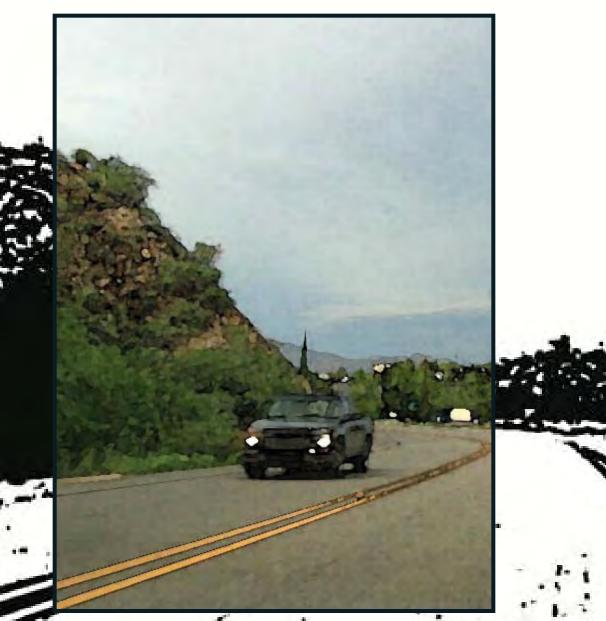
US HIGHWAY 60/70

A COMMUNITY TRANSPORTATION AND AESTHETIC IMPROVEMENT CORRIDOR





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The Drachman Institute is a research and public service unit of the College of Architecture and Landscape Architecture at the University of Arizona, dedicated to the environmentally sensitive and resource-conscious development of neighborhoods and communities. The Drachman Institute dedicates its research and outreach activities to the proposition that housing is the building-block of neighborhoods, and neighborhoods are the building-blocks of communities.

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PROJECT INTRODUCTION











In the Summer of 2007, the Curb Appeal Committee, a coalition of Globe-Miami-San Carlos area residents and business owners, approached the Drachman Institute at The University of Arizona with a request for Technical Assistance. The project at hand was an improvement of 17 miles of US Highway 60 and US Highway 70 from Miami to the Apache Gold Casino on the San Carlos Reservation. The corridor was suffering from blight, neglect, heavy traffic volumes, way-finding problems, a lack of visual coherence, and a dearth of pedestrian and bicycle amenities.

Previous community meetings involving property owners, mining company representatives, business owners, San Carlos Tribal members, Miami and Globe City Council members, and private citizens had helped the group

PROJECT INTRODUCTION









identify three priorities for redeveloping the corridor: visual enhancement, the development of planning and zoning regulations, and regional promotion. Drachman's work on the project was therefore to focus on strategies for immediate aesthetic and functional improvements as well as serve as a guide for future development in the region. The scope of the project focused on the highway corridor but also addressed expressed community needs for park space, zoning regulations, and public transportation infrastructure.

This document is the result of the Drachman Institute's Community outreach and of technical assistance profram. The final product includes an inventory and assessment, analysis, a conceptual master plan for visual enhancement, and specific design strategies to improve business, tourism, and livability along the corridor.

CONTEXT

The Globe-Miami area is located in Gila County in south central Arizona, approximately 75 miles east of Phoenix and 110 miles north of Tucson. From Phoenix visitors arrive to the area by Highway 60, from Tucson Highway 77 is the most convenient route.

Miami has a population of approximately 2,018 and Globe 7,486. The San Carlos Apache Indian Reservation stretches over northern Graham, southeastern Gila, and eastern Pinal Counties, and is in area the tenth-largest Indian reservation in the country. The largest community on the reservation is San Carlos with a population of 3,716 according to the 2000 census.

The Globe-Miami population is predominantly White, Hispanic and Native American. Approximately 25% of the population is under 18, while about 16% is over the age of 65.





