
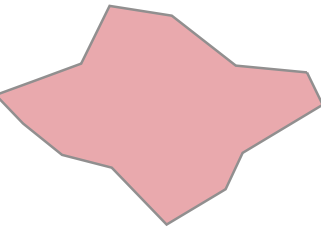
















PROGRAM ELEMENTS

-  **NODE** = INTERACTIVE INTERPRETIVE STATIONS INCORPORATING PLAY AND INTERPRETATION OF SITE'S HISTORY AND ECOLOGY AS WELL AS SHADE AND SEATING
-  **DOG PARK** = OFF-LEASH DOG AREAS BORDERED BY CONCEALED FENCING SYSTEM

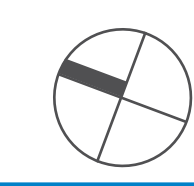
-  **ACCESSIBLE LOOP TRAIL**
-  **PRIMARY TRAILS**
-  **SECONDARY TRAILS**
-  **FUTURE RUFINA ST. TRAIL**

-  **VEHICULAR ACCESS**
-  **PEDESTRIAN ACCESS**
-  **FENCE**
-  **POST AND CABLE FENCE** = RESTRICTS VEHICULAR ACCESS WHILE ALLOWING PEDESTRIAN ACCESS

-  **EXISTING TREES**
-  **PROPOSED VEGETATION**
-  **CATCHMENT BASINS**
-  **50 FOOT OFFSET BUFFER**
-  **BERMING**
-  **SWALE**



CONCEPTUAL LAYOUT DIAGRAM
SANTA FE COUNTY SOUTH MEADOWS OPEN SPACE • NOVEMBER 2012



SCALE: 1"=50'-0"

MORROW REARDON
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SOUTH MEADOWS OPEN SPACE MANAGEMENT PLAN



SANTA FE COUNTY OPEN SPACE & TRAILS PROGRAM

Prepared By: Kina R. Murphy
Global Conservation Assistance
August 22, 2006

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Executive Summary

This management plan is designed to help guide the development of Santa Fe County Open Space and Trails Division's (SFCOT) South Meadows Open Space property (the Open Space, South Meadows). The vision, goals, objectives and designs presented in this plan for the 22 acre site, were developed by community members who live adjacent to South Meadows along with elementary school children and teachers from the surrounding schools. The community is the driving force behind the planning process and it is therefore envisioned that the majority of the management and development of the open space can be done by community members and schools. This document provides an overview of the planning process and a detailed description of the development and management needs, as well as an initial management and implementation strategy for the park.

This document includes:

Chapter I

Chapter one is an introduction to the South Meadows Open Space and the County Open Space and Trails Program. It explains how the park was purchased, the community involvement process and how the park is currently being used.

Chapter II

Chapter two focuses on the exceptional resources within the property. It talks about the natural and cultural history of the place and provides a detailed list of plant species found there. It also provides the reader with a map showing the proximity of all the schools to the open space.

Chapter III

Chapter three includes the vision, goals and objectives for South Meadows. The development of the park is divided into three broad phases. The first phases represent the general development of the park with access points and facilities. Phase two represents the development of educational and interpretive themes as well as more focused recreational opportunities such as a playing field and community gardens. The final phase focuses on linking the park to a network of trails on Santa Fe's south side and other parks in the immediate vicinity.

Chapter IV

Chapter four divides the park into three management units: arts and culture; vegetation and habitat; and security and maintenance. Under each management unit there are specific issues that must be addressed and management needs were created to deal with each issue. This allows the reader to determine if each management need has been addressed in chapter five –the implementation strategy chapter.

Chapter V

This chapter is also divided into three phases of implementation. Unlike chapter two, this chapter only deals with the development of facilities and services within the park. It does not include linking the park to trails or other parks in the area. Phases one through three in this chapter indicate what facilities will be created, gives suggestions for their location and who may be responsible for implementing each management objective or creating each facility.

CHAPTER I



INTRODUCTION

Chapter I



Introduction

The Santa Fe County Open Space and Trails Division

The Santa Fe County Open Space and Trails Program aims to preserve cultural, historical, and recreational open spaces and trails within the Santa Fe County. The County acquires properties for the open space network with the intent to preserve open space and trails for present and future generations. The County Open Lands and Trails Planning and Advisory Committee (COLTPAC) was organized to advise the Board of County Commissioners (BCC) on the planning and management of the open space program, as well as to make recommendations to the Board regarding purchase of properties to include in the counties inventory. The South Meadows Open Space property was identified as a significant community resource by community members and COLTPAC in 2000, and was approved for acquisition by the BCC in 2001.

High Density Housing Surrounding South Meadows Park

Background

The South Meadows Open Space Park is a 22 acre parcel owned by Santa Fe County and managed by the County's Open Space and Trails Division. The property is located between Agua Fria and Airport Road, where South Meadows road intersects Rufina. The property is undeveloped and was purchased for the specific purpose of providing open space to communities on Santa Fe's South Side. The South Meadows Open Space creates a unique opportunity to provide a relatively large parcel of open space to the community in a rapidly urbanizing area of the greater Santa Fe Metro Area.





Community members who live near the site were instrumental in the purchase of the property. The Morning Drive Community, noticing that the land around them was being developed at an alarming rate first contacted the County to propose that it buy the 22 acre vacant lot adjacent to their housing development as part of the County's new open space initiative. The County responded quickly and purchased the land in 2001. The property was purchased as an open space park but has remained closed to the public pending development of a management plan. In 2005, Global Conservation Assistance (GCA), a local not-for-profit located on Jemez Road near the open space offered the County assistance in beginning the planning process and developing a management plan for the park. This management plan is the result of collaboration with community members, schools, various professional advisors, local children, GCA and County staff.



Current use

Currently, the site is used by residents for walking, jogging, and dog walking. Local children have built forts and play in the open space on a regular basis. The open space is also used as a pedestrian short cut for the Jemez –Agua Fria Road residents to access businesses on Airport Road. Ramirez Thomas Elementary School has been integral in the planning process. Over 120 students have visited the park throughout the planning process to give their input on the facilities and activities they feel should be created at the park; to pick up trash; and to GPS existing trails, access points and natural resources. Students have also used GIS software in the computer lab at Ramirez Thomas to map all of their GPS points. As a result, it has already become an outdoor classroom for local schools. Because of the involvement of the Morning Drive Community and the schools, the community already feels a strong sense of ownership toward the park. The Morning Drive Community Initiated the purchase of the park, and the entire surrounding community has created the vision, goals, and objectives for the park.

Santa Fe County Open Space & Trails Division



Intent and Process

The intent of phase I of the planning process is to develop a community directed management plan for the park that includes:

- A resource inventory and assessment;
- The types of uses that may be compatible with the property;
- A site design to guide infrastructure and facility development; and
- A management structure based on long-term community stewardship of the site.

The County plans to initiate development of the property based on the park designs and principles presented in this document. The plan was developed through a community planning process and facilitated by Santa Fe County, GCA, and the National Park Service –Rivers Trails and Conservation Assistance Program. It is intended to be a guide and

South Meadows Open Space Management Plan

foundations that can be built upon, with recommendations from the community clearly outlined

The process of developing the management plan included:

- Initial scoping meetings between the County, Global Conservation Assistance, and the National Park Service -RTCA.
- The formation of a steering committee comprised of community members, local school teachers and students, and other interested stakeholders.
- A site analysis
- The development of a management scenario by the community steering committee, GCA, NPS and the County
- Community planning meetings
- Input from elementary school students
- Santa Fe Public Schools educator planning meetings
- Site visits by schools to GPS existing conditions
- A Community design charette
- A broad community outreach event to present the draft management plan

CHAPTER II



EXCEPTIONAL RESOURCES

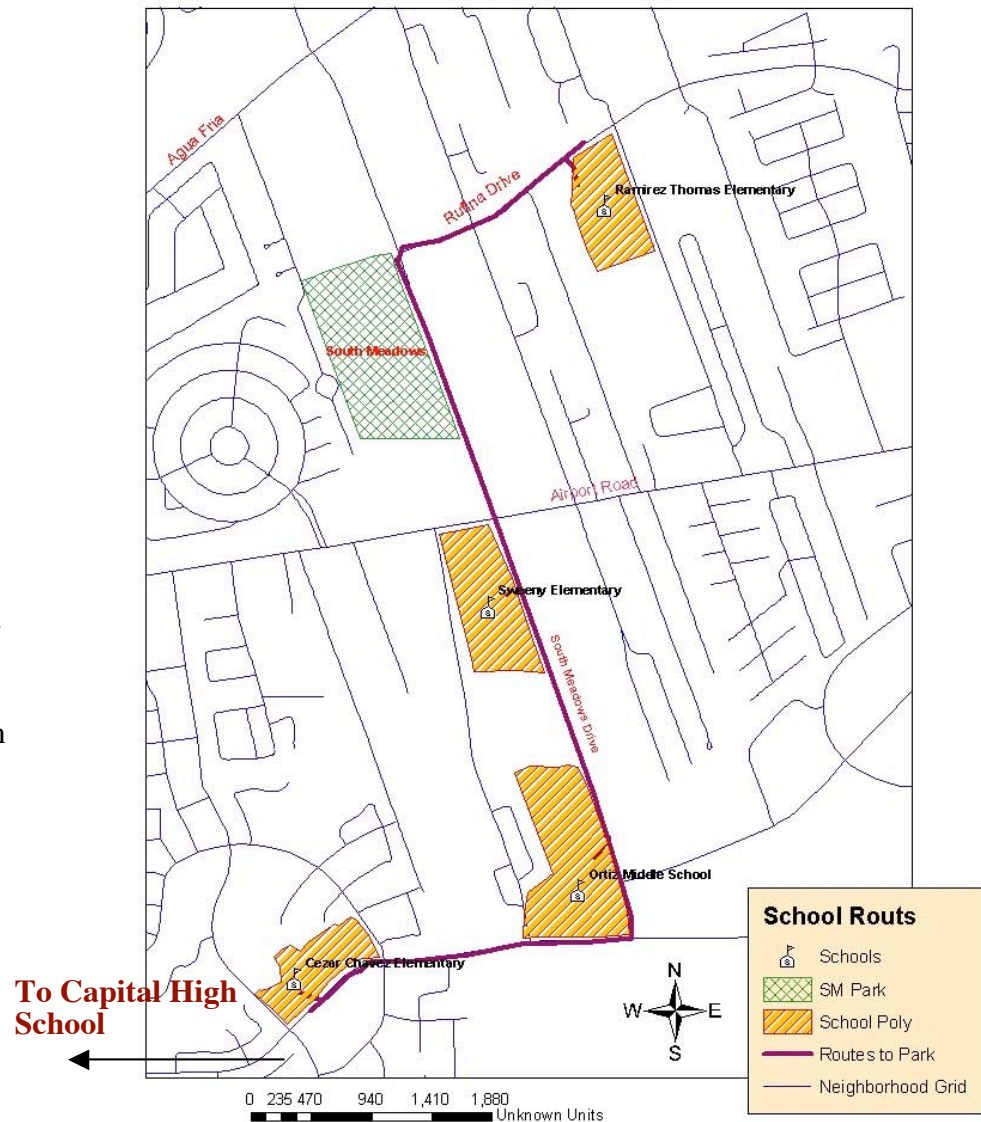
Chapter II

Exceptional Resources

The South Meadows Open Space is home to a population of prairie dogs and many native plant species. It is an ideal location for an environmental education park that will serve as an extension of classroom education for the Santa Fe Public Schools. Students can: learn about native plants and wildlife, create school gardens, and explore the historic cultural and natural resources that helped to shape Santa Fe. Ramirez Thomas Elementary school is approximately two blocks north of the open space on Rufina Drive. Sweeny Elementary and Ortiz Middle school are located on the south east side of Airport Rd; and, Capital High and Cezar Chavez Elementary are also within walking distance of the open space.

The Santa Fe River is just north of the open space. The river and its planned trail corridor can provide communities in the area with scenic trails for walking, biking, horse back riding, bird watching, and picnics. In addition, linking the open space with the river corridor will allow for the expansion of environmental educational activities for youth that focus on water management.

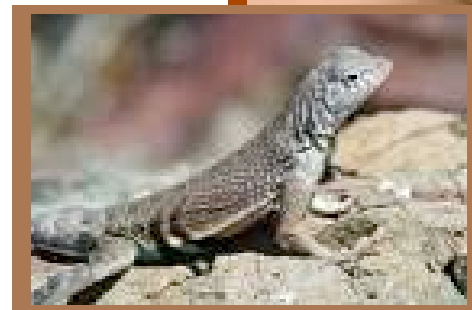
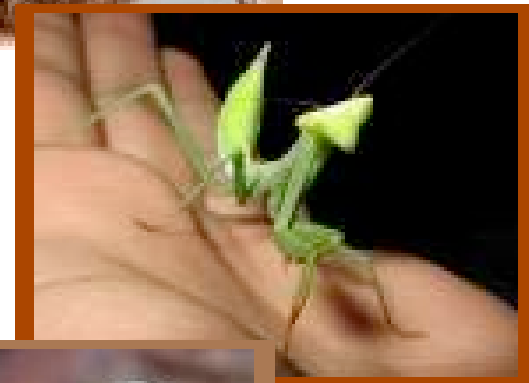
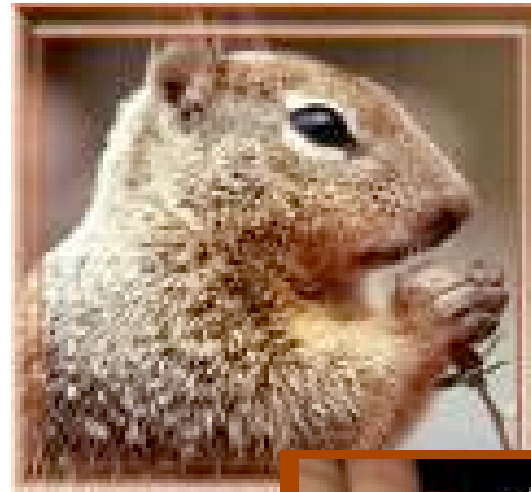
South Meadows Park Routes from Schools



Natural

The land within the South Meadows Park sits in a semiarid region that was once juniper scrubland and short-grass prairie. The property slopes downward southeast (at 6500 ft) to northwest (at 6400 ft), forming a small portion of the Santa Fe River Watershed. It suffers from over utilization, trampling, disturbance, and habitat fragmentation. This has resulted in: lack of water retention, and reduced diversity of flora and fauna, the encroachment of invasive plant species, and erosion. As a result, opportunistic keystone species have moved in, such as prairie dogs. Prairie dogs change heavily grazed and trampled areas to healthy grasslands by consuming invasive species and aerating soils. Keystone species support whole ecosystems, and the survival of many other species depends on them. For example, up to 200 species benefit from the presence of prairie dogs and 9 are considered dependent.

Other species found within the open space include lizards, snakes, cottontail and jackrabbits, falcons, ravens, hawks and the occasional coyote that wanders in from the arroyo. A complete list of the species found within Santa Fe County can be found in Appendix A.



