

# **Accessibility Self-Evaluation and Transition Plan**

## **Lake Mead National Recreation Area Nevada/Arizona**

**May 2019**



## EXECUTIVE SUMMARY

Lake Mead National Recreation Area is America's first and most diverse national recreation area. Around 8 million people visit the 1.5 million-acre park annually, which provides a \$336 million economic impact to nearby communities. The park's vision is to inspire and challenge everyone to find their connection to Lake Mead National Recreation Area and enjoy the adventure. And one of its core values, inclusion, encourages the park to stretch and change in order to promote equity, accessibility and multiculturalism in park programs and at all levels of the organization.

Lake Mead National Recreation Area's Accessibility Self-Evaluation and Transition Plan (SETP) includes findings from the self-evaluation process, as well as a plan for improving accessibility parkwide. The Accessibility Self-Evaluation and Transition Plan resulted from the work of an NPS interdisciplinary team, including planning, design, and construction professionals; and interpretive, resource, visitor safety, maintenance, communications, and accessibility specialists. Site plans, photographs, and specific actions for identified park areas were developed. Associated time frames and implementation strategies were established to assist NPS park staff in scheduling and performing recommended and required actions and to document completed work. Park policies, practices, communication, and training needs were also addressed. The goals of the plan are to 1) document existing park barriers to accessibility for people with disabilities, 2) provide an effective approach for upgrading facilities, services, activities, and programs, and 3) instill a culture around creating universal access.

The following are the key park experiences and associated park areas addressed in the transition plan:

- 1) **Discover abundant outdoor recreational land and water-based opportunities within and surrounding the largest reservoir of the United States, in both front and backcountry settings** – Alan Bible Visitor Center, Boulder Beach, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Mohave Water Trail, Redstone Picnic Area, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, White Rock Canyon, Willow Beach
- 2) **View a wide array of dramatic scenery, including distant mountains, deep canyons and rock formations, vast water bodies, desert landscapes and a mosaic of vegetation** – Alan Bible Visitor Center, Boulder Beach, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Lakeview Overlook, Mohave Water Trail, Redstone Picnic Area, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, White Rock Canyon, Willow Beach

- 3) **Enjoy the park's riverine, reservoir, and groundwater ecosystems, including open water and shoreline environments** – Alan Bible Visitor Center, Boulder Beach, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Lakeview Overlook, Mohave Water Trail, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, Water Safety Center, White Rock Canyon, Willow Beach
- 4) **Observe the geological and paleontological features that demonstrate activity spanning more than 1.4 billion years of earth history** – Alan Bible Visitor Center, Boulder Beach, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Lakeview Overlook, Mohave Water Trail, Redstone Picnic Area, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, White Rock Canyon, Willow Beach
- 5) **Appreciate the range of biological resources and diverse terrestrial habitats, and learn about species of conservation interest** – Alan Bible Visitor Center, Boulder Beach, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Lakeview Overlook, Mohave Water Trail, Redstone Picnic Area, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, White Rock Canyon, Willow Beach
- 6) **Explore the solitude and concept of designated wilderness that comprises easily reachable as well as more challenging opportunities** – Alan Bible Visitor Center, Black Canyon Water Trail, Mohave Water Trail, Redstone Picnic Area
- 7) **Share in the stories and learn about the rich and varied cultural resources that relate to a 10,000 year continuum of human history** – Alan Bible Visitor Center, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Lakeview Overlook, Mohave Water Trail, Park Headquarters, Redstone Picnic Area, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, White Rock Canyon, Willow Beach
- 8) **Understand and participate in scientific research and policy discussions of national importance, including the implications of urbanization on water scarcity, the need for water use efficiency and sustainable land uses, the importance of maintaining high water quality, and the effects of climate change on the natural and human environment** – Alan Bible Visitor Center, Boulder Beach, Boulder Beach Campground, Black Canyon Water Trail, Callville Bay, Cottonwood Cove, Hemenway Harbor, Historic Railroad Trail Trailhead, Katherine Landing, Lakeview Overlook, Mohave Water Trail, Redstone Picnic Area, River Mountains Loop Trail Trailhead, Rogers Spring, St. Thomas Townsite, Water Safety Center, White Rock Canyon, Willow Beach

Overall, similar services, activities, and programs were found throughout park areas, as were assessment findings for physical and program accessibility.

## **PHYSICAL ACCESSIBILITY**

Physical accessibility to park facilities and programs was generally found to meet accessibility standards. Paths from site arrival points to facilities, services, and programs are for the most part paved, and the park has strived to lessen running and cross slopes on many of the most visited paths to better serve all visitors. Accessibility at campgrounds, particularly Willow Beach, is exemplary, with some accessible campsites with level tent pads, extended tabletops on picnic tables, and raised fire-building surfaces of grills. Restrooms throughout the park are generally spacious and supportive, with the required braille identification signage, and many of the identified barriers could be lessened or removed by simply relocating accessory items. Accessible parking stalls in many areas are wide and level, with wide access aisles, and appropriate signage is typically in place. In general, facilities are open and spacious, with many of the suggested improvements easy to implement, such as relocating furniture or developing standard operating procedures for maintaining paths of travel and stocking items for sale at a variety of heights. Recurrent challenges to accessibility were identified for boating facilities and the services supporting them, concessioner facilities, temporary restrooms, and accessory items throughout the park, such as fire extinguishers, hydrants, and trash and recycling receptacles.

Other physical access issues where improvements are recommended include providing signed parking for oversized vehicles, improving concessioner facilities for parking and check-in, improving routes to and landings at interpretive waysides, and upgrading trailhead areas. Visitor information facilities, such as Alan Bible Visitor Center (the park's main visitor center) and Park Headquarters, have many accessible features, but some barriers exist on routes to primary entrances, at picnic facilities, and within exhibit areas. Upgrades are also necessary at information desks, stores, meeting/community spaces, and areas that support overnight accommodations. Undeveloped areas, such as St. Thomas Townsite, have relatively few accessible features, and trails in these areas do not provide appropriate trailhead signs identifying trail conditions. For trails not specifically identified in this plan, assessments for those will need to be conducted in the future. Refer to Appendix H: "Trail Assessment Protocol" for additional information on how hiking trails are assessed and what standards apply.

## **PROGRAM ACCESSIBILITY**

Recurring findings related to program accessibility included font and contrast issues at interpretive waysides that require modifications to meet size and readability standards, older exhibits that do not fully support visitors with different disabilities and providing additional media on the park website to support visitors before, during, and after their visit to the park. In general, interpretive panels, waysides, publications, videos, and self-guided tours did not have alternate formats in braille, large print, or audio or electronic formats. Assistive listening devices have been purchased by the park but are not available in all appropriate locations and advertised as available for people with hearing loss for guided tours or special events. Audio description for ranger-led interpretive tours and self-guided tours that describe visual elements to persons with low or no vision were also not

available. Tactile exhibits were limited and sometimes presented other barriers for knee clearance and appropriate signage.

Specific areas where visitors with disabilities would be better served include updating exhibits and media at Alan Bible Visitor Center to include additional tactile elements, stronger contrast visuals, larger text, and audio description. Some additional updated waysides educating visitors on significant features of areas at St. Thomas Townsite along with three-dimensional maps may also be useful. Self-guided and guided tours of additional park areas would similarly improve the experience for visitors. With any improvements, advertising that these new and inclusive activities are available will be invaluable in not only enriching the visitor experience but also bringing additional visitors to the location.

## **PARKWIDE ACCESSIBILITY**

Some of the more noteworthy parkwide accessibility challenges that were discussed by the planning team during the self-evaluation and assessment process include: providing accessible boating facilities at strategic locations within the park, improving interpretation at visitor contact stations, and working with concessioners to make significant accessibility improvements to their facilities and operations. Accessibility to and within boating facilities is one of the more substantial challenges for the park and concessioners. Lake Mead and Lake Mohave are reservoirs. The water levels of both fluctuate. Lake Mead's elevation has fluctuated around 150 feet over the past several decades. It fluctuates 10-20 feet in a year. Lake Mohave fluctuates 10-15 feet in the fall. This presents significant challenges to continually providing and maintaining accessible features and experiences at the water's edge. Major barriers include the slopes of accessible parking stalls on steep boat ramps; steep or missing transition plates and wide gaps between planks at boat docks; steep gangways; inaccessible boat slips; and inaccessible restrooms and showers.

It is recommended that the park employ trained consultants to assist in determining how best to address accessibility improvements parkwide and to ensure that design and implementation of alternate format programs meet the needs of the intended audiences. Notify visitors through signage placed in appropriate locations and in park publications that alternative formats are available.

Creating parkwide accessibility requires staff awareness, understanding, and appropriate action. The assessment process served as a field training tool that increased staff knowledge and commitment toward embracing accessibility as a core park value. Continued training in physical and programmatic access requirements for all park staff, particularly those in maintenance and interpretation, is strongly advised.

Because of fiscal constraints and limited park resources, staff will need to determine which park area improvements will benefit the greatest numbers of park visitors with disabilities. Suggested implementation time frames and relative costs need to be factored into all accessibility investment decisions.

Lake Mead National Recreation Area strives to be inclusive and welcoming. The park is committed to improving parkwide accessibility. Recognizing that many of the facilities and programs could be improved to better support visitors with disabilities, the park sought expertise in tackling this planning effort from the Pacific West Region and Denver Service Center, believing that identifying accessibility barriers, making practical solutions for removing them, and identifying realistic time frames is the first step in improving accessibility for all visitors. Park staff is also actively working to improve accessibility in other ways, including training staff to interact with and support visitors with disabilities, providing alternate formats of brochures and other materials and alerting visitors of their availability, improving and maintaining the park website to identify accessible facilities and features, and working with concessioners to improve their facilities and ensure programs are accessible. Staff is committed to all visitors and continually works to ensure everyone is allowed the same access to and afforded the same experience at each park area.





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## INTRODUCTION

Since 1916, the National Park Service (NPS) has preserved, unimpaired, the natural and cultural resources and values of the national park system, while also providing for the enjoyment, education, and inspiration of current and future generations.

Many national parks were founded because of their stunning views, extreme and unique geography, challenging and sensitive natural environments, and historic and fragile structures. This park, Lake Mead National Recreation Area, and other parks exist because of their history and resources. The NPS mission balances protection of resources (both natural and cultural) with visitation. Facilities, services, activities, and programs were designed and built within parks to accommodate visitors and help them better understand each park purpose and significance.

Many facilities were constructed prior to the passage of laws and policies that reflect the commitment of the National Park Service to provide access to the widest cross section of the public, and to ensure compliance with the Architectural Barriers Act of 1968, the Rehabilitation Act of 1973, the Equal Employment Opportunity Act of 1972, and the Americans with Disabilities Act of 1990 (42 USC 12207). The accessibility of commercial services within national parks is also governed by all applicable federal laws. After 100 years of operation, the National Park Service continues to work toward a more inclusive environment. The more than 400 park units that comprise the national park system today include not only the large western parks, for which the agency is well known, but also nationally significant urban parks, historic sites, monuments, recreation areas, parkways, battlefields, and a diversity of other park types across the country.

For a century, the National Park Service has been a leader in connecting people to both our natural and cultural heritage. Visitors today have different needs and expectations, and the agency is adapting to meet these changing demands. Modern scientific research and visitor trend analysis provide new insight into accessibility opportunities and challenges in the national park system. There are approximately 60 million people with disabilities in the United States today, and the number is expected to rise to 71 million in upcoming years as more baby boomers reach retirement age (people 65 and older). This information helps the National Park Service understand changing visitation patterns, the nexus between resource stewardship and accessibility, and the impacts of managing visitors, resources, and infrastructure against the threat of decreased funding. Adequate planning can identify solutions to challenges and provide services with the knowledge and understanding that serves as a trajectory full of opportunity for current and future visitors. The National Park Service is committed to making its facilities, programs, services, and employment opportunities accessible to all people, including those with disabilities.

## LAKE MEAD NATIONAL RECREATION AREA DESCRIPTION

Lake Mead National Recreation Area (NRA) is a startling contrast of desert and water, mountains and canyons, primitive backcountry and human innovation. Two powerful forces created the backdrop for this park. First, natural processes occurring over millions of years along the interface of the Basin and Range geologic province and the Colorado Plateau geologic province built its foundation. This landscape consists of vast desert expanses, dramatic geologic features, and diverse ecological communities. Then, over the past 100 years, humans modified the landscape to better suit it to present-day needs. The primary modifications include two dams that created two massive reservoirs—Mead and Mohave—in one of earth's hottest, driest regions. These lakes supply high-quality municipal water, power production, and agricultural irrigation water to tens of millions of people across Nevada, Arizona, California, and Mexico. Collectively, Lake Mead NRA encompasses this unique array of natural and modified landscape and waterscape.

With this combination of large water bodies amidst vast terrestrial expanses in Nevada and Arizona, Lake Mead NRA provides a very diverse recreational resource. Established October 8, 1964, as the nation's first and most diverse national recreation area, water- and land-based recreation attract approximately eight million visitors per year—making the park one of the most-visited park units in the national park system and an integral component of the region's economy. Larger than the state of Delaware at 1.5 million acres, Lake Mead NRA is the third-largest unit in the national park system outside of Alaska. This figure includes more than 185,000 acres of designated wilderness and more than 373,000 additional acres of proposed, eligible, and potential wilderness.

The park represents elements of the Mojave, Sonoran, and Great Basin deserts. The geologic diversity and convergence of these desert ecosystems provide habitat for a rich diversity of plants and animals. Currently, 935 native plant species and 422 native animal species have been officially documented in the park, with 21 of these listed as threatened, endangered, or species of concern. In addition, the park contains globally significant herds of desert bighorn sheep, with some of the highest population numbers in the world. Also included in the park's diverse natural resources are spectacular vistas including deep canyons, sheer cliffs, layers of sharp and colorful mountain ridges and rock formations, and sweeping bajadas.

Both terrestrial and submerged landscapes add to the park's rich human history and diversity. Evidence of 10,000 years of Native American civilization is found in the vicinity of Lake Mead National Recreation Area. Fur trappers, Mormon settlers, prospectors, ranchers, and developers of riverboat and railroad supply networks arrived later in attempts to survive and prosper in the rugged desert environment. Architectural wonders such as the Hoover Dam, built in the 1930s, and the Mike O'Callaghan–Pat Tillman Memorial Bridge that opened in 2010, add to the rich human history. Today, Lake Mead NRA is an attraction to millions of people from large metropolitan communities in the region as well as visitors from all over the world.

In addition to overseeing the resources and values of Lake Mead NRA, the managers of Lake Mead NRA also assist in joint management with the Bureau of Land Management

(BLM) of the adjacent Grand Canyon–Parashant National Monument to the northeast and Tule Springs Fossil Beds National Monument to the northwest. Approximately 200,000 acres of the Grand Canyon–Parashant National Monument, which was established in 2000, are within the legislative boundaries of the Lake Mead National Recreation Area. Although these park units are operationally distinct and separate, staff from Lake Mead NRA assist in resource management, visitor use management, and law enforcement to assure that the overall mandates of the area are fulfilled. Grand Canyon-Parashant National Monument has completed its Accessibility Self-Evaluation Transition Plan.

## **LAKE MEAD NATIONAL RECREATION AREA PURPOSE AND SIGNIFICANCE STATEMENTS**

In 2015, Lake Mead National Recreation Area completed a foundation document. Foundation documents provide basic guidance for planning and management decisions by identifying the park purpose, significance, and fundamental resources and values. The Lake Mead National Recreation Area foundation document identifies special mandates and administrative commitments and provides an assessment and prioritization of park planning and data needs. Understanding these elements helps set the stage for appropriately integrating accessibility into the overall park priorities and plans. The following foundation elements were identified for Lake Mead National Recreation Area.

### **Park Purpose**

The purpose of Lake Mead National Recreation Area is to provide diverse public recreation, benefit, and use on Lakes Mead and Mohave and surrounding lands in a manner that preserves the ecological, geological, cultural, historical, scenic, scientific, and wilderness resources of the park.

### **Park Significance**

1. As the first and largest national recreation area in the national park system, Lake Mead National Recreation Area offers dramatic scenery and a diverse array of land- and water-based recreation opportunities in close proximity to several large urban centers of the southwestern United States. With approximately seven million visitors each year, the park supports some of the nation's highest levels of water recreation and backcountry use.
2. Situated in the northeastern Mojave Desert near the interface with both the Great Basin Desert to the north and the Sonoran Desert to the south, Lake Mead National Recreation Area preserves a great diversity of biological resources, intact habitat, and ecological connectivity in the region, including many endemic, threatened, and endangered species and rare natural communities.
3. Lake Mead National Recreation Area showcases a remarkable collection of geological and paleontological features spanning more than 1.4 billion years of the earth's history. These exposed features, which include bajadas, lava flows, granite plutons, boulder fields, volcanoes, fault lines, petrified wood, and other fossils,



collectively provide insights into complex geologic processes and represent some of the oldest rocks in this geographic region.

4. The high diversity of cultural resources found at Lake Mead National Recreation Area—both on land and submerged—remain as evidence of a 10,000-year continuum of human history in the region. These resources represent many human themes and stories that relate to numerous Native American cultures and their adaption to and migration through the landscape, as well as European settlement, mining, ranching, exploration, and the construction of Hoover Dam.
5. Lake Mead National Recreation Area contains vast backcountry and wilderness lands, including nine designated wilderness areas that cover more than 185,000 acres and several other proposed, eligible, or potential wilderness lands that encompass an additional 373,000 acres. These lands serve to preserve ecological resources and processes and provide exemplary opportunities for primitive recreation and desert solitude.
6. Lake Mead National Recreation Area contains water storage reservoirs and infrastructure managed by water and energy supply agencies that provide critical resources to Nevada, Arizona, and California. These resources also provide a focal point for scientific research and policy discussions of national importance, including: the implications of urbanization on water scarcity, the need for water use efficiency and sustainable land uses, the importance of maintaining high water quality, and the effects of climate change on the natural and human environment.

## **ACCESSIBILITY SELF-EVALUATION AND TRANSITION PLAN**

The creation of a transition plan is mandated by regulations under the Rehabilitation Act of 1973, as they apply to the US Department of the Interior, which states that “No otherwise qualified handicapped individual in the United States . . . shall, solely by reason of his handicap, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal assistance.” It specifically requires parks to document architectural barriers, solutions, and time frames for making improvements to increase accessibility.

This Accessibility Self-Evaluation and Transition Plan has been prepared to provide Lake Mead National Recreation Area a tool for addressing overall needs associated with making the park accessible when viewed in its entirety. The plan is based on an understanding of key park experiences and establishes a methodical process that identifies, prioritizes, and outlines improvements to park accessibility. The plan proposes strategies for implementation over time and in a manner consistent with park requirements and protocols.

All key park experiences and areas were identified to ensure that the plan would consider all park programs. Park areas were then evaluated against measurable criteria to determine which would be assessed for purposes of the plan. Each park area assessed was evaluated to identify barriers that prevented participation in park programs, and the best manner in which access could be improved. In some situations, it is not reasonably practicable to create physical or universal design solutions.

## **IMPLEMENTATION OF THE PLAN**

One of the goals of the plan is to increase accessibility awareness and understanding among staff and volunteers of Lake Mead National Recreation Area. The park superintendent is responsible for implementing and integrating the plan. The park-designated accessibility coordinator ensures adequate communication to park employees and works with the superintendent to follow up on the implementation and relevancy of the plan by documenting improvements and keeping the plan updated.

# ACCESSIBILITY SELF-EVALUATION AND TRANSITION PLAN PROCESS

## SELF-EVALUATION

The following graphic illustrates the primary steps in the self-evaluation process. Each step is further described in the following text.



### Step 1: Identify Key Park Experiences and Park Areas

Key park experiences are those park experiences that are iconic and important for visitors to understand the purpose and significance of the park unit. They are “musts” for park visitors. Park legislation serves as the foundation for key park experiences, which are identified through park purpose, significance, interpretive themes, and those programs or activities highlighted in park communications. Key park experiences were identified at Lake Mead National Recreation Area to ensure that planned improvements were prioritized to best increase overall access to the experiences available at Lake Mead National Recreation Area.

- 1) Discover abundant outdoor recreational land and water-based opportunities within and surrounding the largest reservoir of the United States, in both front and backcountry settings.
- 2) View a wide array of dramatic scenery, including distant mountains, deep canyons and rock formations, vast water bodies, desert landscapes, and a mosaic of vegetation.
- 3) Enjoy the park's riverine, reservoir, and groundwater ecosystems, including open water and shoreline environments.
- 4) Observe the geological and paleontological features that demonstrate activity spanning more than 1.4 billion years of earth history.
- 5) Appreciate the range of biological resources and diverse terrestrial habitats, and learn about species of conservation interest.

- 6) Explore the solitude within designated wilderness that comprises easily reachable as well as more challenging opportunities.
- 7) Share in the stories and learn about the rich and varied cultural resources that relate to a 10,000-year continuum of human history.
- 8) Understand and participate in scientific research and policy discussions of national importance, including the implications of urbanization on water scarcity, the need for water use efficiency and sustainable land uses, the importance of maintaining high water quality, and the effects of climate change on the natural and human environment.

After key park experiences were identified, park areas were listed. Next, a matrix was developed to determine which key experiences occurred in each park area. A park area is a place defined by the park for visitor or administrative use. Park areas within Lake Mead National Recreation Area were evaluated per criteria in step 2, to determine which, if not all, areas would be assessed.

## **Step 2: Identify Park Areas to be Assessed**

The criteria below were used to determine which park areas would receive assessments:

- 1) Level of visitation
- 2) Diversity of services, activities, and programs offered in the area
- 3) Geographic favorability (as a whole, the park areas selected reflect a broad distribution throughout the park)
- 4) Other unique characteristics of the site

The areas selected for assessment provide the best and greatest opportunities for the public to access all key park experiences. These park areas received comprehensive assessments as outlined in steps 3 and 4. Areas not assessed at this time have similar characteristics to other areas that were assessed. They are to be assessed and improved as part of future facility alterations or as a component of a future planned construction project. Through this process, park staff have been trained to conduct these assessments.

## **Step 3: Identify Services, Activities, and Programs in Each Park Area**

Step 3 is the identification of all services, activities, and programs within each park area. This process ensured that during step 4 all visitor amenities within a park area, including both physical and programmatic elements, are reviewed for accessibility. The comprehensive lists of services, activities, and programs were the basis for conducting the 17 assessments and documenting all elements as they pertain to improving access to park experiences.

## Step 4: Conduct Accessibility Assessment

During step 4, an interdisciplinary team identified physical and programmatic barriers and reviewed possible solutions within each park area by conducting a field assessment.

Existing conditions and barriers to services, activities, and programs were discussed on-site by the assessment team. The assessment team then developed a reasonable range of recommended actions for consideration, including solutions that would provide universal access. Barrier-specific solutions, as well as alternative ways to improve access overall, were addressed and included both physical changes and/or the addition of alternate format methods. In some cases, programmatic alternatives needed to be examined because it was not always possible to eliminate physical barriers due to historic designations, environmental concerns, topography, or sensitive cultural and natural resources. Therefore, a full range of programmatic alternatives was considered that would provide access to the key experience for as many visitors as possible. All field results, including collected data, findings, preliminary options, and conceptual site plans, are organized by park area and formalized with recommendations in the transition plan.

## TRANSITION PLAN

The following graphic illustrates the primary steps taken in developing the Lake Mead National Recreation Area transition plan. Public involvement will occur at the draft stage of the transition plan; however, it is recommended that at the beginning of the SETP process parks initiate public outreach efforts with organizations representing people with disabilities. The draft plan will be released for a 30-day period to solicit input from the public, including people with disabilities and organizations that represent people with disabilities, to provide comments and thoughts on whether the document represents a reasonable review of the park's barriers and a feasible and appropriate strategy for overcoming the barriers. After the comment period has closed, the park will analyze all comments to determine if any changes to the plan are necessary. Those changes will be made before the implementation strategy is finalized. Once finalized, a notification will be sent to the public to announce the plan's availability.

### TRANSITION PLAN



## Step 5: Draft and Finalize Transition Plan

The final step of the process is drafting and finalizing the transition plan and implementation strategy. Developing an implementation strategy can be complex because

of a large range of coordination efforts associated with scheduling accessibility improvements. All improvement efforts need to consider park activities and operational requirements. The final plan recommends accessibility improvements, identifies improvement time frames, and identifies responsible parties for such actions.

Implementation time frames are based on the park's ability to complete the improvements within normal scheduling of park operations, planned projects, and available funding. Time frames are categorized as follows:

- 1) **Immediate (0–1 year):** Improvements that are easy, quick, and inexpensive to fix internally. It does not require supplemental NPS project funding.

immediate

- 2) **Short-term (1–3 years):** If the improvement does not require supplemental NPS project funding, park staff will initiate the elimination of the barrier internally; or, if a project is currently scheduled for funding, the improvement will be incorporated into the project and the barrier eliminated.

short-term

- 3) **Mid-term (3–7 years):** The park will develop a proposal and submit it for those projects requiring supplemental NPS project funding in the next annual servicewide budget call. For those projects requiring supplemental NPS project funding, the park will submit a request in the next budget call. Improvements will be scheduled dependent upon the year funding is received. If the improvement does not require supplemental NPS project funding, park staff will continue the elimination of the barrier internally.

mid-term

- 4) **Long-term (>7 years):** The park will eliminate the barrier when other work is taking place as part of facility alterations or as a component of a future planned construction project.

long-term

# **IMPLEMENTATION STRATEGY FOR LAKE MEAD NATIONAL RECREATION AREA**

## **PARK AREAS ASSESSED**

All key park experiences at Lake Mead National Recreation Area are represented within the park areas assessed. Park areas not included in the park area list will be upgraded to current code requirements when facility alteration and/or new construction is planned and funded. Each park area identified for assessment is addressed during the implementation strategy exercise. All park areas assessed are listed in alphabetical order and identified in the associated map below.

1. Alan Bible Visitor Center (Lake Mead Visitor Center)
2. Boulder Beach
3. Boulder Beach Campground
4. Callville Bay
5. Cottonwood Cove
6. Hemenway Harbor
7. Historic Railroad Trail Trailhead
8. Katherine Landing
9. Lakeview Overlook
10. Park Headquarters
11. Redstone Picnic Area
12. River Mountains Loop Trail Trailhead (East)
13. Rogers Spring
14. St. Thomas Townsite
15. Water Safety Center
16. White Rock Canyon
17. Willow Beach





## **IMPLEMENTATION STRATEGY FOR PARK AREAS ASSESSED**

The Architectural Barrier Act (ABA) of 1968 requires that any building or facility designed, constructed, altered, or leased with federal funds be accessible and usable by any individuals with disabilities. The Uniform Federal Accessibility Standards (UFAS) and the Architectural Barriers Act Accessibility Standards (ABAAS) were adopted for federal facilities in 1984 and 2006, respectively. Subsequently in 2011, standards for recreational facilities were incorporated into ABAAS as chapter 10.

Dependent upon the date of a building's construction or alteration, different design standards apply. In conducting the transition plan facility assessments, the 2011 ABAAS standards were used as the on-site assessments. Although a barrier may be identified by the current assessment for improvement, facilities constructed pre-1984, or between 1984 and 2011, are only required to be in compliance with the standard in place at the time of construction and/or alteration. Therefore, they may not be in violation of ABAAS. However, any renovation or upgrade of that building will be required to meet the most current standard at the time of work.

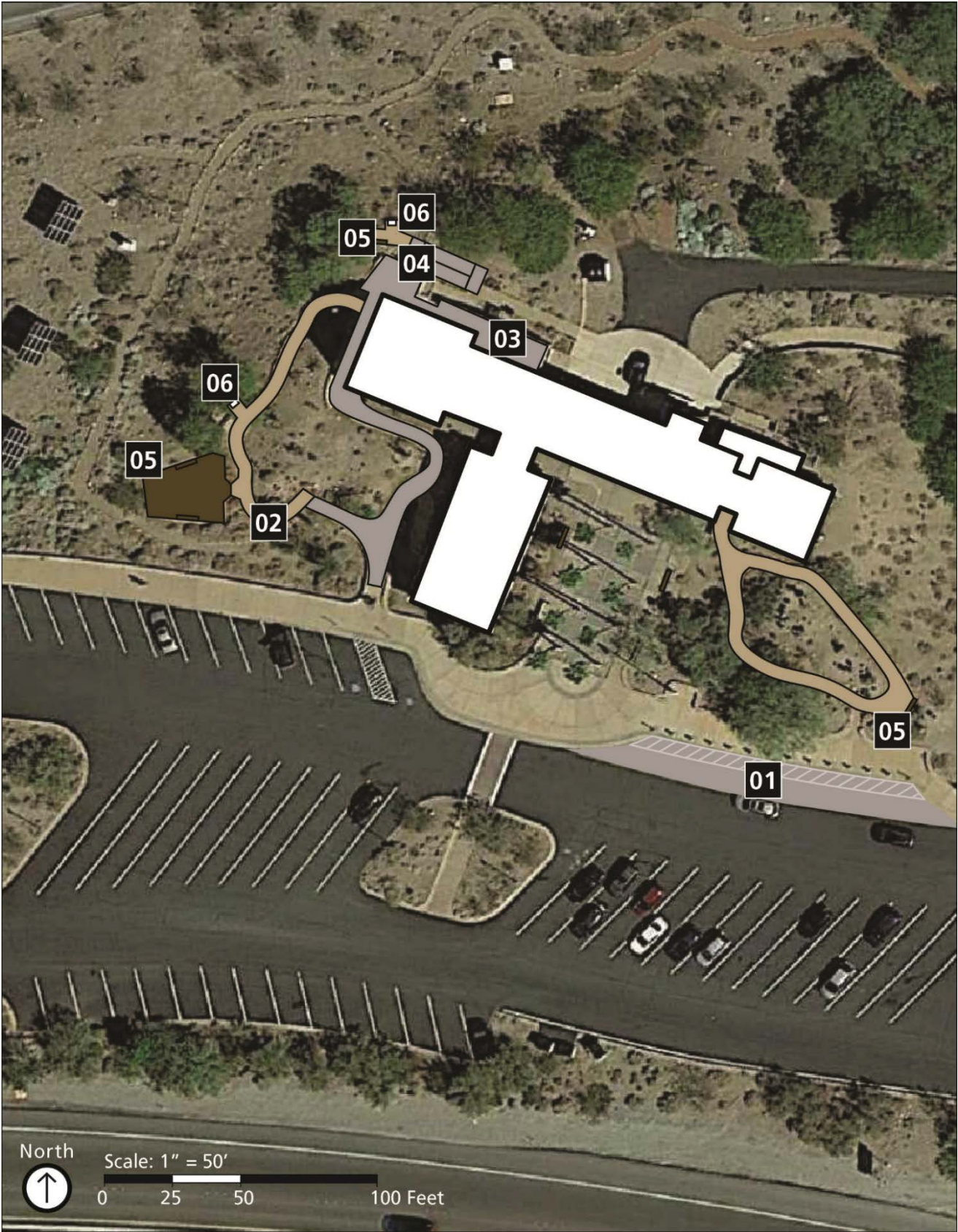
Recommended improvements for park policies, practices, communication and training are included. Park policies are adopted by the park and are those defined courses of action for reaching a desired outcome. Park practices are those habitual and/or customary performances or operations park staff employs for reaching a desired outcome. Communication and training strategies help park staff keep informed on how to best deliver services, activities, and programs to visitors with disabilities in the most appropriate and accessible formats.

