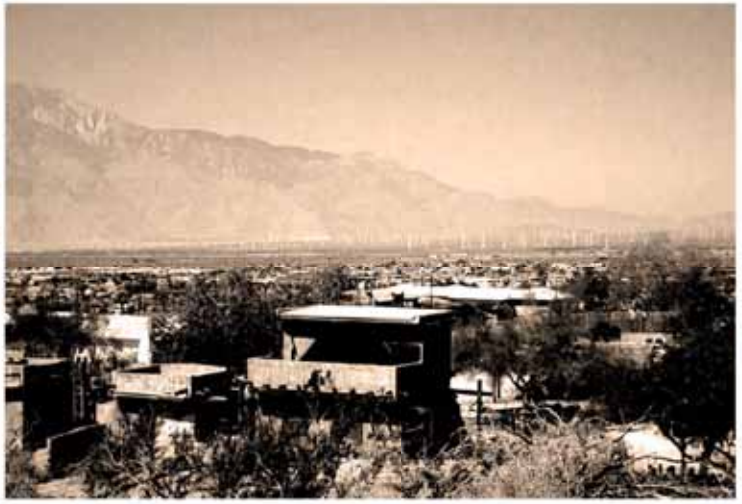
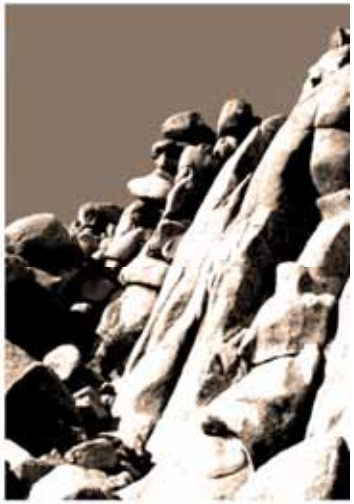

CABOT'S PUEBLO MUSEUM

SITE MASTER PLAN : EXECUTIVE SUMMARY

desert hot springs, ca

august, 2010

BAUER AND WILEY
ARCHITECTS

JONES JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

ACKNOWLEDGMENTS

The City of Desert Hot Springs

Miracle Hill Committee

BAUER AND WILEY Architects
JONES & JONES Architects + Landscape Architects + Planners
Master Planning + Architecture + Landscape Architecture

CONSULTANTS:
Fuscoe Engineering
Civil Engineer

O'Connor Construction Management
Cost Estimator

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INTRODUCTION

The City of Desert Hot Springs commissioned BAUER AND WILEY Architects and JONES + JONES in January 2010 to develop a Master Plan for Cabot's Pueblo Museum Site. This report documents the Master Plan and vision for this project.

Organized into five sections: Master Plan, Approach, Site/Building, Program and Appendix; the report describes the Master Plan of the project including site development, architecture, and specialty recommendations.

The Master Plan Recommendations included here serve as the basis of the next Phase of development for the project.

OVERVIEW

PREFACE

The Cabot Pueblo Museum represents the very origins of Desert Hot Springs. The site and pueblo provide the opportunity to communicate the remarkable stories of Cabot Yerxa, the Coachella Valley and Desert Hot Springs through education, experiences and exhibits. This Master Plan provides the armature for the story telling and suggests a vital place to explore the Desert Hot Springs community, resources and environment.

PROCESS SUMMARY

The design team conducted interviews, and worksessions with the City of Desert Hot Springs and the Miracle Hill Committee over the course of seven months to develop the program, concepts and Master Plan. The Miracle Hill Committee, representatives from the City and representatives from the design team toured similar facilities to explore similarities, differences, strengths and weaknesses.

Programming worksessions and interviews were used to establish the project goals and needs through detailed examination of the functional requirements of each space and museum program. Detailed data sheets, space lists and program concepts were developed and vetted through discussion amongst the Committee members.

Through two comprehensive worksessions, the design team and Miracle Hill Committee expanded on the programmatic information and developed site access considerations, parking requirements, building locations, drainage conditions, sustainability guidelines, phasing, budget and historical considerations. From the analysis and discussion, the design team developed several planning arrangements, each reviewed with the Committee. From the multiple schemes, the Master Plan scheme was derived.

MASTER PLAN

VISION

Imagine a new OASIS nestled below the foothills of the Little San Bernardino Mountains – at once quiet and serene – yet vibrant and energetic – embodying the soul of Desert Hot Springs and its foundings at the Cabot's Pueblo.

Envision a new physical, cultural, natural, historic and spiritual center for Desert Hot Springs – a place for the community – a place for visitors. A place that emerges from the natural and historic landscape – with connections to the Desert Hot Springs heritage of health and well-being through the healing waters beneath Miracle Hill.

Envision an active environment – one for family and community – for the arts, for education, for music and for health and well-being. An interpretive environment—of history through the Cabot's Pueblo, of health and well-being through a Public Spa, of the arts and culture through exhibits and interpretation of Cabot Yerxa artifacts, of the natural environment through a natural landscape that links to the mountain, the valley and Joshua Tree National Park.

Envision a new hub for Desert Hot Springs that will grow and change over time as it evolves with the vibrancy of the City.

PROJECT BACKGROUND

In 1913 the first homesteader in the area was Cabot Yerxa, who discovered hot water on Miracle Hill. Due to the San Andreas Fault bisecting the hill, one side has cold water, the other has hot. His large adobe, hand built by Yerxa over 20 years, is now one of the oldest adobe structures in Riverside County.
During a vacation to Desert Hot Springs, Cole Eyraud discovered the property in a state of disrepair. He purchased it, and thanks to his efforts, the pueblo is restored for the public. Today, the pueblo – a "Riverside County Point of Historic Interest" – houses an amazing collection of Native American pottery, arrowheads, turn of the 20th century photographs, original oil paintings by Yerxa, a sculpture by Chief Semu of the Chumash tribe, furnishings and other artifacts acquired during his travels . It also houses his Alaskan collections – artifacts he gathered while living with the Alaskan Inuits. The museum grounds are home to many rustic period items – early 1900's tools, machinery and housegoods.

The town was founded by L. W. Coffee on July 12, 1941. The original town site was centered at the intersection of Palm Drive and Pierson Boulevard and was only one square mile. Coffee chose the name Desert Hot Springs because of the area's natural hot springs.

Desert Hot Springs became a tourist destination in the 1950s because of its small spa hotels and boutique hotels. The city's seclusion appealed to urban "escapees" resulting in the subdivisions of residential lots laid out over a six square mile area. Homes were bought by retirees and the area incorporated as a city in 1963, with 1,000 residents. Desert Hot Springs experienced periods of significant growth in the 1980s and 1990s, when most of the vacant lots were filled with new houses and duplex apartments. The city's population doubled in the 1980s and increased by 5,000 in the 2000 census.

The fact of being situated atop one of the finest natural hot mineral water aquifers in America is a unique geological feature of Desert Hot Springs, although no spring is visible, as each is capped by either a hotel or Mission Springs Water District. It figures prominently into the local tourism industry as there are many spas here. It is, as well, located at the Morongo Canyon Runoff, Morongo Basin. There are numerous electrical wind farm windmills, or aerogenerators, San Gorgonio Pass Wind Farm, just slightly southwest of the city, adjacent to North Palm Springs, & Whitewater.

The City of Desert Hot Springs initiated this Master Plan to create a unique palce for family, community and Visitors – for Health, Wellness, Education, History, the Arts and Music. The Master Plan creates a vision for a community focused cultural center to anchor the Coachella Valley.

PROJECT LOCATION

The City of Desert Hot Springs is located at the western end of the Coachella Valley south of Joshua Tree National Park and southeast of Morongo Valley. The city is conveniently located off I-10. With its elevated views of the Coachella Valley and thousands of acres of gorgeous mountain preserves, Desert Hot Springs is one of the fastest-growing communities in Southern California. Minutes from an international airport, golf, shopping, renowned restaurants, major sporting events and more, this spa destination city beckons visitors and resort recreational developers.

Desert Hot Springs is built over one of the world's finest natural hot mineral water aquifers. Naturally occurring mineral waters bubble and percolate to the surface in this get-away-from-it-all destination.

The Cabot Pueblo Museum is located east of Miracle Hill Road just north of Desert View Road.

GOALS

FUNCTION **People/Activities/Relationships**

To create a PLACE for Family, Community and Visitors – for Health, Wellness, Education, the Arts and Music.
To INTERPRET the History, the Culture and the Natural Environment of Desert Hot Springs – including the healing WATERS, CABOT'S PUEBLO and the SETTING within the Coachella Valley.
To LINK the City to the natural environment, the Valley and Joshua Tree through the HEALING SPRINGS
To INCORPORATE and PRESERVE Cabot's Pueblo
To provide a new VISITOR'S CENTER for Desert Hot Springs
To extend EDUCATIONAL opportunities with a new Cabot's Academy
To provide a home for the Desert Hot Springs Historic Society
To provide for on-site Food Service operations
To provide gallery, curatorial, interpretive and archival space for Yerxa artwork and artifacts in a new Cabot's Center.
To provide a 99-seat auditorium for lectures, music, plays and film screenings.
To provide Galleries for Art, Architecture, Water, Geology, History, Indian Artifacts, and Conservation (Alaska and Cuba?).
To restore the Altar in the Wilderness
To provide a Public Park
To provide a Public Spa – day use
To provide trailheads and linkage to Joshua Tree National Park and related wild lands and conservation areas.
To SHARE common SUPPORT elements where practical.
To plan the site and buildings to a LEED SILVER (Gold? Platinum?) rating
To provide for 8 hour a day OPERATIONS, 365 days per year – for the KEY uses.
To provide for _____ daily site visits; _____ visitor center visits; _____ Cabot visits; _____ Spa visits; _____ other visits.
To incorporate both the NATURAL and a NATURALIZED LANDSCAPE

FORM **Space/Environment/Quality**

To MAKE "the Hot Springs" VISIBLE and ACCESSIBLE
To GIVE FORM to the SOUL of Desert Hot Springs
To express HEALTH and WELL-BEING through the site development and buildings.
To EXPRESS an IDENTITY linked to the ENVIRONMENT and representing the BEST of desert DESIGN.
To EXPRESS the HERITAGE of Cabot's Pueblo and the HEALING WATERS of Miracle Hill.
To PROJECT an IMAGE of _____ (Modest? Superior? Grand?), but cost effective, QUALITY.
To ESTABLISH a new FORWARD LOOKING identity at the new location.
To be an ENVIRONMENTALLY RESPONSIVE design.
To develop a PLAN that incorporates WATER, SUN and WIND.

ECONOMY **Initial Budget/Operating Budget**

To plan the PROJECT for a $_____ BUDGET.
To plan the project for an INITIAL EXPENDITURE of $_____ for the First Phase.
To MINIMIZE operating costs through generation of _____% of on-site power and reclaiming _____% of water usage.
To OPERATE the SITE at ZERO NET-COST to the City of Desert Hot Springs.

TIME **Past/Present/Future**

To OCCUPY PHASE ONE by _____ (date).
To develop a LONG RANGE PLAN through _____ (year).
To develop a plan that ANTICIPATES and ALLOWS for change.

APPROACH

NATURAL DESERT ENVIRONMENT

One of the primary goals of the project is to "give form to the soul of Desert Hot Springs." Cabot Yerxa's living practices embody this goal as he sought a harmonious relationship with the desert and the water immediately below. For the Master Plan, this goal translates into a design symbiotic with the natural desert environment. As Cabot survived with the desert through managing its resources, constructing with local materials, and respecting the natural cycles of sun and shade, wind and calm, dry and wet, the Master Plan proposes a cultural center that strives to embody the same principles. The form and planning of the project is derived primarily from the local desert environment, but reaches out for cues from the entire Coachella Valley. Water sheds from the adjacent hills, on site topography, solar orientation, wind and views to and across the Valley are all design determinants for the Master Plan schemes.

CABOT YERXA'S LEGACY

Cabot Yerxa was born in 1883 in the Dakota Territories to a family of adventure seekers. Cabot spent the first part of his life working for his father at a trading post, living on the Sioux Indian reservation, prospecting for gold in Alaska, learning the native Inuit language, collecting artifacts, and traveling. His adventures took him as far as Cuba and Europe before Cabot settled into the area that would eventually be known as Desert Hot Springs, California.

After a failed effort in the agriculture business near Riverside in 1913, Cabot began exploring the desert and built his first desert home, Eagle's Nest, on a 160 acre homestead in 1914. In an effort to find water, Cabot dug wells and discovered the natural hot springs, and named the location Miracle Hill.

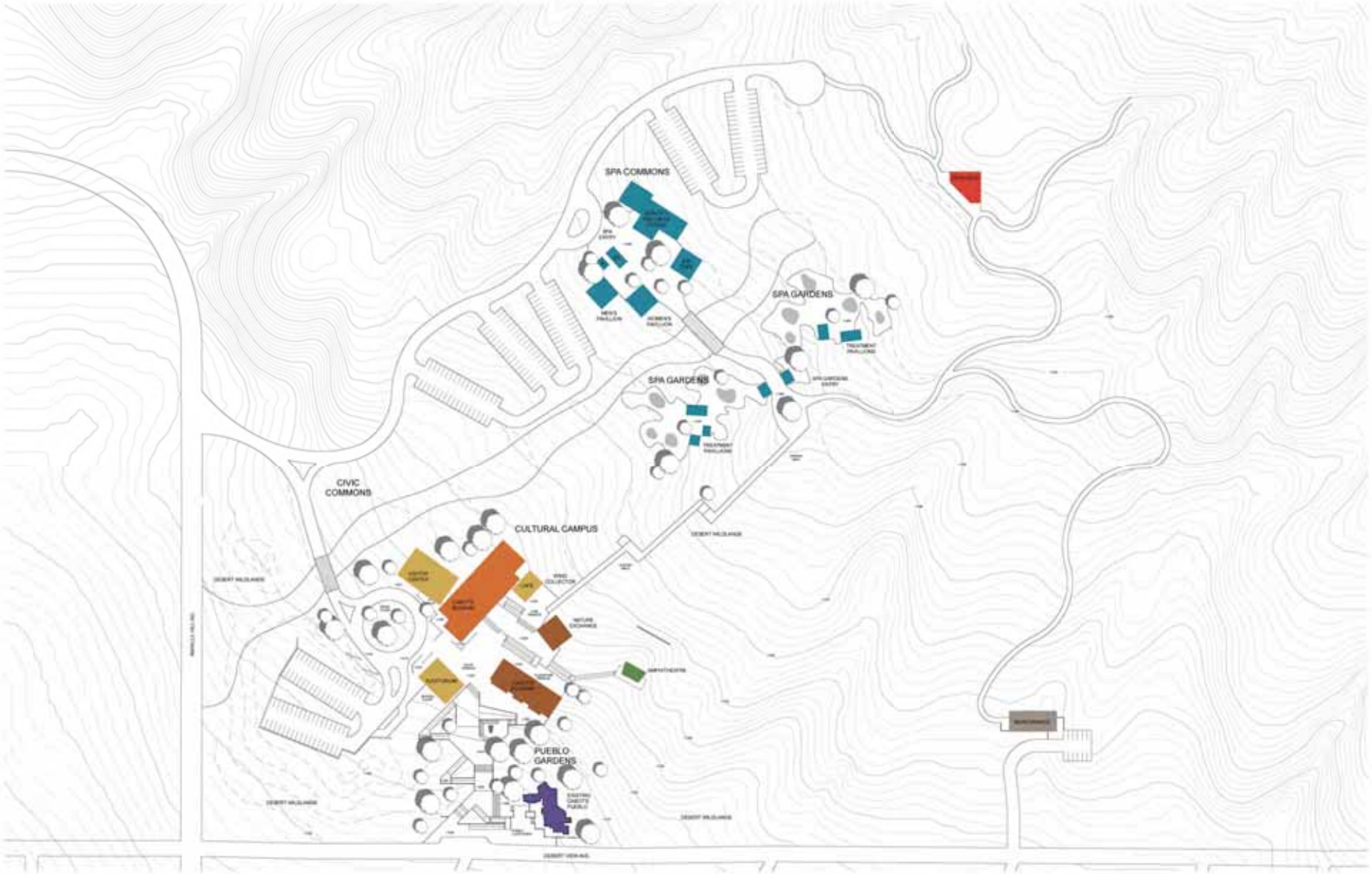
Cabot left Miracle Hill and spent several years traveling, serving in the army, serving as postmaster and building a grocery business in Furtilla, CA, eventually returning to the desert in 1937. He was instrumental in establishing the City of Desert Hot Springs; by 1940 a trust was established to develop subdivisions.

Cabot's love of the desert was exhibited in his art and writings. In 1939, he started building his Pueblo and Trading Post from adobe bricks he made and from found objects salvaged and collected from the desert and from his adventures afar. He created spaces and galleries for his home and artifacts based on Indian beliefs: he included a hearth and meditation rooms; nothing was symmetrical, as Indians believe symmetry retains evil spirits.

In 1965, after 52 years of hard work and love of his desert surroundings, Cabot Yerxa died at the age of 81.

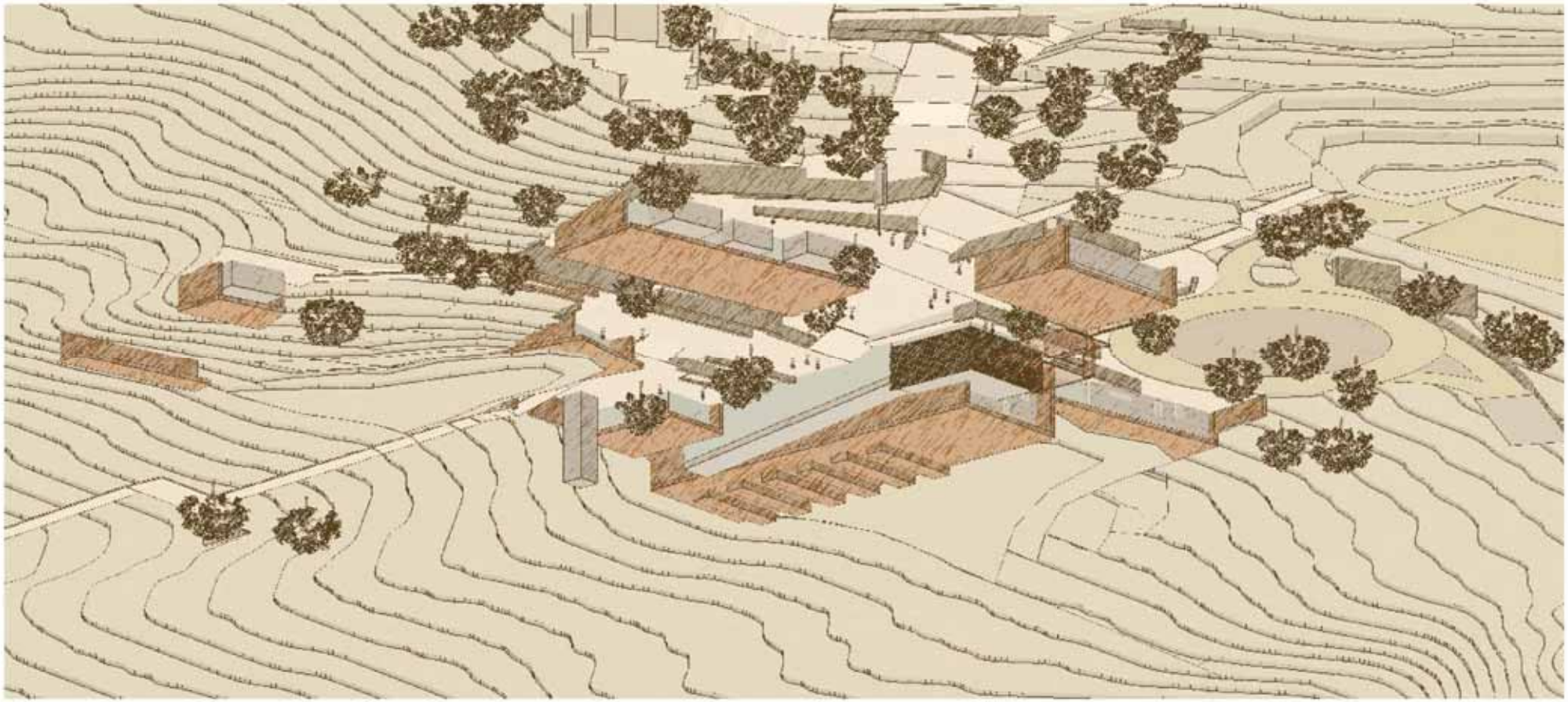
MAKING THE WATER VISIBLE

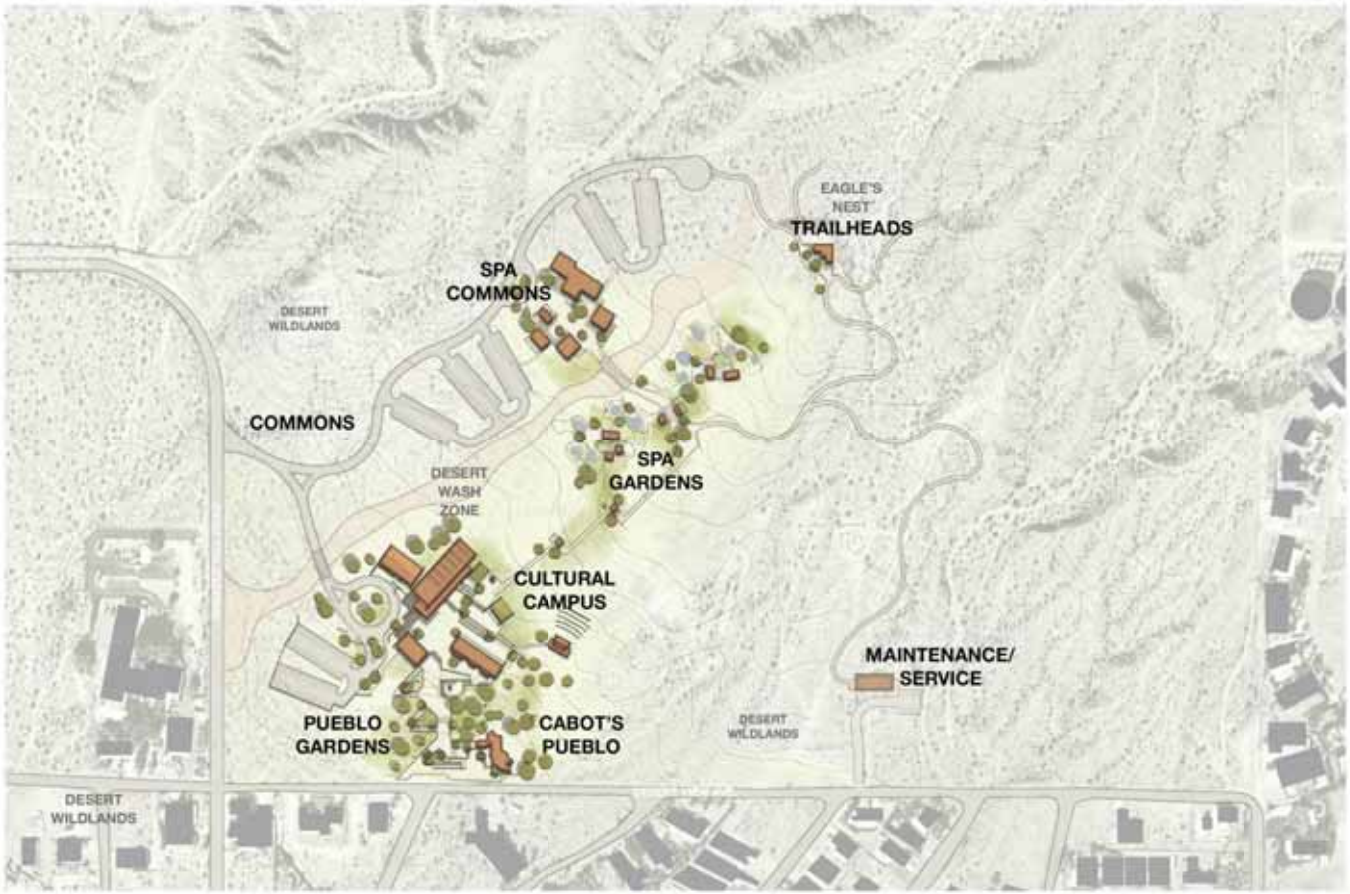
One of Desert Hot Springs' unique assets is its healing waters. The spring water of Desert Hot Springs is unmatched in the world for its minerals and benefits to spa goers. The nature of the springs below the city, however, make the water's impact difficult to visualize. One of primary goals of the project is to integrate water into the plan and design, expressing the fundamental resource responsible for the founding and success of Desert Hot Springs.



MASTER PLAN SITE DIAGRAMS

MASTER PLAN SITE ZONING





The buildings are grouped into three main zones: Cabot's Cultural Center, the Spa and a Natural Park integrated by desert landscape and native gardens.

DESERT WILDLANDS

CIVIC COMMONS

CULTURAL CAMPUS

SPA GARDENS

PUEBLO GARDENS

TRAILHEADS

The primary site access is just south of the Pierson Ave. and Miracle Hill Blvd. curve. Once on the site, visitors can travel north, toward the spa and trailhead, or south toward the dropoff and parking for the Cultural Commons. The buildings are arranged around the primary desert wash traversing southwest from the hills across the site. The buildings are placed on the edges of the wash to allow for natural water flow. The Pueblo Gardens are accessed by pedestrians from Desert View Ave. and from the Cultural Commons. A maintenance/service access is also from Desert View Ave. A small authorized service vehicle road loops the site. Pedestrian paths link the site zones.

BAUER & HOWELEY ARCHITECTS
JONES & JONES
SITE MASTER PLAN
CABOT'S PUEBLO MUSEUM SITE MASTER PLAN
15

COMMONS

This landscape is the most accessible to the general public, and when approaching from Pierson Boulevard visitors come through the commons to reach the main entrance to the site. It is an "enhanced" desert landscape, with native plants that are well maintained and receive supplemental irrigation. Some additional desert trees may be included to provide some shade for pedestrians or screening to maintain the integrity of views. It is important to note that the Commons follows a "lineament"—a visible surface change due to the proximity of the San Andreas Fault. The landforms and vegetation of the Commons landscape extend to the northwest and reach across Miracle Hill Road up to the edge of Pierson Boulevard. The Commons area includes the drop off and Entry Court of the Cultural Campus at its downslope edge, while the upslope edge transitions into the Spa Gardens.

CULTURAL CAMPUS

One of the most active areas of the site, the feel is similar to a park or campus but with a distinct desert character.

Approaching from the entrance off of Miracle Hill Road, the arrival experience culminates at the Entry Court. As the main access into the Cultural Campus, there is a busy mix of visitor (pedestrian and vehicular) and service use at the drop off and Entry Court. In addition to the Entry Court, the Cultural Campus includes: Cabot's Museum and Visitor Center, Auditorium, Café, Parking, and Service Court. Downslope of the drop off loop is the screened parking area, set into the Desert Rim landform at the Southwest corner of the site. From the Entry Court, visitors can move into the Museum and Visitors Center breezeway. This breezeway is suitable for a range of outdoor events, and with temporary shade structures extending from it, groups of up to 200 people can be comfortably accommodated. Upslope from this area is a modest outdoor bowl amphitheater suitable for 200 guests. Beyond that is the Museum Café, and the start of the Garden Walk which takes people up through the Desert Wildlands to the Spa Gardens and to the Trailhead beyond. The generous outdoor areas of the Cultural Campus are organized into a hierarchy of spaces, delineated by appropriate pervious paving and surface treatments. In other parts of the Cultural Campus, pockets of shade and relative lushness reminiscent of nearby desert oases extend the useable outdoor space well into the hotter months of the year.

From the Entry Court, visitors can move into the Museum and Visitors Center breezeway. This breezeway is suitable for a range of outdoor events, and with temporary shade structures extending from it, groups of up to 200 people can be comfortably accommodated. Upslope from this area is a modest outdoor bowl amphitheater suitable for 200 guests. Beyond that is the Museum Café, and the start of the Garden Walk which takes people up through the Desert Wildlands to the Spa Gardens and to the Trailhead beyond. The generous
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SPA GARDENS

With pools of the healing waters terracing down the wash, this landscape captures the character of a ribbon of water and vegetation threading its way through an arid landscape. The pool terraces catch the grade of the wash with low, simple walls that define the outdoor public spaces. The Spa Headquarters consists of, Admissions, Treatments, Lounge, Café, Retail shop and sits as a cluster of three buildings reached directly by the North Side Drive which winds its way along the edge of the wash and dramatic Mojave Desert landforms.
Alternatively, the Spa Headquarters is accessed by the Garden Walk which originates at the Café Terrace down in the Cultural Campus.

The Garden Walk is envisioned as a structured, leisurely upslope ascent with shaded seating areas/rest stops, gazebos, and viewing platforms that define the south edge of the Spa Garden Terraces. The Garden Walk leads across the wash, connecting the Spa Garden Terraces to the Spa Headquarters with a small bridge. Where the Garden Walk turns left into the Spa Gardens, an informal trail continues on to through the Desert Wildlands to the Trailhead.

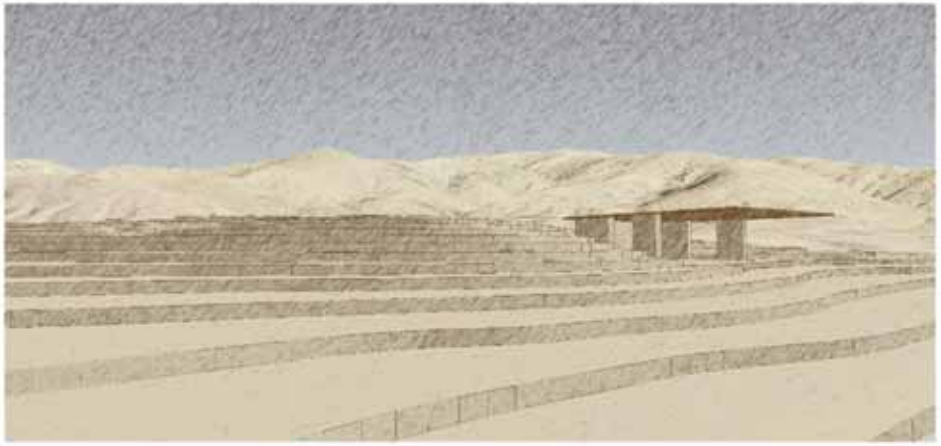
Once clearing "admissions" at the Headquarters, visitors can cross over the wash bridge and enter either the upstream or downstream Gardens, each with its own Restroom and Refreshment Pavillions. Carefully sited smaller pools and terraces provide distinct settings within the sloping wash.

PUEBLO GARDENS

Building on the heritage of Cabot Yerxa and recent work by the Cabot's Museum Foundation, This landscape area has the character of a Desert Botanical Garden, terraced with native plants and others such as Ocotillo, Yucca and Aloes from deserts near and far. Within this garden is the Cabot's Pueblo and Courtyard which includes a small transit drop off and pedestrian access point. The gardens set the Pueblo and its Courtyard in a more formal context, to be experienced as an object within this desert garden landscape. The pueblo Gardens connect the Courtyard and Pueblo to the Outdoor Bowl amphitheater shared with the Cultural Campus, Auditorium, Education Center and nature Exchange. The Education Center is sited close by the "Wayokiwe", the center piece of a small outdoor learning amphitheater. The Education Center and Nature Exchange utilize the native plants of the Pueblo gardens and trails of the Desert Wildlands, allowing children to experience and learn about the diversity of plants and animals that are adapted to and thrive in arid landscapes.

TRAILHEADS

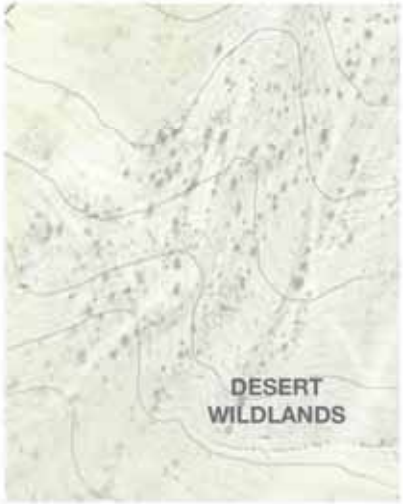
Leaving the cultural facilities and Gardens downslope, the Trailhead sits firmly rooted in the Desert Wildlands at the top of the wash. The Trailhead is the least developed area of the site and it includes: covered outdoor areas, docent led hikes, trail guides and information, and restrooms. The open landscape allows for distant panoramic downslope views across the Coachella Valley and up into the Little San Bernardino Mountains awaiting exploration by the adventurous visitor.



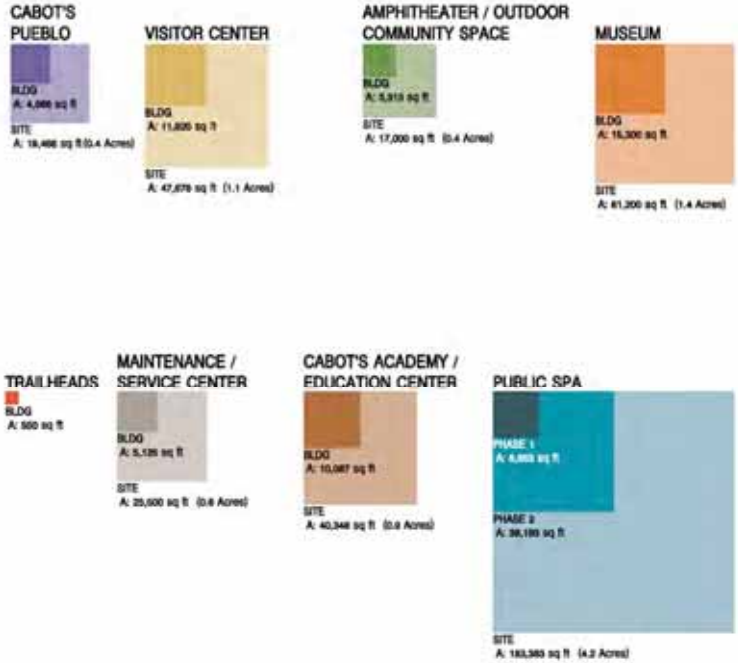
DESERT WILDLANDS

The character of this edge of the Mojave Desert, in both vegetation and landform is an essential part the Pueblo Museum and Desert Hot Springs. The project site lies within this desert wildlands landscape, on a broad braided wash upslope of the existing Pueblo and Desert View Road. To maintain the essential character of this landscape across the site and to ground the project solidly within the greater desert ecosystem, this landscape is intertwined within and around the development. While providing important ecological and viewshed functions, this landscape serves as an extensive nature Park, with a network of walking trails and loops for visitors and residents that connect to the Desert Hot Springs Trail System.

A key component of the Desert Wildlands is the Desert Rim Landscape. The Desert Rim Landscape brings a continuous 150 foot wide swath of desert landscape along the edge of Miracle Hill Road down to the corner of Miracle Hill Road and Desert View Avenue, and then along Desert View Avenue to the eastern edge of the site. This includes restoration of the altered parts of this area with native vegetation. For visitors who arrive by transit, and others who might walk in from the surrounding neighborhoods and Spa Hotels, a network of walking trails lead from this edge into the site. The Entry Drive, Cabot's Pueblo and the access drive to the Maintenance Yard are the only other interruptions to this important edge. The rest of the developed site, the buildings, and perimeter fence will be outside of this area, keeping the uninterrupted desert landscape in the foreground along aptly named Desert View Road and Miracle Hill Road.



ELEMENTS



COMMONS
NATURAL DESERT PARK
PARKING

CULTURAL CAMPUS
VISITOR CENTER
CABOT'S ACADEMY
MUSEUM
PARKING

SPA GARDENS
PUBLIC SPA
PARKING

PUEBLO GARDENS
CABOT"S PUEBLO
AMPHITHEATRE

TRAILHEADS
TRAILHEAD
PARKING

MAINTENANCE/SERVICE CENTER
MAINTENANCE BUILDING
PARKING

DESERT WILDLANDS

SITE/BUILDING	SPACE / USE	GSF	SITE GSF
VISITOR CENTER		11,825	47,679
	LOBBY		
	RECEPTION/INFORMATION		
	SPA INFO KIOSK		
	DHS STORY EXHIBIT KIOSK		
	AUDITORIUM		
	HISTORICAL SOCIETY KIOSK		
	HISTORICAL SOCIETY OFFICES		
	RETAIL		
	FOOD SERVICE		
	ADMINISTRATION		
	SUPPORT		
CABOT'S ACADEMY / EDUCATION CENTER		10,087	40,348
	TEACHER CHECK IN RECEPTION		
	LEARNING CENTERS		
	PREP / SUPPORT		
	NATURE EXCHANGE		
	ARTIST COLONY		
CABOT'S PUEBLO		4,866	19,466
	CABOT'S TRADING POST		
	CABOT'S PUEBLO		
MUSEUM		15,300	61,200
	ENTRY		
	RECEPTION		
	RETAIL		
	GALLERIES / EXHIBITS		
	CURATORIAL SPACE		
	SUPPORT		
	ARCHIVES		
	ADMINISTRATION		
PUBLIC SPA		45,848	183,383
	FRONT OF HOUSE		
	OUTDOOR SPA		
	INDOOR SPA		
	WELLNESS / FITNESS		
	BACK OF HOUSE		
	ADMINISTRATION		
AMPHITHEATER / OUTDOOR COMMUNITY SPACE		3,313	17,000
	TICKETING/GATEWAY		
	COVERED SEATING	750	
	OPEN/BOWL SEATING	3,000	
	RESTROOMS		
	STAGE / BANDSHELL		
	BACK STAGE		
PARK		4,675	1,000,000
	GATEHOUSE		
	RESTROOMS		
	SHADE STRUCTURES		
	WATER FEATURE		
	PARK / FESTIVAL GROUNDS	1,000,000	
TRAILHEADS		500	
	INTERPRETIVE SITES		
MAINTENANCE / SERVICE CENTER		5,125	25,500
	OFFICE		
	SHOP		
	STORAGE		
	YARD	5,000	
TOTALS		102,687	1,496,325

BAUER WILEY ARCHITECTS

JONES JONES

PHASING - SCHEME A

The premise for Phasing Scheme A is to develop a minimal Spa operation in order to generate revenue for the project.

Phasing Scheme A assumes construction of the Spa Gardens: a modest public/private partnership spa development as revenue generator, combined with a Cabot's Museum Visitor's Center and interim Museum building in Phase 1. Phase 2 includes the construction of the complete Cultural Commons and Pueblo Gardens. Also in Phase 2, the trailhead structure will be constructed. The remainder of the Spa complex and support buildings, and the Amphitheater near the Cultural Commons will be constructed in Phase 3.

PHASE.1

PHASE.2

PHASE.3

PHASING - SCHEME A

MASTER PLAN PHASING STRATEGIES

BAUER WILEY ARCHITECTS

JONES JONES

PHASING - SCHEME B

The premise for Phasing Scheme B is protection and preseveration of the Cabot Pueblo as urgent need.

Phasing Scheme B assumes construction of the Spa Gardens: a modest public/private partnership spa development as revenue generator, combined with a Cabot's Museum Visitor's Center and interim Museum building, Trailhead and Pueblo Gardens in Phase 1. Phase 2 includes the construction of the remainder of the Spa complex and support buildings, and the Amphitheater near the Cultural Commons.

PHASE.1

PHASE.2

PHASE.3

PHASING - SCHEME B

MASTER PLAN PHASING STRATEGIES

PHASING - SCHEME C

The premise for Phasing Scheme C is immediate successful partnership with a Spa operator and construction of the Spa.

Phasing Scheme C assumes two phases of construction. The first phase would see the construction of the complete Spa as a public/private partnership revenue generator, combined with a Cabot's Museum Visitor's Center and interim Museum building, and Pueblo Gardens. Phase 2 includes the construction of the complete Cultural Commons, the trailhead structure, and the Amphitheater near the Cultural Commons.