Species Lists

Flora

One seed Juniper	<i>J. monosperma</i>
Four wing saltbush	<i>Atriplex canescens</i>
Buckwheat brush	<i>Eriogonum corymbosum</i>
Dwarf Chamisa	<i>Chrysothamnus depressus</i>
Siberian elm,	
Opuntia	<i>O. phaeacantha</i>
Cholla	<i>Cylindropuntia imbricata</i>
snake weed	<i>Gutierrezia Sarothrae</i>
Narrow leaf yucca	<i>Y. glauca</i>
blue gramma	<i>Bouteloue gracilis</i>
Galleta	<i>Hilaria jamesii</i>
Cheat grass	<i>Bromus tectorum</i>
Three awn	<i>Aristeda purpurea</i>
Indian rice grass	<i>Oryzopsis hymenoides</i>
Sand drop seed	<i>Sporobolus cryptandrus</i>
purple asters	<i>Machaeranthera canescens</i>
yellow aster	<i>Hetrotheca villosa</i>
Dandelion	<i>Tartaxacum officinale</i>
Datura	<i>Datura meteloides</i>
C,oyote gourd	
four O-clocks	<i>Oenothera spp.</i>
devils claw	<i>Proboscidea spp.</i>
Globe mallow	<i>Sphaeralcea coccinea</i>
Wooly plantain	<i>Plantago patagonica</i>
Broadleaf milkweed	<i>Asclepias speciosa</i>
Summer cypress	<i>Kochia scoparia</i>
Tumbleweed	<i>Salsola kali</i>
Stickweed	<i>Lappula texana</i>
Y. Coneflower	<i>Ratibida columnifera</i>
Flixweed	<i>Descurainia sohpie</i>

Datura meteloides



Ratibida columnifera



Sphaeralcea coccinea



Chrysothamnus depressus



Andropogon scoparius

Species List page 2

Coachwhip	<i>Masticophis flagellum testaceus</i>
Lizard, Collared	<i>Crotaphytus collaris auriceps</i>
Lizard, Earless, Lesser	<i>Holbrookia maculata</i>
Lizard, Fence, Eastern	<i>Sceloporus undulatus consobrinus</i>
Lizard, Horned, Roundtail	<i>Phrynosoma modestum</i>
Snake, Garter, Blackneck, W.	<i>Thamnophis cyrtopsis cyrtopsis</i>
Snake, Garter, Checkered	<i>Thamnophis marcianus</i>
Snake, Garter, New Mexico	<i>Thamnophis sirtalis dorsalis</i>
Snake, Garter, Wandering Glossy	<i>Thamnophis elegans Arizona elegans</i>
Snake, Gopher	<i>Pituophis cantifer affinis</i>
Snake, Green, Smooth (NM)	<i>Opheodrys vernalis blanchardi</i>
Snake, Hognose, W.	<i>Heterodon nasicus</i>
Kingsnake, Desert	<i>Lampropeltis getula</i>
Snake, Milk	<i>Lampropeltis triangulum celaenops</i>
Rattlesnake, Diamondback, W.	<i>Crotalus atrox</i>
Rattlesnake, Western	<i>Crotalus viridis Cerberus</i>



Blackbird, Brewer's	<i>Euphagus cyanocephalus</i>
Bluebird, Mountain	<i>Sialia currucoides</i>
Bluebird, Western	<i>Sialia mexicana bairdi</i>
Bunting, Indigo	<i>Passerina cyanea</i>
Bunting, Lark	<i>Calamospiza melanocorys</i>
Falcon, Peregrine	<i>Falco peregrinus anatum</i>
Finch, Cassin's	<i>Carpodacus cassinii</i>
Finch, House	<i>Carpodacus mexicanus frontalis</i>
Jay, Blue	<i>Cyanocitta cristata bromia</i>
Jay, Gray	<i>Perisoreus canadensis capitalis</i>
Jay, Pinyon	<i>Gymnorhinus cyanocephalus</i>
Jay, Scrub, Western	<i>Aphelocoma californica woodhouseii</i>
Jay, Steller's	<i>Cyanocitta stelleri macrolopha</i>
Junco, Dark-eyed	<i>Junco hyemalis hyemalis</i>
Chipmunk, Colorado	<i>Neotamias quadrivittatus</i>
Chipmunk, Least	<i>Neotamias minimus</i> Prairie Dog,
Gunnison's	<i>Cynomys gunnisoni</i>
Gopher, Pocket, Northern	<i>Thomomys talpoides</i>
Gopher, Pocket, Yellow-faced	<i>Cratogeomys castanops</i>
Rabbit, Cottontail, Desert	<i>Sylvilagus audubonii</i>
Rabbit, Cottontail, Nuttall's	<i>Sylvilagus nuttallii</i>
Rabbit, Jack, Black-tailed	<i>Lepus californicus</i>

Cultural

The South Meadows property sits roughly 1/8th of a mile from the Camino Real National Historic Trail. El Camino Real de Tierra Adentro is a timeless route of trade and cultural exchange and interaction among Spaniards and other Europeans, American Indians, Mexicans, and Americans. This internationally significant trail is co-administered by the National Park Service and the Bureau of Land Management. This period marked the colonization of New Mexico by Spain and later by the United States. It indicates the end of the pre-colonial era, otherwise known as the Anasazi period.

More recently, the open space has been unoccupied since 1935, according to aerial surveys. The trails that currently exist on the property were developed between 1975 and 1987. This is also when the Morning Drive Community was built, indicating that the Morning Drive Community may have been using the park since 1975.

Recreational & Educational

The recreational opportunities the park provides will help to enhance the Agua Fria Jemez road resident's sense of community by providing a place where people can come together and recreate. The park provides acreage for a playing field, picnic areas, trails for walking, jogging and bike riding, outdoor classrooms, and interpretive ecology trails and view points. A strong partnership with local schools has been developed, and schoolteachers have taken a leadership role in creating educational curriculums around the Open Space, which will also provide a strong stewardship component for the property.

The long-term vision for the open space is that it will eventually become part of the Santa Fe River/Camino Real trail System and offer the community access to the extensive trail system being developed within Santa Fe County.

CHAPTER III



MANAGEMENT PRINCIPLES

Chapter III

South Meadows Management Principles

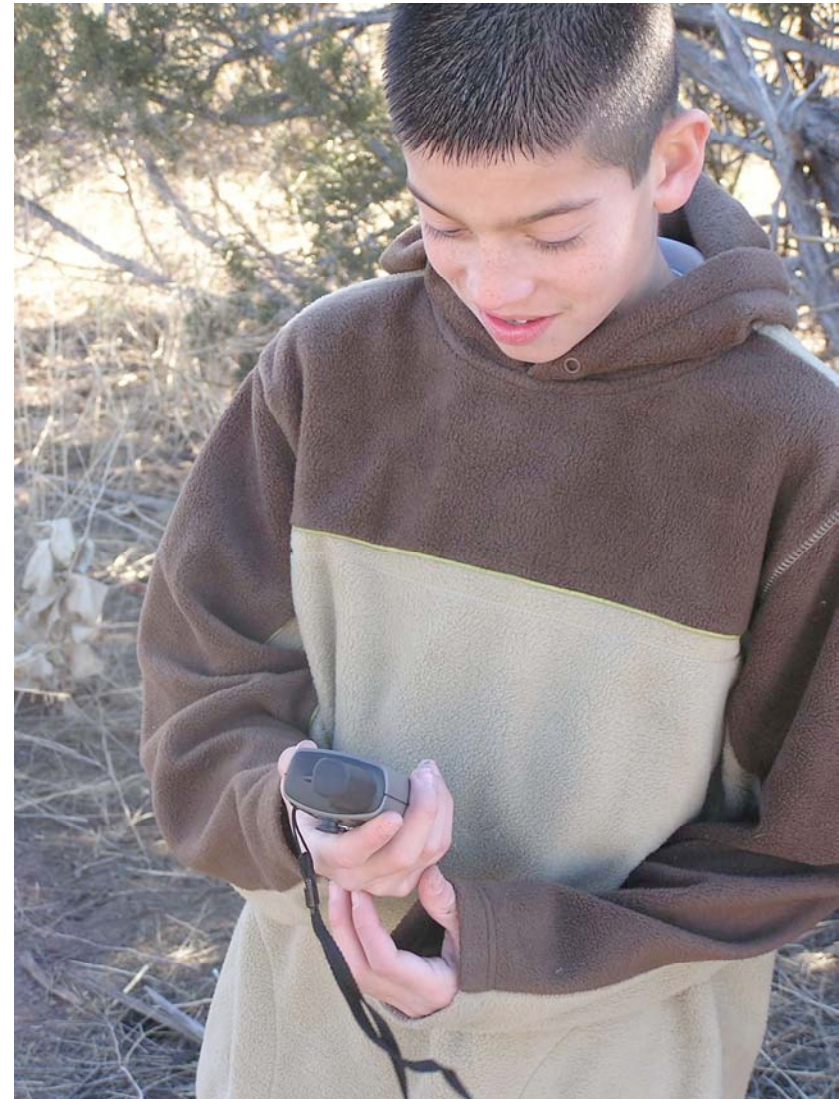
Vision

To create a space where the local community can enjoy the native landscape and learn about the varied benefits of preserving open-space through art and environmental education.

Our goals include:

1. Restoring and enhancing the native landscape;
2. Developing outdoor recreation, education, and artistic opportunities with the community;
3. And creating a community stewardship program with local residence and schools.

The park will be developed in phases with each phase addressing all three goals according to the capacity of planning and management partners to support all three.



Management & Implementation Objectives

Phase I Objectives

1. Develop basic facilities, such as, access points, an information kiosk, lighting, and parking
2. Enhance the native natural landscape, by planting trees and other native vegetation
3. Create a network of trails for walking, running, biking, and dog walking
4. Create an outdoor classroom for local schools focused on environmental education, science, culture and art.

II Objectives

Develop the South Meadows Open Space to support a broad range of activities such as:

- Recreation
- Environmental enhancement
- Gardening
- Education/research
- Arts
- Exercise/health
- Community gatherings

Chapter IV

Issues & Management Units

The following issues, objectives, and site improvement and management suggestions are a result of input given by community members, professionals and other interested stakeholders at a community design charette held at Ramirez Thomas Elementary School. The issues reflect the concerns and desires of the community. The site improvements and objectives are designed to address these issues and are organized according to which management unit they fit into: Security & Maintenance; Vegetation & Habitat; or Arts, Culture & Education.

Issues:

- Boundary Fence
- Parking Area
- Access points
- Enforcement of the rules at the park
- Vandalism
- Long-term maintenance and cleanliness
- Trash, dog waste
- Creation of inappropriate park access points (cut fences)
- ATV's
- Community interest and involvement
- Friends group needs to be established
- Adult supervision for kids activities at the park

- Need to develop educational theme
- Prairie dog holes can be dangerous
- Response when problems exist
- How to balance conflicting uses, educational/recreational/natural
- Lack of water
- No official trail system
- Prairie dog preservation
- Environmental maintenance (watering of plants, monitoring)
- Erosion
- Restoration
- Need for facilities and structures designed to reflect cultural history
- Need for interpretive signage
- Need for activity areas
- Need for community gardens
- Curriculum should be structured around park management

Security & Maintenance

Objective: To create a safe clean low maintenance park that provides educational opportunities for visitors and students.

Site Improvement Suggestions

- Fence open space
- Trash waste receptacles (small so does not attract outside dumping)
- Water fountain
- Fenced dog park
- No lights in the park
- Lights at the parking area.
- Create narrow access points to restrict ATVs (use bollards or vegetation)
- Park Rules signs
- Video surveillance (web cam for the school)
- Dedicated parking spot for police cruiser
- Use of vegetation for landscape to discourage graffiti,
- Low bushes in parking and along trail to provide visibility
- Materials for structures should be resistant to graffiti
- Choose durable low maintenance materials for structures
- Minimize flat surfaces that attract graffiti
- Post neighborhood watch signs
- Use a trail surface that does not require much maintenance

Management Suggestions

- Closed at dark
- Trash cans need to be picked up regularly
- Establish a strong friends group that organizes activities that will encourage stewardship
- Attract new residents to the area to join friends/stewards group
- Kids activity adopt a site by the school
- Create a direct and responsive reporting mechanism that will get the County and friends group to respond to issues and problems that face the park
- Keep tools and maintenance equipment at the school or close to site
- Purchase replacement signs and interpretive signs for the park friends group to replace when worn or destroyed
- Create an “adopt an area program” for sections of the park
- Post and teach leave no trace principles

Vegetation and Habitat

Objective: To create an example of a healthy, abundant, native ecosystem.

Site improvement Suggestions:

- Install a drip system to establish new trees for shade
- Create a trail system that encourages people to stay on the trail
- Apply for a grant for a well
- Plant low maintenance, drought tolerant, native species
- Create various habitat types to enhance diversity
- Re-vegetate old trails
- Create swales and berms to stop erosion and flooding
- Create a better habitat for prairie dogs
- Plant species for butterflies and birds
- Create a cactus garden for schools
- Plant shade trees along the buffer zone and near activity areas
- Create four habitat types: grassland; scrubland; wooded area; and wetland (moist area).

Management Suggestions:

- Create an environmental education curriculum around the park resources
- Ask schools to monitor and water plants as part of a school project
- Create a monitoring project for schools and teens
- Create a community environmental stewardship group

Arts, Culture & Education

Objective: To create an open space park that caters to hands-on outdoor environmental & cultural education

Site Improvement Suggestions:

- Create two outdoor classrooms integrated with the terrain (can have multiple uses)
- Install a water fountain
- Create a flat surface for performances that is integrated with the terrain
- Use natural materials in structures and facilities
- Develop interpretive signage about the culture, history and ecology of the Camino Real
- Provide interpretive examples of native edible plants
- Develop interpretation around the historic uses of plants and their ecological importance
- Create an educational and scenic example of wetland
- Develop a sculpture garden with kids for community art projects
- Create horno style oven or BBQ pits
- Develop a community garden program

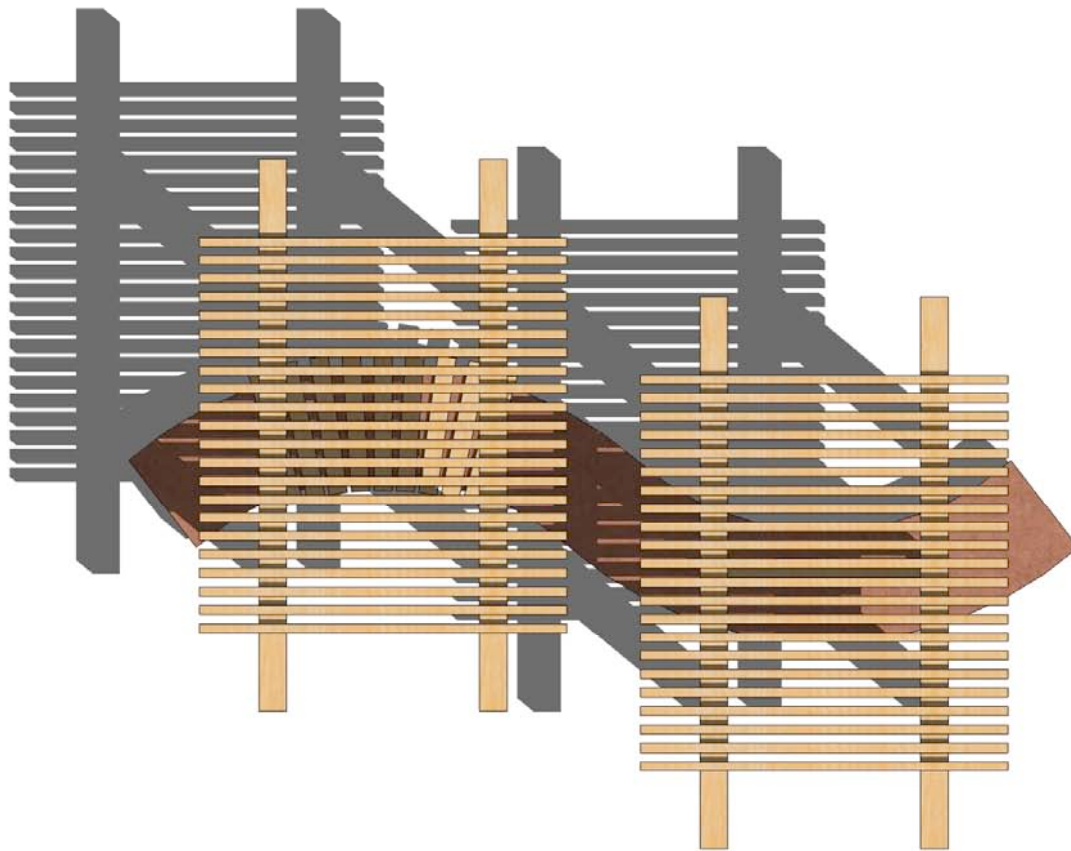
Management Suggestions:

