

A PLAN FOR
THE INTERPRETATION OF

CARLSBAD CAVERNS
NATIONAL PARK

NEW MEXICO

1996

prepared by the
Division of Interpretive Planning
Harpers Ferry Center
Harpers Ferry,
West Virginia

approved by
Superintendent
Frank Deckert
by memorandum of
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INTRODUCTION

Carlsbad Caverns National Park is located in the southwestern portion of Eddy County, New Mexico, within the state's Second Congressional District. The park entrance is 20 miles southwest of Carlsbad, New Mexico, near U.S. Route 62/180, at the western edge of White's City. The park extends southwestward along the northeastern Guadalupe Ridge/Escarpment for about 21 miles, and is approximately six miles wide at its widest point.

The park has been administered by the National Park Service since October 25, 1923. Originally proclaimed a national monument of 720 acres by President Coolidge, Congress changed its status to a national park on May 14, 1930. Carlsbad Caverns National Park now contains 46,776 acres of rugged mountain/desert area on the northeastern slope of the Guadalupe Mountains, and includes over 80 known caves. Elevations range from 3,600 feet to 6,350 feet above sea level.

This interpretive plan was developed in conjunction with the General Management Plan (GMP) for Carlsbad Caverns National Park. Using the statements of purpose and significance, plus the primary themes and visitor experience objectives developed in the GMP, the interpretive plan develops visions for the park's interpretive future, and identifies the media and programs best suited for meeting visitor needs and telling the park stories.

This plan is not an end in itself, but rather the foundation for the next phase of the process - media planning, design, and production.

PARK PURPOSE

As stated in the park's GMP, the purpose for the establishment of Carlsbad Caverns National Park is to:

preserve and protect cave resources, the Chihuahuan Desert ecosystem, and the Guadalupe section of the Capitan Reef in Carlsbad Caverns National Park, as well as associated natural and cultural resources.

provide a range of opportunities for public use, enjoyment, and understanding, while minimizing impacts on park resources and natural processes.

facilitate research to provide a continuum of information in support of interpretation, management decisions, and the general body of scientific knowledge.

RESOURCE SIGNIFICANCE

The following statements from the GMP summarize the significance of the park's resources, and capture the essence of the park's importance to our natural and cultural heritage.

As a World Heritage Site, Carlsbad Caverns National Park contains large caves of international importance that have beautiful and varied speleothems, as well as the Big Room in Carlsbad Cavern, which is the largest, most easily accessible chamber in North America.

Lechuguilla Cave is the deepest and fourth longest cave known in the United States, and it contains speleothems found no where else in the world.

Carlsbad Caverns National Park preserves a portion of the Capitan Reef - one of the best preserved, exposed Permian age reefs in the world. The park provides visitors with unique opportunities to view this reef from the inside.

The Capitan Reef has exceptional potential for additional cave discovery, exploration, and research.

The park contains one of the few protected portions of the northern Chihuahuan desert ecosystem.

Carlsbad Cavern has a world-famous colony of migratory Mexican free-tail bats.

Many species of plants and animals in the park are at the limits of their geographic distribution, including the northernmost and largest colony of migratory cave swallows in the United States.

Guadalupe Mountain caves contain one of the continent's most diverse and undisturbed assemblages of extinct Pleistocene fauna.

The park's cultural resources represent a long and varied continuum of human use from prehistoric times to the present, illustrating adaptations to this desert environment.

The Capitan Reef provides extraordinary scenic vistas, both from the top of the escarpment and from the rugged canyons below. The quality of these vistas depends on excellent air quality.

VISITOR EXPERIENCE OBJECTIVES

With the implementation of the General Management Plan and this Interpretive Plan, visitors to Carlsbad Caverns National Park will have opportunities and/or incentives to:

- receive information and orientation about the park both before and after arrival in an efficient and effective manner.
- develop an appreciation of the fragility and diversity of the park's resources, and how their preservation depends on our stewardship of the earth.
- tour Carlsbad Cavern; view the magnificent scenery; and, experience moments of solitude in the cathedral-like setting of this vast underground environment.
- leave the park with a clear understanding of the primary interpretive themes, an appreciation of the role of the NPS, and a sense of satisfaction with their visit.
- recognize the lure of the unknown and the thrill of discovery as part of understanding and appreciating the park resources, including the extent of Lechuguilla Cave and other caves in the park, even though most people will not have an opportunity to enter them.
- participate in activities that mitigate the effect of human use on cave and surface resources.
- extend their visit in the area or to plan their trips during slower seasons of the year.
- experience and appreciate the broad range of park resources, including the desert ecosystem, wilderness, historic sites, caves and canyons, in ways that minimize resource impacts.
- have safe, convenient, and efficient access to park resources, including a well designed and maintained surface and subsurface trail system.
- choose from a variety of cave and surface interpretive experiences.

PRIMARY THEMES

Primary interpretive themes are those ideas/concepts about the Carlsbad Caverns National Park that we would like every visitor to understand. These themes provide the foundation for all the interpretive programs and media developed in the park. The themes do not include everything we may wish to interpret, but they do cover those ideas that are critical to a visitor's understanding of the park's significance. All interpretive efforts (both media and personal services) should relate to one or more of the themes, and each theme should be addressed by some part of the overall interpretive program.

The following themes will provide the basis for interpretation at Carlsbad Caverns:

--Water, geologic forces, climate changes, and time have produced and changed the spectacular caves and fossil reef of the Carlsbad region - a process which continues to the present day.

--Caves contain fragile environments which are affected by human activities and natural conditions both underground and on the surface.

--The discovery and extent of Lechuguilla Cave, along with continuing discoveries in other caves in the park, adds immense potential for scientific research.

--Survival of the park's large bat populations, which in some cases cross international borders, depends on our better understanding of their value, fragility, and place in the ecosystem.

--Upon closer examination, the Chihuahuan Desert reveals complex natural processes which yield an astounding abundance and diversity of plant and animal life.

--Human activities in the region include prehistoric and historic Native American occupations. European exploration and settlement, industrial exploitation, commercial development, and tourism have each left reminders of its presence, and each has contributed to the rich history of the area.

--The condition of underground and surface resources, as revealed by continuing research in the park, can serve as an indicator of the overall environmental health of the region and the planet.

EXISTING VISITOR EXPERIENCE AND CONDITIONS

Regional Information

Visitors to Carlsbad, New Mexico, can get information about the park at a small NPS contact center in town which also houses the park's administration offices. This facility contains an information desk, a small cooperating association sales outlet, and an audiovisual program designed to orient visitors to the park and other attractions in the region. The center also dispenses information and sales items regarding Guadalupe Mountains National Park.

The park works closely with the Carlsbad Chamber of Commerce and area motel operators in offering training programs for their employees on dispensing accurate information to visitors. Employees who complete the training are given a park pass so they can remain current on park facilities and programs.

As visitors approach Whites City, a highway sign instructs motorists to tune their radios to the park's TIS broadcasting stations for information aired in English and Spanish. Wayside exhibits at the first pullout inside the park entrance also present information about cave tour options.