PHASE.1

PHASE.2

PHASING - SCHEME C

MASTER PLAN PHASING STRATEGIES

BAUER WILLEY ARCHITECTS

JONES JONES

LAND ACQUISITION

One of the charges of the Master Plan process was to determine the extent of the required site. Most of the parcels directly adjacent to the current Cabot Museum site are zoned "Visitor Serving," the appropriate zoning for the new Musuem. The City of Desert Hot Springs does not own all of the required parcels or residential structures and will develop a land acquisition plan in order to realize the complete Master Plan.

EXISTING PARCEL MAP - LAND ACQUISITION

SITE ANALYSIS

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

SITE

TOPOGRAPHY

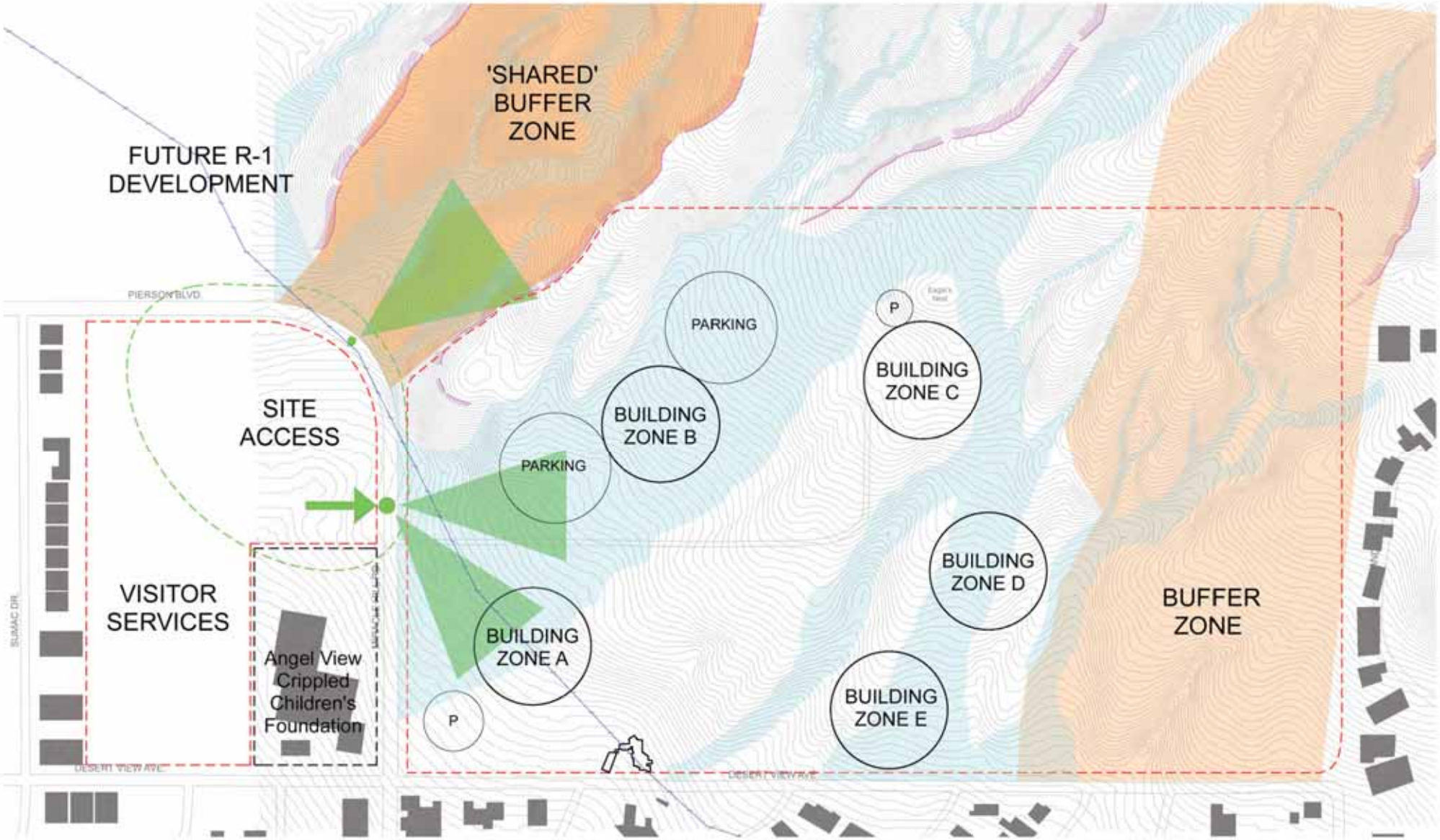
The site terrain slopes significantly from the hills to the valley floor, with channels carved by rain run-off. From the highest point of develoment, near the former site of Eagle's Nest at approximately 1340' above sea level, the site slopes to the south to approximately 1250' above sea level at the Cabot's Pueblo building. There are two primary and many secondary runoff channels that run perpendicular to the slope, each with varying width.

WATER

The site is characterized by the evidence of the flow of water over time. Rivulets of rain driven streams and tributaries traverse every part of the site indicating periods of significant but transient run off. Construction on the site will demand respect for the water, and training of its flow to allow for natural runoff on the developed site.

FAULT LINE/ LINIMENT

The San Andreas Fault visibly scars the land as it traverses the Coachella Valley. Visible from the proposed Master Plan site, the fault will continue to be an attraction for visitors from abroad. The zone of influence on each side of the fault is called the "Liniment." Within the Liniment, the land forms are diffused by the very gradual movement of the earth. The boundary of this area traverses the Cabot Pueblo site and will be explored as the direct link and influence of the San Andreas Fault on the site, the Coachella Valley and California beyond.



SITE ZONING DIAGRAM

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

SITE

BUFFER ZONES

The site is bound on two sides by proposed buffer zones to allow for shared open space between the adjacent residential and visitor serving zones. To the north west, a developer proposed residential and golf course development would be buffered with a natural desert environment, cradling the intersection of Pierson and Miracle Hill Blvd and preserving the spirit of connection to the natural desert. To the east, the Master Plan proposes ample open space and trails with a shared buffer zone adjacent to the existing single family residential development.

SEQUENCE

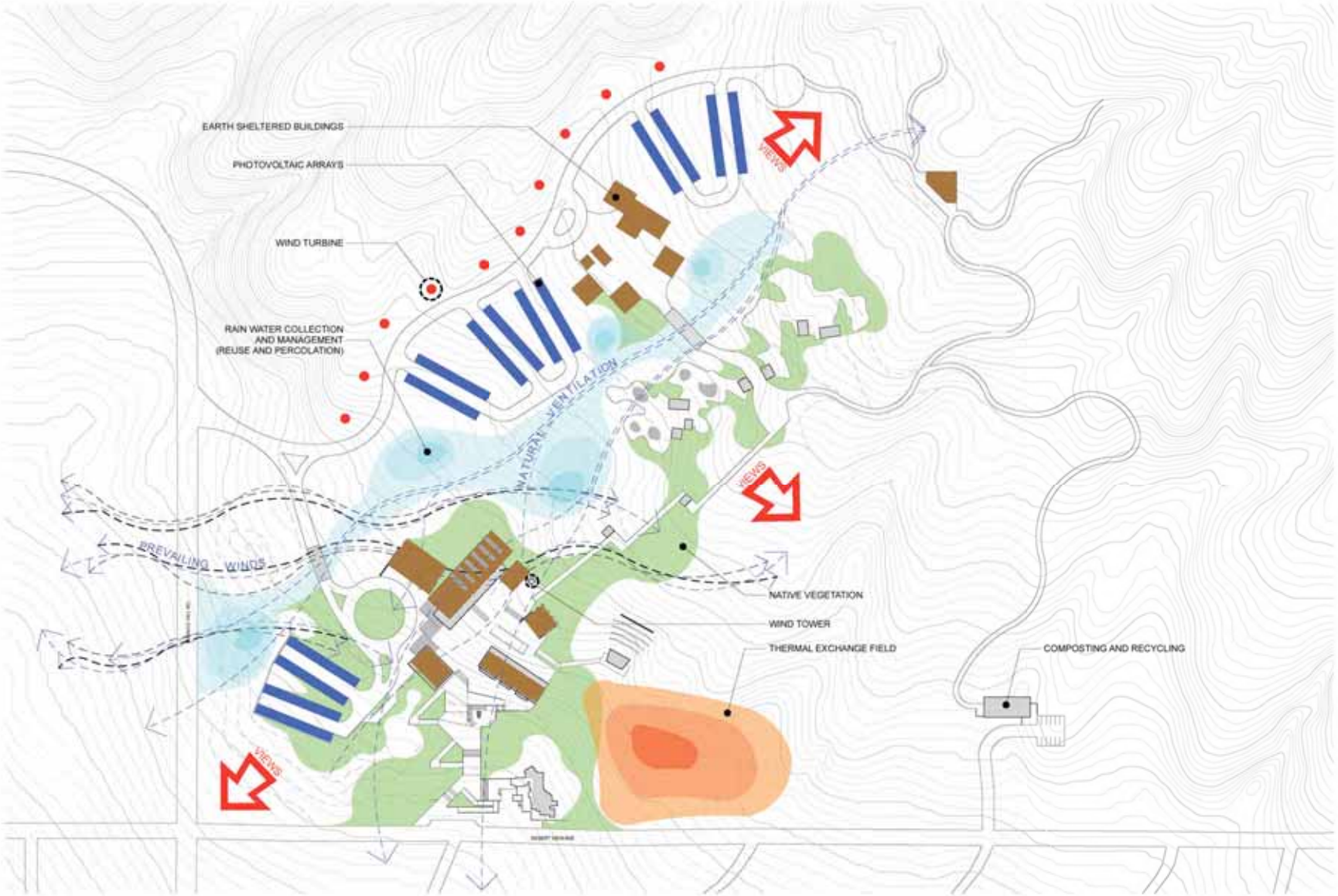
Primary access first leads to the Cabot's Cultural Center with the Visitor Center as the gateway building and entrance into the Cultural Commons. The Spa development is situated northeast of Cabot's pueblo in the wash zone at a higher point on the site, a placement that optimizes views and while providing privacy for the spa patrons. The main planning concept for the spa is a diffuse arrangement, integrated into a terraced natural desert landscape.

Building development is concentrated on the edge of the wash zone and utilizes the wash zone for uses including parking serving the building clusters, access roads, spa pools and desert gardens. An expanded native garden provides an outdoor open area as a strategy to retain the Pueblo as an artifact and reduce density directly around the deteriorating. A service facility is located in the southeast corner of the site with access from Desert View Avenue and to the building clusters on the site.

ACCESS

The Site is primarily accessed off the 63 Freeway on Pierson and off the 10 freeway on Miracle Hill Road. The border of the site integrates natural landscaped buffer zones along the mountains northwest, along Miracle Hill Road and Deser View Ave. These desert highlands are a natural landform of mountain ridges forming a buffer zone to any development proposed to the north east of the site.

The Entry sequence off of Miracle Hill Road responds directly to the to site topography, the San Andreas liniment and focused orientation to the Cabot's Pueblo Museum. The liniment runs south east across the site. Directing the road parallel to the liniment directs vehicular traffic.



SUSTAINABILITY DIAGRAM

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

SITE

SUSTAINABILITY

The new Cabot Pueblo Museum will follow the example set by Cabot Yerxa in following sustainability principles rooted in the local environment. As a measure of the extent to which sustainability principles are integrated into the project design will be submitted to the US Green Building Council with a goal of achieving a Leadership in Energy and Environmental Design (LEED) Silver Certification.

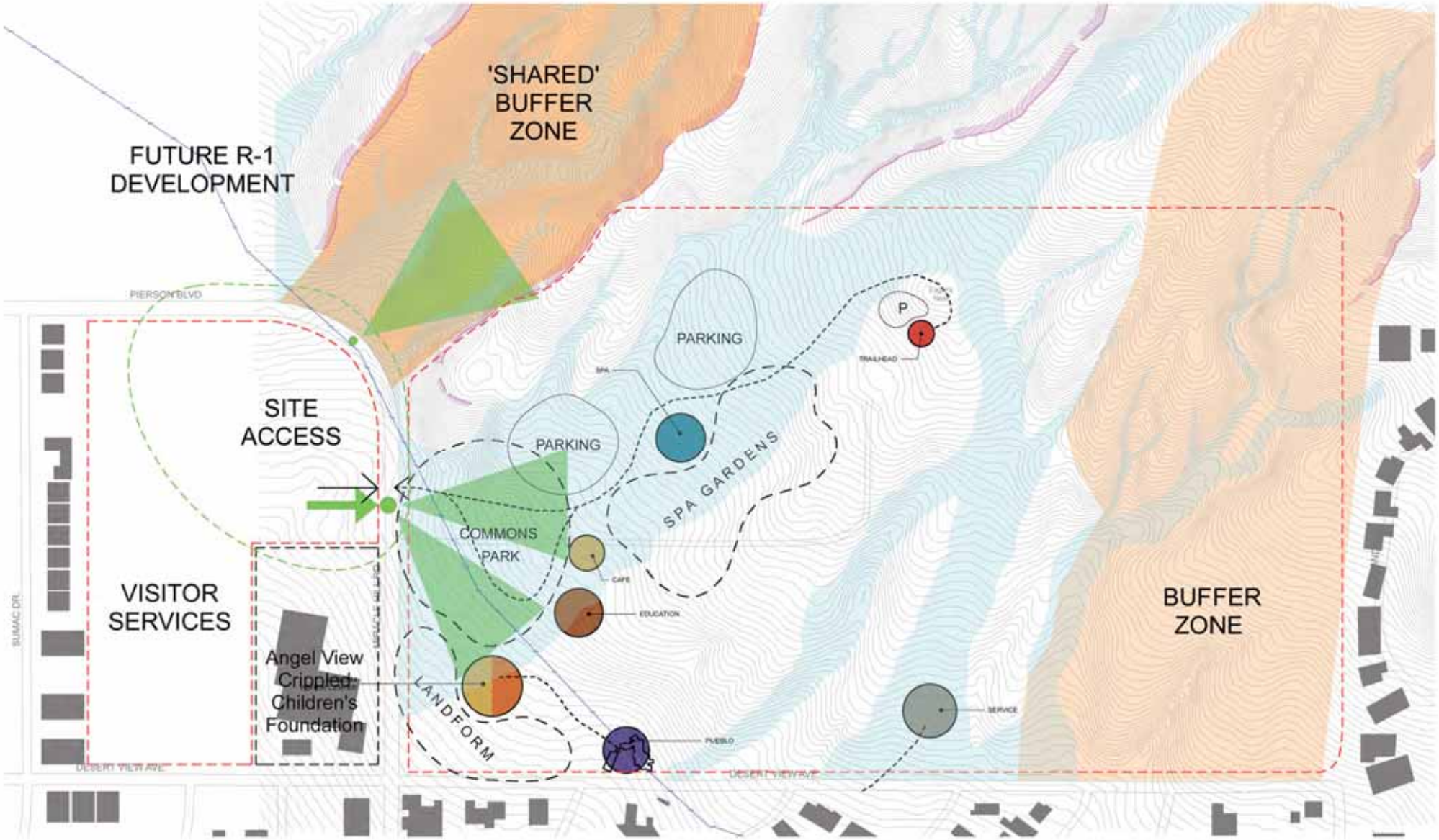
Most basically, the Master Plan responds to Sun, Wind and Water through building orientations and placement for natural ventilation, shade and daylight.

Native vegetation will minimize the need for irrigation and the project will use earth-coupled heat pumps to benefit from the consistent temperature of subgrade soil. Many of the buildings are earth sheltered to minimize heat gain and loss that comes with the intense diurnal swings in the desert climate.

The project will use technologies to generate power from the wind and sun, including wind turbines and photovoltaic arrays. The buildings will be constructed with high recycled content materials from local sources. Composting and Recycling gathering and sorting locations are included on the site to encourage recycling. High efficiency HVAC equipment will augment the naturally ventilated buildings. Other water saving measures will include low flow restroom fixtures and waterless urinals.

NATURAL HOT SPRINGS WATER SOURCE LOCATION

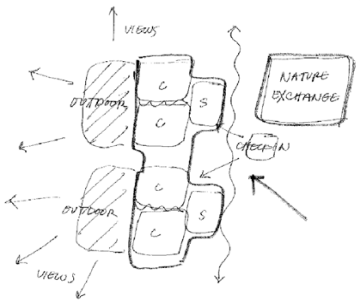
The Public Spa water source for the project will be the natural aquifer below Desert Hot Springs toward the southern end of the site, accessed by well.



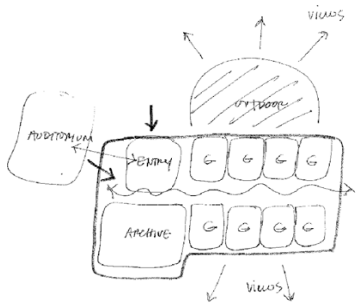
BUILDING CLUSTERS: SITE

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

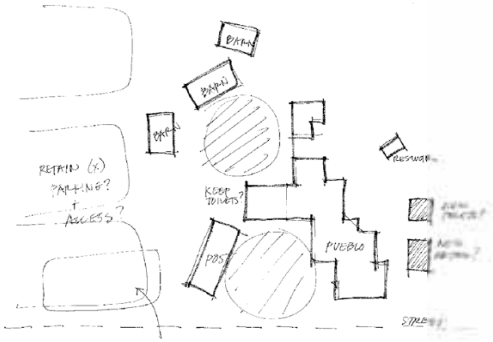
BUILDINGS



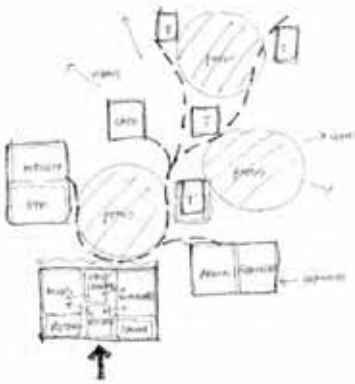
EDUCATION
LINEAR



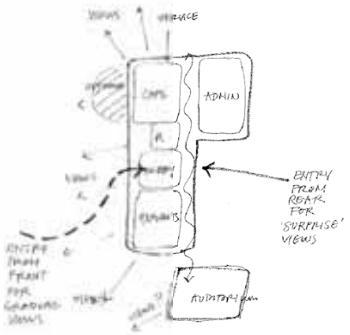
MUSEUM -
INTERNAL CIRCULATION



PUEBLO
VERIFY (X) TO REMAIN



SPA
CLUSTER



VISITOR CENTER
LINEAR

BUILDING CLUSTERS

The buildings are arranged per affinity diagrams developed during the programming and interview processes completed early in the project.

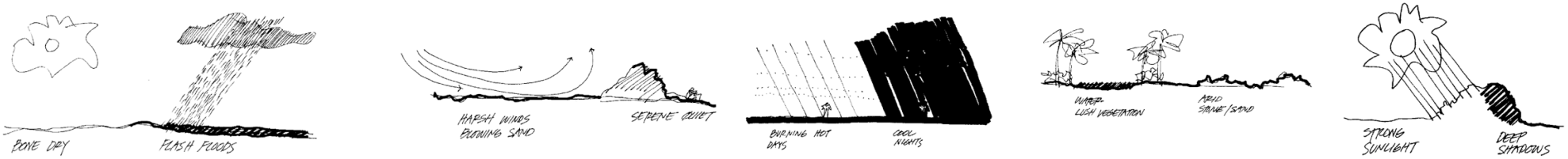
Education: Proximity to sheltered outdoor areas for the classrooms will allow for a variety of active educational programs teaching kids about the site and earth. The classrooms are arranged so movable walls join pairs for larger flexible space as needed.

Museum: Flexible gallery spaces are arranged for proximity to the entry, outdoor exhibit space and controlled views for display of artifacts, traveling exhibits. The views allow for context of exhibits in relation to the Pueblo and site beyond.

Spa Gardens: The public spa clusters core uses for utility efficiency and control, but allows for treatment pavilions to be distributed in several areas of the garden for privacy, tranquility and views. Larger group pools link the uses through garden walkways, terraces and views.

Visitor's Center: a welcoming entry and control points form the basis for the Visitor's Center Cluster. An exhibit area forms a link to the more extensive exhibits in the adjacent Museum. Administrative functions for the site reside in this building.

DESERT ENVIRONMENT: extremes + contrasts



DESERT DESIGN ISSUES

ENVIRONMENTAL CONSIDERATIONS: DESERT

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

ISSUES

OPEN ITEMS:

Land Acquisition

Scripps Development

Flood Control

Cost

APPENDIX

CABOT'S PUEBLO MUSEUM

SITE MASTER PLAN : WORKSHOP ONE

desert hot springs, ca

BAUER AND WILEY
ARCHITECTS

JONES JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

WORKSHOP ONE

02.25.10

WORKSHOP ONE

The Design Team and the Miracle Hill Committee convened for Workshop One to review site analysis information, develop Program information, and discuss initial planning considerations.

This document is a record of materials prepared for Workshop One, as well as incorporating information, ideas and direction developed during the workshop.

The Design Team will develop Master Plan concepts for Workshop Two that incorporate and illustrate the considerations discovered through Workshop One.

PROCESS

The Design Team assembled and displayed background drawings, photographs and analysis used to assess project opportunities and constraints. The primary display included the project draft goals, planning studies, programmatic information and assumptions.

After an overview presentation of project considerations, the group split into two breakout sessions studying site, planning and program implications from macro and micro viewpoints, respectively. Representatives of the Design Team facilitated the discussions by framing questions addressing Site, Themes and Program. After the breakouts, the larger group reassembled and discussed the outcomes.

QUESTIONS TO ADDRESS / RESOLVE DURING THE WORKSHOP

SITE ANALYSIS

1. WHAT IS THE POTENTIAL SITE EXTENT and WHAT OPPORTUNITIES and CONSTRAINTS DOES IT BRING?

Preferred:
The preferred site boundaries extend from Miracle Hill Road to the west, Desert View Avenue to the south, roughly on a line from Hidalgo Street to the water tanks on the east, and should extend on a line roughly 45 degrees northeast from the current bend in Pierson to connect to trailheads in the hills establishing a "soft" northerly edge. The project planning should seek a natural dividing feature or element, such as a ridge line, to form the boundary with any proposed residential use to the north or northwest. The current privately owned parcels within the boundaries of the described site are assumed to be available to the project. In lieu of direct acquisition of land to the north of Pierson Boulevard, access easement for an entry road extending from the current bend in Pierson could be negotiated. Should the privately owned parcels currently within the site boundary be unavailable in the short term, planning should consider a phased approach to incorporating these parcels.

2. WHAT IS THE BEST ENTRY / ARRIVAL POINT and WHAT OPPORTUNITIES or CONSTRAINTS DOES IT BRING?

The primary entry should be a road meandering with the site contours from the current bend in Pierson onto the site. This alignment offers sequential views of the desert and the project site, while leading to a site high point offering vistas into the valley and beyond to Mt. San Jacinto.

3. WHAT ARE THE IMPACTS OF THE SURROUNDING USES - including opportunities and constraints?

Future residential development to the northwest of the site is the most imposing use. The City expects to develop a dog park to the southwest of the site, along Desert View Avenue. The site directly across Miracle Hill Road, assumed to be a future Visitor Serving use, compliment the project program and uses. Planning an appropriate boundary along Desert View Avenue fronting the residential neighborhood is important.

4. WHAT IS THE NATURE OF THE GENERAL SITE - including opportunities and constraints?

The site contours are highly variable, and the site rises dramatically from Miracle Hill Blvd. A natural boundary or "soft edge" to the north is preferred over the "hard edge" of a street on the city "grid". The site offers commanding views of the Coachella Valley, the San Bernardino Mountains and the Little San Bernardino Mountains. The site shows significant influences from water flows moving from the northeast to the southwest. Natural desert vegetation is present, and the site is exposed to sun and wind from all directions except the north.

THEMES

1. WHAT ARE THE THEMES SHOULD WE ADOPT AS THE BASIS FOR THE MASTER PLAN?

The consensus is that the sire is about "the waters" of Desert Hot Springs, the desert climate and its challenges; and the historic cultural lessons of Cabot Yerxa.

2. WHAT RESULTING CHARACTER(S) SHOULD THE PLANNING STRIVE TO ACHIEVE?

The project should expand on Cabot Yerxa's principles of designing with the desert landscape, including local materials, passive solar, and respect for the site. The buildings should not seek to duplicate or mimic the pueblo architecture, but should express a contemporary, simple architecture closely integrated with the site and the desert. The buildings and landscape should express sustainable design reflective of desert living and respect for the land.

3. WHAT ARE MODELS or INSPIRATION FOR THE MASTER PLAN?

See the enclosed materials.

PROGRAM

1. WHAT ARE THE PRIIMARY PROGRAM ELEMENTS?

The program includes the existing Cabot's Pueblo, a Visitor's Center, Museum, Cabot's Academy, and Spa, small Amphitheater, parking, trailheads, a public park, and support facilities.

2. WHAT IS THE RELATIONSHIP / INTER-RELATIONSHIP BETWEEN / AMONG ELEMENTS? GROUPINGS?

See program concept sheets.

3. WHAT BASE LINE VISITOR COUNT IS REASONABLE TO TARGET FOR EACH PRIME ELEMENT?

See program concept sheets.

4. HOW MUCH SITE AREA DO THE PRIME PROGRAM ELEMENTS REQUIRE MINIMUM / OPTIMUM / MAXIMUM?

See program concept sheets.

5. HOW CAN WE SIZE EACH ELEMENT?

See program concept sheets.

6. WHAT ELEMENTS ARE MOST IMPORTANT TO ESTABLISH INITIALLY? WHAT ELEMENTS FOLLOW? IS GROWTH ACHIEVED THROUGH EXPANSION or ADDING ELEMENTS or BOTH?

There is urgent need to preserve the existing Cabot's Pueblo and to house the art collection in a climate controlled environment. Cabot's Academy is a revenue source and has access to revenue streams or grants due to the educational use; therefore, it may be able to be part of an initial project phase. The Spa may be the primary revenue source for the project and should be considered in the early phases in some form.

GOALS

FUNCTION
People/Activities/Relationships

To create a PLACE for Family, Community and Visitors – for a cultural wellness center and an artistic and intellectual hub.

To INTERPRET the History, the Culture and the Natural Environment of Desert Hot Springs – including the healing WATERS, CABOT'S PUEBLO and the SETTING within the Coachella Valley.

To LINK the City to the natural environment, the Valley and Joshua Tree through the HEALING SPRINGS.

To INCORPORATE and PRESERVE Cabot's Pueblo.

To provide a new VISITOR'S CENTER for Desert Hot Springs.

To extend EDUCATIONAL opportunities with a new Cabot's Academy.

To provide a 99-seat auditorium for lectures, music, plays and film screenings.

To provide a home for the Desert Hot Springs Historic Society.

To provide for on-site Food Service operations.

To provide gallery, curatorial, interpretive and archival space for Yerxa artwork and artifacts in a new Cabot's Center.

To provide a Public Park.

To provide a Public Spa – day use.

To provide trailheads and linkage to Joshua Tree National Park and related wild lands and conservation areas.

To SHARE common SUPPORT elements where practical.

To build on Cabot's philosophy to achieve the highest level of SUSTAINABILITY utilizing the natural elements of sun, wind, ground and water.

To provide for 8 hour a day OPERATIONS, 365 days per year – for the KEY uses.

To provide for 200 daily weekend site visits; 50 daily visitor center visits; 100 Cabot visits; 50 Spa visits.

To incorporate both the NATURAL and a NATURALIZED LANDSCAPE.

To REINFORCE the Coachella Valley Multiple Species Habitat Conservation Plan and Natural Community Conservation Plan.

FORM
Space/Environment/Quality

To MAKE "healing waters" VISIBLE and ACCESSIBLE.

Honor Cabot's VISION by preserving sense of desert openess.

Capture and protect VIEWS of greater Coachella Valley landscape.

To promote HEALTH and WELL-BEING through the project development and design.

To EXPRESS an IDENTITY linked to the ENVIRONMENT and representing the BEST of desert DESIGN.

To EXPRESS the HERITAGE of Cabot's Pueblo and the HEALING WATERS of Miracle Hill.

To PROJECT an IMAGE of _____ (Modest? Superior? Grand?), but cost effective, QUALITY.

To ESTABLISH an identity for Desert Hot Springs that RECONNECTS to desert landscape and historical roots.

To develop a PLAN that incorporates WATER, SUN and WIND.

ECONOMY
Initial Budget/Operating Budget

To plan the PROJECT for a $_____ BUDGET.

To explore potential PARTNERSHIPS with local utilities (water districts, trash), college districts, indian tribes and other interests.

To plan the project for an INITIAL EXPENDITURE of $_____ for the First Phase.

To MINIMIZE operating costs through generation of _____% of on-site power and reclaiming _____% of water usage.

To OPERATE the SITE at ZERO NET-COST to the City of Desert Hot Springs by incorporating REVENUE PRODUCING elements: ie. spa, museum, food and event rental spaces.

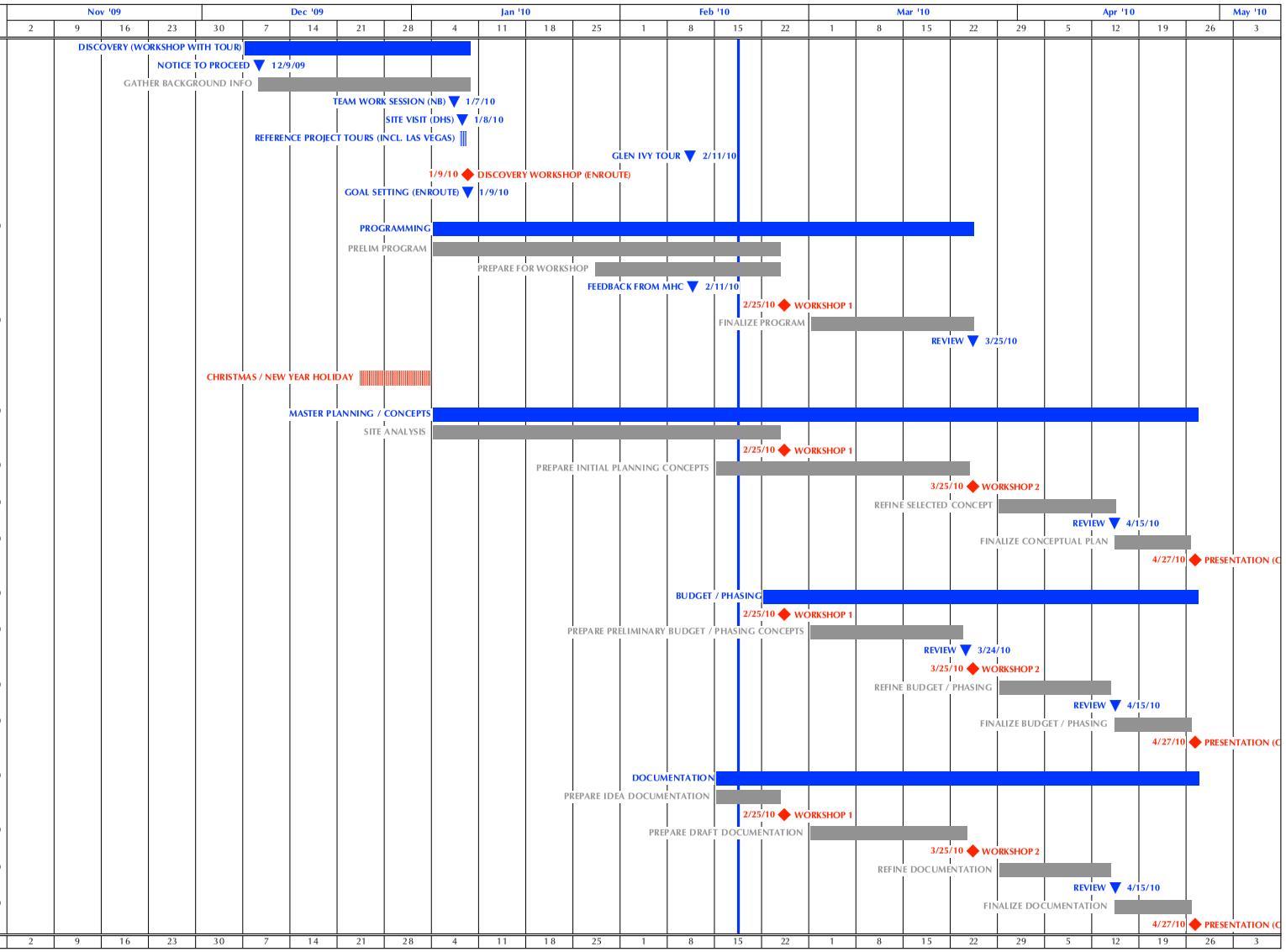
TIME
Past/Present/Future

To OCCUPY PHASE ONE by _____ (date).

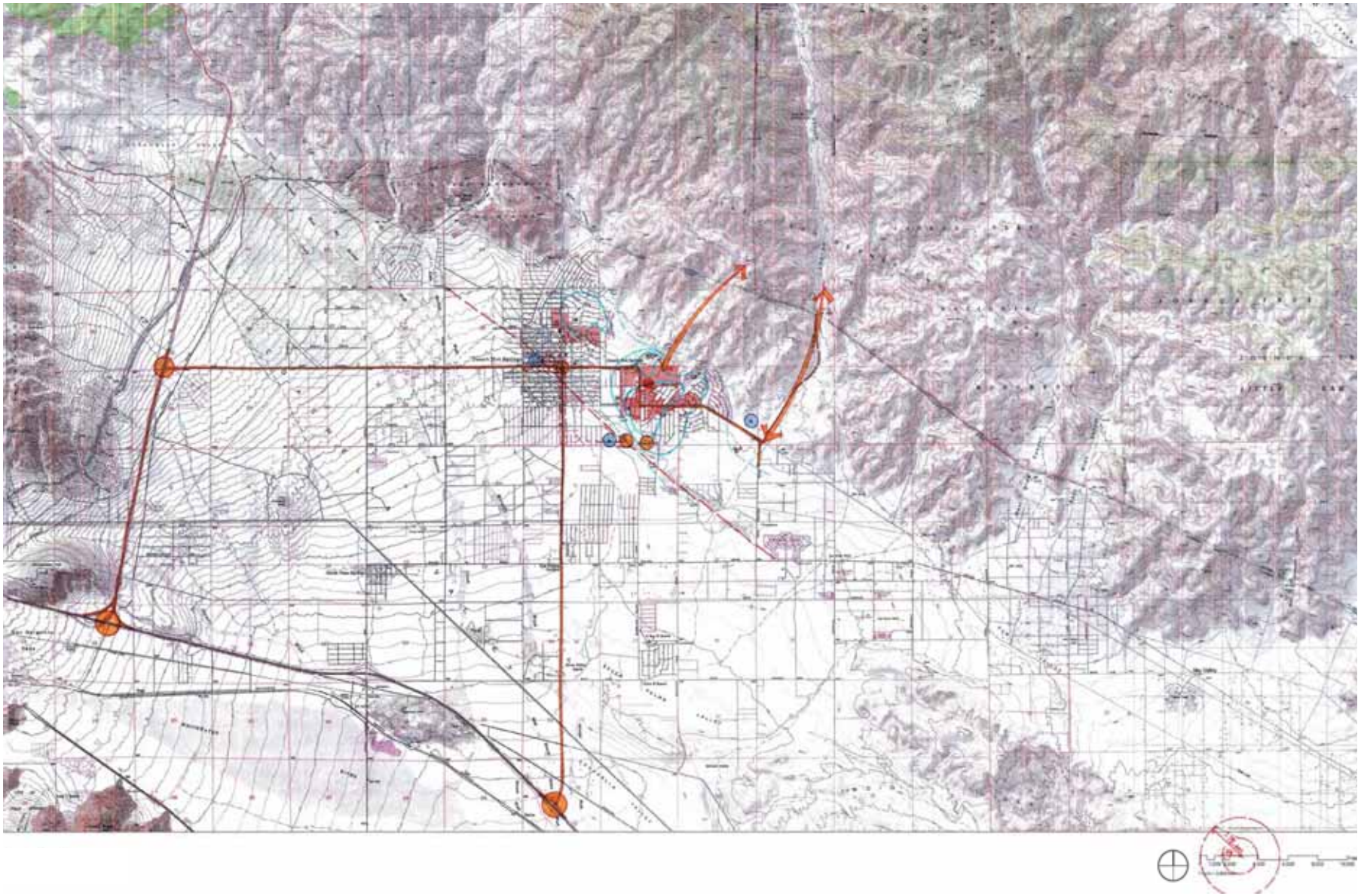
To develop a LONG RANGE PLAN through _____ (year).

To develop a plan that ANTICIPATES and ALLOWS for change.

