



MEMORANDUM

Date: January 20, 2012

To: Chairman and Members
Pima County Bond Advisory Committee

From: C.H. Huckelberry
County Administrator 

Re: **Southern Arizona Regional Visitors Center at Tumamoc Hill**

In a previous bond proposal, under an Open Space question, the County was authorized to acquire State Trust Lands that encompassed Tumamoc Hill, an iconic element of our community. This acquisition occurred in 2009 at a total cost of \$2.35 million for 277 acres.

The balance of Tumamoc Hill is owned by The University of Arizona, who has operated the longest, continuous environmental research laboratory in the country, first initiated by the Carnegie Institution for Science.

Upon our acquisition of the property, the County expressed to the University a willingness to cooperatively develop, consistent with the environmental research mission of the Tumamoc Hill, a management plan that benefited all parties.

Over the last 20 years, a number of proposals have been made by various interests groups, including the National Park Service and others, for the creation and development of a regional visitors center. A number of options have been under consideration for some time, but no single option has proceeded beyond the discussion stage.

Collaborative planning between The University of Arizona College of Science, through their operation and management of Tumamoc Hill, and the County's purchase of Tumamoc Hill property, has led to the attached proposal to develop a Southern Arizona Regional Visitors Center at Tumamoc Hill. The estimated cost to develop this visitors center, rehabilitate existing buildings on Tumamoc Hill to develop a historic research district; develop access and infrastructure improvements; rehabilitate and emphasize summit exposure to create awareness of archeological features; and provide a vista of the Tucson Basin will cost approximately \$20 million.

This is an excellent public/public partnership opportunity between The University of Arizona and Pima County and would become a cornerstone element of an economic development plan for revitalizing tourism.

Chairman and Members, Pima County BAC
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Attached is a copy of The University of Arizona College of Science proposal for creating a Southern Arizona Regional Visitors Center at Tumamoc Hill for the Bond Advisory Committee's information. At a subsequent meeting, I will ask that the individuals involved in the proposal be invited to present their proposal to the BAC. I will also ask that the Metropolitan Tucson Convention and Visitors Bureau estimate the economic value of a regional visitors center at Tumamoc Hill to enhance and expand national and international tourism.

This is, of course, a concept proposal. Much more public review and consultation will be necessary before any specific plan is presented to the BAC or Board of Supervisors for approval. Tumamoc Hill is a regional asset that must be protected as well as respected. Extensive public involvement and consultation with the Tohono O'odham Nation and other Native Americans will be necessary.

CHH/mjk

Attachment

c: The Honorable Chairman and Members, Pima County Board of Supervisors
Dr. Joaquin Ruiz, Dean, College of Science, The University of Arizona

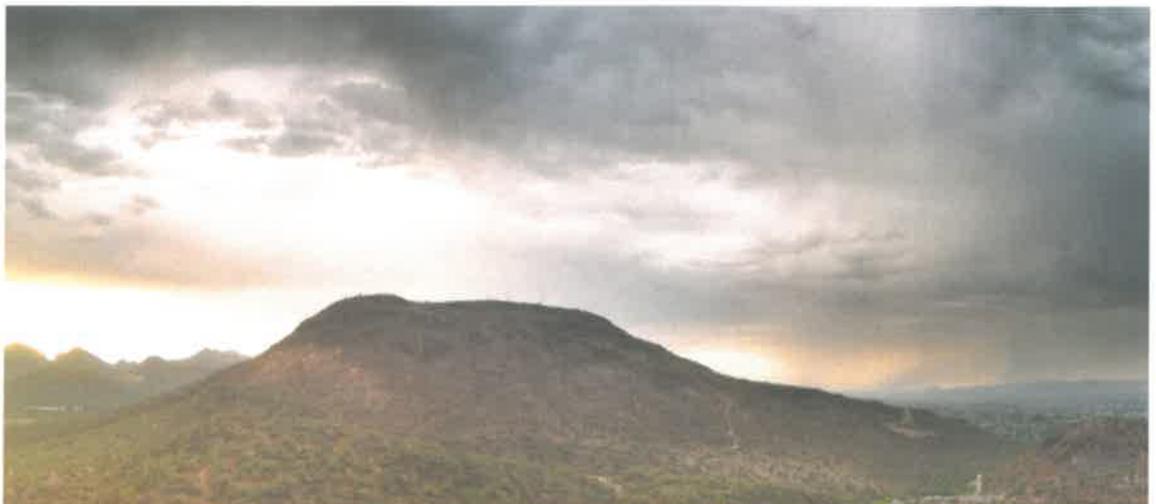
Proposal: Southern Arizona Regional Visitors Center at Tumamoc Hill