- All school field trips should serve the dual purpose of educating children and providing stewardship for the park

- Create a hands on educational curriculum associated with park management and maintenance that address the following questions:
 - What is a steward?
 - Is our park clean?
 - Does it feel safe?
 - Who should be responsible for cleaning the park?
- Create a hands on educational curriculum around environmental issues within the open space that focus on the following themes.
 - prairie dogs
 - Restoration
 - Watersheds
 - Permaculture
 - Protecting open space

Please See Potential Location of Improvements on Map Chapter V, or appendix C

CHAPTER V



IMPLEMENTATION STRATEGY

Phase I Development Objectives

Chapter V

Implementation Strategies

Phase I Implementation

- 1. Boundary Fence
- 2. Parking Area
- 3. Swales and berms

This includes one parking area

- 4. Access points

This includes five access points

- 5. Trails

This includes the surfaced trail and the dirt foot paths

- 6. Visitor Kiosk

This includes only one kiosk

- 7. Interpretive signs

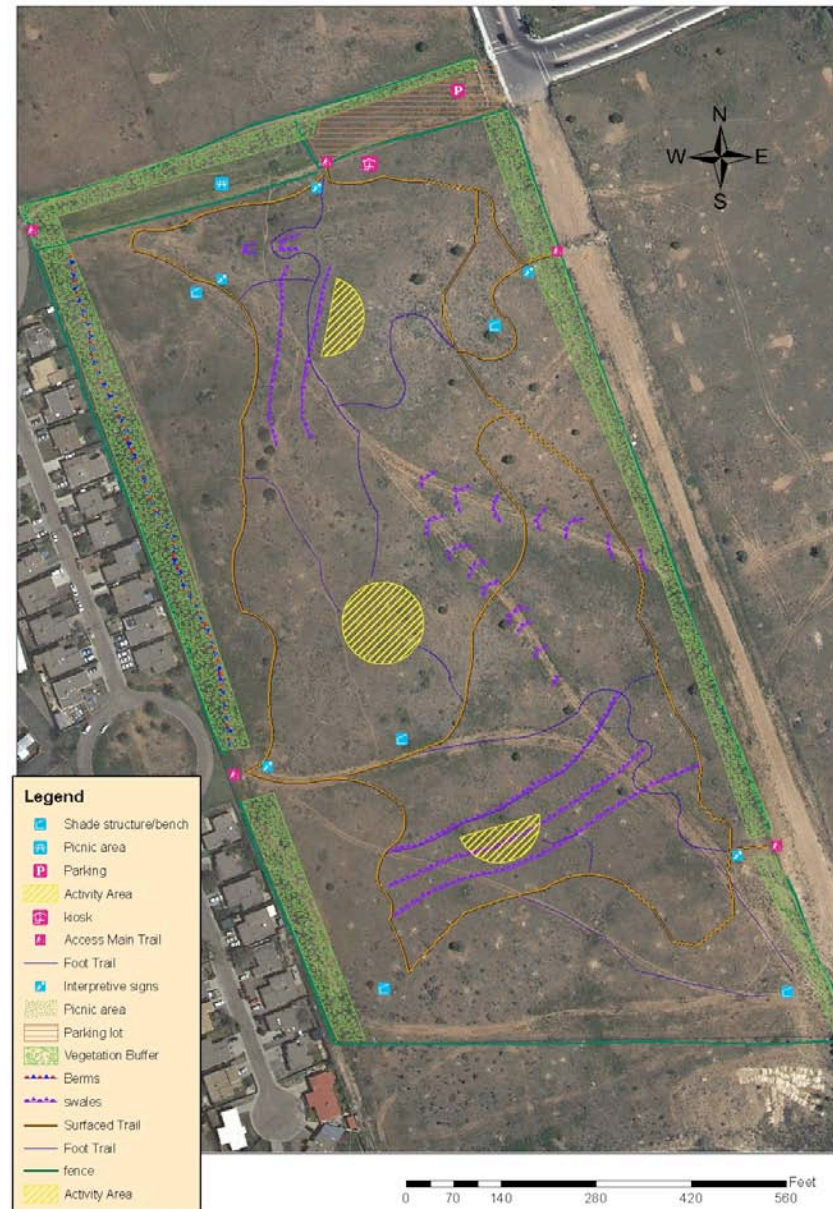
This may include only instructional and rule signs

- 8. Outdoor classrooms

This includes all three classroom areas

- 9. Picnic Area

This includes the picnic area adjacent to the parking area



Management and Implementation Structure

The following items are suggested management and implementation structures. These suggestions provide a framework for determining what should be put in place and who some of the possible implementers are. None of the parties listed in this section are bound by any contract or agreement to complete the work as outlined in this document.

- **Boundary Fence**

A chain link fence currently exists around the entire property. That fence should remain in place along the morning drive development side of the open space as well as along the southern most boundary. The rest of the property should be enclosed with a post and rail fence for easy access and visibility of the park. Access points will be created during the construction of the fence. It is recommended that the County construct the new fence.

- **Parking**

The area planned for parking was donated by Centex Homes. They have also offered to level this area for parking.

- **Picnic Area**

The picnic area is adjacent to the parking area for easy access during family BBQs and picnics. Four to six picnic tables and benches should be installed. It is

recommended that the County provide funding for this area.

- **Surfaced Trail**

Centex Homes is in the process of developing two residential areas adjacent to the South Meadows property. These developers have agreed to assist with the landscape architecture needed for the trail. Their designs will include the parking area, and the main trail system for the open space. If designed correctly, trails can also serve as erosion control.

The Youth Conservation Corp can be used to assist in creating new trails, as can schools and other youth project focused environmental groups.

- **Swales and Berms**

The Youth Conservation Corp can be used to assist in creating swales and berms, as can schools and youth project focused environmental groups.

- **Structures**

Architects Gregory Waits and Jayita Sahni have developed design for:

- **the visitor Kiosk,**¹
- **the two outdoor classrooms,**
- **and the performance area.**

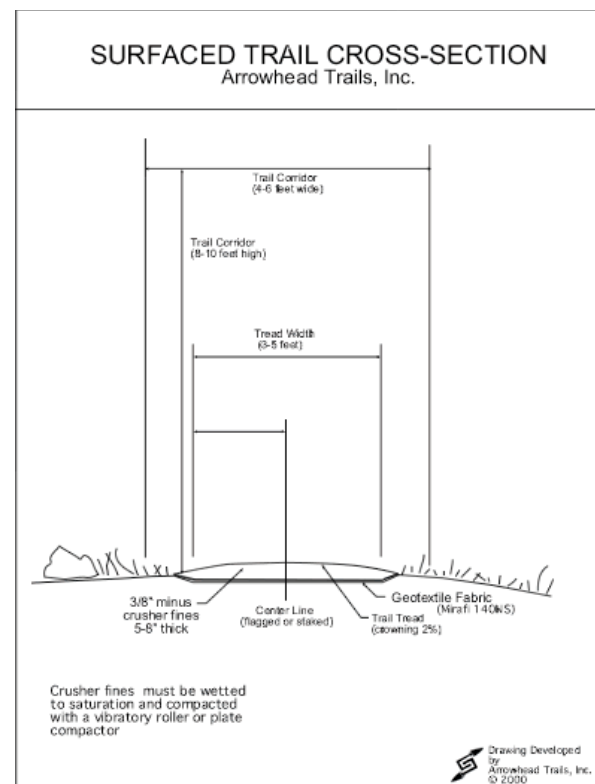
These designs have been developed such that they can be given to a contractor and implemented. They are fairly simple designs and can be constructed by community members with the oversight of a contractor. The architects wish to be consulted and present for all aspects of the construction.

A community group can be organized to assist with the building of the structures and could be overseen by Centex Homes or another volunteer contractor.

¹ Please see appendix B for designs (Kiosk, classroom & performance area)

- **Interpretation**

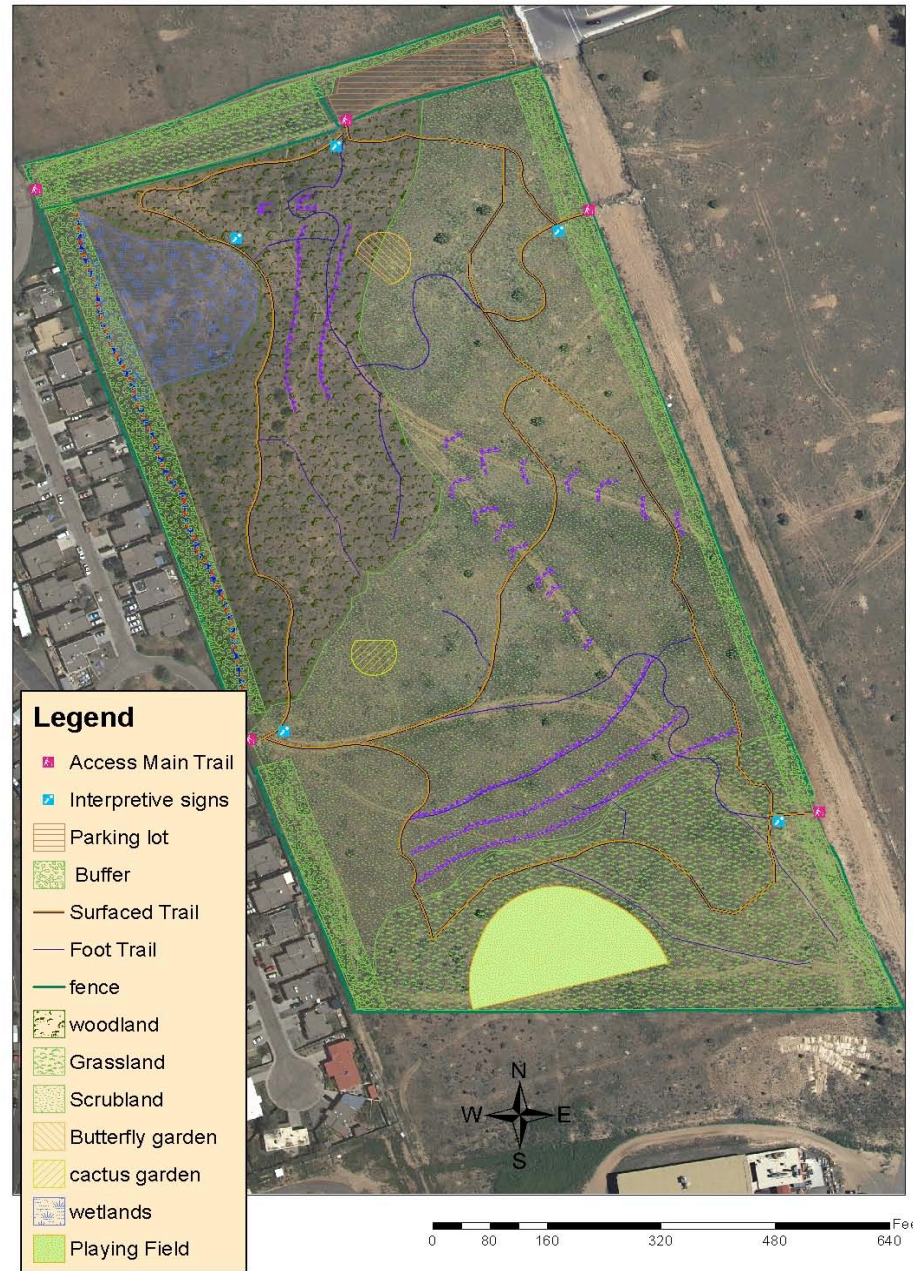
Several organizations may be of assistance in developing interpretive themes and displays for the open space, such as: The National Park Service, Project Wild, Audubon, Santa Fe Botanical Garden, el rancho de las Golondrinas, and the Museum of New Mexico. In addition, elementary schools can develop interpretive narratives and images as part of their classroom, history, culture, and science curriculums.



Phase II Development Objectives

Phase II implementation

1. Habitat restoration
 - a. Make water available
 - b. Plant grasses and forbs
 - c. Plant shrubs
 - d. Plant trees
 - e. Create wetland example
2. Level playing field
3. Culture & Natural history interpretive signage
4. Create butterfly & cactus gardens
5. Seed picnic area
6. Drinking fountain



Management & Implementation Structure

- **Water**
Centex homes has offered to provide the open space with access to water for the park. During the construction of their site they can stub out water lines within the open space. The County must be responsible for gaining a water meter and obtaining permission from the city for water services.
- **Planting**
Once water is made available to the property, grasses and forbs can be planted by elementary school kids as part of environmental education projects developed by each teacher and coordinated with Global Conservation Assistance (GCA).

Centex Homes is currently donating trees that need to be relocated from another construction site. This may occur before water is available. GCA is in the process of putting together a volunteer team that will help plant and water trees. This volunteer group may consist of landscape professionals, volunteers from Plants of the Southwest and community members adjacent to the property.

The wetland area can be constructed and planted by a youth group organized by Earthcare and GCA in the spring of 2007.

- **Leveling the Playing Field**
The county should be responsible for leveling the playing field on the southern most section of the park.

- **Seeding of Picnic Area**
The seeding of the picnic area can be done by the Morning Drive Community and schools. This should not be done until after water is made available, and in the spring and fall months.

Schools and community members can do seeding of the picnic area, and watering can be done with a timed drip system.

- **The Butterfly & Cactus Gardens**
Elementary school children as part of school projects will create the gardens. They will be placed close to outdoor classrooms so that classes can easily access them.
- **Drinking Fountain**
The drinking fountain should be put in by the county and designed by local artist.