This document does not include strategies for transitioning employee work spaces to be accessible. In the event an employee with a disability is hired by Lake Mead National Recreation Area, the supervisor and employee will discuss the employee's needs. The supervisor will then determine what accommodations are reasonable within the given work environment and determine a plan of action to meet those needs.

For each park area, site plans illustrate existing conditions and recommended improvements. During the implementation phase, reassessment of the project site conditions and consultation with the Architectural Barriers Act Accessibility Standards is necessary to ensure that specific design and programmatic solutions are addressed correctly. Assistance is available at the Denver Service Center and through the Pacific West Region Accessibility Coordinator.

ALAN BIBLE VISITOR CENTER/LAKE MEAD VISITOR CENTER

Site Plan



## Implementation Strategy

The key park experiences provided at Alan Bible Visitor Center are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; exploring the solitude within designated wilderness; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, learning about the park through exhibits and films, and hiking. The existing services that support these activities and programs include car parking, accessible routes, a short nature trail, interpretive waysides, an information desk, a store, a theater, and restrooms.

The Alan Bible Visitor Center site has some significant elevation changes, but the paved parking lot is fairly flat and has existing accessible parking stalls. A large, flat concrete patio at the visitor center entrance provides benches for seating. A short nature trail circles the building and is interspersed with viewing areas, interpretation through waysides, and resting benches along its length.

The visitor center has one main floor that is accessed via automatic doors, and houses exhibits, the store, theater, and other visitor amenities. The store is easy to maneuver and contains an accessible service counter. The award-winning park film is closed-captioned, with the theater providing excellent maneuvering space. The exhibit room has some tactile exhibits, including a large topographic map, different types of rocks found at the park, and examples of tools used for excavation. Visitor information is also provided in braille format.

Over the years, the park has made several improvements to the visitor center's accessibility. In 2012–2013, the center underwent a nearly \$3 million renovation project that added an elevator for employee accessibility, improved walkways, added a new audio-visual system and more. In 2016, an internet charging station was installed and included outlets at varying heights to meet accessibility needs. In 2017, the topographic map displays were revised to meet visual accessibility standards. In 2018, improvements were made to access routes. Within the next five years, the entire exhibit area will be remodeled.

The following planned improvements to this park area are:

### **01 Passenger Loading Zones**

- 1) Mark a 60" wide minimum width passenger loading zone the full length of the vehicle pull-up space. Ensure that the vehicle pull-up space and access aisles have 2% maximum slope in all directions.

short-term

### **02 Outdoor Recreation Access Routes**

- 1) Establish firm and stable outdoor recreation access routes between accessible parking, viewing areas, and benches at 36" minimum width with 2% maximum cross slope and 5% maximum running slope (wherever possible). Where running slope exceeds 5% up to 8.33%, the maximum segment length permitted is 50'. Where running slope exceeds 8.33% up to 10%, the maximum segment length permitted is 30'. No segment shall be steeper than 10%. Ensure resting intervals are provided at the top and bottom of each segment, regardless of segment length.

short-term

### **03 Viewing Areas**

- 1) Alter the wall or viewing platform on the back side of the building so that wall is 32" maximum in height above the platform and 36" minimum in width, with distinct accessible viewing spaces. Maintain the clear ground space currently afforded at each distinct viewing area.
- 2) Relocate the wayside so that its bottom edge is no higher than 30" above the ground.

long-term

### **04 Nature Trail**

- 1) Provide a sign that details trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross-section that demonstrates slope conditions.

short-term



## **05 Benches**

- 1) Ensure that at least one bench in each distinct area is located on an outdoor recreation access route and has a clear ground space adjacent to the bench, 36" by 48" minimum at 2% maximum slope in all directions.
- 2) As best practice, improve some of the benches to include armrests and backrests.

short-term

## **06 Interpretive Waysides**

- 1) Relocate inaccessible waysides to accessible locations and provide 30" by 48" minimum clear ground space at 2% maximum slope in all directions in front of each wayside. Ensure that all waysides have a bottom edge no higher than 34" above the finish ground and provide 27" minimum knee clearance underneath.

mid-term

- 2) As best practice, provide waysides that use sans serif fonts, no italics, no all caps, and 24-point minimum font.

long-term

**Services, activities, and programs below are located in the Visitor Center:**

### **Interior Signage**

- 1) Provide tactile signage on the latch side of all exit doors. Tactile characters shall be located 48" minimum above the finish floor measured to the baseline of the lowest tactile character, and 60" maximum above the finish floor measured to the baseline of the highest tactile character.
- 2) Provide a clear floor space 18" by 18" minimum, centered on the tactile characters and provided beyond the arc of the door swing.

long-term

### **Exhibits**

- 1) Alter or replace exhibits to make accessible, incorporating tactile interactive exhibits and maps where possible. Install interpretive panels at a 30-degree angle and so that their bottom edges are no higher than 30" above the finish floor. Provide knee clearance at 36" minimum width and 27" minimum height above the finish floor with a minimum depth of 9". Place tactile elements within appropriate reach ranges between 15" and 48" above the finish floor. Provide a clear floor space 18" by 18" minimum, centered on the tactile characters and provided beyond the arc of the door swing.

- 2) As best practice, avoid italics and all caps on exhibit text and provide 24-point minimum font with 70% minimum contrast between text and images.
- 3) As best practice, provide audio description in the visitor center to describe exhibits.

long-term

### **Audiovisual Programs and Videos**

- 1) As best practice, develop audio description for the park film.
- 2) As best practice, develop and provide transcripts for available videos in standard, large print, and as an accessible digital document.
- 3) As best practice, provide signage at the visitor center and information on the website identifying the availability of assistive listening devices, audio description, and transcripts.

long-term

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**BOULDER BEACH CAMPGROUND**

**Site Plan**





## Implementation Strategy

The key park experiences provided at Boulder Beach Campground are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include ranger-led programs, site interpretation through waysides and amphitheater programs, picnicking, camping, horseshoes, and hiking. The existing services that support these activities and programs include car parking, outdoor recreation access routes, an amphitheater, camping facilities, picnicking facilities, interpretive waysides, restrooms, horseshoe pits, hiking trails, and a dump station.

Several recently updated accessible campsites provide excellent camping opportunities for visitors with disabilities, with only minor improvements needed to the surfaces of routes between outdoor constructed features in the campsites. Each site includes a level, concrete parking pad and grill. Additional individual and group accessible campsites are needed to meet scoping requirements. Campground restrooms require upgrades to support visitors with disabilities, often lacking accessible parking and routes and having narrow accessible compartment doorways, amenities outside of allowable reach ranges, and missing tactile signage. The campground amphitheater is located in an unimproved area, on native soil. It does not provide designated parking or accessible seating options and routes and when updated, will be required to be made accessible.

In 2013, the park invested \$2.6 million at the campground. It can now accommodate modern RVs and the site has five new accessible restrooms. The park has numerous short, mid, and long-term projects scheduled to continue its goals to upgrade the accessibility of this area. In 2017, the kiosks were updated to meet accessibility standards. The remaining sites and dump station are being renovated to provide more camping opportunities for visitors with disabilities. Additionally, by 2020, the amphitheater is scheduled to be improved.

The following planned improvements to this park area are:

### **01** Car Parking (at kiosk)

- 1) Regrade the accessible parking stall or relocate it to provide a stall 11' minimum in width with a 5' minimum width access aisle at 2% maximum slope in all directions.

short-term

## **02** Kiosk

- 1) Regrade the approach to the information board to meet outdoor recreation access route requirements, aiming for the minimum possible running slope.
- 2) Regrade the landing in front of the information board to be 30" by 48" minimum from a forward approach to each element at 2% maximum slope in all directions.

short-term

## **03** Group Campsites

- 1) Improve two of the five group campsites to be accessible, with parking, tent pads, grills, picnic tables, and other outdoor constructed features that meet the requirements of ABAAS.

long-term

## **04** Individual Tent Campsites

- 1) Improve the two designated accessible campsites to have outdoor constructed features such as picnic tables, tent pads, and grills located on firm and stable surfaces at 2% maximum slope in all directions. Provide appropriate outdoor recreation access routes meeting ABAAS 1016 between all site elements.
- 2) Improve five additional campsites to be accessible, with parking, tent pads, grills, picnic tables, and other outdoor constructed features that meet the requirements of ABAAS. Accessible campsites shall be dispersed throughout the campground, including pull-in and pull-through spaces, and located in close proximity to accessible restrooms.

short-term

## **05** Restrooms

- 1) Relocate toilet paper dispenser to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.
- 2) Lower the coat hooks to be between 15" and 48" above the finish floor.
- 3) Provide tactile signage adjacent to the latch side of men's and women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 4) Improve restrooms throughout the campground to have accessible compartment doors with 32" clear width and door pulls on the inside and outside.

- 5) Lower or replace accessible-stall toilets to have seat heights between 17" and 19" above the finish floor.

long-term

## **06 Dump Station**

- 1) Improve the dump station hydrant to be between 15" and 48" above the finish ground.
- 2) Modify the curb to provide a clear ground space 30" by 60" minimum at 2% maximum slope in all directions adjacent to the hydrant. The hookups shall be at the rear center of the space.

short-term

## **07 Amphitheater**

- 1) Improve the surface of the outdoor recreation access route to the amphitheater to be firm and stable.
- 2) When the amphitheater is redesigned and constructed, be sure to provide dispersed accessible seating, outdoor recreation access routes between accessible seating and the stage, and accessible constructed features that meet the requirements of ABAAS.

long-term

### **Other services, activities, and programs to be improved include:**

#### **Water Hydrants**

- 1) Provide level landings at the base of all water hydrants serving accessible tent and RV campsites, 72" by 48" minimum at 2% maximum slope in all directions (5% if necessary for drainage). Locate the space so that the water spout is between 11" and 12" from the rear center of the long side of the space.
- 2) Lessen the force required to operate hydrants to be 5 pounds or less and ensure operable parts are between 15" and 48" above the ground.
- 3) Maintain the vegetation at water hydrants so it does not obstruct access to the devices.

long-term

## Horseshoe Pits

- 1) Improve the horseshoe pits to be located on an accessible route and have level landings on both ends, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.
- 2) As best practice, provide companion seating spaces adjacent to the benches.

long-term

**BOULDER BEACH**

**Site Plan**



## Implementation Strategy

The key park experiences provided at Boulder Beach are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; and understanding and participating in scientific research opportunities.

The area includes multiple beaches intended for different uses. The activities and programs provided at this area for visitors include swimming, small vessel launching, fishing, picnicking and special events, including triathlons. These designated use areas are referred to as Swimming Beach, Special Events Beach, Sail Beach, Personal Water Craft Beach and the Fishing Pier. Signs at the top of each spur road heading to the beach indicate intended beach uses. The existing services that support these activities and programs include car parking, accessible routes, a fishing pier and platform, and restrooms. The fishing pier was installed for the purpose of providing an accessible fishing location. It is accessed via a short, moderately sloped gangway and dock railings are at accessible heights. A life jacket loaner station is located in a gravel area at the entrance to the swimming beach.

Boulder Beach is mostly undeveloped and temporary in nature. Significant elevation and lake level changes create challenges to providing accessible parking and routes to service the area. The lake can fluctuate many feet up and down within a single calendar year. When the water recedes, the beaches can become muddy. When the water rises, clear areas for parking may need to be graded because of rocks and vegetation. Visitors with disabilities are provided parking spaces as close to the water as possible on a surface that was once under water. Similar to other areas in the park, restrooms in this area are portable and are moved based on water levels. Attached ramps provide access to the restrooms; however, the assessment found that there is minimum maneuvering clearance within the restrooms and amenities are not within reach tolerances. Inconsistencies in the placements of the restrooms on the beach make the restrooms often inaccessible for visitors with disabilities.

The following planned improvements to this park are:

### **01** Car Parking

- 1) To the extent practicable, provide designated accessible parking stalls near the optimal beach edge. Refer to the scoping requirements of ABAAS for the appropriate number of accessible stalls. By striping, movable signage, or other designation, provide van-accessible stalls 11' minimum in width with a 5' minimum width access aisle and standard accessible stalls 8' in width with a 5' minimum width access aisle.



- 2) Raise the accessible parking signs to be 60" minimum above the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stalls.
- 3) Consider providing a signed and marked passenger pickup/drop-off location at the marina gangway. It shall be 96" minimum in width and 20' minimum in length with a 5' minimum width access aisle.

long-term

**02**

## **Fishing Pier and Platform**

- 1) Install a replacement piece at the pier threshold and ensure there are no gaps that would permit the passage of a ½" sphere.

short-term

**03**

## **Life Jacket Loaner Stations**

- 1) Develop standard operating procedures to define how and where life jacket loaner stations are to be placed. They shall be on accessible routes, and if located on a platform, shall have an accessible means of access through a ramp. Clothes racks holding the life jackets shall be between 15" and 48" above the finish ground.

long-term

**04**

## **Portable Restrooms**

- 1) Provide tactile signage adjacent to the latch side of accessible restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 2) Improve 5% of total portable restrooms clustered in single locations and no less than one in any other location to provide an accessible toilet with fixtures, dispensers, grab bars, and accessory items that meet the requirements of ABAAS.
- 3) Develop standard operating procedures to define how and where accessible portable restrooms are to be situated on accessible routes. Ensure that ramps are no steeper than 8.33%, rise no more than 30" in any given run section, have no gaps wider than ½", and thresholds do not exceed ¼" or ½" with a beveled edge.

long-term

## **Other services, activities, and programs to be improved include:**

### **Trash and Recycling**

- 1) Work with trash and recycling contractor to see if they can provide trash and recycling receptacles that are operable with a closed fist and no more than 5 pounds of force.
- 2) Develop standard operating procedures to define how and where accessible trash and recycling receptacles are to be placed, ensuring that they are located on accessible routes and have clear ground space adjacent to the receptacles.

long-term

### **Special Event Beach**

- 1) To the extent practicable, provide dispersed accessible facilities and elements (e.g., restrooms, beach access routes, trash receptacles) to specific locations, ensuring that at least one accessible facility of each type is provided in each location.

long-term



Ranger Station Site Plan



## Implementation Strategy

The key park experiences provided at Callville Bay are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include ranger-led programs, site interpretation through waysides, picnicking, boating, camping, and hiking. The existing services that support these activities and programs include car parking, accessible routes, outdoor recreation access routes, a restaurant, general store, campground, dump station, boat rental, marina, fish cleaning station, restrooms, drinking fountains, laundry facilities, and bathing facilities.

Callville Bay is a large, dispersed visitor-recreation area at the western side of Lake Mead, where significant elevation and lake level changes create challenges to providing an accessible environment. Similar to other boating facilities throughout the park, all visitors, including people with disabilities, park on the steeply sloped boat launch ramp or lake edge to access the marina facilities. Accessible boat slips are not provided at the marina, and accessibility improvements are needed at restrooms, picnic facilities, and routes to better support visitors with disabilities.

In other facilities at Callville Bay, including the ranger station, restaurant, campground, and general store/office building, some elements, such as designated accessible parking stalls, are accessible or only require small updates. Visitor areas generally have wheelchair accessible seating options, good maneuverability and clear turnaround space, dual height counters, and items within reach range. Upgrades are needed at the campground to serve visitors with disabilities and additional tent and recreational vehicle campsites are needed. Improvements to interpretive elements are needed in locations such as the ranger station and general store/office building, and most restrooms throughout the area present minor accessibility deficiencies.

In 2013, a \$1.4 million project included the construction of a new ranger facility that serves the Callville Bay area. Improvements were also made to the picnic/day use area. The park added parking, provided accessible concrete pathways and developed new interpretive media. In the next three years, the Callville Bay Campground Loop A and dump station are scheduled to be renovated to improve accessibility.

Some of the services in this area are managed by the National Park Service while others are managed through a concessions contract. Based on the terms of the contract, the concessioner is limited to the improvements that can be made. The National Park Service will provide the recommendations to the contractor and will work with them to implement them in stages when possible or when a new contract is issued. The items

below have been notated to clarify which are operated by the NPS and which are operated by a concessioner.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) Remove the dumpster from the access aisle to leave it clear.

immediate

### **02** Interpretive Waysides

- 1) Regrade the landings in front of waysides to provide a 30" by 48" minimum pad at 2% maximum slope in all directions, or relocate the waysides to accessible locations.
- 2) Improve or replace waysides to have content with at least 70% contrast between text and images.

long-term

### **03** Unisex Restroom

- 1) Reduce the force required to open the restroom door to be no greater than 5 pounds.

short-term

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Callville Bay Boat Launch and Marina Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### 01 Car Parking (on boat launch ramp)

- 1) To the extent practicable, provide designated accessible parking stalls on the shortest accessible route to the marina gangway. Refer to the scoping requirements of ABAAS for the number of accessible stalls. By striping, movable signage, or other designation, provide van-accessible stalls 11' minimum in width with a 5' minimum width access aisle and standard accessible stalls 8' in width with a 5' minimum width access aisle.
- 2) Provide accessible parking signs to be 60" minimum above the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stalls.
- 3) Consider providing a signed and marked passenger pickup/drop-off location at the marina gangway. It shall be 96" minimum in width and 20' minimum in length with a 5' minimum width access aisle.

long-term

### 02 Gangway

- 1) Coordinate with concessioner to improve and monitor the gangway so that running slopes do not exceed 5% and gaps between boards and at transition plates are no wider than ½".

long-term

### 03 Marina

- 1) There were 20 boat slips at the marina at the time of assessment, some for smaller watercraft and others for houseboats. Refer to ABAAS Chapter 2 Scoping Requirements for the number of boat slips to be provided. In its present state, coordinate with concessioner to provide one accessible boat slip for each type of boat slip available. Clear pier space 5' wide minimum and at least as long as boat slip must be provided at accessible boat slips. Clear pier space may be 3' wide minimum for length of 2' maximum, provided that multiple 3' wide segments are separated by segments that are 5' minimum clear in width and length. Each 10' maximum of linear pier edge serving boat slips shall contain at least one clear opening of 5' minimum width. Ensure that openings in the pier do not exceed ½".

long-term

## **Services, activities, and programs to be improved at the marina include:**

### **Picnic Facilities**

- 1) Coordinate with concessioner to improve 20% of the picnic tables to be accessible, with integrated wheelchair seating spaces 30" by 48" minimum, extended tabletop surfaces with 27" minimum knee clearance, and 36" minimum clear space around all usable sides of the tables. Disperse accessible picnic tables throughout the picnic area.

long-term

### **Men's and Women's Restrooms**

- 1) Coordinate with concessioner to relocate paper towel dispensers to have outlets no higher than 48" above the finish floor.

mid-term

### **Unisex Restroom**

- 1) Wrap and insulate pipes under the lavatories to protect against contact.
- 2) Provide tactile signage adjacent to the latch side of the restroom door with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 3) Coordinate with concessioner to lower the mirror so that its bottom edge is 40" maximum above the finish floor.
- 4) Improve or install a new accessible toilet with the flush controls located on the open side of the toilet.
- 5) Install a new lever doorknob that is operable with a closed fist.

long-term

### **Benches**

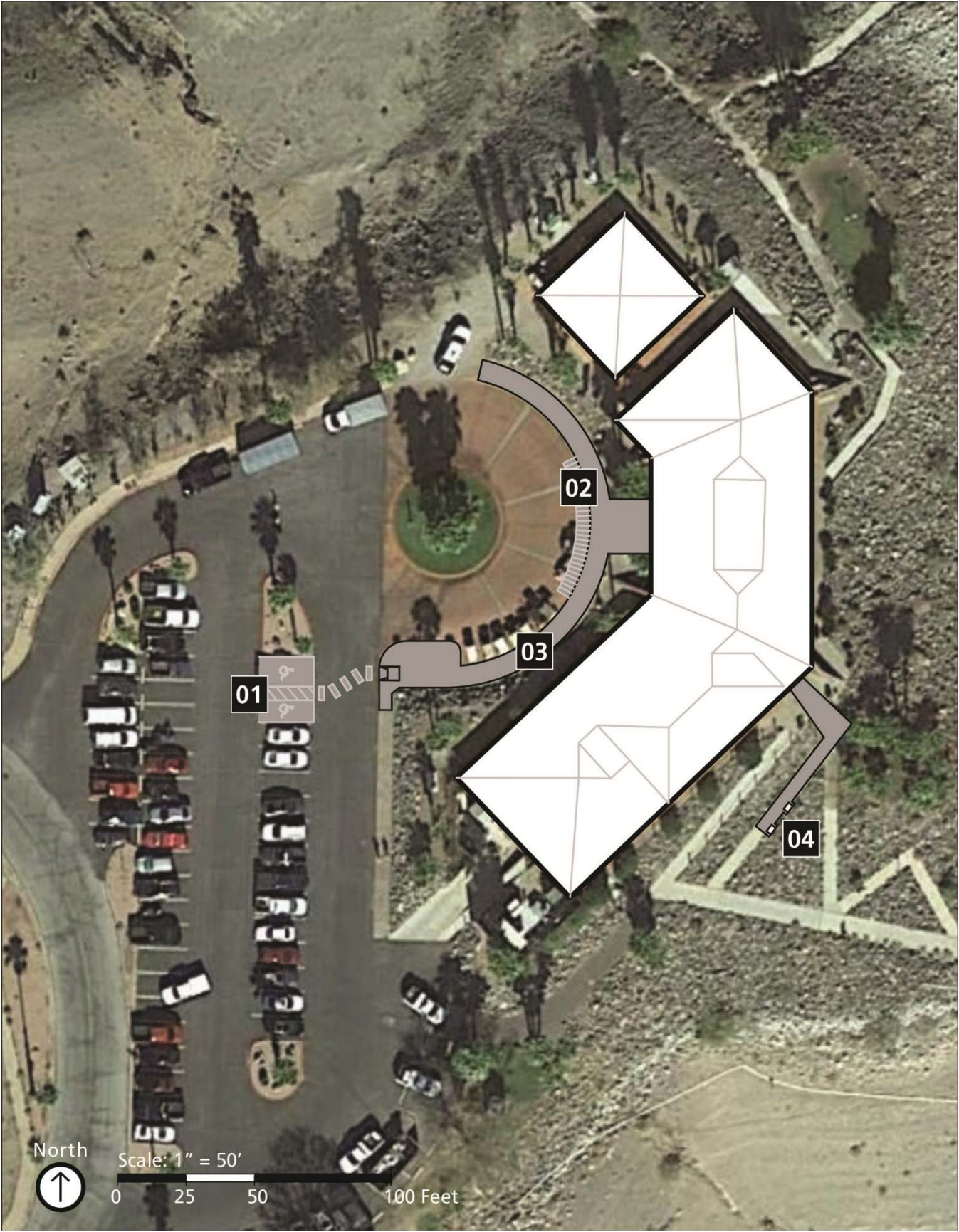
- 1) As best practice, coordinate with concessioner to improve or replace 20% of benches to be accessible, with bench seats between 17" and 19" above the ground with backrests and at least one armrest.

long-term

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Callville Bay Marina Resort (General Store, Restaurant and Office) Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### **01 Car Parking (at general store/office building)**

- 1) Repaint the stalls to provide a van-accessible parking stall 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle, and a standard accessible stall 8' minimum in width and sharing the access aisle.
- 2) Install accessible parking signage for each stall at 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on the van-accessible stall.

long-term

### **02 Passenger Loading Zones (at general store/office building)**

- 1) Mark a 60" minimum width passenger loading zone the full length of the vehicle pull-up space. Ensure that the vehicle pull-up space and access aisles have 2% maximum slope in all directions.

long-term

### **03 Accessible Route and Walking Surfaces (at general store/office building)**

- 1) Coordinate with concessioner to improve the curb ramp to have a maximum running slope of 8.33% and a 36" minimum depth landing at the top of the curb ramp with 2% maximum slope in all directions.

long-term

### **04 Interpretive Waysides (at general store/office building)**

- 1) Coordinate with concessioner to relocate waysides to accessible locations with level landings 30" by 48" minimum from a forward approach with 2% maximum slope in all directions.
- 2) Remove or replace signs in the general store breezeway with units that have 70% minimum contrast between text and images.

long-term

## **Other services, activities, and programs to be improved include:**

### **Elevator (in general store/office building)**

- 1) As installation of an elevator is not readily achievable, park and concessioner will continue to provide public accommodation through other means, such as serving visitors on first floor, or by relocating offices to the ground floor.

long-term

### **Service Counter (in general store)**

- 1) Coordinate with concessioner to improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" long minimum and 36" high maximum. Continue to provide a clear floor space adjacent to the counter 30" by 48" minimum.

long-term

### **Lounge (in general store/office building)**

- 1) Coordinate with concessioner to install a ramp to access the bar level. The ramp shall be 36" minimum in width and 8.33% maximum in running slope, and provide handrails on both sides between 34" and 38" in height above the walking surface. Handrail extensions shall extend 12" minimum beyond the top and bottom of ramp runs.

long-term

### **Men's Restroom (in lounge)**

- 1) Coordinate with the concessioner to relocate the soap dispensers to be no higher than 48" above the finish floor.
- 2) Wrap and insulate pipes under the lavatories to protect against contact.
- 3) Relocate the toilet paper dispenser to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.
- 4) Relocate the sanitary seat cover dispensers to an accessible location with clear floor space 30" by 48". The dispenser shall be between 15" and 48" above the finish floor.
- 5) Provide a rear wall grab bar behind the toilet 36" long minimum extending from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side.

mid-term

- 6) Through removal of the urinal or reconfiguring of the sink, coordinate with concessioner to expand the accessible compartment to be 60" minimum in width and 59" minimum in length, with partitions providing 9" toe clearance. Provide door pulls on both sides of the compartment door.
- 7) Either relocate the toilet or install a partition so that the centerline of the toilet is between 16" and 18" from the wall or partition.
- 8) If the urinal is retained, as best practice relocate the urinal so that the rim is 17" maximum above the finish floor.

long-term

### **Women's Restroom (in lounge)**

- 1) Provide a rear wall grab bar behind the toilet 36" long minimum extending from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side.
- 2) Relocate the toilet paper dispenser to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.
- 3) Relocate the sanitary seat cover dispensers to an accessible location with clear floor space 30" by 48". The dispenser shall be between 15" and 48" above the finish floor.
- 4) Wrap and insulate pipes under the lavatories to protect against contact.

mid-term

- 5) Through removal of the adjacent compartment or reconfiguring of the sink, coordinate with concessioner to expand the accessible compartment to be 60" minimum in width and 59" minimum in length, with partitions providing 9" toe clearance. Provide door pulls on both sides of the compartment door.
- 6) Either relocate the toilet or install a partition so that the centerline of the toilet is between 16" and 18" from the wall or partition.

long-term

### **Men's Restroom (at office)**

- 1) Coordinate with the concessioner to provide tactile signage adjacent to the latch side of the restroom door with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

- 2) Provide a rear wall grab bar behind the toilet, 36" minimum in length extending from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side. Provide a side wall grab bar adjacent to the toilet, 42" minimum in length and located 12" maximum from the rear wall and extending 54" minimum from the rear wall.

mid-term

- 3) Through removal of the adjacent compartment and/or urinal or reconfiguring of the sink, expand the accessible compartment to be 60" minimum in width and 59" minimum in length, with partitions providing 9" toe clearance. Provide door pulls on both sides of the compartment door.
- 4) Lower the baby changing station so that the top is between 28" and 34" above the finish floor with 27" minimum knee clearance under the surface.
- 5) Improve the restroom door to be operable with a closed fist.

long-term

### **Women's Restroom (at office)**

- 1) Coordinate with the concessioner to provide tactile signage adjacent to the latch side of the restroom door with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.
- 2) Install door pulls on both sides of accessible compartment doors.

mid-term

- 3) Lower the baby changing station so that the top is between 28" and 34" above the finish floor with 27" minimum knee clearance under the surface.
- 4) Improve the restroom door to be operable with a closed fist.

