

EAST MESA PRECISE PLAN, Balboa Park

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April 13, 1993
Adopted by Resolution Number R-281752

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PRECISE PLAN,
Balboa Park**



City of San Diego

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ACKNOWLEDGEMENTS

San Diego City Council 1992-1993

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EAST MESA PRECISE PLAN, Balboa Park

EXECUTIVE SUMMARY

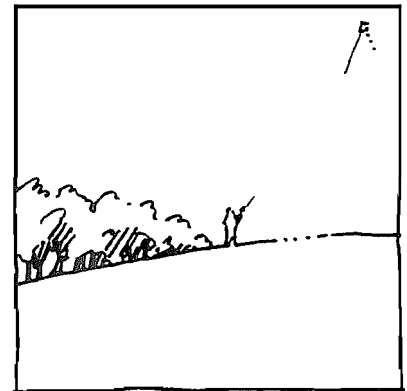
A. Concept Summary

Following the overall goals of the Balboa Park Master Plan, the Precise Plan provides detailed design and program recommendations for the physical development and improvements for the East Mesa. These recommendations provide specific criteria for design character and intent, administrative actions, and implementation of policies and improvements.

The East Mesa comprises approximately 620 acres, the eastern third of Balboa Park within the city of San Diego. The area is characterized by eight subareas: Florida Canyon, with remnants of its natural environment; the active recreational facilities developed in Morley Field, the Balboa Park Municipal Golf Courses, the former Arizona Landfill, the Park Nursery, the Golden Hill area, the City Operations Station, and the neighborhood edge at the East Mesa perimeter.

Recreational planning historically has been a reflection of community and cultural attitudes towards leisure time and the quality of life. Throughout Balboa Park, traces of different periods and different aesthetics can be observed. The East Mesa represents a significant opportunity to express the current ecologically oriented attitude towards leisure - the "eco-vision."

To many who made San Diego their home over the last century, the attraction was the very nature of the region's open expanses, the connections with the sky, and the long vistas to mountain or ocean horizons. As this experience has been eroded through time, those few remaining locales take on a new, increased value. The potential exists within the East Mesa to capture this value and utilize it as the design expression by building upon and expanding the remnants of riparian corridors, open mesas, and canyon slopes that remain today. Few other areas within the dense central urban core of San Diego could offer the opportunity to experience natural areas in conjunction with recreational provisions within close proximity to residential neighborhoods and downtown.

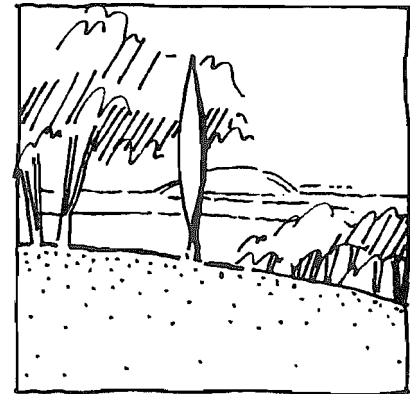


The concept respects the East Mesa's uniqueness within Balboa Park while also recognizing its role in national and regional recreational significance, as well as community and neighborhood recreational functions. The Balboa Park Master Plan set out the overall principle that the East Mesa would be restored to free and open parkland while not increasing the structured park development or exclusive uses. The Precise Plan expands upon this principle and addresses the site specific concerns through a series of plan recommendations.

B. Plan Recommendations

Following a recreational "eco-vision," where the use of outdoor spaces focusses on the natural environment, the fundamental recommendations for the East Mesa include specific concepts for art, architecture, and the landscape; distinctive designs by geographic area; and concepts for park-wide functional elements of circulation, security, utilities, and maintenance. A gradient of land uses are proposed, with the most passive activities planned for the central canyon and natural areas and the most active at the wide mesa tops and community fringes.

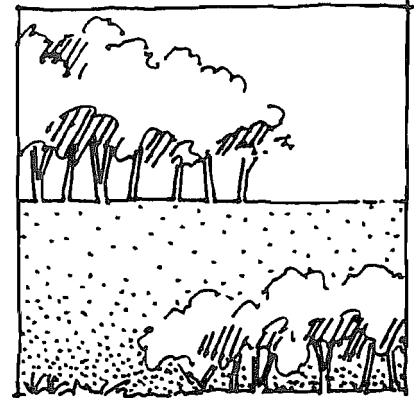
Public Art: Art on the East Mesa is the opportunity to unite the ecological and cultural values through permanent and temporary installations. The primary venue is the extension of the Prado's access to the East Mesa, providing the visual and symbolic permanent connection with the Park and the region. At its center would be a gallery of changing, outdoor environmental art installations that transform the former landfill into an evolving podium for art and performance opportunities. Throughout the East Mesa, artist involvement in park amenities will further the connection between ecological and cultural attitudes.



Architecture: The current architectural styles exhibited in Balboa Park are an expression of their time, of the cultural period and the vision of San Diego lifestyles. The new design attitude for the East Mesa is intended to follow this tradition in its basic elements, yet respond to the current directions. Its style reflects the cultural values of the craftsman era, the current technology prevalent in the region, and the geographical influence of the open mesas and skyline vistas. The new structures are proposed to be firmly rooted in the land with solid

foundations, such as were those in the craftsman period, while using open members overhead to enhance the views to the sky and surroundings, stressing modern materials and connections.

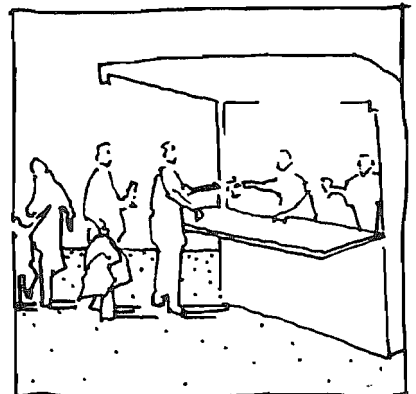
Landscape: The richness of the East Mesa's current landscape is in its detail yet the perception is one of an incomplete landscape. To expand this to the overall landscape character, the Precise Plan proposes a gradient of vegetation to follow the gradient of recreational activities. At the center are the natural canyons with their native plants, wildlife habitat and interpretive oriented recreation. Here, revegetation programs consisting of a native plant palette will reestablish the degraded habitats. Adjacent to the canyon slopes, the grassy mesa follows the rim, providing areas for picnicking and unstructured play. Irrigated with reclaimed water, the edge will provide much needed open space. Areas over the landfill will be primarily planted with non-irrigated grasses, delineating the former canyon while providing an open meadow for play. Surrounding the grassy mesa, the Savannah landscape provides the interface with the Forested Edge, allowing structured recreation interspersed within clusters of trees. The edge becomes the most densely vegetated, enhancing the existing eucalyptus canopy while accentuating its transition from parkland to neighborhood. In all but the native areas, the palette is limited to trees and groundcovers to support the security enforcement.



Florida Canyon: As the most intact natural area, Florida Canyon is to be restored to reflect a native condition, with the removal of Florida Drive, the inclusion of a small nature center, a native plant revegetation program, trails and bikeways, pedestrian bridges, and access for surveillance. Florida Canyon will become the backbone of the ecologically oriented recreation offered in the East Mesa, providing educational experiences and exposure to the native riparian, scrub, and chaparral environments.

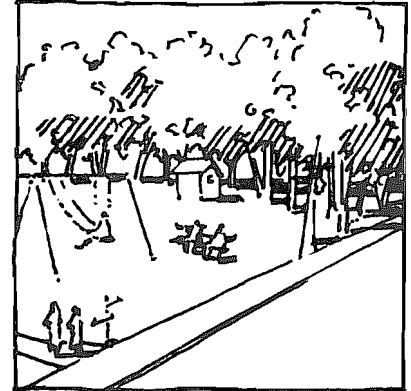


Morley Field and the Mesa Rim: As the heart of recreational activities in the East Mesa, Morley Field and the Mesa Rim will be rehabilitated to provide social spaces, improved facilities, and compatible uses. Surrounding Florida Canyon, the Mesa Rim will be revegetated as open grasslands for picnic and play. The athletic facilities will be improved to provide a new tennis clubhouse, the rehabilitation of the current pool facility as a community center, a new swimming pool complex, a small

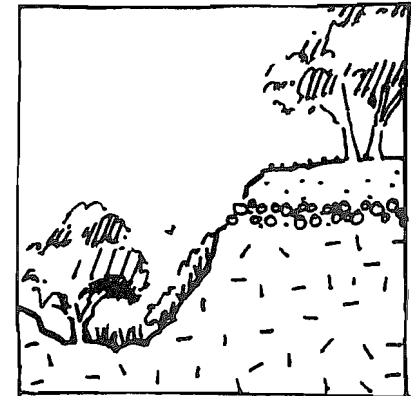


lake that will serve as a fly casting pond, an organized sports complex with four formal ball fields and one practice field, an expanded disc golf area, and a multipurpose field. New family picnic tables, restrooms, a group picnic shelter, parking, and a playground serve the athletic areas. These are arranged along an activity promenade, the central focus of Morley Field. To release the canyon edge for passive recreation, the velodrome is relocated off the mesa to the new Pershing Recreation Complex.

The Neighborhood Edge: Currently underutilized as parkland, the Neighborhood Edge will become the neighborhood park, or a front yard to the surrounding community. With five new children's playgrounds, an entry feature at Upas and 28th Street, perimeter sidewalks, trails and bicycle paths, new planting, overlooks, and belvederes, the Neighborhood Edge will be a fitting compliment to the surrounding homes. Short-term implementation of the northeast portion will be made possible by a current city grant and the Clean Water Program's underground storage tank installation in the next decade.



Arizona Landfill: Once a natural canyon, the area has been transformed into a degraded mesa through years as a landfill. Although blighted, this new mesa offers a unique opportunity throughout all of San Diego - over 70 acres of unincumbered level land with dominant visual connections to the sky, the ocean, and the distant mountains. By maintaining it as open grassland suitable for art, play, and special events, a true mesa arises out of a past canyon, contributing to the active and passive recreational park functions. Improvements include a revegetation program with fields of grass above the landfill cover, the rehabilitation of a two acre area for turf playfields, and picnic areas accessed by a new loop road with parking. A program for major environmental art works overlays the mesa top.



Park Nursery: Balboa Park was founded as a nursery and today the tradition continues as the Park Nursery provides plant materials for park revegetation and experimentation. The Precise Plan expands upon this tradition by developing publicly accessible interpretive gardens and botanical displays which promote the current technologies and environmental ethics while allowing a maintenance facility to function as a public park amenity. Rows of trees, planted in containers where necessary over the landfill, will highlight the nursery's image and carry its

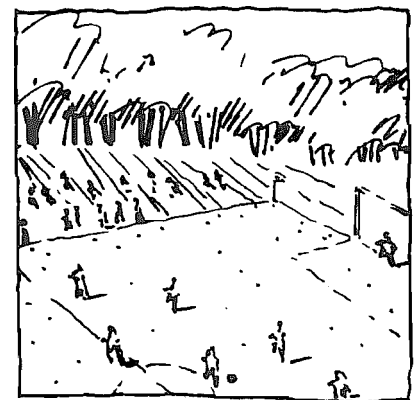
order into the surrounding areas as an amenity for picnic and play

Golden Hill: One of the earliest corners of Balboa Park to develop, the Golden Hill area expresses the Victorian era of the surrounding community. With increased connections to the remainder of the East Mesa and Balboa Park, the area can expand its function as a neighborhood park to be a special remnant of a bygone era, valuable to both the surrounding community and the region at large. New trails along with roadway modifications will improve the circulation, establish a park entry, and provide connections with the Pershing Recreation Complex. New planting, entry features and the future reconstruction of the historic fountain will provide connections to the past while making it an attractive place for neighborhood residents and park users.

Balboa Park Golf Courses: Actively used and supported by the region, the 9- and 18-hole courses serve a variety of users from children to senior citizens. The Precise Plan proposes improved circulation, renovations to the clubhouse, and additional parking in order that the courses can continue to provide valuable active recreation. In addition, its configuration and limited use protects native stands of scrub and chaparral on the slopes of Switzer Canyon. Pedestrians, outside of golf course users, will be restricted to the course's outside perimeter to prevent injury. Minor adjustments to hole 4 in the 9-hole course will increase the Neighborhood Edge for local recreation and ease of surveillance.



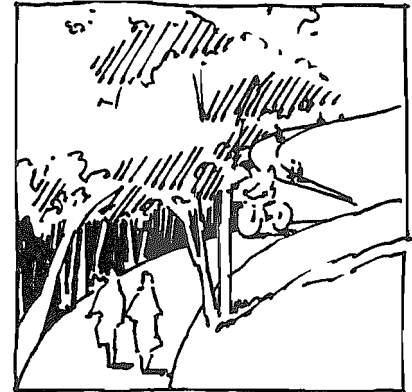
Pershing Recreation Complex: With the consolidation and relocation of the City Operations Station from the southern most portion of the East Mesa, a 12 acre parcel becomes available for active recreation. Situated near the major southern entry, and buffered from the neighborhood by adjacent cliffs, the site becomes highly suitable for sports requiring night lighting, easy access, and large gatherings. The velodrome will be relocated here, as well as a new regulation-sized soccer field. Picnic areas, parking, trails to Golden Hill, gateway planting, and a pedestrian bridge across Pershing Drive to Inspiration Point will provide connections and activities attractive to the entire East Mesa.



Circulation: Building upon the existing circulation system, the Precise Plan proposes to limit the automobile intrusion to that which is necessary to serve the recreational facilities, and expand the trail and

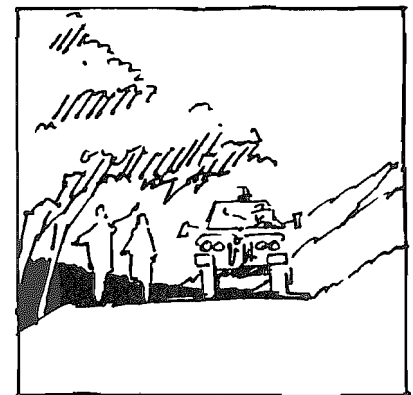
bicycle system to promote a leisurely, park-like form of circulation. Portions of Pershing Drive will be realigned to promote safer intersections, provide landscaped medians, and include bicycle lanes. Florida Drive, between Morley Field Road and Zoo Place, will be closed and removed, replacing the former roadbeds with landscaped areas and widened pedestrian paths that can also accommodate emergency and security vehicles. In Golden Hill, 26th Street will be the Balboa Park entry, while 25th Street will serve only the Golden Hill Park.

A system of multiuse trails will be constructed to tie together the various activities for pedestrians and recreational cyclists. Paved with concrete in areas of high use or with soft materials at the canyons and mesa rim, these trails allow people to explore areas previously uninviting while still blending into the landscape character. Bridges over the finger canyons encourage pedestrians to overlook the native areas while not promoting habitat disturbance. To connect the East Mesa with the rest of Balboa Park, two major pedestrian bridges will be constructed. At Zoo Place, the bridge connects the mesa with a path to the Rose Garden and Prado. Over Pershing Drive, a new bridge provides interplay between Inspiration Point, the Pershing Recreation Complex, and Golden Hill.



Site Amenities: Signage, lighting, and site furniture will further compliment the systems of circulation and recreation while providing for safety and comfortable, aesthetic amenities. As part of the overall signage for Balboa Park, the East Mesa will encourage informational signage that provide interpretation of the resources in addition to directional and restrictive signs. Lighting will be enhanced at the perimeter zone to provide the level of security at the interface with the neighborhood while carefully shielded to prevent light intrusion into surrounding homes. Site furniture will follow the models of the architectural guidelines, building upon the solid, craftsman style with new technologies and materials.

Security: A prime interest of both surrounding residents and users of the East Mesa is the sense of security, surveillance, and comfort experienced in the Park. Coupled with an enforcement program, the Plan proposes activating areas with legitimate recreation, providing emergency call boxes, siting trails to serve as overlooks for surveillance, and reinforcing the neighborhood edge to provide "eyes on the park" along with a community watch program. The planting program

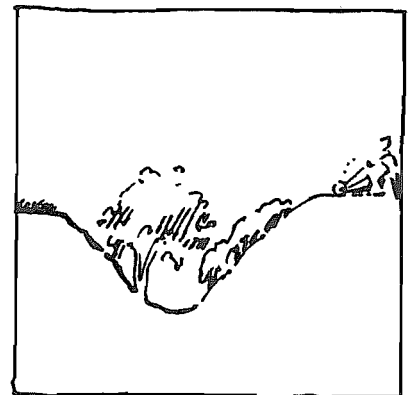


reinforces this surveillance, limiting the landscape palette to primarily trees and groundcovers with the exception of the native vegetation in habitat areas. Native habitat shall be managed to ensure surveillance while protecting habitat value. Most importantly, a periodic review of the security implementation is recommended in order to provide necessary corrections and improvements.

Utilities and Drainage: Utilities are currently distributed throughout the East Mesa in a fairly complete manner, providing service to existing facilities. New facilities, such as restrooms and the Pershing Recreation Complex, will require extensions of these services while modifications of the existing lines will be necessary with the rehabilitation of the tennis center and the new pool complex. Existing capacity exists to accommodate the proposed modifications. Reclaimed water irrigation distribution will be a new utility system at the East Mesa. Stemming from the proposed major distribution system planned by the Clean Water Program, the irrigation systems throughout East Mesa will be redesigned to supply reclaimed water to irrigated areas in order to preserve our potable water resources.

Two major drainage courses, Florida Canyon and Switzer Canyon will be maintained in their current functions as they serve a watershed beyond the Park. However, improvements will be made to the character of these channels to better integrate them with the Park. At Florida Canyon, the enhancement of the drainageway as a riparian corridor will compliment the surrounding natural area. At the Pershing Recreation Complex, the existing concrete drainage swale will be capped and covered to provide for additional parkland and an aesthetic park entrance while maintaining its existing storm capacity.

Maintenance: Maintenance recommendations are provided for improvements and operations. Each new improvement has low maintenance inherent to its design. Manicured planted areas are restrained to those areas necessary for field sports. The use of wood is restricted to areas above reach or used as heavy timbers to avoid vandalism. Benches are made of concrete or steel, play structures of durable plastics, laminated wood, and steel. Fixtures are proposed with vandal resistant hardware. New facilities such as the pool and tennis centers employ a level of design that evoke community pride and elicit respect.



Under the current maintenance operations program, the East Mesa receives a level of maintenance commensurate with the improvements and activities. With the inclusion of new recreation areas at the Arizona Landfill and Pershing Recreation Complex, increased maintenance "manhours" would be required to serve the additional facilities. Periodic mowing of grasses, maintenance of new restrooms and playgrounds, and increased trash collection will require additional service.

Implementation: Over the next twenty years, the East Mesa is expected to evolve and fulfill the objectives of this Plan. As funding becomes available and needs warrant, specific areas can be implemented according to these recommendations. Identified current funding will implement initial improvements to the Neighborhood Edge in the northeast park corner. Participation with other agency goals will also aid in the park's development. One of these potential projects is the Clean Water Program's reclaimed water pumping and storage facility designed for an underground location near Redwood Street and Pershing Drive. Additional modifications to the northeast corner of the East Mesa could be implemented in conjunction with its installation. Following the provisions of reclaimed water, the entire Park irrigation system could be retrofitted or replaced to distribute reclaimed rather than potable water. Reclamation of the landfill will occur following its closure, anticipated in the short term. Golf course improvements are tied to its capital outlay plan and enterprise funds. The City Operations Station must be relocated in the short term to provide for its conversion to parkland and its development as the Pershing Recreation Complex, thus enabling parkland in the Morley Field area to be redeveloped.

In light of limited funding, the city can also look to the generous participation of volunteer groups, such as the Urban Conservation Corps, school programs and scout troops, to implement or maintain various park attributes.

The effort and enthusiasm of many agencies, citizens, and park users is necessary to sustain the momentum of the Precise Plan. This document portrays their collaborative ideas and directions desired for the East Mesa. Continued support through design, programming, maintenance, funding, and policy decisions is imperative to realize the quality and potential of the east side of Balboa Park.

Morley Field and the Mesa Rim:

- East Mesa, Morley Field and the Mesa Rim will be rehabilitated to provide social spaces, improved facilities, and compatible uses.
- The Mesa Rim will be revegetated as open grasslands for picnic and play. The athletic facilities will be improved to provide a new tennis clubhouse, the rehabilitation of the current pool facility as a community center, a new swimming pool complex, a small lake that will serve as a flycasting pond, an organized ball complex with four formal fields and one practice field, an expanded disc golf area, and a soccer field.
- Serving the athletic areas are new picnic tables, restrooms, a group picnic shelter, parking, and a children's playground.
- The velodrome is relocated from the mesa to the new Pershing Recreation Complex.

Florida Canyon:

- As the most intact natural area, Florida Canyon is to be restored to its natural condition, with the removal of Florida Drive.
- Improvements include a small nature center, a native plant revegetation program, trails and bikeways, pedestrian bridges, and access and surveillance.

Public Art:

- The primary venue is the extension of the Prado's access to the East Mesa, providing a visual and symbolic connection with the Park and the region.
- At its center would be a gallery of changing outdoor environmental art installations.
- Throughout the East Mesa, artist involvement in park amenities will further the connection between ecological and cultural attitudes.

Balboa Park Golf Courses:

- The plan proposes improved circulation, renovations to the clubhouse, and additional parking.
- Pedestrians, outside of golf course users, will be restricted to the course's perimeter to prevent injury.
- Minor adjustments to hole 4 in the 9-hole course will increase the Neighborhood Edge for local recreation.
- Automobile traffic would be slowed down and controlled along Golf Course Drive, allowing for shared active golf uses, pedestrian trails and bicycle paths.

Pershing Recreation Complex:

- Situated near the major southern entry, and buffered from the neighborhood by adjacent cliffs, the site becomes highly suitable for sports requiring night lighting, easy access, and large gatherings.
- The velodrome will be relocated here as well as a new regulation-sized soccer field.
- Picnic areas, parking, trails to Golden Hill, and a pedestrian bridge across Pershing Drive to Inspiration Point will provide connections and activities attractive to the entire East Mesa.



Circulation

- The Plan will establish a hierarchy of park entries based on community and regional importance.
- Pershing Parkway will be refined to promote safer intersections, slower vehicular speeds, provide landscaped medians, and include bicycle lanes.
- A system of multiuse trails will be constructed to tie together the various activities for pedestrians and recreational cyclists.
- Bridges over the finger canyons encourage pedestrians to overlook the native areas while not promoting disturbance.
- To connect the East Mesa with the rest of Balboa Park, two major pedestrian bridges will be constructed.

Park Nursery:

- Development of interpretive gardens and botanical displays which promote the current technologies and environmental ethics while allowing a maintenance facility to function as a public park amenity.

Arizona Landfill:

- This new mesa offers a unique opportunity throughout all of San Diego with visual connections to the sky, the ocean, and the distant mountains.
- By maintaining it as open grassland suitable for art, play, and special events, a true mesa arises out of a past canyon.
- Improvements include a revegetation program with fields of non-irrigated grasslands above the landfill cover, the rehabilitation of a two acre area for irrigated turf fields, and picnic areas accessed by a new loop road with parking.
- A program for major environmental art works overlays the mesa top.

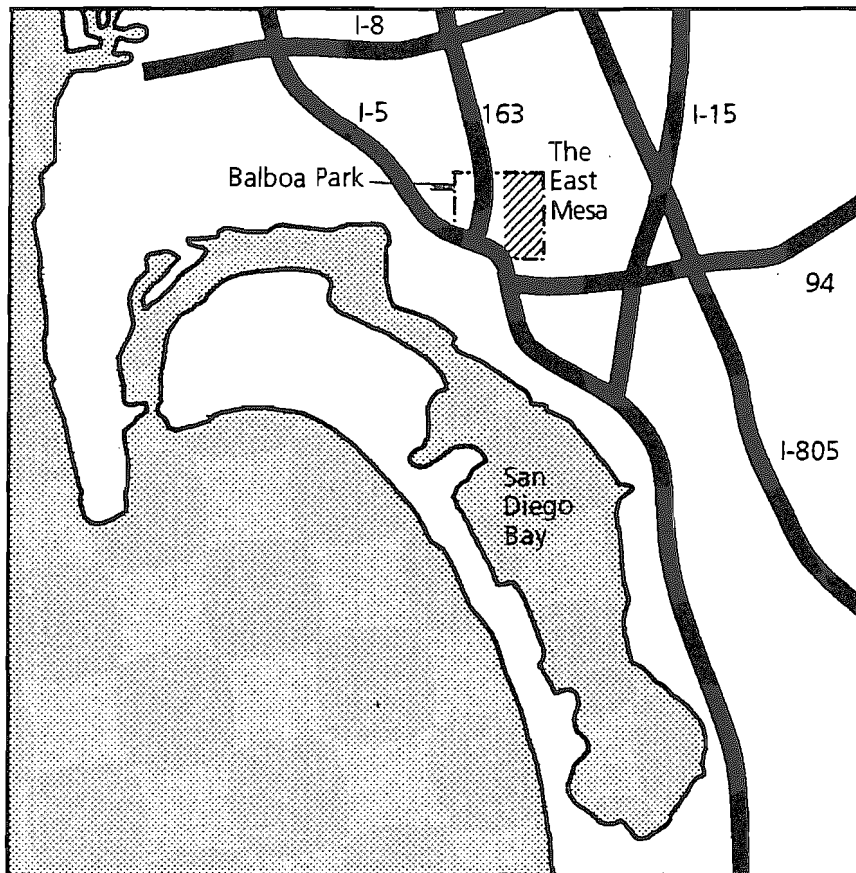
The Neighborhood Edge:

- The Neighborhood Edge will become the neighborhood park, or a front yard to the surrounding community.
- Improvements include six new tot lots and playgrounds, an entry plaza at Upas and 28th Street, perimeter sidewalks, trails and bicycle paths, new planting, overlooks and belvederes.

Golden Hill:

- The Golden Hill area expresses the Victorian era of the surrounding community.
- New trails along with roadway modifications will improve the circulation, establish a park entry, and provide connections with the Pershing Recreation Complex.
- New planting and the rehabilitation of the historic fountain will provide connections to the past while making it an attractive place for neighborhood residents and park users.

I. INTRODUCTION



Location of The East Mesa of Balboa Park

A. Planning Context

The adoption of the Balboa Park Master Plan in July of 1989 signaled a new approach to planning and design in specific areas within the Park. The Master Plan dictated that Precise Plans be prepared for each subarea to further delineate the goals and objectives of the Master Plan and provide specific guidelines for their implementation.

The goals of the Master Plan for the Park as a whole are summarized as:

- Create within the Park a more pedestrian oriented environment. Reduce automobile and pedestrian conflicts. Minimize through traffic.
- Improve public access to the Park through an improved integrated circulation system, convenient drop-off points, better

parking management, improved signage and increased security. The improved circulation system shall de-emphasize the automobile while increasing public access to the Park and park facilities.

Preserve, enhance and increase free and open parkland and establish a program of ongoing landscape design, maintenance, and replacement.

- Restore or improve existing buildings and landscaped areas within the Park.
- Preserve and enhance the mix of cultural, and active and passive recreational uses within Balboa Park to serve national, regional, community, and neighborhood populations.
- Preserve Balboa Park as an affordable park experience for all citizens of San Diego.

Specific to the East Mesa, the Balboa Park Master Plan outlined the following direction based on subareas within the East Mesa:

- **City Operations Station:**
 - Relocate the City Operations Station, returning the area to open park land.
 - Link the area through pedestrian and bicycle trails to the Golden Hill Recreation Area and, via a pedestrian bridge over Pershing Drive, to Inspiration Point and the Central Mesa.
 - Enhance Pershing Drive as a major park entry with colorful plantings.
- **Florida Canyon:**
 - Complete the development of the Rose Garden.

- Implement the Florida Canyon Master Plan which terminates Florida Drive north of Zoo Place and south of Morley Field Drive.
- Construct small parking lots to serve visitors to a native California landscape preserve, restrooms, and a small botanical building.
- Develop the canyon with walking, hiking, bicycle, and jogging trails connecting the Central Mesa with Morley Field and the East Mesa. Restore the stream bed as a natural riparian area.
- Screen the velodrome from Central Mesa views.
- **Morley Field:**
 - Landscape the northeast corner at 28th Street and Pershing Drive with turf, trees, and groundcover.
 - Provide picnic tables and pedestrian trails throughout the park land.
 - Revegetate the former Arizona Landfill with open meadow areas, trees, botanical garden areas, pedestrian walks, picnic areas, parking lots, and child's play areas.
- **Golden Will:**
 - Allow views into the Grape Street Park area by pruning and thinning existing vegetation.
 - Relocate existing restrooms to the perimeter of the park for better visibility and security.
 - Remove the 26th Street entry and develop a soccer bowl in its old alignment.
 - Realign 25th Street to become the main Park entry providing direct connections to Pershing Drive.

- Link Golden Hill area with the former City Operations Station through pedestrian and bicycle trails.

The certified Environmental Impact Report (DEP NO. 840595) was completed to address each of the goals of the Balboa Park Master Plan.

The above direction provided the springboard for design and planning decisions in the East Mesa. Many of the objectives could be implemented immediately, while others, such as the soccer bowl and landfill revegetation concept, required further study. The following Precise Plan details specific recommendations incorporating the goals established throughout Balboa Park as they relate to the East Mesa.

The Precise Plan, through the process of public input and further design development, deviates from the land use recommendations of the Master Plan in five primary areas:

- 26th Street will remain as the Park Entry in Golden Hill
- The soccer field will be located in the Pershing Recreation Complex rather than on the 26th Street alignment.
- The velodrome will be relocated to the Pershing Recreation Complex rather than on the mesa rim.
- Due to its regional proximity, the Pershing Recreation Complex area will house active sports facilities rather than passive recreation.
- Florida Canyon Demonstration Garden will now be part of the Balboa Park Nursery demonstration garden.



Aerial view of Balboa Park from the south in 1930

B. Precise Plan Organization

The Precise Plan for the East Mesa is structured to provide detailed development of a coordinated design approach, priorities for implementation, and direction for management and maintenance. In the chapters following the overall Vision, the Plan provides an Analysis of the observations and opportunities present at the East Mesa. The fourth chapter, the Design Concept, is presented in three sections beginning with an introduction of overall guidelines for design implementation addressing public art, landscape, and architecture.

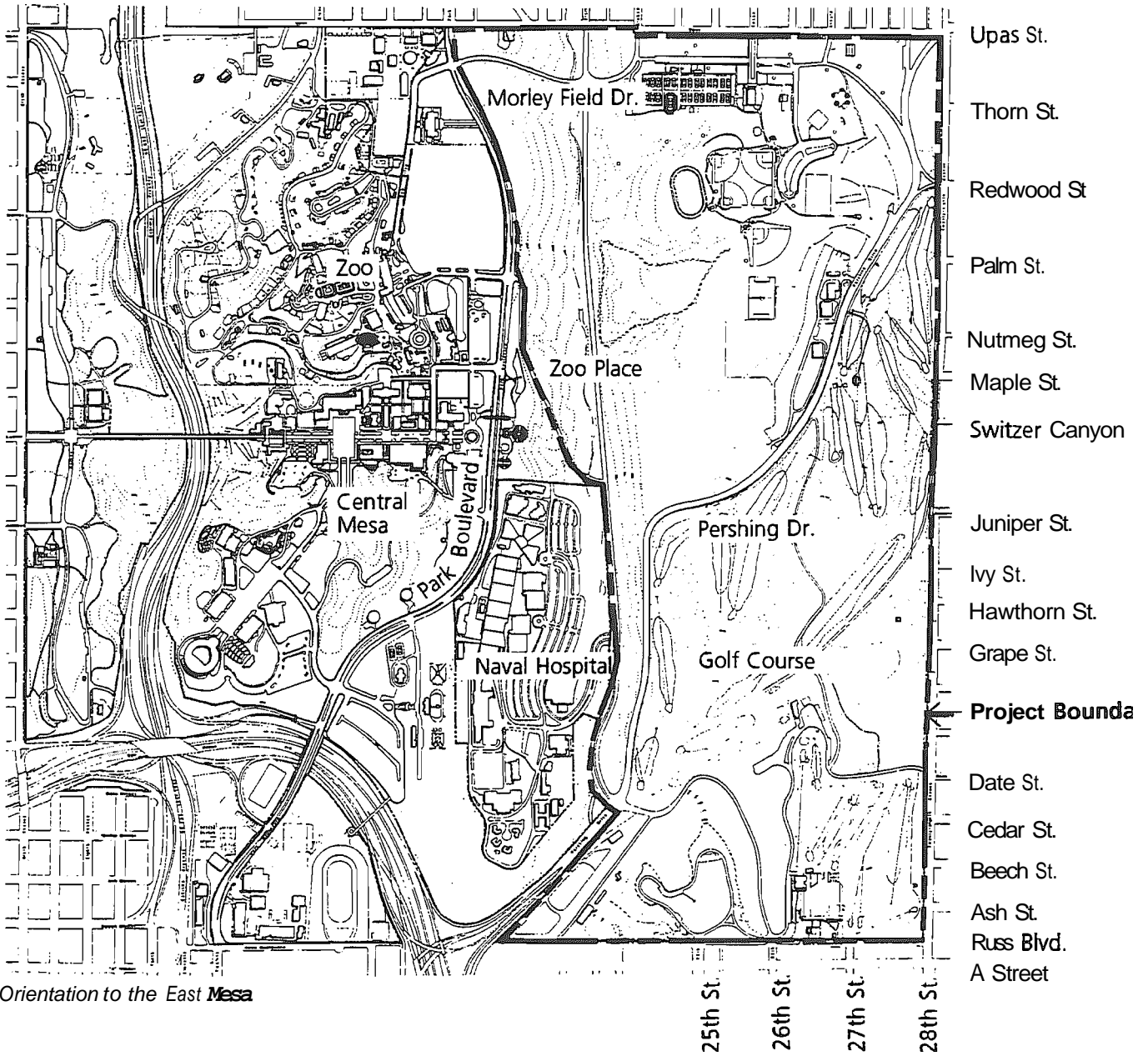
Second, recommendations are organized by geographic areas to facilitate the design and implementation of specific improvements when funding becomes available. Eight Area Plans are described: Florida Canyon, Morley Field and the Mesa Rim, The Neighborhood Edge, Arizona Landfill, Balboa Park Nursery, Golden Hill, Balboa Park Golf Courses, and the Pershing Recreation Complex.

Finally, recommendations for overall systems which are not site specific are discussed in Plan Elements for Park Roads and Entries, Bicycle and Pedestrian Trails, Signage, Lighting, and Site Furniture, Security, and Utilities and Drainage.

Implementation, including an overview of operations and management, as well as priorities, is discussed at the conclusion of the Plan. In addition, site specific recommendations for operations, maintenance, and security are discussed in their appropriate Area Element.

C. East Mesa Context

Florida St.
 Alabama St.
 Mississippi St.
 Louisiana St.
 Texas St.
 Arizona Ave.
 Arnold Ave.
 Villa Terrace
 Pershing Ave.
 28th St.



Orientation to the East Mesa

The East Mesa Precise Plan is a recreation program for approximately 620 acres within Balboa Park. Its northern boundary is Upas Street. 28th Street forms the eastern boundary, which is bisected by Switzer Canyon. For purposes of this study, the terminus of Switzer Canyon is the graded slope at 30th Street. The southern boundary of the East Mesa at Russ Boulevard is also the southern limits of Balboa Park which bisects the City Operations Station. Inspiration Point and the Naval

Hospital form the southwestern boundaries along Florida Drive. North of the Hospital, the study area continues to Park Boulevard to include the slopes of Florida Canyon as its western boundary.

The East Mesa is very much influenced by the surrounding land uses as well as its immediate environs. The Central Mesa and Inspiration Point are highly active park areas to the west. Home to the San Diego Zoo, various museums and theaters, and remnants of the 1915 Panama-California Exposition, the area has capitalized on the romance of a Spanish city with its interplay between architecture and gardens. Recent planning has reinforced these areas as formal developed areas catering to a national tourist constituency.

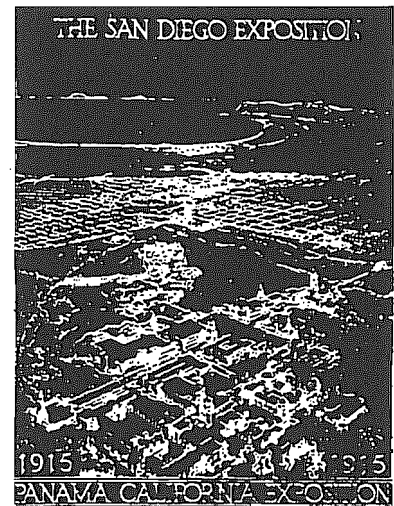
The Morley Field Neighborhood, a subarea of Greater North Park, overlooks the East Mesa's northern and northeastern boundaries. Many homes were built during the craftsman period of the early 1900s in this area, viewing what was then parkland used as pasture. Their wide, gracious porches and shingle style evoked a strong connection to San Diego's natural and rustic beauty of a century ago.

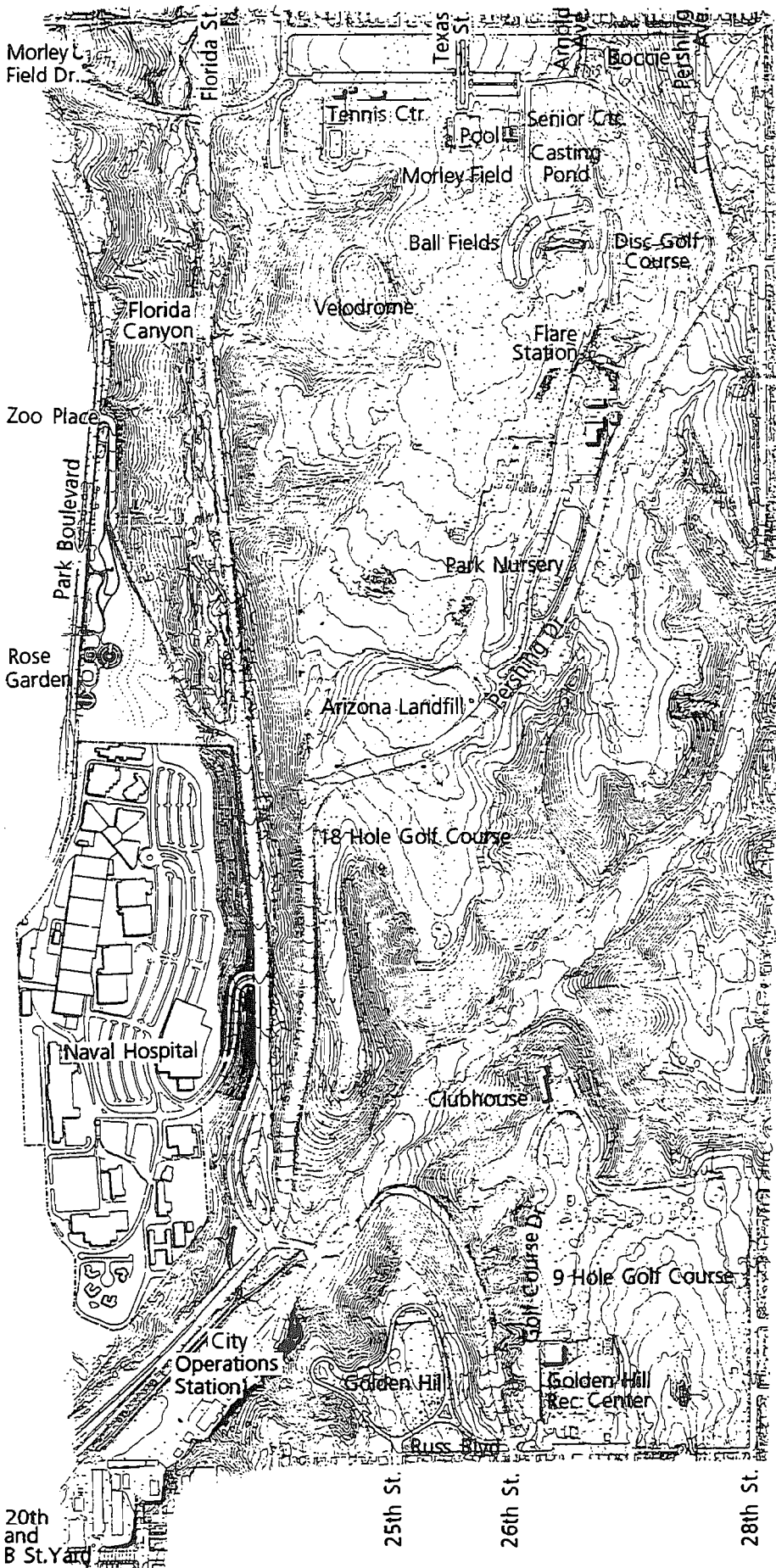
The southern and southeastern park edges are bounded by the community of Golden Hill. Similar to North Park, larger elegant homes grace the park edges. Built at the turn of the century, many have been restored recently to express the current value on traditional architecture and the open space character afforded by the Park. The one deviation to the neighborhood's expressed value of the Park exists along portions of Russ Boulevard where back alleys rather than front yards face onto the Park. New development in this area should readdress the symbiotic value of the Park by facing towards rather than away from it.

The U.S. Naval Hospital occupies 60 acres of land which was once open parkland. The buildings' mass and the presence of large surface parking lots make it an incongruous neighbor with the remainder of the Park.

Centre City, San Diego's downtown, adjoins the East Mesa to the southwest. Although physically separated by the Interstate 5 freeway, its buildings are clearly visible for the East Mesa.

The strong presence of urban form surrounding the East Mesa has lent considerable influence into the design of these improvements.





Upas St.
EXISTING FACILITIES

Redwood St.

Maple St.

Switzer Canyon

Grape St.

Date St.

City of San Diego

East Mesa Precise Plan, Balboa Park

Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner



D. Planning Process

The process of the East Mesa Precise Plan was initiated with direct community involvement for input and review. Conducted through public workshops, presentations at the Community Planning Groups and open meetings of the Balboa Park Committee, Facilities Committee, Park and Recreation Board, Planning Commission, and City Council, this Plan represents considerable input from neighbors, interested citizens, volunteer groups such as the Urban Conservation Corps, and the users of the East Mesa. Because of the various special interest groups and concessions involved currently in the park, many were represented through public meetings or individual inquiries.

The Plan represents significant collaboration between various City Departments, specifically, Park and Recreation, Waste Management, Engineering and Development, Police, Planning, the City Architect's Office, the Commission for Arts and Culture, and the Clean Water Program, all with particular interests within their jurisdictions.

Interest, support, and policy formulation was provided by the East Side Task Force, a subcommittee and special interest group within Citizens Coordinate for Century 3. With considerable volunteer effort, members prepared a document entitled "Planning Concepts and Eastside Communities Goals, Objectives, and Recommendations," November, 1989. This, in addition to the Balboa Park Master Plan, provided the primary background for the Precise Plan.

Formal presentations of the East Mesa Precise Plan were conducted with City advisory boards and committees including the following:

- Balboa Park Committee
- Greater North Park Community Planning Committee
- Greater Golden Hill Community Planning Committee
- Facilities Committee
- Park and Recreation Board
- Historical Site Board
- Planning Commission
- City Council Committee: Public Facilities and Recreation

Ultimate adoption of the Precise Plan lies with the San Diego City Council during a public hearing.

Prior to approval of construction projects identified in this Plan, supplemental environmental review will be required to analyze the design, grading and construction details.



Aerial View of the East Mesa from the South in 1928

II. VISION

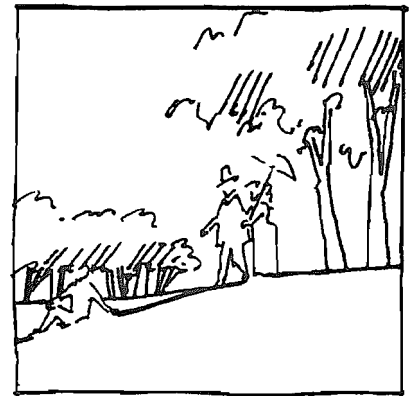
The East Mesa Precise Plan offers a unique opportunity to craft the site according to society's vision for recreation and the landscape. This is not a new idea, however. From previous plans, Balboa Park has grasped this opportunity, becoming, in effect, a record of society's conception of its leisure time.

A. Recreation in America, 1850 - Present

Over the last 120 years American society has had different visions of leisure and recreation. In *The Politics of Park Design*, Galen Cranz outlines each of these visions and how they manifest on the land in the form of parks and recreation areas:

1850-1900: The Pleasure Park

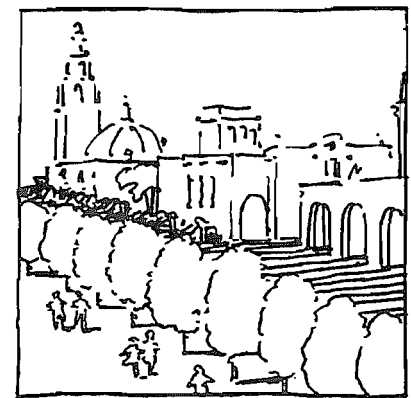
The Pleasure Park reflects the Victorian vision of recreation, where the land assumes a picturesque character promoting "exercise, instruction and psychic restoration." Exemplified by Central Park in Manhattan, the pleasure park caters to the whims and imagination of an affluent society, often displaying exotic arboreta, zoological attractions and a host of ornamental pavilions for gatherings, concerts and cultural events. Recreation was to be strictly unstructured.



At Balboa Park, the Sixth Avenue lawns, the Zoo and the Prado best reflect the Pleasure Park vision.

1900-1930: The Reform Park

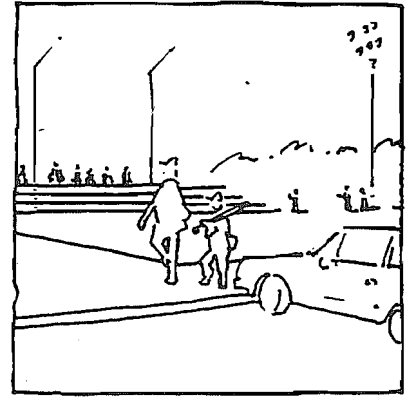
The Pleasure Park gave way to the vision that society needed to structure recreation in an effort to promote health and welfare. This was called the Reform Movement, in which parks became objects for organized play and education. Athletic programs were, therefore, the focus of recreation, and educational activities secondary. Typical park facilities of the Reform movement included gymnasiums, aquariums and museums. The organization of facilities exhibited a departure of the picturesque and a return to more neo-classical or "Beaux-Art" forms.



At Balboa Park, the museums created for the Exposition's best reflect the Reform Park vision.

1930-1965: The Leisure Park

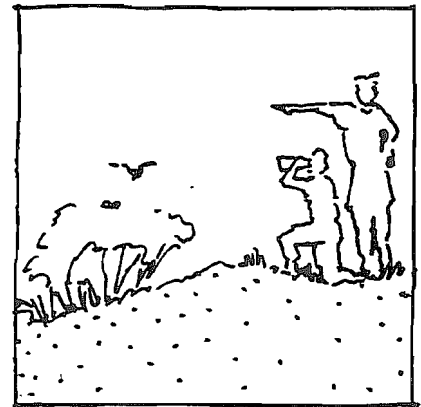
The guiding principle of the leisure park was the expansion of recreation facilities to provide a greater variety of leisure activity, not just athletic fields. Commercial interests were brought into the scene, engendering the spread of amusement parks and other "for pay" recreation activities such as golf. Bathing beaches, casting pools, model boating, archery ranges and innumerable playgrounds became ubiquitous park facilities across the recreation landscape. Many of the above facilities are in Balboa Park, particularly in the East Mesa, such as the archery range, casting pool, and disc golf.



*At Balboa Park the play areas of Morley Field and the Golf Courses **best** reflect the Leisure Park vision.*

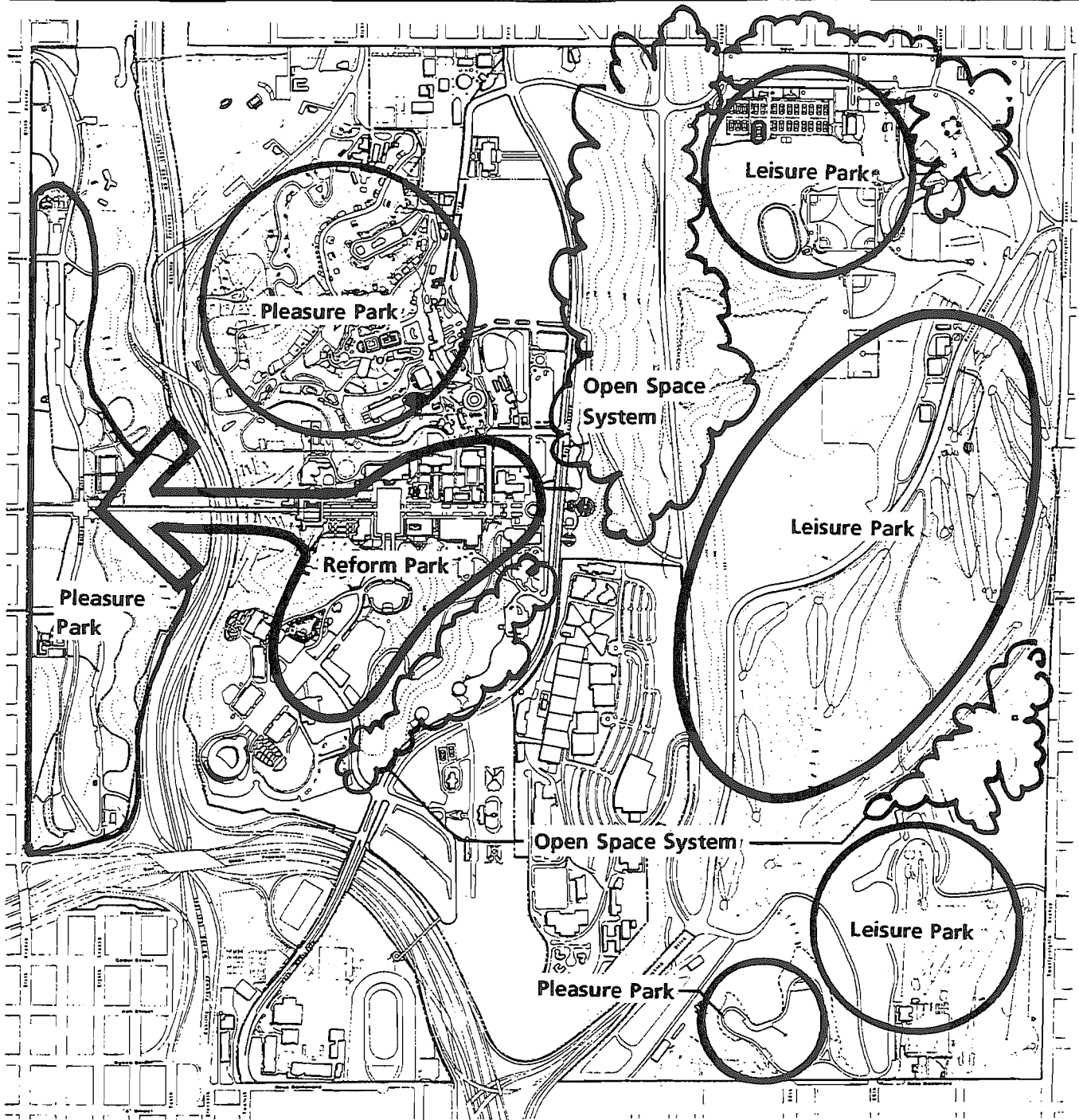
1965- onwards: The Open Space System

In the sixties, the term "open space" began to be used in connection with public recreation. It wasn't enough just to provide a community with a park, but it had to be a system of parks, preferably connected, thus establishing corridors for recreation within metropolitan areas. The Minneapolis park system is among the most integrated recreation corridors in America, comprising miles of parkways, bikeways and pedestrian ways along riverfronts and lakefronts. Natural scenery became once again important as an integral part of recreation during this period. In terms of recreation facilities, an "anything goes" attitude became prevalent with informal gatherings, kite flying, band concerts, feasting and special civic celebrations becoming common events.



The opportunities for an Open Space System in Balboa Park includes nature trails.

In this respect, Balboa Park is not part of an open space system per se, although it does contain features that are typical of this vision, such as the SR-163 parkway. However, with its accessible canyons, mature vegetation, and extensive views, the Park represents an opportunity to capture this natural open space value within the heart of the city.



AREAS OF HISTORIC RECREATION IN BALBOA PARK

City of San Diego

East Mesa Precise Plan, Balboa Park

Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
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Richard Posner

Not to Scale

B. History of Planning Precedents

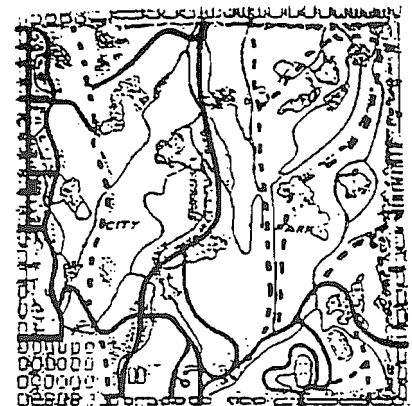
Several renowned planners have participated in the shaping of Balboa Park, preparing either comprehensive plans for the entire park or designs for specific areas of it, such as Morley Field. Each plan is a reflection of its time, embodying the various visions of recreation as described previously.

Kate Sessions began planting in the 1890s in what was to be Balboa Park. This had an important impact on the city as it established a public park with opportunities for growing fascinating plants in the landform's network of canyons. The first formal design for Balboa Park was prepared by Landscape Architect Samuel Parsons in 1902. After his plan was completed and portions implemented, several other master plans have followed. Named after their authors, these plans include Olmsted Brother's plan in 1911, Bertram Goodhue's plan in 1915, and John Nolan's plan in 1927. The Works Progress Administration implemented portions of the program during the next twenty years, but not always according to the plan's recommendations. No formal planning was undertaken until the 1960s with Harland Bartholomew's plan and then again in the 1980s with the Estrada Plan, the currently adopted Master Plan.

Parsons Plan - 1902

Samuel Parsons, Jr. followed the Victorian attitude of recreation as a pleasure park and incorporated this vision in his plans for Balboa Park. Parsons described the park as presenting one of the great views on the world, "...unequaled in its natural beauty and potentiality" and that "...it would be an unpardonable violence to the beauty of the scenery to allow radical change of the surface".

His plan was to reinforce the vistas with low plantings on the mesa tops and trees in the canyons. Park access was designed for the western sector. In contrast, the eastern sector was left undeveloped, with the exception of bridle paths and trails. Switzer Canyon and Florida Canyon terminated at a small pond prior to entering the adjacent city fabric. The Golden Hill area, one of the oldest developed portions of the Park, still reflects Parson's thinking and design.



Parson's Plan for Balboa Park - 1902

Olmsted Brother's Plan - 1911

Aligned with the ideals set by Parsons, the Olmsteds set forth the notion that the central area of the Park should remain natural and undeveloped. They isolated any development to portions adjacent to the existing city fabric, proposing the southwest corner as an exposition fairground. Their proposed site plan, adjacent to the high school, reflected a "regional mission revival" theme set in the formal layout. Neither of these recommendations were implemented.

However, two contributions of the Olmsted Brothers can be seen today in the East Mesa. They proposed the main access from Texas Street and an adjacent multi-sports facility much like the Morley Field area of today.

Goodhue Plan - 1915

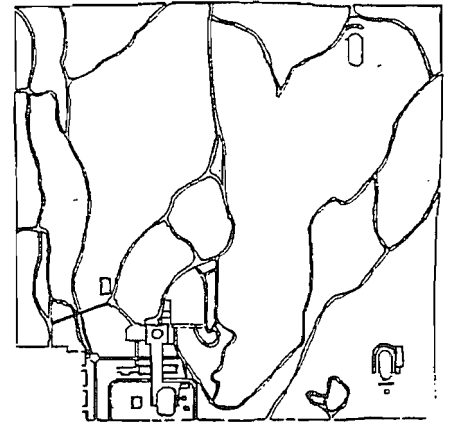
The Goodhue Plan took an architectural direction to recreation and leisure reflecting the Reform movement of the time. The exposition site was chosen and implemented on the Central Mesa in contrast to the Olmsted Brothers' thinking. Cabrillo Bridge was built across the canyon as an access to events and aligned with the strong Laurel Street axis. The Spanish Colonial architectural style was employed rather than the mission style as suggested by the Olmsteds.

The eastern sector of the Park was not addressed in the thinking of Goodhue and remained as earlier planned.

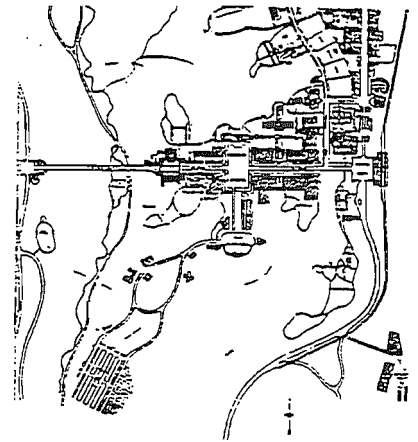
Nolan Plan - 1927

Nolan was often labeled a "futurist" with ideas that were ahead of his time. His plan for Balboa Park reflected the attitudes toward structured leisure that later developed between the 1930s and 1960s. The plan concentrated on the organization of recreation facilities at Morley Field and direct circulation through the park to the rapidly expanding neighborhoods of North Park.

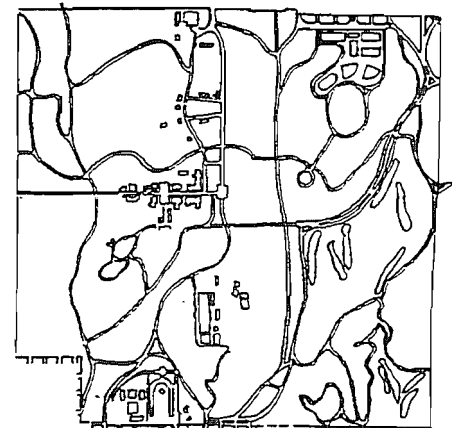
The Nolan Plan utilized the grid of the city and the circular shape to manipulate the passive and active recreation activities. The city grid was



Olmsted Brother's Plan - 1911



Goodhue Plan - 1915



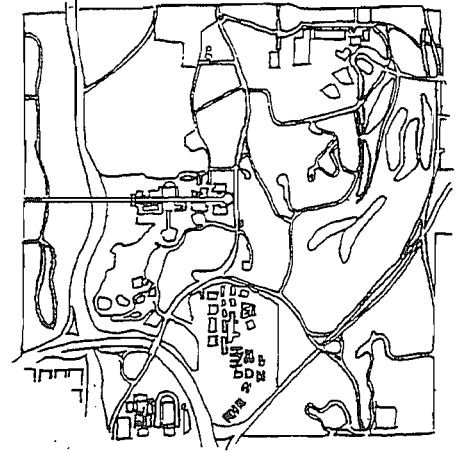
Nolan Plan - 1927

extended into the Morley Field area to provide a positive interface of the neighborhood with sport facilities and activities. Nolan proposed two bridges as connections from the Central Mesa to the East Mesa, neither of which were constructed.

Harland Bartholomew Plan - 1960

The Bartholomew Plan envisioned a completely developed urban park to serve the demands of recreation in modern times, providing maximization of the land use and developed areas of the Park.

For the East Mesa, he envisioned an enlargement of the active recreation and picnic areas. A development similar to the Golden Hill area was planned for the northeastern corner of the Park, although it was never implemented. A loop road was designed to avoid park user and through traffic conflicts by simplifying the circulation network and providing access to peripheral parking areas. A bridge was proposed to connect the East Mesa with the Central Mesa, and more aggressively, a freeway was proposed in Switzer Canyon, but was never implemented. Planting was to provide a "naturalistic park" theme of eucalyptus and acres of verdant lawn. The plan furthered the concept of creating spatial enclosures and maintaining open vistas with plants.



Bartholomew Plan - 1960

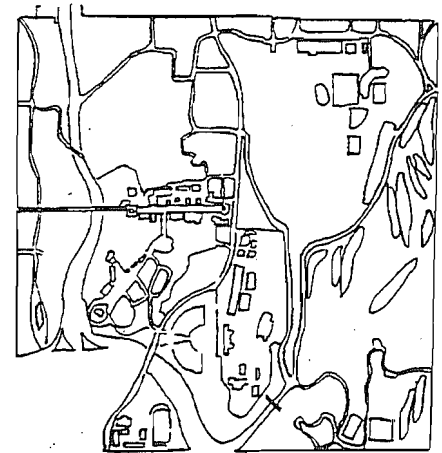
Florida Canyon Master Plan - 1976

Prepared by Steve Halsey and Associates, this plan proposed that Florida Canyon should be restored to its native habitat for the purposes of education and passive recreation, none of which has been implemented to date. The plan spoke to a botanical garden in the canyon, exhibiting a wide range of plants from Baja California and the state. Florida Drive was planned to be closed in order to regain the riparian corridor once present and to dedicate the area to foot and bicycle travel.

Estrada Plan - 1989

The Estrada Plan modified the recommendations of the Bartholomew Plan and enhanced the existing facilities and open parkland by encouraging restoration and improvement programs.

On the East Mesa, three priority areas were slated for restoration: the Arizona Landfill, the City Operations Station and Florida Canyon. Arizona Landfill is proposed to be formally closed, reclaimed, and developed into free and open parkland. The City Operations Station is recommended to be relocated and also restored to free and open parkland. Florida Drive is to be closed between Zoo Place and Morley Field Drive, allowing for restoration and maintenance of the native vegetation in Florida Canyon. In terms of active recreation, the Plan retains the existing sports facilities at Morley Field and proposes a soccer field at the Golden Hill area to serve the neighborhood population.



Estrada Plan - 1989

Eastside Precise Plan - 1989

The Eastside Plan contains planning concepts, goals, objectives, and recommendations of the Eastside Task Force, composed of members from Citizens Coordinate for Century 3 and interested area residents. Primary recommendations included the integration of the entire East Area through a program of trails and paths; native revegetation programs and habitat protection; designs for safety and security; enhancement of the appearance of roads, parkland, and facilities; provisions for neighborhood use and facility multiuse; and, the dispersal of parking areas to best serve the facilities.

C. Summary of Planning Precedents

A review of these documents has established design precedents that have either been implemented or planned which will direct the development of the East Mesa Precise Plan. These include:

Facilities Siting:

- Buildings should be in harmony with the natural landscape (Olmsted).
- Activities should establish a relationship with the surrounding community (Bartholomew).
- Buildings should be restricted to their functional uses (Parsons, Estrada).
- East Mesa should serve the local community's recreational needs (Bartholomew, Estrada, Eastside Task Force).
- Free and open park land should be developed for multiuse play (Estrada, Eastside Task Force).

Circulation:

- Pedestrian and vehicular traffic should be separated (Bartholomew, Estrada).
- a A clear definition and flow of vehicular circulation at 28th/Upas/Pershing/Redwood Streets should be developed (Estrada).
- Public access should be increased while the private automobile should be decreased (Estrada).
- Adequate parking that does not intrude on the natural conditions of the Park should be provided (Bartholomew, Estrada).
- a Physical connections between the East and Central Mesas should be provided (Eastside Task Force).
- Florida Drive should be closed between Morley Field Drive and Zoo Place (Halsey, Estrada).

Natural Factors:

- a Florida Canyon should be restored as a riparian area (Bartholomew, Halsey, Estrada).
- Planting should be naturalistic and/or native. (Sessions, Bartholomew, Eastside Task Force).
- Open vistas should be developed and maintained (Parsons, Olmsted, Bartholomew).

- Mesa edges should be left open and trees should follow the canyons (Parsons, Olmsted).
- Wildlife habitat should be promoted and restored (Estrada, Eastside Task Force).

Operations & Maintenance:

- Safety for all users should be inherent in the design (Estrada, Eastside Task Force).
- Standards of quality should be maintained (Estrada, Eastside Task Force).
- Reclaimed water storage and distribution should be provided (Estrada).
- Arizona Landfill should be reclaimed as parkland (Bartholomew, Estrada, Eastside Task Force).

D. Vision for Today

Balboa Park is a veritable museum of recreation, displaying landscapes and facilities that encompass over 120 years of recreation history. How should the East Mesa Precise Plan contribute to this legacy? The answer, perhaps, is all too clear: the Plan should be no more, nor less, than a reflection of its time, of our society's values and ideals towards recreation and the landscape.

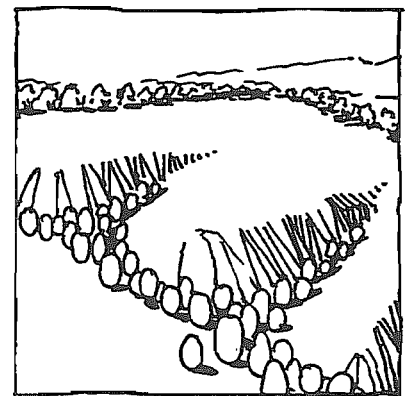
Current Recreation Values and Ideals: "Eco-Vision"

Earth Day, April 11, 1971, marked the beginning of the environmental movement in America. For the design of parks, this event has meant an increasing recognition that nature, as an ecological entity, not merely a romantic ideal, is an integral part of the recreation equation. In the design of the Fens in Boston, an ecological as much as a recreational plan for Boston's Back Bay, Frederick Law Olmsted preceded such vision by nearly a century.

Today, many communities in Southern California are aggressively pursuing the integration of ecology and recreation. Cities in San Diego County, Carlsbad and Escondido for example, have initiated open space plans that establish combined conservation and recreation zones to form integrated open space systems, with comprehensive trail systems being the lifeline of this vision for the public use of the landscape.

In essence, the experience of "nature" is becoming increasingly synonymous with recreation. Plant societies, for example, routinely organize "walks" in native areas to promote the understanding of the indigenous flora. This activity is common in the East Mesa along some of its canyons. People, in effect, are placing value on nature, and ascribing such value on parks and recreation areas. This value, for lack of a better term, can be expressed as an "eco-vision", or the pursuit of an ecological dimension in recreational land uses.

The East Mesa is highly suited to reveal this "eco-vision."



The landforms of the East Mesa are the foundation for a diversity of plant communities.

Nature: Conservation & Enhancement

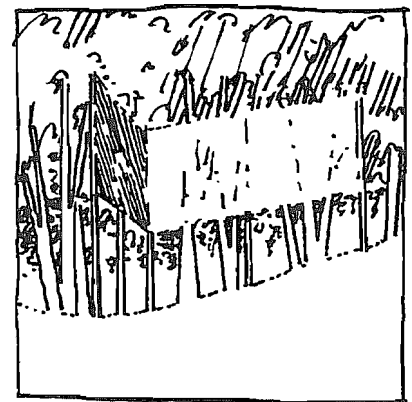
Unlike any other area of the Park, the East Mesa contains indigenous plant communities, principally coastal sage scrub, chaparral, and riparian plants. The value of these communities to the overall vision of recreation for the Park is significant, as they offer a physical means to experience and learn about "nature" within the bounds of a managed, secure, and accessible public park.

The Precise Plan, therefore, strives to conserve, protect and enhance the "natural" value of the site's landscape to the greatest extent possible. This statement is not exclusive to the plant communities. It also applies to the perception of the sky, the earth, the space and the light that comprises the whole landscape.

Culture: Art & Symbolism

"Eco-vision," by definition, is a cultural attitude. Expressing this attitude in the landscape, through art and symbolism, should be as much a charge of the Precise Plan as designing for the enhancement of the object of the attitude - nature.

The Precise Plan, therefore, also strives to reveal and play with the precedents, motives and ideals that have led to the current manifestation of values towards nature. For example, the concern over the health of the planet and as-of-late reverence towards nature has not been gratuitous. It responds to a history of resource exploitation and throwaway, pollution causing consumption. On the East Mesa, the Arizona Landfill is a physical record of such history, having deformed the land, filling a canyon and in its place leaving a flat, barren mesa. The resulting, expansive landscape, however, offers wide and long views of the city and mountains and is suitable for a variety of recreation activities. The Arizona Landfill "mesa," therefore, is as much a real landscape as it is a cultural symbol. There it is, at the center of the Park, the contributing source of a societal attitude towards what the Park should be today. Through art and design, this significance can find relevance in the landscape. Art, however, is not restricted to the landfill, but to all aspects of the cultural and landscape matrix that defines the East Mesa in time and space.

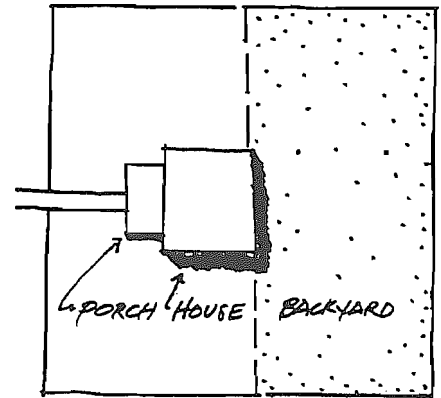


Public art is a cultural response to social and environmental issues.

Balboa Park: San Diego's House of Recreation

Balboa Park functions as a place of recreation at several levels: neighborhood, community, regional, and national/international. The zoo, for example, attracts visitors from abroad, as well as most every region of the country. The cultural facilities on the Prado attract a regional audience. Morley Field, on the other hand, serves the local community while the various tot-lots scattered about the Park serve the residents immediately adjacent to the Park.

The East Mesa should maintain and enhance the Park's ability to serve the widest possible constituency and thus gain additional recognition as one of the country's great urban parks. It should be thought of as San Diego's "House of Recreation." The park is actually zoned much like a house:



The organization of the Park can be thought of in the simple forms of a house.

The Front Yard:

Facing the city and exhibiting expansive, manicured lawn areas, the area of the Park between Sixth Avenue and SR-163 functions like a front yard, clean, open - an ornamental garden.

The Porch:

Cabrillo Bridge, like a porch, functions as the mandatory preamble, the directed approach to the front door of the house. The doorway, complete with a foyer, is the Museum of Man courtyard.

The House:

The various cultural facilities in the Central Mesa act like the rooms in the house, each serving a different, distinctive recreation/cultural function. Like a house, the spaces are not expansive but defined by enclosures, with doorways and windows guiding people from one space to another.

The Backyard:

Every house has a backyard, part for utility, part for play, part for just relaxing, part for talking to the neighbors across the fence. The East Mesa has been the repository of many utilitarian functions that often may not respect the nature of "park", such as the landfill, the Park nursery, and the City Operations Yard. But the East Mesa is also the preeminent domain for fun and play, just like the backyard is valued for the home. The East Mesa should be the place in Balboa Park for relaxed contemplation of the landscape, particularly the rustic areas that showcase the native plants. And, the edge of the East Mesa should be seen as the "fence," the zone of interface between the Park and the neighborhoods, where residents of the immediate area can encounter each other while strolling or playing.

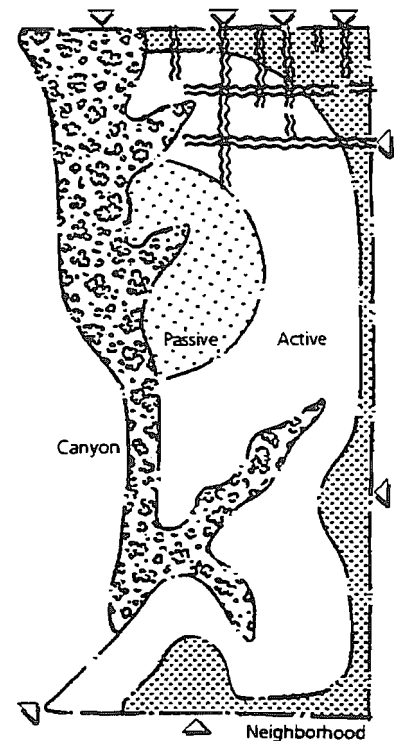
This "backyard", however, has something more, and that is the opportunity to incorporate art as an integral part of its conception and execution. In other words, the East Mesa should be developed as a symbol of itself.

Land Use

The "backyard" should be zoned to offer maximum potential for fun and play, balanced by the need to integrate and enhance the existing landscape resources. The following zones are recommended:

The Canyons:

The canyons offer a unique opportunity to establish a riparian corridor along with corresponding coastal plant communities. The canyons should, therefore, become a "native habitat" zone within the Park, used for environmental education. Trails, interpretive paths and nature displays should be developed in and around the canyons.



Land use Diagram for the East Mesa

Passive Recreation Zone:

The tops of the mesas overlooking the canyons are ideally suited for passive recreation. They enjoy a broad exposure of the Park landscape and the city skyline while the ground is relatively flat for informal play and picnicking.

Active Recreation Zone:

Because this activity is more inwardly focused than passive recreation, the active recreation zone should be located in the mid zone of the Park within easy vehicular access. This zone is divided into two districts - the golf courses and Morley Field; the former being treated as a picturesque landscape, the latter as a formal garden of structured sports fields.

Neighborhood Zone:

This zone corresponds to the edge of the East Mesa. Owing to its adjacency to the surrounding neighborhoods, this zone should be dedicated to family-type activities, tot lots, paths for jogging and strolling and small lawn areas for play.

Entry Nodes:

Entrances to the East Mesa are by way of many different types of roads. Entry nodes are the gateways into the park. A hierarchy of entry nodes respond to the type of road. They serve a variety of functions. Because of their exposure and easy access from the neighboring areas, these nodes should function as neighborhood and community parks, concentrating park facilities like pavilions, restrooms, plazas, and play areas. Also entry nodes must provide informational signage for visitor orientation to the features and facilities of the Park.

Together these zones suggest the distribution of activities and the arrangement of features within the East Mesa.

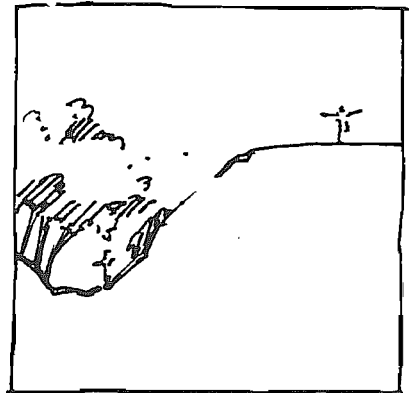
III. ANALYSIS OF THE EAST MESA

Seven issues have been identified as primary concerns for the East Mesa Precise Plan, derived from community input, city staff experience, site observation, and previous documentation. These issues are generalized within topics of Perception, Recreation, Environment, Circulation, Arizona Landfill, Security, and Park Maintenance. Presented as observations, these issues suggest certain opportunities for resolution. Together they form the framework from which planning and design decisions were formulated and recommendations were construed.

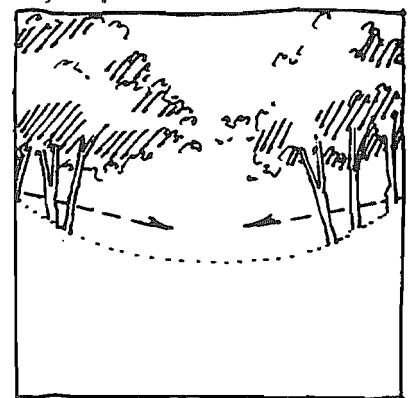
A. PERCEPTION

Many issues are integral to the perception of the Park, from visitor security to the condition and availability of recreation facilities. Perception concerns how the Park is seen and therefore, ultimately used by visitors and neighbors. The East Mesa is generally perceived as a separate and distinct place within Balboa Park, with little influence from the nationally recognized zoo and park facilities of the Central Mesa. This distinction is based upon a number of positive and negative conditions. Positive conditions are exemplified by the spatial diversity and the extent of the mesa/canyon landform. Negative conditions include the impact of non-park uses upon the Park, such as the Naval Hospital and City Operations Station.

Outdoor Experience: The Park is divided into vast open land (landfill, mesas) and enclosed, richly planted canyons, (with exception of the golf courses). It, therefore, provides a diverse range of visual and recreational experiences. Enhancing this diversity, while carefully framing inviting views or screening poor ones, can add to the overall perception of the Park as a unique and distinctive landscape.



The mesa is vast and open while the canyons provide enclosure.

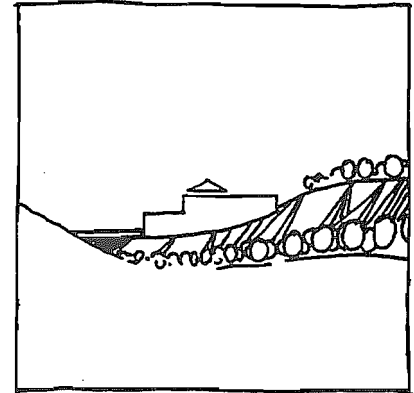


Trees can enclose space.

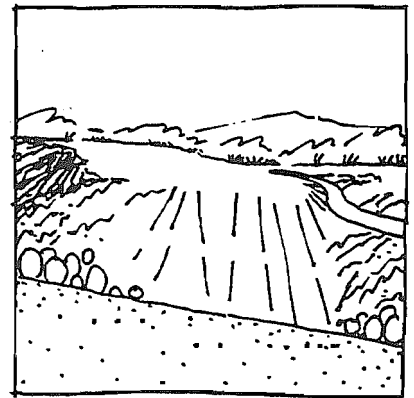
- **Visual Distractions:** Views of the Naval Hospital are distracting within the East Mesa, blocking the distant views of downtown, the Coronado Bridge, and islands. They amplify the incongruous nature of the built hospital and parking within the open parkland. These views should be controlled with landform manipulation and tree groves to redirect views to more positive images. Additional plantings of screen trees along the edge of the hospital property, such as the eucalyptus planted on the slope currently, will aid in the screening.

Looking to the east, views from the Central Mesa to the East Mesa are dominated by the scar of the landfill. However, with revegetation and public art, the landfill site represents a significant opportunity to restore the characteristic mesa view, with wide open spaces and uninterrupted vistas to the background city and distant mountains.

Resolution: The Precise Plan utilizes activities, landscape planting, art and information to enhance the public perception of the East Mesa. Recreation facilities are improved for increased use. Landscape planting is used to organize park spaces and focus significant vistas. A program of public art responds to the social and natural environments. Informational and interpretive signage provides orientation and education to the park visitors.



Views of the Naval Hospital must be screened.



Planting on the face of the landfill is to restore the canyon habitat and minimize the negative visual impact.