Entrance Road

From the park entrance, a seven-mile drive leads visitors to the park visitor center. Along this road, a number of pullouts provide opportunities for visitors to view and learn about aspects of the Chihuahuan Desert and associated elements of human history. Most of these pullouts are marked with "Exhibit Ahead" signs. Wayside exhibits interpret these resources, and in some cases, visitors must take a short trail to view key features.

Few visitors entering the park take advantage of these stops. The park staff feels that most people are intent on reaching the visitor center and getting into the cave. More visitors stop on their way out of the park, although, even then, one rarely sees more the two to four vehicles at any pullout.

Visitor Center

Upon arriving at the visitor center, most visitors are primarily interested in getting into the cave. Wayside exhibit kiosks outside the entrance provide information regarding the Big Room, Natural Entrance, and Kings Palace tour options. Visitors also can use credit card machines in this location to purchase cave tour tickets.

Inside the main entrance visitors cross the lobby to the information and ticket sales desk. Here, information on tour options is repeated. Visitors can approach one of two ticket sales counters, or they can come to the information desk to speak with a ranger. On peak days visitors can stand in long lines for tickets - lines that often extend well into the exhibit areas of the lobby, and occasionally outside the building. Visitors can leave their pets at the concession operated kennel, and rent a locker to store items while touring the cave. Rest rooms are located behind the information/ticket sales desk.

After purchasing their tickets, most visitors either cue up at the elevators or walk the quarter-mile path to the natural entrance. Before leaving, visitors can opt to rent a portable radio receiver which broadcasts interpretive messages in English and Spanish at numerous stops along the tour route. Before boarding the elevators, a ranger gives visitors a short orientation talk regarding safe and proper conduct while touring the cave. Near the natural entrance (or at the east end of the visitor center) groups of visitors also are gathered for a similar orientation talk. Restrooms near the natural entrance offer a last opportunity before visitors begin the three-mile tour.

In the visitor center visitors also can look at a variety of interpretive exhibits, attend a short audiovisual program on the bats in the park shop in the cooperating association bookstore or concessioner gift shop get something to eat in the restaurant, or climb the stairs to the observation platform at the top of the building. Most people, however choose to visit these areas after they have toured the cave.

Cave Tours

For the majority of visitors touring the cave is a self-guiding experience. A portion of the Big Room is accessible for wheelchairs. A combination of backlit wayside exhibits and the radio receivers provide the interpretive messages along the way. Roving rangers and volunteers are available to talk with visitors, answer questions, and give impromptu talks.

Employees also provide a level of protection to cave resources and are able to respond to visitor emergencies. However, even with a ranger present and the use of electronic security systems, the park estimates the loss or damage of over 2,000 cave features each year.

All visitors return to the surface via the elevators. Rest rooms, an underground lunchroom, and souvenir stands are located near the elevators.

In addition to the two self-guiding tour options, the park offers a variety of guided cave tours. Chief among these is the newly instituted Kings Palace tour in Carlsbad Cavern. Formerly, these beautifully decorated rooms were part of the self-guiding natural entrance tour, but in an effort to curtail resource damage, the rooms are now accessible by guided tours only.

Other guided tours lead visitors to Lower Cave, Hall of the White Giant, and Left-Hand Tunnel in Carlsbad Cavern, and to Spider Cave and Slaughter Canyon Cave in other sections of the park. Reservations are required, and for some tours visitors must meet age requirements and be physically able to meet the challenges of the tour. These tours offer a range of caving experiences from gentle strolls to rugged excursions.

Surface Activities

Besides the cave itself, one of the most popular attractions in the park is the evening exodus of up to one million Mexican free-tailed bats from the entrance of Carlsbad Cavern. During the season when the bats occupy the cave, rangers present evening interpretive talks while visitors await the nightly flight. These programs are conducted in an amphitheater located within view of the cave's natural entrance, and during the peak summer season attendance can often exceed 1,000 people.

To better experience and learn about the nature of the Chihuahuan Desert, visitors can walk a half-mile nature trail that begins near the visitor center. Small wayside exhibits identify many of the desert plants and also point out an area once used for mining bat guano at Carlsbad Cavern.

In addition to the pullouts along the park entrance road, another way to experience the desert is to drive the nine-mile unpaved loop road into Walnut Canyon. At the start of the loop visitors can purchase a self-guiding brochure and use it at the numbered stops along the route.

Rattlesnake Springs, located off the escarpment, is the park's source of water. This desert oasis is rich in birdlife, and the site was a focal point in the history of the region. While its historical significance is not currently interpreted, Rattlesnake Springs attracts many bird watchers. The park has developed a picnic area near the site of a former CCC camp.

VISITATION AND VISITOR USE DATA

The following information regarding visitation to Carlsbad Caverns National Park is extracted from that developed for the park's General Management Plan. Other information comes from a visitor survey conducted by Texas A & M University in 1988, a 1987 Carlsbad Tourism Survey, and the park's Annual Statement for Interpretation. Total annual visitation over a ten-year period (adjusted for current counting procedures) is shown in the table below:

YEAR	VISITS
1986	589,802
1987	562,857
1988	565,956
1989	578,937
1990	561,963
1991	580,512
1992	588,255
1993	596,909
1994	617,087
1995	588,609

This plan addresses interpretive proposals for three main units of the park - Carlsbad Cavern, Slaughter Canyon Cave, and Rattlesnake Springs. The following table shows visitation data for these three sites for the same ten-year period. The figures have been adjusted to reflect current counting procedures.

YEAR	CARLSBAD CAVERN	SLAUGHTER CANYON	RATTLESNAKE SPRINGS
1986	546,462	5,529	8,658
1987	519,289	5,767	9,873
1988	523,682	5,861	8,153
1989	537,870	6,034	6,498
1990	517,507	6,541	9,715
1991	536,787	7,098	7,371
1992	459,073	6,912	1,788
1993	550,421	6,031	9,421
1994	528,355	5,398	28,799
1995	508,763	5,656	22,072

This table shows a decline in visitation since the early 1980's, but from 1987 to 1992 visitation seems to have reached a plateau and has even increased an average of just under one percent per year. Since the number of visitors to Carlsbad Cavern is constrained by the capacity of the elevators, a leveling off of visitor use is to be expected. Further growth in visitor use may come about if more people choose to come to the park during the spring, fall or winter.

Likewise, Slaughter Canyon Cave is limited, as visitor use is dependent upon having park staff available to lead guided tours. The number of visitors per tour is restricted to 25.

On average, 85% of the park visitors arrive between March and October with almost 50% coming in June, July, and August. Visitation is heavy on most holidays, especially around Thanksgiving, July 4th, Labor Day, Easter, and between Christmas and New Years Day.

Weekend travel usually exceeds weekdays. Peak use times are from 8:30 a.m. to 11:30 a.m. and from 1:00 p.m. to 3:30 p.m. daily. Visitation continues to be primarily day-use in nature and is concentrated in the main cavern. The average length of stay is about four hours in the park and one day in the area; however, with the increased variety of tours offered at the park, more people are staying longer.