CLIMATE AND ZONE

The Globe-Miami area is located in the Semi-Desert Grassland Pinal Mountains of Gila County in south central Arizona, at an elevation of about 3,500 feet. The climate is mild year round. The average low temperature in January is 33.6, the average high in July is 96.5 degrees. There are only about 40 days a year of precipitation with rainfall providing 19.3 inches per year and snowfall adding another inch. It is mostly sunny 293 days out of the year.

Semi-desert grassland occurs throughout southeastern Arizona, southwestern New Mexico, northeastern Sonora, and northwestern Chihuahua at elevations ranging from 3,000 to 4,500 feet. Typical vegetative cover includes native grasses and shrubs such as mesquite, juniper, creosote, and burroweed. Other plants found in Semi-Desert Grasslands include yuccas, opuntias, sotols, ocotillo, barrel cacti, palo verde, Arizona ash, fairy duster, and a variety of wildflowers. Native herbivores in the semi-desert grasslands range from insects and rodents to pronghorn and deer.

Human interruption of the natural fire cycle and the introduction of large herbivores have been implicated in the increased density and cover of mesquite, juniper, broom snakeweed, burroweed, creosote bush, and cacti. The increase in trees and shrubs has changed vegetation in the semi-desert grasslands from a predominantly open perennial grass system to mixed shrub, tree, and perennial grass system with multiple areas having been converted to shrub-lands.



Source: Schussman, Heather and Edward Smith. "Historical Range of Variation for Potential Natural Vegetation Types of the Southwest" Southwest Forest Assessment Project. The Nature Conservancy. 2006.









AREA HISTORY

Human occupation of the Pinal Creek watershed goes back hundreds of years. Hohokam Indians visited the Pinal Creek region on a seasonal basis, passing through the area on trading expeditions or hunting for food or turquoise. Eventually they established permanent settlements along Pinal Creek and began cultivating crops in irrigated fields until their decline and disappearance. From about 1200 to 1450 the Salado people occupied the area, Apaches arrived around 1500 and firmly controlled the territory well into the 19th century. In the 1820's the first Anglos, mostly mountain men and adventurers, entered Pinal Creek. Miners followed starting in the 1860's.

Since the times of the Spanish conquistadores it was known that mineral deposits could be found in and around the Pinal Mountains. Due to Apache control of the region, no serious prospecting was done until 1864. Globe was founded as a mining camp in 1875. At first, gold and silver were the two metals of importance but in the early 1880's the price of silver dropped and the price of copper began to rise and the area eventually became a center for copper mining. In 1906, the Miami Copper Company began working the claims in the Miami area. The need for housing closer to the new mines led to the founding of Miami in 1907. The San Carlos Apache Indian Reservation was established in 1871, and is home to a conglomeration of Apache tribes relocated there from traditional Apache homelands in both Arizona and New Mexico.

US Highway 60 was commissioned in 1927 and was part of the original 1927 Arizona Highway Plan. It now serves as the major transportation artery through and between the communities in the area. US 70 and 60 converge in eastern Globe to form what once was a transcontinental highway from Los Angeles to the southeastern United States. Highway 60 was closed in California in 1964 and partially in Arizona in the decade to follow. In recent years, the Arizona Department of Transportation (ADOT) has been working to widen and improve US 60 through the Metropolitan Phoenix Area, and ADOT is currently looking at improving the roadway through the Globe-Miami area as well.













REGIONAL ATTRACTIONS

Located between the major population centers of Phoenix and Tucson and the lakes and mountains of eastern Arizona, the Globe-Miami area is a recreational hub and tourist stopping point. Major regional draws include:

Roosevelt Lake

Apache Lake

Canyon Lake

Saguaro Lakes

Besh-Ba-Gowah Archeological Park

Bullion Plaza Cultures Center And Museum

Cobre Valley Center for the Arts

Gila County Fairgrounds

Tonto National Monument

Pinal Peak

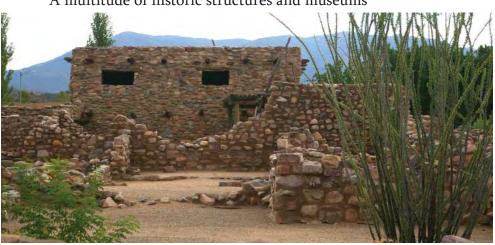
Boyce Thompson Arboretum

Apache Gold Casino

Apache Stronghold Golf Course

Copper Spike Railroad

A multitude of historic structures and museums





Apache Gold Casino





Historic Miami

CULTURAL RESOURCES

Yellow areas indicate zones and points of particular historic or cultural interest along the Highway 60-70 corridor. These zones include the historic downtowns of Miami and Globe, railroad and mining equipment, and Besh-Ba Gowah Park.

















Danger Zones

Red zones indicate danger spots along the Highway 60-70 corridor. These areas are predominantly areas where pedestrians are crossing without lights or signs, traffic is moving too fast, or driveway pull-outs and parking lots create conflict with the main stream of traffic.













EXISTING GREEN SPACE

Green areas indicate the most evident of the existing green spaces along the corridor. Most of the significant green spaces are either associated with the wash and creek systems in the area or are areas which have yet to be developed and are used primarily for billboard displays. There is very little publicly accessible, well-maintained, well-respected green space along the length of the corridor.















AESTHETIC CONCERNS

Grey areas indicate zones of primary aesthetic concern. These areas are composed of stripped hillsides from mining, defunct equipment and debris, derelict structures, commercial and industrial areas, and excessive and large-scale signs and billboards.

















ASSESSMENT SUMMARY

Light blue areas indicate areas of way-finding confusion on the road. This confusion is most often due to an over-abundance of signs and poor placement.

The summary maps show the overlap of areas of aesthetic concern with danger zones, as well as confusing areas with those of greatest cultural or historic interests. These overlapping interest zones indicate places to focus most heavily on in the final design concept.









Yellow zones indicate areas of historic and cultural interest, red zones danger, black aesthetic concerns and blue indicate an area of way-finding confusion.



Overlapping zones reveal the areas most in need of immediate improvement.



DESIGN GOALS

Building upon the project goals set forth by the Curb Appeal Committee, and in consultation with community members in attendance at Drachman-sponsored community meetings, the following design goals were identified for the project:

Reflect the land and people of the area.

Embrace and enhance the 'small town' aspects of the corridor.

Promote a connection between visitors and local people, places and events.

Provide visual unity and appeal.

Ease way-finding.

Provide pedestrian amenities and allow for alternative transportation.

Be ecologically sensitive and protect natural resources.

Help develop design guidelines and a vision for future development.

Promote an enjoyable, scenic, and safe driving experience.





Maintaining traditional street configurations, maximum street widths, set-backs and sidewalks is essential for preserving character and walkability.



ROADWAY CHARACTER- EXISTING CONDITIONS



DEFINITION OF TERMS

Motor vehicle oriented. Higher Speeds. Wider view-frame. Lower cost, lower maintenance aesthetic treatments.

ROAD

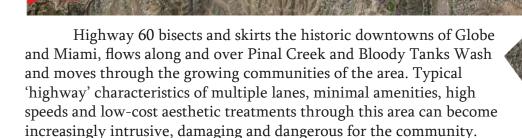
Balances vehicle and bike/ pedestrian use. Medium speeds. Medium view-frame. Some higher maintenance aesthetic treatments.

AVENUE

Prioritizes pedestrian and bicyclist.
Lower speeds, perhaps with traffic calming.
More narrow view-frame.
Higher maintenance and better aesthetic treatments.