VISUAL ANALYSIS

Legend

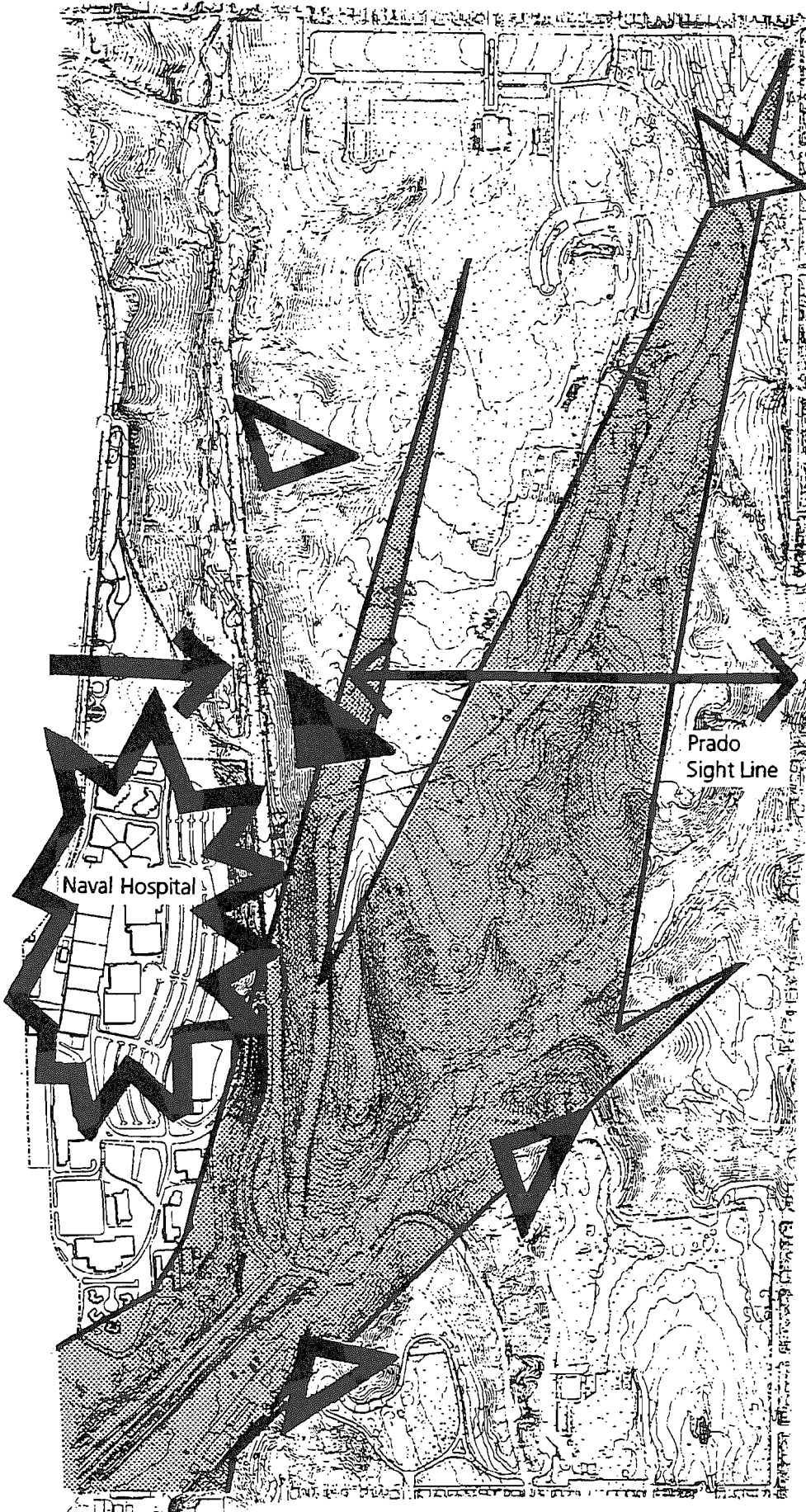
Negative View of Naval Hospital

Slight

Moderate

Severe

View Corridors to Downtown, Coronado Islands



City of San Diego

East Mesa
Precise Plan,
Balboa Park

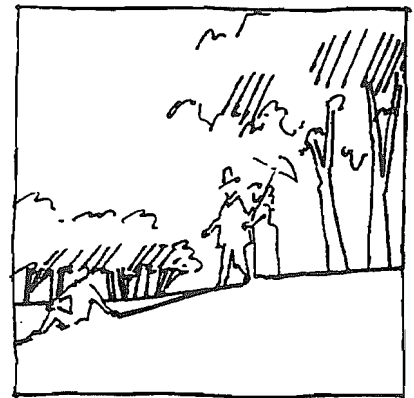
Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner



B. RECREATION

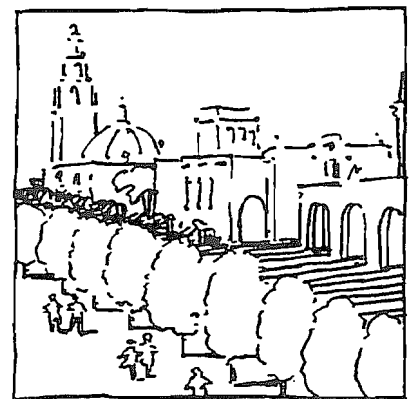
The history of recreation in American parks is well represented throughout Balboa Park. These past trends continue to serve the diversity of Park visitors with a variety of amenities. The East Mesa may be seen to compliment the western half of the Park's national status by providing specific activities for neighborhood, community and regional users as well as introducing attractions such as public art that will be a draw for the national visitor. However the land uses and park facilities must be adjusted to best meet the needs of each group and the area as a whole. The adopted Balboa Park Master Plan has determined that the East Mesa need not provide new space for any special user groups not currently active in the Park. Rather, it encourages the establishment of "free and open parkland" to serve a variety of unstructured uses.

- Historical Patterns:** The history of recreation in the United States through the last century can be defined in four eras, the earliest being the Pleasure Park (1850-1900). Strolling through a manicured park was not only for fresh air, but to be observed by neighbors and friends. The neighborhood edge of the East Mesa is an opportunity to reintroduce the passive activities of strolling, child's play, and "front yard" serenity as well as increased security.



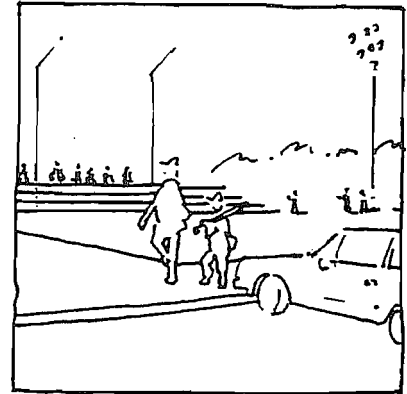
Recreation in the Pleasure Park era

During the Reform Park era (1900-1930), activities were structured so that idle leisure was not encouraged. The expositions built in this period were very popular and adopted the structured, neoclassical forms in their organization. Today, the popularity of the Central Mesa may be shared with the East Mesa. Connections, both physical and visual to the Central Mesa and specifically the Prado, should provide links to the Reform era. New development within the East Mesa can reflect this era with promenades for gathering and viewing recreational activities.



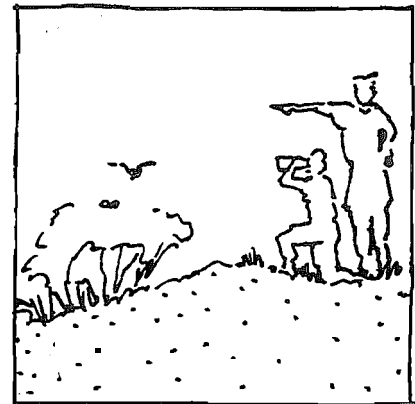
Recreation of the Reform era

During the Leisure Park era (1930-1965), athletics were valued for their social contributions. Great varieties of sports and commercial recreation venues became popular, combined with other nonathletic activities. The Morley Field Athletic Area was built at this time and has proven to be a highly successful, actively used sports facility. Because of its high use, much of the public space is in need of expansion. The maintenance and enhancement of Morley Field and the creation of new locations for active sports should continue the Leisure Park tradition of the East Mesa.

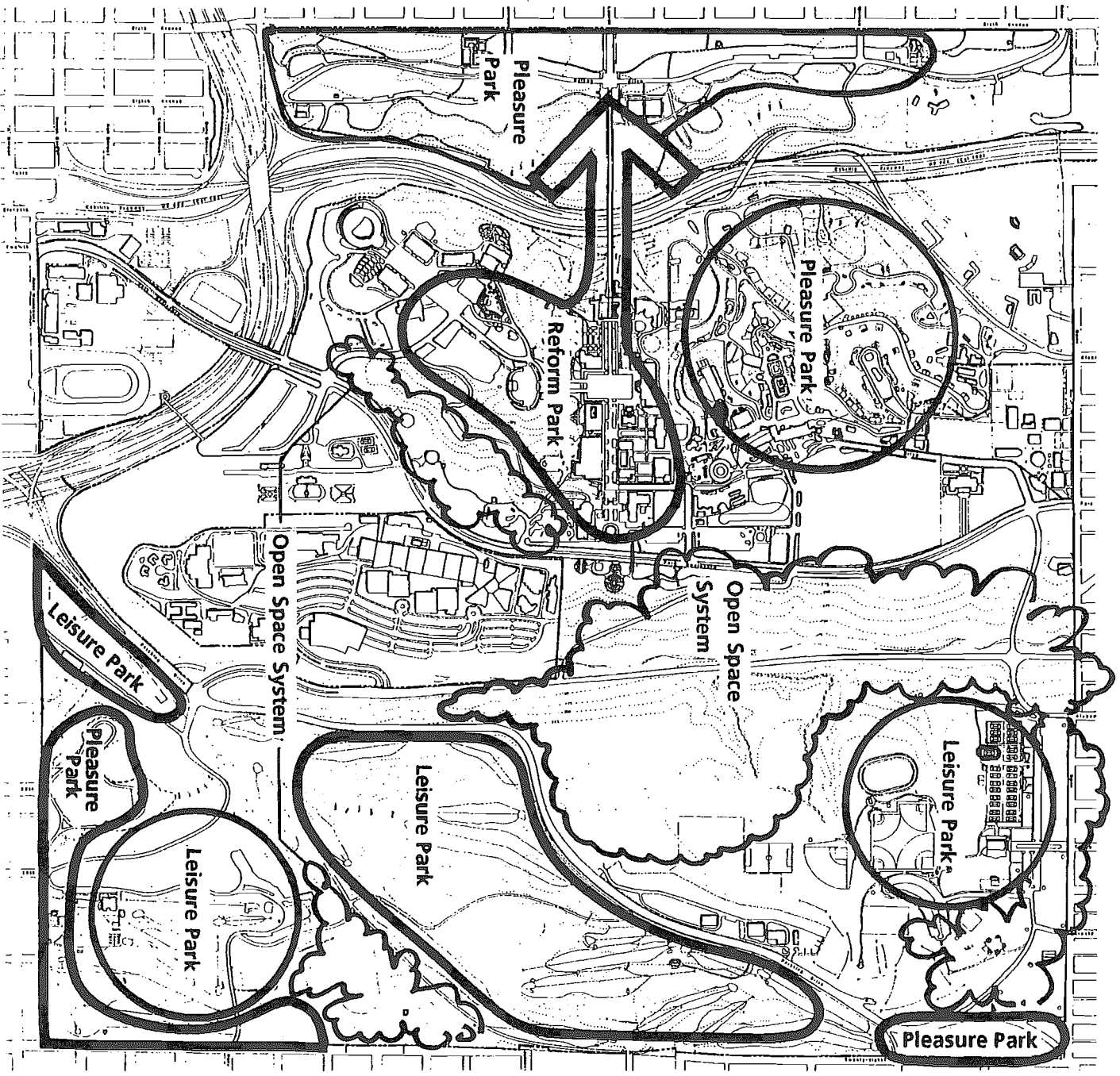


Recreation of the Leisure Park era

Currently, during the era of the Open Space System begun in the 1970s, leisure has emphasized unstructured recreation, from a game of catch to hiking and bird watching. Natural scenery is valued for both its beauty and recreation potential. A new aesthetic has been ascribed to natural areas, as it represents a quality of life to which Southern Californians aspire. Rehabilitating the remnants of the natural areas within East Mesa will enhance a coastal canyon within the heart of the City. As a recreational opportunity and habitat protection area, the canyons can provide education and introduction to the region's environmental values for Park visitors.



Recreation of the Open Space System



FUTURE RECREATION TYPES IN BALBOA PARK

City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

Wallace Roberts & Todd
Noite and Associates
Leighton and Associates
Martha Blane
Christine Catman
Richard Posner

Not to Scale

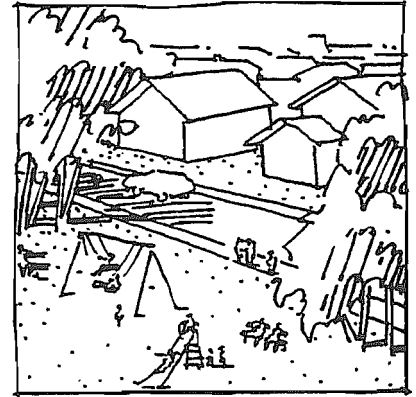
- **Neighborhood Users:** Balboa Park serves a variety of user groups and functions within the city. The San Diego General Plan's Park and Recreation Element standards serve as planning guidelines which suggest that every city resident should be within 1/2 mile of a neighborhood park.

The East Mesa, through the Neighborhood Zone, Grape Street Park, and Golden Hill Park provides the needed neighborhood park space for the developed residential areas in the North Park and Golden Hill Communities. By enhancing these areas with additional neighborhood facilities such as playgrounds, open lawns, revegetation, and picnic facilities additional benefits can be provided to the neighborhood.

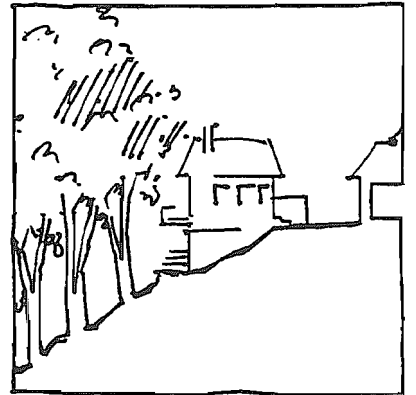
Neighborhood park use should be encouraged with local serving park facilities along the park's edges, including children's play areas, drinking fountains, and picnic facilities. A consistent level of landscape and a system of paths can unify the perimeter.

However, continuous access is limited along the east and south edge of the Park by the steep topography and the incomplete system of public streets. Many homes back onto the Park serving as a barrier for the entire community.

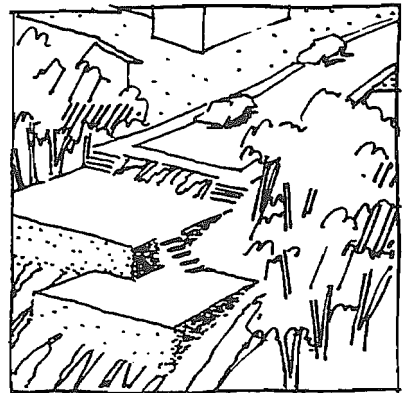
To enhance public access where it is available, extensions of the public streets as small porches onto the Park should be provided. North/south trails should connect the various portions currently excluded from pedestrians. These trails should be shared between pedestrian and recreational cyclists, utilizing bridges to cross over steep topography to connect the fragmented recreational facilities into a functional system.



The Neighborhood Park Zone offers recreation activities within walking distance from the adjacent community.

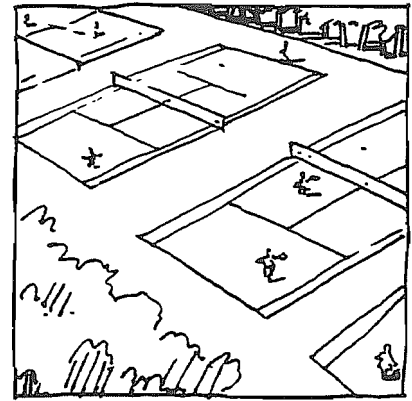


Many homes back upon the park



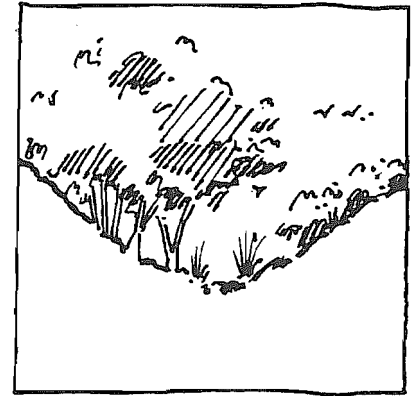
Neighborhood 'porches' provide an interface with the park.

- Community Users:** The East Mesa also serves as a "Community Park" within the standards set by the General Plan. The City has suggested that every city resident should be within 1 1/2 miles of community park facilities. These include a wide variety of facilities to supplement those of the neighborhood parks, such as athletic fields, multipurpose or single purpose courts, picnic facilities, playgrounds, recreation buildings, swimming pools, and similar facilities. Currently the Morley Field Area and the Golden Hill Recreation Center serve community users from a wider range than the adjacent neighborhood. These facilities, with enhancement, will further serve the role of the Community Park for the surrounding area.



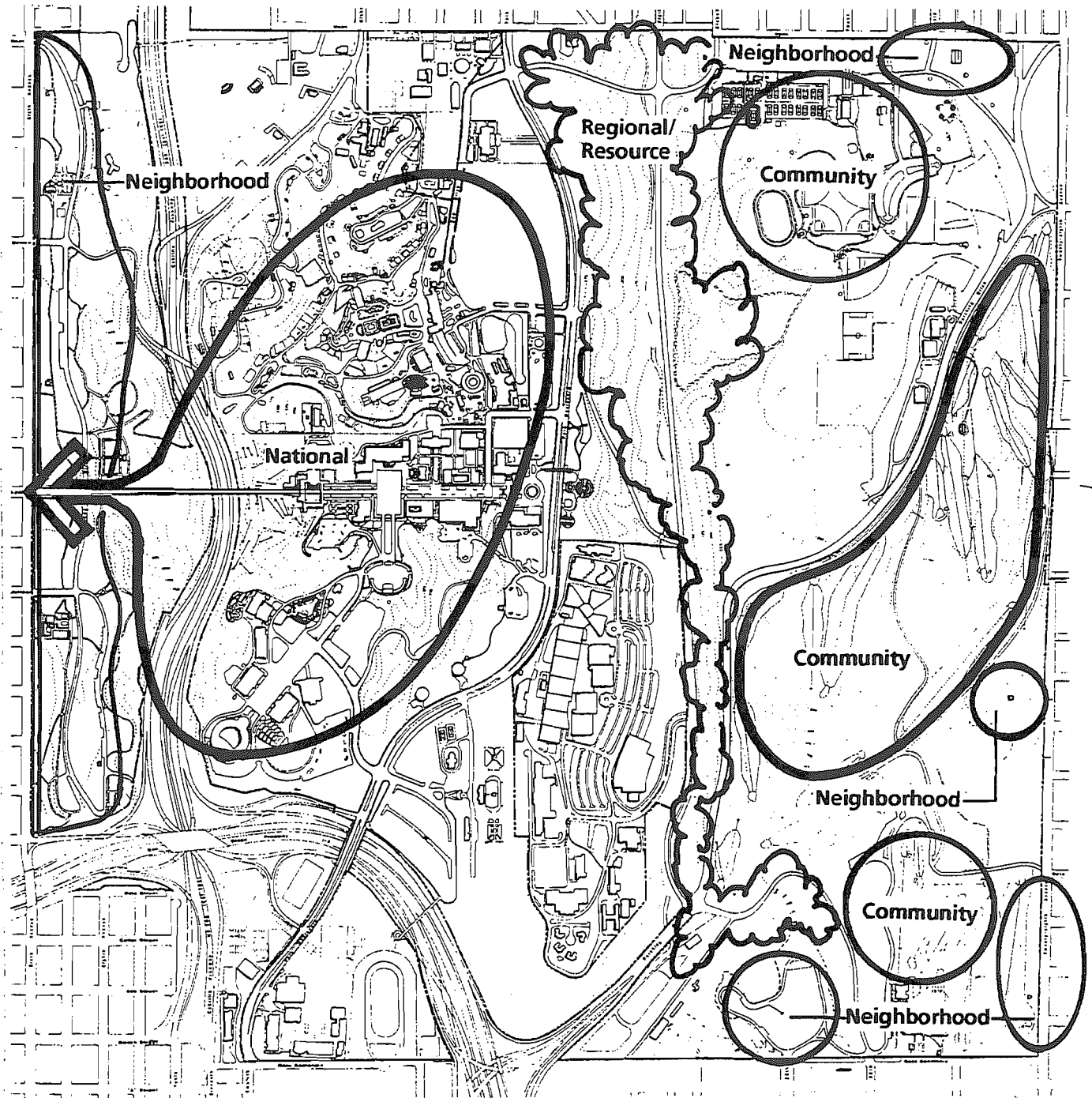
The sports facilities of the East Mesa serve the community.

- Regional Users:** The City is also committed to providing "Regional/Resource Based Parks." As stated in the General Plan, these parks do not have specific service area requirements. Rather, they are located at distinctive scenic, natural or cultural features and are intended for citywide use. Their size and facility development is determined by the specifics of the resource and its ability to accommodate recreation. Within the East Mesa, Florida Canyon and the Mesa provide a unique opportunity to reestablish the canyon/mesa natural environment that was once prevalent in San Diego County so that this area may also serve as a Resource Based Park.



The natural features of the East Mesa offer recreation for the greater region.

- National Users:** Balboa Park is unique in that it is nationally and internationally recognized for its park amenities. The Zoo and Prado draw visitors from around the world, establishing Balboa Park as a nationally significant recreational draw. However, this national prestige does not currently continue to the East Mesa. Two conditions impede national significance for the East Mesa - the lack of attracting uses and the degree of park improvements. With the potential for major public art works and continuing environmental art exhibits which incorporate the powerful landscape, national recognition could be ascribed to the East Mesa. When coupled with significant improvements to the landscape and pedestrian connections from the Prado, the East Mesa will suddenly be a draw for all types of park visitors.



EXISTING VISITOR TYPES IN BALBOA PARK

City of San Diego

East Mesa Precise Plan, Balboa Park

Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner

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Not to Scale

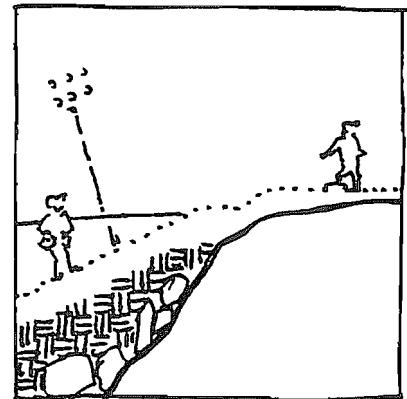
- **Facilities:** Many of the East Mesa facilities are undersized or outdated for their current level of use. Others are sited in a manner that conflicts with views, the landfill, or other activities.

The facilities of the Balboa Park Tennis Center and the Park and Recreation Department are crowded in three small older buildings. These facilities can be incorporated in one centralized building with modern improvements which provides a patio for gathering, viewing, and special events.

The existing velodrome contrasts with the otherwise natural canyon edge and blocks the visual access to the finger canyon. Its presence infringes upon the Central Mesa's views of natural canyons. Contention currently is found between different sporting activities, as well. The velodrome's desires for adjacent parking and drop-offs compete with the contiguous ballfields and play areas. Tournaments interfere with exhibitions causing chaos in pedestrian circulation and passive play. To ameliorate these conflicts, the velodrome should be relocated to an area with ample parking and access, where its structure would not interfere with the native topography and where night lighting and amplified sound would not be intrusive to the surrounding land uses.

Structured activities located on the landfill fringes, such as the fly casting pond, the former soccer field, and the City College baseball field, have exhibited differential settling of the ground surface that restricts and reduces their use, increases maintenance expenditures, and causes interference with the irrigation systems. Relocating these facilities to solid ground is necessary for long term operational efficiencies. The City Operations Station can accommodate the dimensions of the soccer field, while the baseball field and casting pool should be repositioned within Morley Field.

The Balboa Park Golf Courses provide recreation for a variety of users and is specifically attractive to senior citizens and younger golfers of the community. The course, however, lacks sufficient space for parking and clubhouse activities, maintenance and rental services. The restaurant lacks sufficient capacity to serve



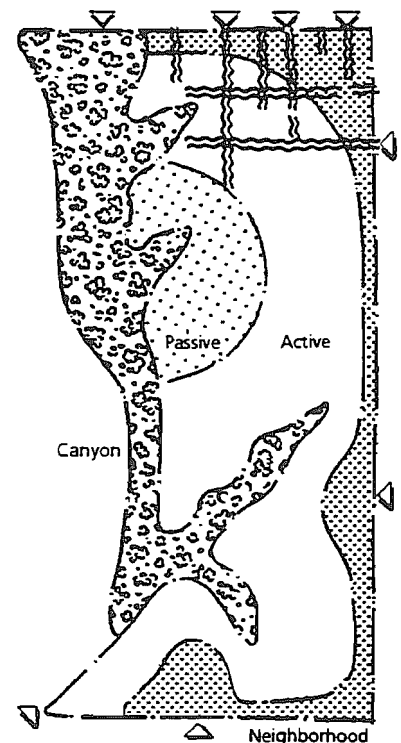
Differential settling of the landfill has damaged structures.

golf tournaments and men's and women's club functions. The nine-hole course, by nature of its alignment, infringes into the neighborhood park zone, creating a discontinuous band along 28th Street at Ash Street. Through-traffic using Golf Course Drive as a connection between Downtown and the Golden Hill neighborhood has endangered golfers crossing between parking lots, the clubhouse, and the first tee.

Expansion of the parking can take place in its present location southwest of the clubhouse by regrading and constructing low retaining walls. With the relocation of the sod farm to the Park Nursery, additional parking area is available east of the clubhouse. The landfill immediately adjacent to the lot can be converted to a chipping practice area accessible by stairs from the parking lot. The clubhouse should be enlarged or reconstructed, retaining its architectural character. The practice putting green and driving range could remain in their existing locations adjacent to the clubhouse.

Resolution: Each of the historical recreation eras introduced important aspects of public recreation to Balboa Park which are valid both today and into the future. The inventory of current visitor types on the East Mesa identifies recreation interests that parallel those of the historical eras. The East Mesa Precise Plan delineates areas for each type of recreation. The Precise Plan defines the Neighborhood Park Zone around the outer perimeter of the East Mesa with the zones for community, regional and nationally recognized recreation facilities to be enhanced within the park.

The Park facilities which have been identified as inadequate for the current activities or for future growth have been redesigned in the Precise Plan. Those facilities whose current location conflicts with a higher and better use are relocated within the East Mesa. The Precise Plan designates 'park' only uses concentrating on recreational and open space amenities.



.and Use Zones for the Precise Plan

C. ENVIRONMENT

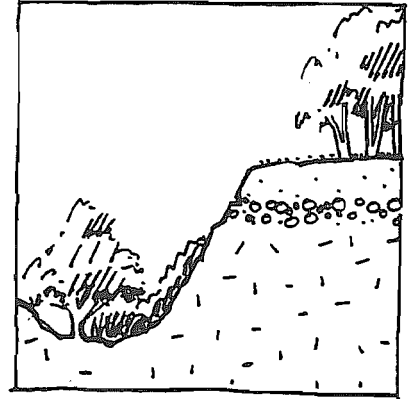
Florida Canyon and Switzer Canyon contain remnants of San Diego's native habitat. The plants and animals of the Coastal Sage Scrub and Chaparral ecosystems were once prevalent in the region but now are limited by San Diego's expansion. The public's appreciation of native habitat has increased corresponding to the natural area's decline.

The canyons of the East Mesa can be revegetated to represent their native condition. The desire for educational opportunities is strong, indicating a commitment to support such programs and value the native landscape for its special beauty.

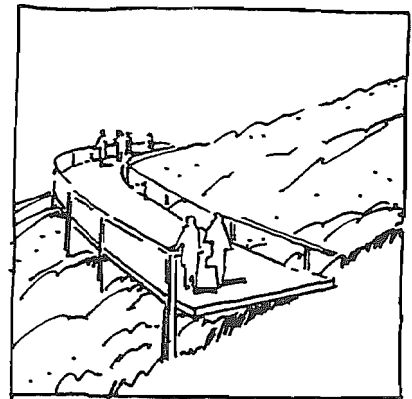
However, the natural ecosystem is fragile and, therefore, requires careful design, construction, and ongoing management. Biologists have stated that, for habitat value, natural areas must be physically linked to provide the plants and animals the needed area for diversity, migration, and survival. This requires lifting barriers such as roads or providing grade separated crossings under roadways. The interpretive opportunities of a living native habitat fit well with the Park's museum and educational programs.

In addition to the natural areas, other vegetation stands within the East Mesa provide environmental value. The live oak grove along 26th Street, although planted nearly one hundred years ago, has assumed the characteristics of a native stand, complete with established seedlings in the understory. Here the man-made environment has taken on the functions of the natural environment and serves to educate the Park visitors about the California Live Oak.

As the basis for the Precise Plan's "eco-vision," the natural environment determines the ultimate form, distribution, and opportunities within the East Mesa.

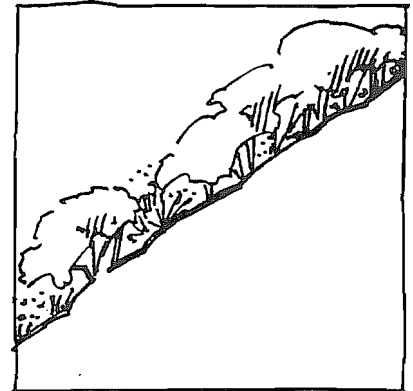


The structure of the East Mesa is of mesa tops, canyon slopes and valley floors.



Raised walkways eliminate wildlife barriers and promote easy viewing.

- Habitat:** The native habitat of the East Mesa is an important component of the Park, yet it is fragile and easily disturbed by human intrusion. Florida Canyon and Switzer Canyon contain the largest concentrations of representative native species although remnants of riparian corridors, oak woodlands, coastal sage scrub, and chaparral are found throughout the East Mesa. The California gnatcatcher, a candidate for the rare and endangered species list, has been spotted in the coastal sage scrub. However, much of the area suffers from extreme human disturbance, limiting the habitat potential.



Shrubs on the canyon slopes are a valuable habitat.

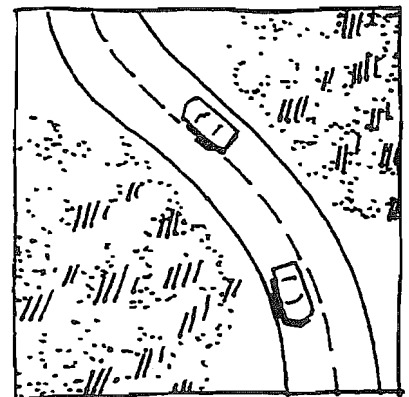
Although habitat is cut off from the network of the wider region's canyons and natural areas, it is yet a symbolic remnant worthy of restoration and interpretation. To function as an independent system, native plant communities should be reestablished in a consistent manner and linked for biodiversity. The canyon's slopes are naturally covered with dense chaparral and coastal sage scrub. These plants shelter a variety of small animals. By limiting intrusion by man and domestic pets, this wildlife can maintain its natural balance.



Restore the native habitat of plants and animals in Florida Canyon.

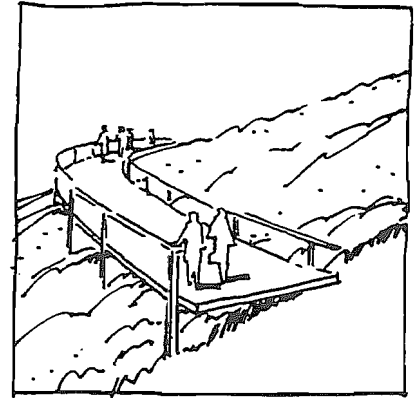
Water availability is as important to habitat as is food and shelter. Intermittent streams run through the floor of Florida and Switzer Canyons which supply water to a riparian ecosystem. By removing roads, inappropriate culverts and introduced vegetation, the streams can be restored to a more natural system.

The decline of the native habitat's biodiversity may be due to the division of the area by streets and park development which isolates plants and animals thereby reducing the ability of species to thrive and reproduce. Bridges can be constructed for pedestrians and bicyclists over native habitat area to allow partial restoration of the system. Culverts under roadways can allow for migration corridors to be continuous and uninterrupted.



The native plants and animals are negatively impacted by roads dividing the habitat.

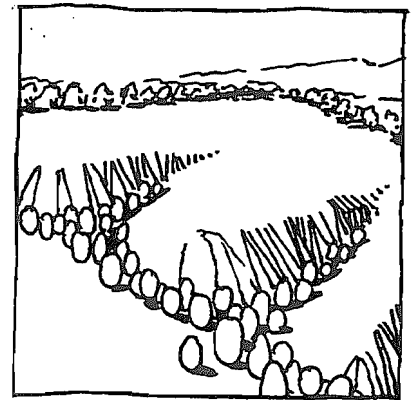
The native system of plants and animals are threatened by the invasion of exotic plants and domestic animals, as well as by the inappropriate use. Paths, in the form of a boardwalk, would protect the sensitive habitat by keeping visitors on specific trails and reducing the disturbance to the plants and soil, while providing access and educational interpretation to park users.



Trails must be constructed so as not to disturb sensitive habitat.

- Climate:** San Diego's Mediterranean climate has drawn many people to the region, even though technically the amount of local rainfall would not support a large population without imported water. This population came to expect the lush, verdant landscape reminiscent of areas with higher rainfall. In the recent years, water consciousness has become a recognized public concern as conservation methods are employed to reduce our dependency on imported resources.

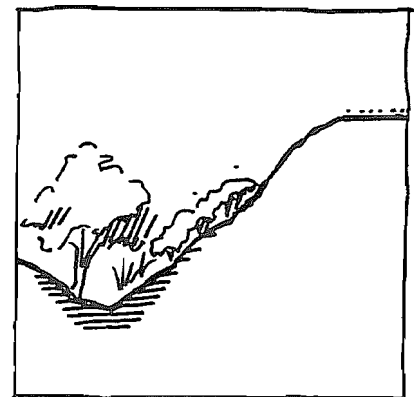
Reclaimed water is to be brought to the park for irrigation as well as for aesthetic purposes such as decorative fountains or ponds, and for recreational purposes such as the flycasting pond. The water will be stored on the East Mesa in an underground tank and will be distributed throughout the entire Park. The existing irrigation system will need to be retrofitted for use as a reclaimed water system.



The landforms and vegetation of the East Mesa.

In spite of the availability of reclaimed water, new plantings should respond to low water demand characteristics to reduce runoff into natural areas and to diminish risk of damage from concentrated salts.

Historically bodies of water were impounded in the lowest end of East Mesa (currently the City Operations Station) prior to flood control channelization. With the availability of reclaimed water, opportunities exist to create open bodies of water for fly fishing, model boats, and visual enjoyment.



The use of reclaimed water must be carefully managed.



EXISTING VEGETATION

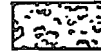
Legend



Canopy Trees,
Eucalyptus



Chaparral and
Coastal Sage Scrub



Oak Grove



Riparian Area

City of San Diego




**East Mesa
Precise Plan,
Balboa Park**

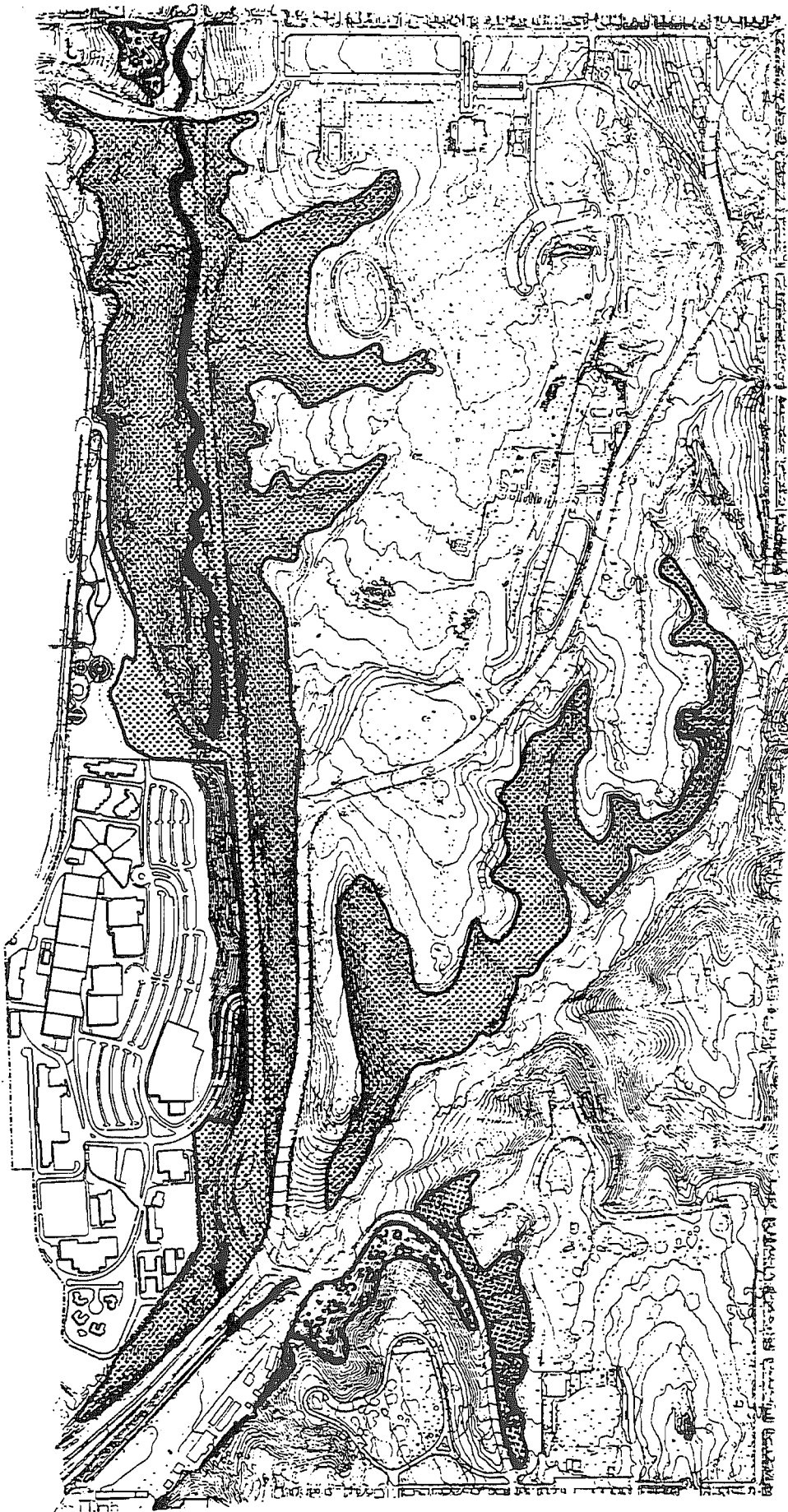
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Martha Blane
Christine Oatman
Richard Posner



HABITAT RESTORATION OPPORTUNITIES

Legend

-  Chaparral and Coastal Sage Scrub
-  Riparian
-  Oak Groves



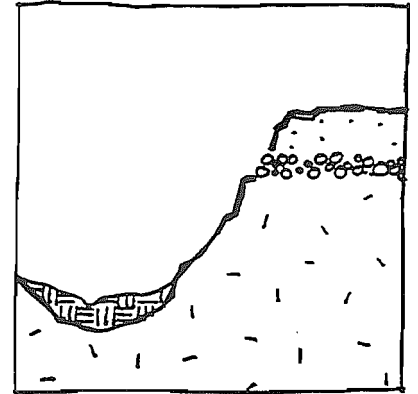
City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

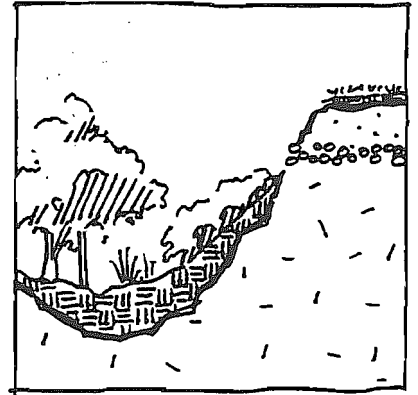
Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner



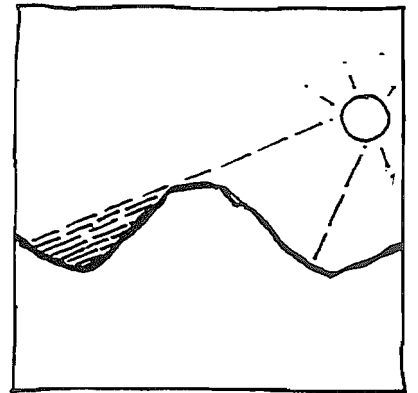
- Landform:** The physiography of the Park contributes to its functionality as well as to its character. The surface geology consists of sedimentary layers of various types illustrating the geornorphic history of the park and the San Diego region. These layers of sandstones, interspersed with color, give a rich texture to the canyon walls. Frequently cobbles, historically deposited by marine sedimentation, are exposed in the layers. These cobbles have provided basic building materials for park and neighborhood foundations and walls, in the Craftsman tradition.



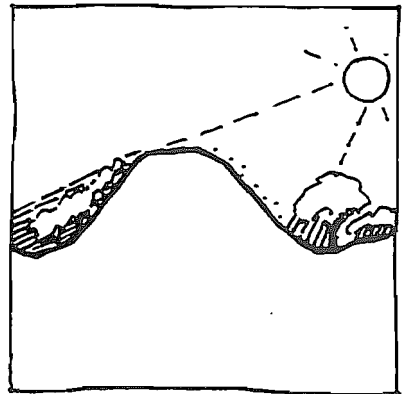
Within the canyon floors, the soil is richest, where it has accumulated from alluvial processes over time. In these protected areas with deep soils and concentrations of water, riparian vegetation is able to develop. By contrast, the soil on the surrounding slopes is very thin and fragile. It is easily eroded when cut steeply, resulting in barren slopes. However, it too supports hearty native species that thrive with less water, including chaparral and coastal sage scrub.



Coupled with the soil types, the slope of the land and its aspect to the sun and seasonal rains form a complex framework of microclimatic conditions. South facing slopes endure the drying heat and winds while north facing slopes are spared the intense sun. Cold air accumulates in the bottoms of the canyons and flows along the drainage patterns.



Vegetation: The native vegetation, as a result of these micro-climatic conditions, is highly defined with species on the southwest facing slopes that are very tolerant to dry conditions. The availability of shade and moisture, however minute, can alter those species found on the northeast facing slopes.



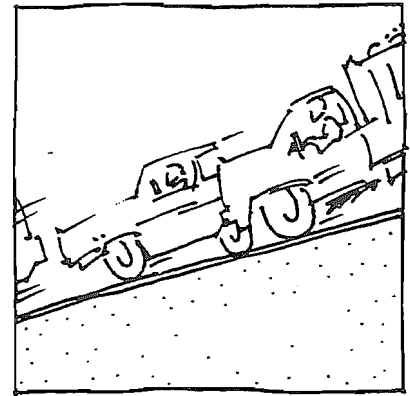
The strong landforms and vegetation patterns should be reinforced with any new development, rather than modified beyond recognition. Grading should be minimized to that which is necessary to protect health and safety yet still provide recreational opportunities. Vegetation patterns both in the natural and developed areas of the Park should respond to the slope, aspect, and the geology of the location.

Resolution: The Park's native habitat contains a number of individual communities which interact creating a natural, living system. The entire East Mesa can be addressed as a botanical garden. Unlike the typical botanical garden which separates individual species for illustration purposes, the entire East Mesa can be viewed as an ecosystem. Visitors may explore each community to gain an understanding of the whole system and their interrelationships. New plantings can replicate the natural biodiversity rather than be displayed in a "museum". The Park Nursery can open up portions of its operations to instruct the public on the value of revegetation, historical landscapes, and the importance of the Park's landscape.

The environment of the East Mesa becomes a key component of the Park's unique character and establishes the direction of detailed design for the Precise Plan.

D. CIRCULATION

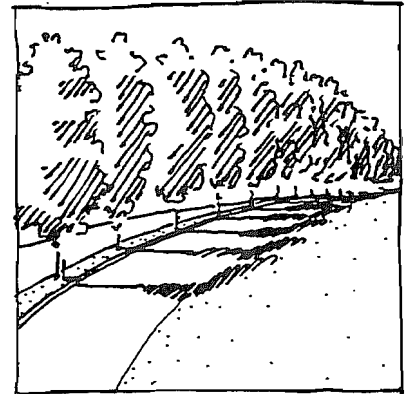
The circulation of automobiles, pedestrians, and bicycles through and around the Park affects each of the other issues. Many safety concerns related to automobile traffic exist which can be minimized with realignment of roads and the inclusion of trails. Parking should be maintained at the periphery adjacent to roads for easy access and where it does not compete with parkland. New paths should be made to efficiently connect park uses. The East Mesa circulation should serve park users first, not commuters.



High speeds of auto traffic are a safety concern to pedestrians, bicyclists and wildlife.

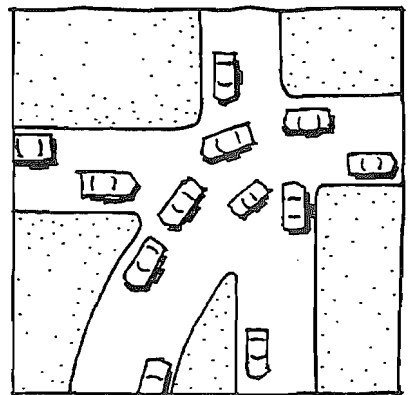
- **Streets and Intersections:** Pershing Drive, Florida Drive and other roads on the East Mesa are used by regional commuters accessing downtown rather than exclusively by park users. While these roads are required for citywide circulation, they could be treated to reflect the character of the Park.

Pershing Drive can be viewed as a landscaped parkway and renamed as such. This should include a tree lined median, separated travelways, pedestrian paths and bikeways, and controlled intersections. Traffic safety would be enhanced by the separation of vehicular traffic which is forced to travel at slower speeds.

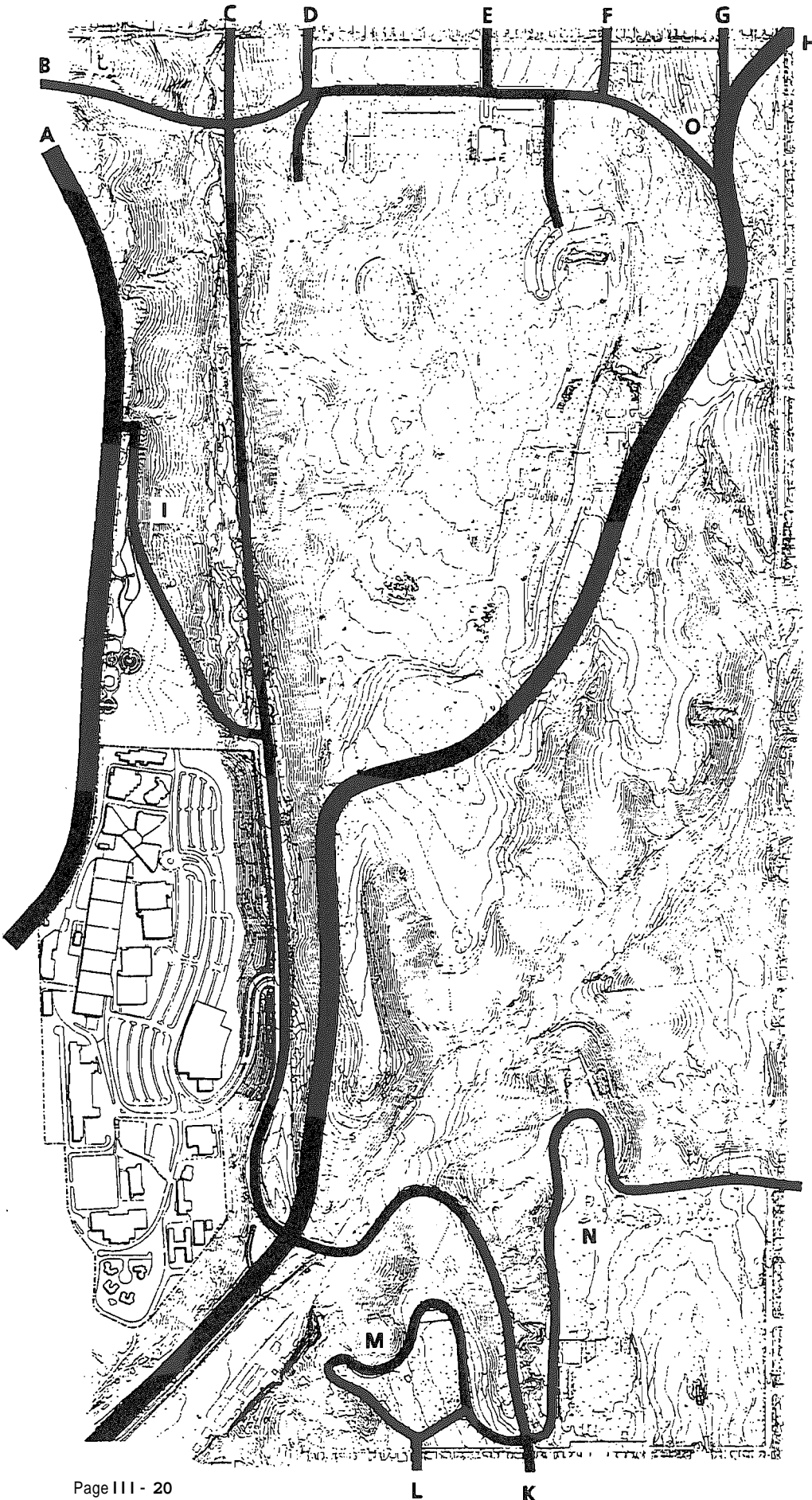


Tree lined medians should be installed along park roads.

A number of nonstandard city streets and intersections exist within the East Mesa causing safety concerns to automobiles, pedestrians and cyclists. Views of oncoming traffic are hindered at Jacaranda Place and Pershing Drive and at the Pershing/Upas/28th Street intersection. With other park improvements, intersections could be redesigned and/or traffic flow modifications put in place. New intersections should meet City design standards in terms of sight distance from adjacent intersections, vertical alignment and intersection offsets. New intersections at right angles will provide safer conditions for traffic and pedestrians.



The angles of the intersection at 28th and Upas cause a safety hazard.



EXISTING AUTOMOBILE CIRCULATION

Legend

- A. Park Blvd.
- B. Morley Field Dr.
- C. Florida Canyon Dr.
- D. Alabama St.
- E. Texas St.
- F. Arnold St.
- G. Pershing Ave.
- H. Pershing Dr.
- I. Zoo Place
- J. Date St.
- K. 26th St.
- L. 25th St.
- M. Golden Hill Dr.
- N. Golf Course Dr.
- O. Jacaranda Place

See Appendix F

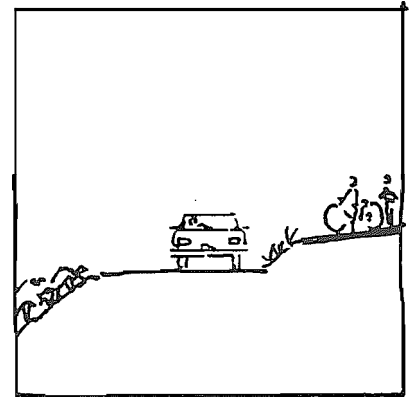
City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner



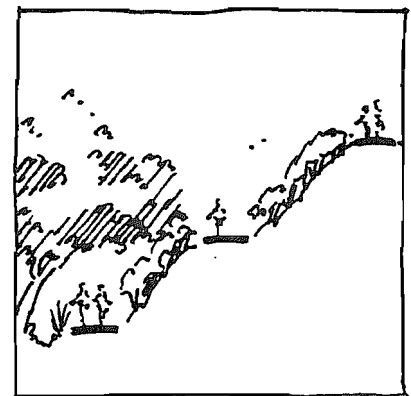
- Pedestrians and Bicyclists:** Pedestrian and bicycle connections to the Central Mesa, Golden Hill, and Inspiration Point are currently incomplete, broken by streets and undeveloped park land. The lack of paths discourage pedestrians and cyclists from using the East Mesa. Those that do frequently use the Park roads or cut across native vegetation. New pedestrian/bicycle bridges can span traffic hazards and steep topography uniting the land uses between the East Mesa and Inspiration Point and providing a gateway to the Park. Opportunities exist for pedestrian bridges over Florida Canyon and Switzer Canyon to tie activities in a similar manner.



Pedestrian/bicycle paths must be provided with safe road crossings.

Pedestrian/bicycle paths should take advantage of the many spatial and topographical features of the East Mesa including the vistas experienced from the edges of the mesa and the native habitats along the slopes and in the riparian stream bed.

However, paths around the perimeter of the golf courses must not disturb the players nor adjacent residents. For safety, dogs are restricted from the golf course and natural areas, and required to be on a leash at all times in other areas.



Pedestrian/bicycle paths should provide access to all areas of the park.

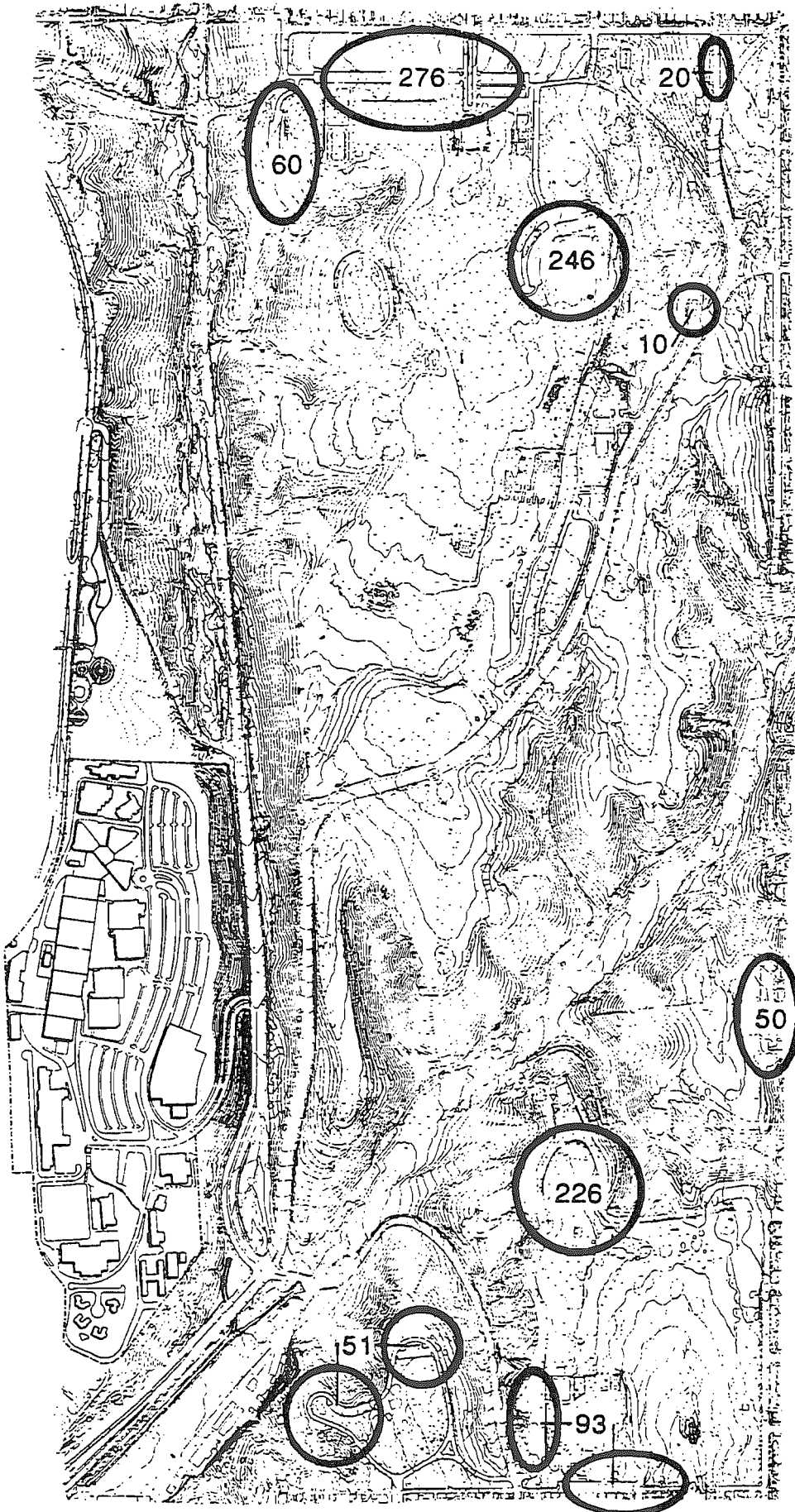
- Parking:** Parking is often inaccessible or insufficient for the facilities served. Currently the East Mesa provides parking for over 1000 cars, yet the Golf Course, Golden Hill Recreation Center and portions of Morley Field exhibit overcrowding on a regular basis. With the addition of new facilities, parking must be increased proportionately to meet the demand and satisfy existing needs. New parking areas should be dispersed along park roads, distributing them closer to activities while maintaining them at the perimeter of the active parkland.

Resolution: The Precise Plan reorganizes the automobile circulation and parking on the East Mesa, providing greater access and safety. A new network of pedestrian/bicycle paths extends throughout the area, creating service to previously inaccessible areas. It is designed to provide recreation for a range of interests and physical abilities.

EXISTING PUBLIC PARKING

Legend

Number of Spaces



City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

Wallace Roberts & Todd
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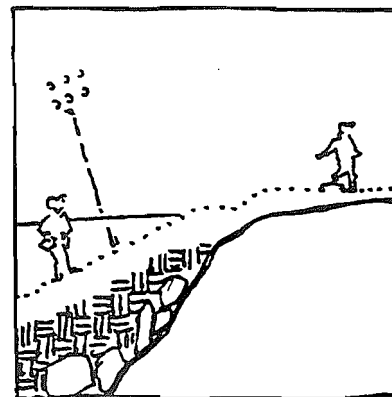


E. ARIZONA LANDFILL

The Arizona Landfill points to a questionable past of political decisions and public will to dump garbage in the city's premier public park. Past master plans have justified the landfill as creating usable parkland and the future may find it a valuable resource. But now it is considered a deplorable mistake. Uses currently on the landfill have been severely constrained or eliminated because of existing and potential problems. The creation of parkland on the surface of the landfill must provide for the undeterminable settling of the ground surface, the presence of toxic gases, and the incompatibility of irrigation infiltration. Technology provides methods for working with these given conditions, with a corresponding associated cost factor. The approved Master Plan calls for landscape planting on much of the area of the landfill. This goal requires that the landfill is properly closed with an impermeable cap and drainage system. The surface above the landfill, as an expansion of the open mesa, should provide for a variety of "free and open park" uses.

- **Landfill Closure:** Arizona Landfill restricts park use due to its lack of closure, irregular settlement of the ground surface, the potential concentration of toxic gases, and its current inability to sustain a vegetated cover.

The current landfill closure plan suggests an 8 foot compacted dirt cap that should not be irrigated or planted with materials other than nonirrigated grasses or groundcovers. Any conversion to a more vegetated parkland would require site specific testing to assure that the soil provided meets the criteria for plant growth without infiltration of irrigation water. Areas that do not meet this criteria would need additional fill and topsoil, a complete drainage system, and an impermeable seal.



Irregular settlement of landfill affects the ground surface and infrastructure.

F. SECURITY

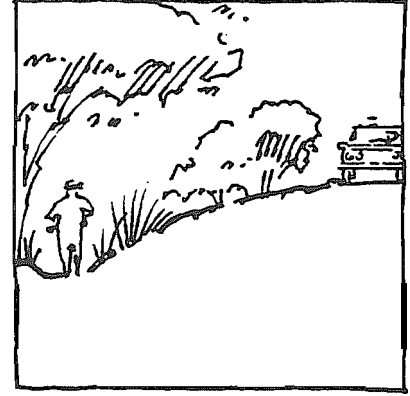
The safety of visitors to the Park is tantamount to the goals of the City. Security measures touch all aspects of the Park. Simple principles of security should be followed, from increasing the quantity of legitimate park users throughout the Park to providing access and visibility for patrol teams. These principles incorporate pedestrian/bicycle paths that double as security patrol routes, lighting to provide surveillance, and emergency measures for assistance.

- **Activity:** The Park does not appear safe or secure to park visitors. For example, the lack of structured activity in many areas of the East Mesa allows inappropriate use of the Park and discourages the legitimate user.

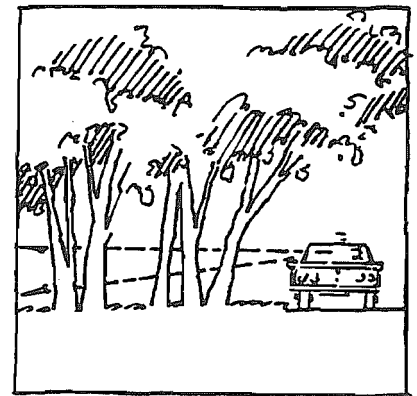
When the East Mesa's developments and improvements are complete, providing park functions and access to each area, more legitimate visitors should be drawn to the Park. This increased activity should discourage inappropriate uses and establish informal surveillance.

- **Visibility:** Surveillance is often obscured by the landform and dense plants throughout the East Mesa. This is of special concern in the isolated canyons with compact, natural vegetation away from roads or wide trails. Vehicular access to the East Mesa's remote areas is inadequate for security patrols or to keep "eyes" on the Park.

Control of the vegetation and specific design criteria for new planting will aid in security provisions. Plants must be located and maintained so not to limit patrol surveillance. As the native plants in the canyons are very sensitive to pruning, paths should be elevated above the natural areas to allow visibility and access for the patrols.

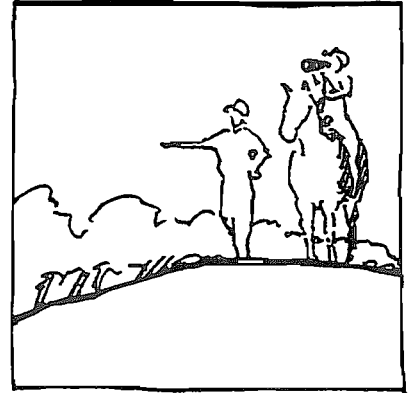


Many areas of the East Mesa are unpatrolled.



Visibility through the East Mesa is a key to the security.

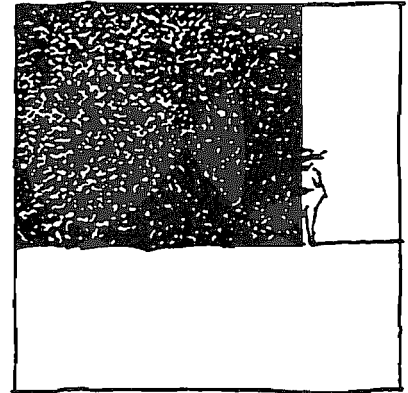
In addition to increased police patrols, a "neighborhood watch" program should involve citizen volunteers to travel through the Park daily and report inappropriate activities. These can be assisted by the provision of emergency phones, call-boxes, or panic buttons in remote areas, parking lots, and restrooms for increased security and emergency help.



The paths should be used for vehicular or equestrian access for maintenance and security patrol.

Lighting: Current park lighting is often ineffective. The existing fixtures along park trails often serve only as decorative lighting. Light should be directed to specific areas for visitor security and to deter vandalism. In some cases, incorrect placement of lighting has caused an attractive nuisance to neighboring homes and the Central Mesa.

Currently, under separate contract with the Park and Recreation Department, an electrical engineering consultant is preparing a Master Lighting Plan for the entire Balboa Park, which is to be completed in **1994**. Early implementation of the Lighting Plan's recommendations should provide the East Mesa with adequate lighting for security.



The lighting of park facilities must consider the issues of security.

Resolution: Security programs require first phase implementation in order to provide a safe, attractive park for a variety of users. Each of these programs involves close coordination with the San Diego Police Department, as well as participation with the Park and Recreation Department staff, Park Rangers, park visitors and residents of the adjacent neighborhoods. A communications system should be installed for immediate response by the authorities.

G. PARK MAINTENANCE

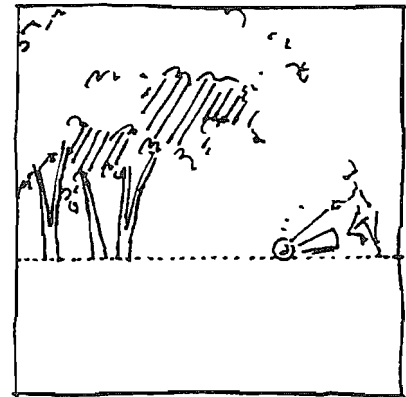
The ongoing manageability of park maintenance is key to the success of the Park. The physical limitations of budget, staff, and equipment must be considered in every step of the design process from the layout of paths to the plants selected. For example, paths that allow visitors access to each area of the Park may be designed to also carry patrol vehicles and transport maintenance trucks.

- **Access:** Maintenance resources for the Park must be efficiently utilized. Currently access for maintenance vehicles is limited by the existing surface roads. The secured park maintenance storage of the Pershing Service Yard infringes upon potential activity areas and contrasts the open landscape with security fences. With the relocation of the City Operations Station, park maintenance vehicles can be staged at the 20th & B Street site, outside of the park boundaries.

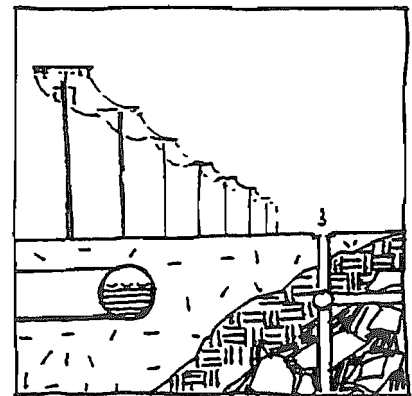
- **Facilities:** Many of the East Mesa's facilities are in need of repair and extensive maintenance. Although they are receiving a constant level of effort, funding has reduced its effectiveness. Other structures such as Kern's Pool is approaching its useful lifespan. With the construction of new facilities, some of today's operational deficiencies can be improved. However, the development of new parkland, facilities, and structures will require a substantial increase in maintenance staff and operational budgets to serve the Park at an acceptable standard.

- **Infrastructure:** Existing infrastructure crisscrosses the East Mesa providing services to the Park, as well as the surrounding neighborhoods. Large utility lines are costly to relocate. New utilities will be necessary for reclaimed water distribution and future improvements.

Resolution: The requirements for effective park maintenance are addressed specifically for each area of the Precise Plan. The canyons are of special concern to ensure the removal of garbage and hazardous materials, as well as monitoring the revegetation process.



Native plants, xeriscape and unmowed meadows can decrease maintenance requirements. Citizen participation can increase staff resources.



A piping system of reclaimed water is provided as areas are retrofitted and upgraded. Coordination with other agencies allows for joint improvements.

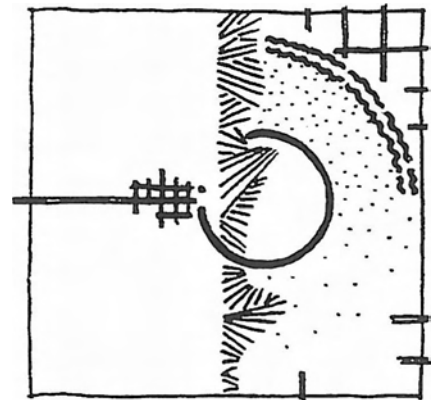
I V. DESIGN CONCEPT

A. OVERVIEW

The design for the East Mesa is inspired by two basic perceptions: that the experience of "nature" within an urban park is increasingly more desirable and valuable as a recreation activity (the "eco-vision" of recreation); and that the Park, as a recreation venue, must serve four tiers of users, neighborhood, community, regional, and national.

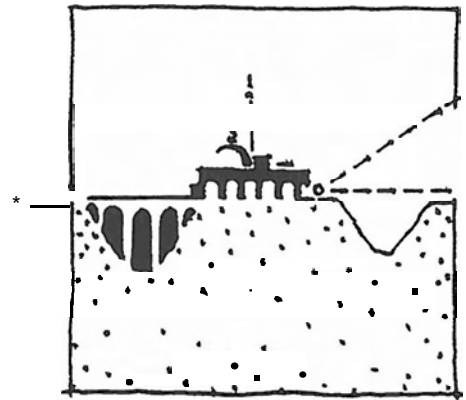
In seeking to satisfy these needs, the Park has been organized around "concentric" activity zones that pair user groups to the character and ecological integrity of the landscape.

- The **outer zone** corresponds to the perimeter of the Park, serving the neighborhood; its vegetation is ornamental, manicured, and structured. The recreation emphasis is on children's play areas and paths for strolling.
- The **middle zone** corresponds to Morley Field and the golf courses, serving the community, or citizens of San Diego; its vegetation is ornamental around buildings and gathering areas, yielding to more unstructured open turf areas towards the canyons. The recreation emphasis is on sports and picnicking.
- The **inner zone** corresponds to Florida Canyon and the Arizona Landfill, which serve, respectively the regional and national constituencies. The Canyon, proposed to be reestablished as a riparian/coastal sage scrub and chaparral habitat, becomes a major educational, as well as recreation amenity, affording an out-of-the-bustle place for jogging, bicycling and nature study. The landfill, proposed as a repository for major installations of environmental art, is left open, covered by meadow grasses, bringing the experience of the sky and distant mountain/ocean views into the "eco-vision" for the East Mesa.



1. PARK AS GARDEN, GARDEN AS PARK

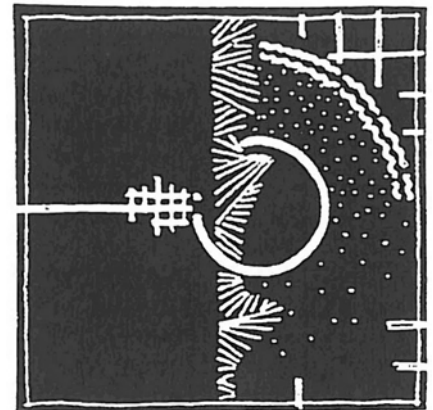
Following the division of the Park into prescriptive activity and landscape zones, a more vexing issue arose; how can the East Mesa, in its physical design, manifest the perceived change in value towards nature and-ecology? Since the onset of the garden, dating to the Summerians, nature has been controlled, that is, placed within an artificial environment, typically regulated by fences, garden plots and irrigation methods. The form of this garden has traditionally been an enclosed rectangular plot, four parted by paths or streams, containing a fountain or pavilion at its center. The garden of the Alcazar Garden in the Central Mesa typifies this form. A view of Balboa Park from the air reveals the same form, but at a vast, monumental scale. It appears as mostly verdant precinct, enclosed by an urban fence of residential buildings, forming nearly a perfect square, and four-parted, albeit partially, by the Prado and Florida Canyon. As the "house of recreation," the Park functions like a garden: To manifest the garden qualities of the Park, a monumental circle is proposed to mark the intersection of Florida Canyon and the Prado within the monumentality of the Park.



The idea of garden, however, is in contradiction to the idea of nature as an interconnected, "boundless" entity; it runs counter to the ideals of the ecological vision of recreation. To manifest the rising value of ecology within the realm of recreation, the design for the East Mesa employs the traditional garden elements, but shifts their form to a monumental scale and sets them in new, unique relationships:

A wide circle is proposed at the crossing of the two axes, Florida Canyon and the Prado, recalling the central feature of the traditional garden.

The area within the circle is planted in meadow grasses, evoking the namesake of the Prado, which literally means prairie or meadow. The center of the garden, therefore, is not occupied by an architectural device, but by nature itself --the expansive mesa and the patch of sky from which light is captured. In springtime, with the rains, the meadow will burst with indigenous wildflowers, celebrating the season -- a fitting terminus to the Prado.



- The circle, however, only partially encloses the meadow, allowing it to escape its geometric grip in symbolic manifestation of nature's rising value within the garden.

A second part-circle, or arc, is placed east of Florida Canyon, alternatively cutting the mesa tops and the finger canyons. Nature once again stretches beyond the confine of geometry. The arc, doubling 'as a path containing a series of bridges over the canyons, allows people to experience the scale and form of the mesas and canyons, while also proving a measure of security in what is now largely inaccessible and undefensible space.

- A third partial circle is centered about the Morley Field baseball complex. This circle "echoes" the main circle on the Prado axis, integrating Morley Field into the design narrative. This circle also serves to separate the neighborhood from the community zones of the Park.

With these gestures, the East Mesa acquires an unmistakable identity specifically tuned, in symbol and in function, to the ideals of the day. Backing the broad design conception are detailed ideas pertaining to public art, landscape, and architecture.

PARK ELEMENTS

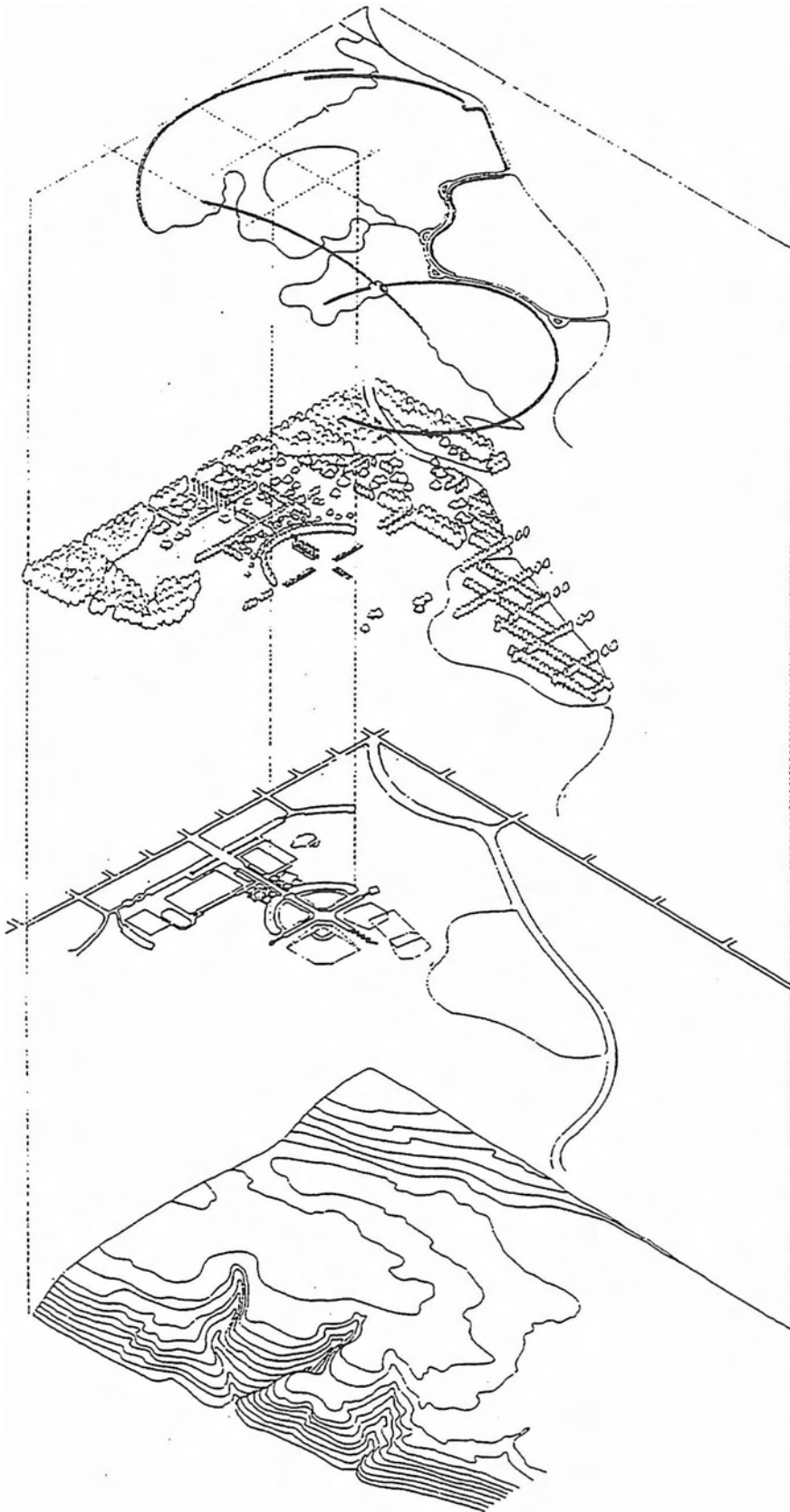
Park elements overlay the topography to create a comprehensive system.

Path and Trail - respond to the circles of activities;

Vegetation - reflects the gradients of activities

Built Structure - captures the sky and light while being firmly rooted in the land.

Landform - suggests the distribution of land uses.



2. PUBLIC ART

a. Concept Summary

This Precise Plan incorporates public art as a cultural response to issues of the social and natural environment. Art is proposed in the East Mesa through a range of applications. Two key precepts guide the process. First, collaboration between artists and the design team was integral throughout the Precise planning process. The artists' concepts and attitudes are integrated into the land use plan and the physical design of park elements. Second, independent works of art are planned to be located in a manner consistent with the design recommendations throughout the entirety of the East Mesa.

While the entirety of the East Mesa is considered available for artist's involvement, a number of sites are identified as opportune. Foremost is the Prado's axis as it extends visually across the Arizona Landfill, and the landfill itself. Other opportunities exist at the pedestrian paths and bridges, entries, hillslopes, the methane flare station on Arizona Landfill, and within the Park's site furniture, architecture, and structures.

b. Plan Recommendations

- Coordinate with the City's Public Arts Master Plan for temporary and permanent art installations and performances by artists.
- Encourage participation by artists on appropriate implementation projects.
- Involve artists whose work responds to specific aspects of the social and natural environments.
- Invite artists whose creative process involves collaboration with members of the community. This will be more likely to produce artwork that provides a sense of community ownership and pride.
- Include craftspeople with special skills in historic restoration and replication for the purposes of constructing park amenities such



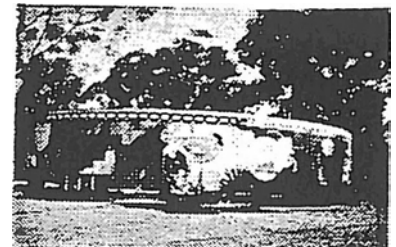
replication for the purposes of constructing park amenities such as stairways, garden walls, benches, drinking fountains, restrooms, and the golf course clubhouse.

