center.

A planned community proposed by the Westland Development Company north of I-40 and east of Paseo Del Volcan includes Atrisco terrace open space, offering the opportunity to influence this gateway zone.

Recommendations:

The West Gateway emphasizes the dramatic, panoramic view of the city from Nine Mile Hill. The public art feature site welcoming travelers to the city is located east of the Central Avenue interchange. Special landscaping will mark the gateway zone from Nine Mile Hill to the existing overlook (presently closed). A visitor center, accessible both from I-40 and Central Avenue with restaurant, information center and art gallery space will provide a unique opportunity for public/private partnership. Guided tours, provided by public or private organizations, could originate from the visitor center to Petroglyph National Monuments and other tourist attractions in this part of the city.





West Gateway Zone



-  **Principal Interchange**
 - Central Avenue / Paseo del Volcan
-  **Secondary Interchange**
 - Future 118th Street

- Adjacent Open Spaces**
- Westland North Master Plan
 - Bernalillo County Open Space
 - Highway Right-of-Way Overlook
 - Petroglyph National Monument

Proposed Gateway Design Elements

-  Welcome Sign
-  Sculptural Element
-  Route 66 Sign/Marker
-  Visitor Information Center at Overlook Site

West Mesa Zone

From the Paseo Del Volcan/Central Avenue interchange to the Coors Boulevard interchange (5.5 miles), I-40 descends 600 feet across the West Mesa. This zone constitutes a single visual experience, punctuated by the 98th Street and Unser Boulevard interchanges. In both cases the highway crosses under the intersecting streets, whose elevations are built up approaching the highway. As the eastward travelers approach the bridges, their profile frames a mountain view.

Land adjacent to this zone, primarily vacant, is in Bernalillo County. A future interchange may be located at 118th Street to provide access to the vacant land. A hundred foot drainage easement along the north side of I-40, between Unser and Coors Boulevards, separates the highway from the vacant land and residential development to the north. This easement provides opportunities for landscaped open space with pedestrian and bike trails and can help reduce the impact of highway noise on adjacent land uses. Future residential development may create a demand for noise walls that significantly block the beautiful vistas of the Sandia Mountains and the Escarpment.

Recommendations:

The rock garden theme of I-40 corridor is emphasized by land forms, median, and berms, extinct volcanoes, and arroyo bottoms. On page 57, a series of photographic images next to the design concept drawings, are not specific proposals, but suggest design ideas. The West Mesa Zone concept uses rocks to sculpt land forms inside the median, recall the three volcanoes, and visually connect to the volcanic formations in the distance. These rock forms symbolizing volcanoes are set in circles of grasses and beds of colored gravel. The forms and materials are representative of this region and are derived from rock garden traditions. The images are drawn from nature or from the everyday commercial life. They suggest to the imagination the transformation of nature and life into urban art forms.



Unser Blvd. Bridge

West Mesa Zone



SECTION



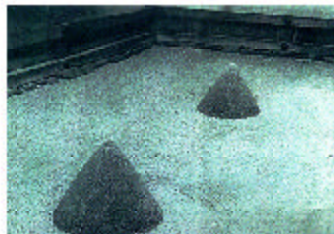
ARROYO



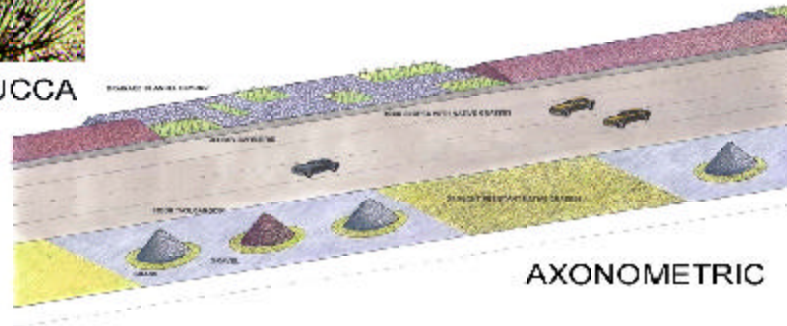
BAYONET YUCCA



GRAVEL PILE



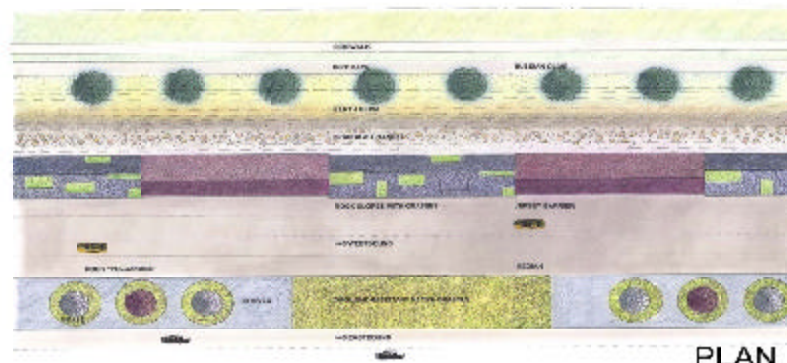
ZEN GARDEN



AXONOMETRIC



ROCK SLOPE



PLAN



VOLCANOES IN DISTANCE

Unser Boulevard Interchange

The Flood Control Authority has a drainage right-of-way along the north side of I-40 from Coors Boulevard to Unser Boulevard. In addition to the drainage channel, the easement includes pedestrian and bicycle trails, and earth berms molded into gentle planes covered with rock rip-rap and patches of indigenous grasses. They form continuous stretches of shaped terrain. These berms, while visually interesting, also reduce noise levels and provide more sense of containment within the highway. The angle of berms deflects highway noise upward instead of reflecting it across the highway. See page 57.

Recommendations:

The conceptual study of this interchange suggests enhancing the unique structure of this bridge to mark the gateway to the Petroglyph National Monument to the north along Unser Boulevard, by cladding the bridge abutments with concrete block pavers colored to match lava rock. Similar pavers are used as retaining walls along Unser Boulevard north of I-40. Lava rock is used to line the sloped surfaces along Unser Boulevard approaching the bridge, in undulating forms, creating a visual connection with the escarpment visible to the northwest. The bridge color will provide contrast with the lava rock color and is extended into the landscape by painting jersey barriers.

Coors Boulevard Transitional Interchange

This interchange is one of the most significant along the I-40 corridor, as Coors Boulevard is the only continuous north-south arterial street west of the Rio Grande. It provides an uninterrupted route from Isleta Pueblo on the south to Sandoval County, going to Rio Rancho and to NM State Highway 44.

The highway crosses under Coors Boulevard, and the bridge profile frames both eastbound and westbound views while passing through this zone. As one descends toward the river through a cut in the bluff, the retaining walls and tall embankments of the bluff re-frame the mountain vista as the highway approaches the bridge over the Rio Grande. The Coors Boulevard interchange, when reconstructed in a multilevel flyover/partial cloverleaf configuration, will have a powerful visual effect.

Valley Urban Zone

From the Rio Grande to 6th Street, the highway corridor is on an elevated embankment with City streets crossing under the highway. This zone has two interchanges – at Rio Grande Boulevard and 12th Street.

The recently completed reconstruction of the highway within this zone includes noise walls of varying heights from the edge of the river to the 12th Street interchange. Thus, a large portion of this zone has been walled off from the adjacent neighborhoods. The noise walls, while reducing the noise impact on the adjoining land uses, have also significantly obstructed views eastward of the Sandia and Manzano mountains and westbound views of the river, the bosque, and the bluffs above the west side of the Rio Grande.

Coors Boulevard



Unser Boulevard



Rio Grande Boulevard Interchange

The Rio Grande Boulevard interchange provides access to Old Town, a major visitor attraction, and to other historic, cultural and recreational resources. The 12th Street interchange accesses the Indian Pueblo Cultural Center and North Valley to the north and Sawmill area to the south. The bridge designs for Rio Grande Boulevard and 12th Street are similar and include retaining walls creating a series of terraces adjacent to both off and on ramps. These terraces offer opportunities for special landscape design and Public Art to emphasize the surrounding communities.

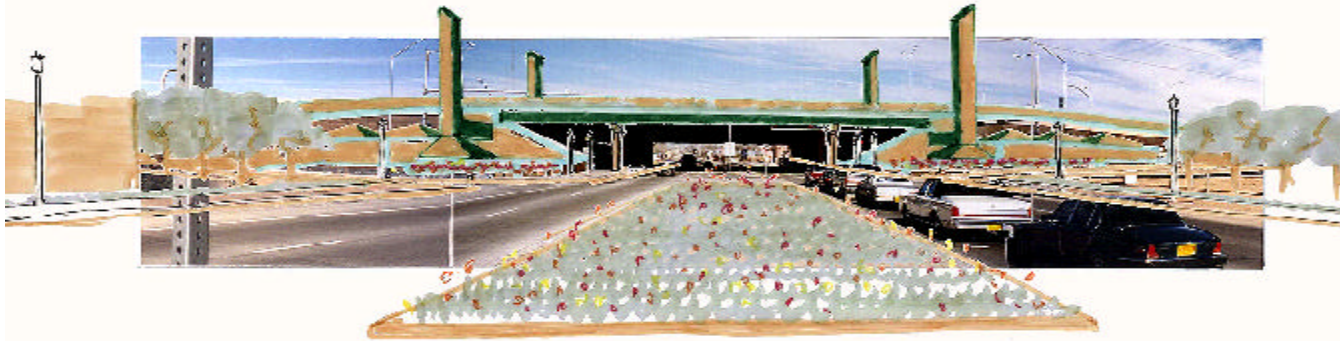
Recommendations:

The view looking north and south from street level includes vertical pylons marking the historic importance of Rio Grande Boulevard accessing Old Town and major cultural and recreational facilities. These and other pylons in the Plan can be a dual use as wireless communication facilities. The City has begun a dialogue with the wireless communication service providers and companies that build wireless communication towers. This interchange is designed to incorporate symbols also visible from highway level. Vertical pylons and street tree planting along Rio Grande Boulevard marks the approach to Old Town and the adjoining cultural and recreational facilities. The design of the 12th Street interchange will be similar, acknowledging the Indian Pueblo Cultural Center and the Sawmill neighborhood. Collaboration between Indian Pueblo Cultural Center, Sawmill Community Development Corporation and the City will be necessary to complete improvements to each of these two interchanges.

As shown in photographs on page 61, the I-40 bridge over Rio Grande Boulevard has multiple level terraces and large medians at the street level. The proposal demonstrates how an existing condition might be retrofitted to harmonize with the ICEPlan concepts. For example, the I-40 rock garden concept can be implemented by planting large-scale yuccas or agaves selected for their dramatic foliage in the upper level terraces. The lower terraces can be intensely planted with xeriscape plant materials.

The median represents a local, neighborhood condition and reflects the native landscape. Plants derived from the Rio Grande bosque ecology should be planted if irrigation is provided.

Rio Grande Boulevard



Retrofit of Rio Grande Boulevard



Rio Grande Bridge and Planting Terraces.



Off-Ramp to Rio Grande Blvd.



I-40 Corridor looking East.

East Urban Zone

The highway, from Carlisle Boulevard to Louisiana Boulevard, passes through residential, commercial, and open space land uses. A concrete-lined flood control channel is located in the median of the highway. This zone includes Carlisle Boulevard and San Mateo Boulevard interchanges, and the crossover city street bridges at Washington Street and San Pedro Drive. The highway crossing under city streets establishes a “rhythm” of bridges in rapid succession.

Recommendations:

The rock garden theme intensifies into larger and coarser rocks in this strip of the highway. The sketch on page 63 shows pyramidal rock formations that appear to emerge out of the existing sound walls between Jersey barriers and the wall. These rock formations are drawn from the forms of the Sandia Mountains and other forms in the New Mexico landscape. The existing plants and native grasses to appear between the rock formations.

The median Jersey barriers have a difficult existing condition to retrofit to the rock garden theme. The rocks, wedged into and between the jersey barriers in the highway median with accent lighting, create a rhythm. These rocks are to be artificial and light weight. The photographic images shown on the facing page are suggestive. Together, these two less naturalistic proposals elaborate the rock garden theme through the central city and its more urban environment. Each of these two concepts need further analysis for appropriateness.

Future noise walls are located along the highway's south edge, west of Carlisle and for a short distance just east of the San Mateo Boulevard interchange. The right-of-way within this zone narrows to 330 feet. The eastbound view remains dominated by the Sandia Mountains, and westbound by the west mesa's escarpment and more distant horizon. However, once the I-40 highway upgrade from east of the Big-I to the Tramway Boulevard interchange is complete, the noise walls along both north and south faces of the highway will further block the present beautiful vistas of the mountains and the escarpment.

Plants located in the ground at the base of berms constructed against the sound walls offer an opportunity to introduce lower growing plants with bold foliage patterns that will interact with the flat planes of the walls behind them. These conditions, occurring in or near the more urban zones of the I-40 rock garden concept, suggest that a more ornamental treatment would be appropriate.

East Urban Zone



Pale Evening Primrose



Purple Prairie Clover



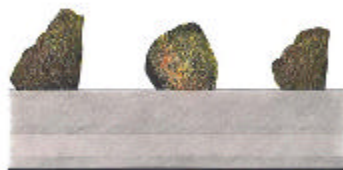
Prairie Sandreed Grass



SKETCH OF SOUND WALL



SECTION



ELEVATION



PLAN



JAPANESE ROCK GARDEN



STONE PILE WITH WALL



STONE BARRIER



STONE SLOPE WITH WALL

Carlisle Interchange

This interchange and three others were designed prior to initiating this plan. However, they are part of the design concepts and themes of the ICEPlan. Therefore they are included in the Plan as part of the design of interchanges along the I-40 highway corridor. The Carlisle Boulevard interchange is a low intensity design interchange.

Recommendations:

Along I-40 a Pueblo Deco design theme is reflected through inset motifs in the bridge girders as well as cast iron art work attached to the pedestrian chain-link fence. Semicircular platforms at each corner of the bridge above the sloped abutments provide both special design effect and extra space for pedestrian movement and wheelchair access.

Louisiana Boulevard Transitional Interchange

The Louisiana Boulevard interchange is the most significant along the east portion of the I-40 corridor. It accesses the Uptown Urban Center which includes two of the city's major shopping centers, several larger office buildings, hotels, and medium density residential areas. This interchange marks the transition between the East Urban Zone and East Mesa Zone.