Most visitation to Carlsbad Caverns is national in origin and geographically widespread. Approximately 85% of the visitors are from outside the local area. Periodic surveys have consistently shown the largest numbers of visitors coming from Texas, New Mexico, and California. Most visitors arrive by private vehicle via U.S. Highway 62-180 between El Paso, TX, and Carlsbad, NM.

The Carlsbad Tourism Survey found that 31% of the visitors had been to Carlsbad before. Regarding their length of stay, 69% indicated they planned a visit of one day or less (not planning to spend the night). Finally, 87% of the respondents listed Carlsbad Caverns as the attraction they enjoyed most during their visit.

THE PLAN

The following is a description of programs and media proposals which further define the visions, objectives, and story elements of the interpretive program for Carlsbad Caverns National Park. The discussion of each program and media proposal identifies its purpose, special considerations, and suggested means of presentation. It is important to remember that the latter are only suggestions, and should not in any way limit the essential creativity during the media planning and design process. On the other hand, the proposals will be specific enough to define the parameters in which these creative juices can flow.

Regional Information/Orientation

There is a strong need for visitors to receive information about the park at several points in their decision making process: at home while planning their visit, on their way to the park, upon their arrival at the park, and in the visitor center.

All means of providing this information should be explored, including, but not limited to, the World Wide Web, a toll-free information line, promotional information in print, broadcast cable and satellite media, highway signs where local roads join interstate highways, pre-visit packets, mail-out audio/video information tapes, and on-line orientation videos along the walk from the parking lot to the visitor center. In addition, the park should pursue partnerships with the State Department of Tourism, local Chamber of Commerce, and other entities to accomplish orientation and information goals.

The park staff would continue to provide training programs for area motel operators, Chamber of Commerce personnel, and others involved in the region's tourism industry. The training would insure that day and overnight visitors to the region receive accurate and up-to-date information about the park. In return for their participation and to make the training an on-going process, those who complete the training would continue to be given a pass to visit the park.

In addition to the training program, the park would continue to provide park literature to area motels and tourism centers. The park also would work closely with motel operators and cable television companies to have park information broadcast for overnight guests in the region and to explore other methods of reaching visitors.

As visitors approach Whites City, improved signing would call attention to the park's TIS radio stations which broadcast cavern information in English and Spanish. Current signing is inadequate, and it is felt that only a small percentage of visitors take advantage of this source of information. These stations would describe the various guided and self-guided cave tour options, the levels of difficulty of each tour, time commitments required, costs, and methods of payment. Information on the latter would explain that major credit cards may be used to phone in reservations, or in automated ticket machines at Whites City and the visitor center to avoid long lines for entry into the cave.

Entrance Road

At a pullout near the entrance, one or two informational kiosks with a bulletin case would offer general information about the park and specific information regarding cave tours. Information will include the travel time as well as distance to the visitor center and an invitation to get additional information at other stops along the road. The "Exhibit Ahead" sign that advertises the current pullout would be changed to read "Cave Tour Information." This change should attract more people wanting advance information on planning their visit.

Along the park entrance road other pullouts would continue to provide opportunities for visitors to view and learn about aspects of the Chihuahuan Desert and associated elements of human history. Wayside exhibits would continue to carry the interpretive messages. Specifically, these stops would interpret the fossil reef, the Chihuahuan Desert, the Indian rock shelter, the Big Hill Seep, and the Walnut Canyon vista. A new wayside exhibit plan might consider using the unifying theme of water to tie these stops together. The message at each wayside would contain an enticement for the visitor to stop at the next exhibit along the road. "Exhibit Ahead" signs would continue to alert visitors of the approaching pullouts.

Visitor Center

The following narrative presents a sequence of visitor movement as they leave their cars and enter the building. It is expected that most visitors will follow this sequence to satisfy their desire to see the cave. It should be noted, however, that the entire experience in the visitor center is not planned sequentially. At any time during their visit, visitors may choose to explore the exhibit area, climb the stairs to the observation deck, eat in the restaurant, or shop in the bookstore and gift shop.

Approaching the visitor center from either of the two parking lots, visitors will first encounter wayside exhibit kiosks providing information regarding cave tour options. As they continue along the walk from the parking lot to the visitor center, visitors will be able to view elevated television monitors that will continuously play a video orientation message describing the nature of each tour, the physical demands, time requirements, costs, and methods of payment. Visitors also will be reminded to lock their car, bring a jacket and flashlight, and take their pets to the kennel.

Automated ticket machines will be located just outside the visitor center entrance. Here, visitors can use major credit cards to purchase their tickets for the various cave tours. In addition to the menu of regular tour options, the machines will display any special tours for the day. Tours that are full will be noted on the display, and all the machines will be networked to avoid overbooking. This automated procedure should save considerable time and avoid the long lines that sometimes form during the peak season.

In addition to the ticket machines, a cashier window will be available for visitors who elect not to use the automated ticket machines. This would include visitors who are uncomfortable using the machines, or visitors who may not carry major credit cards. For the former group, an additional machine may be located near the window so that park staff can instruct individuals on how to use the machines. This would be similar to what some of the rental car agencies have done in encouraging their clients to use automated vehicle rental and return machines at many airports.

Upon entering the visitor center, visitors will see an information desk where they can receive personal attention from uniformed park employees.

Once visitors have their tickets, most will be desirous of getting into the cave as soon as possible. With the exception of those who have purchased tickets for a natural entrance tour, visitors will proceed next to an orientation theater located near the elevators. In the theater a short two to three minute video orientation program will be shown that instructs visitors on safe and proper conduct while touring the cave. Since the program is intended to influence visitor behavior in the cave, it should be developed based on the most effective tenets of social and behavioral physiology that influence people's actions.

Visitors exit the theater via a separate corridor to the elevator lobbies. The size of the theater will conform to the capacities of the elevators,

and the program will be timed to maximize the elevator turn around time of five minutes.

After visitors exit the elevators into the cave they can pick up CD message players for the audio tour of the Big Room.

Visitors who have purchased tickets for tours through the natural entrance will proceed to the east end of the visitor center. After receiving the orientation program, visitors will exit the building and follow the path to the natural entrance.

Exhibits in the visitor center will focus on themes and topics that cannot be better interpreted in the cave, and introduce visitors to other primary resources in the park. The following concepts will be presented through exhibit pods toward the east end of the visitor center lobby:

Bats Next to Carlsbad Cavern itself, visitors are most interested in seeing and learning about the park's large bat population. Portions of this exhibit complex will describe:

- the ecological importance of bats (i.e., insect predation, the pollination of desert flora, and the survival and restoration of rain forests).

- the world-wide distribution of bat species.

- myths versus facts about bats.

- some bats as international travelers during migrations.

- the diversity of bat species at Carlsbad.

- the Mexican free-tailed bats (i.e., the largest colonies of mammals, the volume of insects eaten, reasons for population changes, and life and death in the nursery).

- how humans are responsible for the greatest impacts on bats.

- the Adopt-A-Bat program sponsored by the park's cooperating association.

An audiovisual component of this exhibit would present a new visitor activated two to three minute video on the Mexican free-tail bats at Carlsbad. This could be designed as a video alcove with viewing capacity for about 10-15 people to allow for rapid turnover. In this

way, the program would be more integrated with the overall exhibit and avoid visitor congestion.