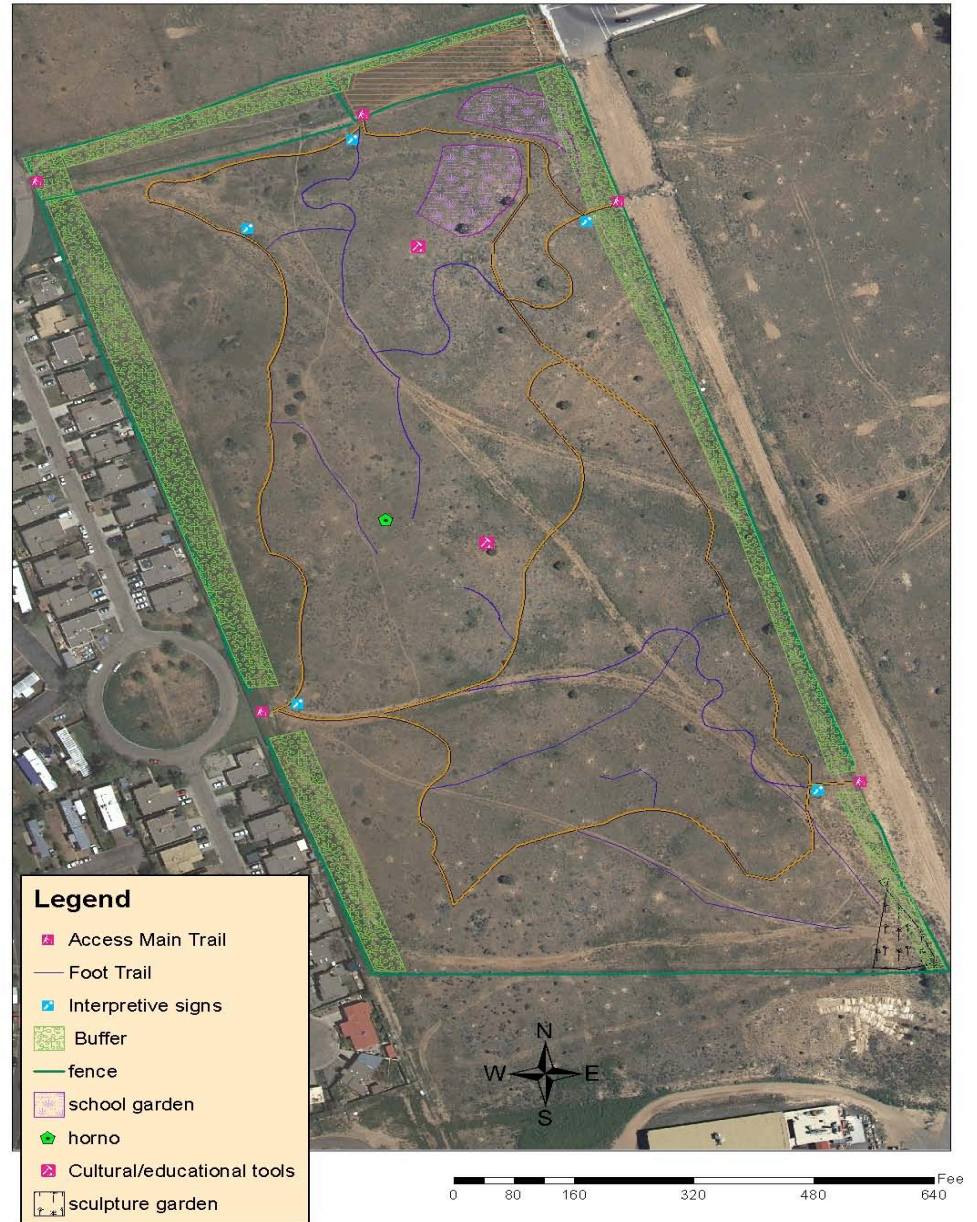
Phase III Implementation

1. Community Gardens
2. Educational Tools
3. Horno style oven
4. Sculpture garden

Management & Implementation Structure

1. The local schools and community steward groups will develop the community gardens. This phase of the project can be implemented when the community decides it is best as long as water is available.
2. Teachers at various schools have access to grants that will allow them to purchase the outdoor educational tools needed for the park. Likewise, the horno and sculpture garden should be built by schools as part of class projects.

Phase III Development Objectives



General Management & Implementation structure

- **Safety**

Currently the Santa Fe Police Department uses the southwest corner of the property as a stopping/parking area. There are often two police cars situated near the gas station monitoring traffic on Air Port road. This will deter vandalism, drinking and violence in the park. We will ask the police department to monitor the park on a regular basis.

In addition, a parking place within the open space parking lot will be dedicated to a police cruiser.

- **Lighting**

The Morning Drive Community does not want any lights in the park because they do not want the light pollution. This will leave the park very dark at night, but the park should be closed at this time and monitoring by the Santa Fe County Sheriff should deter use of the park at night. Lighting will be installed on the street along the eastern side of the property and in the parking lot. It is suggested that the county provide funding for lighting.

- **Garbage**

Centex Homes is currently creating a small park within their housing development less than one block from the South meadows Park. Since the City will be picking up

trash there on a regular basis, we intend to ask Santa Fe City Parks if they will also pick up trash from the South Meadows Open Space.

- **Dogs**

Dogs will only be allowed on leashes and park users will be required to clean up after their dogs.

- **Friends Groups**

GCA is in the process of developing a friends group for the Open Space. The Morning Drive Home Owners association is already very involved in the development of the property. Many of the community members watch to make sure that there is no vandalism. When vandalism does occur the community is very quick to report it to the County.

In addition, Centex Homes is in the process of creating a home owners association for its new development on the northeastern side of South Meadows Drive. GCA will work with the developer to let the new residence know about the park and ask for their involvement in the friends of the South Meadows Park Association.

- **Environmental Education Curriculum**

An environmental education curriculum will be created for the park using interpretive signs that explain the natural and cultural history of the place. Interpretive signs that explain the life cycles, habitat needs, and

ecological benefits of prairie dogs and ants will be place low to the ground to encourage students and community members to take a closer look at the holes of these beneficial species. This will also help to reduce the danger associated with children running and tripping on prairie dog mounds and holes.

- **Vandalism**

The only flat surface in the park will be on the visitor kiosk. An alternative artistic kiosk may help to deter graffiti artist as they tend to respect other artistic expressions. No other flat surfaces will be available in the park.

- **ATVs**

ATV use in the park will not be allowed. All access points will only allow one person to pass through at a time. If fences are cut, the Morning Drive Community will notify the county immediately.

Management & Implementation Structure

Management & Implementation Need	Implementation & Management Objective Additional Comments	Funding Source/opportunity	Suggested Implementer	Time Frame	Budget
Phase I					
<ul style="list-style-type: none"> Boundary Fence Access Points 	<ul style="list-style-type: none"> A fence will be built around the entire perimeter of the park. Four Access points only large enough for a person or bicycle will be created. 	county	County	Fall 2006	40,000-100,000
Parking	Dirt parking area at the end of Rufina where it runs into South Meadows. Parking area will be leveled and graded for parking and drainage.	Centex/county	County & Centex	Fall 2006	5,000 – 10,000
Picnic Area	Picnic area may be seeded and picnic benches and BBQ pits installed. Picnic area may be seeded with native grasses.	County	County & Schools	Fall 2006	5,000 - 10,000
Surfaced Trail	Trail will be surfaced with crusher fin materials	County	County	Spring 2007	5,000 – 10,000

<p>Visitor Kiosk Outdoor classrooms Performance Area</p>	<ul style="list-style-type: none"> The visitor kiosk will be constructed to provide basic information about the park and the rules and regulation of the park. It will also provide shade and a small space for seating. The outdoor classrooms will seat 25 students, provide shade and have a board for presenting educational materials. The performance area will seat up to 40 students. They will be made of natural materials that blend into the environment. 	<p>Community Donations County</p>	<p>Gregory Waits & Jayita Sahni Architects Community Stewards, Centex Homes</p>	<p>Spring 2007</p>	<p>25,000- 35,000</p>
<p>Swales & Berms Planting</p>	<p>Swales and berms will be created to stop erosion and direct water to vegetation using natural contours The open space will be divided into 3 or 4 sections: grasslands, scrubland, woodland and possibly wetland. Vegetation will be planted according to section</p>	<p>Schools YCC</p>	<p>YCC, EarthCare, school children Schools, Centex Homes, GCA</p>	<p>Spring 2007 Fall 2006-- summer 2007</p>	<p>2,000</p>
<p>Lighting</p>	<p>Lighting will be installed in the parking area</p>	<p>County</p>	<p>County</p>	<p>Spring 2007</p>	<p>4,000</p>
<p>Phase II</p>					
<p>Water</p>	<p>Funds to pay for water bills or well</p>	<p>grants</p>	<p>Centex Homes, County, City</p>	<p>Fall 2006</p>	<p>11,000 - 20,000</p>

Leveling of the Playing Field	A filed at the southeast corner of the property should be leveled for soccer, baseball, etc	County	County	Spring 2007	1,000
Interpretive signage	Interpretive signs will be created that inform visitors about the cultural, historical, and environmental resources within and around the open space	County Grants Enviro groups	The National Park Service School children	Spring 2007	2,000
Seeding	Buffalo and Gramma grass will be seeded in the picnic area and the playing field. Native wildflower seeds can be spread throughout the park along with native shrubs and trees	Community donations	Schools, community members, Earthcare	Spring 2007	400.00
The Butterfly & Cactus Gardens	Cultivate existing cactus species, and plant species preferred by butterflies for educational gardens	schools	School children	Spring 2007	0
Drinking Fountain		County	County	Spring 2007	1,000
Phase III					
Community Gardens	Delineate area for gardens	Community Donations	Community & Schools	?	300.00
Educational Tools	Purchase tools necessary for out door education	School grants	Schools	?	2,000
Horno Style Oven	Build a traditional Horno	Schools grants	Schools	?	1,000
Sculpture Garden	Create a sculpture garden using local art	Community	Schools &	?	TBD

Sculpture Garden	Create a sculpture garden using local art	Community grants	Schools & community	?	TBD
General					
Safety & Vandalism Monitoring	The park should be monitored throughout the day for vandalism and violence. This should be reported to the county sheriff, the County OSTD and the friends group	County, Sheriff, City, Schools	Community stewards, County Sheriff, schools	Fall 2006	
Garbage	Weekly garbage pick up is need	County	City	Fall 2006	5,000
<ul style="list-style-type: none"> • Friends Groups • Stewards group 	<ul style="list-style-type: none"> • The friends group should be responsible for making sure the open space is being managed properly and that there is a stewardship group in place. • The stewardship group should be responsible for assuring that the park is clear, that vandalism and violence are reported, that trails and vegetation are maintained and healthy. 	Community Grants SFCF	All interested stakeholders Community members, schools, local businesses, other interested stakeholders	Fall 2006	50,000-100,000
Environmental Education Curriculum	An educational curriculum will be created with schools that is integrated into interpretive themes	School grants	NPS, GCA, schools, and parents	Fall 2006- spring 2007	20,000-30,000
Total Low Estimate					209,730.00
Total High					351,700.00

Appendix A

Species List

Trees

Piñon

One-seed juniper

Wavyleaf oak

Gray oak

Gambel oak

Willow

Willow

Willow

Squawbush

Pinus edulis

Juniperus monosperma

Quercus undulata

Quercus grisea

Quercus gambelii

Salix exigua

Salix amygdaloides

Salix gooddingii

Rhus trilobata

Shrubs & Forbs

Apache Plume

Mountain mahogany

Wolfberry

Russian thistle

Red Sage

Tansy mustard

Prickly lettuce

Bitterweed

Snakeweed

Lambs quarters

Mullien

Yellow Sweet clover

Fallugia paradoxa

Cercocarpus montanus

Lycium pallidum

Salsola kali

Kochia Americana

Descurainia pinnata

Lactuca serriola

Hymenoxys richardsonii

Gutierrezia lucida

Chenopodium album

Verbascum thapsus

Melilotus officinalis

White sweet clover
Globe mallow
White stem stickleaf
Meadow goatsbeard
Tumble mustard
Common purslane
Squirreltail
Galleta
Indian pea
Soapweed yucca
Curly dock
Marestail
Horsetail
Evening primrose
Cattail
Willow weed
Silverweed cinquefoil
Mint
Blue flax
Bluebells
Indian paintbrush
Purple aster
Yellow aster
Penstemon
Yarrow
NM sunflower
Wild iris

Melilotus albus
Sphaeralcea coccinea
Mentzelia albicaulis
Tragopogon pratensis
Sisymbrium altissimum
Portullaca oleraced
Sitanion hystrix
Hilaria jamesii
Thelesperma megapotamicum
Yucca glauca
Rumex crispus
Equisetum laevigatum
Equisetum arvense
Oenothera hookeri
Typha latifolia
Efilobium adeocaulon
Potentilla ancerina
Mentha arvenis
Linum perenne lewisii
Phacelia campanularia
Castilleja integra
Aster bigelovii
Erigeron formosissimus
Penstemon sp.
Achillea millefolium
Helianthus maximiliani
Iris missouriensis

Cacti

Cholla
Prickly pear

Opuntia imbricata
Opuntia polyacantha

Claret cup

Echinocereus Triglochidiatus

Grasses

Blue grama

Bouteloua gracilis

Snakeweed

Gutierrezia lucida

Ring muhly

Muhlenbergia torreyi

Indian rice grass

Oryzopsis hymenoides

Side-oats grama

Bouteloua curtipendula

Sand dropseed

Sporobolus cryptandrus

Spike dropseed

Sporobolus contractus

Bulrush

Scirpus olneyi

Pull-up muhly

Muhlenbergia fliformis

Witch grass

Panicum kaillare

Yellow nutgrass

Cyperus esculentus

Medicinal Herbs

Mint

Mentha arvensis

Horehound

Marrubium vulgare L.

Mullein

Verbascum thapsus

Yarrow

Achillea millefolium

Chamisa

Chrysothamnus nauseosus

Cocklebur

Xanthium strumarium L.

Milkweed

Asclepias speciosa

Western salsify

Tragopogon dubius Scop.