- Suggest the design team artists and craftspeople to be "in residence," i.e. to live near or work in the Park for at least a portion of their work to experience its many aspects.
- Identify and engage private and public funding sources for the construction of special park amenities. Historically, Balboa Park has benefitted from service groups such as the Kiwanas and Rotary Clubs, the Junior League, the Urban Conservation Corps, the Committee of 100, San Diego Historic Society, Thursday Club, and the Community Foundation in addition to individual family foundations, corporations and private businesses. Continuation of this support will supplement limited public dollars.

c. Artists' Concepts

The following inventory lists project types as an impetus to the development of a public art program. These are intended to be a springboard for future ideas and installations.

- Cultural Orientation
Historically, the art and design of Balboa Park has centered around the buildings of the Central Mesa's Prado. Created for the 1915 Panama California International American and 1935 California Pacific Expositions, the structures and their organization are chiefly decorative in traditional styles from Neo-Classical to Spanish Baroque. They were intended as temporary structures to celebrate the many influences from around the world. They do not reference or express the actual history or character of early San Diego but have become emblematic of our local historic vision. The overall message references a time when the city rallied around the social and economical benefits of the Exposition. The Park's traditional figurative sculpture commemorates the activities of European explorers. These provide a Euro-centric representative link to the old world,



which future multi-cultural projects can expand and develop to include representations of today's local cultures. Work since the Exposition reflects the time, but not necessarily the place of the Park. Exceptions include cultural expressions such as the Centro Cultural de la Raza's water tank mural.

The form of an arch could be a traditional form with decorative sculpture or abstracted, to some extent. For example, artist Christine Oatman suggests utilizing materials to intensify the quality-of light and celebrate color. A single feature might match that of the Central Mesa's California Tower as an emblem of the Park.



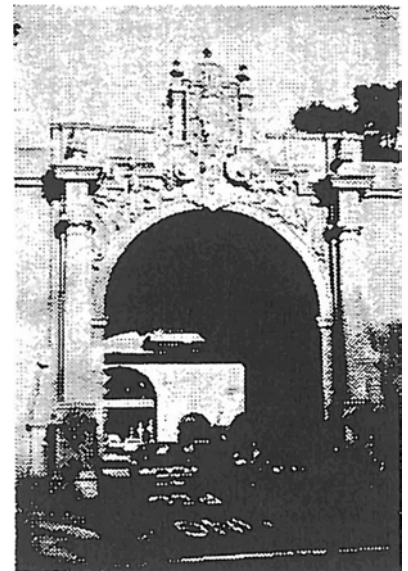
Community Involvement

The community of Balboa Park's East Mesa includes a diverse collection of groups such as local residents, ethnic groups of the greater area, local and regional business owners, etc.. Artwork will be a catalyst for community participation. The process will imbue a sense of ownership and affect the public attitude towards the Park.

A site for such a collaboration is at the corner of 28th Street and Upas Street. Incorporating an artist into the design team can provide new interpretation of the grand views of the Park, downtown, the bay and Mexico, as well as the residential character of the surrounding neighborhood. An artist commission may likely take the form of a functional element in this area.

Prado Extension

An extension of the linear elements and sightline of the Central Mesa's Prado responding to the qualities of light and atmosphere of the San Diego sky. The line of the Prado is a key element of Balboa Park as it extends from Laurel Street across the Cabrillo Bridge and through the museums of the Central Mesa up to the fountain above Park Boulevard and down to the rose garden arbor. This linear activity visually extends across the East Mesa to the Laguna Mountains. Artist Christine



Oatman sees the form of the arch to be a significant design element of the Park. Paths travel over the arches of the Cabrillo Bridge, through the arch of the California Building and beside the many arcades. The arch has been historically used to signify entry, procession and victory. An arch sited on the Arizona Landfill will provide a strong link from the Prado across the canyon to the mesa of the landfill, the neighborhoods and the mountains beyond.

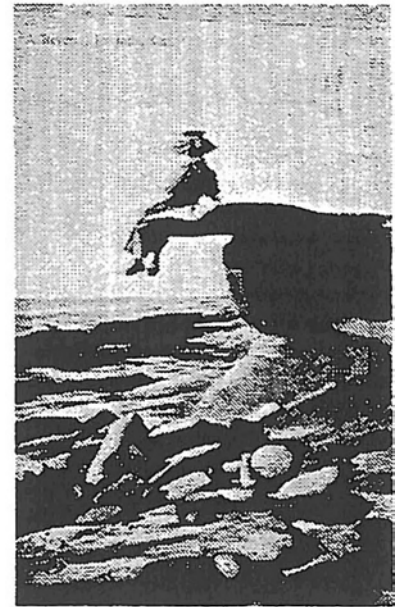
Capturing the sense of vastness and spatial expanse at the rim of the East Mesa presents a unique artistic challenge. This concept is prevalent in historic literature about the region's landscape and culture. The East Mesa symbolizes the California west coast, the edge of the continent, the western-most point of discovery and conquest. This sense of standing at the edge remains a natural phenomenon both in reality and as a state of mind. It may be realized in the incorporation of a viewing platform extending beyond the canyon's edge.

Likewise, the very slopes of the landfill rim could be an appropriate location for environmentally based art. With the reestablishment of native plants along the Florida Canyon slopes continuing south towards Pershing Drive, the incorporation of art could call attention to its habitat value.

Park Amenities

Art expression in the Park's amenities should follow the tradition of a "rustic" style on the east side of the Park utilizing indigenous materials such as cobblestones, simple recreation materials such as chain link and wood, and recycled materials such as glass. Examples of park amenities that should be constructed in this manner include benches, picnic tables, play structures, architecture, bridges, paths and fencing. Corporations linked to manufacturing should be invited to sponsor the testing, implementation and long term monitoring of recycled materials as park amenities.

The structures and materials found in the residential areas around Balboa Park interestingly speak of the environment and



the culture. The homes to the south and west of the Park tend to be large, on the hill above the city, where the first successful citizens built their estates. The homes on the north and east sides of the Park are smaller and sometimes more rustic in character. This is reflected in the development of the Park by the opulence of the West and Central Mesas in comparison to the East Mesa. Common to all of the adjacent neighborhoods is the use of materials and the response to the character of the landscape which is composed of canyons and mesas. For example, lookouts were constructed for private, as well as public views over vast panoramas. Bridges and staircases serve to span both physical and metaphorical distances. The small round cobblestones, a distinctive geologic feature of the landform of San Diego coastal mesas, are commonly used in the construction of walls, stairs, gardens, and foundations.



- An Arena for Public Art

Artwork should consider the social and natural environmental context of the East Mesa, as well as the vastness of the man-made mesa. The Arizona Landfill mesa should be transformed into a place that could house a wide range of public art activities on a permanent or temporary basis. These installations could be community festivals, allegorical pieces, or environmental features designed by artists. Suggested installations envisioned by Artist Richard Posner are detailed in Appendix G.

3. LANDSCAPE

a. Concept Summary

To the untrained eye, the landscape on the East Mesa appears at first glance as a sparse, motley collection of unattended plants. There are of course, richly landscaped areas, like Switzer Canyon, the memorial oak grove on 26th Street, and the chaparral/coastal sage scrub areas along Florida Canyon and within the golf course. Nevertheless, the barren expanse of the Arizona landfill, coupled with the sparse plantings of exotic plants, mostly eucalyptus, that cover the remainder of the East Mesa, yield a rather uninviting setting for recreation. Yet it is the very magnitude of the problem that presents a unique opportunity to effect a substantial – and timely -- change. This change should consider the function of plants on several levels: ecological, aesthetic, functional, recreational and educational.

b. Plan Recommendations

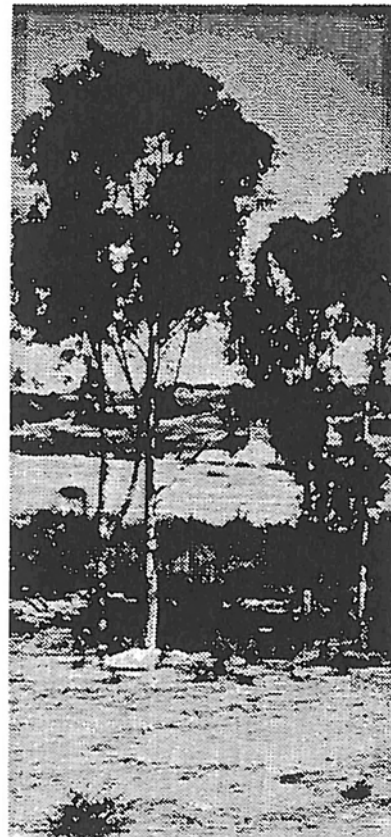
The Precise Plan proposes the East Mesa as a composition of four elemental planting types. These planting types are derived from the landform and recreation activities of the East Mesa. They form a gradient, from the most natural at the center to the most formalized at the perimeter, reflecting the gradient from passive to active recreation.

- The Canyons, the native vegetation of the slopes and valley floors;
- The Mesas, the grassy flat tops;
- The Savannah, a canopy trees dotted across the grassy plain;
- The Neighborhood Edge, a forested edge along the perimeter of the Park.

A superimposed layer of planting types components include:

- The Gardens, ornamental plants;
- The Allees, extensions of the city's grid into the park.
- The Nursery/Botanical Display, the source of the Park's plants;

The organization of the Precise Plan addresses specific areas that relate to their recreational character. Half of the areas described in the Area Plans conform to the boundary defined by planting types. The remaining areas are a combination of planting types.

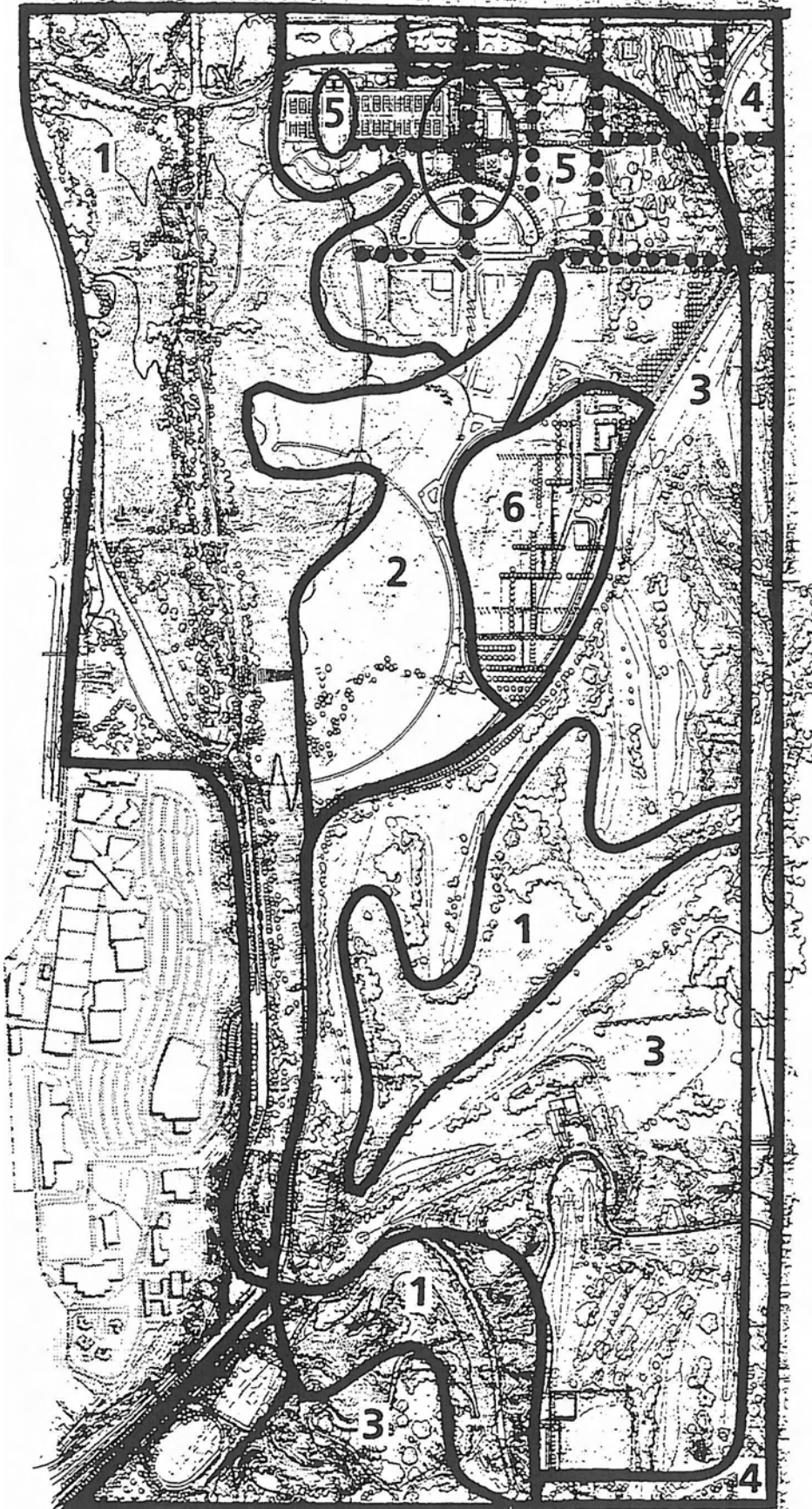


PLANTING CONCEPT DIAGRAM

Legend

- 1. Canyon
- 2. Mesa
- 3. Savannah
- 4. Neighborhood Edge
- 5. Garden
- 6. Nursery/Botanical Display

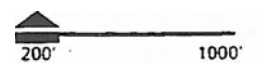
●●●● Allee



City of San Diego

East Mesa Precise Plan, Balboa Park

Wallace Roberts & Todd
 Nolte and Associates
 Leighton and Associates
 Martha Blane
 Christine Oatman
 Richard Posner



Each of the planting types described below contain a specific set of plants which characterize the intent of the landscape, these are listed as the "Representative Species." Additional plants, not listed, may be included as long as they meet the intent. Planting is addressed in the Area Plans listing the Representative Species and special planting conditions.

- The Canyons

One of the principal visions guiding the design of the East Mesa is its role as a major natural resource, available to the public as a recreational, education and ecological venue in the midst of the city. To this end, the canyons in the East Mesa have been targeted as a special repository for native plants: riparian trees, shrubs and aquatic plants along the intermittent streams of the canyon floors; coastal sage scrub and chaparral on their slopes.

Florida Canyon has already been conceptualized as a major plant habitat in earlier studies. Among the study proposals is renovation of areas for the display of regional native biota, such as plants from Baja California. However, in pursuing a coherent ecological approach to the East Mesa, it is proposed that the canyon vegetation be restricted to indigenous species that would commonly and naturally occupy this area, namely riparian and chaparral/coastal sage scrub communities. There should be no pretense that the East Mesa can ever be "natural," for the canyons exist as pockets in isolation from the regional network. Nevertheless, the East Mesa should showcase the habitat that once spread across the canyons in coastal San Diego.

Canyon Representative Species:

Riparian

Shrubs:

Baccharis salicifolia, Mulefat
Lonicera subspicata, Honeysuckle
Muhlenbergia rigens, Deergass
Sambucus mexicana, Elderberry

Trees:

Platanus racemosa, Sycamore
Populus fremontii, Western Cottonwood
Quercus agrifolia, Coast Live Oak
Salix lasiolepis, Arroyo Willow

Coastal Sage Scrub

Shrubs:

Artemisia californica, California Sagebrush
Baccharis sarothroides, Broom Baccharis
Eriogonum fasciculatum, California Buckwheat
Malosma laurina, Laurel Sumac
Rhamnus crocea, Redberry
Salvia mellifera, Black Sage

Chaparral

Shrubs:

Adenostoma fasciculatum, Chamise
Ceanothus verrucosus, Coast White Lilac
Heteromeles arbutifolia, Toyon
Malosma laurina, Laurel Sumac
Prunus illicifolia, Holly-Leaf Cherry
Quercus dumosa, Scrub Oak
Rhus integrifolia, Lemonade Berry
Xylococcus bicolor, Mission Manzanita

- The Mesas

One of the aesthetic objectives for the East Mesa is its preservation and enhancement as an open expanse from which to gather and appreciate the dimension, color, and texture of San Diego's sky as well as distant views of the mountains and Coronado Islands. No other unincumbered public space exists in the immediate region within the upland mesa environment which offers this combination. To this end, the mesas facing Florida Canyon are proposed as open grasslands, vegetated primarily by perennial grasses that sharply meet the edge of the canyon vegetation. An eight percent slope contour was used to demarcate the grassland towards the canyons; that is, land area steeper than eight percent becomes coastal sage scrub or chaparral. Eight percent, corresponding to the maximum grade for handicap accessibility is also considered a maximum slope for passive play, such as kicking a ball or running after a frisbee. With the exception of the Arizona Landfill first stage revegetation (see The Area Plan for the Arizona Landfill for further detail) the grassland areas are proposed to be irrigated and maintained for play. Trees in these areas should be restricted to edge of the mesa, or zone of interface with other parkland vegetation. Other existing trees should be removed. Likewise, street trees shall not be planted along East Mesa Loop

Road as the intent is to emphasize the horizontal plane of the mesa and not the intrusion of a road.

Mesa Representative Species:

Morley Field

Groundcover:

Festuca species, Tall Fescue
Cynodon dactylon 'Tifgreen', Bermuda Grass

Arizona Landfill

Groundcover:

Bromus carinatus, California Brome
Elymus glaucus, Blue Wildrye
Elymus tritichiodes, Creeping Wildrye
Stipa lepida, Foothill Needlegrass
Stipa pulchra, Purple Needlegrass
Buchloe, Buffalograss

- The Savannah

Savannah is defined as the areas surrounding Morley Field, and the Grape Street and Golden Hill recreation areas. Their use is primarily passive, as in the grasslands. However, the closer they are to the surrounding neighborhoods, it is proposed that they be more intensively vegetated with turf and shade and flowering trees to invite longer, more enjoyable stays in the Park. Trees, among their various functions, are used by people to identify a territory; that is, to stake the residency of a group within a public area. To this end, the vegetation should be organized in concentrations, as opposed to an even distribution. The balance between tree masses and turf areas should yield a variety of spaces for group activity. The tree species should be common to, or associated with, the world's grasslands or savannahs, like the Coast Live Oak, Jacaranda, Robinia, Acacias, and Albizia. No conifers, palm trees or eucalyptus should be planted in these areas, except where the latter serve the function of carrying the surrounding street lines into the Park.

Savannah Representative Species:

Trees:

Acacia baileyana, Bailey Acacia
Albizia distachya, Plume Albizia

Alectryon excelsum, Alectryon
Jacaranda mimosifolia, Jacaranda
Quercus agrifolia, Coast Live Oak
Quercus englemannii, Mesa Oak
Robinia pseudoacacia, Black Locust
Tristania conferta, Brisbane Box

Shrubs:

Cassia artemisioides, Feathery Cassia
Echium fastuosum, Pride of Madeira
Kniphofia uvaria, Red Hot Poker
Leptospermum s. "Snow White", White Manuka
Phormium tenax, Flax

Groundcover:

Festuca species, Tall Fescue
Cynodon dactylon 'Tifgreen', Bermuda Grass
Lantana montevidensis, Purple Trailing Lantana

- The Neighborhood Edge

The eucalyptus groves that border the Park along Upas Street and 28th Street are the most visible stands of vegetation in the East Mesa. Their function is twofold: they define the edge of the Park and provide a setting for the neighboring residents to stroll, jog and be active in playgrounds. It is proposed that this zone of the Park be strengthened: stretches of decaying eucalyptus should be replanted; view corridors carefully framed; open areas planted with new trees; and the ground surfaced with grass, low shrubs, mulch or gravel depending on particular recreation demands. Although a variety of trees is desirable in this zone, eucalyptus trees should be perceived as the dominant tree. Other species should be restricted to special areas within the Neighborhood Edge, such as the major entrances to the Park on Texas, Arnold, Redwood, Grape, 25th Streets, and Pershing Drive, and the plaza on Upas and 28th Streets.

Neighborhood Edge Representative Species:

Trees:

Bischofia javanica, Toog Tree
Brachychiton discolor, Pink Flame Tree
Chorisia speciosa, Floss Silk Tree
Eucalyptus citriodora, Lemon-Scented Gum
Eucalyptus sideroxylon rosea, Red Flowering Gum
Eucalyptus viminalis, Manna Gum

Geijera parviflora, Australian Willow
Pinus canariensis, Canary Island Pine
Pinus torreyana, Torrey Pine

Shrubs:

Cistus salviifolius, Sageleaf Rockrose
Dietes vegeta, African Iris
Euryops acraeus, Compact Euryops
Leptospermum s. "Snow White", White Manuka
Phormium tenax, Flax
Punica granatum Nana, ' Dwarf Pomegranate

Groundcover:

Festuca species, Tall Fescue
Myoporum parvifolium, Prostrate Myoporum
Lantana montevidensis, Lantana

- The Gardens

The use of "gardens," meaning the exhibition of ornamental plants within the containment of built or architectural features like trellises, walls, or walkways is appropriate for the built areas of Morley Field such as the ballfields promenades, the tennis center courtyard, or the main walks along the parking areas. The gardens are proposed as colorful displays of Mediterranean species, including palm trees, conifers, vines, and flowering groundcover. However, in consideration of the judicious use of water, plants in the garden areas should be drought tolerant. To enhance the integration of the landscape and the architecture, the proposed buildings are fitted with vine-training devices, trellises, and fences.

Garden Representative Species:

Trees:

Archontophoenix cunninghamiana, King Palm
Brahea edulis, Guadalupe Fan Palm
Calodendrum capense, Cape Chestnut
Dracaena draco, Dragon Tree
Ficus macrophylla, Moreton Bay Fig
Howea forsterana, Paradise Palm

Shrubs:

Hibiscus rosa-sinensis, Hibiscus
Strelitzia reginae, Bird of Paradise

Groundcover and vines:

Bougainvillea species, Bougainvillea
Distictus buccinatoria, Blood Red Trumpet Vine
Festuca species, Tall Fescue
Wisteria sinensis, Chinese Wisteria
Lantana montevidensis, Lantana

- The Allees

To express the urban character of the Park, rows, or allees, of trees are proposed to extend beyond the Neighborhood Edge into the parkland, carefully framing "rooms" for play. The allees stretch into the Park following the alignment of adjacent city streets, guiding, in effect, people into the Park, much as do the neighborhood street trees. Paths would follow the allees into the various activity nodes, such as the Morley Field baseball complex. Within the passive areas, the rooms created by the allees would be used for picnicking, playgrounds, and passive play. Within them, the savannah trees would be displayed in informal clusters or singly, recalling the garden ideal.

Allee Representative Species

Trees:

Arecastrum romanzoffianum, Queen Palm
Eucalyptus citriodora, Lemon-Scented Gum
Eucalyptus viminalis, Manna Gum
Phoenix canariensis, Canary Island Date Palm
Washingtonia robusta, Mexican Fan Palm

- The Park Nursery & Botanical Display

The Park Nursery is a foundational element of the Park. It is the source for the many plants that give Balboa Park its unique character. The Park Nursery is proposed to fully utilize the site and to demonstrate its significance to the public. The technology of nursery tending is presented as beautiful elements in the landscape. The most effective method for growing plants on a large scale is to place plants of a singular species and size in lines or large rectangles. These lines and rectangles are designed within the nursery facility and extend beyond the security fencing across to the Pershing Drive median and onto the Arizona Landfill. Outside the fencing, lines of trees create an arrangement of large garden spaces which are to be utilized to organize botanical and cultural displays. These displays include plots for testing the growth suitability of various plants on the landfill. Sustained growth on the landfill requires advanced technology to keep water from percolating through the cover and to keep landfill gasses from escaping into the planting soil. This requires a seal between the planting soil and the landfill and a drainage system to collect excess water. Plant species also need to be tested for growth suitability on the landfill and with reclaimed water. This testing is to be performed in conjunction with local horticultural programs, university teaching, or agricultural research. This visual aesthetic of the technology of the landfill compliments that of the nursery's lines and patterns creating a pleasing and meaningful landscape.

Nursery Representative Species:

Nursery display species should include trees, shrubs and groundcover from all of the Park areas. These plants should be labeled with descriptions on their appropriate landscape use, water needs, and horticultural requirements.

Together these landscape areas will, when implemented, reverse the opinion that the East Mesa is barren and sparsely vegetated. A comprehensible system will be in place that reiterates the transition from the natural corridor in the center to the introduced, "residential" landscape at the fringe of the Park.

4. ARCHITECTURE

a. Concept Summary

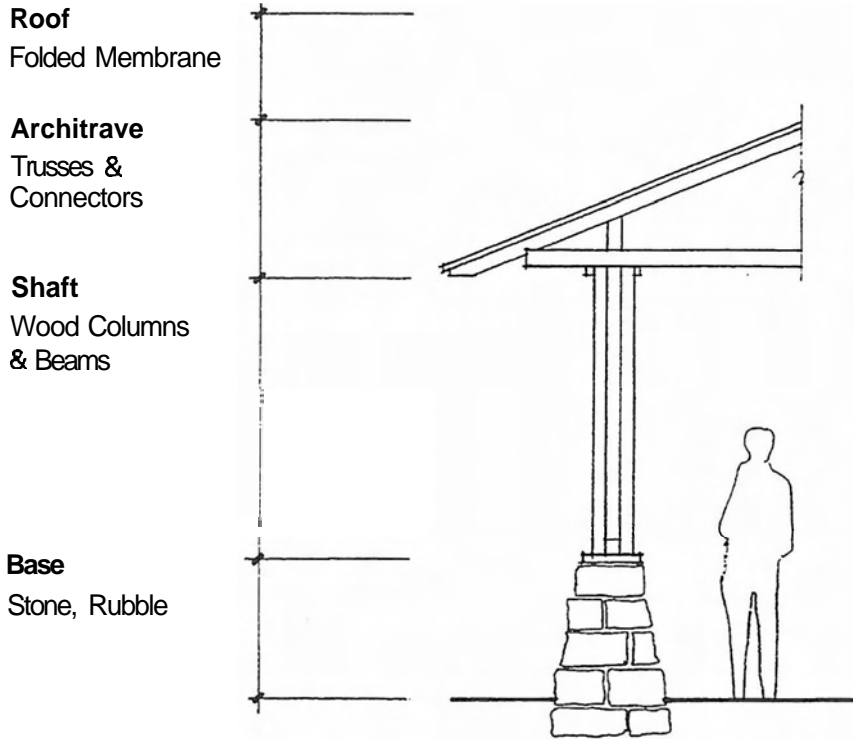
Balboa Park exhibits a number of different architectural styles from Spanish Revival (1916 Exposition) to Art Deco (1932 Exposition) and, for lack of a better term, Civilian Conservation Corps/Craftsman, corresponding to the Golf Clubhouse, built during the Great Depression. While obviously very different from one another, these styles share a basic, essential circumstance: they are an expression of their time, of a period of San Diego's culture, and of the citizen's vision of themselves as projected by public buildings and the landscape. The proposed architecture for the East Mesa should do no less, aiming to capture a "timeless" design expression. Timeless architecture is an elusive goal: to some it may mean an aesthetic identifiable with a specific historical period that is "recognized as such in all times." Making the park buildings "Mission"-like, would satisfy this view. To others it may mean an architecture that in following eras is recognized as expressing the ideals of its time. This approach, of course, requires that the unique aspects of time and place be adopted as the guiding source for design. This is the approach put forth in the Precise Plan.

b. Plan Recommendations

In deriving a design attitude for the proposed generation of buildings on the East Mesa, the following questions were posed:

- How should the architecture reflect San Diego's current culture,
and,
- How should the East Mesa's geographical circumstance influence the architecture?

Two aspects of the geographic circumstance of the East Mesa are worth noting: the Craftsman style prevalent in the surrounding community, and the open nature of the mesa itself.



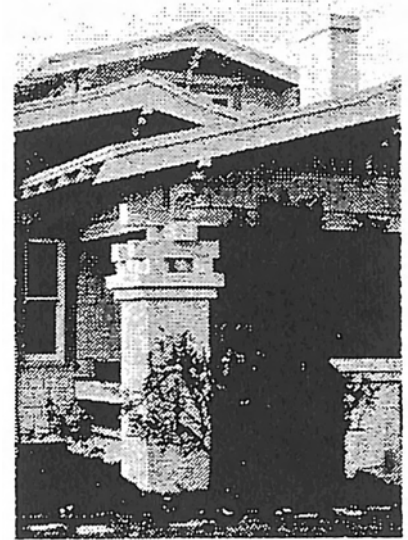
The Craftsman Evocation - Buildings are similar to "Rustic Temples."

- Capturing the Light and Sky

The East Mesa, in contrast to the Central and West Mesa, is envisioned primarily as an open landscape designed to capture San Diego's inherent expansiveness and, more importantly, the region's light as orchestrated by the changing, spacious sky. The architecture, therefore, should similarly be designed to "capture" the light and the sky. As membranes that mediate between inside and outside, the building's roofs and walls should be conceived as devices that invite, reflect, channel, focus or block light so as to magnify the presence of light and the sky on the East Mesa. A rational response to this objective, for example, would be to turn a typical gabled roof upside down, such that the eave of the roof is higher than it would be otherwise, admitting more of the sky into the covered space. Accordingly, all of the East Mesa buildings are proposed to have "upturned" roofs.

- Evoking the Craftsman Movement

Artist Christine Oatman alerted the design team to the unique architectural distinction between the east and west communities facing Balboa Park. The western "front yard" area, corresponding to the Banker's Hill district, exhibits historic Victorian-era buildings, alluding to tastes of the turn-of-the-century entrepreneurial class. By contrast, the eastern "back yard" area is characterized by Craftsman Movement homes, typically more rustic, "earthy" in character, less ornamental and colorful. To this end, the architecture in the East Mesa should evoke the Craftsman Movement. Craftsman buildings can be conceived as rustic temples, comprising a foundation (usually a cobble wall), columns (wood posts, sometimes in single or double pairs), and an architrave (exposed roof trusses or beams that support thin, folded roof membranes). This three-part division, along with the exposure of structure, should prevail in the East Mesa's architecture. It should be emphasized, however, that the intent is not to copy the Craftsman style, but to use it as a point of departure.



- How should the architecture reflect San Diego's culture?

Clearly, this question is complex and difficult to answer, for San Diego's culture is becoming increasingly diverse and multi-layered. Nevertheless, one aspect of San Diego's culture stands out: it's technology.

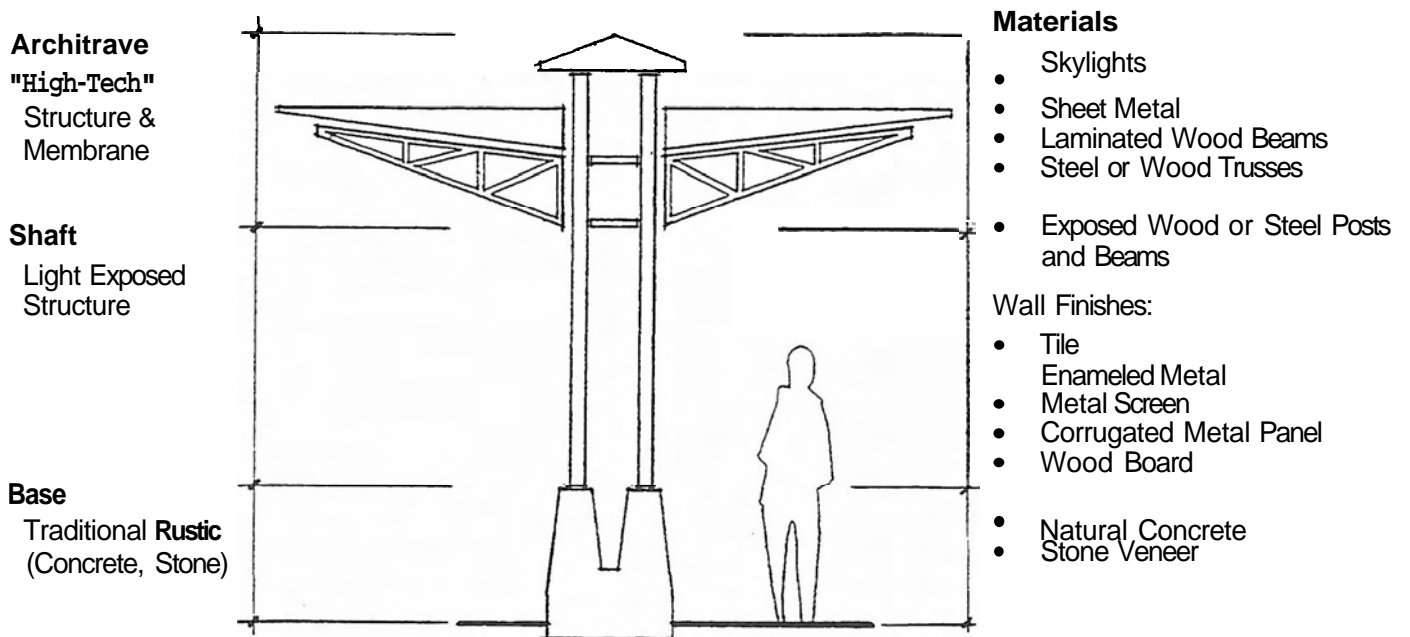
- Expressing Technology

From the Navy and Marine facilities, to the Biological and Oceanic Sciences, future fusion laboratory, aerospace industries and the America's Cup, San Diego is known world-wide as a repository of high-technology. The architecture in the East Mesa should be a reflection of this image, employing, wherever possible, materials and techniques that clearly manifest a search for the ingenious, the lightweight, the durable, the efficient. This approach is well suited to the above intentions of capturing the sky, manipulating light, and evoking the Craftsman Movement. The Craftsman Movement cannot be



disassociated from the expression of technology, as it sought to display the cleverness with which structure and materials could be assembled. Similarly, capturing the sky and the light can perhaps best be accomplished through the use of "high-tech" materials like reflective metals, ceramics, wire fabrics, and fretted glass.

In consideration of the above, the East Mesa's architecture has been conceived as buildings that progressively "rise to the sky," displaying a rustic foundation, visibly anchored to the earth; an exposed, playful structure; and folded, light-weight roofs and wall membranes that invite the sky into their midst. From the ground up, the buildings should reflect a progressively higher degree of technology, thus alluding to a key aspect of San Diego's image, both present and historical.



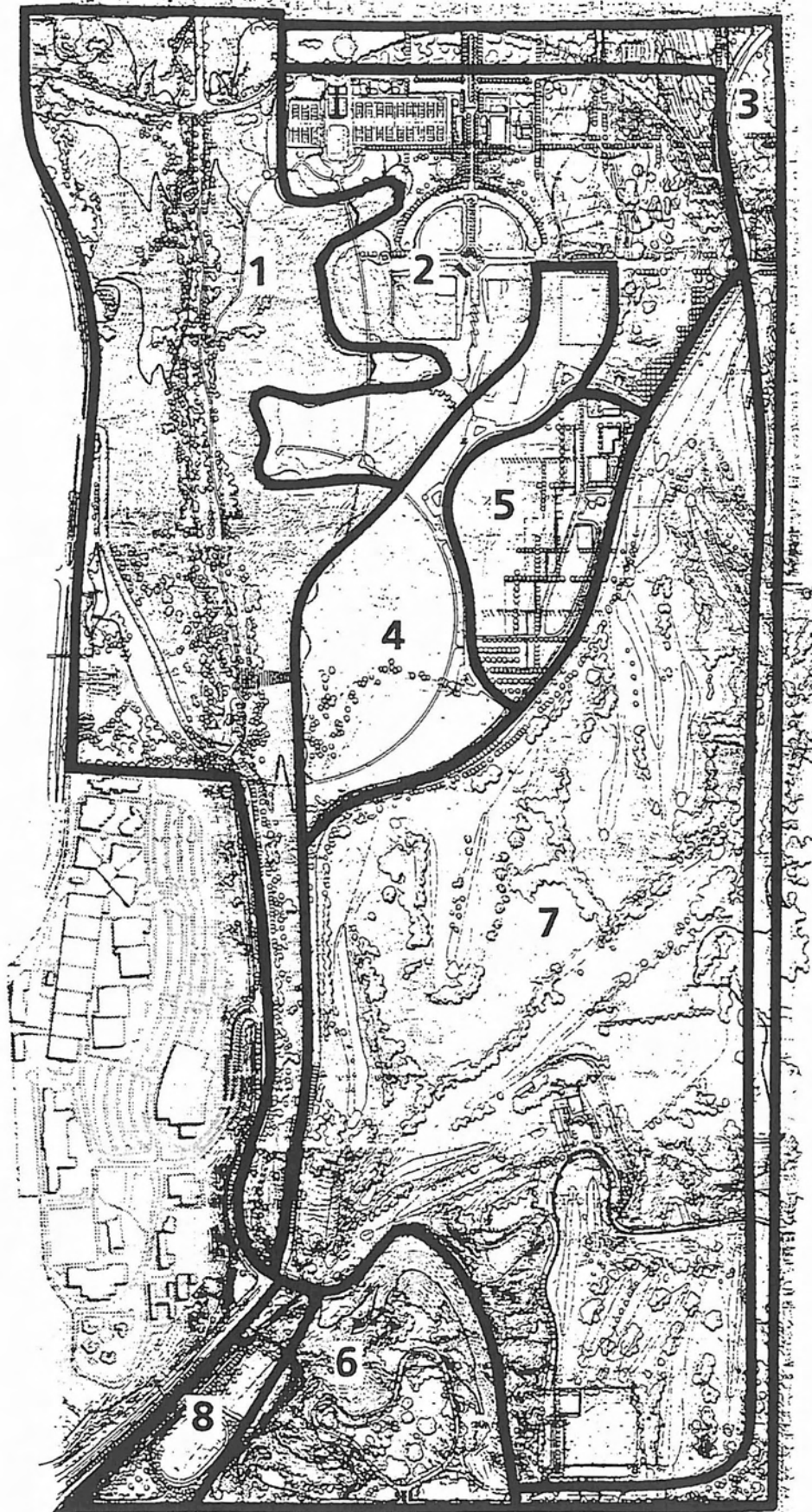
Technological Reference - Architecture reflects higher degrees of technology as the structures "rise to the sky."

B. AREA PLANS

The following recommendations are proposed by geographic area. The eight area plans consider:

1. **Florida Canyon** - the western most portion of the East Mesa, including the canyon's slopes up to Park Boulevard and opposite the Naval Hospital.
2. **Morley Field and the Mesa Rim** - the center of the East Mesa activity area.
3. **The Neighborhood Edge** - the perimeter of the park, following Upas Street, 28th Street, and Russ Boulevard.
4. **Arizona Landfill** - the former site of Arizona Canyon
5. **Park Nursery** - currently along Pershing Drive
6. **Golden Hill** - the area along the 25th Street promontory as well as the adjacent Golden Hill Recreation Center
7. **Balboa Park Golf Courses** - including the 9 and 18 hole courses, the clubhouse and driving range.
8. **Pershing Recreation Complex** - formerly the City Operations Yard at the southwest corner of the East Mesa.

KEY TO THE AREA PLANS



Legend

- 1. Florida Canyon
- 2. Morley Field and the Mesa Rim
- 3. The Neighborhood Edge
- 4. Arizona Landfill
- 5. Park Nursery
- 6. Golden Hill
- 7. Balboa Park Golf Courses
- 8. Pershing Recreation complex

City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

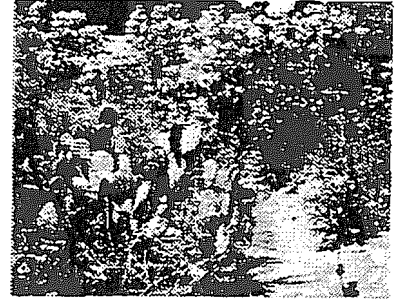
Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner



1. FLORIDA CANYON

a. Area Description

Florida Canyon is bounded by Park Boulevard and the Naval Hospital on the west, Morley Field and the Arizona Landfill on the east, Upas Street on the north, and the intersection of Florida Drive and Pershing Drive on the south. The canyon has a series of smaller finger canyons that extend up into the East Mesa. The area is a remnant of the native canyon landscape of the San Diego region.



Existing conditions: Florida Canyon contains the largest remaining stands of native vegetation within Balboa Park. Three predominant plant community types are found within Florida Canyon: riparian, southern coastal sage scrub, and chaparral. In a 1986 EIR, prepared by Westec, the following plant species were identified as either high interest, rare or endangered: snake cholla (*Opuntia parryi* var. *serpentina*), Mojave yucca (*Yucca schidiger*), coast barrel cactus (*Ferocactus viridescens*), pygmy spike moss (*Selaginella cinerascens*) and coast white lilac (*Ceanothus verrucosus*). Additionally, the Florida Canyon Master Plan noted Palmer's ericameria (*Ericameria palmeri* ssp. *palmeri*) and adder's tongue fern (*Ophioglossum lustanicum* ssp. *californicum*).

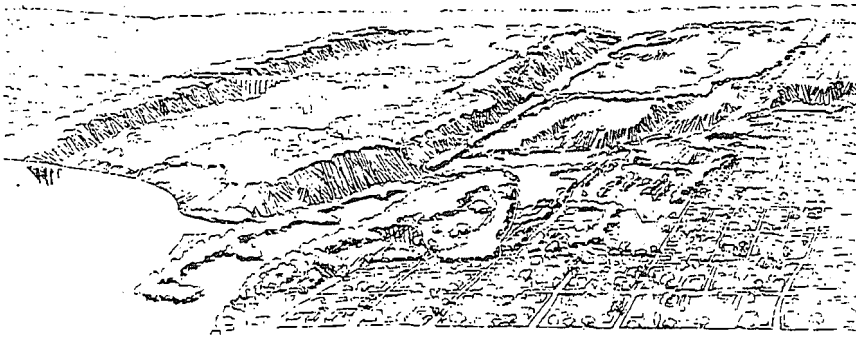
Degradation of Florida Canyon vegetation has been occurring for many years and accelerated within the last 5 to 8 years from increased use of the canyon by the transient and homeless population. The increased use has resulted in many new trails and "camping areas" causing disturbance and destruction of native vegetation and soils. Associated problems with litter, security, and fires have also increased.

The Florida Canyon Master Plan states that the oak grove planted below the Blind Center (north Florida Canyon) was probably planted during 1910 to 1920 and that this native tree would probably not naturally occur in a canyon. However, this grove provides an inviting green canopy with an understory of European grasses and scattered native shrubs. Across Morley Field Drive, a planted grove of redwoods (*Sequoia sempervirens*) descend along the slope. Also far out of their natural range, the redwoods require substantial water in the dry, hot months and have exhibited signs of stress from drought and urban pollution.

Guidelines are provided for the enhancement and preservation of the natural plant communities within Florida Canyon. Each section provides a brief description of the existing conditions and detailed recommendations for enhancement and preservation of the existing plant communities. Adjacent areas of the East Mesa which are proposed to be reclaimed to their native habitat include the golf course and the oak groves of Golden Hill. These are addressed in separate Area Specific Elements.

b. Concept Summary

The natural landscape of Florida Canyon is a fundamental component of East Mesa's identity. It is a commanding physical landform that visually and physically separates the East Mesa from the Central Mesa and the remainder of Balboa Park.



Aerial View of Balboa Park from the Southeast

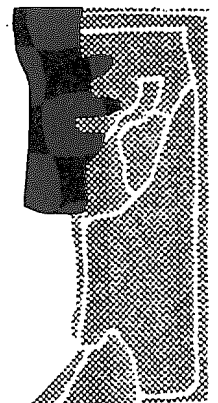
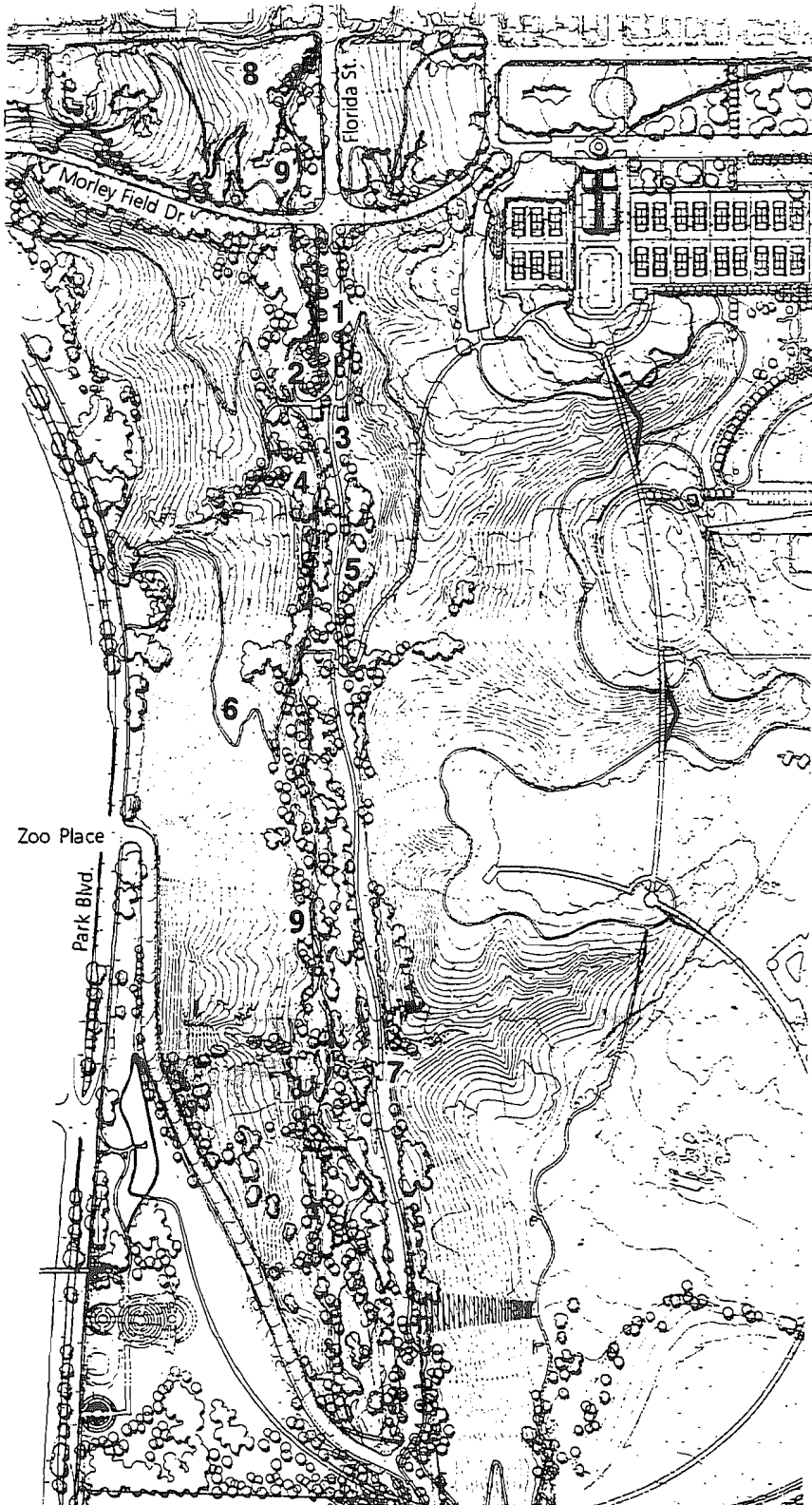
Throughout the history of the planning of Balboa Park, this canyon has been designated as an area to remain a naturalistic landscape. The Precise Plan calls for the reclamation of the native plant and animal habitat for the purposes of passive recreation and education. Passive recreation in Florida Canyon follows the goal of preserving and enhancing the natural plant communities to provide educational opportunities, leading to the appreciation of natural ecosystems and identification with the historical character of the area. In addition, the native habitats are considered an important component of the overall biological diversity of the Park.

1. Florida Canyon

FLORIDA CANYON, AREA PLAN NORTH

Legend

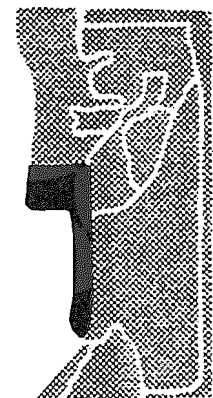
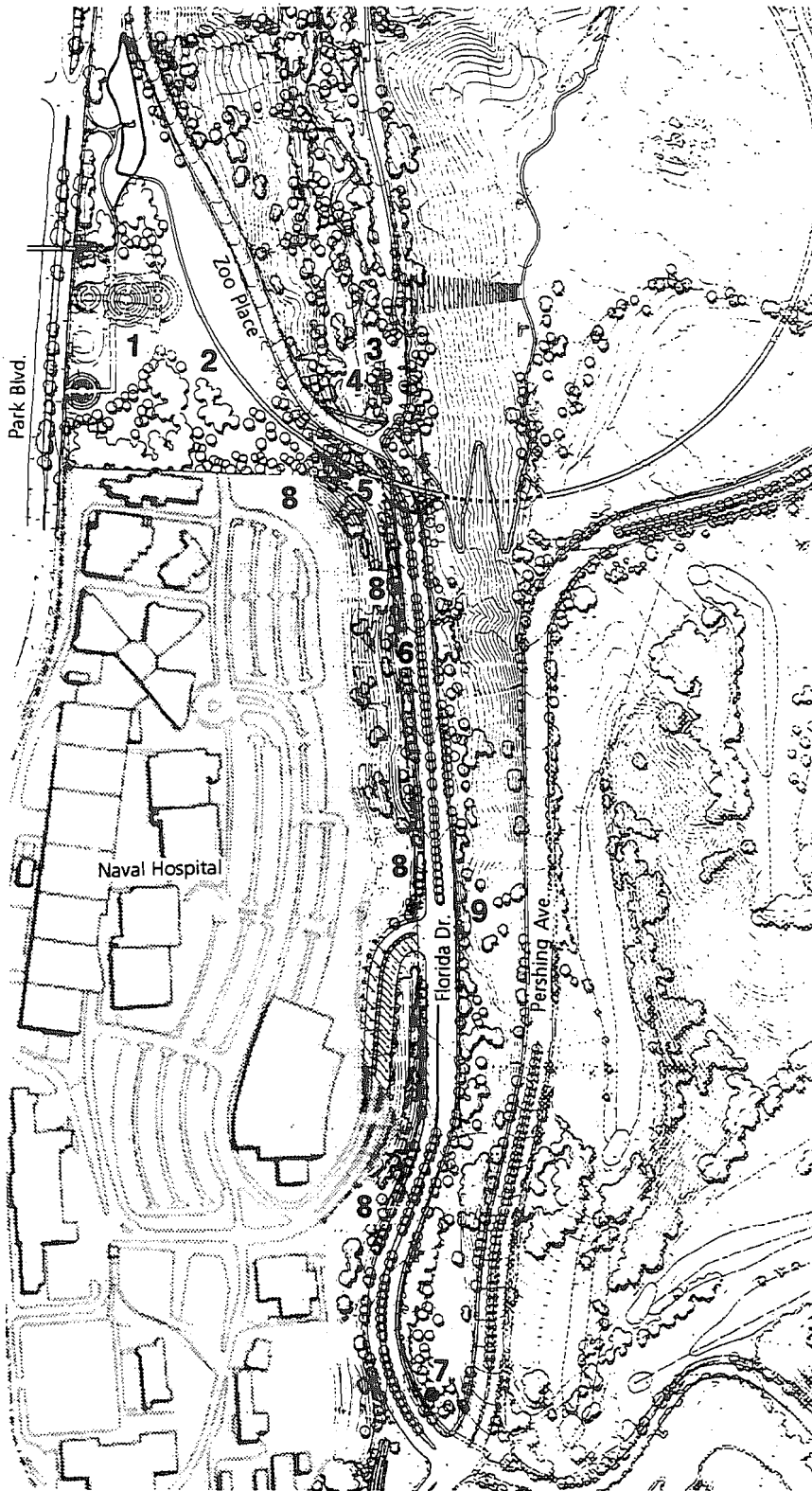
- 1. Parking (56 Spaces)
- 2. Bus Turn-Around and Drop-off
- 3. Ranger Station, Nature Center and Restroom
- 4. Native Plant Garden
- 5. Bicycle / Pedestrian Path
- 6. Hiking Trail
- 7. Rest Station
- 8. Oak Groves
- 9. Stream Bed



FLORIDA CAIVYON, AREA PLAN SOUTH

Legend

- 1. Rose Garden Renovation
- 2. Pedestrian Path
- 3. Parking (34 Spaces)
- 4. Pond
- 5. Pedestrian / Bicycle Bridge
- 6. Landscaped Median
- 7. Entry Kiosk with Informational Signage
- 8. New Eucalyptus Planting to Screen the Hospital
- 9. Opportunity for Public Art



c. Plan Recommendations

The plan focuses on recommendations for reclaiming the native habitat and providing access for park visitors.

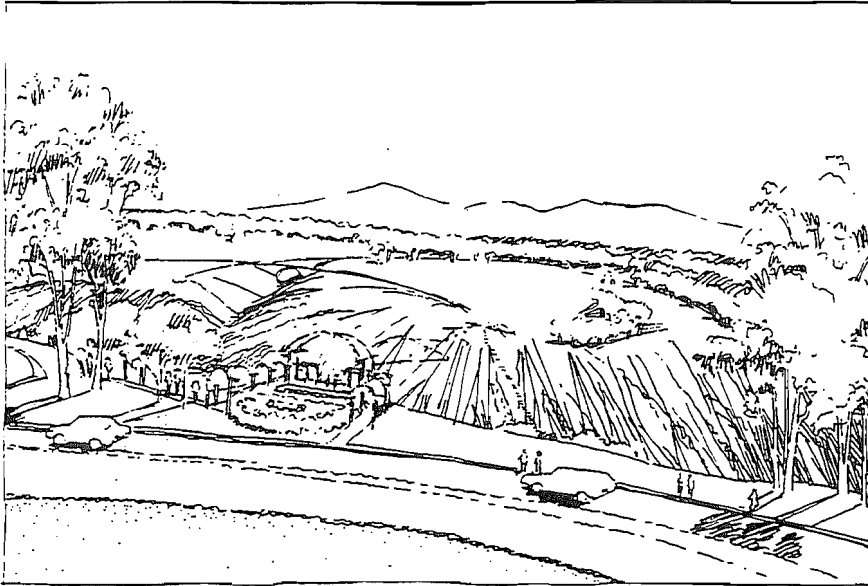
- Remove Florida Canyon Drive as required in the Florida Canyon Master Plan and underground all the utilities passing through the canyon including electrical and telephone lines.
- Provide a central path along the canyon floor that serves as a pedestrian path, a bicycle path for commuters and recreational cyclists, as well as access for emergency and maintenance vehicles. This trail should connect to Florida Canyon Drive bike lanes at Zoo Place. The alignment of this trail expresses the presence of the Florida Canyon Fault - the trail's linearity is broken and shifted slightly in one location.
- Construct secondary spur trails for pedestrian and bicycles within the canyon connecting to the network of trails of the Park. Close, block, and revegetate the many small informal trails.

Trails into the canyon from the upper areas of the Park should be constructed at a grade of less than 8 percent to allow access for visitors of all abilities. Most trails should be paved with concrete, except those also used for emergency vehicles which should be asphalt. Secondary paths should be constructed with stabilized decomposed granite. In special cases where terrain is steep, steps should be installed. These trails should be clearly marked at their entry to alert visitors of the level of difficulty.



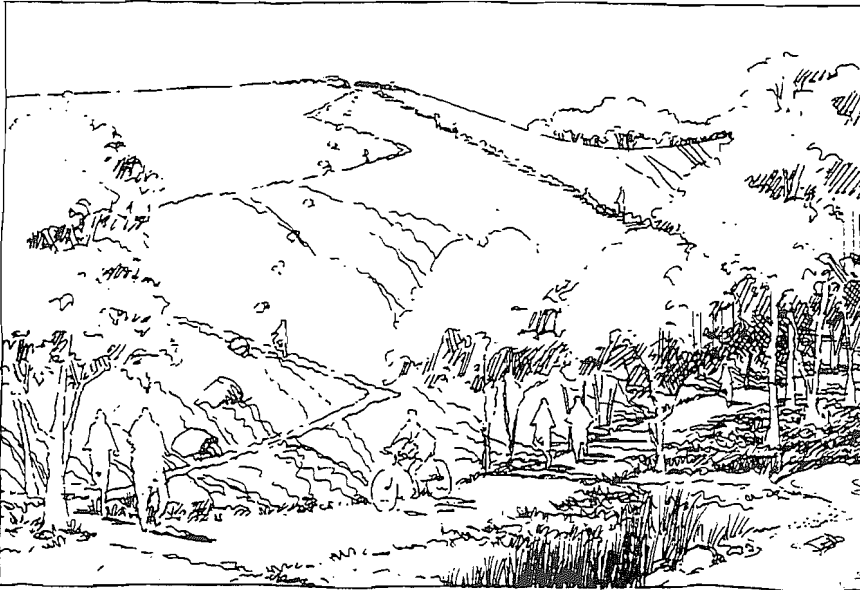
Florida Canyon, the natural spine uniting the Central and East Mesas.

One trail up the face of the Arizona Landfill should coincide with artwork that is to be considered for the mesa. This trail should be a series of grand steps and ramps, allowing a challenging athletic course for workouts.



Florida Canyon, looking west, with the Rose Garden Expansion.

- Complete the Rose Garden on Park Boulevard as part of the artwork conceived as extending the line of the Prado across to the East Mesa and beyond.
- Construct a pedestrian/bicycle bridge over Zoo Place to provide access from the Central Mesa's Prado to the east slope of Florida Canyon. The bridge connects to two paths, one that continues up the face of the Arizona Landfill to the top of the Mesa and a second that travels the length of Florida Canyon.
- Provide two paved parking areas at the entrances to the area. The primary entry is from the north at Florida Drive and Morley Field Drive, the secondary entry is at the base of Zoo Place. The northern parking area is to contain 54 spaces for cars, 3 for disabled parking, a turn-around and drop-off area for buses and 2 spaces for bus parking. The southern area is to have 33 spaces for automobiles, two of which will be for persons with disabilities.



*A view along the valley floor, with trails leading upward onto the **East Mesa**.*

- Construct a ranger station/nature center at the terminus of the northern parking area. Public restrooms should be in an adjacent structure. The design is to follow overall architectural precedent for the East Mesa.

Provide facilities for police horses to be watered and rested. Facilities required include horse activated water trough, horse tie, and a secure enclosure. The area is to be shaded by trees. The surface of the area is to be compacted earth. The area is to drain away from the stream bed to a storm water collection inlet.

- Provide signage for orientation to the Park, interpretive signage for educational purposes and to discourage off trail use, and regulatory signage posted at the entrances to the area.
- Consult Park and community resources and other qualified biologist on native plant species to ensure the appropriateness of the species selections.
- Increase the eucalyptus screening of the Naval Hospital, both along the right-of-way of Florida Drive and along the western slopes of Florida Canyon.

- Limit and discourage off trail use by planting appropriate plant species (cactus, yucca) at old trail heads, and camouflaging the old trail with large branches and sticks of native vegetation.
- Replant bare areas resulting from weed eradication procedures with container grown plant materials. No seeding is recommended, except for native grass areas.
- Submit the complete list of plant species and maintenance programs to the City of San Diego Planning Department for review during subsequent environmental review.
- Comply with the intent of the City Landscape Ordinance for fire breaks around structures in fire prone canyon areas.
- Time all revegetation plantings to occur during the late fall and early winter months to provide optimum natural conditions for seed germination and plant establishment.
- a Remove invasive exotic plant materials which displace native vegetation. Removal of exotic plants may be implemented with the help of volunteers from the California Conservation Corps, Urban Conservation Corps, scout groups, California Native Plant Society, the Canyoneers and other volunteer organizations.

Weed Control: Remove weed species through various methods that may include: hand removal of individuals, herbicide application, and tree girdling. The most invasive and persistent weed species include the following:

Acacia spp., Acacia
Arundo donax, Giant Reed
Brassica spp., Mustard
Foeniculum vulgare, Fennel
Salsola australis, Russian Thistle
Tamarix spp., Tamarisk
Cortaderia sellowiana, Pampas Grass

A complete listing of problem species is found in Appendix C. These species should be targeted for immediate removal and

control. Other weeds, such as European grasses, are also present on site in such dense stands that their eradication would be almost impossible. Their spread should be controlled so as not to impact additional areas. During native plant establishment and revegetation, additional weed species may appear that require removal until the native species are established.

- Prepare and implement revegetation plans for areas disturbed through the development of the East Mesa Precise Plan (i.e. new drainage outfalls, bridges, pathways and other improvements).
- Soil Preparation and Replanting: In order to establish desirable native vegetation in abandoned trail areas, the following procedure is recommended: Preparation of the soil shall be limited to creating a roughened surface. The goal is to create small ledges, cracks and crevices (micro-habitats) for seeds to lodge. The created depressions and ledges should provide shelter for seedlings and increase water infiltration/retention and root penetration. Just prior to seeding the roughened soil surface shall be created. Hand picks shall be used to make "pock" marks, spaced approximately 3 inches apart and 2 inches deep, on the contour of the abandoned trails. Existing native vegetation shall be avoided and left undisturbed.

Container plant materials shall be installed in trail areas. All container plant materials, as listed in Appendix C, shall be one gallon size. The Representative Species include:

Riparian

Trees:

Platanus racemosa, Sycamore

Populus fremontii, Western Cottonwood

Quercus agrifolia, Coast Live Oak

Salix lasiolepis, Arroyo Willow

Shrubs:

Baccharis salicifolia, Mulefat

Lonicera subspicata, Honeysuckle

Muhlenbergia rigens, Deergrass

Sambucus mexicana, Elderberry

Coastal Sage Scrub

Shrubs:

Artemisia californica, California Sagebrush

Baccharis sarothroides, Broom Baccharis

Eriogonum fasciculatum, California Buckwheat

Malosma laurina, Laurel Sumac

Rhamnus crocea, Redberry

Salvia mellifera, Black Sage

Chaparral

Shrubs:

Adenostoma fasciculatum, Chamise

Ceanothus verrucosus, Coast White Lilac

Heteromeles arbutifolia, Toyon

Malosma laurina, Laurel Sumac

Prunus illicifolia, Holly-Leaf Cherry

Quercus dumosa, Scrub Oak

Rhus integrifolia, Lemonade Berry

Xylococcus bicolor, Mission Manzanita

Planting procedures shall consist of digging planting pits twice as deep and wide as the plant container. Fill planting pit with water and allow to percolate into subsoil, repeating procedure. Add non-amended native soil to hole and place plant so that top of rootball is one inch higher than the surrounding soil surface. Fill in and tamp down native soil around plant. Build a 3" high water holding basin around plant. Fill basin with water and let drain. Cover basin with nitrolized redwood bark mulch, two inches deep and fill basin again with water.

The Florida Canyon Master Plan suggests that the seeds required for revegetation be collected from the site. In order to implement site specific seed collections, a minimum lead time of one year is required, but two years is recommended so that adequate quantities of the appropriate species can be collected. One year advance notice is typically required to reserve plants from a commercial grower or the park nursery.

Once the container plants are installed and soil preparation is complete, overseed the area with the seed mix listed in Appendix C, in designated trail areas by hand broadcasting. Do not rake or cover seeds after hand broadcasting.

After seeding, lightly mulch the seeded areas with dead twigs and branches of native species. Lay twigs and branches on the slope contour in a manner that allows 50 percent of soil area to be visible through the twig mulch. The twig and branch mulch should aid in camouflaging old trails, retaining soil moisture and controlling erosion.

Since an irrigation system will not be used for the revegetation plantings, maintenance efforts shall be limited to exotic weed removal, trash pickup and replacement of mulch as needed. However, as the container plantings should be installed in the fall or winter if adequate rain does not occur, 3 to 4 applications of water (with a hose or water truck) are recommended through the first winter.

d. Special Maintenance and Security Needs

A principal impetus for the improvements in the Florida Canyon is to establish a level of security for the visitors and neighbors of the Park.

Principal Recommendations:

- Enact the complete security element of the Precise Plan, see Security Element, Section IV-C.
- Consider the installation of 4 call boxes within the canyon (at approximately 1/2 mile intervals) for emergency communication with the Park security network. Additional call boxes should be considered along the rim of the canyon at points of high visibility.

Repair the existing drainage outfalls into the Florida Canyon streambed, providing screens over all culverts.

- Close the parking areas and trails to park visitors nightly, allowing only security patrol.
- Prepare and implement a maintenance plan that will provide for frequent trash pick up, revegetation monitoring and exotic plant removal by personnel knowledgeable in native plant habitats.
- Clean up all canyon areas and implement litter removal on a regular basis to deter additional trash dumping and disturbance to vegetation.
- Utilize the ranger station, located at the northern entrance to the area, as an emergency station with first aid provisions and communications equipment.
- Construct and maintain primary trails for vehicular access by security patrol and maintenance crews.
- Remove buildup of riparian vegetation overgrowth to establish and maintain maximum visibility while sustaining the vitality of the native habitat. Work with biologists and the police department to determine the limits of plant removal.

2. MORLEY FIELD AND THE MESA RIM

a. Area Description

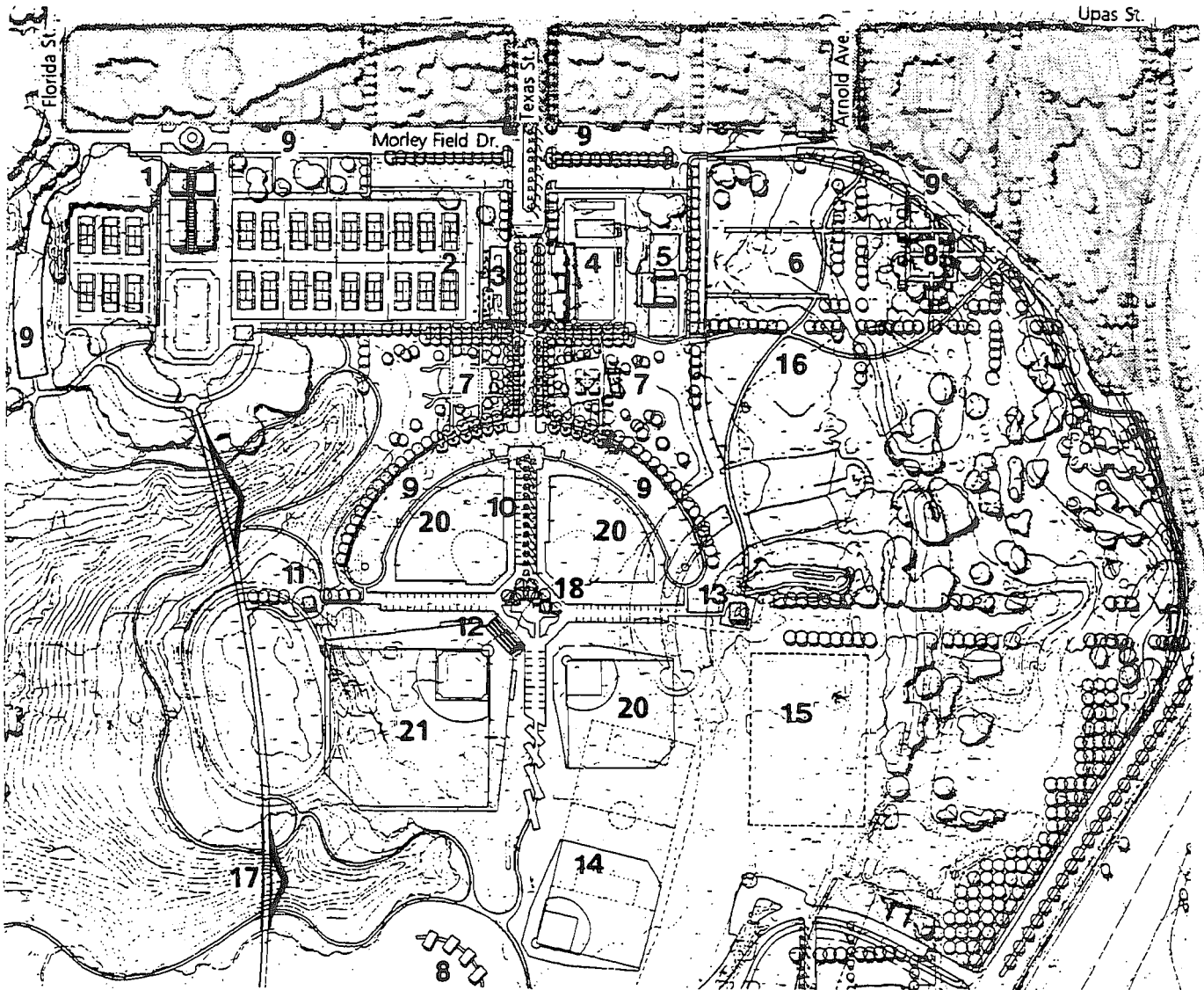
The Morley Field Area is the primary focus of the East Mesa in the perception of Park users. It is bounded on the north by Upas Street and the edge of the Park. Its eastern and southern edges are contained by Pershing Drive and the Park Nursery. Florida Canyon serves to separate the area from the remainder of Balboa Park to the west. Its topography is fairly flat, sloping gently from the northeast to the southwest allowing large expanses for open play.

b. Concept Summary

Morley Field was, historically, the "reformist" core of Balboa Park, that is, the area where, through athletics and organized play, citizens of San Diego enhanced their social and moral standing. Although the initial reformist fervor has waned, Morley Field still serves as the center for organized play in Balboa Park. In time, the area has also become a focus of social activity and, in the surrounding parkland, the focus of much passive recreation as well. The opportunity exists, therefore, to integrate all of these venues into a coherent, efficient whole.

Athletics and sports, clearly, are the primary focus of Morley Field: tennis, swimming, baseball, softball, disc golf, fly casting, archery, bocce, etc. All of these facilities are in various needs of improvement.

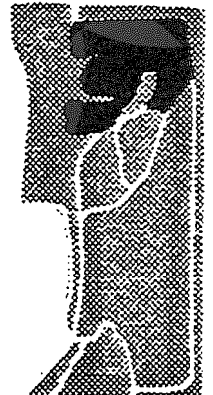
Morley Field, however, also serves a vital social function, attracting sport-minded individuals, families and athletic organizations, and inviting them to gather around the various sport areas to exchange views and socialize. In this regard, Morley Field does not provide a suitable setting, nor adequate ancillary facilities. In addition, the Morley Field area serves as grounds for passive recreation, some, the direct spillover from sporting activity while in-between games, like playing catch, picnicking and frisbee-throwing, simply satisfying the passive recreation needs of the surrounding community. Yet these facilities, which include playgrounds and picnic shelters, are scattered; there are too few of them, and they are too far from ancillary facilities such as restrooms and parking.



MORLEY FIELD, AREA PLAN

Legend

- | | | |
|---|--|----------------------|
| 1. Tennis Clubhouse | 10. Promenade | 18. Sky Plaza |
| 2. Relocated Tennis Courts | 11. Picnic Pavilion | 19. Disc Golf Course |
| 3. Community Center (Renovated Pool Building) | 12. Concessions / Restrooms Under Baseball Stand | 20. Softball Field |
| 4. Pool Complex | 13. Concession / Restroom | 21. Baseball Field |
| 5. Senior's Center | 14. Multi-Purpose Field | |
| 6. Fly Casting Pond | 15. Multipurpose (test plot) | |
| 7. Playground | 16. Pedestrian / Bicycle Path | |
| 8. Group Picnic Area | 17. Pedestrian / Bicycle Bridge | |



c. Plan Recommendations

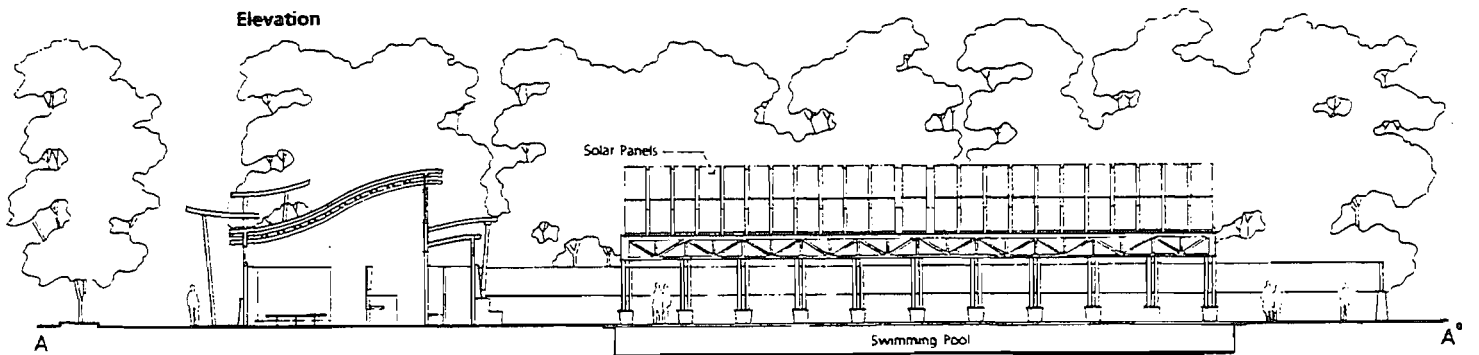
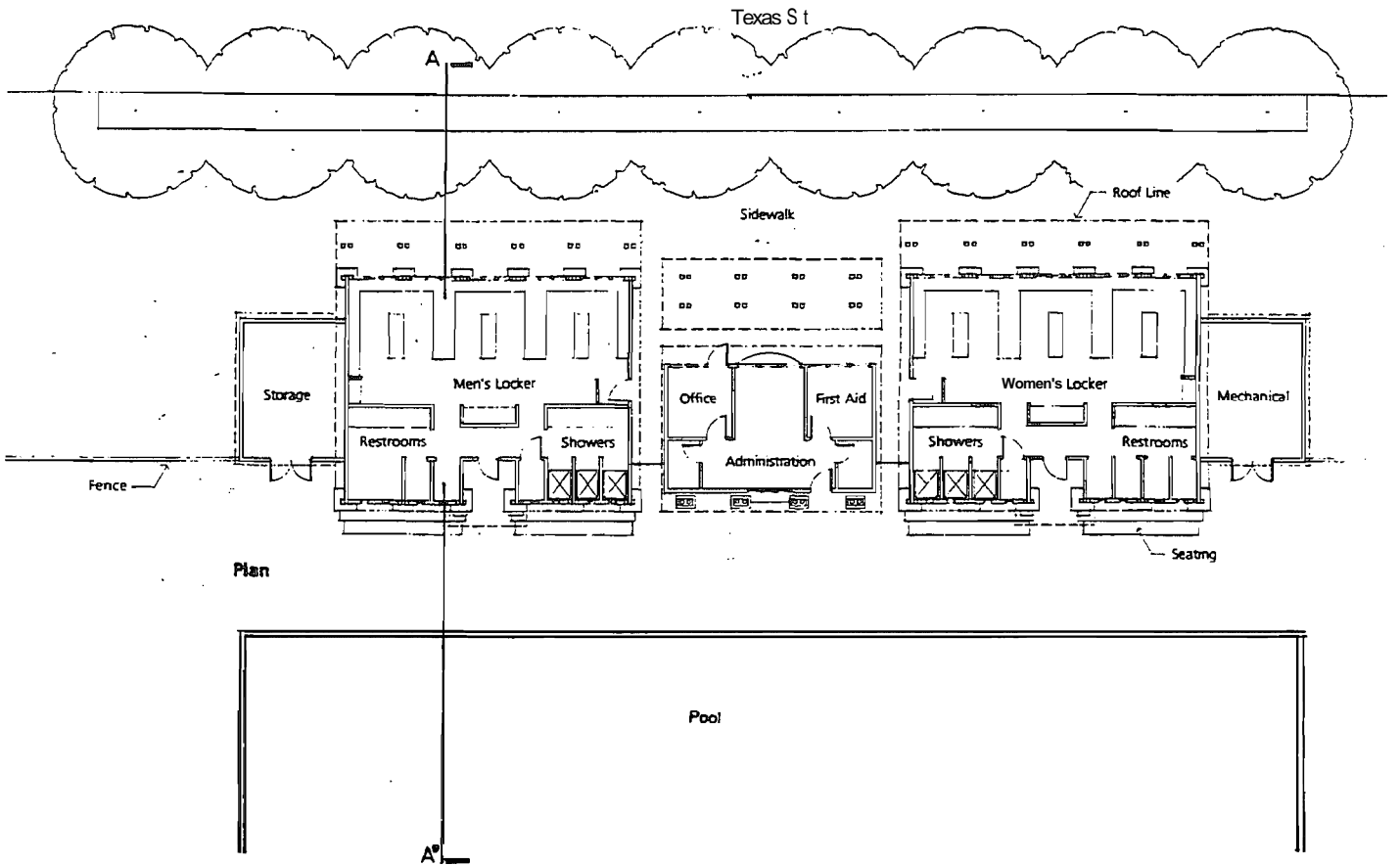
Given the above issues, the plan for Morley Field aims to consolidate the active and passive recreation functions into an integrated district with state-of-the-art sports facilities and an optimum setting for social gathering and passive play.

To achieve this objective, a reconfiguration of the ballfields and most of the parking is deemed essential. Additionally, the relocation of the velodrome, so as to release its footprint for passive play, allows the grasses to be integrated into the surrounding mesa landscape. The ballfields then, can be sited to create a central gathering area that is connected to the other facilities, the tennis center and pool complex in particular. All facilities should be accessed by an identifiable main entrance and served by common parking.

The gathering area is conceived as a promenade that links the various facility entrances while being directly attached to the parking areas. This maximizes safety, as motorists and pedestrians remain in close visual proximity from each other. The following are the major proposed improvements:

- Entry: Enhance Texas Street as the main entrance to Morley Field, extending past the tennis center to the ballfields.
- Kems Pool: Construct a new pool facility on the east side of the Texas Street extension, directly opposite and matching the old pool house in scale.
- Equip the new swimming pool to provide access for persons with physical disabilities, while a wading pool is added for toddlers and swimming classes. The pool should be solar heated or should utilize methane from the landfill collection system to power the boilers.
- Community Center: Renovate the old pool house as a community center for meetings, fitness and education programs; restrooms serving the entire complex are also recommended here.

NEW
SWIMMING POOL FACILITY



Section

- **Ballfields & Promenade:** Rearrange the ballfields so that the games can be viewed from a common gathering area/promenade. A concession building and restroom is proposed at the center of the fields, the roof of which can serve as spectator stands for the one baseball field.
- Construct pavilions at the terminus of the east and west promenades; the west pavilion is open for picnicking; the east pavilion is for disc-golf concessions and restrooms.
- Replace one softball field with the large baseball field so that the latter is not impacted by the landfill. A multipurpose field, primarily for soccer, is placed east of the relocated softball field; both are irrigated for year-round play and lit for night play.
- **Tennis Center:** Remove two tennis courts north of the competition court to make room for an expanded, upgraded clubhouse and gathering area.

Replace the removed tennis courts to the east end of the block of courts. These and all other courts are to be lighted.

Parking: Reconfigure parking to concentrate vehicles at the center of Morley Field where it can be safe and convenient to more uses, the community center in particular.