long-term

### **Interior Signage (at general store/office building)**

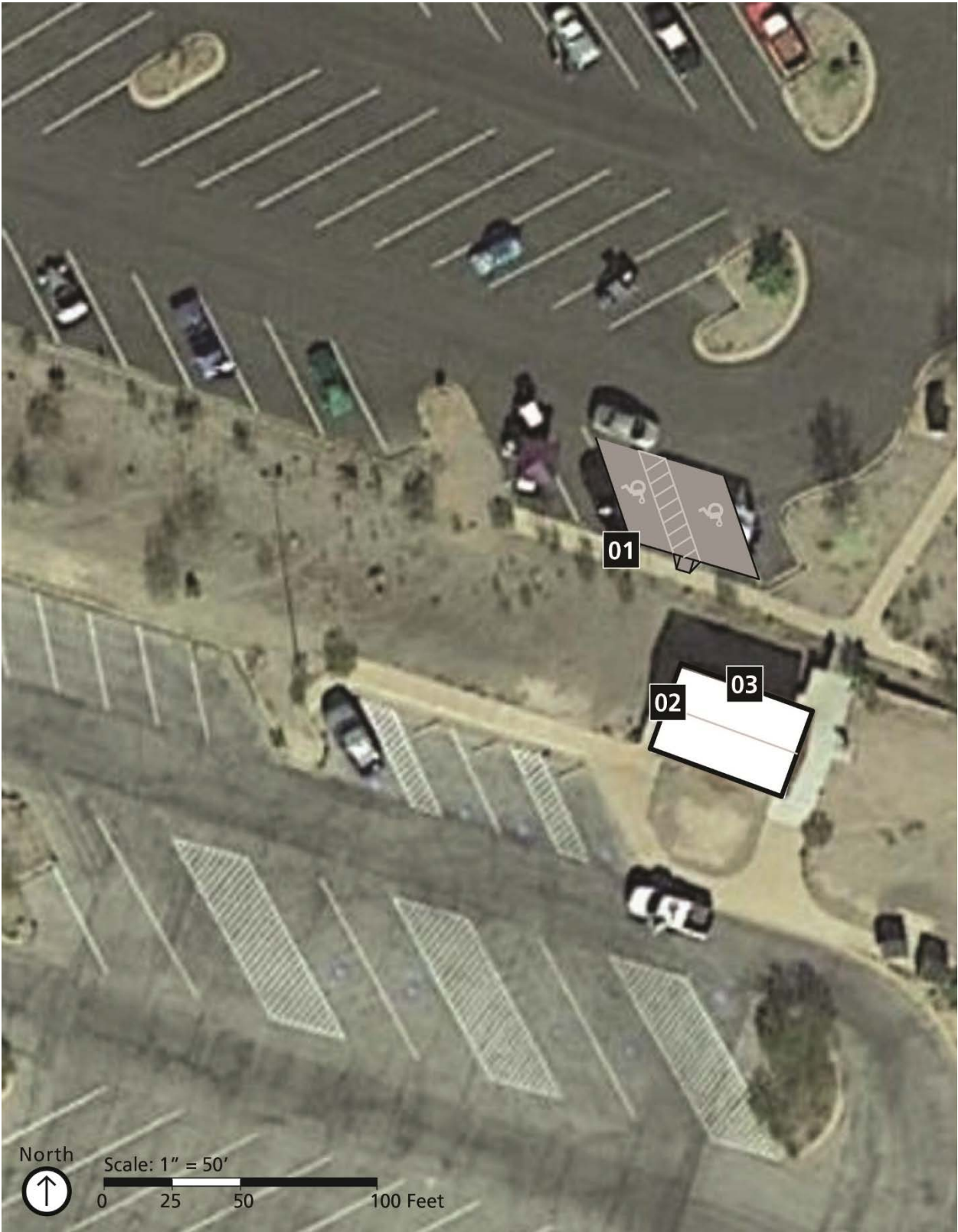
- 1) Coordinate with concessioner to provide tactile signage on the latch side of all exit doors. Tactile characters shall be located 48" minimum above the finish floor measured to the baseline of the lowest tactile character, and 60" maximum above the finish floor measured to the baseline of the highest tactile character.
- 2) Provide a clear floor space 18" by 18" minimum, centered on the tactile characters and provided beyond the arc of the door swing.

short-term



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Callville Bay Day Use Parking Area Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### **01** Car Parking (at day use parking area)

- 1) Provide additional accessible car parking stalls dispersed throughout the north and south lots. Refer to the scoping requirements of ABAAS (subsection F208) for the number of accessible stalls. Van-accessible stalls shall be 11' minimum in width with a 5' minimum width access aisle, or 8' minimum in width with an 8' minimum with access aisle and standard accessible stalls 8' minimum in width with a 5' minimum with access aisle. Stalls and access aisles shall be 2% maximum slope in all directions. Refer to ABAAS Chapter 2 Scoping Requirements (subsection F208) for the appropriate number of accessible stalls.
- 2) Provide an accessible parking sign at 60" minimum height to the bottom of the sign on each stall. Provide "van accessible" designation on van-accessible stalls.

long-term

### **02** Men's and Women's Restrooms (at day use area parking)

- 1) Relocate the toilet paper dispensers in accessible compartments to be between 7" and 9" in front of the toilet measured to the centerline of the dispensers, with the dispenser outlets between 15" and 19" above the finish floor.
- 2) Install door pulls on both sides of the accessible stall doors.
- 3) Wrap and insulate pipes under the lavatories to protect against contact.
- 4) Provide tactile signage adjacent to the latch side of restroom doors with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

### **03** Drinking Fountains

- 1) Install a standing-height drinking fountain with a spout height between 38" and 43" above the finish ground. The spout shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit.
- 2) Improve the flow of water to be 4" minimum in height and located 5" maximum from the front of the unit.

long-term



Callville Bay Trailer Village



## Implementation Strategy

The following planned improvements to this park area are:

### 01 Recreational Vehicle Camping Facilities (at Trailer Village)

- 1) Coordinate with concessioner to improve two RV campsites to be accessible so that the parking stalls, tent pads and shelters, outdoor constructed features, and routes meet the requirements of ABAAS, including Chapter 2 Scoping Requirements and Chapter 10 Recreation Facilities. Accessible campsites shall be distributed among the various areas and units available.

long-term

### 02 Camping Facilities (at Campground)

- 1) Improve the appropriate number of campsites to be accessible so that the parking stalls, tent pads and shelters, outdoor constructed features, and routes meet the requirements of ABAAS, including Chapter 2 Scoping Requirements and Chapter 10 Recreation Facilities. Accessible campsites shall be distributed among the various areas and units available.

long-term

### 03 Recreational Vehicle Camping Facilities (at Campground)

- 1) Improve two RV campsites to be accessible so that the parking stalls, tent pads and shelters, outdoor constructed features, and routes meet the requirements of ABAAS, including Chapter 2 Scoping Requirements and Chapter 10 Recreation Facilities. Accessible campsites shall be distributed among the various areas and units available.

long-term

### 04 Men's and Women's Restrooms (at Campground)

- 1) Insulate the pipes underneath accessible lavatories to prevent burns.
- 2) Provide tactile signage adjacent to the latch side of restroom doors with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 3) Stripe a 10' minimum width access aisle at passenger loading zones to discourage people from parking in them. Striping shall extend the full length of the zones.

long-term

### 05 Water Hydrants (at Campground)

- 1) Improve water hydrants that serve accessible campsites, the dump station, and the fish cleaning station by providing firm and stable clear ground spaces 72" by 48" minimum at 2% maximum slope in all directions. The spaces shall be located so that the water spouts are between 11" and 12" from the rear center of the long side of the space. Ensure that accessible water hydrants are located on outdoor recreation access routes.

- 2) Improve or provide a new water hydrant at each accessible space, with a faucet between 15" and 48" above the finish ground and water hose operable with a closed fist and no more than 5 pounds of force.

long-term

**Other services, activities, and programs to be improved include:**

**Dump Station (at Campground)**

- 1) Improve the dump station hydrant to be between 15" and 48" above the finish ground.
- 2) Modify the curb to provide a clear ground space 30" by 60" minimum at 2% maximum slope in all directions adjacent to the hydrant. The hookups shall be at the rear center of the space.

long-term



## Callville Bay Fish Cleaning Station and Bathing Facilities Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### **01 Fish Cleaning Station**

- 1) Improve the route between accessible parking stalls and the fish cleaning station to have a curb ramp with 8.3% maximum running slope and level landing at the top of the curb ramp 36" long minimum at 2% maximum slope in all directions.
- 2) Adjust the hydrant at the lower table to be between 15" and 48" above the finish ground and operable with a closed fist and no more than 5 pounds of force.

long-term

### **02 Car Parking (at laundry and bathing facility)**

- 1) Provide "van accessible" designation on the van-accessible stall.

long-term

### **03 Public Men's Bathing Facilities and Restrooms**

- 1) Coordinate with the concessioner to insulate pipes underneath accessible lavatories to prevent burns.
- 2) Lower paper towel and soap dispensers to be between 15" and 44" above the finish floor.
- 3) Provide tactile signage adjacent to the latch side of the restroom door with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor. Provide 18" by 18" minimum clear floor space underneath the sign.

mid-term

- 4) Improve bathing facilities so that the shower compartments, fixtures, dispensers, grab bars, and accessory items meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities (subsections 608-610).
- 5) Lower the baby changing station so that the handle is between 15" and 48" above the finish floor and its work surface, when open, is 34" maximum in height above the finish floor with 27" minimum knee clearance.

long-term

**04****Public Women's Bathing Facilities and Restrooms**

- 1) Coordinate with the concessioner to provide tactile signage adjacent to the latch side of the restroom door with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor. Provide 18" by 18" minimum clear floor space underneath the sign.
- 2) Lower paper towel dispensers to be between 15" and 44" above the finish floor.

mid-term

- 3) Improve bathing facilities so that the shower compartments, fixtures, dispensers, grab bars, and accessory items meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities (subsections 608-610).
- 4) Lower the accessible lavatory to be no higher than 34" above the finish floor. Insulate pipes underneath to prevent burns.
- 5) Lower the baby changing station so that the handle is between 15" and 48" above the finish floor and its work surface, when open, is 34" maximum in height above the finish floor with 27" minimum knee clearance.

long-term

**05****Gas Station**

- 1) As feasible, coordinate with the concessioner to provide refueling assistance for patrons with disabilities. Install signage with the appropriate phone number for patrons to call for assistance.
- 2) When a new gas pump is installed, it shall have operable parts (credit card reader, buttons) between 15" and 48" above the finish ground.
- 3) Lower trash can so that its opening is between 15" and 48" above the finish ground.

long-term

**06****Air Pressure Station**

- 1) Coordinate with the concessioner to lower the air service devices so all operable parts are located between 15" and 48" above the finish ground.
- 2) As best practice, improve the hose instrument to be operable with a closed fist and no more than 5 pounds of force.

long-term

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## COTTONWOOD COVE

### Motel, General Store, and Boat Launch Site Plan





## Implementation Strategy

The key park experiences provided at Cottonwood Cove are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

Activities and programs provided at this area for visitors include overnight accommodations, fishing and boating, ranger-led activities, picnicking and camping. The existing services that support these activities and programs include car parking, accessible routes, accessible hotel rooms, beach access, a short nature trail, interpretive waysides, a general store and cafe, boat rentals and fueling, picnic areas, restrooms, an upper and lower campground, an amphitheater, courtesy piers, boat launch and fish cleaning station.

Cottonwood Cove is located on Lake Mohave, so it doesn't have the challenges of facilities on Lake Mead. It is relatively flat near the lakeshore; topography steepens moving inland. A ranger station with accessible parking and accessible restrooms also serves as the trailhead for a short nature trail, The Desert Discovery Trail, a relatively flat loose gravel trail of approximately ¼ mile, with interpretive waysides. The upper campground is located near the ranger station and is used year-round.

In the next three to five years, the lower campground is scheduled to be renovated to improve accessibility.

Concession facilities at Cottonwood cove include a hotel, general store, and café, and are clustered along the lakeshore. The general store provides ample maneuvering space and an accessible boat rental counter. The café has accessible dining tables, but accessibility could be improved by widening the aisles and reconfiguring the seating area. The hotel rooms provide many accessible features and are targeted for future renovations during which minor barriers can be addressed. The café and associated picnic area lack maneuverable space, and the access routes between all three concession facilities require minor improvements.

The boat rental office in the marina has excellent maneuverable space, wide access piers, and an accessible rental counter. With minor signage and other improvements, the associated restrooms will be accessible. The Marina Services Building, a floating LEED certified building, includes two bathrooms with accessible stalls. The service counter is accessible and maps and handouts are provided at this location.

The picnic area, lower campground, and amphitheater are located across the small bay from the concession facilities. A large, relatively flat parking area serves these areas as well as the boat launch and fish cleaning station. The picnic area provides accessible

picnic tables and adequate maneuverable space but requires improvements to drinking fountains, water hydrants, and cooking grills. Soft sand paths lead to the beach.

The lower campground is relatively flat. The amphitheater is located near the campground fee station with no firm and stable surface or accessible route.

Some of the services in this area are managed by the National Park Service while others are managed through a concessions contract. Based on the terms of the contract, the concessioner is limited to the improvements that can be made. The National Park Service will provide the recommendations to the contractor and will work with them to implement them in stages when possible or when a new contract is issued. The items below have been notated to clarify which are operated by the NPS and which are operated by a concessioner.

The following planned improvements to this park area are:

### **01 Car Parking (at motel and general store)**

- 1) Provide one van-accessible parking stall and three standard accessible stalls. The van-accessible stalls shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle at 2% slope in all directions. Each standard stall shall be 8' minimum in width with a 5' minimum width access aisle. The stalls and access aisle shall be firm, stable, and slip resistant with 2% maximum slope in all directions.
- 2) Install accessible parking signage for each stall at 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on van accessible stalls.

long-term

### **02 Accessible Route and Walking Surfaces (at motel)**

- 1) Coordinate with the concessioner to improve the surface of the accessible route by filling gaps with widths greater than ½".

long-term

### **03 Restroom (in accessible motel room)**

- 1) Coordinate with the concessioner to relocate the toilet paper dispenser to the side wall of the toilet to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser and between 15" and 19" above the finish floor.

mid-term

#### **04 Bathing Facilities (in accessible motel room)**

- 1) Coordinate with the concessioner to replace the bathtub with a new unit and ensure that the bathtub seat, grab bars, and accessory items meet the requirements of ABAAS.

long-term

#### **05 Doors**

- 1) As feasible, coordinate with the concessioner to move the safety bar of the door to be between 15" and 48" above the finish floor, or replace the door with an accessible unit.

short-term

#### **06 Accessible Route and Walking Surfaces (at general store)**

- 1) Coordinate with the concessioner to relocate the propane tanks and other items in order to provide an accessible route with less than 2% cross slope.

long-term

#### **07 Vending Machines**

- 1) Coordinate with the concessioner to provide vending machines on which the pay devices are located between 15" and 48" above the finish floor or ground.

long-term

#### **08 Drinking Fountains (at store)**

- 1) Coordinate with the concessioner to establish an accessible route between site arrival points and the drinking fountain, 36" minimum in width at 5% maximum running slope and 2% maximum cross slope.
- 2) Install a standing-height drinking fountain with a spout height between 38" and 43" above the finish ground. The spout shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit, with a water flow 4" high minimum and 5" maximum from the front of the unit.

long-term

#### **09 Changing Room (at store)**

- 1) Coordinate with the concessioner to replace the door handle with a unit that is operable with a closed fist and no more than 5 pounds of force.
- 2) Lower at least one hook in the changing room to be between 15" and 48" above the finish floor.

immediate

**10**

### **Picnic Facilities (near motel and store)**

- 1) Coordinate with the concessioner to provide 20% of all picnic tables to be accessible picnic tables with 27" minimum height knee clearance, extended tabletops, and 36" minimum clear space around all sides. All accessible picnic tables shall be located on firm and stable surfaces at 2% maximum slope in all directions.
- 2) Improve the ground surface underneath all accessible picnic tables to have no openings wider than ½".

short-term

**11**

### **Accessible Route and Walking Surfaces (at café)**

- 1) Coordinate with the concessioner to establish an accessible route between accessible parking and the accessible entrance of the café, 36" minimum in width with 5% maximum running slope and 2% maximum cross slope.
- 2) Relocate interior elements of the café to provide appropriate maneuvering clearance, with routes 36" minimum in width, 60" by 60" minimum turning spaces, and appropriate clear floor spaces at counters and work surfaces.

long-term

**12**

### **Marina**

- 1) There are 234 boat slips at the marina. Coordinate with the concessioner to provide five accessible boat slips dispersed throughout the various types of boat slips provided. Boat slips, piers, and accessory items shall meet the requirements of ABAAS.

short-term

**13**

### **Suspended Devices**

- 1) Coordinate with the concessioner to lower or relocate all suspended devices for public use to be between 15" and 48" above the finish floor. Suspended devices may not project into the clear floor space more than 4". They shall be operable with a closed fist and no more than 5 pounds of force.
- 2) Ensure that all suspended devices have a clear floor space 30" by 48" minimum from a forward or parallel approach.

long-term

**14**

### **Drinking Fountains (at marina office area)**

- 1) Coordinate with the concessioner to establish an accessible route between site arrival points and the drinking fountain, 36" minimum in width at 5% maximum running slope and 2% maximum cross slope.
- 2) Install a standing-height drinking fountain with a spout height between 38" and 43" above the finish ground. The spout shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit, with a water flow 4" high minimum and 5" maximum from the front of the unit.

long-term

## **15 Men's and Women's Restrooms (at marina)**

- 1) Coordinate with the concessioner to provide tactile signage adjacent to the latch side of the restroom doors with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.
- 2) Provide a rear wall grab bar behind the toilet 36" minimum in length, extending from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side.
- 3) Relocate the sanitary seat cover dispensers to an accessible location with clear floor space 30" by 48". The dispenser shall be between 15" and 48" above the finish floor.

mid-term

## **16 Air Pressure Station**

- 1) Coordinate with the concessioner to lower the air service devices so all operable parts are located between 15" and 48" above the finish ground.
- 2) As best practice, improve the hose instrument to be operable with a closed fist and no more than 5 pounds of force.

long-term

## **17 Car Parking (at boat launch)**

- 1) Provide one van-accessible parking stall and five standard accessible stalls. The van-accessible stalls shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle at 2% slope in all directions. Each standard stall shall be 8' minimum in width with a 5' minimum width access aisle. The stalls and access aisle shall be firm, stable, and slip resistant with 2% maximum slope in all directions.
- 2) As is feasible, install accessible parking signage for each stall at 60" minimum from the ground to the bottom of the sign. If infeasible, provide one accessible

parking sign to designate the area and stripe accordingly. Provide "van accessible" designation on van-accessible stalls.

long-term

## **18 Restrooms (at boat ramp)**

- 1) Install new handles on the exit doors of both restrooms between 34" and 48" above the finish floor and operable with a closed fist.
- 2) Provide door pulls on both sides of accessible toilet compartment doors in men's and women's restrooms.
- 3) Lower the coat hooks to be between 15" and 48" above the finish floor.
- 4) Provide tactile signage adjacent to the latch side of the restroom doors with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

## **19 Fish Cleaning Station (at boat launch)**

- 1) Improve the sidewalk between parking and the fish cleaning station to have 5% maximum running slope and 2% maximum cross slope. Ensure any turning spaces are at 2% maximum slope in all directions.
- 2) Provide sprayers that are operable between 15" and 48" above the finish ground.

long-term

### **Other services, activities, and programs to be addressed at the boat launch:**

#### **Porta Potty Dump Station (at boat launch)**

- 1) Provide a ramp up to the interior surface of the dump station at 8.3% maximum running slope and with handrails.
- 2) Replace the spray devices with units operable with a closed fist and no more than 5 pounds of force. Locate them between 15" and 48" above the finish floor and no more than 20" from the counter edge.

long-term

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## Cottonwood Cove Community Center and RV Park Site Plan





## Implementation Strategy

The following planned improvements to this park area are:

### **01 Recreational Vehicle Camping Facilities (at RV park)**

- 1) Coordinate with concessioner to improve a total of four RV campsites to be accessible so that the parking stalls, tent pads and shelters, outdoor constructed features, and routes meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsections F244 and F245) and Chapter 10 Recreation Facilities (subsections 1011-104 and 1016). Accessible campsites shall be distributed among the various areas and units available.
- 2) Either remove the RV parking stall signage or improve the stall to be 20' minimum in width at 2% maximum slope in all directions and establish an outdoor recreation access route between the parking stall and the restroom.

long-term

### **02 Accessible Route and Walking Surfaces (at RV park)**

- 1) Coordinate with concessioner to remove the steps between accessible RV campsites and the restroom or relocate the route to provide an accessible path between the two. The path shall be 36" minimum in width at 2% maximum cross slope and 5% maximum running slope.

long-term

### **03 Men's and Women's Restrooms (at RV park)**

- 1) Coordinate with the concessioner to install grab bars on the rear and side walls of the accessible stalls at 33" – 36" above the finish floor. The rear wall grab bar shall be 36" minimum in length and extend from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side. The side wall grab bar shall be 42" minimum in length, located 12" maximum from the rear wall, and extending 54" minimum from the rear wall.
- 2) Relocate the toilet paper dispenser to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser and between 15" and 19" above the finish floor.

mid-term

- 3) Alter toilet flush controls in men's and women's accessible stalls to be on the open side of the water closets.

long-term

#### **04 Public Bathing Facilities (at RV park)**

- 1) Coordinate with the concessioner to lower at least one coat hook in each accessible shower area to be between 15" and 48" above the finish floor.
- 2) Lower mirrors above accessible lavatories and countertops to have a bottom edge 40" maximum above the finish floor and mirrors not above lavatories or countertops to have a bottom edge 35" maximum above the finish floor.
- 3) Ensure that tactile identification signage is provided adjacent to the latch side of the shower room door. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

short-term

- 4) Refurbish the shower room(s) so that at least one shower in each restroom is accessible, including shower compartments, dispensers, grab bars, and accessory items. They shall meet the requirements of ABAAS.

long-term

#### **05 Car Parking (at RV park)**

- 1) Remove the accessible parking sign from the wall of the building.

immediate

#### **06 Accessible Route and Walking Surfaces (at community center)**

- 1) Coordinate with concessioner to improve the routes leading to the front door of the building and to the patio to be no more than 5% running slope or 8.3% as a ramp with handrails.

long-term

#### **07 Interior Signage (at community center)**

- 1) Coordinate with concessioner to provide tactile signage on the latch side of all exit doors. Tactile characters shall be located 48" minimum above the finish floor measured to the baseline of the lowest tactile character, and 60" maximum above the finish floor measured to the baseline of the highest tactile character.
- 2) Provide a clear floor space 18" by 18" minimum, centered on the tactile characters and provided beyond the arc of the door swing.

immediate

## **08** Restrooms (at community center)

- 1) Coordinate with concessioner to provide tactile signage adjacent to the latch side of accessible restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 2) Improve the restroom to provide an accessible toilet with fixtures, dispensers, grab bars, and accessory items that meet the requirements of ABAAS.

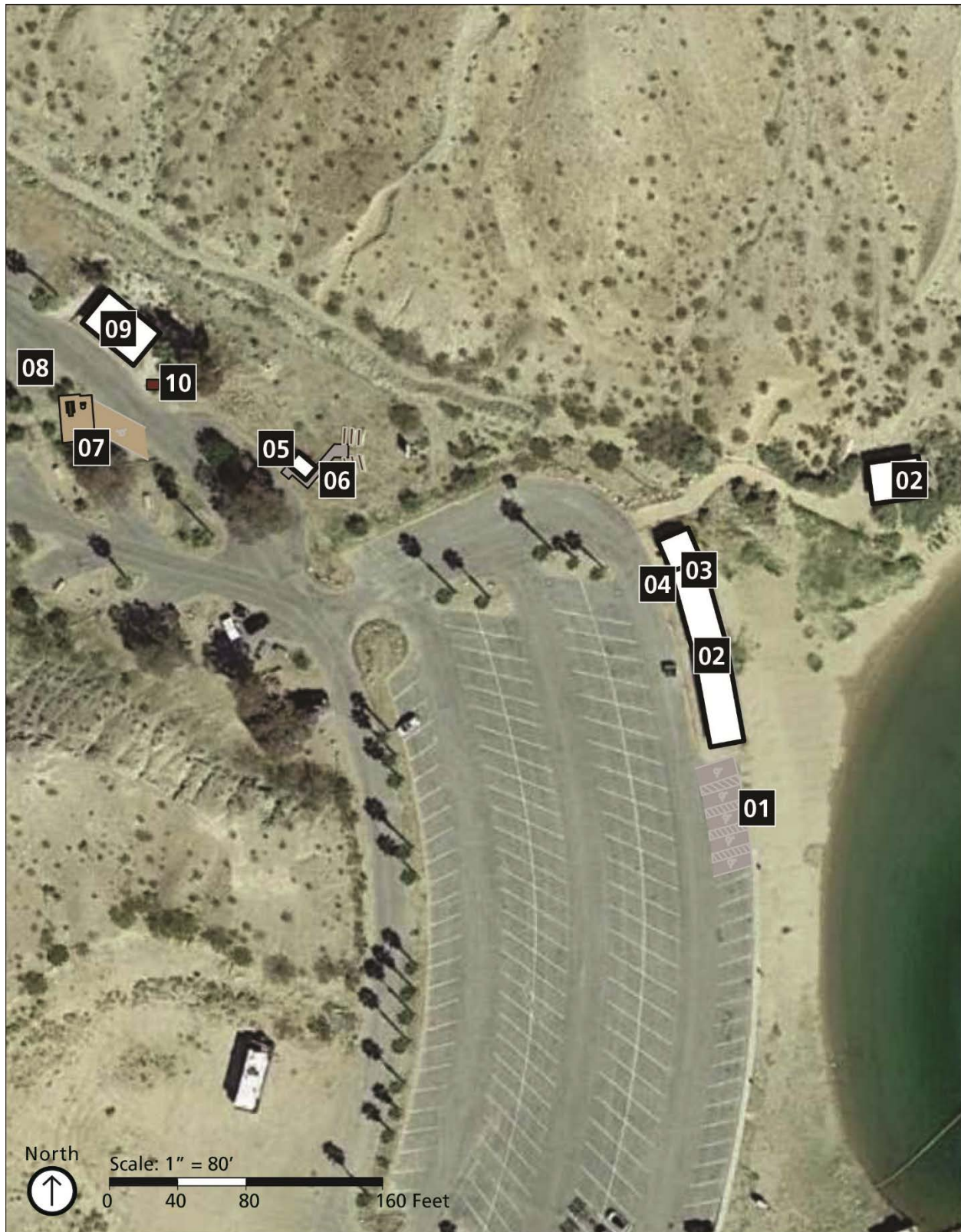
long-term

## **09** Grill (at community center)

- 1) Coordinate with concessioner to alter the shelter to provide 36" minimum clear space along the route to the grill and remove the raised platform so that the grill is on a flat concrete pad, or relocate the grill to an accessible location.
- 2) Reduce the force necessary to open the grill lid to be no more than 5 pounds, or replace the grill with a new unit.

long-term

## Cottonwood Cove North Picnic Area and Lower Campground Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### **01 Car Parking (at north picnic area)**

- 1) Provide a minimum of one van-accessible parking stall and five standard accessible stalls. The van-accessible stall shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle at 2% slope in all directions. Each standard stall shall be 8' minimum in width with a 5' minimum width access aisle. The stalls and access aisle shall be firm, stable, and slip resistant with 2% maximum slope in all directions.
- 2) Install accessible parking signage for each stall at 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stalls.

long-term

### **02 Picnic Facilities (at north picnic area)**

- 1) Provide accessible picnic tables (minimum of 20%) with 27" minimum height knee clearance, an extended tabletop, and 36" minimum clear space around all sides. All accessible picnic tables shall be located on a firm and stable surface at 2% maximum slope in all directions.

long-term

### **03 Drinking Fountains (at north picnic area)**

- 1) Lessen the force required to operate the drinking fountains to be no more than 5 pounds.
- 2) Improve the flow of water to be 4" minimum in height and located 5" maximum from the front of the unit.

short-term

### **04 Trash and Recycling Receptacles (at north picnic area)**

- 1) To the extent practicable, improve or replace at least one set of trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

short-term

## **05 Kiosk (at lower campground)**

- 1) Remove the sand from the walkway to expose the concrete surface below and establish a firm and stable surface.

short-term

## **06 Amphitheater (at lower campground)**

- 1) Provide a firm and stable route to the amphitheater at 36" minimum width, 5% maximum running slope and 2% maximum cross slope.
- 2) Provide one accessible wheelchair space and one adjacent companion space in the amphitheater. Booth spaces shall be firm, stable, and slip resistant at 2% maximum slope in all directions. The wheelchair space shall be 36" minimum in width and 48" minimum in depth when entered from the front or rear (60" minimum depth when entered from the side). The companion seat shall be in shoulder alignment with the adjacent wheelchair space.

long-term

## **07 Camping Facilities (at lower campground, campsite #1)**

- 1) Improve the parking stall at the campsite to be 16' minimum in width at 2% maximum slope in all directions.
- 2) Improve the surface of the campsite around the picnic table, grill, and tent pad to be 2% maximum slope in all directions.

long-term

## **08 Camping Facilities (at lower campground)**

- 1) Improve two additional tent campsites to be accessible so that the parking stalls, tent pads and shelters, outdoor constructed features, and routes meet the requirements of ABAAS. Accessible campsites shall be distributed among the various areas and units available.

long-term

## **09 Men's and Women's Restrooms (at lower campground)**

- 1) Provide tactile signage adjacent to the latch side of the restroom doors with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