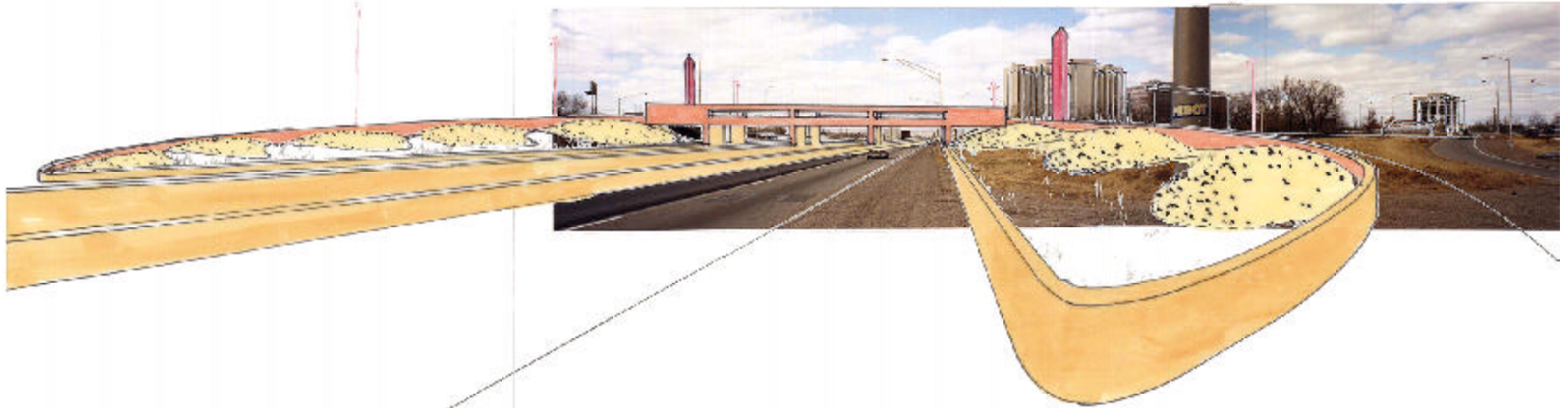
Recommendations:

This high design intensity interchange, the gateway to Uptown, requires a very special image. Conceptual design includes the view of the interchange looking west from the highway. Louisiana Boulevard passes over the highway. This interchange, when reconstructed, will be a single point configuration with a bridge deck allowing special design and landscaping treatment for the bridge profile. The bridge deck incorporates a safer pedestrian walkway and spectacular views to the east and west.

The pedestrian sidewalks crossing the bridge are located away from the automobile traffic lanes and along the edge of the bridge deck. The "View Window" walls border the pedestrian sidewalks along the edge of the bridge deck. Jersey barriers extend from each end of the bridge deck to enclose the landscape "islands" between the mainline highway shoulders and on/off ramps. The surfaces of these "islands" include rock forms reflecting the *El Pedregal* theme. Additionally, the surfaces direct drainage runoff into adjacent planting of grasses and wild flowers.

Public art in the form of vertical pylons at the on-ramp islands at Louisiana Boulevard marks the approach to Uptown from the highway and offers opportunities for public/private partnership to create a focal point. Higher color intensity marks this as one of the major points along the highway corridor.

Louisiana Boulevard



Uptown Albuquerque



East Mesa Zone

From Louisiana Boulevard to the Tramway/Central Avenue junction (4.5 miles), the highway continues its ascent eastward toward Tijeras Canyon, rising more than 500 feet. Interchanges within this zone include Wyoming, Eubank and Juan Tabo Boulevards with crossover city street bridges at Pennsylvania Street and Lomas Boulevard. Three pedestrian bridges (multi-purpose off-street trails) connect the neighborhoods on the north and south of the highway.

The rhythm of the bridges is in rapid succession as the highway corridor passes under each of these surface streets. Due to the residential development abutting the highway, this zone has existing and proposed noise walls from Louisiana Boulevard to Tramway Boulevard. Commercial, institutional, manufacturing, and parks and open space constitute the other adjoining land uses. Though still urban in character, the zone is dominated visually by the Sandia mountains. The mountains become most prominent as the highway approaches the Tijeras Canyon entrance from the west.

East Gateway Zone

The East Gateway Zone begins just west of the Tramway Boulevard interchange and stretches east past the Carnuel exit (about 1.7 miles) between the Sandia and Manzano mountains to the Cibola National Forest boundary.

The experience of entering the city from the East is dramatic. After crossing over Route 66, the highway curves past a large rock outcropping. The highway then ascends to the interchange with Central Avenue and Tramway Boulevard, which crosses below. A city park and detention pond near the Tramway Boulevard underpass provide an open area between the highway corridor and Central Avenue, further opening a panoramic view west to the volcanic cones on the horizon.

Recommendations:

The views of the East Gateway Zone are dramatic as travelers pass through Tijeras Canyon from the east, with the Sandia foothills to the north and Manzano Mountains to the south of the highway. The Plan recommends protection of the natural beauty of mountain backdrops in the gateway zone from the encroachment of commercial development and billboards. The general location of the welcome sign is east of the Carnuel exit. The design and location of art feature will be determined during the detailed design of this gateway. The highway median landscaping to be consistent with the rock and grass theme of I-40.

East Mesa Zone



Bridge Barrier and Abutment Design.



Tramway Blvd. Bridge Designs.



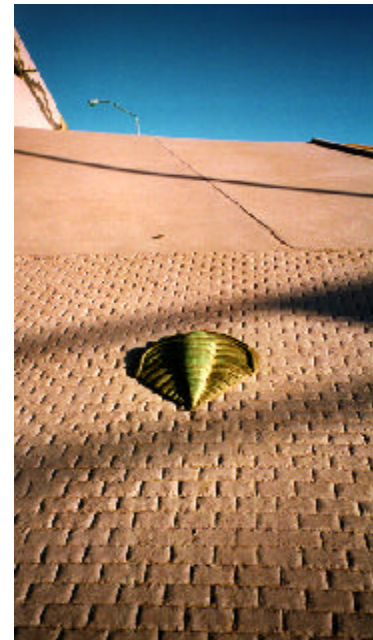
Juan Tabo Blvd. Bridge Designs.



Wyoming Blvd. Bridge Designs.



Sound Wall Design Elements.



Sandia Fossil Art at Tramway Blvd.





East Gateway Zone

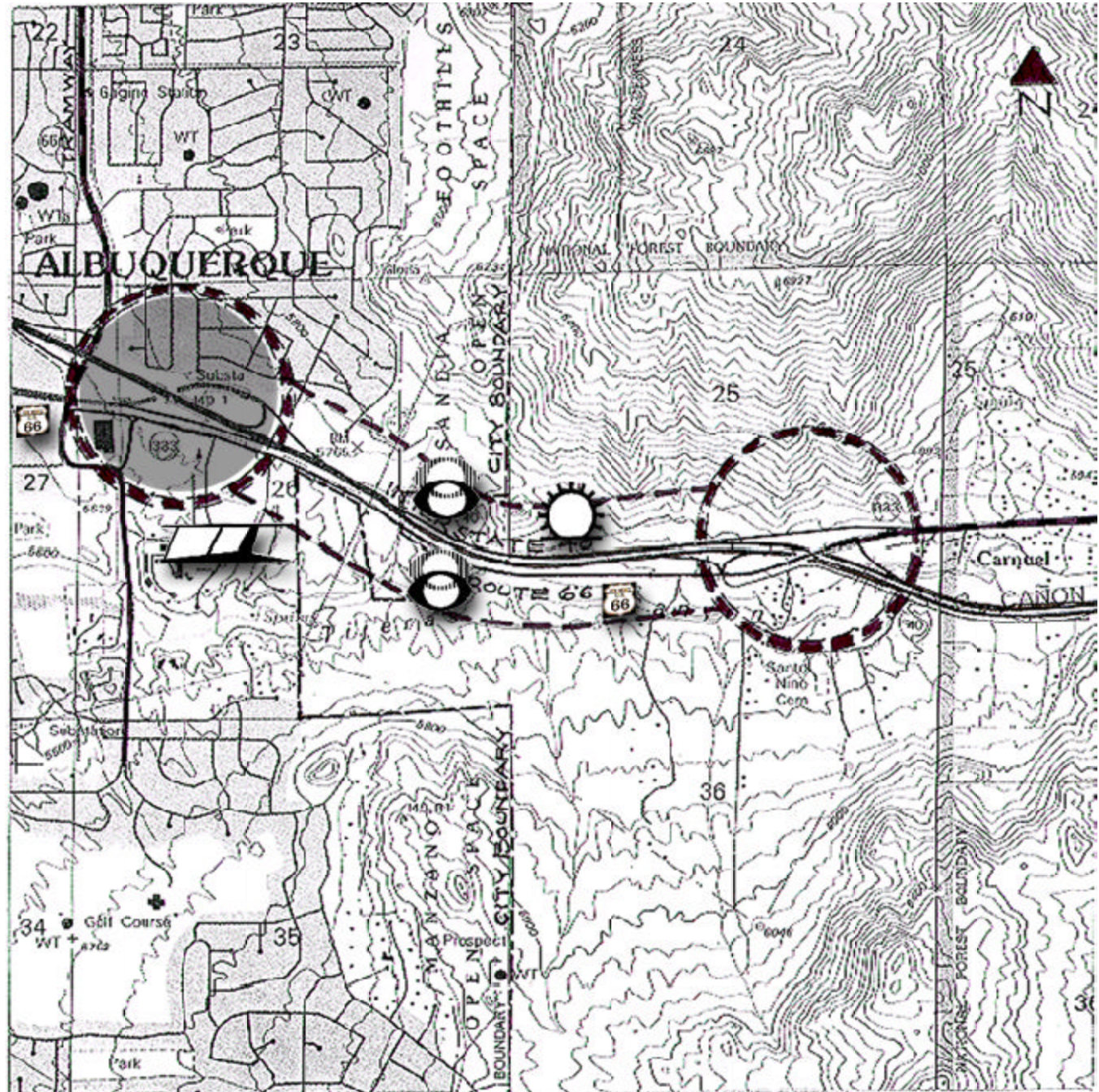
-  **Principal Interchange**
 - Central Avenue / Tramway Boulevard

-  **Secondary Interchange**
 - Carnue Exit

- Adjacent Open Spaces**
 - Cibola National Forest
 - Sandia Foothills Open Space
 - Manzano Open Space
 - Tijeras Canyon

Proposed Gateway Design Elements

-  Welcome Sign
-  Sculptural Element(s)
-  Historic Route 66 Sign/Marker
-  Visitor Information Center & Proposed Route 66 Museum



East Gateway Zone



Sandia Mountains to the East.



Concrete Spillway.



Volcanos on Western Horizon.



Tijeras Canyon.



Canyon Rock Forms.



View to the West.



View to Manzanita Mountains.

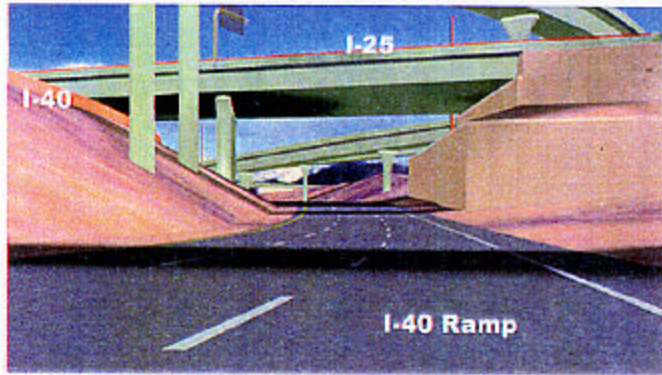
The Big-I Zone South to North

The planned reconstruction of the intersection of I-25 and I-40, the “Crossroads of New Mexico”, will create a unique highway configuration constituting a separate design zone. I-25, from Comanche to Martin Luther King Jr., will include an at-grade frontage road system. Above the frontage road system will be through lanes and above them the flyover ramps connecting the two highways.

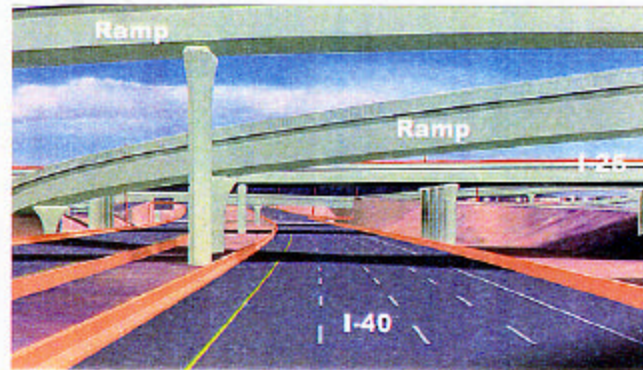
Direct access from I-25 will be provided at Comanche/Griegos Road, Lomas Boulevard (going south, eastbound only), and Martin Luther King Jr. Avenue. The frontage roads will provide connections to Menaul Boulevard, Candelaria Road, Lomas Boulevard and to Mountain Road. Access to downtown will be provided through the frontage road between Martin Luther King Jr. Avenue and Coal Avenue.

This interchange requires a special visual image with the memorable presence of a city landmark. Its design should be distinctive, reflecting the design framework of both I-40 and I-25. Highway structures and adjacent properties recommended for special treatment to improve the visual appearance of the new Big-I include:

- The I-25 bridge crossing over I-40, its abutments, approaches and adjacent landscape areas;
- The Indian School Road bridge over I-25, with its sidewalks and pedestrian scale lighting;
- The Menaul Boulevard and Mountain Road crossings under I-25 to incorporate community identity and public art;
- The Lomas Boulevard and Martin Luther King Jr. Avenue crossings under I-25, to incorporate Downtown gateway landscaping along frontage roads and public art into the bridge structure;
- Land areas within the I-25 right-of-way, especially the large open areas east of the Candelaria Road and Lomas Boulevard interchanges for landscape and public art
- Elements such as medians and sidewalks within the public right-of-way of city cross-streets under and above the highway.
- Shape and color of bridge structures including columns, ramps, jersey barriers, light poles, etc.
- Special lighting for landscaping and bridge support structures.