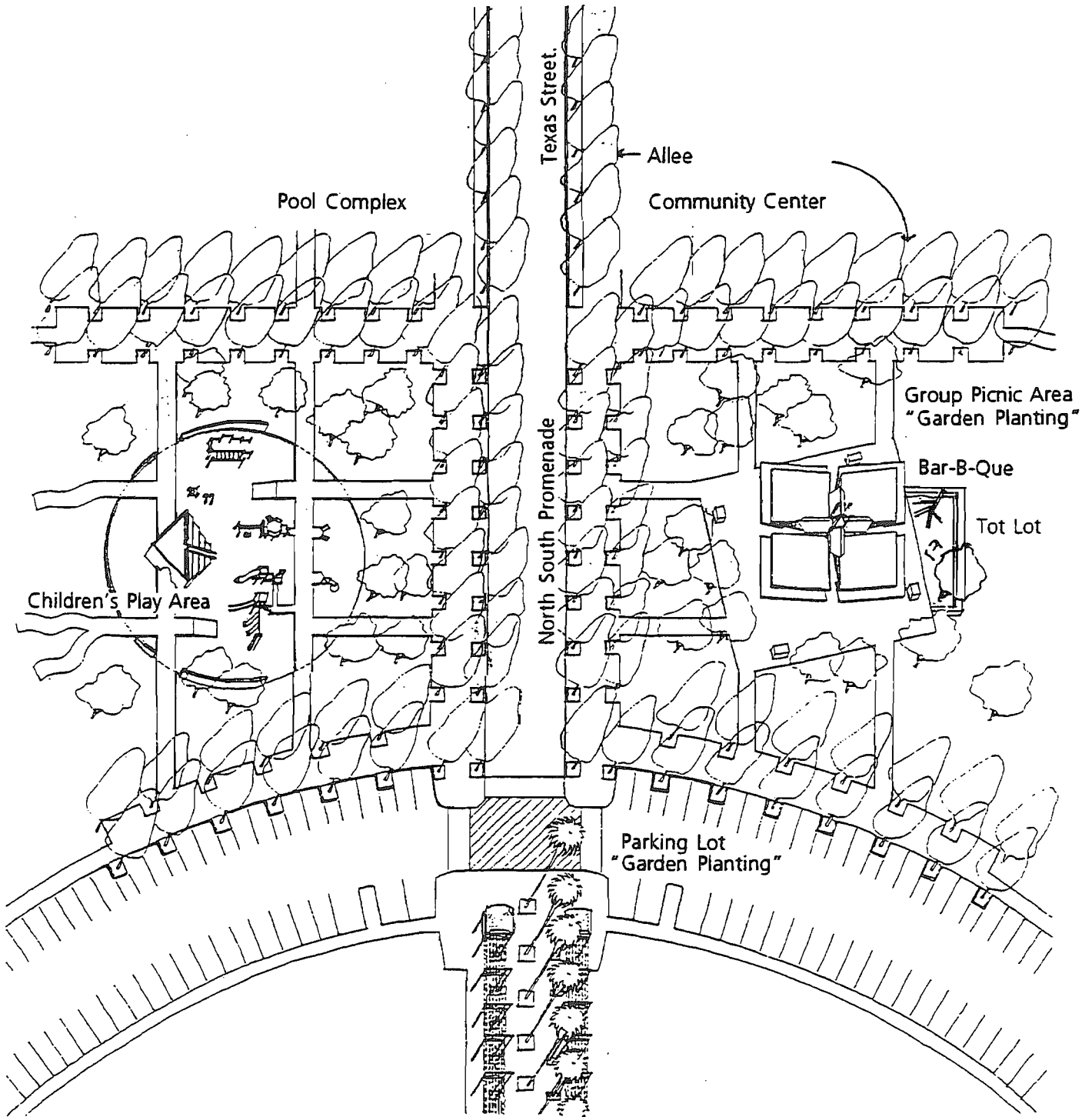
- **Picnic:** Construct a group picnic facility and two playgrounds between the ballfields and the pool/community center area. This integrates passive and active recreation so that all members of a family can play and recreate while in close proximity to each other. The tot lot should be adjacent to the picnic area.

Add a new group picnic area at the south end of Morley Field.

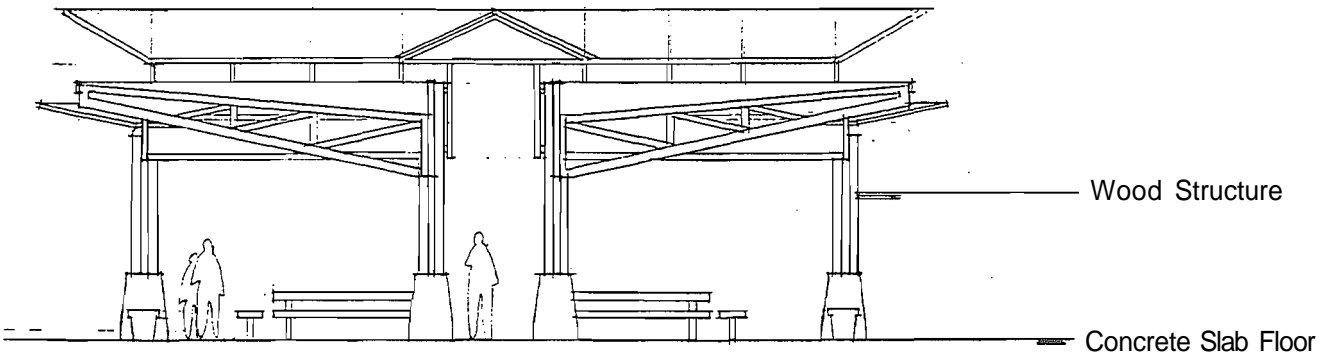
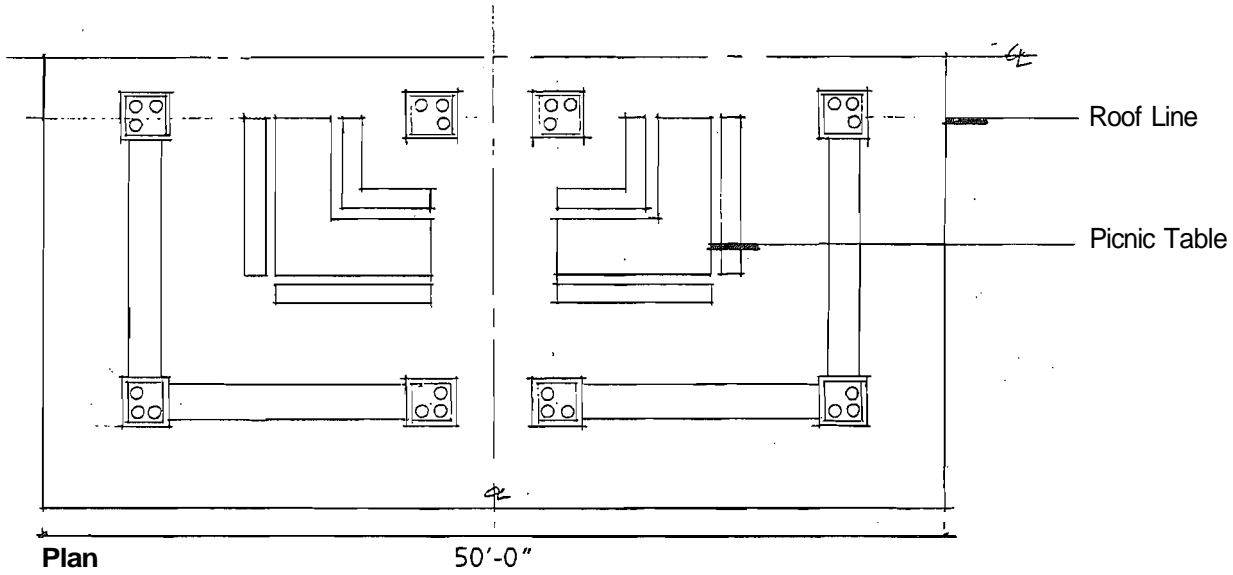
Retain the current exercise circuit course.

Senior Center: Refurbish the senior citizen center in an architectural style that meets the aesthetic of the Park. Reconfigure parking to be more convenient for senior patrons.

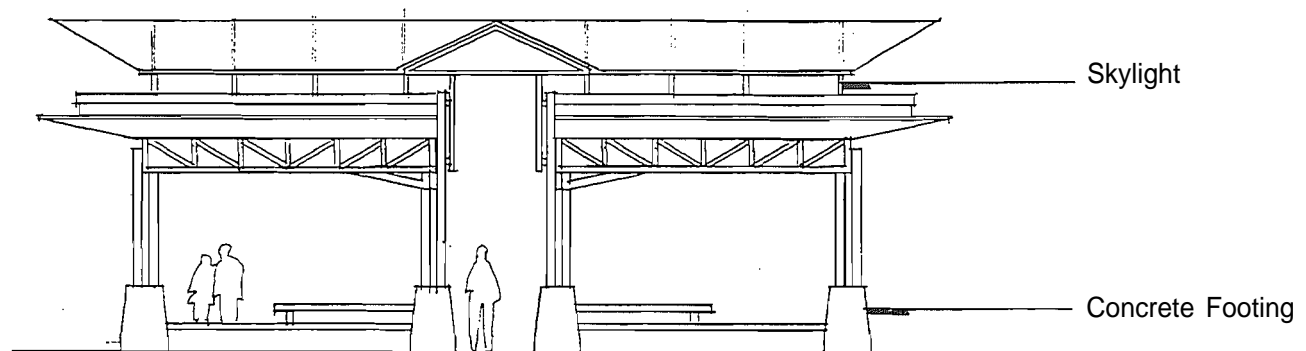
AXONOMETRIC VIEW OF
MORLEY FIELD PROMENADE



GROUP PICNIC SHELTER

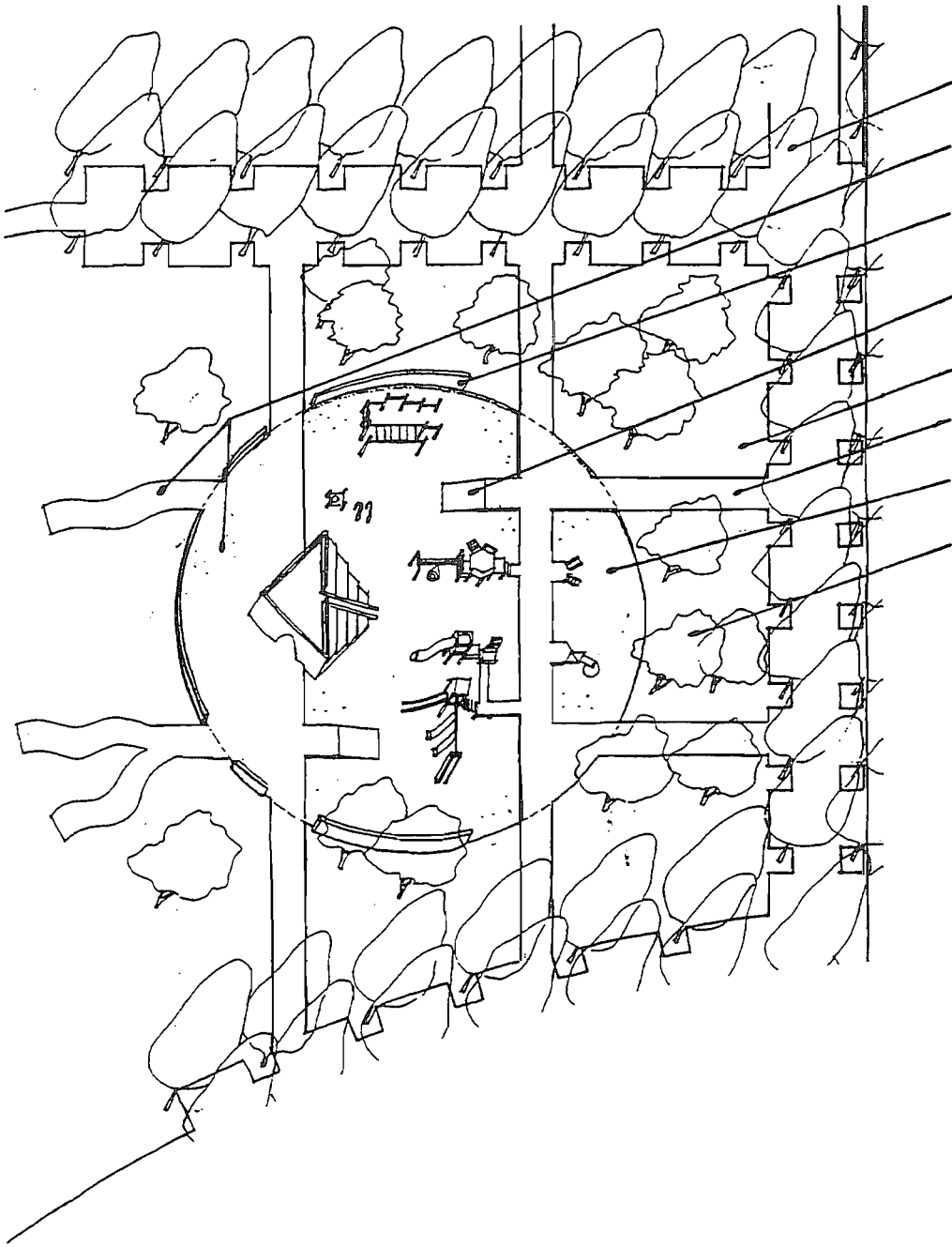


Section



Elevation

CHILDRENS PLAY AREA



Tree Allee

Boardwalk

Free Standing Wall (30" Max.)

Boardwalk Access for
Persons with Disabilities

Turf

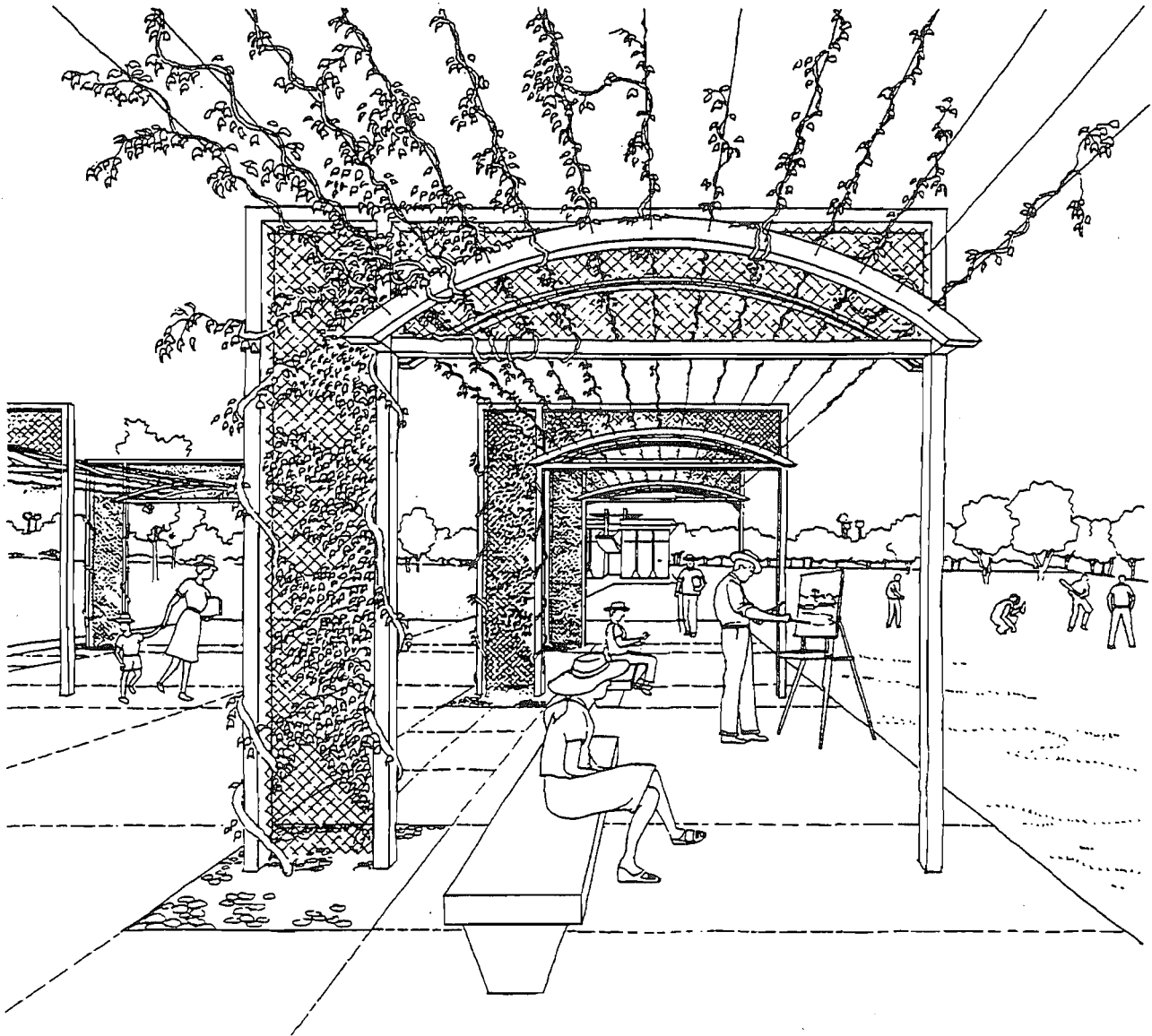
Concrete Paving

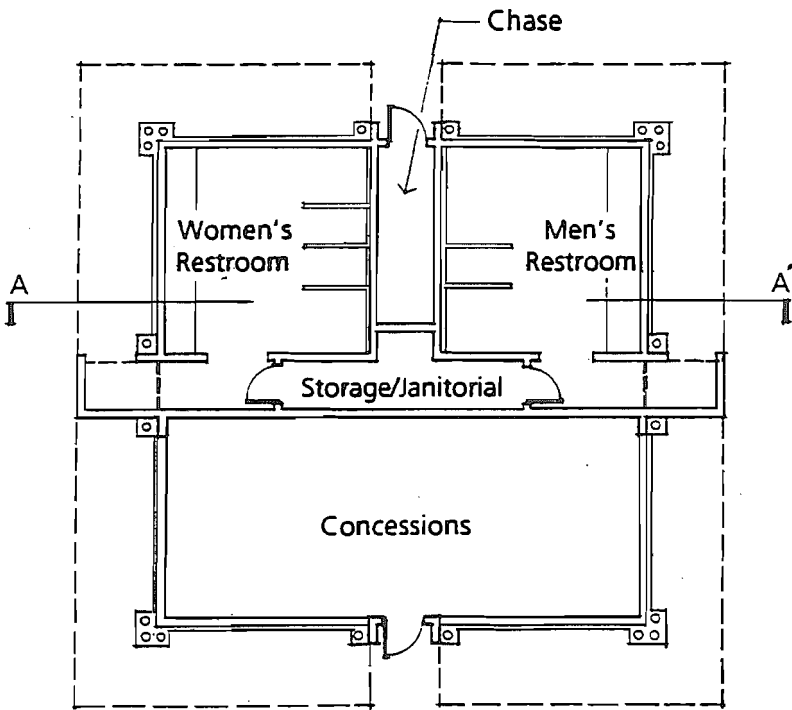
Sand

Various Flowering Trees

2. Morley Field & the Mesa Rim

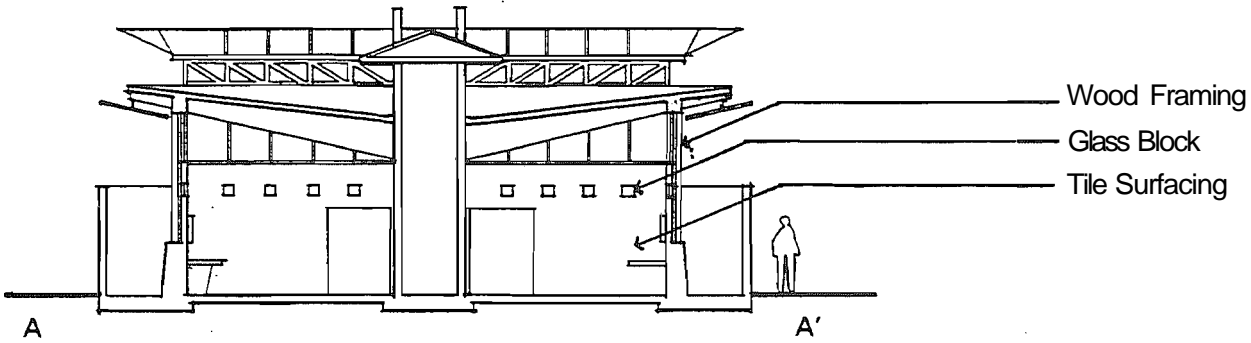
TRELLIS OF THE MORLEY FIELD PROMENADE



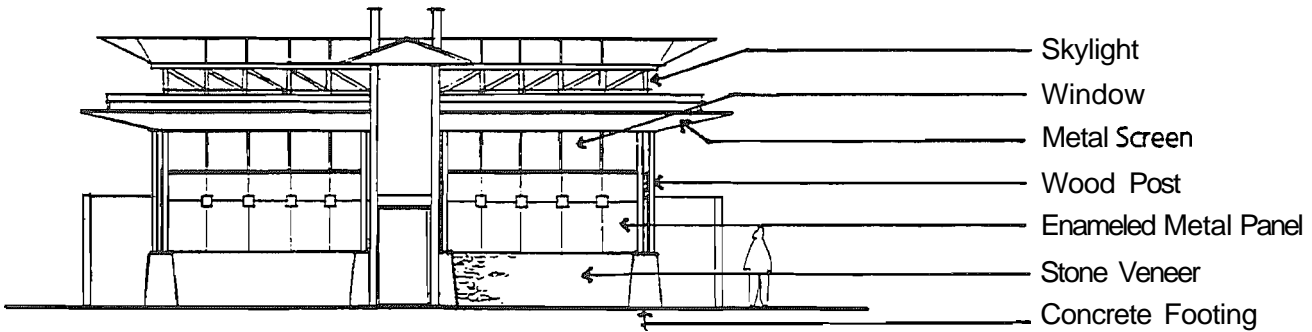


CONCESSION STANDS AND RESTROOM

Plan

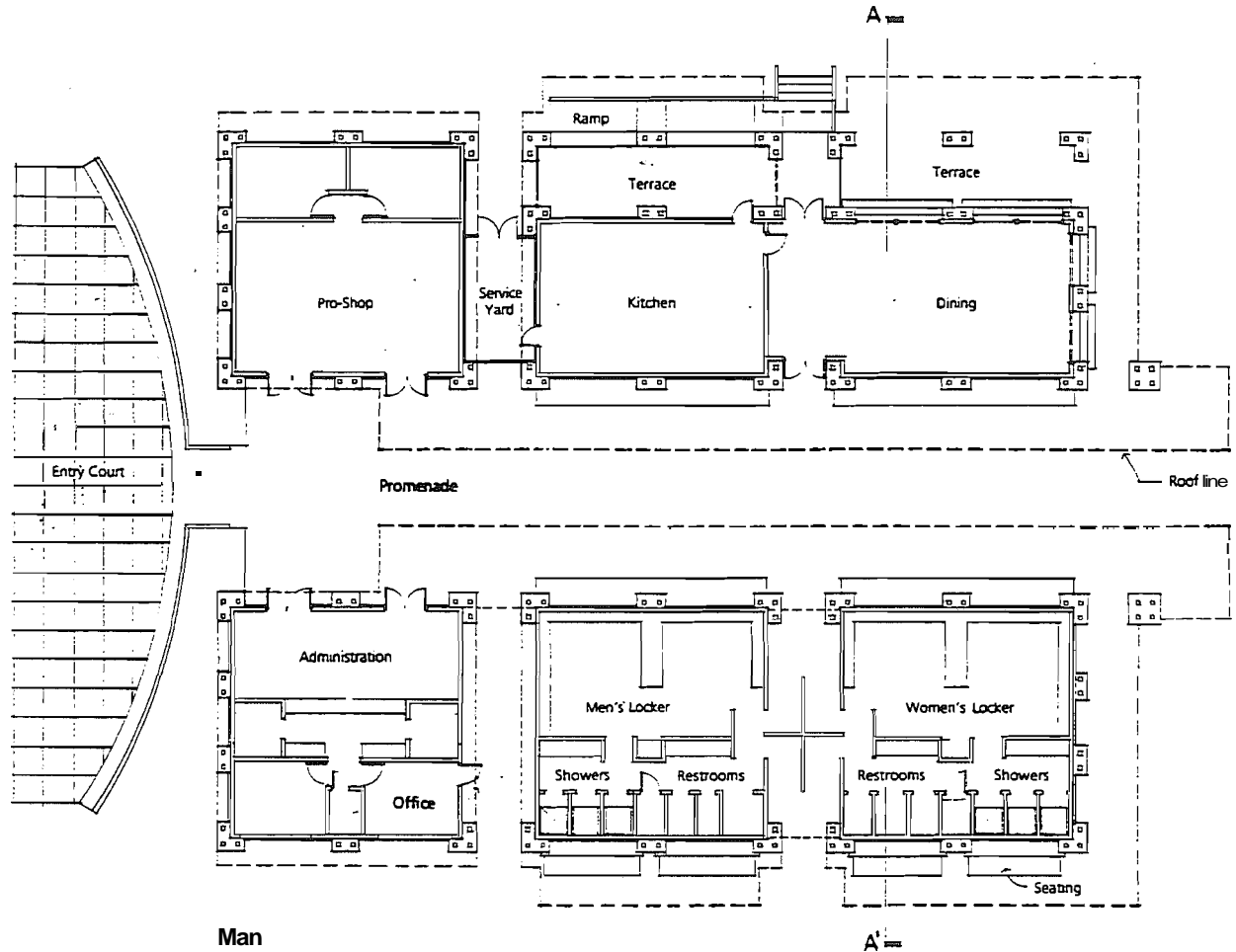


Section



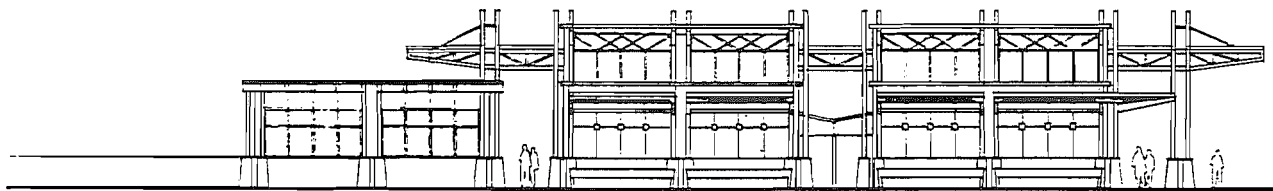
North Elevation

TENNIS CLUBHOUSE

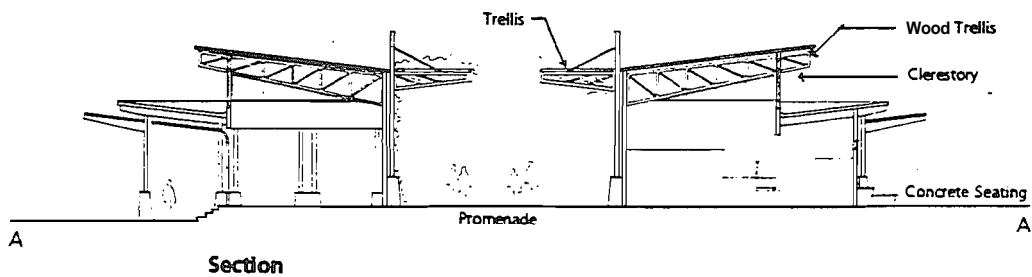


Man

A'-A

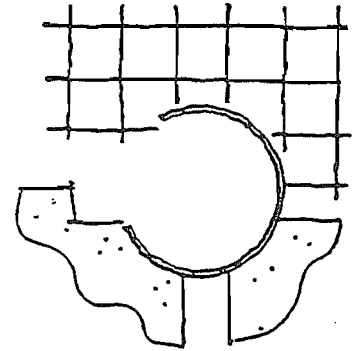


West Elevation



Section

- Relocate the velodrome to the present City Operations Station where its walls, noise, and lights do not impact the surrounding neighborhoods (See the Pershing Recreation Complex, Section IV-8).
- Remove the archery range from the East Mesa.
- Enhance the disc golf course in terms of landscaping. Rearrange the baskets as deemed appropriate for challenging play. Paved parking is provided in close proximity to the west. Remove and revegetate the area along Pershing Drive currently used for informal parking.



Expression of Urban and Natural Forces

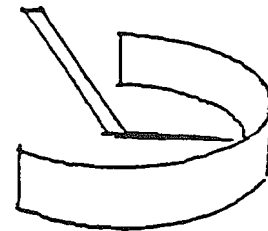
SKY PLAZA

The following special design features - Sky Plaza and the Gateway Pond - are proposed within Morley Field as cornerstones of the design.

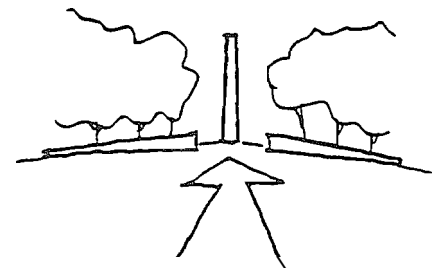
Design Intent

The Sky Plaza is designed to provide a major gathering space at the center of Morley Field, not only for watching ball games but also for experiencing a micro version of the entire East Mesa. The plaza expresses thematically both the urban forces and natural forces of the area in distinctive yet integrated landscape forms. Geometrically partitioned triangular and square planters containing trees represent the rigid urban grid and informally sculpted planters containing native vegetation represent the natural land form.

A sun dial is placed in the center of the plaza not only to celebrate the center of the space as a landmark but also to symbolize the strong natural forces of sunlight, shadow sky, and the passage of time which we experience on the mesa top. Vines, trained along chain link fence, surrounds the sun dial and reinforces the central domain.



Reinforcing the Central Domain



Sun dial as a Landmark

Implementation

The plaza consists of planters, landscape, paving, furniture, lighting and the sculptural sun dial

Planters: The planters have concrete curbed edges in the gridded area and are "cut outs" in the freeform locations. Curbed planters gradually rise toward the center of the plaza, with curbs varying in height from 6 inches to 24 inches. This modulation reinforces the center.

Landscape: Planting within the gridded (urban influenced) planters should contain a uniform massing of trees, recommended as a single species, such as *Eucalyptus citriodora*. Groundcover should likewise be a single species, such as *Myoporum parvifolium*. Within the freeform planters, the plant palette responds to the natural areas with a mixture of diverse native shrubs and groundcovers including *Baccharis*, *Salvia*, *Artemisia*, and *Ceanothus*. Vines that surround the sun dial mark seasonal change through color and flower. Species include *Wisteria* and *Distictus*.

Paving: The ground plane should be paved with modular patterned enhanced concrete, scored to match the gridded planters.

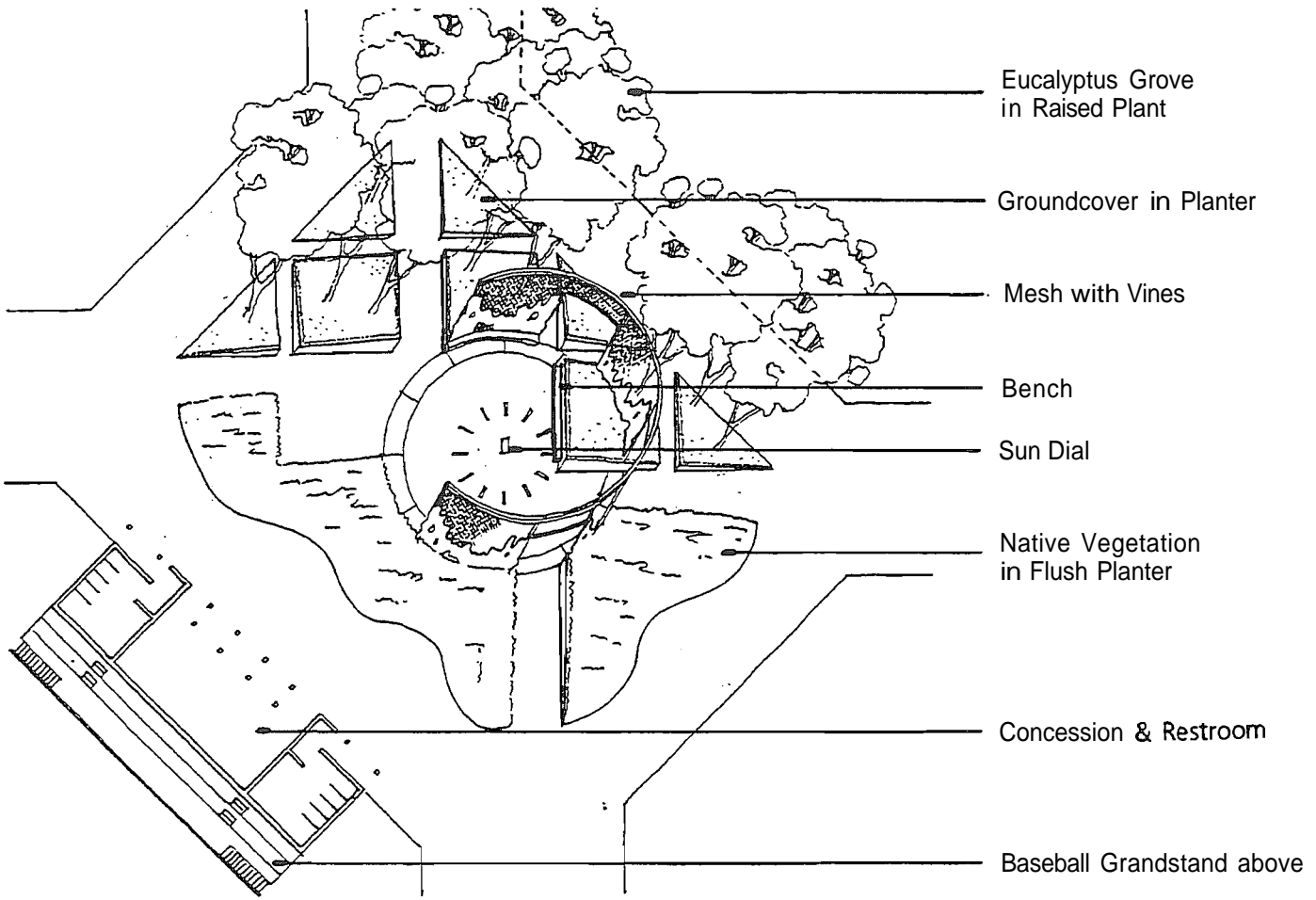
Furniture: Concrete benches are placed along the planter perimeter within the sun dial fence. The bench should be designed as an integral part of the planter wall.

Lighting: Lighting will be pedestrian scale, pole mounted, vandal resistant fixtures, corresponding with overall park policy for lumen levels.

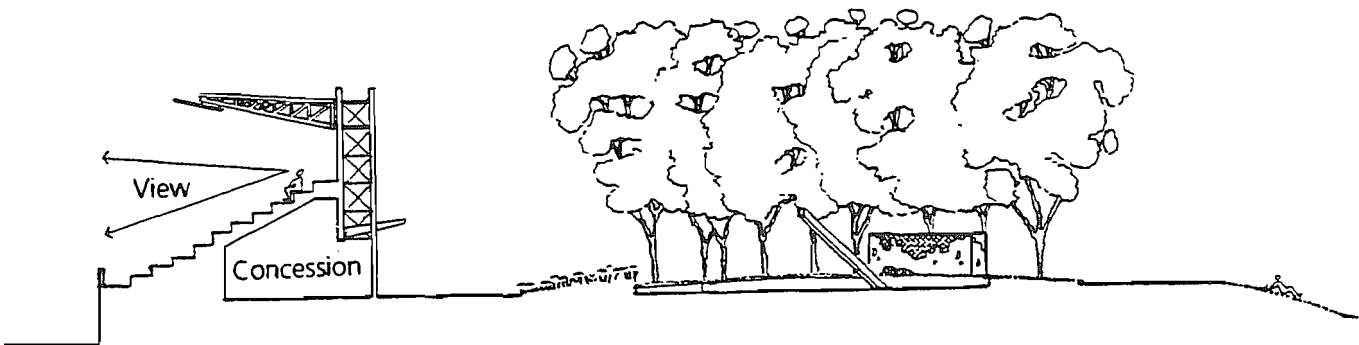
Sun Dial: Using the pavement as the base for hourly markings, a sculptural gnomon provides the plaza centerpiece. Approximately 6 feet high and made of steel, it sits at the plaza center point and is surrounded by brass markings imbedded in the concrete paving. To enclose the sundial space with a transparent frame, an 8 foot high mesh fence surrounds the plaza. Its fabric is covered with flowering vines.

Adjacent to the Sky Plaza, a 400 seat baseball grandstand is proposed. A concession stand with restrooms is below. The structure's design should respond to the East Mesa architectural guidelines.

SKY PLAZA



PLAN



SECTION

FLY CASTING POND & GROUP PICNIC AREA

Design Intent

The fly casting pond is located at the Arnold Avenue entry not only to provide a functional space for a recreational opportunity but also to act as a lively and inviting gateway to Morley Field. Utilizing reclaimed water, it provides the only true pond in Balboa Park that can serve as both a sport and visual amenity.

implementation

Components of the fly casting pond consist of the pond itself, piers for casting, group picnic area, site amenities, and landscape planting.

The Pond: The form of the casting pond follows the contour along its west and south side and is curved along the east side in a visual expression of adjacent landfill's boundary. The north shore is a straight casting pier, while the southern pier extends through the pond. The naturalistic west and south shorelines are formed from stones and stabilized earth. The area of the pond is approximately 3/4 acre in size, 205 feet long by 150 feet wide. Its depth is a maximum of 3 feet.

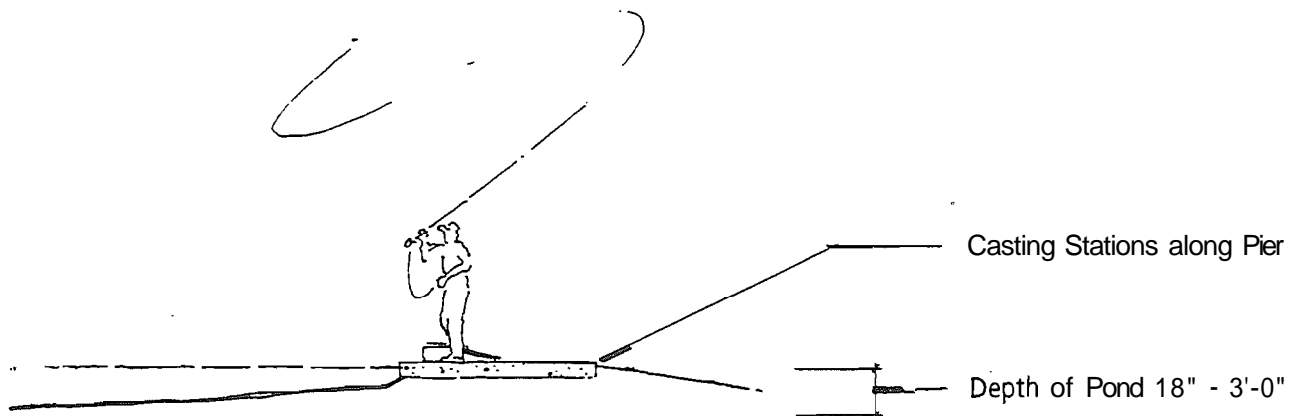
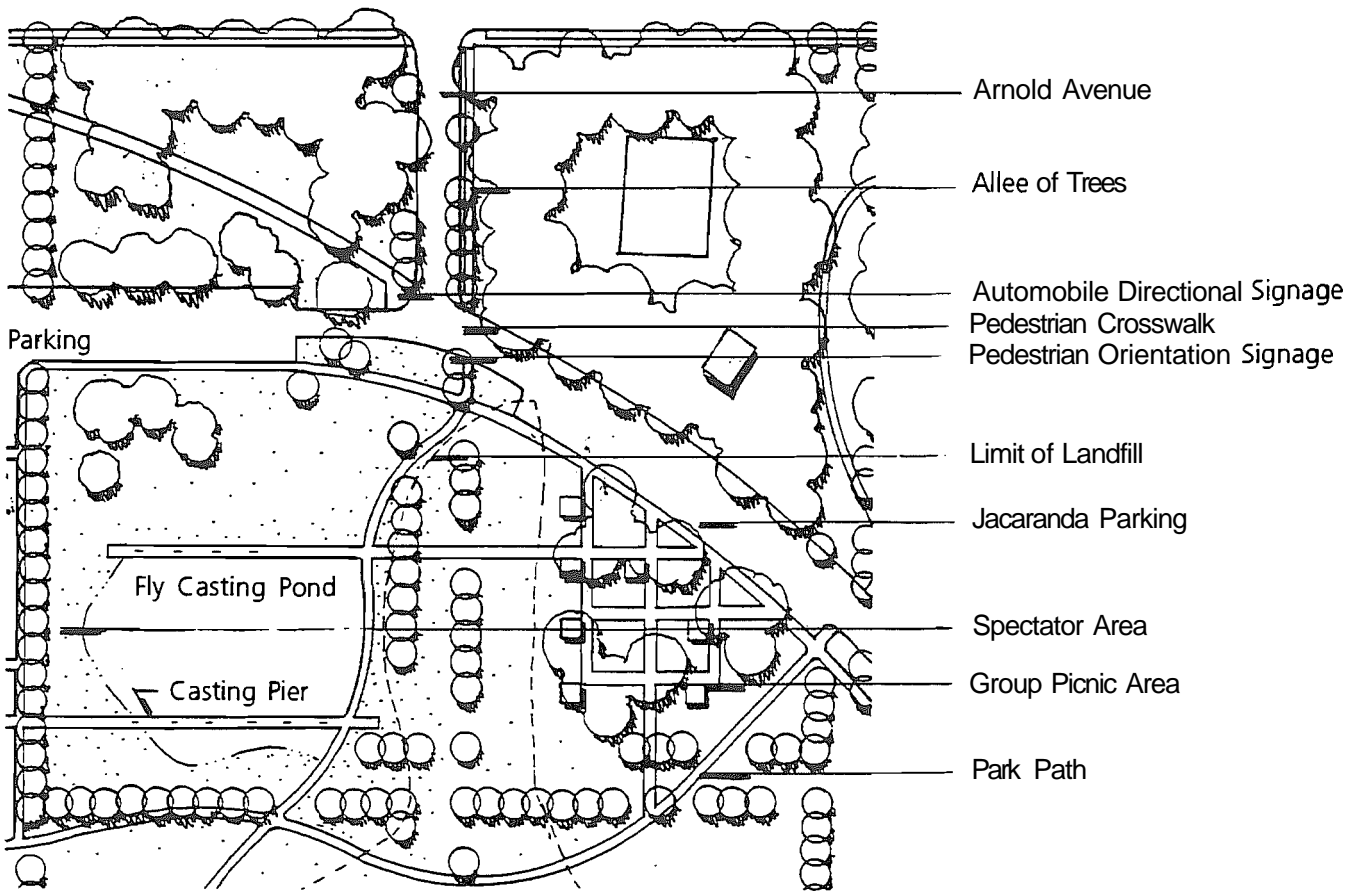
Grading is necessary to construct the pond in this location and provide proper drainage. The north and east sides of the pond are built up to hold water. Paths graded not exceeding 8 percent connect the pond to adjacent park areas.

Casting Pier: Two linear piers are provided for fly casting events. The concrete piers are 10 feet wide. Casting stations are located along the piers at 30 foot intervals. The casting stations are orientated to the site's prevailing wind.

Landscape: The area is defined by an extension of the allee trees. Additional trees in the northwest corner will utilize a broad palette of wetland trees including *Alnus rhombifolia*, *Populus* ssp., *Salix* ssp., and *Platanus racemosa*. The planting arrangement should reinforce the Park's landscape concept and not conflict with the spatial requirements of the fly casting.

Sit: Amenities: An informal area for spectators is provided on the west side on the pond. Concrete benches and a drinking fountain are located along the sidewalk near the Senior's Center at the south casting pier. Pedestrian orientation signage is located at Arnold Avenue, informational signage is provided at the south casting pier to detail permitted uses, communicate upcoming fly casting events, and mark the use of reclaimed water. The facility should not be lit for nighttime activities, however low level lighting should be provided for park pedestrians through pedestrian scale, pole mounted fixtures. All lighting levels should respond to the overall park standards under development.

FLY CASTING POND



- Planting types for Morley Field and the Mesa Rim include Mesa, Savannah, and Garden species.

Mesa Representative Species:

Festuca species, Tall Fescue
Cynodon dactylon 'Tifgreen,' Bermuda Grass

Savannah Representative Species:

Trees:

Acacia baileyana, Bailey Acacia
Jacaranda mimosifolia, jacaranda
Quercus englemannii, Mesa Oak
Robinia pseudoacacia, Black Locust

Shrubs:

Echium fastuosum, Pride of Madeira
Kniphofia uvaria, Red Hot Poker

Groundcover

Festuca species, Tall Fescue
Cynodon dactylon 'Tifgreen', Bermuda Grass

Garden Representative Species

Trees:

Archontophoenix cunninghamiana, King Palm
Brahea edulis, Guadalupe Fan Palm
Calodendrum capense, Cape Chestnut
Dracaena draco, Dragon Tree
Ficus macrophylla, Moreton Bay Fig
Howea forsterana, Paradise Palm

Shrubs:

Hibiscus rosa-sinensis, Hibiscus
Strelitzia reginae, Bird of Paradise

Groundcover and vines:

Bougainvillea species, Bougainvillea
Festuca species, Tall Fescue
Wisteria sinensis, Chinese Wisteria

d. Special Maintenance and Security Needs

A primary impetus for Morley Field improvements is to establish a level of activity in the area that should result in security for Park users. Principal recommendations include:

- Enact the complete security element of the Precise Plan, see Security Element, Section IV C-4.
- Consider the installation of call boxes in each parking lot and at each restroom for emergency communication with the Park security network. Additional call boxes should be installed along the rim of the canyon at points of high visibility.
- Close the parking areas and trails to park visitors nightly, allowing only security patrol.
- Continue with a maintenance plan that will provide for frequent trash pick up and revegetation monitoring.
- Construct and maintain primary trails for vehicular access by security patrol and maintenance crews.

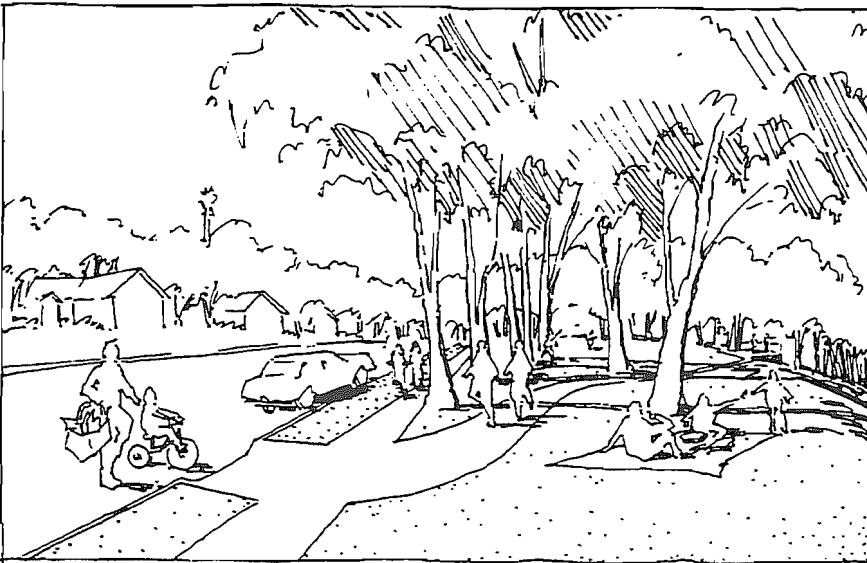
3. THE NEIGHBORHOOD EDGE

a. Area Description

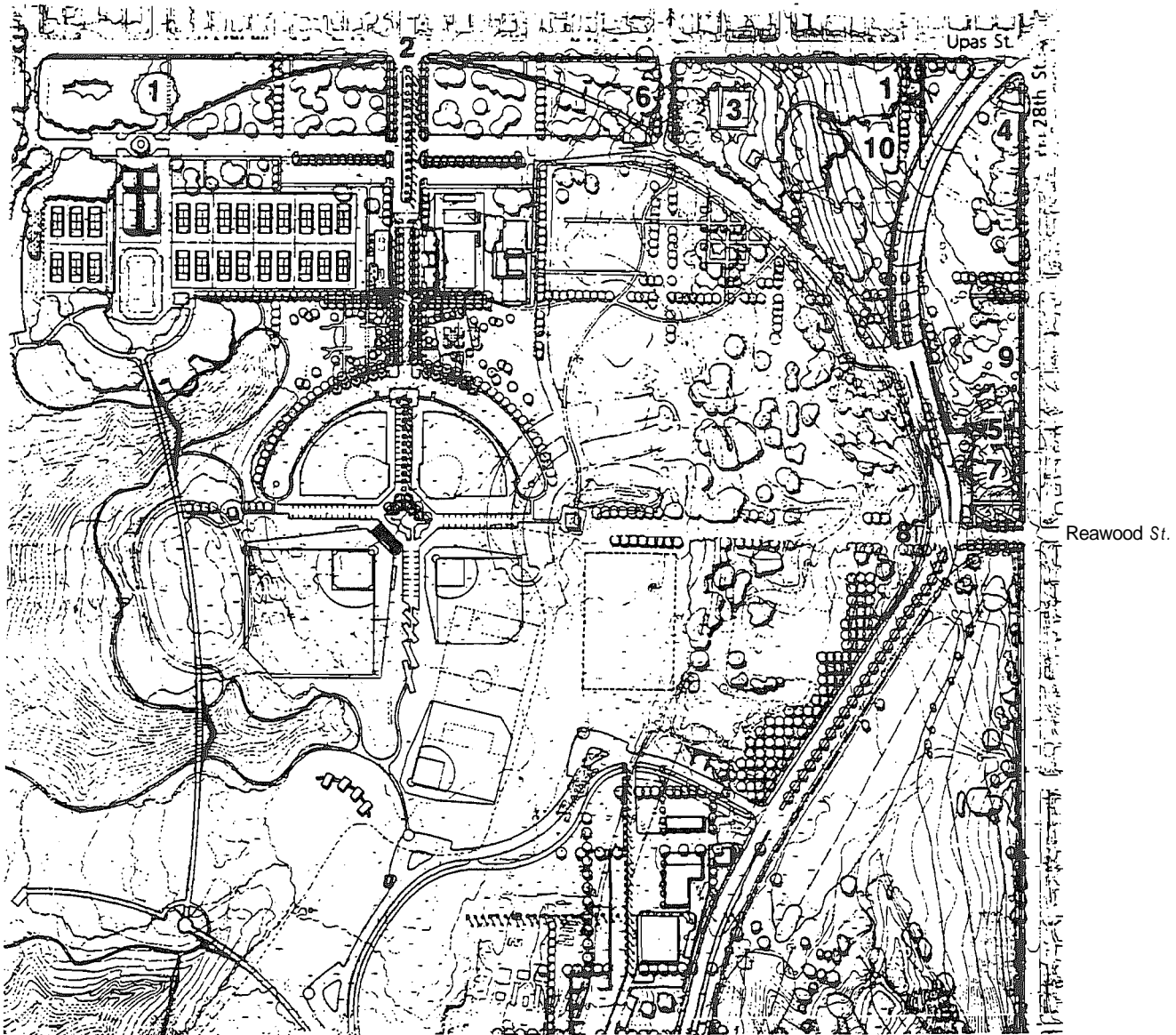
The Neighborhood Edge is the narrow band of land that forms the perimeter of the East Mesa. The width varies depending on the character and topography. It is approximately 200' wide at Upas Street, 260' wide along 28th Street, and 130' wide on the southern edge at the Golden Hill Recreation Center. The study area also includes the extension of Switzer Canyon, a 25 acre branch that lies between 28th and 30th Streets. Although not technically within the Balboa Park boundaries, its open space connection is interdependent with the Park and should be improved with the Neighborhood Edge.

b. Concept Summary

The outer perimeter of the East Mesa is to provide recreation opportunities for the residents of the adjacent neighborhoods of North Park and Golden Hill. The San Diego General Plan Parks and Recreation Element suggests that every resident in the city should be provided with a Neighborhood Park within 1/2 mile of their home. This City guideline states that the facilities of a Neighborhood Park should be determined by the needs of each neighborhood. The needs of Golden Hill and North Park neighborhoods include facilities for individual picnics, adult play, areas for small children, and open lawn for multipurpose play.



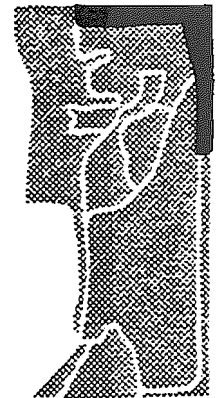
Passive Activities along the Neighborhood Edge



NEIGHBORHOOD EDGE, AREA
PLAN - NORTH

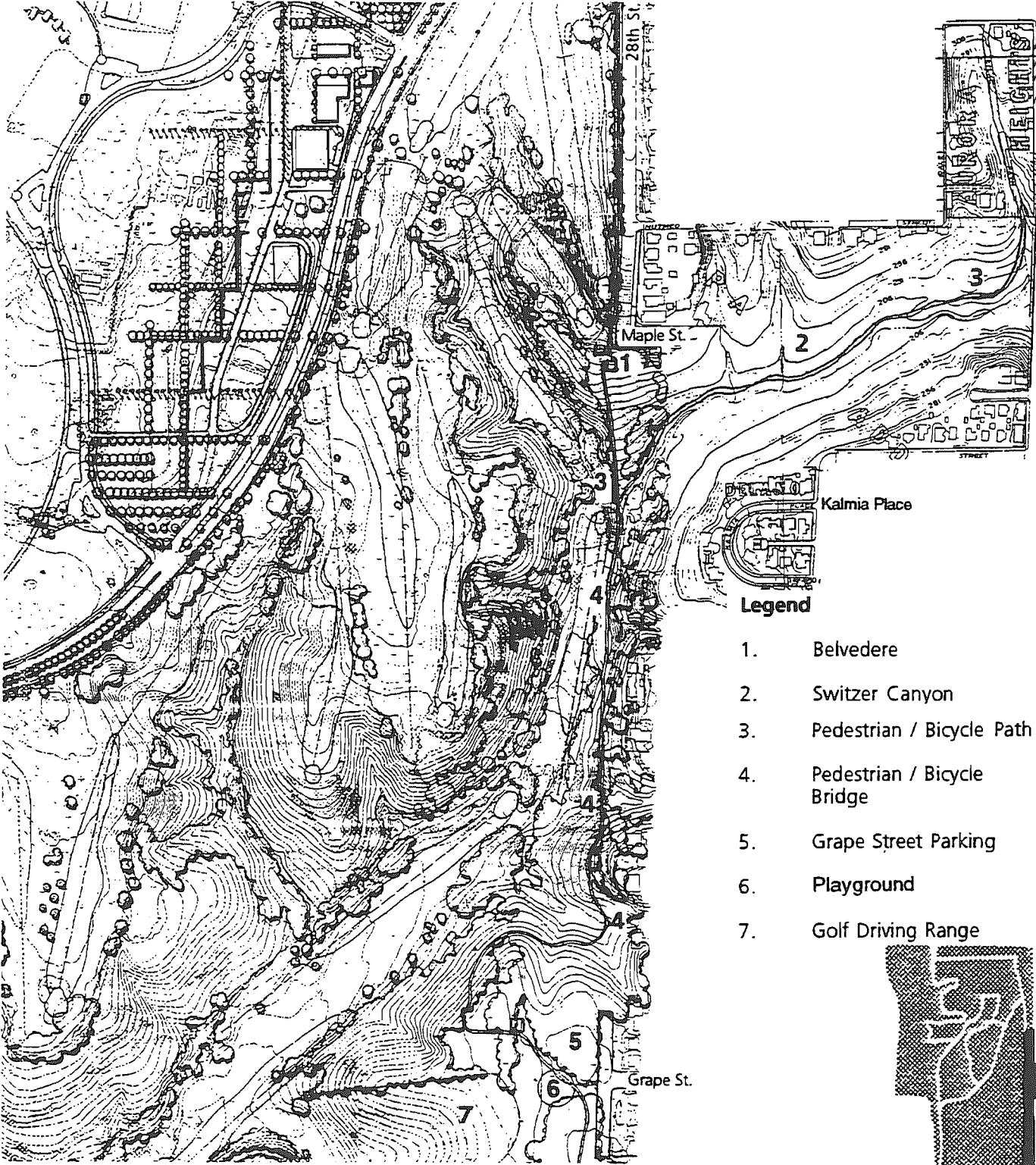
Legend

- | | |
|--|---|
| 1. Playground | 6. Allee of Trees |
| 2. Texas Street Entrance to Morley Field | 7. Underground Reclaimed Water Storage Tank, with Belvedere Above |
| 3. Bocce Courts / Restroom | 8. Underground Pump Station with Park Overlook Above, at Pedestrian Crosswalk |
| 4. Parson's Gate and Historic Entry Garden | 9. Sidewalk |
| 5. Horseshoe and Shuffleboard Courts | 10. Pedestrian / Bicycle Path |



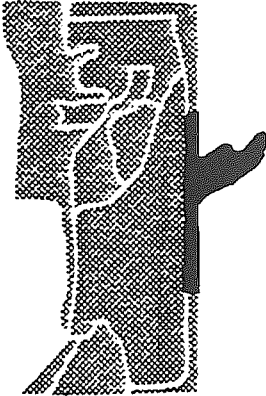
IV. DESIGN CONCEPT
3. The Neighborhood Edge

NEIGHBORHOOD EDGE, AREA
PLAN - CENTRAL



Legend

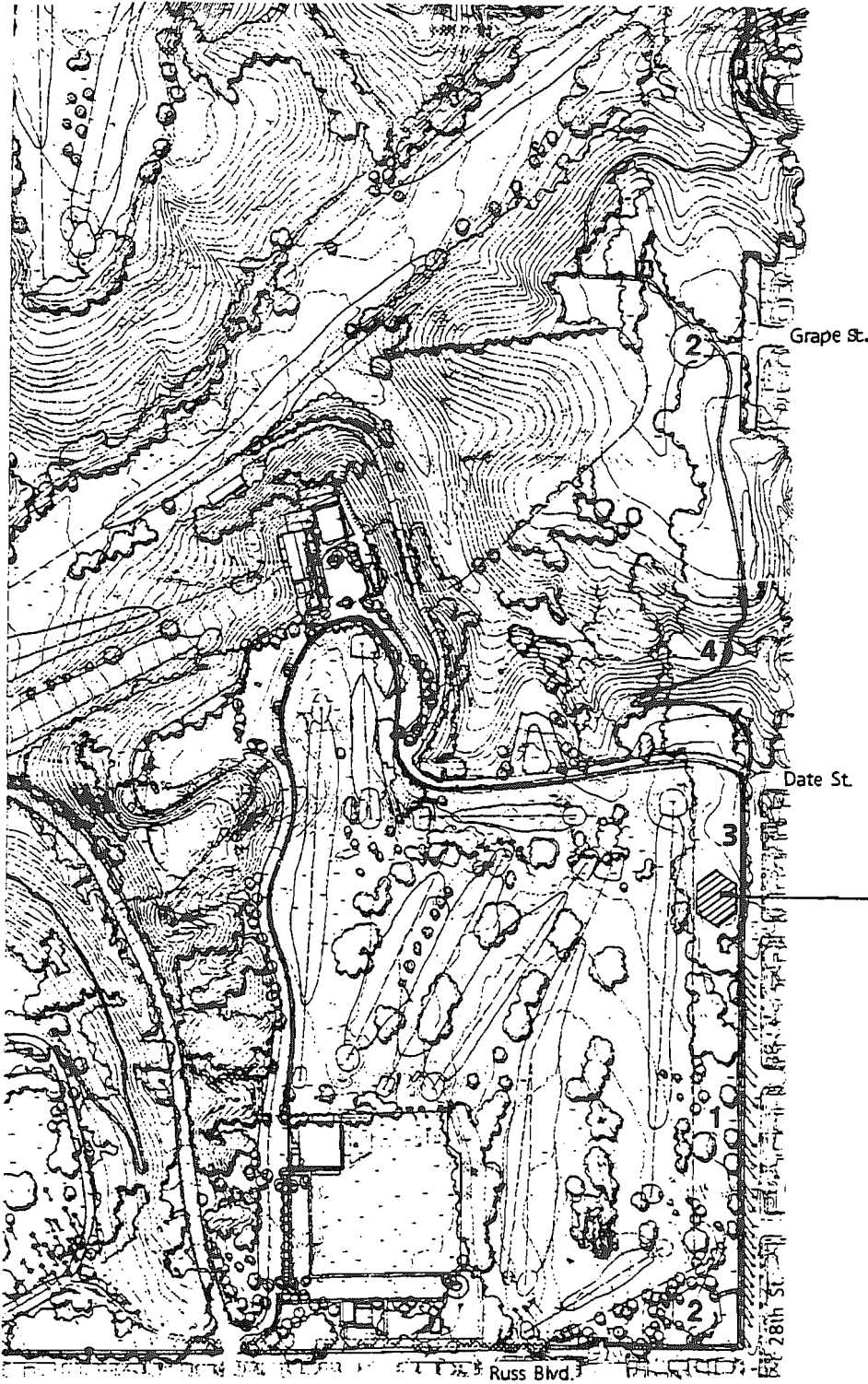
- 1. Belvedere
- 2. Switzer Canyon
- 3. Pedestrian / Bicycle Path
- 4. Pedestrian / Bicycle Bridge
- 5. Grape Street Parking
- 6. Playground
- 7. Golf Driving Range



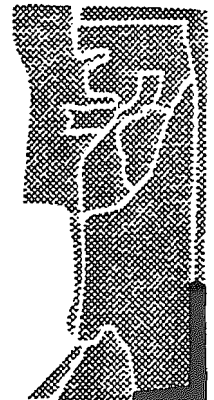
NEIGHBORHOOD EDGE, AREA
PLAN - SOUTH

Legend

- 1. Infill Ornamental Tree Planting and Lighting
- 2. Playgrounds
- 3. Continuous Sidewalk
- 4. Pedestrian / Bicycle Bridge



Alternate
Playground
Location



c. Plan Recommendations:

The principal recommendation of the Neighborhood Edge is the creation of a park entry at Upas and 28th Street.

PARK ENTRANCE AT UPAS AND 28TH STREET

Design Intent

The northeast corner of the Park designed to anchor a major public accessway to the Park, giving a new priority to the east side. The entry design is meant to convey the impression of an urban park which integrates the naturalistic landscape with the regular city pattern. From this corner, visitors and residents alike can visually experience downtown San Diego, the distant bay, and the naturalistic landscape in the Park.

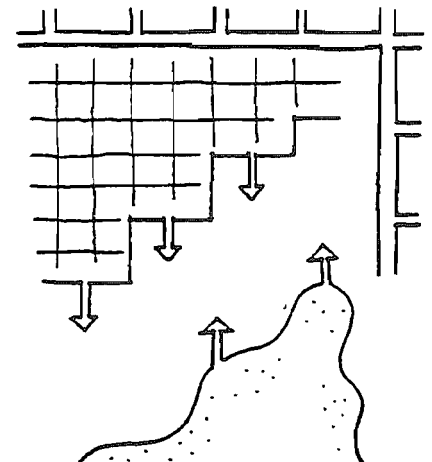
The landscape theme of this entrance area enforces this urban park image, allowing the grid of the adjacent roads to become a landscape pattern at the edge of the Park which dissipates as one moves into the park domain, finally to be merged with forms that represent the strong natural forces from mesa top. The pattern of planting and paving references Samuel Parson's 1902 design for this corner of Balboa Park.

This area provides multiple uses of open space that should accommodate children's play, picnicking, and passive recreation for the residents of the adjacent neighborhood while providing a gateway to all who encounter the East Mesa.

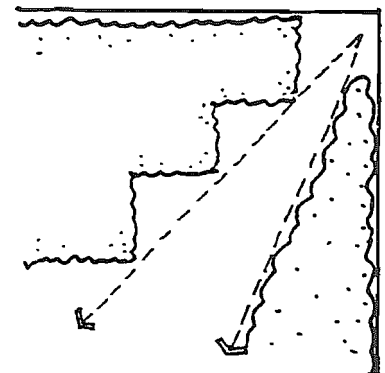
Implementation

To implement the gateway and entry garden construction, and landscaping should be undertaken.

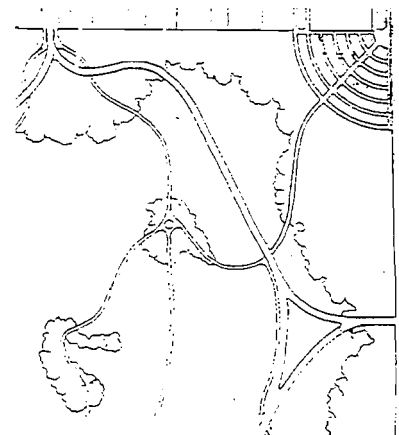
Grading: Minimum grading is required to create viewing areas which take advantage of the dramatic views overlooking the Park, the City and San Diego Bay. This transforms an existing view, expanding the view point from the corner of the site to throughout the entire entry area. With the revisions to the grades, drainage improvements will be necessary to provide adequate collection of storm runoff.



Integration of the naturalistic landscape with the regular city pattern.



Visual Swath to the distant Bay.



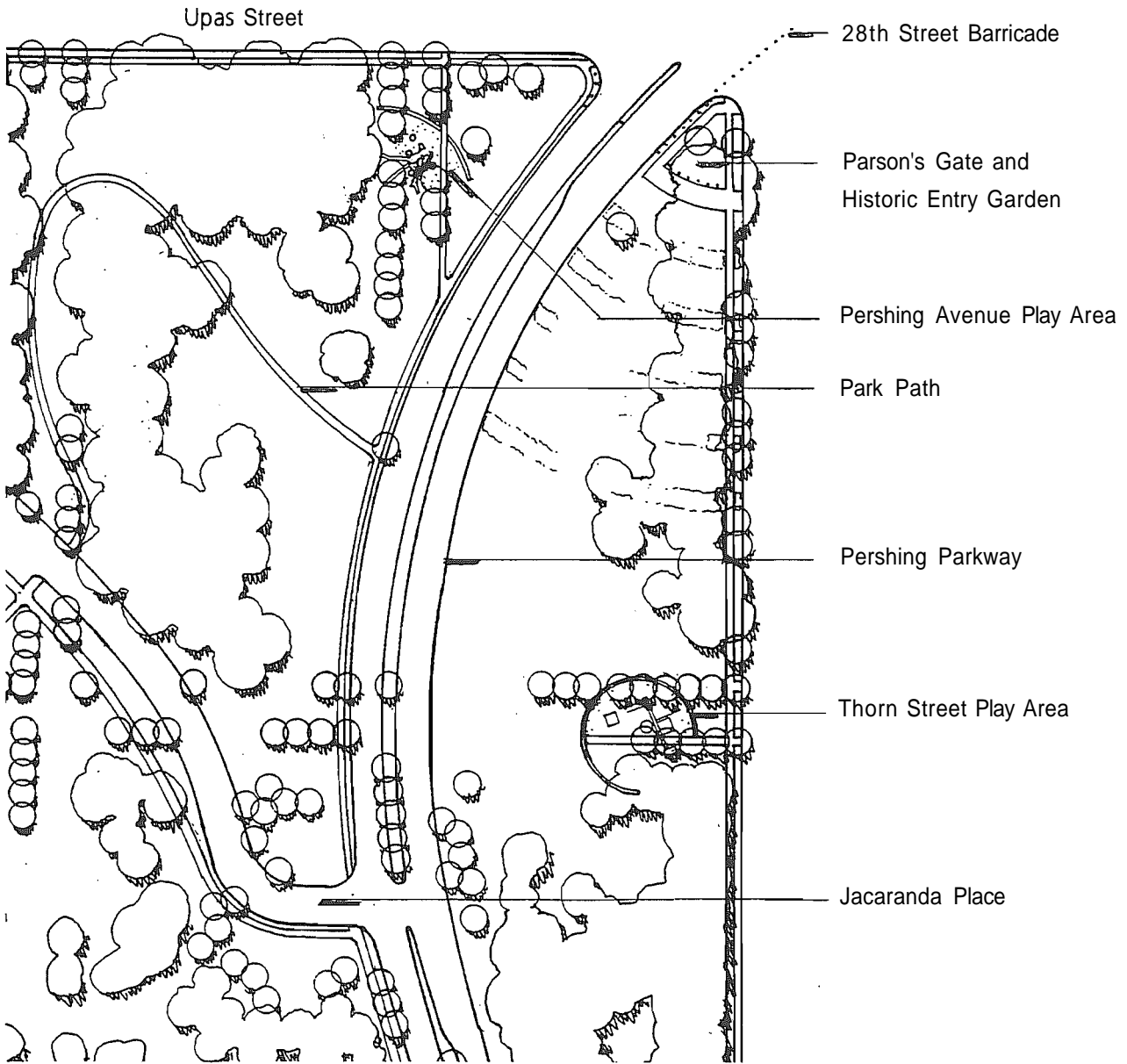
Parsons' Gate from the 1902 plan.

Traffic: 28th Street will be closed to through traffic, yet accessible to emergency vehicles. This will increase the automobile and pedestrian safety at the Pershing Drive and Upas Street intersection.

Materials: Local cobble stones that are widely used throughout the entire Park are proposed as the retaining and seat wall facing material. Stones should be set with deep joints or dry laid to replicate the craftsman style of the adjacent homes. Pavement near the Park entry should be decorative concrete with integral color to separate it from the surrounding sidewalks and multipurpose paths. The barricades used for the street closure are formalized to extend a short distance into the park forming a gate. Benches should be oriented to the views and low level pedestrian lighting should enhance security. Artist's designs should be incorporated into the functional elements of the corner treatment to initiate the integration of art and public park.

Planting: *Eucalyptus viminalis* and *Eucalyptus citriodora* in an irregular pattern, define the perimeter of the view corridor and screens intrusive views of adjacent activities. *Eucalyptus sideroxylon* is proposed for the median of Pershing Parkway. Turf should be the primary groundcover, allowing police surveillance into the Park from the surrounding city streets and increasing the area of usable parkland at this active corner.

PARK ENTRANCE AT UPAS AND 28TH STREETS



Thorn Street Play Area

Further Recommendations:

- Provide a sidewalk 8 foot wide, set 10 feet from the curb with a planted parkway strip, along 28th Street, Upas Street, and Russ Boulevard. Provide for parallel parking adjacent to the curb.
- Provide additional security lighting along the Park edge.
- Provide pedestrian traffic crossings at all intersections which enter onto the Park. Enhance appropriate intersections as minor Park entrances utilizing indigenous Park and residential materials. Engage community input for these designs.
- Construct paved pedestrian/bicycle paths to connect neighborhood entry points at Pershing Drive and Upas Street with Grape Street Park and the 25th Street area.
- Construct five play areas for children, geared for different ages throughout the Neighborhood Edge. Each area shall include children's play equipment and seating for accompanying adults. One for younger children is located near 28th and Thorn Streets; one for older children is located near Pershing Avenue and Upas Street. A third is in the eucalyptus grove across from the Morley Field Tennis Club, the fourth is in the Grape Street Park and the fifth is in Golden Hill near 28th and Cedar Streets or alternatively, near Russ Boulevard along 28th Street. Each play area shall be accessible to children of all abilities.
- Redesign the intersection for the Park entrance at Pershing Drive and 28th and Upas Streets, eliminating the five way intersection by the closure of 28th Street to through traffic.
- Engage an artist to develop a functional art element at the Upas/28th Streets corner that relates to the expansive view and the community character.

- Install individual picnic tables throughout the area.
- Maintain irrigated lawn throughout the neighborhood edge for informal play. Irrigate the landscape with reclaimed water when available.

Plant large canopy trees and grass throughout the edge.
Maintain clear visibility across the area for security surveillance.

Representative Species include:

Trees:

Eucalyptus citriodora, Lemon-Scented Gum

Eucalyptus viminalis, Manna Gum

Bischofia javanica, Toog Tree

Brachychiton discolor, Pink Flame Tree

Pinus torreyana, Torrey Pine

Shrubs:

Dietes vegeta, African Iris

Phormium tenax, Flax

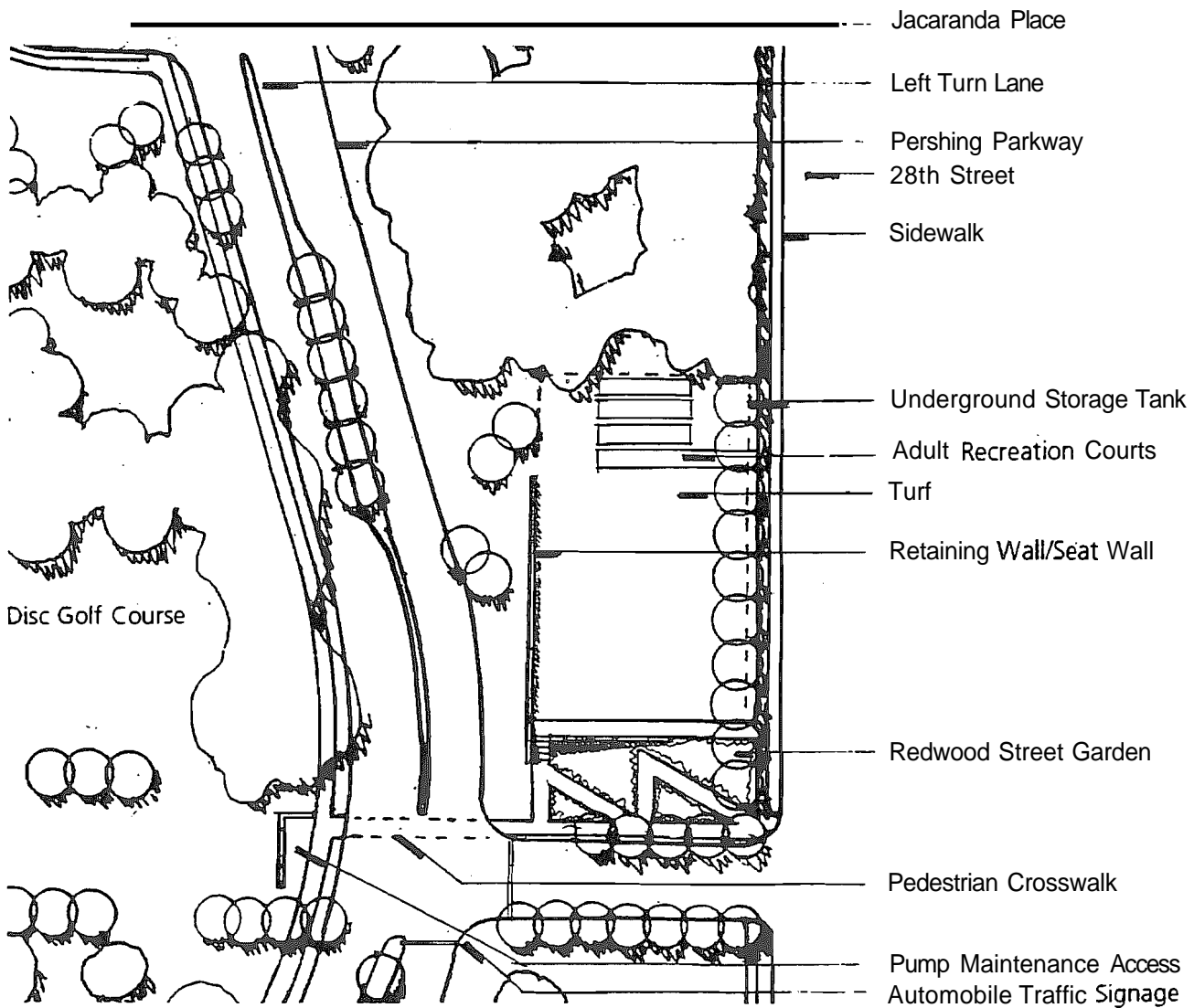
Groundcover:

Festuca species, Tall Fescue

Myoporum parvifolium, Prostrate Myoporum

- Locate the underground storage tank and pumping facility for reclaimed water at the corner of Redwood and 28th Streets. Bury the facilities to a depth that, with a drainage system and a minimum of 2 feet of topsoil above the tank, meets the grade of 28th Street. Install turf and an irrigation system above.
- Provide adult play as horseshoe or shuffleboard courts above the storage tank.
- Provide sidewalks along Russ Boulevard from 28th Street to the Golden Hill Recreation Center, bridging over the small canyon.
- Check for private encroachments into the public property of the Neighborhood Edge including Switzer Canyon.

- Switzer Canyon: Replace the exotic plants with native species.
- Provide a trail between 28th and 30th Streets along Switzer Canyon.
- Install pedestrian/bicycle trails to connect between Date and Maple Streets. Construct pedestrian and bicycle bridges within the canyons as necessary. The character of the bridges should follow the craftsman style of the adjacent neighborhoods utilizing materials related to the landscape of the Park such as cobbles, concrete, and steel pole rails. The bridges should be small scale, intended to span drainageways and steep portions of the canyons.



Pershing Parkway and Redwood Street Intersection, with the underground Reclaimed Water Storage Tank and Pump Station.

d. Special Maintenance and Security Needs

Neighborhood edge improvements should increase activity in the zone as well as attract "eyes on the Park" from surrounding neighborhoods.

- Enact the complete security element of the Precise Plan, see Security Element, Section IV-C-4.
- Continue with a maintenance plan that provides for frequent trash pick up and revegetation monitoring. Maintain planted areas as canopy trees with turf and groundcovers rather than tall shrubs to allow for easy vehicle surveillance from surrounding city streets.
- Construct and maintain primary trails for vehicular access by security patrol and maintenance crews.
- Initiate a "Neighborhood Watch Program" that will patrol or watch the Park, including the Recreation Center, for illegal or suspicious activities.
- Initiate neighborhood events-which will increase awareness of Park security issues and the role of community assistance.
- Provide low level pathway lighting to supplement the dispersed street lighting. Lighting cut-off design should be cognizant of residential neighborhood intrusion.
- At the request of local residents, remove the restroom on 28th Street near Ash, the location for many illegal activities according to the surrounding residents. As this is considered a neighborhood park, restrooms are not necessary.
- Maintain clear visibility through the landscape planting for security surveillance. Thin the eucalyptus and pine trees at Grape Street Park to allow clear visibility from the parking lot into the Park.