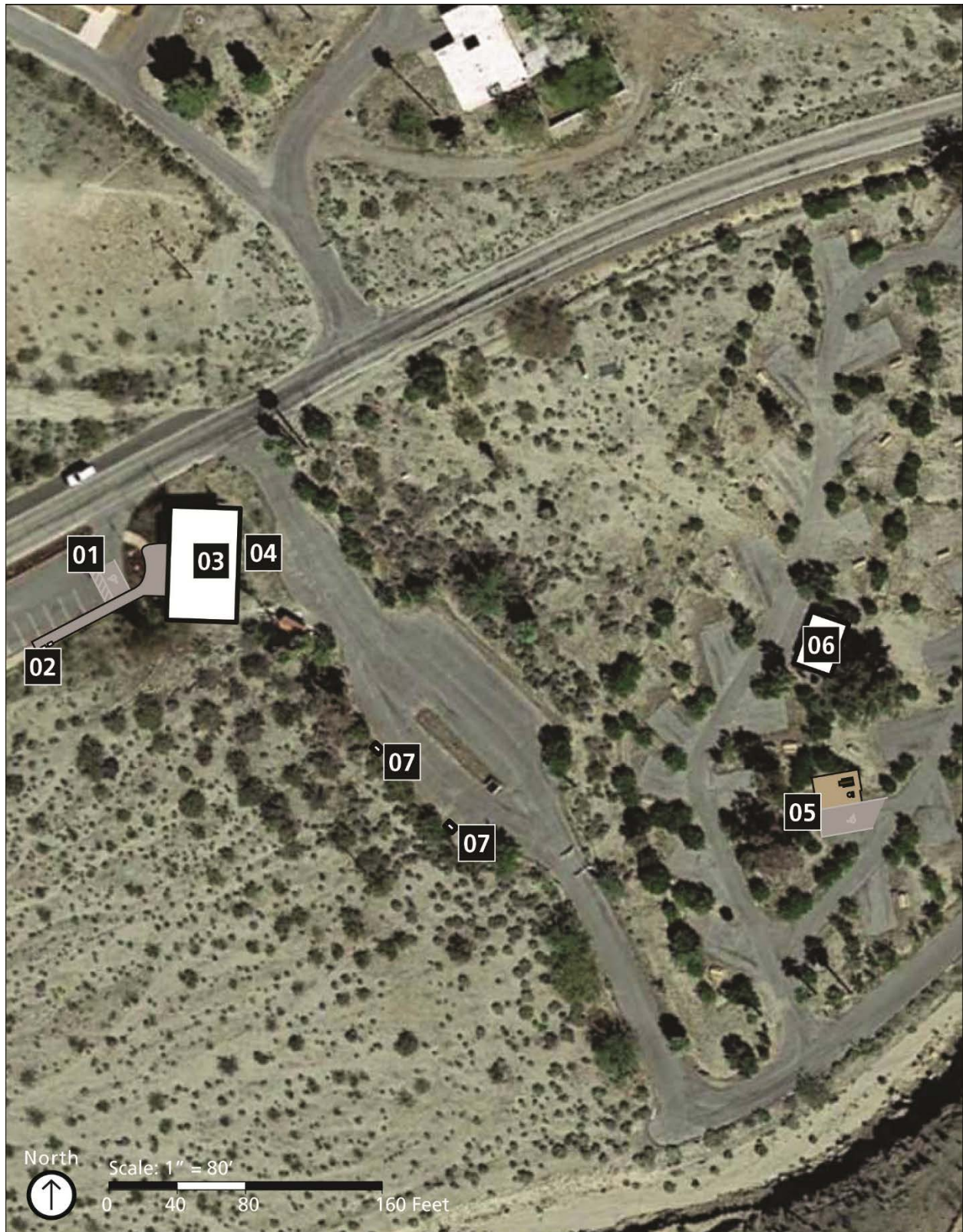
**10****Trash and Recycling (at lower campground)**

- 1) Relocate the dumpster to an accessible location on a firm and stable surface, or install a new trash container in an accessible location. It shall be positioned to provide a forward approach 36" by 48" minimum or parallel approach 30" by 60" minimum.
- 2) Provide a trash receptacle operable with a closed fist and no more than 5 pounds of force, with a lid between 15" and 48" above the finish ground surface. Move the dumpster from the access aisle to leave it clear.

short-term



## Cottonwood Cove Ranger Station and Upper Campground Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### **01 Car Parking (at ranger station)**

- 1) Improve the accessible parking stall to be no more than 2% slope in all directions.
- 2) Install accessible parking signage at 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stall.

long-term

### **02 Interpretive Waysides (at ranger station)**

- 1) As best practice, provide waysides that refrain from using italics and underlined text.

long-term

### **03 Men's and Women's Restrooms (at ranger station)**

- 1) Relocate toilet paper dispensers in both restrooms to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.

mid-term

### **04 Drinking Fountains (at ranger station)**

- 1) Provide a wheelchair-height drinking fountain with a spout height 15" minimum from the vertical support and 5" maximum from the front edge of the unit, and provide a standing-height drinking fountain with a spout height between 38" and 43" above the finish ground. The spouts shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit, with a water flow 4" high minimum and 5" maximum from the front of the unit.

long-term

### **05 Camping Facilities (at upper campground)**

- 1) Improve five tent campsites to be accessible so that the parking stalls, tent pads and shelters, outdoor constructed features, and routes meet the requirements of ABAAS. Accessible campsites shall be distributed among the various areas and units available.

long-term

**06****Men's and Women's Restrooms (at upper campground)**

- 1) Provide tactile signage adjacent to the latch side of restroom doors with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.
- 2) Install door pulls on both sides of accessible stall doors.
- 3) Lower the coat hooks to be between 15" and 48" above the finish floor.
- 4) Install new handles on the exit doors of both restrooms between 34" and 48" above the finish floor and operable with a closed fist.

mid-term

**07****Water Hydrants (potable and non-potable, at upper campground)**

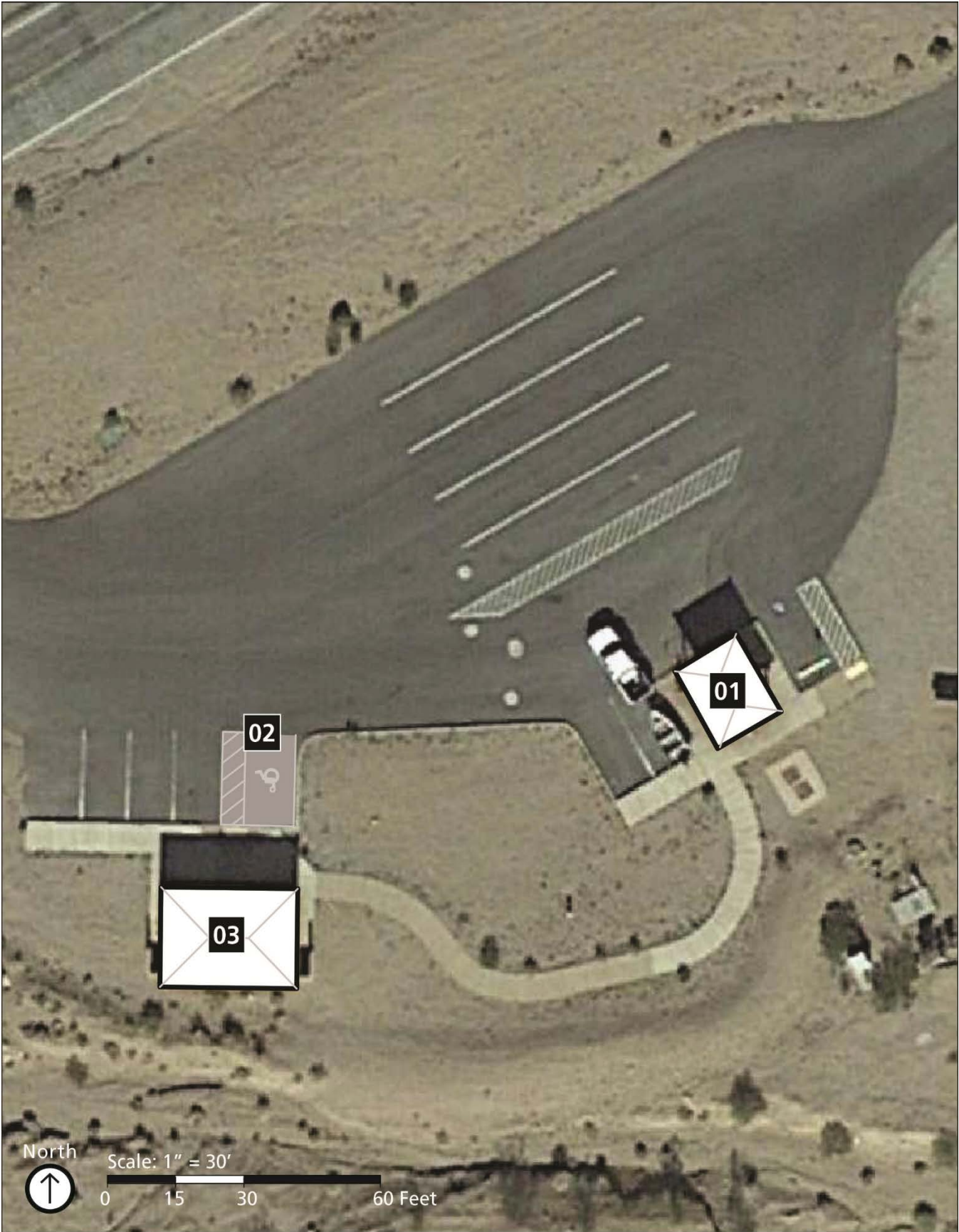
- 1) Improve the surfaces at the water hydrants to provide firm and stable clear ground spaces 72" by 48" minimum at 2% maximum slope in all directions. Each space shall be located so that the waterspout is between 11" and 12" from the rear center of the long side of the space. Ensure that accessible water hydrants are located on the recreation access routes.
- 2) Improve or provide new water hydrants with faucets between 15" and 48" above the finish ground and water hoses operable with a closed fist and no more than 5 pounds of force.

long-term

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Fish Cleaning Station Site Plan



## Implementation Strategy

The key park experiences provided at Hemenway Harbor are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include ranger-led programs, site interpretation through waysides, picnicking, fishing and boat tours. The existing services that support these activities and programs include car parking, accessible routes, restaurants, general stores, boat rentals, marinas, a fish cleaning station, restrooms, drinking fountains, laundry facilities, and bathing facilities.

Hemenway Harbor includes three distinct areas: the Las Vegas Boat Harbor, Lake Mead Marina, and Lake Mead Cruises. A fish cleaning station and restroom serve these facilities at the top of the long boat launch leading down to the marinas at the lake edge. Designated accessible parking and accessible routes are provided at the fish cleaning station, and only minor adjustments are needed to the fish cleaning station, parking, and restrooms in order to improve the area to better serve visitors with disabilities.

Significant elevation and lake level changes create challenges to providing accessible parking and routes to service the two marinas and cruise ship facilities. Visitors with disabilities park on the steeply sloped boat launch ramp or lake edge with all other visitors. Some elements of concessioner facilities are accessible, including many of the routes between facilities, but significant upgrades are needed in other locations to provide visitors with disabilities accessible experiences. Restrooms, bathing facilities, and laundry facilities require some of the more significant upgrades, and accessible boat slips are not provided at either of the marinas. The cruise ship at Lake Mead Cruises provides a comfortable and mostly accessible interior space, but steep ramps provide entry into the space and the accessible restroom has limited interior maneuvering space.

In 2013, through the \$1.2 million Boulder Beach Enhancement Project, a new asphalt parking lot was paved for the existing fish cleaner and restrooms on Hemenway Harbor Access Road.

Some of the services in this area are managed by the National Park Service while others are managed through a concessions contract. Based on the terms of the contract, the concessioner is limited to the improvements that can be made. The National Park Service will provide the recommendations to the contractor and will work with them to implement them in stages when possible or when a new contract is issued. The items below have been notated to clarify which are operated by the NPS and which are operated by a concessioner.

The following planned improvements to this park area are:

### **01 Fish Cleaning Station**

- 1) Alter the fish cleaning station to provide a working surface with the top between 28" and 34" above the ground.
- 2) Adjust the hose handle to be operable with a closed fist and no more than 5 pounds of force.

long-term

### **02 Car Parking**

- 1) Restripe the van-accessible stall to be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle at 2% slope in all directions.

mid-term

### **03 Men's and Women's Restroom**

- 1) Relocate tactile signage adjacent to the latch side of men's and women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.
- 2) Lower the coat hooks to be between 15" and 48" above the finish floor.

mid-term

- 3) Alter toilet flush controls in men's and women's accessible stalls to be on the open side of the water closets.
- 4) Lower the sink rims to be no more than 34" in height above the finish floor.

long-term



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## Implementation Strategy

The following planned improvements to this park area are:

### 01 Car Parking

- 1) To the extent practicable, provide designated accessible parking stalls on the shortest accessible route to the marina gangway. Refer to the scoping requirements of ABAAS (subsection F208) for the appropriate number of accessible stalls. By striping, movable signage, or other designation, provide van-accessible stalls 11' minimum in width with a 5' minimum width access aisle and standard accessible stalls 8' in width with a 5' minimum width access aisle.
- 2) Raise the accessible parking signs to be 60" minimum above the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stalls.
- 3) Consider providing a signed and marked passenger pickup/drop-off location at the marina gangway. It shall be 96" minimum in width and 20' minimum in length with a 5' minimum width access aisle.

long-term

### 02 Accessible Routes

- 1) As is feasible, coordinate with concessioner to improve the route between parking and boat dock. Provide a firm, stable, and slip resistant surface with 5% maximum running slopes and 2% maximum cross slopes.
- 2) Improve the boat dock so that gaps between boards and at transition plates are no wider than ½ ". Improve transitions to not exceed 5% running slope and ½ " high thresholds.

long-term

### 03 Men's and Women's Restrooms

- 1) Coordinate with concessioner to install door pulls on the inside and outside of accessible stall doors.
- 2) Provide tactile signage adjacent to the entrances of men's and women's restrooms. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

## Handrails Outside Restrooms

- 1) Provide new handrails or relocate the existing handrails inward on the ramp to provide 12" minimum handrail extensions at the top of the ramp.

long-term

**04**

## Restaurant

- 1) Coordinate with concessioner to provide tactile signage adjacent to the latch side of men's and women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.
- 2) Provide rear wall grab bars in accessible stalls 36" minimum in length and extending from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side.

mid-term

- 3) Improve the landing at the restaurant door to be 60" minimum in length at 2% maximum slope in all directions.
- 4) Improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide an adjacent clear floor space 30" by 48" minimum.
- 5) Reconfigure the accessible stalls to be 60" minimum in width and 59" minimum in length.
- 6) Lower the dryers to be between 15" and 48" above the finish floor.
- 7) Provide sinks that allow a forward approach, with rims 34" maximum in height and providing 27" minimum knee clearance extending a depth of 8".

long-term

**05**

## Marina

- 1) Coordinate with concessioner to replace the handle on the dock gate to be a lever that is operable with a closed fist and no more than 5 pounds of force.
- 2) Improve the appropriate number of boat slips to be accessible, with boat slips, piers, and accessory items that meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F235) and Chapter 10 Recreation Facilities (subsection 1003).
- 3) Improve or replace power pedestals so that controls are between 15" and 48" above the finished ground and operable with a closed fist and no more than 5 pounds of force.

long-term

**06**

## Store

- 1) Coordinate with concessioner to improve the landing at the store door to be 60" by 60" minimum at 2% maximum slope in all directions.
- 2) Improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide an adjacent clear floor space 30" by 48" minimum.

long-term

## **07 Public Bathing Facilities**

- 1) Coordinate with concessioner to ensure that at least one shower in each shower room is accessible, including shower compartments, dispensers, grab bars, and accessory items. They shall meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities.
- 2) Ensure that tactile identification signage is provided adjacent to the latch side of the shower room door. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

long-term

## **08 Boat Rental Shop**

- 1) Coordinate with concessioner to improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide an adjacent clear floor space 30" by 48" minimum.

long-term

### **Other services, activities, and programs located at the Las Vegas Boat Harbor:**

#### **Water Fountains**

- 1) Coordinate with concessioner to install an additional drinking fountain, one with a spout height 36" maximum above the finish ground. The spouts shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit, with a water flow 4" high minimum and 5" maximum from the front of the unit. Ensure the device provides 27" minimum height knee clearance with 8" minimum depth.

long-term

### Portable Restrooms (at launch ramp)

- 1) Provide tactile signage adjacent to the latch side of accessible restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

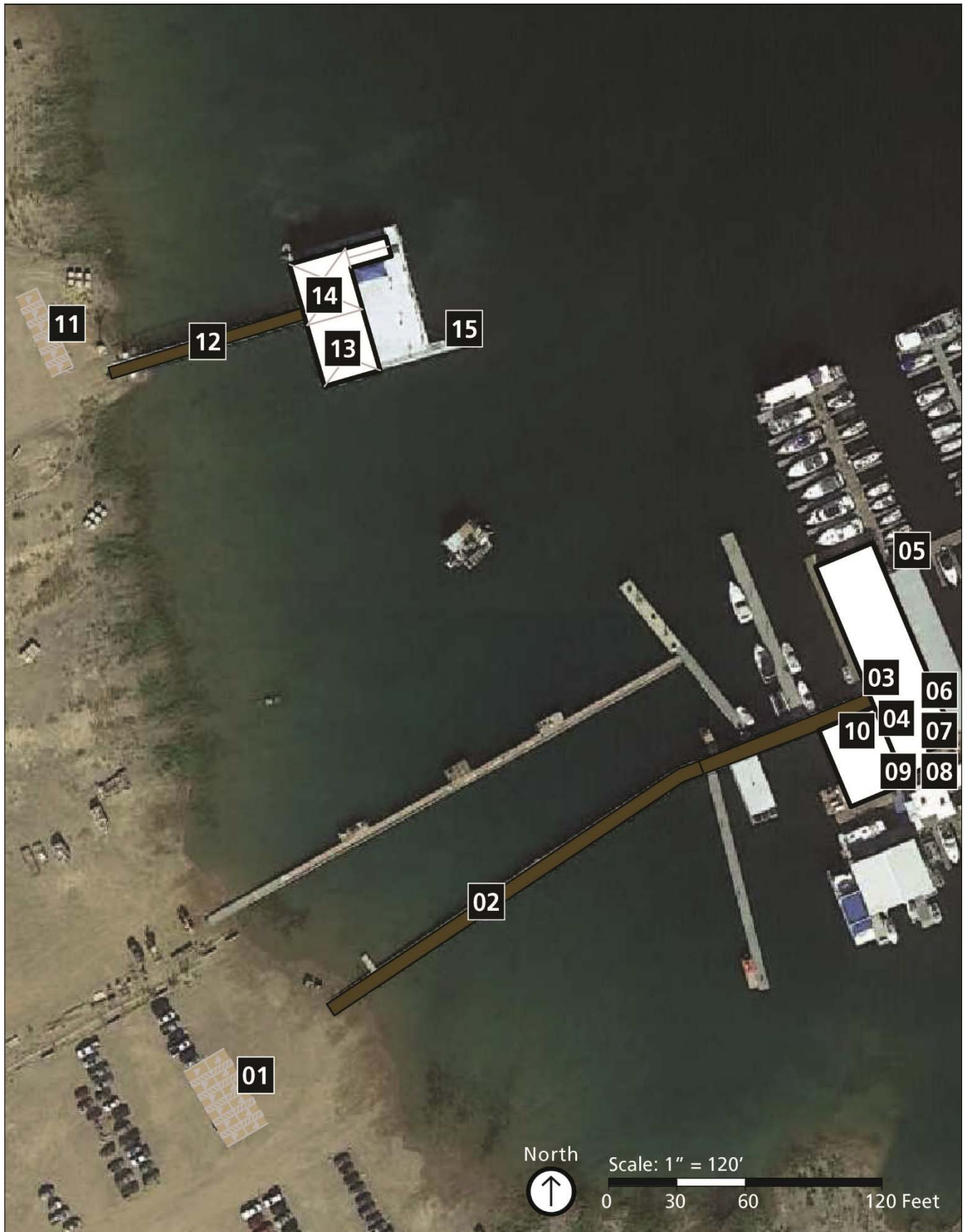
- 2) Improve 5% of total portable restrooms clustered in single locations and no less than one in any other location to provide an accessible toilet with fixtures, dispensers, grab bars, and accessory items that meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsections F212 and F213) and Chapter 6 Plumbing Elements and Facilities.
- 3) Develop standard operating procedures to define how and where accessible portable restrooms are to be located on accessible routes. Ensure that ramps are no steeper than 8.33%, rise no more than 30" in any given run section, have no gaps wider than ½", and thresholds do not exceed ¼" or ½" with a beveled edge.

long-term

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## Lake Mead Marina and Lake Mead Cruises Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### 01 Car Parking (Lake Mead Marina)

- 1) To the extent practicable, provide designated accessible parking stalls on the shortest accessible route to the marina gangway. Refer to the scoping requirements of ABAAS (subsection F208) for the appropriate number of accessible stalls. By striping, movable signage, or other designation, provide van-accessible stalls 11' minimum in width with a 5' minimum width access aisle and standard accessible stalls 8' in width with a 5' minimum width access aisle.
- 2) Raise the accessible parking signs to be 60" minimum above the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stalls.
- 3) Consider providing a signed and marked passenger pickup/drop-off location at the marina gangway. It shall be 96" minimum in width and 20' minimum in length with a 5' minimum width access aisle.

long-term

### 02 Accessible Route and Walking Surfaces (Lake Mead Marina)

- 1) As is feasible, coordinate with concessioner to improve the route between parking and boat dock. Provide a firm, stable, and slip resistant surface with 5% maximum running slopes and 2% maximum cross slopes.
- 2) Improve the gangway so that gaps between boards and at transition plates are no wider than ½."

long-term

### 03 Restaurant (Lake Mead Marina)

- 1) Coordinate with concessioner to improve the landing at the restaurant door to be 60" minimum in length at 2% maximum slope in all directions.
- 2) Improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide an adjacent clear floor space 30" by 48" minimum.
- 3) Improve the ramp by adding handrail extensions that extend 12" minimum from the bottom of the ramp run.

long-term

### 04 Store (Lake Mead Marina)

- 1) Coordinate with concessioner to improve the landing at the store door to be 60" by 60" minimum at 2% maximum slope in all directions.
- 2) Improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide an adjacent clear floor space 30" by 48" minimum.

long-term

**Marina (Lake Mead Marina)**

- 1) Coordinate with concessioner to replace the handle on the dock gate to be a lever that is operable with a closed fist and no more than 5 pounds of force.
- 2) Improve the appropriate number of boat slips to be accessible, with boat slips, piers, and accessory items that meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F235) and Chapter 10 Recreation Facilities (subsection 1003).
- 3) Improve or replace power pedestals so that controls are between 15" and 48" above the finished ground and operable with a closed fist and no more than 5 pounds of force.

long-term

**Men's Restroom (Lake Mead Marina)**

- 1) Coordinate with concessioner to relocate the paper towel dispenser away from the approach to the accessible sink and install in an open area at a height between 15" and 48" above the finish floor.
- 2) Relocate tactile signage adjacent to the latch side of the men's restroom door. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 3) Coordinate with concessioner to provide a wheelchair toilet stall and ensure that the toilet compartment, fixtures, dispensers, grab bars, and accessory items meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities.
- 4) Relocate the lower urinal away from the approach to the accessible sink, or alter another sink to have 27" minimum height knee clearance. The lip of the urinal shall remain 17" maximum in height above the finish floor.

long-term

**Women's Restroom**

- 1) Coordinate with concessioner to relocate dispensers away from the approach to the accessible sink and install in an open area at a height between 15" and 48" above the finish floor.
- 2) Relocate tactile signage adjacent to the latch side of the women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 3) Provide a wheelchair toilet stall and ensure that the toilet compartment, fixtures, dispensers, grab bars, and accessory items meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities.
- 4) Lower the baby changing station so that the handle is between 15" and 48" above the finish floor and its work surface, when open, is 34" maximum in height above the finish floor with 27" minimum knee clearance.

long-term

## **08 Public Bathing Facilities (Lake Mead Marina)**

- 1) Coordinate with concessioner to refurbish the shower rooms so that at least one shower in each restroom is accessible, including shower compartments, dispensers, grab bars, and accessory items. They shall meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities.
- 2) Reduce the threshold at the shower room door to be no more than ¼" in height or ½" with a beveled edge.
- 3) Provide tactile identification signage adjacent to the latch side of the shower room door. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

long-term

## **09 Laundry Facilities (Lake Mead Marina)**

- 1) Coordinate with the concessioner to lower or relocate dispensers (e.g., soap dispenser) to be operable between 15" and 48" above the finish floor.
- 2) Coordinate with concessioner to provide a level landing outside of the laundry room door at 60" by 60" minimum and 2% maximum slope in all directions.
- 3) Reduce the threshold at the laundry room door to be no more than ¼" in height or ½" with a beveled edge.
- 4) Lower the counter to be 34" maximum in height above the finish floor while still providing 27" minimum knee clearance underneath.

long-term

## **10 Boat Sales Office (Lake Mead Marina)**

- 1) Coordinate with concessioner to improve the threshold at the office door to be no more than ¼" or ½" with a beveled edge.

long-term

### **Other services, activities, and programs located at Lake Mead Marina:**

#### **Ramps**

- 1) Coordinate with concessioner to improve or replace ramps that have higher than 8.33% running slope.
- 2) Improve the ramps by adding handrail extensions that extend 12" minimum from the top and bottom of the ramp runs.

long-term

## Water Hydrants

- 1) Coordinate with concessioner to raise the water hydrant to be operable between 15" and 48" above the finish floor.

short-term

## Suspended Devices

- 1) Coordinate with concessioner to lower or relocate all suspended devices for public use to be between 15" and 48" above the finish floor. Suspended devices may not project into the clear floor space more than 4". They shall be operable with a closed fist and no more than 5 pounds of force.
- 2) Ensure that all suspended devices have a clear floor space 30" by 48" minimum from a forward or parallel approach.

short-term

## Drinking Fountains

- 1) Coordinate with concessioner to install an additional drinking fountain, one with a spout height 36" maximum above the finish ground. The spouts shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit, with a water flow 4" high minimum and 5" maximum from the front of the unit. Ensure the device provides 27" minimum height knee clearance with 8" minimum depth.

long-term

## Services, activities, and programs located at Lake Mead Cruises:

### 11 Car Parking (Lake Mead Cruises)

- 1) To the extent practicable, provide designated accessible parking stalls on the shortest accessible route to the gangway. Refer to the scoping requirements of ABAAS (subsection F208) for the appropriate number of accessible stalls. By striping, movable signage, or other designation, provide van-accessible stalls 11' minimum in width with a 5' minimum width access aisle and standard accessible stalls 8' in width with a 5' minimum width access aisle.
- 2) Raise the accessible parking signs to be 60" minimum above the ground to the bottom of the sign. Provide "van accessible" designation on van-accessible stalls.
- 3) Consider providing a signed and marked passenger pickup/drop-off location at the gangway. It shall be 96" minimum in width and 20' minimum in length with a 5' minimum width access aisle.

long-term

### 12 Accessible Route and Walking Surfaces (Lake Mead Cruises)

- 1) As is feasible, coordinate with concessioner to improve the route between parking and concession's shop. Provide a firm, stable, and slip resistant surface with 5% maximum running slopes and 2% maximum cross slopes. One option may be providing a temporary removable access pad that could be extended or shortened depending on the water level.

- 2) Improve the gangway so that gaps between boards and at transition plates are no wider than ½".

long-term

### **13 Service Counter (Lake Mead Cruises)**

- 1) Coordinate with concessioner to improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide an adjacent clear floor space 30" by 48" minimum.

long-term

### **14 Restrooms (Lake Mead Cruises)**

- 1) Coordinate with concessioner to provide tactile signage adjacent to the latch side of accessible restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 2) Improve the accessible restroom and convert three other restrooms to provide accessible toilet rooms with fixtures, dispensers, grab bars, and accessory items that meet the requirements of ABAAS.

long-term

### **15 Gangway to Cruise**

- 1) Coordinate with concessioner to improve the gangway by adding handrail extensions that extend 12" minimum from the top of the ramp run.

long-term

## **Other services, activities, and programs located at Lake Mead Cruises:**

### **Interior Signage**

- 1) Coordinate with concessioner to provide tactile signage on the latch side of all exit doors. Tactile characters shall be located 48" minimum above the finish floor measured to the baseline of the lowest tactile character, and 60" maximum above the finish floor measured to the baseline of the highest tactile character.
- 2) Provide a clear floor space 18" by 18" minimum, centered on the tactile characters and provided beyond the arc of the door swing.

short-term

### **Comment Card Dropbox**

- 1) Coordinate with concessioner to lower the drop box so that its top hinge is no more than 48" above the finish ground.

short-term

## Media in Breezeway Booth

- 1) Coordinate with concessioners to ensure media presented is accessible, with 24-point minimum font, sans serif fonts, appropriate colors, 70% contrast between text and images, and avoidance of italics and all caps.
- 2) Simplify media presented in the booth to make it easy to read and understand.

long-term

## Services, activities, and programs located on the cruise ship:

### Accessible Route and Walking Surfaces on Cruise Ship

- 1) As feasible, coordinate with concessioner to provide a level landing, 60" minimum in length with 2% maximum slope in all directions, at the top of the ramps at the cruise ship entrance door.

long-term

### Restrooms on Cruise Ship

- 1) Coordinate with the concessioner to lower the coat hook to be between 15" and 48" above the finish floor.
- 2) Relocate tactile signage adjacent to the latch side of men's and women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 3) As best practice, lower the urinal so that its rim is 17" maximum in height above the finish floor.

long-term



HISTORIC RAILROAD TRAIL TRAILHEAD

Site Plan



## Implementation Strategy

The key park experiences provided at Historic Railroad Trail Trailhead are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's river and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, hiking and cycling. The existing services that support these activities and programs include car parking, outdoor recreation access routes, interpretive waysides, restrooms, a bike repair station and a hiking trail.