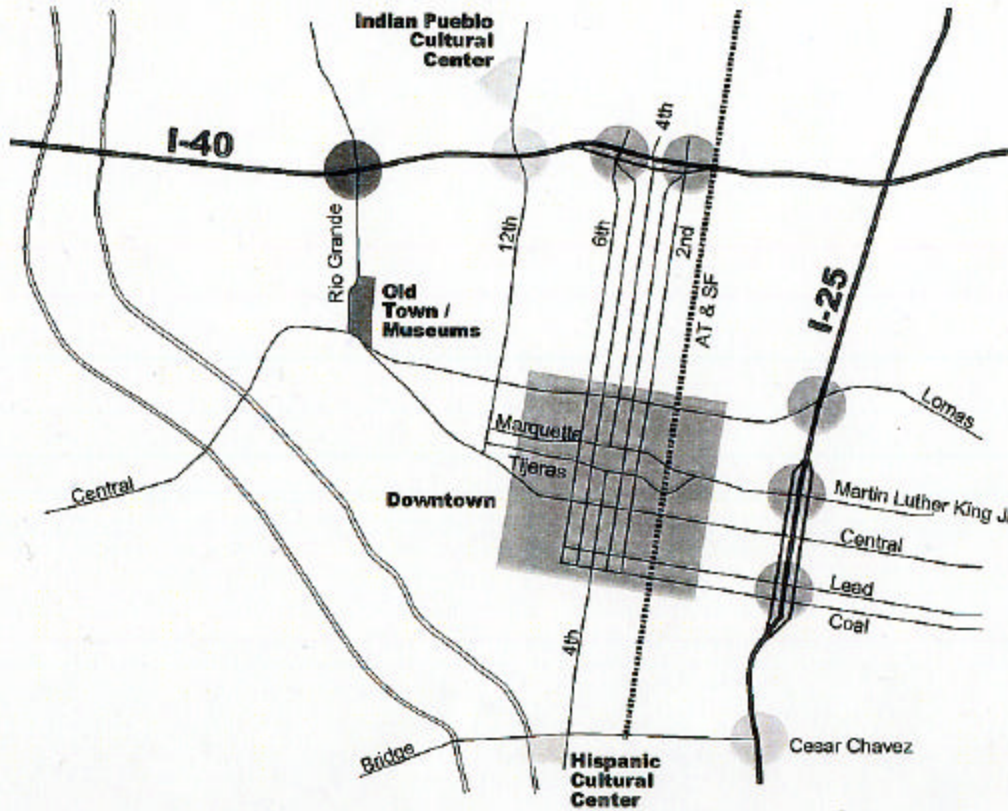
I-40 Ramp



I-40 Eastbound

Big-I: Systems Interchange

Credit: URS Greiner & Sherwin Williams



Downtown Access Routes

- Gateway
- Frontage Road - Special Design

The Big-I Zone West to East

Unlike I-25, the I-40 highway corridor passes within the Big I Zone over the city streets west of the Big-I and under the city streets to the east. The present intersections from 6th Street to Carlisle Boulevard (2.65 miles), will become part of an at-grade frontage road system partially below present grade. Above this will be an independent system of through lanes, flyover ramps and the two highway corridors. The multilayer highway system will be defined by retaining walls at the junction of I-25 and I-40.

Access from I-40 to the lower level frontage roads will be at 6th Street and at Carlisle Boulevard. The frontage road will provide access to the adjacent neighborhoods through underpasses at 4th and 2nd Streets, University Boulevard, Commercial Boulevard and Broadway Boulevard.

Recommendations:

Recommendations for special treatment within the west to east zone of the Big-I include:

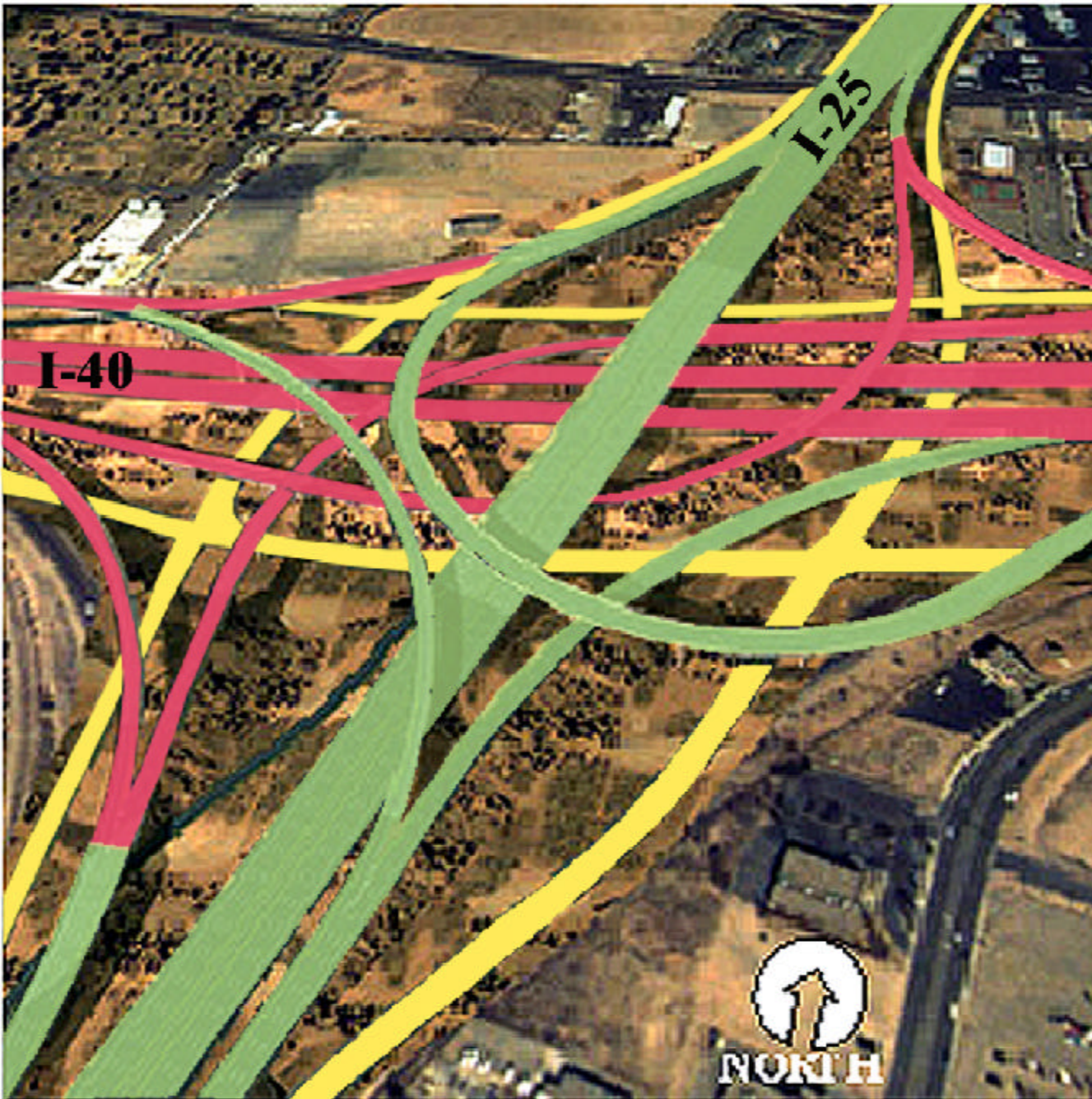
- A wide median separating the I-40 through lanes under the I-25 bridge;
- Abutments, retaining walls and sculpted land forms throughout this zone;
- Noise walls or alternative noise mitigation measures along frontage roads and ramps;
- Second, Fourth and Sixth Streets, Broadway and University Boulevard undercrossings should reflect a civic image, and may incorporate public art into the bridge structures at street level;
- Shape and color of bridge structures including columns, ramps, jersey barriers, light poles, etc.;
- Special lighting treatment for landscaping and bridge support structures; and
- Potential joint use of the retention pond for storm runoff, land forms, and landscaping to abate noise.

Big I Project Public Art Sites




Within the System Interchange (Big I) construction zone, there are unique opportunities for public art sites along I-25. These include the approaches to the bridge crossing over I-40, the Indian School Road bridge over I-25, and two land areas east of I-25, at Lomas Boulevard on the south and at Candelaria Road on the north. Along I-40, the medians between the east and west lanes through the central crossing area could include artwork enhancing the corridor's geologic theme.

Additional sites are at the underpasses at Lomas and Dr. Martin Luther King Jr., and Menaul on I-25, Fourth Street, Second Street, Broadway Boulevard, and University Boulevard on I-40.

The Big-I Zone



Aerial View of proposed Big-I,
looking north.

-  Interstate 25
-  Interstate 40
-  Frontage Roads



Section 4. Implementation, Funding & Maintenance Strategy

Bridge structures and highways designed in the late nineteenth and early twentieth centuries were beautiful and graceful, and gave special identity to a city. Examples of these are the Golden Gate Bridge in San Francisco and the Merritt Parkway from Connecticut to New York. In the past fifty years, bridge design has become utilitarian, with little regard for aesthetics, despite advances in engineering, technology, construction methods, and materials.

State transportation departments in Arizona, Colorado, Washington and Minnesota began reversing this trend several years ago. The City of Albuquerque and NMSHTD with the assistance of MRGCOG and Bernalillo County, have taken on an even greater challenge with this Interstate Corridor Enhancement Plan. The NMSHTD's highway upgrade program provides a unique opportunity to improve the visual quality of highways by implementing the ICEPlan recommendations and concepts, as follow:

Implementation

The ICE Plan is a general design framework to guide individual projects in the Interstate Highway Upgrade Program and to give direction to the subsequent Physical Master Plan. It includes two design themes, one each for I-25 and I-40, segments of both highways represented as "Design Zones", and proposes designs with varying levels of importance ("design intensity") for each interchange. The policies recommended to implement the ICEPlan are:

General Recommendations:

- The aesthetic enhancement of interstate highways be **incorporated** into the Interstate Highway Upgrade Program.
- A **Physical Master Plan** for the entirety of the I-25 and I-40 highway corridors in the Albuquerque Metropolitan Area be prepared to respond to variations in highway corridor conditions; e.g.

Examples of Interstate Corridors



Wyoming Blvd. Bridge at I-40.



I-40 over Central Ave.



Tramway Blvd. underpass at I-40.

right-of-way widths, location of frontage roads, and adjacent land use activities. The Physical Master Plan will include concepts for each interchange and every segment of both highways consistent with the ICEPlan design framework. The Physical Master Plan will have more specific concepts to guide the design of each project.

- A committee to implement the ICEPlan and direct the Physical Master Plan be formed by the NMSHTD. The committee should be jointly chaired by District 3 - Engineer and the City's Planning Department Director. In addition, its membership should include District 3 Highway Commissioner, Mayor, City Councilor, director of City Public Works Department and Parks Management Department, Bernalillo County Commissioner and Administrator. The role of the committee will be to implement the ICEPlan by providing leadership and guidance for securing capital and maintenance funding.
- The Albuquerque Planning Department coordinate implementation of the ICEPlan recommendations until NMSHTD forms a Committee and completes the Physical Master Plan.
- The City and County Public Art Programs develop and implement public art projects in the city and county respectively, with the participation of the City's Planning Department and the NMSHTD, using standard public art procedures including public participation and artist competitions.
- The Interstate Highway Upgrade Program include funding for the design and construction of enhancements integral to highway structure and landscaping. (See page 87).
- For the duration of the Interstate Highway Upgrade Program, the City, Bernalillo County, MRGCOG and NMSHTD should allocate a percentage of **the Transportation Equity Act 21 (TEA 21) funds** for the enhancement of I-25 and I-40 by implementing this Plan. (See page 87).
- The NMSHTD, City, and Bernalillo County establish an "Enhancement Maintenance Trust Fund" to provide an ongoing source of funding for the maintenance of landscaping and accent lighting. A percentage of project construction cost should be set aside to form this trust fund, with additional contributions from public agencies and the private sector.
- The Adopt-a-Highway program be expanded to allow private sector financing of landscape maintenance along the highways.

- Public agencies, private businesses, and community groups collaborate to establish public/private partnerships for special interchanges and the five gateway zones.
- An interagency joint powers maintenance agreement among State, Regional and Local agencies be developed based on the maintenance strategy outlined in this Plan.
- All Requests for Proposals issued by the NMSHTD for the design and construction of NMSHTD projects, other than road surface repairs, include a city planner specializing in urban design, an architect, landscape architect, and artist on the project design team. The enhancement project *lead firm must demonstrate an understanding of and ability to comprehend and articulate the relationship of all highway elements* such as engineering, architecture, landscaping, lighting, and public art into an integrated visual experience.
- The NMSHTD current selection committees reviewing proposals from consulting firms be expanded to include a city planner specializing in urban design, an architect or landscape architect, and an artist.

Specific Recommendations:

Improving the visual quality of our highways and city and county streets will improve the physical fabric of our city, enhance the quality of life of its residents, and may contribute to the economic vitality of our metropolitan area. Specific actions are necessary to realize the vision described in this plan. These actions are:

The Interstate Highway Corridors present a unique opportunity for Albuquerque to visually define the extent of the metropolitan area, to mark entry into the city, and to provide memorable images symbolic of the city in the minds of travelers. The creation of gateway zones that mark entry to the City requires coordination between the State, City, County, and adjoining land owners in a public/private partnership, as described below:

- Establish public/private partnerships which include the adjoining Pueblos of Isleta and Sandia, nearby cultural and recreational facilities such as Museums, the Balloon Fiesta Park, and future master-planned communities such as Westland North and Mesa Del Sol, so that their future development contributes to the implementation of the gateways.

Urban Gateways

- Protect gateways from commercial encroachment through zoning, and if necessary, by purchasing open space reserves.
- Enhance the new Sunport Boulevard Interchange and its approach to the Albuquerque International Sunport as the fifth Gateway.

Transitional Interchanges

The four transitional high design intensity interchanges described on page 20 will be reconstructed separately and reconfigured from the present form. The design of these interchanges will reflect the thematic design concepts, and incorporate landscaping and special public art as proposed in this Plan. An architect, landscape architect, and artist on the design teams for each project will work with engineers in establishing the basic forms of the interchanges including bridge structures and landscaping. The aesthetic component of the design will be incorporated into the construction documents.