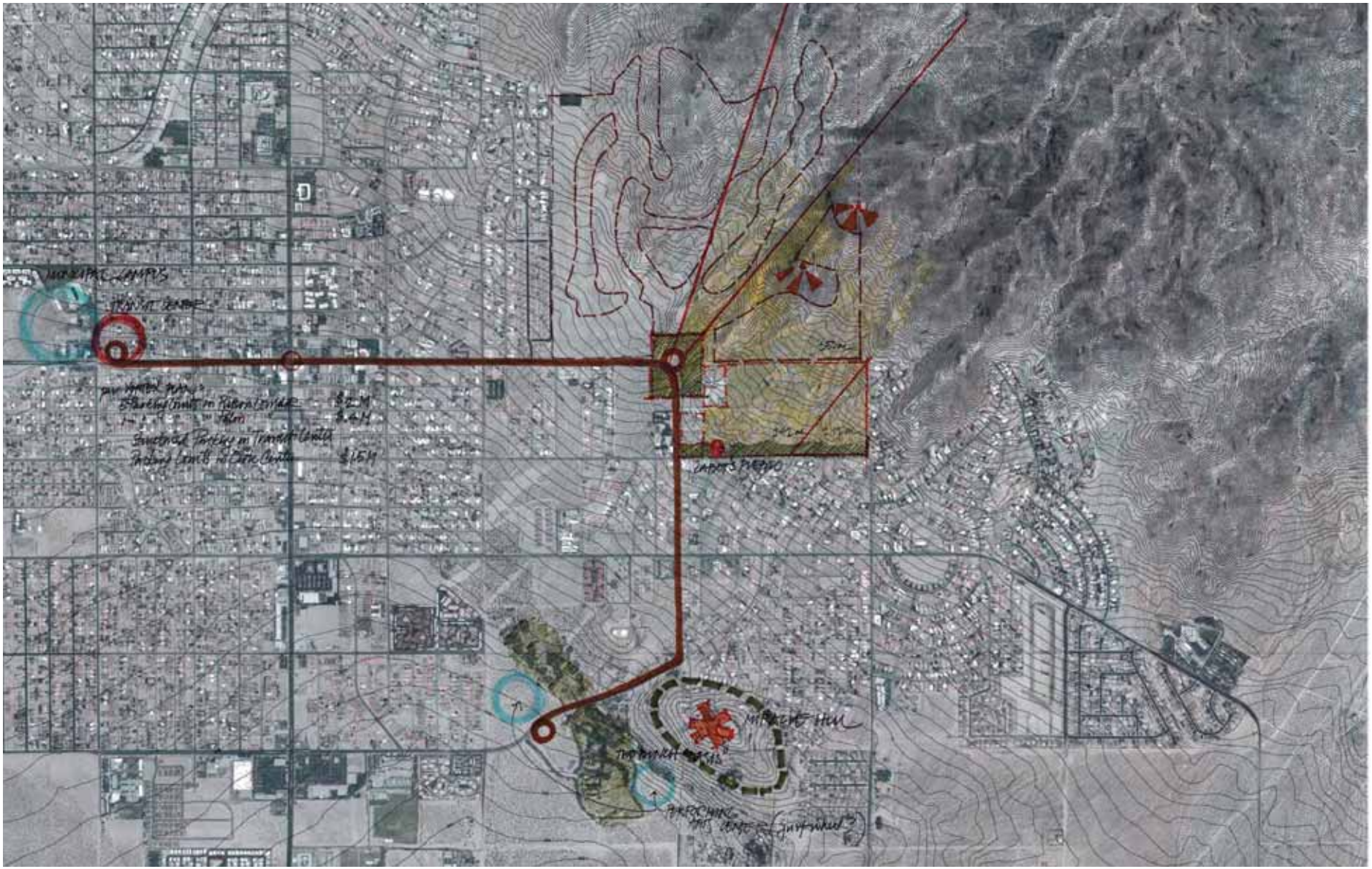
	Activity Name	Start Date	Finish Date
9	**DISCOVERY (WORKSHOP WITH TOUR)**	12/7/09	1/9/10
10	NOTICE TO PROCEED	12/9/09	
11	GATHER BACKGROUND INFO	12/9/09	1/9/10
12	TEAM WORK SESSION (NB)	1/7/10	
13	SITE VISIT (DHS)	1/8/10	
14	REFERENCE PROJECT TOURS (INCL. LAS VEGAS)	1/8/10	1/9/10
15	GLEN IVY TOUR	2/11/10	
16	DISCOVERY WORKSHOP (ENROUTE)	1/9/10	
17	GOAL SETTING (ENROUTE)	1/9/10	
18			
19	**PROGRAMMING**	1/4/10	3/25/10
20	PRELIM PROGRAM	1/4/10	2/24/10
21	PREPARE FOR WORKSHOP	1/28/10	2/24/10
22	FEEDBACK FROM MHC	2/11/10	
23	WORKSHOP 1	2/25/10	
24	FINALIZE PROGRAM	3/1/10	3/25/10
25	REVIEW	3/25/10	
26			
27	**CHRISTMAS / NEW YEAR HOLIDAY**	12/24/09	1/3/10
28			
29	**MASTER PLANNING / CONCEPTS**	1/4/10	4/27/10
30	SITE ANALYSIS	1/4/10	2/24/10
31	WORKSHOP 1	2/25/10	
32	PREPARE INITIAL PLANNING CONCEPTS	2/15/10	3/24/10
33	WORKSHOP 2	3/25/10	
34	REFINE SELECTED CONCEPT	3/29/10	4/15/10
35	REVIEW	4/15/10	
36	FINALIZE CONCEPTUAL PLAN	4/15/10	4/26/10
37	PRESENTATION (City Council)	4/27/10	
38			
39	**BUDGET / PHASING**	2/22/10	4/27/10
40	WORKSHOP 1	2/25/10	
41	PREPARE PRELIMINARY BUDGET / PHASING CONCEPTS	3/1/10	3/23/10
42	REVIEW	3/24/10	
43	WORKSHOP 2	3/25/10	
44	REFINE BUDGET / PHASING	3/29/10	4/14/10
45	REVIEW	4/15/10	
46	FINALIZE BUDGET / PHASING	4/15/10	4/26/10
47	PRESENTATION (City Council)	4/27/10	
48			
49	**DOCUMENTATION**	2/15/10	4/27/10
50	PREPARE IDEA DOCUMENTATION	2/15/10	2/24/10
51	WORKSHOP 1	2/25/10	
52	PREPARE DRAFT DOCUMENTATION	3/1/10	3/24/10
53	WORKSHOP 2	3/25/10	
54	REFINE DOCUMENTATION	3/29/10	4/14/10
55	REVIEW	4/15/10	
56	FINALIZE DOCUMENTATION	4/15/10	4/26/10
57	PRESENTATION (City Council)	4/27/10	



SCHEDULE



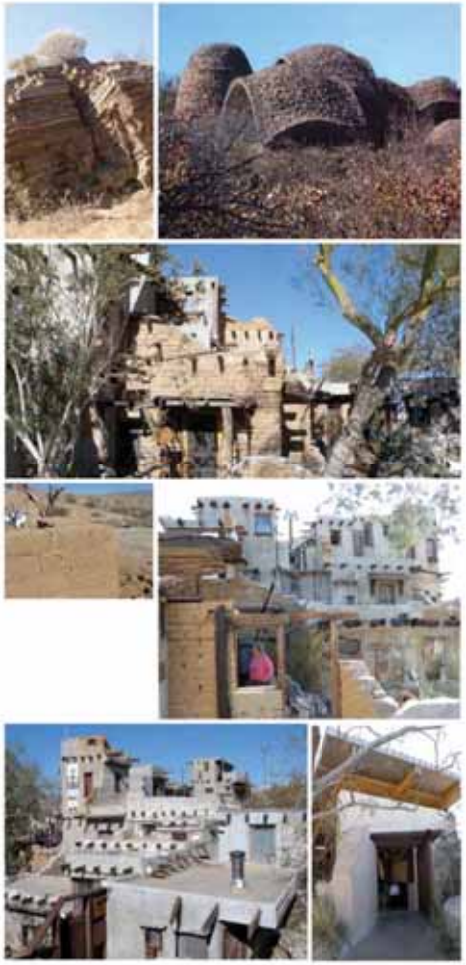
SITE DIAGRAM: SITE ACCESS / LOCATION



SITE DIAGRAM

Earth

- Faults, tectonics
- Geothermal
- Of the earth:
  adobe/rammed earth/mud brick
- Fitting with the land



Sun/Fire

- Solar
- Shade
- Quality of light (painting)
- Solar orientation

Air

- Wind energy
- Cooling towers
- Distant views
-

THEMES

ON THE TRAIL OF WATER

_the particulars of desert hot springs (groundwater from the san bernardino mountains, mission springs, mission creek fault, temperatures, composition) but also the key issue throughout the west

DESERT CLIMATE CHALLENGES & ADAPTATIONS

_sun, wind, air, earth
_flora and fauna
_native peoples :: cabot's :: current day
_the oldest 'green museum'

WATER

_health + wellness (healing)
_dynamic force in desert landscape
_reveal the hidden waters (mwd aqueduct, groundwater flows, aquifers)

THROUGH THE EYES OF CABOT YERXA

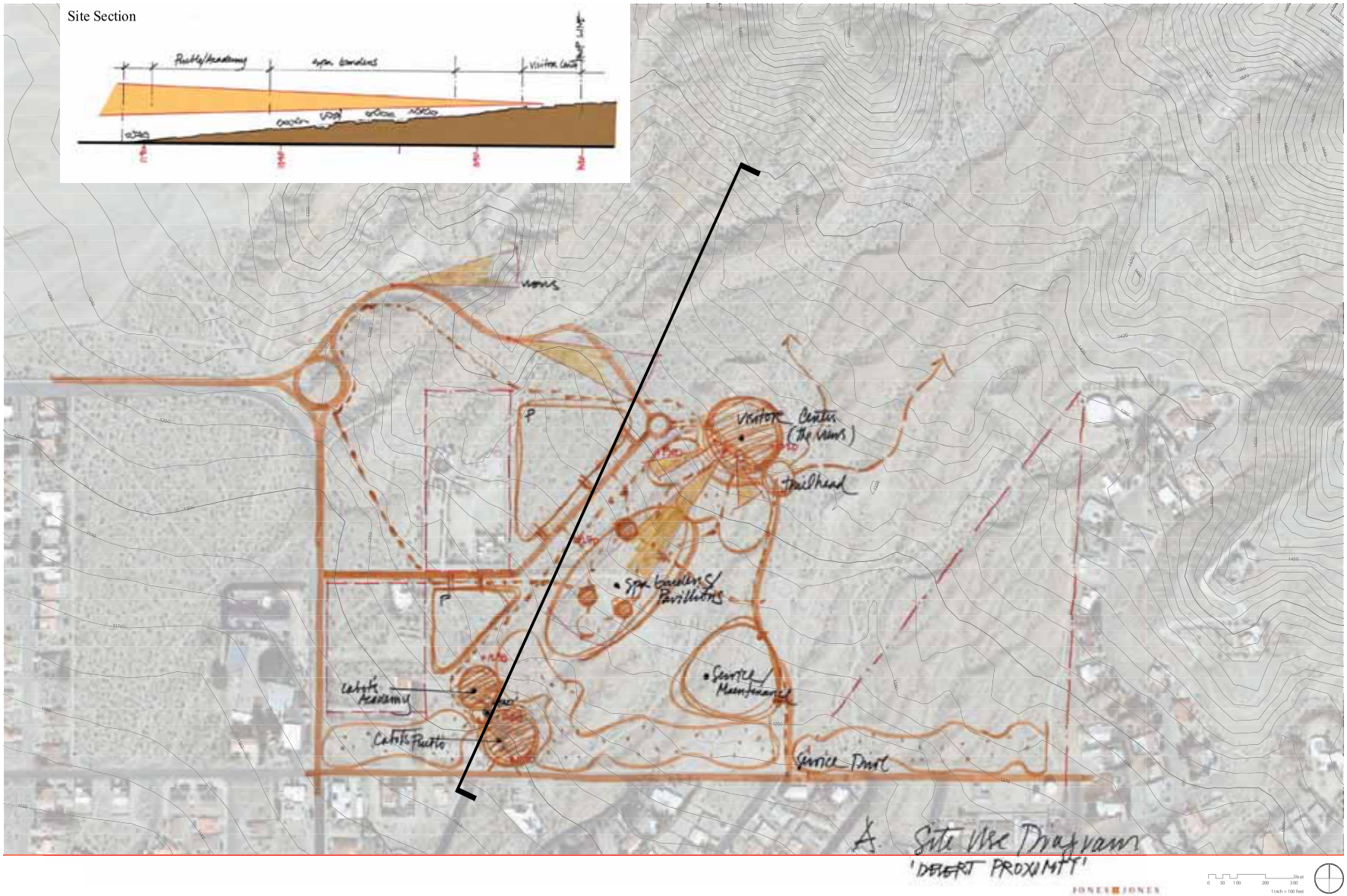
_the embodied poetry and utility of the pueblo; creative expression and the arts
_cabot as a 'witness to american history'

DESERT ADAPTATIONS

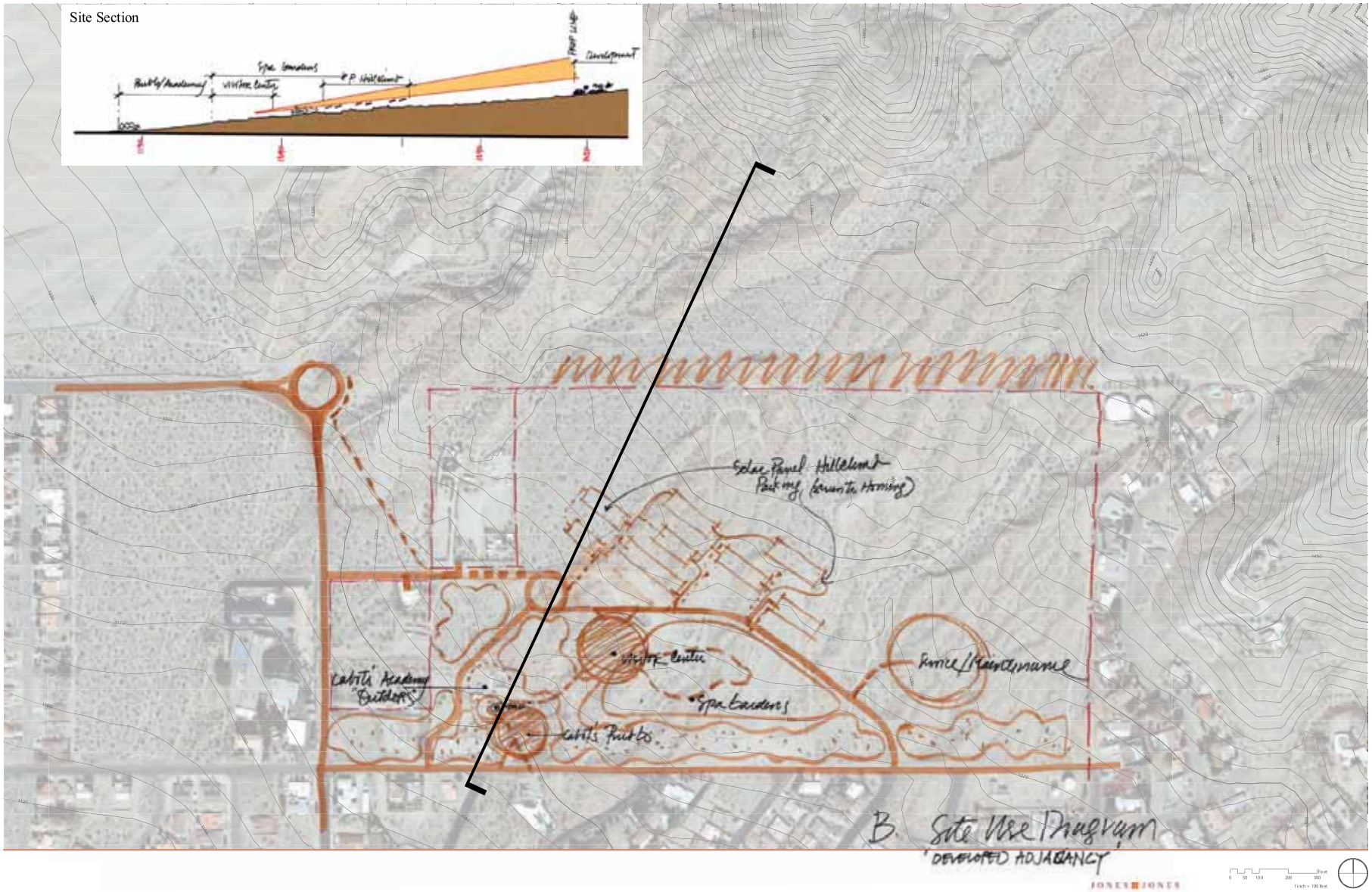
Englert Nest II
PRE-FIRE PHOTO

Cabot's Pueblo
PLAN

1. Entrance
2. Courtyard
3. Storage
4. Workshops
5. Bathroom
6. Store
7. Hall
8. Art Gallery
9. Office
10. Kitchen
11. Dining Room
12. Living Room
13. Bedroom
14. Reservoir
15. Guest House (incomplete)
16. Barn



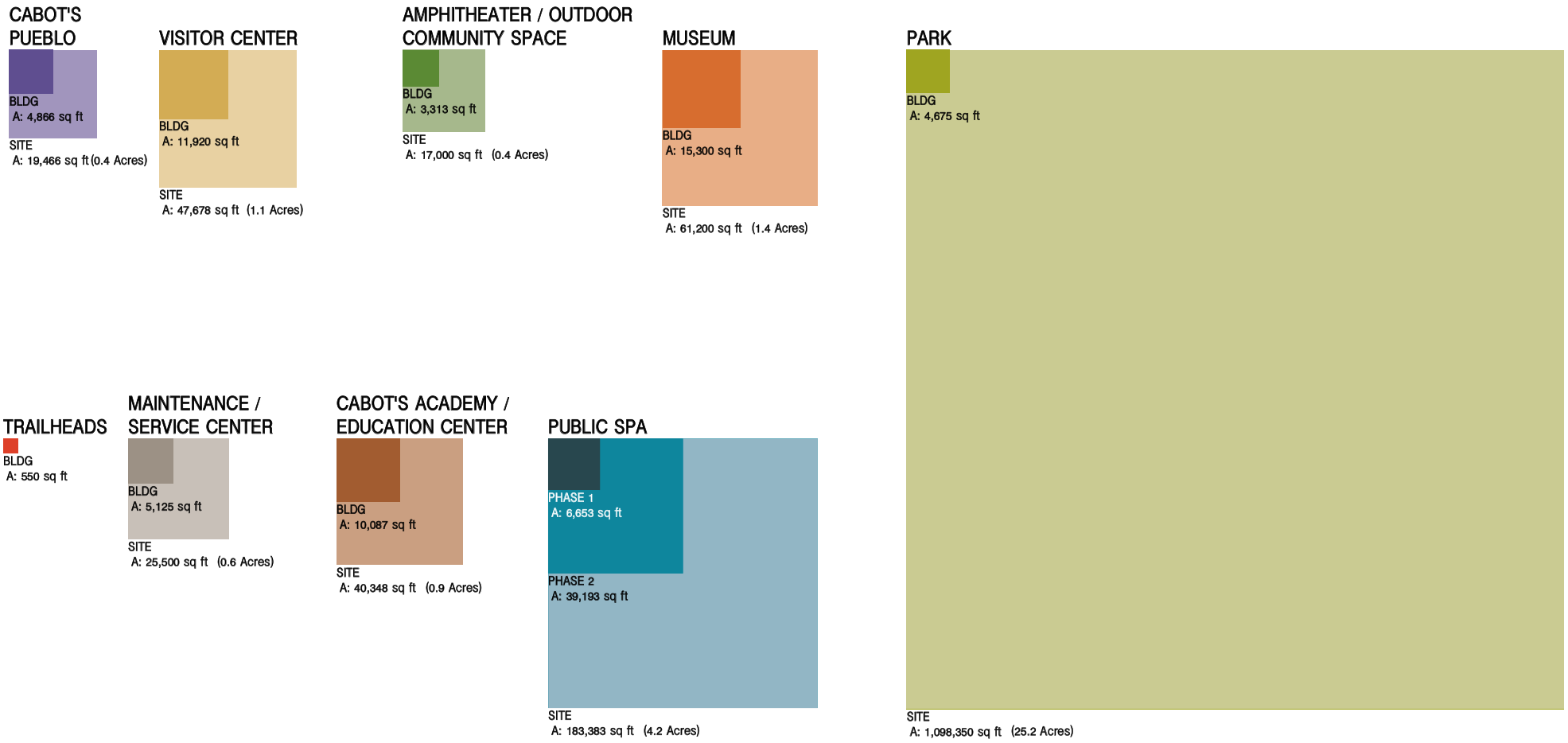
SITE USE DIAGRAM: A



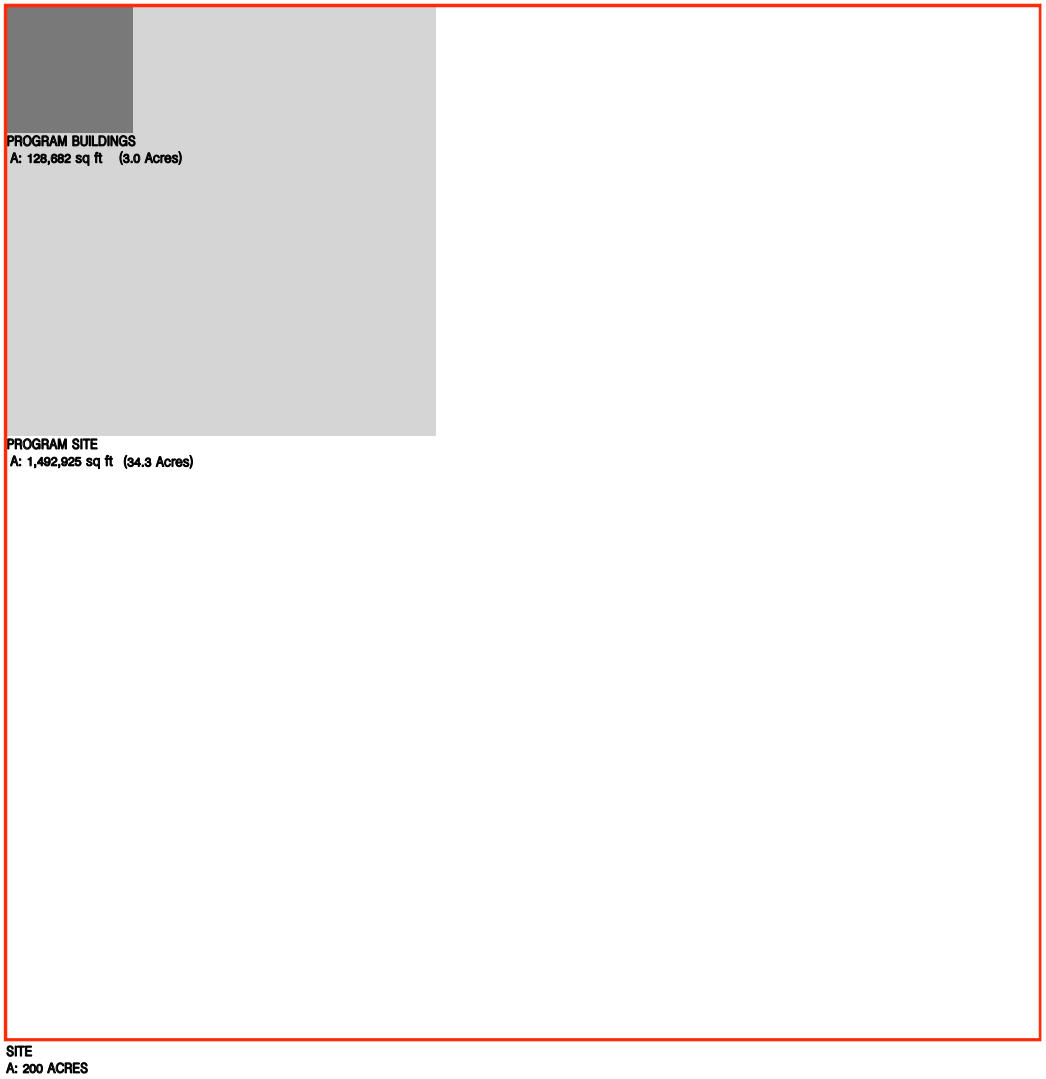
SITE USE DIAGRAM: B

SITE/BUILDING	SPACE / USE	USER COUNT	STAFF COUNT	UNITS	UNIT NSF	TOT NSF	GSF	SITE GSF
VISITOR CENTER			21			7,740	11,920	47,678
	LOBBY	50		1	10	500		
	RECEPTION/INFORMATION		2	1	100	200		
	SPA INFO KIOSK			1	20	20		
	DHS STORY EXHIBIT KIOSK			1	1,000	1,000		
	AUDITORIUM	100		1	15	1,500		
	HISTORICAL SOCIETY KIOSK		4	1	100	400		
	HISTORICAL SOCIETY OFFICES			1	20	20		
	RETAIL		2	1	1,000	1,000		
	FOOD SERVICE	100	10	1	20	2,000		
	ADMINISTRATION		3	1	200	600		
	SUPPORT			1	500	500		
CABOT'S ACADEMY / EDUCATION CENTER			5			6,550	10,087	40,348
	TEACHER CHECK IN/RECEPTION		1	1	250	250		
	LEARNING CENTERS			4	750	3,000		
	PREP / SUPPORT		4	2	500	1,000		
	NATURE EXCHANGE	4	1	100	20	2,000		
	ARTIST COLONY	10	2	2	150	300		
CABOT'S PUEBLO						3,160	4,866	19,466
	CABOT'S TRADING POST			1	960	960		
	CABOT'S PUEBLO			1	2,200	2,200		
MUSEUM			8			7,650	15,300	61,200
	ENTRY	25		1	10	250		
	RECEPTION		2	1	100	200		
	RETAIL		2	1	500	500		
	GALLERIES / EXHIBITS			8	500	4,000		
	SUPPORT			1	500	500		
	ARCHIVES			1	2,000	2,000		
	ADMINISTRATION		4	1	200	200		
PUBLIC SPA			27			29,770	45,846	183,383
	FRONT OF HOUSE	22	6	1	2,820	2,820		
	OUTDOOR SPA	179	2	1	17,500	17,500		
	INDOOR SPA	20	8	1	3,880	3,880		
	WELLNESS / FITNESS	60	2	1	3,200	3,200		
	BACK OF HOUSE	-	3	1	1,000	1,000		
	ADMINISTRATION	-	6	1	1,370	1,370		
AMPHITHEATER / OUTDOOR COMMUNITY SPACE						2,650	3,313	17,000
	TICKETING/GATEWAY			4	100	400		
	COVERED SEATING	50		1	15		750	
	OPEN BOWL SEATING	200		1	15		3,000	
	RESTROOMS	250		1	500	500		
	STAGE / BANDSHELL			1	750	750		
	BACK STAGE			1	1,000	1,000		
PARK			1			4,250	4,675	1,098,350
	GATEHOUSE		1	1	250	250		
	RESTROOMS	500		1	1,000	1,000		
	SHADE STRUCTURES			10	200	2,000		
	WATER FEATURE			1	1,000	1,000		
	PARK / FESTIVAL GROUNDS						1,089,000	
TRAILHEADS						500	550	
	INTERPRETIVE SITES			10	50	500		
MAINTENANCE / SERVICE CENTER			6			4,100	5,125	25,500
	OFFICE		3	1	100	100		
	SHOP		3	1	2,500	2,500		
	STORAGE			1	1,500	1,500		
	YARD			1	5,000		5,000	
TOTALS			68			66,370	101,681	1,492,925

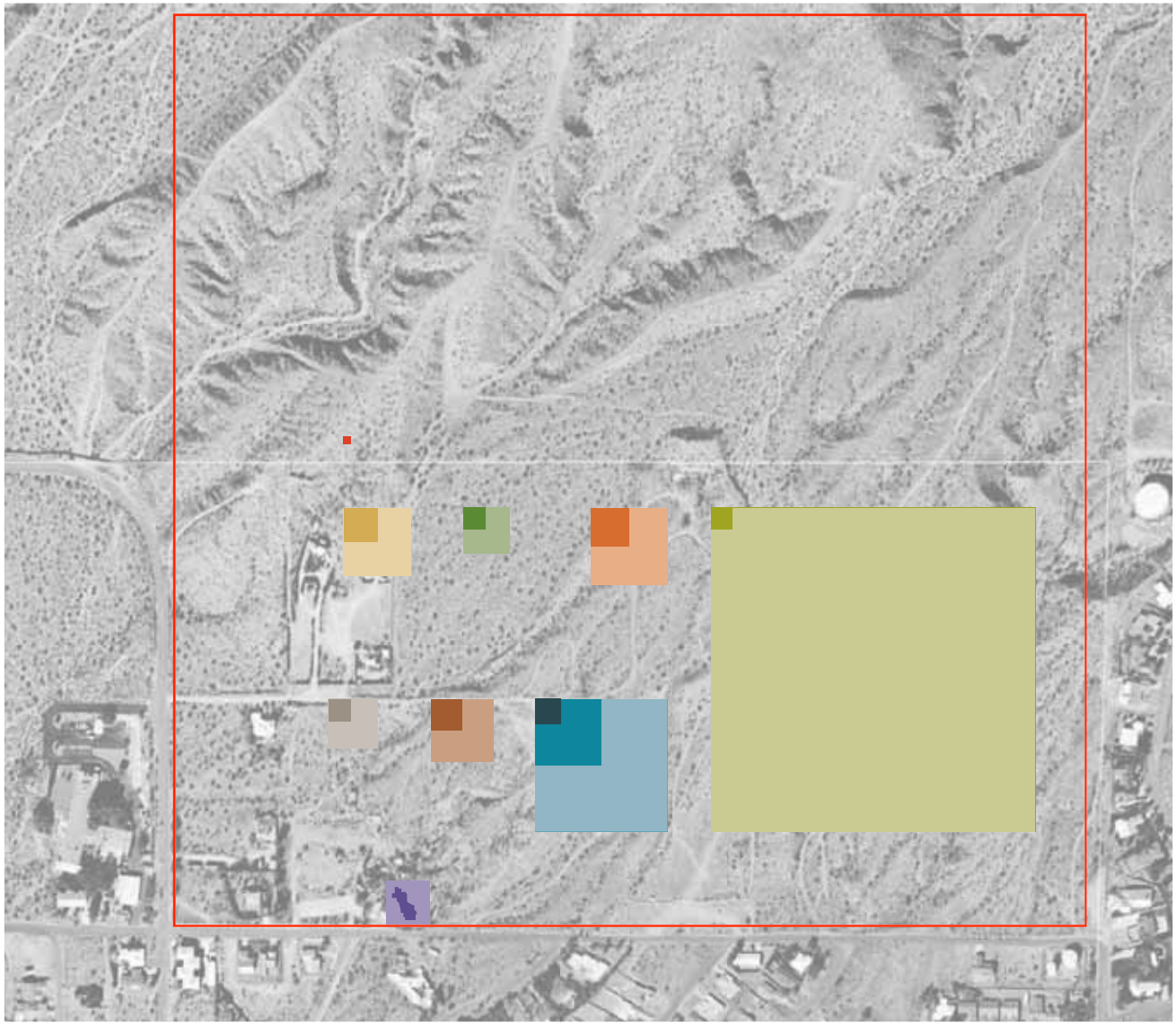
SPACE LIST



GRAPHIC: PROGRAM ELEMENTS SIZING



GRAPHIC: COMBINED PROGRAM ELEMENTS



GRAPHIC: PROGRAM ON SITE

VISITOR CENTER

VISITOR CENTER		21			7,740	11,920	47,678
LOBBY	50		1	10	500		
RECEPTION/INFORMATION		2	1	100	200		
SPA INFO KIOSK			1	20	20		
DHS STORY EXHIBIT KIOSK			1	1,000	1,000		
AUDITORIUM	100		1	15	1,500		
HISTORICAL SOCIETY KIOSK		4	1	100	400		
HISTORICAL SOCIETY OFFICES			1	20	20		
RETAIL		2	1	1,000	1,000		
FOOD SERVICE	100	10	1	20	2,000		
ADMINISTRATION		3	1	200	600		
SUPPORT			1	500	500		

PURPOSE / INTENT

_purpose is to welcome visitors to: dhs? chamber of commerce? coachella valley?
_a control/access point and information center for visitors of the spa, museum, & educational center
_public access during business hours
_free to enter
_open for limited hours during week days
_open longer hours on weekends & peak tourist seasons
_used by up to 500 visitors daily
_can be used by 50 people at one time
_10,000 visitors in 2009
_most visitors in one month: 1,800
_prime relationship to the museum, pueblo & Cabot's Academy
_shared resources with Cabot's Academy
_shared auditorium with Education Center (Cabot's Academy)
_no anticipated growth
_"hub", "front door"

FUNCTIONAL REQUIREMENTS

_lobby
_reception / information
_dhs story exhibit
_auditorium / orientation theater
_food service / cafe
_administration & support
_historical society office/displays
_retail
_nature exchange

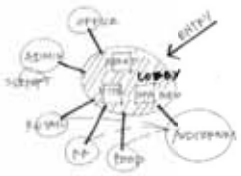
SITE ISSUES

_entry not controlled
_access both for pedestrians & vehicles
_loading / unloading zone for passengers & ADA parking nearby
_no sound issues
_needs to be visible upon approach & easy to find
_view toward the water feature & Cabot's Pueblo are important
_artist colony demo area

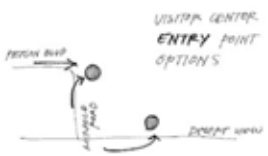
BUILDING ISSUES

_completely enclosed
_locked entry when closed
_must not detract from the rest of the site
_views toward other areas of the site are important
_nature exchange area
_climate controlled
_display of some artifacts (majority of artifacts will be displayed in Museum)
_visible to visitors

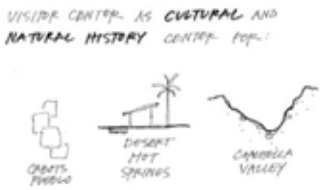
VISITOR CENTER



VISITOR CENTER



VISITOR CENTER



VISITOR CENTER

VISITOR CENTER

PROGRAM ELEMENT: VISITOR CENTER

CABOT'S ACADEMY / EDUCATION CENTER

CABOT'S ACADEMY / EDUCATION CENTER		5			6,550	10,087	40,348
TEACHER CHECK IN/RECEPTION		1	1	250	250		
LEARNING CENTERS			4	750	3,000		
PREP / SUPPORT		4	2	500	1,000		
NATURE EXCHANGE	4	1	100	20	2,000		
ARTIST COLONY	10	2	2	150	300		

PURPOSE / INTENT

_purpose is to teach visitors about the local environment, sustainability & nature
_used by visitors (adults & children), staff
_public space
_daily hours 9am to 6pm
_250 users daily
_up to 50 users at one time
_adjacent to Visitor's Center & Nature Exchange
_shared resources with Visitor's Center
_shared auditorium with Visitor's Center

FUNCTIONAL REQUIREMENTS

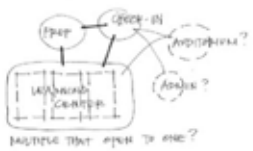
_teacher check-in / reception
_learning centers
_prep / support
_archive spaces for education, arts & crafts programs
_nature exchange
_dhs has funds now for education; temporary space?
_planetarium?

SITE ISSUES

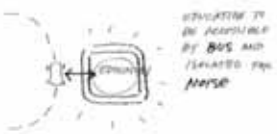
_outdoor learning centers
_gathering space for group nature hikes
_shade structures may be provided for outdoor exhibits
_controlled entry from visitor center
_nearby parking & bus parking for loading / unloading students
_no sound issues
_views of desert are important
_accessible by bus
_accessible by walking

BUILDING ISSUES

_nature exchange area for students
_80% indoor space
_controlled entry from visitor center
_secure area for children
_acoustical materials to reduce noise from kids' area



EDUCATION CENTER



EDUCATION

EDUCATION

CABOT'S PUEBLO

SITE
A: 19,466 sq ft (0.4 Acres)

CABOT'S PUEBLO			3,160	4,866	19,466
CABOT'S TRADING POST	1	960	960		
CABOT'S PUEBLO	1	2,200	2,200		

PURPOSE / INTENT

_current purpose is to house Cabot's collection of pottery, photographs and artifacts
_used by visitors (adults & children), staff, visiting artists
_public space
_daily hours 9am to 4pm
_tours offered 9:30am to 2:30pm
_250 users daily
_up to 50 users at one time
_adjacent to Visitor's Center & Education Center
_shared resources with Visitor's Center
_no intended growth of pueblo

FUNCTIONAL REQUIREMENTS

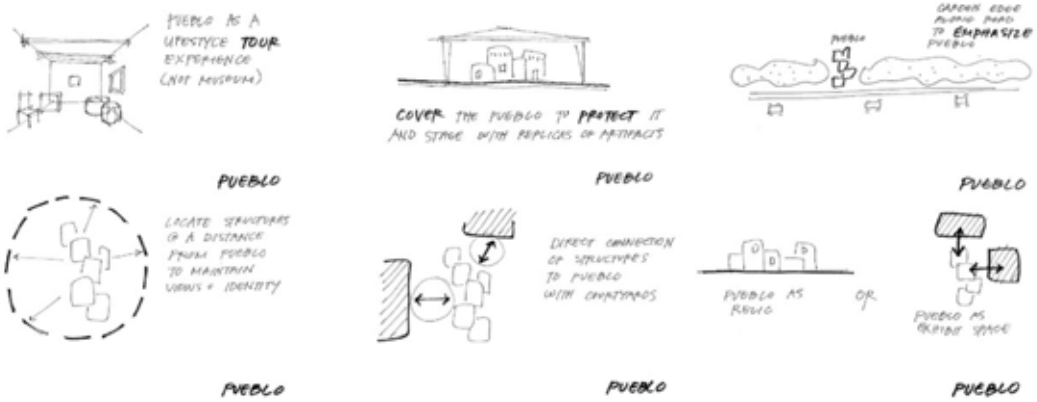
_existing historic building / museum
_art gallery
_trading post to remain?
_restroom to remain or build new?
_alta in the wilderness
_bookstore
_currently contains: 200 pieces of pottery, 500 artifacts, 1000 paintings, letters from Roosevelt

SITE ISSUES

_existing museum courtyard
_need for exploration of exterior of pueblo
_shade structures may be provided for outdoor exhibits
_site entry not controlled
_accessible paths needed for pueblo exploration
_nearby parking & bus parking
_reduce nearby road noise
_secure site from vandalism
_views of desert are important

BUILDING ISSUES

_relic space
_keep existing historic pueblo
_controlled entry; fee per person
_need for preservation of existing pueblo
_reduce nearby road noise
_visible from road
_leakage from rain
_needs a protective structure (i.e.: biodome)
_stage with replicas of artifacts



PROGRAM ELEMENT: CABOT'S PUEBLO

MUSEUM

MUSEUM			8			7,650	15,300	61,200
ENTRY	25		1	10	250			
RECEPTION		2	1	100	200			
RETAIL		2	1	500	500			
GALLERIES / EXHIBITS			8	500	4,000			
SUPPORT			1	500	500			
ARCHIVES			1	2,000	2,000			
ADMINISTRATION		4	1	200	200			

PURPOSE / INTENT

_showcase & archive Cabot's collections
_paying adult & child guests can view & tour the collections
_open to the public
_open for limited hours during weekdays
_open longer hours on weekends and during peak tourist seasons
_100 guests daily
_25 guests at one time
_prime relationship with visitor center, pueblo & trading post
_shared resources with pueblo
_collections may grow to house traveling exhibits & additional local desert art & found objects
_will rent out for lectures, social events, weddings, parties
_archival storage to house all of Cabot's artifacts

FUNCTIONAL REQUIREMENTS

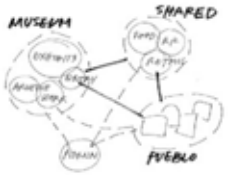
_entry
_reception
_retail
_9(?) galleries (TBD): art, architecture, water, geology, history, Indian artifacts, conservation, alaska, cuba
_99 seat auditorium
_archive & storage
_administration & support
_outdoor area for water & geology story
_dhs currently has funds for a climate controlled space

SITE ISSUES

_existing exhibits / sculpture will be kept outdoors
_shade structures may be provided for outdoor exhibits
_controlled entry from visitor center
_pedestrian traffic & guest drop off will be allowed
_nearby ADA guest parking
_no sound issues
_no visibility issues
_view of the pueblo, desert & water feature are important

BUILDING ISSUES

_80% indoor exhibit space
_outdoor exhibit space to be protected from wind and water
_controlled entry
_secure facility with alarmed doors
_need for quiet viewing space
_no visibility issues
_no view considerations
_building not to mimic pueblo's architecture

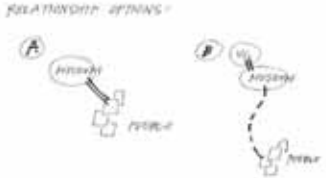


SHARED SUPP.

MUSEUM

EXHIBITS

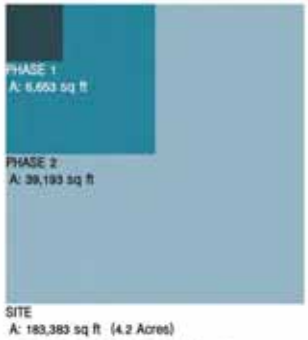
ARTIFACTS



MUSEUM

PROGRAM ELEMENT: MUSEUM

PUBLIC SPA



PUBLIC SPA		27			29,770	45,846	183,383
FRONT OF HOUSE	22	6	1	2,820	2,820		
OUTDOOR SPA	179	2	1	17,500	17,500		
INDOOR SPA	20	8	1	3,880	3,880		
WELLNESS / FITNESS	60	2	1	3,200	3,200		
BACK OF HOUSE	-	3	1	1,000	1,000		
ADMINISTRATION	-	6	1	1,370	1,370		

PURPOSE / INTENT

_purpose is to attract visitors & provide them with a connection to the water
_adult men & women will use the spa
_use is open to the public
_open daily from 9 to 6
_starting business expects 100 people per day
_growth to 1,000 people per day
_500 people will use the spa at peak times
_near food service / cafe & visitor center
_share resources with food service / cafe
_will there be children allowed at spa?