The trailhead has ample parking, updated restroom facilities, several interpretive waysides, and is paved up to the historic trail. Due to the grades present leading from the parking lot to the historic trail, it is difficult to meet slope requirements with the paved section of trail. In 2016, the trail was part of a \$400,000 upgrade. The trail surface was stabilized, leveled and resurfaced with a firm base.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) Regrade the accessible stalls and access aisle to be firm, stable, and slip resistant with 2% maximum slope in all directions. Provide one angled van-accessible stall at 11' minimum width with a 5' minimum width access aisle on the passenger side and one standard accessible stall at 8' minimum width sharing the access aisle.
- 2) Provide "van accessible" signage designating the van-accessible stall.
- 3) Improve the curb ramp to be parallel-style so that the paved center square is level at 2% maximum slope in all directions, and ramp up the adjacent squares.

long-term

### **02** Restrooms

- 1) Improve the pavement outside of the restroom door closest to the parking lot and provide a level landing 60" by 60" minimum at 2% maximum slope in all directions.
- 2) Reset the door so that it swings freely in the frame.

long-term

### **03**    **Trash and Recycling Receptacles**

- 1) To the extent practicable, improve or replace at least two trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term

### **04**    **Interpretive Waysides (near parking lot and upper trailhead)**

- 1) Provide a level landing up to each wayside, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions, or move inaccessible waysides to accessible locations.
- 2) As best practice, provide waysides that use sans serif, 24-point minimum fonts, and refrain from using italics and all caps.

long-term

### **05**    **Trailhead Signage**

- 1) Provide a level landing at trailhead sign, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.
- 2) Improve or replace sign to provide details of trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross-section that demonstrates slope conditions.

long-term

### **06**    **Outdoor Recreation Access Routes**

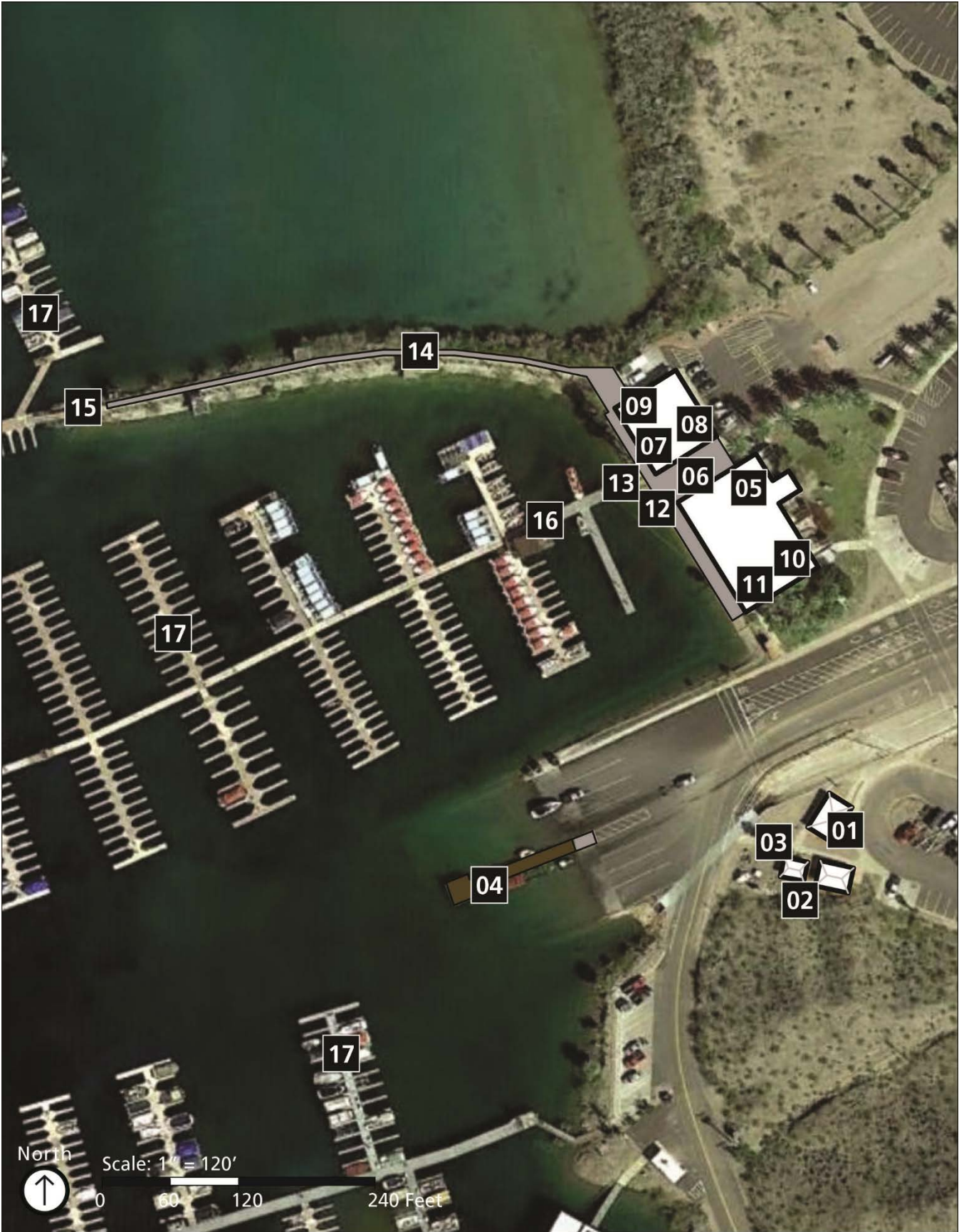
- 1) Establish a firm and stable outdoor recreation access route between accessible parking stalls and trailhead, at 36" minimum width with 2% maximum cross slope and 5% maximum running slope (wherever possible). Where running slope exceeds 5% up to 8.33%, the maximum segment length permitted is 50'. Where running slope exceeds 8.33% up to 10%, the maximum segment length permitted is 30'. No segment shall be steeper than 10%. Ensure resting intervals are provided at the top and bottom of each segment, regardless of segment length. Ensure openings in the surface of the route are no wider than ½".

long-term

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Site Plan



## Implementation Strategy

The key park experiences provided at Katherine Landing are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include fishing and boating, hiking, ranger led activities, picnicking and camping. The existing services that support these activities and programs include car parking, accessible routes, a visitor contact station, a trail, interpretive waysides, a general store, boat rentals and fueling, picnic areas, restrooms, a campground, an RV dump station, laundry and shower facilities, an information center, courtesy piers, boat launch, and fish cleaning station.

Katherine Landing comprises a large area that ranges in elevation from the lake's edge to an upland campground. In 2016, the area received an \$11 million renovation. All parking lots and associated paving around Katherine Landing were designed for accessibility. The contact station includes van accessible parking, a counter, seating, good maneuverable space, and accessible water fountain. In 2017, improvements were made to signage in the area, the picnic area, crosswalk and restrooms. In 2018, the fishing pier and accessible route were enhanced to address accessibility improvements. Within the next five years, the campgrounds and dump stations are scheduled to receive improvements.

Concession facilities are clustered along the lakeshore and the fluctuating lake levels present some minor accessibility challenges to water and marina access. Concessions span four marina areas. Marina 1 access is via an exposed aggregate path, with steep ramps and stairs. Marinas 2, 3, and 4 provide accessible parking and picnic tables. The fueling station is accessible from both sides and provides good reach range to the pump. At the time of the assessment, many concession buildings were not in use because the existing concessioner was phasing out services. Buildings will require considerable modification to provide accessibility; however, the general store provides excellent maneuverable space. A shower and laundry house provides one accessible stall with maneuverable space, and requires only minor upgrades.

Picnic areas, campgrounds and the fish cleaning station are relatively flat and overall provide good accessible routes that will require minimal modification. Campsites are large with adequate parking and maneuverable space and accessible picnic tables and features. With improved access routes, constructed features such as restrooms, laundry, and showers will be more easily accessible.

Some of the services in this area are managed by the National Park Service while others are managed through a concessions contract. The National Park Service recently entered into a new 15-year concessions contract at Katherine Landing. Some of the suggested improvements may be addressed in the new contract; however, the contract was written

prior to the completion of this assessment. For improvements not included in the new contract, the concessioner may be limited to the improvements that can be made based on the terms of the contract. The National Park Service will provide the recommendations to the contractor and will work with them to implement them in stages when possible or when a new contract is issued. The items below have been notated to clarify which are operated by the NPS and which are operated by a concessioner.

The following planned improvements to this park area are:

#### **01 Benches (at boat launch kiosk)**

- 1) Coordinate with concessioner to improve the surface underneath the bench to be firm and stable and provide a clear ground space positioned near the bench 36" by 48" minimum. As best practice, improve the bench to provide a backrest and at least one armrest and an adjacent companion seating space 36" by 48" from a forward approach.

long-term

#### **02 Fish Cleaning Station**

- 1) Alter the nozzle and hose devices to meet the obstructed high reach requirements. The clear floor space shall extend beneath the table for a distance not less than the required reach depth over the table. If the reach depth is 20" maximum, the nozzle shall be 48" maximum in height above the finish floor. If the reach depth is between 20" and 25", the nozzle shall be 44" maximum in height above the finish floor.
- 2) Adjust the nozzle to be operable with no more than 5 pounds of force.

long-term

#### **03 Benches (at fish cleaning station)**

- 1) Improve the surface underneath the bench to be firm and stable and provide a clear ground space positioned near the bench 36" by 48" minimum. As best practice, improve the bench to provide a backrest and at least one armrest and an adjacent companion seating space 36" by 48" from a forward approach.

short-term

#### **04 Courtesy Dock**

- 1) Install a new courtesy dock that meets the requirements of ABAAS.

long-term

#### **05 Restrooms (concession – at marina)**



- 1) Coordinate with the concessioner to provide tactile signage adjacent to the latch side of accessible restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 2) As practicable, construct an adjacent stand-alone accessible restroom close to the existing restroom. Provide accessible toilet rooms with fixtures, dispensers, grab bars, and accessory items that meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsections F212 and F213) and Chapter 6 Plumbing Elements and Facilities.

long-term

## 06

### Picnic Facilities (by store)

- 1) Coordinate with concessioner to improve or replace two tables to be accessible, with integrated wheelchair seating spaces 30" by 48" minimum on the sides or ends of tables. Tabletop surfaces shall be between 28" and 34" above the finish ground with 27" minimum clearance and 9" minimum toe clearance. Provide 36" minimum clear space around all sides of each accessible table.

long-term

## 07

### Store (at marina)

- 1) Coordinate with concessioner to improve or replace the front door to have a handle operable with a closed fist located between 15" and 48" above the finish ground.
- 2) Improve or replace the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide a clear floor space 30" by 48" minimum.
- 3) As store inventory increases, ensure that a 36" minimum width path remains between clothing racks and other inventory.

long-term

## **08** Changing Room (at marina store)

- 1) Coordinate with concessioner to provide an accessible changing room with a 32" minimum width door opening, 60" by 60" minimum turning space, bench with a seat height between 17" and 19" above the finish floor, coat hooks between 15" and 48" above the finish floor, and shelves (if provided) between 40" and 48" above the finish floor.

long-term

## **09** Service Counter (boat rental)

- 1) Coordinate with concessioner to improve or replace the service counter to provide an accessible parallel approach, with a portion of the counter 36" minimum in length and 36" maximum in height. Continue to provide a clear floor space 30" by 48" minimum.

long-term

## **10** Bar

- 1) Coordinate with concessioner to alter the counter to provide a parallel approach with a portion of the counter surface 36" minimum in length, 36" maximum in height above the finish floor, OR a forward approach with a portion of the counter surface 30" minimum in length, 36" maximum in height above the finish floor with 27" high knee clearance and 9" high toe clearance.

long-term

## **11** Restrooms (at bar)

- 1) Coordinate with concessioner to provide tactile signage adjacent to the latch side of the men's and women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

## **12** Interpretive Waysides (at marina)

- 1) As best practice, coordinate with concessioner to replace waysides with units that use 24-point minimum sans serif fonts without the use of italics and all caps, and ensure they have 70% minimum contrast between text and images.

long-term

### **13 Viewing Decks (Marina 1)**

- 1) Coordinate with concessioner to improve at least one of the three viewing decks at the marina by refining the deck to be flush with the approach walk. The viewing deck shall be 2% maximum slope in all directions and provide distinct viewing areas 36" by 48" minimum from a forward approach with railings no higher than 32".
- 2) As best practice, provide companion seating adjacent to benches on the accessible viewing deck, 36" by 48" minimum from a forward approach.

long-term

### **14 Accessible Route and Walking Surfaces to Marina 1**

- 1) Coordinate with concessioner to provide a firm, stable, and slip resistant surface on the route to the marina. The maximum running slope shall be 5% and maximum cross slope shall be 2%.

long-term

### **15 Gangway (at Marina 1)**

- 1) Coordinate with concessioner to improve or replace the gangway with a unit that has a running slope no greater than 8.3% or provides suitable flat landing platforms in accordance with accessibility standards.

long-term

### **16 Gangway (at Marina 2)**

- 1) Coordinate with concessioner to replace the existing gangway with a new unit connecting the boat docks to the above accessible route. The gangway shall be 8.3% maximum running slope.

long-term

### **17 Marinas (1-3)**

- 1) Coordinate with concessioner to improve the routes to any accessible boat slips to have cross slopes no more than 2% and be free of divots.
- 2) Improve the appropriate number of boat slips to be accessible, with boat slips, piers, and accessory items that meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F235) and Chapter 10 Recreation Facilities (subsection 1003).

- 3) There are a total of 827 boat slips at the marinas. Provide 11 accessible boat slips dispersed throughout the three marinas and the various types of boat slips available. Clear pier space 5' wide minimum and at least as long as boat slip must be provided at accessible boat slips. Clear pier space may be 3' wide minimum for length of 2' maximum, provided that multiple 3' wide segments are separated by segments that are 5' minimum clear in width and length. Each 10' maximum of linear pier edge serving boat slips shall contain at least one clear opening of 5' minimum width. Ensure that openings in the pier do not exceed ½".

long-term

### **Fuel Dock (at Marina 1)**

- 1) Improve the surface of the fuel dock to be firm, stable, and slip resistant with no openings that would permit the passage of a ½" sphere.

long-term

### **Other services, activities, and programs located on or near the marina:**

#### **Women's Restroom (standalone unit labeled as "accessible" at marina)**

- 1) Coordinate with concessioner to lower at least one mirror above an accessible lavatory so that its bottom edge is 40" maximum above the finish floor.
- 2) Provide a rear wall grab bar in the accessible stall to be between 33" and 36" above the finish floor. The grab bar shall be 36" minimum in length and extend from the centerline of the toilet 12" minimum on one side and 24" minimum on the other side.
- 3) Provide all toilet paper dispensers between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlets between 15" and 19" above the finish floor.
- 4) Relocate the sanitary napkin disposal to an accessible location adjacent to the toilet between 15" and 48" above the finish floor.

mid-term

### **Suspended Devices (at marina)**

- 1) Coordinate with concessioner to lower or relocate all suspended devices for public use to be between 15" and 48" above the finish floor. Suspended devices may not project into the clear floor space more than 4". They shall be operable with a closed fist and no more than 5 pounds of force.
- 2) Ensure that all suspended devices have a clear floor space 30" by 48" minimum from a forward or parallel approach.

short-term

### **Benches (at marina)**

- 1) As best practice, coordinate with concessioner to improve some benches to have backrests and armrests and adjacent companion seating spaces 36" by 48" from a forward approach.

short-term

### **Trailhead Signage**

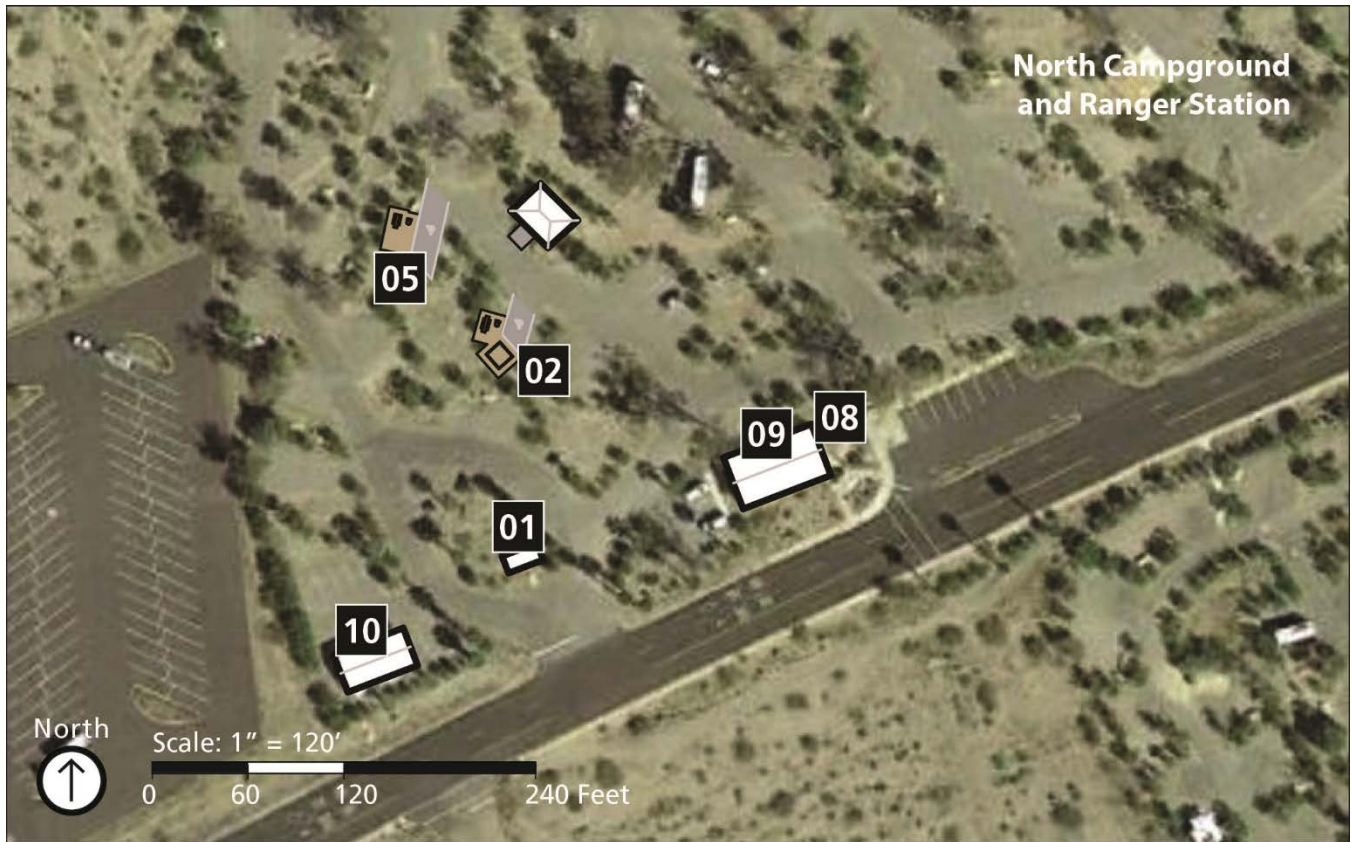
- 1) Install a sign that provides details of trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics, such as a cross-section that demonstrates slope conditions.

long-term

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## Katherine Landing Campgrounds and Ranger Station Site Plan





## Implementation Strategy

The following planned improvements to this park area are:

### **01 Kiosk (at north campground)**

- 1) Improve or replace the information board to use current terminology; simplify the information and materials being shown on the board.

long-term

### **02 Camping Facilities (at north campground)**

- 1) Coordinate with concessioner to provide a total of seven accessible tent campsites distributed among the various campsites offered (standard and VIP). Refer to ABAAS F244.2 for the scoping requirement for campsites.
- 2) For each accessible campsite, provide one accessible parking stall at 16' minimum in width and 2% maximum slope in all directions.
- 3) Provide a firm and stable surface with 2% running and cross slope at each campsite and connecting each campsite element.
- 4) Provide an accessible picnic table with 36" minimum clear space around all sides on a firm and stable surface.
- 5) Provide 48" minimum clear space around all sides of fire pit. Ensure all fire pits have a 9" minimum height fire-building surface.
- 6) Provide a space for tents with a firm and stable surface and 48" clear space around all sides.

long-term

### **03 Kiosk (at south campground)**

- 1) Provide an outdoor recreation access route to the fee station from site arrival points and parking/drop-off locations.
- 2) Simplify and rearrange posters to make the information presented easier to read, digest, and understand.

long-term

### **04 Camping Facilities (at south campground)**

- 1) Coordinate with concessioner to provide a total of seven accessible tent campsites distributed among the various campsites offered (standard and VIP). Refer to ABAAS F244.2 for the scoping requirement for campsites.
- 2) For each accessible campsite, provide one accessible parking stall at 16' minimum in width and 2% maximum slope in all directions.

- 3) Provide a firm and stable surface with 2% running and cross slope at each campsite and connecting each campsite element.
- 4) Provide an accessible picnic table with 36" minimum clear space around all sides on a firm and stable surface.
- 5) Provide 48" minimum clear space around all sides of fire pit. Ensure all fire pits have a 9" minimum height fire-building surface.
- 6) Provide a space for tents with a firm and stable surface and 48" clear space around all sides.

long-term

## **05 Recreational Vehicle Camping Facilities (at north and south campgrounds)**

- 1) Coordinate with concessioner to provide a total of three recreational vehicle campsites to be accessible and distributed among the various campsites offered. Refer to ABAAS F244.2 for the scoping requirement for campsites.
- 2) For each accessible campsite, provide one accessible parking stall at 20' minimum in width and 2% maximum slope in all directions.
- 3) Provide a firm and stable surface with 2% running and cross slope at each campsite and connecting each campsite element.
- 4) Provide an accessible picnic table with 36" minimum clear space around all sides on a firm and stable surface.
- 5) Provide 48" minimum clear space around all sides of fire pit. Ensure all fire pits have a 9" minimum height fire-building surface.
- 6) Provide a space for tents with a firm and stable surface and 48" clear space on all sides.

long-term

## **06 Dump Station (at south campground)**

- 1) Improve the area around the utility and sewage hookup to remove any thresholds greater than ½" and provide a clear ground space at the device, 30" by 60" minimum with the long side of the space adjoining an accessible parking space or public space. The clear ground space shall be located so that hookups are at the rear center of the space.
- 2) Improve or replace the nozzle to be operable with a closed fist and no more than 5 pounds of force.

long-term

## **07 Water Hydrants (by the dump station at south campground)**

- 1) Improve the surface at the water hydrant to be firm and stable. Provide a clear ground space 72" by 48" at the hydrant, with the long side of the space adjoining and outdoor recreation access route. The waterspout shall be between 11" and 12" from the rear center of the long side of the space.
- 2) Retrofit or replace the hydrant to be between 15" and 48" above the ground and operable with a closed fist and no more than 5 pounds of force.

long-term

## **08 Exhibits (at ranger station)**

- 1) Improve the map near the door and all artifact labels to have 24-point minimum font.
- 2) Improve tabletop exhibits that are meant to be touched or closely approached to have a 27" to 29" knee clearance at a minimum depth of 9" under the surface of the table.

long-term

## **09 Men's and Women's Restrooms (at ranger station)**

- 1) Lower mirrors above accessible lavatories and countertops to have a bottom edge 40" maximum above the finish floor and mirrors not above lavatories or countertops to have a bottom edge 35" maximum above the finish floor.
- 2) Improve or replace restroom doors to have locks operable between 15" and 48" above the finish floor, operable with a closed fist and no more than 5 pounds of force.

mid-term

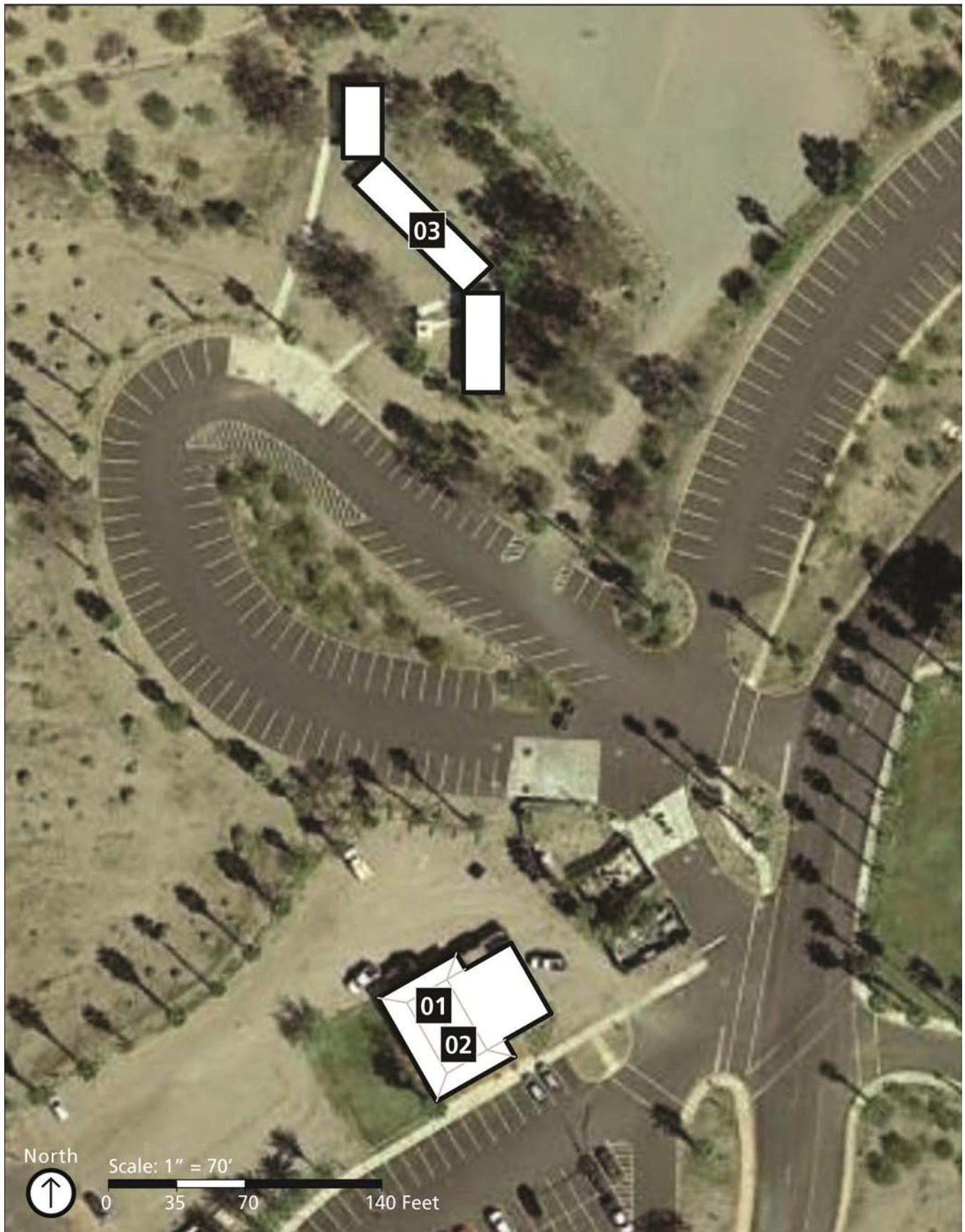
long-term

## **10 Laundry Facilities**

- 1) Coordinate with concessioner to install one accessible front-loading washer and dryer, with doors to the compartments 36" maximum above the finish floor and the bottom of the opening to the laundry compartments between 15" and 36" above the finish floor.

long-term

## Katherine Landing Picnic Area Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### **01** Men's and Women's Restrooms

- 1) Coordinate with concessioner to provide tactile signage adjacent to the latch side of men's and women's restroom doors. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

### **02** Public Bathing Facilities

- 1) Coordinate with concessioner to lower at least one coat hook in each accessible shower area to be between 15" and 48" above the finish floor.
- 2) Lower mirrors above accessible lavatories and countertops to have a bottom edge 40" maximum above the finish floor and mirrors not above lavatories or countertops to have a bottom edge 35" maximum above the finish floor.
- 3) Ensure that tactile identification signage is provided adjacent to the latch side of the shower room door. The base of the lowest tactile characters shall be 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 4) Refurbish the shower rooms so that at least one shower in each restroom is accessible, including shower compartments, dispensers, grab bars, and accessory items. They shall meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsection F213) and Chapter 6 Plumbing Elements and Facilities.

long-term

### **03** Picnic Facilities

- 1) Improve the surface around usable sides of fire rings and grills servicing accessible picnic units to be firm and stable with 48" clear ground space.
- 2) Establish clear ground spaces 36" by 48" minimum from a forward approach or 30" by 60" minimum from a parallel approach at a minimum of 20% of trash and recycling receptacles.

long-term



Site Plan





## Implementation Strategy

The key park experiences provided at Lakeview Overlook are viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, and site interpretation through waysides. The existing services that support these activities and programs include car parking, outdoor recreation access routes, interpretive waysides, and trash and recycling receptacles.

Lakeview Overlook is relatively flat and provides expansive, spectacular views of Lake Mead and its desert environs, and allows for easy pedestrian flow. Convenient parking serves the viewing area and its diverse array of interpretive signs showcasing the geology and history of the surrounding area.