Lechuguilla Cave. Using Lechuguilla Cave as a vehicle, this exhibit really focuses on cave research, exploration, and discovery. Exhibit elements would present aspects of what is involved in conducting cave research, and how cave resources are preserved. A changeable component of this exhibit would outline and interpret current research efforts in the park.

The exhibit would lead visitors into the theater to view a new audiovisual program on Lechuguilla Cave. This program would highlight the aesthetic values of Lechuguilla, create a feel for the lure of the unknown and the thrill of discovery, and explain why this cave is not open to the public.

Chihuahuan Desert. The surface resources of Carlsbad Caverns National Park attract few visitors, especially during the hot summer months. This exhibit will be designed to highlight some of the key aspects of the Chihuahuan Desert and to entice visitors to explore this interesting and diverse resource. Part of this exhibit will present a menu of options (i.e., trails and driving tours) for learning more about the desert environment.

Observation Deck. A set of stairs in the visitor center lobby leads to an observation deck at the top of the elevator shaft. Wayside exhibits will identify elements of the viewshed and illustrate the location of cave resources below the surface. One interpretive exhibit would present the geologic story from the ancient inland sea to the formation of the reef. Another would show the relationships between the surface and underground environments.

Since the observation deck cannot be made handicapped accessible, similar wayside exhibits would be placed at a viewing area outside the visitor center.

Changeable Exhibits. One portion of the exhibit area would be set aside for park-produced temporary exhibits or for special traveling exhibits.

Cave Interpretation

Visitors to Carlsbad Caverns National Park will be able to select from a variety of guided and self-guided cave experiences. All of the options described in this section are directed by the need to protect fragile

resources from damage such as has occurred in the past, and to insure opportunities for all visitors to have a cave experience meeting the objectives stated at the beginning of this plan.

Following the direction of the General Management Plan, the park would continue to offer the Big Room tour as a self-guided experience in Carlsbad Cavern. To protect the resources, guiderails would be placed along the walkway, additional security systems would be installed, and portions of the trail would be rerouted away from delicate formations. In addition, interpreters would rove sensitive areas and be available to talk with visitors.

In the Big Room low profile wayside exhibits, printed in both English and Spanish, would continue to interpret key features, topics, and concepts. Visitors also could use the message players for more extensive and supplemental information. Specifically, interpretive media and personal services in the cave would address cavern development, cave decoration, how materials (i.e., rain) get from the surface into the cave, the slowness of cave processes, the fact that these processes continue today, and that they are easily disturbed and damaged.

Further descriptions of each of the above story elements are given below:

- Initially presented at the first stop on the Big Room tour, the processes of cavern development would be further explained at other locations (i.e., the area where large blocks of gypsum remain).

- The forms and methods of cave decoration would be interpreted at locations which best depict the different processes. One key location would be in the Twin Domes/Giant Dome area.

- At locations in the cave that show reactions to changes on the surface (i.e., cave pools which react to rainfall) interpretive media and personal services would explain how substances such as rain on the surface enter the cave environment.

- Separately, and in conjunction with the above concepts, visitors would understand that these processes are very slow and that they continue today in many areas of the cave. Visitors also would understand how easily these processes can be disturbed and damaged, and learn what protection measures are needed to preserve cave resources. One wayside exhibit would focus on damaged cave features and explain the on-going monitoring program using ultra-

violet markers. The exhibit might include a push button that would activate an ultra-violet light that would illuminate the markings.

A new wayside exhibit plan would address these story elements. Since many of the current back-lit wayside exhibits suffer damage from water and high humidity, the wayside plan will need to address this problem as well. In addition, the stops and interpretive messages for the message player system would be evaluated, and changes made to complement the wayside exhibit program.

As elements of the GMP and the IP are implemented, the staff will continue to evaluate the impacts of self-guiding tours, keeping the option to institute guided tours along the Natural Entrance route if deemed necessary. As staffing permits, off-trail tours (i.e., Left Hand Tunnel and Lower Cave) would continue to be offered. The park's management objectives for protecting resources and providing a quality visitor experience would be used to determine the optimal number of visitors for each tour. Guided tours of other caves in the park would include Slaughter Canyon Cave, Ogle Cave, and Spider Cave.

If fully implemented, this guided tour program would accommodate all visitors except for about four peak days during the year when the elevator capacity at Carlsbad Cavern would be exceeded. In the meantime, the wayside exhibits and interpretive message stations would remain along the Main Corridor; however, both media would be included in the new wayside exhibit plan and the re-evaluation of the CD messages.

The park would continue to charge separate interpretive fees for guided tours. Fees collected would remain in the park as a reimbursable account to support the guided tour programs. The basic user fee would remain for the self-guiding Big Room tour. In addition, to encourage better distribution of visitors, the park could consider offering discounts for week-day or off-season tours.

Portions of the disturbed area near the base of the elevators would be used for a variety of interpretive functions. One area will be redesigned for assembling visitors with tickets for guided tours of the Kings Palace and for some of the off-trail tours. The area would be designed to allow park staff to use the site for their introductory remarks without conflicting with the flow of other visitors. Seating also might be provided for visitors who arrive early.

As stated earlier, another area will be used for distributing and retrieving the message players. The distribution function should be

located near the elevator exit, and the receiver pick up point near the location where visitors cue up for the return to the surface.

Some exhibits are also proposed for this disturbed area. One exhibit would be developed to promote ethical and responsible caving practices. This exhibit could illustrate and display various caving techniques, equipment, and safety devices, as well as some research and mapping procedures. The history and evolution of these practices and procedures also would be presented. In addition, the exhibit would serve as a supporting element for interpretive talks and demonstrations. Park staff could use caving equipment to show visitors its proper and safe operation, and they could actually demonstrate such things as climbing techniques. Hopefully, for visitors interested in entering the field of caving this exhibit would encourage them to learn more about safe and low impact techniques.

Another exhibit would focus on the discovery of Carlsbad Cavern by Jim White and the subsequent development of tourism at the cave. This exhibit also would present the story of the establishment of the cave as a National Park, and highlight the park's early development.

Guano mining represents an important era of the cave's history. A third exhibit would interpret this story from both a historical context and from the perspective of how this industry impacted the Mexican free-tailed bat population. Some of the mining machinery in the park's collection could be used effectively in this exhibit. The visitor center or a site along the Natural Entrance route near the Bat Cave corridor would be alternative locations for this exhibit.

On busy days visitors often have to wait in line for the elevator ride back to the surface. Located near this return area, or perhaps in the elevator lobby, a fourth exhibit would reinforce the theme, "Caves contain fragile environments which are affected by human activities and natural conditions both underground and on the surface." and place it in a broader context. The exhibit would draw visitors' attention to their home environments and pose questions of how activities on the earth's surface (i.e., dumping old motor oil) affect what lies below ground. Examples of how the park has addressed this very issue to better preserve its sub-surface resources also would be illustrated.

Surface Interpretation

As stated in the visitor center section of this plan, an exhibit on the Chihuahuan Desert would be developed to entice visitors to explore this diverse and interesting environment. One of the functions of this

exhibit would be to present a menu of desert-related activities. The following is a description of these various interpretive options.