Reptiles

Coachwhip

Masticophis flagellum testaceus (NM, TX); piceus (NM)

Lizard, Collared

Crotaphytus collaris auriceps (NM); baileyi (NM, AZ); collaris (NM, TX); fuscus (NM, TX)

Lizard, Earless, Lesser

Holbrookia maculata approximans (NM, TX); maculate (NM, TX); elegans (NM); bunkeri (NM)

Lizard, Fence, Eastern	<i>Sceloporus undulatus consobrinus (NM, TX); erythrocheilus (NM); elongatus (NM); garmani (NM, TX); tedbrowni (NM); tristichus (NM)</i>
Lizard, Horned, Roundtail	<i>Phrynosoma modestum</i>
Lizard, Horned, Texas	<i>Phrynosoma cornutum</i>
Lizard, Leopard, Longnose	<i>Gambelia wislizenii wislizenii (NM, AZ, TX); punctata (NM, AZ)</i>
Lizard, Short-horned, Mt.	<i>Phrynosoma hernandesi hernandesi (NM)</i>
Lizard, Side-blotched	<i>Uta stansburiana stejnegeri (NM, TX); uniformis (NM)</i>
Lizard, Tree, Northern	<i>Urosaurus ornatus wrighti (NM); schmidti (NM, TX); levis (NM); linearis (NM)</i>
Rattlesnake, Diamondback, W.	<i>Crotalus atrox</i>
Rattlesnake, Western	<i>Crotalus viridis cerberus (NM); nuntius (NM); viridis (NM, TX); abyssus (AZ)</i>
Skink, Great Plains	<i>Eumeces obsoletus</i>
Skink, Many-lined	<i>Eumeces multivirgatus epiplurotus (NM)</i>
Snake, Rat, Great Plains	<i>Elaphe guttata emoryi (NM, TX); meahllmorum (NM, TX)</i>
Snake, Garter, Blackneck, W.	<i>Thamnophis cyrtopsis cyrtopsis (NM)</i>
Snake, Garter, Checkered	<i>Thamnophis marcianus marcianus (NM)</i>
Snake, Garter, New Mexico	<i>Thamnophis sirtalis dorsalis (NM)</i>
Snake, Garter, Wandering	<i>Thamnophis elegans arizonae (NM); vagrans (NM)</i>
Snake, Glossy	<i>Arizona elegans elegans (NM, TX); philipi (NM, TX)</i>
Snake, Gopher	<i>Pituophis cantifer affinis (NM); sayi (NM)</i>
Snake, Green, Smooth	<i>Opheodrys vernalis blanchardi (NM)</i>
Snake, Hognose, W.	<i>Heterodon nasicus nasicus (NM, TX); kennerlyi (NM, AZ, TX)</i>
Kingsnake, Desert	<i>Lampropeltis getula splendida (NM, AZ)</i>
Snake, Milk	<i>Lampropeltis triangulum celaenops (NM, TX); amauro (OK); taylori (AZ, CO, UT)</i>
Snake, Night	<i>Hypsiglena torquata jani (NM, TX); loreala (NM)</i>
Snake, Patchnose, Mountain	<i>Salvadora grahamiae grahamiae (NM)</i>

Whipsnake, Striped, Desert	<i>Masticophis taeniatus taeniatus (NM)</i>
Whiptail, Checkered, CO	<i>Aspidoscelis tessellata</i>
Whiptail, New Mexico	<i>Aspidoscelis neomexicana</i>
Whiptail, Spotted, Chihuahuan	<i>Aspidoscelis exsanguis</i>
Whiptail, Striped, Woodland	<i>Aspidoscelis inornatus juniperus (NM)</i>
Whiptail, Striped, Plateau	<i>Aspidoscelis velox</i>

Birds

Blackbird, Brewer's	<i>Euphagus cyanocephalus</i>
Blackbird, Red-winged	<i>Agelaius phoeniceus nevadensis (NM); fortis (NM); arctolegus (NM); sonoriensis (NM)</i>
Bluebird, Mountain	<i>Sialia currucoides</i>
Bluebird, Western	<i>Sialia mexicana bairdi (NM)</i>
Bunting, Indigo	<i>Passerina cyanea</i>
Bunting, Lark	<i>Calamospiza melanocorys</i>
Bunting, Lazuli	<i>Passerina amoena</i>
Bushtit	<i>Psaltriparus minimus plumbeus (NM); lloydi (NM)</i>
Catbird, Gray	<i>Dumetella carolinensis ruficrissa (NM)</i>
Chat, Yellow-breasted	<i>Icteria virens auricollis (NM)</i>
Chickadee, Black-capped	<i>Poecile atricapilla septentrionalis (NM); garrinus (NM)</i>
Chickadee, Mountain	<i>Poecile gambeli gambeli (NM)</i>
Coot, American	<i>Fulica americana americana (NM)</i>
Cormorant, Double-crested	<i>Phalacrocorax auritus auritus (NM); albociliatus (NM, AZ)</i>
Cowbird, Brown-headed	<i>Molothrus ater obscurus (NM); artemisiae (NM)</i>
Crane, Sandhill	<i>Grus canadensis canadensis (NM); tabida (NM); rowani (NM)</i>
Crane, Whooping	<i>Grus americana</i>

Creepers, Brown	<i>Certhia americana montana (NM); americana (NM); albescens(NM)</i>
Crossbill, Red	<i>Loxia curvirostra bendirei (NM); sitkensis (NM); benti (NM); stricklandi (NM)</i>
Crow, American	<i>Corvus brachyrhynchos hesperis (NM); hargravei (NM)</i>
Dove, Mourning	<i>Zenaida macroura marginella (NM); carolinensis (NM)</i>
Dove, Rock	<i>Columba livia</i>
Falcon, Peregrine	<i>Falco peregrinus anatum</i>
Finch, Cassin's	<i>Carpodacus cassinii</i>
Finch, House	<i>Carpodacus mexicanus frontalis (NM)</i>
Finch, Rosy, Black	<i>Leucosticte atrata</i>
Finch, Rosy, Brown-capped	<i>Leucosticte australis</i>
Flicker, Northern	<i>Colaptes auratus borealis (NM); collaris (NM)</i>
Flycatcher, Ash-throated	<i>Myiarchus cinerascens cinerascens (NM)</i>
Flycatcher, Cordilleran	<i>Empidonax occidentalis</i>
Flycatcher, Dusky	<i>Empidonax oberholseri</i>
Flycatcher, Olive-sided	<i>Contopus cooperi</i>
Gnatcatcher, Blue-gray	<i>Polioptila caerulea amoenissima (NM)</i>
Goldfinch, American	<i>Carduelis tristis pallidus (NM)</i>
Goldfinch, Lesser	<i>Carduelis psaltria psaltria (NM); hesperophilus (NM)</i>
Goose, Snow	<i>Chen caerulescens hyperborea (NM)</i>
Goshawk, Northern	<i>Accipiter gentilis atricapillus (NM, AZ); apache (NM, AZ)</i>
Grackle, Common	<i>Quiscalus quiscula versicolor (NM)</i>
Grackle, Great-tailed	<i>Quiscalus mexicanus prosopidicola (NM); monsoni (NM)</i>
Grebe, Eared	<i>Podiceps nigricollis californicus (NM)</i>
Grebe, Pied-billed	<i>Podilymbus podiceps podiceps (NM)</i>
Grosbeak, Black-headed	<i>Pheucticus melanocephalus melanocephalus (NM); maculates</i>

Grosbeak, Blue	<i>P. caerulea interfusa (NM)</i>
Grosbeak, Evening	<i>Coccothraustes vespertinus montanus (NM); brooksi (NM); vespertinus (NM)</i>
Grosbeak, Rose-breasted	<i>Pheucticus ludovicianus</i>
Grouse, Blue	<i>Dendragapus obscurus obscurus (NM)</i>
Harrier, Northern	<i>Circus cyaneus hudsonius (NM)</i>
Hawk, Cooper's	<i>Accipiter cooperii</i>
Hawk, Ferruginous	<i>Buteo regalis</i>
Hawk, Red-tailed	<i>Buteo jamaicensis calurus (NM); harlani (NM); fuertesi (NM)</i>
Hawk, Sharp-shinned	<i>Accipiter striatus velox (NM)</i>
Hawk, Swainson's	<i>Buteo swainsoni</i>
Hawk, Zone-tailed	<i>Buteo albonotatus</i>
Heron, Blue, Great	<i>Ardea herodias herodias (NM); tregansai (NM)</i>
Hummingbird, Black-chinned	<i>Archilochus alexandri</i>
Hummingbird, Broad-tailed	<i>Selasphorus platycercus platycercus (NM)</i>
Hummingbird, Rufous	<i>Selasphorus rufus</i>
Hummingbird, Violet-crowned	<i>Amazilia violiceps ellioti (NM)</i>
Ibis, White-faced	<i>Plegadis chihi</i>
Jay, Blue	<i>Cyanocitta cristata bromia (NM); cyanotephra (NM)</i>
Jay, Gray	<i>Perisoreus canadensis capitalis (NM)</i>
Jay, Pinyon	<i>Gymnorhinus cyanocephalus</i>
Jay, Scrub, Western	<i>Aphelocoma californica woodhouseii (NM); californica (NM)</i>
Jay, Steller's	<i>Cyanocitta stelleri macrolopha (NM)</i>
Junco, Dark-eyed	<i>Junco hyemalis hyemalis (NM); aikenii (NM); cismontanus(NM); montanus (NM); mearnsi (NM); oreganus (NM); shufeldti (NM); thurberi (NM); caniceps (NM); dorsalis (NM)</i>
Kestrel, American	<i>Falco sparverius sparverius (NM)</i>

Killdeer	<i>Charadrius vociferus vociferus (NM)</i>
Kingbird, Cassin's	<i>Tyrannus vociferans vociferans (NM)</i>
Kingbird, Western	<i>Tyrannus verticalis</i>
Kingfisher, Belted	<i>Ceryle alcyon caurina (NM); alcyon (NM)</i>
Kinglet, Golden-crowned	<i>Regulus satrapa amoenus (NM); apache (NM)</i>
Kinglet, Ruby-crowned	<i>Regulus calendula calendula (NM)</i>
Lark, Horned	<i>Eremophila alpestris adusta (NM); leucolaema (NM); occidentalis (NM)</i>
Longspur, Chestnut-collared	<i>Calcarius ornatus</i>
Loon, Common	<i>Gavia immer</i>
Magpie, Black-billed	<i>Pica hudsonia</i>
Mockingbird, Northern	<i>Mimus polyglottos leucopterus (NM)</i>
Nighthawk, Common	<i>Chordeiles minor henryi (NM); howelli (NM); hesperis (NM); sennetti (NM)</i>
Nutcracker, Clark's	<i>Nucifraga columbiana</i>
Nuthatch, Pygmy	<i>Sitta pygmaea melanotis (NM)</i>
Nuthatch, Red-breasted	<i>Sitta canadensis</i>
Nuthatch, White-breasted	<i>Sitta carolinensis nelsoni (NM)</i>
Oriole, Bullock's	<i>Icterus bullockii</i>
Oriole, Baltimore	<i>Icterus galbula</i>
Oriole, Scott's	<i>Icterus parisorum</i>
Osprey	<i>Pandion haliaetus carolinensis (NM)</i>
Owl, Barn	<i>Tyto alba pratincola (NM)</i>
Owl, Boreal	<i>Aegolius funereus</i>
Owl, Burrowing	<i>Athene cunicularia hypugaea (NM, AZ)</i>
Owl, Flammulated	<i>Otus flammeolus</i>
Owl, Great-horned	<i>Bubo virginianus pallescens (NM); occidentalis (NM)</i>

Owl, Long-eared	<i>Asio otus wilsonianus (NM); tuftsi (NM)</i>
Owl, Pygmy, Northern	<i>Glaucidium gnoma californicum (NM)</i>
Owl, Screech, Western	<i>Otus kennicottii aikenii (NM); cinerascens (NM)</i>
Owl, Spotted, Mexican	<i>Strix occidentalis lucida (NM, AZ)</i>
Pewee, Wood, Western	<i>Contopus sordidulus veliei (NM); saturatus (NM)</i>
Phoebe, Black	<i>Sayornis nigricans semiatra (NM)</i>
Phoebe, Say's	<i>Sayornis saya saya (NM); yukonensis (NM)</i>
Pigeon, Band-tailed	<i>Columba fasciata fasciata (NM)</i>
Pipit, American	<i>Anthus rubescens pacificus (NM); alticola (NM); rubescens (NM)</i>
Plover, Golden, American	<i>Pluvialis dominica dominica (NM)</i>
Plover, Mountain	<i>Charadrius montanus</i>
Plover, Snowy, Western	<i>Charadrius alexandrinus nivosus (NM, AZ)</i>
Ptarmigan, White-tailed	<i>Lagopus leucurus altipetens (NM)</i>
Raven, Common	<i>Corvus corax sinuatus (NM)</i>
Roadrunner, Greater	<i>Geococcyx californianus</i>
Robin, American	<i>Turdus migratorius migratorius (NM); propinquus (NM)</i>
Sandpiper, Least	<i>Calidris minutilla</i>
Sandpiper, Pectoral	<i>Calidris melanotos</i>
Sandpiper, Solitary	<i>Tringa solitaria solitaria (NM); cinnamomea (NM)</i>
Sandpiper, Spotted	<i>Actitis macularia</i>
Sandpiper, Stilt	<i>Calidris himantopus</i>
Sandpiper, Western	<i>Calidris mauri</i>
Sapsucker, Red-naped	<i>Sphyrapicus nuchalis</i>
Sapsucker, Williamson's	<i>Sphyrapicus thyroideus nataliae (NM)</i>
Shrike, Loggerhead	<i>Lanius ludovicianus excubitorides (NM); sonoriensis (NM); gambeli (NM)</i>

Shrike, Northern	<i>Lanius excubitor invictus (NM)</i>
Siskin, Pine	<i>Carduelis pinus pinus (NM)</i>
Snipe, Common	<i>Gallinago gallinago delicata (NM)</i>
Solitaire, Townsend's	<i>Myadestes townsendi townsendi (NM)</i>
Sora	<i>Porzana carolina</i>
Sparrow, Baird's	<i>Ammodramus bairdii</i>
Sparrow, Black-throated	<i>Amphispiza bilineata opuntia (NM); deserticola (NM)</i>
Sparrow, Brewer's	<i>Spizella breweri breweri (NM); taverneri (NM)</i>
Sparrow, Cassin's	<i>Aimophila cassinii</i>
Sparrow, Chipping	<i>Spizella passerina arizonae (NM)</i>
Sparrow, Clay-colored	<i>Spizella pallida</i>
Sparrow, Golden-crowned	<i>Zonotrichia atricapilla</i>
Sparrow, Grasshopper	<i>Ammodramus savannarum perpallidus (NM)</i>
Sparrow, Harris's	<i>Zonotrichia querula</i>
Sparrow, House	<i>Passer domesticus</i>
Sparrow, Lark	<i>Chondestes grammacus strigatus (NM)</i>
Sparrow, Lincoln's	<i>Melospiza lincolnii lincolnii (NM); alticola (NM)</i>
Sparrow, Sage	<i>Amphispiza belli nevadensis (NM)</i>
Sparrow, Savannah	<i>Passerculus sandwichensis nevadensis (NM); anthinus (NM)</i>
Sparrow, Song	<i>Melospiza melodia juddi (NM); montana (NM); fallax (NM)</i>
Sparrow, Vesper	<i>Pooecetes gramineus confinis (NM); altus (NM)</i>
Sparrow, White-crowned	<i>Zonotrichia leucophrys oriantha (NM); gambelii (NM)</i>
Sparrow, White-throated	<i>Zonotrichia albicollis</i>
Starling, European	<i>Sturnus vulgaris</i>
Swallow, Barn	<i>Hirundo rustica erythrogaster (NM)</i>

Swallow, Cliff	<i>Petrochelidon pyrrhonota tachina (NM); minima (NM)</i>
Swallow, Rough-winged, N.	<i>Stelgidopteryx serripennis serripennis (NM); psammochrous (NM)</i>
Swallow, Tree	<i>Tachycineta bicolor</i>
Swallow, Violet-green	<i>Tachycineta thalassina lepida (NM)</i>
Swift, Black	<i>Cypseloides niger borealis (NM)</i>
Tanager, Hepatic	<i>Piranga flava dextra (NM); hepatica (NM)</i>
Tanager, Western	<i>Piranga ludoviciana</i>
Tern, Forster's	<i>Sterna forsteri</i>
Tern, Least	<i>Sterna antillarum athalassos (NM)</i>
Thrasher, Bendire's	<i>Toxostoma bendirei</i>
Thrasher, Sage	<i>Oreoscoptes montanus</i>
Thrush, Hermit	<i>Catharus guttatus guttatus (NM); nanus (NM); sequoiensis (NM); auduboni (NM); slevini (NM)</i>
Thrush, Swainson's	<i>Catharus ustulatus ustulatus (NM); swainsoni (NM)</i>
Titmouse, Juniper	<i>Baeolophus ridgwayi</i>
Towhee, Canyon	<i>Pipilo fuscus mesoleucus (NM); mesatus (NM); relictus (AZ)</i>
Towhee, Green-tailed	<i>Pipilo chlorurus</i>
Towhee, Spotted	<i>Pipilo maculatus</i>
Vireo, Gray	<i>Vireo vicinior</i>
Vireo, Solitary	<i>Vireo solitarius</i>
Vireo, Cassin's	<i>Vireo cassinii</i>
Vireo, Plumbeous	<i>Vireo plumbeus</i>
Vireo, Warbling	<i>Vireo gilvus swainsonii (NM)</i>
Vulture, Turkey	<i>Cathartes aura septentrionalis (NM); teter (NM)</i>
Warbler, Bay-breasted	<i>Dendroica castanea</i>
Warbler, Grace's	<i>Dendroica graciae graciae (NM)</i>