In 2013, through the \$1.2 million Boulder Beach Enhancement Project, construction crews rehabilitated the parking lot and reinforced the historic wall foundation at the Lakeview Overlook. Due to these efforts by the park, there are minimal adjustments needed at this location.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) As best practice, remove the existing accessible designation on the stall and instead add designation on the opposite stall.
- 2) Install new accessible parking signage for the van-accessible stall to be 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on the van accessible stall.

mid-term

### **02** Interpretive Waysides

- 1) As best practice, improve waysides to provide 70% minimum contrast between text and background images.

mid-term

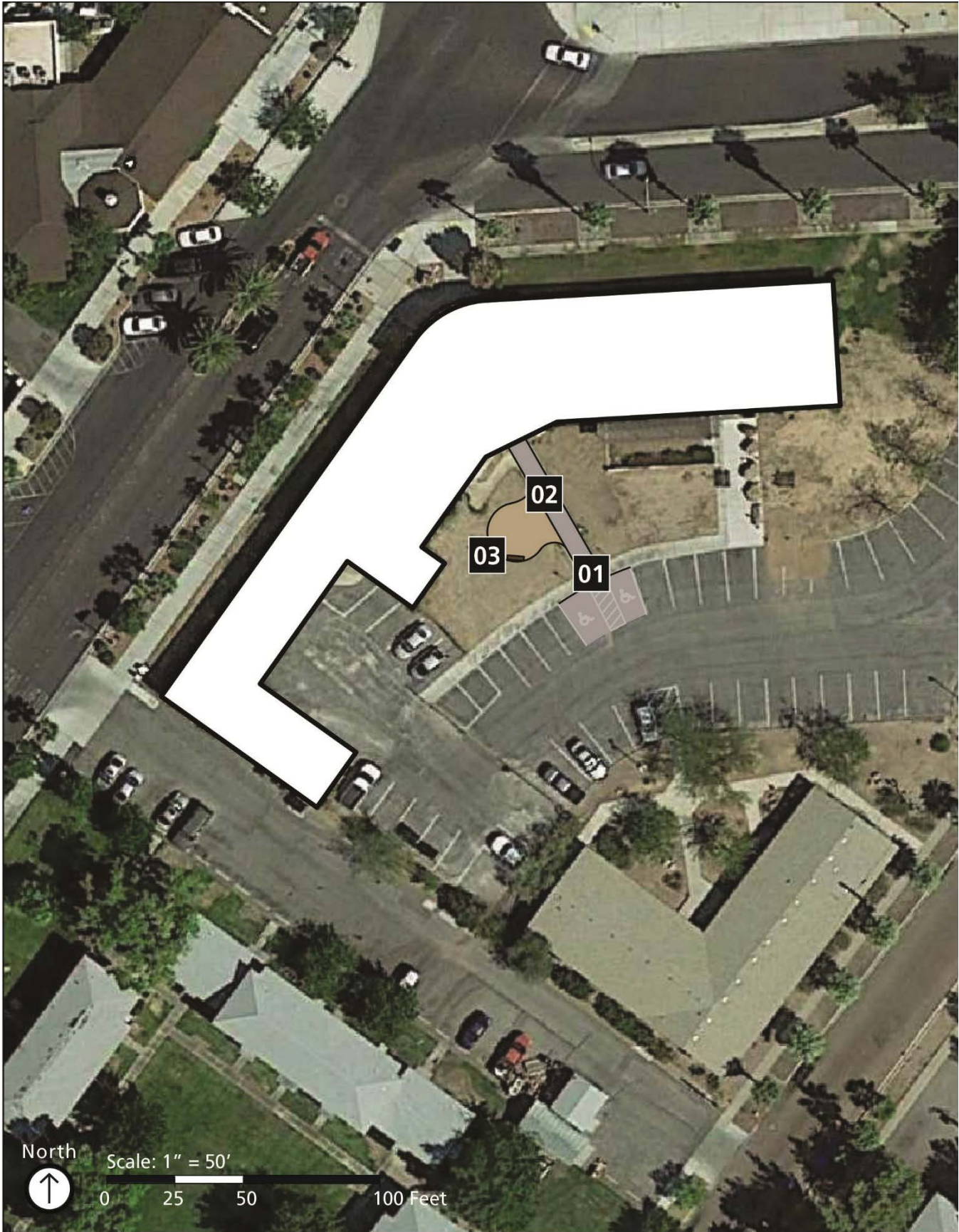
**03****Trash and Recycling Receptacles**

- 1) To the extent practicable, improve or replace trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

mid-term

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Site Plan



## Implementation Strategy

The key park experience provided at Park Headquarters is to share in the stories and learn about the rich and varied cultural resources that relate to a 10,000-year continuum of human history.

This building serves as the headquarters for the park. It is located outside of the park and is not a primary visitor destination. However, there are activities and programs provided at this area for visitors including educational programs, ranger-led programs, learning about the park through exhibits, and picnicking. The existing services that support these activities and programs include car parking, accessible routes, benches, picnic tables, restrooms, and exhibits.

In 2016, the Park Headquarters grounds were updated with new paving, picnic facilities within generally flat, firm and stable decomposed gravel surface, and vegetation. The welcoming landscape is steeply sloped towards the parking lot, but the lot itself is flat with existing accessible parking stalls. The headquarters building has visitor facilities on one open main floor, with a few exhibits, a dual height information desk, park information in braille, and restrooms.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) Restripe the accessible parking stalls to have a van-accessible stall 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum with access aisle, and a standard accessible stall 8' minimum in width sharing the access aisle. Stalls shall remain firm, stable, and slip resistant at 2% maximum slope in all directions.
- 2) Provide "van accessible" designation on the van-accessible stall.
- 3) Improve the transition between the access aisle and the sidewalk to be no greater than 5% running slope.

long-term

### **02** Accessible Route and Walking Surfaces

- 1) Repave or reconfigure the route to provide a firm, stable, and slip resistant route between accessible car parking stalls and the primary facility entrance at 5% maximum running slope and 2% maximum cross slope, or install handrails on both sides of the existing walkway. If using handrails, they shall be continuous within the full length of each ramp run, with their tops between 34" and 38" above the walking surfaces, and with 12" extensions at the top and bottom of ramp runs.

- 2) Improve the concrete sidewalk to have cross slopes no greater than 2%.

long-term

**03**

### **Bench**

- 1) As best practice, provide clear ground space adjacent to the bench, 36" by 48" minimum at 2% maximum slope in all directions.
- 2) As best practice, improve the bench to include armrests and a backrest.
- 3) As best practice, provide a 36" by 48" minimum clear ground space at 2% slope in all directions next to one end of the bench for companion seating.

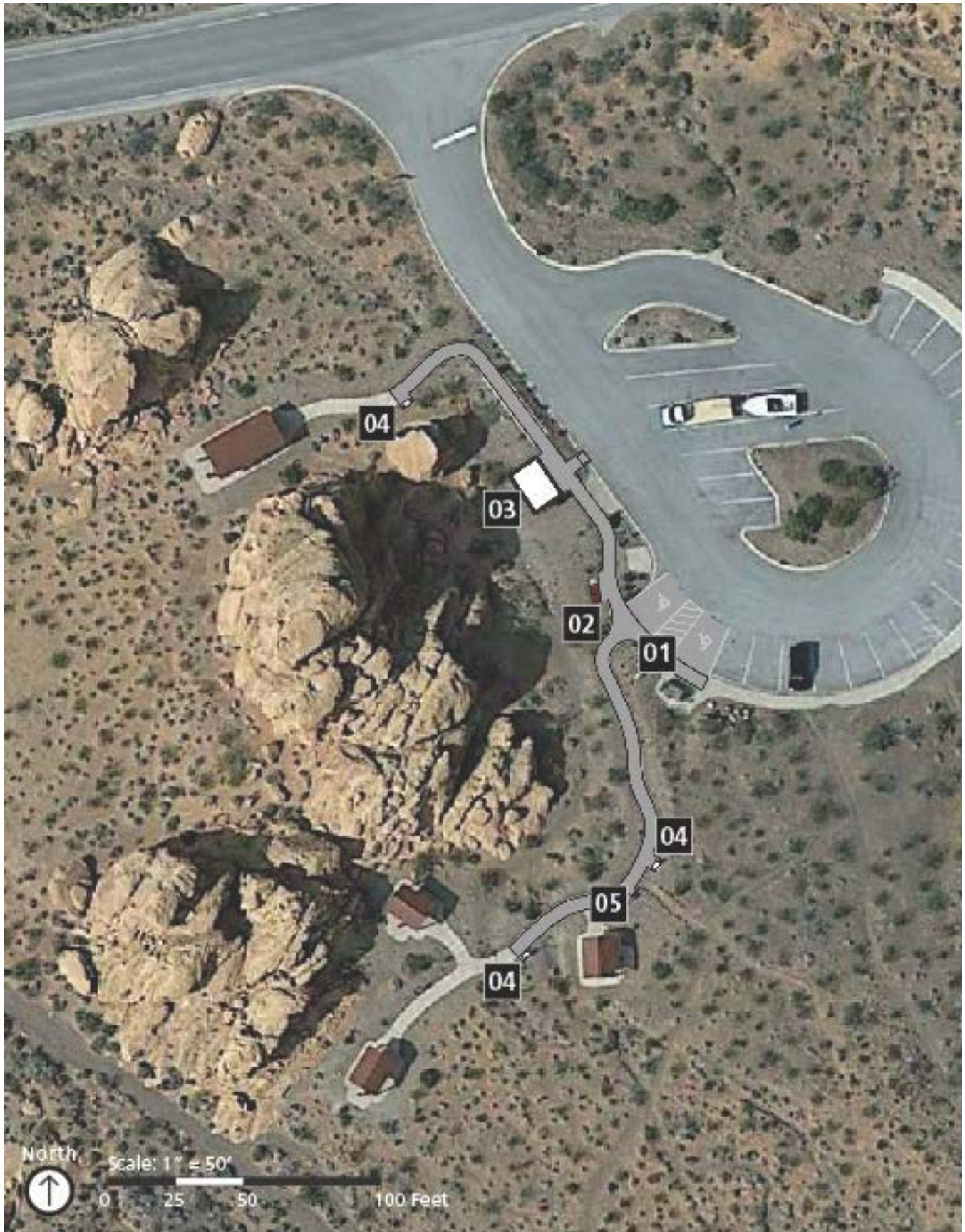
long-term



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## REDSTONE PICNIC AREA

### Site Plan



## Implementation Strategy

The key park experiences provided at Redstone Picnic Area are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; exploring the solitude within designated wilderness; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, picnicking, and hiking. The existing services that support these activities and programs include car parking, outdoor recreation access routes, picnic facilities, interpretive waysides, restrooms, and hiking trails.

Redstone Picnic Area is well situated to provide a comfortable accessible picnicking experience to visitors. It is relatively flat with a nice paved route connecting the parking lot to restrooms, waysides, and picnic facilities. All of the picnic facilities are sheltered and accessible, providing wheelchair seating options and diverse picnicking experiences for visitors of all abilities. Level landings are missing underneath most waysides and at trash and recycling receptacles; however, providing landings would be relatively easy to improve accessibility at these elements. A trailhead includes a trail sign for the loop trail, and a scaled map, with surface, grade and precautionary information. The trail is narrow, with gentle to moderate slopes and is composed of natural compacted earth with some loose rock.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) Raise accessible parking signage for each stall to be 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on the van-accessible stall.

mid-term

### **02** Trash and Recycling Receptacles

- 1) Provide level landings underneath at least one of each type of receptacle at 36" by 48" minimum for a forward approach or 30" by 60" minimum for a parallel approach with 2% maximum slope in all directions.

- 2) To the extent practicable, improve or replace at least two trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term

### **03 Restroom (northern unit)**

- 1) Reset the door so that it swings freely in the frame.

short-term

### **04 Interpretive Waysides**

- 1) Provide a level landing up to each wayside, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions, or move inaccessible waysides to accessible locations.

long-term

### **05 Trailhead Signage**

- 1) Provide a level landing at trailhead sign, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.
- 2) Improve or replace sign to provide details of trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics such as a cross-section that demonstrates slope conditions.

mid-term

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RIVER MOUNTAINS LOOP TRAIL TRAILHEAD

Site Plan





## Implementation Strategy

The key park experiences provided at River Mountains Loop Trail Trailhead are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, picnicking, cycling, horseback riding, and hiking. The existing services that support these activities and programs include car parking, outdoor recreation access routes, interpretive waysides, picnic facilities, restrooms, and a trail.

River Mountains Loop Trail Trailhead is mostly accessible, with a flat parking lot, accessible parking stalls, and great services and facilities. The restroom and picnic facilities are accessible, and only minor improvements are needed to routes and other services and facilities. The extensive River Mountains Loop Trail is paved and connects many park areas on the west end of Lake Mead, including Boulder Beach, the Water Safety Center, and Alan Bible Visitor Center. In 2016, the trail was part of a \$280,000 pavement preservation project.

The following planned improvements to this park area are:

### **01** Curb Ramp

- 1) Correct the curb ramp to provide a level landing at the top of the ramp at 2% maximum slope in all directions, and 36" minimum depth and at least as wide as the curb ramp, excluding flared sides. OR Improve the curb ramp to be in parallel-style so that the paved center square is level at 2% maximum slope in all directions, and ramp up the adjacent squares.

long-term

### **02** Trash and Recycling Receptacles

- 1) To the extent practicable, improve or replace trash receptacle so that it is operable with a closed fist and 5 pounds of force or less.

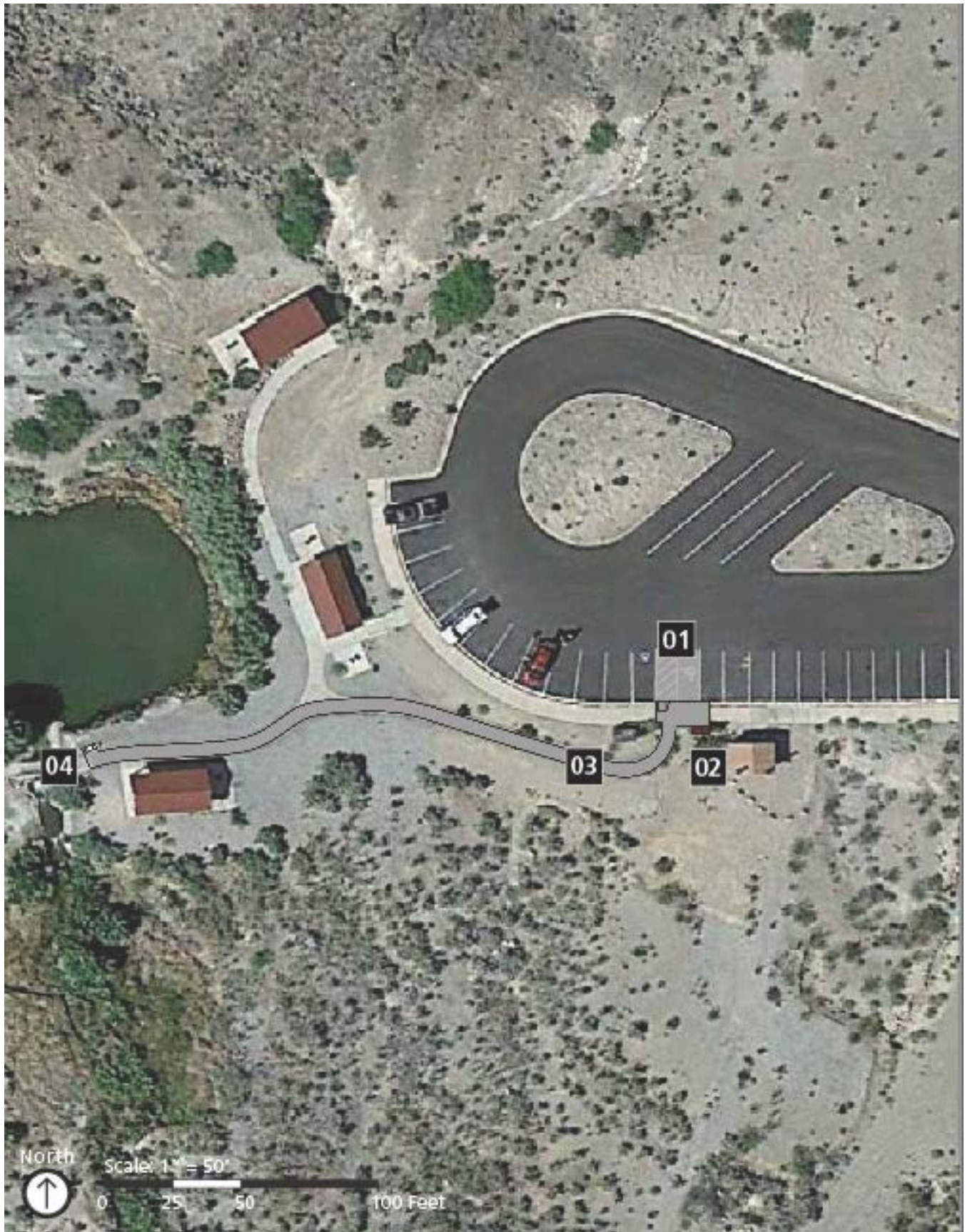
long-term

- 1) Provide a sign that details trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics such as a cross-section that demonstrates slope conditions.

long-term

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Site Plan



## Implementation Strategy

The key park experiences provided at Rogers Spring are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, picnicking, and hiking. The existing services that support these activities and programs include car parking, outdoor recreation access routes, interpretive waysides, restrooms, picnic facilities, and hiking trails.

Rogers Spring has a flat parking lot with accessible parking, nearby accessible restrooms, and an excellent paved path that gradually slopes, leading to a variety of dispersed accessible and sheltered picnic facilities. The picnic facilities have concrete tables with side and end wheelchair seating options, and grills. The site includes generous viewing and turnaround areas. Small improvements could be made to parking, services, and amenities to improve the experience for visitors, but the overall experience is mostly accessible.

The following planned improvements to this park area are:

### 01 Car Parking

- 1) Restripe the accessible stalls and access aisle to provide two accessible stalls, each 8' minimum in width and sharing an 8' minimum width access aisle. The stalls and access aisle shall be firm, stable, and slip resistant with 2% maximum slope in all directions.
- 2) Provide "van accessible" designation on one of the stalls.

long-term

### 02 Outdoor Recreation Access Routes

- 1) Maintain the vegetation adjacent to the path between the parking lot and picnic facilities to continue to provide a 36" minimum width path.

immediate

**03**

### **Trash and Recycling Receptacles**

- 1) To the extent practicable, improve or replace at least two trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term

**04**

### **Interpretive Waysides**

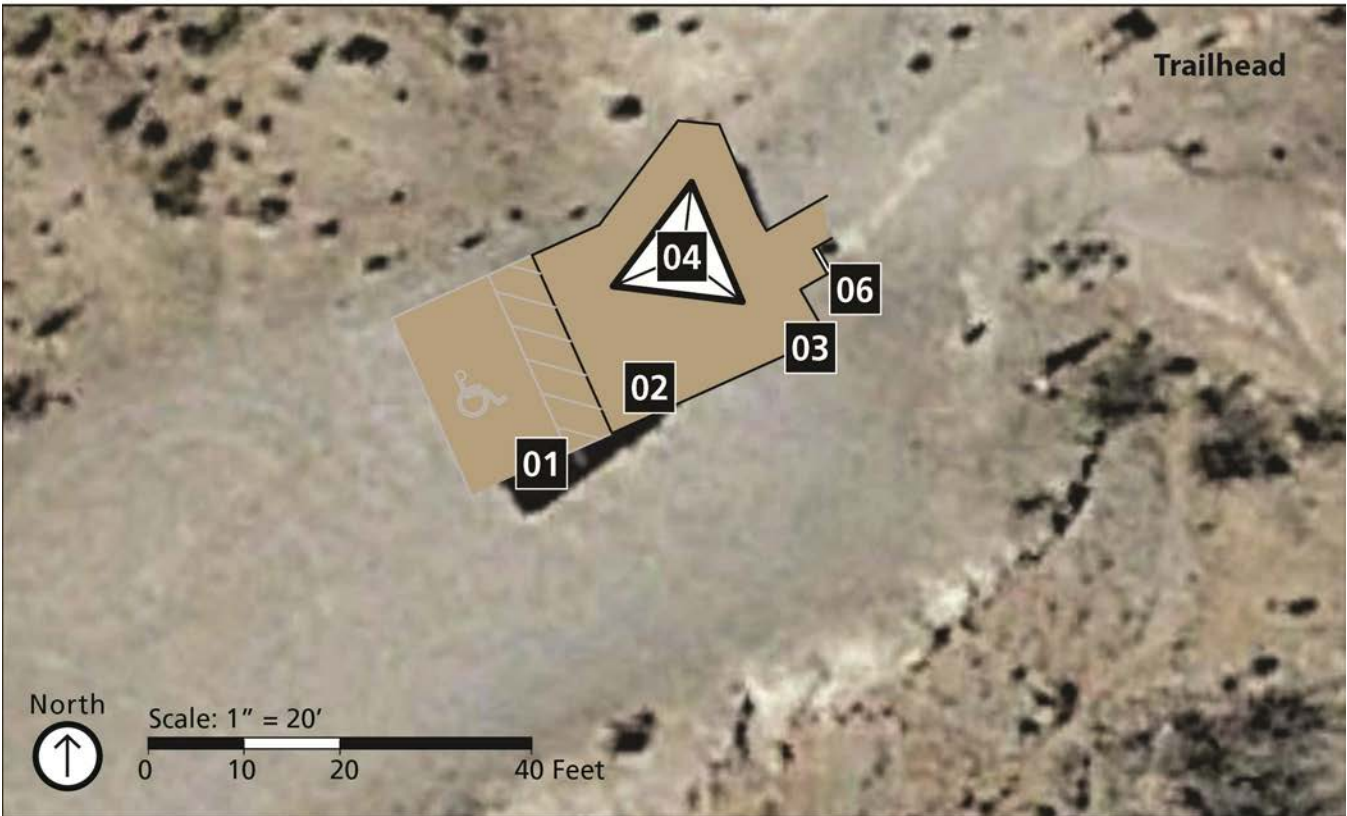
- 1) Provide a level landing at the wayside, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.

mid-term



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Site Plan



## Implementation Strategy

The key park experiences provided at St. Thomas Townsite Trailhead are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, and hiking. The existing services that support these activities and programs include car parking, outdoor recreation access routes, interpretive waysides, restrooms, and hiking trails.

The St. Thomas Townsite Trailhead area is mostly undeveloped, with only a restroom on one bluff and a set of waysides and trailhead on another. The site is accessed via a compacted gravel road that terminates near a restroom with braille signage, a kiosk that provides information about the Mormon settlement of 1856–1938 and the trailhead to the 2.5-mile loop trail. There is no paved and defined parking, and viewing areas are simply large, unrefined overlooks. Providing accessibility at these areas may be challenging due to the gravel surfaces and irregular maintenance schedules, but making small improvements to improve accessibility will improve the visitor experience and hopefully encourage additional visitors to see the sights. Both the trail and townsite lie under Lake Mead's high-water mark and consist of steep slopes, narrow passages, loose gravel and other surfaces disturbed by fluctuating water levels. To provide an alternative way to access views of the site, the park created an online Virtual Museum and posts numerous photos on the park's website.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) As best practice, by striping, signage, or other designation, provide two van-accessible stalls at the site, one servicing the restroom and the other the viewing area. Each stall shall be 11' minimum in width with a 5' minimum width access aisle. The stalls and access aisle shall be firm, stable, and slip resistant with 2% maximum slope in all directions.
- 2) Accessible parking signage for each stall shall be 60" minimum from the ground to the bottom of the sign. Provide "van accessible" designation on the van-accessible stalls.

long-term

## **02** Outdoor Recreation Access Route

- 1) To the extent practicable, establish firm and stable outdoor recreation access routes between site arrival points and accessible parking (if provided), restroom, viewing area, and signage, at 36" minimum width with 2% maximum cross slope and 5% maximum running slope (wherever possible). Where running slope exceeds 5% up to 8.33%, the maximum segment length permitted is 50'. Where running slope exceeds 8.33% up to 10%, the maximum segment length permitted is 30'. No segment shall be steeper than 10%. Ensure resting intervals are provided at the top and bottom of segments, regardless of segment length.

long-term

## **03** Viewing Areas

- 1) At distinct viewing locations, provide a firm and stable viewing location with a clear ground space 36" by 48" minimum position for a forward or parallel approach and at 2% maximum slope in all directions (5% if necessary for drainage). Ensure there are 60" minimum diameter turning spaces and each distinct viewing area.

long-term

## **04** Interpretive Waysides

- 1) Provide a level landing in front of each wayside, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.
- 2) As best practice, provide waysides that use sans serif fonts, no italics, no all caps, and 24-point minimum font.

long-term

## **05** Restrooms

- 1) Connect the concrete landing at the restroom entrance with a paved path or maintain the threshold to be ¼" minimum depth or ½" minimum depth with a beveled edge.

long-term

- 1) Improve or replace sign to provide details of trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics such as a cross-section that demonstrates slope conditions.

long-term

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WATER SAFETY CENTER AND BOULDER BEACH PICNIC AREA

Site Plan



## Implementation Strategy

The key park experiences provided at the Water Safety Center are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, and picnicking. The existing services that support these activities and programs include car parking, accessible routes, outdoor recreation access routes, interpretive waysides, restrooms, picnic facilities, and drinking fountains.

Few areas in the Water Safety Center are open to the public, with restrooms and a large conference room being used by visitors on certain occasions. The entrance foyer is wide, with comfortable maneuverability, and the conference rooms have movable seating and tables with good knee and toe clearance. The site around the facility is fairly flat, with accessible parking and routes maintaining an accessible environment. The nearby picnic facilities have picnic tables with wheelchair seating options and grills with good access, and only minor improvements needed to upgrade the restrooms.

The following planned improvements to this park area are:

### **01 Car Parking (at picnic area)**

- 1) Improve accessible parking stalls to have slopes no greater than 2% in all directions.

long-term

### **02 Restrooms (at picnic area on the northern side)**

- 1) Provide door pulls on both sides of accessible toilet compartment doors in men's and women's restrooms.

mid-term

### **03 Restrooms (at picnic area on the southern side)**

- 1) Lower at least one coat hook in each restroom to be no more than 48" above the finish floor.

- 2) Lower tactile signage adjacent to restroom doors to have the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.
- 3) Provide door pulls on both sides of accessible toilet compartment doors in men's and women's restrooms.

mid-term

## **Services, activities, and programs located at the picnic area:**

### **Drinking Fountains**

- 1) Adjust both the multi-height drinking fountains to be operable with no more than 5 pounds of force and with a water flow 4" high minimum and a spout 5" maximum from the front of the units.
- 2) Improve the clear space in front of multi-height drinking fountains to be 36" by 48" minimum positioned for a forward approach centered on the units.

long-term

### **Trash and Recycling Receptacles**

- 1) To the extent practicable, improve or replace trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term

### **Water Hydrants**

- 1) Improve the surfaces of the clear ground spaces at each accessible water hydrant to be firm and stable.
- 2) Improve the water hydrants to be operable with a closed fist and no more than 5 pounds of force.

long-term

### **Interpretive Waysides**

- 1) Replace waysides with units that have 24-point minimum font in a readable typeface with sufficient space between characters, words, and lines. Text and images should be presented in an understandable and hierarchical layout to simplify reading.

long-term

## **Services, activities, and programs located in the Water Safety Center:**

### **Men's Restroom**

- 1) Replace or relocate the toilet paper dispenser. As feasible, rotate the toilet paper dispenser panel to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.

mid-term

### **Doors**

- 1) Lessen the force required to open interior doors to no more than 5 pounds.
- 2) Improve the threshold on the entrance door to be no greater than ¼" in height or ½" with a beveled edge.

short-term

### **Trash and Recycling Receptacles**

- 1) To the extent practicable, improve or replace trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term



WHITE ROCK CANYON TRAIL TRAILHEAD

Site Plan



## Implementation Strategy

The key park experiences provided at White Rock Canyon Trail Trailhead are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; exploring the solitude within designated wilderness; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include educational programs, ranger-led programs, site interpretation through waysides, and hiking. The existing services that support these activities and programs include car parking, outdoor recreation access routes, interpretive waysides, and hiking trails.

White Rock Canyon Trail Trailhead lies on a fairly steep slope, making providing accessible facilities and elements somewhat challenging. However, the park has done a commendable job of designating and trying to provide accessible facilities as feasible. Generally, routes between accessible parking, waysides, and the trailhead are accessible. The parking area is moderately sloped. The access route to an overlook area, a three-sided kiosk, and an interpretive panel is slightly sloping concrete, furnished with a stone seat. The kiosk provides a trail map and precautionary information for Arizona Hot Springs and Liberty Bell Arch. The trail immediately slopes steeply downward along a loose gravel alignment and is one of the most strenuous trails in the park. It is within a naturally occurring wash that changes often with flash flooding. NPS-led hikes occasionally occur.