The Big-I (I-25 and I-40 Interchange)

The design and construction of the new System Interchange (the "Big I") will create an entirely new image for the "Crossroads of New Mexico". The on-grade north-south and east-west frontage roads allowing access to city streets crossing under the highways will create a special zone. This area, below the two highways, deserves special design attention with active City participation similar to that of the four transitional high design intensity interchanges. The formally landscaped berms and slopes, retaining walls, bridge support systems, lighting, and choice of colors will give a distinct image to the Big-I.

Design Zones and Interchanges

The landscape design of segments of the highway corridors and design of interchanges within each zone are to be consistent with the *El Mirador* theme of I-25 and the *El Pedregal* theme of I-40. The design features and color of jersey barriers, bridge girders, light poles, and sign posts will strengthen the concept of design zones.

Noise Walls

The primary structures and architecture of bridge designs, other than transitional interchanges, are to be as similar as possible to provide a consistent visual image along the highways.

The South Valley and East and West Mesa Zones have considerable vacant land, some of it is zoned residential. The future growth along the highway corridors in these zones should be carefully planned to preclude the need for noise walls. It is imperative that the City and County undertake a land use, zoning and noise study along the interstate highway corridors to ensure that future conflicts between residential use and noise are prevented. Alternative noise abatement measures, such as earth forms, drainage easements, landscaping, or a combination of these should be developed. New noise walls, when required should include landscaped setbacks with jersey barriers and follow Federal and State noise standards.

To achieve the full effect of the concepts in this plan, certain interchanges and corridor segments, which have already been upgraded, will have to be modified. The candidates for modification are: Eubank Boulevard, Lomas Avenue, Unser Boulevard interchange at I-40 and Jefferson Boulevard, San Antonio, San Mateo, Sunport Boulevard at I-25. The modifications will be based on the design recommendations in this plan.

Recommendations Throughout the Corridors

- Billboards - Where additional land is acquired for highway right-of-way, leases for existing billboards should not be renewed, and no new commercial advertising should be allowed. Upon completion of a highway project, the appropriate adjacent local government should be notified of surplus parcels, and the land should be transferred if a valid public purpose can be established. In the event the public agency decides not to use the surplus land and it is sold to private group(s), a condition should prohibit billboards within 500 feet of the highway right-of-way of the Plan area.
- The City and County, working with the outdoor advertising industry, should consider revising the respective Zoning Codes to limit billboards to certain locations only, and should develop alternative ways to reach the public with their messages.
- Lighting - No new high mast lighting should be used unless directed downward, and these lights which currently exist should be phased out.
- Noise Walls - No residential development should be allowed along the highway corridors unless the residential units are located with sufficient setback that noise walls are not required.
- Jersey Barriers - Should be used to enclose landscape areas between highway shoulders and on-and-off ramps in the Urban Zones where these spaces are small and/or grades are steep. Solid Jersey barriers should be used instead of metal railings on city streets at bridge crossings. The Jersey barriers should extend on either side of the bridge along the shoulders as appropriate and should be proportionate to each interchange plan.
- Signage - Throughout the corridor, cultural and informational signage should be uniform in size and style. Signs should not be placed on the highway bridges—especially on girders and railings which have design features.

Estimated Cost

Capital Funding

During the next ten to fifteen years, the NMSHTD will be spending over \$1.5 billion on the Interstate Highway upgrade project. Although it is difficult to separate the cost of visual enhancement from the standard engineering of highways, the cost of aesthetic enhancement and landscaping along the I-25 and I-40 highway corridors is estimated to be roughly 2% to 5% of the project construction cost. The cost estimates include enhanced bridge design, landscaping, and public art. The estimates are based on similar work in other cities.

Implementation of the ICEPlan concepts as part of the highways upgrade program would be more cost effective than if retrofitted later. For example, land grading near an interchange may have no, or minimal, cost increase if the land is graded according to the ICEPlan recommended design. Similarly, the cost increase of an architecturally enhanced bridge design may not be significant.

Examples of other cities

In Phoenix, Arizona, the highway projects include engineering of highways, extensive landscaping, enhanced design of noise walls, inset design in highway structural elements, and public art e.g., Pima Highway and Squaw Peak Parkway. A half-percent (½%) county sales tax, through a legislative action, payed for freeway construction which included landscaping and enhancement. The City of Phoenix does not accept construction of any highways without enhancement; it is considered an integral part of highway design. The Environmental Impact Statement is the mechanism used by the City to improve the quality of highway design.

The I-90 extension through the City of Mercer Island, Washington, built by the Washington State Highway and Transportation Department, became an elaborate project. The project, called "The Lid", became a city park with active and passive activities and included a highway maintenance building. The project also included enhanced design of noise walls and extensive landscaping in the highway right-of-way. Construction funding for the entire project described above, except for the public art paid by the City's 1% for the Arts Program, was provided by Federal and State funds as part of the WSHTD project.

Funding Sources for Albuquerque

Similar to Arizona and Washington, funding for the aesthetic elements should be included in the project budget. The City and County, NMSHTD, MRGCOG (MPOs) should cooperate to allocate TEA-21 funds with required match by the City and the County. In addition to the City and County's 1% for Art program, a nonprofit Public Infrastructure Enhancement Fund should be established for special design features and public art. A list of suggested funding sources follows:

Highway Structural Elements & Landscaping:

- New Mexico State Highway and Transportation Construction Funds
- State Legislature - Capital outlay (i.e., appropriations for specific projects, outside normal Highway Department funding)
- Funds allocated by the State Legislature
- City General Obligation bond issues
- 5% Trails and Bikeways Set Aside (City of Albuquerque)
- TEA 21 - Fund (for the duration of Highway Upgrade Program)
- Empowerment Communities & Enterprise Zones

Special Design Features & Public Art Public Sector

- City 1% for Art
- County 1% for Art
- Enhancement funds - Neighborhood set aside
- Lodgers' Tax (ACVB)
- Cultural Corridors/Route 66 - (\$50,000 with match from the city available)
- State Tourism Department
- AMAFCA; possible participation re: drainage structure

Private Sector/Non Profit Organizations

- Chamber of Commerce
- Merchants Association, e.g., Uptown Business Association
- Home Builders Association of Central New Mexico
- General Contractors Association
- National Association of Industrial & Office Parks (NAIOP)
- Private companies
- Private foundations

Maintenance Strategy

The ICEPlan takes the approach that highway maintenance should include the "enhancement" elements. The elements requiring maintenance besides highway structures include landscaping, accent lighting, lighting along the highways and under the bridges, traffic signals, and public art. This section, however, addresses maintenance of landscaping including multipurpose trails within the highway right of way, accent lighting, and public art. The cost estimates include maintenance of highway landscaping, accent lighting, public art, and landscaping along the *existing* trails within the highway right-of-way.

Maintenance Costs

The Maintenance Strategy is intended to: (1) outline an estimated budget for the maintenance of landscaping, public art, and accent lighting, (2) establish responsible agency(ies) for maintaining these elements, (3) identify the public and private financial resources, and (4) become the basis of a joint powers agreement between the City and the County and the NMSHTD. Additionally, this Strategy emphasizes training and qualifications of maintenance staff—which is critical to the overall maintenance effort.

The ICEPlan design concepts among others include landscaping (planting, rocks and native grasses) and accent lighting. The maintenance cost estimates are based on 38 miles of highways (not including the Big-I) upon completion in twenty years **based on 1998 dollars**. The highway improvements are on right-of-way which passes through areas under City or County jurisdiction. The landscaping will be installed by the NMSHTD and its maintenance will be funded by the NMSHTD, City, and County as well as private sector. The cost estimates for maintenance are based on mix of plantings, rocks and grasses, as follow:

I-25 - 'El Mirador' - Botanical Theme	\$1,013,592
Cost: 60% Seeded Area, 15% Rock Area, 25% Trees & Shrubs	
I-40 - 'El Pedregal' - Stony Place Theme	\$ 616,228
Cost: 30% Seeded Area, 60% Rock Area, 10% Grasses & Shrubs	
TOTAL MAINTENANCE COST (20 year accumulation)	\$1,629,820 (\$43,000 per mile)
Portion of project in the City (2/3 acreage)	\$ 1,086,544
Portion of project in the County (1/3 acreage)	\$ 543,272

The annual maintenance estimates do not include cost of water or electricity, and assumes the following services:

- Mowing once a year
- Litter pick-up twice a year
- Weed control through selective use of herbicide
- Plant inspection, pruning, insect & disease control
- Irrigation inspection, repair



Highway maintenance

The following table shows the estimated amount of funding required per year for the maintenance of landscaping recommended in the ICEPlan. This is based on the assumption that one tenth of the miles of landscaping will be implemented every two years. For each segment, there are no costs for the first year since it is the year of construction. In the second year, the maintenance would be covered through a one year warranty of the landscaping by the contractor.

Years 1 & 2	\$ 0
Years 3 & 4	\$ 162,982
Years 5 & 6	\$ 325,964
Years 7 & 8	\$ 488,946
Years 9 & 10	\$ 651,928
Years 11 & 12	\$ 814,910
Years 13 & 14	\$ 977,892
Years 15 & 16	\$1,140,874
Years 17 & 18	\$1,303,856
Years 19 & 20	\$1,466,838
Years 21 & 22	\$1,629,820

Maintenance Issues

To implement the ICEPlan design concepts, the NMSHTD is willing to provide enhanced landscaping and accent lighting provided the City and Bernalillo County maintain them. This maintenance strategy covers only the landscaping and accent lighting along the highway corridors and multipurpose trails. Public art, except on bridge structures and noise walls, will be maintained by the City & County's 1% for Art programs.

The planting maintenance has two phases: an establishment period, and on-going maintenance. The Washington and Minnesota State Highway and Transportation Departments include three-and two-year establishment periods, respectively, in their landscaping construction contracts. If implemented, this strategy would give the NMSHTD, the City, and the County time to plan allocation of funds or establish a landscaping maintenance trust fund.

The City's Public Art Program estimates that \$3,000-\$5,000 per year may be needed for the first 3-5 years as the City funded works of art are installed in the interstate corridors. These funds are provided by an ordinance from General Obligation Bond 1% for the Art funds.

Current Status

Currently, the standard highway light poles and luminaires (50' davits), lighting under highway bridges, and signals at City streets within the highway right-of-way, though installed by the NMSHTD, are transferred to City ownership for maintenance. Public Service Company of New Mexico's contract with the City for maintenance of highway lighting includes equipment as well as cost of electricity. The highway corridors are seeded with minimal landscaping primarily to prevent erosion. The NMSHTD installs minimal landscaping and seeding.

Maintenance Funding Options

The analysis on the opposite page evaluates options. The Plan recommends that the maintenance of interstate highways be funded by the State and Local governments and the private sector as is done in other states. However, only one agency should be responsible for the actual maintenance. The State Highway Departments in Arizona, Minnesota, Washington maintain landscaping along the state highways. In Arizona, the cities maintain landscaping outside the highway control fence. The City of Phoenix also pays for all water for irrigation. The options recommended for Albuquerque are 3a or 3b (refers to analysis on the page 85) as follow:

Option 3a: City Managed Private Landscape Maintenance Contract - Joint Funding from Traditional Sources - The NMSHTD should include in the construction contract landscaping maintenance for two/three years of establishment period. The ongoing maintenance of landscaping on the highway side of the control fence should be paid for by the NMSHTD, and outside this fence by the City and the County,

Options for Maintaining and Funding Landscaping and Accent Lighting Along I-25
and I-40 Highway Corridors and Multi-purpose Trails

No.	Options	Pros	Cons
1.	NMSHTD fund and maintain	<ul style="list-style-type: none"> - NMSHTD Right-of-Way - Many State Hwy. Departments maintain ROW Landscaping - Public Relations for NMSHTD - Pride/Sense of ownership 	<ul style="list-style-type: none"> - Limited experience in landscape management - State has less incentive than City and County - NMSHTD would see as precedent in New Mexico - NMSHTD not adequately staffed,
2.	City of Albuquerque (COA) and Bernalillo County (BC) fund and maintain with NMSHTD cooperation	<ul style="list-style-type: none"> - City and County have experience in landscape management - More incentive for the City and County to make highway look beautiful 	<ul style="list-style-type: none"> - Not City and County Right-of-Way - City & County not adequately, staffed, equipped or funded - No separate accounting system for highway maintenance
3a.	City (single entity) managed contract with a private vendor, funded by NMSHTD, COA and BC from traditional funding sources	<ul style="list-style-type: none"> - City has experience in project oversight - Commitment by all, if funded - Shared funding responsibility - Landscaping will be better maintained if adequately funded - Private vendor more efficient 	<ul style="list-style-type: none"> - City's current bid system (lowest bidder) may not provide an appropriate vendor. - Would require a dedicated fund not presently in existence
3b.	City (single entity) managed contract with a private vendor; funded by a Trust Fund jointly created by NMSHTD, COA, BC	<ul style="list-style-type: none"> - Perpetual Funding - Assured Funding - Less effect on agencies' budget - Cooperative Effort - Shared Pride/Sense of ownership - Private sector funding possible 	<ul style="list-style-type: none"> - Big start up costs (see potential sources on page 3) - Some funds may not legally be put in the Trust Fund

depending upon the jurisdiction where the landscaping falls. The City would pay for the water and electricity for accent lighting.

Option 3b: City Managed Private Landscape Maintenance Contract - Jointly Created Trust Fund - The NMSHTD should include in the construction contract landscaping maintenance for two/three years of establishment period. A Landscape Maintenance Trust Fund should be created through financial participation of the state, regional, and local agencies. The maintenance of landscaping, including water and electricity for accent lighting, should be funded by this Trust Fund. One agency should be primarily responsible for the maintenance. The establishment period for planting will allow the Maintenance Trust Fund to grow.



Trilobite - I-40 & Tramway Blvd.



Frog Fence around Detention Pond at Rio Grande Blvd. at I-40.