FUNCTIONAL REQUIREMENTS

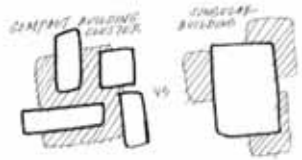
_up to 1,000 visitors per day
_reception / check-in
_lockers / showers / restrooms
_indoor spa areas
_covered outdoor spa areas
_outdoor spa areas
_administration & support
_phased growth: start with minimal indoor spaces
_restaurant(?): 2 levels of dining (casual & fine)

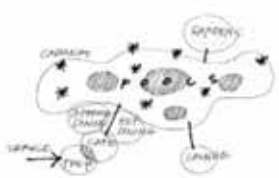
SITE ISSUES

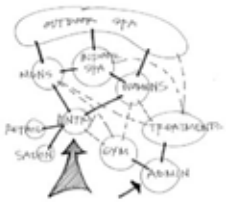
_water features & treatment areas are outdoors
_covered lounge & treatment areas
_entry is controlled through the spa reception
_box delivery for spa goods & shuttle service must be accommodated
_nearby visitor parking, with loading & unloading for guests
_city noises must be mitigated
_no visibility into the site & pool areas
_views toward the desert are important
_landscaping to buffer city views

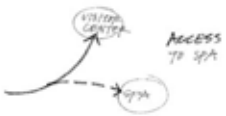
BUILDING ISSUES

_phase 1 requires restrooms & changing to be indoors
_phase 2 provides pool, salon, & treatment services to be added as indoor spaces
_entry & access is controlled at the reception area for adult paying guests
_privacy & security between gender changing & locker rooms is important
_fitness areas must be acoustically separated from the quiet spa areas
_vision privacy is important between spaces and from the outside
_views toward the desert, water features & pools are important









PROGRAM ELEMENT: PUBLIC SPA

AMPHITHEATER / OUTDOOR COMMUNITY SPACE

BLDG
A: 3,313 sq ft

SITE
A: 17,000 sq ft (0.4 Acres)

AMPHITHEATER / OUTDOOR COMMUNITY SPACE				2,650	3,313	17,000
TICKETING/GATEWAY		4	100	400		
COVERED SEATING	50	1	15		750	
OPEN/BOWL SEATING	200	1	15		3,000	
RESTROOMS	250	1	500	500		
STAGE / BANDSHELL		1	750	750		
BACK STAGE		1	1,000	1,000		

PURPOSE / INTENT

_purpose is to have a public gathering space for festivals and concerts
_used by community & visitors
_public area
_used on nights & weekends
_0 to 250 users daily
_up to 250 users at one time
_ticket booths, restrooms, stage and backstage areas needed nearby
_cannot share resources with other elements
_no anticipated growth

FUNCTIONAL REQUIREMENTS

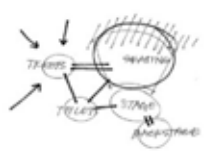
_open bowl seating
_stage & backstage areas
_ticketing & entry
_restrooms
_health & wellness festival
_community gathering space (flat area for festivals, i.e.: World Music & Wellness Festival)
_bandshell with sound

SITE ISSUES

_terraced seating for 1,500 guests
_terraced seating for 500 guests in shaded area
_guests bring their own seating
_controlled entry
_secure perimeter
_unloading and loading of trucks
_flat space for festivals
_sound control for concerts
_overhead permanent structure for lighting & speakers
_parking issues for guests

BUILDING ISSUES

_band shell with roof for sun control / acoustics
_stage sized for 30 users
_screened area for users before performance
_permanent backstage greenroom
_permanent restrooms
_temporary ticket office
_controlled entry
_secured audience area
_quiet backstage areas
_protect bandshell from wind
_low priority element



AMPHITHEATER

AMPHITHEATER

AMPHITHEATER

PARK

PARK		1			4,250	4,675	1,098,350
GATEHOUSE		1	1	250	250		
RESTROOMS	500		1	1,000	1,000		
SHADE STRUCTURES			10	200	2,000		
WATER FEATURE			1	1,000	1,000		
PARK / FESTIVAL GROUNDS						1,089,000	

PURPOSE / INTENT

_purpose is to provide a desert garden & community gathering space
_bring together trails / entry to trailheads
_used by visitors & citizens of dhs
_access is public
_daytime use only
_up to 500 users daily
_no limit to number of visitors at any given time
_may share restrooms with the amphitheater
_no anticipated growth

FUNCTIONAL REQUIREMENTS

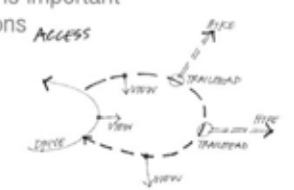
_gatehouse: control access, collect revenue
_restrooms
_shade structures
_park
_gardens
_naturalized desert landscape
_water / springs feature
_be able to touch water

SITE ISSUES

_shade structures throughout park
_entrance not controlled
_pedestrian access from public rights of way
_parking areas may be shared with other site elements
_no acoustical concerns
_no visibility issues
_views of the desert, museum & pueblo are important

BUILDING ISSUES

_gatehouse & restrooms are indoors
_entry to the gatehouse is controlled and limited to staff
_security of trash receptacles for animal safety is important
_visibility from the gatehouse into the park & parking areas is important
_no view considerations



PROGRAM ELEMENT: PARK

TRAILHEADS

BLDG
A: 550 sq ft

TRAILHEADS 500 550
INTERPRETIVE SITES 10 50 500

PURPOSE / INTENT

_provide maps & access to trails through the desert
_link to joshua tree national park
_provides trail access to hikers
_trails open to the public
_daytime use
_up to 500 hikers and walkers daily
_no limit to number of hikers per day
_near public right of way
_additional trailheads may be added in the future

FUNCTIONAL REQUIREMENTS

_interpretive centers
_linkage to joshua tree national park
_linkage to other trails
_1 - 4 mile looped trails within the site
_possible 200,000 hikers per year

SITE ISSUES

_use may be limited due to weather or maintenance
_pedestrian access shall be from within the site
_parking areas may be shared with other site elements
_no sound issues
_trailhead markers must be easy to find
_no view considerations
_consider vehicle driver's experience

BUILDING ISSUES

_map / info kiosk may be covered
_unisex restroom
_security of trash receptacles for animal safety is important
_sign-in area
_interpretive signage needed
_security from wild animals

MAINTENANCE / SERVICE CENTER

BLDG
A: 5,125 sq ft

SITE
A: 25,500 sq ft (0.6 Acres)

MAINTENANCE / SERVICE CENTER	6			4,100	5,125	25,500
OFFICE	3	1	100	100		
SHOP	3	1	2,500	2,500		
STORAGE		1	1,500	1,500		
YARD		1	5,000		5,000	

PURPOSE / INTENT

_purpose is to house equipment and staff offices for grounds keeping
_staff access only
_private
_may be used anytime by a staff person
_used by up to 12 employees daily
_used by up to 2 employees at one time
_close proximity to the museum & amphitheater
_cannot share resources
_no intended growth

FUNCTIONAL REQUIREMENTS

_office
_storage
_shop
_maintenance yard

SITE ISSUES

_half of the service center is outdoors
_all of the service center is covered
_access / entry is controlled
_staff operated equipment and vehicles will need access & space
_equipment & maintenance materials will need parking & receiving areas
_no sound issues
_no visibility to service center
_no view considerations

BUILDING ISSUES

_indoor offices & material storage
_controlled entry to offices & storage
_no sound issues
_visibility must be avoided
_no view considerations

PROGRAM ELEMENT: MAINTENANCE / SERVICE CENTER

museums

de Young Museum
San Francisco, CA

American Folk Art Museum
New York, NY

Phoenix Art Museum
Phoenix, AZ

Acropolis Museum
Athens, Greece

Las Vegas Springs
Las Vegas, CA

visitor centers

Arabian Library
Scottsdale, AZ

Boh Visitor Center
Malaysia

Nix Nature Center
Laguna Beach, CA

Nk'Mip Desert Cultural Centre
Osoyoos, British Columbia

spas

Page One Resort
southern UT

Therme Vals
Vals, Switzerland

Yoga Deva
Gilbert, AZ

Bathhouse Spa @ Mandaly Bay
Las Vegas, NV

Les Bains des Docks
Le Harve, France

MASTER PLAN

PURPOSE / INTENT

_create an arrival sequence for visitors
_integrate an existing urban fabric / natural desertscape into site
_integrate transporation strategy
_organize program into cohesive site
_convenient access to new buildings
_public vs. private access
_cross generational:
child, adult, senior, families
_visitors:
recreational / educational / relaxation

FUNCTIONAL REQUIREMENTS

_visitors: daily / monthly / yearly
_parking
_indoor / outdoor integration
_pedestrian areas:
gathering vs. circulation
_vehicular access
_community access near existing dog park

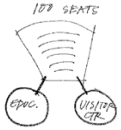
SITE ISSUES

_access to joshua tree national park
_centralized parking vs. compartmentalized
_phasing of development
_access to site elements
_fault line viewing
_relationship to other city landmarks
_natural landmarks
_site perimeter: buffer against future development at north of site; screen with ridge line; "soft edge"

BUILDING ISSUES

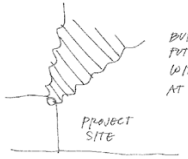
_separate buildings vs. one facility
_shared resources between site elements
_orientation
_phasing
_priority of buildings
_views: capture view from top of site; landscaping to buffer views of city; locate spa out of view; create privacy for spa

PROGRAM: PLANNING



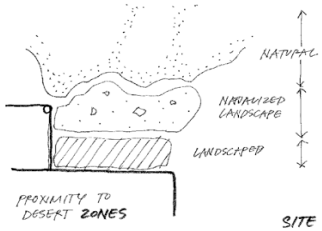
COMBINE EDUCATION + VISITOR CENTER THRU PROXIMITY TO **AUDITORIUM**

PROGRAM ELEMENTS



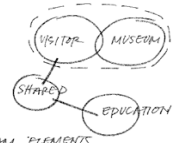
BUFFER AGAINST FUTURE DEVELOPMENT WITH **SOFT EDGE** AT RIDGE LINES

SITE



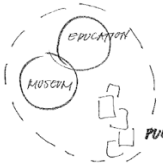
PROXIMITY TO DESERT **ZONES**

SITE



PROGRAM ELEMENTS HOUSED IN TWO STRUCTURES IN ONE COMPLEX

PROGRAM ELEMENTS



MUSEUM + EDUCATION **ADJACENT** TO PUEBLO

PROGRAM ELEMENTS

EDUCATION AND MUSEUM GROUPED AND AT A DISTANCE TO PUEBLO

PROGRAM ELEMENTS

WATER IS THE STORY

WATER SHOULD BE PART OF EACH PROGRAM ELEMENT

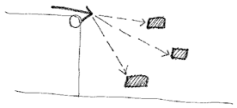
PROGRAM ELEMENTS

ACCESS

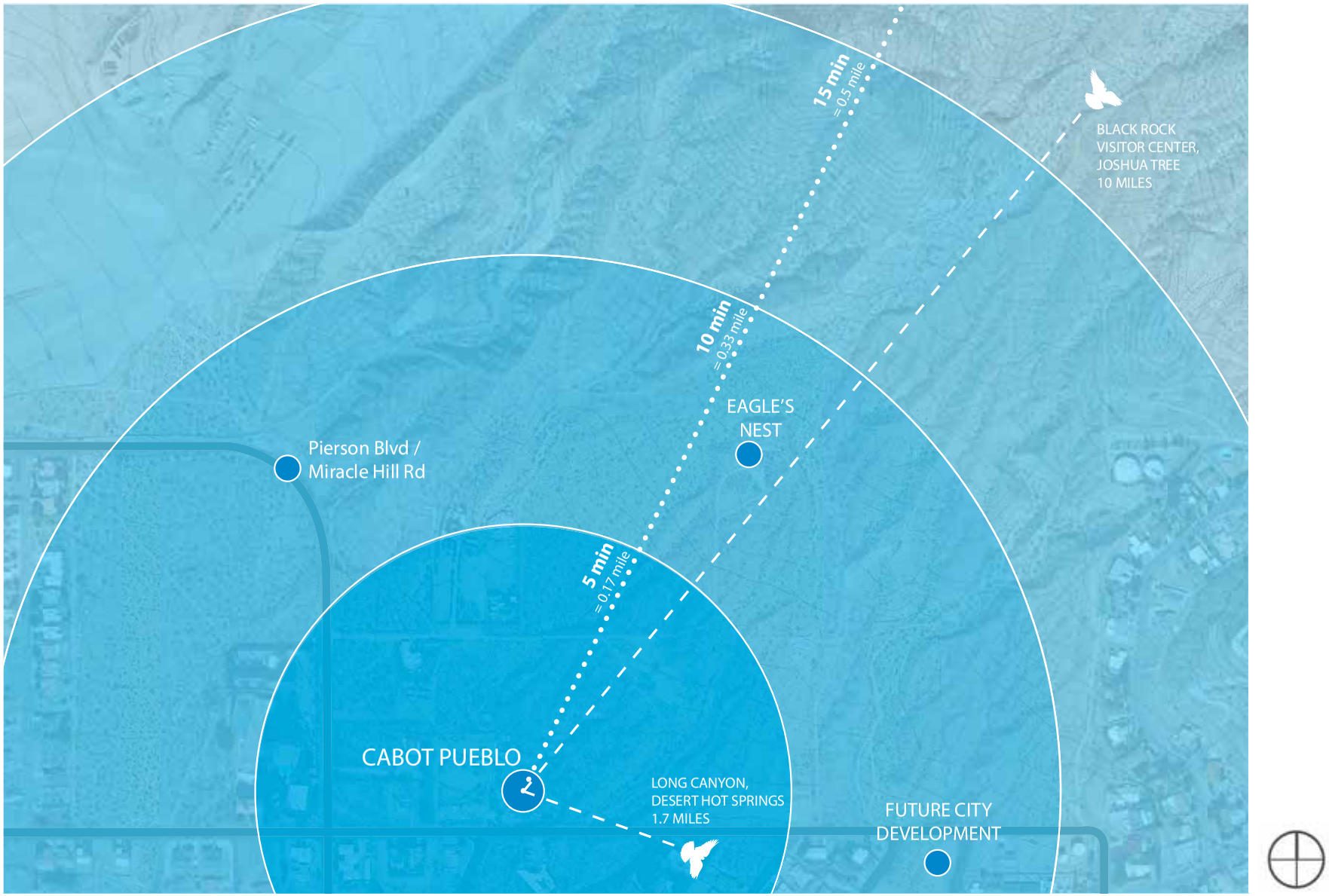
CAPTURE **VIEW** FROM TOP OF SITE AND USE LANDSCAPING TO BUFFER VIEWS OF CITY

VIEWS

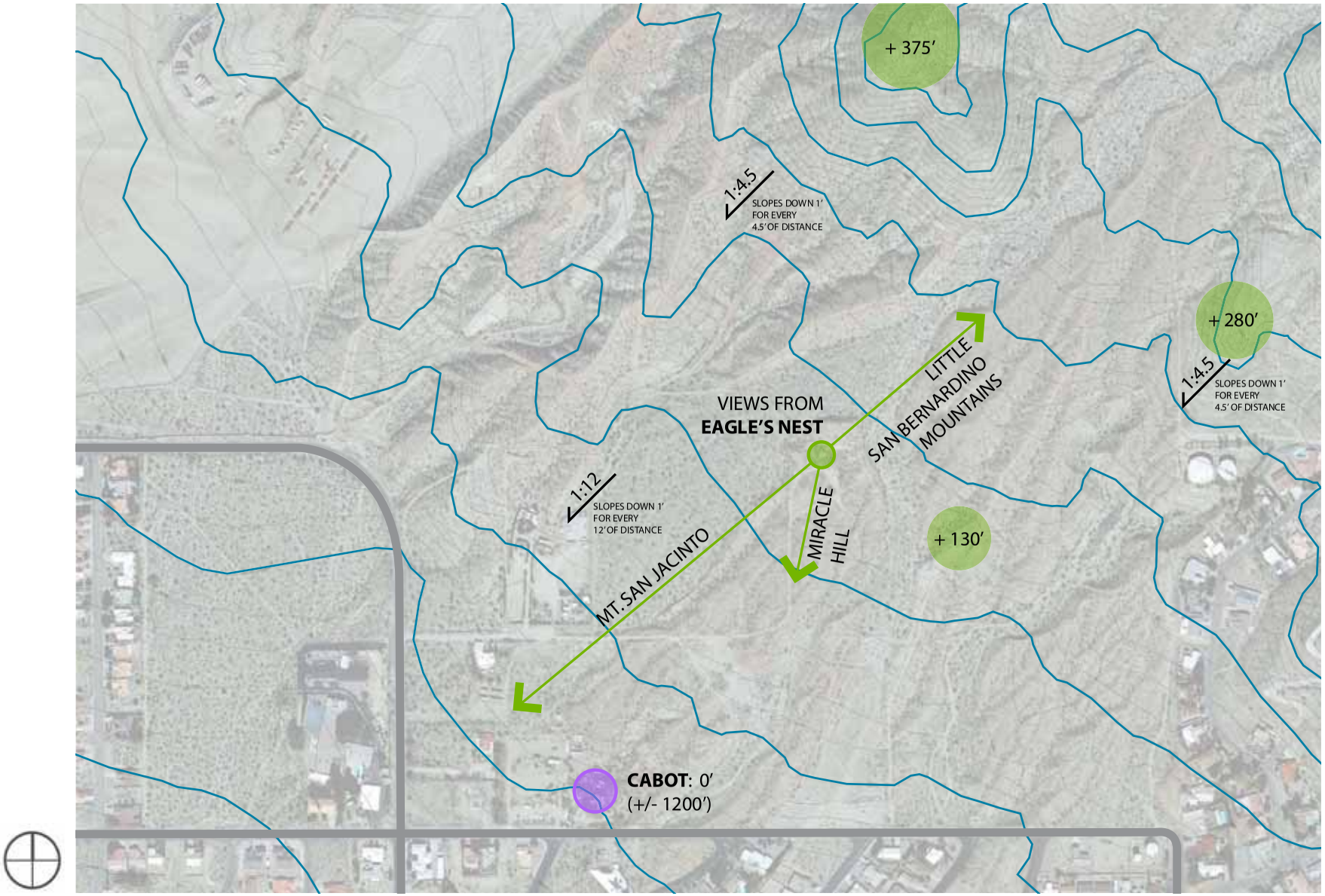
ENTRY AT PIERSON - VIEWS TO BUILDINGS OR JUST CIRCULATION?



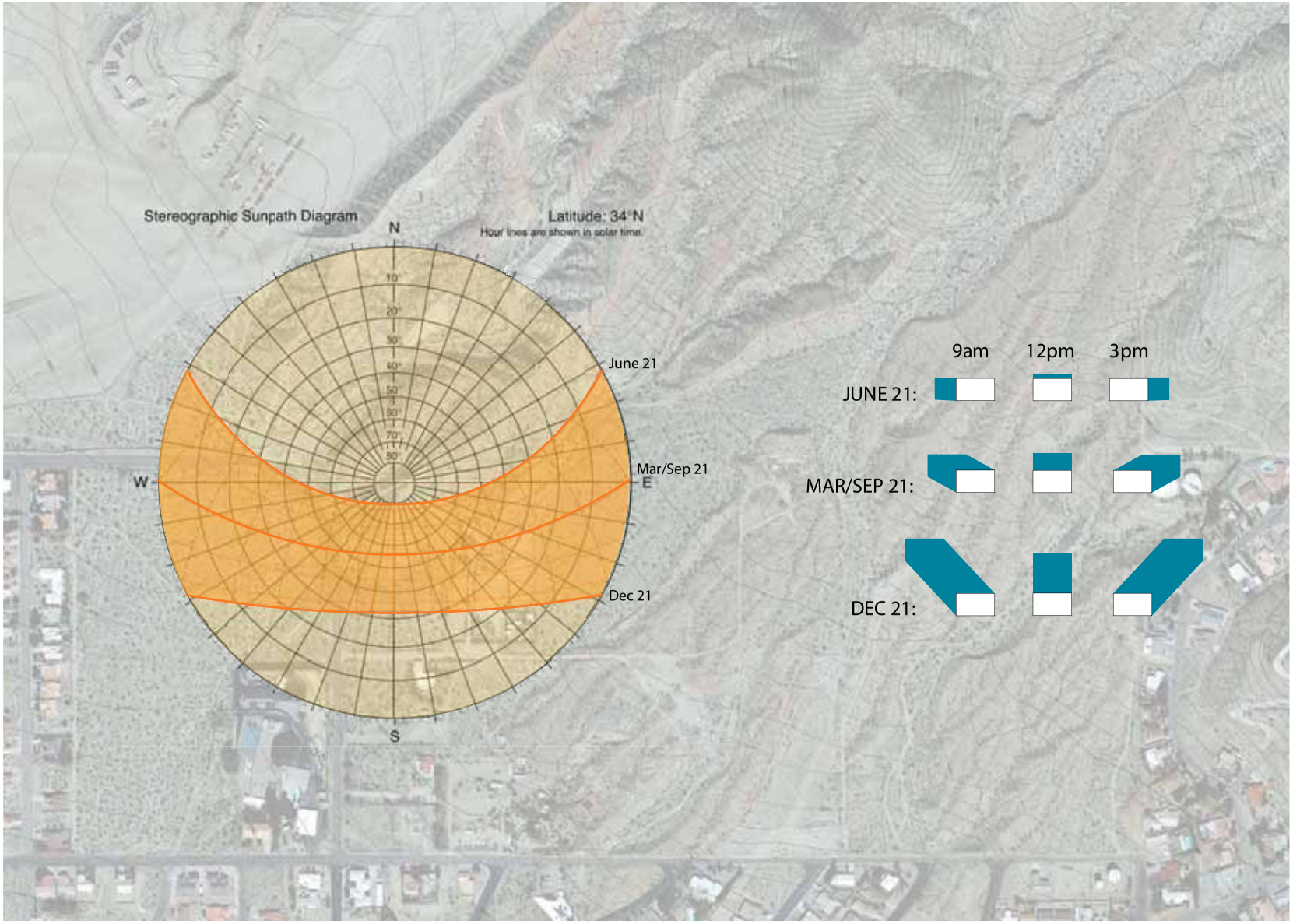
SITE



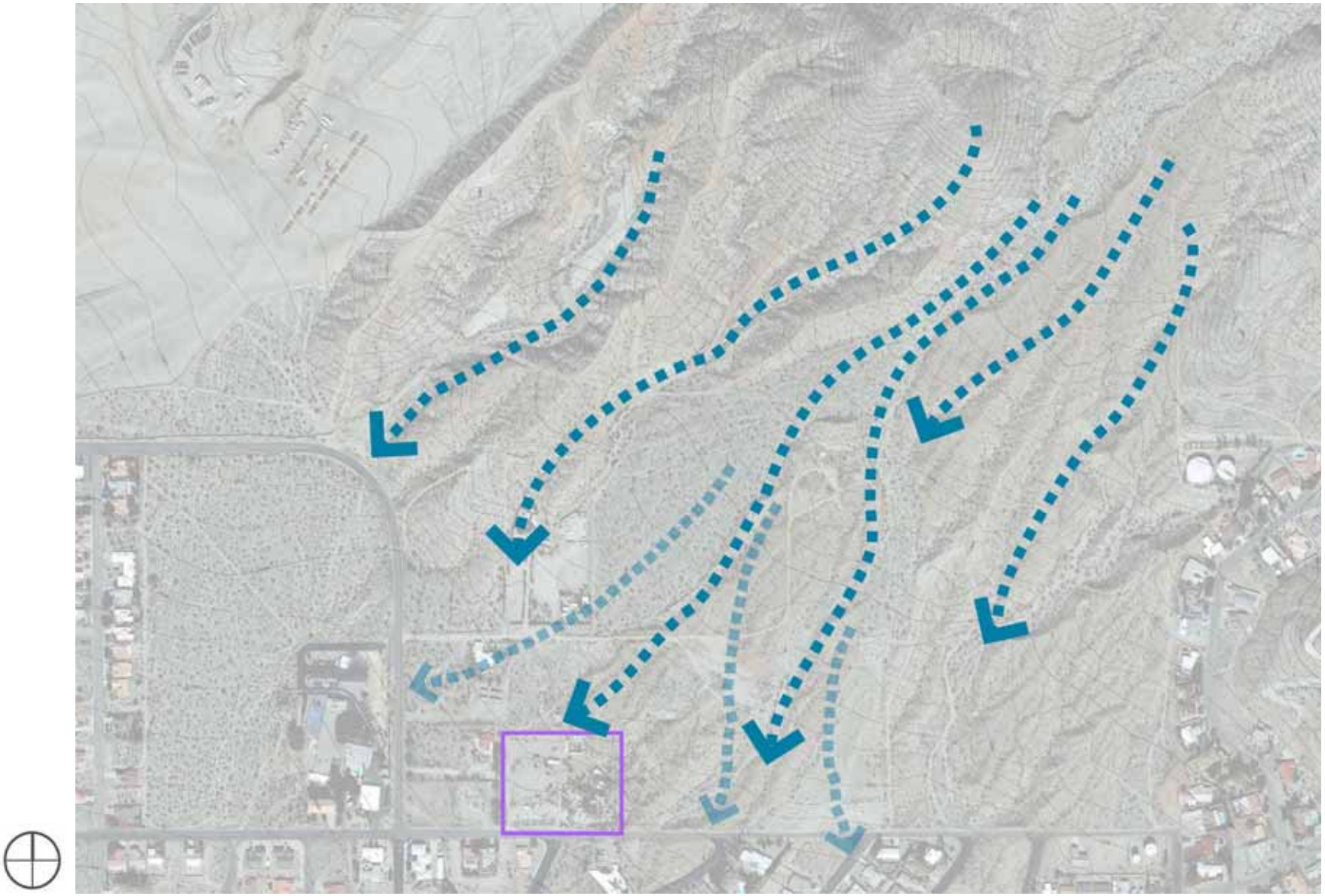
SITE ANALYSIS: RELATIVE WALKING DISTANCE



SITE ANALYSIS: TOPOGRAPHY + VIEWS + NATURAL LANDMARKS



SITE ANALYSIS: SUN PATH DIAGRAM



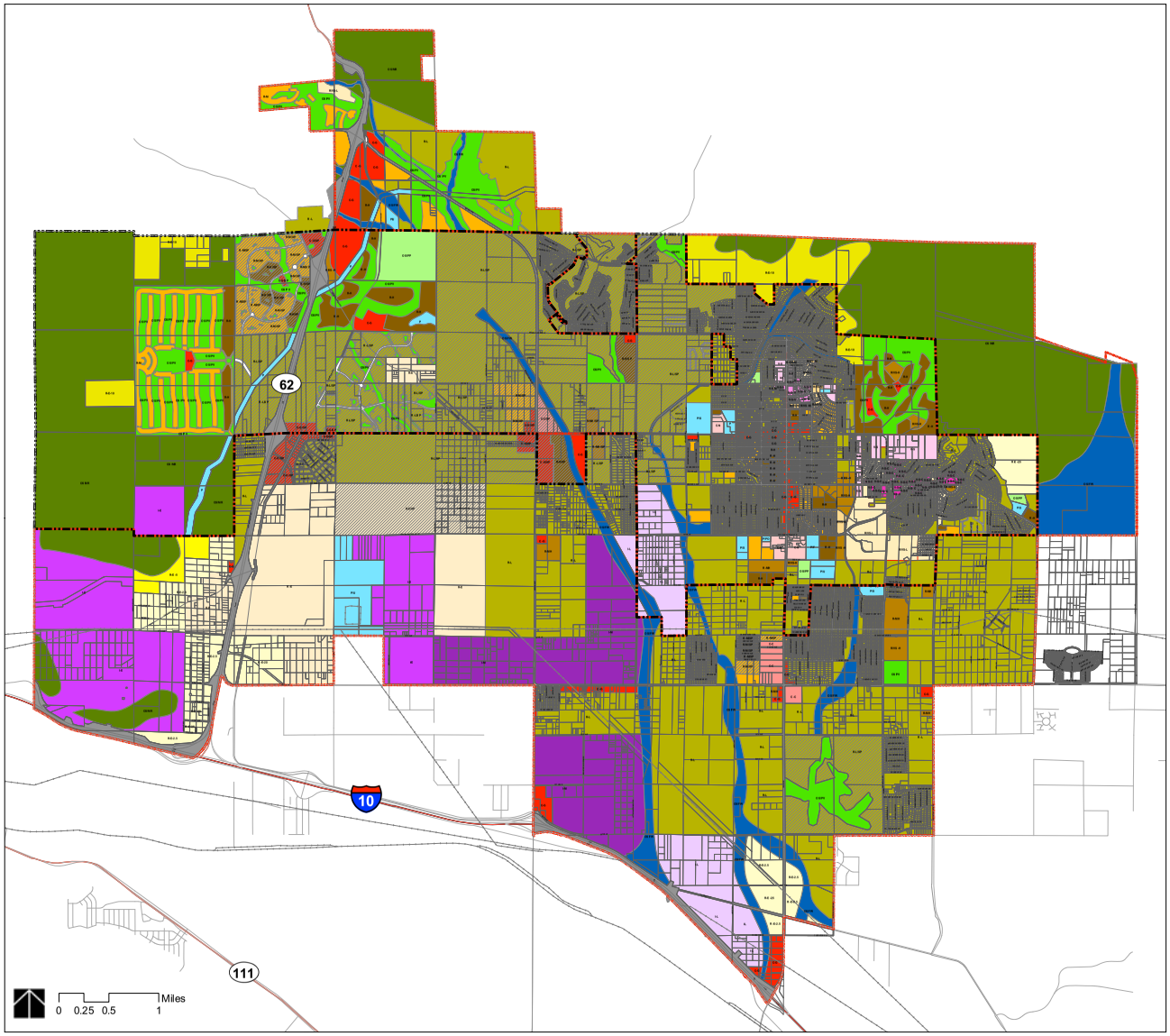
SITE ANALYSIS: RAIN WATER SURFACE FLOW

SITE ANALYSIS: LINE OF THE LINAMENT OF THE SAN ANDREAS FAULT

SITE ANALYSIS: WATER FLOW / FLOOD PLAIN

SITE ANALYSIS: WATER FLOW ADJACENT TO PUEBLO

SITE ANALYSIS: PRELIMINARY MITIGATION STRATEGY



DESERT HOT SPRINGS
GENERAL PLAN
Land Use Designations

Legend

RESIDENTIAL
- R-E Residential Estates
- R-E/SP
- R-E-2.5
- R-E-5
- R-E-10
- R-L Residential Low Density (0-5 du/ac)
- R-L/SP
- R-M Residential Medium Density (0-8 du/ac)
- R-M/SP
- R-MH Residential Mobile Home (0-10 du/ac)
- R-MH/SP
- R-H Residential High Density (0-14 du/ac)
- R-H/SP
- R/VS-L Residential Visitor Serving (Low Density)
- R/VS-M Residential Visitor Serving (Medium Density)
- V-S-M
- R/VS-H Residential Visitor Serving (High Density)

COMMERCIAL
- C-N Neighborhood Commercial
- C-C Comunity Comercial
- C-C/SP
- C-G General Commerical
- C-G/SP
- V-S Visitor Serving
- V-S-V Visitor Serving Village
- V-S-C Visitor Serving Commercial

INDUSTRIAL
- I-L Light Industrial
- I-M Medium Industrial
- I-E Industrial Energy-Related

PUBLIC
- P Public Uses
- P/F (Fire Station)
- P/PO (Post Office)
- P/S (School)
- P/U (Utility)

OPEN SPACE
- OS/MR Mountain Reserve
- OS/PP Parks Open Space
- OS/PV Private Open Space
- OS/FW Floodways

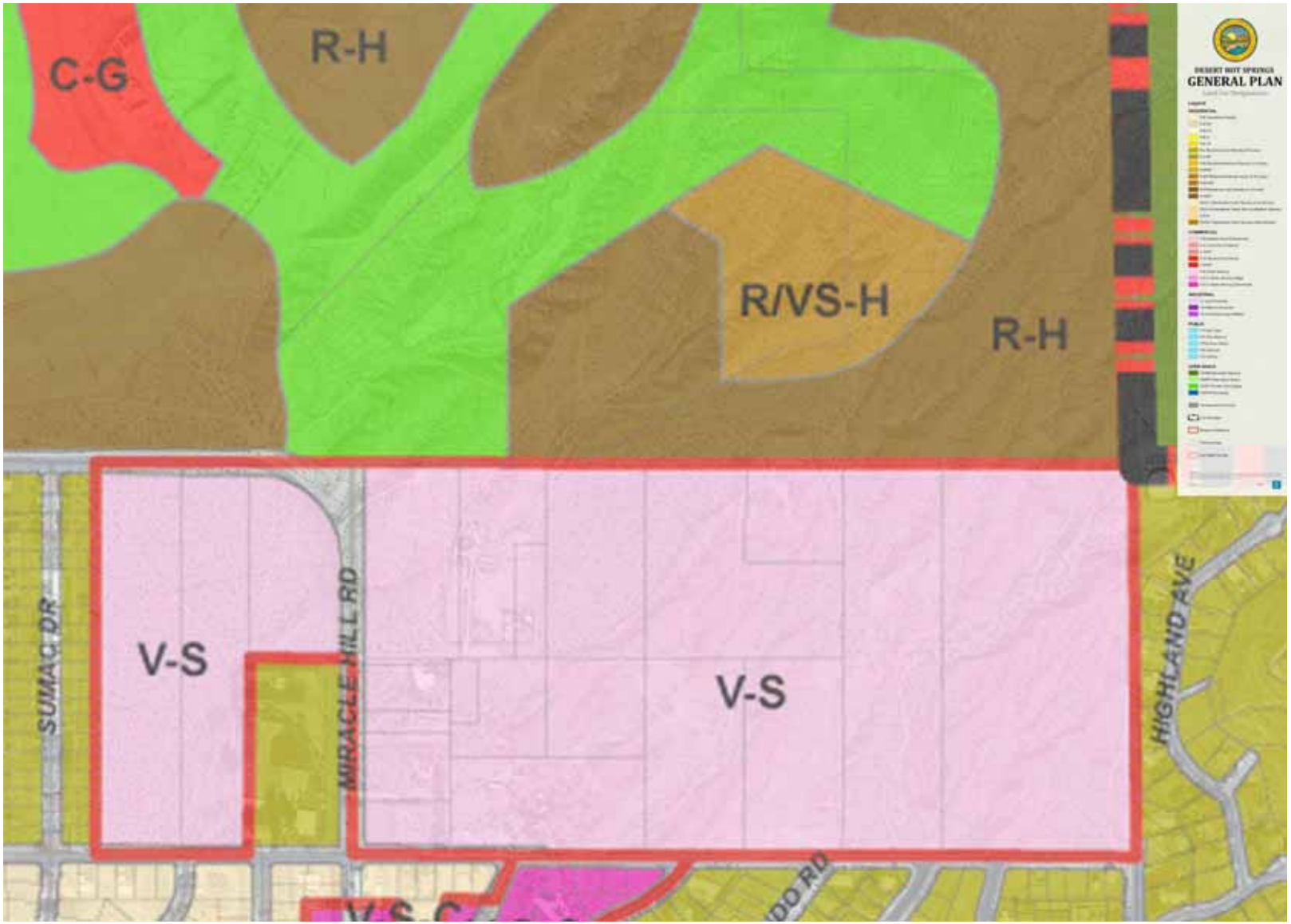
- Transportation Corridor
- City Boundary
- Sphere of Influence
- Planning Area
- Hot Water Overlay

DISCLAIMER:
This map is a public re-source of general info mation. The features data provided on this map are assumed the most accurate, correct and current of a mation available at the most recent date of creation. In the event of a conflict between this mation on this map and adopted City Resolutions or Ordinances, the City's Resolutions or Ordinances shall govern.

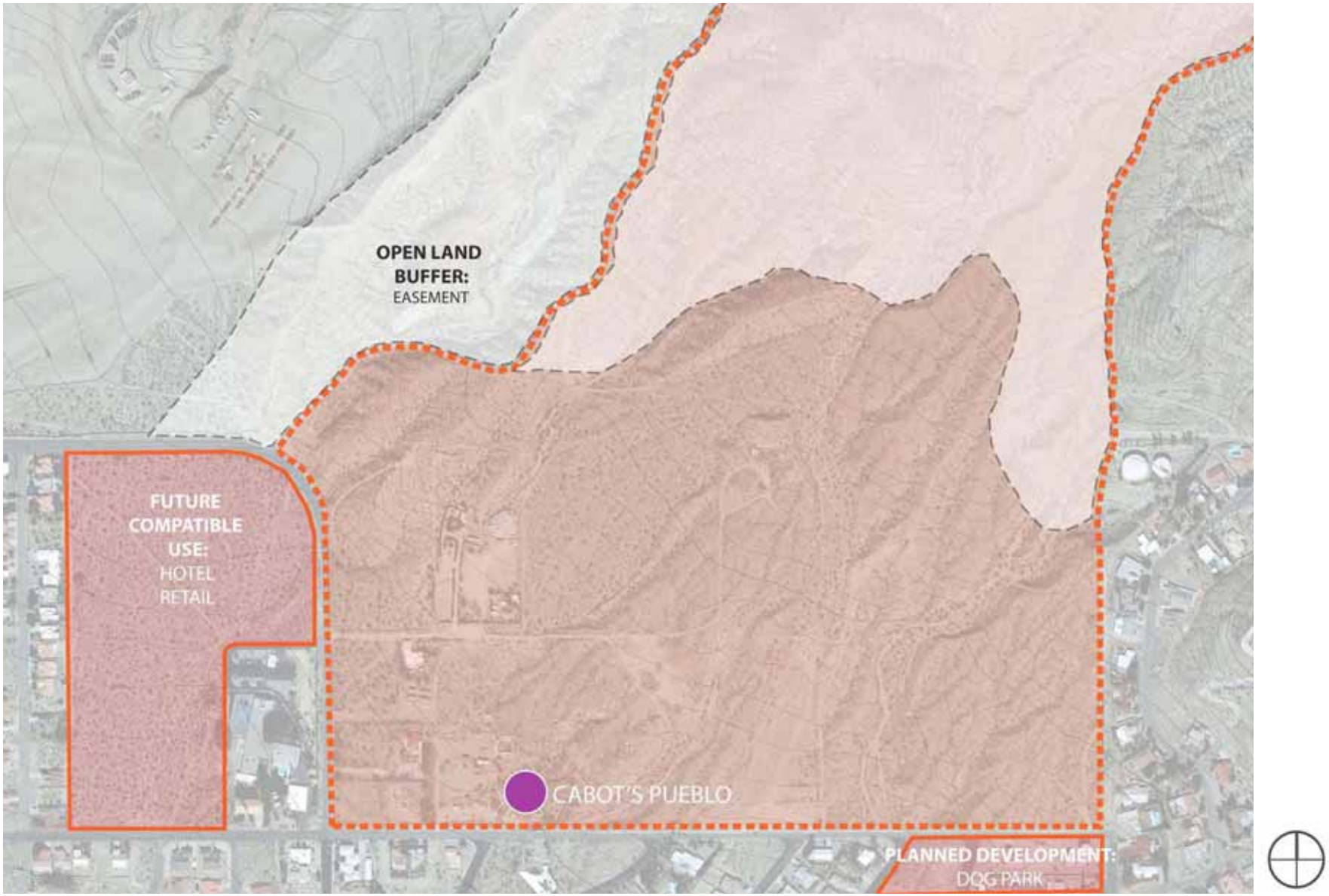
PROJECT:
G:\2005\GIS\HL\hs_pd_and_Use_Updated_2007.mxd

REVISED:
11/21/2007

SITE ANALYSIS: CITY OF DESERT HOT SPRINGS GENERAL PLAN : 11/21/2007

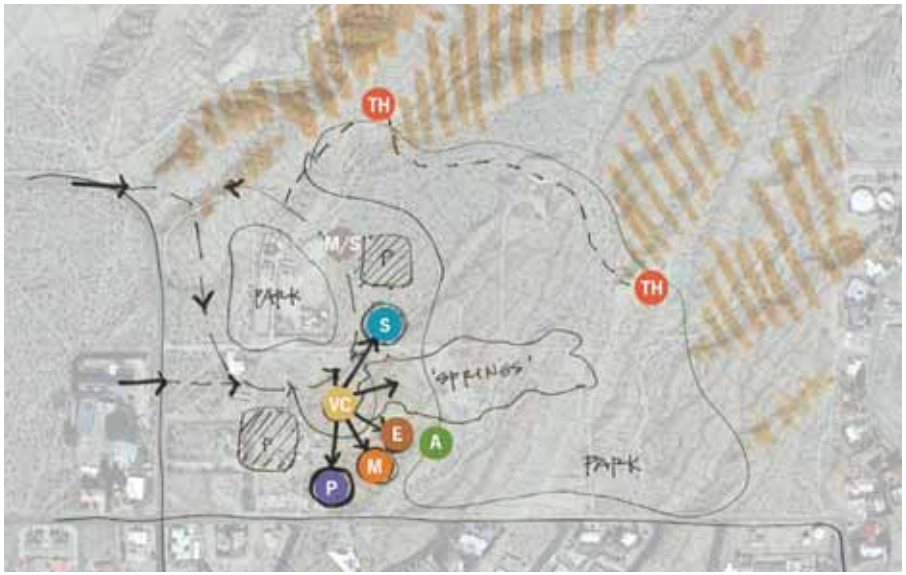


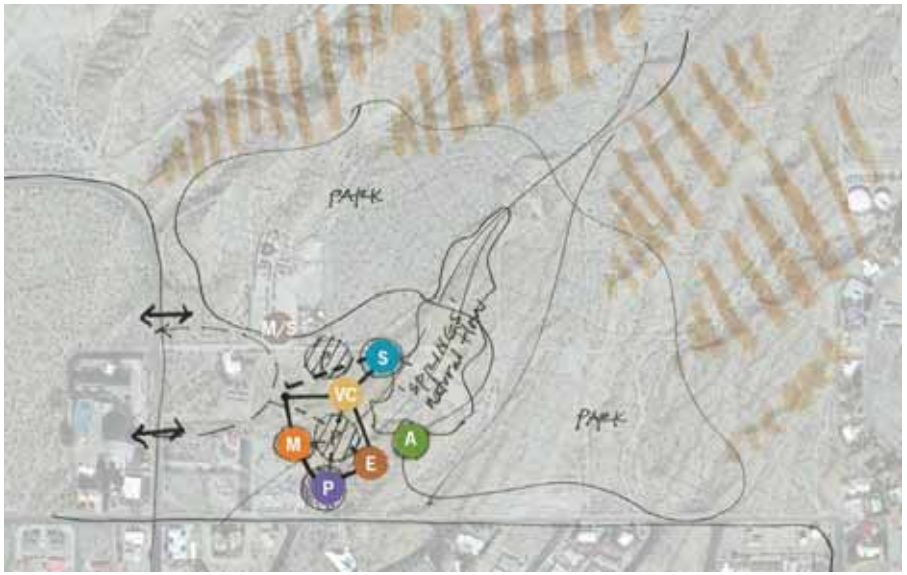
SITE ANALYSIS: CITY OF DESERT HOT SPRINGS GENERAL PLAN - SITE ZONING DIAGRAM



WORKSHOP DIAGRAMS: SITE BOUNDARY

PRIMARY SITE ACCESS
PIERSON BLVD.
MIRACLE HILL RD.
CABOT'S PUEBLO
TEST SECONDARY ACCESS FROM DESERT VIEW AVE.