The following planned improvements to this park area are:

### **01** Car Parking

- 1) Regrade or relocate the accessible stalls and access aisle to be firm, stable, and slip resistant with 2% maximum slope in all directions. The van-accessible stall shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle. The standard accessible stall shall be 8' minimum in width and share the access aisle.
- 2) Raise the accessible parking signs to be 60" minimum above the ground. Provide "van accessible" designation on the van-accessible stall.

long-term



## **02** Trash and Recycling Receptacles

- 1) Relocate at least one set of trash and recycling receptacles to an accessible location. Provide level landings at each at 36" by 48" minimum for a forward approach or 30" by 60" minimum for a parallel approach with 2% maximum slope in all directions.
- 2) To the extent practicable, improve or replace at least two trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term

## **03** Curb Ramp

- 1) Improve curb ramp to have a running slope of 8.33% or less and cross slope of 2% or less. Provide a level landing at the top of the curb ramp.

long-term

## **04** Interpretive Waysides

- 1) Provide a level landing up to each wayside, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions, or move inaccessible waysides to accessible locations.

long-term

## **05** Outdoor Recreation Access Routes

- 1) Establish a firm and stable outdoor recreation access route between the small viewing area and trailhead, 36" minimum width with 2% maximum cross slope and 5% maximum running slope (wherever possible). Where running slope exceeds 5% up to 8.33%, the maximum segment length permitted is 50'. Where running slope exceeds 8.33% up to 10%, the maximum segment length permitted is 30'. No segment shall be steeper than 10%. Ensure resting intervals are provided at the top and bottom of each segment, regardless of segment length.

long-term

## **06** Trailhead Signage

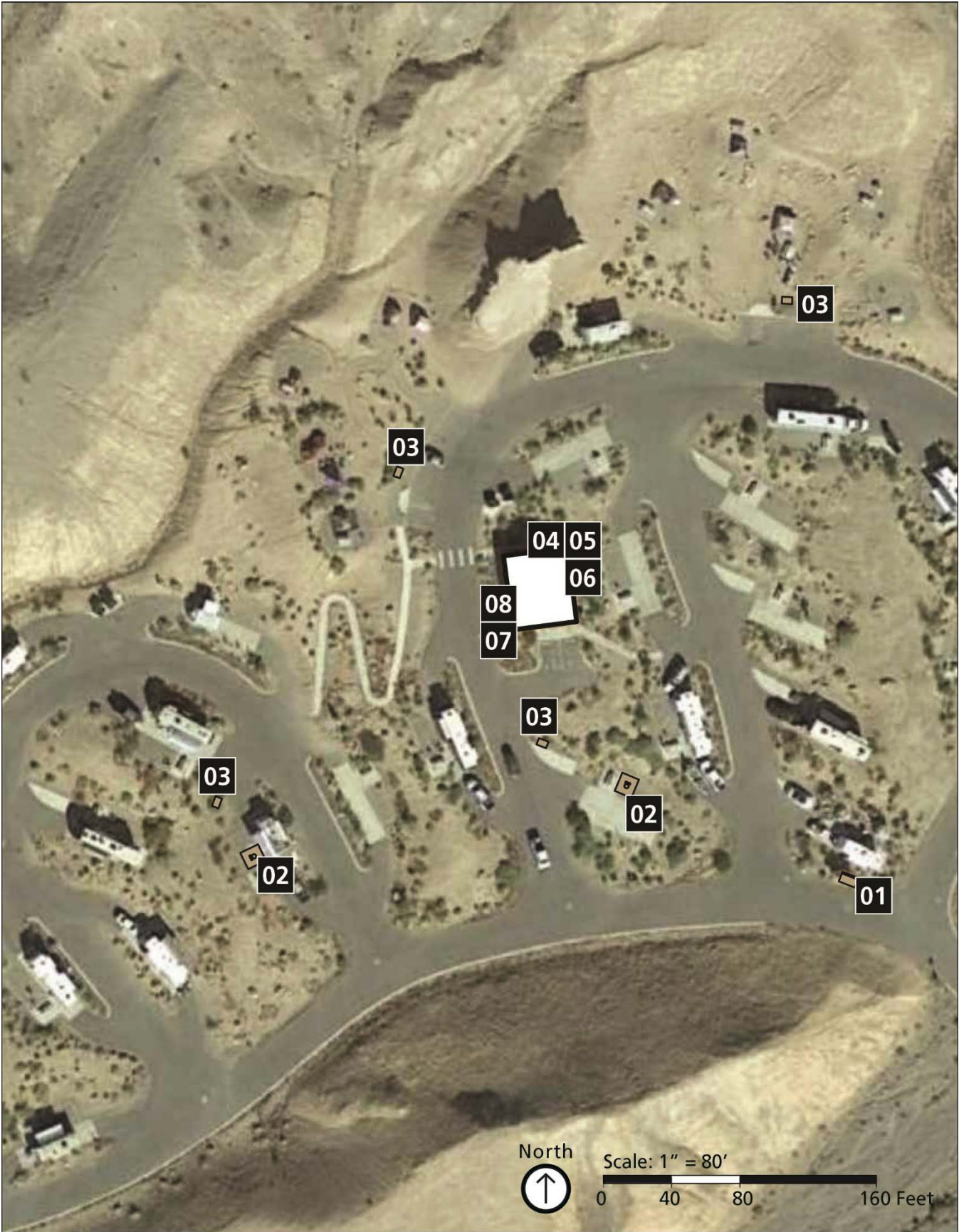
- 1) Provide a level landing at trailhead sign, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.

- 2) Improve or replace sign to provide details of trail conditions, including trail length, surface type, typical and maximum running and cross slopes, and typical and minimum tread width. Other recommended information includes providing a description of potential obstacles, distances to experiences and/or features, and graphics such as a cross-section that demonstrates slope conditions.

long-term

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Campground Site Plan



## Implementation Strategy

The key park experiences provided at Willow Beach are discovering abundant outdoor recreational opportunities; viewing a wide array of dramatic scenery; enjoying the park's riverine and reservoir ecosystems; observing the geological and paleontological features; appreciating the range of biological resources and diverse terrestrial habitats; sharing in the stories and learning about the rich and varied cultural resources; and understanding and participating in scientific research opportunities.

The activities and programs provided at this area for visitors include ranger-led programs, site interpretation through waysides, picnicking, boating, fishing, camping, and hiking. The existing services that support these activities and programs include car parking, accessible routes, outdoor recreation access routes, a restaurant, general store, campground, marina, fishing pier and platform, fish cleaning station, restrooms, drinking fountains, laundry facilities, and bathing facilities.

Willow Beach is a large, dispersed visitor-recreation area on the Colorado River between Lake Mead and Lake Mohave. With a recently updated campground and generally low grades at most sites, the area boasts a fine accessible camping, picnicking, and water-based recreation experience for visitors with disabilities. Only minor improvements are needed throughout the campground to provide access to water hydrants and improve restrooms and bathing facilities, and one additional recreational vehicle campsite is needed. Accessible picnic tables are found throughout the area, but maneuvering clearances should be enlarged around some of the tables and grills.

Accessible boat slips are not provided at the marina, and some accessibility improvements are needed at restrooms, the fishing pier, and courtesy dock to better support visitors with disabilities. The kayak launch area is currently not accessible but could easily be improved through the addition of an accessible oversized parking stall and a wide path leading to the water's edge. Improvements to interpretive elements are also needed in some locations to appropriately support visitors with disabilities.

Some of the services in this area are managed by the National Park Service while others are managed through a concessions contract. Based on the terms of the contract, the concessioner is limited to the improvements that can be made. The National Park Service will provide the recommendations to the contractor and will work with them to implement them in stages when possible or when a new contract is issued. The items below have been notated to clarify which are operated by the NPS and which are operated by a concessioner.

The following planned improvements to this park area are:

## **01 Drop Box**

- 1) Coordinate with concessioner to lower the key card drop box so that its top hinge is no more than 48" above the finish ground.

long-term

## **02 Water Hydrants**

- 1) Maintain the vegetation at water hydrants so it does not obstruct access to the devices.

short-term

- 2) Coordinate with concessioner to provide level landings at the base of all water hydrants serving accessible tent and RV campsites, 72" by 48" minimum at 2% maximum slope in all directions (5% if necessary for drainage). Locate the space so that the water spout is between 11" and 12" from the rear center of the long side of the space.
- 3) Lessen the force required to operate hydrants to be 5 pounds or less.

long-term

## **03 Recreational Vehicle Camping Facilities**

- 1) Coordinate with concessioner to improve one additional RV campsites to be accessible so that the parking stall, tent pad and shelter, outdoor constructed features, and routes meet the requirements of ABAAS, including Chapter 2 Scoping Requirements (subsections F244 and F245) and Chapter 10 Recreation Facilities (subsections 1011-104 and 1016).
- 2) Relocate fire pits at other accessible RV campsites to have 48" minimum clear space around all sides.

long-term

## **04 Drinking Fountain**

- 1) Coordinate with concessioner to repair the lower drinking fountain so that both higher and lower fountains are usable.

short-term

## **05 Public Telephone**

- 1) Coordinate with concessioner to install a permanently affixed TTY within or adjacent to the telephone enclosure. The touch surface of the TTY keypad shall be no more than 34" above the finish floor.
- 2) Lower the telephone so that all operable parts are between 15" and 48" above the finish floor.



long-term

**06**

## **Restrooms**

- 1) Coordinate with concessioner to provide door pulls on both sides of accessible toilet compartment doors in men's and women's restrooms.

mid-term

**07**

## **Public Bathing Facilities**

- 1) Coordinate with concessioner to relocate the shower seat in the accessible shower stall so that its top is between 17" and 19" above the finish floor.
- 2) In at least one bathing facility per restroom, ensure the shower compartments, fixtures, dispensers, grab bars, and accessory items meet the requirements of ABAAS.

long-term

**08**

## **Laundry Facilities**

- 1) Coordinate with concessioner to repair or replace the bottom dryer unit. A dryer shall be provided with operable parts between 15" and 48" above the finish floor.
- 2) Relocate the sink to provide 27" minimum knee clearance and wrap any exposed piping.

long-term

## Willow Beach Overlook and Fish Cleaning Station Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### 01 Restroom

- 1) Lower the coat hook to be between 15" and 48" above the finish floor.

mid-term

- 2) As best practice, relocate the urinal so that the rim is 17" maximum above the finish floor.

long-term

### 02 Interpretive Waysides

- 1) Replace waysides with units that have 70% minimum contrast between text and background images.

long-term

### 03 Picnic Facilities

- 1) Relocate a minimum of two picnic tables to provide 36" minimum clearance around all usable sides.
- 2) Relocate the two grills located near the accessible picnic units to provide 48" minimum clearance around all usable sides.

long-term

### 04 Trash and Recycling Receptacles

- 1) To the extent practicable, improve or replace at least two trash and recycling receptacles so that they are operable with a closed fist and 5 pounds of force or less.

long-term

### 05 Fish Cleaning Station

- 1) Remove the accessible parking designation and sign on the stall directly in front of the fish cleaning station. Restripe the nearby accessible stall to be 11' minimum in width with a 5' minimum width access aisle. Provide "van accessible" designation on van-accessible stall sign.
- 2) Improve the route between the accessible parking stall and the fish cleaning station to have a level landing at the top of the curb ramp 36" long minimum, and also to provide access to the drop box landing.

- 3) Improve the drop box to be operable with a closed fist and no more than 5 pounds of force.
- 4) Alter the fish cleaning station to provide a working surface with the top between 28" and 34" above the ground.
- 5) Adjust the hose handle to be operable with a closed fist and no more than 5 pounds of force.

long-term

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## Willow Beach Main Building Area Site Plan





## Implementation Strategy

The following planned improvements to this park area are:

### 01 Restaurant

- 1) Coordinate with concessioner to repair, replace, or remove the power door operator.
- 2) Improve the service counter to provide an accessible parallel approach, with a portion of the counter 36" long minimum and 36" high maximum. Continue to provide a clear floor space adjacent to the counter 30" by 48" minimum.

long-term

### 02 Men's Restroom

- 1) Coordinate with concessioner to relocate the sanitary seat cover dispensers to an accessible location with clear floor space 30" by 48". The dispenser shall be between 15" and 48" above the finish floor.
- 2) Provide all toilet paper dispensers between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.

mid-term

- 3) Move the partition in the accessible stall so that the centerline of the toilet is between 16" and 18" from the partition. Ensure the stall width and length remain 60" and 56" minimum, respectively.

long-term

### 03 Women's Restroom

- 1) Coordinate with concessioner to install door pulls on both sides of the accessible stall door.
- 2) Provide all toilet paper dispensers between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlets between 15" and 19" above the finish floor.
- 3) Relocate the sanitary napkin disposal to an accessible location adjacent to the toilet between 15" and 48" above the finish floor.

mid-term

## **04** Interior Signage

- 1) Coordinate with concessioner to provide tactile signage on the latch side of all exit doors. Tactile characters shall be located 48" minimum above the finish floor measured to the baseline of the lowest tactile character, and 60" maximum above the finish floor measured to the baseline of the highest tactile character.
- 2) Provide a clear floor space 18" by 18" minimum, centered on the tactile characters and provided beyond the arc of the door swing.

long-term

## **05** Marina

- 1) There are 90 boat slips at the marina. Coordinate with concessioner to provide three accessible boat slips dispersed throughout the various types of boat slips provided. Clear pier space 5' wide minimum and at least as long as boat slip must be provided at accessible boat slips. Clear pier space may be 3' wide minimum for length of 2' maximum, provided that multiple 3' wide segments are separated by segments that are 5' minimum clear in width and length. Each 10' maximum of linear pier edge serving boat slips shall contain at least one clear opening of 5' minimum width. Ensure that openings in the pier do not exceed ½".

long-term

## **06** Boat Fuel Station

- 1) As is feasible, coordinate with concessioner to provide refueling assistance for patrons with disabilities. Install signage with the appropriate phone number for patrons to call for assistance.

long-term

## **07** Gas Station

- 1) As is feasible, coordinate with concessioner to provide refueling assistance for patrons with disabilities. Install signage with the appropriate phone number for patrons to call for assistance.
- 2) When a new gas pump is installed, it shall have operable parts (credit card reader, buttons) between 15" and 48" above the finish ground.

long-term

**Dump Station**

- 1) Improve the dump station hydrant to be between 15" and 48" above the finish ground.
- 2) Cut into the curb to provide a clear ground space 30" by 60" minimum at 2% maximum slope in all directions adjacent to the hydrant. The hookups shall be at the rear center of the space.

long-term

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## Willow Beach Picnic Area Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### 01 Car Parking

- 1) Provide at least one van accessible parking stall at each accessible picnic facility. The stalls shall be 11' minimum in width with a 5' minimum width access aisle or 8' minimum in width with an 8' minimum width access aisle at 2% slope in all directions. Best practice would be to install a standard accessible parking stall in addition to the van-accessible stall, 8' minimum in width and sharing the access aisle.
- 2) Improve routes between accessible parking stalls and picnic facilities, with level landings 36" by 48" minimum at the top of curb ramps.

long-term

### 02 Outdoor Recreation Access Routes

- 1) Depending on the chosen locations for accessible parking stalls and picnic facilities in this area, improve the routes to meet outdoor recreation access route standards. At the top of curb ramps, provide a level landing 36" minimum in depth at 2% slope in all directions.

long-term

### 03 Picnic Facilities

- 1) Improve 20% of the picnic facilities to be accessible, with 36" minimum clearance around all usable sides of the tables and 48" minimum clearance around all usable sides of the grills that service the tables. Disperse accessible picnic facilities throughout the length of the walkway, perhaps providing one accessible picnic facility by the restrooms, another near the kayak launch, and one between the two.

long-term

### 04 Interpretive Waysides

- 1) Provide a level landing up to each wayside, 30" by 48" minimum from a forward approach at 2% maximum slope in all directions. And/or move inaccessible waysides to accessible locations.

long-term



**05****Kayak Launch Area**

- 1) Connect the kayak launch area to a van-accessible parking stall near the southernmost picnic area via a firm, stable, and slip resistant accessible route 36" minimum in width at 5% maximum running slope and 2% maximum cross slope or provide suitable flat landing platforms in accordance with accessibility standards.

long-term

**06****Men's Restroom**

- 1) Lower the toilet in the accessible compartment to be between 17" and 19" from the finish floor to the top of the seat.
- 2) Lower the accessible stall latch and coat hook to be between 15" and 48" above the finish floor.
- 3) Relocate the toilet paper dispenser to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor.
- 4) Install door pulls on both sides of the accessible stall door.
- 5) Provide tactile signage adjacent to the latch side of the restroom door with the base of the lowest tactile characters 48" minimum in height above the finish floor and the tops of the highest tactile characters 60" minimum in height above the finish floor.

mid-term

- 6) Relocate the lavatory to be 34" maximum above the finish floor.

long-term

**07****Women's Restroom**

- 1) Lower the coat hook to be between 15" and 48" above the finish floor.
- 2) Relocate toilet paper dispenser to be between 7" and 9" in front of the toilet measured to the centerline of the dispenser, with the dispenser outlet between 15" and 19" above the finish floor. If above the side wall grab bar, the opening of the dispenser must be 12" minimum above the bar.
- 3) Relocate the sanitary napkin disposal to an accessible location adjacent to the toilet between 15" and 48" above the finish floor.

mid-term

- 4) Improve or replace the toilet so that the flush control is located on the open side of the water closet.

long-term

**08**

### **Drinking Fountain**

- 1) Install a low drinking fountain with a spout height 36" maximum above the finish ground. The spout shall be located 15" minimum from the vertical support and 5" maximum from the front edge of the unit, with a water flow 4" high minimum and 5" maximum from the front of the unit.

long-term

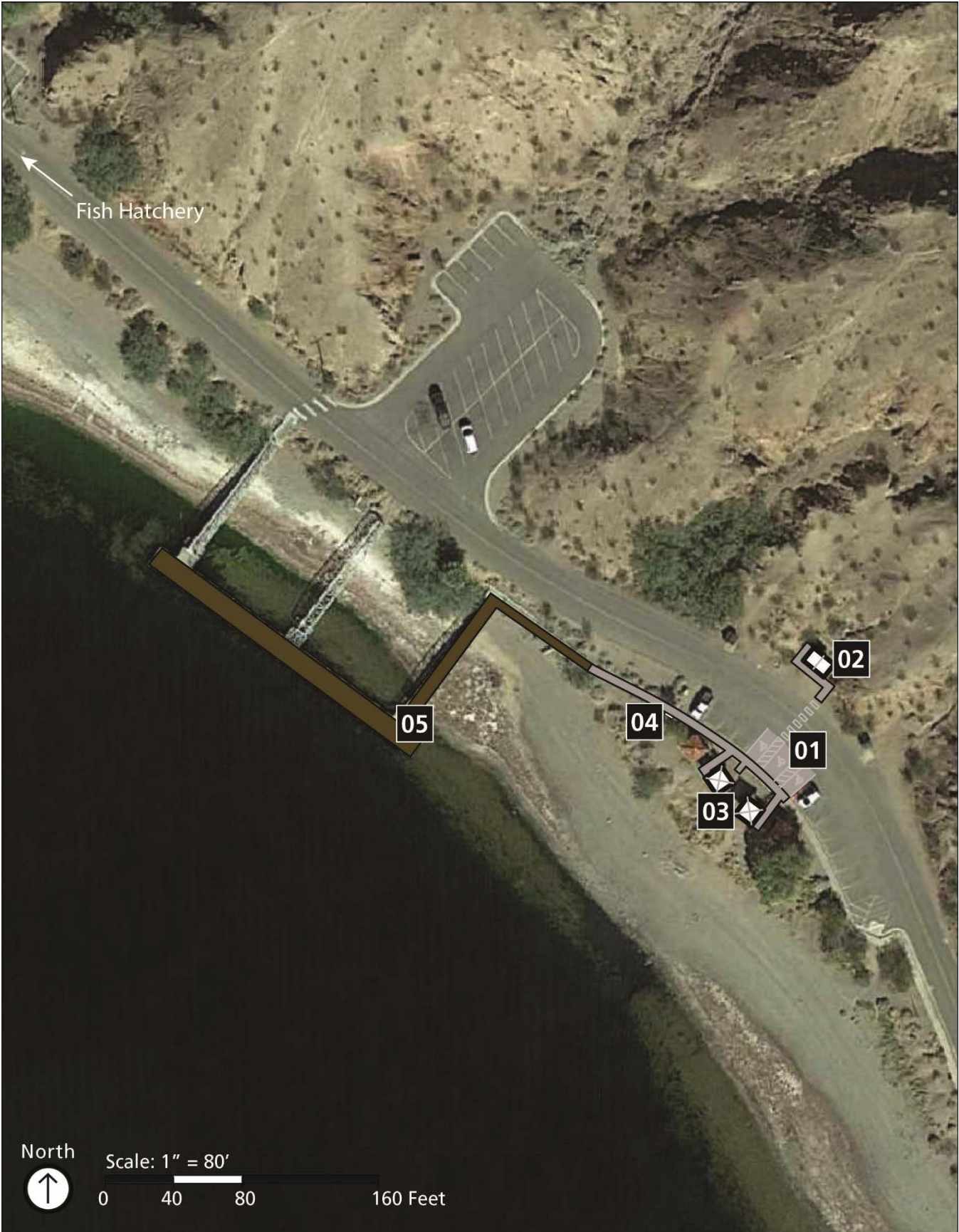
**09**

### **Courtesy Dock**

- 1) Improve the pier to have openings that do not exceed ½" between boards.

long-term

Willow Beach Fishing Pier Site Plan



## Implementation Strategy

The following planned improvements to this park area are:

### 01 Car Parking

- 1) Repaint the accessible stalls to provide a van-accessible parking stall 11' minimum in width with a 5' minimum width access aisle. The remaining standard accessible stalls shall be 8' minimum in width and share a 5' minimum width access aisle.

long-term

### 02 Restroom

- 1) Provide door pulls on both sides of the accessible stall door.
- 2) Lower the lock on the accessible stall door to be between 15" and 48" above the finish floor.

mid-term

### 03 Picnic Facilities

- 1) Relocate a minimum of two picnic tables to provide 36" minimum clearance around all usable sides.
- 2) Relocate the two grills located near the accessible picnic units to provide 48" minimum clearance around all usable sides.
- 3) Provide a level landing at the base of one water hydrant near accessible picnic tables, 72" by 48" minimum at 2% maximum slope in all directions (5% if necessary for drainage). Locate the space so that the water spout is between 11" and 12" from the rear center of the long side of the space.

long-term

### 04 Interpretive Wayside

- 1) Relocate the wayside to an accessible location with a level landing 30" by 48" minimum from a forward approach at 2% maximum slope in all directions.

long-term

- 1) Lessen the thresholds on the fishing pier gangway to be no more than ½ ".
- 2) Lower at least 25% of the railing to be 34" maximum above the deck surface. Ensure that fishing pole holders adjacent to these lower-railed areas are no more than 48" above the deck surface. These areas of railing shall be dispersed throughout the fishing pier to provide a variety of fishing opportunities for visitors with disabilities.

long-term

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## LAKE MEAD NATIONAL RECREATION AREA POLICIES, PRACTICES, COMMUNICATION, AND TRAINING

### Park Features



## Implementation Strategy

Park policies and practices are specific to the park unit and provide guidance for reaching desired outcomes. Park policies are defined courses of action adopted by the park, while park practices are those habitual and/or customary performances of operations that the park employs.

## Posting and Publications

### 01 Accessibility Flyers Posted in Common Areas

- 1) Place posters in common areas of staff and visitor buildings that provide accessibility-related information, including requirements, contacts, questions, and complaints.

immediate

### 02 Publications

- 1) Provide Braille publications and tactile wayfinding maps.
- 2) Provide audio described publications.
- 3) Provide large-print format publications. Use a minimum readable typeface at 18-point font. Align flush left and rag right. Avoid hyphens. Use black or white type color and avoid red text. Avoid italicized and underlined text. Provide graphics with at least 70% contrast.
- 4) Add accessibility information in all publications, as they relate to services, activities, and programs.

mid-term

### 03 Publicly Shared Documents

- 1) Revise publicly shared documents to delete discriminatory language, including the park newspaper, maps and other handouts.

mid-term

## Staff Training and Park Protocols

### **04** Accessibility Awareness Training

- 1) Provide ongoing accessibility awareness training for all staff, including permanent and nonpermanent employees.

short-term

### **05** Accessible Facilities and Maintenance Training

- 1) Provide ongoing training for maintenance staff on planning, maintaining and constructing accessible facilities, including, but not limited to, restrooms, walks and trails, door pressure requirements, assistive devices, accessible routes, and universal design principles.

short-term

### **06** Accessibility for Project Managers Training

- 1) Provide ongoing training for project managers to address project accessibility requirements, (e.g., entering accessibility projects in Project Management Information System (PMIS), understanding universal design principles, and overseeing quality control of projects and designs).

short-term

### **07** Accessible Interpretive Training

- 1) Provide ongoing training for the interpretation and education division.
- 2) Training may include, but is not limited to, how to evaluate programs for accessibility compliance; which websites offer more information; information about service animals; information about Other Power-Driven Mobility Devices (OPDMDs); how and when to offer live audio description programming; accessibility specifications for interpretive tactile models and maps; what assistive technologies are available; universal design principles; visitor services and communication about accessibility. It is also important to provide regular and ongoing visitor information and interpretive staff training in use of, distribution, and procedures for wheelchairs and assistive technology—assistive listening devices, T-coil hearing loops, neck loops, and text telephone machines.

short-term

## **08**    **Communication with Law Enforcement**

- 1) Provide a standard operation procedure that outlines methods for law enforcement to communicate with a person with a disability.

short-term

## **09**    **Emergency Preparedness**

- 1) Develop, distribute, and practice standard operating procedures for assisting people with disabilities in the case of an emergency.

short-term

## **10**    **Movable Seating**

- 1) Develop and distribute standard operating procedures for movable cubicles and conference rooms, so there is adequate clear space and accessible routes to all elements in a room or building. Post a map in an area with accessible layout and instructions for use of the space.
- 2) Develop and distribute standard operating procedures for movable seating arrangements and moving things to create an accessible route and maintain integrated accessible seating. Post a map in an area with accessible layout and instructions for use of the space.

short-term

## **11**    **Other Power-Driven Mobility Devices (OPDMDs)**

- 1) Provide guidance outlining use of OPDMDs within the park.

short-term

## **12**    **Service Animals**

- 1) Provide guidance or policy regarding service animals within the park.

short-term

## **13**    **Wheelchairs and Beach Wheelchairs**

- 1) Provide a standard operating procedure or guidance for checking out and returning wheelchairs and beach wheelchairs.
- 2) Provide a standard operating procedure or guidance on protocol for pre- and post-inspecting, cleaning, and maintenance of wheelchairs and beach wheelchairs.

- 3) Inform visitors and program participants that wheelchairs are available upon request. Provide information on wheelchair/beach wheelchair availability in all publications and on signage. Inform visitors using services, activities, and programs that wheelchairs are available upon request.

long-term

## Audio and Visual Programs

### 14 Assistive Listening Devices (ALDs)

- 1) Purchase assistive listening transmitters and devices. Provide these devices at visitor centers, educational programs, and guided tours with audio components.
- 2) Develop and distribute standard operating procedures or guidance for checking out and returning assistive listening devices.
- 3) Develop and distribute standard operating procedures or guidance describing protocol for pre -and post-inspection of the devices and for cleaning and maintaining all devices.
- 4) Provide signage and information where programs are offered stating device availability. Verbally inform visitors and program participants that auxiliary aids are available. Add information to all publications and communications stating that assistive listening devices are available and provide information on how they can be attained.

mid-term

### 15 Live Audio Description

- 1) Provide live audio descriptions on guided interpretive tours when needed.

mid-term

### 16 Open Captioning and Audio Description

- 1) Provide open captioning on videos and indicate its availability on the park's website.
- 2) Provide audio description of all images shown on the videos.

mid-term

### 17 T-Coil Hearing Loops or Neck Loops

- 1) Purchase T-coil hearing loops and neck loops. Inform visitors and program participants that auxiliary aids are available and provide information on check-out procedures. Post signage in appropriate locations and in all publications specifying availability of services.

- 2) Develop and distribute standard operating procedure or guidance for checking out and returning T-coil hearing loops and neck loops.
- 3) Develop and distribute standard operating procedures or guidance for pre-and post-inspection of T-coil hearing loops and neck loops and cleaning and maintenance of all devices.

mid-term

## **18** Text Telephone (TTY) Machines

- 1) Provide a TTY machine at all locations where there is a public telephone.
- 2) Include TTY number on publications and on the park's website with the park contact information and phone number
- 3) Provide a standard operating procedure or guidance describing use and protocol for pre- and post-inspection of TTY machines. Address cleaning and maintenance of all devices.

mid-term

## Visitor Information

## **19** Communication

- 1) Develop an accessibility guide for Lake Mead National Recreation Area that outlines accessible services, activities, and programs.

mid-term

## **20** Outreach

- 1) Conduct outreach via social media (Pinterest, Facebook, Snapchat, Twitter, etc.) to describe accessible programs, services, and activities available at the park.
- 2) Conduct outreach via traditional media and other advertising methods to describe accessible programs, services, and activities available at the park.
- 3) Contact groups with disabilities to inform them about the accessible programs, services, and activities that have become available at the park as solutions are implemented.
- 4) Outreach to and engage groups with disabilities to determine appropriate ways to involve them in park accessibility improvement projects as they occur (case-by-case basis).

mid-term



**21****Reservations**

- 1) On the park website, identify the following Federal Relay Service phone numbers: Voice (1-866-377-8642), Voice Carry Over (1-877-877-6280), Speech-to-Speech (1-877-877-8982), and Telebraille (1-866-893-8340). Note that for some of these services (Voice and Voice Carry Over), a user may also dial 711.
- 2) Coordinate with concessioners to provide an online reservation system built into the provider's website. Provide accessible formats for making reservations through the Federal Relay Service, Text Telephone (TTY), Video Phone, etc.
- 3) For each park area that requires a reservation, coordinate with concessioners to provide information on website reservation systems about accessible services and facilities.

short-term

**22****Signage**

- 1) Provide signage at visitor center that states availability of accessible alternative formats.

mid-term

**23****Website**

- 1) Provide information on the park's website that accessible programs, services, and activities are available, including, but not limited to, audio description, assistive listening devices, Braille/tactile features, accessible tours, open captioning, trails, etc.
- 2) Follow the NPS digital accessibility guidelines when working within CommonSpot (the NPS content management system) or when hand-coding a website or creating an app. Examples include using alternative text for images, providing captions and audio descriptions for videos, ensuring documents uploaded meet Section 508 compliance, using describing links, headers and subheaders, providing graphics with at least 70% contrast.

mid-term

## Tours, Programs, and Special Events

### **24** Tours (Guided and Self-Guided), Educational Programs, and Special Events

- 1) Upon request, provide alternative formats such as trail information in large print; audio descriptions for tours; educational programs; or special events. Provide alternative formats on park website and in publications at visitor center.
- 2) Provide information on the physical conditions of the tour, education program, or special event (e.g., number of steps, slopes, other barriers that exist, etc.) on-site, in a publication and/or on a website.
- 3) Provide designated stopping points or resting areas for the tour, education program, or special event, with 2% maximum cross and running slopes, firm and stable surfaces, and a minimum 30" by 48" clear space.

mid-term

### **25** Sign Language Interpreters

- 1) Develop the process for requesting sign language interpreters. Provide sign language interpreters within five days of request.
- 2) Develop and distribute standard operating procedures for contacting and scheduling sign language interpreters.

long-term

### **26** Special Events

- 1) Provide a system for people to call in and request a sign language interpreter within five days of service. Provide assistive listening devices and a T-coil or neck loop system. Post signage indicating devices and systems are available for special events. Provide large print of any handouts or waivers being provided.
- 2) Provide information on how people can contact the park for accommodations for special events, and release event announcements in a variety of accessible methods (e.g., large-print flyers, electronic accessible PDFs, etc.)
- 3) Develop and distribute a standard operating procedure on how to post accessibility information and how to request accommodations on event announcements.

mid-term

## Concessions and Partnerships

### **27** Park Partner, Lessee, and Concessionaire Services, Activities, and Programs

- 1) Prepare a standard operating procedure for lessees and park partners about providing accessible programs, services, and activities within the park unit.
- 2) Develop and distribute a standard operating procedure for presentations provided by outside groups regarding accessibility and assistive listening devices.
- 3) Communicate with state partners to ensure that an accessibility assessment and a plan for implementing accessibility solutions is completed. The Architectural Barriers for Accessibility Standards does not apply to state partner lands; however, the Americans with Disabilities Act does. State requirements take precedence for state-managed land and facilities.
- 4) Architectural Barriers Act for Accessibility Standards applies to all lands funded by the federal government. Communicate with park partner and/or concessioners to ensure accessible services, activities, and programs are provided. The National Park Service will conduct an assessment, develop a transition plan, and address park partner concessioner services.

short-term

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## CONCLUSION

Lake Mead National Recreation Area is committed to providing all visitors the opportunity to connect with and learn about the park's unique natural, cultural, and recreational resources. Accessibility improvements identified in the Lake Mead National Recreation Area Self-Evaluation and Transition Plan will make it easier for individuals with cognitive, hearing, vision, and mobility disabilities to discover, understand, and enjoy the range of experiences available at the park. Implementation of the plan will ensure that Lake Mead National Recreation Area will continue to work toward accommodating all park visitors while sustaining its legacy to preserve and protect the ecological, geological, cultural, historical, scenic, scientific, and wilderness resources of the park and region.