Pima County voters have long demonstrated their commitment to responsible stewardship of natural resources. The Sonoran Desert Conservation Plan, its affiliated Conservation Lands System, and other preservation and sustainability programs clearly prove the county's commitment and investment in conservation activities. Pima County has integrated this commitment with its economic development goals by entering into partnerships with the Arizona-Sonora Desert Museum, Old Tucson Studios, Pima Air and Space Museum and Titan Missile Museum to promote tourism. Through the efforts of Pima County and its partners, Tucson is a leading tourist destination.

At the same time, the University of Arizona College of Science (UA Science) has addressed its mission as a land-grant university through various public outreach initiatives. Through management of several facilities, services and programs, UA Science continues to demonstrate its commitment and investment in southern Arizona. Its most recent outreach initiative – promoting geotourism through a cooperative endeavor involving Biosphere 2, Mt. Lemmon SkyCenter, Arizona-Sonora Desert Museum and Kartchner Caverns – is a clear example of the university's desire to advance economic development as it celebrates the people, culture and resources of Tucson and southern Arizona.

Together, leaders of Pima County and UA Science share many of the same goals and purposes. Now they want to enter into a collaboration that will build on their successes. As partners, they propose the development of The Southern Arizona Regional Visitors Center at Tumamoc Hill, a unique and historically significant location in west Tucson that is recognized as a nature preserve and the birthplace of ecological research in Arizona. The proposal includes plans for renovation and construction of several buildings and related infrastructure at Tumamoc Hill. Some of these buildings will continue to serve as research centers; the Southern Arizona Regional Visitors Center will serve as a community resource and marketing hub for regional tourism. The project has the potential to expand scientific research, cultural awareness and economic development opportunities throughout southern Arizona. The projected cost of the project is \$20 million, which would be funded by general obligation bonds approved by voters. The Southern Arizona Regional Visitors Center proposal is a bold example of cooperation that will capitalize on the contributions of economic development and science interests in the community.

A view of Tumamoc Hill from Sentinel Peak.



Background

Pima County manages more than 200,000 acres of natural areas for conservation in the Sonoran desert in southern Arizona. The county has long been recognized as a national leader in its commitment to conservation and preservation activities. In the 2011 report, “Protecting Our Land, Water and Heritage: Pima County’s Voter-Supported Conservation Efforts,” issued by the county’s Board of Supervisors, the county’s approach to planning is described by County Administrator Chuck Huckelberry as a means of restoring “some of what we have lost by reframing the elements of regional planning to encompass the relationship that land has to natural and cultural resources and acknowledges the interdependence of human, plant and animal communities.” Since 1974, county voters have approved more than \$230 million in general obligation bonds for the purchase of “critical, unique and sensitive lands.” In 2009 the county purchased 277 acres of scientifically and archaeologically significant land on the western slope of Tumamoc Hill.

Pima County is governed by a five-member Board of Supervisors, members of which are elected by voters. The board works closely with the County Administrator. One of the key responsibilities of the County Administrator is to carry out the policies and goals established by the Board of Supervisors.

The University of Arizona College of Science (UA Science) is known as a world leader in teaching, learning and discovery. UA Science manages Biosphere 2, which enjoys more than 120,000 visitors each year, and Mt. Lemmon SkyCenter, which hosts a range of programs for the general public. UA Science also hosts the Science Lecture Series and Science Downtown, which offer science-based programs in lecture and exhibit formats. UA Science’s recently launched geotourism promotion initiative draws on the resources and appeal of Biosphere 2, Mt. Lemmon SkyCenter, Arizona-Sonora Desert Museum and Kartchner Caverns to attract visitors to the region. UA Science is pursuing the initiative with the expectation that additional organizations and destinations will join the consortium over time. Joaquin Ruiz is the Dean of the University of Arizona College of Science.