SITE + PROGRAM: PRELIMINARY PLANNING STUDIES

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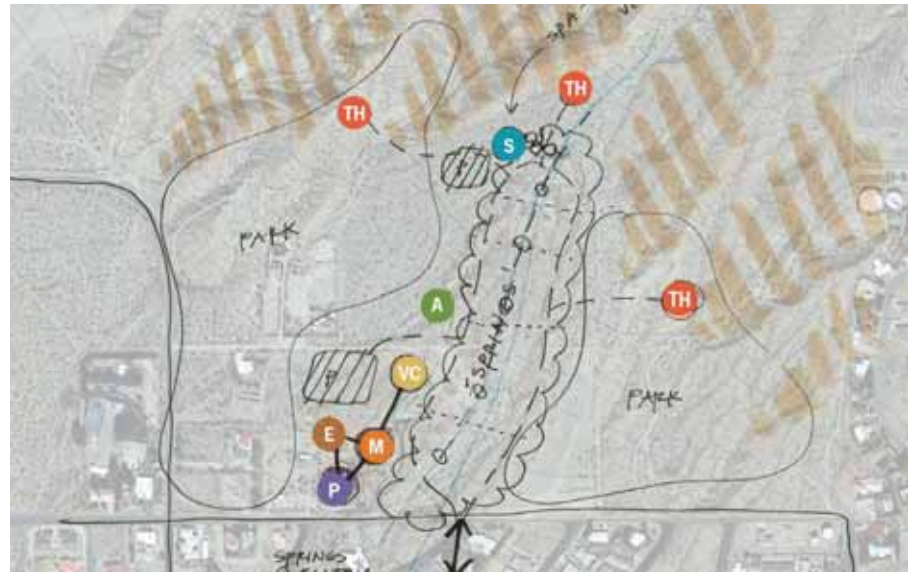
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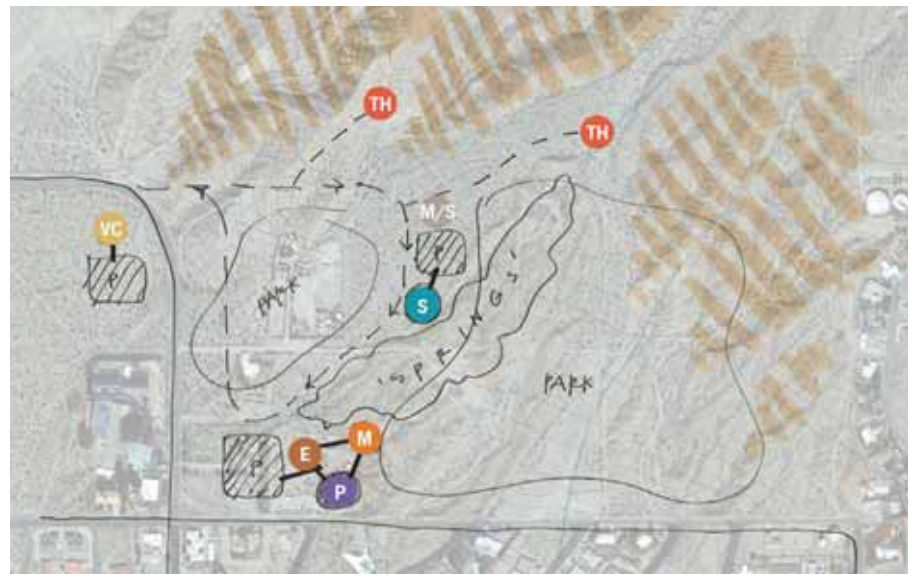
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Flown 5/22/06
CABOT MUSEUM
FUSCOE

North View
CABOT MUSEUM
FUSCOE

FUSCOE
North View
CABOT MUSEUM

TUSCOE
South View
CABOT MUSEUM

SUSTAINABILITY

MATERIALS & RESOURCES

_recyclable collection
_recycled building materials

WATER EFFICIENCY

_low flow fixtures
_rain water collection
_native planting
_new rain water regulations: catch & re-use of rainfall
_rain water
_grey water

ENERGY & ATMOSPHERE

_power generation using thermal water
_thermal chimney
_reduce heat island effect
_earth coupled heating & cooling
_thermal mass
_solar power / photovoltaics
_wind power
_geothermal HVAC
_passive solar design
_evaporative cooling
_efficient light fixtures
_thermal energy storage

INDOOR ENVIRONMENTAL QUALITY

_natural ventilation
_minimize HVAC reliance
_natural daylight
_minimize / eliminate offgassing
_views

SITE

_permeable paving
_on site composting
_site diversion of waste
_wildlife preservation
_reduce night sky impact
_topsoil salvage & re-use
_runoff mitigation
_flooding
training the flow
cabot's pueblo in the natural path

TRANSPORTATION

PURPOSE / INTENT

_integrate & connect to existing & planned public transportation
_efficient use of land for parking
_create ease of access for locals & visitors
_preserve natural setting
_consider best approach to site from interstate / local roads
_spa circuit:
  connection to multiple spas

FUNCTIONAL REQUIREMENTS

_parking count:
  1 per 300 sf = 250
_cars, buses, bikes, vans, trucks, rv
_main road access
_arterial road access
_fire truck access
_peak use during weekends

SITE ISSUES

_seperate parking for each program element vs. consolidated parking
_connection to vortex
_connection to performing arts district near two bunch palms

BUILDING ISSUES

_loading / unloading
_service / maintenance access

REVENUE OPPORTUNITIES

PURPOSE / INTENT

_positive cash flow
_restoration funding
_preservation funding
_visitation

REVENUE PROGRAMS

_museum
- admission
- tours
- yearly memberships
- educational programs
- special exhibits
- rental
- local art vendors
- lease space

_cabot's pueblo
- admission
- tours
- yearly memberships
- educational programs

_education
- interpretive garden / desertscape
- nature exchange
- national park service
- water districts
- indian tribes

_food
- catering
- snack bar
- cafe
- health food & nutrition

_the water
- free

_spa
- treatments
- day use
- hot springs admission
- retail
- cosmotology
- child care?

_community gathering space
- festivals
- fairs
- concerts
- weddings

_fault
- admission
- parking

ISSUES

OPEN ITEMS DISCUSSED DURING THE WORKSHOP:

Confirm trailhead use and capacity (200,000 per year?); 1 to 4 mile loop trail; linkage to other trails; vehicular drive as an 'experience'?

Is a planetarium a site element? Velvet Program is a possible funding source.

Is the trading post to remain? Is this a phased element?

Will there be a temporary educational space made possible by current funding?

Will there be a temporary climate controlled space made possible by congressional funding?

CABOT'S PUEBLO MUSEUM

SITE MASTER PLAN : WORKSHOP TWO

desert hot springs, ca

BAUER AND WILEY
ARCHITECTS

JONES JONES
ARCHITECTS
LANDSCAPE ARCHITECTS
PLANNERS

CABOT'S PUEBLO MUSEUM SITE MASTER PLAN

WORKSHOP TWO

03.25.10

WORKSHOP TWO

The Design Team and the Miracle Hill Committee convened for Workshop Two to review site information, refine Program information, and discuss Master Plan Concepts developed by incorporating data and concepts gathered during Workshop One.

Workshop Two focused on developing the Master Plan, including Site and Planning Concepts. Team reviewed the previously prepared Program confirming the direction established during Workshop One. Workshop Two sought final approval of the Program; input and direction regarding the Site Planning Framework and Concepts; input and direction on Phasing and the Budget, leading to the next step for the team to finalize recommendations for the Master Vision Plan.

This document is a record of materials prepared for Workshop Two, as well as incorporating information, ideas and direction developed during the workshop.

PROCESS

The Design Team presented an overview highlighting the planning since the last workshop meeting. The team focused on Site Planning framework and "zoning" of the site based on the Program as well as various Planning Concepts that give form and purpose to the Vision for Cabot's Pueblo. The presentation included Program Elements, Master Plan Options and Site Planning Framework, Planning Concepts and Building Clusters, Space Requirements and Concepts, Initial Budget Overview.

After the overview presentation, the group split into two breakout sessions to discuss the Master Plan alternatives in detail. Representatives of the Design Team facilitated the discussions by framing questions addressing Planning Concept, Phasing, Budget and Program. After the breakouts each group reported their findings and recommendations to the overall committee and resolved a direction with the consultant team.

QUESTIONS TO ADDRESS / RESOLVE DURING THE WORKSHOP

PLANNING CONCEPT

1. WHICH OVERALL PLANNING CONCEPT BEST FULFILLS THE GOALS FOR THE CABOT PUEBLO SITE MASTER PLAN?
2. WITHIN THE OVERALL PLANNING CONCEPT, WHICH BUILDING CLUSTER OR FUNCTIONAL ARRANGEMENTS BEST SUIT THE USES AND GOALS FOR THOSE USES?
   - VISITOR CENTER
   - MUSEUM
   - EDUCATION
   - SPA
   - PARK / TRAIL ACCESS / OPEN SPACE
3. WHAT BUILDING/CLUSTER EXPRESSION OR CONCEPT BEST EXPRESSES THE VISION OF THE PLAN?
4. WHAT ENTRY ROAD, ACCESS AND CIRCULATION CONCEPTS BEST SUPPORT THE VISION FOR THE SITE?

The recommended Scheme (F) was selected as the site planning approach favored by the committee. The border of the site integrates buffer zones along the mountains northwest, along Miracle Hill Road and Desert View Ave. The Entry sequence off of Miracle Hill Road responds to site topography, the San Andreas liniment and focused orientation to the Cabot's Pueblo Museum. The buildings are grouped into three main zones: Cabot's Cultural Center, the Spa and a Natural Park integrated by desert landscape zones.

Cabot's Cultural Center
- Visitor Center
- Museum
- Education
- Amphitheater

Spa
- Day Spa

Natural Park
- Park / Trail Access / Open Space

Primary access first leads to the Cabot's Cultural Center with the Visitor Center as the gateway building and entrance into the Cultural Commons. The Spa development is situated northeast of Cabot's pueblo in the wash zone at a higher point on the site, a placement that optimizes views and while providing privacy for the spa patrons. The main planning concept for the spa is a diffuse arrangement, integrated into a terraced natural desert landscape.

Building development is concentrated on the edge of the wash zone and utilizes the wash zone for uses including parking serving the building clusters, access roads, spa pools and desert gardens. An expanded native garden provides an outdoor open area as a strategy to retain the Pueblo as an artifact and reduce density directly around the deteriorating. A service facility is located in the southeast corner of the site with access from Desert View Ave and to the building clusters on the site.

PHASING

1. WHAT IS THE PHASING CONCEPT?
2. WHAT IS THE INITIAL PHASE?

Phasing strategies include a singular, multi-purpose Cultural Center building with shared spaces for the Visitor Center, Museum and Education. The first phase includes the initial build out of a minimal Spa northeast of the Cultural Center and Trailhead at Eagle's Nest II. Further consideration includes how these initial developments transition to the full development identified in the Master Plan.

The committee requested exploration of what development could be started within the current site boundaries.

BUDGET

1. IS THE BUDGET CONCEPT CLEAR?
2. IS THE BUDGET CONCEPT APPROPRIATE AND COMPREHENSIVE?

The budget presented identifies a reference point as a rough order of magnitude for the Master Plan.

The preliminary numbers account for the areas of proposed development and excludes cost associated with land acquisition.

PROGRAM

1. WHAT ARE THE MOST APPROPRIATE PROGRAM GROUPINGS?
2. ARE THE FINAL PROGRAM ELEMENTS APPROPRIATE AND APPROVED?

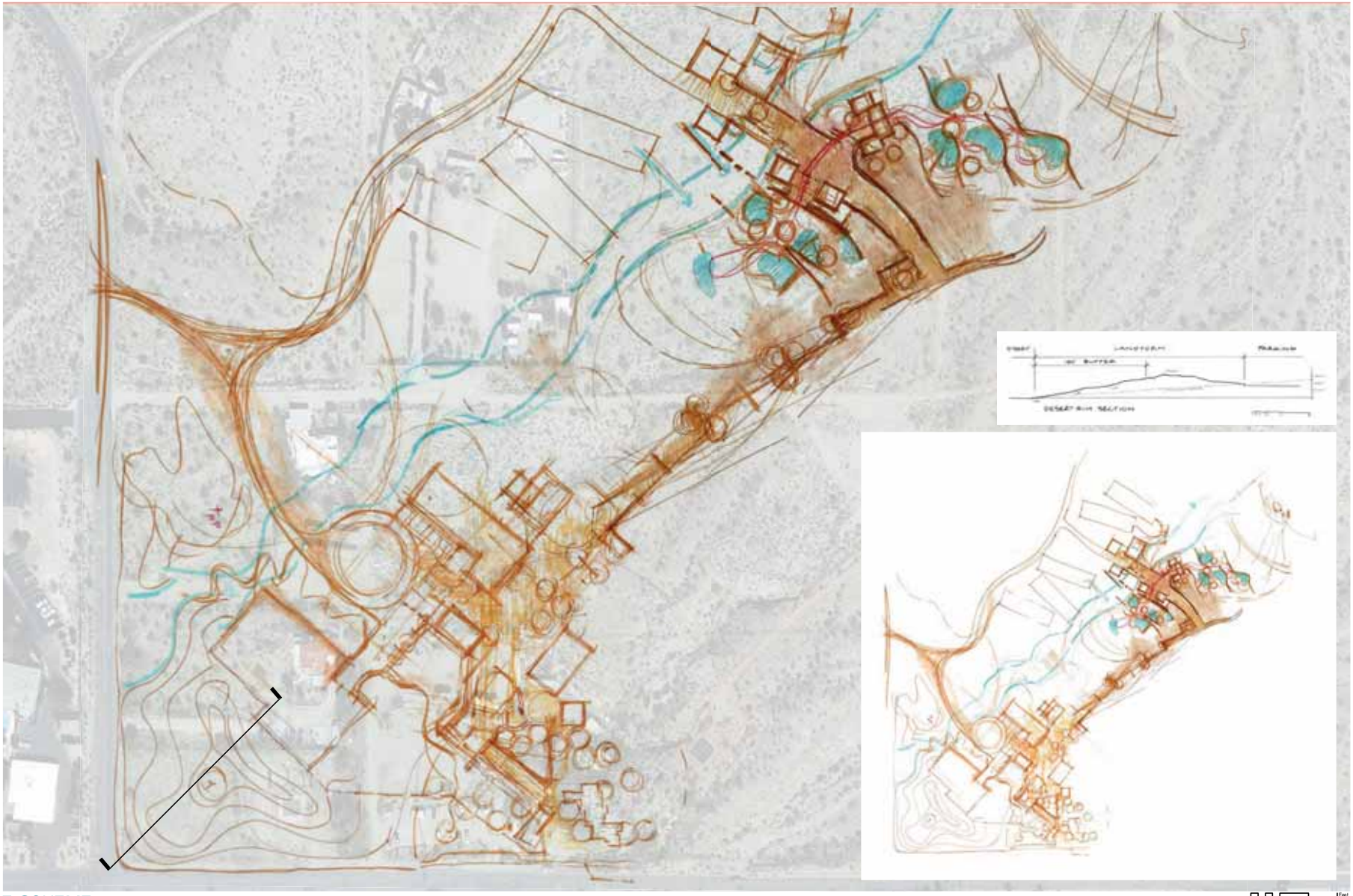
Overall, the Program was approved as the framework for Master Planning. Revisions are noted below:

There were a couple of considerations that the committee addressed including an ability to accommodate large community outdoor gatherings of 500 people. Other ideas included outdoor space to facilitate community events such as farmer's markets, fairs, BBQ's and fundraisers.

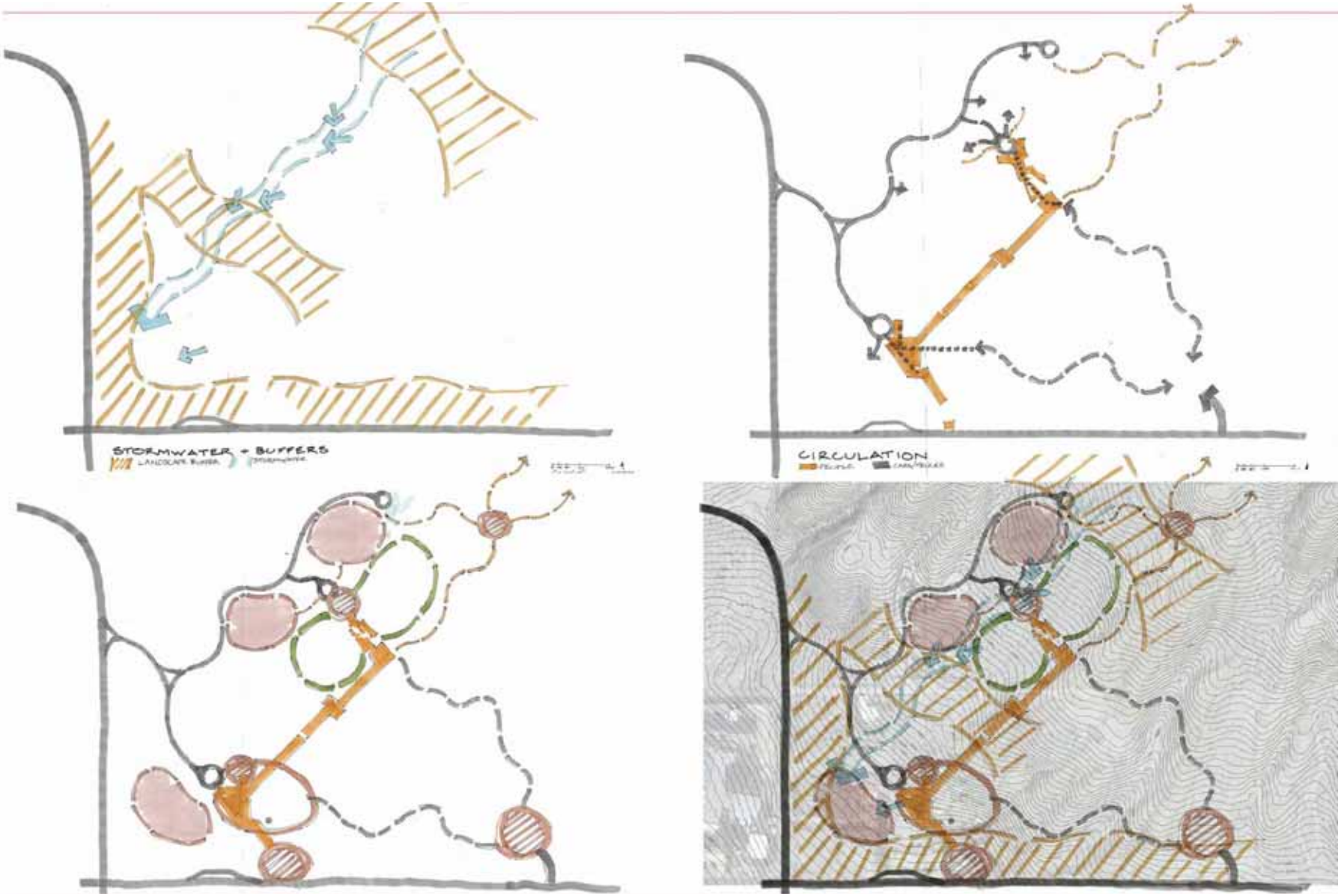
There was a request to double the spa capacity from the programmed 280 people. The Museum needs a curatorial space and a conference/meeting rooms space for 35-40. The conference room can be a shared space in the Cultural Center.

Integrate an outdoor community gathering space for 50 at the Eagle's Nest II trailhead.

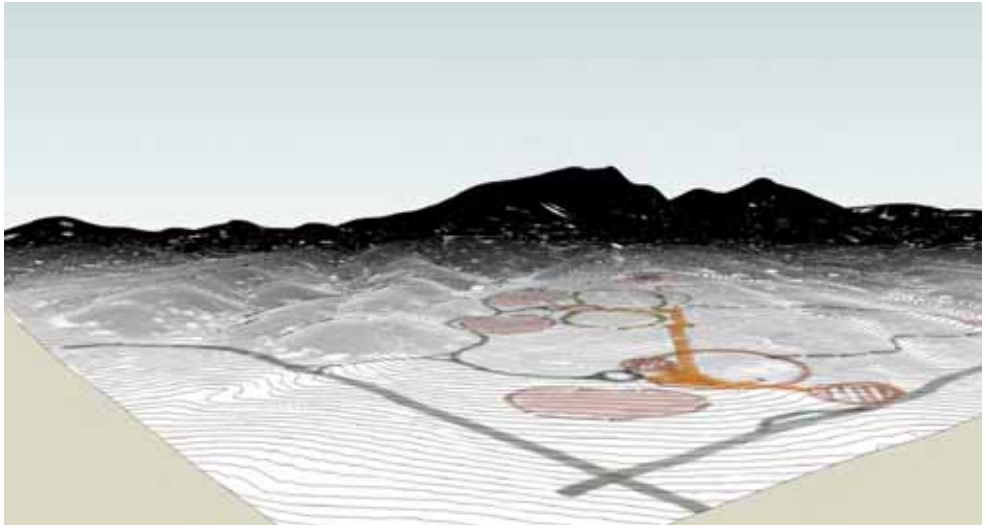
Securing the facilities and grounds during off hours was expressed as a concern.

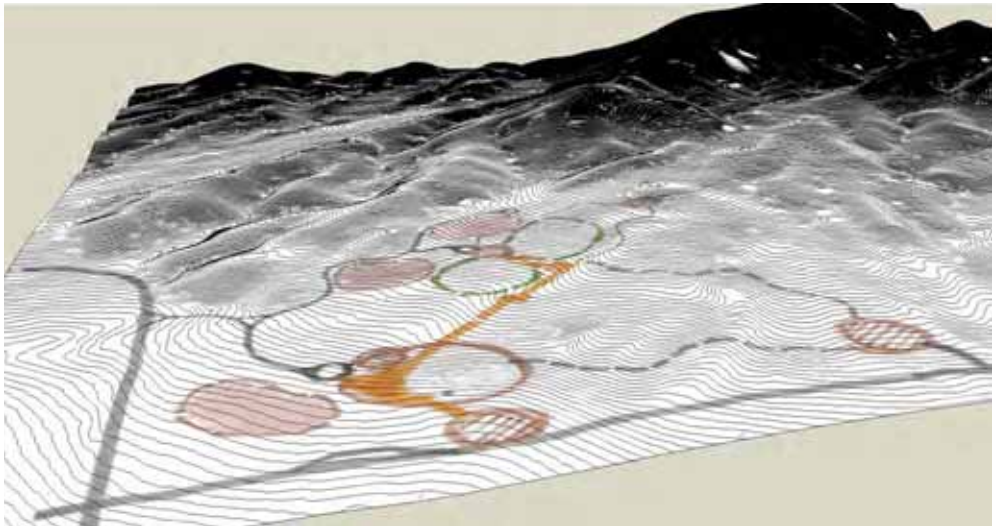


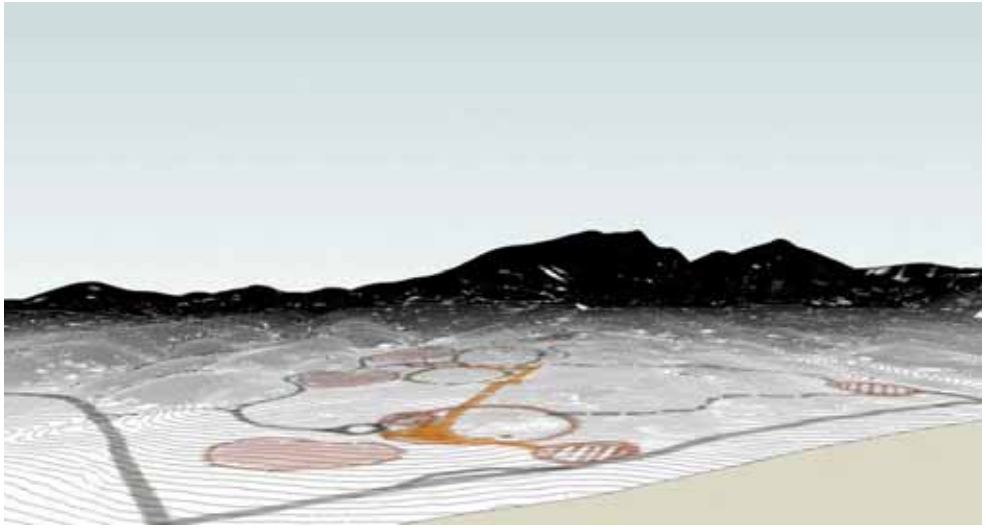
SITE USE SCHEME

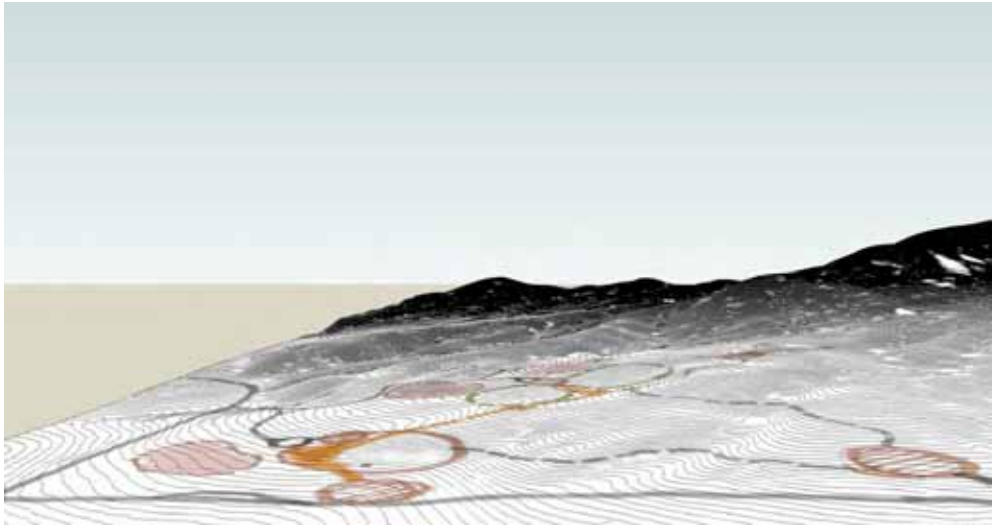


SITE USE

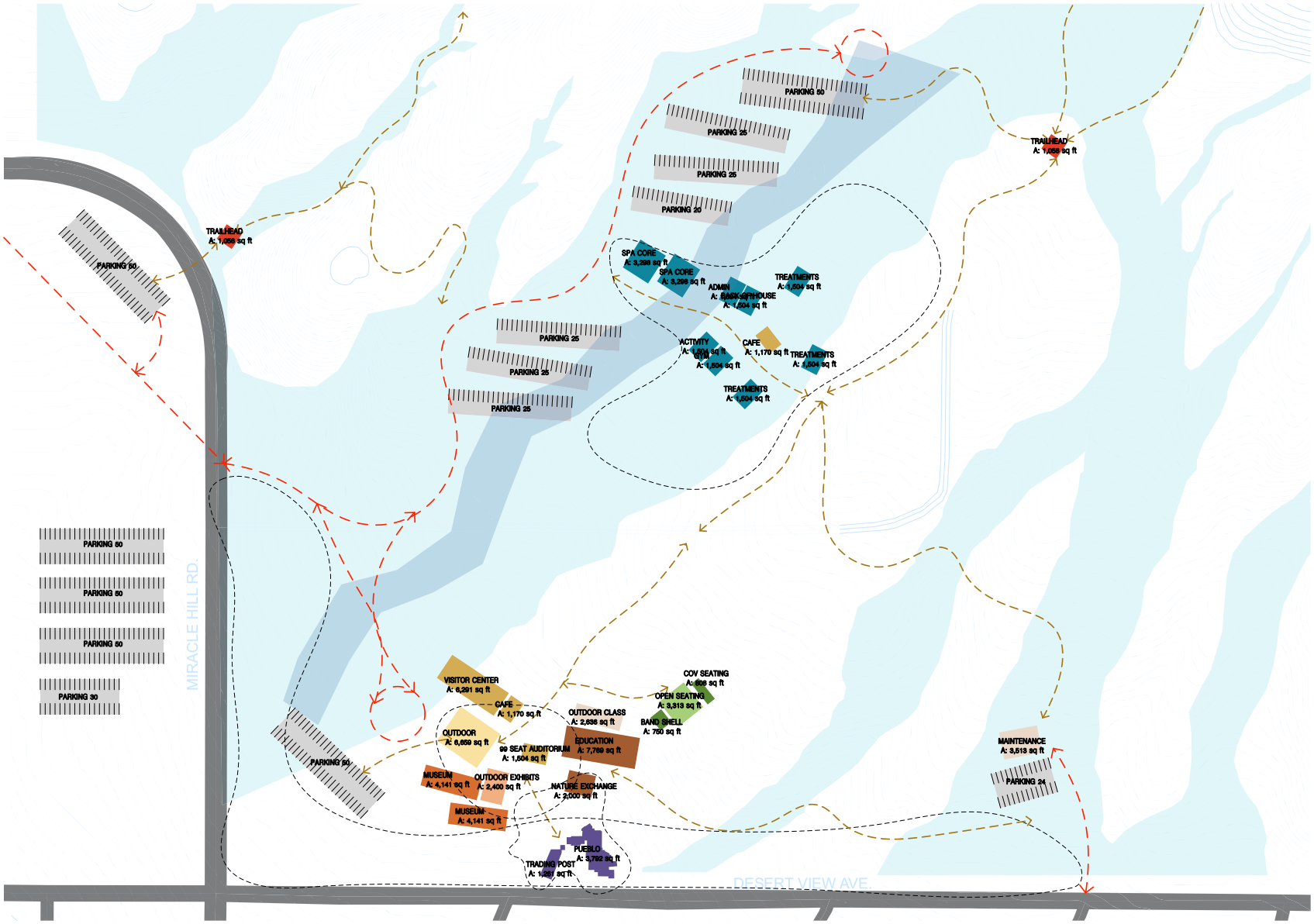




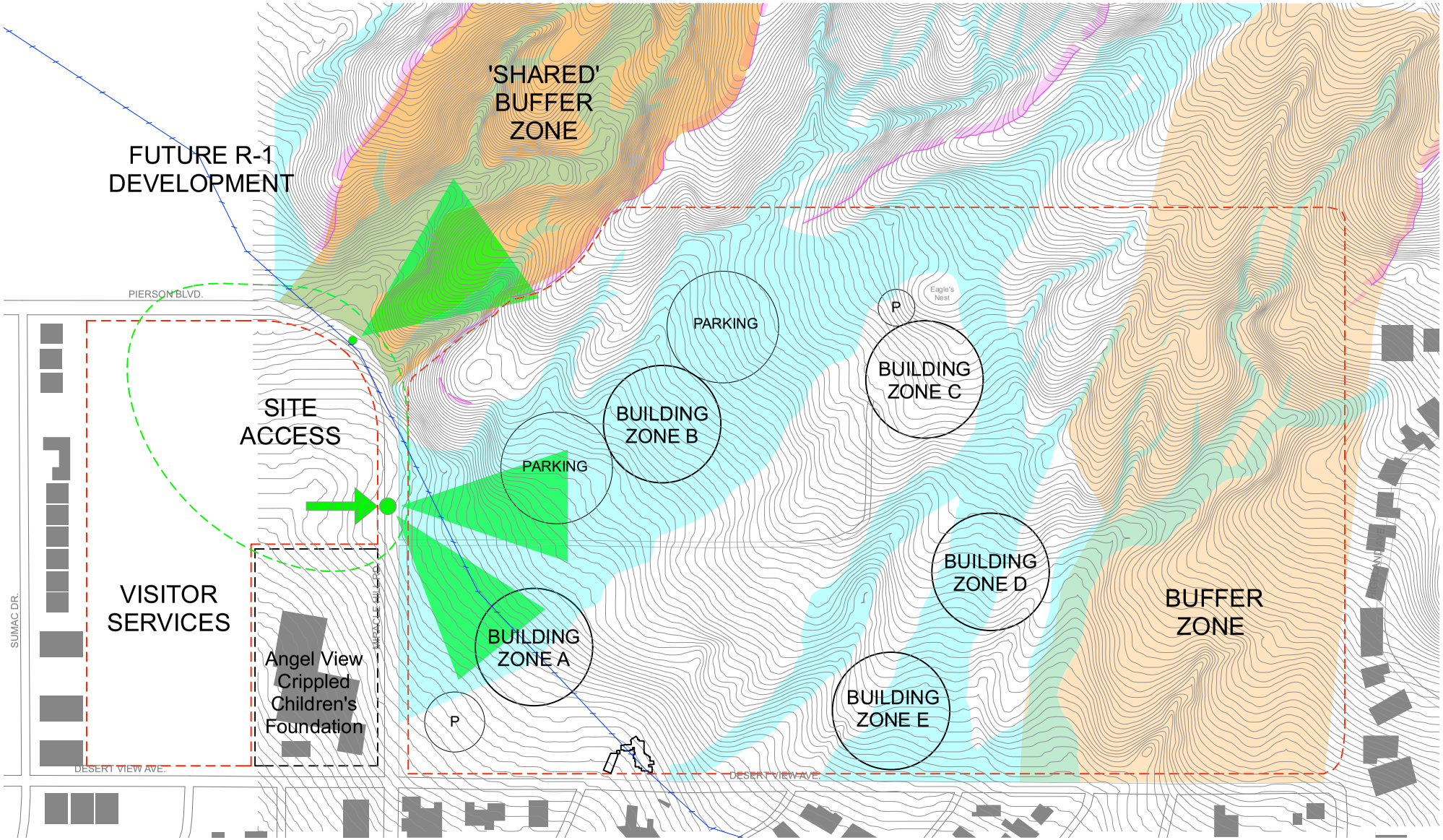




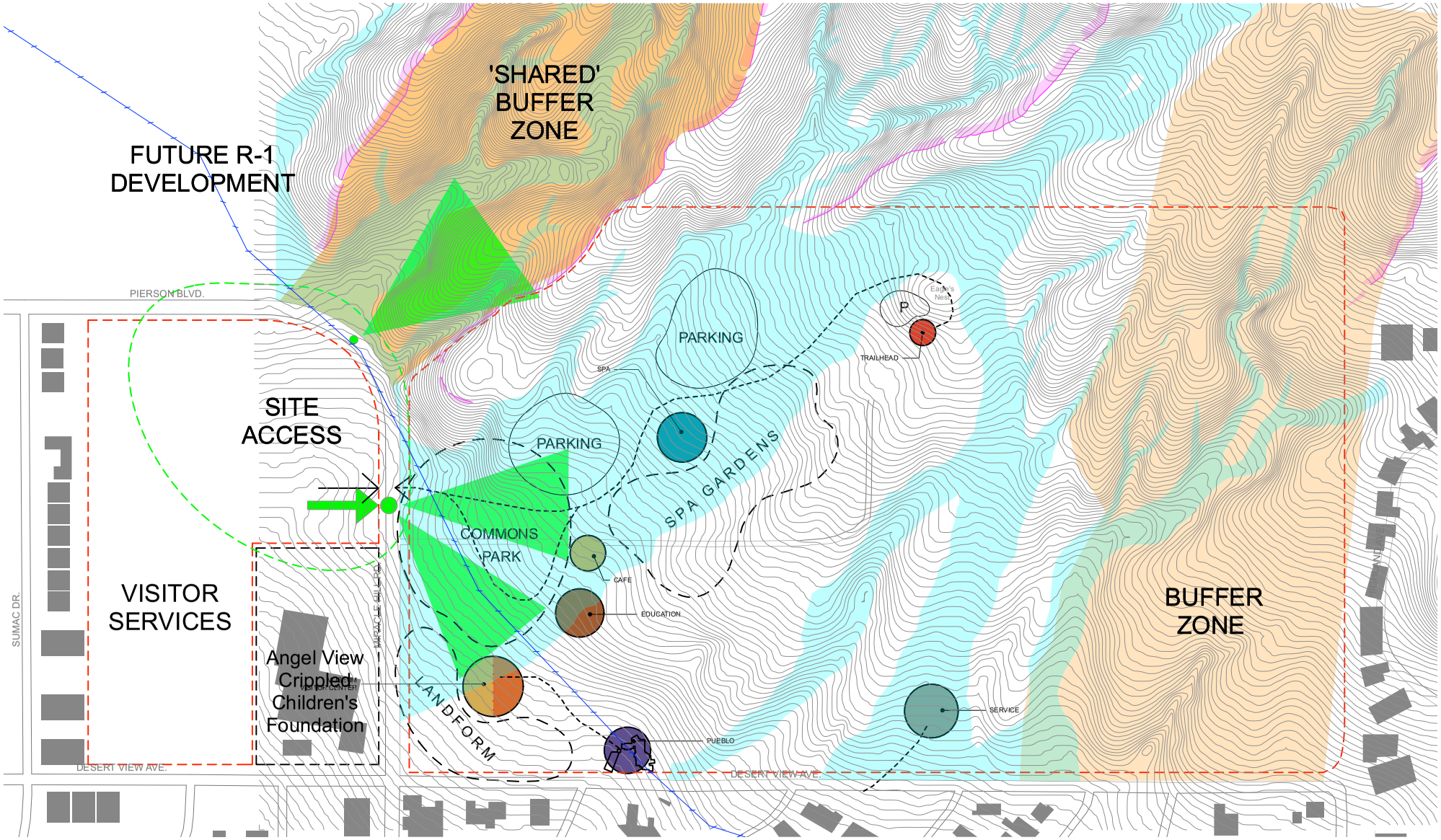
3-D TOPOGRAPHY



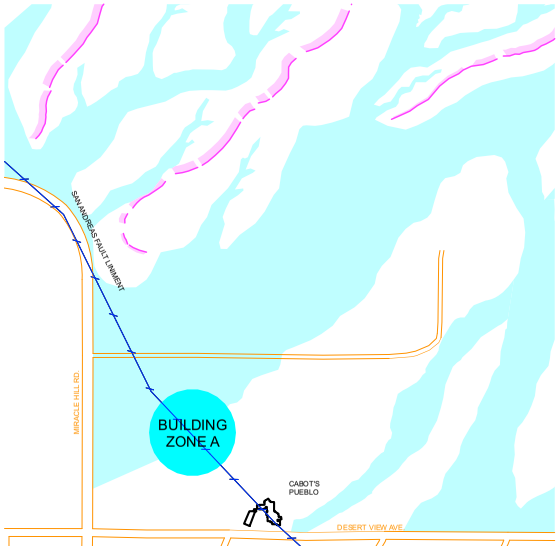
SITE DIAGRAM: SCHEME F



POTENTIAL DEVELOPMENT ZONING



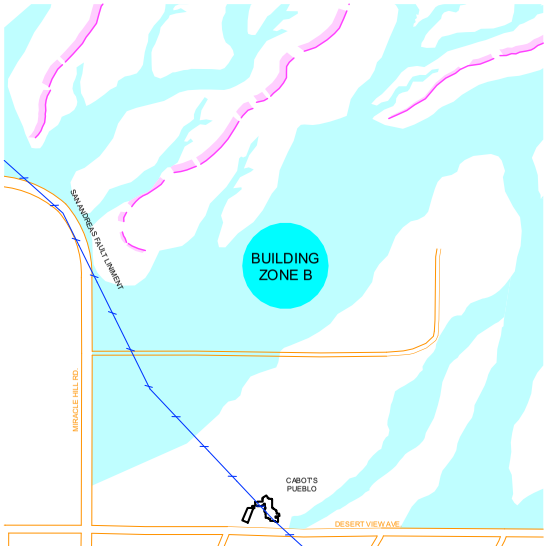
PROGRAMMATIC CLUSTER ORGANIZATIONS



BUILDING ZONE A

STRENGTHS
_space for campus cluster for efficiency of access, services
_views to the north mountains
_relatively flat
_in wash
_adjacent to Pueblo while allowing for Pueblo identity
_education bldg: adjacent to Pueblo
_museum bldg: adjacent to Pueblo
_visitor center: immediate access from site entry
_adjacent area to Pueblo in wash / flat zone