4. ARIZONA LANDFILL

a. Area Description

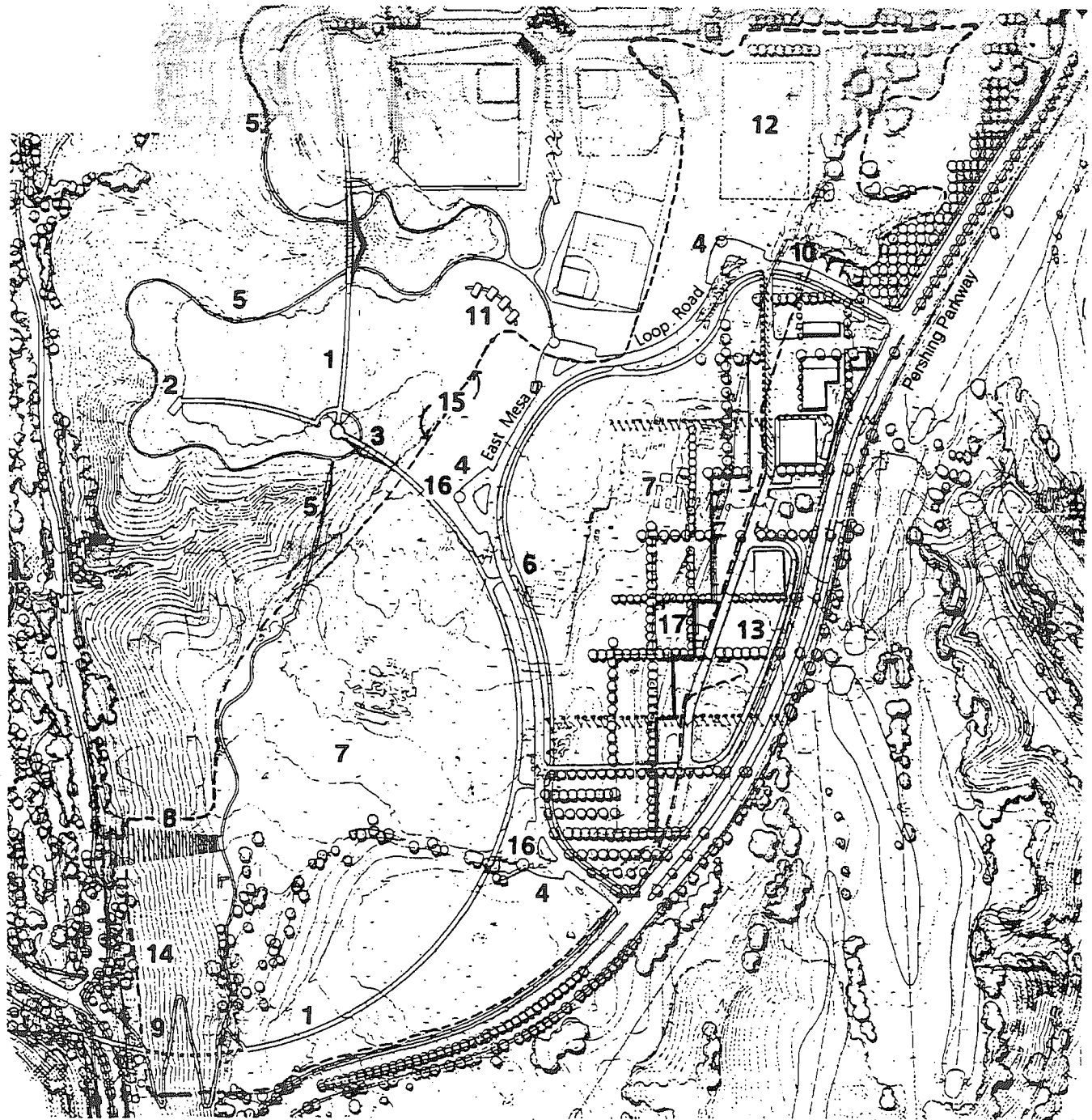
Arizona Landfill is composed of two historic fills, technically called Balboa Landfill in the northern section and Arizona Landfill in the southern section. The area is approximately 70 acres in size, and stretches from Jacaranda Place on the north to Pershing Drive on the south. Its western boundary is Florida Drive.

b. Concept Summary

The rehabilitation of the Arizona Landfill and its cover should be a distinctive feature of the Park. This man-made mesa allows for expansive and open vistas of the surrounding city and mountains, as well as, provides a vast area for much needed open, passive play. The planting of the mesa should be low growing, open, reflecting the historic native landscape of the region. Because the landfill area should provide space for informal pick-up games, as well as passive recreation, such as kite flying and catch, the site should be divided into zones of use intensities with corresponding improvements. Likewise it will be a stage for environmental art that reflects the social and environmental attitudes of the day.



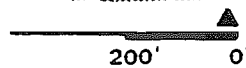
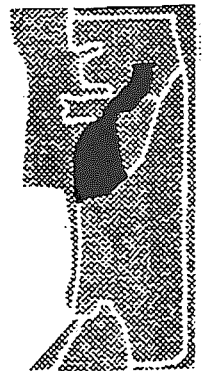
The Edge of the Landfill Provides Expansive Views



ARIZONA LANDFILL AREA PLAN

Legend

- | | |
|--------------------------------|--|
| 1. Mesa Rim Path | 10. Methane Flare Station |
| 2. Canyon Overlook | 11. Group Picnic Area |
| 3. Pedestrian / Bicycle Bridge | 12. First Phase Test Plot / Sports Field |
| 4. Parking (80 spaces Total) | 13. Park Nursery |
| 5. Canyon Trail | 14. Revegetated Slope |
| 6. Pedestrian / Bicycle Path | 15. Limit of Landfill |
| 7. Meadow | 16. Portable Restrooms |
| 8. Landfill Steps | 17. Public Demonstration Gardens |
| 9. Landfill Path | |



3. Leachate Migration

In addition to methane gas, leachate is also a by-product of landfills and, when uncontrolled, becomes a pollutant to surface water and groundwater. Leachate is largely produced by groundwater or rainwater percolating through refuse fill and washing away the decomposition products. Previous studies have identified that leachate production is a function of the amount of water available to the refuse fill (Maybri 1977, 801). Since leachate is a pollutant both to surface water and groundwater, environmental considerations indicate that control measures should be incorporated into the site development. Currently, two methods are under development at the Arizona Landfill to control leachate:

- Construction of an 8 foot thick clean fill soil cap to prevent the amount of normal Southern California rainwater from infiltration into the refuse materials.
- A drainage collection system.

In order to increase the amount of water application by irrigation onto the landfill and maintain protection from leachate production, an impervious barrier must be created by either:

- a bentonite soil impervious cap (in lieu of, or in addition to the existing soil cap). This bentonite cap is typically one to two feet thick and is composed of clay materials which have a permeability of less than 10^{-6} cm/sec.; or,
- a manufactured polyethylene liner (specifically designed to stop methane gas migrations) above the existing landfill cover below a one to two foot thick soil cap (See Appendix A).

Either of these solutions, when coupled with a drainage collection system, will be necessary to allow for any low volume irrigation over the landfill and the establishment of turf grasses or other plant materials.

c. Plan Recommendations

In order to reestablish Arizona Landfill as active parkland yet meet the criteria of the City of San Diego Waste Management Department and the Regional Water Quality Control Board, a two stage recovery plan is proposed for park improvements. This should allow for necessary testing to determine the appropriate long term improvements-while still providing park renovation throughout the entire area in the short term.

Stage One

The first stage of the reclamation is to provide immediate, interim vegetative cover to all landfill areas and, by the use of a test plot, determine the areas and appropriate techniques necessary to provide irrigated turf areas as the final cover.

- The necessary closure actions, including soil capping and grading should be conducted in a timely manner.
- A test plot, approximately 2.75 acres in size, will be developed to test the appropriate means for future landfill sealant and drainage improvements to accommodate future irrigated turf areas. This test plot should be designed according to all regulations and requirements of the Regional Water Quality Control Board.
- The test plot should be established as a playing surface capable of sustaining increased activity such as informal soccer or football. Required improvements will be:
 - an impermeable polyethylene liner;
 - an additional drainage collection system;
 - three feet of fill over the membrane;
 - a six inch layer of topsoil;
 - an overhead irrigation system, placing mainlines and laterals at the perimeter of the test area wherever possible;
 - a precipitation monitoring system to allow the irrigation to automatically adjust to the available moisture in the root zone, the evapotranspiration rate of the turf, and the need for additional moisture; preventing

- overwatering;
 - a system of lysimeters to monitor the migration of water in the soil and detect intrusions through the soil cap and liner;
 - planting with a low water use turfgrass such as the following Representative Species:

| | |
|---------------------------|----------------------|
| <i>Cynodon dactylon</i> | Common Bermuda grass |
| <i>Cynodon</i> spp. | Hybrid Bermuda grass |
| <i>Paspalum baginatum</i> | Seashore Paspalum |
| <i>Buchloe</i> | Buffalograss |
 - Grasses should be planted by stolons on the test plot. At the onset, more irrigation would be required (0.33 inches once a day for fourteen days). However, this encourages faster root development and cover, and allows for deep rooting, necessary for drought tolerance (Rector 1990).

- The remainder of the entire landfill should be restored to open grassy meadows, nonirrigated and mowed for informal play. These areas should be planted with native, meadow-like grasses that are at this stage, nonirrigated. Revegetation must occur during the rainy season for seed germination without irrigation (See Appendix D).

Because this approach is newly developed in the landscape industry, it is recommended that a nonirrigated test plot on or off the landfill be established immediately for a minimum of one year (two to three years optimal) to research the appropriateness and success of the following species:

| | |
|----------------------------|-----------------------|
| <i>Bromus carinatus</i> | California Brome, |
| <i>Elymus glaucus</i> | Blue Wildrye, |
| <i>Elymus tritichoides</i> | Creeping Wildrye, |
| <i>Stipa lepida</i> | Foothill Needlegrass, |
| <i>Stipa pulchra</i> | Purple Needlegrass |
| <i>Buchloe</i> | Buffalograss |

- The Park and Recreation Department should develop a program with local seed suppliers and landscape contractors to provide these test plots as demonstration projects, which would limit costs to the City.

- The landfill will no longer be used as remote parking for Central Mesa events.
- The temporary Park Maintenance facility will be relocated off the landfill to the Central Operations Station at 20th & B Streets and the area restored to parkland.
- The East Mesa Loop Road will be constructed to provide access to the open mesa top. For security reasons, the road will be closed at night from Pershing Drive. Three small parking lots will provide necessary parking.
- The Park & Recreation Department should consider installing two portable restroom facilities at the parking lots along the East Mesa Loop Road for special events or during seasonal high use.
- The landfill area will be developed as the stage for environmental art. The flare station at the methane recovery site should also be a recipient of art.
- The northern section of the landfill, known as Balboa Landfill, should provide for more intensely used open space. Historically, the landform was a finger canyon and the depth of fill is shallow by comparison with the Arizona Landfill. Minor settlement has occurred as demonstrated by cracks in the existing the fly casting pond, yet the area supports irrigated turf and trees. By maintaining this planting treatment and removing structures that would have foundation difficulties from settlement, the City's/State's approach would mirror the lush native planting that was once actively thriving in this area.

Stage Two

The second stage of the landfill revegetation program is to provide an irrigated meadow over the greatest extent possible and feasible. The test plots, conducted in Stage One, will determine the amount of area, the required cover and drainage techniques, the appropriate plant species, and the amount of irrigation allowable. The goal is to maximize the public benefit, providing usable grasslands, while meeting the City's/State's closure and cost/benefit requirements.

d. Special Maintenance and Security Needs

As the Arizona Landfill becomes usable park land with active programs and participants, the illegal activities that currently occur there should no longer be as secluded. The security measures listed below should complement the new land uses to remove undesirable activities.

- Enact the complete security element of the Precise Plan, see Security Element, Section IV-C.
- Consider the installation of 2 call boxes in the parking areas. Additional call boxes should be considered along the rim of the canyon at points of high visibility.
- Close the parking areas and trails to park visitors nightly, allowing only security patrol.
- Continue the maintenance plan that should provide for frequent trash pick up, revegetation monitoring and exotic plant removal by personnel knowledgeable in native plant habitats.
- Construct and maintain primary trails for vehicular access by security patrol and maintenance crews.

5. PARK NURSERY

a. Area Description

The Park Nursery is in the center of the East Mesa, west of Pershing Drive and along the eastern edge of the Arizona Landfill. Since the nursery's relocation from a site on Park Boulevard, the community has objected to the visual intrusion in the Park. The City constructed the nursery and its buildings below the grade of Pershing Drive and has planted along the fence to minimize the negative visual impact. However, due to the landfill restrictions, much of this planting has been unable to sustain itself without irrigation and is no longer growing.

b. Concept Summary

The Park Nursery is a valuable component to the image and operations of Balboa Park. Its location on the East Mesa allows it to be recognized and understood as the elemental source of the plants which give the Park its unique character. However, the area is under utilized in its present state and its functions are constrained by the adjacent landfill.

The concept of the Precise Plan is to screen the structures and parking areas with plants, utilizing containers where landfill restrictions exist, while opening selected views and entries into the facility for the public to better understand nursery technology.

The intent of the Park Nursery has grown from the City Gardener, Kate Sessions', work of gathering, testing and installing a variety of plants in Balboa Park in the early 1900s. This collection of plants is well renowned for its diversity and complexity. Those planted in Sessions' time are now mature and, while the tradition of planting in the Park has continued throughout the century, the East Mesa is in great need of extensive replanting. With its own nursery, the Park is able to collect, raise, and nurture rare plants which are not available commercially.

The current location on Pershing Boulevard was chosen in 1989 after the Naval Hospital overtook the previous site on Park Boulevard.

The purpose and function of a nursery requires specific design elements:

- Clear, flat, level areas to set many containers of plants;
- Specialized irrigation system with the ability be reorganized for the movement of the containers and zoned for different water requirements;
- The ground surface must be suitable for driving trucks to collect the containers;
- A linear, regular site that should allow the maximum efficiency of rows; and,
- Specialized, climate controlled structures and lath houses for temperature and shade control.

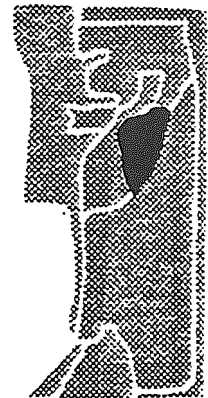
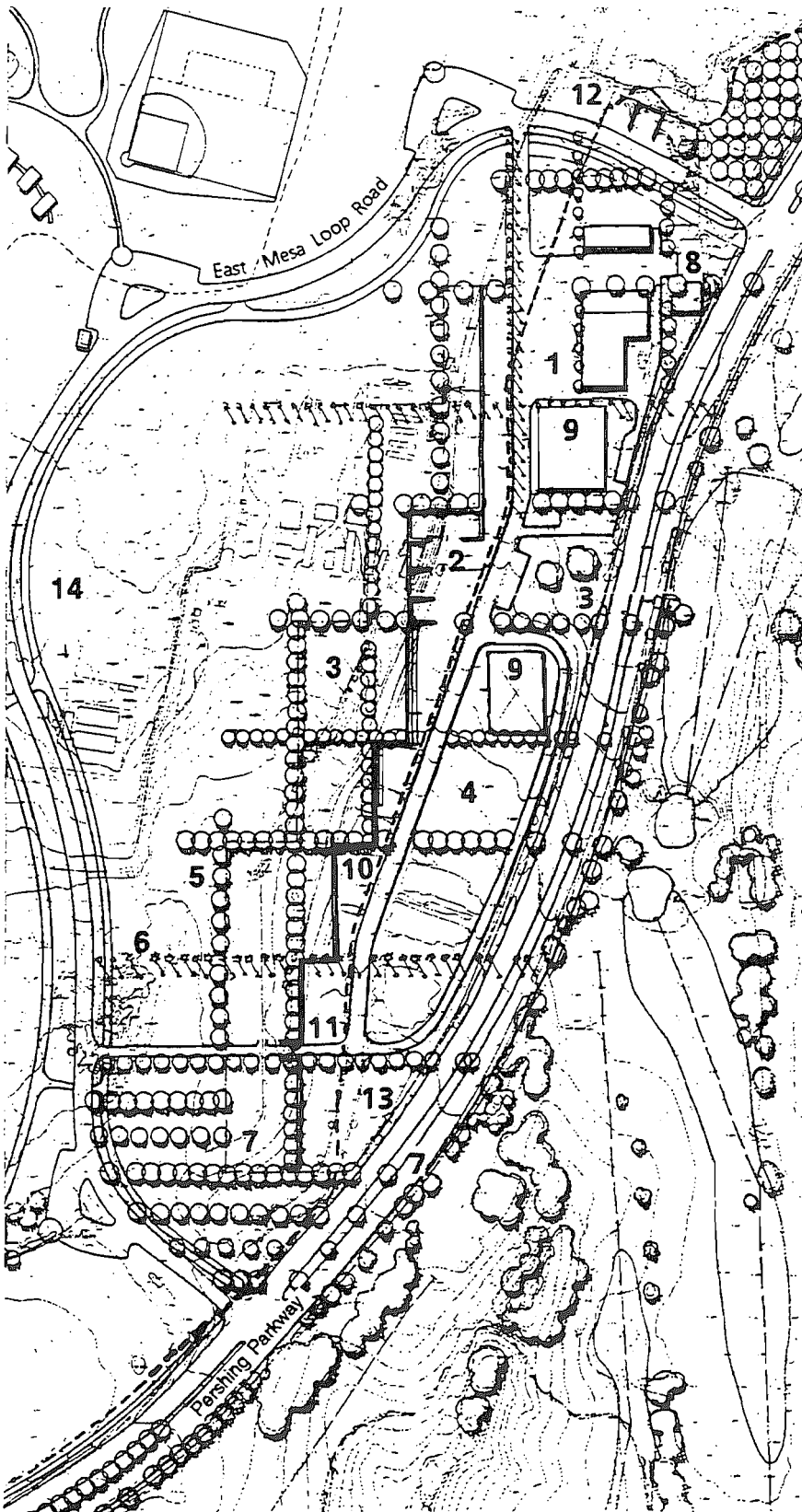
These functional characteristics can be constructed in a purely utilitarian manner. However, when applying the design intent of display gardens or botanical gardens, an opportunity to use the nursery in a new manner arises. Rather than prohibit the public from the operations, certain sections of the nursery should be open to the public and treated as display gardens. Clubs or plant groups can be attracted to conducted seminars and demonstrations. The importance of the nursery in reestablishing the native habitat can be clearly demonstrated so that public awareness increases to respect that which is now considered "wild".

The primary objective of the Precise Plan is to enhance the Park Nursery in this manner so it may better serve the public, both through its educational and aesthetic value and through its operational efficiencies.

PARK NURSERY, AREA PLAN

Legend

1. Existing Operation Building
2. Materials Stockpile
3. Demonstration Garden (Typical)
4. Growing Area (Typical)
5. Permanent Planting of Canopy Trees
6. Permanent Planting of Palm Trees
7. Extension of Nursery Character into the Park
8. Existing Office / Classroom Building
9. Existing Shade House
10. Terrace Walls
11. Existing Nursery Road
12. Limit of Arizona Landfill
13. Perimeter Fence
14. Open Meadows for Picnic and Play



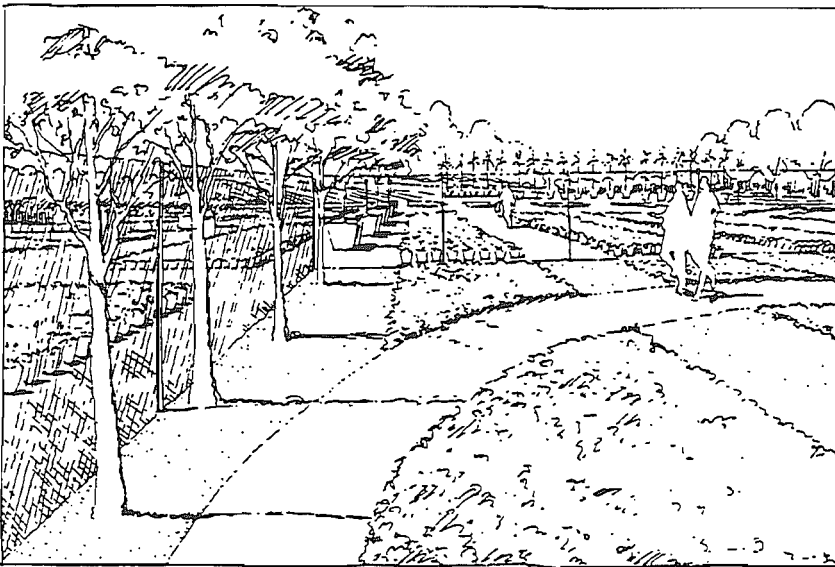
c. Plan Recommendations:

Nursery recommendations are structured into perception and operational considerations:

- Perception: Improve the public's perception of the Park Nursery by creating publicly accessible demonstration gardens and installing permanent plants which interpret the function of the nursery, and screen structures and parking areas. The plan for permanent plants should extend outside the current boundaries of the nursery allowing the park visitor to share the experiences of plant growth and material testing in the insistent patterns of a functioning nursery.

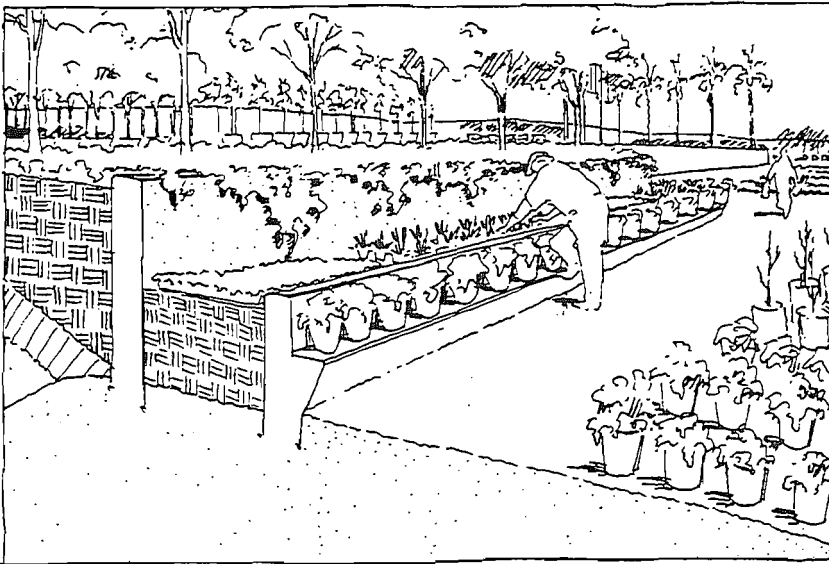
Additionally, the public's negative perception may be mitigated with a simple rename: the acknowledgement of the facility's history by commemorating it as the Kate Sessions Park Nursery.

- Cultivate a relationship with the many plant societies of the region. Design demonstration gardens for individual-societies or special concerns, with a renewable agreement with the societies for shared maintenance. For instance, the City should prepare the site and provide chemical applications and the society or club should provide ongoing maintenance.



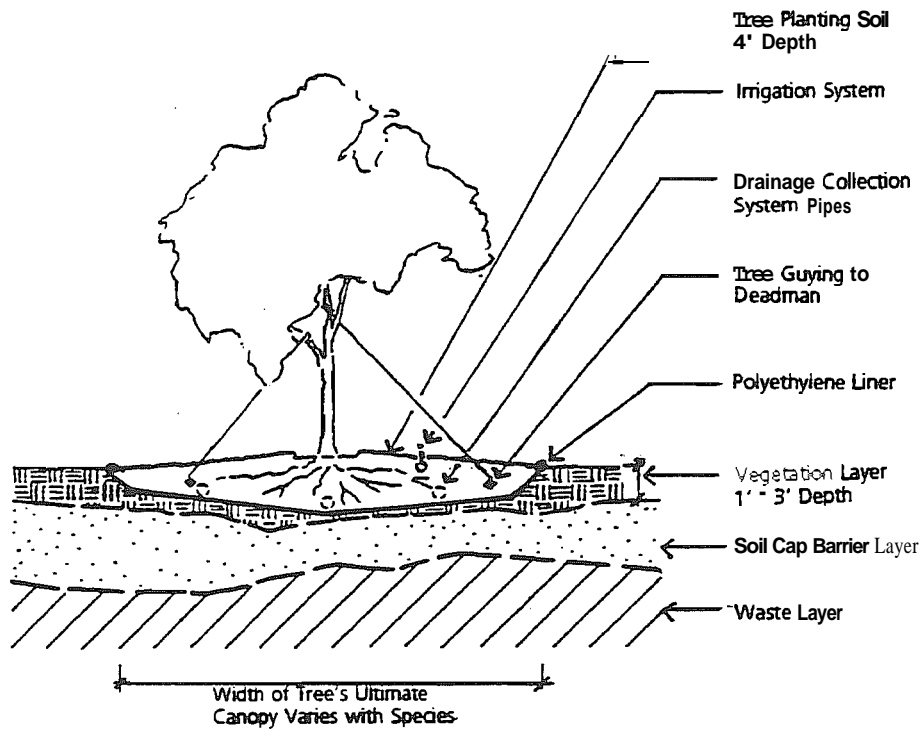
The Kate Sessions Park Nursery

- Initiate the improvements to the Park Nursery immediately as it is the source for the planting of the East Mesa and would serve as a public rallying point to spur hope that they should someday have a complete park.
- Operational: Relocate the temporary trailers and park maintenance equipment to expand the nursery area.
- Construct terraced benches of clean topsoil on top of the landfill to fully utilize the allocated nursery area. The landfill must be protected from infiltration of irrigation or runoff water with an impenetrable layer and drainage collection. The benches should be suitable for permanent containerized trees, as well as for the physical functions of an active nursery.

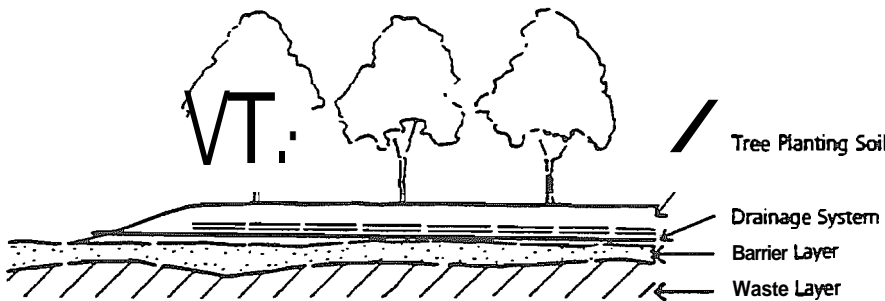


The Kate Sessions Park Nursery Growing Areas

- Expand the Balboa Park Nursery staff in order to open the Park Nursery to the public. Utilize volunteers to perform specific duties providing staff supervision for all public activities.
- Repair and expand the irrigation system independent from adjacent park uses.
- Coordinate growing programs for golf course landscape.
- Develop a plan of permanent plants to extend throughout the Park Nurser), to provide testing and demonstration information.



Cross Section for Tree Planting on the Linear Mounds above the Landfill



Longitudinal Section of Tree Planting on the Linear Mounds above the Landfill

- Conduct controlled suitability testing of the Clean Water Program's reclaimed water for nursery plants.
- Relocate soil and mulch storage area to accommodate the new East Mesa (North loop) park road.
- The Waste Management Department and The Clean Water Program should work together with the Park and Recreation Department to provide staff, equipment and materials for ongoing experimentation and monitoring of the planting on the Arizona Landfill.

d. Special Maintenance and Security Needs

Because the Park Nursery is a secured use, public safety is complemented by the protection measures enacted by the nursery. Specific recommendations include:

- Enact the complete security element of the Precise Plan, see Security Element, Section IV-C-4.
- Consider the installation of a call box at the entry to the Nursery Display Gardens.
- Close the parking and demonstration areas to park visitors nightly, allowing only security patrol.
- Utilize the nursery building as a emergency station for patrol activities.
- Construct and maintain all internal nursery roads for vehicular access by security patrol and maintenance crews.
- Construct a green, coated vinyl, barbed wire fence surrounding the entire nursery operations, covered in vines to reduce the visual intrusion. The Nursery entry from Pershing Drive should be in a decorative iron fence with stone pylons rather than chain link.

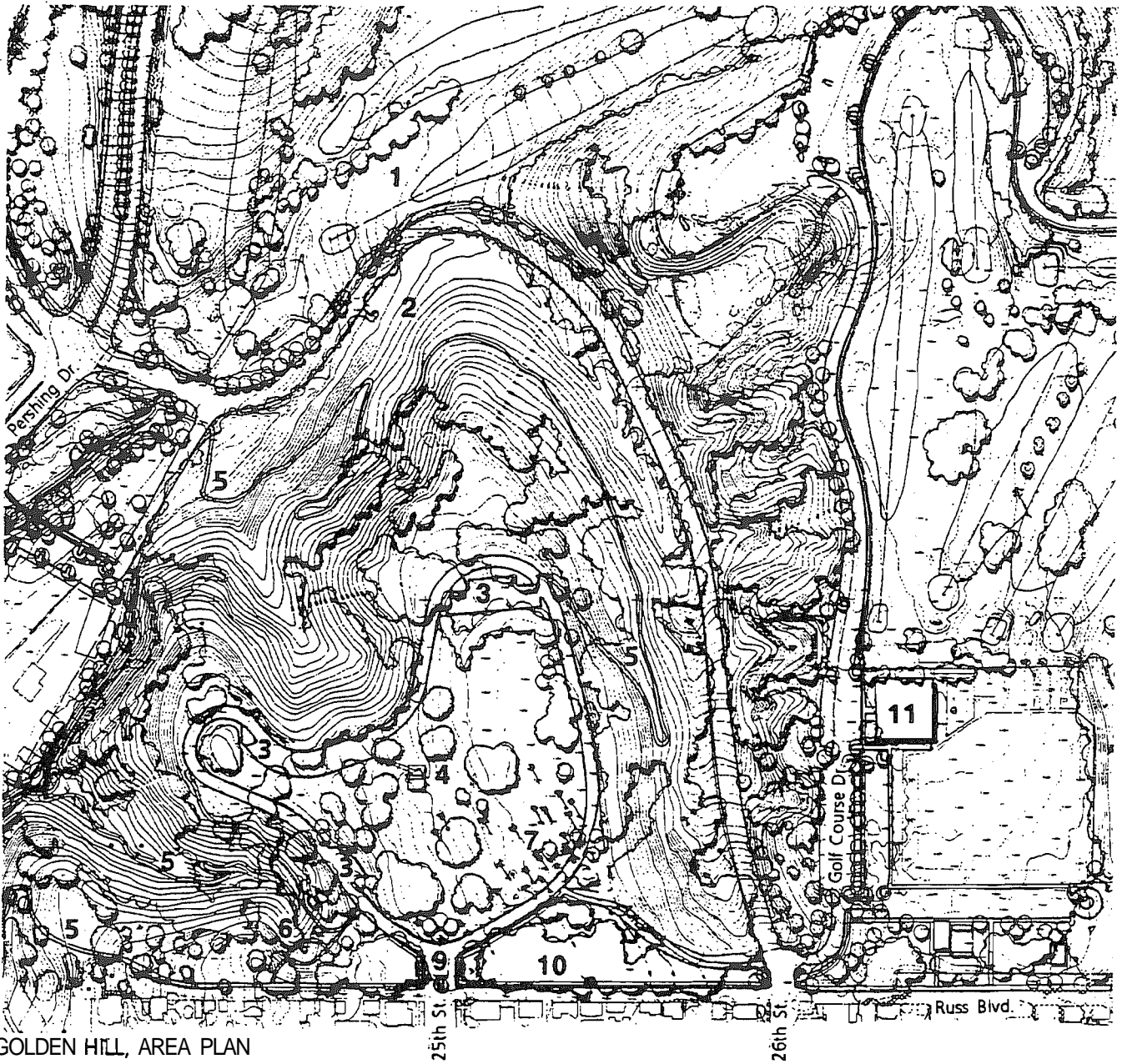
6. GOLDEN HILL**a. *Area Description***

The Golden Hill area is on the southern edge of the East Mesa, bounded on the south by Russ Boulevard, the east and north by the Golf Courses, and the west by the City Operations Station. It is comprised of a flat mesa, developed as a romantic landscape at the turn of the century, surrounded by steep slopes which descend towards Pershing Drive. The Golden Hill Recreation Center, on the eastern edge, is an active sports facility that serves as a community park.

A memorial grove of California Live Oak and other imported oak trees is planted in regular rows on the north facing slopes of the canyon. They are dedicated to servicemen whose ship's boiler exploded in San Diego harbor prior to World War I. The trees reach 30 feet high and provide an inviting green canopy with an understory of primarily European grasses and scattered native shrubs. A few open, sunny areas exist, presumably from the loss of some of the trees. An irrigation system is activated approximately once per month to supplement the limited rainfall. Three finger canyons adjoin the grove and reach up into Golden Hill Park. The finger canyons contain a mixture of native and exotic tree and shrub species. The predominate tree species in the finger canyons are Eucalyptus, which appear to be declining, possibly from insect damage and drought.

b. *Concept Summary*

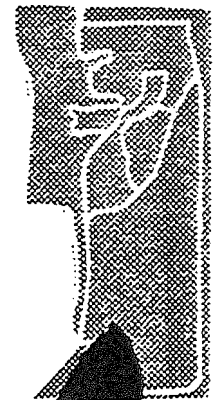
Golden Hill Park is an historically representative landscape, one of the first developed areas within Balboa Park, planted in the early 1900s. The trees are beautiful, mature specimens of pine, oak and fig trees. A stone fountain was created at the turn of the century as a symbol of the affluent Golden Hill community. Unfortunately, years of neglect have left only its shell intact and is now a site for illicit activities. The design intent is to make only minor changes, maintaining and restoring the historic character of the area for future generations while mitigating the problems encountered today.



GOLDEN HILL, AREA PLAN

Legend

- | | |
|---|--|
| 1. Golf Course | 7. Date Palm Planting |
| 2. Coast Live Oak Memorial Grove | 8. Street Conversion to Pedestrian / Bicycle Path with Access for Emergency Vehicles |
| 3. Existing Parking to Remain | 9. 25th Street Entry Feature and Realigned Park Road |
| 4. Existing Restroom to Remain | 10. Supplement Eucalyptus Planting |
| 5. Trail to Pershing Recreation Complex | 11. Golden Hill Recreation Center |
| 6. Existing Historic Stone Fountain | |



C. Plan Recommendations

- Preserve the old stone fountain at the head of the southwestern canyon in a state of "arrested decay" until the area has reached a level of security that would reinforce its protection. Utilize photographs from the historical society and information offered by the members of the Golden Hill Community and the San Diego Historical Society to follow the original character when restoration is implemented. New plumbing, circulatory system, electricity, and a new source of water will be required. Consider reclaimed water when available.
- Create a neighborhood oriented gateway feature at the entrance to Golden Hill Park, near the intersection of 25th Street and Russ Boulevard. In light of security concerns, the new feature should not be a reconstruction of the historic gazebo once found in the area but possibly a small plaza, fountain, or work of public art.
- Reorganize the parking at the Golden Hill Recreation Center to provide a total of 140 spaces. Add two new lots on the west and south sides of the ballfields, north of the shuffleboard club. Remove the parking along Russ Boulevard. Provide a total of 64 temporary parking for special events surfaced with concrete turf block paving and grass. These spaces are along the west side of Golf Course Drive, across from the Recreation Center.
- Plant new trees to replenish the historic landscape. The eucalyptus within the Golden Hill area are reaching maturity and new eucalyptus should be mixed in with the mature species to maintain the grove. Date palms which were planted during the Victorian era have been removed and should be reestablished.
- As much of the grove is not reproducing in a natural manner, the maintenance crews should work with the Park Nursery to propagate seeds and cuttings from the oak and pine groves to maintain the historic species. These seedlings can be then planted back into the grove to insure its perpetuity.

Plant native perennial grasses and wildflowers to introduce

components of an oak grassland of the open areas within the 26th Street oak groves.

- Plant young specimens of ficus, camphor, monkeypuzzle tree, and pines to insure that future generations can enjoy the majestic trees of the Golden Hill area.
- Plantings should follow the Savannah and Garden plant types.

Savannah Representative Species:

Trees:

Acacia baileyana, Bailey Acacia

Albizia distachya, Plume Albizia

Alectryon excelsum, Alectryon

Jacaranda mimosifolia, Jacaranda

Quercus englemannii, Mesa Oak

Robinia pseudoacacia, Black Locust

Shrubs:

Echium fastuosum, Pride of Madeira

Kniphofia uvaria, Red Hot Poker.

Groundcover:

Festuca species, Tall Fescue

Cynodon dactylon 'Tifgreen', Bermuda Grass

Lantana montevidensis, Purple Trailing Lantana

Garden Representative Species

Trees:

Araucaria araucana, Monkey Puzzle Tree

Archontophoenix cunninghamiana, King Palm

Brahea edulis, Guadalupe Fan Palm

Calodendrum capense, Cape Chestnut

Cinnamomum camphora, Camphor

Dracaena draco, Dragon Tree

Ficus macrophylla, Moreton Bay Fig

Howea forsterana, Paradise Palm

Pinus ssp., Pines

Shrubs:

Hibiscus rosa-sinensis, Hibiscus

Strelitzia reginae, Bird of Paradise

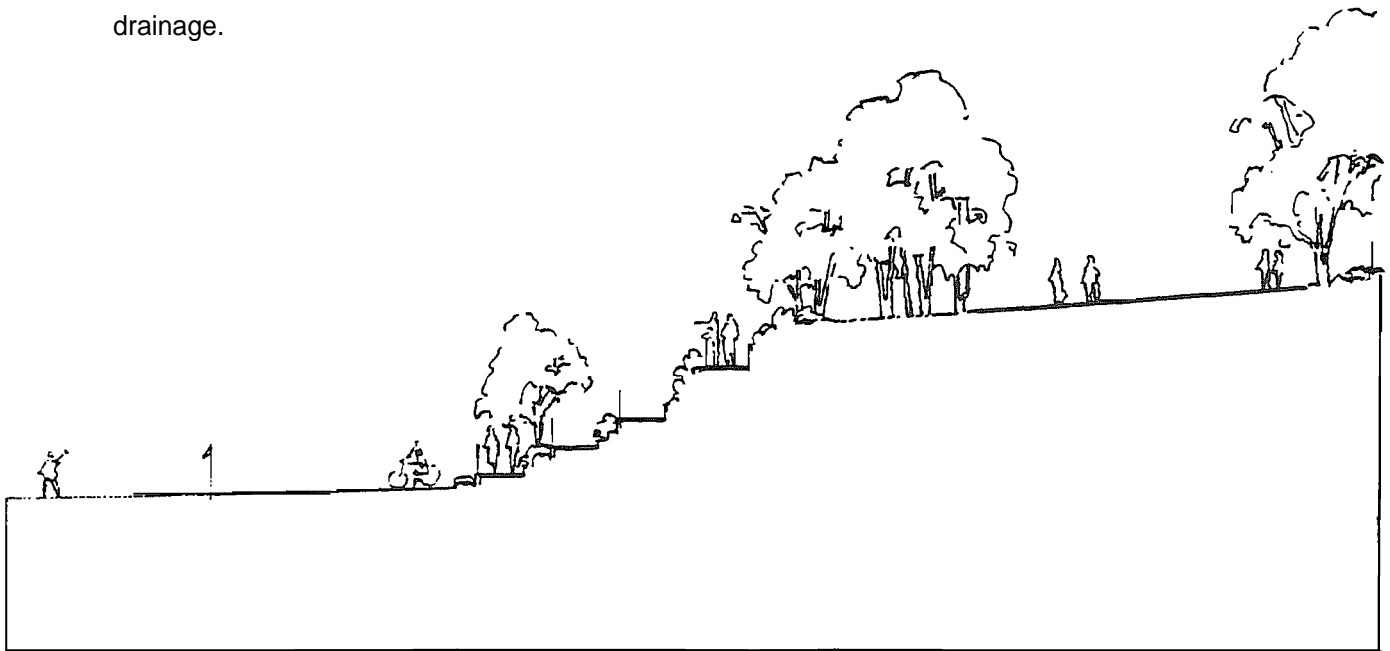
Groundcover and vines:

Bougainvillea species, Bougainvillea

Festuca species, Tall Fescue

Wisteria sinensis, Chinese Wisteria

- Construct and maintain three pedestrian/bicycle trails to link the Golden Hill area with the Pershing Recreation Complex in the valley below. Two trails should provide access unimpaired by stairs while the third, at the southern edge of the Park should have short segments of stairs to provide direct access. The maximum grade of the two northern trails is to be eight percent, with sections at five percent wherever possible. Each of these trails should be paved with asphalt because of the anticipated high frequency of use, and sloped for proper drainage.



Section of the Pedestrian Bicycle Trail from the Pershing Recreation Complex to Golden Hill Park

The trails lead through a series of small open areas in the finger canyons, with clearings in the trees which should be used for passive activities such as picnicking. Grassy areas should be provided, although no picnic tables should be installed to limit its possible use as a homeless encampment.

- Close the connector road between 25th and 26th Streets within the Park. Maintain 26th Street as the main entry into Balboa Park and 25th Street as a one-way loop throughout Golden Hill Park, only. Although this recommendation is contrary to the adopted Balboa Park Master Plan, it is consistent with current community wishes, and supported by the City Park and Recreation and Engineering Development Departments. Provide a trail in place of the road connector for pedestrians, cyclist and emergency vehicular access. The trail shall have a 10 foot wide paved surface and be blocked with removable bollards at each end to prevent unauthorized use.
 - Install gates across the entrance to close the road and parking lots nightly.
 - Provide concrete sidewalks along Russ Boulevard from the Golden Hill Recreation Center west to the paved trails of Golden Hill.
 - Provide three levels of park signage: one, for the purposes of historic interpretation of the stone fountain, the memorial oak grove, and the Park in general; two, for orientation to the Park and the city at the park entry and at view points; and three, to explain park rules at the Park entry and at parking areas.
 - Maintain visual corridors through the trees for positive views southwest to downtown San Diego and Inspiration Point, north to Florida Canyon, the remainder of East Mesa and the golf courses. Screen negative views of the Naval Hospital with new tree groves.
- d. Special Maintenance and Security Needs

The Golden Hill area has always been an area of concern for public safety. Gang activity and transient encampments have often displaced legitimate park users. Recommendations listed below should supplement an increased program by Park and Police personnel to combat crime, relocate homeless persons, and provide a safe environment for park users.

Enact the complete security element of the Precise Plan, see Security Element, Section IV C-4.

Continue with a maintenance plan that should provide for frequent trash pick up and revegetation monitoring.

Utilize the Recreation Center as a station for patrol activities.

Construct and maintain primary trails for vehicular access by security patrol and maintenance crews.

Initiate a "Neighborhood Watch Program" with the surrounding residents that should patrol or watch the Park for illegal or suspicious activities.

Maintain all planted areas to be canopy trees with turf and groundcovers rather than tall, dense shrubs to allow for easy vehicle surveillance from surrounding City streets.

Provide low level pathway lighting to supplement the dispersed street lighting. Lighting cut-off design should be cognizant of residential neighborhood intrusion.

Consider the installation of call boxes for emergency communication to the park security network.

Continue to close Golden Hill Park at night.

7. BALBOA PARK GOLF COURSES

a. Area Description

Two municipal golf courses (18 hole and 9 hole) occupy approximately 220 acres of the East Mesa. They are located in the southeastern corner of the Park, south of Pershing Drive. The 18-hole course is situated on the mesa top north of Golf Course Drive, as well as, in the floor of Switzer Canyon. The nine hole course is bounded by Golf Course Drive on the north and west and the edge of the Park on the south and east. Its 36 acres surround the Golden Hill Recreation Center.

Native chaparral habitat is found on the canyon slopes within the 18- hole golf course. The existing vegetation within this area is a combination of coastal sage scrub, predominantly on the west side, with chaparral and chamise/chaparral in the remaining areas. The vegetation is relatively undisturbed and is considered high quality habitat. Because it is surrounded by the golf course, access is controlled and the area has not experienced the degradation found in other native areas throughout the Park.

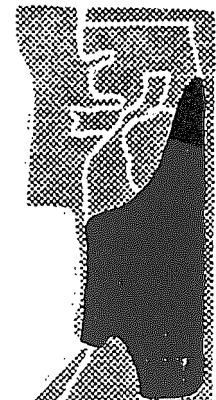
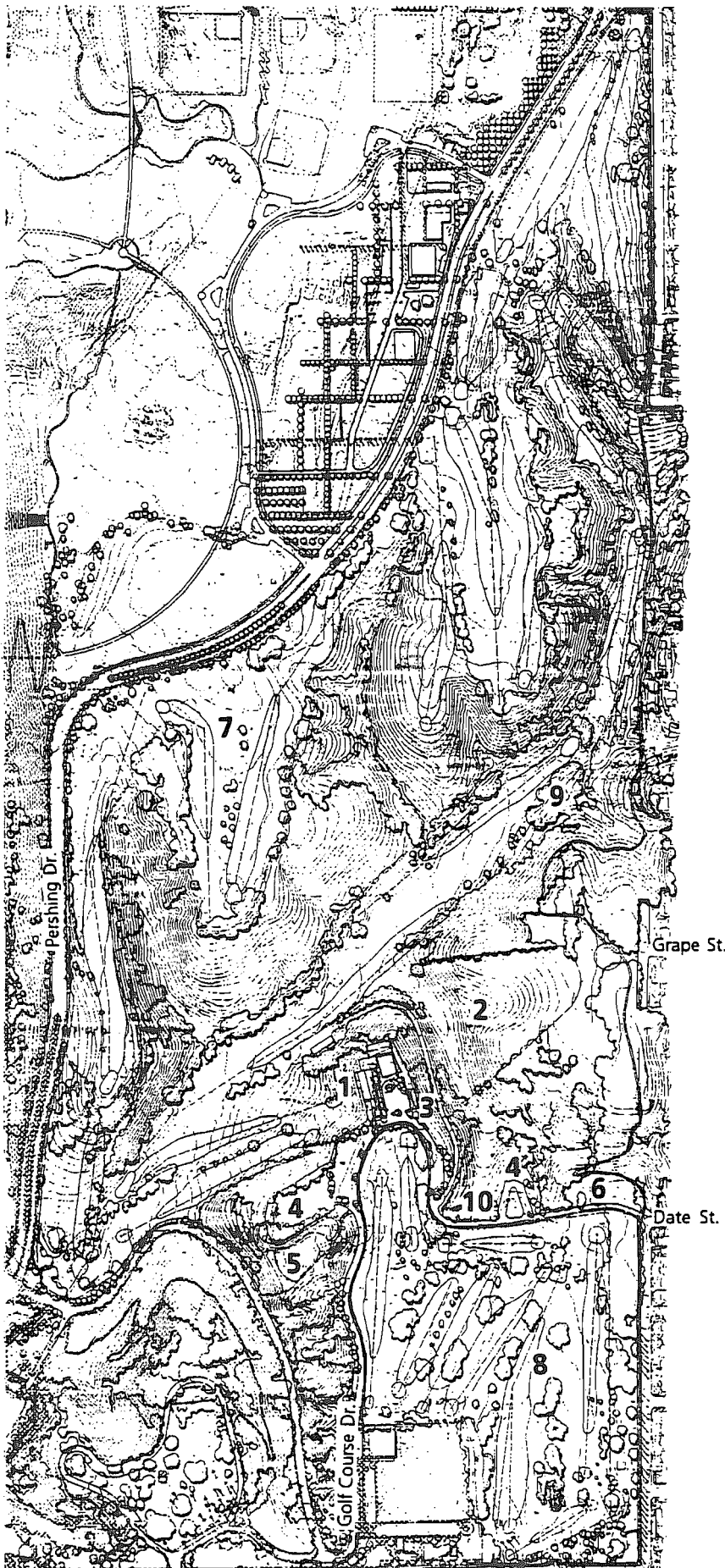
Small areas of associated riparian vegetation are also present in low areas, probably resulting from water runoff from the golf course and drainage from Switzer Canyon. Exotic, invasive weed species are present primarily along roads, trails and in low, moist areas.

At the northwest end of the native area is an access road and fence. Planted along the fence, interfacing with the native vegetation and golf course, are screen plantings of *Acacia* spp. These plantings are declining, probably from senescence and should be replaced with native chaparral species.

BALBOA PARK GOLF COURSES, AREA PLAN

Legend

1. Renovated, Expanded Clubhouse with Practice Green
2. Driving Range
3. Maintenance and Rental Buildings
4. Parking (334 Spaces)
5. Practice Pitch Area
6. Pedestrian / Bicycle Path and Emergency Access
7. 18 Hole Golf Course
8. 9 Hole Golf Course
9. Oak Grove
10. Sod Farm



b. Concept Summary

Few modifications are recommended for the golf course area. Balboa Park's two golf courses have provided recreation for a great many people of different ages for decades. Much of the area was constructed during the 1930s æ Works Program Administration (WPA) projects and contain significant historical value. The intent of the modifications should enhance the area's numerous qualities for continued enjoyment into the future and augment efficient course operations.

c. Plan Recommendations

Golf Course Improvements: The public courses are operated æ an enterprise fund within the City, under the Park and Recreation Department. An enterprise fund allows the collected golf fees to be used exclusively for course facility maintenance, operations, and capital improvements. While this method allows the golf course full use of its generated revenue, it requires that capital improvement monies be coordinated with the available income derived from green fees. Therefore, improvement and phasing recommendations in this Precise Plan are for guidance only and are not intended to supersede the Capital Improvements Program for the Golf Course.

Retrofit the Golf Course irrigation system to allow reclaimed water use, in accordance with the City's Water Conservation Program.

Implement the greens renovation plan for the 18-hole golf course æ outlined in the current Capital Improvements Program and under development by the Park and Recreation Department.

Retain the existing 9-hole golf course with one exception; shorten the fourth hole by 125 feet, maintaining its par three status. The realignment is to provide additional free and open parkland at the corner of 28th Street and Russ Boulevard in the Neighborhood Edge. Relocate the perimeter chain link fence at hole four to align parallel to 28th Street and in line with the

existing fence to the north.

- Develop a new clubhouse complex as a new building or a renovation of the current clubhouse within the next five years or when the enterprise fund allows new capital improvements. The new clubhouse will provide larger restaurant facilities to accommodate larger golf groups and tournament groups, increased storage, and improved operational areas.

The character of the structure should follow the craftsman style prevalent in the adjacent residential neighborhoods. The design of the clubhouse should take advantage of the views from the site across the Park, to downtown and beyond to the bay and distant islands. As the site is a key feature visible from downtown and the freeway, the structure must present the character of the Park, as well as the golf courses. The clubhouse should include space for maintenance and storage of golf carts and rental equipment in addition to restaurant, locker rooms, administrative offices, and storage. The driving range and putting green should be redesigned within the clubhouse area. A study should be performed to identify the historic value of the construction completed by the Works Progress Administration (WPA). This information should be carefully considered in the redesign of the clubhouse.

- Provide additional parking to meet current needs, as well as those of an enlarged clubhouse. Parking expansion includes the regrading and resurfacing of the existing lots to accommodate an additional 108 cars, and utilizing the sod farm for additional stalls. This would increase the total number of spaces to 334.
- Reclaim the landfill site located on the canyon south of the golf clubhouse for use as a golf practice chipping and pitching area. Test the geotechnical conditions to determine the feasibility and techniques for proper reclamation.
- Reconfigure the sod farm area east of the clubhouse to provide golf course parking along the outer perimeter of the fenced sod, maintain the existing amount of sod production land.

- Continue to monitor pedestrian safety and vehicular speeds along Golf Course Drive with the implementation of the recent traffic control measures. If assessments indicate that the current stop signs do not adequately control vehicular speeds and allow for safe pedestrian crossings between the clubhouse and the nine hole course, other measures to control vehicular speed should be considered with community input.
- Install gates at the east and west entrances of Golf Course Drive (off Date Street and 26th Street) for nightly closure of the road and parking areas following clubhouse closure.
- Provide a pedestrian sidewalk and bicycle lanes along Golf Course Drive.
- Initiate a replanting program with native vegetation as introduced species, such as acacias, reach decline.
- Restore and enhance the native habitat located on the canyon slopes of the 18-hole golf course. Work with the golf course management and staff to ensure that the golf course operations and maintenance requirements are aligned with the restoration goals and techniques. Provide wildlife links with the habitat of Florida Canyon under Pershing Drive through the use of low culverts (3 foot diameter concrete boxes). Plant suitable native plant species in the Pershing Drive median at Florida Canyon to represent the habitat linkage.
- Provide park signage for the purposes of orientation to the Park and its facilities at the entry road and paths and at view points; with park rules at the entry and at parking areas.
- Lighting is to be for parking areas and pathways only. Lights should be in use for only a short time after the golf courses or Recreation Center have closed.

d. Special Maintenance and Security Needs

Two major security issues exist in the Golf Courses. The first is the protection of the facilities and the second is the protection of the user. The Clubhouse and the Golf Course Maintenance buildings are frequently targets of vandalism. Likewise, these areas have been frequent locations for illegal activities. Specific recommendations include:

- Enact the complete security element of the Precise Plan, see Security Element, Section IV-C-4.
- Consider the installation of call boxes for emergency communication to the Park security network at the Clubhouse and the Recreation Center.

Close Golf Course Drive to park visitors nightly in conjunction with the closure of the facilities, allowing only security patrol.

Construct and maintain primary trails for vehicular access by security patrol and maintenance crews.

Maintain and complete the fence surrounding the entire golf course, covered in vines to reduce the visual intrusion. New fencing should be in green coated vinyl rather than plain chain link.

- Extend the Neighborhood Watch program to include the Recreation Center.



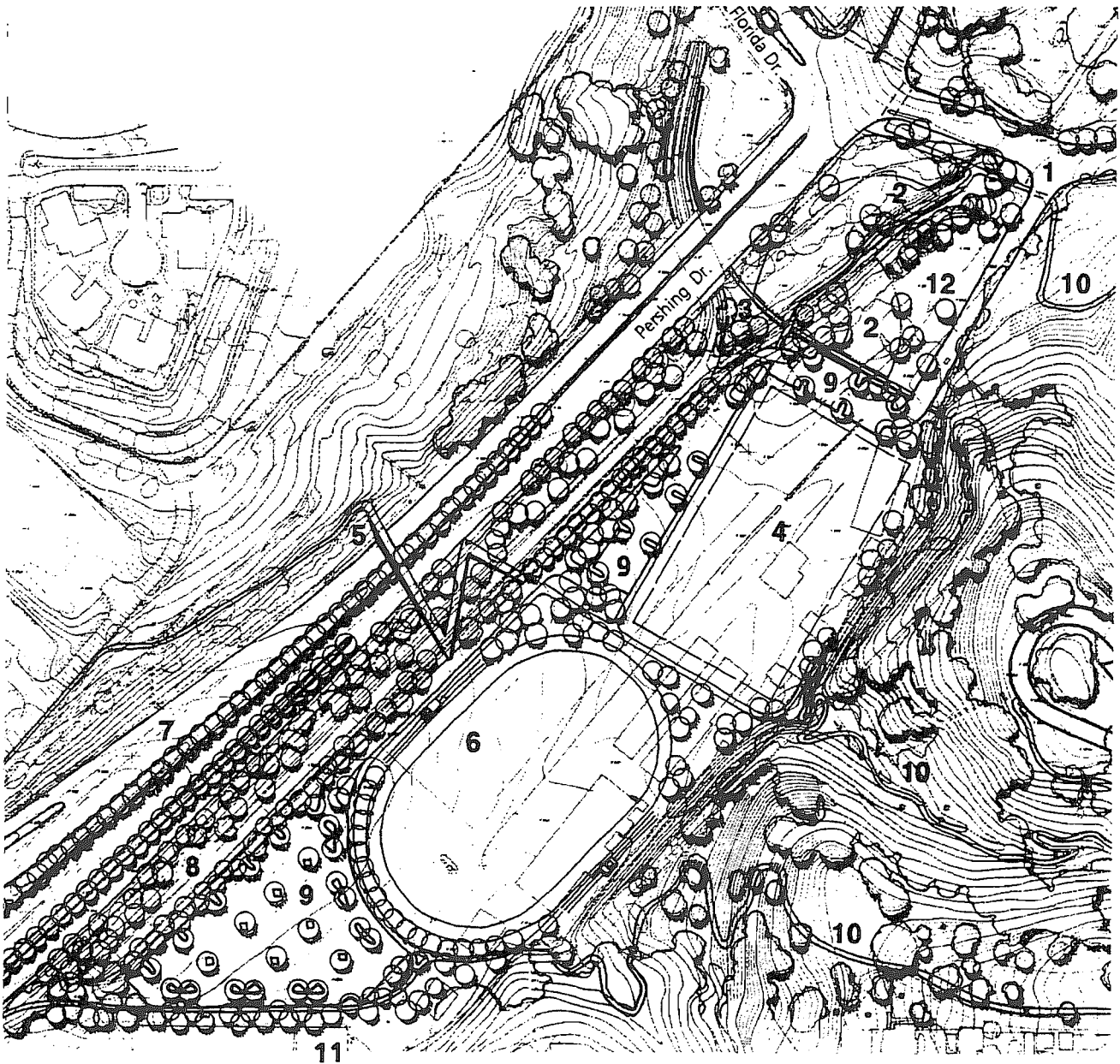
8. PERSHING RECREATION COMPLEX**a. Area Description**

The City Operations Station currently occupies what will be the Pershing Recreation Complex. It sits in a depression, the lowest point of the East Mesa, and is bounded on the northwest by Pershing Drive and the southeast by the slopes of the Golden Hill area, nearly 100 feet above. The portion south of Russ Boulevard will remain as the City Operations Station, accessed from 20th and B Street, as this segment is not dedicated parkland.

The site is now paved with storage, maintenance structures and yards for vehicles. It is totally surrounded by a security fence. The area is primarily flat and was historically a drainage impoundment for Switzer and Florida Canyons. A concrete-lined channel now diverts this drainage to the perimeter of the site, adjacent to the Pershing Drive right-of-way.

b. Concept Summary

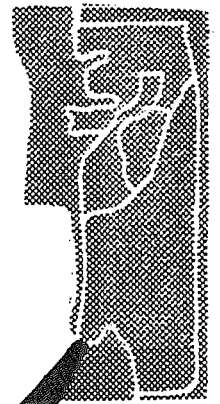
The Balboa Park Master Plan designates the land of the City Operations Station, north of Russ Boulevard, to be reclaimed for public park use. The recommendation of the East Mesa Precise Plan is to utilize this area for active recreation and as an attractive entrance to the East Mesa from downtown and Interstate 5. With the demands for active recreation balanced with the ecological value of the East Mesa, a suitable location was necessary for level sportsfields and active recreation areas unencumbered by the landfill constraints. The proposed Pershing Recreation Complex is suitable for active recreation as it is a level, previously disturbed site. Likewise, the adjacent topography separates the proposed recreation facilities from the residential neighborhood of Golden Hill, mitigating the potential impacts of night lighting and park noise.



PERSHING RECREATION COMPLEX AREA PLAN

Legend

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. Gated Entrance 2. Ponds of Reclaimed Water with Riparian Woodland Planting 3. Garden Wall / Water Retaining Wall 4. Lighted Soccer Field 5. Pedestrian / Bicycle Bridge to Inspiration Point | <ul style="list-style-type: none"> 6. Lighted Velodrome with Bleachers 7. Landscaped Medians 8. Storm Water Channel 9. Lighted Parking (218 Spaces) 10. Pedestrian / Bicycle Trail to Golden Hill 11. 20th and B Street City Operations Station 12. Picnic / Play Area |
|---|---|

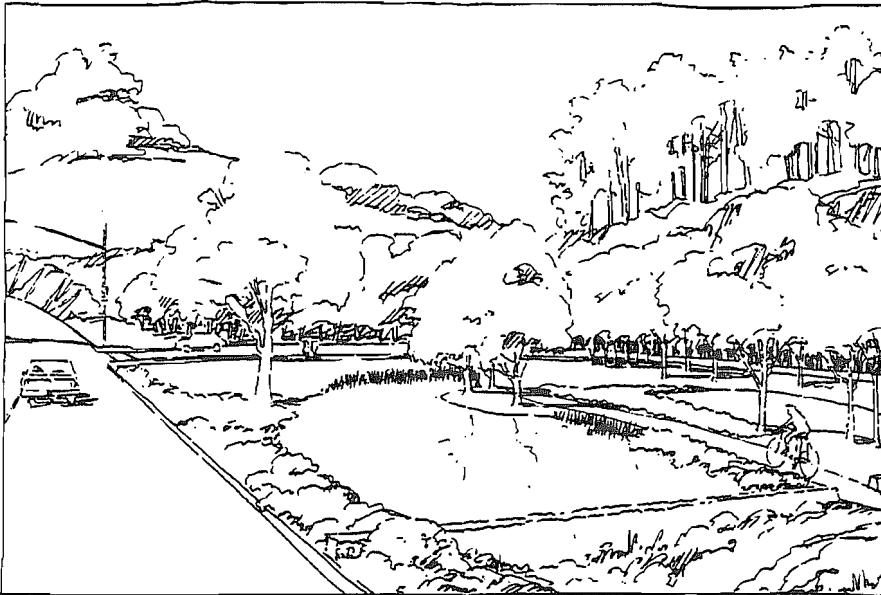


c. **Plan Recommendations:**

- Reclaim the Central Operations Station for parkland. Remove the buildings, pavement, and structures; reuse utilities as possible.

A complete hazardous waste study should be undertaken prior to any area improvements to determine the presence of waste from maintenance operations and the necessary mitigations.

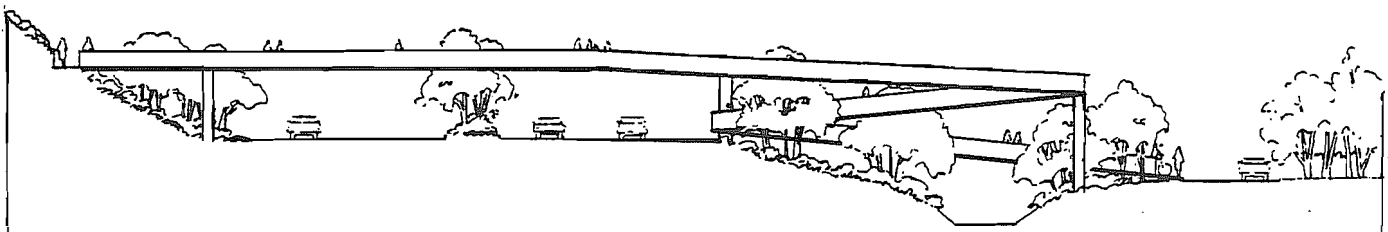
- Relocate the velodrome from Morley Field to the Pershing Recreation Complex, providing adjacent parking, restrooms, concessionaire stand, bleachers, and related storage facilities for an active program of events. Shielded night lighting and a public address system should be provided.
- Construct a competitive soccer field for use by recognized organizations. It should be constructed and operated to allow multipurpose activities as well. Provide night lighting.
- Provide new parking for 218 cars adjacent to the facilities.
- Provide a pedestrianbicycle bridge to Inspiration Point and the Central Mesa over Pershing Drive. This bridge should incorporate art and serve as a gateway into Balboa Park.
- Connect the paths to the Golden Hill pedestrianbicycle trails.
- Plant the land between the concrete drainage channel and Pershing Drive densely with trees typical of a riparian woodland to enhance the Park entry experience on Pershing Drive.
- Construct two ponds at the north entry, utilizing reclaimed water. Plant riparian trees surrounding the water body. Install a low dam at the southern pond edge extending the wall across Pershing Drive as an entry design feature. Create a storm water recharge area utilizing the play fields.
- Provide open turf with picnic tables, play structures for small children, adjacent to parking.



The Two Pond! and Riparian Vegetation of the Pershing Recreation Complex are part of the Entry Experience to the East *Mesa* from the South .

d. Special Maintenance and Security Meeds

- Install a gate across the new park road to close the area nightly to automobile traffic.
- Provide access for emergency vehicles from the Pershing Recreation Complex through the Central Operations Station to 20th and B Street.
- Consider the installation of call boxes for emergency communication to the Park security network in each parking lot. See the Security Element in Section IV C.



A sculptural bridge unites East Mesa with *Inspiration* Point and provides a gateway to Balboa Park along Pershing Drive.

C. PLAN ELEMENTS

Five systems are described that do not conform to the area boundaries detailed previously but are specific throughout the East Mesa. These are: Park Roads & Entries; Bicycle & Trail System; Signage, Lighting & Furniture; Park Security; and, Utilities & Drainage.

1. PARK ROADS AND ENTRIES

a. Concept Summary

Roads throughout Balboa Park serve two systems: the regional city through-traffic and local park access and distribution. The East Mesa currently has three regional serving roads: Florida Drive, Pershing Drive, and 26th Street and five roads primarily for park access: Morley Field Drive, Jacaranda Place, Golf Course Drive, 25th Street, and Zoo Place. In addition, the city street grid enters the Park at Texas Street, Arnold Street, Redwood Street, and Date Street, tying the regional serving system to the Park system.

Safety and operational efficiencies are the two major issues facing park circulation. A conflict is apparent between the two systems as through-traffic does not necessarily respect the nature of park circulation. Speeds which are appropriate to regional collector streets become inappropriate for park roads. Pedestrian and cyclist crossings conflict with the regional need to move from surrounding residential neighborhoods through the Park and into downtown. To better understand the issues, a comprehensive traffic study was conducted by the Traffic Engineering Division of the City Engineering and Development Department (see Appendix H). Specific recommendations from the study, endorsed by the surrounding communities, are incorporated into the Precise Plan recommendations.

The principal objectives are:

- Retain through-collectors but reduce speeds and improve the quality of the commute to connote a park experience.

Close streets not required by the Circulation Element to regain

parkland.

- Create a hierarchy of internal park roads that serve park functions.
- Allow internal park roads to be closed nightly for security

b. Plan Recommendations

Roadway and intersection improvements are outlined according to their locational distribution.

Florida Drive

- Florida Drive will be closed between Morley Field Drive and Zoo Place, as per the adopted Florida Canyon Master Plan. The existing roadbed will be removed and replaced with a paved trail, 14 feet wide.
- The trail will be dedicated to pedestrians and bicycles but will be of appropriate width and curvature to allow emergency, surveillance, and maintenance vehicles.
- A parking lot for 56 cars will be constructed at the north end of closed section, with access from Morley Field Drive. Three of these spaces will be dedicated as disabled parking.
- A parking lot for 33 cars will be constructed at the south end of closed section, with access from the intersection of Zoo Place and Florida Drive. Two of these stalls will be for disabled parking.

Morley Field Drive

- No changes are suggested for Morley Field Drive as it traverses from Park Boulevard, across Florida Drive and up the hill to its connection with Upas Street at Alabama Street. The four-way stop sign at Florida Drive will remain in place to allow easy egress from the Florida Canyon North Parking Lot, as will the free right turn at Upas and Alabama Streets.
- New park informational signage is recommended at the

intersections of Florida Drive and the Morley Field Parking Lot to direct visitors into the canyon facilities.

Pershing Avenue

- The complete closure and removal of Pershing Avenue (the short spur connecting Upas to Pershing Drive, now used for parking) is recommended. The area will be converted to parkland.

Pershing Drive

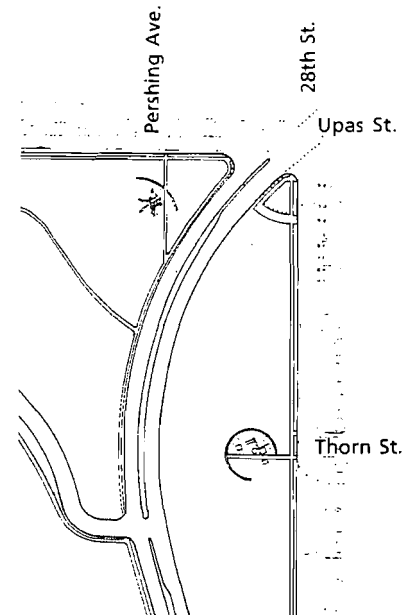
The most substantial circulation recommendations on the East Mesa revolve around Pershing Drive. Used as the commuter route between North Park and Centre City, the street's posted speed of 55 miles per hour allows for rapid vehicular traffic at high peak volumes. This is not conducive to recreational cross-traffic or the image of the Park. In an effort to establish Pershing Drive as a park road that allows through traffic, a number of recommendations are made:

- The five way intersection at Pershing, Upas, and 28th Street will be reconfigured. 28th Street will be closed to non-emergency traffic at Upas to eliminate two points of the intersection.
- The intersection of Pershing Drive and Redwood Street will be reconfigured as a 'T' intersection, with traffic control as necessary.
- The intersection of Jacaranda Place and Pershing Drive will be reconfigured as a "T" intersection to improve the sight distances and reduce speeds.

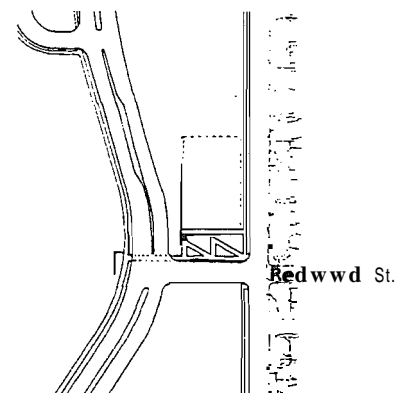
Traffic control measures, such as signals or stop signs should be considered along Pershing Drive to slow traffic and provide safe pedestrian crossings when volume and safety dictate.

The 76 foot right-of-way of Pershing Drive between Upas and Florida Streets will be reconfigured to provide bicycle lanes (Class II) and a planted median in an effort to create a park-like driving and cycling experience.

- Rename Pershing Drive in Balboa Park to Pershing Parkway.






The Pershing/Upas/28th Street Intersection is reconfigured to eliminate potential hazards.

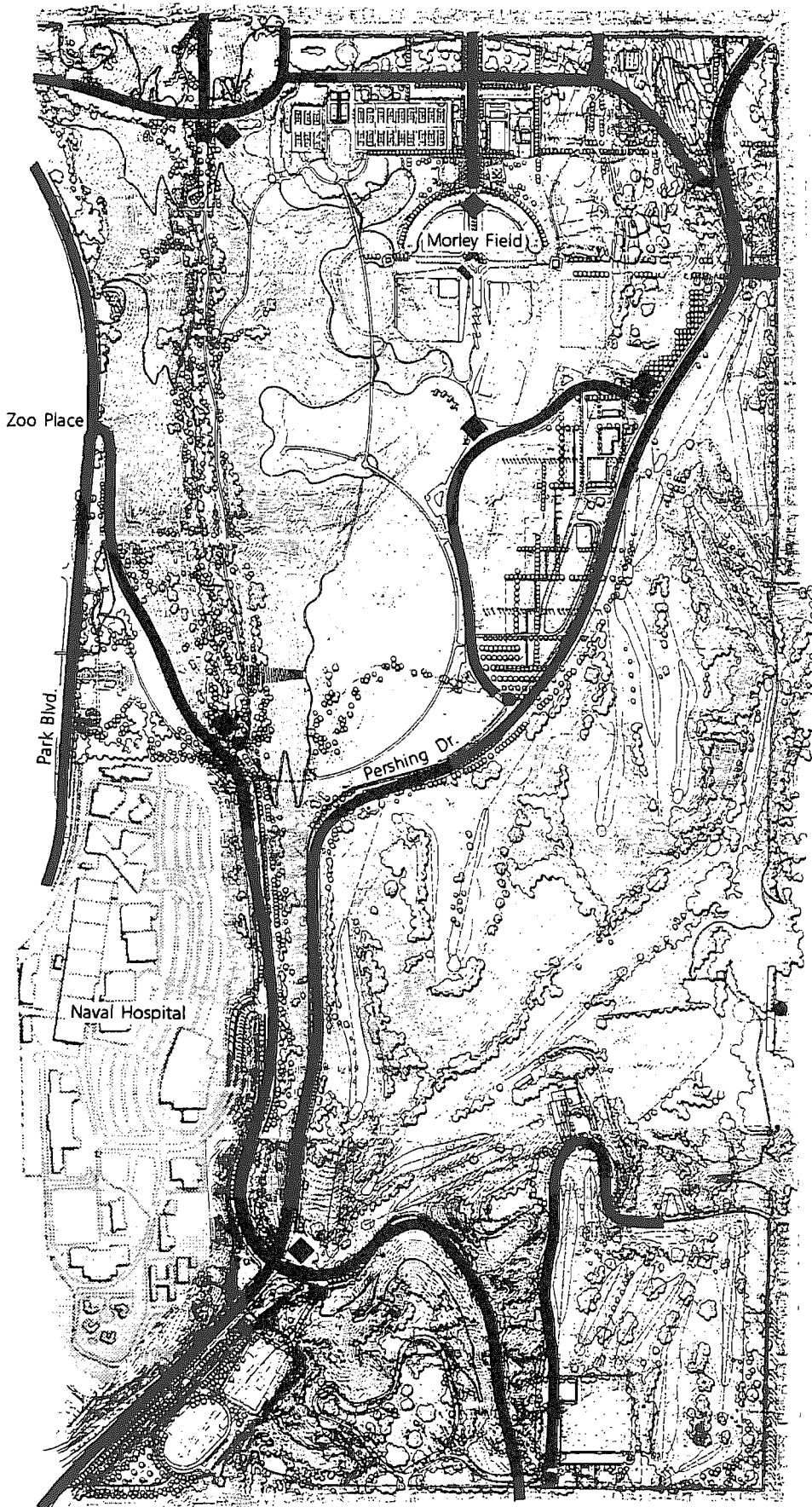


The Pershing/Redwood Intersection is realigned to a 3 way 'T' Intersection.

PROPOSED AUTOMOBILE CIRCULATION

Legend

-  Park Roads
-  Points of Nightly Closure
-  Tram Stops

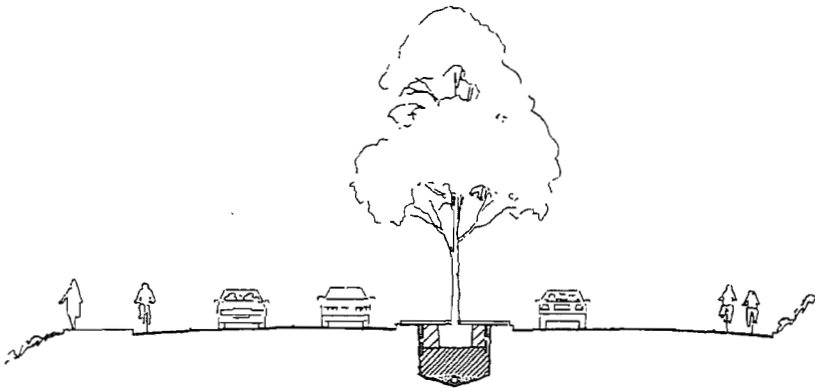


City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

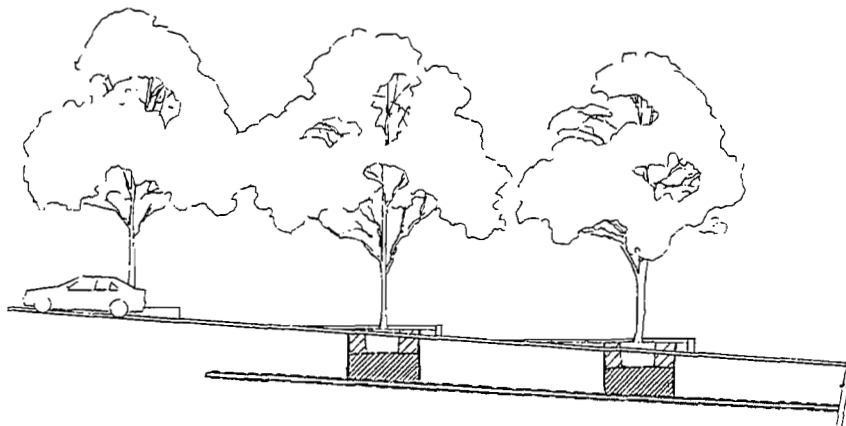
Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner





Recommended Cross-section of Pershing Parkway

- A 14 foot median will be constructed along Pershing Drive, allowing for left turn pockets into East Mesa Drive.
- Planting on the sloped portions of the median require low planters walls, stepped so as not to exceed 6 inches in height, to retain a suitable slope for planting and maintaining trees.



Longitudinal Section of Tree Planting Wells in the Pershing Parkway Median

- A 7 foot shoulder will be paved, marked, and striped as a bike lane, typical on each side of the roadway.
- Pedestrian ramps will be provided at all crosswalk locations for disabled accessibility.
- Paved sidewalk connections will be provided to the Park trails adjacent to the roadway.

- Pershing Drive, between Florida Drive and Interstate 5 will be modified based on CalTrans approvals. CalTrans jurisdiction extends into the Park in this location. Recommendations include:
 - Planting the currently paved median with canopy trees such as California Live Oaks.
 - Revegetating the sideslopes with native species during the construction of the pedestrian bridge

Date Street Entry

- Date Street entry will be closed to nightly to vehicular traffic at Golf Course Drive, preventing nighttime traffic between 26th and 28th Streets through the park. Closure shall be coordinated with golf course activities.

Golf Course Drive

The blind curves along the Drive, the cross flow of pedestrians, parking, and rapidly moving, through-traffic have created a safety problem for some time. Measures have recently been undertaken to reduce the speeds of traffic along Golf Course Drive and provide a safer environment for course users. A new program of stop signs and one way loops, to discourage through-traffic and provide safe pedestrian crossings, has been implemented.

- The conflict between pedestrian and vehicular traffic along Golf Course Drive should continue to be monitored to test the results of the traffic control measures. If assessments indicate that the current stop signs do not adequately control vehicular speeds and allow for safe pedestrian crossings between the clubhouse and the nine hole golf course, other measures to control vehicular speed should be considered with community input.
- The roadway pavement will be restriped to include Class II bicycle lanes.

26th Street

The Balboa Park Master Plan recommends the closure of the 26th Street entry into Balboa Park and provision of a new entry at 25th Street. This was designed to redirect regional traffic heading to Balboa Park from State Route 94 to the commercial 25th Street rather than the residential 26th Street. During the planning process of the Precise Plan, the Golden Hill Community Planning Group refuted this past decision because of its negative impacts on Golden Hill Park, and recommended that the entry remain at 26th Street. After studying this recommendation from a traffic standpoint, the Park and Recreation and Engineering and Development Departments concurred with the Community Planning Group.

New directional signage will be provided at the intersection of 26th Street and Russ Boulevard, indicating connections to Pershing Drive and locations of facilities such as the Golf Course, Golden Hill Recreational Center, and other East Mesa and Central Mesa facilities.