Adjacent to the visitor center a self-guiding nature trail leads visitors on a half-mile loop through a section of the desert. The trail follows the ridge out to a viewpoint off the escarpment, then descends to the old guano mining road, and follows the road to a point near the natural entrance of the cave. A portion of this trail which follows the ridgeline is accessible for visitors in wheelchairs. New wayside exhibits would be developed to identify desert plants, point out key features in the viewshed, and interpret aspects of the guano mining operation. In addition, seating would be expanded at the ridgetop overlook to provide a gathering place for environmental education activities, guided tours, and possibly night sky interpretive talks.

Approximately a half-mile section of the old guano road would be developed as an interpretive trail. Beginning at the amphitheater or as a spur off the nature trail, the route would lead to the second natural entrance to Carlsbad Cavern and possibly extend a short distance beyond. Wayside exhibits would interpret the guano mining operations, and the early use of the road for bringing visitors to the cave.

Even though more visitors will be using the elevators to enter Carlsbad Cavern, many people are desirous of seeing the cave's natural entrance. Some may come to the evening bat flight, but many will want to see the entrance during the day. Wayside exhibits in the vicinity of the natural entrance would interpret early Native American associations with the cave, and point out the nearby midden ring. Other wayside exhibits would describe the nightly exodus of the resident Mexican free-tailed bats, and explain the presence of the large numbers of Cave Swallows.

Near the visitor center a self-guiding interpretive geology trail is proposed. This loop trail, perhaps with a number of spur trails, would help visitors discover and investigate the trove of geologic features of the Capitan Reef, including dead cave features exposed on the surface, and enable visitors to better understand relationships between surface and sub-surface resources. Wayside exhibits would identify significant resources and interpret the surface/cave relationships.

Another way for visitors to experience the desert is by automobile. While perhaps less intimate than walking or hiking, a car makes the desert more accessible on hot summer days and for people who are unable to walk even short distances. As stated in an earlier section of this plan, the park entrance road would be an interpretive experience for people who take the time to stop at the pullouts along the route. For

a more in-depth experience, visitors can elect to take the nine-mile Desert Drive, an unpaved loop road that branches off the main entrance road near the visitor center. The current self-guiding brochure would be replaced with in-place wayside exhibits at pullouts along the route.

All of the above means of providing interpretive experiences in the Chihuahuan Desert would help visitors better understand:

- elements of the Capitan Reef and the gypsum plain.
- the extent of the desert, what characterizes it, and the abundance and diversity of life that exists there.
- that the area has not always been a desert, and that once a more humid environment existed.
- how the desert came to be, and that the area has been drying out over the last 15,000 years.
- how all of the above have affected the formation of caves.
- the interrelationships of Native Americans and others with the caves and the desert environment.

An oasis in the desert, Rattlesnake Springs offers a very different environment for park visitors. Located off the escarpment, this detached unit of the park is known for its abundant wildlife and its long association with the peoples of the area. While the area currently attracts few park visitors, Rattlesnake Springs is known nationwide among bird watchers as one of the best birding spots in the country. Conversely, the human history associated with this area is not widely known.

Wayside exhibits would interpret the natural and historical resources at Rattlesnake Springs. Visitors would learn about the importance of water in determining the travel and settlement patterns of the area and in influencing the abundance and diversity of plant and animal life. The interrelationships of Native Americans and others with the springs and the surrounding desert environment also would be explained. Additional information about Rattlesnake Springs would be posted in a bulletin case near the parking lot for the picnic area.

At Slaughter Canyon a wayside exhibit kiosk with a bulletin case would be installed at the parking lot and trailheads for Slaughter Canyon and Ogle caves. The exhibit and bulletin case would contain information

regarding the difficulty of the hikes to the cave entrances, the need to bring water, the need for reservations for the tours, and any applicable regulations and safety precautions about hiking in the desert.

By far, the most popular interpretive activity on the surface is the nightly flight of the Mexican Free-tailed bats from the entrance of Carlsbad Cavern. Each evening while the bats are in residence (normally May through October) interpretive programs are given at the amphitheater. With sometimes over 1,000 visitors in attendance, these programs offer an excellent opportunity to provide in-depth interpretation of bats in general and the Carlsbad bats in particular.

The key interpretive story lines are listed in the visitor center section of the plan. No changes are proposed for the bat flight programs; however, the park will continue to monitor any effects the numbers of people may have on the bats.

Education Program

The park has an environmental education specialist position, and the education program focuses primarily on school groups from the United States and Mexico who are planning trips to the park. The park has a Teachers Guide which was developed in concert with local teachers and curriculum coordinators.

Conducting teacher workshops for both United States and Mexican teachers is a key element of the program. Trained teachers lead tours of the cave and conduct other activities with their students. Since not all activities would be conducted in the cave, a portion of the present park headquarters building (following the relocation of headquarters off the escarpment) would be converted into an environmental education facility. The building would have heat, electricity, and air conditioning.

Since the purpose of moving most park operations off the escarpment is to minimize the danger of foreign materials filtering into the cave, the occupants of this facility would use the public rest rooms near the bat flight amphitheater. If developing an accessible route to these rest rooms proves too difficult, options such as an HC Vault toilet adjacent to the building would be explored.

Other activities of the on-site educational program would utilize the rear portion of the former underground lunchroom. This area would be used for demonstrations, such as climbing, and for staging excursions into other areas of the cave.

The shadow student program is another educational activity which would continue. The program is geared primarily to eighth and ninth graders, and students learn various job skills by working with park employees.

Future expansion of the educational program would include such things as:

- the production and distribution of bilingual, closed-captioned VHS videotape copies of park AV programs to area schools.

- the development of interactive computer programs related to primary interpretive themes for use in schools or at the education center in the park.

- the use of travel trunks for off-site programs focusing on historical elements of the park themes.

A seminar series constitutes another component of the park's developing education program. Coordinated through the cooperating association, guest speakers would be invited to present programs on various aspects of cave research, exploration, and other related topics. Fees would be charged to help offset the cost of the programs.

Cooperating Association

The park's cooperating association, the Carlsbad Caverns - Guadalupe Mountains Association, operates sales outlets in both Carlsbad Caverns and Guadalupe Mountains National Parks and in the orientation center in the city of Carlsbad. In addition to the sale of a wide selection of interpretive publications, the association also publishes a free newspaper, "The Capitan Reef", which is distributed to visitors at both parks. Other programs include the seminar series described earlier, and the "Adopt-A-Bat" program designed to raise funds for bat education programs and research.

With the recent completion of the expansion into a portion of the sun porch near the visitor center entrance, the bookstore now occupies about 1,500 square feet of space. This allows for better visitor circulation and display of sales items.

With implementation of the complete redesign of the visitor center proposed in the GMP, the bookstore would continue to occupy about

1,500 square feet. The store would be easily seen by visitors as they exit the elevators at the surface, and the design of the space would better reflect the nature of the resource. Design also would include a small room for counting money and closing out at the end of the day. Association offices and major storage would be located off the escarpment.