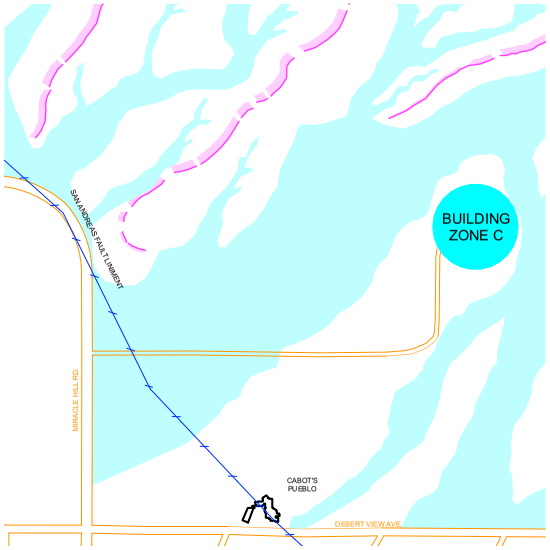
CONSTRAINTS
_in wash- bottom of water runoff
_on top of linament
_views to south need to be controlled
_visitor center & museum will have limited views because low on site and in 'valley' of wash



BUILDING ZONE B

STRENGTHS
_isolated for controlled access
_in wash
_high on site for 270° views in valley
_tucked up against edge of wash
_surrounded by large area of flat wash zone for access to other buildings or parking
_spa: adjacent flat / wash area for expansive spa gardens
_spa: good for integration of natural water flow

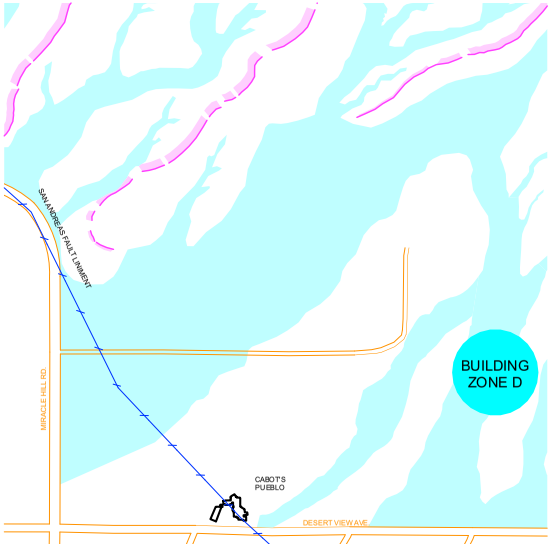
CONSTRAINTS
_in wash



BUILDING ZONE C

STRENGTHS
_optimal views
_adjacent to base of mountains
_out of wash
_isolated for access / privacy

CONSTRAINTS
_deep in site
_distant from Pueblo

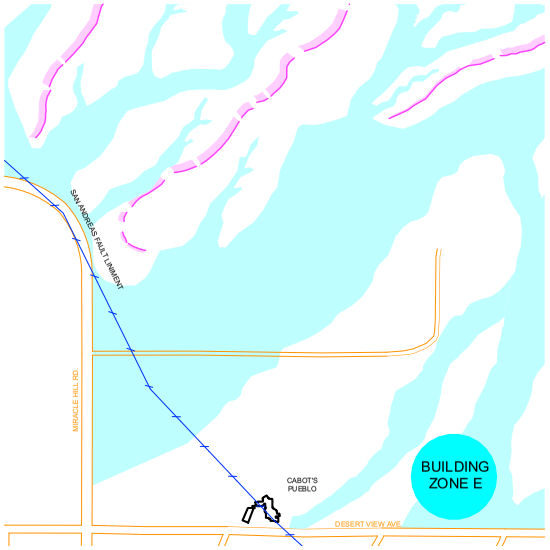


BUILDING ZONE D

STRENGTHS
_in wash
_spa: isolated from Pueblo
_closer distance for local access from south (Desert View Ave.)
maintenance: isolated from other structures
_good views at crest

CONSTRAINTS
_in wash
_distant from Pueblo if visitor center, museum, or education building
_distant from site entry
_access from site entry
_visible from Pierson Blvd.

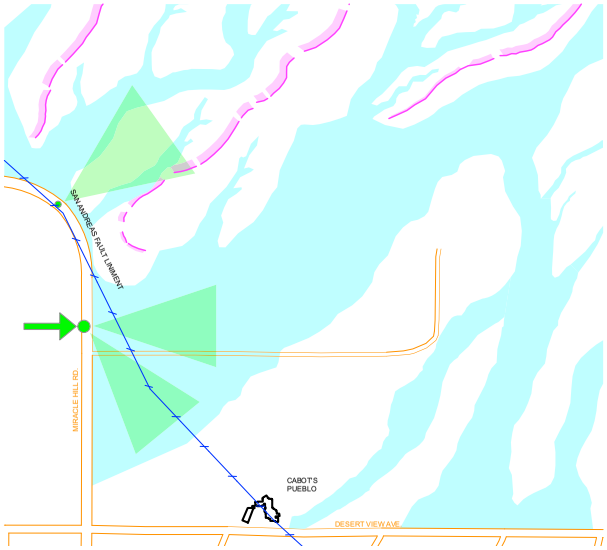
SITE PLANNING DIAGRAMS



BUILDING ZONE E

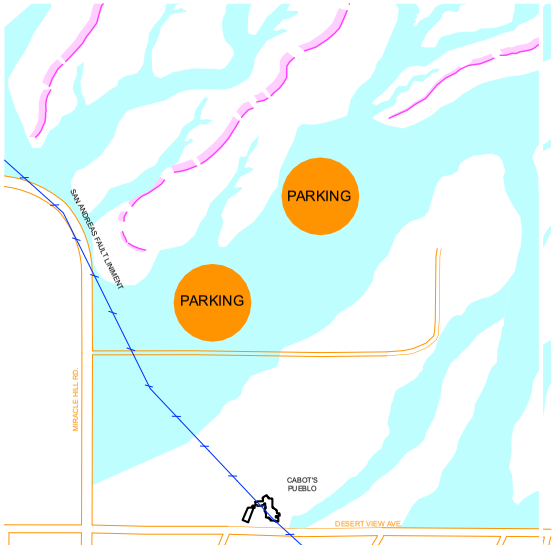
STRENGTHS
_vehicular access from Desert View Ave. for local access
_in wash
_spa: isolated from Pueblo

CONSTRAINTS
_close to Desert View Ave.
_minimal views, low on site
_distant from Pueblo if visitor center, museum, or education building
_distant from site entry
_distant from centralized parking
_too remote from rest of clusters



SITE ENTRY

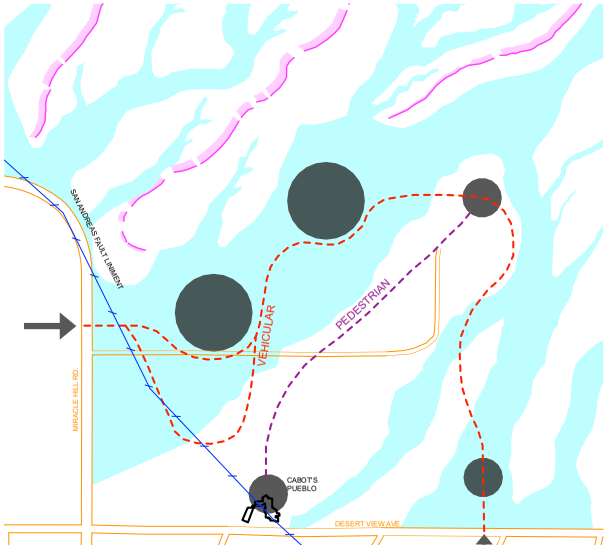
STRENGTHS
_site entry point off Miracle Hill Rd.
_below topography because direct route from Pierson Blvd drops into rough terrain
_retains desert views
_singular access point
_greater distance for arrival through 'park' before reaching destinations of parking or buildings
_no primary access off Desert View Ave.



PARKING

STRENGTHS
_relatively flat
_tucks up against edge of wash
_compatible use with wash zone
_not along Desert View Ave.
_enough flat zone for more efficient centralized parking

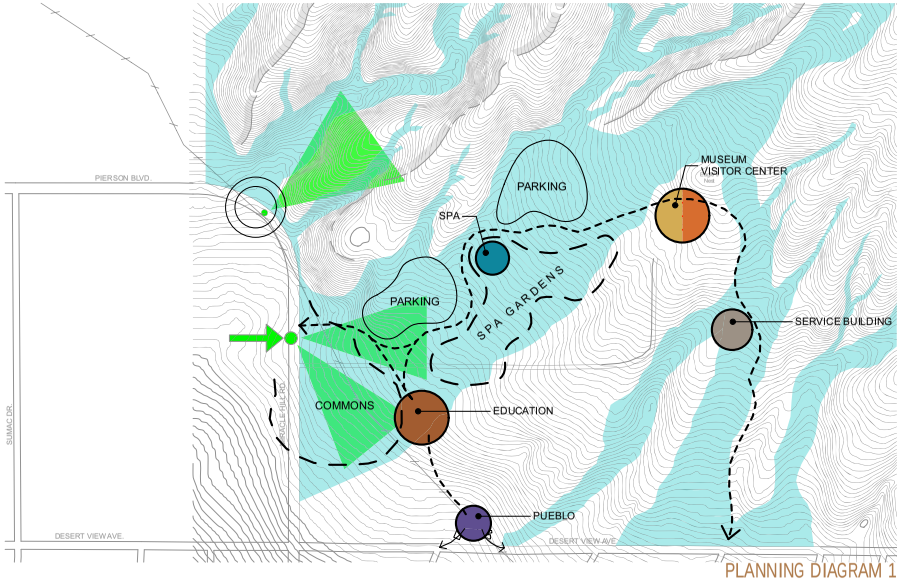
CONSTRAINTS
_takes space that could be occupied by buildings



ACCESS

STRENGTHS
_loop road (phased) connects site together
_buildings adjacent to each other in campus

CONSTRAINTS
_complex too tight?
_entry too close to campus



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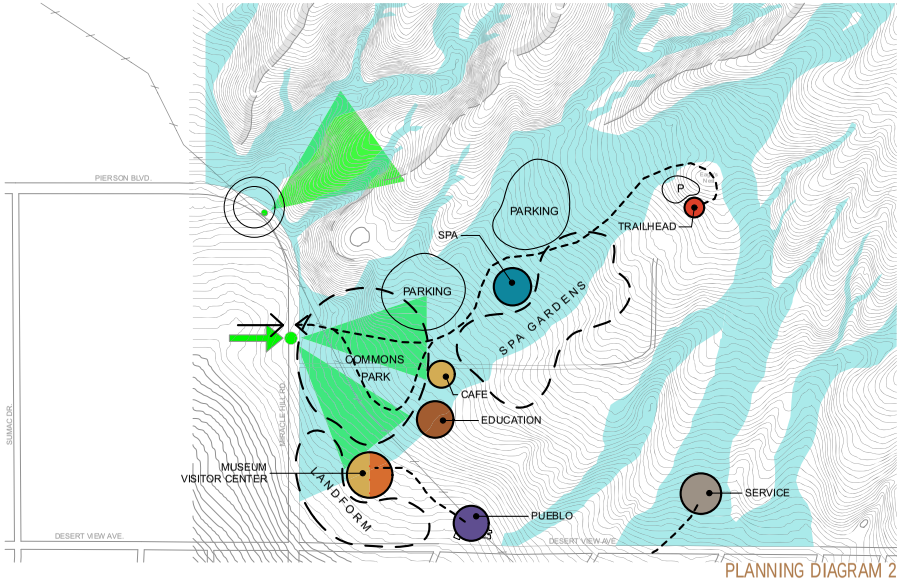

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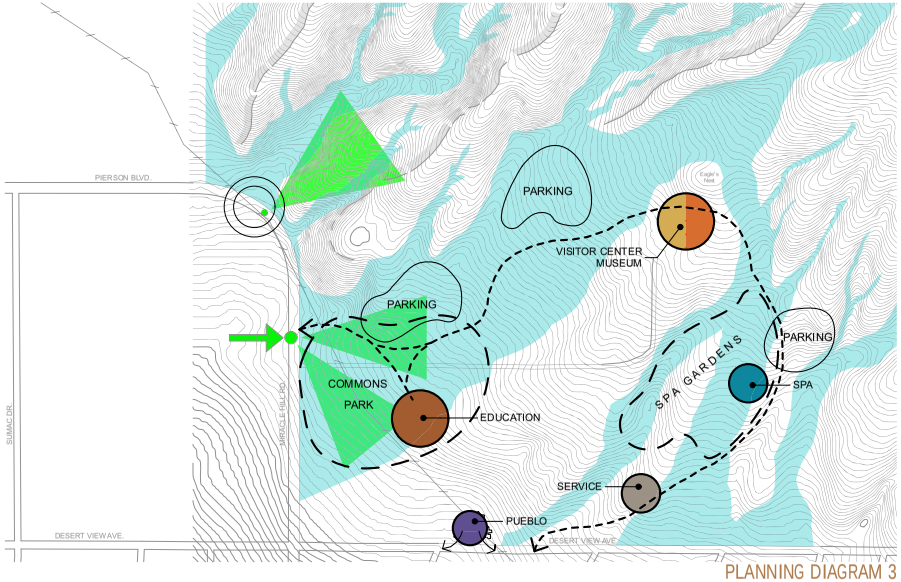

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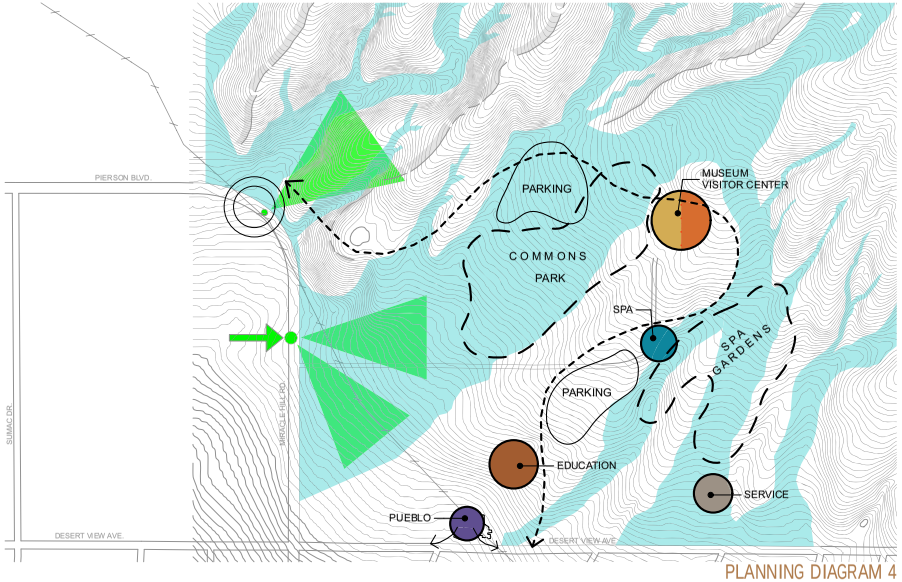
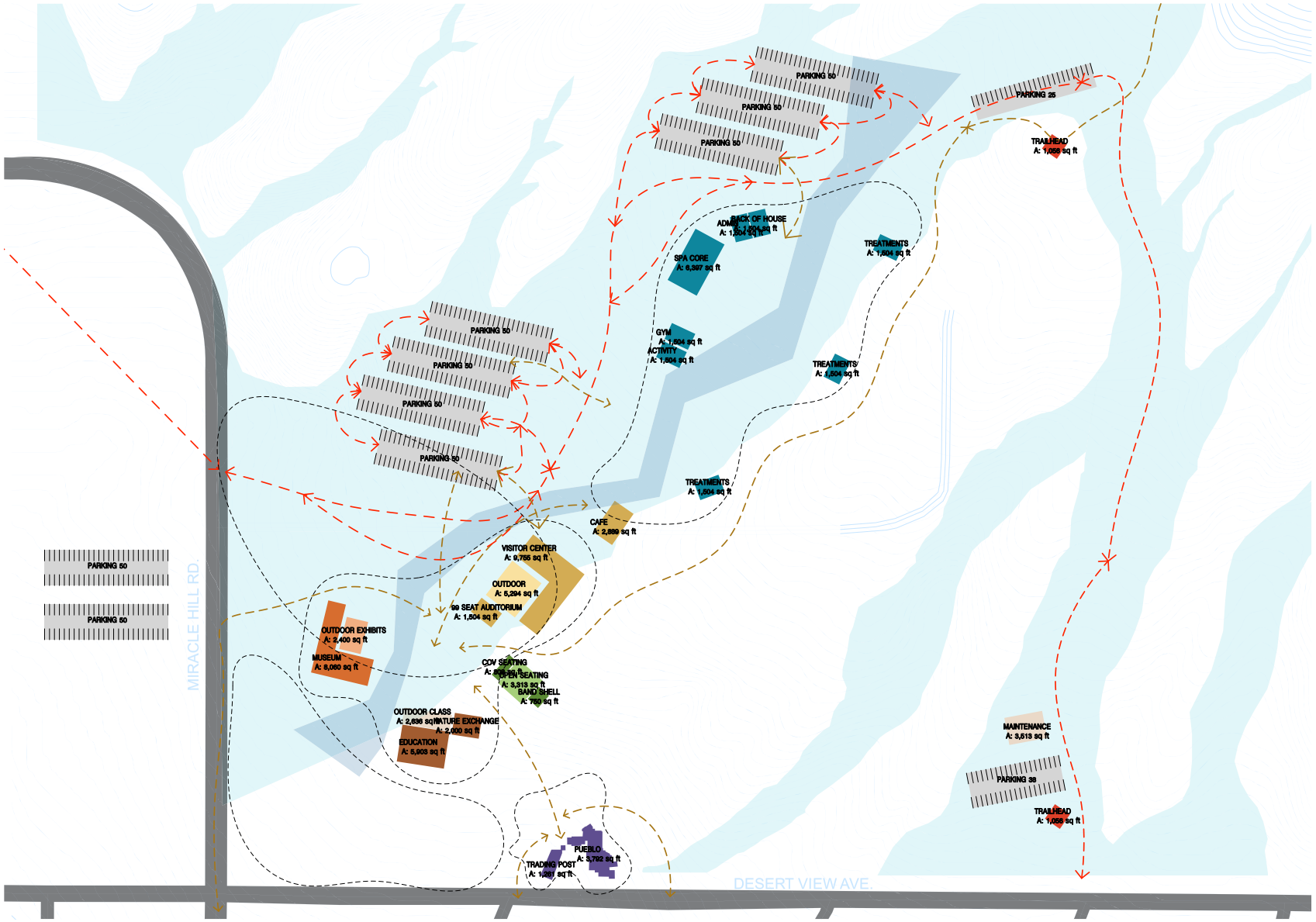
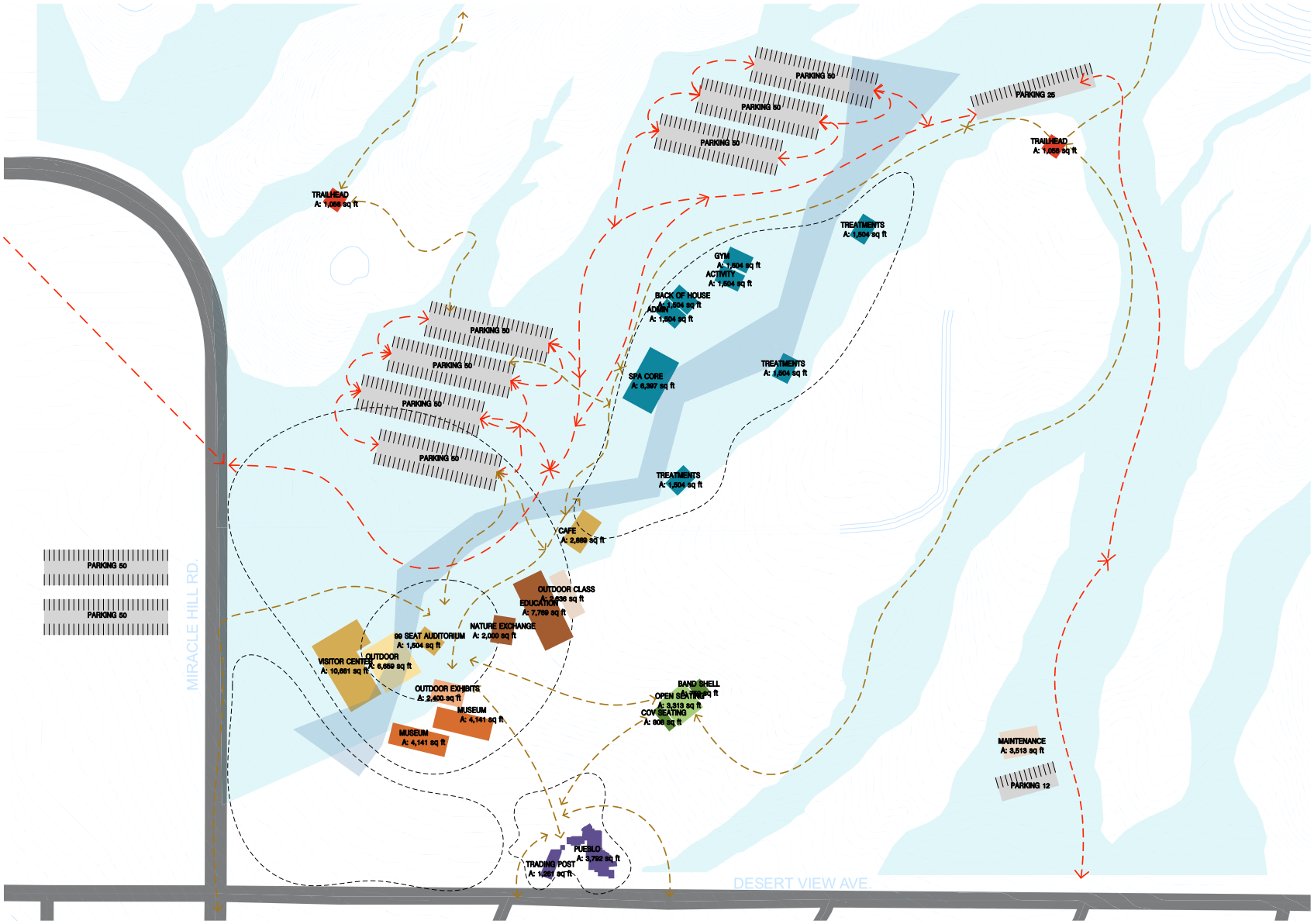


PLANNING DIAGRAM 4

SITE PLANNING DIAGRAMS



SITE DIAGRAM: SCHEME A



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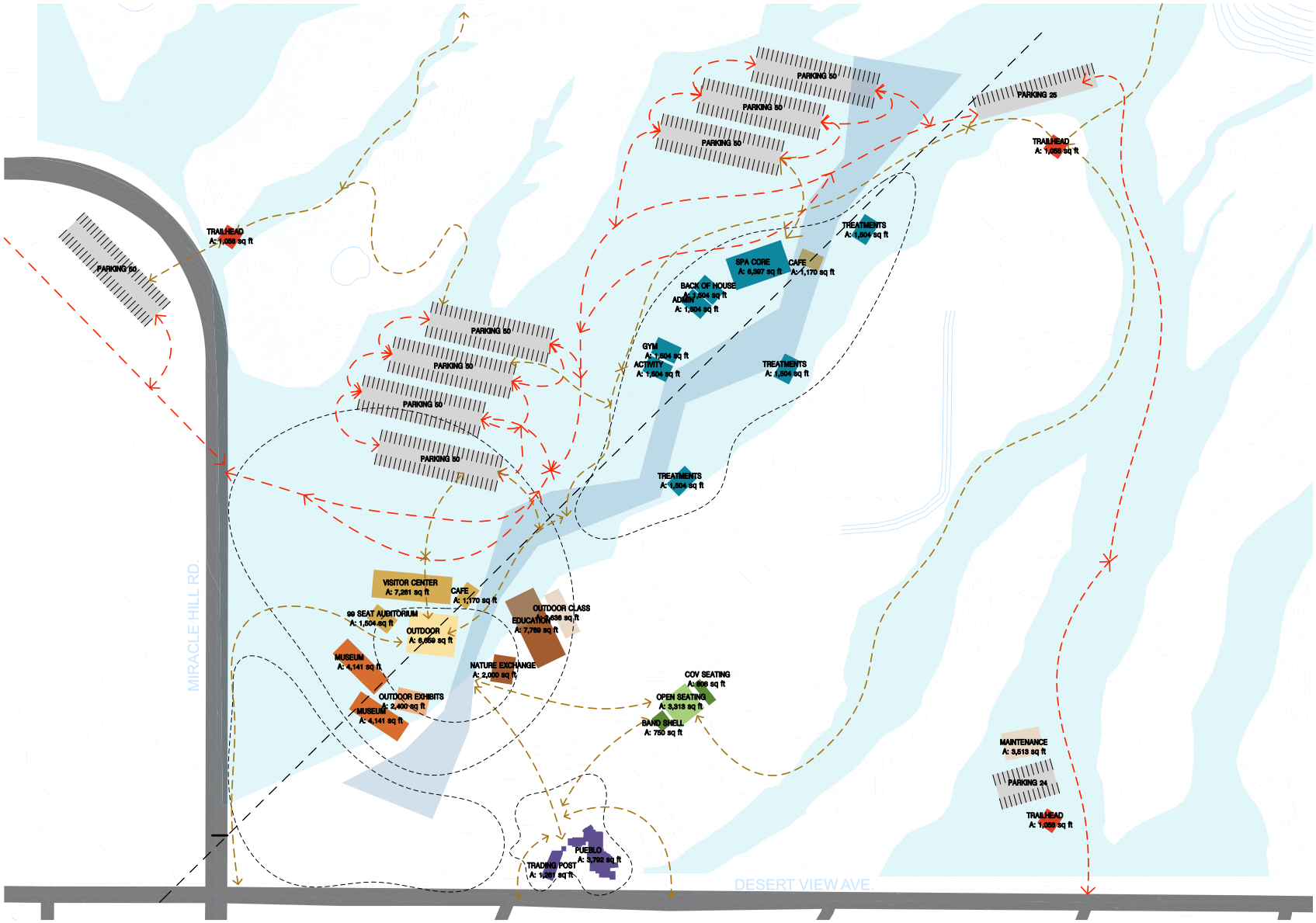
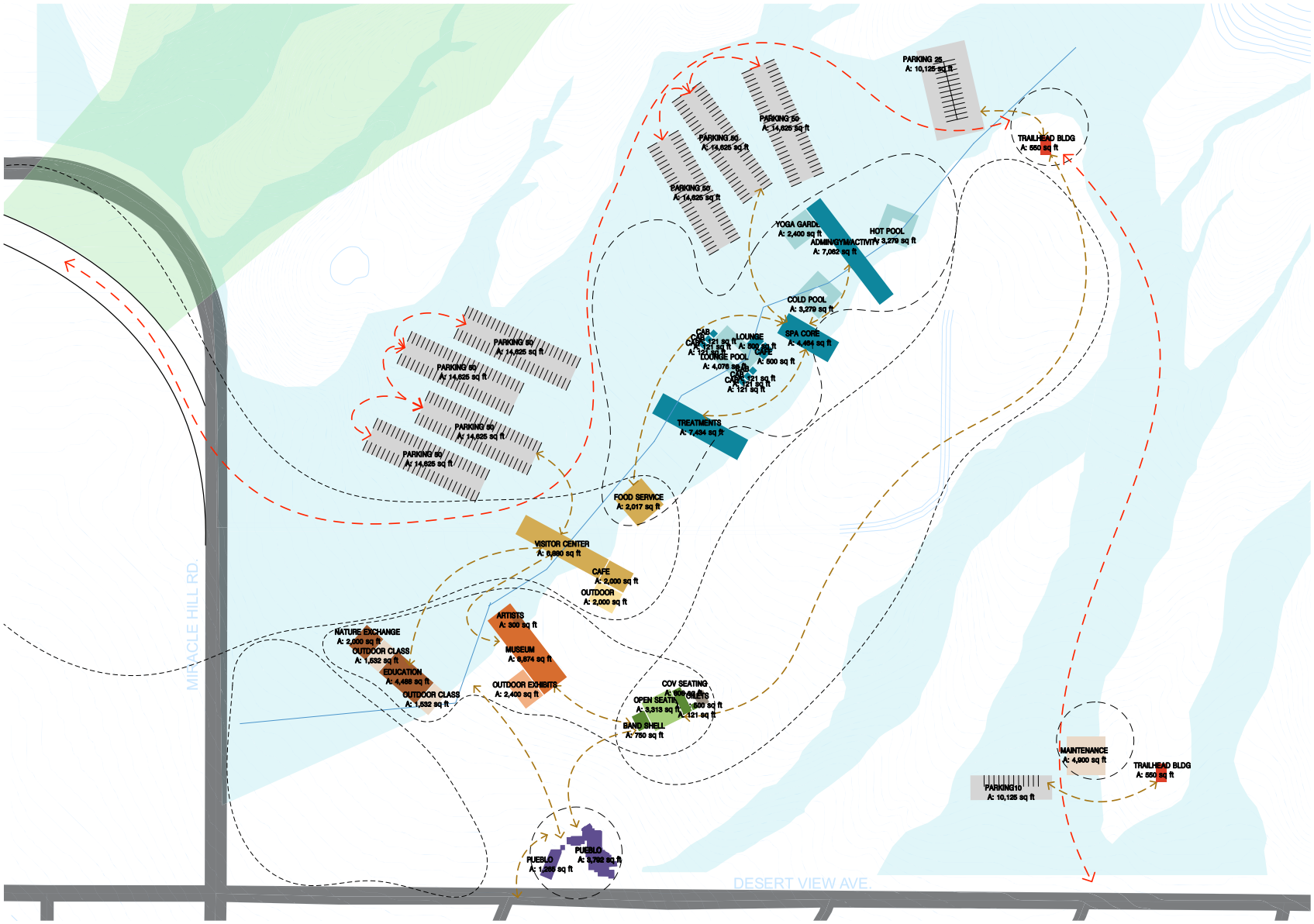


SITE DIAGRAM: SCHEME C



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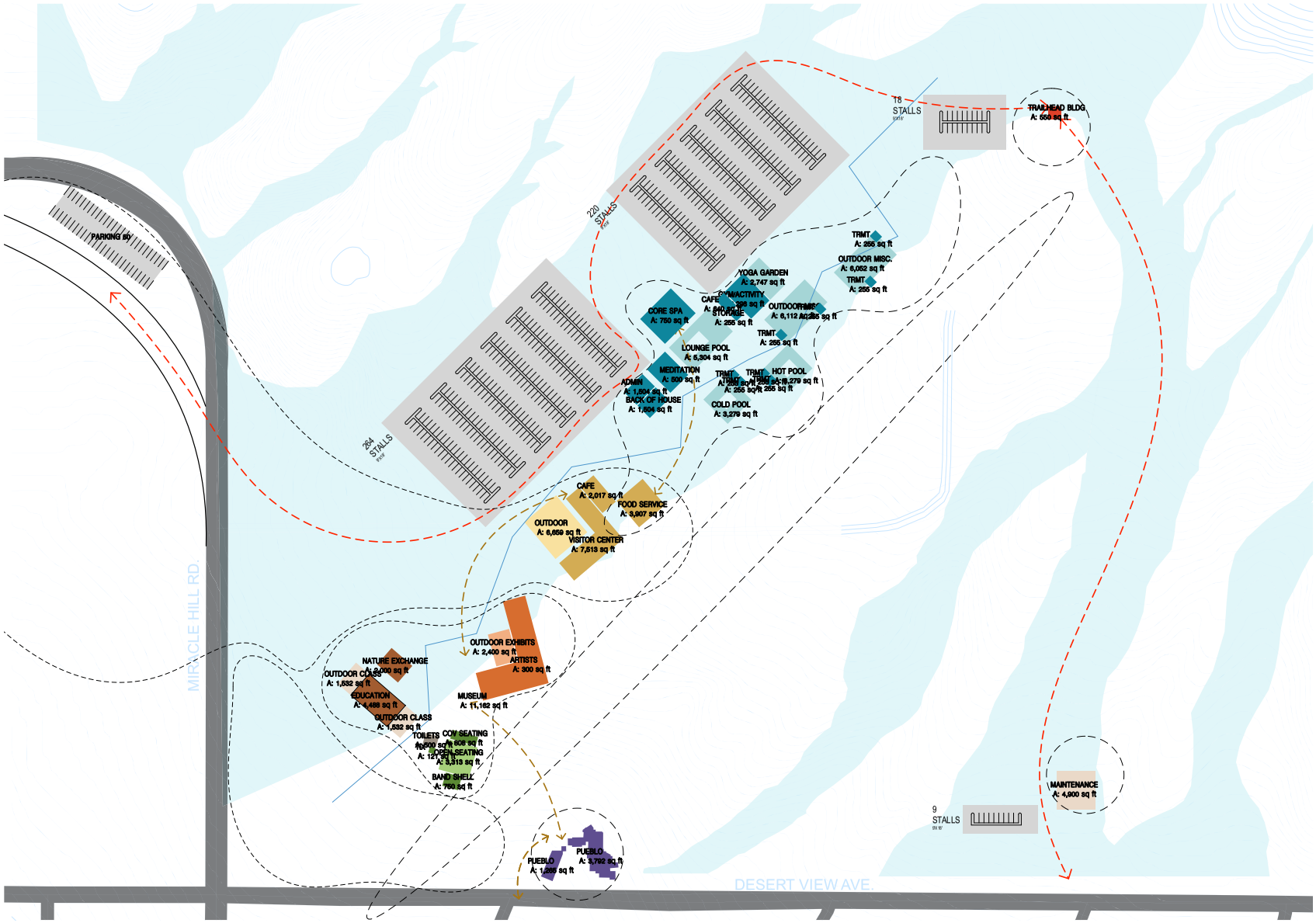

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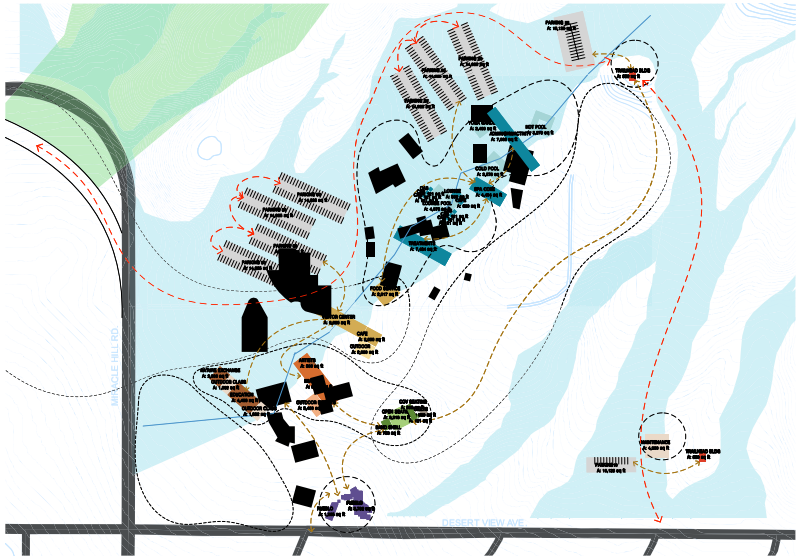

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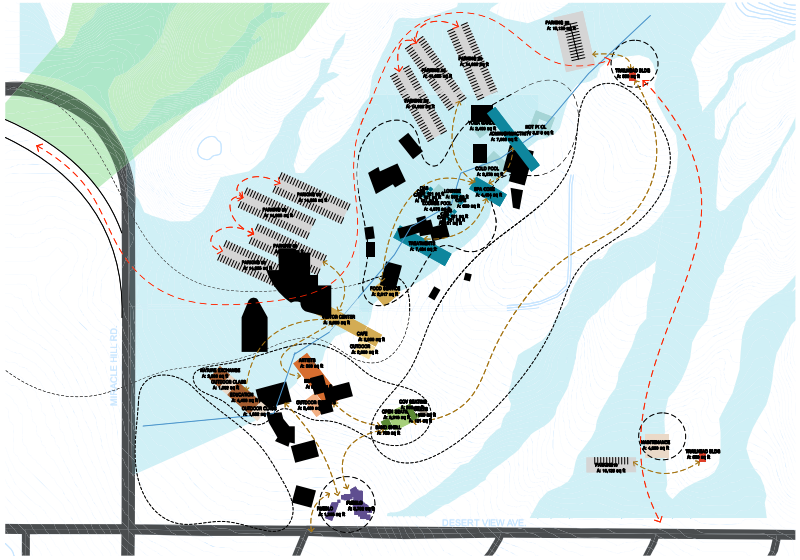
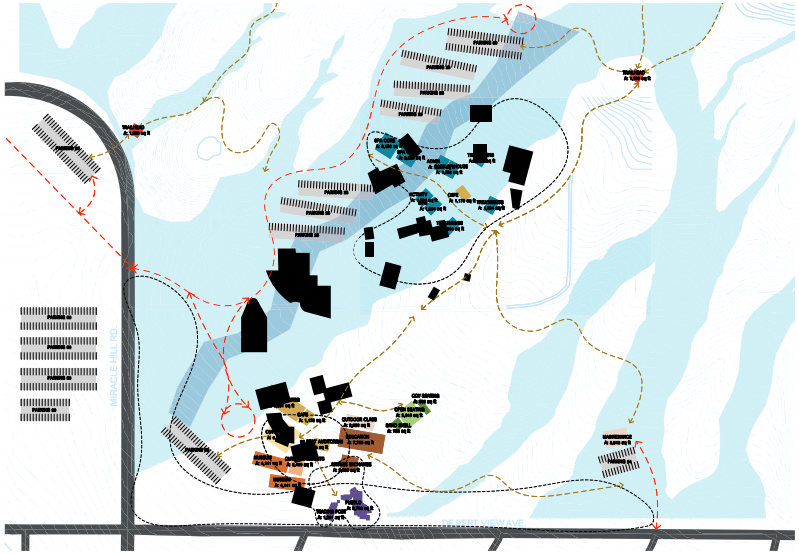