25th Street

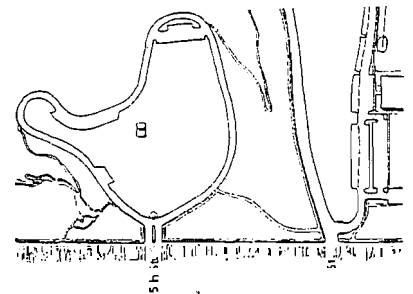
25th Street will become the neighborhood entrance into Golden Hill Park, exclusively. Street closure to prevent nighttime use shall be relocated to the intersection with the Golden Hill Park Loop Drive.

Golden Hill Park Loop Drive

Golden Hill Park Loop Drive will continue to be a one-way park facility access road for daytime use only.

The section of pavement between 26th Street and Golden Hill Park Drive near 25th Street within the Park will be closed to vehicular traffic. The pavement section will be reduced to 10 feet to allow for bicycles, pedestrians, and emergency vehicles. The remainder of the right-of-way will be converted to parkland.

Emergency access will be retained along the former alignment. Removable bollards will be provided at each end, spaced at 3 feet on center to prevent unauthorized vehicular entrance.



Caminito Centro (Burma Road)

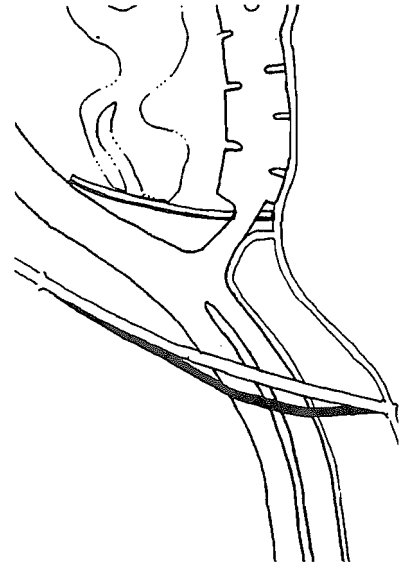
Caminito Centro (Burma Road) currently serves the City Operations Station and is closed to all public traffic. With the removal of the Operations Station and its conversion to the Pershing Recreation Complex, the road will be redesigned and relocated for park access.

- Reconstruct Caminito Centro (Burma Road) as a two lane road (28 foot pavement section) to serve parking and recreational facilities. Bike lanes or sidewalks adjacent to the road are not necessary as bike paths and trails are provided in close proximity.

Zoo Place

Zoo Place will continue as the primary connection between Florida Drive and the Central Mesa. The Balboa Park Master Plan designates Zoo Place to be widened to two lanes of traffic each direction. The intersection of Zoo Place and Florida Drive will be eliminated to optimize traffic flow. Access from the Florida Canyon parking area will be through a "T" intersection.

In addition, substantial trail and pedestrian improvements parallel to Zoo Place are discussed in the Bicycle and Trail System Element.



Florida Drive will connect directly to Zoo Place.

PEDESTRIAN CROSSINGS (all East Mesa roadways)

Pedestrian crosswalks will be provided at each of the intersections and marked with stamped, colored concrete, or other enhanced texture, to indicate the pedestrian zone and alert the driver with a "rumble."

- Pedestrian crosswalks will be marked with standard street crossing signage for driver awareness.
- Pedestrian ramps and visually impaired markings will be provided at all crosswalks for disabled accessibility.

PARKING

Table 1, on the following page, outlines the existing parking areas and the proposed parking increases. Parking will only be increased in areas of noted deficiencies, where overflow currently infringes on adjacent neighborhoods, and at new facilities. Otherwise, parkland will not be converted to parking areas, encouraging the use of the park shuttle and alternate methods of transportation.

The primary improvements include new parking in Florida Canyon for the nature trail, increasing parking at Golden Hill Recreation Center and the Golf Courses where deficits exist, and providing new parking for the Pershing Recreation Complex. Central Mesa overflow parking will no longer be provided on the landfill. Rather, Central Mesa overflow parking will use the Pershing Recreational Complex lots when not in programmed use.

All new parking lots will provide disabled spaces at the following ratios:

| <u>Total Spaces</u> | <u>Disabled Spaces Required</u> |
|---------------------|---------------------------------|
| 1-25 | 1 |
| 26-50 | 2 |
| 51-75 | 3 |
| 76-100 | 4 |
| 101-150 | 5 |
| 151-200 | 6 |
| 201-300 | 7 |
| 301-400 | 8 |
| 401-500 | 9 |

All disabled spaces should be marked both with pavement striping and signage, and designed according to the Americans with Disabilities Act and/or the most current Title 24 Regulations of the California Building Code, whichever is more stringent.

All new parking lots are to be asphalt paved, with striped stalls with the exception of the overflow parking lot at Golden Hill Recreation Center which is to be "turfblock" or similar precast parking surface which allows the infill of turf. This will provide the interim parking necessary to keep vehicles off of Golden Hill streets while reducing the visual intrusion of additional parking lots in the Park.

**Table 1
 Tabulation of Existing and Proposed Parking Spaces**

| Existing Barking Spaces | | |
|--|-------------|-------------|
| Tennis Courts (North) | 169 | cars |
| Kern's Pool/Senior Citizen's Clubhouse | 107 | cars |
| Tennis Center (\Nest) | 60 | cars |
| Morley Field Ballfields | 246 | cars |
| Pershing Place | 20 | cars |
| Disc Golf Course | 10 | cars |
| Balboa Park Golf Course | 226 | cars |
| Golden Hill Recreation Center | 93 | cars |
| Golden Hill Area | 51 | cars |
| Grape Street Picnic Area | 50 | cars |
| Total : | 1032 | cars |

| Proposed Parking Spaces | | |
|---|-------------|-------------|
| Tennis Courts (North) | 14 | cars |
| Kern's Pool/Senior Citizens Clubhouse | 275 | cars |
| Florida Canyon Trailhead - North | 56 | cars |
| Florida Canyon Trailhead - South | 33 | cars |
| Tennis Center (\Nest) | 60 | cars |
| Morley Field Ballfields | 180 | cars |
| Organized Group Picnic Area | 33 | cars |
| Arizona Landfill | 80 | cars |
| Golf Course | 334 | cars |
| Golden Hill Rec Center & Golf Course Overflow | 210 | cars |
| Golden Hill Area | 51 | cars |
| Pershing Sports Complex | 218 | cars |
| Grape Street Picnic Area | 50 | cars |
| Total : | 1594 | cars |

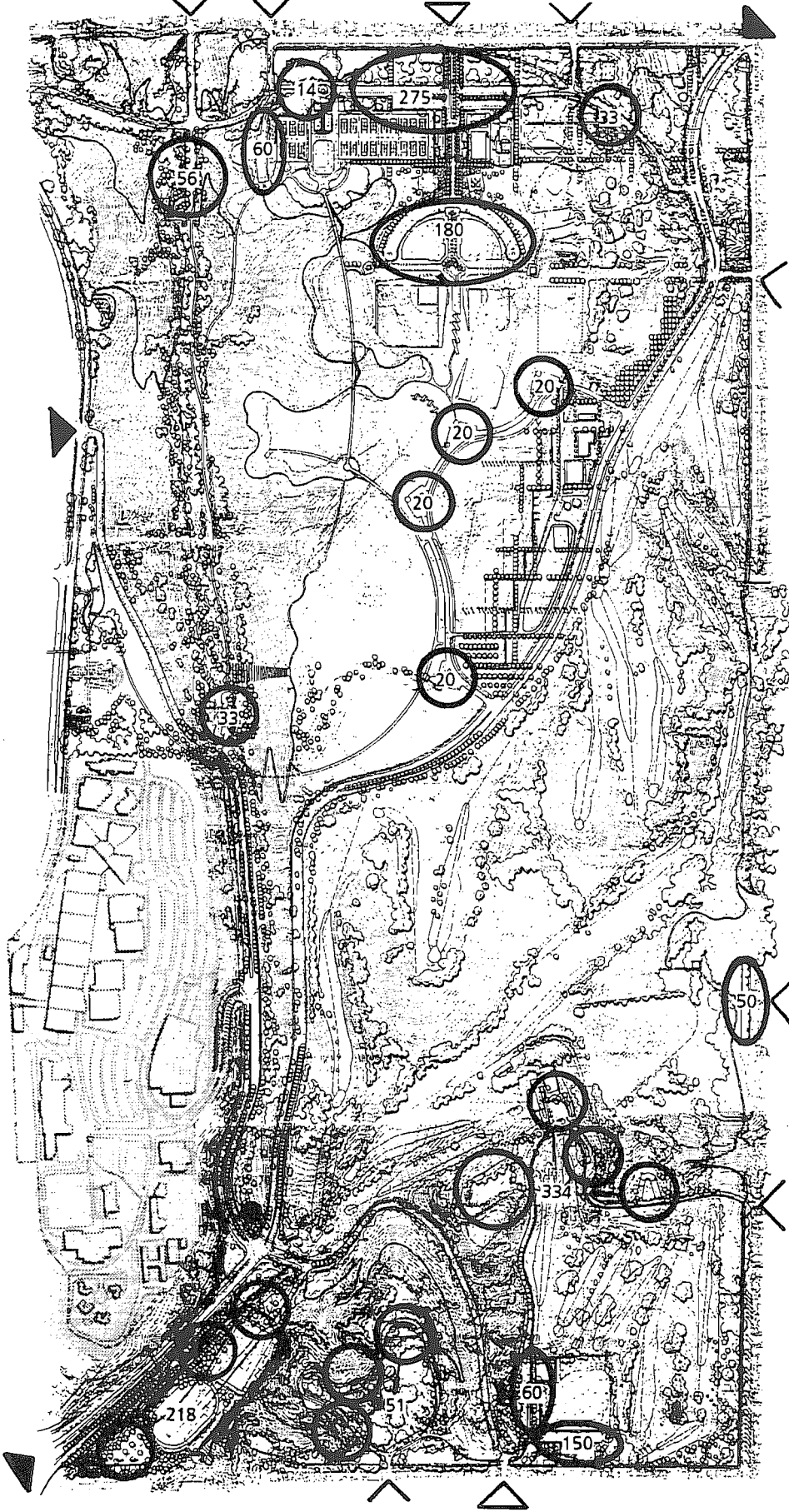
PARK ENTRIES

The East Mesa serves as the Balboa Park entry to a number of visitors and residents from both the region (Interstate 5 and Highway 94) and the neighborhoods (Golden Hill and North Park). The importance of entries, therefore, becomes foremost in addressing circulation, signage, and image of the East Mesa.

Principal Objectives:

The principal objective is to elevate these entries to "front door" status rather than allow them to become forgotten, roads or left over spaces. A hierarchy of entries will be created, reflecting the number of visitors and the dissemination of information necessary. These entries shall be unified in appearance and coordinated with the signage recommendations for the entirety of Balboa Park.

- The Precise Plan establishes a hierarchy of park entries based on community and regional importance. The three categories are: Principal Entry, for regional traffic; Community Entry, for the surrounding area; and Neighborhood Entry, geared to the neighbors who use Balboa Park as their neighborhood park.
- Principal Entries occur at:
 - Pershing Drive, at Florida Drive
 - Zoo Place, at Park Boulevard
- Community Entries occur at:
 - Pershing Drive, at Upas Street/28th Street Corner
 - 26th Street, at Russ Boulevard
 - Texas Street, at Upas Street
- Neighborhood Entries occur at:
 - Florida Drive, at Upas Street
 - Alabama Street, at Upas Street
 - Arnold Street, at Upas Street
 - Redwood Street, at 28th Street
 - Grape Street, at 28th Street
 - Date Street, at 28th Street
 - 25th Street, at Russ Boulevard



PROPOSED ENTRIES AND PARKING

Legend

-  Public Parking Areas
-  Principal Entry
-  Community Entry
-  Neighborhood Entry
-  Park Information Kiosk

City of San Diego

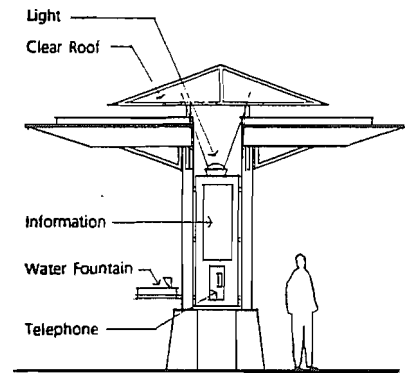
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Christine Oatman
Richard Posner



Improvements and facilities will relate to the hierarchy of entries:

- The Principal Entry at Pershing and Florida Drives will have an information kiosk, with map of the Park and surrounding areas, schedule of special events, information on exhibits, art programs, and park facilities, as well as history and background of Balboa Park. An automobile pull out will allow vehicles to stop safely off the roadway to gather information. The kiosk is sited at the northeast corner of Florida and Pershing Drives.
- The pedestrian overcrossing between Inspiration Point and Pershing Recreation Center will also become an entry statement. In keeping with the Precise Plan's recommendation of art incorporation, the overcrossing represents an excellent opportunity for artist/engineer collaboration.
- The Principal Entry at Zoo Place will have informational and directional signage encouraging Central Mesa visitors to East Mesa.
- The Community Entries will have entry signage and enhanced park landscaping. Signage should be geared to both the East Mesa and other Balboa Park facilities. Further improvements to each entry are specifically detailed in the Area Elements and Signage section.
- Neighborhood Entries emphasize pedestrian and bicycle circulation. Planting and signage should be scaled to these users, pointing out facilities available to the neighborhood and the pedestrian or bicycle routes to them.



Entry kiosk at Pershing & Florida Drives.

TRAMS

Balboa Park is operating a tram system within the Central and West Mesas. When ridership warrants, a shuttle loop should be extended into East Mesa to further the connections with the Park. The loop should provide stops at Florida Canyon, Pershing Recreation Complex, East Mesa Loop Road, the Kate Sessions Park Nursery, and Morley Field.

2. BICYCLE and TRAIL SYSTEM

a. Concept Summary

An initial framework for bicycle and trail systems exists currently in the East Mesa, yet it is fragmented and incomplete. The impression, therefore, is one of inaccessibility, interruption, and interference. Pedestrians and bicycles are forced to mix with automobile traffic or are left to cut across areas of fragile native vegetation and steep slopes. Connections to other areas of Balboa Park are difficult to traverse as are the connections between the Morley Field and Golden Hill areas within the East Mesa. Facilities that are present are more attractive to the automobile arriving from the region rather than those adjacent neighbors who could easily walk or cycle through the Park.

The primary objectives of a pedestrian and bicycle system are to:

- Ensure safe and efficient means of non-vehicular circulation;
- Create a hierarchy of non-vehicular circulation based on locational and user criteria;
- Encourage a pleasurable recreational experience that connects a variety of land uses and elements of the entire Park;
- Enhance educational and exploratory experiences along all the paths; and,
- Provide a diversity of terrain for various challenge levels and physical abilities.

b. Plan Recommendations

BICYCLE CIRCULATION

Two types of bicycle circulation will be present on the East Mesa, generally following the standard classifications: Bicycle Lanes and Multipurpose Paths.

Bicycle Lanes:

Bicycle Lanes are striped markings along the edges of the roadbed, signed and marked for bicycle and vehicle safety. Lanes are designed for the aggressive bicycle rider, bicycle commuter, or through-traveller. The bicyclist rides with the direction of traffic and obeys all vehicle regulations, turning movements, and safety measures. These lanes follow Class II standards.

- Bicycle lanes will be 7 feet wide at a minimum, 8 feet preferred where the right-of-way is adequate. Bicycle Lanes will be along:
 - Pershing Drive, entire length
 - 26th Street
 - Florida Drive
 - Zoo Place
 - Morley Field Drive
 - Golf Course Drive





Multipurpose Bicycle/Pedestrian Paths:

Bicycle Paths allow circulation for the recreational bicycle rider, those enjoying loops through the Park, travelling at speeds less than 5 m.p.h., and sharing it with pedestrian paths. Gradients are typically less than 10 percent. Multipurpose paths may also be used by rollerskaters and skateboards provided that they obey the speed and etiquette rules.

- Multipurpose paths will be 12 to 14 feet in width, paved with concrete, stabilized decomposed granite, or in the case of bridges, wood. Asphalt will be limited to those paths requiring emergency access, where load bearing concrete would be cost prohibitive. Paths will have signage posting the maximum speed limit and rules of etiquette. Multipurpose Paths are:
 - Florida Canyon (former Florida Drive)
 - The Prado Connection
 - Mesa Rim Trail
 - East Mesa Trail
 - 28th Street Trail
 - Golden Hill Trails

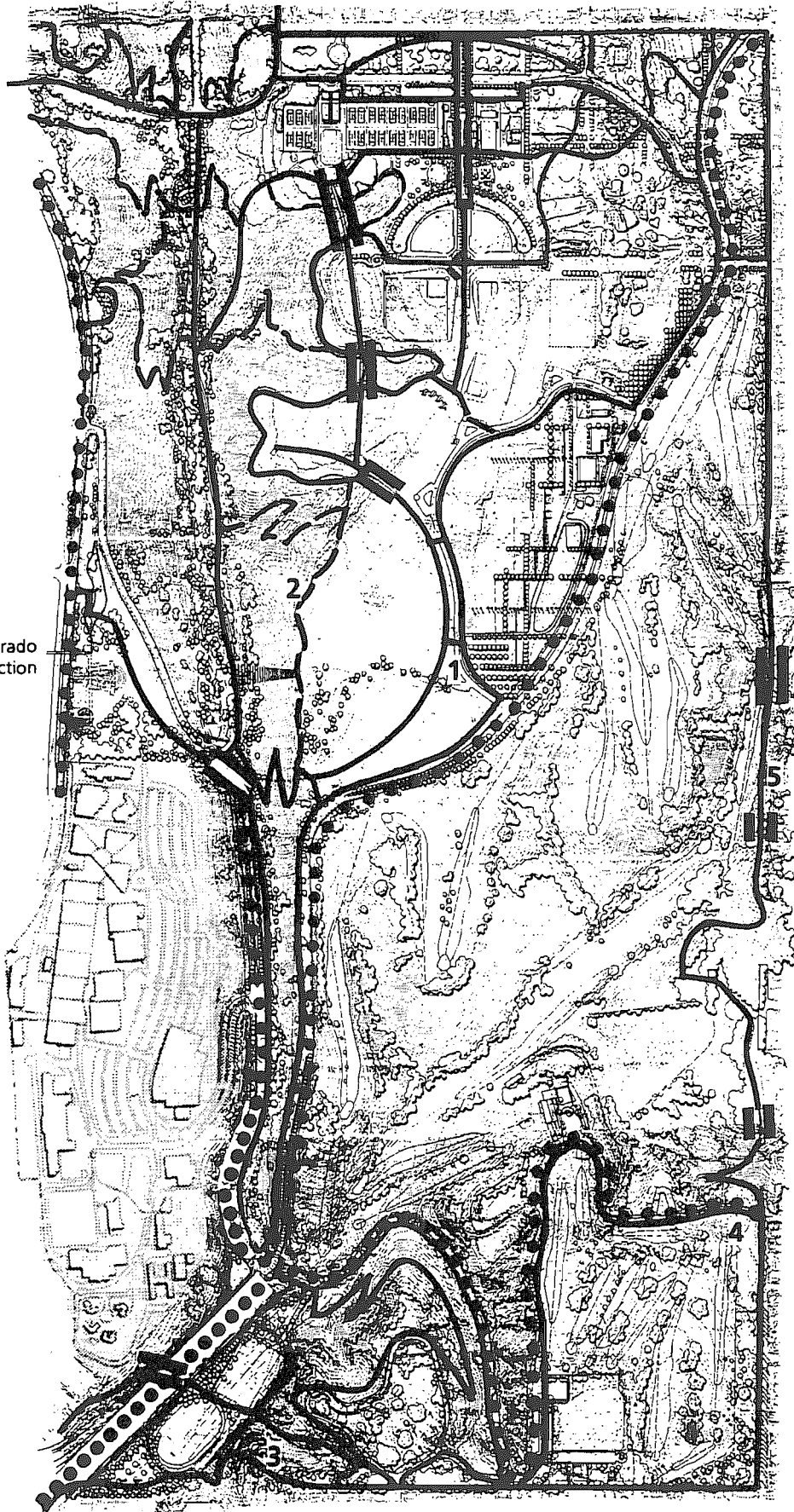
PROPOSED PEDESTRIAN /
BICYCLE CIRCULATION

Legend

-  Paved Trail
-  Unpaved Trail
-  Bicycle Lane
-  Pedestrian/
Bicycle Bridges

1. East Mesa Trail
2. Mesa Rim Trail
3. Golden Hill Trail
4. Date St. Sidewalk
5. 28th St. Trail

Prado
Connection



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PEDESTRIAN ROUTES:

In addition to the multipurpose paths, dedicated pedestrian only areas will be provided. Bicycles in these areas will not be allowed unless they are walked. Dedicated pedestrian areas take the form of sidewalks, pedestrian promenades, and hiking trails.

- Sidewalks will be provided adjacent to the perimeter city streets where the Park and neighborhood interface. Sidewalks will be salt or broom finish concrete, 8 feet wide and separated from the curb with a landscaped parkway strip 10 feet wide.
- Pedestrian promenades are developed as plazas and gathering areas adjacent to active recreation and cultural facilities. These areas vary in size and are paved with hard surfaces, interspersed with trees, arbors, and other plantings. Furniture, such as picnic tables, benches, waste receptacles, drinking fountains, and shade structures are provided. Promenades will exist at:
 - Balboa Park Tennis Center
 - Morley Field Sports Complex
- Pedestrian trails will allow the hiker or walker to remove themselves from the higher intensity use areas and experience the topography, vegetation, and natural experience first hand.
 - These trails are 6 feet wide, compacted dirt or stabilized decomposed granite (used in areas of less than 5 percent slope) or paved with concrete (in areas of steeper slope or where heavy use is anticipated).
 - The maximum slope would be 8 percent to allow access for persons with disabilities.
 - Trail edges should be constructed of redwood 2x6 headers to contain minor erosion and prevent sluffing on slopes.

Pedestrian Bridges:

Balboa Park is characterized by the Prado's Cabrillo Bridge, extending Laurel Street into the heart of the Park. The romance of Balboa Park frequently revolves around Cabrillo Bridge as the remnant of the historical bridges in the area. There is also precedence for bridges within

the East Mesa, a trestle bridge once connected the Central and East Mesas over Florida Canyon but has long since been removed.

To provide a strong, physical connection across the bisected topography and experience the landforms, the Precise Plan recommends new pedestrianbicycle bridges throughout the East Mesa, ranging in span and construction as they relate to the hierarchy of paths.

- Pershing Drive Bridge: A major bridge will span across Pershing Drive between Inspiration Point and the Pershing Recreation Complex. The technical criteria for such a bridge is detailed in the Inspiration Point Precise Plan. Additional recommendations are:
 - Since it serves as an entry feature and gateway into both Balboa Park and the East Mesa, it is an opportunity for an artist collaborative design rather than an embellishment.
 - The bridge is proposed as an 8 percent continuous ramp with landings, allowing access to those with disabilities, while meeting the grade differential.
 - The bridge will start at approximately elevation 115 on Inspiration Point and terminate at elevation 90 at the Pershing Recreation Complex. The span length, including the switchback ramp, is approximately 425 linear feet. Its final location and ramps should not interfere with the recreational facilities or parking.

- Prado Bridge: The intersection of Zoo Place and Florida Drive will be spanned by a pedestrianbicycle bridge. Crossing along the Prado axis, this strong statement will reinforce the connections both literally and figuratively, between the East and Central Mesa.
 - The bridge is proposed as a fairly level crossing, connecting the top of the East Mesa with a point midway up the slope along Zoo Place.
 - The bridge will start at elevation 175 on the western slopes of Florida Canyon and terminate at elevation 150 at the top of the mesa rim. The span length is approximately 400

linear feet.

- Mesa Rim Trail Bridges: Three bridges are proposed to cross over the finger canyons of Florida Canyon. These will allow continuous level access along the Mesa Rim Trail while providing for additional overlooks for scenic interest and security.
 - The northern bridge spans approximately 300 linear feet and is sited at elevation 245.
 - The central bridge spans approximately 250 linear feet and is sited at elevation 265.
 - The southern bridge spans approximately 150 linear feet and is sited at elevation 275.
 - The architectural character of these bridges will combine the rustic qualities of the East Mesa with the technical advancements of the 21st century, utilizing wood and steel materials. In order to preserve the horizontality of the mesa, the bridges should express their structural support below the plane of the span.
- 28th Street Trail Bridges: Two bridges cross Switzer Canyon and its tributaries along the pedestrian/bicycle trail parallel to 28th Street. Previously blocked by canyon topography, these bridges will allow continuous pedestrian movement between Golden Hill and North Park neighborhoods within Balboa Park.
 - The northern bridge spans approximately 50 linear feet and is sited at elevation 185.
 - The southern bridge spans approximately 50 linear feet and is sited at elevation 175.
 - The architectural character of these bridges will recognize the rustic qualities of the adjacent neighborhood and the forested edge. The primary materials should be wood and steel with stone supports as necessary.

3. SIGNAGE, LIGHTING AND SITE FURNITURE

Signage, lighting, and furniture are integral to the design vocabulary and function of the East Mesa. Their style matches the architectural style while their function provides for user health and safety.

SIGNAGE

This Precise Plan identifies the types and locations of the East Mesa signage, while the Balboa Park Sign Manual (1991) contains the adopted sign specifications, messages, and program. The premises for this current sign program are based on those used during the 1915 Exposition, with standards set out for sign size, shape, letter weight, styles, logo use, content, length of message, pole style, attachment method, materials, color, and general locations. All traffic signs, such as speed limits, stop signs, and disabled markings shall be per City sign regulations.

The following recommendations are adaptations from the Sign Manual, updated with locational reference to the proposed improvements of the East Mesa Precise Plan. Categories and classifications remain the same as stated in the Sign Manual for ease of cross-reference.

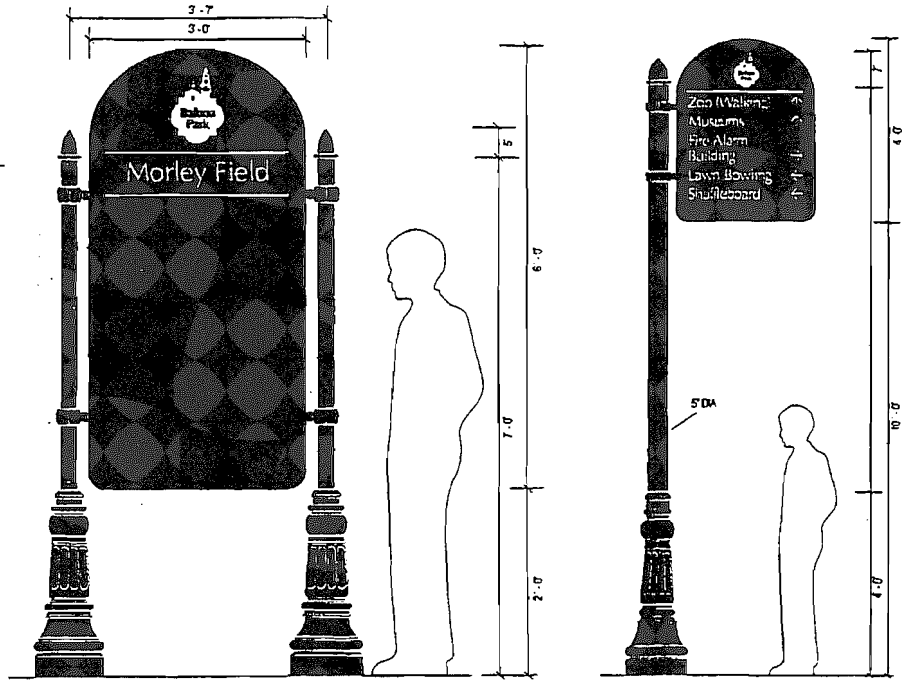
- Auto Traffic Directional Sign - all park entries
- Auto Traffic Sign - per Traffic Engineering requirements on roads
- Pedestrian Orientation Sign - all neighborhood entries, the Morley Field Promenade, and the Prado trailhead
- Pedestrian Directional Sign - all trailheads and junctions
- Self Guided Tour Sign - Mesa Rim, and Florida Canyon Trailheads
- Hanging/Wall Mount Building/Locational Sign -Concession stands, Restrooms
- Tram Stop Sign - Florida Canyon, Pershing Recreation Complex, Park Nursery, Balboa Park Public Art Gallery, Morley Field
- Park Rules & Regulations Sign - all parking, trailheads, restrooms
- Building & Location Sign with Standards - Kerns Pool, Tennis Center, Park Nursery, Senior and Community Centers, Golf Clubhouse, Ranger Station/Nature Center
- Historical Landmarks Signs - Golden Hill Fountain, Oak Grove

Elements of the Balboa Park Sign System

Location Map Legend

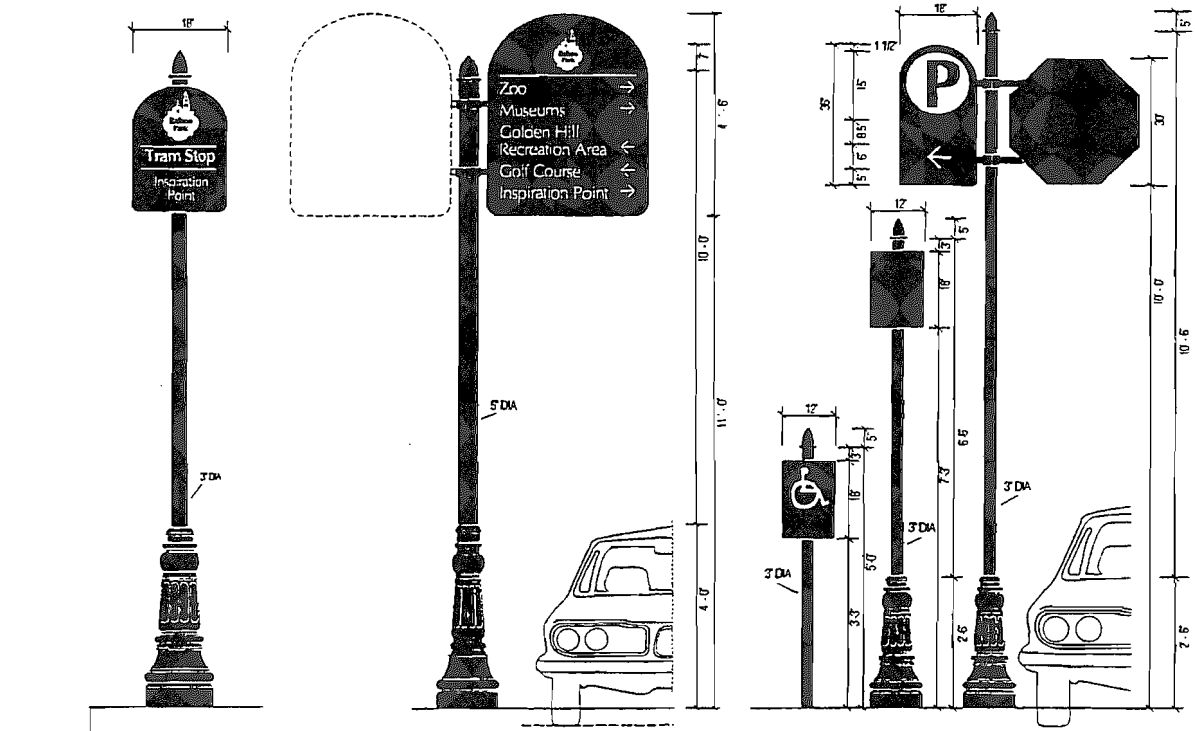
Legend

- ▲ Auto Traffic Directional Signs
- Auto Traffic Signs
- Pedestrian Orientation Signs
- Pedestrian Directional Signs
- Self Guided Tour Signs
- ◆ Hanging/Wall Mount Building/Location Signs
- ◇ Oval Hanging Directional Signs
- Ⓣ Tram Stop Signs
- Ⓝ Park Rules & Regulations Signs
- ⊗ Building & Location Sign with Standards
- Ⓜ Historical Landmarks Signs
- RR Restrooms



Pedestrian Orientation Sign (Specific Area)

Pedestrian Directionals



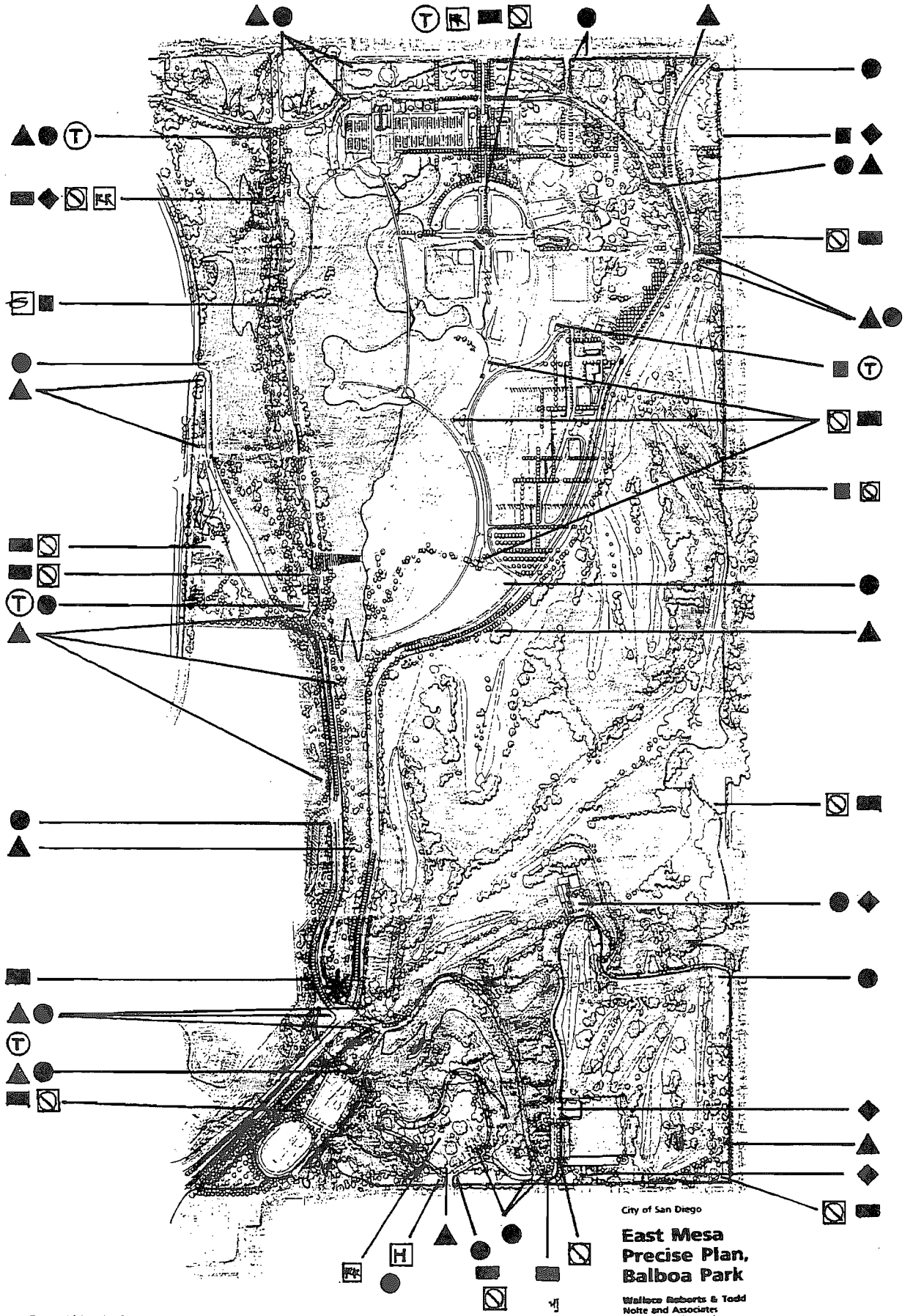
Tram Stop Sign

Auto Traffic Directionals

Auto Traffic Signs

Fig. 10

Signage Location Map for the East Mesa



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LIGHTING

An independent study addressing park-wide lighting inventory, assessment, and recommendations is currently under preparation. The following guidelines indicate the design intent on the East Mesa for incorporation into the detailed lighting plan. Two primary objectives have determined the design criteria for East Mesa park lighting. First, there is a need to provide park safety in the interior and perimeter of the East Mesa during the operational hours of the Park. Secondly, there is a responsibility to the aesthetics of light and the intrusion of light on the surrounding neighborhoods.

- Night lighting of facilities shall not conflict with the views east from the Central Mesa across the East Mesa. Care must be taken in fixture location and footcandle levels so as not to create spots of bright light in the Central Mesa or neighborhood viewsheds. All recreational facilities shall have shielded, cut-off fixtures.

Facilities requiring night lighting for operations, such as the velodrome and soccer field, have been located in the Pershing Recreation Complex, where the lighting will not be intrusive to the surrounding uses.

- For additional control in the Pershing Recreation Complex, night lighting should be designed with cut-off fixtures so as to prevent any spill onto Pershing Drive or Golden Hill. In no case will uplighting be used in the Pershing Recreation Complex because of its proximity to the Golden Hill neighborhood.
- Pedestrian lighting shall be provided along promenades and sidewalks only and shall be pole fixtures or mounted from overhead trellises.

The Neighborhood Edge shall be illuminated from both the perimeter street lights and pedestrian pathway lighting on the adjacent sidewalk. Footcandle levels should be designed to not impact adjacent residential neighborhoods.

Pedestrian lighting should be controlled by photo-sensitive cells

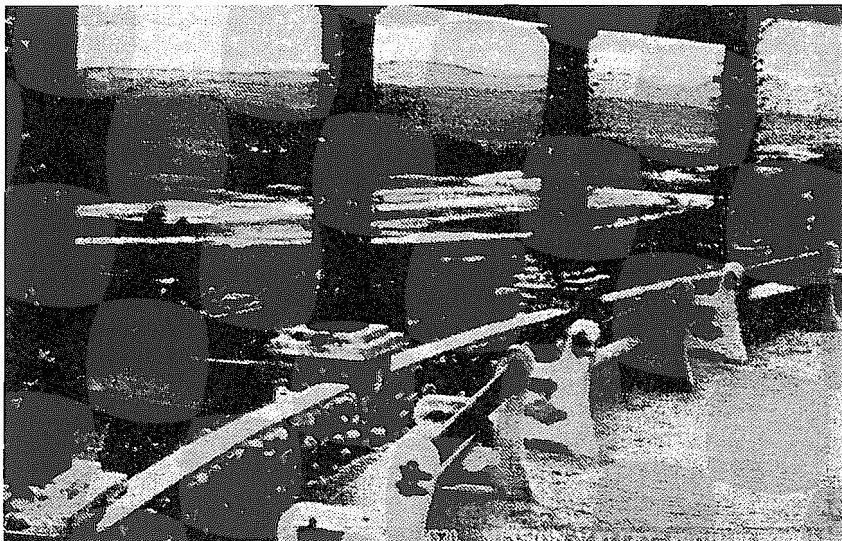
and a time-clock, set to turn off following the end of scheduled events or at a pre-set time.

- Golden Hill Recreation Complex, Golf Course Clubhouse, Balboa Park Tennis Complex, Kern's Pool, the new Community Building, and the Park Nursery Educational Building are facilities within the East Mesa that can be programmed for night use. Entries and parking lots adjacent to these facilities should be illuminated in conjunction with operational hours. Low level security lighting can be provided around the building perimeter following operational hours.
- Where not required by the City's Dark Sky Ordinance, alternatives to low pressure sodium lighting should be pursued for aesthetic purpose.

SITE FURNITURE

The site furniture palette for the East Mesa will be unique to this area of the Park and will reflect the influence of artistic vision in their detailed design. Unlike the Central Mesa with its historic theme, the furniture on the East Mesa will incorporate the rustic character of the environment coupled with the technologies of the 21st century.

- Seating and Benches - concrete and stone or precast concrete
- Trash Receptacles - precast concrete with cover
- Drinking Fountains - precast concrete for disabled users
- Picnic Tables - precast concrete
- Light Standards - custom fixture on standard pole



4. PARK SECURITY

a. Concept Summary

The following Security Element is in response to the City Council's resolution with the adoption of the Balboa Park Master Plan to include a security and safety strategy for each geographic area's Precise Plan.

Experience of the Park management and the Police Department has shown that public education, combined with a joint effort of law enforcement and volunteers, promotes safety and reduces crime. To accomplish this, the following programs and guidelines for improved security in the East Mesa should be met. The intent of the recommendations is to address design and physical planning solutions which deter inappropriate activity. Necessary staffing, scheduling, specialized security equipment, and procedures are the responsibility of the San Diego Police Department and whichever agencies they enlist for security support. Therefore, these recommendations concentrate on proper park design, access, and visibility for patrol and maintenance. Civilian and volunteer programs are intended only as a supplement to the San Diego Police Department, not as a substitution.

b. Plan Recommendations:

- **Police Department Storefront Office**

Support the storefront office on the Central Mesa as the primary location of San Diego Police Department's park presence functioning as an overall coordinator of park security. Continue the testing of call boxes and consider establishing an internal park security communications network to respond to or relay calls to the Police Department. Satellite quarters should be set up in Florida Canyon, Morley Field, and Golden Hill.
- **Park Ranger Program**

Expand the Park Ranger program with a goal of having a minimum of two rangers on duty 24 hours per day. This requires an expansion to nine to ten staff people. Subject to budgetary constraints, the goal would be to fully

implement services within five years. Park rangers are not police officers. They wear uniforms and badges and may issue parking and misdemeanor citations, however they do not carry weapons. The Rangers have the capability to immediately communicate with the Police Department.

- Eyes on the Park Program

Establish an educational program as mandatory training to be conducted once per year in conjunction with the San Diego Police Department to instruct employees of the Balboa Park and Recreation Department in the techniques and procedures associated with awareness and reporting crime and maintenance concerns in the Park. This program should follow the program established for the Central Mesa and should be implemented immediately. Consider the feasibility of a video taped training program for all new employees.

- Civilian Volunteer Program

Consult the efforts and experience of the Central Mesa Association, the San Diego Police Department, and the Balboa Park management staff to establish an association of the East Mesa's clubs and vendors to regularly address security issues throughout the East Mesa. This Association should be initiated immediately. The East Mesa Association and the Park and Recreation Department should sponsor a Civilian Volunteer Program.

Civilian volunteers in the Park should be outfitted with clothing that identifies them as recognized members of the Park. They should be scheduled for special patrol throughout the East Mesa throughout each day. It is imperative that volunteers are not given dangerous responsibilities, nor employ techniques beyond their capabilities.

- Park Watch Program

Incorporate the Park Watch Program established in the adjacent neighborhoods to include the area of the East Mesa. Coordinate with the San Diego Police Department

and the City Attorney to develop and maintain a program of education for neighbors of the Park and its visitors. This program should be complimentary to the Eyes on the Park Program and Civilian Volunteer Program.

Lighting Program

Direct the lighting consultant to provide security lighting where necessary, avoiding lighting of areas which create an attractive nuisance. Work with the San Diego Police Department to determine the color, intensity and locations of security lighting. Installation of new lighting should occur with park improvements. Temporary solutions may be feasible pending the location and availability of adequate electrical power.

Increased daytime and evening activities

Introduce new park activities to bring additional visitors into the Park at all times of the day. All visitors should be aware of the Park Watch Program which is to discourage inappropriate activity and report crime.

- Incorporation of safety features into future capital improvements
 - Consider the installation of a communication network of call boxes accessible throughout the East Mesa to request emergency assistance and report crime. Consult members of the CalSAFE (California Service Authority for Freeway Emergencies) program for determining the most effective system. Employ CalSAFE's buying power to reduce the purchase price of the system components. Study the alternatives for emergency communication access in coordination with the City of San Diego's Communications Center. All call boxes should be accessible for park visitors with disabilities.

Park Road closures

Close specific park roads nightly to automobile and pedestrian access. Coordinate with the San Diego Police Department to establish efficient police access. The closure of these roads are to be controlled by the police department and the park management.

- Incorporation of safety concerns into park maintenance
Develop a network of trails throughout the East Mesa for the shared use of park visitors, patrol and maintenance vehicles. These trails should be incorporated with the closure of Florida Drive and the implementation of the Precise Plan recommendations.

Maintain vegetation as turf/groundcover and trees to increase surveillance ability with the exception of the natural areas of Coastal Sage Scrub, Riparian, and Chaparral.

Timely elimination of transient camps

Expand the program to remove transient camps from the East Mesa in conjunction with the San Diego Police Department and Caltrans where applicable. Utilize the services of groups such as the County Probation Crews to maximize resources.

- Radio Communication
Utilize the Balboa Park Travelers Advisory (1160 AM) radio transmission to the extent allowed by the Federal Communications Commission regulations.

- Periodic reassessment of the specific recommendations of the security plan

The progress and actions of the security plan should be reviewed annually by the park management and staff, the police department, and the East Mesa Association and revised accordingly.

5. UTILITIES AND DRAINAGE

a. Concept Summary

The existing utility and drainage systems within East Mesa are generally adequate to service planned future facilities. Extensions of various utilities will be necessary in order to serve new structures. The location of existing utilities within East Mesa are generally in close proximity to provide economically feasible service extensions for proposed facilities.

b. Plan Recommendations

SANITARY SEWER

Several existing sewer mains ranging in size from 4 inch to 8 inch Vitrified Clay Pipe service the Morley Field area and ultimately discharge into the existing 18 inch Vitrified Clay Pipe trunk main in Florida Canyon. These existing sewer mains in the Morley Field area are sufficiently spread out in this area to service new facilities and restrooms with lateral extensions.

Similarly, existing sewer mains are available near the foot of Zoo Place and at various locations southerly along Florida Canyon to the proposed Pershing Recreation Complex, to service future facilities.

WATER SUPPLY

The Morley Field area is traversed by numerous water mains ranging in size from 4 to 10 inch pipes. These existing mains are adequate to supply proposed facilities. Lateral extensions from the existing mains will be required from the existing 6 inch main to serve the new facilities.

Water supply is currently available to the Pershing Recreation Complex yet new lateral distribution lines will be necessary to serve the new improvements. The Golden Hill area and the Neighborhood Edge is currently adequately supplied. New extensions from Morley Field will be necessary to serve the Florida Canyon areas.

Three new fire hydrants should be located in the East Mesa, two in the northern portion of Florida Canyon and one above the canyon along the mesa rim. Please refer to Appendix F, Utilities, for hydrant locations.

RECLAIMED WATER

The Clean Water Program of San Diego anticipates that reclaimed water will be available to Balboa Park for irrigation and water bodies within a decade. A 3.5 million gallon underground storage tank and underground pumping station will be provided at the highest site elevation (Redwood Street and Pershing Drive) in order to distribute the water to the irrigation systems. A 24 inch diameter delivery pipeline will distribute the reclaimed water throughout Balboa Park. From this pipeline, new irrigation lines will be connected. All pipelines and irrigation lines used for the distribution of reclaimed water will be purple or specially marked so that they are distinguishable from potable water and sewer lines. All reclaimed water irrigation designs, pond construction and water supply, and signage must meet the standards set forth in Rules and Regulations for Reclaimed Water Use and Distribution within the City of San Diego and Title 22 requirements of the State of California. All existing irrigation lines will be retrofitted for reclaimed water use in accordance with the rules and regulations.

STORM DRAINAGE

Storm drainage of the Morley Field area will be serviced by the existing culverts, which generally discharge into the open Florida Canyon channel. Extensions and modifications to the existing storm drains will be necessary to drain the various proposed areas. A new system of catch basins and laterals will be required to tie into the storm drains.

Drainage of the Arizona Landfill cap is a primary consideration. Settlement within the landfill has caused various drainage difficulties. An existing 42 inch reinforced concrete pipe traverses the landfill with catch basins and lateral connections to drain surface water. Surface grading and landscaping of the landfill cap will incorporate these and new drainage facilities and erosion control measures.

Switzer Creek within the Pershing Recreational Complex is a concrete lined storm channel. The plan proposes to recreate a more natural channel that is rock lined and vegetated, or covered, in place of the concrete culvert. This will improve the aesthetics and enhance the Pershing Drive entry. Barriers should be placed over any connecting culverts to prevent transient habitation during low flow.

V. IMPLEMENTATION

Implementation of the various recommendations contained in this Precise Plan are envisioned to occur over a twenty year period. The cooperation of many different City departments under the direction of the Park and Recreation Department and the City Council will be necessary to implement these actions.

Funding sources for park improvements have typically come from the City's Capital Improvement Program (CIP). The City Council has allocated the equivalent of 1 percent of the revenue derived annually from the 9 percent Transient Occupancy Tax (TOT) to finance Balboa Park and Mission Bay Park improvements. Projects are expected to be financed directly by these revenues, or by Certificates of Participation for which the debt service is financed by these revenues. The Council approved financing plan for Phase I improvements (Fiscal Year 1991-1997) consists primarily of reconstruction and rehabilitation of deteriorating buildings in the Central Mesa and the northeast corner of the East Mesa. The majority of East Mesa projects will be included in Phase II (post Fiscal Year 1997) financing plan.

In addition to CIP funding, other potential revenue sources exist. The golf courses operate as an Enterprise Fund, which allows all monies collected from green fees to be used on capital improvement and maintenance costs within the golf courses. Other recreational areas are either operated through leases, such as the disc golf, or through the Park and Recreation Department. Future funding sources should include a combination of sources to supplement the CIP, including other enterprise zones, State and Federal grants, further bond issues, additional leases, or concessionaire improvements.

The following matrix identifies the major projects proposed in the Precise Plan, describing them by possible work programs. Generalized capital cost estimates, which include administrative overhead, in 1992 dollars are provided. Priorities for implementation are suggested, however these priorities would be based upon available funding. The responsible agency or department is listed for those that may not fall within the Park and Recreation Department purview.

Throughout the entire 620 acres, approximately \$48 million of improvement costs is proposed throughout the course of twenty years.

Of the entire area, approximately 300 acres are intensely improved, excluding the existing golf courses and natural canyons. Therefore, this investment translates to approximately \$165,000 per acre or \$3.75 per square foot, a typical landscape improvement cost for park development.

Two improvement projects have been identified during the course of this study which have funding available for immediate allocation. TOT funds have been set aside for the partial redevelopment of the northeast portion of the Neighborhood Edge. Secondly, the 1993 Capital Improvement Program allocates \$131,250 towards the completion of the Rose Garden. This would allow partial implementation of the recommendations at this time. Additional funding through grants or other sources should be sought to supplement the CIP funds and allow for total completion.

The Clean Water Program's facility construction at the corner of Redwood Street and Pershing Drive could allow future available funds to further rehabilitate the Neighborhood Edge of the East Mesa. The Park and Recreation Department should continue to explore an agreement with the Clean Water Program for the dispersal and reimbursement of funds to implement the northeastern Neighborhood Edge improvements.

Many volunteer and non-profit groups already participating in Balboa Park can be called upon to further implement these recommendations and contribute to the well-being of Balboa Park. The Urban Conservation Corps has made significant improvements to the exercise circuit in Morley Field and has refurbished many of the canyon trails to prevent erosion. At their national conference held in San Diego during 1992, the Urban Conservation Corps completed substantial inventories and improvements of California Conservation Corps projects in the northern end of Florida Canyon. Other programs, such as the Canyoneers and Roosevelt Junior High School's SHARE program may also be elicited for similar support.

Continued community support and Council action will be necessary over the next twenty years to ensure that the East Mesa receives the required funding to meet the objectives of the Precise Plan and the intention of the park users. Funding distribution within the Park must readdress the importance of the East Mesa and the opportunities it holds to further expand the riches of Balboa Park. Allocations should respond to the East Mesa's potential to ensure its contribution to current and future recreational needs.

Implementation Matrix

| SPECIAL PROJECT | SCOPE OF WORK | COST ESTIMATE | PRIORITY | RESPONSIBILITY |
|-----------------------------------|---|---------------|----------|---------------------|
| 1. FLORIDA CANYON | | | | |
| Florida Canyon North | a. Road Closure/Trail Construct/ Utility/Lighting | \$1,400,000 | 1 | Park & Rec Dept. |
| | b. Parking Lot/Restroom/Ranger & Interp. Center | \$800,000 | 1 | Park & Rec Dept. |
| | c. Revegetation & Stream Rehabilitation | \$1,250,000 | 1 | Park & Rec Dept. |
| Florida Canyon South | a. Parking Lot | \$50,000 | 1 | Park & Rec Dept. |
| | b. Zoo Place Bridge & Trail | \$1,500,000 | 2 | Park & Rec Dept. |
| | c. Rose Garden Completion | \$200,000 | 2 | Park & Rec Dept. |
| | d. Monumental Staircase | \$250,000 | 2 | Park & Rec Dept. |
| | e. Revegetation & Stream Rehabilitation (Zoo Place to Pershing) | \$125,000 | 1 | Park & Rec Dept. |
| | f. Utility Underground (Zoo Place to Pershing) | \$200,000 | 2 | Park & Rec Dept. |
| | g. Realignment of Zoo Place/Florida & median | \$500,000 | 2 | Engineering & Dev |
| 2. MORLEY FIELD | | | | |
| Tennis Complex | a. New Clubhouse & Spectator Courtyard | \$1,500,000 | 3 | Park & Rec Dept. |
| | b. Tennis Court Relocation | \$80,000 | 3 | Park & Rec Dept. |
| | c. Parking Lot Improvements | \$300,000 | 3 | Park & Rec Dept. |
| Kerns Pool | a. Renovate Pool House as Community Center | \$250,000 | 2 | Park & Rec Dept. |
| | b. Refurbish Senior Center | \$250,000 | 2 | Park & Rec Dept. |
| | c. New Pool Complex | \$2,000,000 | 2 | Park & Rec Dept. |
| | d. Texas Street Extension & Promenade | \$400,000 | 2 | Park & Rec Dept. |
| Sports Fields | a. Group Picnic & Promenade | \$250,000 | 3 | Park & Rec Dept. |
| | b. Ball Complex, Pavilion & Restrooms | \$2,000,000 | 3 | Park & Rec Dept. |
| | c. Children's Play Areas (2) | \$200,000 | 1 | Park & Rec Dept. |
| | d. New Parking Lot | \$800,000 | 3 | Park & Rec Dept. |
| | e. Renovate Disc Golf | \$500,000 | 3 | Concessionaire |
| | f. Fly Casting Pool | \$750,000 | 1 | Park & Rec Dept. |
| | g. Trails & Walks | \$350,000 | 1 | Park & Rec Dept. |
| | h. Landscaping & Lighting | \$2,000,000 | 1 | Park & Rec Dept. |
| | i. Picnic Pavilion | \$200,000 | 1 | Park & Rec Dept. |
| Canyon Rim | a. Revegetation | \$300,000 | 1 | Park & Rec Dept. |
| | b. Trails & Bridges | \$1,600,000 | 1 | Park & Rec Dept. |
| | c. Picnic Pavilion | \$200,000 | 1 | Park & Rec Dept. |
| 3. NEIGHBORHOOD EDGE | | | | |
| Upas Street | a. Landscaping, Lighting & Paths | \$750,000 | 1 | Park & Rec Dept. |
| | b. Children's Play Area (1) | \$100,000 | 1 | Park & Rec Dept. |
| 28th St./Upas St./ Redwood Street | a. Modification of 28th Street at Upas | \$200,000 | 1 | Engineering & Dev. |
| | b. Pershing Parkway Improvements (median etc.) | \$1,500,000 | 1 | Engineering & Dev. |
| | c. Entry Feature | \$350,000 | 1 | Park & Rec Dept. |
| | d. Children's Play Areas (2) | \$275,000 | 1 | Park & Rec Dept. |
| | e. Landscaping, Lighting & Paths | \$750,000 | 1 | Park & Rec Dept. |
| | f. Reclaimed Water Storage & Pumping Facilities | N/A | 1 | Clean Water Program |
| 28th Street | a. Landscaping, Lighting, Trails & Bridges | \$1,000,000 | 1 | Park & Rec Dept. |
| Grape Street Park | a. Children's Play Area (1) | \$100,000 | 1 | Park & Rec Dept. |
| | b. Landscaping & Lighting | \$300,000 | 1 | Park & Rec Dept. |
| 28th St./Russ Blvd. | a. Landscaping, Lighting & Trails | \$500,000 | 1 | Park & Rec Dept. |
| | b. Children's Play Area (1) | \$100,000 | 1 | Park & Rec Dept. |

Implementation Matrix

Continued

| SPECIAL PROJECT | SCOPE OF WORK | COST ESTIMATE | PRIORITY | RESPONSIBILITY |
|---|---|---------------------|------------|------------------------------------|
| 4. ARIZONA LANDFILL | | | | |
| Stage 1 Revegetation | a. Landfill cover (8 foot clean fill) and closure | N/A | Current | Waste Management |
| | b. Revegetation, Trails & Bridges | \$2,750,000 | 2 | Park & Rec Dept. |
| | c. Parking and East Mesa Loop Road | \$1,000,000 | 2 | Park & Rec Dept. |
| Turf Play Areas R.75 Acre Test Plots | a. Landfill barrier & drainage system (2.75 ac.) | \$1,250,000 | 3 | Waste Management |
| | b. Landscaping & Irrigation | \$275,000 | 3 | Park & Rec Dept. |
| Stage 2 Revegetation | a. Barrier, Drainage & Landscaping | to be determined* | 3 | to be determined |
| 5. PARK NURSERY | | | | |
| | a. Public Demonstration Gardens | \$500,000 | 2 | Park & Rec Dept. |
| | b. Landscape Testing Areas | \$750,000 | 2 | Park & Rec Dept. |
| | c. Nursery improvements | \$750,000 | 2 | Park & Rec Dept. |
| | d. Relocate Park Maintenance | N/A | 1 | Park & Rec Dept. |
| 6. GOLDEN HILL | | | | |
| Golden Hill Area | a. Landscaping, Lighting & Paths | \$750,000 | 1 | Park & Rec Dept. |
| | b. 25th Street Entry Feature | \$100,000 | 1 | Park & Rec Dept. |
| | c. Canyon Revegetation | \$300,000 | 2 | Park & Rec Dept. |
| | d. Fountain Reconstruction | \$200,000 | 3 | Histor Sod Park & Rec |
| Golden Hill Rec Center | a. Landscaping, Lighting & Trails | \$250,000 | 1 | Park & Rec Dept. |
| | b. Parking Lot expansion | \$200,000 | 1 | Park & Rec Dept. |
| 7. GOLF COURSES | | | | |
| Golf Courses | a. Greens Renovation Program | N/A | Current | Park & Rec Dept. |
| | b. Landscape Improvements | \$750,000 | 2 | Park & Rec Dept. |
| | c. Parking Lot Improvements | \$500,000 | 1 | Park & Rec Dept. |
| 8. PERSHING RECREATION COMPLEX | | | | |
| | a. Relocate City Operations Station | N/A | 1 | City of San Diego |
| | b. Parking and Roadways | \$800,000 | 2 | Park & Rec Dept. |
| | c. Drainage improvements | \$1,250,000 | 2 | Park & Rec Dept. |
| | d. Pedestrian Bridge | \$1,000,000 | 2 | Park & Rec Dept. |
| | e. Landscaping, Lighting, Picnic Areas & Trails | \$1,500,000 | 2 | Park & Rec Dept. |
| | f. Velodrome | \$550,000 | 2 | Park & Rec Dept. |
| | g. Soccer Field | \$300,000 | 2 | Park & Rec Dept. |
| 9. PUBLIC ART PROGRAM | | | | |
| | a. Prado Terminus Piece | \$500,000 | 2 | Park & Rec Dept. & Arts Commission |
| | b. Inspiration Point Ped. Bridge Art Element | \$300,000 | 2 | Arts Commission |
| | c. Temporary Exhibitions | to be determined** | Continuous | Arts Commission |
| | c. Signage Program | \$445,000 | 1 | Park & Rec Dept. |
| SUBTOTAL | | \$43,100,000 | | |
| | Contingency | \$4,310,000 | | |
| TOTAL | | \$47,410,000 | | |

* Costs and responsibility for future irrigated landfill to be determined following test plot results and approvals

** Costs of individual art pieces to be determined with project parameters.

V I. CONCLUSION

With the implementation of the East Mesa Precise Plan during the next twenty years, a new Balboa Park will emerge, one that respects the traditions of the past while looking forward to the trends of the future. It will accurately reflect the recreational direction and the societal values of the last decades of the 20th Century. Balboa Park will then be complete, serving those who visit from across the nation as well as those who live next door. Its "eco-vision" will complement the Pleasure, Leisure, and Reform Park systems found throughout the Park, rounding out San Diego's "House of Recreation."

The Precise Plan is intended to guide the implementation of these recommendations through detailed design, maintenance, and policy formations affecting the East Mesa during the next decades. It is the challenge for all who are faced with those assignments to maintain the balance of the "eco-vision" with the detailed tasks at hand.

The future of the East Mesa lies in the plans of today. With continued support and visionary, steady leadership, San Diego will realize the full potential of Balboa Park and the legacy will continue for imminent generations.

EAST MESA PRECISE PLAN, Balboa Park

APPENDICES

APPENDIX A

GEOTECHNICAL INPUT

for the Development of East Mesa Precise Plan, Balboa Park, San Diego, California

Introduction

In accordance with your request and authorization, LEIGHTON & ASSOCIATES has prepared this summary report presenting our geotechnical findings and recommendations for the development of the East Mesa Precise Plan, Balboa Park, San Diego, California. The accompanying report presents a summary of geotechnical constraints and opportunities for the East Mesa Precise Plan.

Site Description

The East Mesa Precise Plan property encompasses approximately 525 acres of the eastern portion of Balboa Park. The East Mesa is bounded on the north by Upas Street, 28th Street on the east, Russ Boulevard on the south, and Florida Drive on the west. The property includes the eastern side of Florida Canyon, known officially as Powerhouse Canyon. The southern portion of East Mesa is bisected by the northeasterly trending Switzer Canyon which contains a portion of the Balboa Park Municipal Park Golf Course. Elevations on the property range from a low of approximately 90 feet (mean sea level) near the Department of Public Works in the southwest corner, to a high of approximately 335 feet at the intersection of Upas and 28th Streets in the northeast corner of the site. Landfill operations were conducted on the Old Morley Field site from August 9, 1952 to December 1, 1974. The landfill area was confined to a northeasterly trending tributary canyon east of Florida Canyon, north of Pershing Drive, and south of Morley Field.

General Site Geology

The East Mesa property is underlain by the near flat-lying Pleistocene-aged Lindavista Formation, which is in turn underlain by the Pliocene-aged San Diego Formation. The Lindavista Formation consists of near-shore marine, and non-marine sediments deposited on a broad, wave-cut erosional platform. The Lindavista Formation is a thin veneer of light red-brown to dark red-brown, locally cemented, sandstone and sandy cobble conglomerate. Iron staining gives the Lindavista Formation its characteristic red color. The underlying San Diego Formation typically consists of marine, yellow-brown to yellow-gray, silty fine- to coarse-grained, poorly indurated, porous sandstone. Thin cobble conglomerate beds within the San Diego Formation are exposed locally in Florida and Switzer Canyons.

Surficial soils at the site consists of alluvium, topsoil, talus deposits, artificial fill; and sanitary landfill. The alluvium in the canyon bottoms generally consists of locally derived unconsolidated, boulders, cobbles, sands and silts. The existing alluvium is estimated to range from 5 to 50 feet deep. The topsoils, derived from the sedimentary rocks are thin to non-existent on the canyon side walls. Where topsoil has developed, the maximum depth is estimated at 2 to 4 feet. Thicker developments of topsoil may exist in the cultivated and landscaped areas of the golf course and park area. Talus deposits are accumulation of bedrock derived material at the bottom or toe of steep-natural slopes. Talus accumulations are the result of oversteepened slopes, eroding by rock or block falls.

Artificial fill material is most probably derived from cuts in the Lindavista and San Diego Formations and placed in conjunction with the park, golf course, and road improvements. The fill soils appear (where observed) to be moderately well-compacted, however, steep embankments associated with road improvements and sanitary landfill capping have undergone moderate to severe erosion.

The Arizona Street Landfill, located between Morley Field to the north, Pershing Drive to the east and south, and Florida Drive to the west, is predominantly comprised of municipal household refuse and demolition debris.

Geologic Structure and Faulting

The geologic formations at the site dip gently approximately 2 to 5 degrees to the west and southwest, away from the uplifted coastal plain. Local bedding may vary due to scouring, lensing, and cross-stratification. Faults on and adjacent to the site include the Texas Street fault and the Florida Canyon fault, respectively.

The Texas Street fault, located adjacent to the northeast boundary of East Mesa is reported to have down-thrown the western side 25 to 40 feet across the Lindavista marine cut terrace. The lack of topographic expression of the fault, such as sag depressions, well-defined scarps, or the displacement of the Holocene deposits accounts for the present "potentially active" classification.

The Florida Canyon fault is generally located along the western slope of Florida Canyon. The Florida Canyon fault is reported to have down-thrown the eastern side (East Mesa) several tens of feet. This fault is reported to predate the alluvial deposits on the canyon floor and the late Pleistocene Bay Point Formation at the mouth of Florida Canyon which is at least 100,000 years old. The Florida Canyon fault is therefore also classified as "potentially active." The Florida Canyon and Texas Street faults represent the boundaries of an apparent fault graben in which East Mesa has been tectonically lowered relative to land on both sides of the graben.

Based on the potentially active classification (no known movement in the last 11,000 years) of the Florida Canyon fault and the Texas Street fault, these faults are not considered a significant constraint to site development. Active or significant faulting is not expected at the site.

Based on current published and unpublished information, the greatest seismic risk at this site is posed by the currently classified, potentially active Rose Canyon fault zone, located approximately 2 miles west of the site, and the major active Elsinore fault zone located approximately 40 miles northeast of the site. The principal seismic considerations for most projects in southern California is surface rupturing of fault traces and damage caused by shaking or seismically-induced ground settlement. The possibility of damage due to ground rupture is considered low since active faults are not known to exist on the property. Lurching due to shaking from a distant seismic event is not considered a significant hazard, although it is a possibility throughout the southern California region.

The seismic hazard most likely to impact the property is ground shaking resulting from an earthquake on the Rose Canyon fault or one of the major regional faults. A maximum probable event on the Elsinore fault (presently considered the design earthquake for this site) could produce a peak horizontal bedrock acceleration at the site of 0.12g. It should be noted, however, that the classification of the Rose Canyon fault zone is currently being re-evaluated by the California Division of Mines and Geology. Based on the results of recent and several ongoing studies, the Rose Canyon fault zone may be reclassified by the State as an active fault. A maximum probable event on the Rose Canyon fault zone could produce a peak horizontal bedrock acceleration of 0.58g. For design purposes, 65 percent of this acceleration, or (0.38g) may be used. The effects of seismic shaking can be reduced by adhering to the most recent edition of the Uniform Building Code and design parameters of the Structural Engineers Association of California.

Liquefaction of cohesionless soils can be caused by strong vibratory motion due to earthquakes. Research and historical data indicate that loose, granular soils underlain by a near-surface ground water table are most susceptible to liquefaction, while the stability of most silty clays and clays is not adversely affected by vibratory motion. Because of the dense nature of the underlying formations and anticipated lack of a near-surface, static ground water table in the area, it is our opinion that the potential for liquefaction or seismically-induced dynamic settlement at the property due to the design earthquake is low.

Ground Water

A near-surface ground water table is not anticipated at the site. Perched ground water was observed in the channel gravels in the bottom of the Florida Canyon and is apparently due to surface runoff and infiltration of irrigation water from the surrounding irrigated areas. Perched ground water should be anticipated within the alluvial soils of Switzer Canyon and the associated tributaries. Seasonal ground water fluctuations can be expected throughout the site.

Arizona Street Landfill

The Arizona Street Landfill is located immediately south of the Morley Field section of Balboa Park. The landfill, is bordered by City park facilities to the north, Pershing Drive to the east, Florida Canyon Drive to the west, and open space park lands to the south. The landfill site encompasses a total plan area of approximately 70 acres.

The landfill was opened by the City of San Diego in 1952, and was used for disposal of solid waste until reaching its capacity in 1974. According to the Solid Waste Assessment Test (SWAT) prepared by Science Applications International Corporation in August of 1988, 1,938,000 tons of primarily municipal solid wastes were disposed of at the site during its active life. There is little information available relating to landfill operations during its active life. The waste composition has been estimated previously as 90 percent municipal solid waste and 10 percent construction demolition waste.

For the past several years, the City of San Diego, Park and Recreation Department has operated a nursery and maintenance area on the landfill, which includes equipment maintenance facilities, parking, offices, and equipment storage. In May of 1987, an explosion of methane gasses that had accumulated within a confined space at a construction site adjacent to the landfill area occurred. This incident prompted the City to conduct monitoring which resulted in the installation of gas detection and alarm equipment to protect workers health and safety. Subsequent testing of migrating landfill gasses resulted in the City's decision to install a gas collection and flare stations and to develop a closure and post-closure report in general compliance with existing regulations.

Currently, the site is undergoing a transition in preparation for landfill closure activities and installation of a landfill gas collection and control system. The majority of structures previously utilized by the City's Park and Recreation Department are being removed and relocated to permit final grading and cover placement. Soils are currently being imported onto the site. Areas of settlement (on the order of 2 to 4 feet) have been observed in the northern portion of the landfill.

The California Solid Waste Management and Resource Recovery Act (CWMB) of 1972 established new programs and revised existing responsibilities for the management of solid waste throughout California. This Act established a system and methodology for defining and permitting solid waste facilities. Because the Arizona Street Landfill ceased accepting wastes in 1974, it was never "permitted" under current legislative and regulatory criteria (Kleinfelder 1990). Therefore, the Arizona Street Landfill does not fall under the primary jurisdiction of the CWMB and adherence to specific regulatory closure criteria as discussed in California Code of Regulations, Title 14, is not specifically mandated.

The City of San Diego has contracted to design and construct a gas collection system at the Arizona Street Landfill. Under this contract, a complete gas collection and flare system has been designed and construction at the site. The initial startup on the system began April 25, 1991. Details of the system are taken from the draft closure report (Kleinfelder 1990).

The gas collection system consists of a combination of vertical (23 total) and horizontal gas collection wells. The wells are connected to a gas collection header which encircles the entire perimeter of the site.

The landfill gas collected is transported to the gas flaring station. The gas flaring station consists of a blower motor assembly which draws the gas from the landfill wells under vacuum and pressurizes it into the gas flare. Landfill gas flare is designed to combust the gas at a minimum temperature of 1500 F. The flare is also equipped with an auxiliary fuel system which supplies supplementary fuel to the flare, if the flare temperature drops below 1500 F. The system is designed to operate automatically and is currently in operation.

Opportunities and Constraints

The following lists the opportunities and constraints for the East Mesa Area of Balboa Park.

Expansive Soils

Expansive soils may be encountered in the upper 3 to 5 feet of the Lindavista Formation in the eastern portion of the site. It is anticipated that expansive soils will not be a significant constraint to site development. Appropriate soil testing should be performed, however, in areas of proposed structures to evaluate site-specific expansion potential and provide the necessary foundation design.

Compressible Soil

Alluvial soils in the canyon bottoms are considered compressible in their existing state and considered unsuitable for support of settlement-sensitive structure or additional fill soils. It may be necessary to remove and recompact the alluvium in areas of proposed structures to provide stable foundation support.

Soil Erosion

Materials of the San Diego Formation are highly susceptible to erosion. This includes the in-place San Diego Formation bedrock which comprise most of the canyon walls, and artificial fill (see Plate A-1 - Map Symbol Af) derived from the San Diego Formation. All cut and fill slopes should be provided with appropriate drainage and landscaping to reduce erosion potential. Special landscaping and vegetation may be necessary for the Arizona Street Landfill slope facing Florida Drive due to limited irrigation and possibility of methane gas.

Slope Stability

Existing cut and fill slopes are generally grossly stable as observed throughout the site; however, localized steep areas in the San Diego Formation (most notably on the east side of Pershing Drive south of the Landfill) are subject to block falls and erosive rilling due to their existing steep conditions. All future slopes should be constructed no steeper than 2:1 (horizontal to vertical). The existing landfill slope adjacent to Florida Drive is at an approximate inclination of 3:1 (horizontal to vertical).

Gradina - General East Mesa Area (Excluding Landfill)

Loose surficial soils (such as topsoil, alluvium, and talus deposits, and loose fill soils) should be removed to competent materials in areas of structures and additional fill soils. Soils should be recompacted to a minimum relative compaction of 90 percent under the observation and testing of the geotechnical consultant.

Gradina -Arizona Street Landfill

A soil exploration program was performed to evaluate the thickness of the soil cover above the refuse at the landfill (Kleinfelder 1990). The borings drilled during this investigation encountered a soil cover ranging in thickness from 3 to 15 feet with an average thickness of 7 feet. Soils were predominately silty to clayey sand. We understand that import soil is currently being trucked into the site on an ongoing basis (City of San Diego, 1991). A minimum soil cover of 8 feet was recommended to be placed over the existing landfill in accordance with the request of the City of San Diego (Kleinfelder 1991).

Review of Title 14, California Administrative Code (Section 17776) indicates that fill slopes shall "not be steeper than a horizontal to vertical ratio of one and three quarters to one (1-3/4:1) with a minimum of one 15-foot wide bench for every 50 feet of vertical height." Covered surfaces of the disposal area shall be graded to provide lateral runoff of precipitation and to prevent ponding. Grades shall be established of sufficient slopes to account for future settlement of the fill surface. Grading and drainage guidelines are contained in Title 14, Sections 17776, 17777, 17778, and 17779.

Kleinfelder (1990) states that "a 2 percent slope should provide adequate site drainage, in addition to excellent slope stability. The maximum slope on the landfill is approximately 6 percent which doesn't exceed the 10 percent maximum requirement." A preliminary grading scheme was provided in Appendix D of Kleinfelder 1990 report.

In addition to the above, we recommend that current soil elevations not be lowered and that excavations within the soil cover be limited as much as possible. We currently do not see any reason to preclude raising current grades, however, measures should be implemented to limit the amount of water that is allowed to pond on site and flow over the top of slopes. In addition, a minimum 8-foot soil cover should be maintained above all refuse, and care should be exercised to protect the existing landfill gas control system if site grades are raised above existing grades. A significant increase in the current site elevation will increase the potential for future settlement.

Future Site Usaae - General East Mesa Area (Excluding Landfill)

There are no known geotechnical hazards in the general East Mesa Area (excluding the Arizona Street Landfill) that cannot be mitigated by conventional design. The geotechnical constraints are listed in the previous section with the anticipated mitigation measures. Conventional foundation design is anticipated for future structures; however, a site-specific geotechnical investigation is recommended when design plans become finalized.

Future Site Usaae - Arizona Street Landfill

Based on conversations with representatives of the California Regional Water quality Control Board (RWQCB) and other governing agencies, the main constraints that should be considered during future site usage on the landfill are the following:

Minimizing or preventing infiltration of irrigation waters into the landfill to reduce methane gas generation, landfill settlement, and lechate migration. This concern would be best handled during the design portion of the grading and construction of the new facilities. Grading aspects were discussed in the previous section. Methods to reduce water infiltration into the landfill include: a) bentonite soil impervious cap (in lieu of or in addition to the existing soil cap). This bentonite cap is typically 1 to 2 feet thick and is composed of materials which have a permeability of less than 10^{-6} cm/sec., or b) a manufactured polyethylene liner (specifically designed to stop methane gas migration) above the existing landfill cover below a 1 to 2 foot thick vegetative soil cap, or c) raised planters with closed bottoms and integrated drainage systems.

Control of landfill gasses (and odors) to prevent health and safety risks. Since a landfill gas control system is currently installed at the landfill (Kleinfelder 1990), the accumulation of methane gas is not anticipated to present a major problem to future development. However, future studies should be performed when development plans become finalized. For preliminary planning studies, we anticipate that buildings will have a polyethylene liner (or other system) below the slab. Botanical gardens will have methane tolerate plants or a polyethelene liner and water collection system to eliminate the effects of methane on the vegetation and water infiltration into the landfill. Structures should be outfitted with methane gas detectors.

Design future site grades and structures for anticipated settlement. Landfill settlement results from both compression of loosely packed refuse and organic decomposition. The latter process takes place over several tens of years. Kleinfelder (1990) estimates possible landfill settlement of 5 to 10 feet or more could occur at the ground surface over a long period of time in the portion of the landfill underlain by organic refuse. A portion of this settlement has occurred; however, the magnitude is not known. Anticipated differential settlement is typically taken as 1/2 to 2/3 of the total settlement.

Large or important structures may utilize deep foundation systems or highly reinforced foundation mats to tolerate the anticipated differential settlement. Deep foundations should not utilize piers (or other methods) which displace refuse and allow for pathways for leachate to migrate into the ground water. Driven piles or H-piles may be a suitable alternative to piers for deep foundations provided no refuse is removed and no preferred pathways are created through the landfill. Driven piles or H-piles may encounter difficult driving conditions due to the type of landfill refuse.

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MAPS

City of San Diego, 1991, Topographic Map of East Mesa, Balboa Park, Scale 1"=100'

Wallace, Roberts & Todd, 1991, East Mesa Precise Plan Topographic Map, Scale 1"=200'.

APPENDIX B**VEGETATION RECLAMATION OF THE ARIZONA LANDFILL**

Introduction

Turf grasses need water for growth and development. In Southern California there is not enough precipitation nor is it adequately spaced throughout the year to sustain turf grasses or other landscape plants. Supplemental water supplied as irrigation is needed (Gibeault, Cockerman, Henry and Meyer 1989,1). Extensive studies have been performed to evaluate the drought tolerance of turf grasses

Water use By Turf grass: "Water enters the plant through root hairs located near root tips, moving upward through the plant to the leaves. A very small amount of the water taken up is used for plant growth. The amount of water used for growth is referred to as evapotranspiration (ET). Evaporation loss plus transpiration use per unit of time. ET is not synonymous with its ability to resist drought. Other factors involved in a plants ability to resist drought include deep root systems high root length, root hair density rolled leaf blades and thick cuticle. The goal of irrigation must be to resupply the turf grass with the water that is used per unit of time, applied as infrequently as possible and without run-off. To avoid runoff water application rates must be matched to soil infiltration percolation rates" (Gibeault, Cockerman, Henry and Meyer 1989, 2).