Funding Sources

The sources include both public sector (City, County, State, etc.) and private sector funds. The possible funding sources for both options listed above are as follow:

- NMSHTD
 - State Highway Maintenance Fund
 - a % of project construction cost put into a "Landscaping Maintenance Trust Fund"
- NM State Legislature
 - Funding appropriation from gasoline tax
 - Other "surplus" funds or windfalls

CAPITAL FUNDING, MAINTENANCE AND ART CONSERVATION STRATEGY								
Highway Elements	Capital Funding		Implementing Agency		Maintenance/Conserv. Agency		Maint. Funding	Comments
	Hwy. Structure	Add-on	Urb. Des. Coord	Const. Coord.	Primary	Coordinating		
Bridge Structure Design/Art								
Design of art on bridge & related struct.	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Art attached to bridge fences	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Wrought iron pedestrian fences	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Concrete bridge parapet design	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Pylon integral to structure	NMSHTD	STPU/Priv.	City Plng.	NMSHTD	NMSHTD		LSMaint.Trustfund	State,City,County,Private
Design of noise walls	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Design of retaining walls	NMSHTD		City Plng.	NMSHTD/CityPubArt	NMSHTD		NMSHTD	
Art enhanced to pylons & other struct.	NMSHTD	City 1%Art/Cnty	City Pub. Art	NMSHTD/CityPubArt	City Pub. Art	NMSHTD	City 1%Art/County	GO Bond Conserv. Funds
Mural Artwork on Structures		City 1%Art/Cnty	City Pub. Art	NMSHTD/CityPubArt	City Pub. Art	NMSHTD	City 1%Art/County	GO Bond Conserv. Funds
Free Standing Art		City 1%Art/Cnty	City Pub. Art	NMSHTD/CityPubArt	City Pub. Art	NMSHTD	City 1%Art/County	GO Bond Conserv. Funds
Free Standing Gateway Structures		STPU/Priv.	City Plng.	NMSHTD/City	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
High Design Intensity Features	NMSHTD	Pub./Priv.	City Plng.	NMSHTD/City	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Lighting								
Colored high mast light poles	NMSHTD		City Plng.	NMSHTD	City/PNM	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Design & color of ped. light poles	NMSHTD		City Plng.	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Accent lighting for bridges & plants	NMSHTD		City Plng.	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Landscaping								
Gateway Landscaping	NMSHTD	STPU/E	CityPlng/ParkMngt					
Trees, shrubs	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Sages	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Grasses	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Wildflowers (seeding)	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Rocks & sand	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Crushed gravel (decomposed)	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Organic mulch (bark)	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Irrigation System	NMSHTD	STPU/E	CityPlng/ParkMngt	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Signage								
Welcome Sign	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Cultural Signs	NMSHTD		City Plng.	NMSHTD	NMSHTD		NMSHTD	
Directional Signs	NMSHTD		City,Plng.City,PWD	NMSHTD	NMSHTD		NMSHTD	
Utilities								
Water	NMSHTD		City, PWD	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	State,City,County,Private
Electricity	NMSHTD		City, PWD	NMSHTD	City/PrvContr	NMSHTD	LSMaint.Trustfund	
STPU/E = TEA 21 Federal funds; C/Cnty 1%Art = City/County 1% for Arts Funds; LS Maint. Trust Fund =Landscape Maintenance Trust Fund; PNM = Public Service Company of New Mexico								

Agency Responsibilities

- City and County- Local share of gasoline tax appropriation (City and County)
 - General Fund (City and County)
 - General Obligation Bonds (City/County roadway construction cost for “Land-
scape Maintenance Trust Fund”)
 - Special Gasoline Tax
- Others
 - Private sector appropriation through “Adopt A Highway”
 - Private sector donations - “Landscaping Maintenance Trust Fund”

The factors most critical for proper maintenance of highway systems are:

- Ongoing maintenance funds
- One agency responsible for maintaining landscaping, even when more than one agency is responsible for funding. (Maintenance can be contracted out to a private company)
- Training and qualifications of maintenance staff
- Specifications for installation and maintenance

All of the above factors are crucial to proper maintenance. Without commitment of ongoing funds, no agency will be able to maintain landscaping, trails, and public art. And with funds, if the maintenance staff does not have appropriate training and qualifications, the maintenance will suffer.

One agency should be primarily responsible for each element. In the joint powers agreement, actual positions within these agencies may need to be identified with responsibilities for maintenance of elements in the corridors.

Items	Responsible Agency
Landscaping along highway and multi-purpose trails and accent lighting	City's Park and Recreation Department
Murals and free standing public art including accent lighting	City/County Public Art Programs
Bridge color painting	NMSHTD with assistance from City's Public Art Program
Multipurpose trails	Trail surface by NMSHTD

It is important for the implementation of the landscaping concepts that an on-going funding source be established. Three approaches identified below require negotiation and decisions at the administration levels of the NMSHTD, the City, and the County.

- Meet with the Secretary of the New Mexico State Highway and Transportation Department concerning the use of TEA 21 Interstate highway maintenance and other funds.
- The City, County, and NMSHTD request that the New Mexico State Legislature allocate \$15.0 million over three years to establish capital for a trust fund.
- Meet with private and nonprofit groups for their financial and organizational partnership for "Adopt-a-Highway" program.

Recommended Approaches



Planning Process

Section 5: Planning Process

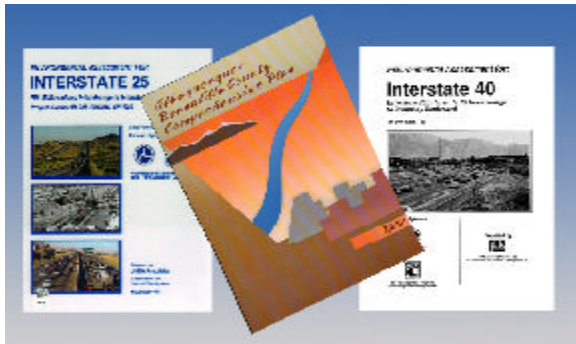
The Planning Process in developing the ICEPlan framework and recommendations included technical research, on site observations, public meetings and workshops, and interagency Technical Team and interdisciplinary Design Review Team.

In response to public concern about the visual quality of our highways, the Albuquerque Planning Department developed design ideas to improve the visual quality of highway corridors in Albuquerque and presented them to an interagency task force including the NMSHTD. To provide a cohesive visual experience of these highways, City officials determined that an overall concept must be developed for both I-25 and I-40 highway corridors and interchanges. However, in response to the NMSHTD construction program and schedule, the I-40 highway corridor east of the Big-I was analyzed by a team of artists and architects in summer of 1997. This led to projects for the aesthetic enhancement of Juan Tabo, Tramway Boulevard, Central Avenue, Wyoming Boulevard and Carlisle Boulevard interchanges. Consultants to develop overall concepts for I-25 and I-40 were hired in December of 1997.

The consultants reviewed City and State documents and performed extensive field observations to collect information pertinent to design decisions for the highway corridors. A video tape of the entire length of both highways also was made.

Environmental impact statements (EIS) for segments of I-25 and I-40 highway corridors were reviewed to obtain information on interchange configurations, lane widths, and locations of existing and proposed noise walls, trails, and pedestrian overpasses.

Other research identified major destination points from each interchange, adjacent land uses, public and private activity centers, highway right-of-way widths, construction schedules, prevalent colors in the



Technical Data



Public Meetings

natural and built environments, and xeriscape plant materials. Each interchange was assigned an intensity of design (low, medium and high) based on adjacent land use, traffic volumes, and design capacity.

The ICEPlan implements the Goal of the Albuquerque and Bernalillo County Comprehensive Plan: “to maintain and improve the natural and developed landscape’s quality “ as it relates to the interstate highways.

The Planning Department formed an interagency Technical Team and an interdisciplinary Design Review Team. The Technical Team provided technical information and assistance, and the Design Review Team provided advice on the design concepts.

The public participation process for the ICEPlan was initiated at a Kickoff Meeting on December 17, 1997. The meeting was attended by Mayor Jim Baca, officials of local, regional, state, and federal public agencies and representatives of professional, business, and community organizations. The Planning Department staff, CIP/Public Art staff and the consultants were introduced at this meeting, and the scope of work and project schedule were discussed. Members of the Technical and Design Review Teams, the NMSHTD staff, and representatives of the Federal Highway Administration were also introduced.

The Plan’s design concepts and themes were developed with considerable public participation. Besides a public input meeting and a public open house, the Plan concepts were presented to various business and community groups, to the Sandia and Isleta Pueblo Governor’s staff, and public agencies. In addition to the Technical Team and Design Review Team, interested business, community groups, and design professionals played an important role in learning about the project and keeping their respective memberships informed. See page 93 for the planning process.

Public Participation Process

Public Input Workshop

A Public Input workshop was held on January 10, 1998 at the North Valley Senior Center. Workshop sessions were held on each of the four quadrants of the city's interstate corridors. Representatives of neighborhood associations and business groups, members of the Technical and Design Review Teams, and the public-at-large contributed their ideas and comments. This public input, along with technical data analysis and extensive on site observations, were taken into account by Planning Department staff and their consultants in developing design concepts and themes.

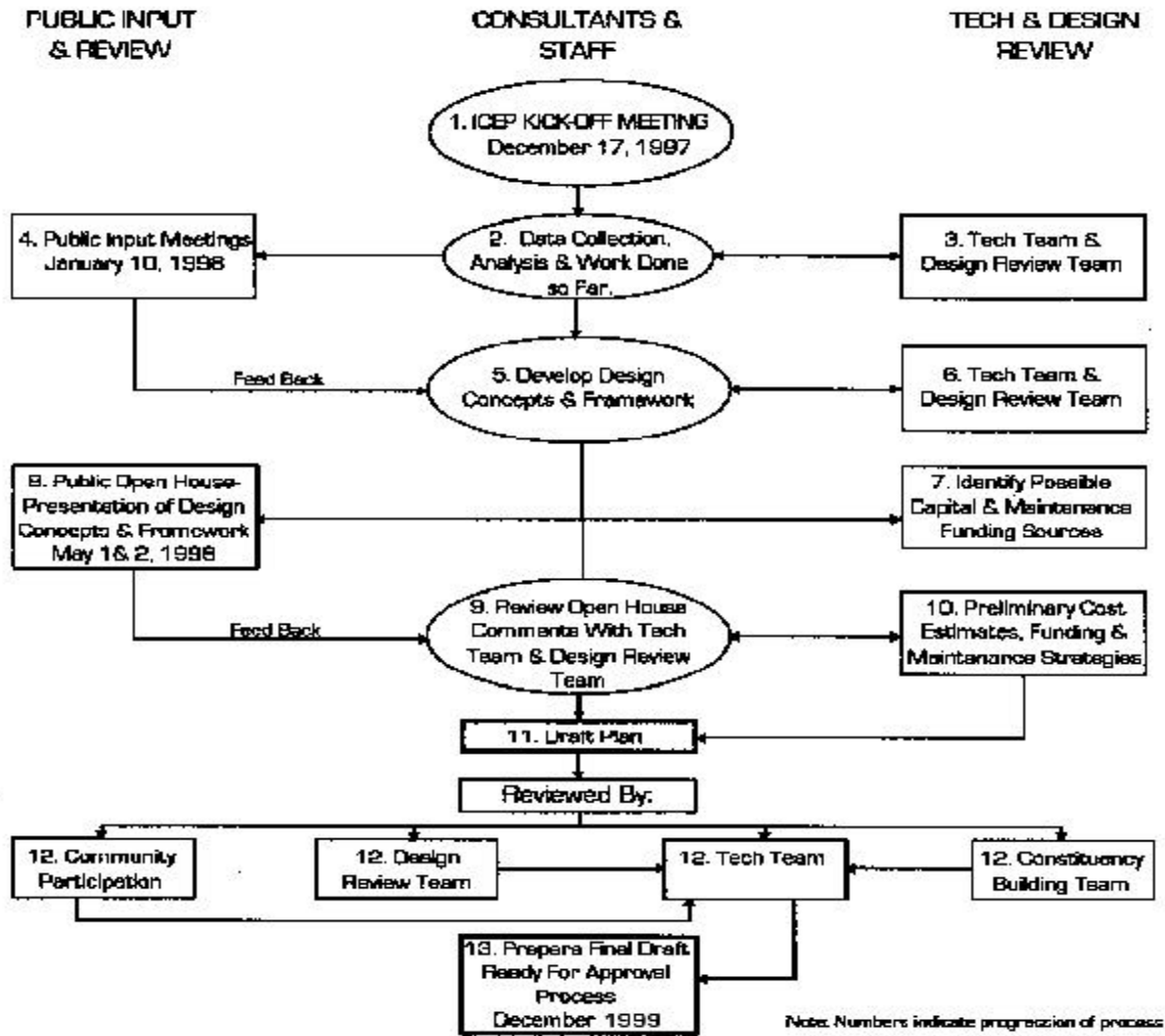
As the data collection and analysis progressed, reviews were held with the Tech Team and the Design Review Team. In March, 1998, both of the teams reviewed the data analysis and draft framework. The design concepts and themes for both I-25 and I-40 and their application for selected interchanges and highway corridor segments were prepared.

A two day Public Open House and exhibition to present the design concepts was held on May 1 and 2, 1998 at the Winrock Shopping Center, and public comments were received on design concepts and themes. Public access television Channel 16 recorded the open house proceedings, and they were frequently rebroadcast for public information.

Presentations of ICEPlan concepts and framework were made to neighborhood coalitions in City Council districts, business and civic organizations, and Native American organizations. The concepts received broad public support. Some of the comments received at the Public Input Workshop, Public Open House, and other meetings are:

- Simple bridge forms and designs to avoid visual confusion; not too much detail, bigger concepts; the structures themselves should be beautiful; can we make structures art, not just sticking things on the sides of bridges;
- Xeriscape landscape; landmark trees, graceful cottonwoods; native landscape; evergreens; coordinate bike and hike trails as buffers along freeways; pedestrian bridge walkways to connect communities; landscape can be art;
- Bold and bright colors; colorful southwest motifs; large scale colors; low-key colors; colors that reflect natural environment; use wild flowers as palette of colors; Santa Fean colors;

Planning Process



Comments from Open House

Other comments which were beyond the scope of this Plan included prohibiting billboards; moving a truck facility near the Big-I to the outlying area; prevent housing development near the highways to prevent noise walls; and need for park n ride facilities near highway interchanges.