Publications

The current park folder will need to be updated to reflect new programs and changes to existing programs presented in this plan. Revisions also would be made to the park newspaper. Since the newspaper is distributed to area tourism centers and motels, it would serve as an important pre-arrival/trip planning package. As such, this publication should contain basic information about the cave tour options and the automated method of purchasing tickets.

The park's education program would develop materials for teachers and students. A teacher's guide has been prepared which focuses on relevant curriculum objectives. This includes pre- and post-visit activities suitable for various grade levels.

The park produces site bulletins for special events and to introduce special topics. These bulletins would continue to play an important role in meeting immediate or special interpretive and informational needs.

Staffing

To implement the park's General Management Plan and this Interpretive Plan, 20 additional positions for the Division of Interpretation & Visitor Services are recommended. Most of these positions would be funded from fees charged for the proposed additional cave tours.

Program Support Resources and Facilities

Office space and other necessary support facilities for the interpretive program are currently confined to the basement of the visitor center. This space is extremely crowded and inadequate for the efficient operation of the division. The GMP has proposed the following changes for the reallocation of program support resources and facilities in the visitor center:

-Additional space in the visitor center would be made available by moving the park's museum collection and associated offices off the

escarpment. The same would be true for the cooperating association offices and the office of the park historian. Still more space would become available through the renegotiation of the concession contract which would not include the space formerly occupied by the nursery, kennel, etc. The kennel would be changed to a mobile unit that could be moved from the park each night.

-The park library, currently split between the visitor center and park headquarters, would be combined and located in the visitor center. The slide collection and light table would be incorporated into the library operation. In addition, computer stations would be provided for use by the staff.

-Private offices would be created for supervisory staff in order to provide an appropriate environment for employee counseling and evaluation.

-Each employee would be provided a work and storage space. Since most non-supervisory staff spend most of their time in public contact, individual work spaces would be shared and perhaps developed in a cluster arrangement.

-Outdoor space for staff, screened from visitor view, would be provided adjacent to the office/work areas.

-A meeting room with a 35-40 seat capacity would be located in the visitor center. This room would be used for staff meetings or for special groups. For showing or previewing audiovisual programs, the room would utilize the existing AV booth.

-A small conference room with a seating capacity of 15 would be located in the visitor center. This room would be used for small group meetings, division supervisor meetings, etc.

-An employee lunch/break room would be provided. The room would be large enough to accommodate 15-20 employees. An outdoor area also would be provided.

-Special work spaces for such things as graphics production, and a darkroom would be developed, perhaps in conjunction with the library.

-Separate storage spaces would be provided for lost and found items, publications, AV equipment, cave equipment, and interpretive props. The latter would include items used for interpretive talks and demonstrations (i.e., photos, climbing equipment, caving gear, etc.).

-Separate men's and women's changing rooms equipped with showers and lockers would be provided in the basement.

-Other spaces would be provided for a first aid room, and message player charging facility.

SPECIAL POPULATIONS

Provisions will be made to accommodate the needs of special populations who visit the park. Special populations are identified as those with sight, hearing, learning, and mobility impairments; visitors who do not speak English; and the elderly and young children.

Accommodations will be made for access to the sites as well as to most of the interpretive media. Guidelines and regulations are available to assist the staff and media/facility designers. Generally, these accommodations will benefit all visitors.

Public Law 90-480, the Architectural Barriers Act, establishes standards for physical access. Any new facilities constructed, as a matter of course, will be designed for accessibility for physically disabled visitors and employees.

All new interpretive media will conform with the National Park Service June 1996 Programmatic Accessibility Guidelines for Interpretive Media (see Appendix A).

SUMMARY OF INTERPRETIVE MEDIA

It is the policy of the Division of Interpretive Planning, Harpers Ferry Center to exclude cost estimates from an Interpretive Plan. All cost estimating will be done through the Manager's Office, HFC after reviewing the draft plan. This is done to improve the accuracy and efficiency of cost estimating, and to avoid problems in providing potential contractors with copies of interpretive plans.

The following is a list of interpretive media and/or public spaces that will contain such media at the Carlsbad Caverns National Park. The list includes primarily those elements that lie within the purview of the Harpers Ferry Center. It does not include, for example, mechanical systems, security systems, rest rooms, office space, storage areas, work rooms, trail or road development and signing, etc. These items, plus all furnishings (including seating, information desks, and sales displays) should be included in the Denver Service Center or cooperating association specifications.

Information Kiosk with Bulletin Case
at park entrance (possibly two)

Two information kiosks near visitor
center entrance

Information kiosk with bulletin case
at Slaughter Canyon parking lot

Bulletin case with map at Rattlesnake
Springs picnic area

Eight to nine wayside exhibits at pullouts along
park entrance road

Four wayside exhibits at visitor center
(observation decks)

Seven to eight wayside exhibits in Carlsbad Cavern

Wayside exhibits on three self-guiding
trails

Three wayside exhibits near the natural
entrance to Carlsbad Cavern

Seventeen to eighteen wayside exhibits at stops on
Nine-mile loop tour road

Three to four wayside exhibits at Rattlesnake
Springs

Four exhibits in the visitor center
(bats; cave discovery, exploration,
& research; Chihuahuan Desert; & one
changeable exhibit)

Five to six minute video disc program and
equipment for exhibit on bats

Fifteen to twenty video and video projection
system for theater program on
Lechuguilla Cave (Theater: 50 seat
capacity, 940 sq. ft.)

Four exhibits in disturbed area of cave
near elevators (caving practices, cave
discovery, guano mining, & summation
exhibit)

Two to three minute cave video orientation program and
video monitors for orientation theater
in the visitor center (two theaters)

Preparation of master audio tape for
tour group pre-arrival packets

Modify interpretive messages, tour stops
for interpretive message player system

Two to three minute general orientation/preview video
program for arriving visitors

PLANNING TEAM AND CONSULTANTS

Carlsbad Caverns National Park

Frank Deckert, Superintendent
Edward Greene, Chief of Visitor Services
Doug Ballou, Supervisory Park Ranger
William Justice, Supervisory Park Ranger
Rick LoBello, Executive Director, Carlsbad Caverns - Guadalupe
Mountains Association
Teresa Jaskiewicz, Outreach Education Specialist

Southwest Regional Office

Kim Sikoryak, Interpretive Specialist

Harpers Ferry Center

Paul Lee, Division of Interpretive Planning
John Grabowska, Division of Audiovisual Arts
Don Branch, Branch of Exhibit Design

Denver Service Center

Ronald Treants, Architect, Central Team
Richard Lichtkoppler, Resource Economist, Central Team
Miki Stuebe, GMP Team Captain, Central Team

APPENDIX A:

Special Populations: Programmatic Accessibility Guidelines for Interpretive Media

National Park Service
Harpers Ferry Center

June 1996

Prepared by
Harpers Ferry Center
Accessibility Task Force

Contents
Statement of Purpose
Audiovisual Programs
Exhibits
Historic Furnishings
Publications
Wayside Exhibits

Statement of Purpose

This document is a guide for promoting full access to interpretive media to ensure that people with physical and mental disabilities have access to the same information necessary for safe and meaningful visits to National Parks. Just as the needs and abilities of individuals cannot be reduced to simple statements, it is impossible to construct guidelines for interpretive media that can apply to every situation in the National Park System.