Soil Infiltration Percolation Rate: In reference to the landfill conceptual design it is currently impossible due to the lack of records detailing the soil type now being applied for the landfill cover as well as what materials compose the waste layer, to determine soil infiltration percolation rates and bearing capacity. A conservative figure of three feet was used as a vegetative layer index in "HELP" models run by Leighton and Associates. The "HELP" models were conducted to estimate the amount of leachate percolation based on annual precipitation rates for warm and cool season grasses (See Appendix E.) The model indicates that the only way to introduce vegetation on the landfill is to irrigate an amount equal to the ET of the plant species to be established or use plant material that will survive on the annual rainfall of San Diego. It was determined that any application of water even that equal to the ET of the plant species would have some leachate generated and would eventually percolate into the waste layer. Leighton and Associates suggested that this would be unacceptable to the County of San Diego Sanitation Department. Therefore a barrier system such as a bentonite soil cover and drainage collection system or a landfill liner and drainage collection system is advocated for planting areas requiring supplemental water.

"A uniform irrigation system is necessary for water conservation on turf grass sites. Studies performed on turf grasses to establish the ET grass had high coefficients of uniformity (87%) To have a given amount of water applied to 90% of the study area 35% more water had to be applied. This clearly points out the importance of a well designed irrigation system" (Gibeault 1989, 5).

Warm and Cool Season Grasses: In general warm season grasses use significantly less water than cool season grasses. Warm season grasses have a more efficient photo synthetic process. Cool season grasses, when water is limited, have generally higher transpiration rates than warm season grasses.

Warm season grasses recommended for the irrigated grassland areas include: *Cynodon dactylon* Common Bermudagrass, *Cynodon* spp. Hybrid Bermudagrass, *Paspalum baginatum* Seashore Paspalum, *Buchloe* Buffalograss

Bermuda, Grass Establishment: To establish Bermudagrass it is necessary to irrigate a minimum of six to eight weeks with an average of 0.25 inches of water per day. After the first two weeks of initial root development irrigation application. Water application should not be allowed to be the limiting factor in the establishment of the Bermudagrass. The critical variables are; time of planting, maintenance practice, and weed control. Drought tolerance requires a deep root system. To establish a deep root system the Bermudagrass must be irrigated for the first year of its growth. The major growing periods are the summer months To take advantage of this the grass should be planted in early spring and water applied until October. The Bermudagrasses go dormant in the winter. For long term survival it is necessary to water bermudagrass once a month in the summer. To establish a healthy cover, the grass must be fertilized a minimum of 1.5 pounds of actual nitrogen per one thousand squared feet for each growing month. The application of fertilizer requires the addition of water (Rector 1990).

Another grass which has been under observation for its potential as a drought tolerant turf species is *Buchloe* Buffalograss. For a warm-season turf grass, extended winter color, early dormancy break and survival under sub-

freezing temperatures are important. Test sites of the Mexican buffalograss indicated that this species did not lose green color until the last week of December after exposure to frost.. It also resumed growth by the end of March. In California test sites, clones from natural populations found in Mexico formed solid turf within six weeks when started from one inch plugs planted twelve inches on center. True color and density are being maintained with one pound of nitrogen per one thousand square feet annually. For long term maintenance irrigation is required once a week during the summer. This species is dormant during drought stress and during the winter (Wu, Huff and Harivandi 1990, 4). Seed supply is limited, most commercial warm-season turf grass cultivars are vegetatively propagated. No vegetatively propagated buffalograss is available commercially. Vegetatively propagated cultivars may be available to the public within the next three to four years.

Native Drought Tolerant Grasses: In the southern portion of the site, less active areas would take advantage of the open mesa top. These area could be planted with native meadow like grasses. Horticultural consultant Martha Blane reviewed the "Native Drought Tolerant Grasses" list compiled by S & S Seeds, to determine if any species would be appropriate for use on the landfill mesa (See Appendix D). In general, Ms. Blane advocates site planting tests of selected species prior to finalizing a plant palette. A test planting of one year duration would be the minimum, with two to three years preferable. The species which were recommended have not been widely used for the type of planting required at this site.

The recommended species for testing include:

Bromus carinatus California Brome, *Elymus glaucus* Blue Wildrye, *Elymus tritichoides* Creeping Wildrye, *Stipa lepida* Foothill Needlegrass, and *Stipa pulchra* Purple Needlegrass. (See Appendix D)

Sources:

- Gibeault V.A., Cockerham.S., Henry J.M., and Meyer, J. 1989, *California Turf grass: It's Use, Water Requirement and Irrigation*, University of California Cooperative Extension, 1989
- Gibeault, Victor, A. 1989, *Turfgrass Selection and Management*.

Maybri Richard E, 1977, *Building Development On A Municipal Refuse Fill*, American Society of Civil Engineers, Proceedings of the Conference on Geotechnical Practice for Disposal of Solid Waste Materials, June 13-15, 1977, The University of Michigan Ann Arbor, Michigan, Specialty Conference of the Geotechnical Engineering Division ASCE 345 East 47th Street New York, NY 10017

- John Rector, Agronomist, Pacific Sod
- Wu, Lin, Huff, David, and Harivandi M. Ali, 1990, *Buffalograss as a Low-Maintenance Turf*. Southwest Lawn and Landscape.

APPENDIX C

ENHANCEMENT GUIDELINES FOR THE NATURAL AREAS OF EAST MESA

INTRODUCTION

This report was prepared to provide guidelines for enhancement and preservation of the natural plant communities within Florida Canyon, the golf course and the oak groves planted at 26th Street and Pershing Drive and at the north end of Florida Canyon.

The goal of preserving and enhancing the natural plant communities is to provide educational opportunities leading to appreciation of natural ecosystems and identification with the historical character of the area. In addition, the native habitats can be considered an important component of the overall biological diversity of the park.

To specifically address each area this report is divided into three sections based on location of the natural area: Florida Canyon, Oak Groves and Coastal Sage Scrub/Chaparral within the Golf Course. Each section provides a brief description of the existing conditions and detailed recommendations for enhancement/preservation of the existing plant communities.

Also presented in this report is a potential concept for planting the landfill slopes and mesa, and guidelines for revegetation and enhancement implementation monitoring.

FLORIDA CANYON

Existing Conditions: Florida Canyon contains the largest remaining stands of native vegetation within Balboa Park. Three predominant plant community types are found within Florida Canyon; riparian, southern coastal sage scrub and chaparral. In a 1986 EIR, prepared by Westec, the following plant species were identified as either high interest, rare or endangered: snake cholla (*Opuntia parryi* var. *serpentina*), Mojave yucca (*Yucca schidigera*), coast barrel cactus (*Ferocactus viridescens*), pygmy spike moss (*Selaginella cinerascens*) and coast white lilac (*Ceanothus verrucosus*). Additionally, the 1976 Steve Halsey Associates report noted Palmer's ericameria (*Ericameria palmeri* ssp. *palmeri*) and adder's tongue fern (*Ophioglossum lutanicum* ssp. *californicum*).

Degradation of Florida Canyon vegetation has been occurring for many years with accelerated degradation within the last 5-8 years (personal communication Judy Gibson, San Diego Natural History Museum/Canyoners) from increased use of the canyon by transients and others. The increased use has resulted in many new "trails" and "camping areas" causing disturbance and destruction of native vegetation and soils. Associated problems with litter and fires have also increased.

Recommendations: Specific recommendations for enhancement of the three vegetation types found in Florida Canyon are described below. Plant and seed species included in these recommendations are based primarily on the San Diego Natural History Museum's Master Plant List of San Diego Canyons. A review by the San Diego Natural History Museum Botany Department or other qualified biologist of the plant species included in this report is recommended to ensure the appropriateness of the species selections.

General recommendations for all areas within Florida Canyon are:

Clean up all canyon areas and implement litter removal on a regular basis to deter additional trash dumping and disturbance to vegetation.

Design a trail system to utilize existing trails to access areas of special interest (ie. chaparral vegetation, view points) and reduce the number of newer small side trails. To locate the original trail locations, the Florida Canyon Nature Trail Map and Guide is available from the SDNHM Canyoners.

Define main and secondary trails by placing natural materials (D.G., mulch, etc.) on the trail surfaces to distinguish the trail system.

Provide signage for educational purposes and to discourage off trail use.

Limit and discourage off trail use by planting appropriate plant species (cactus, poison oak, yucca) at old trail heads. Perform revegetation plantings and camouflaging of the trails with large twigs and sticks of native vegetation.

Schedule all revegetation plantings to occur during the late fall and early winter months when optimum natural conditions for seed germination and plant establishment occur.

Remove invasive exotic plant materials which displace native vegetation. Removal of exotics, "exotic bashing", may be implemented with the help of volunteers from the California Conservation Corps, scout groups, California Native Plant Society members and the Canyoners.

Prepare and implement revegetation plans for areas disturbed through development of the East Mesa Precise Plan (ie. new drainage outfalls, bridges, etc.).

Prepare and implement a maintenance plan that will provide for frequent trash pick up, revegetation monitoring and exotic plant removal by personnel knowledgeable in native plant habitats.

Coastal Sage Scrub

Weed Control: Remove exotic invasive plant species through various methods that may include, removal of individuals, herbicide application and tree girdling. Many of the most invasive and persistent weed species found in this area are listed below, these species should be targeted for removal and control. Other weeds, such as European grasses, are also present on site in such dense stands that their eradication would be almost impossible. Additional weed species may appear that require removal until desirable plant species are established.

| | |
|---|--|
| <i>Acacia</i> spp., acacia | <i>Arundo donax</i> , giant reed |
| <i>Asparagus asparagoides</i> , florists-smilax | <i>Brassica</i> spp., mustard |
| <i>Carpobrotus edulis</i> , Hottentot fig | <i>Centaurea melitensis</i> , star thistle |
| <i>Chrysanthemum coronarium</i> , garland | <i>Foeniculum vulgare</i> , fennel |
| <i>Hypericum canariense</i> , St. John's wort | <i>Marrubium vulgare</i> , horehound |
| <i>Melilotus</i> spp., sweet clover | <i>Nicotiana glauca</i> , tree tobacco |
| <i>Raphanus</i> spp., radish | <i>Ricinus communis</i> , castor bean |
| <i>Salsola australis</i> , Russian thistle | <i>Tamarix</i> spp., tamarisk |

Soil Preparation and Planting: In order to establish desirable native vegetation in abandoned trail areas the following procedure is recommended: Preparation of the soil shall be limited to creating a roughened surface. The goal is to create small ledges, cracks and crevices (micro-habitats) for seeds to lodge. The created depressions and ledges will provide shelter for seedlings and increase water infiltration/retention and root penetration. Just prior to seeding the roughened soil surface shall be created. Hand picks shall be used to make "pock" marks, spaced approximately 3" apart and 2" deep, on the contour of the abandoned trails. Existing native vegetation shall be avoided and left undisturbed.

Container plant materials shall be installed in trail areas as designated on the plans. All container plant materials shall be one gallon size. The actual density and diversity of container plant species shall be determined by a biologist or habitat restoration professional, after the specific enhancement areas are targeted. Approximate species density and diversity shall be based on the percentages listed below. The goal is to mimic adjacent natural species community compositions. Plantings of 300 to 500 plants per acre shall be laid out in natural patterns of "clumps" or "stands".

| | |
|-----|--|
| 35% | <i>Artemisia californica</i> , California sagebrush |
| 8% | <i>Baccharis sarothroides</i> , broom baccharis |
| 25% | <i>Eriogonum fasciculatum</i> , California buckwheat |
| 8% | <i>Malosma laurina</i> , laurel sumac |
| 9% | <i>Rhamnus crocea</i> , redberry |
| 15% | <i>Salvia mellifera</i> , black sage |

Container planting procedures shall consist of digging planting pits twice as deep and wide as the plant container. Fill planting pit with water and allow to percolate into subsoil, repeat. Add non-amended native soil to hole and place plant so that top of rootball is one inch higher than the surrounding soil surface. Fill in and tamp down native soil around plant. Build a water holding basin around plant. Fill basin with water and let drain. Cover basin with nitrolized redwood bark mulch, two inches deep and fill basin with water.

To ensure container plant availability at time of planting, the plant materials required shall be reserved with a native plant nursery one year in advance.

Once the container plants are installed and soil preparation is complete, plant the seedmix listed below, in designated trail areas by hand broadcasting. Do not rake or cover seeds after hand broadcasting.

After seeding, mulch the seeded areas with dead twigs and branches of native species. Lay twigs and branches on the slope contour in a manner that allows 50% of soil area to be visible through the twig mulch. The twig and branch mulch will aid in camouflaging old trails, retaining soil moisture and controlling erosion.

Coastal Sage Scrub Seedmix (preliminary)

| Minimum % Purity/Germination | LBS/AC | Species |
|---------------------------------|--------|--|
| 15/60 | 2.5 | <i>Artemisia californica</i> , coastal sagebrush |
| 5/40 | 1 | <i>Baccharis sarathroides</i> , chaparral broom |
| 40/60 | 2 | <i>Encelia californica</i> , bush sunflower |
| 10/65 | 5 | <i>Eriogonum fasciculatum</i> , California buckwheat |
| 35/75 | 2 | <i>Eriophyllum confertiflorum</i> , golden yarrow |
| 10/30 | 1 | <i>Gnaphalium californicum</i> , everlasting |
| N/A | 1 | <i>Helianthemum scoparium</i> , rock rose |
| 15/30 | 1 | <i>Hemizonia fasciculata</i> , tarweed |
| 40/40 | 1 | <i>Isocoma veneta</i> , coast goldenbush |
| 90/65 | 3 | <i>Isomeris arborea</i> , bladderpod |
| 75/80 | 2 | <i>Lasthenia californica</i> , goldfields |
| 40/60 | 6 | <i>Lotus scoparius</i> , deerweed |
| 95/85 | 3 | <i>Lupinus bicolor</i> , lupine |
| N/A | .25 | <i>Malcothamnus fasciculatum</i> , bush mallow |
| 2/55 | 1.5 | <i>Mimulus puniceus</i> , red monkeyflower |
| 70/50 | 1 | <i>Salvia apiana</i> , white sage |
| 85/50 | 2 | <i>Salvia mellifera</i> , black sage |
| 95/75 | 2 | <i>Sisyrinchium bellum</i> , blue eyed grass |
| 15/50 | .5 | <i>Viguiera laciniata</i> , San Diego sunflower |

The 1976 Steve Halsey Associates report suggests that the seeds required for revegetation seeding be collected from the site. In order to implement site specific seed collections a minimum lead time of one year is required but two years is recommended so that adequate quantities of the appropriate species can be collected.

Maintenance: Since an irrigation system will not be used for the revegetation plantings, maintenance efforts shall be limited to exotic weed removal, trash pickup and replacement of stick mulch as needed. Although, the container plantings will be installed in the fall or winter, if adequate rain does not occur 3 to 4 applications of water (with a hose) are recommended through the first winter.

Chaparral

Weed Control: Remove exotic invasive plant species through various methods that may include, removal of individuals, herbicide application and tree girdling. Many of the most invasive and persistent weed species found in this area are listed below, these species should be targeted for removal and control. Other weeds, such as European grasses, are also present on site in such dense stands that their eradication would be almost impossible. Additional weed species may appear that require removal until desirable plant species are established.

| | |
|---|--|
| <i>Acacia</i> spp., acacia | <i>Brassica</i> spp., mustard |
| <i>Carpobrotus edulis</i> , Hottentot fig | <i>Centaurea melitensis</i> , star thistle |
| <i>Chrysanthemum coronarium</i> , garland | <i>Foeniculum vulgare</i> , fennel |
| <i>Hypericum canariense</i> , St. John's wort | <i>Marrubium vulgare</i> , horehound |
| <i>Melilotus</i> spp., sweet clover | <i>Nicotiana glauca</i> , tree tobacco |
| <i>Raphanus</i> spp., radish | <i>Ricinus communis</i> , castor bean |
| <i>Salsola australis</i> , Russian thistle | |

Soil Preparation and Planting: In order to establish desirable native vegetation in abandoned trail areas the following procedure is recommended: Preparation of the soil shall be limited to creating a roughened surface. The goal is to create small ledges, cracks and crevices (micro-habitats) for seeds to lodge. The created depressions and ledges will provide shelter for seedlings and increase water infiltration/retention and root penetration.. Just prior to seeding the roughened soil surface shall be created. Hand picks shall be used to make "pock" marks, spaced approximately 3" apart and 2" deep, on the contour of the abandoned trails. Existing native vegetation shall be avoided and left undisturbed.

Container plant materials shall be installed in trail areas as designated on the plans. All container plant materials, as listed below, shall be one gallon size. The actual density and diversity of container plant species shall be determined by a biologist or habitat restoration professional, after the specific enhancement areas are targeted. Approximate species density and diversity shall be based on the percentages listed below. The goal is to mimic adjacent natural species community compositions. Plantings of 200 to 300 plants per acre shall be laid out in natural patterns of "clumps" or "stands".

| | |
|-----|---|
| 12% | <i>Adenostoma fasciculatum</i> , chamise |
| 20% | <i>Ceanothus verrucosus</i> , coast white lilac |
| 15% | <i>Heteromeles arbutifolia</i> , toyon |
| 15% | <i>Malosma laurina</i> , laurel sumac |
| 5% | <i>Prunus illicifolia</i> , holly-leaf cherry |
| 10% | <i>Quercus dumosa</i> , scrub oak |
| 15% | <i>Rhus integrifolia</i> , lemonade berry |
| 8% | <i>Xylococcus bicolor</i> , mission manzanita |

Container planting procedures shall consist of digging planting pits twice as deep and wide as the plant container. Fill planting pit with water and allow to percolate into subsoil, repeat. Add non-amended native soil to hole and place plant so that top of rootball is one inch higher than the surrounding soil surface. Fill in and tamp down native soil around plant. Build a water holding basin around plant. Fill basin with water and let drain. Cover basin with nitrolized redwood bark mulch, two inches deep and fill basin with water.

To ensure container plant availability at time of planting, the plant materials required shall be reserved with a native plant nursery one year in advance.

Once the container plants are installed and soil preparation is complete, plant the seedmix listed below, in designated trail areas by hand broadcasting. Do not rake or cover seeds after hand broadcasting.

After seeding, mulch the seeded areas with dead twigs and branches of native species. Lay twigs and branches on the slope contour in a manner that allows 50% of soil area to be visible through the twig mulch. The twig and branch mulch will aid in camouflaging old trails, retaining soil moisture and controlling erosion.

Chaparral Seedmix (preliminary)

| Minimum % Purity/Germination | LBS/AC | Species |
|---------------------------------|--------|--|
| 15/60 | .5 | <i>Artemisia californica</i> , coastal sagebrush |
| 5/40 | .5 | <i>Baccharis sarathroides</i> , chaparral broom |
| 40160 | 1 | <i>Encelia californica</i> , bush sunflower |
| N/A | .25 | <i>Eriodictyon crassifolium</i> , Yerba Santa |
| 10165 | 3 | <i>Eriogonum fasciculatum</i> , California buckwheat |
| 35175 | 1 | <i>Eriophyllum confertiflorum</i> , golden yarrow |
| 10130 | 1 | <i>Gnaphalium californicum</i> , everlasting |
| N/A | .5 | <i>Helianthemum scoparium</i> , rock rose |
| 15/30 | 1 | <i>Hemizonia fasciculata</i> , tarweed |
| 40140 | 1 | <i>Isocoma veneta</i> , coast goldenbush |
| 75/80 | 2 | <i>Lasthenia californica</i> , goldfields |
| 40160 | 3 | <i>Lotus scoparius</i> , deerweed |
| 95185 | 3 | <i>Lupinus bicolor</i> , lupine |
| 2155 | 1 | <i>Mimulus puniceus</i> , red monkeyflower |
| 70150 | .5 | <i>Salvia apiana</i> , white sage |
| 85/50 | 1 | <i>Salvia mellifera</i> , black saqe |

The 1976 Steve Halsey Associates report suggests that the seeds required for revegetation seeding be collected from the site. In order to implement site specific seed collections a minimum lead time of one year is required but two years is recommended so that adequate quantities of the appropriate species can be collected.

Maintenance: Since an irrigation system will not be used for the revegetation plantings, maintenance efforts shall be limited to exotic weed removal, trash pickup and replacement of stick mulch as needed. Although, the container plantings will be installed in the fall or winter, if adequate rain does not occur 3 to 4 applications of water (with a hose) are recommended through the first winter.

Riparian

Once the existing drainage outfalls into the Florida Canyon streambed are repaired, the disturbance to vegetation caused from repair activities can be revegetated as part of the enhancement plantings. It is presumed that these disturbed areas will be relatively small as will be the enhancement plantings. Enhancement plantings are recommended for the areas within the riparian zone that are cleared of weedy species. The bare areas resulting from weed eradication procedures shall be replanted with container grown plant materials, no seeding is planned.

Weed Control: Remove exotic invasive plant species through various methods that may include, removal of individuals, herbicide application and tree girdling. Many of the most invasive and persistent weed species found in this area are listed below, these species should be targeted for removal and control. Other weeds, such as European grasses, are also present on site in such dense stands that their eradication would be almost impossible. Additional weed species may appear that require removal until desirable plant species are established.

| | |
|---|--|
| <i>Acacia</i> spp., acacia | <i>Arundo donax</i> , giant reed |
| <i>Asparagus asparagoides</i> , florists-smilax | <i>Brassica</i> spp., mustard |
| <i>Carpobrotus edulis</i> , Hottentot fig | <i>Centaurea melitensis</i> , star thistle |
| <i>Chrysanthemum coronarium</i> , garland | <i>Cortaderia jubata</i> , pampas grass |
| <i>Cyperus</i> spp., umbrella sedge | <i>Foeniculum vulgare</i> , fennel |
| <i>Hypericum canariense</i> , St. John's wort | <i>Marrubium vulgare</i> , horehound |
| <i>Melilotus</i> spp., sweet clover | <i>Nicotiana glauca</i> , tree tobacco |
| <i>Raphanus</i> spp., radish | <i>Ricinus communis</i> , castor bean |
| <i>Schinus molle</i> , California pepper | <i>Schinus terebinthifolius</i> , Brazil. pepper |
| <i>Salsola australis</i> , Russian thistle | <i>Tamarix</i> spp., tamarisk |
| <i>Xanthium spinosum</i> , spiny cocklebur | |

Revegetation and Enhancement Planting: In order to establish desirable native vegetation within the riparian areas and to aid in displacing the existing invasive exotic weed species the following procedure is recommended.

Container plant materials shall be installed in the bare areas resulting from weed removal and/or other disturbance as designated on the plans. Container plant materials, as listed below, shall be planted from one gallon size or five gallon size.

The actual density and diversity of riparian container plant species shall be determined by a biologist or habitat restoration professional, after the specific enhancement areas are targeted. Species density and diversity shall be based on similar natural compositions of a riparian areas and associated natural communities.

| | |
|---|---|
| <i>Baccharis salicifolia</i> , mulefat | <i>Lonicera subspicata</i> , honeysuckle |
| <i>Muhlenbergia rigens</i> , deergrass | <i>Platanus racemosa</i> , sycamore |
| <i>Populus fremontii</i> , western cottonwood | <i>Quercus agrifolia</i> , coast live oak |
| <i>Salix lasiolepis</i> , arroyo willow | <i>Sambucus mexicana</i> , elderberry |

Container planting procedures shall consist of digging planting pits twice as deep and wide as the plant container. Fill planting pit with water, if soil is dry, and allow to percolate into subsoil, repeat. Add non-amended native soil to hole and place plant so that top of rootball is one inch higher than the surrounding soil surface. Fill in and tamp down native soil around plant. Water plant thoroughly.

To ensure container plant availability at time of planting, the plant materials required shall be reserved with a native plant nursery one year in advance.

Maintenance: Since an irrigation system will not be used for the revegetation plantings, maintenance efforts shall be limited to exotic weed removal and trash pickup. Although, the container plantings will be installed in the fall or winter, if adequate rain does not occur 3 to 4 applications of water (with a hose) are recommended through the first winter.

OAK GROVES (26th Street at Pershing Drive and North Florida Canyon)

Existing Conditions: The oak grove at 26th and Pershing Drive contains a number of *Quercus agrifolia* trees and was obviously planted by man because they are in rows. The trees are of a size that provides an inviting green canopy with an understory of primarily European grasses and a few scattered native shrubs. A few open, sunny areas exist, presumably from the loss of some of the trees. In discussions with Park maintenance personnel they indicated that an irrigation system exists for the oak grove and is activated approximately once per month. Three finger canyons adjoin the grove and reach to Golden Hill Park. The finger canyons contain a mixture of native and exotic tree and shrub species. The predominate tree in the finger canyons are *Eucalyptus spp.*, which appear to be declining, possibly from insect damage.

The 1976 Steve Halsey Associates report states that the oak grove planted below the Blind Center, north Florida Canyon, was probably planted during 1910 to 1920 and that this native tree would probably not occur in the canyon naturally. This grove also provides an inviting green canopy with an understory of primarily European grasses and a few scattered native shrubs.

Recommendations: Minimal removal of invasive, exotic weed species and enhancement plantings are recommended for this area. The bare areas resulting from weed eradication procedures and dead *Eucalyptus* tree removal shall be replanted with container grown plant materials in an effort to displace the weed species, no seeding is planned. These areas will be relatively small as will be the enhancement plantings.

Weed Control: Remove exotic invasive plant species and declining *Eucalyptus spp.* and *Acacia spp.* through various methods that may include, removal of individuals and herbicide application.

Enhancement Planting: In order to establish desirable native vegetation within and adjacent to the oak grove and finger canyons and to aid in displacing the existing invasive exotic weed species the following procedure is recommended.

Container plant materials shall be installed in the bare areas resulting from weed, tree or shrub removal. Container plant materials, as listed below, shall be planted from one gallon, five gallon or fifteen gallon size.

The actual density and diversity of container plant species shall be determined by a biologist or habitat restoration professional, after the specific enhancement areas are targeted. Species density and diversity shall be based on similar natural compositions of an oak woodland and associated natural communities.

Heteromeles arbutifolia, toyon
Prunus illicifolia, holly-leaf cherry
Quercus dumosa, scrub oak
Xylococcus bicolor, mission manzanita

Malosma laurina, laurel sumac
Quercus agrifolia, coast live oak
Rhus integrifolia, lemonade berry

Container planting procedures shall consist of digging planting pits twice as deep and wide as the plant container. Fill planting pit with water and allow to percolate into subsoil, repeat. Add non-amended native soil to hole and place plant so that top of rootball is one inch higher than the surrounding soil surface. Fill in and tamp down native soil around plant. Build a water holding basin around plant. Fill basin with water and let drain. Cover basin with nitrolized redwood bark mulch, two inches deep and fill basin with water.

Additional enhancement of the open areas within the 26th Street oak groves maybe implemented by planting native perennial grasses and wildflowers to introduce components of an oak grassland.

To ensure container plant availability at time of planting, the plant materials required shall be reserved with a native plant nursery one year in advance.

Maintenance: Where an existing irrigation system is in place it shall be used to irrigate the new plantings. In non-irrigated areas maintenance efforts shall be limited to exotic weed removal and trash pickup. Although the container plantings will be installed in the fall or winter, if adequate rain does not occur 3 to 4 applications of water (with a hose) are recommended through the first winter.

CHAPARRAL & COASTAL SAGE SCRUB WITHIN GOLF COURSE

Existing Conditions: The existing vegetation within this area is a combination of coastal sage scrub, predominantly on the west side, with chaparral and chamisal chaparral in the remaining areas. The vegetation is relatively undisturbed and is considered high quality habitat (personal communication, Judy Gibson, San Diego Natural History Museum Botany Department and Dan Bylin, Sr. Park Ranger). Small areas of associated riparian vegetation are also present in low areas, probably resulting from water runoff from the golf course. Exotic, invasive weed species are present primarily along roads, trails and low, moist areas. Since access to this area is limited by the surrounding golf course very little disturbance is occurring within the established native vegetation.

At the north west end of the native area is an access road and fence. Planted along the fence, interfacing with the native vegetation and golf course, are screen plantings of *Acacia* spp. These plantings are declining, probably from senescence.

Recommendations: Removal of invasive, exotic weed species and enhancement plantings are recommended for this area. The bare areas resulting from weed eradication procedures shall be replanted with container grown plant materials in an effort to displace the weed species, no seeding is planned. These areas will be relatively small as will be the enhancement plantings.

APPENDIX C

Weed Control: Remove exotic invasive plant species through various methods that may include, removal of individuals, herbicide application and tree girdling. Many of the most invasive and persistent weed species found in this area are listed below, these species should be targeted for removal and control. Additional weed species may appear that require removal until desirable plant species are established.

| | |
|---|---|
| <i>Acacia</i> spp., acacia | <i>Arundo donax</i> , giant reed |
| <i>Asparagus asparagoides</i> , fiorists-smilax | <i>Atriplex semibaccata</i> , Australian saltbush |
| <i>Brassica</i> spp., mustard | <i>Carpobrotus edulis</i> , Hottentot fig |
| <i>Centaurea melitensis</i> , star thistle | <i>Chrysanthemum coronarium</i> , garland |
| <i>Conium maculatum</i> , poison hemlock | <i>Cortaderia jubata</i> , pampas grass |
| <i>Cyperus</i> spp., umbrella sedge | <i>Eucalyptus</i> spp., eucalyptus |
| <i>Foeniculum vulgare</i> , fennel | <i>Hypericum canariense</i> , St. John's wort |
| <i>Marrubium vulgare</i> , horehound | <i>Melilotus</i> spp., sweet clover |
| <i>Nicotiana glauca</i> , tree tobacco | <i>Pennisetum setaceum</i> , fountain grass |
| <i>Raphanus</i> spp., radish | <i>Ricinus communis</i> , castor bean |
| <i>Schinus molle</i> , California pepper | <i>Schinus terebinthifolius</i> , Brazil. pepper |
| <i>Salsola australis</i> , Russian thistle | <i>Tamarix</i> spp., tamarisk |
| <i>Xanthium spinosum</i> , spiny cocklebur | |

Enhancement Planting: Since the areas with the most weed infestations are the low, wet areas only these areas are recommended for planting. To establish desirable native vegetation within these areas primarily riparian species will be planted to aid in displacing the existing invasive exotic weed species. The following procedure is recommended.

Container plant materials shall be installed in the bare areas resulting from weed removal and/or other disturbance as designated on the plans. Container plant materials, as listed below, shall be planted from one gallon size or five gallon size.

The actual density and diversity of container plant species shall be determined by a biologist or habitat restoration professional, after the specific enhancement areas are targeted. Species density and diversity shall be based on similar natural species compositions and associated natural communities.

| | |
|---|---|
| <i>Baccharis salicifolia</i> , mulefat | <i>Platanus racemosa</i> , sycamore |
| <i>Populus fremontii</i> , western cottonwood | <i>Quercus agrifolia</i> , coast live oak |
| <i>Salix lasiolepis</i> , arroyo willow | <i>Sambucus mexicana</i> , elderberry |

Along the northwest fence, as the *Acacia* spp. die they could be replaced with large, woody, native shrubs, such as:

| | |
|---|---|
| <i>Ceanothus verrucosus</i> , coast white lilac | <i>Heteromeles arbutifolia</i> , toyon |
| <i>Malosma laurina</i> , laurel sumac | <i>Prunus illicifolia</i> , holly-leaf cherry |
| <i>Quercus dumosa</i> , scrub oak | <i>Rhus integrifolia</i> , lemonade berry |
| <i>Xylococcus bicolor</i> , mission manzanita | |

Container planting procedures shall consist of digging planting pits twice as deep and wide as the plant container. Fill planting pit with water, if soil is dry, and allow to percolate into subsoil, repeat. Add non-amended native soil to hole and place plant so that top of rootball is one inch higher than the surrounding soil surface. Fill in and tamp down native soil around plant. Water plant thoroughly.

To ensure container plant availability at time of planting, the plant materials required shall be reserved with a native plant nursery one year in advance.

Maintenance: Since an irrigation system will not be used for the revegetation plantings, maintenance efforts shall be limited to exotic weed removal and trash pickup. Although the container plantings will be installed in the fall or winter, if adequate rain does not occur 3 to 4 applications of water (with a hose) are recommended through the first winter.

LANDFILL SLOPES AND MESA

Existing Conditions: A brief examination of the existing landfill slope was conducted on July 24, 1991. Several native and weedy plant species were observed growing on site in a relatively healthy condition, considering the soils.

Potential Concept: Revegetating this area and the mesa top with native vegetation could be included in the project alternatives for this area. The slope could be planted with coastal sage scrub species which would tie in with the vegetation on adjacent slopes. The mesa-top planting could include vegetation types that would connect with adjacent vegetation in Florida canyon such as, coastal sage scrub, chaparral, chamise and possibly creation of open, native grasslands.

A benefit of native plantings, if they were successful, is the creation of additional habitat. On July 24, 1991 at least two pair and one lone female California gnatcatchers were heard in Florida Canyon (letter and map from Dan Bylin, Sr. Park Ranger Appendix D). As this species of bird is rare, due to loss of habitat, it may be considered desirable to participate in increasing potential habitat area.

IMPLEMENTATION MONITORING

Implementation supervision, and training of landscape personnel, of the revegetation and enhancement goals and methods, is critical to the success of the project.

To ensure that the revegetation and enhancement plan is followed, all implementation activities should be monitored by a habitat restoration professional.

The implementation monitoring period should be the same as the construction period. The implementation monitor will be available during all implementation activities to assist in training landscape personnel, and for interpretation of the revegetation and enhancement plan so that work may proceed. The implementation monitor will keep a written record of the planting methods with details to include; dates of planting and planting locations of container materials and seeds. Any significant problems encountered or necessary changes made to the plan during the implementation activities should also be recorded.

APPENDIX D

GRASSES FOR LANDFILL PLANTINGS

Excerpt from letter of Martha Blane, *Horticulturist* of February 70, 7992

Subsequent to your request I have reviewed the S & S Seeds "Native Drought Tolerant Grasses" list to determine if any species would be appropriate for use on the landfill mesa. You indicated that very minimal, if any, irrigation would be available. The soil quality is still unknown and soil depth would probably be limited to approximately one to two feet. In addition, the planting areas would receive pedestrian traffic and require periodic mowing. Escaping methane gas from the underlying landfill could also effect the planting.

I feel that native, drought tolerant grasses are the best choices for the site. However, since there are several adverse conditions the planting must adapt to in order to survive, site planting tests of selected species is recommended prior to finalizing a plant palette. A test planting of one year duration would be the minimum time recommended, two to three years duration is preferable.

Of S & S Seeds grass lists, I recommend the following species for testing:

| | |
|--|---|
| Bromus carinatus (California Brome) | Hordeum brachyantherum (Meadow Barley) |
| Elymus glaucus (Blue Wildrye) | Elymus tritichiodes (Creeping Wildrye) |
| Stipa lepida (Foothill Needlegrass) | Stipa pulchra (Purple Needlegrass) |

There are two other species that may be of value for the site, *Achillea millefolium* (Yarrow) and *Muhlenbergia rigens* (Deergrass). *Achillea millefolium* is native to California, but not found in the Balboa Park area. It has been extensively planted on slopes for erosion control and also used as a lawn substitute. It can be observed growing in very adverse soil conditions, in non-irrigated situations in So. California while also receiving limited foot traffic. Yarrow is a perennial ground cover, with deep green, finely divided foliage (similar to a compact carrot top). It is deep rooted, can be mowed two to four times per year to a height of three to six inches. The flowers are white (a pink variety is also available) and are held above the foliage. Old flowers are somewhat unappealing, but with infrequent mowing they would be removed.

Muhlenbergia rigens is native to California and a small stand is present in Florida Canyon, just east of Florida Canyon Drive below Morley Field. Deergrass probably requires a somewhat moist environment, however, there may be some suitable locations within the landfill site for it's use.

To my knowledge the species listed above have not been widely used for the type of planting required here. If soils and methane gas were not a problem I expect that these species could become established on the site if adequate management was given. Normally most of these species could germinate or be planted from containers in a non-irrigated setting if planted in the Fall. Container plantings may require a few applications of water during the first winter and spring, until established. During the first summer the plants would slowly fill. Diligent weed control, to reduce competition, would be required. High mowing, five to six inches high, may be done if necessary for pedestrian use. In time the planting should fill in and crowd out weeds, high mowing could be performed on a regular basis. The grasses, once established, would have green foliage (not lush) during winter, spring and early summer. Summer and Fall would be a mixture of green and "triscut" colored foliage, depending on the yearly rainfall.

APPENDIX E**HELP MODEL - PERCOLATION RATE GENERATION FOR LANDFILL COVER CRITERIA**

Excerpt from letter of *Leighton and Associates*, 27 February 1992

East Mesa Precise Plan, Landfill Cover Performance and Leachate Generation-HELP Model

Leighton and Associates ran several trials of the HELP model to evaluate landfill cover performance and leachate generation. The following is a summary of these trials.

| <u>Trial #</u> | <u>Burial Thickness</u> | <u>Barrier Layer Permeability (cm/sec)</u> | <u>Annual Percolation thru Waste Layer</u> | <u>Annual Precipitation (inches)</u> | <u>SCS Runoff Curve</u> |
|----------------|-------------------------|--|--|--------------------------------------|-------------------------|
| 1 | 36" | 1 X 10 ⁻⁶ | 5.7" | 71" | 74 |
| 2 | 36" | 1 X 10 ⁻⁶ | 5.1" | 64" | 74 |
| 3 | 36" | 1 X 10 ⁻⁶ | 14.5" | 64" | 74 |
| 4 | 36" | 1 X 10 ⁻⁶ | 6" | 89" | 74 |
| 5 | 36" | 1 X 10 ⁻⁶ | 2" | 11" | 74 |
| 6 | 36" | 1 X 10 ⁻⁶ | 5" | 64" | 66 |
| 7 | 36" | 1 X 10 ⁻⁷ | 1" | 64" | 66 |

Data indicated that with the quantity of water introduced into the site, some amount of leachate is generated and percolates through the waste.

Based on the above HELP model results and taking into consideration the conservative properties for the waste layer (do to lack of site specific information materials), the only way vegetation can be introduced on the landfill is to

1. irrigate an amount equal to the ET
2. use a drainage layer/liner above the waste.

It should be noted that irrigating an amount equal to ET does not guarantee the introduction of water into the waste.

APPENDIX F

EXISTING INFRASTRUCTURE INVENTORY AND ANALYSIS

Nolte & Associates

A. Utilities

Florida Canyon is traversed by several existing utility mains which serve adjacent communities and Balboa Park, including sanitary sewer, water, storm drain and electrical. With the exception of overhead electric lines, all utility infrastructure is below grade. A methane gas recovery system exists within the Arizona Landfill, consisting of below grade collection piping and a gas flare station.

Sanitary Sewer

An existing 18" vitrified clay trunk main sewer traverses Florida Canyon in a north-south direction, with several connecting branch mains ranging in size from 6" to 8" vitrified clay which run generally east and west from Morley Field and Park Boulevard. Existing manhole rim elevations are several feet above existing grade in some cases, especially in the streambed areas. These raised manhole rims were installed to prevent stream water from entering the sanitary sewer during periods of high flow in the stream bed.

An existing 10" vitrified clay sewer main runs from a point of connection to 18" trunk main near the Pershing Drive/Florida Canyon Drive intersection northeasterly through the golf course and continues to the community area to the east.

Water Supply

An existing 36" water transmission main traverses the northerly end of Florida Canyon from east to west, passing under the Morley Field recreation area and continuing westerly across Park Boulevard and the Zoo parking area. Numerous fire supply and domestic water mains ranging in size from 4" to 10" exist in the Morley Field recreation area. At the northerly end of East Mesa several 6" irrigation supply mains exist within the golf course east of Pershing Drive.

Storm Drainage







An existing 48" storm drain traverse the Arizona Landfill generally in a southwesterly direction west of Pershing Drive and discharges into the existing stream bed immediately north of Zoo Place. Several local storm drains from inlets in parking areas at Morley Field and various inlets within the landfill cap connect to this 48" storm drain. Several smaller diameter storm drains and culverts which drain the Zoo parking area, portions of Park Boulevard and Convey runoff under Pershing Drive and Florida Canyon Drive daylight to grade and discharge overland ultimately to the existing stream bed in Florida Canyon. The concentrated discharge from most of these drains has caused erosion at and below the discharge point.

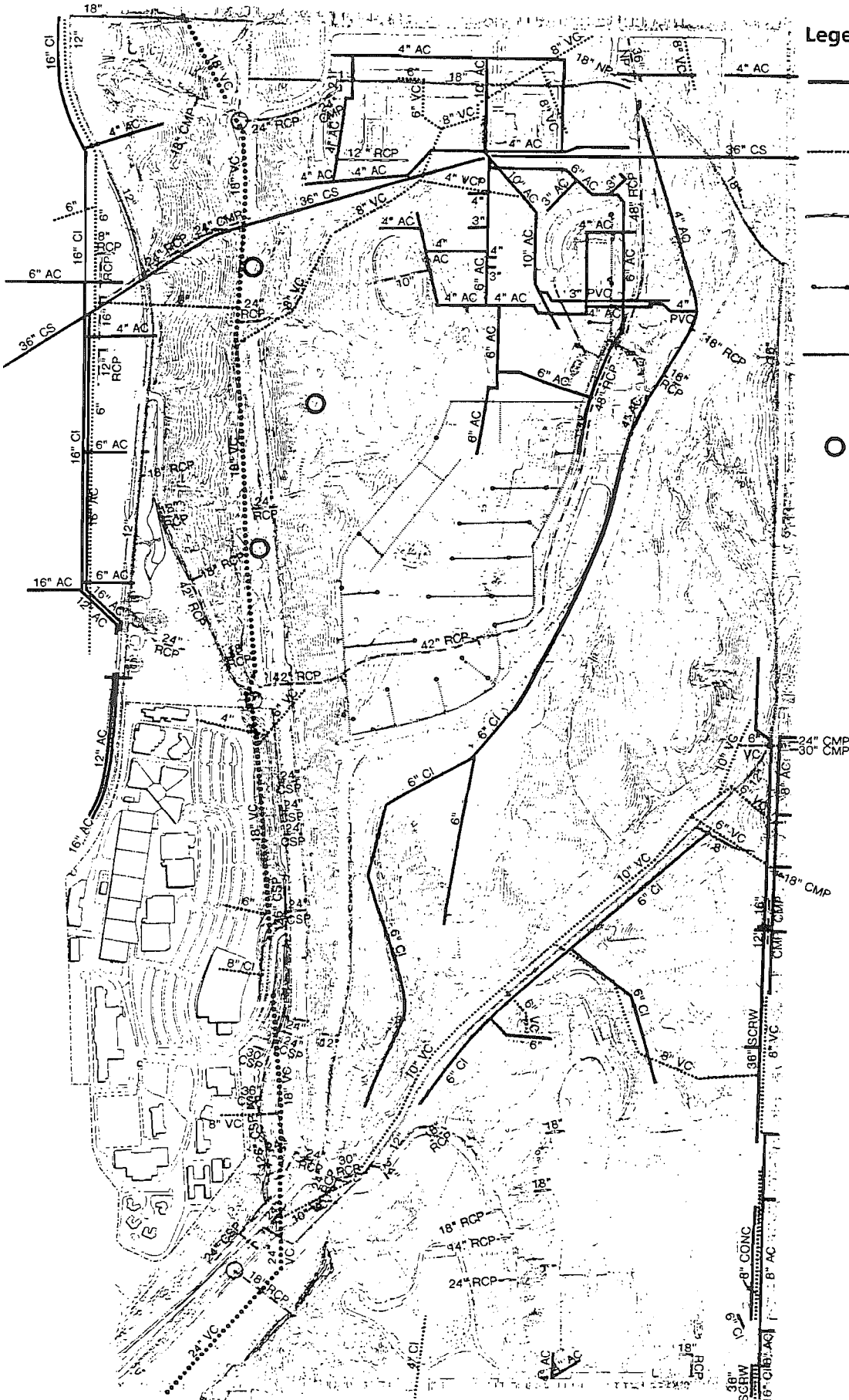
The existing stream bed flows southerly through Florida Canyon until it enters an existing 126" culvert at Zoo Place, where it continues southerly to outfall ultimately in San Diego Bay. Previous hydrology studies indicate a 100 year storm flow of 789 cfs at Zoo Place.

The existing stream bed, which is naturally lined with smooth cobbles and minimal plant growth will flow at approximately 9 feet per second velocity and 2 feet depth for a 30 foot wide channel section during the 100 year storm.

UTILITIES

Legend

-  Water
-  Sewer
-  Storm Drain
-  Gas Recovery
-  Reclaimed Water
Pipe Size as Noted
-  Proposed Fire Hydrants



City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

Wallace Roberts & Todd
 Nolte and Associates
 Leighton and Associates
 Martha Blane
 Christine Oatman
 Richard Posner



B. Existing Traffic Circulation

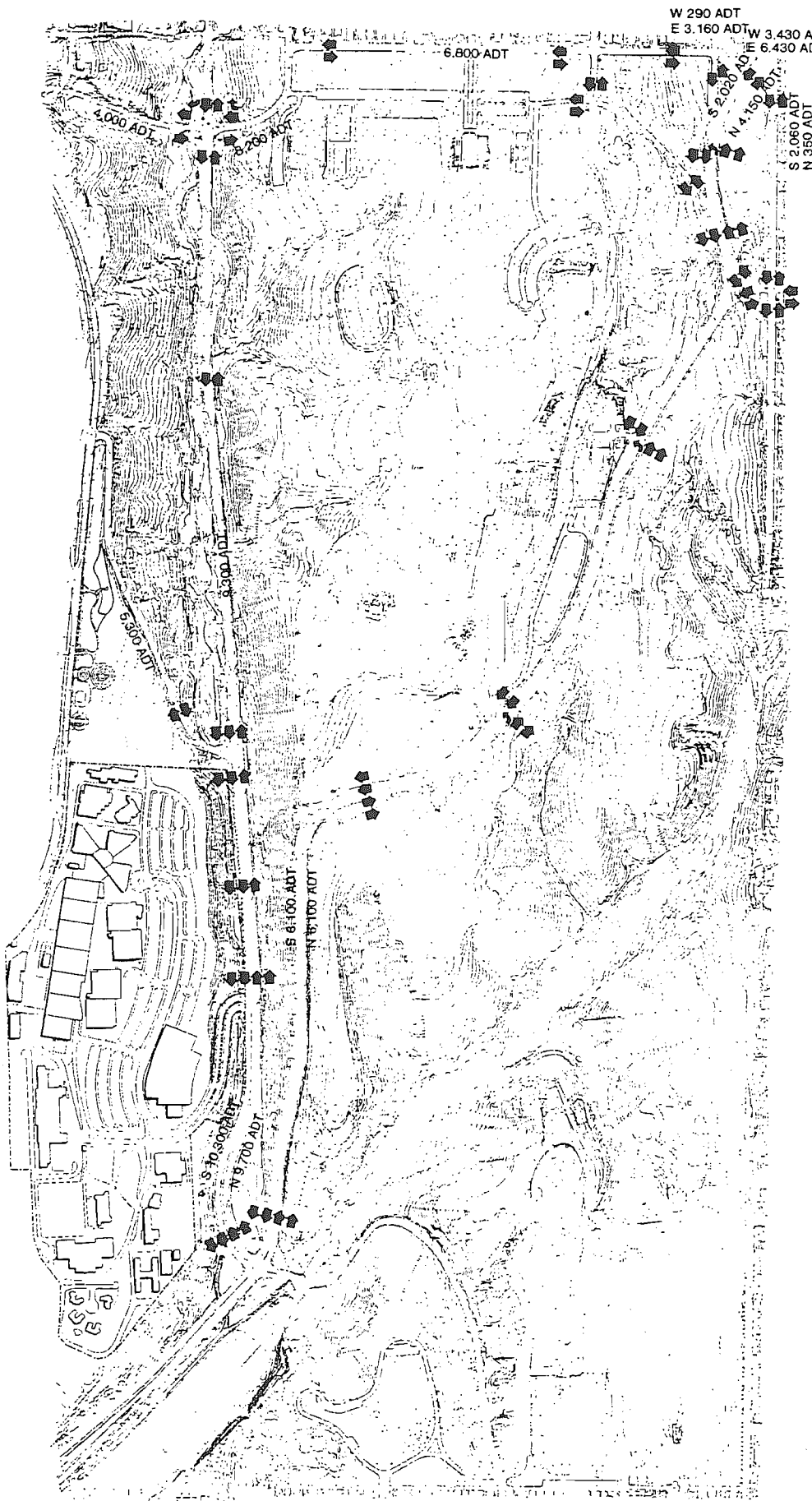
Pershing Drive and Florida Canyon Drive serve as the primary north south routes through Florida Canyon and East Mesa. Florida Canyon Drive is posted at 50 MPH speed limit, and is classified as a two-lane collector. Florida Canyon Drive serves the secondary entrance to the U.S. Naval Hospital at Bob Wilson Drive and connects with Park Boulevard via Zoo Place to serve access to the Zoo.

Pershing Drive is classified as a four lane collector and connects at the northerly end of East Mesa with Upas Street, 28th Street, Jacaranda Place and Redwood Drive. Existing facilities which gain access from Pershing Drive are the Arizona Landfill site maintenance yard and nursery, and Jacaranda Place, which currently serves as an easterly access to the Morley Recreational Complex parking area. The existing intersections at Redwood Drive, Jacaranda Place and 28th Street/Upas Street are awkward and inefficient, with potential for improvement of overall flow.

Average daily traffic volumes have been obtained from the City of San Diego Traffic Engineering Division for the most recently available data and are plotted on the following exhibit. ADT's are current as of February 25, 1991 for Florida Canyon Drive, Pershing Drive and Zoo Place. Park Boulevard ADT is current as of March 8, 1991, with the remaining streets within the study area current as of February, 1988.




Accident data for the intersection of Pershing Drive and Jacaranda Place, obtained from the City of San Diego Traffic Engineering Division for the period January 1, 1990 through January 1, 1991 indicates two (2) reported accidents occurred at this intersection. Accident data for the intersection of Pershing Drive and Redwood Street indicates twelve (12) reported accidents occurred at this intersection within the same period. Accident data was not available for Golf Course Drive as it is not considered a public street.

As described in the Florida Canyon Master Plan, pedestrian routes generally follow the road systems, with some pedestrian movements within Florida Canyon and East Mesa. Bike lanes are not delineated on Pershing Drive currently, however, the outer vehicle lane limits are delineated and leave about 8 feet of pavement available for bike and jogger traffic. The relatively high prevalent traffic speeds on Pershing Drive are not currently conducive to the close proximity of bike lanes.



AVERAGE DAILY TRAFFIC COUNTS

Legend

-  Single Traffic Lane and Direction
-  Protected Turn Lane
- 6,430 ADT Average Daily Traffic, Sums of Both Directions
- N 6,100 ADT Average Daily Traffic North
- S 6,100 ADT Average Daily Traffic South
-  Stop Sign

City of San Diego

**East Mesa
Precise Plan,
Balboa Park**

Wallace Roberts & Todd
Nolte and Associates
Leighton and Associates
Martha Blane
Christine Oatman
Richard Posner



C. Water **Conservation/Proposed** Reclaimed Water Delivery and Storage Systems

The primary potential for water conservation within East Mesa and Florida Canyon lie with irrigation of various existing planted areas and proposed landscaping of the Arizona Landfill cap. Existing major water users within East Mesa are the Morley Field recreational complex, the existing greenhouse/nursery at the Arizona Landfill and Balboa Park Municipal Golf Course. The total average annual demand for present users is 625 AFY for the East Mesa area lies with the proposed landscaping of the Arizona Landfill cap. Average annual demand for the Arizona Landfill is expected to be 72 AFY⁽¹⁾.

The Morley Field recreational complex is comprised of about 60 acres of irrigated turf area with a peak daily demand of about 90,000 gallons.

The Balboa Park Municipal Golf Course is comprised of a combined area of about 150 acres with a peak daily demand of about 820,000 gallons during summer months.

The existing greenhouse/nursery located at the Arizona Landfill has peak daily demand of about 120,000 gallons

Generally, all of the existing irrigated areas utilize standard impact-type sprinkler systems and spray heads for turf and planted areas. The existing Arizona Landfill west slope areas has been irrigated with an above-ground, small diameter pipe network with impact-type sprinklers in order to irrigate groundcover on the slope for erosion control. Groundcover on the slope has not taken well, probably due to factors other than irrigation; possibly methane gas migration from the landfill.

A reclaimed water delivery and storage system has been proposed for Balboa Park ⁽¹⁾, with a storage tank location recommended on Pershing Drive near the intersection of Pershing Drive, 28th Street and Upas Street. A looping distribution main is recommended which generally encompasses the perimeter of Balboa Park, including the East Mesa area. This reclaimed water system may be utilized in all turf irrigation areas and portions of the greenhouse/nursery at East Mesa.

D. Arizona Landfill

The Arizona Landfill comprises an area of about 60 acres including the area of the greenhouse/nursery and maintenance yard. The landfill was closed in 1974 and capped with a soil cover which has been graded to sheet drain westerly towards several catchment points and the westerly slope facing Florida Canyon. Sheet flow over the westerly slope has resulted in considerable erosion which is readily visible from Florida Canyon. Attempts at vegetating the existing landfill slope have not been successful, possibly due to methane gas migration from the landfill.

A methane gas collection and recovery system has been installed within the landfill which is intended to collect and automatically flare off methane gas from the landfill. The location of this system is shown on Exhibit.

A landfill closure plan is currently being prepared by the City of San Diego in compliance with Subchapter 15 requirements, which call for an impervious cover be placed over the existing landfill surface which precludes percolation of rainwater or irrigation water into the landfill cells. The City Solid Waste Division has agreed to submit the closure plan such that it is consistent with the recommendations of the East Mesa Precise Plan.

Existing grading of the landfill surface and side slopes is conspicuously inconsistent with the surrounding natural topography, and does not provide for optimal drainage and erosion control. Potential exists to shape the landfill side slopes and surface by filling and contouring the angular tops and toes of the existing landfill to allow a more natural conformance to the surrounding natural topography. Contouring the landfill in this manner, through the use of fill material only, will comply with Subchapter 15 requirements. Cutting of the landfill surface or sideslopes is not permitted.

Settlement of the existing landfill has occurred since its closure in 1974. Additional settlement of lesser magnitude is expected to occur over the landfill and will limit the placement of structures to certain locations and types. Grading (filling) of the existing landfill surface should be done in order to improve drainage characteristics and control erosion, which taking into account possible future settlement. Cross slope gradients should be sufficient to maintain at least 2% slope after settlement.

EAST MESA PRECISE PLAN, Balboa Park

APPENDIX G

A PROGRAM FOR ART INSTALLATIONS

Richard Posner, Artist

Artwork should consider the social and natural environmental content of the East Mesa as well as the vastness of the manmade mesa top. The Arizona Landfill mesa top should be transformed into a place that could house a wide range of public art activities which address the landfill's social and physical beginnings. Artwork in and around the site will question our society's (and San Diego's in particular) use and attitude toward the land. This activity will transform the landfill from a little used bare ground into a user friendly, participation sculpture park. Artist Richard Posner sees the landfill as a place where our attitudes about consumption and discard can be better understood and readdressed. He proposes a series of temporary installations composed of newspaper, glass, aluminum, Styrofoam, and plastic generated by San Diegans over a years time. This volume of material will be arranged as a series of architectural forms, bisected and connected by the experience of passage.

Site programming of temporary projects could involve competitions, as well as invited commissions. The work should change periodically, though not necessarily regularly, a fact determined by the scope and program administration. Elements of the area must also serve as free and open park land for activities such as walking, picnicking, and kite flying. The Balboa Public Art Gallery will be a place where the public is comfortable to visit again.

An example of a one day temporary earthwork activity might involve athletics and aesthetics. Artist Richard Posner envisions a "Hope Diamond" as a temporary recreational softball diamond which invites San Diegans to gather in a field of hope in conjunction with the summer solstice. It is conceived to be constructed on the Arizona Landfill. As it would require no irrigation or disturbance of existing fill, it could be implemented prior to reclamation.

- Softball is a very popular pastime for many and is a key use in East Mesa. As a temporary piece the Hope Diamond could issue a claim on the park opportunities of the East Mesa. It is to link local, national and international events. Those who participated as players and observers in its construction would share an experience marking a specific time and place. Observers include airline passengers viewing the work's shape and color in contrast to the surrounding landfill. It is proposed to be constructed of synthetic materials or colored aggregates rather than turf, providing no significant negative impact to the landfill.
- Interface with the City's Military Presence: The Pershing Miniature Golf Course is conceived by artist Richard Posner to be a scale model of the Americas and the Middle East as a temporary 9-hole miniature golf course. It is to acknowledge the 50th anniversary of Pearl Harbor and the role of the U.S. Navy plays in the American foreign policy.

The materials of such a work could be synthetic, responding to the landfill's limited abilities to sustain a variety of plant materials and the nature of the landfills contents. This piece is a response to current events marking milestones important to the residents and visitors of San Diego. Art, such as this, can be an avenue of public reaction, soliciting political and social commentary. This piece was conceived to create a common ground between military and civilian life recognizing the Navy's presence in the Park.

- Reclamation: Future park amenities within the landfill boundary could be made from recycled materials such as glass, plastic, steel, aluminum, and rubber.

Recycled materials carry both public history and private memory. They might be utilized in their recognizable form (i.e. glass bottles) to construct mosaic artworks or in a reduced form such as paving elements composed of ground glass in the mixture of concrete or asphalt. The use of recycled materials in their recognized form challenges the commonly held opinion of what "beautiful" materials are appropriate for a park. Yet it also does so by acknowledging the presence of a landfill in the City's premier public park.

East Mesa Neighborhood Traffic Study



Prepared by:

City of San Diego
Engineering and Development Department
Traffic Engineering Division
Traffic Operations Section

January 1993

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I. INTRODUCTION

The Balboa Park Master Plan was completed in 1988. The Master Plan set the overall goals for the development and management of the park. In April of 1992, the first draft of the East Mesa Precise Plan was released. The precise plan detailed design and program recommendations necessary for the physical development and improvement for the 620-acre eastern third of Balboa Park. Although the precise plan addressed traffic issues within the plan area, several issues, including its traffic impacts on residential streets adjacent to the park, remain.

On September 23, 1992, the Public Facilities and Recreation (PF&R) Committee directed the preparation of a traffic study focusing on the impacts of proposed transportation alternatives on the neighborhood streets to the south and north of Balboa Park. On September 28, 1992, the Park and Recreation Department requested the Engineering and Development (E&D) Department to conduct the traffic study. To initiate the traffic study, the Traffic Engineering Division sought assistance from community residents regarding major concerns and issues.

The overall goal of the study is to examine the traffic impacts of the proposed transportation improvements of the East Mesa Precise Plan on the surrounding street system north of the precise plan area. The traffic study is also to examine the impacts of relocating the park entrance from 26th Street to 25th Street in the south. Based on input from the community and the Park and Recreation Department, Traffic Engineering assembled a list of concerns to be addressed in the traffic study. This list is included as Appendix 1.

II. EXISTING CONDITIONS

In order to learn more about the traffic characteristics of the area streets, Traffic **Engineering** conducted extensive data collection, including street geometry and number of lanes, street classifications, traffic control devices, traffic volumes, traffic speed, and accident history.

Figure 1 shows the **street** width and number of **traffic** lanes and street **curb-to-curb** widths on selected streets in the area. It is based on an inventory recently taken for this study.

Figure 2 shows the existing street classifications for selected streets. **The** street classifications are consistent with the community plans for Greater North **Park** and Golden Hill communities.

Classifications for some of the area streets are as follows:

- **Upas** Street; two lane collector - Alabama Street to 28th Street, three lane collector - 28th Street to 30th Street,
- 30th Street north of **Upas** Street; three lane collector with commercial fronting,
- Utah Street; three lane collector with residential fronting,
- 28th Street north of **Upas** Street (limited width - 32 feet); local residential,
- **Pershing** Avenue; local residential,
- Arizona Street; local residential,
- **Texas** Street; two lane collector with residential fronting,
- Florida Street north of **Upas** Street; two lane collector with residential fronting,
- **Park** Boulevard; four lane major,
- 25th Street; two lane collector with **residential** fronting,
- 26th Street; two lane collector with residential fronting.

Figure 1

Number of Lanes & Street Widths

LEGEND:
 2/40= No. of lanes/curb to curb width

TWLT=Two-way left turn lane

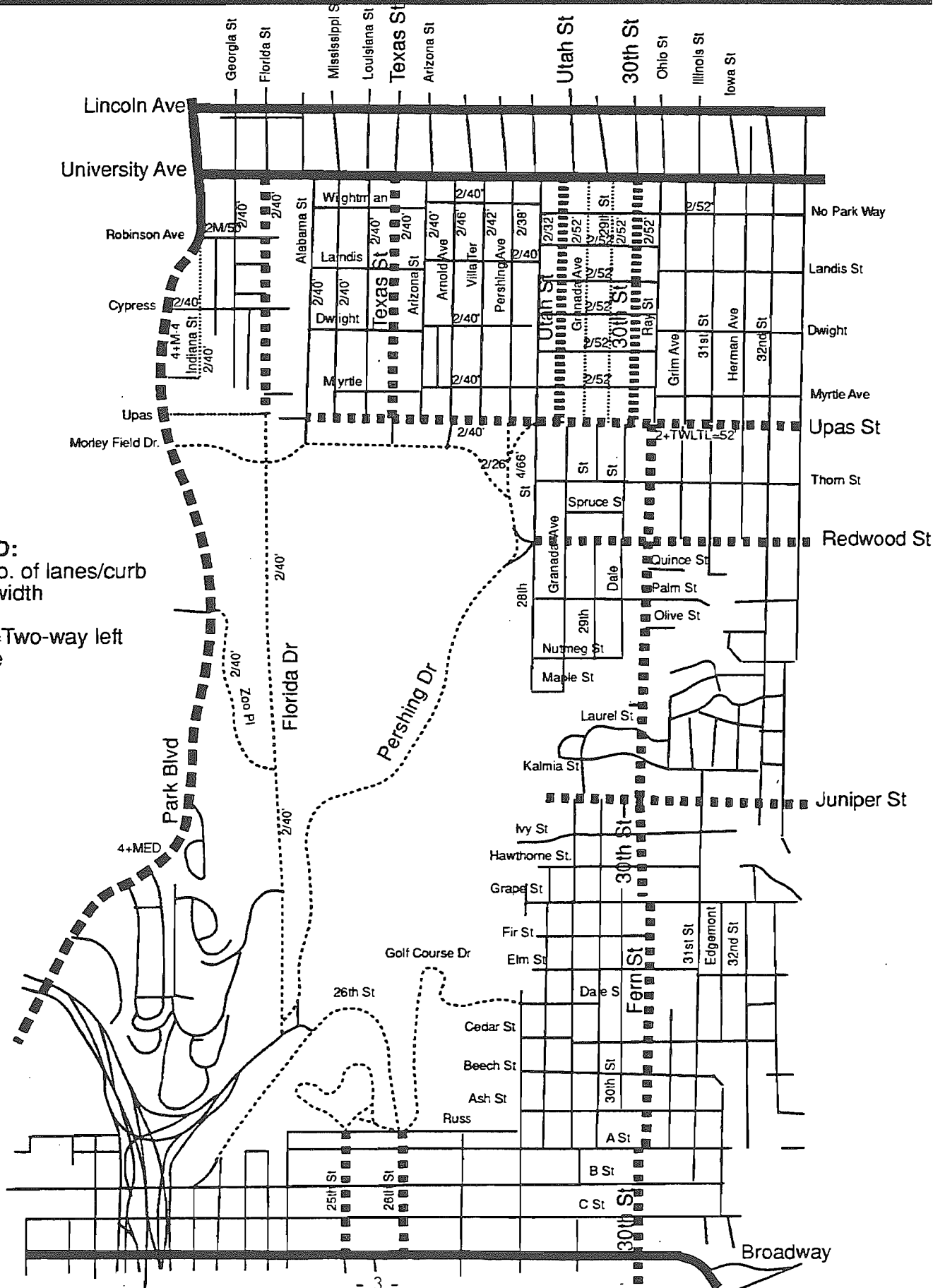
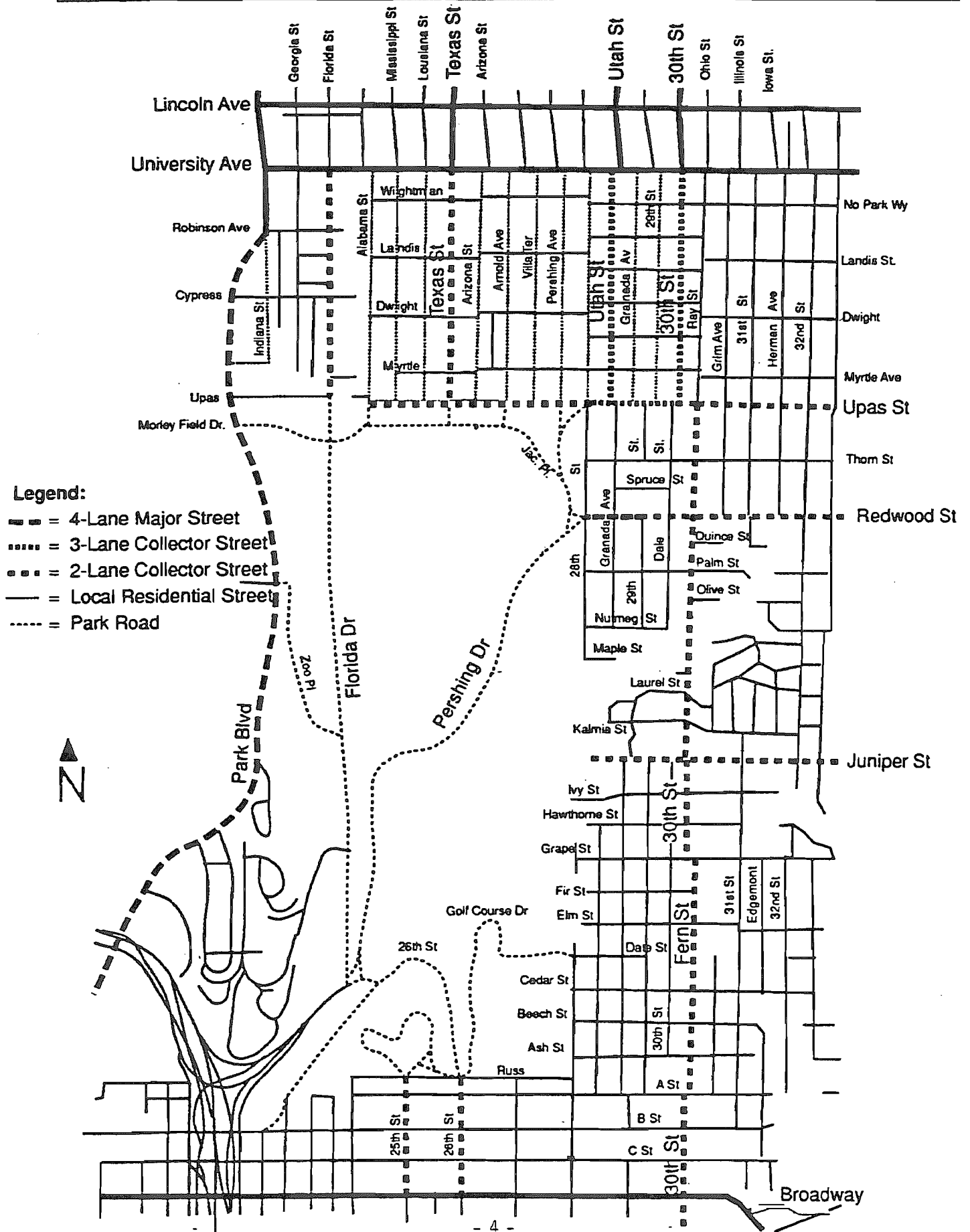


Figure 2

Existing Street Classifications



A number of streets are classified as park streets (i.e., non-dedicated park roadway). The number of lanes of the streets classified as park roads are as follows:

- Florida Drive south of Upas Street - two lanes
- Zoo Place - two lanes
- Pershing Drive - four lanes
- Jacaranda Place - two lanes
- 26th Street north of Russ Boulevard - two lanes
- Golf Course Drive - two lanes, limited width
- Golden Hill Drive - two lanes

The maximum desirable daily traffic volume that each roadway classification can reasonably accommodate (from a traffic operations standpoint) is shown in Table 1. Should these values be exceeded, the street level of service may be adversely impacted and traffic congestion could be expected.

Table 1

| <u>Street Classification</u> | <u>Approximate Maximum Desirable Daily Volume</u> |
|---|--|
| Local residential limited width* | 2,500 |
| Local residential | 3,500 |
| Two lane collector - residential fronting | 5,000 |
| Two lane collector - no fronting property | 9,000 |
| Three lane collector - residential fronting | 7,500 |
| Three lane collector - commercial fronting | 15,000 |
| Four lane major | 34,000 |

Source: Based on the City's Street Design Manual, Level of Service D.

Figure 3 shows the existing traffic control devices status (traffic signals and all-way stops) for selected intersections.

Figure 4 shows the existing Average Daily Traffic (ADT) volumes. Most traffic volumes were exclusively collected for this traffic study in the past two months. Others were obtained from recent traffic count files, performed generally within the past year. The existing ADT carried by some streets are as follows:

*Under 38 feet wide.

Figure 3

Existing Traffic Controls

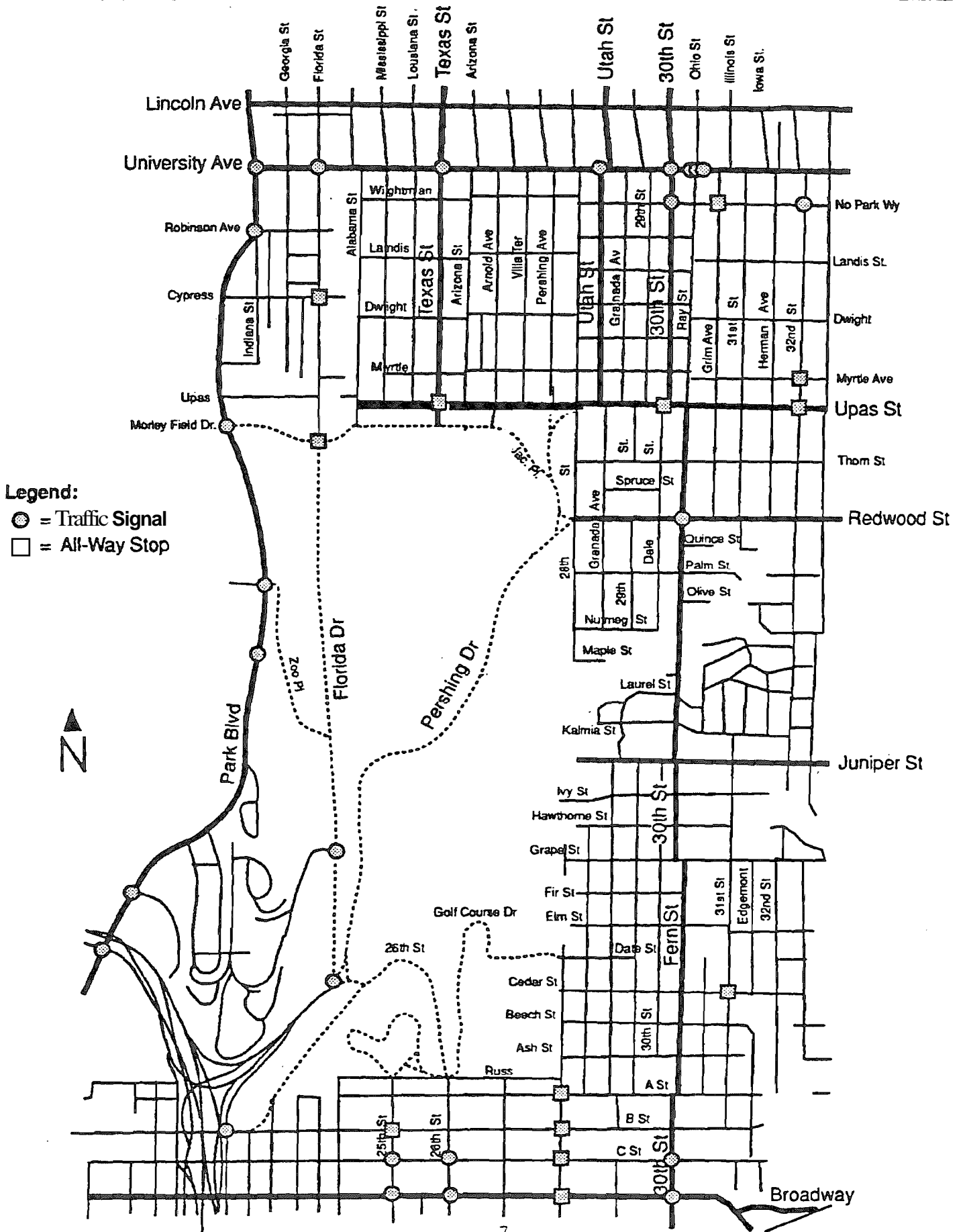
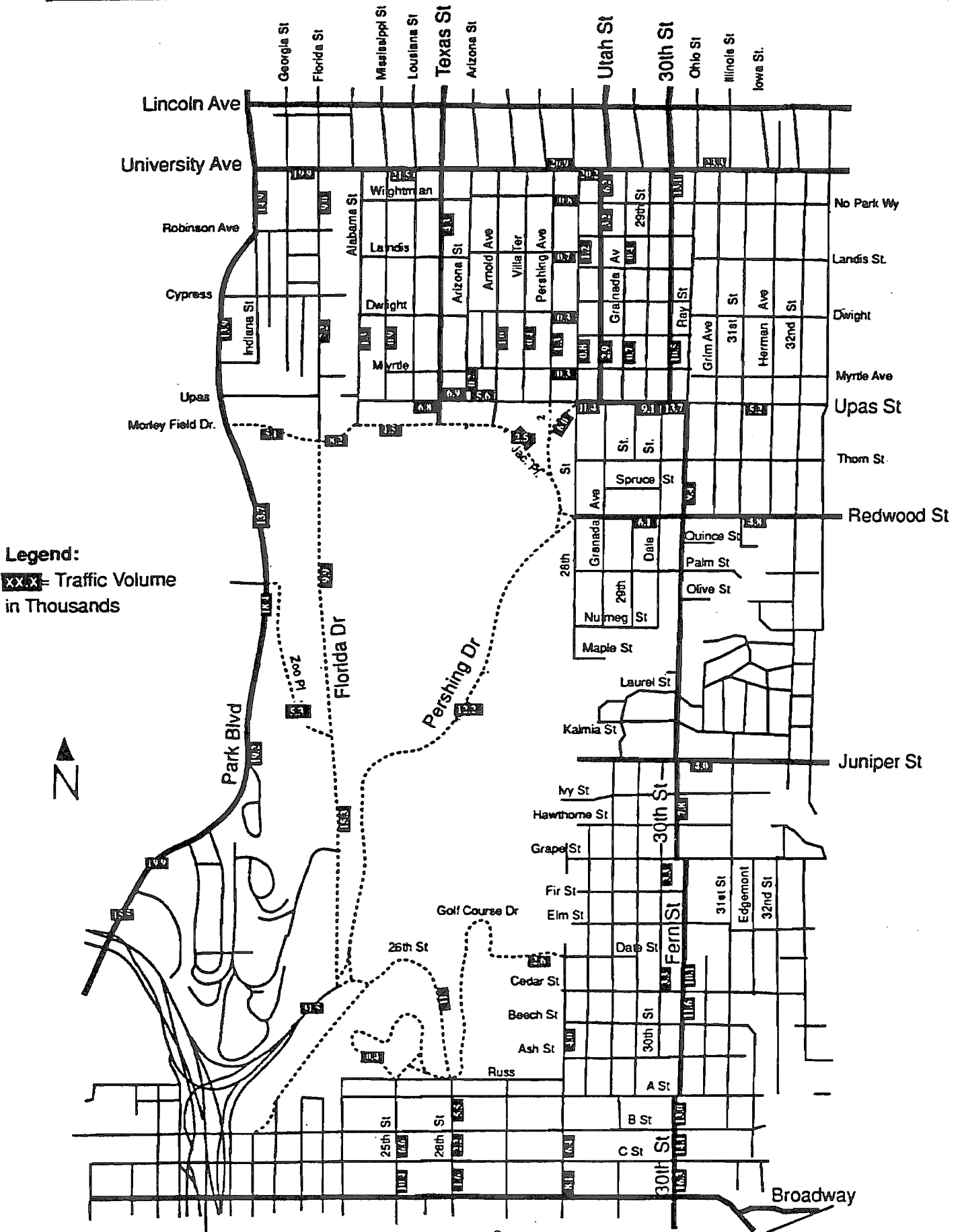


Figure 4

Existing Average Daily Traffic Volumes



- Upas Street: 6,800 vehicles per day (vpd) west of Texas Street and 13,700 east of 30th Street,
- 30th Street: 10,500 vpd north of Upas Street and 13,100 vpd south of University Avenue,
- Utah Street: 2,900 vpd near Upas Street,
- 28th Street: 800 vpd near Upas Street and 1,200 north of Landis Street,
- Pershing spur between Pershing Drive and Upas Street: 2,000 vpd,
- Arizona Street: 700 vpd north of Upas Street,
- Texas Street: 4,300 vpd,
- Florida Street: 7,200 vpd north of Upas Street,
- Park Boulevard: 18,400 vpd south of Zoo Place and 13,700 north of Zoo Place.
- 25th Street: 5,500 vpd south of A Street,
- 26th Street: 6,600 vpd between B Street and C Street,
- Florida Drive south of Zoo Place: 15,300 vpd and between Zoo Place and Morley Field Drive (where it is proposed to be closed) currently carries 9,900 vpd,
- Pershing Drive: 12,200 vpd,
- 26th Street north of Russ Boulevard: 1,100 vpd,
- Golden Hill Drive: 500 vpd.

All of the streets and intersections in the area generally function below capacity. However, shortcutting of traffic on some of the residential streets north of Upas Street is becoming a major source of concern to the adjacent residents.