ROADWAY CHARACTER- GOALS FOR GLOBE-MIAMI

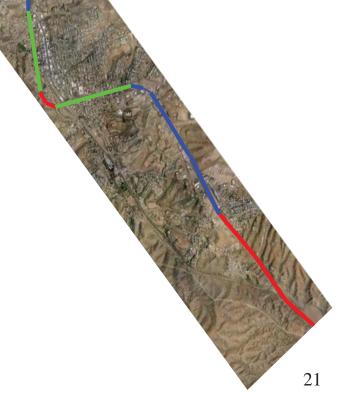


The long-term goal recommended for the Highway 60 corridor through the Globe-Miami area is to transform it from embodying exclusively 'highway' and 'road' characteristics, to a roadway that includes "avenue" sections and minimizes the use of multiple lanes, high speeds and minimal aesthetic and pedestrian amenities. The Highway is the most visible introduction to the area and should share its character.

Although current peak traffic volumes along Highway 60 may preclude narrowing the roadway, other 'avenue' and 'road' characteristics such as vegetation, aesthetic features and narrowed view-frames can be implemented. Encouraging bicycling and walking in the area may also help reduce congestion along the corridor and further foster the small town atmosphere and charm of Globe and Miami.









DESIGN PLAN-- ACHIEVING THE GOALS

The general design plan for the area features a series of gateways, a street tree program, median planting, a community park and a long-term plan for enhancing the small town character and viability of alternative transportation in the region.

Gateways

A variety of the gateways will help establish a sense of place and identity, while also addressing way-finding problems, promoting community pride and involvement, and improving the aesthetic quality of the corridor.

Street Trees

The street tree program allows for the visual unification of the corridor and shade for pedestrians and bicyclists, while also creating a seasonal feature and tourist draw. The spring bloom or fall color of a single variety of street tree will create a spectacular show for motorists and pedestrians—visitors and residents alike.

Median Planting

Using both existing and proposed median spaces for native, low-water, low-maintenance vegetative planting will help both beautify and unify the highway corridor. This improvement will also help showcase the flora of the Miami-Globe area to visitors and further develop a sense of place.

Community Park

The proposed community park will use a currently vacant parcel of state land as a neighborhood and regional amenity. Providing seating, shade, and water the park will also offer a labeled native plant walk and information about area history and culture.

Small-Town Character and Alternative Transportation

Future improvements to the corridor include a reclamation of the small town character of the roadway through lane reductions and increases in on-street parking. These changes help calm traffic to create a safer, more pleasant atmosphere for walking and biking.











Yellow circles indicate the proposed locations of the five main gateway features. Gateways are design features visible from the road which give an impression of a place, welcome and guide visitors, and provide visual interest. These features combine to create a more unified corridor, emphasize cultural and historic elements of the region, ease way-finding, and increase the aesthetic appeal of the area.



The two orange circles indicate gateway projects already designed and in progress by the City of Globe.

GATEWAY ONE-- WEST MIAMI AT BULLION PLAZA



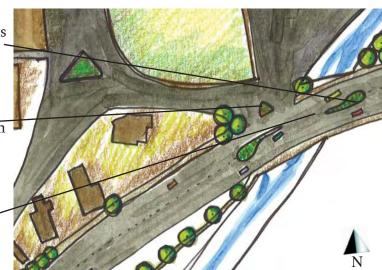
The gateway at Bullion Plaza in Miami uses medians and left turn lanes to ease the transition off the highway onto the streets of Miami. Design features in the medians provide a sense of arrival and a flavor of the area, welcoming travelers and encouraging them to stop and explore further. The visitor is directed to the front of the Historical Museum— an excellent place to get oriented before exploring the rest of the town.

Calming traffic in this area establishes a safer and clearer way for visitors and residents to enter Miami. The median islands also provide a safe refuge for those crossing the highway on this side of town.

Vegetated medians at existing right hand turn lanes.

Welcome median in front of Bullion Plaza separates lanes of traffic.

Sculpture and town identifier in west-facing median.