Geotourism is commonly described as a form of tourism that sustains and enhances the geographical character of a place, with particular interest in the culture, heritage, environment, aesthetics and well-being of its residents. Geotourism also often contains elements of conservation and sustainability. Geotourism has become increasingly popular as an economic development tool in areas with unique, significant and valuable features and qualities.

Tumamoc Hill is located just west of downtown Tucson. It occupies about 850 acres in an area bordered by West Anklam Road on the north, West Starr Pass Boulevard on the south, South Greasewood Road on the west and North Silverbell Road on the east. Its elevation at the base



Aerial view of the
Tumamoc Hill area.



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is 2,378 feet; the summit is 3,108 feet. As many as 7,000 walkers, runners and hikers traverse Tumamoc Hill per week for exercise and to engage with the landscape on a paved road that climbs 730 feet in 1 1/2 miles.

Tumamoc Hill is considered by archaeologists to be the birthplace of Tucson. Rich with evidence of ancient structures, petroglyphs and pottery remnants, Tumamoc Hill is an original homestead site of the ancient Hohokam people who settled there 2,500 years ago. In the early twentieth century, Tumamoc Hill was selected by the Carnegie Foundation as the site of the Desert Botanical Laboratory. It remains a spiritual place for native peoples and contributes valuable ecological information as a scientific research station.



Botanist Effie Spalding's report in 1905 was the first paper documenting scientific study on the hill.

In 2010 the U.S. government designated Tumamoc Hill a National Historic Landmark. This marked the third time the location received national attention as a landmark. Previously, in 1976, the pre-1940 buildings of the Desert Botanical Laboratory and the small permanent ecology study plots used from 1906-1928 received a similar National Historic Landmark designation; nine years later, in 1987, that designation was expanded to include all 850 acres of Tumamoc Hill in recognition of the importance of the entire reserve to scientific and ecological research. Tumamoc Hill has also been recognized as a National Environmental Study Site and an Arizona State Scientific and National Educational Area and is listed on the National Register of Historic Places.

Today, Tumamoc Hill represents a microcosm of integrated approaches to the study of urban ecology and culture. Anthropologists and archaeologists continue to study the ruins and evidence of early settlements. The Desert Laboratory pursues research and field studies on specific habitats and species, and the Alliance for Reconciliation Ecology researches and leads the charge for the development of ecosystems that link natural habitats with areas where people live and work. Pima County has designated Tumamoc Hill a key component of the Tucson Mountains Biological Corridor, an initiative calling for a link between the 19,000-acre Tucson Mountain Park to nearby parcels of natural open space such as Tumamoc Hill to protect crucial wildlife movement corridors and habitat.

Tumamoc Hill Road, a paved road, connects structures at three distinct levels on Tumamoc Hill. On the lowest or base level near Anklam Road are two small residential buildings and the Carnegie Shop Building, or Boathouse, as it is sometimes called. Structures at mid-level include the Main Laboratory, Chemistry Building, Shop Building, a building constructed by the U.S. Forest Service, two metal structures moved to the site in the 1950s and some garages used for storage. At the summit are two small observatories and several communications towers.

The University of Arizona owns the majority of the land that comprises Tumamoc Hill. Pima County owns 277 acres on the mesa's western slopes.

*Proposed Tumamox Hill
improvement areas.*



Proposal

The last decade has brought great success to the separate but related activities of Pima County and UA Science. By collaborating on the development of the Southern Arizona Regional Visitors Center, Pima County and UA Science have an opportunity to build on their success for the good of the community. As a driver of this project, the University of Arizona has a deep intellectual and practical skill set in ecology, landscape architecture, hydrology, archaeology, earth sciences, biology and urban planning and can offer expertise that will help make this project a reality. This proposal represents the synergy of knowledge and resources to create a sustainable, geotourism-based economic model that will create new jobs, expand opportunities and increase awareness of southern Arizona's unique sense of place.

Tucson has long had need of a central location from which to tell its story and promote its unique features. The Southern Arizona Regional Visitors Center will provide a setting from which to celebrate and promote the scientific, natural, historic and cultural characteristics of the community and the region. Other geotourism destinations – Arizona-Sonora Desert Museum, Biosphere 2, Catalina State Park, Ironwood National Monument, Kartchner Caverns, Kitt Peak Observatory, Mt. Lemmon SkyCenter, Sabino Canyon, Saguaro National Park, San Xavier Mission, Santa Cruz River Park, Tohono Chul Park, Tucson Mountain Park and the museums at the University of Arizona campus – will benefit from increased visitor traffic generated by the marketing efforts carried out at the Southern Arizona Regional Visitors Center. Like other collaborative efforts that draw attention to unique geotourism features in other parts of the United States, the Southern Arizona Regional Visitors Center will generate recognition of and traffic to many deserving sites in Pima County and southern Arizona.