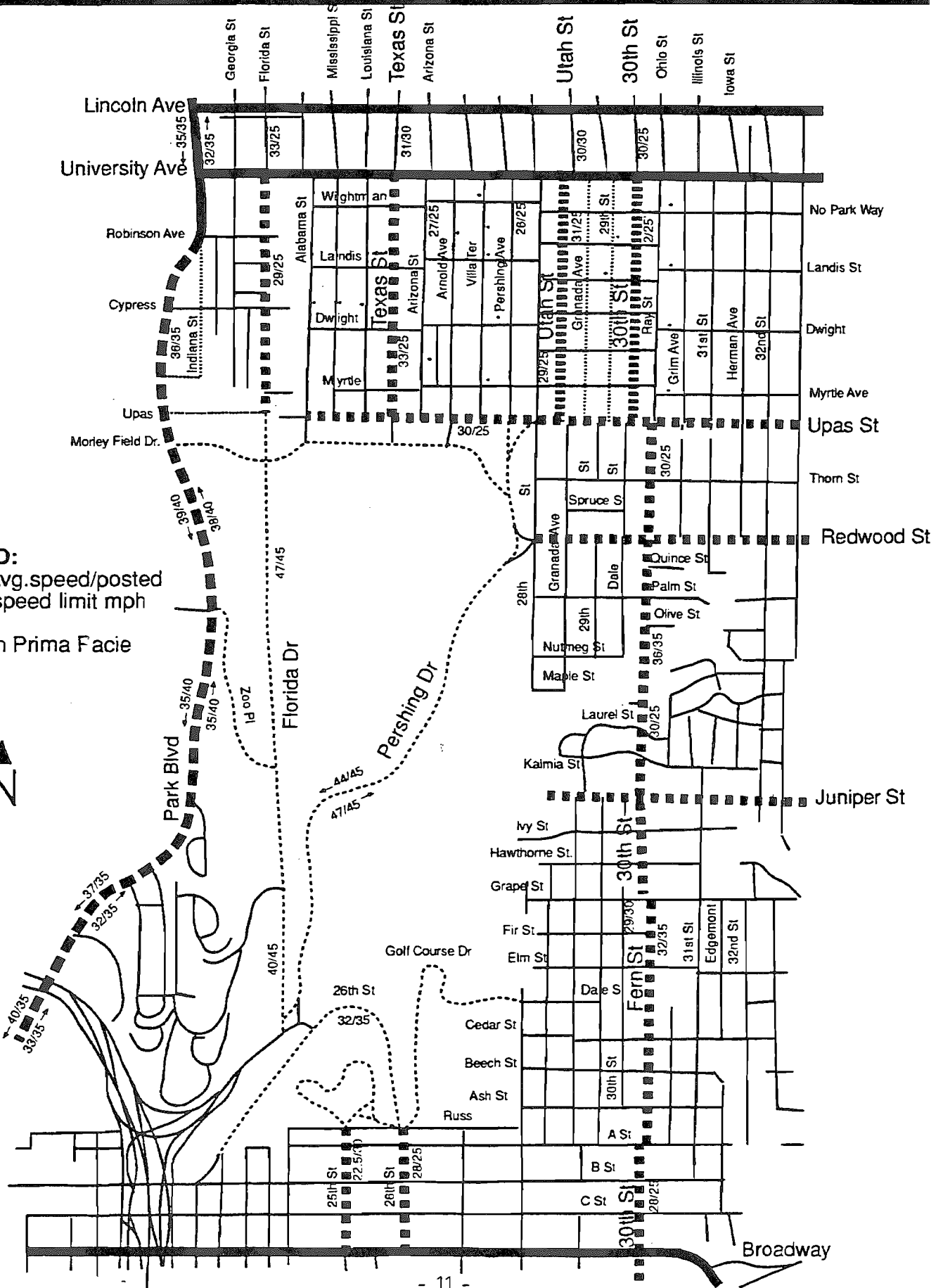
Average traffic speeds obtained from recent speed surveys **and** posted speed limits are **shown** in Figure 5. Speeding through residential streets is also a major source of concern to the area residents. In 1991, to reduce speeding, the City installed several road humps on **Granada** Avenue. **Installation** of road humps on **Granada** Avenue has reduced average speeds there by about 10 miles per hour. However, as shown on Figure 5, speeding continues to be a concern on some of the other residential streets in the **area**. For example, on 28th Street and **Utah** Street, both of which are posted 25 miles per hour, average speeds are 29 and 31 miles per hour, respectively. In addition to installation of road humps, speeding and **shortcutting** of traffic on residential streets may be curtailed through other means such as street closure and establishment of one-way streets.

Figure 5

Average Speed/Posted Speed

LEGEND:
 30/25=Avg. speed/posted speed limit mph

* 25 mph Prima Facie



III. ANALYSIS OF EXISTING TRAFFIC

In addition to the park's recreation centers, such as Morley Field Disk Golf Center, municipal pool, bicycle track, and tennis courts, East Mesa houses the Naval Hospital which is considered a major traffic generator. The hospital employs hundreds of medical and non-medical personnel, and attracts hundreds of patients and visitors on a daily basis.

Traffic on East Mesa area streets consist of two primary types of trip makers: 1) those who have trip destinations in the park such as park visitors and the park employees, and 2) those who do not use the park as their destination point. These include travelers using the park streets to get to businesses outside the park and those who use the park streets to go to work/home. The latter constitutes the majority of the second category and include people who Live north of Upas Street or east of 28th Street and work in the downtown area or beyond. On their way to work or back to home, they would utilize one or more of the three major streets (Pershing Drive, Florida Drive, and Park Boulevard) as part of their daily trip making effort. It is the intent of this traffic study to estimate how the traffic would be distributed after closure of Florida Drive between Zoo Place and Morley Field Drive, what the associated impact of this closure would be on area residential streets and how these impacts may be best mitigated.

From a traffic safety standpoint, there are two major areas of concern that may be aggravated due to future traffic increase and traffic diversion resulting from street network changes: 1) the intersection of Pershing Drive/Upas Street/28th Street, due to the fact that it is five legged with a high number of conflicting movements, has high approach speeds and an acute angle of intersection where Pershing Drive joins Upas Street, and 2) the northbound left turning volume

from the high speed Pershing Drive into Pershing Avenue. Listed in Table 2 are the number of accidents and the accidents on some of the **area** streets. The table also includes a comparison of these accidents rates with citywide accident rates for the years 1990 and 1991 for similar **types** of streets. As shown, all accident rates are well below citywide average rates.

**TABLE 2
ACCIDENT RATE COMPARISONS**

| STREET | LIMITS | AVERAGE DAILY TRAFFIC | # OF ACC. From 10/91 To 10192 | ACCIDENT RATE | CITY'S 1990 ACCIDENT RATE | CITY'S 1989 ACCIDENT RATE |
|-------------|--------------------------------|-----------------------------|-------------------------------------|------------------|---------------------------------|---------------------------------|
| Florida Dr | Pershing Av to Morley Field Dr | 12600 | 7 | 1.30 | 2.77 | 3.16 |
| Utah St | Upas St to University Av | 4100 | 1 | 1.31 | 2.77 | 3.16 |
| 30th St | Upas St to University Av | 11800 | 5 | 2.28 | 6.74 | 6.54 |
| Upas St | Alabama St to 28th St | 6400 | 1 | 0.89 | 2.77 | 3.16 |
| Upas St | Utah St to 30th St | 10200 | 1 | 1.34 | 2.77 | 3.16 |
| Park Bl | Village Pl to University Av | 15300 | 13 | 2.20 | 2.56 | 2.83 |
| Pershing Dr | 26th St to Upas St | 11000 | 6 | 1.04 | 2.56 | 2.83 |

Accidents per million vehicle miles.

IV. FUTURE FORECAST OF TRAFFIC

Year 2005 future traffic volumes for the area **streets** are shown on Figure 6. They are based on the City of San Diego's Greater North Park small area computerized traffic model. The original computer model included year 2005 runs with Florida Drive (between Zoo Place and Morley Field Drive) in and out.

In order to have a better understanding of future traffic behavior, and how it could impact the street system' to the north and south, five basic alternative street and intersection configurations were chosen. These alternatives were the sources of main concern to the community. Next, each alternative was further subdivided to reflect the potential mitigation measures for the alternative. Table 3 shows these various alternatives.

The base forecast includes the **full** street network as shown in Figure 6. All other future alternatives are compared to this computer run. Future Average Daily Traffic (ADT) on some of the park streets will be as follows:

- Florida Drive between Zoo Place and Morley Field Drive will carry 12,500 vpd,
- Florida Drive south of Zoo Place will carry 26,500,
- Pershing Drive will carry 19,000 vpd and Park Boulevard will carry 22,000 and 26,000 vpd south and north of Zoo Place, respectively,

Similarly, traffic on the non-park streets, north of Balboa Park, will have a moderate increase in traffic volumes:

Figure 6

**Year 2005 Forecasted Traffic Volumes
Florida Drive In**

Legend
 Traffic Volumes
 in Thousands

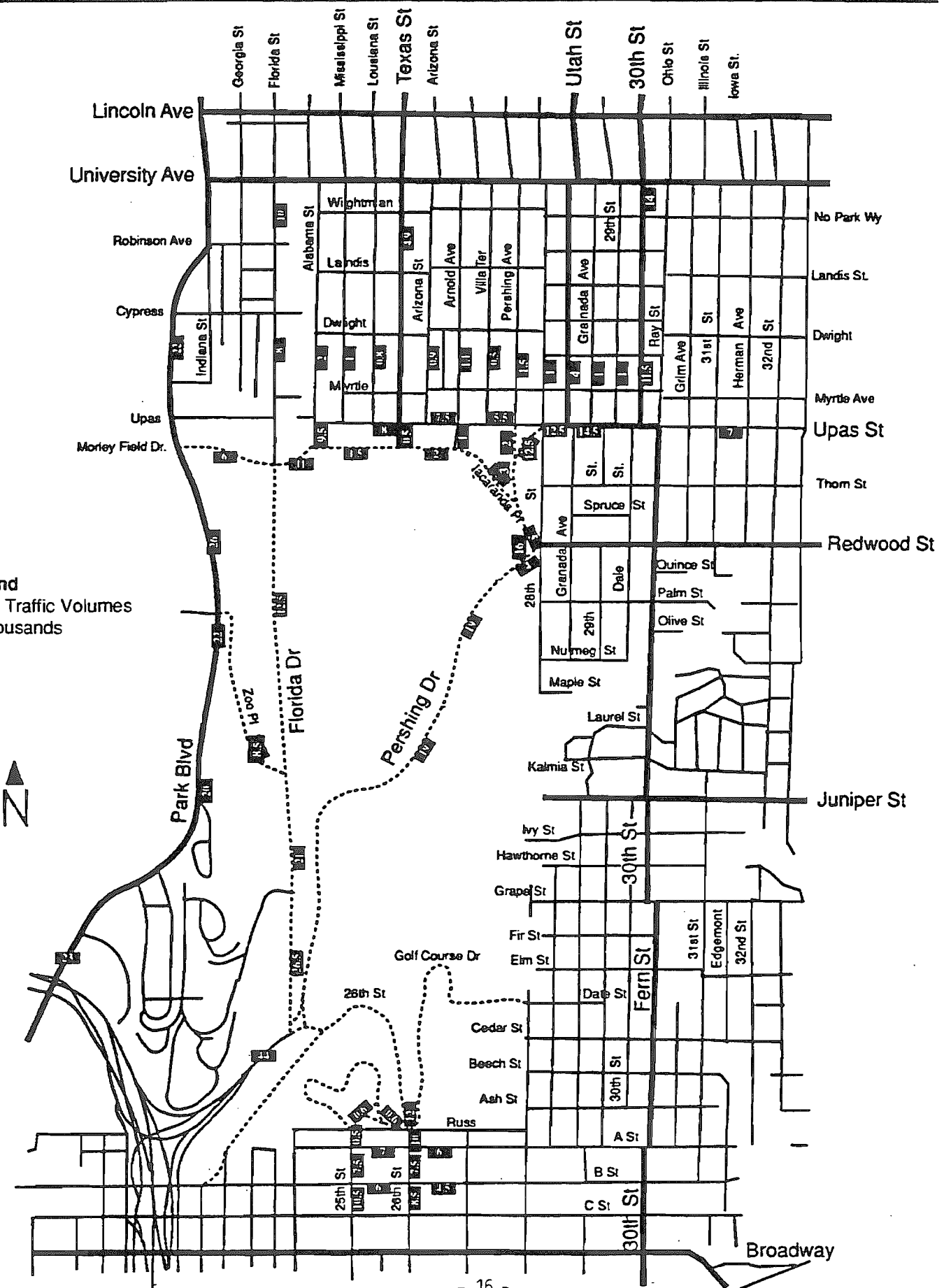


Table 3

| <u>Alternative</u> | <u>Street Network Changes</u> |
|--------------------|---|
| 0 | Future base forecast, same as existing network. (Figure 6) Without Florida Drive: south park entrance via 26th Street at Golden Hill Drive. (Figure 7) |
| 1-1 | Without Florida Drive: south park entrance same as existing. Without Florida Drive, Pershing Spur, and Jacaranda Place. South park entrance is via 26th Street. (Figure 8) |
| 2-1 | Same as Alternative 2. However, Pershing Drive is realigned to "T" into Upas Street. 28th Street is closed to vehicular traffic on both sides. Access to Pershing Drive from south 28th Street is through the existing Redwood Street spur. (Figure 9) |
| 2-2 | Same as Alternative 2. However, Pershing Drive is realigned to meet Upas Street halfway between Pershing Avenue and 28th Street. (Figure 10) |
| 2-3 | Same as Alternative 2-2. However, Pershing Avenue and 28th Street north of Upas Street are closed to vehicular traffic. (Figure 10) |
| 3 | Without Florida Drive, Pershing Drive (between Pershing Spur and Upas Street) and Jacaranda Place. South park entrance is via 26th Street. (Figure 11) |
| 3-1 | Same as Alternative 3. however, Pershing Avenue and 28th Street north of Upas Street are closed to vehicular traffic. (Figure 12) Without Florida Drive and Pershing Drive (between Pershing Spur and Upas Street). South park entrance is via 26th Street. (Figure 13) |
| 4-1 | Same as Alternative 4. However, Pershing Avenue and 28th Street north of Upas Street are closed to vehicular traffic. (Figure 14) |
| 5 | Without Florida Drive and Pershing Spur. South park entrance is via 26th Street. (Figure 15) |
| 5-1 | Same as Alternative 5. however, Pershing Drive is realigned to "T" into Upas Street. 28th Street is closed to vehicular traffic on both sides. Access to Pershing Drive from south 28th Street is through the existing Redwood Street spur. (Figure 16) |
| 5-2 | Same as Alternative 5-2. However, Redwood Street and Jacaranda Place are realigned to intersect Pershing Drive at right angles. (Figure 17) |

Upas Street will have 5,500 vpd west of 28th Street and 12,500 east of 28th Street to as much as 14,500 vpd at 30th Street,

30th Street will carry 11,500 vpd, north of Upas Street and 14,000 vpd at University Avenue,

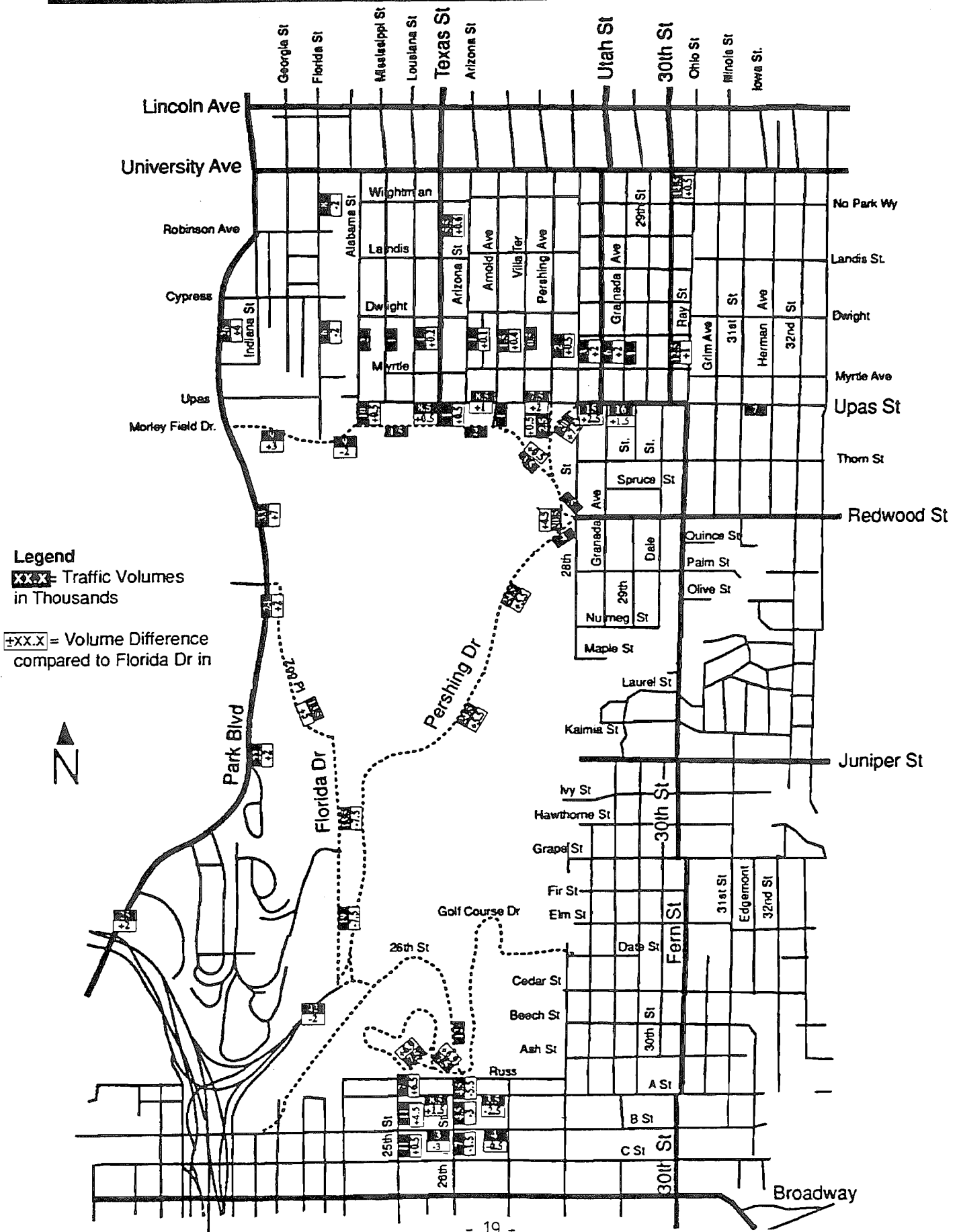
- Utah Street will carry 4,000 vpd,
- 28th Street will carry 1,000 vpd,
- Pershing Avenue, north of Upas Street, will carry 1,500 vpd,
- 25th Street will carry 8,500 vpd, north of C Street and 10,000 at Russ Boulevard,
- 26th Street will carry 10,500 vpd, north of C Street and 500 at Russ Boulevard,
- 26th Street north of Russ Boulevard, will carry 12,000 vpd.

A. Alternative 1

Figure 7 depicts the Alternative 1 computer run. In this alternative, Florida Drive between Zoo Place and Morley Field Drive is eliminated and the south park entrance is via 25th Street through Golden Hill Drive. Also shown in Figure 7 are the increase (or decrease) in traffic volume that would result because of the Florida Drive closure. Of the 12,500 daily traffic volume that Florida Drive would have carried, 5,500 vpd would use Pershing Drive, 5,000 use Zoo Place and 2,000 use Park Boulevard. Daily traffic volume on Pershing Drive at Upas Street **will** increase by 7,500 to 20,000. The high volume of traffic at the intersection of Pershing Drive/Upas Street/28th Street would require intersection signalization. This closure would also add 2,500 and 2,000 vpd east and west of Pershing Drive on Upas Street, 500 vpd on Pershing Avenue, 2,000 vpd each on 28th Street and Utah Street, and 1,000 vpd on 30th Street.

Figure 7

Alternative 1: Year 2005 Forecasted Traffic Volumes
 Florida Drive Out with Realignment of 26th Street at Golden Hill Drive



It should be noted that 28th Street (between Upas Street and Landis Street) currently carries 800 vpd and is projected to carry 1,000 vpd by year 2005 (with Florida Drive open); with Florida Drive closed there will be an increase of 2,000 trips, resulting in a total of 3,000 vpd. Due to 28th Street's Limited width, this traffic is more than the maximum desirable volume discussed in Table 1 for this street. To mitigate this condition, through traffic should be discouraged from using 28th Street. This may be accomplished by a number of measures, including installation of road humps or closure of 28th Street at Upas Street to vehicular traffic. This street closure could be accomplished through traffic signs and locked slip posts which could be opened by emergency vehicles, should the need arise. Pedestrians and bicyclists could go through at all times. Local traffic coming from the south could reach their destination via Utah Street. Local 28th Street traffic coming (or going) from the south is projected to be only 500 daily trips. As a result, its diversion on Utah Street will not have a significant impact there. Closure of Florida Drive will also result in a net increase of 6,000 daily trips approaching the intersection of Pershing Drive/Upas Street/28th Street requiring it to be signalized.

B. Relocation of Park's South Entrance

The Park and Recreation Department has proposed to relocate the park's entrance from 26th Street to 25th Street, via Golden Hill Drive. To fully study the traffic impact of this relocation, two sets of traffic assignments were conducted: 1) without Florida Drive while park entrance remains on 26th Street, and 2) without Florida Drive and with park entrance relocated.

The first assignment (i.e., eliminating Florida Drive without changing the park's entrance) showed that relocation of the southern park entrance will have no impact on the residential

streets north of **Upas** Street. However, traffic on 25th Street and 26th Street showed an increase of 1,000 and 2,000 vpd, respectively. This increase in traffic on 25th and 26th Streets is considered minor. The second assignment showed that should the elimination of **Florida** Drive be coupled with the changing of the south park entrance to 25th Street, via Golden Hill Drive (shown on Figure 7), 25th Street volume will increase by 6,500 vpd at Russ Boulevard (to a total of 7,000 vpd). Daily traffic volume on 26th Street would be reduced accordingly by about 5,500 (to 4,500 vpd). Since both 25th Street and 26th Street are designated as collector roads, from a traffic engineering standpoint, the shift in traffic due to the changing of the park entrance will not result in a significant impact there.

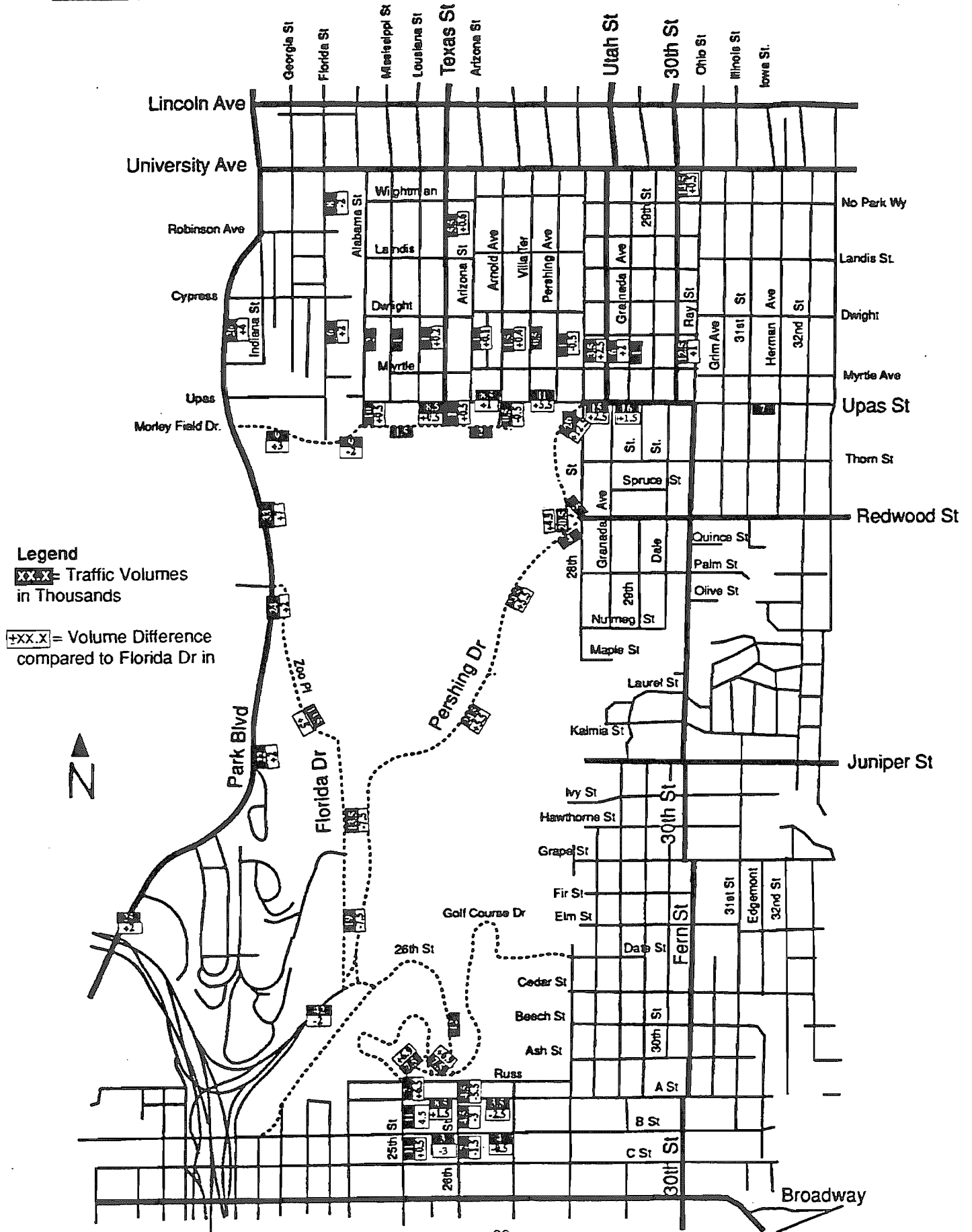
C. Alternative 2

Alternative 2 is shown in Figure 8. Also shown are increases (or decreases) in traffic volumes due to the street network changes. They include removal of Florida Drive (between Zoo Place and **Morley** Field Drive), Pershing spur between Pershing Drive and **Upas** Street, and Jacaranda Place. The southern entrance to the park is via 25th Street and Golden Hill Drive. Similar to Alternative 1, daily traffic increase on Pershing Drive (south of Jacaranda Place), Zoo Place, and Park Boulevard **will** be 5,500, 5,000, and 2,000 vpd, respectively.

With the elimination of Jacaranda Place and Pershing Spur, daily traffic on Pershing Drive at **Upas** Street will increase by 13,500 to 26,000 vpd. As a result, the intersection of Pershing Drive/**Upas** Street/28th Street will be severely impacted. Future daily turning volumes for this intersection is shown in Figure 9. The new traffic volumes at this intersection will yield several disadvantages including a five-legged intersection with high approaching volumes. Due to the

Figure 8

Alternative 2: Year 2005 Forecasted Traffic Volumes
 Florida Drive, Pershing Spur, & Jacaranda Place Out
 with Realignment of 26th Street at Golden Hill Drive



high number of conflicting movements in a five-legged intersection, it is generally considered undesirable. Other disadvantages of the new traffic volumes include an increase of 2,500 daily trips on 28th Street (for a total of 3,500 vpd) and a heavy (4,500 vpd) northbound left turn. High left turn volumes at intersections or at midblock locations are a source of traffic conflict and should be avoided, if possible. To mitigate these impacts, several alternatives are discussed below. It should be noted that under all these alternatives, the high traffic volumes at the intersection of Pershing Drive/Upas Street/28th Street would require intersection signalization.

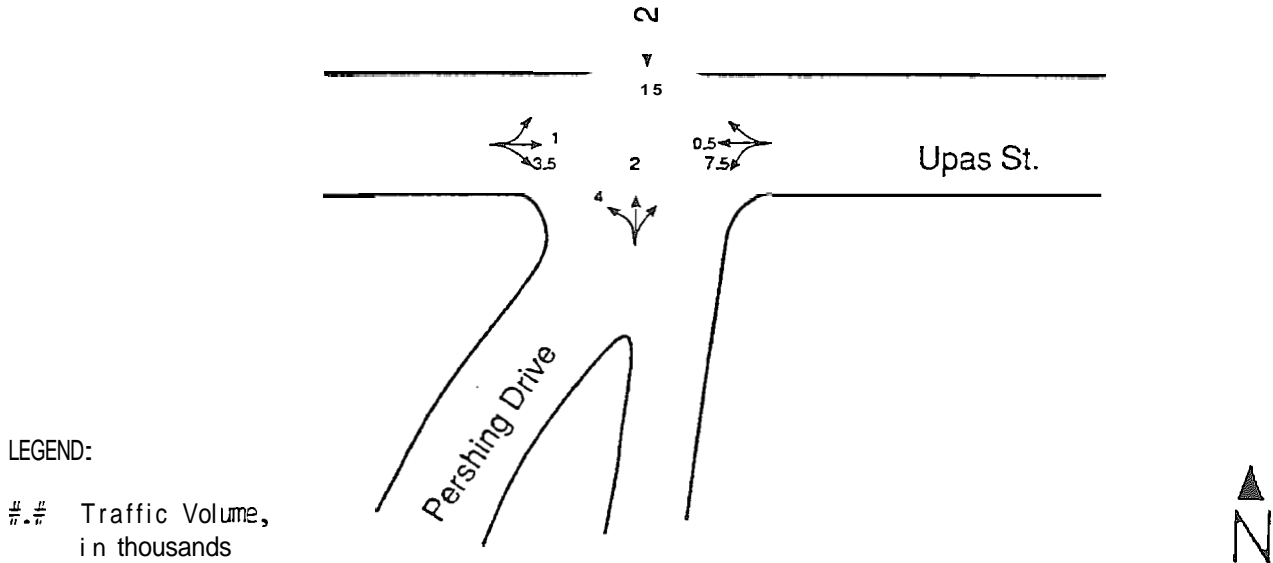
Alternative 2-1, as shown in Figure 9, would close 28th Street north and south of Upas Street. This will reduce the intersection to a "T" intersection that can accommodate the traffic in a more efficient manner. Closure of 28th Street north of Upas Street can be done by slip posts. However, closure of 28th Street south of Upas Street would require geometric modifications to separate 28th Street from Pershing Drive and Upas Street and to realign Pershing Drive. Access to Pershing Drive from south 28th Street would be through the existing Redwood Street spur.

Alternative 2-2 is shown in Figure 10. In this alternative, Pershing Drive is realigned to meet Upas Street half way between Pershing Avenue and 28th Street. The configuration has several disadvantages including an offset intersection that results in twice as many conflicting movements as a non-offset intersection (such as the one shown in Alternative 2-1). Very short block lengths (approximately 80 feet each) on Upas Street between Pershing Drive and 28th Street and Pershing Drive and Pershing Avenue further aggravates this condition. The high traffic volumes at this intersection would require it to be signalized. However, the glare of light and sound associated with a signalized intersection could have a negative impact on the Upas Street residence just across from Pershing Drive. In this alternative, daily traffic on 28th Street and

Figure 9

Alternative 2

FLORIDA DRIVE, PERSHING SPUR, AND JACARANDA PLACE OUT



Alternative 2-1

DESCRIPTION

- close 28th St north of Upas St
- perform geometric modifications to separate 8 St south of Upas St from Pershing Drive and Upas St
- realign Pershing Dr to "T" into Upas St
- signalize intersection of Pershing Dr and Upas St

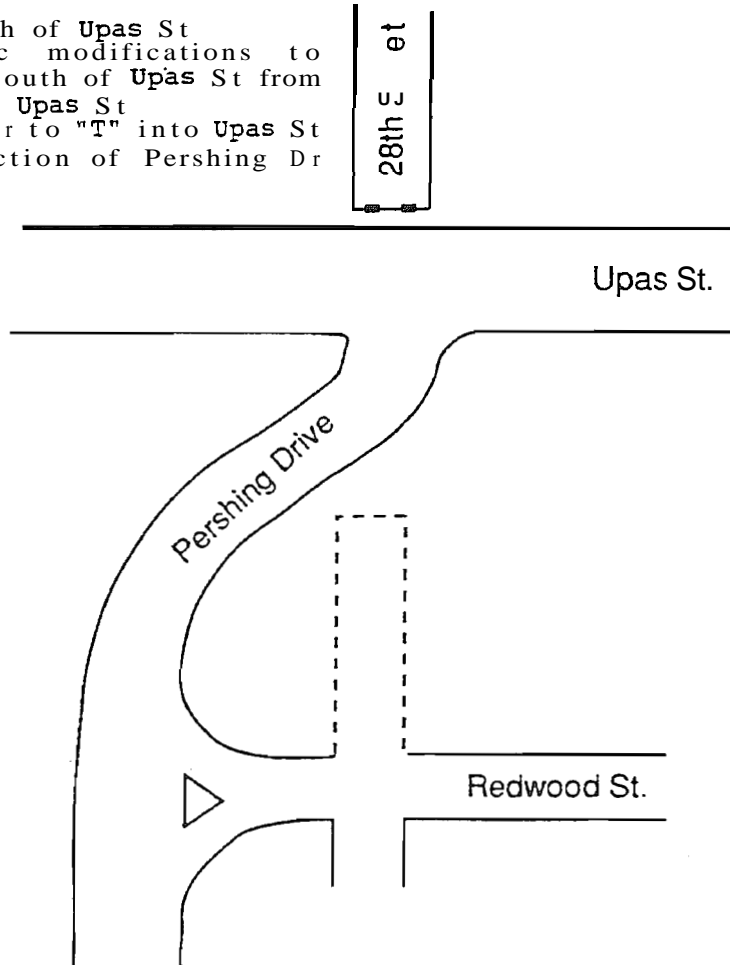
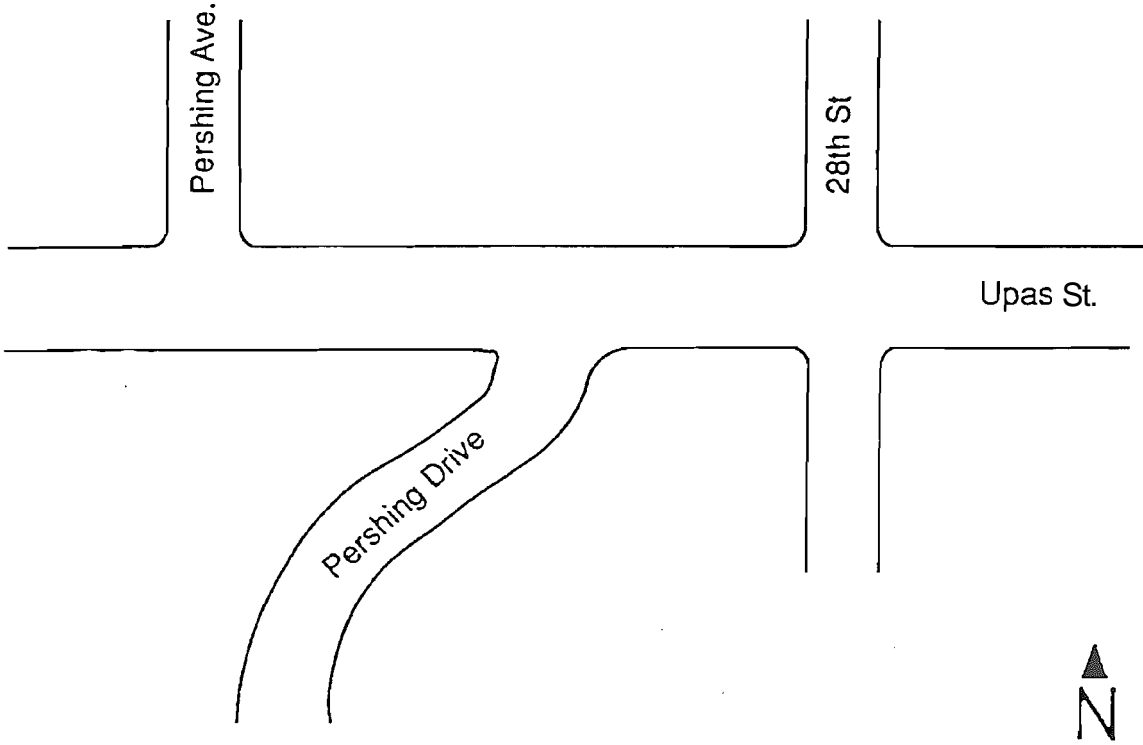


Figure 10

Alternative 2-2

DESCRIPTION

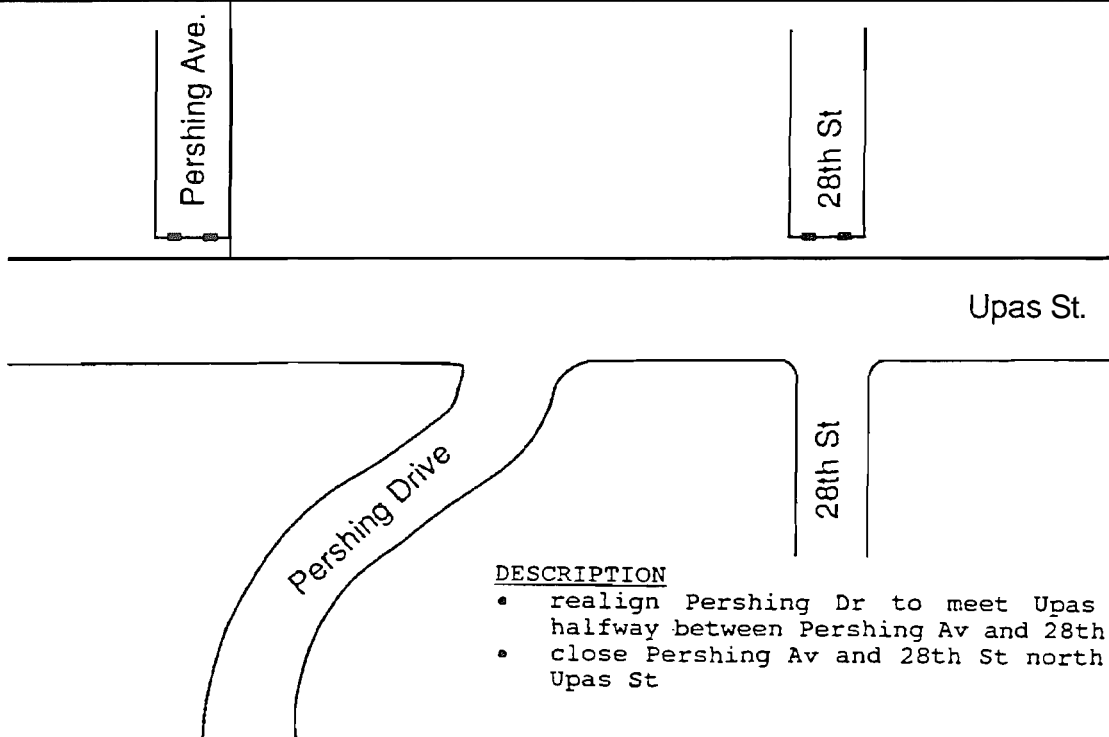
- realign Pershing Dr to meet Upas St halfway between Pershing Av and 28th St
- signalize intersection of Pershing Dr and Upas St



Alternative 2-3

DESCRIPTION

- realign Pershing Dr to meet Upas St halfway between Pershing Av and 28th St
- close Pershing Av and 28th St north of Upas St



Pershing Avenue would increase by 1,500 each to 2,500 and 3,000 vpd, respectively.

In Alternative 2-3, also shown in Figure 10, 28th Street and Pershing Avenue are both closed at Upas Street to vehicular traffic to discourage through traffic on these residential streets. The street closure will be accomplished through locked slip posts. The offset intersection configuration and its associated negative impact will still remain.

D. Alternative 3

Alternative 3 eliminates Florida Drive (between Zoo Place and Morley Field Drive), Pershing Drive between Pershing Spur and Upas Street, and Jacaranda Place. Pershing Drive is realigned to intersect Upas Street at Pershing Avenue. Entrance to the park is at 25th Street via Golden Hill Drive. Daily traffic volumes for Alternative 3 together with increases (or decreases) in traffic due to the street network changes are shown in Figure 11.

Similar to Alternatives 1 and 2, daily traffic increases on Pershing Drive (south of Jacaranda Place), Zoo Place, and Park Boulevard, due to the closure of Florida Drive will be 5,500, 5,000, and 2,000 vpd, respectively. However, due to consolidation of Pershing Spur and Pershing Drive, Pershing Spur traffic south of Upas Street will increase to 24,000 vpd.

Turning movement traffic volumes for the Pershing Avenue/Upas Street intersection are shown on Figure 12. This alternative will yield several disadvantages including increase of traffic volumes on Pershing Avenue (north of Upas Street) and on Upas Street (east of Pershing Avenue) to 5,000 and 14,000 vpd, respectively and high left turning volumes of 3,500 vpd on

Figure 11

Alternative 3: Year 2005 Forecasted Traffic Volumes
 Florida Drive, Pershing Drive, & Jacaranda Place Out
 with Realignment of 26th Street at Golden Hill Drive

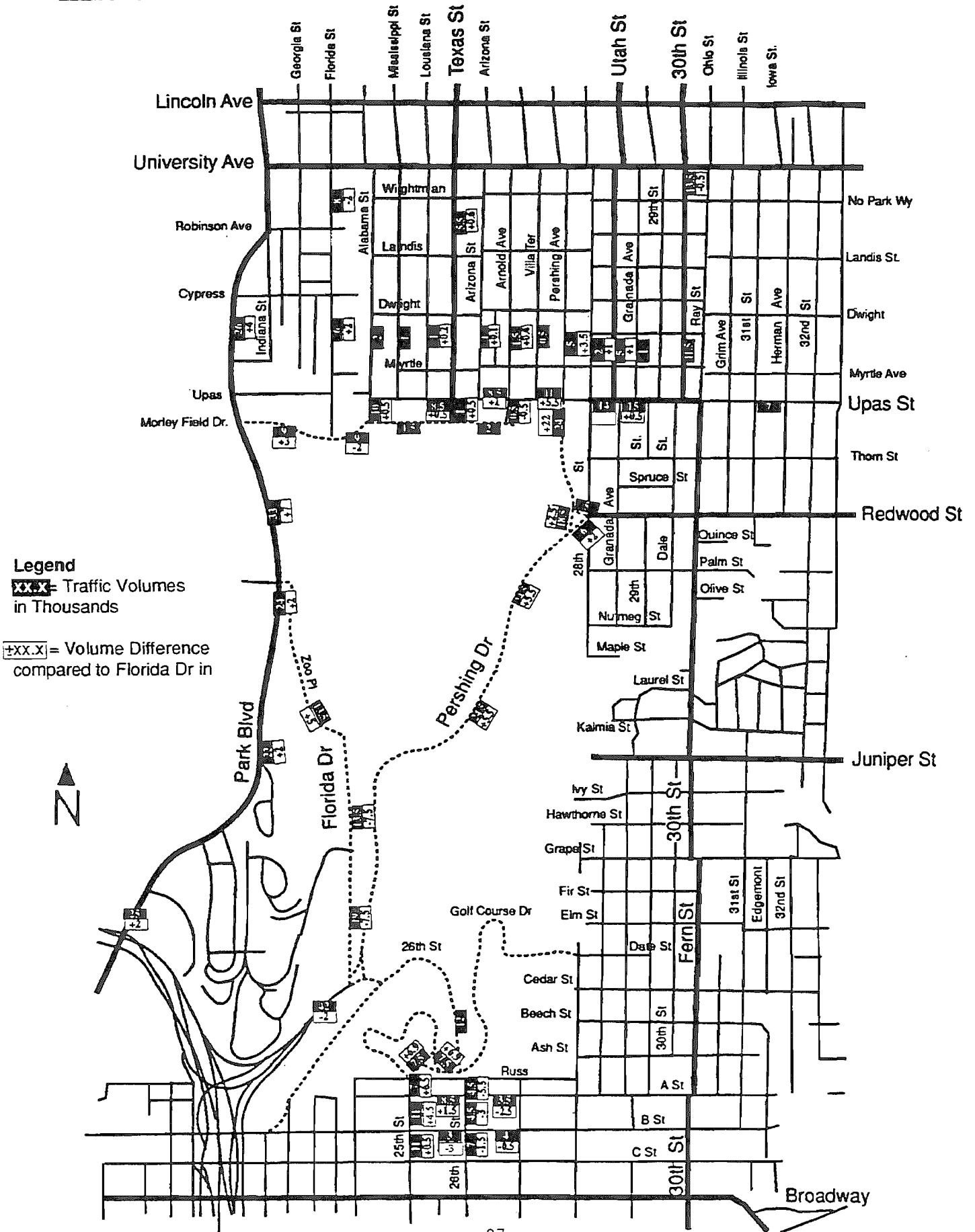
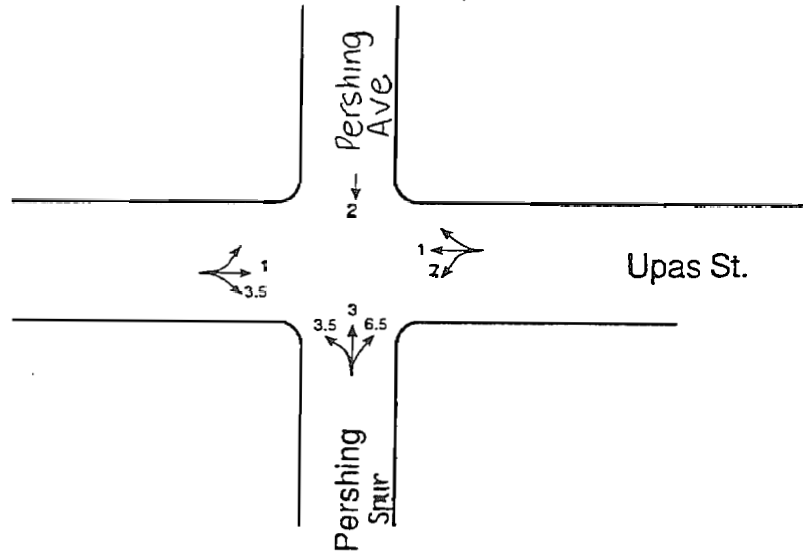


Figure 12

Alternative 3

FLORIDA DRIVE, PERSHING DRIVE, AND JACARANDA PLACE OUT



LEGEND:

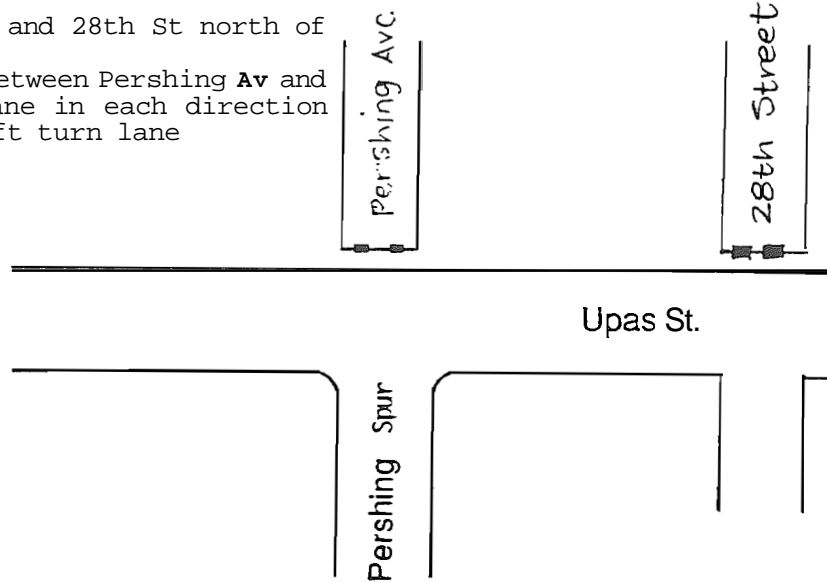
#.# Traffic Volume,
in thousands



Alternative 3-1

DESCRIPTION

- close Pershing Av and 28th St north of Upas St
- restripe Upas St between Pershing Av and 28th St to one lane in each direction plus a two-way left turn lane



northbound Pershing Spur and 7,000 vpd on westbound Upas Street. The 5,000 daily traffic volume on Pershing Avenue (north of Upas Street) is above the 3,500 maximum desirable volume for a local residential street as discussed in Table 1. Similarly, the 14,000 daily traffic volume on Upas Street (east of Pershing Avenue) is higher than the 9,000 maximum desirable volume for a two-lane collector street as discussed in Table 1. In addition, the high traffic volumes approaching the Pershing Drive/Upas Street intersection will require intersection signalization. Since the intersection is located at the crest of a vertical curve with high rate of descent on the west side, installation of additional signal heads would be necessary to improve the intersection visibility.

To mitigate the impact of increased traffic, Pershing Avenue north of Upas Street may be closed to vehicular traffic by locked slip posts (see Alternative 3-1, Figure 12). Similar to previous street closures, bicycles and pedestrians would be able to get through. Locked posts may be opened for emergency vehicles, as needed. Closure of Pershing Avenue would divert approximately 1,500 daily trips each to 28th Street and Villa Terrace. As a result, daily traffic on 28th Street will increase to 3,500 vpd, which is past its maximum desirable capacity of 2,500 vpd. To mitigate this, 28th Street should also be closed to vehicular traffic north of Upas Street. The total traffic volume on Villa Terrace will be 2,000 which is considered within the acceptable limit for this residential street. Closure of Pershing Avenue, north of Upas Street, together with intersection signalization would, to a great extent, mitigate the high northbound left turning volume on Pershing Drive.

The closure of Pershing Avenue and 28th Street will further increase daily traffic on Upas Street (west of Pershing Avenue) to 15,500. This is higher than the maximum desirable volume of

9,000 vpd for the two-lane section of Upas Street. It may be mitigated by restriping the street for three traffic lanes (one lane in each direction plus a two-way left turn lane in the middle). Intersection signalization would mitigate the high left turning volumes of 7,000 vpd on westbound Upas Street. It should be noted that elimination of the left turns from northbound Pershing Drive to Pershing Spur which is a direct result of combining Pershing Drive and Pershing Spur in this alternative would reduce traffic conflict and accident potential in this small angled junction.

E. Alternative 4

Alternative 4 eliminates Florida Drive (between Zoo Place and Morley Field Drive) and Pershing Drive between Pershing Avenue and Upas Street. The park entry to the south is at 25th Street and Golden Hill Drive. Daily traffic volumes for Alternative 4, together with increases (or decreases) in traffic due to the street network changes, are shown in Figure 13. This alternative is basically the same as Alternative 3 with the exception of Jacaranda Place remaining in place. This will increase the daily traffic on Jacaranda Place by 500, resulting in 3,500 vpd. Traffic increase on Pershing Drive south of Pershing Avenue and on Zoo Place and Park Boulevard would be the same as in Alternative 3. Daily traffic on Pershing Spur south of Upas Street will increase to 20,500 vpd.

Turning volumes for Alternative 4 are shown in Figure 14. Among the disadvantages for this alternative are the increase of traffic on Pershing Avenue, north of Upas Street to 5,000 vpd (which is higher than its 3,500 vpd maximum desirable volume), a high daily traffic volume on Upas Street, west of Pershing Avenue and the high westbound left turning volume on Upas Street and northbound left turning volume on Pershing Spur.

Figure 13

Alternative 4: Year 2005 Forecasted Traffic Volumes
 Florida Drive & Pershing Drive Out
 with Realignment of 26th Street at Golden Hill Drive

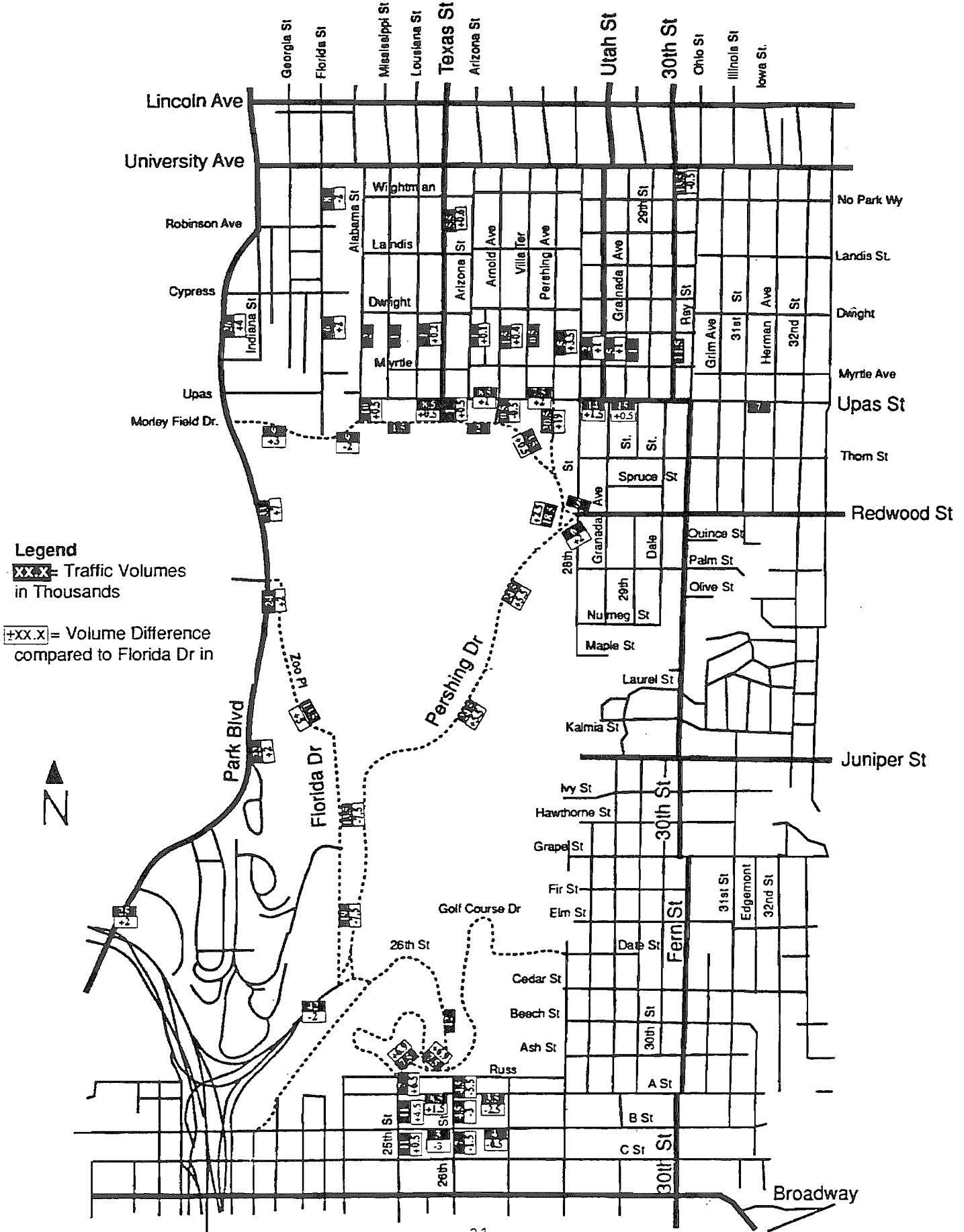
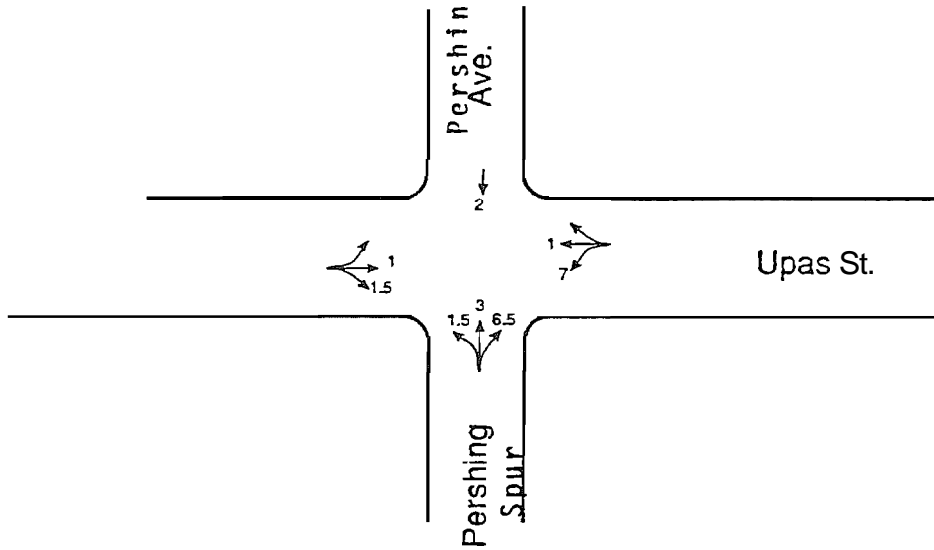


Figure 14

Alternative 4

FLORIDA DRIVE AND PERSHING DRIVE OUT



LEGEND:

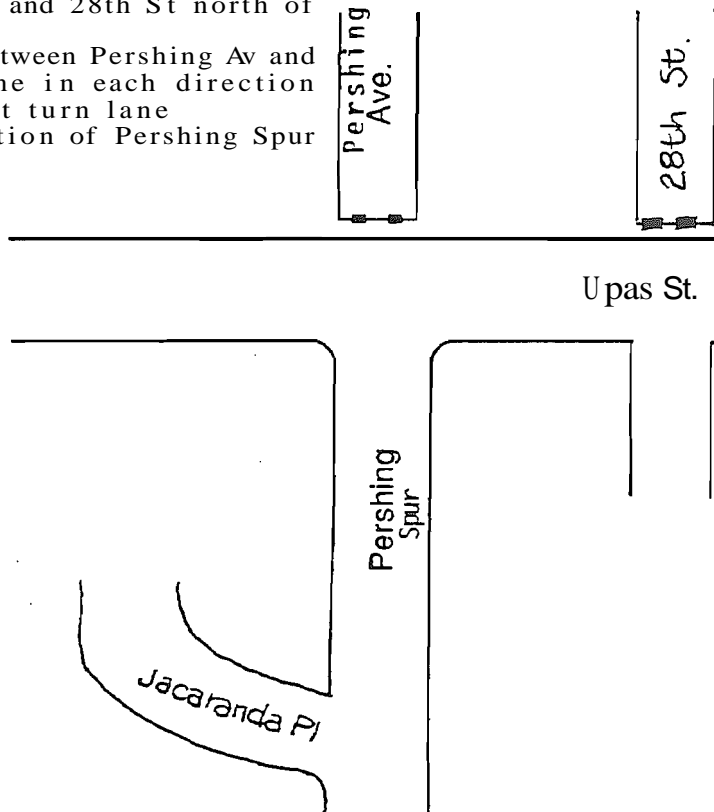
#.# Traffic Volumes,
in thousands



Alternative 4-1

DESCRIPTION

close Pershing Ave and 28th St north of
Upas St
restripe Upas St between Pershing Av and
28th St to one lane in each direction
plus a two-way left turn lane
signalize intersection of Pershing Spur
and Upas St



Similar to Alternative 3, excessive traffic on Pershing Avenue, north of Upas Street, may be mitigated by the closure of Pershing Avenue to vehicular traffic. In addition, to avoid diversion of traffic on 28th Street, it should also be closed to vehicular traffic. This is shown on Figure 14, as Alternative 4-1. Upas Street, east of Pershing Avenue would also need to be restriped to three lanes to accommodate the increased traffic. The westbound left turning volumes of 7000 vpd on Upas Street and 2,000 vpd on northbound Pershing Avenue would be mitigated by intersection signalization. Since this alternative combines Pershing Drive and Pershing Avenue, it removes the need for left turns from northbound Pershing Drive into Pershing Avenue, thereby reducing conflict and accident potential.

F. Alternative 5

Traffic forecast for Alternative 5 is depicted in Figure 15. It eliminates Florida Drive (between Zoo Place and Morley Field Drive) and Pershing spur between Pershing Drive and Upas Street. South park entry is via 25th Street through Golden Hill Drive. Traffic increase on Pershing Drive (south of Jacaranda Place), Zoo Place, and Park Boulevard will be 5,500, 5,000, and 2,000 vpd, respectively. Traffic on Jacaranda Place will increase to 4,000 vpd and on Pershing Drive at Upas Street to 22,000 vpd.

Turning volumes for this alternative are shown on Figure 16. This alternative will have several disadvantages including: an undesirable five-legged intersection, increased traffic on 28th Street to 3,500 vpd (which is higher than its maximum desirable volume of 2,500 vpd), and high westbound left turning volume of 7,000 vpd on Upas Street;

Figure 15

Alternative 5: Year 2005 Forecasted Traffic Volumes Florida Drive & Pershing Spur Out with Realignment of 26th Street at Golden Hill Drive

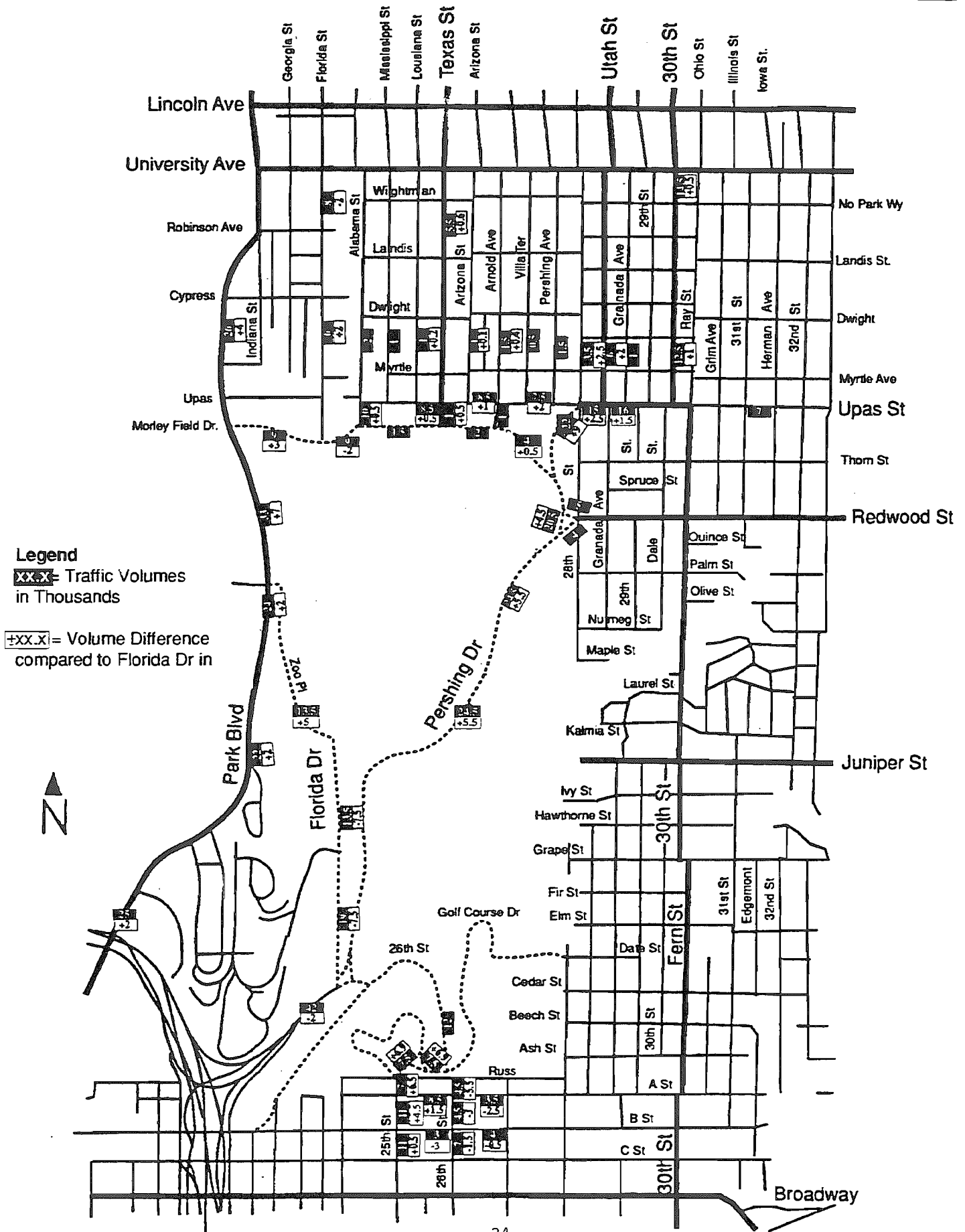
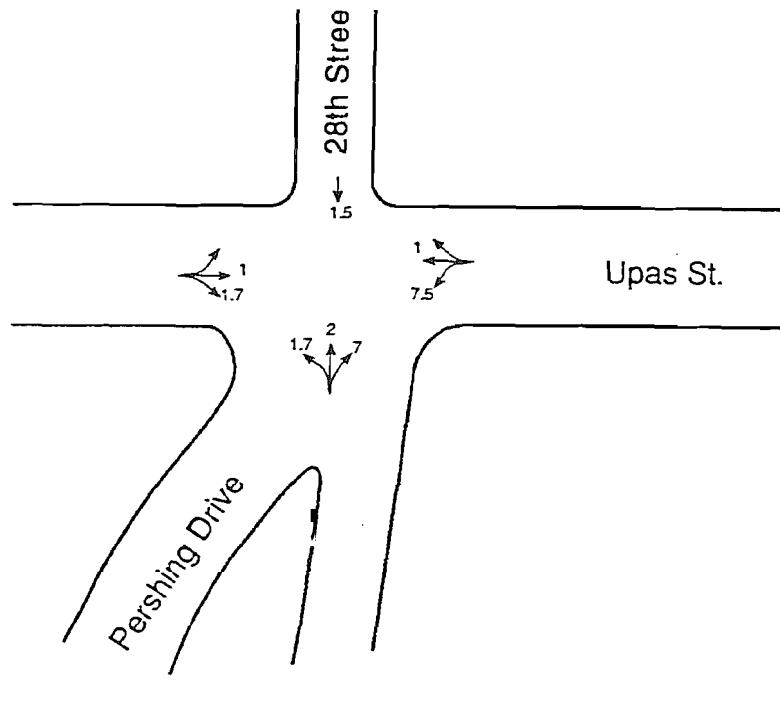


Figure 16

Alternative 5

FLORIDA DRIVE AND PERSHING SPUR. OUT

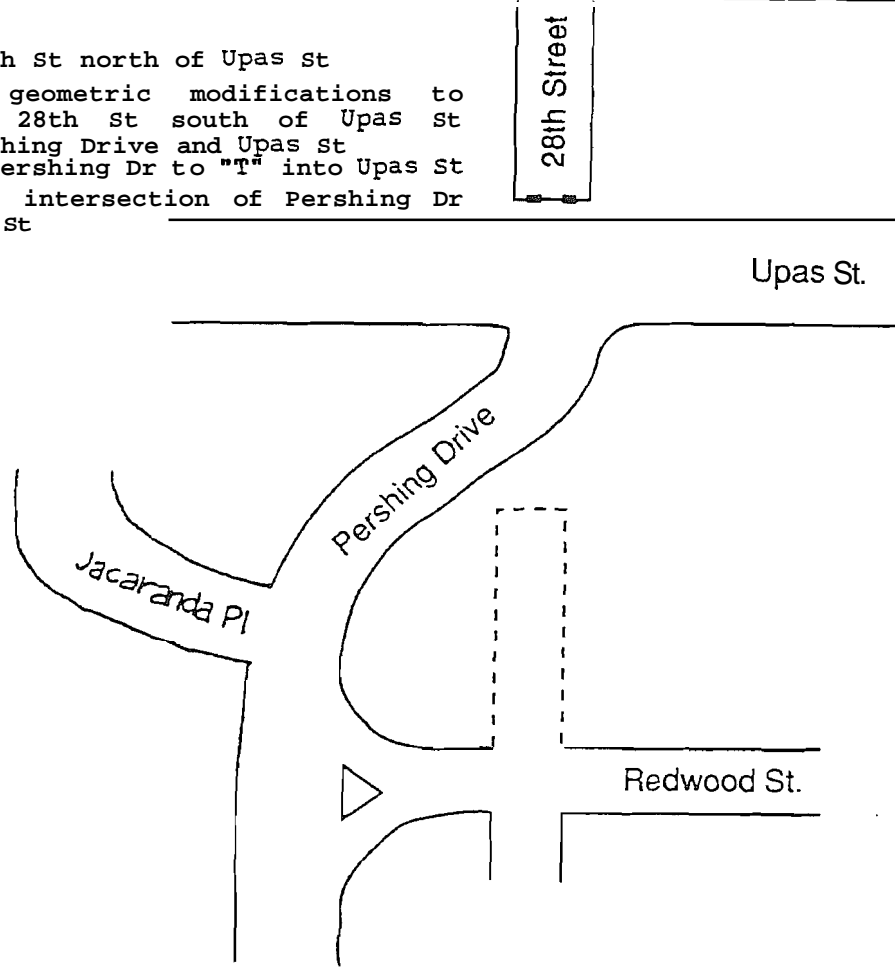


LEGEND:
 #.# Traffic Volumes,
 in thousands

Alternative 5-1

DESCRIPTION

- close 28th St north of Upas St
- perform geometric modifications to separate 28th St south of Upas St from Pershing Drive and Upas St
- realign Pershing Dr to "T" into Upas St
- signalize intersection of Pershing Dr and Upas st



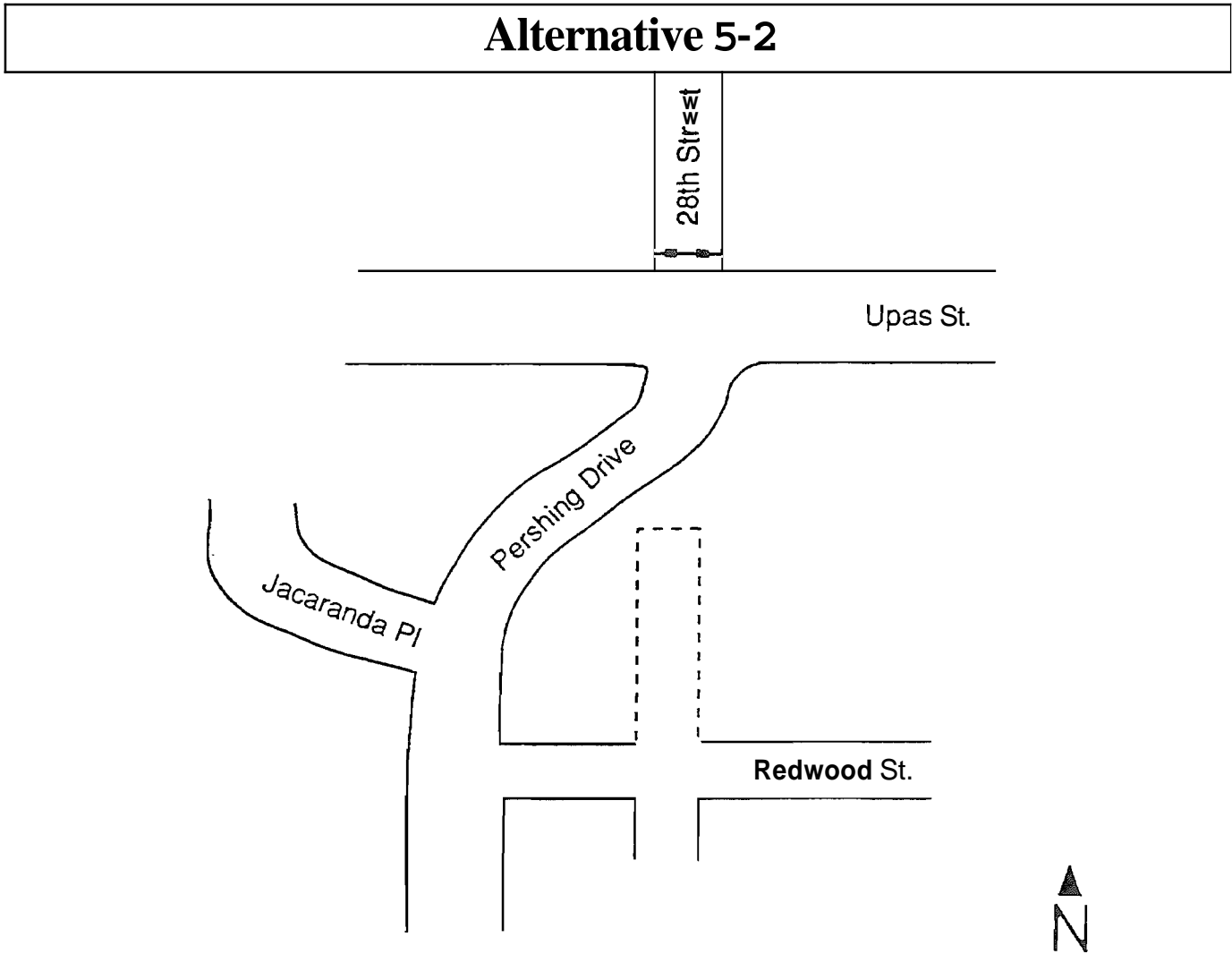
Alternative 5-1 (Figure 16) depicts the mitigation for the alternative. The intersection is reconfigured the same as one discussed in Alternative 2. As shown in Figure 13, 28th Street north of Upas Street will be closed through locked slip posts. The Pershing Drive/Upas Street/south 28th Street will be signalized and reconfigured to separate south 28th Street from Pershing Drive and Upas Street and realign Pershing Drive. Access to Pershing Drive and Upas Street from 28th Street would be through the existing Redwood Street spur and other streets in the vicinity. It should be noted (that contrary to Alternative 2), since this alternative does not remove Jacaranda Place from the network, the northbound left turning volume on Pershing Drive will be a manageable 1,700 vpd and much lower than the 5,500 vpd for the same movement in Alternative 2.

Alternative 5-2, depicted in Figure 17, is basically the same as Alternative 5-1, except that Redwood Street is realigned to join Pershing Drive at a right angle. Furthermore, Jacaranda Place is also realigned to "T" into Pershing Drive at an angle close to 90 degrees. The new geometric configuration will provide sufficient distance on Pershing Drive between Redwood Street and Jacaranda Place to better accommodate southbound and northbound Pershing Drive traffic -turning left into and out of Redwood Street and Jacaranda Place, respectively. The Pershing Drive/Upas Street/28th Street configuration will be the same as one showed in Alternative 5-1.

G. University Avenue/Lincoln Avenue Corridor

The City's Engineering and Development Department, with concurrence from area businesses and residents has proposed to improve the University Avenue/Lincoln Avenue corridor, from

Figure 17



DESCRIPTION

- realign Redwood St and Jacaranda Pl to **intersect** Pershing Dr at 90-degree angles
- close 28th St north of **Upas St**
- perform geometric modifications to separate 28th St south of **Upas St** from Pershing Drive and **Upas St**
- realign Pershing Dr to "T" into **Upas St**
- signalize intersection of Pershing Dr and **Upas St**

Utah Street to Swift Avenue, to provide additional capacity, safety, and efficiency.' The improvements include providing three traffic lanes on University Avenue (two lanes in the eastbound direction and one lane in the westbound direction) and three traffic lanes on Lincoln Avenue (one lane in each direction plus a two-way left turn lane in the middle). The improvements also include removing the existing cross drainage gutters at numerous Lincoln Avenue intersections and signaling the existing all-way stops at Lincoln Avenue/Utah Street and 32nd Street/Lincoln Avenue intersections. Some elements of the corridor improvements including conversion of University Avenue to a three lane roadway have already been implemented. Other elements of it are in the final planning stages.

The University Avenue/Lincoln Avenue corridor is parallel to Upas Street and several blocks north of it. Some of the future traffic carried through the park will ultimately reach and join or cross this corridor. Since the improved corridor will provide additional capacity and more efficiency, it would be able to accommodate this traffic better. The new and efficient University Avenue/Lincoln Avenue corridor is not expected to increase traffic (or have any other negative impact) on the residential streets between Upas Street and University Avenue in the study area.

V. CONCLUSION

The overall goals of this study was to examine the traffic impacts of the proposed transportation improvements identified in the East Mesa Precise Plan on the surrounding street system to the north of the Precise Plan area and to identify potential mitigation for those impacts.

From a traffic engineering perspective, Alternatives 2-1, 5-1, and 5-2, which call for the realignment of Pershing Drive to 28th Street, are preferred because the realignment will reduce vehicle conflicts and minimize traffic impacts on Upas Street west of 28th Street where the street narrows to two lanes. Of these mitigation measures, the Traffic Engineering Division considers Alternative 5-2 to be the most preferable. Besides the Florida Drive closure and the realignment of Pershing Drive, this alternative calls for the closure of 28th Street north and south of Upas Street, and the realignment of both Redwood Street and Jacaranda Place to intersect Pershing Drive at 90-degree angles. This alternative both promotes traffic safety and minimizes traffic impacts on the surrounding residential neighborhood.

§1. APPENDIX 1

Community's List of Traffic Concerns

City of San Diego
MEMORANDUM

FILE NO.: TR 182,848

DATE: October 22, 1992

TO: Distribution

FROM: Sid Pazargadi, Associate Traffic Engineer, Traffic Engineering Division

SUBJECT: **TRAFFIC STUDY FOR EAST MESA PRECISE PLAN, BALBOA PARK**

The Park and Recreation Department requested the Engineering and Development Department to study the traffic issues associated with the East Mesa Precise Plan for Balboa Park. Based on input from the community and the Park and Recreation Department, Traffic Engineering Division staff has assembled the following list of concerns to be addressed in the traffic study.

1. How much traffic will travel north on Pershing (ending up at the 5-way intersection at Pershing/Upas/28th) following the closure of Florida Canyon, Jacaranda and the Pershing "spur"?
2. Can Jacaranda be left open to permit access to the west side of the park from Pershing . . . perhaps as a 4-way intersection with Redwood (might require the intersection be reconfigured)?
3. No designated residential street should become a de factor "collector" street because of changes within the park.
4. No residential street should be designated a one-way street to accommodate changes within the park, although one-way streets may be considered for general control of traffic on residential streets.
5. What is the best way to divert the anticipated traffic flow going north on Pershing onto the designated collector streets and, most importantly, into the North Park business district?
6. How much will traffic increase along Upas when the Florida Canyon closure is made, especially going west?
7. Upas residents are concerned about traffic noise and would like to avoid unnecessary stops (current intersection configuration is OK with existing traffic flow).
8. Any study done should be coordinated with existing traffic studies/plans already in place for North Park and Golden Hills, i.e., the Greater North Park Community Plan and the "couplet" currently proposed linking University and Lincoln Avenues.
9. Loss of on-street parking in the area should be minimized.

10. Traffic flow to 30th Street would enhance the commercial area and should be encouraged.
11. Traffic impact of relocating park entrance from 26th Street to 25th Street should be studied.
12. During the course of the study, problems and opportunities may arise that should be identified.

If you have any questions or concerns regarding this subject, please contact me at 236-6714.



Sid Pazargadi
Associate Traffic Engineer

SP:ml

Distribution:

Phyllis Shess, 28th Street and North Park Community Association
Mark Hannon, North Park Business Association
James Ray, Greater Golden Hill
Patricia Anderson, Balboa Park/Morley Field Safe Neighborhood Committee
Mike Exel, Upas Resident
Max Stahlheim, North Park Community Planning Group
Neil Hyytinen, Third Council District
Debra Sharpe, Park & Recreation Department
Gary Halbert, Traffic Engineering Division

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