SCHEME D



SCHEME F

PROJECT REFERENCE OVERLAY DIAGRAMS: LAS VEGAS SPRINGS PRESERVE/GLEN IVY HOT SPRINGS SPA
SCHEMES: C + D + F

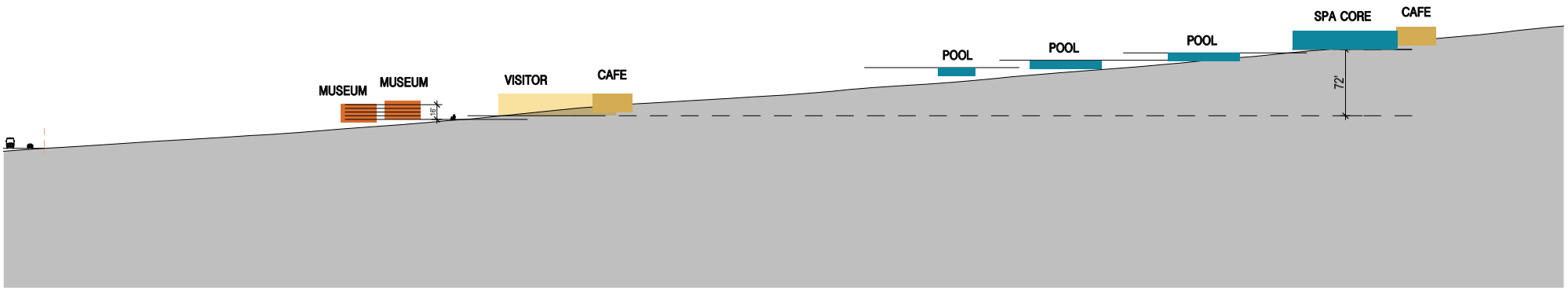
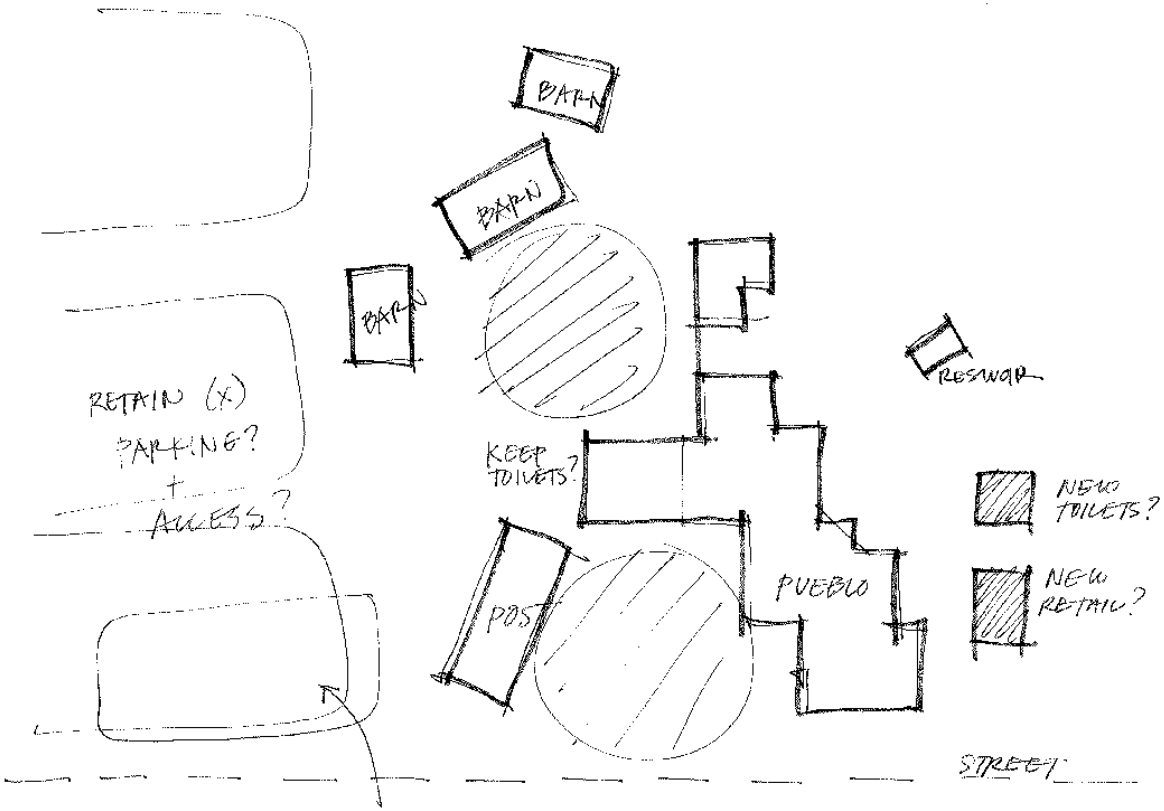


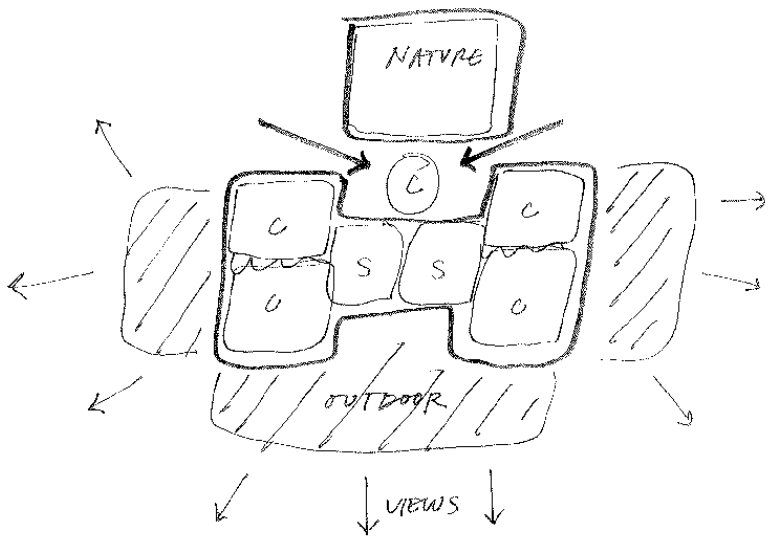
DIAGRAM: SITE SECTION



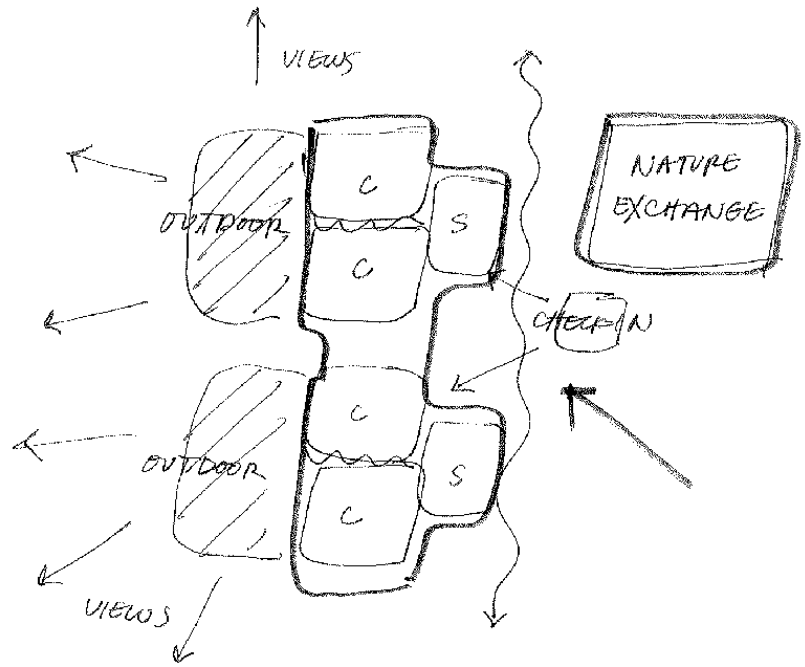
PUEBLO

VERIFY (X) TO REMAIN

CLUSTER CONSIDERATIONS: BUILDING CONCEPT DIAGRAM_PUEBLO

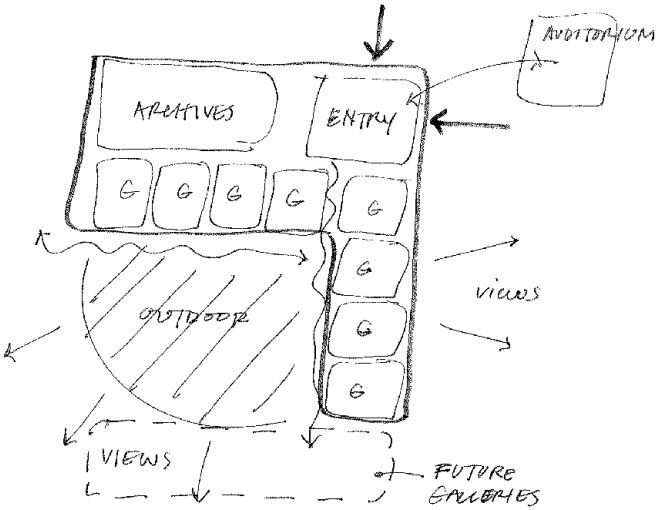


EDUCATION
CLUSTER

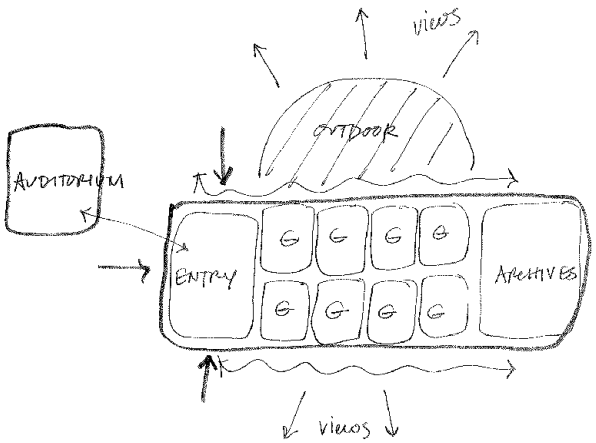


EDUCATION
LINEAR

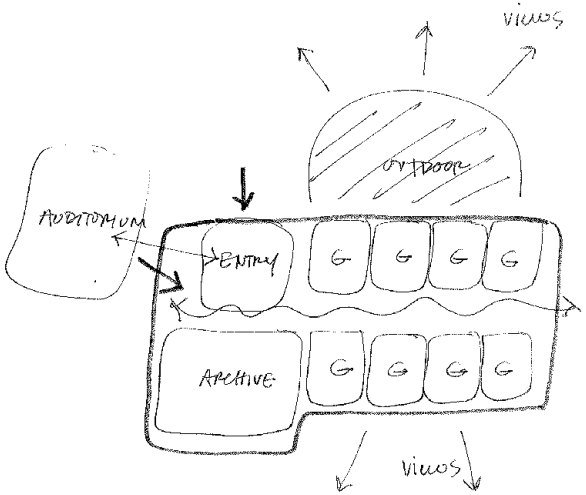
CLUSTER CONSIDERATIONS
BUILDING CONCEPTS_MUSEUM



MUSEUM
COURTYARD

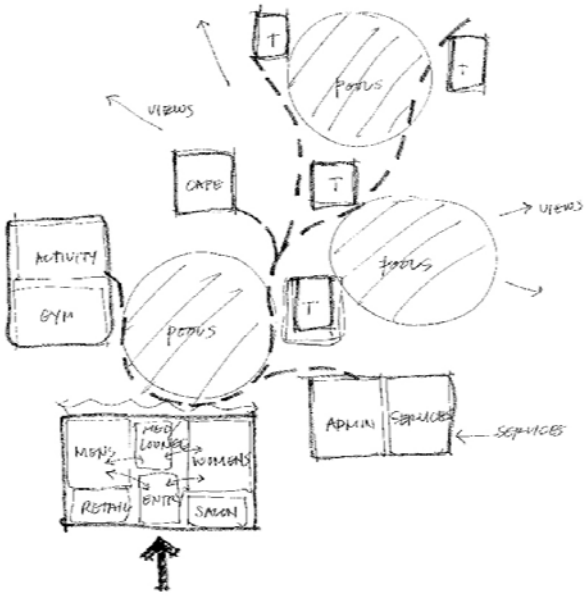


MUSEUM
EXTERNAL CIRCULATION

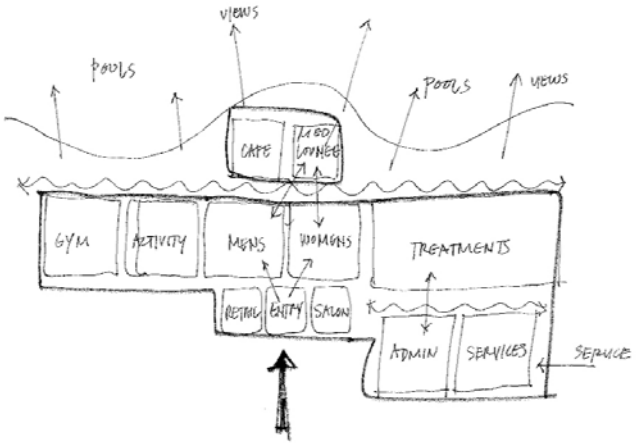


MUSEUM -
INTERNAL CIRCULATION

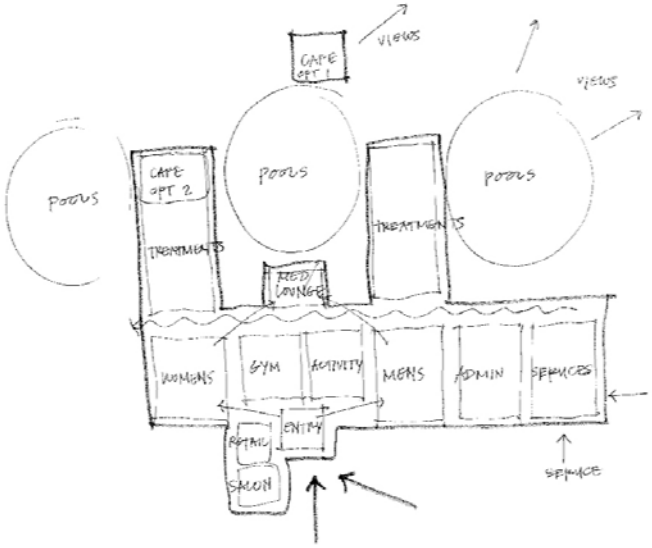
CLUSTER CONSIDERATIONS
BUILDING CONCEPTS_SPA



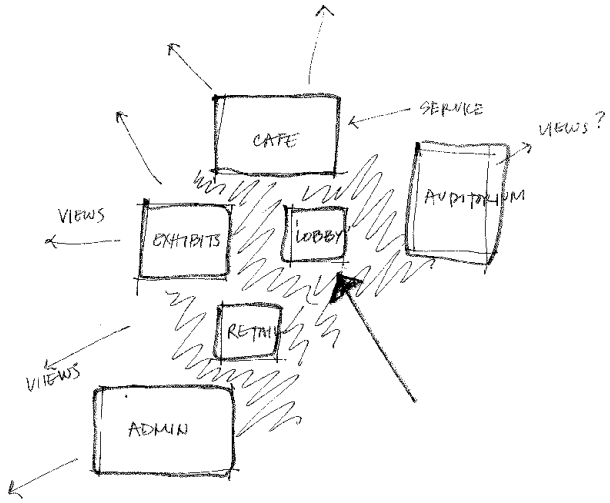
SPA
CLUSTER



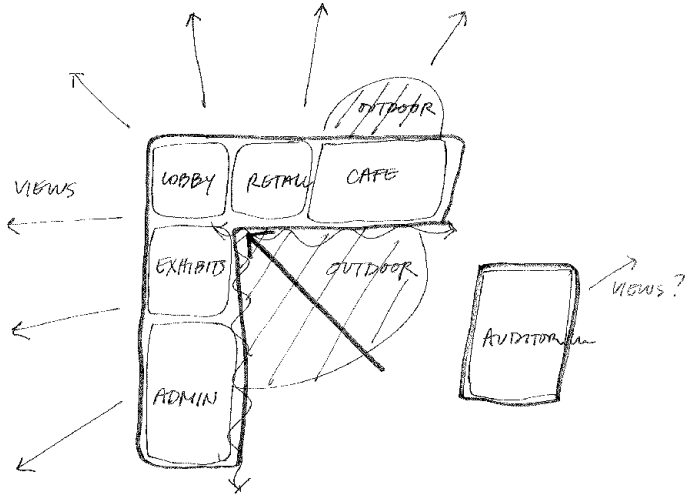
SPA
GROUPED LINEAR



SPA
COURTYARDS



VISITOR CENTER
CLUSTER



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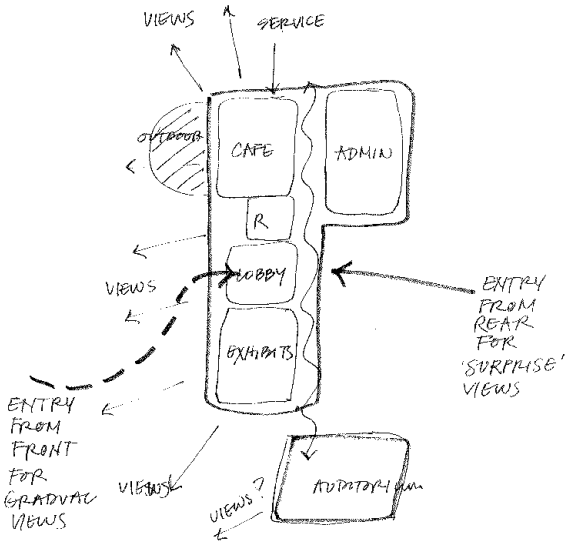
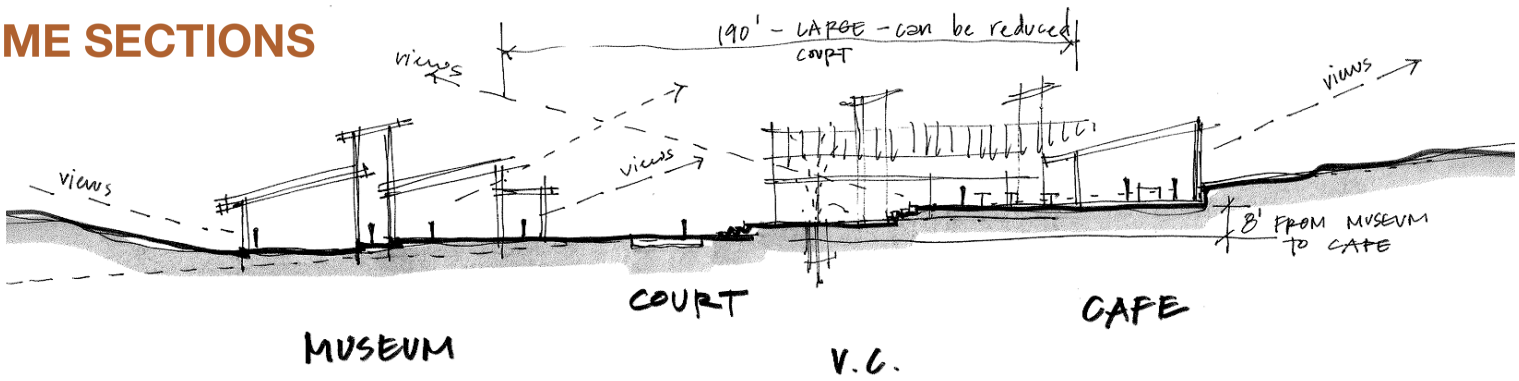
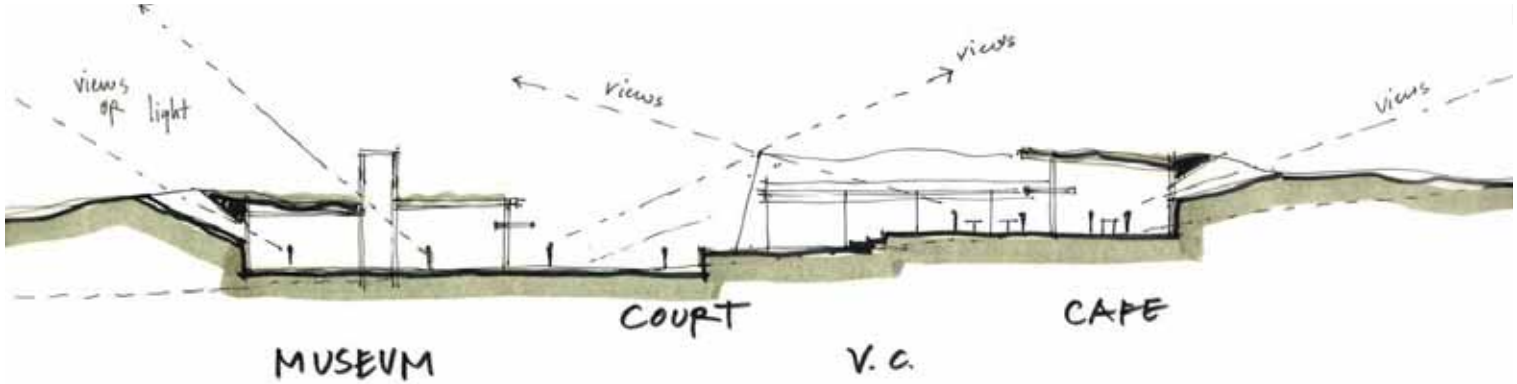
COURTYARD

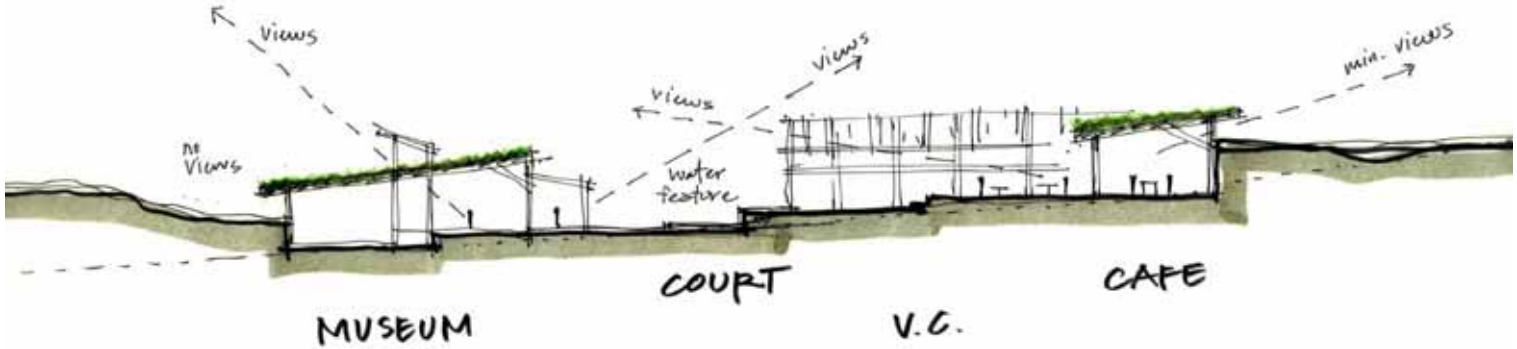


VISITOR CENTER
LINEAR

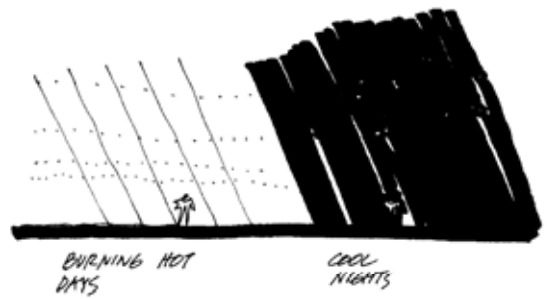
SCHEME SECTIONS

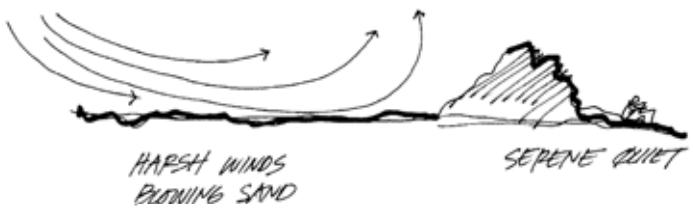


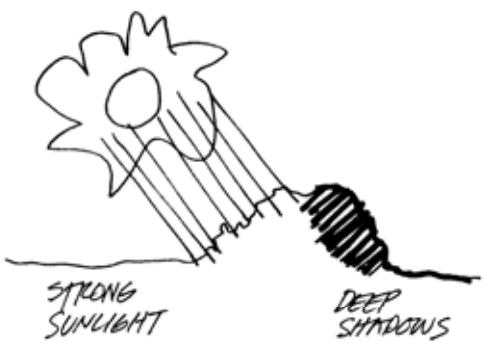




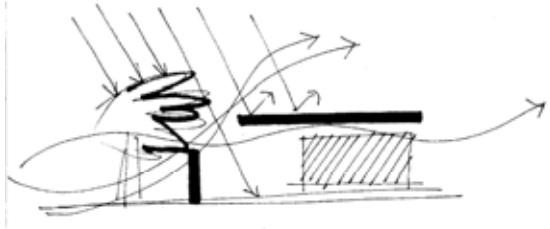
DESERT ENVIRONMENT: extremes + contrasts





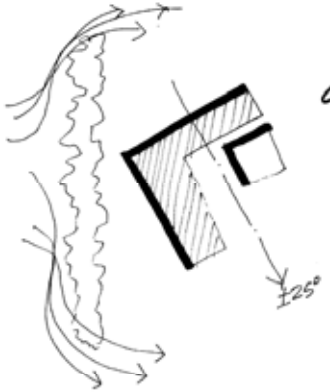


ENVIRONMENTAL CONSIDERATIONS



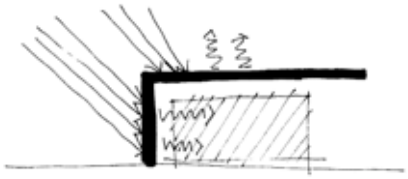
SHADE / SCREEN

TREES
'PARASOL' ROOF
REFLECTED / DIRECT SUN



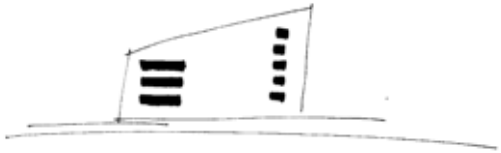
ORIENTATION

SUN / WIND
HEAT / COOL



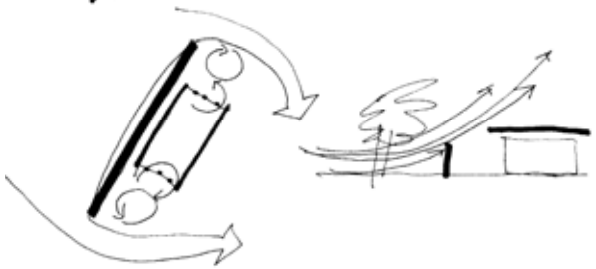
MASS / NIGHT COOLING

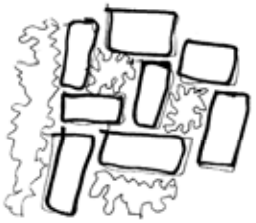
ABSORB / RADIATE



SMALL / SHADED OPENINGS

WIND





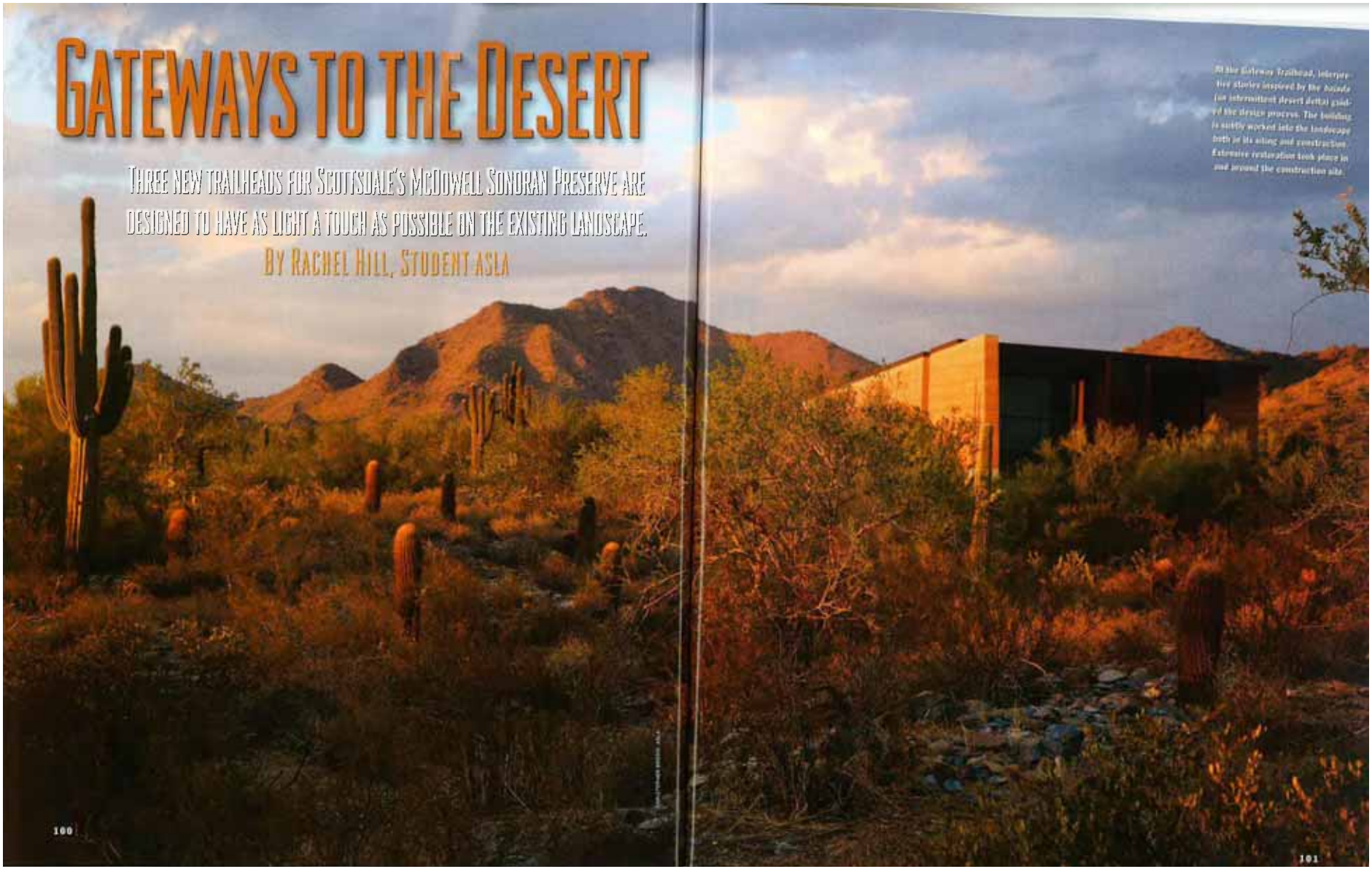
COMPACT / CLUSTERS

AROUND 'GREEN' COURTS
FOR SHADE / EVAPORATIVE
COOLING.

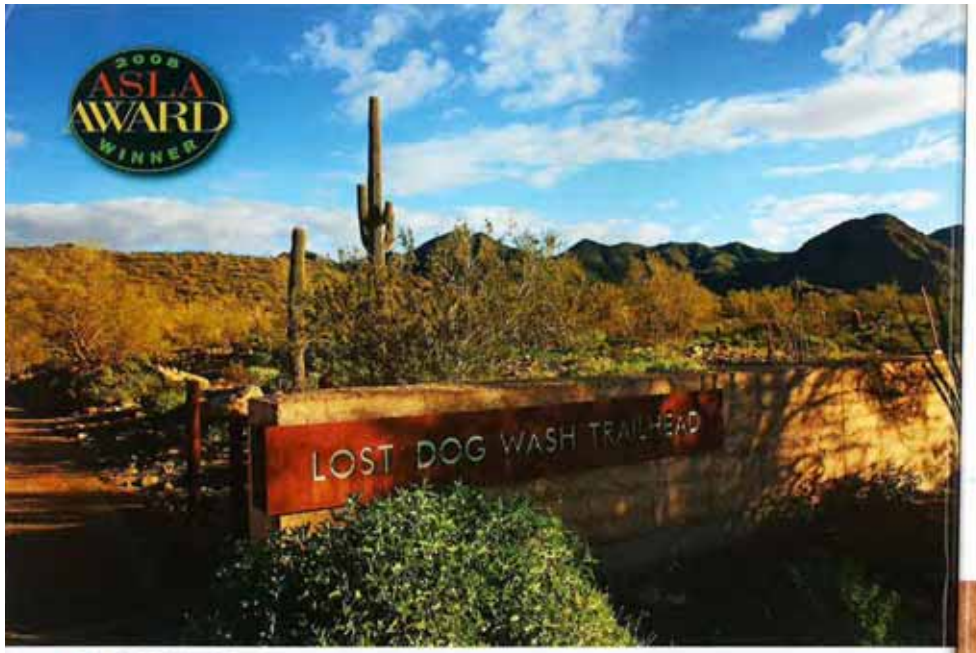
Gateways to the Desert

Three new trailheads for Scottsdale's McDowell Sonoran Preserve are designed to have as light a touch as possible on the existing landscape.

By Rachel Hill, Student ASLA



At the Gateway Trailhead, interpretive stories inspired by the *bajada* (an intermittent desert delta) guided the design process. The building is subtly worked into the landscape both in its siting and construction. Extensive restoration took place in and around the construction site.



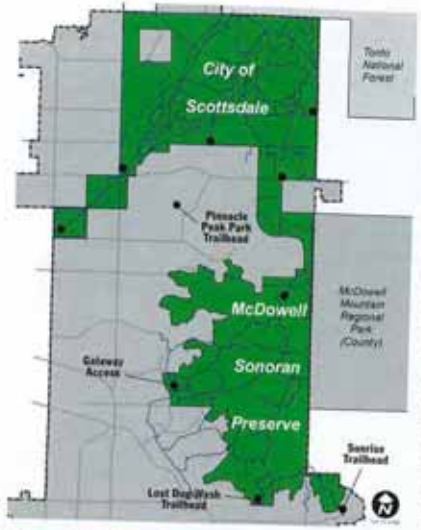
ON A DRY BUT RELATIVELY COOL September morning in Scottsdale, Arizona, a group of designers stood underneath the overhanging roof of the Lost Dog Wash Trailhead, chatting about the seemingly never-ending process of creating access areas for the McDowell Sonoran Preserve. The preserve encompasses more than 16,000 acres of land (with an additional 20,000 acres of state land that have yet to be acquired within the proposed boundary) bordering Scottsdale to the north and east. The preserve protects the peaks, hillsides, and interior valleys of the McDowell Mountains. Though development has crept into the nearby valleys on the western edge, with golf courses and neighborhoods nestled between the preserved ridges, the preserve provides desert access to the burgeoning population of Scottsdale.

It is that access that makes the preserve unique. Instead of creating a single entrance into the preserve, the city of Scottsdale chose to create nine trailheads dotting its edges (four are complete), thus giving easier and less congested access to a greater number of people.

The Gateway Trailhead, the fourth in the series of nine planned access areas, sits on a wide, flat *bajada* (a desert alluvial fan draining off McDowell Peak). The gateway is the largest access "complex," with links to offices for the preserve and the city, extensive visitor facilities, and an ADA-compliant interpretive desert loop. The Sunrise, Pinnacle Peak, and Lost Dog Wash access areas have also been completed. The overall vision of all nine access areas (and the guidelines written to shape them) looks to each specific site to define the "vocabulary" of design. This makes the assemblage work as a complete vision even though each site is tailored to its local environment and therefore unique. Structures are built with on-site materials, and each landscape design is so integrated into the desert scape that it appears as if nothing was ever altered.

The genesis of the McDowell Sonoran Preserve occurred in 1991 with the incorporation of the McDowell Sonoran Conservancy, a private organization focused on advocacy, education, and stewardship. The conservancy subsequently joined the Land Trust Alliance in an effort to protect the McDowell Mountain region adjacent to Tonto National Forest. The nearly three-million-acre national forest connects southern Arizona's Sonoran Desert to the high Mogollon Rim, linking ecosystems that span more than 6,000 feet in elevation gain, which then join with the vast open space network of the Coconino, Apache Sitgreaves, and Prescott national forests to the north. Having contiguous open space between the low desert and the high rim is important for wildlife corridors as well as for the prevention of further sprawl in an area that has its share.

CHRISTOPHER BROWN, ASLA, TOP; BILL TIMMERMAN, BOTTOM



DESPITE SCOTTSDALE'S GROWTH, THE CITY HASN'T TURNED DOWN A SINGLE OPPORTUNITY TO ACQUIRE LAND TO AUGMENT THE PRESERVE.

In 1996 and then again in 1998 Scottsdale voters approved referenda (with more than 70 percent support) that increased taxes to pay for the acquisition and development of the McDowell Preserve. The preserve limits the city's growth to the north and east, but residents saw tourism dollars, which are largely dependent on the municipality's natural beauty, as more important than the development dollars that increase commercial expansion into the delicate desert. This is understandable, given that tourism accounts for almost 40 percent of Scottsdale's jobs, but still surprising in an area where "build and expand" has been the mantra for the past 20 years. Fortunately for sustainability advocates and residents, despite the area's growth, the city hasn't turned down a single opportunity to acquire land to augment the preserve since the referenda passed. The preserve now makes up approximately a third of Scottsdale's total land area.

The design process for the access points, which began in the early 2000s, is a slow and rolling endeavor, but as a result, there's been more time to foster public support and innovative approaches. The design team is led by Chris Brown, ASLA, the lead landscape architect from JJR/Floor in Phoenix, Phil

The preserve is an important growth boundary for development from the Phoenix metropolitan area. It ensures preservation of the land and access to open space in the face of sprawling development, *opposite bottom.* Four completed trailheads shown in the map, *top,* including one at Lost Dog Wash, *opposite top* and in the plan, *left,* have become an important asset to Scottsdale's list of public amenities as well as an example for nearby towns.

CASE STUDY: MCDOWELL SONORAN PRESERVE

Rachel Hill. "Gateways to the Desert." Landscape Architecture, March 2010: 100-111

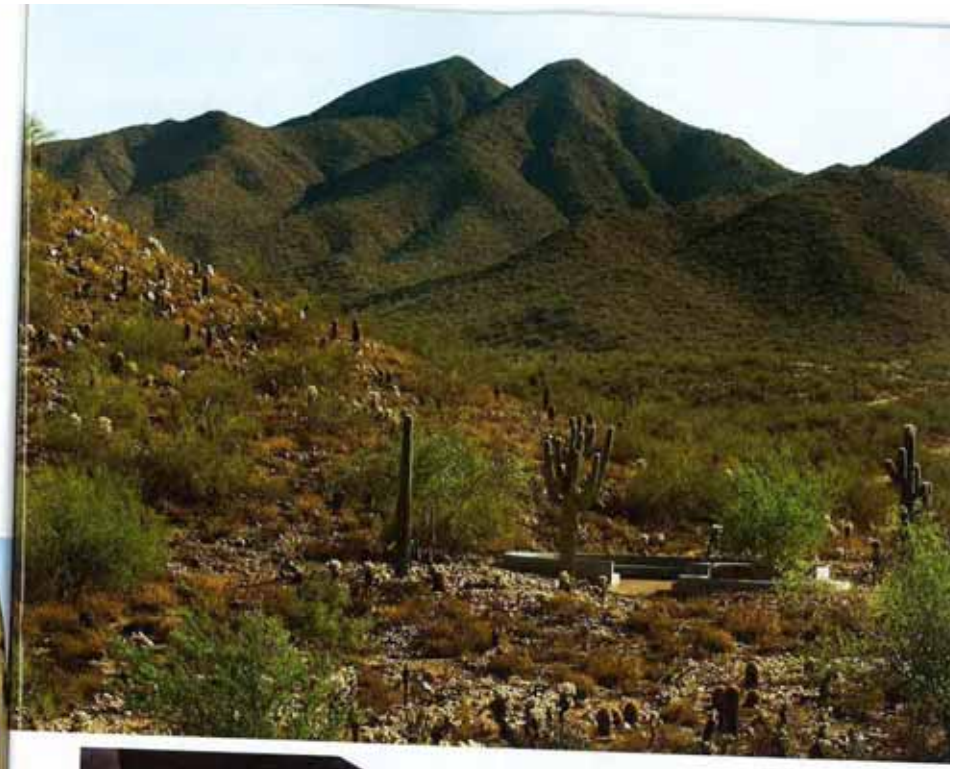
Weddle of Weddle Gilmore Architects in Scottsdale, and Bob Cafarella, who, as a recent retiree from his post as preservation director with the city of Scottsdale, is punctuating his career with this project. Scottsdale has pushed the technological envelope in the preserve's structures, but the focus on designing landscapes that appear created by nature's hand, unaltered by humans (and preserving the bulk of the landscape so that this remains actually the case), instead of blanketing the desert with bright green golf courses, makes the city a western pioneer.