View entering Miami from west-- now and with proposed changes

GATEWAY TWO-- HEADFRAME IN EAST MIAMI



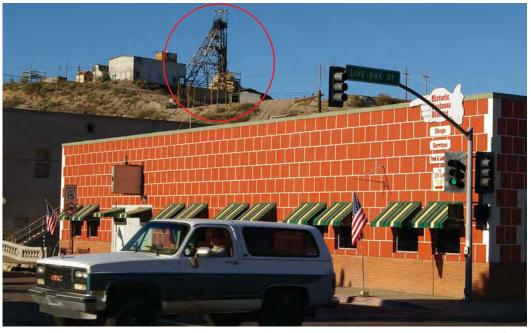
The headframe gateway celebrates the importance of mining in the area, both historically and today. Lighting creates a beacon easily seen from both the eastern and western approach to Miami, letting motorists know where they are and awakening interest and curiosity about the area. The headframe will serve both as a local landmark and an area attraction, and could be lit differently depending on the season and local events.



View from Live Oak in western Miami



Butte, Montana headframe and view of city below.



View of headframe from Live Oak in eastern Miami

GATEWAY THREE-- CLAYPOOL/CENTRAL HEIGHTS ART SPACE



The gateway at the intersection of Highway 188 welcomes motorists to the Claypool/Central Heights area using the existing medians as a place to showcase art and native vegetation. The medians would be planted with Yuccas, native shrubs, and grasses with at least one plot reserved for local or community art suitable for outdoor conditions.





Roadside art can take many forms; what is important is that it expresses something about the place it inhabits. A local design competition is a great and inexpensive way to gather ideas and provide opportunities for residents to contribute to the improvement of their town.



Unique pieces of local art help build a sense of place, support local artists, and can encourage community-building. Seen here is the Helping Hand statue found in nearby Superior, Arizona.

GATEWAY FOUR-- INTERSECTION OF HIGHWAYS 60 AND 77



The gateway at Highway 77 celebrates the ancient history of the area by calling attention to the Besh-Ba-Gowah Archeological Park. This gateway will help orient and inform visitors of this unique attraction while serving as a source of pride for residents.







View of intersection from the east-- now and with proposed gateway and street tree

GATEWAY FIVE-- OVERPASS EAST OF GLOBE



The gateway at the overpass west of Globe has two faces. Approaching from the west towards the San Carlos Apache reservation the overpass is decorated with an Apache basket weave pattern. Approaching the overpass from the east toward Globe, the face celebrates the importance of the railroad, and the Copper Spike rail line.





Design concept from the east



Design concept from the west







VEGETATION



Globe-Miami is located in the Sonoran Desert Uplands in a Semi-Desert Grassland. Plants native to this zone should be used along the highway corridor. Green areas indicate the primary areas of interest for the street tree program. Yellow zones indicate damaged areas in need of re-vegetation with native plants. Blue areas indicate places ripe for future park development, including the community park idea outlined below.









STREET TREE PROGRAM

A street tree program will help unify the Highway 60/70 corridor visually, provide shade for pedestrians and bicyclists, add visual interest, and create a seasonal draw to the area. Recruiting local volunteers to help with tree planting can help bolster a sense of ownership and pride in the initiative.

Street trees will be subject to a great number of stresses, from limited soil allowances to polluted street runoff, exposure to the elements, the heat island effect, and vandalism. Street trees must also be relatively low-maintenance, have an appropriate growth rate and life cycle, and maintain a suitable size and shape for their location. Good street trees are therefore limited. When selecting street trees for an arid desert climate with significant temperature fluctuations, the following tree characteristics are most critical:

Water Use Shade Cover Hardiness Size

Maintenance Requirements
The following are three tree species
suitable for the climate and conditions
found along the Highway 60/70
corridor.









PISTACIA CHINENSIS--Chinese Pistache **Water Use:** Moderate

Shade Cover: Dense to dappled. **Hardiness:** Drought tolerant, hardy to

-20° F.

Size: 25 – 40' tall and 20 – 30' wide **Maintenance:** Medium. Deciduous, moderate growth rate, long lived.

Feature: Fall shades of red, orange and

yellow.

ACACIA SMALII-- Sweet Acacia

Water Use: Low

Shade Cover: Dappled shade.