These guidelines define a high level of programmatic access which can be met in most situations. They articulate key areas of concern and note generally accepted solutions.

Due to the diversity of park resources and the variety of interpretive situations, flexibility and versatility are important.

Each interpretive medium contributes to the total park program. All media have inherent strengths and weaknesses, and it is our intent to capitalize on their strengths and provide alternatives where they are deficient. It should also be understood that any interpretive medium is just one component of the overall park experience. In some instances, especially with regard to learning disabilities, personal services, that is one-on-one interaction, may be the most appropriate and versatile interpretive approach.

In the final analysis, interpretive design is subjective, and dependent on both aesthetic considerations as well as the particular characteristics and resources available for a specific program. Success or failure should be evaluated by examining all interpretive offerings of a park. Due to the unique characteristics of each situation, parks should be evaluated on a case by case basis. Nonetheless, the goal is to fully comply with NPS policy:

"...To provide the highest level of accessibility possible and feasible for persons with visual, hearing, mobility, and mental impairments, consistent with the obligation to conserve park resources and preserve the quality of the park experience for everyone."

NPS Special Directive 83-3, Accessibility for Disabled Persons

Audiovisual Programs

Audiovisual programs include motion pictures, sound/slide programs, video programs, and oral history programs. As a matter of policy, all audiovisual programs produced by the Harpers Ferry Center will include some method of captioning. The Approach used will vary according to

the conditions of the installation area and the media format used, and will be selected in consultation with the parks and regions.

The captioning method will be identified as early as possible in the planning process and will be presented in an integrated setting where possible. To the extent possible, visitors will be offered a choice in viewing captioned or uncaptioned versions, but in situations where a choice is not possible or feasible, a captioned version of all programs will be made available. Park management will decide on the most appropriate operational approach for the particular site.

Guidelines Affecting Mobility Impaired Visitors

1. The theater, auditorium, or viewing area should be accessible and free of architectural barriers, or alternative accommodations will be provided. UFAS 4.1.
2. Wheelchair locations will be provided according to ratios outlined in UFAS 4.1.2(18a).
3. Viewing heights and angles will be favorable for those in designated wheelchair locations.
4. In designing video or interactive components, control mechanisms will be placed in accessible location, usually between 9" and 48" from the ground and no more than 24" deep.

Guidelines Affecting Visually Impaired Visitors

1. Simultaneous audio description will be considered for installations where the equipment can be properly installed and maintained.

Guidelines Affecting Hearing Impaired Visitors

1. All audiovisual programs will be produced with appropriate captions.
2. Copies of scripts will be provided to the parks as a standard procedure.
3. Audio amplification and listening systems will be provided in accordance with UFAS 4.1.2(18b).

Guidelines Affecting Learning Impaired Visitors

1. Unnecessarily complex and confusing concepts will be avoided.
2. Graphic elements will be chosen to communicate without reliance on the verbal component.
3. Narration will be concise and free of unnecessary jargon and technical information.

Exhibits

Numerous factors affect the design of exhibits, reflecting the unique circumstances of the specific space and the nature of the materials to be interpreted. It is clear that thoughtful, sensitive design can go a long way in producing exhibits that can be enjoyed by a broad range of people. Yet, due to the diversity of situations encountered, it is impossible to articulate guidelines that can be applied universally.

In some situations, the exhibit designer has little or no control over the space. Often exhibits are placed in areas ill suited for that purpose, they may incorporate large or unyielding specimens, may incorporate sensitive artifacts which require special environmental controls, and room decor or architectural features may dictate certain solutions. All in all, exhibit design is an art which defies simple description. However, one central concern is to communicate the message to the largest audience possible. Every reasonable effort will be made to eliminate any factors limiting communication through physical modification or by providing an alternate means of communication.

Guidelines Affecting Mobility Impaired Visitors

1. Exhibit space will be free of physical barriers or a method of alternate accommodation shall be provided.
2. All pathways, aisles, and clearances will meet standards set forth in UFAS 4.3. Generally a minimum width of 36" will be provided.
3. Ramps will be as gradual as possible and will not exceed a slope of 1" rise in 12" run, and otherwise conform with UFAS 4.8.
4. Important artifacts, labels, and graphics, will be placed at a comfortable viewing level relative to their size. Important text

will be viewable to all visitors. Display cases will allow short or seated people to view the contents and the labels. Video monitors associated with exhibits will be positioned to be comfortably viewed by all visitors.

5. Lighting will be designed to reduce glare or reflections, especially when viewed from a wheelchair.
6. Ground and floor surfaces near the exhibit area will be stable, level, firm, and slip-resistant. (UFAS 4.5).
7. Operating controls or objects to be handled by visitors will be located in an area between 9" and 48" from the ground and no more than 24" deep. (UFAS 4.3)
8. Horizontal exhibits (e.g. terrain model) will be located at a comfortable viewing height.
9. Information desks and sales counters will be designed for use by visitors and employees using wheelchairs, and will include a section with a desk height no greater than 32 to 34 inches, with at least a 30 inch clearance underneath. The width should be a minimum of 32 inches vertical, with additional space provided for cash registers or other equipment, as applicable.
10. Accessibility information about the specific park should be available at the information desk and the international symbol of access will be displayed where access information is disseminated.
11. Railings and barriers will be positioned in such a way as to provide unobstructed viewing by persons in wheelchairs.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit typography will be selected with readability and legibility in mind.
2. Characters and symbols shall contrast with their backgrounds, either light characters on a dark background or dark characters on a light background. (UFAS 4.30.3)
3. Tactile and participatory elements will be included where possible.
4. Audio description will be provided where applicable.

5. Signage will be provided to indicate accessible rest rooms, telephones, and rest rooms elevators. (UFAS 4.30)

Guidelines Affecting Hearing Impaired Visitors

1. Information presented via audio formats will be duplicated in a visual medium, either in the exhibit copy or by printed material.
2. Amplification systems and volume controls will be incorporated to make programs accessible to the hard of hearing.
3. Written text of all audio narrations will be provided.
4. All narrated AV programs will be captioned.
5. Allowance for Telecommunication Devices for the Deaf (TDD) will be included into information desk designs.

Guidelines Affecting Learning Impaired Visitors

1. Exhibits will avoid unnecessarily complex and confusing topics.
2. Graphic elements will be developed to communicate non-verbally.
3. Unfamiliar expressions and technical terms will be avoided and pronunciation aids will be provided where appropriate.
4. To the extent possible, information will be provided in a manner suitable to a diversity of abilities and interests.
5. Where possible, exhibits will be multi-sensory. Techniques to maximize the number of senses utilized in an exhibit will be encouraged.
6. Exhibit design will be cognizant of directional handicaps and will utilize color and other creative approaches to facilitate comprehension of maps.

Historic Furnishings

Historically refurnished rooms offer the public a unique interpretive experience by placing visitors within historic spaces. Surrounded by historic artifacts visitors can feel the spaces "come alive" and relate more directly to the historic events or personalities commemorated by the park.