THE THREE ACCESS AREAS... CELEBRATE THE TRANSITION INTO THE PRESERVE AND FOCUS UPON SPECIFIC SITE FEATURES.

The city could have paved a parking lot and installed a trail marker to send visitors on their way into the preserve. Instead, in the three most prominent access areas thus far it chose to create gateways: arrival spaces that celebrate the transition into the preserve and focus upon specific site features to commemorate the environmental individuality of the site and to teach the public about sustainable living in the desert. The preserve's Pinnacle Peak, Lost Dog Wash, and Gateway trailheads are the most elaborate of the access areas, but not because of ostentation or flamboyance. They simply have more facilities integrated into their sites. This allows them to function not only as points of departure into the trail network but as gathering places for classes, picnic areas, and, in the case of the Gateway Trailhead, a location for meetings and offices. Brown explained that the city designed Sunrise Access Area, a simple neighborhood trailhead, before realizing that they had "put the cart before the horse" and looked to JJRIFloor and Weddle Gilmore Architects to create guidelines for the entire vision. Since then the integrated (and subtle) elegance exhibited by the Pinnacle Peak and the Lost Dog Wash Trailhead have won a slew of architecture and landscape architecture awards, including an ASLA General Design Honor Award in 2008. The Gateway Access Area opened officially at the end of summer 2009 and has already won AIA awards and the 2009 Valley Forward Association Crescordia Award for Environmental Design Excellence.

Weddle believes the access areas are demonstration projects for sustainability. "You have to have access to get people in [to the preserve]," he says, "but in developing these things we can talk about so many different environments of sustainability." The "s" word seems oxymoronic in an overgrown metro area such as Phoenix, but access areas such as Pinnacle Peak, Lost Dog, and Gateway are needed for that precise reason. Scottsdale, for instance, has almost doubled in size in the past 20 years, now having a population of 240,000. The Phoenix metro area itself now has approximately 4.2 million people. Old citrus farms and virgin desert have become subdivisions, and water resources are so stressed that the Central Arizona Project Canal was built to pull 1.5 million acre-feet of water annually from the Colorado River to feed voracious and growing southern Arizona cities. Clearly efforts toward conservation and sustainability, as exemplified by the preserve, are needed now more than ever.

BILL THOMPSON



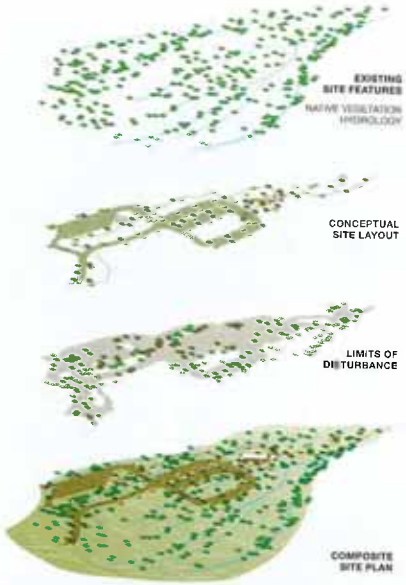
BILL THOMPSON

A mild winter climate makes the trails laced throughout the preserve an ideal place for trail running and hiking, with trailhead buildings, such as at Lost Dog Wash, *left*, serving as entry points. The trailheads are also used for interpretive programs. Concrete walls double as benches to form a round gathering space, *opposite*, carved subtly out of the desert, *top*, adjacent to the Lost Dog Trailhead.

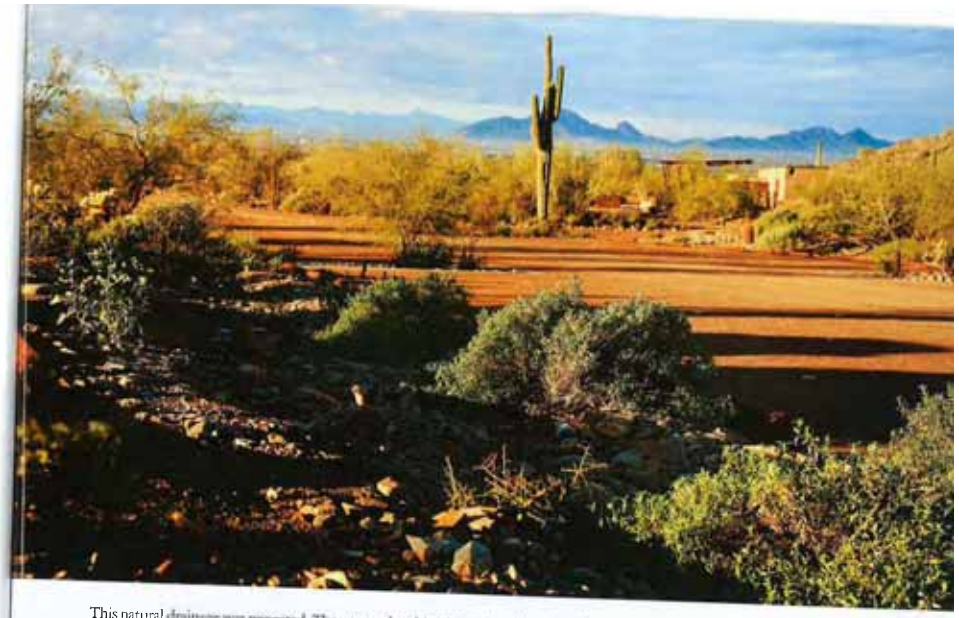
The McDowell Mountains share a common history of being open and wild land used occasionally for cattle, hunting, and recreation. The trail network within the preserve often follows old, existing routes, looping through valleys and over a couple of the prominent peaks in the range. Although most of the traffic is routed primarily to connect with the western edge and Scottsdale, the North McDowell Access Area is planned on the northern edge and trail connections bridge into the McDowell Mountain Regional Park (owned by Maricopa County) and the growing town of Fountain Hills to the southeast. How, then, can each trailhead tell a unique story? In the hands of the designers, the genius loci of each site became the basis for its design. The process began with intensive site analysis and planning that laid the foundation for a design rooted in the particulars of each location. This is particularly evident at the Lost Dog Wash Trailhead.

Nobody really knows how Lost Dog Wash got its name, but its larger story is more enigmatic than even its unusual name suggests. It was once a prehistoric hunting area and then a homestead. Larger washes (seasonal waterways) carve through the landscape, along with smaller paths that water etches through the desert, evidenced by subtle swaths of green vegetation growing along slopes.

The first concern during site planning was to leave the washes undisturbed, seen in the analysis of Lost Dog Wash at *right*. Parking lots, made of compacted desert soil, *opposite top*, are oriented to correspond to the existing drainage. Even the buildings are designed to seem a part of the desert, *below*. Lost Dog Wash's rammed-earth columns support a gently sloping roof that opens to the eastern sky over a sunken gathering space, *opposite bottom*.



JIM FLOOR (TOP); CHRISTOPHER BROWN, ASLA (BOTTOM)



This natural drainage was respected. The unpaved parking lot was made to fit like so many dominoes among the drainage patterns. Soil Sement, an environmentally sensitive polymer emulsion, was used to keep dust down, increase load-bearing strength, and help prevent erosion where the wash crosses the parking lot. Historic roads from the days when the Lost Dog Wash area was a family homestead site sketched the skeleton for siting buildings, paths, and parking and thus reduced the impact on the land. Essentially, history and nature gave form to the site.

The rammed earth used in the trailhead building suggests the colors and patterns of the geology of the area. Buildings at the Gateway Access Area also use rammed earth, whereas the Pinnacle Peak Access Area is constructed of traditional desert masonry (concrete studded with large rocks, a la Taliesin) because the site is a boulder field. A sunken gathering space at the Lost Dog Trailhead sits on the east side of the building, with wing walls that represent the summer and winter equinoxes. Sunrise is celebrated by a shed-roof-covered space that gently opens to the eastern sky. A round amphitheater used by docents and school groups sits under a rare crested saguaro *(Carnegiea gigantea)*. The neglected saguaro had been a victim of commercial development until it was discovered by a city worker and subsequently rescued and brought to the preserve, where it now stands sentinel. Some of the existing vegetation had to be boxed and moved to an on-site nursery before being replanted after construction. Many of the new plants were transplanted from a nearby area denuded for transmission lines. Existing slow-growing ironwood trees *(Olneya tesota)*, which can live for hundreds of years, are found throughout the site. These old desert "grandfathers" imbue the Lost Dog Trailhead with a sense of history.

But even as it respects history, modern technologies are woven into the trailhead's fabric. Efficient LED bollard lights are used in the parking lot to minimize energy consumption and light pollution. The composting toilets use a foam flush system, saving an estimated 200,000 gallons of water each year. The trailhead building supplies all of its own electricity with a 2,000-watt solar array. Equestrians, a user group that has been meandering through these mountains for more than 100

CHRISTOPHER BROWN, ASLA

CASE STUDY: MCDOWELL SONORAN PRESERVE

Rachel Hill. "Gateways to the Desert." Landscape Architecture, March 2010: 100-111

THE PRESERVE'S DESIGNERS...SUCCEEDED IN RESPECTING AND REPLICATING NATURE'S HAND.

years, can drive into an equestrian facility designed specifically for their 21st-century needs, with ample turnaround space for their trailers, water troughs (the only water piped into the Lost Dog is used for consumption by humans or horses), and a picnic area.

The newest completed trailhead, the Gateway Trailhead, tells the story of the bajada. A bajada is a delta that forms a sloping, braided drainage thick with native Arizona mesquites *(Prosopis velutina)*, creosote *(Larrea tridentata)*, foothills paloverde trees *(Parkinsonia microphylla)*, and teddybear cholla *(Cylindropuntia bigelovii)*. The rammed-earth trailhead structure sits on the bajada's edge. During heavy rains the braided channels in the bajada slowly fill, saturating the wet soil and releasing the scent of the creosote plants that wrap around the south side of the building. A sloping roof collects approximately 60,000 gallons of water throughout the year by means of a design that is not only efficient but also exhibits the water harvesting system to a curious public. The passive and elegant system uses simple gravity to convey the water into a channel that cascades over the edge of the roof into an exposed steel and rock catchment basin before being stored underground for future irrigation needs.

Interpretive elements like the water harvesting cascade and basin incorporate messages about water in the desert in a subtle way. A steel bridge forms a gentle elbow over the bajada, taking the visitor through a desert "canopy" walk among saguaro cacti and mesquite. The serpentine passages under the bridge are dry most of the year, allowing them to double as a wildlife conduit for mountain lions, javelina, and coyotes.

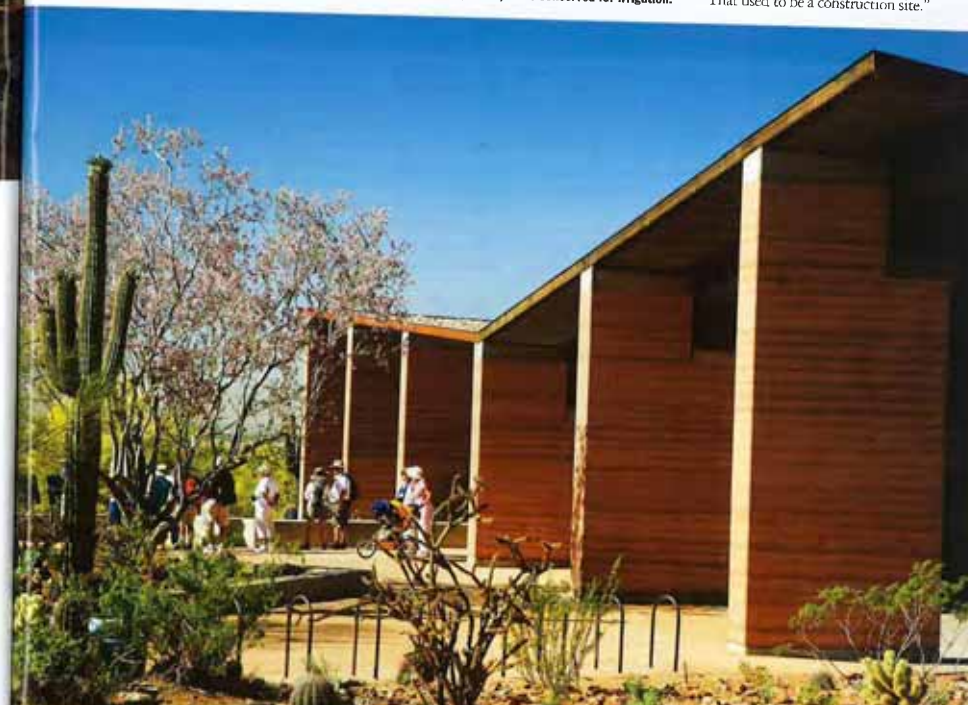
As the preserve's designers sought to interpret natural stories, they also succeeded in respecting and replicating nature's hand. All the rock and vegetation disturbed during construction was harvested and replaced. Brown instructed the contractors to put away their tape measures and simply scatter the rocks about. He wanted the landscape to mimic the embedded, natural patterns created by years of erosion by wind and water.

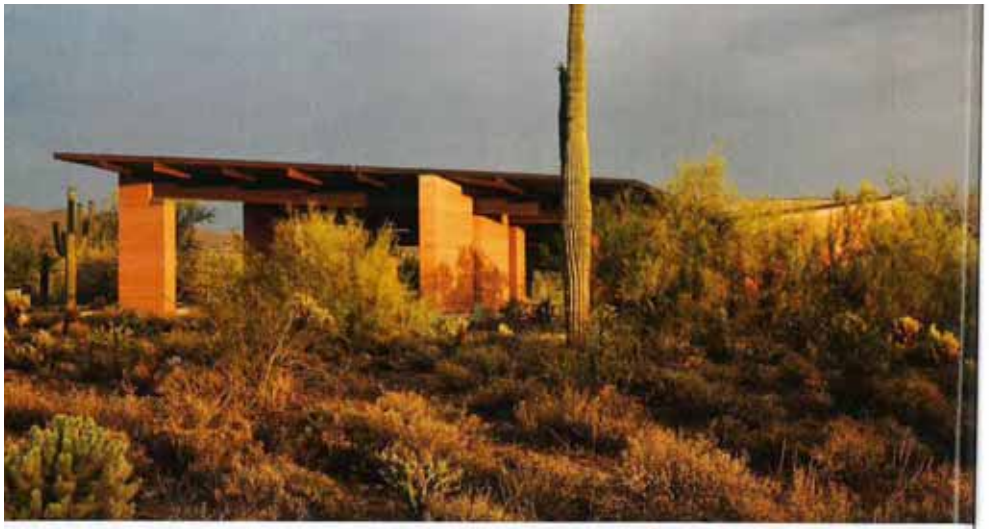
"See that over there?" he points. "That used to be a construction site."

CHRISTOPHER BROWN, ASLA

CHRISTOPHER BROWN, ASLA

The curvilinear form of the sunken amphitheater at the Gateway Access Area, *opposite top*, abstracts the arcs and bends of the braided wash within which it is nestled. A meandering bridge, *opposite bottom*, takes visitors over the shifting and fragile web of water channels. Gateway's building consists of rammed-earth pillars supporting a butterfly roof, *below*, that conveys 50,000 gallons of stormwater annually to a scupper where it cascades into a rock-filled basin, *above*, to be conserved for irrigation.





"If nobody knows you did anything then you did a good job." — Christopher Brown, ASLA

It is nearly impossible to see any lighter exposed desert soil amid the cholla and brittlebush. Brown likes it when people have to squint into the distance to try to make out construction scars. "It means we succeeded," he says, looking pleased. "If nobody knows you did anything then you did a good job."

As the amorphous preserve grows, it both links communities and constrains development expansion. The preserve connects nature and elements of the area's history. The Lost Dog trail overlooks Frank Lloyd Wright's desert-honoring Taliesin to the west. In some less palatable ways, natural desert processes are connected to human-modified ones. Washes that run from the McDowell Mountain peaks drain between neighborhoods and finally into the Central Arizona Project canal, exposing how we craft our own desert hydrology in the southwest. A great diversity of natural space exists within the preserve as well. Peaks overlook low valleys. Boulder fields look like moonscapes. On the southern slopes, giant saguaro cacti grow thick, while microenvironments created by a rain shadow or a slightly cooler peak may grow a "crop" of creosote or ocotillo. Brittlebush dies back in the fall while reseeding itself. In the spring, it bursts with yellow blooms. Teddybear cholla and fishhook barrel cactus comprise a spiny desert floor.

Whereas acquisition and preservation are the primary goals of the preserve and its access areas, the preserve's existence is dependent upon creating strong public support. Such support is generated by the creation of quality, interactive experiences that root people to the environment of which they are a part and educate them about sustainable desert living. Increased support from area residents requires access areas that accommodate large numbers of people from communities all around the preserve.

Many people move to the desert to "get away." Resolving this ostensible paradox (many of the people championing preservation live in homes newly built in the same fragile desert that they hope to protect) is exemplified in the way the access areas are designed. Reverence for the desert often comes with living within it, observing its seasons, "participating" with it by walking over its paths, or learning about its intricacies. Those who come to Arizona to live on a golf course may never truly understand this. The McDowell Preserve gives the public a way to understand and empathize with the desert, propagating a relationship between people and their landscape. The trailheads accomplish this by showcasing integrative ways of siting and building. They create flexible spaces that make visitors feel protected and sheltered if needed, but the spaces are open and fused into the desert and the trails beyond. The synergy that arises from this dynamic creates an environment that will help these preservation and sustainability efforts thrive and perpetuate. The respect of place creates the design, the subtlety of which camouflages the massive effort to protect the McDowell Sonoran Preserve over the past 20 years.

As the group of designers departed the Gateway Access Area, Scottsdale resident Barbara Drubka cycled to the trailhead on her mountain bike. She stuffed a trail map in her back pocket and looked tentatively at the interpretive signs hung between rammed-earth pillars. She said she felt inspired by the preserve. She even took a desert botany class to learn more about xeric plants. When asked what was so inspiring, she couldn't put her finger on it. She came from Chicago to retire in the desert. She is interested and sometimes intimidated by the high, dry mountains. The trailheads offer information, services, and a stepping-off point, while at the same time celebrating and foreshadowing the wild desert in front of her.

CHRISTOPHER BROWN, ASLA

The transition from the city to the desert is gradual as visitors pass under the Gateway building's sheltered butterfly roof, *opposite top*, and into the open but nestled sunken terrace, *opposite bottom*. The terraces and amphitheater are the transition from man-made structures to natural spaces. The striation of the rammed-earth walls, *below*, mimics the geology of the McDowell Mountains behind, while careful preservation and restoration of the landscape erases any construction scars.

CHRISTOPHER BROWN, ASLA

Rachel Hill, Student ASLA, recently received her master of landscape architecture degree from the University of Arizona and is currently a Fulbright Scholar in Croatia.

Project credits Lost Dog and Gateway Trailheads **Client:** City of Scottsdale Parks and Recreation, Scottsdale, Arizona. **Landscape architect:** DLR Group, Phoenix (Christopher Brown, ASLA, lead designer). **Architects:** Weddle Gilmore Architects, Scottsdale, Arizona. **Civil engineering:** Kland Engineering, Scottsdale, Arizona. **Structural engineer:** Bakkum Noelke Consulting, Phoenix. **Electrical engineer:** Woodward Engineering, Tempe, Arizona. **Mechanical engineer:** Associated Mechanical Engineers, Tempe, Arizona. **General contractor:** Valley Rain Construction Corporation, Tempe, Arizona.

Resources

- McDowell Sonoran Conservancy, *www.mcdowellsonoran.org*

CASE STUDY: MCDOWELL SONORAN PRESERVE

Rachel Hill. "Gateways to the Desert." Landscape Architecture, March 2010: 100-111

Geothermal springs offer respite in the Chilean desert and Patagonia.

Hot Spots, Hot Water

By Jimena Martignoni

TWO SUCCESSFUL landscape architecture projects are located on opposite ends of Chile: the Puritama Hot Springs *(Termas de Puritama)* and the Geometrical Hot Springs *(Termas Geométricas)*. The sites of the two springs reflect the landscape diversity of Chile: from the world's driest desert, the Atacama Desert in the north, to the exuberant woods and blue lakes of Patagonia in the south, along the country's approximately 2,700-mile length. However, there is a dominant physical feature that extends that entire length, from the Bolivian plateau to Tierra del Fuego, visually and geologically connecting many Chilean landscapes: the Andes. As part of this mountain system, hot springs are dispersed throughout the country.

The two hot springs projects are the work of one designer who is highly respectful of local natural attributes. Germán del Sol is a Chilean architect whose projects have involved landscape design. He has been shifting his architect's vision to become more open and inclusive, focusing on site-specific design. After studying in Barcelona and working in the different regions of Chile, he has become one of the country's most recognized designers. Del Sol's design for the hot springs takes advantage of four natural features: the northern desert, the southern lakes, the Andean mountains, and the geothermal waters.

The thermal baths in the northern desert are an unexpected gift much appreciated by locals and visitors: a subtle line of water and life hidden in one of the driest places on Earth. Conversely, the thermal baths in the southern woods are an overwhelming experience of water—a flowing river, pools, steam, and, if one gets lucky, a refreshing rain in summer or a light snow in winter.

What a contrast between two springs! In Patagonia, above, the central boardwalk enters the stony canyon where the Termas Geométricas were designed. To the left are the grass-roofed dressing rooms where people can change and leave their personal items. In the northern desert, opposite, one of the pools in Puritama is thickly framed by Andean pampas grass, a native ornamental plant that grew moderately at the site and now, after the irrigation plan was implemented, grows exuberantly.

HOT SEASONS: THE FOUR JOURNEY-MAP SEASONS, SPRING 2015

Puritama Thermal Springs

The Puritama thermal baths are 21 miles from San Pedro de Atacama, an oasis 8,000 feet above sea level created by the rainfall of the Bolivian altiplano winter in the Atacama Desert. In the middle of a landscape of arid mountains colored in red, ocher, and sepia (depending on the morning, noon, or evening light), the town of San Pedro emerges as an isolated green node of life.

This city, first settled by the *atacameño*—a local farming culture—was conquered in 1425 by the Incas and then by the Spaniards in 1535. While the Chilean community at large does not have a completely mature environmental awareness yet, small towns like this one are starting to take good care of their cultural and natural heritage.

The Puritama geothermal river flows along an almost 1,000-foot-deep crack carved in the rocky desert mountains, bubbling out as springs at 86 to

92 degrees Fahrenheit. The name *Puritama* actually comes from *puri*, which means water, and *tama*, which means hot.

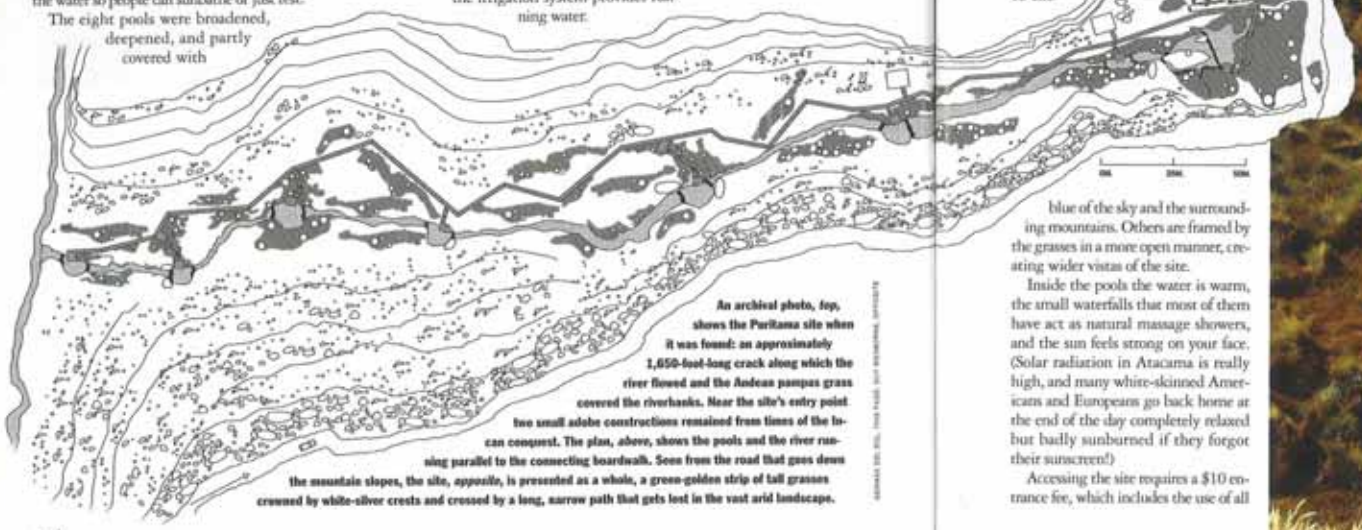
When del Sol visited the site for the first time, it was basically a 1,650-foot-long crack along which the river flowed and where the riverbanks were covered with Andean pampas grass or *cola de zorro (Cortaderia atacamensis)*, an ornamental native plant. Along this linear natural system, some pools of hot water carved out by local people in ancient times remain, along with two adobe buildings *(kayankas)* near the site's entry point that were constructed by the Incas when they conquered northern Chile.

This scene is what del Sol worked with after the land was bought by the Atacama's Explora Hotel. He proposed the Pueblo Atacameño Council as the managing organization for running and taking care of the site. Archaeologist Carlos Aldunate del Solar, director of the Pre-Columbian Museum in Santiago, was the specialized consultant at the site who worked hand in hand with del Sol.

The Puritama Thermal Springs make reference to the atacameños culture with white-painted dressing rooms that echo the emblematic white architecture of the town of San Pedro de Atacama. A wooden boardwalk crosses the site about one foot above river level, allowing the grass underneath to grow and giving visitors access to the different pools and resting spots. When the boardwalk reaches the pools, it widens and creates small terraces that face the water so people can sunbathe or just rest.

The eight pools were broadened, deepened, and partly covered with stone walls. As a consequence of the drip irrigation system that was added by the designer, the Andean pampas grasses now grow exuberantly in thick masses that hide the stone structures, while their silver crests attract light and create a mystical effect during certain times of the day.

Two minimalist-looking white box-shaped buildings stand close to the main access, each of them offering a bathroom, a dressing room, and a sauna. The same small collecting pool that feeds the irrigation system provides running water.



An archival photo, *top*, shows the Puritama site when it was found: an approximately 1,650-foot-long crack along which the river flowed and the Andean pampas grass covered the riverbanks. Near the site's entry point two small adobe constructions remained from times of the Incan conquest. The plan, *above*, shows the pools and the river running parallel to the connecting boardwalk. Seen from the road that goes down the mountain slopes, the site, *opposite*, is presented as a whole, a green-golden strip of tall grasses crowned by white-silver crests and crossed by a long, narrow path that gets lost in the vast arid landscape.

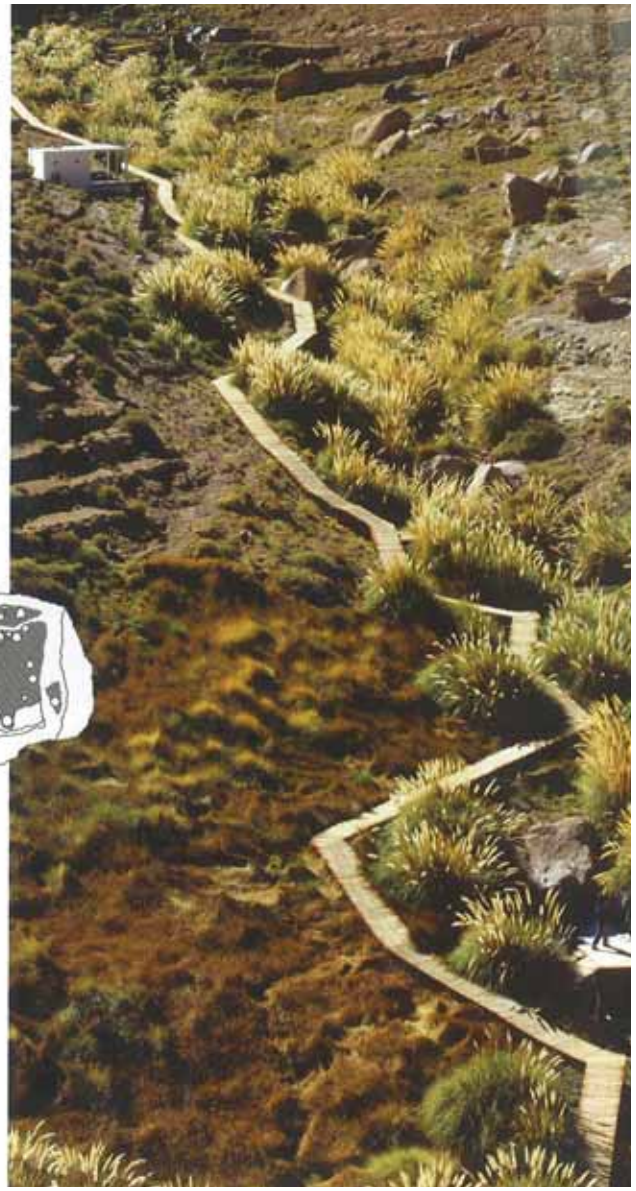
The kayankas, or small Incan shelters, were restored and rehabilitated as administration offices, and new straw roofs were added that are reminiscent of the original construction materials.

Seen from the road that goes down the mountain slopes, the site is presented as a whole, a green strip of tall grasses crowned by white-silver crests and crossed by a long, narrow path that gets lost in the vast arid landscape. The path, painted dark red, creates a major color contrast with the grasses and with the sepia and gray hues of the enclosing mountains.

The site's parking area is on a plateau at the same level as the site itself. From here, visitors leave their cars and step onto the boardwalk entry point surrounded by the tall Andean pampas grass, which screens each turn the boardwalk makes. Visitors literally discover the pools and the terraces shaped by the boardwalk while walking it. Some terraces are completely surrounded by the Andean grasses, making them isolated, intimate spots from which the view is reduced to the blue of the sky and the surrounding mountains. Others are framed by the grasses in a more open manner, creating wider vistas of the site.

Inside the pools the water is warm, the small waterfalls that most of them have act as natural massage showers, and the sun feels strong on your face. (Solar radiation in Atacama is really high, and many white-skinned Americans and Europeans go back home at the end of the day completely relaxed but badly sunburned if they forgot their sunscreen!)

Accessing the site requires a $10 entrance fee, which includes the use of all



CASE STUDY: PURITAMA THERMAL SPRINGS

Jimena Martignoni. "Hot Spots, Hot Water." Landscape Architecture, August 2006: 92-101.

amenities for the day. However, the atacameños people, who had historically "owned" the springs, have free admission to these thermal baths.

The construction of Puritama took no more than three months, but the installation of the drip irrigation system and the restoration of the Incan shelters, which were done in phases, delayed the finish. The site was opened to the public in 2000.

In Puritama there are two minimalist-looking white box-shaped buildings, each of which offers a bathroom, a dressing room, and a sauna. The running water is provided by the same small collecting pool that feeds the irrigation system.

Both the design and construction were a 100 percent in situ process in which del Sol, together with other people from his office, worked at the site marking the boardwalk's exact placement with ropes and then translating the design onto paper.

In San Pedro de Atacama, farming areas take turns being watered; common cisterns that are part of a system of channels fed by local rivers provide water on a very rigid schedule that everyone respects. The urban area has running water only during the day. In contrast, the Andean woods of Patagonia or "area of the lakes," as it's called in Chile, benefits from a great deal of water—as much from an ecological perspective as from a visual one.

Geometrical Thermal Springs

These thermal baths are located 62 miles from Pucón, one of the most beautiful Patagonian cities in Chile, situated by the still-active Volcano Villarrica. From Pucón two different roads can be taken, one of them only possible with a four-wheel-drive vehicle, both going up to 6,500 feet, where the springs flow.

Del Sol discovered the site after a 15-year search following Spaniards' chronicles that described mystical sites with geothermal waters.

The site is a 1,800-foot-long stony canyon. He hardly noticed the river waters that run through this linear canyon when he first surveyed the site, because the length of it was covered with dirt, stones, and logs. The land belonged to a private logging hacienda, one of the few remaining inside the 156,000-acre Villarrica National Park.

In 2002, del Sol rented the place with a 30-year lease and began clearing it out, a process that took a whole year and filled more than

The geothermal river flows along a 1,650-foot-deep crack in the desert mountains.

100 trucks with trash and dirt. As a result, the river started flowing faster and moving an average of five gallons of water per second, when previously it moved fewer than one.

To accomplish a sound environmental excavation, del Sol worked with a team of mine engineers, hydrologists, and geologists. To find the exact location of the springs they used thermometers that indicated the spots where the land was hotter. Digging carefully at those locations, they marked 60 hot water pools where the temperature is approximately 185 degrees Fahrenheit.

The Geometrical Thermal Springs owe their name to the geometrical configuration of the site, which is set against the luxuriant organic lines of the wilderness setting. "I wanted to tame nature, but at the same time emphasize it," says del Sol. "This is a space framed by a wild environment that I intended to make livable, but I also meant to stress disparity."

One of the biggest differences from

One of the first pools visitors encounter when walking into the Puritama site, *above*, is next to the kayankas, or small Incan shelters, that were restored and rehabilitated as administration offices. The connecting boardwalk meanders, *below*, echoing the original flowing river. When visitors are not in the pool or sunbathing, they can take a relaxing walk along this path.

Puritama was that when the conceptual layout started taking form, no pools existed, and del Sol knew he had to design them from scratch. Referring to the intentional contrast of the new design with traditional natural forms, he says, "Designing them as if they had been naturally shaped made no sense, so that's when I decided to apply geometry and lay them out as geometrical pools, surrounded by geometrical shapes."

To take better advantage of the strong natural setting, the geometrical pools are placed on both sides of the central boardwalk, facing the canyon's walls. Concavities in the canyon walls outline the pools' inner sides.

Del Sol intended to create a self-contained space accessed by a "round-trip" circuit, with just one entrance through which people enter and leave the site. The space is therefore physically contained not only by the canyon's stony walls, which are impossible to climb, but also by the man-made structure of the boardwalk.

The geometrical pools are placed on both sides of the central boardwalk, facing the canyon's walls.

At Geometrical Thermal Springs, a light steam is constantly rising into the air, top, and the central boardwalk is kept warm even on cold days because the thermal water is collected from 60 springs by polypropylene tubes that feed to a main wooden open channel that runs underneath the boardwalk. Compare this scene with the photo, *opposite left*, of the "before" condition of the canyon. The Geometrical Thermal Springs shown in the plan, above, owe their name to the geometrical configuration of the site, which is set against the luxuriant organic lines of the wilderness setting. Today, as a consequence of the humidity generated by the water and steam, the canyon walls, *opposite right*, are covered with lush green vegetation native to the area.

The humidity generated by the water and steam has led to the walls being covered with lush green vegetation native to the area. Large ferns, mosses, and philodendron species wrap the stone, crowned by the typical coihue forest (*Nothofagus dombeyii* or southern beech) of Patagonia.

Del Sol uses old Mapuche (Patagonian aboriginal groups) techniques to regulate temperature and to channel the water using gravity. "Routing the water all through the site with a typical sealed piping system would not match the site's concept and, even worse, would turn into a problem for cleaning, maintenance, and heat loss," says del Sol. "What is inherent to hot springs is that they keep the heat while openly flowing."

The thermal water is collected from every one of the 60 springs by polypropylene tubes that feed to a main wooden open channel that runs right underneath the central boardwalk, all along the site. This keeps the boardwalk warm even during cold days, and a light steam is constantly rising into the air.

The flowing water in the main central channel, with a temperature up to 185 degrees Fahrenheit, is circulated to five retention pools through wooden closed distributors. Once the reposing water there cools down to approximately 102 degrees, it's sent through the same kind of channels to 12 bathing pools.

The pools are cleaned every three days to maintain them and prevent health problems. They are emptied at four in the morning and cannot be used until the afternoon, when the temperature is appropriate for bathing, so the cleaning schedule is rotated to keep some pools in use while others are being cleaned.

CASE STUDY: PURITAMA THERMAL SPRINGS

Jimena Martignoni. "Hot Spots, Hot Water." Landscape Architecture, August 2006: 92-101.

People spend the day at the thermal baths, especially during the summer. In February the number of visitors can reach up to 280 per day.

The central boardwalk runs along the entire site following the natural topography, making some angular turns that make the walk and the scene more dramatic. As in Puritama, the boardwalk is painted red, but here the grass-roofed dressing rooms are also painted in that color. To one side of the boardwalk, the cold river water flows constantly without mixing with the water of the hot springs. After bathing in the pools, visitors have the option of going into the river.

At the Termas Geométricas, the experience of the site is one of adventure, mystery, and literal fogginess. Just getting to the site involves a long drive. Once there, visitors leave their cars and walk five minutes to the entrance, where they are provided with towels and keys to lockers located inside the dressing rooms. People walking up and down the boardwalk, bathing, or chatting; the steam filling up the environment; the green fully covering the canyon walls and contrasting with the red of the central boardwalk; and the super hot water of the pools all create a fantastic experience for the senses.

> The steam filling up the environment, the green fully covering the canyon walls and contrasting with the red of the central boardwalk, and the super hot water of the pools all create a fantastic experience for the senses.

Even though the long ride through the Patagonian woods and towns is well worth the experience, one could argue that accessibility to both sites is limited to those who have a car or can afford a ride up there, but generally speaking, people gather in groups and find ways to make the trip less expensive. In February, during the Chilean summer break, the number of visitors to the Geometrical Thermal Springs can reach up to 280 persons per day; the rest of the year the number goes down to an average of 50.

After the long ride it takes to get to these sites, visitors perceive them almost as "hidden treasures." But they shouldn't be, for water is, literally, a precious source of life. The issue that arises here is to what extent these sites should be more accessible and how local governments could become more involved in this kind of development in Latin America. LAM

Jimena Martignoni is an independent landscape architect and researcher in Buenos Aires, Argentina.

Awards

The Puritama Thermal Springs have received several awards, including an honorable mention at the 12th Biennial of Architecture of Quito, Ecuador, in November 2000; a gold medal in 2001 at the International Architecture Biennial of Miami; and the 2001 Arup World Architecture Award for Best Project in Central/South America.

The Geometrical Thermal Springs earned first place in the 14th Architecture Biennial of Santiago, Chile, in November 2004, and took the Grand Prix of the Landscape Architecture Look from Home exhibition and competition held at Dom na Bresteskoy in Moscow in October 2005.

People walk up and down the boardwalk, *right*, bathe alone, or chat in groups, *below*, in some of the 12 bathing pools at Termas Geométricas. The flowing river, the super hot water of the pools, the steam, and the green surrounding landscape create an overwhelming experience for the senses.

ISSUES

Location of the Natural Water source on the site? How does this relate to the to the Spa location?

Trail map information needs to be provided to the Design Team.

Accommodating site security during off-hours.

Consider 1 Miracle Hill Road as the project address.

Visibility of the San Andreas Fault liniment on the site.

Create a variety of ways to experience the water not exclusive to the Spa experience, but throughout the site.

Reduction of site parking while accommodating the site needs.

Integration of shaded parking.