Hardiness: Drought tolerant, hardy to 15° F, Grows well in hot street settings.

Size: 25' tall and wide.

Maintenance: Rapid growth rate. a bit

messy, requires pruning

Feature: Early spring bloom. Attracts

birds and wildlife.

PARKINSONIA FLORIDA--

Blue Palo Verde Water Use: Low

Shade Cover: Dappled shade. **Hardiness:** Hardy to 10° F. **Size:** 30' tall and wide.

Maintenance: Some pruning needed,

some litter.

Feature: Fragrant spring blossoms.

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MEDIANS AND RE-VEGETATION

The Highway 60/70 corridor features a number of existing medians with new ones proposed in this document. According to the Federal Highway Administration, the primary functions of medians are to:

Separate opposing traffic flows.

Allow space for speed changes and left turns.

Minimize headlight glare.

Provide a space for landscape planting.

Vegetating medians is a straightforward way to improve the aesthetic qualities of the roadway and bring a flavor of the surrounding ecosystem into the driving experience. Species appropriate for median planting along the corridor include:

Ocotillo

Yuccas

Barrel Cacti

Velvet Mesquite

Fairy Duster

Jojoba

Areas adjacent to the roadway but on private property should also be addressed in this scheme. Stripped hillsides and disturbed but undeveloped areas should be re-vegetated with a seed mix of native plants and wildflowers such as:

Mexican Gold Poppies

Lupines

Globe-Mallow

Creosote bush

Fairy Duster

Yuccas

Various native grass varieties

Encouraging tree planting on private properties and around businesses can also help obscure eyesores and shade structures and parking areas. This can help reduce cooling costs and encourage more business along the corridor.





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PEDESTRIANS AND BICYCLISTS

The roadway improvements outlined in this document seek to improve the Highway 60/70 experience for a wide spectrum of users-- vehicular, pedestrian and bicyclist. While all roadway users will be concerned with the efficiency of the road, pedestrians and bicyclists will move through the area more slowly and often less linearly. For these user groups the following criteria are of greatest importance:

Connectivity
Convenience
Safety
Aesthetic Experience.

Encouraging walking and bicycle riding in the community helps reduce pollution and traffic congestion and can help bolster local business and improve the perceived safety level and general atmosphere of an area. The best way to encourage walking and biking along a given road is by:

Lowering vehicle speeds
Narrowing street widths
Allowing on-street parking
Including sidewalks, medians and crossing
islands

Separating lanes for vehicles and bicycles.

Street lighting is an essential component of safety and security on a street. A unified lighting scheme should be developed along all the 'avenue' sections identified above, and phased into the more pedestrian oriented areas along the rest of the corridor as funds allow. Street lighting:

Allows people to see and be seen clearly Improves traffic safety
Provides visual comfort.
Can enhance sculptures, vegetation, and architecture.



Encouraging walking and bicycle riding in the community can help reduce pollution and traffic congestion.

It is also important to provide children with a safe route to school.



Lighting is an essential component of safety and security on a street.



Lighting fixtures can enhance the aesthetic experience of a street even during the day.

PEDESTRIANS AND BICYCLISTS

Although current traffic volumes along Highway 60 preclude an immediate narrowing of the roadway, a proposed bypass of the area would reduce the current needs. The road is currently predominantly 72 feet wide. Along the length of the corridor there is a minimum of seven feet of sidewalk and buffer space on each side, and some areas have an on-street bike path.

The configuration recommended here would utilize road space for improved pedestrian and bicycle facilities as well as on-street parking along 'avenue' segments of the corridor. Encouraging bicycling and walking could also help reduce the current congestion in the area.