The primary incentive of this initiative is to stimulate economic development in Pima County. In the immediate sense, construction of the Southern Arizona Regional Visitors Center will create planning and construction jobs that will benefit local residents in the short term. Once construction is complete, the Visitors Center will provide long-term opportunities for employment in marketing, operations and maintenance. The longer-range outlook includes several additional benefits. One obvious ripple effect of development of the Visitors Center will be seen as tourism traffic increases, which will benefit food service, hospitality and other tourism-related businesses. Another positive ripple effect created by development of the Visitors Center is increased awareness of the significance of place, which has the potential to lead to additional economic development opportunities in Pima County. A third potential ripple effect that will have a positive impact is the community's acknowledgement of the power of collaboration as a means of expanding economic development and strengthening ties at the local and regional levels.

The Main Laboratory (from 1903) is midway up Tumamoc Hill. It houses administrative offices, a refurbished library and a large classroom.



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In addition, the Southern Arizona Regional Visitors Center will offer a compelling narrative about Tumamoc Hill in particular and southern Arizona in the broader sense. Because the Visitors Center is located in the midst of the archaeologically significant features of Tumamoc Hill, tourists interested in culture and history will have the opportunity to see firsthand the ruins and land features of the ancient Hohokam people. This experience will help deepen visitors' understanding of the importance of early civilizations, particularly the predecessors of today's O'odham culture in southern Arizona. Tourists interested in ecology and science will learn about Andrew Carnegie's leadership in the development of the "scientific reservation" established at Tumamoc Hill more than a hundred years ago and still very active today. The Visitors Center will also serve as a centralized marketing hub for other geotourism destinations in the region to distribute information, display exhibits and promote their singularity, making Pima County the gateway to tourism in southern Arizona. Finally, Visitors Center facilities will be available to the local community for educational, entertainment, business and recreational purposes. All of these features emphasize the site's potential for diverse utility by creating a setting where ecology, reconciliation ecology, archaeology, historic preservation, recreation and economic development converge, making the Visitors Center at Tumamoc Hill a lasting gift of transformative value to the community.



Hundreds of ancient Hohokam petroglyphs remain on Tumamoc Hill.

In particular, the Southern Arizona Regional Visitors Center will serve as a welcome center for geotourists in Pima County. The Visitors Center will manage the design and sale of geotourism packages and will offer transportation to partnering geotourism destinations in southern Arizona. The Visitors Center will also offer scheduling services for its partners, and tour guides will receive their training at the Center. Programming at the Visitors Center will include evening talks, classes for elementary and high school students, walking docents, specialized docent field walks, Elder programs and courses, catered night observation dinners, interpretative displays, tours of the working laboratories and a guided boardwalk tour of the archaeological features at the top of the mesa.

Development of the Visitors Center also creates the potential for future integration with UNESCO (United Nations Educational, Scientific and Cultural Organization) to design a network of OASIS project destinations along the Santa Cruz River and its tributaries. Such a project would be coordinated by Pima County, the University of Arizona and UNESCO.

In order to create the Southern Arizona Regional Visitors Center and make the features of Tumamoc Hill practical and functional for geotourism, these five infrastructure goals are essential to the Pima County Parks and Recreation 2012 bond:

- **Preserve, bring up to code and restore** the historically significant structures at Tumamoc Hill for the purposes of research, education and public interpretation; and enhance means to protect and monitor archaeological and/or scientifically important features in the surrounding landscape.
- **Remove, replace or rehabilitate** outmoded or historically insignificant structures.
- **Repair or replace** old and unreliable utility infrastructure (electrical, water, stormwater and sewage) with more current and even sustainable technologies suited to the site's future visitor levels.
- **Link research facilities and public visitor facilities** on the site, and along the Santa Cruz River corridor as a whole, through rehabilitated roads, T-1 lines for internet, and an elevated trail system for an outdoor museum that does not impact the archaeological or ecological features legal protected by the Tumamoc Hill National Historic Landmark and National Register of Historical Places District designations, or by other laws, contractual or inter-agency agreements.
- **Enhance Tumamoc Hill's capacity** for geotourism, recreation, professional research, citizen science and education through sustainably built structures, rehabilitated historic structures, new and improved parking, rebuilt roadways and access, interpretative walkways, public gardens and park-like environments.