Warbler, Gray, Black-throated	<i>Dendroica nigrescens</i>
Warbler, Green, Black-throated	<i>Dendroica virens virens (NM)</i>
Warbler, Macgillivray's	<i>Oporornis tolmiei tolmiei (NM); monticola (NM)</i>
Warbler, Nashville	<i>Vermivora ruficapilla ridgwayi (NM)</i>
Warbler, Orange-crowned	<i>Vermivora celata celata (NM); orestera (NM); lutescens (NM)</i>
Warbler, Townsend's	<i>Dendroica townsendi</i>
Warbler, Virginia's	<i>Vermivora virginiae</i>
Warbler, Wilson's	<i>Wilsonia pusilla pusilla (NM); pileolata (NM); chryseola (NM)</i>
Warbler, Yellow	<i>Dendroica petechia sonorana (NM); morcomi (NM); amnicola (NM); rubiginosa (NM)</i>
Warbler, Yellow-rumped	<i>Dendroica coronata coronata (NM); auduboni (NM)</i>
Waxwing, Bohemian	<i>Bombycilla garrulus pallidiceps (NM)</i>
Waxwing, Cedar	<i>Bombycilla cedrorum</i>
Willet	<i>Catoptrophorus semipalmatus inornatus (NM)</i>
Woodpecker, Downy	<i>Picoides pubescens leucurus (NM)</i>
Woodpecker, Hairy	<i>Picoides villosus monticolus (NM); leucothorectis (NM); icastus</i>
Woodpecker, Ladder-backed	<i>Picoides scalaris cactophilus (NM); symplectus (NM)</i>
Woodpecker, Lewis's	<i>Melanerpes lewis</i>
Woodpecker, Three-toed	<i>Picoides tridactylus dorsalis (NM)</i>
Wren, Bewick's	<i>Thryomanes bewickii eremophilus (NM); cryptus (NM)</i>
Wren, Canyon	<i>Catherpes mexicanus conspersus (NM)</i>
Wren, House	<i>Troglodytes aedon parkmannii (NM)</i>
Wren, Winter	<i>Troglodytes troglodytes hiemalis (NM); pacificus (NM)</i>
Yellowlegs, Lesser	<i>Tringa flavipes</i>
Yellowthroat, Common	<i>Geothlypis trichas campicola (NM); occidentalis (NM); chryseola (NM)</i>

Mammals

Badger, American	<i>Taxidea taxus berlandieri (NM, AZ)</i>
Chipmunk, Colorado	<i>Neotamias quadrivittatus quadrivittatus (NM); australis (NM)</i>
Chipmunk, Least	<i>Neotamias minimus operarius (NM); chuskaensis (NM)</i>
Coyote	<i>Canis latrans lestes (NM); mearnsi (NM); texensis (NM)</i>
Prairie Dog, Gunnison's	<i>Cynomys gunnisoni gunnisoni (NM); zuniensis (NM)</i>
Fox, Gray, Common	<i>Urocyon cinereoargenteus scottii (NM, AZ)</i>
Fox, Kit	<i>Vulpes macrotis neomexicanus (NM, AZ)</i>
Fox, Red	<i>Vulpes vulpes fulva (NM); macroura (NM)</i>
Gopher, Pocket, Botta's	<i>aureus (NM); catalinae (NM); desertorum (NM,AZ); lachuguilla (NM); modicus (NM); peramplus (NM); perv</i>
Gopher, Pocket, Northern	<i>Thomomys talpoides fossor (NM, AZ); kaibabensis (AZ)</i>
Gopher, Pocket, Yellow-faced	<i>Cratogeomys castanops castanops (NM); hirtus (NM); parviceps (NM); perplanus (NM) concolor azteca (NM, AZ); kaibabensis (NM, AZ); stanleyana (NM)</i>
Marmot, Yellow-bellied	<i>Marmota flaviventris luteola (NM); obscura (NM)</i>
Marten, American	<i>Martes americana origenes (NM)</i>
Mouse, Brush	<i>Peromyscus boylii rowleyi (NM, AZ)</i>
Mouse, Deer	<i>Peromyscus maniculatus blandus (NM); rufinus (NM)</i>
Mouse, Grasshopper, N.	<i>Onychomys leucogaster arcticeps (NM); pallescens (NM); ruidosae (NM)</i>
Mouse, Harvest, Western	<i>Reithrodontomys megalotis megalotis (NM); aztecus (NM)</i>
Mouse, House	<i>Mus musculus</i>
Mouse, Jumping, Western	<i>Zapus princeps princeps (NM)</i>
Mouse, Pinyon	<i>Peromyscus truei truei (NM, AZ)</i>
Mouse, Pocket, Plains	<i>Perognathus flavescens copei (NM); melanotis (NM); relictus</i>
Mouse, Pocket, Silky	<i>Perognathus flavus flavus (NM); hopiensis (NM)</i>

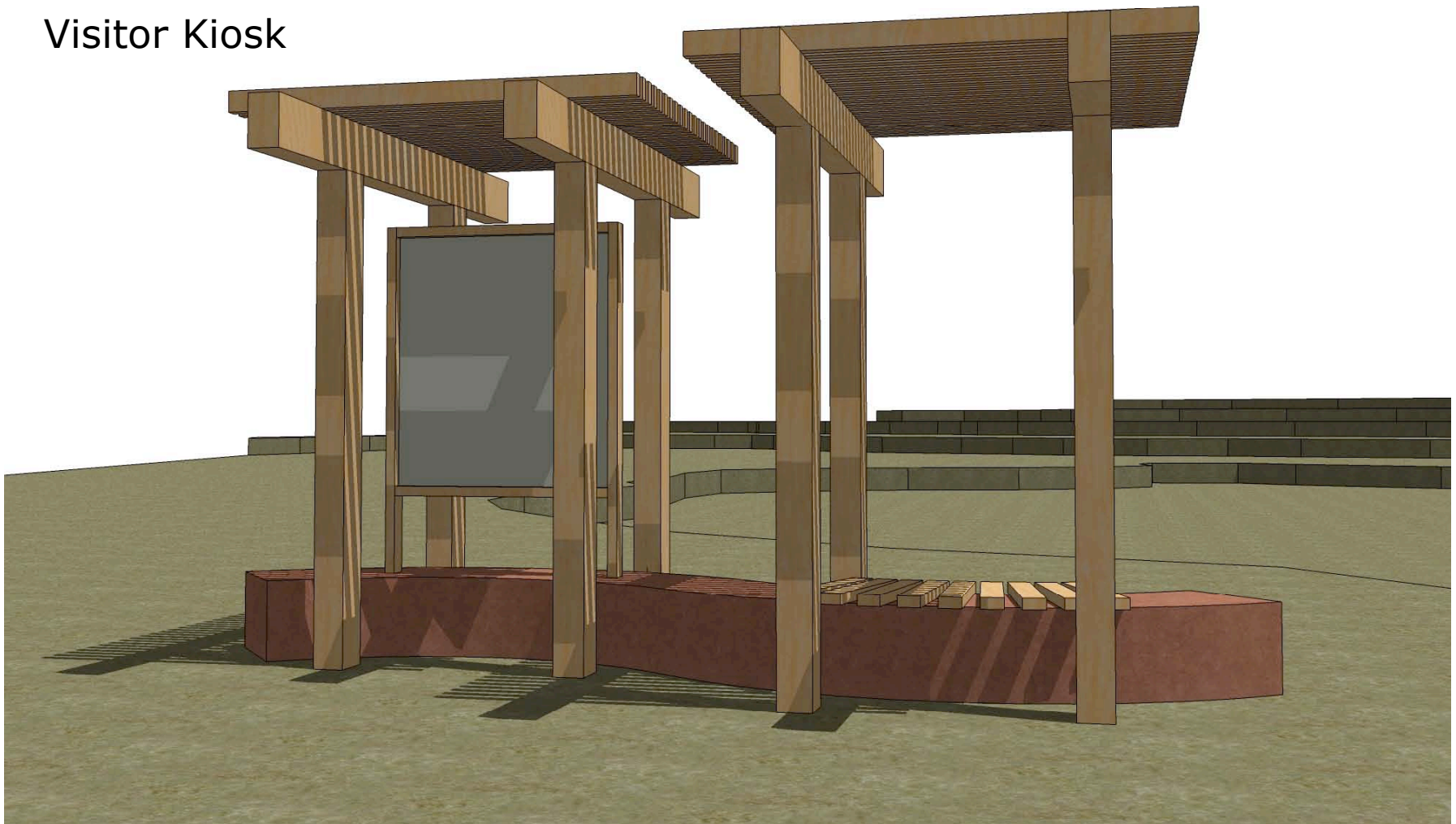
Mouse, Rock, Northern	<i>Peromyscus nasutus nasutus (NM, AZ); penicillatus (NM)</i>
Mouse, White-footed	<i>Peromyscus leucopus arizonae (NM); tornillo (NM)</i>
Opossum, Virginia	<i>Didelphis virginiana virginiana (NM, AZ)</i>
Pika, American	<i>Ochotona princeps incana (NM); saxatilis (NM)</i>
Porcupine, Common	<i>Erethizon dorsatum couesi (NM); epixanthum (NM)</i>
Rabbit, Cottontail, Desert	<i>Sylvilagus audubonii cedrophilus (NM); minor (NM); neomexicana (NM)</i>
Rabbit, Cottontail, Nuttall's	<i>Sylvilagus nuttallii pinetis (NM, AZ)</i>
Rabbit, Jack, Black-tailed	<i>Lepus californicus melanotis (NM); texianus (NM)</i>
Raccoon, Common	<i>Procyon lotor hirtus (NM); mexicanus (NM); pallidus (NM)</i>
Rat, Kangaroo, Banner-tailed, NM	<i>Dipodomys spectabilis baileyi (NM, AZ)</i>
Rat, Kangaroo, Ord's	<i>Dipodomys ordii longipes (NM); medius (NM); montanus (NM); ordii; (NM); richardsoni (NM)</i>
Rat, Wood, Bushy-tailed	<i>Neotoma cinerea arizonae (NM, AZ); orolestes (NM)</i>
Rat, Wood, Mexican	<i>Neotoma mexicana mexicana (NM); inopinata pinetorum (NM, AZ); scopulorum (NM)</i>
Rat, Wood, S. Plains	<i>Neotoma micropus canescens (NM)</i>
Rat, Wood, White-throated	<i>Neotoma albigula albigula (NM, AZ); laplataensis (NM); warreni (NM); mernsi (AZ)</i>
Ringtail	<i>Bassariscus astutus arizonensis (NM, AZ); flavus (NM)</i>
Sheep, Bighorn, Rocky Mtn.	<i>Ovis canadensis canadensis (NM, AZ)</i>
Shrew, Masked	<i>Sorex cinereus cinereus (NM)</i>
Shrew, Dusky	<i>Sorex monticolus monticolus (NM); obscurus (NM)</i>
Shrew, Water	<i>Sorex palustris navigator (NM, AZ)</i>
Skunk, Spotted, Western	<i>Spilogale gracilis</i>
Skunk, Striped	<i>Mephitis mephitis estor (NM); hudsonica (NM); varians (NM)</i>
Squirrel, Abert's	<i>Sciurus aberti aberti (NM, AZ); chuscensis (NM, AZ); mimus(NM)</i>
Squirrel, Ground, Golden-mantled	<i>Spermophilus lateralis lateralis (NM); arizonensis (NM)</i>
Squirrel, Ground, Spotted	<i>Spermophilus spilosoma canescens (NM); cryptospilotus (NM); marginatus (NM)</i>

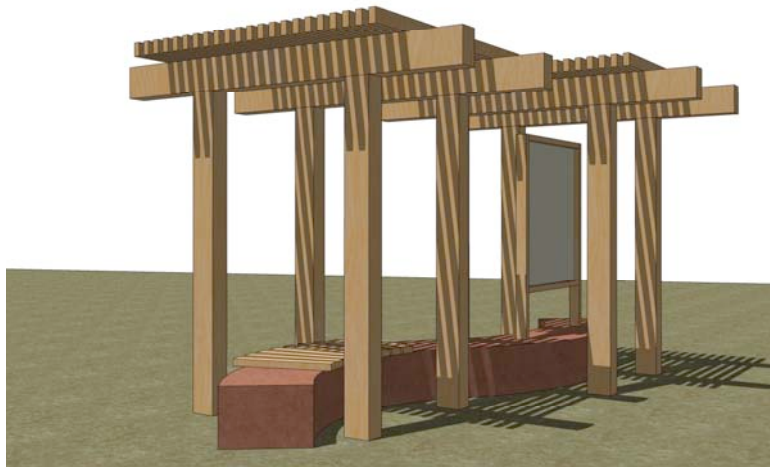
Squirrel, Red	<i>Tamiasciurus hudsonicus fremonti (NM); mogollonensis (NM)</i>
Squirrel, Rock	<i>Spermophilus variegatus grammurus (NM, AZ)</i>
Vole, Heather	<i>Phenacomys intermedius intermedius (NM)</i>
Vole, Long-tailed	<i>Microtus longicaudus longicaudus (NM)</i>
Vole, Meadow	<i>Microtus pennsylvanicus modestus (NM)</i>
Vole, Red-backed, Southern	<i>Clethrionomys gapperi gauti (NM); limitis (NM)</i>
Weasel, Ermine	<i>Mustela erminea muricus (NM)</i>
Weasel, Long-tailed	<i>Mustela frenata arizonensis (NM, AZ); neomexicana(NM, AZ); nevadensis (NM, AZ)</i>