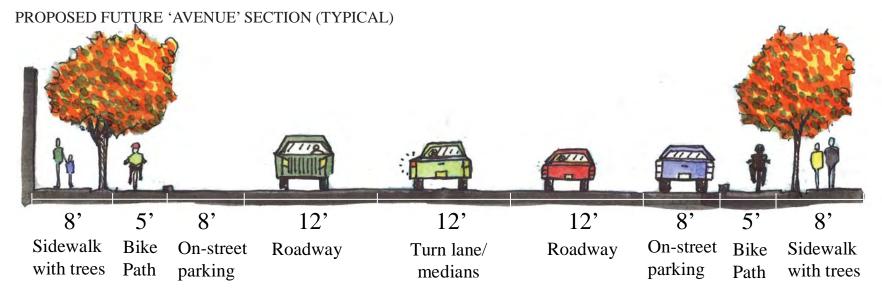


On-street parking buffers pedestrians from the road, provides convenient access to local businesses, calms traffic, and helps create a small town atmosphere.



Physically separating vehicular and bicycle lanes gives bicyclists a greater sense of safety on the road.

In order to retain and emphasize the small town atmospheres of Globe and Miami, increase safety, encourage walking and bikeriding, and maximize access to local businesses, it is recommended that along identified 'avenue' sections the roadway be reduced to two lanes of traffic with a center turn lane and on-street parking. Medians, traffic islands and a buffered bicycle path should be used along 'road' sections of the corridor for safer pedestrian crossing, safer, more efficient alternative transportation and beautification.



COMMUNITY PARK- HIGHWAY 60 AT RADONOVICH BLVD.



The 100 foot by 250 foot parcel of State-owned land on the southeast corner of Highway 60 and Radonovich Boulevard has been identified by the community as an excellent location for the development of a new park. This parcel of land is currently vacant and undeveloped, has been stripped of vegetation, but enjoys fine views of the hills to the southeast.

The property is located along the most rapidly developing section of the highway corridor. Directly south of the proposed park is a new development with little or no public open space. The lot is also across the street from a large grocery store, adjacent to a local restaurant, and highly visible from the highway.

A community park in this location would provide a high-profile green space for neighbors, visitors, and passers-by. Design features could include picnic facilities, recreational opportunities for all ages and abilities, area information and interpretation.



View south from Highway 60 towards proposed park site.



The proposed park could include an ADA accessible path such as this one along Baraza-Aviation Parkway in Tucson, Az.

COMMUNITY PARK









REFERENCES

- "Access and Roadside Management Manual". South Carolina Department of Transportation. May, 2007.
- Bigando, Robert. Globe, Arizona: The Life and Times of a Western Mining Town 1864- 1917. Globe: American Globe Publishing Co., 1989.
- Globe, Arizona History. http://www.geocities.com/~zybt/globe.htm . November, 2007. History of Miami, Arizona. http://www.miamiaz.org/MiamiHistory.htm. November, 2007.
- Hall, Richard A. "The Transect and Thoroughfare Design". Places 18.1.
- History of Miami. Eastern Arizona Relocation Services Chapman Interactive Inc. http://safford.us/Miami/index.html. November 2007.
- "Main Street... When a Highway Runs Through it: A Handbook for Oregon Communities". Oregon Department of Transportation. 1999.
- Moler, Steve. "A Hallmark of Context Sensitive Design". Public Roads. U.S. Federal Highway Administration. May/June 2002
- "Pattern and Palette of Place: A Landscape and Aesthetic Master Plan for the Nevada State Highway System." Nevada Department of Transportation. July, 2002.
- Sain, Wilma Gray. Miami: A History of the Miami Area, Arizona. Globe: Gila County Historical Society, [c. 1990].
- Sipes, James L. and Ron Blakemore. "Aesthetics in the Landscape: How Nevada and Other States are Integrating Aesthetics into Transportation Projects." TR News 248 January-Febuary 2007. pp. 3-12.
- Schussman and Edward Smith. "Historical Range of Variation for Potential Natural Vegetation Types in the Southwest." The Nature Conservancy. 2006.
- "Streetscape Improvements: Enhancing Urban Roadway Design" http://www.vtpi.org/tdm/tdm122.htm August, 2007
- "Transportation Enhancement Handbook." Arizona Department of Transportation. 2006.