One Hundred and fifty people reviewed ICEPlan concepts during the open house, and examples of comments are listed below. The public comments indicated broad support for the design concepts of improving the visual quality of the highway corridors. *One of the main public concerns was to assure that the Plan concepts are implemented in a comprehensive and a consistent manner.*

- "These ideas are great! If our major freeways were more appealing, Albuquerque would be a much more attractive place for visitors... Let's make them gateways to our city not a disgrace."
- "We like the idea of beautification - but the phony volcanos leave us cold. Beautification needs to be incorporated into the engineering designs!"
- "If this Plan could be brought to fruition, we think our highways would be of extraordinary beauty - probably a model for the entire country."



Kick-off Meeting



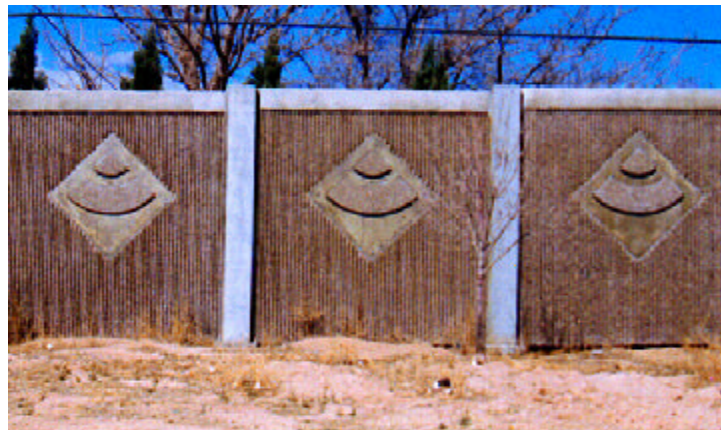
Public Meeting



Old Wyoming Bridge



Wyoming Bridge reconstructed in 1998 according to ICEPlan Concepts.



Noise wall south of I-40 near Juan Tabo Blvd.

Appendices

Appendix 1: Interchange Design Configurations

Diamond Configuration

This design is the basic configuration used for most interchanges. On and off ramps approach arterial streets at either end of the bridge either under or over the highway at signalized intersections. The number of ramp lanes reflect variation in volume and direction of traffic movement on each ramp. Examples: proposed I-40 interchanges at Carlisle, Wyoming and Juan Tabo Boulevards.

Diamond/Partial Cloverleaf Configuration

This design is a variation on the Diamond configuration, in which one or more ramps are semicircular due to traffic volume variation or right-of-way dimensions. Example: I-25 interchanges at Osuna/San Mateo and Montano/Montgomery Boulevards.

Single Point Configuration

This design is used where volume of traffic movements are similar on the highway and city cross street. Examples: proposed I-40/Louisiana Boulevard interchange and the existing Paseo Del Norte/Coors Boulevard intersection.

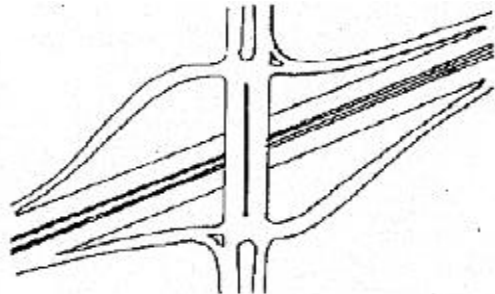
Diamond/Flyover Configuration

This configuration is used where there is either right of way limitations or one or more high traffic volume movements onto or off of the highway require a multilevel configuration. Example: proposed Paseo Del Norte/I-25 interchange and Coors/I-40 interchange.

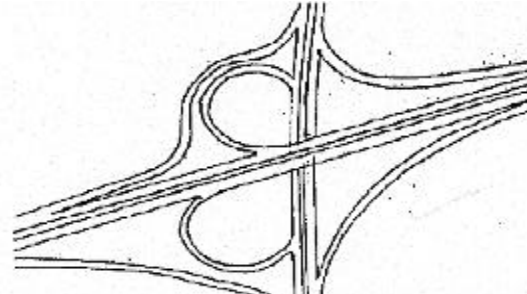
Flyover Frontage Road Configuration

This design is used for a high traffic volume interchange which requires multilevel direct turning movements in several directions. It may include semicircular cloverleaf turning movements as dictated by the right-of-way dimensions. Example: the Big-I (I-25 over I-40).

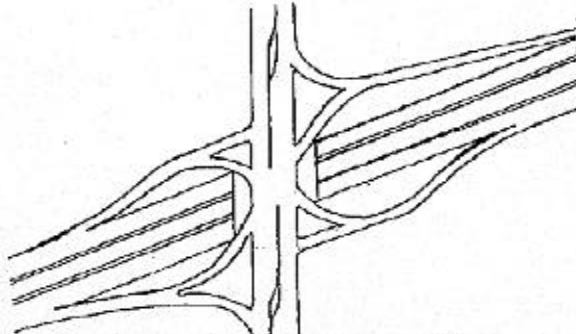
Design Configurations



Diamond Configuration



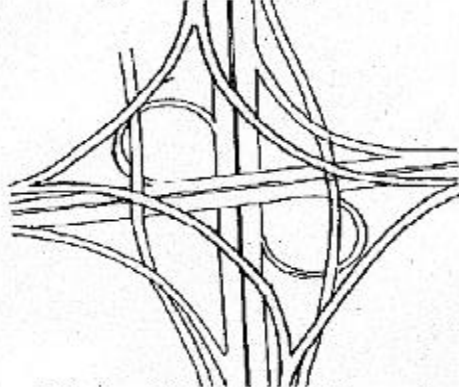
Diamond/Partial Cloverleaf Configuration



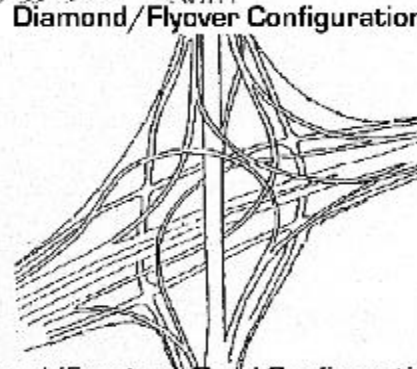
Single Point Configuration



Diamond/Flyover Configuration



Diamond/Flyover Configuration



Flyover/Frontage Road Configuration

**Highway Corridor
Analysis**

Appendix 2: Charts

The accompanying charts provide Information about the Interstate Highway Corridors within the Metropolitan Area. Each segment corresponds to NMSHTD project boundaries. The information is listed from south to north for the I-25 corridor and west to east for I-40.

CORRIDOR ANALYSIS - INTERSTATE 25 - BY PROJECT BOUNDARIES

Corridor	Construct Schedule	Right-of-way (in feet)	Frontage Roads	Noise Walls	Trails	Crossover Bridges	Pedestrian Bridges/or Under - passes	Design Status	Adjacent Land Use(s)
Isleta Blvd. to Broadway	Completed	330	No	No	No	No	No	Retrofit	Agriculture Residential Vacant Recreation
Broadway to Rio Bravo Blvd.	Completed	330	No	No	No	Bobby Foster Road	No	Retrofit	Wholesale Warehouse Flood Control Vacant
Rio Bravo Blvd. to Gibson Blvd.	2002	330	No	No	Proposed	No	Proposed	Retrofit	Recreation Vacant
Gibson Blvd. to Martin Luther King Jr. Avenue	2003	700 540 300	No	Yes Future	No	No	No	New	Institutional Residential Flood Control Vacant
Martin Luther King Jr. Avenue to Griegos Rd./ Comanche Rd.	1999-2000	730 900 1000 700	Yes (Big I New Const.)	Yes Future	No	No	No	New	Institutional Industrial Commercial Residential
Griegos/ Comanche Rd. to Paseo Del Norte	Completed	330	Yes	No	No	No	Proposed	Retrofit	Institutional Industrial Commercial Residential
Paseo Del Norte to Tramway Road	1999-2000	330	Yes	Yes Future	No	No	No	New	Airport Industrial Commercial Residential

CORRIDOR ANALYSIS - INTERSTATE 40 - BY PROJECT BOUNDARIES

Corridor	Construct Schedule	Right-of-way (in feet)	Frontage Roads	Noise Walls	Trails	Crossover Bridges	Pedestrian Bridges	Design Status	Adjacent Land Use(s)
Paseo Del Volcan/ Central to Coors Blvd.	Completed	600	No	No	North Side	No	No	Retrofit	Vacant Residential Commercial Flood Control
Coors Blvd. to the River	2000-2001	330	No	No	North Side	No	Coors	New	Residential
River to 6th Street	Completed 1998	330	No	Yes	North & South Sides	No	Proposed	Retrofit	Residential Commercial Industrial
6th Street to Carlisle Blvd.	1999-2000	600	Yes (Big-I-New Const.)	Yes	Proposed	No	No	New	Retail Commercial Flood Control
Carlisle Blvd. to Wyoming Blvd.	Future Lane Widening	330	No	Yes	North & South Side Partial	Washington San Pedro Pennsylvania	Palomas Los Altos J. Cune Park (Future)	Retrofit	Retail Commercial Residential Institutional
Wyoming Blvd. to Tramway Blvd./Central	Lane Widening Eastbound 1997-2000 Westbound 2000-2001	330 600	No	Yes	South Side	Lomas	Tomasita	Retrofit	Retail Commercial Recreation Institutional Residential
Tramway Blvd. to Carnuel	Widening 1999-2000	600	South Side	No	No	No	No	New	Residential Commercial Vacant Recreation

Highway Interchange Analysis

The accompanying charts (1-4) provide information on each interchange along I-25 and I-40. These charts are organized by quadrants:

- 1) I-25, from its south end at Isleta Boulevard to the Big-I
- 2) I-25 from the Big-I to its north end at Tramway Road
- 3) I-40 from its west end at Nine Mile Hill to the Big-I
- 4) I-40 from the Big-I to its east end at Tramway Boulevard

1. I-25

INTERCHANGE ANALYSIS - INTERSTATE 25 SOUTH					
Interchange	Construction Schedule*	Interchange Configuration	Underpass/Overpass	Design Status	Destination Access *Future Destination
Isleta Boulevard	Completed	Diamond	U	Retrofit	Isleta Pueblo, South Valley Neighborhoods
Broadway Boulevard	Future Modification	Diamond/ Flyover	U	Retrofit	Isleta Pueblo/Casino, South Valley South Gateway Visitor Center*d
Mesa Del Sol Parkway	Future	High Capacity Demand	Not Known	New	Mesa del Sol Planned Community Amphitheater
Rio Bravo Boulevard	Reconstruction 1999-2000	Diamond	U	New	UNM S. Golf Course, Mesa Del Sol Amphitheater*, Wastewater Treat. Plant, River Crossing
Sunport Boulevard	Completed	Diamond	O	Retrofit	Albq. Int. Sunport, Air Cargo Center, U.S. Post Office, Historic Old Airport, Lodging, Airport Parking
Gibson Boulevard	Widening 2001	Diamond	U	New	Kirtland A.F. Base, Sandia National, Phillips Laboratories, Medical Center, Community Park
Avenida Cesar Chavez	Widening 2001	Diamond	U	New	Hispanic Cultural Center, South Broadway Cultural Center, UNM South Campus/Sports Complex, UNM Research Center, River Crossing
Lead/Coal Avenues	Completed	Diamond	U	Retrofit	Downtown, Nob Hill, Medical Center, Tech./Vocational Inst., University of NM
Martin Luther King Drive	Reconstruction 1999-2000	Diamond	U	New	UNM Medical Center & Fine Arts Museum, Downtown, U.S. Fed. Courthouse, Commercial/Auto Sales District
Interstate 40	Reconstruction 1999-2000	Flyover	U	New	West-Grants, Gallup, Arizona, East-Moriarty, Edgewood, Clovis, Texas

U=Highway over city street
O=Highway under city street

*Note: Provided by NMSHTD, October 1, 1998 and Subject to Revision

INTERCHANGE ANALYSIS - INTERSTATE 25 NORTH					
Interchange	Construction Schedule*	Design Configuration	Underpass/Overpass	Design Status	Destination Access *Future Destination
Interstate 40	Reconstruction 1999-2000	Flyover	U	New	West-Grants, Gallup, Arizona, East-Moriarty, Edgewood, Texas
Candelaria Road	Reconstruction 1999-2000	Diamond/ Cloverleaf	U	New	Rio Grande Nature Center, Truck Stop, Industrial/Office, Interstate, Hotel/Motel District, Commercial & Residential Districts
Griegos Rd./ Comanche Road	Reconstruction 1999-2000	Diamond	U	New	Residential & Industrial Districts, Schools/Community Parks
Montano Rd. Montgomery Blvd.	Completed	Diamond/ Cloverleaf	O	Retrofit	Beach Amusement Park, Commercial & High Density Residential Districts, Medical Center, River Crossing
Jefferson Street	Completed	Diamond	O	Retrofit	Industrial/Office Districts, Movie Theatre Complex
Osuna Road San Mateo Blvd.	Completed	Diamond/ Cloverleaf	U	Retrofit	Arroyo Del Oso Park/Golf Course, Amusement Park, Commercial/Office Industrial Districts
San Antonio Avenue	Completed	Diamond	U	Retrofit	Hotel District, Journal Center, Residential
Paseo Del Norte	Reconstruction 1999-2000	Flyover/ Cloverleaf	O	New	Cottonwood Mall, Journal, Elena Gallegos Park, River Crossing, SW Indian Polytechnic Institute
Alameda Boulevard	Completed	Diamond	U	Retrofit	Balloon Fiesta Park & Museum*, Coronado Airport, School, Corrales/Rio Rancho, River Crossing
Tramway Road Roy Avenue	Reconstruction 1999-2000	Diamond	U	New	4th St. Hist. El Camino Real, Cibola National Forest, Balloon Fiesta Park, Sandia Pueblo/Casino, Sandia Peak Tram, N. Gateway Visitor Center