Appendix B

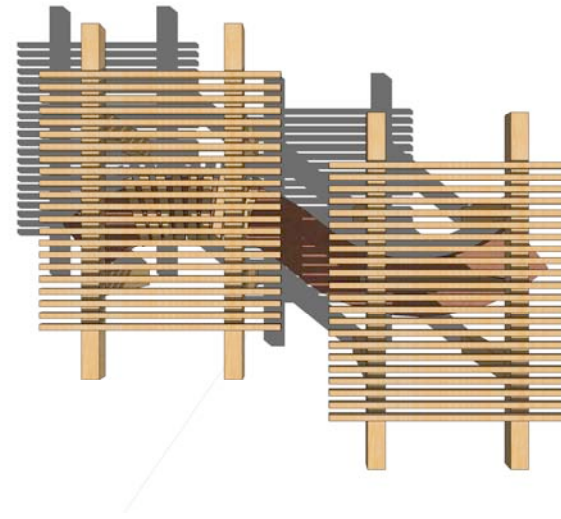
Site Designs

Visitor Kiosk

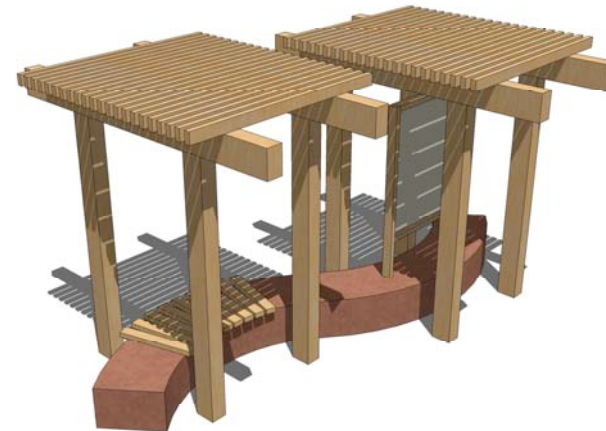
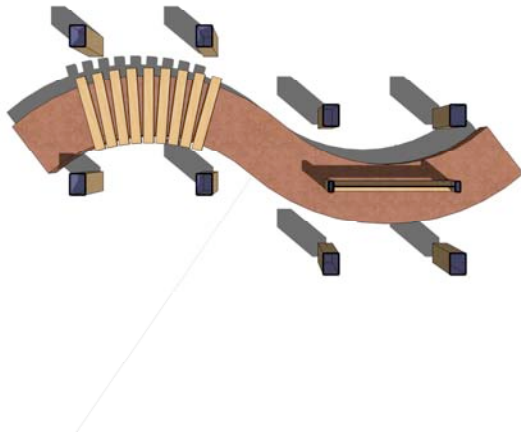




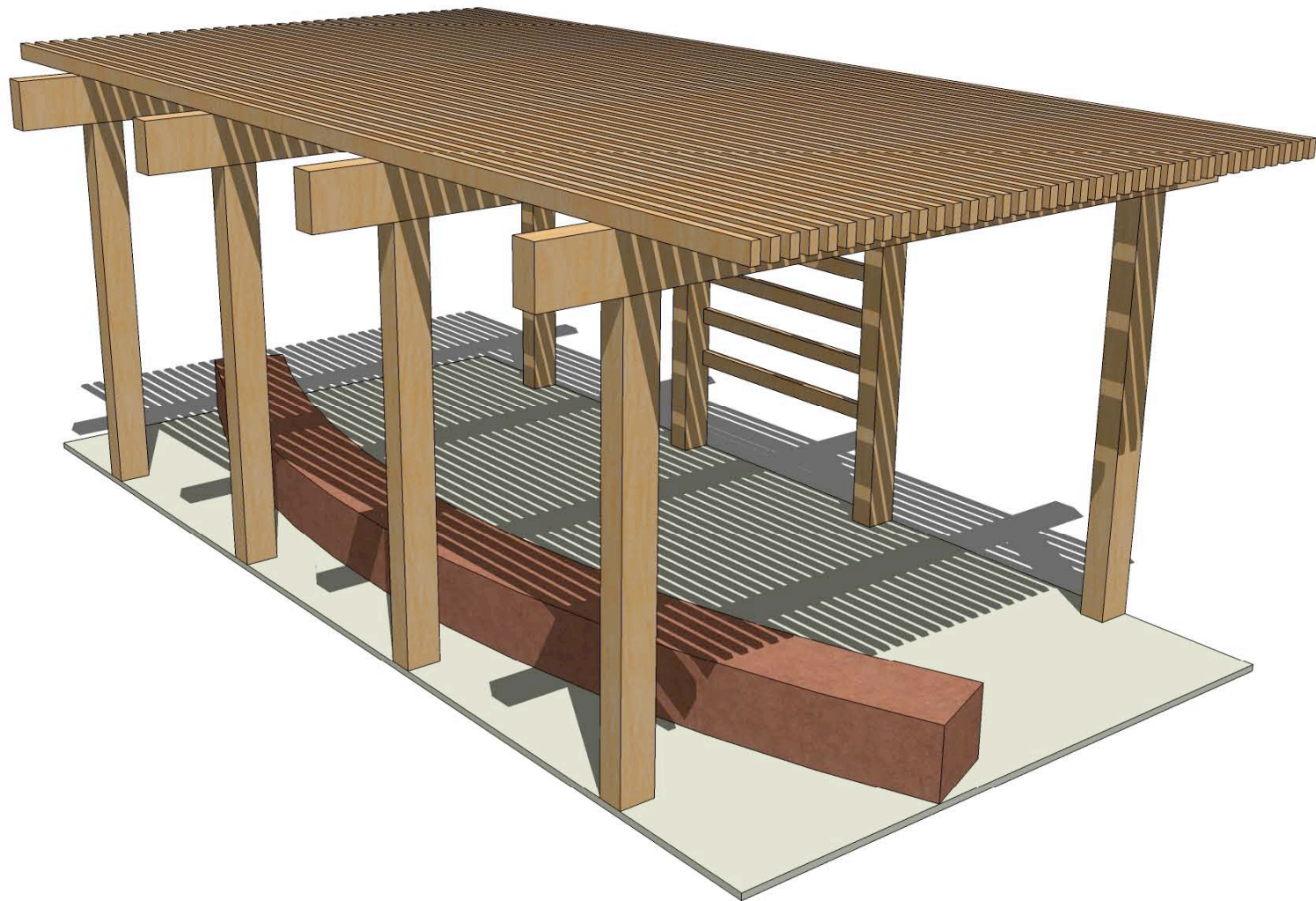
VISITOR



KIOSK

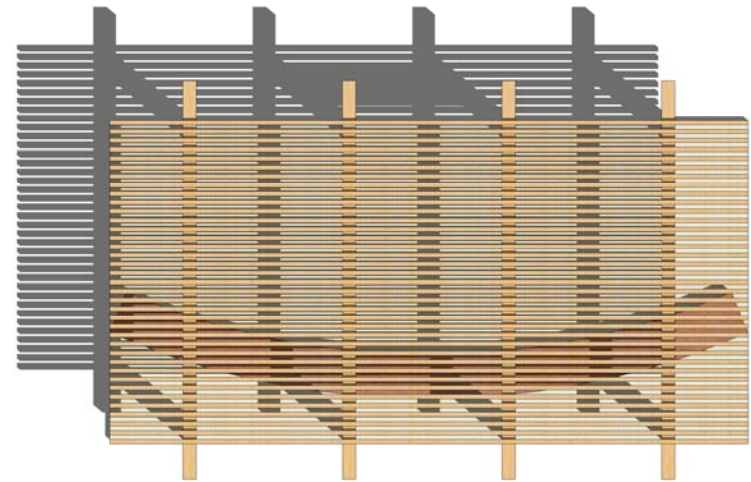


OUTDOOR CLASSROOM

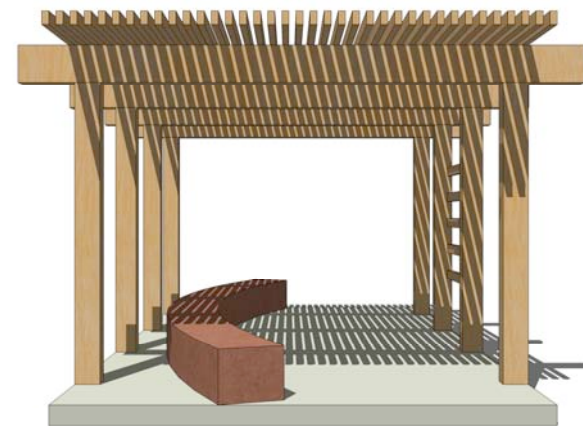
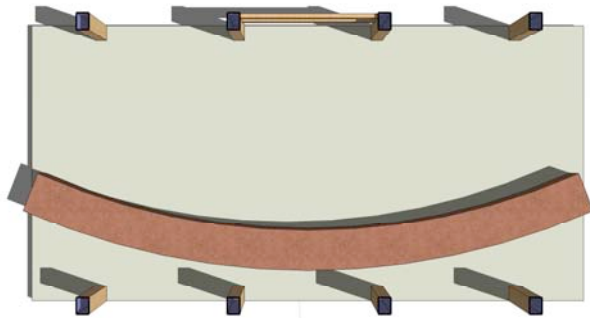




OUTDOOR

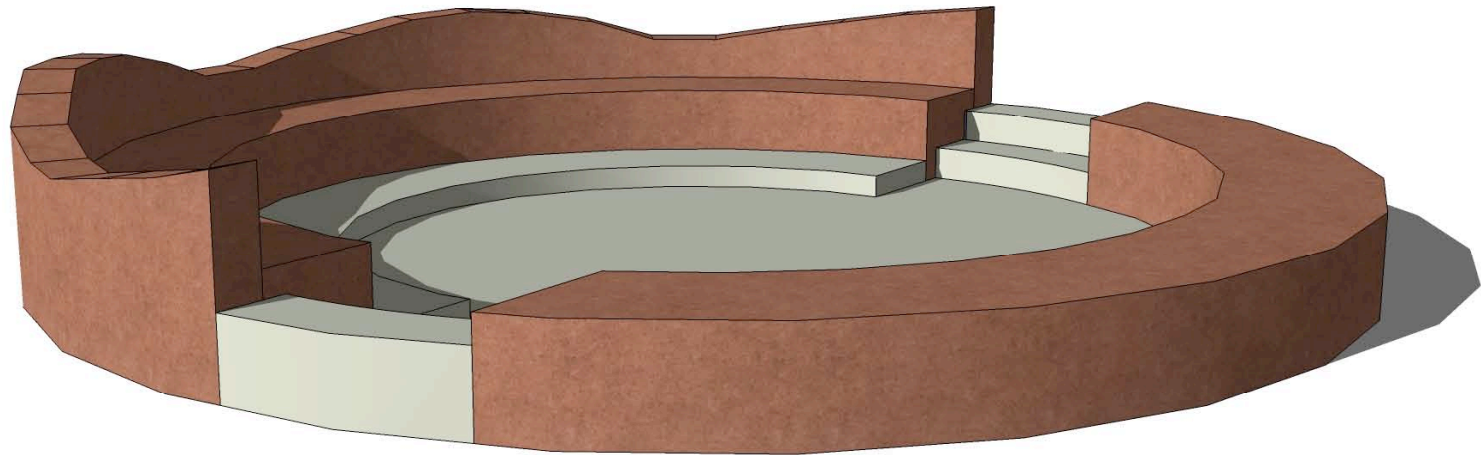


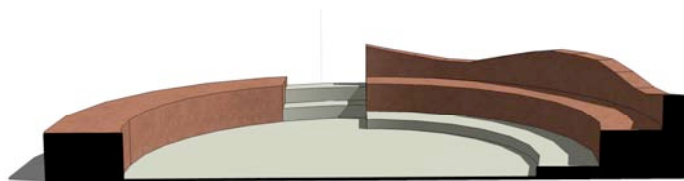
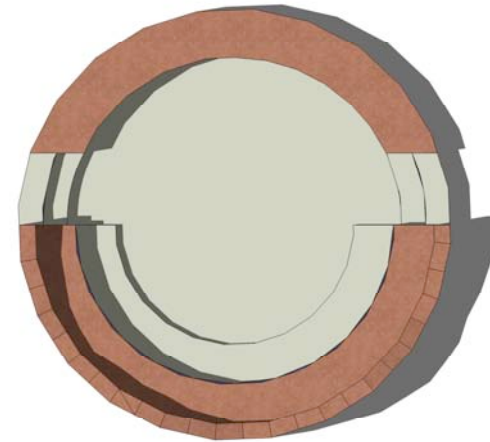
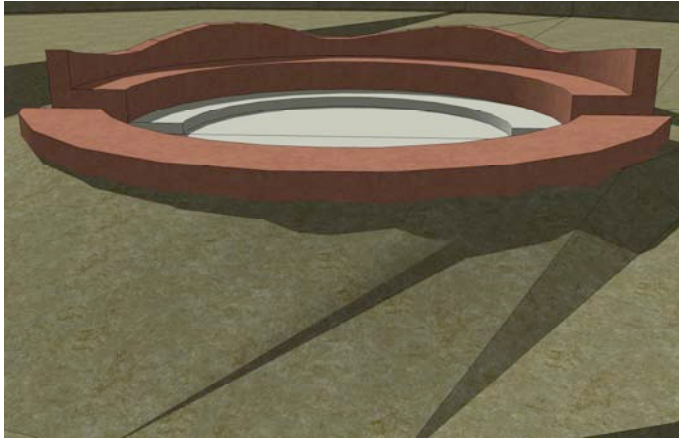
CLASSROOM



OUTDOOR

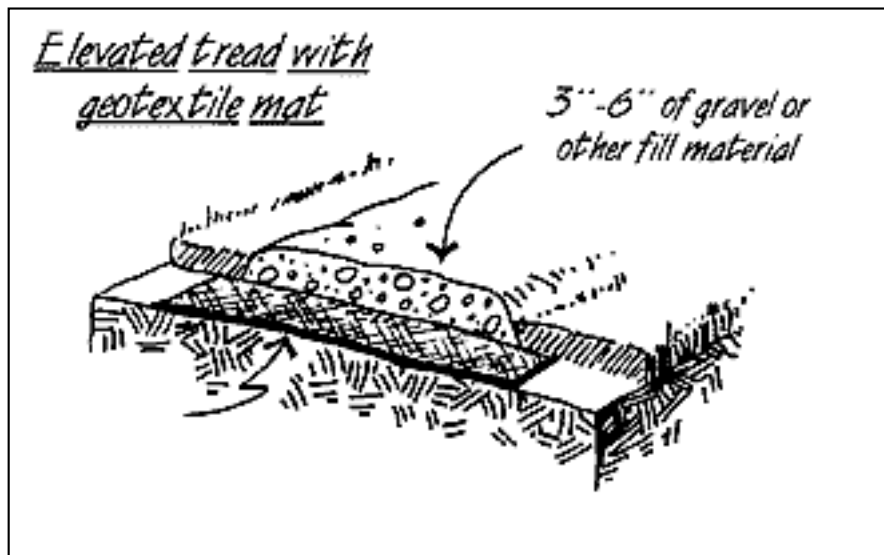
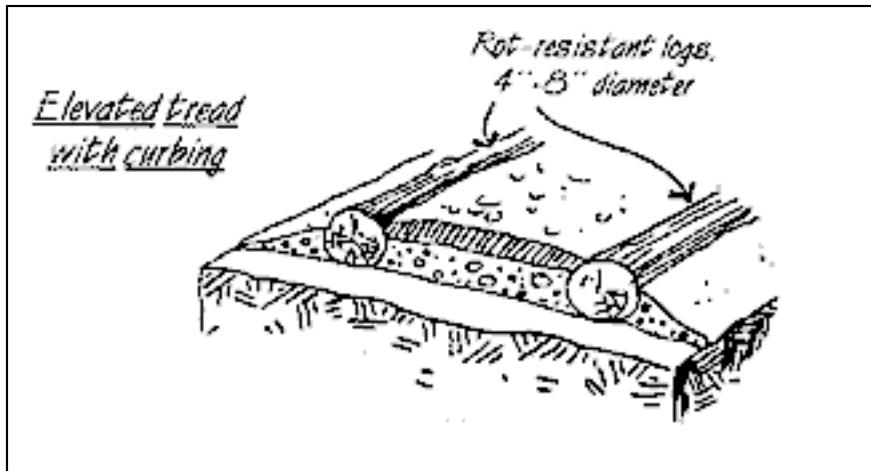
THEATER