Preliminary design for new facility on Tumamoc Hill.

These infrastructure improvements will allow visitors to enjoy a safer and more environmentally sensitive experience at Tumamoc Hill.

The scope of the project calls for construction, infrastructure development and landscaping at all three levels of Tumamoc Hill – the Commons (base), the Historic Research District (midway) and the Summit (peak). A preliminary site analysis has been done to determine potential project needs.

The Commons: The six-acre area at the base of Tumamoc Hill between Anklam Road and Tumamoc Hill Road presents a good opportunity for program expansion, as do other large areas on the south near the base of the hill that are not part of the ecological reservation.



The Chemistry Building exterior (top) and the Main Laboratory exterior detail and Library.

Anticipated size of the Visitors Center is estimated at 25,000 square feet. The Visitors Center will house offices, exhibit space, meeting rooms, mechanical facilities, a 150-seat theater, restrooms, and gift and food outlets. Exhibit space will feature displays that focus on the historical, scientific and cultural aspects of Tumamoc Hill and provide information about other geotourism destinations in southern Arizona. The Visitors Center will also serve as the marketing hub for other geotourism destinations in southern Arizona. The design of the Visitors Center will incorporate purpose and functionality and will complement existing architecture at the site. The proposal also calls for rehabilitation of the Carnegie Shop Building (Boathouse) and the residential structures that are part of the National Historic Landmark designation.

Estimated cost of the Visitors Center and existing building restoration: \$8 million.

A new parking lot at the Visitors Center will take into account the topography of the land, existing structures and better utilization of Anklam Road. Construction of a new bridge that will connect the parking area with the Sykes House will create access to more space and allow the public to enjoy additional parking and garden areas.

Estimated cost of bridge construction, landscaping, parking lot construction, Anklam traffic improvements, traffic control and building rehabilitation: \$2 million.

The Historic Research District: Midway up Tumamoc Hill are three historically significant structures – the Desert Laboratory (also called the Main Laboratory), the Chemistry Building and the U.S. Forest Service Building – in the Historic Research District. These three buildings will be rehabilitated with modern sustainable technologies to accommodate research in order to perpetuate their role as research and education facilities. The Desert Laboratory Building will be rehabilitated and brought into compliance with current codes. A more efficient floor plan will improve the value of its spaces. The greenhouse will become a dining area; its historic appearance will be retained and contemporary materials will be utilized to manage the high input of solar radiation. The Chemistry Building will be rehabilitated to provide modern space and facilities for researchers working at Tumamoc Hill. The U.S. Forest Service Building will be opened on one side, allowing for an addition and second story; its interior will be rehabilitated. Rehabilitation efforts will combine the existing stone surface with aesthetically appropriate and sustainable modern materials.

The other buildings in this area, including the garages, are historically insignificant. They will be condemned and replaced with a new administrative headquarters and a shaded comfort station area for hikers and visitors. The new headquarters building will feature three offices and a conference room. The central courtyard in this area will be available for reconciliation ecology studies. New construction will not exceed the footprint of the original buildings in order to preserve the natural landscape around these buildings.

Estimated cost for restoration/renovation work and new construction in the Historic Research District: \$3 million.

The Summit: The primary emphasis of development of the peak and highest slopes of Tumamoc Hill is to create awareness of the archeological features and provide a vista of the Tucson Basin. Many legally protected archaeological features have been damaged by radio tower construction and maintenance or acts of vandalism. To that end, it is important to manage the movements of visitors in this area. An open-air museum featuring elevated walkways and stairways with rails is proposed. Visitors will be directed on guided tours to view the ruins of ancient walls, terraces, pit houses and rock art at the summit and to experience the magnificent overlook at the top of Tumamoc Hill. Access to the summit museum will be provided by scheduled, controlled shuttles based at the Visitors Center.