3. I-40

INTERCHANGE ANALYSIS - INTERSTATE 40 WEST					
Interchange	Construction Schedule*	Interchange Configuration	Underpass/Overpass	Design Status	Destination Access *Future Destination
Central Ave./Paseo del Volcan	Future Modification	Diamond/ Flyover	O	New	Route 66/Central Avenue, Double Eagle Airport, Volcanos Park, West Gateway
118th Street	Pro. Future Interchange	?	O	New	West Gateway Visitor Center*, Westland Mixed Use Planned Community
98th Street	Completed	Diamond/ Cloverleaf	O	Retrofit	Residential, Interstate Truck Stop
Unser Boulevard	Completed	Diamond/ Cloverleaf	O	Retrofit	Atrisco Indust. Park, Petroglyph Nat. Monument, Ladera Park/Golf Course, Residential
Coors Boulevard	Reconstruction 1999-2000	Flyover	O	New	Atrisco Indust. Park, Oxbow Wildlife Refuge*, Piedras Marcadas Run Site', Residential Commercial, SW Indian Polytech. Institute
Rio Grande Boulevard	Completed	Diamond	U	Retrofit	Rio Grande Nature Center, Old Town, Museums, Aquarium/Botanic Garden, North Valley
12th Street	Completed	Diamond	U	Retrofit	Indian Pueblo Cultural Center, Saw Mill, Residential Mixed Used
6th Street	Reconstruction 1999-2000	Grade Separation	U	New	Downtown Albuquerque, North Valley
4th Street	Reconstruction 1999-2000	Diamond	U	New	Downtown Albuquerque, 4th St. (El Camino Real), North Valley
2nd Street	Reconstruction 1999-2000	Grade Separation	U	New	Downtown Albuquerque, North Valley, Office, Residential, Industrial Districts
Interstate 25	Reconstruction 1999-2000	Flyover	U	New	North-Santa Fe, Colorado; South-Belen, Texas, Mexico

U=Highway over city street
O=Highway under city street

*Note: Provided by NMSHTD, October 1, 1998 and Subject to Revision

INTERCHANGE ANALYSIS - INTERSTATE 40 EAST					
Interchange	Construction Schedule*	Interchange Configuration	Underpass/Overpass	Design Status	Destination Access *Future Destination
Interstate 25	Reconstruction 1999-2000	Flyover	U	New	North-Santa Fe, Colorado; South-Belen, El Paso, Texas, Mexico
Carlisle Boulevard	Widening 1998-1999	Diamond	O	New	Commercial & Residential Districts, Hotel/Motel District
San Mateo Boulevard	Reconstruction 1999-2000	Single Point	O	New	Commercial & Residential Districts, Nob Hill Historic District
Louisiana Boulevard	Reconstruction 1999-2000	Single Point	O	New	Uptown, Winrock, and Coronado Malls, NM State Fairgrounds, Residential Districts
Wyoming Boulevard	Widening Completed 1998	Diamond	O	New	Nat. Atomic Museum, Kirtland Air Force Base, Sandia Natl. Labs, Los Altos Park/Golf Course, Residential Districts
Eubank Boulevard	Completed	Diamond	O	Retrofit	Commercial, Office & Residential Districts
Juan Tabo Boulevard	Widening Completed 1998	Diamond	O	New	Commercial, Office & Residential Districts
Central Ave./Tramway Blvd.	Completion 1998	Diamond/ Flyover	U	New	Route 66/Central Avenue, E. Gateway Visitor Center, Cibola Nat. Forest, Sandia Peak Tram
Carnuel	Future Widening	Modified Diamond	U	Retrofit	Route 66, Village of Carnuel

U=Highway over city street
O=Highway under city street

*Note: Provided by NMSHTD, October 1, 1998 and Subject to Revision

I-25 El Mirador:
The Overlook

Appendix 3: Plant Recommendations

Trees

Desert Willow	(Chilopsis linearis)
New Mexico Locust	(Robinia neomexicana)
Tree of Heaven	(Ailanthus altissima)

Plants from the sage family

Fringed Sage	(Artemisia frigida)
Sand Sage	(Artemisia filicifolia)
Southernwood	(Artemesia abrotanum)
Silver sage	(Artemesia cana)
Big Sagebrush	(Artemesia tridentata)
Prairie Sage	(Artemesia ludoviciana)

Various natives

Four Wing Saltbush	(Atriplex canescens)
Winterfat	(Ceratoides lanata)
Apache plume	(Fallugia paradoxa)
Chamisa	(Chrysothamnus nauseosus)
Broom dalea	(Dalea scoparia)

Perennials/Wildflowers - Color Theme: Yellow-Orange, Blue, Blue-Purple

California Poppy	(Eschscholzia californica) Yellow-orange
Blue Flax	(Linum perenne) Blue
Purple Aster	(Aster frikartii) Blue-Purple
Arizona Poppy	(Kallstroemia grandiflora) Yellow-orange
Golden Crownbeard	(Verbesina enceloides) Yellow-orange
Russian Sage	(Perovskia atriplicifolia) Blue-purple
Prairie Zinnia	(Zinnia grandiflora) Yellow
Threadleaf Groundsel	(Senecio longilobus) Yellow

Ground Cover Plants

Hardy Purple Iceplant	(Delosperma cooperi)
Trailing Iceplant	(Ruschia hamata)

A well trained horticultural staff and commitment to proper maintenance is essential to achieve full coverage of the proposed plants and to maintain the coverage and prevent excessive invasion by volunteer grasses and forbes (foreign objects) particularly during the establishment period and subsequently throughout the lifetime of this project.

Special Requirements

In the final design, slopes on berms and landforms should be considered for the establishment of plants on these surfaces. Rainwater will drain downhill making it harder to deliver water to uphill plants during the naturally occurring rainfall cycle. Drip systems should be installed for the establishment period.

Plant densely in the initial phases to allow for some attrition. Space plantings in clumps to maintain dramatic views to Sandia Mountains. Thin later if necessary. Start from young 5 gallon stock to permit maximum adaptation to conditions. Plant in swales that must be created. Highway drainage runoff will provide a major source of moisture to the trees after an establishment period of at least three years. Plant in highway rights-of-way or along frontage roads, and on private property through public/private agreements with adjoining property owners. A random, dense spacing is recommended as a geometrically precise arrangement will fail because of an almost certain attrition rate.

Plants may be established from container, seed or from seedlings. No plantings, either of trees, shrubs, ground covers or perennials is advisable without supplemental water for at least an establishment period of about three years. On a small scale, the water can be applied by truck-watering, if an irrigation system is not possible. A commitment to this principle must be in place by the party responsible party for maintenance of the plantings to succeed. A product called 'Dri-Water' - Time Release Water, available in crystal form can also be used to water plants. An application of one quart of this product is believed to last for 90 days.

It will be preferable to achieve full coverage by sages, grasses and other recommended shrubs on berms or landforms. This will require specifications, at the appropriate stage of the work, that provide for an establishment period for seeded or planted vegetative covers. The specifications must require re-seeding pockets, voids and holes until full coverage is achieved. Also, weeding of unwanted vegetation must be done carefully on a regular basis for the first few establishment years including replacement of dead or dying plants. Some additional maintenance over the years will be necessary to keep the berms and landforms free from invasion by volunteer (random) vegetation.

South Gateway Zone

Arizona Ash (Fraxinus velutina)

North Gateway Zone

Chinese Pistache (Pistachia chinensis)

Median Plantings

Spanish Broom (Spartium junceum)

"Moonlight Broom" (Cytisus scoparius 'Moonlight')

Warminster Broom (Cytisus x praecox 'Allgold')

Big Sagebrush (Artemesia tridentata)

General Conditions for Plantings

Trees (irrigated) for Gateway Zones

I-40, El Pedregal, The Stony Place

Grasses

Sacaton	(Sporobolus wrightii)
Prairie Sandreed	(Calamovilfa longifolia)
Little Bluestem	(Andropogon scoparius)
Big Bluestem	(Andropogon gerardii)
Western Wheat	(Agropyron smithii)
Indian Rice Grass	(Oryzopsis hymenoides)
Purple threeawn	(Aristida purpurea)
Beargrass	(Nolina microcarpa)

Yuccas and Agaves

Parrey Agave	(Agave paryii) *
Coral Flower Yucca	(Hesperaloe parviflora) *
Softblade Yucca	(Yucca recurvifolia)*
Narrowleaf Yucca	(Yucca glauca)
Spanish Bayonet	(Yucca baccata)
Ocotillo	(Fouquieria splendens)
Palm yucca	(Yucca torreyi)*
Soaptree yucca	(Yucca elata)*
Adam's Needle	(Yucca filamentosa)
Parry's Century Plant	(Agave parryii)
Coral Flower Yucca	(Hesperaloe parvifolia)
Desert Spoon	(Sotol)
Prickly pear	(Opuntia)

*Excellent choices for the Valley Urban Zone and East Urban Zone, or where a less native, more exotic character would be appropriate.

Perennials/Wildflowers - Color Theme: White, Scarlet, Orange, Red-Purple

Pale Evening Primrose	(Oenothera pallida) Creamy white
Purple Prairie Clover	(Petalostemum purpureum) Red-purple
Sacred Datura	(Datura meteloides) Pure white
Wild Hissop	(Agastache cana) Red-purple
Pineleaf Penstemon	(Penstemon pinnifolius) Scarlet
Scarlet Globemallow	(Sphaeralcea incana) Orange
Poppy Mallow	(Callirhoe involucrata) Red-purple
Firecracker Penstemon	(Penstemon eatonii) Scarlet

Specifications for starting grasses on slopes should include erosion control devices such as biodegradable blankets to hold soil and seed in place from germination and through establishment.

Plants for Medians

I-40 West Gateway	
Narrowleaf yucca	(Yucca glauca)
Spanich bayonet yucca	(Yucca glauca)
Desert Spoon	(Sotol)
Palm Yucca	(Yucca torreyi)
Ocotillo	(Fouquieria splendens)
Soaptree Yucca	(Yucca elata)

Rio Grande Boulevard

New Mexico Olive	(Foresteria neomexicana)
Cottonwoods	(Populus sp.)
Coyote Willow	(Salix exigua)
Golden Currant	(Ribes aureum)
Apache plume	(Fallugia paradoxa)

East Gateway (for mass planting)

Bear Grass	(Nolina microcarpa)
Fringed Sage	(Artemesia frigida)

Planting Requirements and Comments

Principals for Color Selection

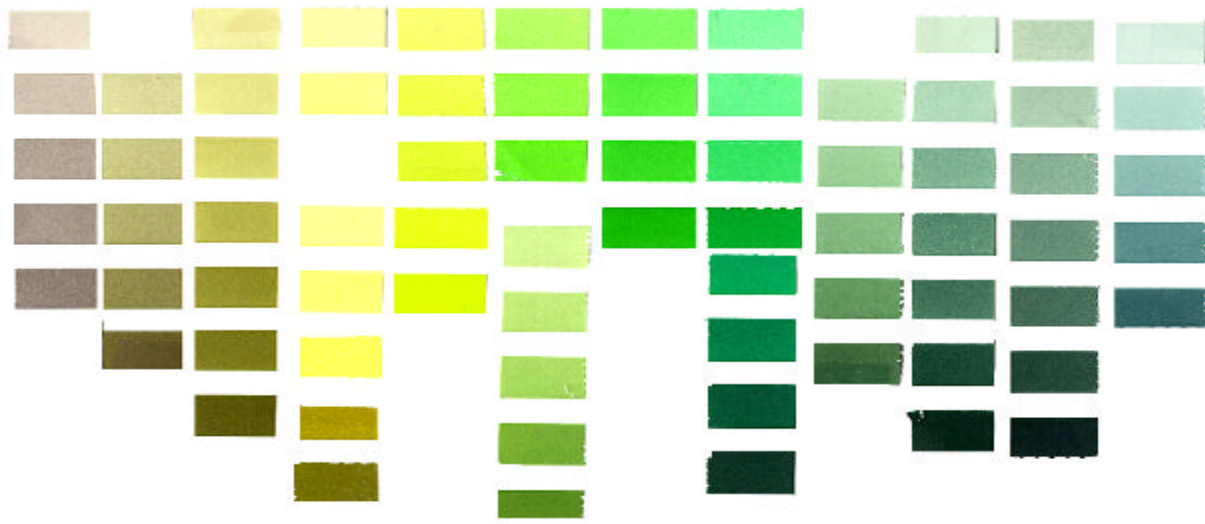
Color Application

Appendix 4: Color Selection and Application

The accompanying color charts utilize the Pantone color system to only identify colors and does not recommend the company. Separate palettes were created for I-25 and for I-40 as an expression of their respective themes.

Selection of these palettes evolved from an earlier work done by a team of artists for I-40. The artists identified specific shades and hues occurring in native plants, rock forms and reflections from the mountains and volcanic escarpment at different times of the day. A similar approach was taken in selecting the colors for I-25 but limited to shades of green and grey-green to respect the landscape of the East Mesa and the Valley. The earlier palette was reorganized in relation to design themes developed for each highway corridor. Both palettes recall a botanical and geological image although individual colors or hues may not be those of specific plants.

Application of colors to bridge structures, highway furniture and landscape forms vary within each highway segment. This variation creates a sequence from one design zone to the other with a heightening of color intensity at the four high design intensity interchanges and in the Urban Zones approaching the Big-I. The palettes in the two charts are presented in color groups from one cardinal direction to another, and not in specific order of sequence. Map on Page 33 further refines the color palette selection.



I-25 Colors



I-40 Colors

Public Art

Appendix 5 Maintenance of Public Art & Trails

Costs of conserving public artworks funded by the City's Public Art Program or conserved through agreement with other ICEPlan partners are estimated to be \$500.00 per year per artwork. The amount includes removal of graffiti from these specialized surfaces, cleaning as required and application of protective coating, e.g. applying wax on bronze, touch-up painting, and replacing/repairing light fixtures which light public artworks. It also includes moving portable murals from one location to another at entrances to Albuquerque neighborhoods, approximately once each year. This estimate is based on regular artworks and may not apply to technically complex works of art such as a fountain or a light sculpture which require higher maintenance. Thus, each work of art created by the Program will develop estimates of maintenance costs.

Privately funded Works of Art may be added. The development and installation of these Works of Art or other design enhancements requiring specialized maintenance could be managed by the Public Art program, but would require separate funds for this purpose. Public Art Program Conservation funds can not be used to maintain Works other than those funded and constructed through the City of Albuquerque's Public Art Program.

The City's Public Art Program estimates that up to \$3,000-5,000 may be needed per year for the first 3-5 years as City funded Works of Art are installed in the interstate corridors. These funds would come from General Obligation Bonds 1% for Art funds which are provided by ordinance for these purposes. These funds, however, can not be "pooled" as they are governed by bond law. They can, however, be set aside within the public art G. O. Bond fund 1% conservation budget.