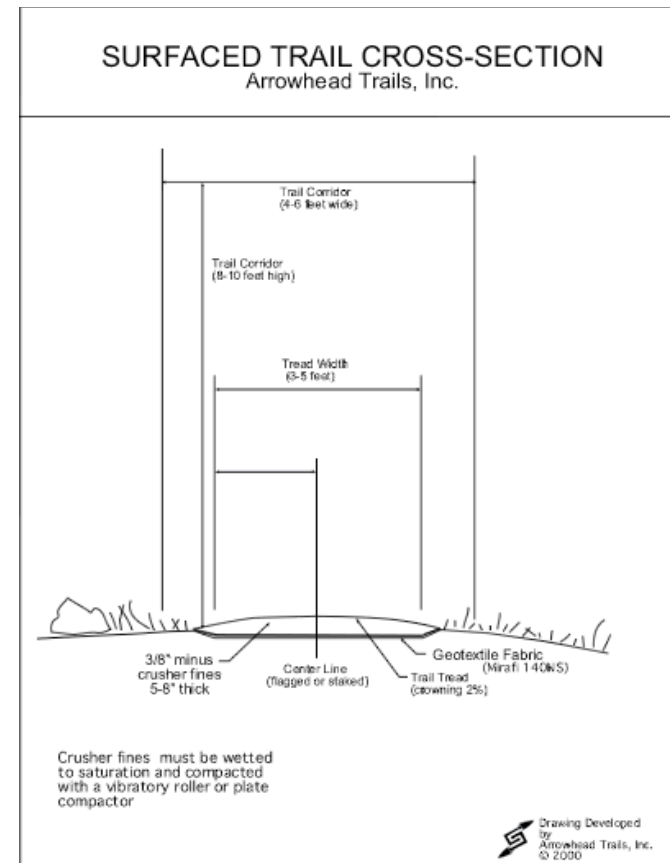


**OUTDOOR
THEATER**

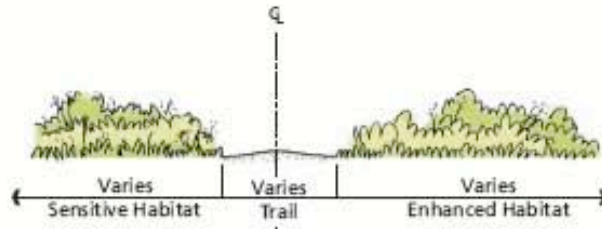




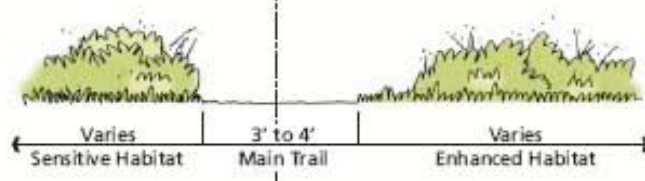
TRAIL CROSS SECTIONS



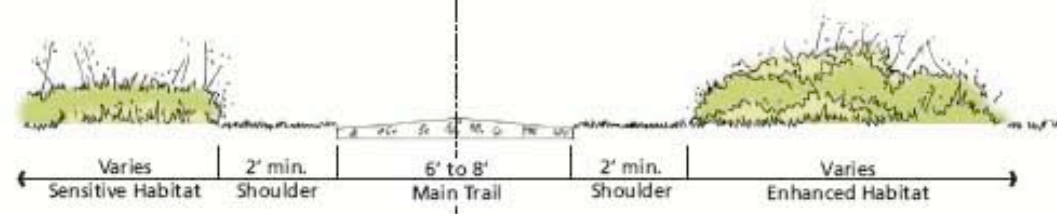
Trail Type A: Existing Native Trails
Width varies. Designed for pedestrians.



Trail Type B: Improved Native Trails
Smooth and compact existing surface. Designed for pedestrians.



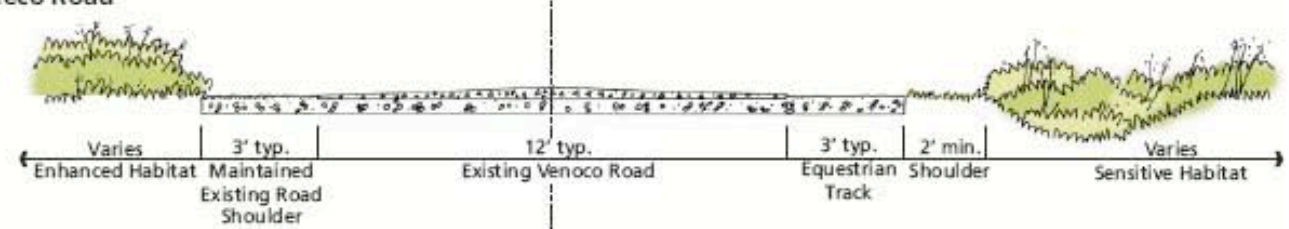
Trail Type C: Improved Trails - Varying Surface
Improved existing surface with imported compacted fines in selected areas.



Trail Type D: Improved Trails - Uniform Surface
Imported compacted fines with or without stabilizer.



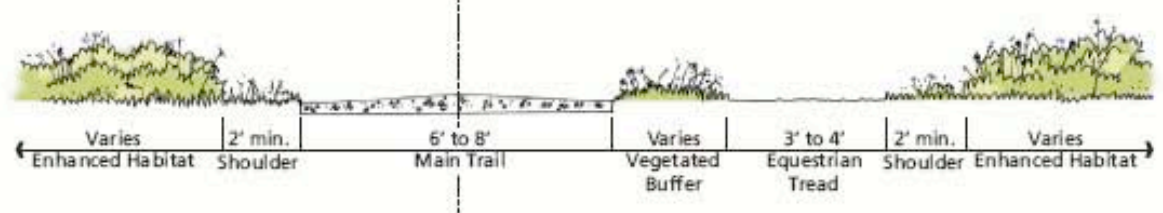
Trail Type E: Existing Veneco Road



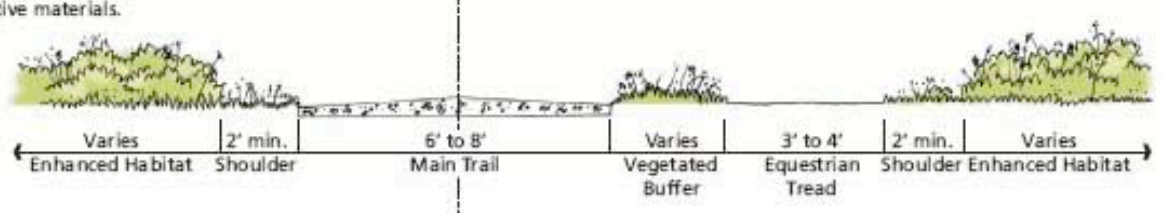
Trail Type F: Public Roads
Class II or III bike lane.



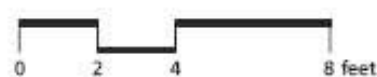
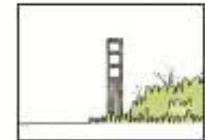
Trail Type G: Anza Trail (Goleta)
Imported compacted fines on main trail. Separate equestrian trail with existing native materials.



Trail Type H: Anza Trail (University)
Imported compacted fines with stabilizer on main trail. Separate equestrian tread with existing native materials.



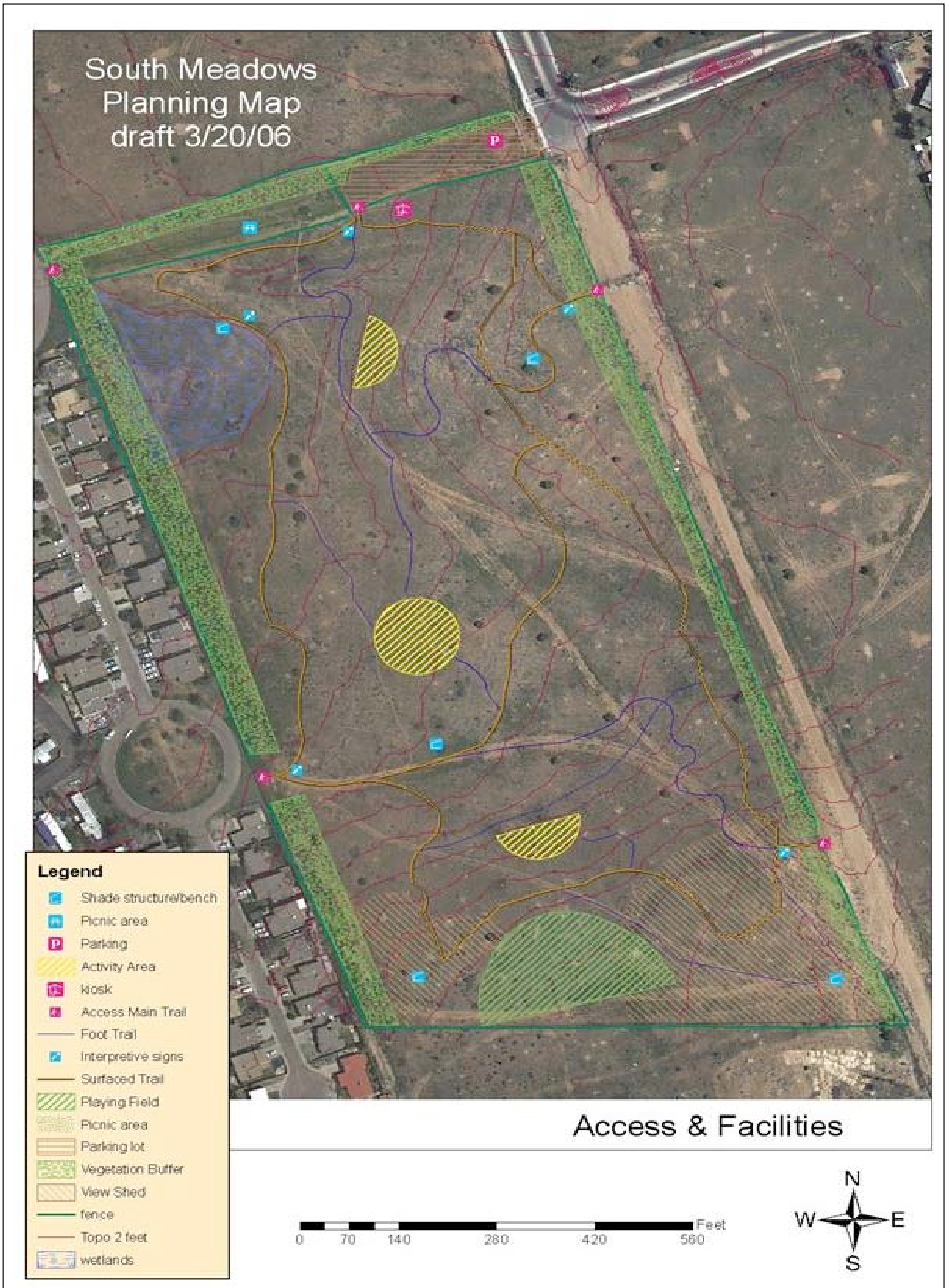
Trails at the University may include the trail markers and post-and-cable fencing in the sensitive habitat areas.

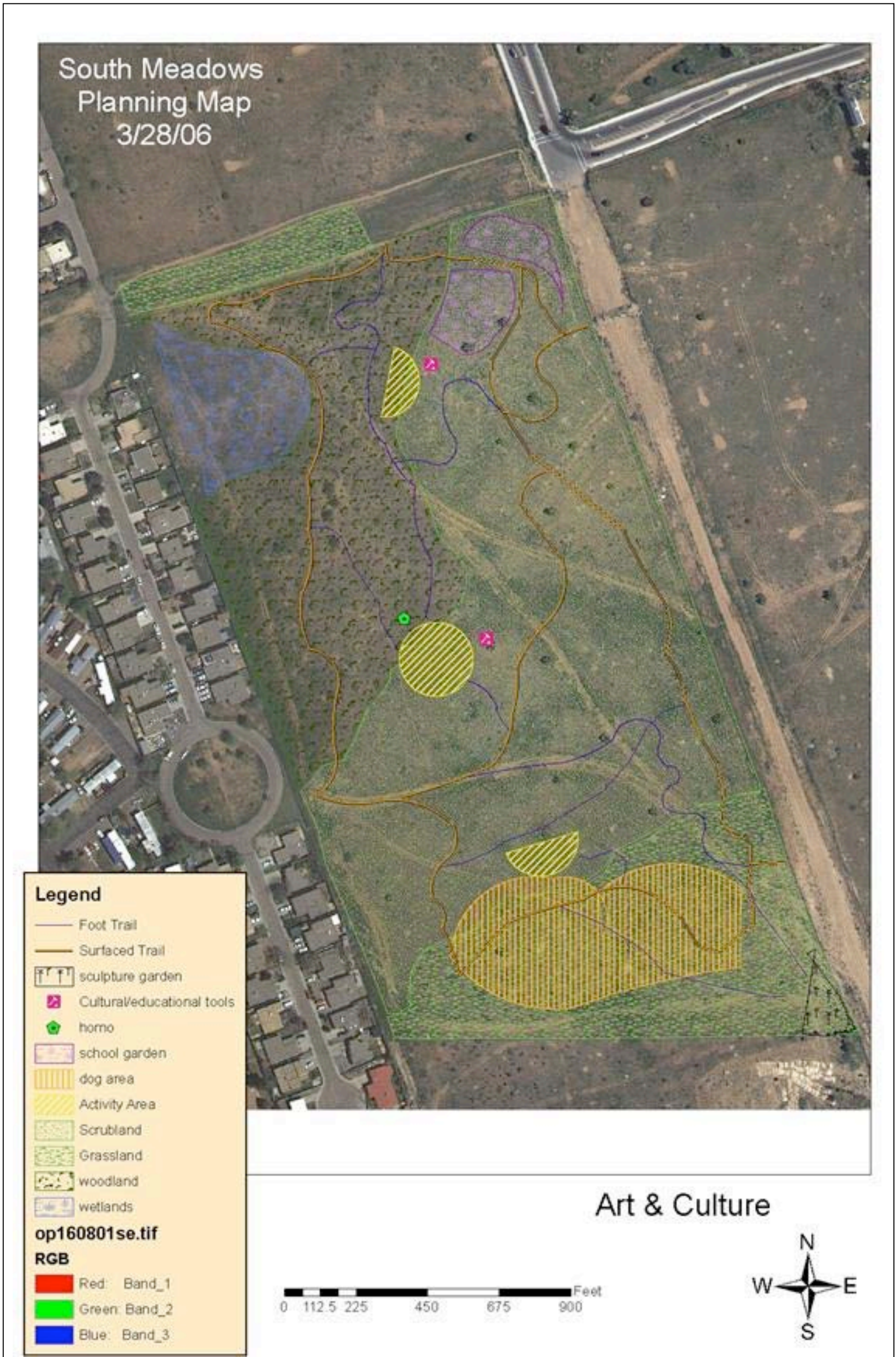


Credit: Wallace Roberts & Todd, LLC

March 2004	Elwood-Devereux Coast Open Space and Habitat Management Plan	Figure 18. Cross Sections of Trail Types
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Appendix C Maps






















South Meadows
Planning Map
3/28/06



Legend

-  cactus garden
-  Butterfly garden
-  Willow
-  Flowering Plum
-  Russian Olive
-  privet
-  Black Locust
-  Berms
-  swales
-  Surfaced Trail
-  Foot Trail
-  Scrubland
-  Grassland
-  woodland
-  fence
-  wetlands
-  Topo 2 feet

Vegetation & Habitat