Historically insignificant features such as the observatories will be condemned and removed if it is determined that no future educational and programmatic use can be derived from their rehabilitation.

Estimated cost for renovation at the Summit: \$1 million.

*A view of Tucson from
the road to the summit
of Tumamoc Hill.*



Major Infrastructure Improvements: Tumamoc Hill Road will need significant rehabilitation to support anticipated shuttle traffic to the new summit museum. Road improvements will also take into account the needs of walkers, hikers and runners. (Estimated cost: \$1.5 million) In addition, new power and water lines will be needed to provide utilities at all three levels on Tumamoc Hill.

Estimated cost: \$2 million.

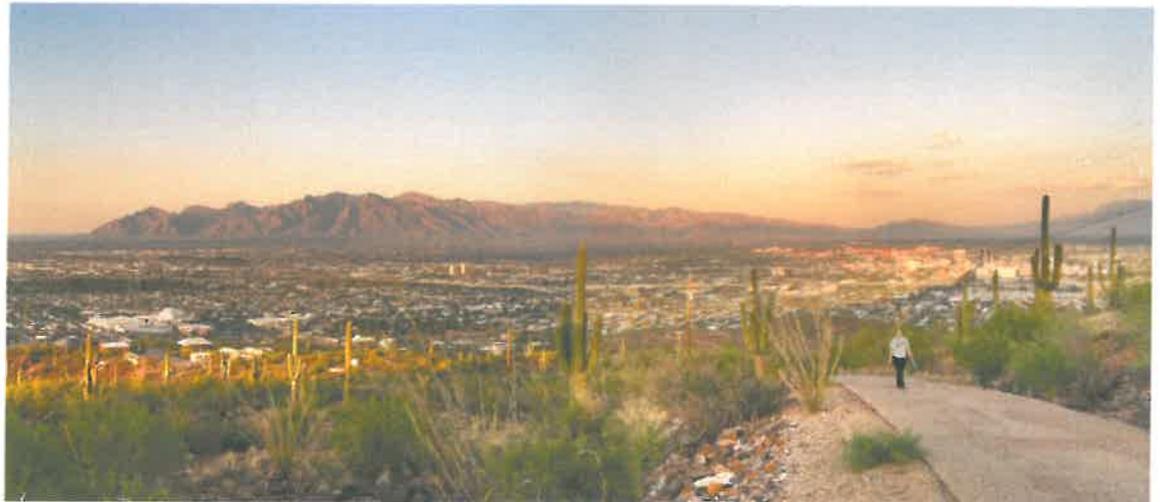
Estimated total major infrastructure improvements: \$3.5 million.

Total estimated project costs plus contingency at this preliminary stage equal \$20 million.

Conclusion

Twenty-five hundred years ago, getting to the top of the hill was critical to the well being of the Hohokam people as they forged their way in a demanding, unfamiliar world. Getting to the top of the hill is no less important today for the people of Pima County. The Southern Arizona Regional Visitors Center at Tumamoc Hill is an economic development project that is long overdue. This collective geotourism endeavor is an opportunity to expand awareness of the community's commitment to science, natural and cultural heritage, and to create and attract jobs through the successful expansion of the enterprise over time. This new facility combined with the unique historical features of its setting provide an ideal means of giving voice to the region's distinct history and heritage.

Today, thousands of Pima County residents regularly access Tumamoc Hill.



Tumamoc Hill is unique in its significance and appeal because of its connections to a multitude of cultural, historical, scientific and recreational communities. By acknowledging the potential of the Southern Arizona Regional Visitors Center as a tourist draw and a marketing hub, Pima County and UA Science leaders are positioning Tucson and southern Arizona as serious participants in the national geotourism market. As a location Tumamoc Hill has the necessary distinct and diverse potential to attract increasing numbers of tourists, while the partnership between Pima County and UA Science provides a synergy of people, resources, experience and commitment to support and expand economic development and geotourism. Together, these three elements combine people and organizations in a collaboration that provides a platform for the celebration, promotion and betterment of Pima County in the global marketplace.

The Southern Arizona Regional Visitors Center will be a rallying point for both the community and its partners. It will be as important for the local citizenry as it will be for tourists by deepening understanding of the roots of the people of Pima County and southern Arizona, preserving and celebrating local heritage, interpreting the story of place, and showcasing the community's scientific and technological success.

For More Information

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