Elements	Agency
Murals (Portable and Permanent)	City/County Public Art Program
Artwork attached to constructed elements	City/CIP Public Art Program
Free-standing Artworks in the Corridors	City/CIP Public Art Program

Currently, there is a trail along I-40 between Tramway and Los Altos (west of Eubank). There are also several bicycle/pedestrian overpasses on I-40 - at Los Altos, Tomasita, Alvarado and Atrisco. These are all maintained by the NMSHTD. The City's agreement for the bike/pedestrian overpass at Uptown calls for Highway Department maintenance of the structure over the freeway and approach ramps, and City maintenance of the trail. This is the direction the NMSHTD wishes to take with all new trails in the highway department right-of-way.

Trail maintenance is closely tied to landscape maintenance, including weed control, mowing, and possibly pruning to keep vegetation from encroaching on the trail. In addition, litter pickup, graffiti removal, and vandalism repair apply to all right-of-way areas, whether or not they have landscaping and/or trails. The maintenance items that are specific to trails are sweeping, re-striping, possible replacement or repair of signs, benches, railings, bollards and retaining walls or drainage structures that affect the trails.

Estimated trail maintenance cost would range from \$3,000 to \$10,000 per mile, depending on whether there is native grass without irrigation, or more extensive landscaping. This is based on Park Management's normal per acre cost for park land, assuming a 20 foot wide trail corridor, with a 10-12' paved trail and a 3-5' shoulder on each side. In any case, the per acre landscape maintenance cost would not vary significantly whether or not a trail is included in that area. Maintenance funding now comes out of the General Fund. This Plan does not include the construction cost for future trails or cost of major rehabilitation of trails.

Appendix 6: Public Input Meeting Comments

At the Public Input meeting, the participants representing neighborhoods and businesses from each of the four quadrants of the city were placed in a separate group to get a better understanding of the character of each quadrant. Each group representing a segment of the I-25 and I-40 highway from and including Big-I were asked four questions:

How do you want the freeway segment to reflect the image of Albuquerque?

How do you want city streets (over/underpasses) to reflect your community's identity?

What will tie together the freeway segment images and create an overall theme?

What are three places adjacent to the freeway corridors that can be used for outdoor public gathering or recreational places?

Public comments were both general and specific and they varied; at times opposing view points were expressed. For example, people's color choices were from natural earth tones, to bold and vibrant colors, to Santa Fean colors.

The public's reoccurring statements were that the designs should be simple and bold which could be appreciated and experienced from automobiles traveling at highway speed. The design concepts included in this Plan reflect these public comments by proposing the use bright colors on monuments and public art at interchanges of special significance and selectively on the overpasses and underpasses. Detail designs for interchanges should have further public participation at the beginning of the design process. Comments received at the Public Input meeting are summarized, as follows:

Bridges and Related Structure

Simple bridge forms and designs to avoid visual confusion; not too much detail, bigger concepts; the structures themselves should be beautiful; can we make structures art, not just sticking things on the side of bridges.

Landscaping

Comments varied from xeriscape landscape; landmark trees, graceful cottonwoods; native landscape; evergreens; gradual transition from wilderness to urban; reflect natural environment, soothing, restful, serene; coordination of bike and hiking trails as buffers along freeways; bridge pedestrian walkways to connect communities.

Wide variation of ideas from low key colors; the landscape can be art; color that reflect natural environment; dramatic, bold and bright colors; colorful Southwestern motifs; more color on concrete surfaces; large scale color; use wild flowers as palette of colors; use Santa Fean color scheme;

General concern for need of overall planning - not a mile or two at a time; make corridors look planned, not piecemeal; no graffiti or trash; shielded lights, no high mast lighting; visitor display areas at gateways

Some concerns raised by the participants, although listed below, were beyond the scope of this plan. Many ideas and comments related to issues outside of the highway right-of-way, and thus not part of this plan. These are listed in the order from highest number of responses to least number responses.

- Prohibit advertising billboards on private land adjoining highway right-of-way, including advertising on institutional land and that owned by Native Americans.
- Central truck stop facilities adjoining the Big I should be moved to outlying areas of the City.
- Move Cell Phone Antennae away from highways.
- More park areas bordering freeways- vs.- areas along freeways noisy and congested- make public gathering places in more desirable locations.
- Prevent housing developments from encroaching on highways thereby requiring noise walls- vs.- walls needed for neighborhoods. Walls or berms to shield less aesthetic features on either side of the freeway.
- Limit heights of buildings adjoining freeway ROW to preserve views.
- Park N Ride- need for Park N Ride facilities at interchanges of the freeways.

A two day Public Open House and exhibition was held on May 1st and 2nd at Winrock Shopping Center to present the design concepts. Public comments were received on the preliminary design concepts and themes. Public access television channel 14 recorded the open house proceedings which were frequently rebroadcasted for public information.

Color

Others

Concerns raised beyond the Scope of Plan

Public Open House

ICE Plan

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In the opening remarks, Mayor Baca emphasized the significance of the Enhancement Plan on the city and the region. A presentation was made by Planning Director Bob McCabe and professional staff assisted by the city's consultants Robert W. Peters, Architect and Martha Schwartz, Landscape Artist.

The plan concepts have also been widely presented to public agencies, businesses and professional groups and coalition of neighborhood associations. While the Plan has general public support, the Greater Albuquerque Chamber of Commerce and the Economic Forum has formally passed resolutions in support of the concepts. The Governor of Sandia Pueblo sent a letter supporting the concepts.

Appendix 7: Glossary of Technical and Design Terms

Abutment	A concrete structure supporting the end of a bridge span, an abutment also supports the embankment that the bridge approach is built upon; can be textured or colored to enhance appearance.
Abstraction	Schematic or generalized form suggested or having resemblance to natural appearance through contrived ordering of pictorial or sculptural elements.
Amenities	Bridge and roadway objects and features conducive to commodity, firmness and delight.
Arroyo	A dry gully formed by the action of moving water; filled with rushing water after a hard rain.
Barrier	A safety structure intended to impede or stop vehicles, or a structure to reduce noise.
Belvedere	A position (usually man-made like a balcony) from which one has a commanding or beautiful view.
Berm	A raised earth mound which can be used to visually screen; to redirect out-of-control vehicles; or to reduce noise levels; can be planted to add visual interest.
Canopy	Roof like cover of the leaf area of a deciduous tree.
Clear Zone	The roadside border area, starting at the edge of the traveled way, that must be left clear of obstructions, so that errant vehicles can take corrective action.
Clearing	The removal of vegetation, structures, or other objects during highway reconstruction.
Corridor	A strip of land which is set aside for transportation purposes.
Deciduous	Species of trees which shed their leaves after the growing season.

Detention Ponds	A storm water management area, generally a depression, designed to offer temporary storage of rainwater and a controlled release of the stored water. Intended to reduce the possibility of flooding.
Embankment	A slope or raised area created with fill material, such as at the approach to a bridge.
Erosion Control	Any of a series of methods for the prevention of soil removal by wind or water action: examples include sodded, terracing, mulching and paving.
Panel	A panel applied to the surface of a bridge structure to mask structural elements behind it.
Fly-Over	The elevated portion of a ramp which crosses over several ramps or roadways.
Frontage Road	A road constructed parallel and adjacent to the highway which provides access to local businesses, facilities, and neighborhoods.
Grade	The elevation of the ground plane at any given spot; or the steepness of a slope or gradient.
Gradient	A numerical description in percent or ratio of the steepness of a slope or grade.
Grading	The movement of earth which is required for the construction of any structure; also includes land forms such as berms, storm water ponds, or embankments.
Hardscape	Impervious materials in the landscape environment such as asphalt or concrete.
Highway Furniture	Secondary elements such as railings, fencing, signage and graphics, benches along highway right-of-ways.

Interchange	A system of interconnecting roadways with one or more grade separations, providing for the movement of traffic between two or more roadways on different levels by means of on and off ramps.
Imitation	A model or copy; to have strived to copy, follow a pattern or produce a likeness.
Land Form	A recognizable volume in the ground plane with distinct shape arising from either natural or man-made conditions: a berm, hill, swale or valley.
Median	The area in between traveled ways along a divided highway: can include landscape treatment where wide enough.
Mirador	Derived from Moorish architecture, denotes an elevated, usually enclosed, space, from which to view surrounding countryside.
Mitigation	Actions taken to lessen impacts on natural, social or cultural amenities.
MSE Wall	Mechanically Stabilized Earth Wall. A retaining wall system faced with precast concrete units; units are usually of uniform size and shape, and can have textures and colors applied to enhance appearance.
NMSHTD	New Mexico State Highway and Transportation Department
Overlook	A lookout site along the highways, to allow travelers to stop and enjoy scenic views.
Parapet/ Jersey Barrier	A low concrete wall for protection of vehicular and/or pedestrian traffic: used along the outermost portion of a roadway or along a sidewalk on a bridge. Can be slightly modified to add visual interest.
Permaculture	Global arid regional gardening and agricultural techniques adapted recently to the desert southwest in the United States.

Pier (Column)	A vertical concrete structure which supports the ends of bridge spans on multi-span bridges; can be modified to the wall face to add aesthetic interest through texturing or addition of color.
Pylon	A vertical sculptural element or marker to emphasize a location along highway corridors.
Retaining Wall	A wall designed and placed to hold back soil or other material of similar character; often used to support elevated portions of a highway. Texture and color can be applied to add aesthetic interest.
Retention Pond	A depression built to hold and store rain water. Retention ponds do not have outlets.
Retrofit	Design modifications and/or additions to existing highway construction.
Right-of-way	The strip of land acquired and reserved for construction and maintenance of the roadway.
Riparian	Plants that live on banks of watercourses, rivers or streams.
Roadside	The land adjacent to the roadway or paved shoulder and extending to the highway right-of-way line, and non-paved medians along divided highways.
Setback	A distance of open space which must be maintained to provide separation between construction foundations and property lines.
Signage	Signs along the roadway to provide required safety information, or to provide useful information about nearby facilities and attractions. Sign posts can be modified to add visual interest.
Sound Wall	A wall constructed parallel to the highway for the purpose of deflecting highway noise from adjacent properties; can be textured and colored to add visual interest.

Streetscape	Elements associated with local street improvements such as street signs, lights and traffic signals, benches, tables, landscaping, fountain, and paving materials.
Street Furniture	Benches, waste-containers, signage and graphics, surface paving and decorative details located along city streets.
Swale	A wide, shallow, slightly sloping depression that collects and transports excess rain water; can be grassed or paved.
Terrace	A nearly level strip of land with a vertical or steeply sloping front face constructed along the contours of a slope. Used for erosion control, and can be used with landscaping for visual interest.
Transitional Planting zone	A landscape planting area used to separate and buffer different land use areas or activities.
Traveled Way	The actual lanes of the roadway where vehicles travel, not including roadway shoulders and auxiliary lanes.
Viewshed	A significant area visible from the roadway; may be a positive view which merits preservation or an unattractive view which merits screening.
Water Harvesting	An approach to storm water management that uses methods of diverting rainwater and surface water for collection and storage for use by plants aimed at conservation and efficient utilization of limited water resources. Such methods include grading, site planning, improving soil structure, as well as installing water storage devices such as cisterns.
Xeriscape	Water appropriate plant design strategy which groups plants according to their water requirements; emphasizes species which can thrive or adapt to low water, high heat conditions typical to the desert southwest in the U.S., and utilizes moisture conserving goals such as the use of mulches.

Appendix 8: ICEPlan Bibliography

Geology and History

Albuquerque. Its Mountains, Valley, Water and Volcanoes
Vincent C. Kelley
1974; New Mexico Bureau of Mines & Mineral Resources,
Socorro, NM

The Historical Background of Albuquerque, New Mexico
Alan J. Oppenheimer
1962; City of Albuquerque Planning Department

Albuquerque Historic Landmarks
1993; City of Albuquerque Planning Department

Historic Albuquerque Today
Susan DeWitt
1978; Historic Landmarks Survey of Albuquerque

Community Planning

Albuquerque Community Identity Program: Final Report
1995; Southwest Land Research Inc.
City of Albuquerque Planning Department

Albuquerque's Environmental Story: Toward a Sustainable
Community
Kathleen Norris Park
1996; Joan and Hy Rosner, The Albuquerque Conservation
Association

The Cultural Plan For Albuquerque
1994; The Albuquerque Arts Alliance

I-40 Bicycle Trail Feasibility Study
1994; Greater Albuquerque Bicycling Advisory Committee
City of Albuquerque Parks Management Department

Landscape Master Plan for the Albuquerque Interstate
System
1989; Project I Master Plan Task Force

Westland Master Plan
1997; Westland Development Company Inc.

	<u>Mesa Del Sol Level A. Community Master Plan</u> 1997; New Mexico State Land Office, Santa Fe
	<u>Balloon Fiesta Park Master Development Plan</u> 1998; City of Albuquerque
	<u>Uptown Sector Plan</u> 1995; City of Albuquerque Planning Department
	<u>West Side Strategic Plan</u> 1997; City of Albuquerque Planning Department
City Ordinances	<u>Pollen Control Ordinance</u> <u>Water Conservation Landscaping Ordinance</u>
Albuquerque Geographic Information Systems	<u>Metropolitan Area Map</u> <u>Land Use Map</u> <u>Albuquerque Aerial Photographs</u>
United States Geological Survey	<u>USGS Albuquerque Section Maps</u>
Environmental Impact Statements	I-40 East
New Mexico State Highway and Transportation Department	I-40 West I-25 South I-25 North I-25 Paseo del Norte to Tramway
U.S. Government Documents	<u>Manual on Uniform Traffic Control Devices</u> 1998 Edition; Superintendent of Documents U.S. Government Printing Office, Washington D.C.
Horticultural	<u>Plants of the Southwest</u> Catalog 1994 and 1995 <u>How To Guide to Xeriscaping</u> City of Albuquerque

ICEPlan
Plant Image
Credits

Best Plants for New Mexico Gardens and Landscapes
1995. Baker H. Morrow
University of New Mexico Press. Albuquerque.

Plants of the Southwest Catalogs, Charles Mann, photographer.
Edith Katz, Landscape Architect.
How To Guide to Xeriscaping.
City of Albuquerque.

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Jesse Garves, Wendy Switzer, Manjeet Tangri, City of Albuquerque.