Accessibility is problematical in many NPS furnished sites because of the very nature of historic architecture. Buildings were erected with a functional point of view that is many times at odds with our modern views of accessibility.

The approach used to convey the experience of historically furnished spaces will vary from site to site. The goals, however, will remain the same, to give the public as rich an interpretive experience as possible given the nature of the structure.

Guidelines Affecting Mobility Impaired Visitors

1. The exhibit space should be free of architectural barriers or a method of alternate accommodation should be provided, such as slide programs, videotaped tours, visual aids, dioramas, etc.
2. All pathways, aisles, and clearances shall (when possible) meet standards set forth in UFAS 4.3 to provide adequate clearance for wheelchair routes.
3. Ramps shall be as gradual as possible and not exceed a 1" rise in 12" run, and conform with UFAS 4.8.
4. Railings and room barriers will be constructed in such a way as to provide unobstructed viewing by persons in wheelchairs.
5. In the planning and design process, furnishing inaccessible areas, such as upper floors of historic buildings, will be discouraged unless essential for interpretation.
6. Lighting will be designed to reduce glare or reflections when viewed from a wheelchair.
7. Alternative methods of interpretation, such as audiovisual programs, audio description, photo albums, and personal services will be used in areas which present difficulty for the physically impaired.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit typefaces will be selected for readability and legibility, and conform with good industry practice.
2. Audio description will be used to describe furnished rooms, where appropriate.

3. Windows will be treated with film to provide balanced light levels and minimize glare.
4. Where appropriate, visitor-controlled rheostat-type lighting will be provided to augment general room lighting.
5. Where appropriate and when proper clearance has been approved, surplus artifacts or reproductions will be utilized as "hands-on" tactile interpretive devices.

Guidelines Affecting Hearing Impaired Visitors

1. Information about room interiors will be presented in a visual medium such as exhibit copy, text, pamphlets, etc.
2. Captions will be provided for all AV programs relating to historic furnishings.

Guidelines Affecting the Learning Impaired

1. Where appropriate, hands-on participatory elements geared to the level of visitor capabilities will be used.
2. Living history activities and demonstrations which utilize the physical space as a method of providing multi-sensory experiences will be encouraged.

Publications

A variety of publications are offered to visitors, ranging from park folders which provide an overview and orientation to a park to more comprehensive handbooks. Each park folder should give a brief description of services available to the disabled, list significant barriers, and note the existence of TDD phone numbers, if available.

In addition, informal site bulletins are often produced to provide more specialized information about a specific site or topic. It is recommended that each park produce an easily updatable "Accessibility Site Bulletin" which could include detailed information about the specific programs, services, and opportunities available for the disabled and to describe barriers which are present in the park. These bulletins should be in reasonably large type, 18 points or larger.

Guidelines Affecting Mobility Impaired Visitors

1. Park folders, site bulletins, and sales literature will be distributed from accessible locations and heights.
2. Park folders and Accessibility Site Bulletins should endeavor to carry information on the accessibility of buildings, trails, and programs by the disabled.

Guidelines Affecting Visually Impaired Visitors

1. Publications will be designed with the largest type size appropriate for the format.
2. Special publications designed for use by the visually impaired should be printed in 18 point type.
3. The information contained in the park folder should also be available on audio cassette. Handbooks, accessibility guides, and other publications should be similarly recorded where possible.

Guidelines Affecting Hearing Impaired Visitors

1. Park site bulletins will note the availability of such special services as sign language interpretation and captioned programs.

Guidelines Affecting Learning Impaired Visitors

1. The park site bulletin should list any special services available to this group.

Wayside Exhibits

Wayside exhibits, which include outdoor interpretive exhibits and signs, orientation shelter exhibits, trailhead exhibits, and bulletin boards, offer special advantages to disabled visitors. The liberal use of photographs, artwork, diagrams, and maps, combined with highly readable type, make wayside exhibits an excellent medium for visitors with hearing and learning impairments. For visitors with sight impairments, waysides offer large type and high legibility.

Although a limited number of NPS wayside exhibits will always be inaccessible to visitors with mobility impairments, the great majority are placed at accessible pullouts, viewpoints, parking areas, and trailheads.

The NPS accessibility guidelines for wayside exhibits help insure a standard of quality that will be appreciated by all visitors. Nearly everyone benefits from high quality graphics, readable type, comfortable base designs, accessible locations, hard-surfaced exhibit pads, and well-landscaped exhibit sites.

While waysides are valuable on-site "interpreters," it should be remembered that the park resources themselves are the primary things visitors come to experience. Good waysides focus attention on the features they interpret, and not on themselves. A wayside exhibit is only one of the many interpretive tools which visitors can use to enhance their appreciation of a park.

Guidelines Affecting Mobility Impaired Visitors

1. Wayside exhibits will be installed at accessible locations whenever possible.
2. Wayside exhibits will be installed at heights and angles favorable for viewing by most visitors including those in wheelchairs. For standard NPS low-profile units the recommended height is 30 inches from the bottom edge of the exhibit panel to the finished grade; for vertical exhibits the height of 6-28 inches.
3. Trailhead exhibits will include an accessibility advisory.
4. Wayside exhibits sites will have level, hard surfaced exhibit pads.
5. Exhibit sites will offer clear, unrestricted views of park features described in exhibits.

Guidelines Affecting Visually Impaired Visitors

1. Exhibit type will be as legible and readable as possible.
2. Panel colors will be selected to reduce eye strain and glare, and to provide excellent readability under field conditions. White should not be used as a background color.
3. Selected wayside exhibits may incorporate audio stations or tactile elements such as models, texture blocks, and relief maps.
4. For all major features interpreted by wayside exhibits, the park should offer non-visual interpretation covering the same subject matter. Examples include cassette tape tours, radio messages, and ranger talks.

5. Appropriate tactile cues should be provided to help visually impaired visitors locate exhibits.

Guidelines Affecting Hearing Impaired Visitors

1. Wayside exhibits will communicate visually, and will rely heavily on graphics to interpret park resources.
2. Essential information included in audio station messages will be duplicated in written form, either as part of the exhibit text or with printed material.

Guidelines Affecting Learning Impaired Visitors

1. Topics for wayside exhibits will be specific and of general interest. Unnecessary complexity will be avoided.
2. Whenever possible, easy to understand graphics will be used to convey ideas, rather than text alone.
3. Unfamiliar expressions, technical terms, and jargon will be avoided. Pronunciation aids and definitions will be provided where needed.
4. Text will be concise and free of long paragraphs and wordy language.

Statement for Interpretation & Visitor Services*

The Annual Statement for Interpretation and Visitor Services (ASFI) is included here by reference.

The currently approved document should be consulted for guidance in the development of personal services programs. As an operations document, the ASFI complements this Interpretive Plan by integrating its personal service directions, especially its "Individual Service Plans", into the media development of this prospectus.

* NPS-6 now calls for the development of a Comprehensive Interpretive Plan (CIP). As parks begin to adopt and implement this new process, the CIP will incorporate this document and elements of the former ASFI.

APPENDIX C:

Visitor Center Concept Design

This concept drawing is included to help communicate the program elements outlined in the document. It is for illustrative purposes only.