The Self-Evaluation and Transition Plan for Lake Mead National Recreation Area is a living document intended to be used as a guiding reference for the park as it implements accessibility upgrades and documents accessibility accomplishments. As barriers to accessibility are removed and/or improved, the changes will be updated in this plan. The park will conduct periodic reviews to evaluate and update conditions to reflect accomplishments and to document new programs or other changes that occur over time. Revisions to the plan may include conducting additional assessments for areas not originally conducted as a part of this plan.

The primary goal of the transition plan is to define key park experiences and document modifications needed to provide independent program participation for the widest range of disabilities possible. As the park works toward its accessibility goals and makes the implementation strategy a reality, both physical and programmatic accessibility will improve across the breadth of key park experiences at the park.

For visitors with mobility disabilities, access will be improved from the moment they enter the park. Facilities, as well as numerous programs, services, and activities the park offers will be more universally accessible. Experiences such as accessing boating facilities and enjoying lake activities, camping, exploring remote areas of the park, viewing wildlife from scenic vistas, engaging with park staff, and learning about the human history and environment of the park, will be enhanced.

Park programs will be created and delivered for all visitors, including visitors with mild to severe disabilities impacting their mobility, vision, hearing, and/or cognitive abilities. As this plan is implemented, ranger-led walks/talks, visitor center exhibits, films, trail waysides, and all materials that interpret park resources to the public will be provided in formats that allow visitors with disabilities to participate fully when possible. Some of those formats include, but are not limited to: large-print transcripts for printer materials, audio description for exhibits and films, assistive listening devices and sign language interpreters for ranger-led tours and programs, T-coil hearing loops for park films.

Over time, the results of this collective effort will make Lake Mead National Recreation Area a more welcoming and accommodating place for all visitors and will provide equal opportunity to access the many places, resources, stories, and experiences the park offers.

## **APPENDIX A: ACCESSIBILITY LAWS, STANDARDS, GUIDELINES, & NPS POLICIES APPLICABLE TO LAKE MEAD NATIONAL RECREATION AREA**

As a national park, Lake Mead National Recreation Area is required to comply with specific federal laws that mandate that discriminatory barriers be removed to provide equal opportunities to persons with disabilities. The following laws, design guidelines, and Director's Orders specifically pertain to Lake Mead National Recreation Area.

### **LAWS AND STANDARDS**

A law is a principle and regulation established in a community by some authority and applicable to its people, whether in the form of legislation or of custom and policies recognized and enforced by judicial decision. A standard is something considered by an authority or by general consent as a basis of comparison; an approved model. It is a specific low-level mandatory control that helps enforce and support a law.

#### **Architectural Barriers Act of 1968**

<http://www.access-board.gov/guidelines-and-standards/buildings-and-sites/about-the-aba-standards/guide-to-the-aba-standards>

The Architectural Barriers Act of 1968 requires physical access to facilities designed, built, altered, or leased with federal funds. The Uniform Federal Accessibility Standards (UFAS) are the design guidelines used as the basis for enforcement of the law. The UFAS regulations were adopted in 1984. Architectural Barriers Act Accessibility Standards (ABAAS) were revised and adopted in November 2005. Four federal agencies are responsible for the standards: the Department of Defense, the Department of Housing and Urban Development, the General Services Administration, and the US Postal Service. The United States Access Board was created to enforce the Architectural Barriers Act, which it does through the investigation of complaints. Anyone concerned about the accessibility of a facility that may have received federal funds can easily file a complaint with the United States Access Board.

#### **Section 504 of the Rehabilitation Act of 1973**

<http://www.law.cornell.edu/cfr/text/43/17.550>

To the extent that section 504 of the Rehabilitation Act of 1973 applies to departments and agencies of the federal government, the parks operated by the National Park Service are subject to the provisions of that statute. As will be discussed in the following text, both section 504 and the Architectural Barriers Act require the application of stringent access standards to new construction and the alteration of existing facilities. The Rehabilitation, Comprehensive Services, and Developmental Disabilities Amendments of 1978 (PL 95-602) extends the scope of section 504 of the Rehabilitation Act of 1973 (PL 93-112) to include Executive Branch agencies of the federal government. As amended, section 504 states:



Section 504: No otherwise qualified handicapped individual in the United States, as defined in Section 7 (6), shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. The head of each such agency shall promulgate such regulations as may be necessary to carry out the amendments to this section made by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Act of 1978. Copies of any proposed regulation shall be submitted to appropriate authorizing committees of Congress, and such regulation may take effect no earlier than the thirtieth day after the date on which such regulation is so submitted to such committees.

As noted above, section 504 and the Architectural Barriers Act govern new construction and alterations. However, as a civil rights law, section 504 goes further. Unlike the construction-driven ABA mandates, section 504 also requires covered entities to consider the accessibility of programs, services, and activities.

### **Section 508 of the Rehabilitation Act of 1973**

<http://www.section508.gov/>

In 1998, Congress amended the Rehabilitation Act of 1973 to require federal agencies to make their electronic and information technology (EIT) accessible to people with disabilities. Inaccessible technology interferes with an ability to obtain and use information quickly and easily. Section 508 was enacted to eliminate barriers in information technology, open new opportunities for people with disabilities, and encourage development of technologies that will help achieve these goals. The law applies to all federal agencies when they develop, procure, maintain, or use electronic and information technology. Under section 508 (29 USC §794 d), agencies must give disabled employees and members of the public access to information that is comparable to access available to others. It is recommended that you review the laws and regulations discussed in the following sections to further your understanding about section 508 and how you can support implementation.

### **Accessibility Standards for Outdoor Developed Areas**

<http://www.access-board.gov/guidelines-and-standards/recreation-facilities/outdoor-developed-areas/final-guidelines-for-outdoor-developed-areas>

Achieving accessibility in outdoor environments has long been a source of inquiry because of challenges and constraints posed by terrain, the degree of development, construction practices and materials, and other factors. The new provisions address access to trails, picnic and camping areas, viewing areas, beach access routes, and other components of outdoor developed areas on federal sites when newly built or altered. They also provide exceptions for situations where terrain and other factors make compliance impracticable. In 2013, this final rule amended the Architectural Barriers Act Accessibility Guidelines by adding scoping and technical requirements for camping facilities, picnic facilities, viewing

areas, trails, and beach access routes constructed or altered by or on behalf of federal agencies. The final rule ensures that these facilities are readily accessible to and usable by individuals with disabilities. The final rule applies to the following federal agencies and their components that administer outdoor areas developed for recreational purposes: Department of Agriculture (Forest Service); Department of Defense (Army Corps of Engineers); and Department of the Interior (Bureau of Land Management, Bureau of Reclamation, Fish and Wildlife Service, National Park Service). The final rule also applies to nonfederal entities that construct or alter recreation facilities on federal land on behalf of the federal agencies pursuant to a concession contract, partnership agreement, or similar arrangement.

### **Accessibility Standards for Shared Use Paths**

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/shared-use-paths>

Shared use paths provide a means of off-road transportation and recreation for various users, including pedestrians, bicyclists, skaters, and others, including people with disabilities. In its rulemaking on public rights-of-way and on trails and other outdoor developed areas, comments from the public urged the board to address access to shared use paths because they are distinct from sidewalks and trails. Shared-use paths, unlike most sidewalks, are physically separated from streets by an open space or barrier. They also differ from trails because they are designed not just for recreation purposes but for transportation as well.

In response, the board is supplementing its rulemaking on public rights-of-way to also cover shared-use paths. The proposed rights-of-way guidelines, which address access to sidewalks, streets, and other pedestrian facilities, provide requirements for pedestrian access routes, including specifications for route width, grade, cross slope, surfaces, and other features. The board proposes to apply these and other relevant requirements to shared-use paths as well. This supplementary rulemaking also would add provisions tailored to shared-use paths into the rights-of-way guidelines.

### **Draft Accessibility Standards for Public Rights-of-Way**

<http://www.access-board.gov/guidelines-and-standards/streets-sidewalks/public-rights-of-way>

Sidewalks, street crossings, and other elements in the public right-of-way can pose challenges to accessibility. The United States Access Board's ADA and ABA Accessibility Guidelines focus mainly on facilities on sites. While they address certain features common to public sidewalks, such as curb ramps, further guidance is necessary to address conditions and constraints unique to public rights-of-way.

The board is developing new guidelines for public rights-of-way that will address various issues, including access for blind pedestrians at street crossings, wheelchair access to on-street parking, and various constraints posed by space limitations, roadway design practices, slope, and terrain. The new guidelines will cover pedestrian access to sidewalks

and streets, including crosswalks, curb ramps, street furnishings, pedestrian signals, parking, and other components of public rights-of-way. The board's aim in developing these guidelines is to ensure that access for persons with disabilities is provided wherever a pedestrian way is newly built or altered, and that the same degree of convenience, connection, and safety afforded the public generally is available to pedestrians with disabilities. Once these guidelines are adopted by the Department of Justice, they will become enforceable standards under ADA Title II.

## **Effective Communication**

<http://www.ada.gov/effective-comm.htm>

People who have vision, hearing, or speech disabilities ("communication disabilities") use different ways to communicate. For example, people who are blind may give and receive information audibly rather than in writing and people who are deaf may give and receive information through writing or sign language rather than through speech. The ADA requires that Title II entities (state and local governments) and Title III entities (businesses and nonprofit organizations that serve the public) communicate effectively with people who have communication disabilities. The goal is to ensure that communication with people with disabilities is equally effective as communication with people without disabilities.

- The purpose of the effective communication rules is to ensure that the person with a vision, hearing, or speech disability can communicate with, receive information from, and convey information to, the covered entity.
- Covered entities must provide auxiliary aids and services when needed to communicate effectively with people who have communication disabilities.
- The key to communicating effectively is to consider the nature, length, complexity, and context of the communication and the person's normal method(s) of communication.

The rules apply to communicating with the person who is receiving the covered entity's goods or services, as well as with that person's parent, spouse, or companion in appropriate circumstances.

## **Reasonable Accommodations**

<http://www.opm.gov/policy-data-oversight/disability-employment/reasonable-accommodations/>

Federal agencies are required by law to provide reasonable accommodation to qualified employees with disabilities. The federal government may provide reasonable accommodation based on appropriate requests (unless so doing will result in undue hardship to the agencies). For more information, see the Equal Employment Opportunity Commission's [Enforcement Guidance: Reasonable Accommodation and Undue Hardship under the Americans with Disabilities Act \(external link\)](#).

Reasonable accommodations can apply to the duties of the job and/or where and how job tasks are performed. The accommodation should make it easier for the employee to successfully perform the duties of the position. Examples of reasonable accommodations include providing interpreters, readers, or other personal assistance; modifying job duties; restructuring work sites; providing flexible work schedules or work sites (i.e., telework); and providing accessible technology or other workplace adaptive equipment. [Telework \(external link\)](#) provides employees additional flexibility by allowing them to work at a geographically convenient alternative worksite, such as home or a telecenter, on an average of at least one day per week.

Requests are considered on a case-by-case basis. To request reasonable accommodations:

- Look at the vacancy announcement.
- Work directly with person arranging the interviews.
- Contact the agency [Selective Placement Program Coordinator](#).
- Contact the hiring manager and engage in an interactive process to clarify what the person needs and identify reasonable accommodations.
- Make an oral or written request; no special language is needed.

### **Other Power-Driven Mobility Devices**

<http://www.ada.gov/regs2010/ADAREgs2010.htm>

The definition and regulation to permit the use of mobility devices has been amended. The rule adopts a two-tiered approach to mobility devices, drawing distinctions between wheelchairs and other power-driven mobility devices such as the Segway Human Transporter. Wheelchairs (and other devices designed for use by people with mobility impairments) must be permitted in all areas open to pedestrian use. Other power-driven mobility devices must be permitted for use unless the covered entity can demonstrate that such use would fundamentally alter its programs, services, or activities, create a direct threat, or create a safety hazard. The rule also lists factors to consider in making this determination.

### **Service Animals**

<http://www.nps.gov/goga/planyourvisit/service-animals.htm>

[The following is excerpted from the Department of Justice and Americans with Disabilities Act Revised Regulations \(effective 3/15/2011\).](#)

34.104 Definitions: Service animal means any dog [or miniature horse as outlined in the following text] that is individually trained to do work or perform tasks for the benefit of an individual with a disability, including a physical, sensory, psychiatric, intellectual, or other mental disability. Other species of animals, whether wild or domestic, trained or untrained, are not service animals for the purposes of this definition. The work or tasks performed by a service animal must be directly related to the handler's disability.

Examples of work or tasks include, but are not limited to, assisting individuals who are blind or have low vision with navigation and other tasks, alerting individuals who are deaf or hard of hearing to the presence of people or sounds, providing nonviolent protection or rescue work, pulling a wheelchair, assisting an individual during a seizure, alerting individuals to the presence of allergens, retrieving items such as medicine or the telephone, providing physical support and assistance with balance and stability to individuals with mobility disabilities, and helping persons with psychiatric and neurological disabilities by preventing or interrupting impulsive or destructive behaviors. The crime deterrent effects of an animal's presence and the provision of emotional support, well-being, comfort, or companionship do not constitute work or tasks for the purposes of this definition.

- a. General. Generally, a public entity shall modify its policies, practices, or procedures to permit the use of a service animal by an individual with a disability.
- b. Exceptions. A public entity may ask an individual with a disability to remove a service animal from the premises if-
  - (1) The animal is out of control and the animal's handler does not take effective action to control it; or
  - (2) The animal is not housebroken.
- c. If an animal is properly excluded. If a public entity properly excludes a service animal under § 35.136(b), it shall give the individual with a disability the opportunity to participate in the service, program, or activity without having the service animal on the premises.
- d. Animal under handler's control. A service animal shall be under the control of its handler. A service animal shall have a harness, leash, or other tether, unless either the handler is unable because of a disability to use a harness, leash, or other tether, or the use of a harness, leash, or other tether would interfere with the service animal's safe, effective performance of work or tasks, in which case the service animal must be otherwise under the handler's control (e.g., voice control, signals, or other effective means).
- e. Care or supervision. A public entity is not responsible for the care or supervision of a service animal.
- f. Inquiries. A public entity shall not ask about the nature or extent of a person's disability, but may make two inquiries to determine whether an animal qualifies as a service animal. A public entity may ask if the animal is required because of a disability and what work or task the animal has been trained to perform. A public entity shall not require documentation, such as proof that the animal has been certified, trained, or licensed as a service animal. Generally, a public entity may not make these inquiries about a service animal when it is readily apparent that an animal is trained to do work or perform tasks for an individual with a disability (e.g., the dog is observed guiding an individual who is blind or has low vision, pulling a

person's wheelchair, or providing assistance with stability or balance to an individual with an observable mobility disability).

- g. Access to areas of a public entity. Individuals with disabilities shall be permitted to be accompanied by their service animals in all areas of a public entity's facilities where members of the public, participants in services, programs or activities, or invitees, as relevant, are allowed to go.
- h. Surcharges. A public entity shall not ask or require an individual with a disability to pay a surcharge, even if people accompanied by pets are required to pay fees, or to comply with other requirements generally not applicable to people without pets. If a public entity normally charges individuals for the damage they cause, an individual with a disability may be charged for damage caused by his or her service animal.
- i. Miniature horses.
  - (1) Reasonable modifications. A public entity shall make reasonable modifications in policies, practices, or procedures to permit the use of a miniature horse by an individual with a disability if the miniature horse has been individually trained to do work or perform tasks for the benefit of the individual with a disability.
  - (2) Assessment factors. In determining whether reasonable modifications in policies, practices, or procedures can be made to allow a miniature horse into a specific facility, a public entity shall consider-
    - i. The type, size, and weight of the miniature horse and whether the facility can accommodate these features;
    - ii. Whether the handler has sufficient control of the miniature horse;
    - iii. Whether the miniature horse is housebroken; and
    - iv. Whether the miniature horse's presence in a specific facility compromises legitimate safety requirements that are necessary for safe operation.

(C) Other requirements. Paragraphs 35.136 (c) through (h) of this section, which apply to service animals, shall also apply to miniature horses.

### **Section 17.549 Program Accessibility: Discrimination Prohibited**

<http://www.law.cornell.edu/cfr/text/43/17.549>

Except as otherwise provided in §17.550, no qualified handicapped person shall, because the agency's facilities are inaccessible to or unusable by handicapped persons, be denied the benefits of, be excluded from participation in, or otherwise be subjected to discrimination under any program or activity conducted by the agency.



The reference to §17.550 in the below quotes is intended to address exclusions available to covered entities in connection with existing facilities.

### **Section 17.550 Program Accessibility: Existing Facilities**

<http://www.law.cornell.edu/cfr/text/43/17.550>

**(a) General.** The agency shall operate each program or activity so that the program or activity, when viewed in its entirety, is readily accessible to and usable by people with disabilities. This paragraph does not:

- (1) Necessarily require the agency to make each of its existing facilities or every part of a facility accessible to and usable by people with disabilities;
- (2) In the case of historic preservation programs, require the agency to take any action that would result in a substantial impairment of significant historic features of an historic property; or
- (3) Require the agency to take any action that it can demonstrate would result in a fundamental alteration in the nature of a program or activity or in undue financial and administrative burdens. In those circumstances where agency personnel believe that the proposed action would fundamentally alter the program or activity or would result in undue financial and administrative burdens, the agency has the burden of proving that compliance with §17.550(a) would result in such an alteration or burdens. The decision that compliance would result in such alteration or burdens must be made by the agency head or his or her designee after considering all agency resources available for use in the funding and operation of the conducted program or activity, and must be accompanied by a written statement of the reasons for reaching that conclusion. If an action would result in such an alteration or such burdens, the agency shall take any other action that would not result in such an alteration or such burdens but would nevertheless ensure that handicapped persons receive the benefits and services of the program or activity.

### **(b) Methods.**

- (1) **General.** The agency may comply with the requirements of this section through such means as redesign of equipment, reassignment of services to accessible locations, assignment of aides to beneficiaries, home visits, delivery of services at alternate accessible sites, alteration of existing facilities and construction of new facilities, use of accessible rolling stock, or any other methods that result in making its programs or activities readily accessible to and usable by people with disabilities. The agency is not required to make structural changes in existing facilities where other methods are effective in achieving compliance with this section. The agency, in making alterations to existing buildings, shall meet accessibility requirements to the extent compelled by the Architectural Barriers Act of 1968, as amended (42

USC 4151–4157) and any regulations implementing it. In choosing among available methods for meeting the requirements of this section, the agency shall give priority to those methods that offer programs and activities to qualified handicapped persons in the most integrated setting appropriate.

- (2) **Historic preservation programs.** In meeting the requirements of paragraph (a) of this section in historic preservation programs, the agency shall give priority to methods that provide physical access to handicapped persons. In cases where a physical alteration to an historic property is not required because of paragraph (a)(2) or (a)(3) of this section, alternative methods of achieving program accessibility include:
- (i) Using audio-visual materials and devices to depict those portions of an historic property that cannot otherwise be made accessible;
  - (ii) Assigning persons to guide people with disabilities into or through portions of historic properties that cannot otherwise be made accessible; or
  - (iii) Adopting other innovative methods.
- (3) **Recreation programs.** In meeting the requirements of paragraph (a) in recreation programs, the agency shall provide that the program or activity, when viewed in its entirety, is readily accessible to and usable by people with disabilities. When it is not reasonable to alter natural and physical features, accessibility may be achieved by alternative methods as noted in paragraph (b)(1) of this section.

### **Section 17.551 Program Accessibility: New Construction and Alterations**

<http://www.law.cornell.edu/cfr/text/43/17.551>

Each building or part of a building that is constructed or altered by, on behalf of, or for the use of the agency shall be designed, constructed, or altered so as to be readily accessible to and usable by handicapped persons. The definitions, requirements, and standards of the Architectural Barriers Act (42 USC 4151–4157) as established in 41 CFR 101 – 19.600 to 101 – 19.607 apply to buildings covered by this section.

### **NATIONAL PARK SERVICE DIRECTOR’S ORDERS AND MANAGEMENT POLICIES**

A policy is a definite course of action adopted and pursued by a government, ruler, or political party. It is an action or procedure conforming to or considered with reference to prudence or expediency.

#### **Director’s Order 16A**

<http://www.nps.gov/policy/DOrders/DOrder16a.html>

Director’s Order 16A establishes the framework for meeting reasonable accommodation requirements in all areas of employment, including: application, hiring, retention, promotion, recognition, and special hiring authority. Within this framework, NPS Human

Resources and Equal Opportunity Program officials will take the lead in providing specific guidance and services to applicants, employees, and supervisors and other managers with respect to the provision of reasonable accommodation.

### **Director's Order 42**

<http://www.nps.gov/policy/DOrders/DOrder42.html>

Director's Order 42 addresses accessibility for visitors with disabilities in National Park Service programs and services. It is the goal of the National Park Service to ensure that all people, including persons with disabilities, have the highest level of access that is reasonable to NPS programs, facilities, and services. The order gives detailed guidance based on the minimum requirements set forth in laws, rules, and regulations with the goal to provide the highest level of access that is reasonable, exceeding the minimum level of access required by law. The order sets forth six implementation strategies:

1. to increase employee awareness and technical understanding of accessibility requirements
2. to ensure all new and renovated buildings and facilities, and all new services and programs (including those offered by concessioners and interpreters) will be "universally designed" and implemented in conformance with applicable regulations and standards
3. to ensure existing programs, facilities and services will be evaluated to determine the degree to which they are currently accessible to and useable by individuals with disabilities
4. to ensure that barriers that limit access be identified and incorporated into the NPS Assets Management Program
5. to develop action plans identifying how identified barriers will be removed (where feasible)
6. to ensure action will be taken on a day-to-day basis to eliminate identified barriers, using existing operational funds or other funding sources or partnerships

## **National Park Service Management Policies: Section 1.9.3 – Accessibility for Persons with Disabilities**

<http://www.nps.gov/policy/mp/policies.html>

All practicable efforts will be made to make NPS facilities, programs, services, employment, and meaningful work opportunities accessible and usable by all people, including those with disabilities. This policy reflects the commitment to provide access to the widest cross section of the public and ensure compliance with the Architectural Barriers Act of 1968, the Rehabilitation Act of 1973, the Equal Employment Opportunity Act of 1972, and Americans with Disabilities Act of 1990. Specific guidance for implementing these laws is found in the Secretary of the Interior's regulations regarding enforcement and nondiscrimination on the basis of disability in Department of the Interior programs (43 CFR par 17, subpart E), and the General Service Administration's regulations adopting accessibility standards for the Architectural Barriers Act (41 CFR part 102-76, subpart C).

A primary principle of accessibility is that, to the highest degree practicable, people with disabilities should be able to participate in the same programs, activities, and employment opportunities available to everyone else. In choosing among methods of providing accessibility, higher priority will be given to methods that offer programs and activities in the most integrated setting appropriate. Special, separate, or alternative facilities, programs, or services will be provided only when existing ones cannot reasonably be made accessible. The determination of what is practicable will be made only after careful consultations with persons with disabilities or their representatives. Any decisions that would result in less than equal opportunity is subject to the filing of an official disability right complaint under the departmental regulations cited above.

### **GUIDELINES**

A guideline is an indication of a future course of action. It consists of recommended, nonmandatory controls that help support standards or serve as a reference when no applicable standard is in place.

### **Programmatic Accessibility Guidelines for National Park Service Interpretive Media**

<http://www.nps.gov/hfc/accessibility/>

The "Programmatic Accessibility Guidelines for National Park Service Interpretive Media" is for media specialists, superintendents, and other NPS employees and contractors who develop and approve interpretive media. Publications, exhibits, audiovisual programs and tours, wayside exhibits, signage, and web-based media provide park visitors with information and context so that their experience of visiting national parks can be both safe and meaningful. Park visitors who have physical, sensory, or cognitive disabilities have legally established civil rights to receive the same information and context that NPS interpretive media products have always provided to their fellow citizens.

## APPENDIX B: GLOSSARY OF TERMS

**Accessibility assessment:** A process in which physical and programmatic barriers to accessibility are identified at a park unit.

**Accessibility assessment team:** This group is a subgroup of the Interdisciplinary Design Team (see definition below) and includes an accessibility specialist and/or technician, coordinators, a regional representative, the primary facilitator for the process, architect, engineer and/or landscape architect, and typically the chiefs of interpretation, resources management, and facilities management.

**Accessibility Self-Evaluation and Transition Plan:** A tool that establishes a methodical process for identifying and improving parkwide access and proposes strategies for implementing the plan over time, in a manner consistent with park requirements and protocols.

**Architectural Barriers Act Accessibility Standard (ABAAS):** Standards issued under the Architectural Barriers Act apply to facilities designed, built, altered, or leased with certain federal funds. Passed in 1968, the Architectural Barriers Act is one of the first laws to address access to the built environment. The law applies to federal buildings, including post offices, social security offices, federal courthouses and prisons, and national parks.

**Barrier:** Architectural and programmatic obstacles to accessibility that make it difficult, and sometimes impossible, for people with disabilities to maneuver, understand, or experience.

**Best practice:** A method or technique that has consistently shown results superior to those achieved with other means, and that is used as a benchmark for meeting accessibility requirements.

**Consultation:** A formal or informal process for discussing an action or process for implementing a solution, such as section 106 (cultural resource compliance), or design for an Accessibility Self-Evaluation and Transition Plan.

**Facility Management Software System (FMSS) work order:** The process for documenting work needs and collecting information to aid the work scheduling and assignment process within the Facility Management Software System. Information collected should include labor, equipment and material costs, hours, types, and quantities.

**Guideline:** A guideline is an indication of a future course of action. It consists of recommended, nonmandatory controls that help support standards or serve as a reference when no applicable standard is in place.

**Interdisciplinary design team:** This team is composed of all the people involved in the workshop at the park unit, potentially including planning, design, and construction professionals; and interpretive, resource (natural and cultural), visitor safety, maintenance and accessibility specialists.

**Key park experience:** For the purpose of the Self-Evaluation and Transition Plan, key park experiences are those experiences that are iconic and essential for visitors to understand the purpose and significance of a given park unit. They are those experiences that are “musts” for all park visitors. Key park experiences can be identified through a consideration of park purpose, significance, interpretive themes, and those programs or activities highlighted in park communications.

**Law:** A law is a principle and regulation established in a community by some authority and applicable to its people, whether in the form of legislation or of custom and policies recognized and enforced by judicial decision.

**National Environmental Policy Act (NEPA) Requirements:** NEPA defines a process that federal agencies must follow when proposing to take actions that have environmental impacts. NEPA requires federal agencies to fully consider the impacts of proposals that would affect the human environment prior to deciding to take an action. NEPA also requires federal agencies to involve the interested and affected public in the decision-making process.

**Park area:** A park area is the geographic location that is home to a single or multiple key park experience(s).

**Park Asset Management Plan-Optimizer Banding (PAMP-OB):** Provides a 5-year asset management strategy for park units, allowing for annual updates that coincide with the budget and planning processes already occurring in park units. As this approach includes life cycle total cost of ownership, analysis, processing, and calculations, it also helps park units and the service as a whole to manage the gap between what should be spent on facilities and what is actually being spent.

**Park policy:** A policy is a definite course of action adopted and pursued by a government, ruler, or political party. It is an action or procedure conforming to or considered with reference to prudence or expediency.

**Park practice:** Those habitual and/or customary performances or operations for reaching a desired outcome that the park employs.

**People-first language:** A type of disability etiquette that aims to avoid perceived and subconscious dehumanization when discussing people with disabilities. It emphasizes the person rather than the disability, noting that the disability is not the primary defining characteristic of the individual but one of several aspects of the whole person.

**Project Management Information System (PMIS) Facility:** A separate and individual building, structure, or other constructed real property improvement.

**Project Management Information System (PMIS) Nonfacility:** A project that includes anything not covered by the definition for PMIS facility

**Project Management Information System (PMIS) # (number):** A unique Project ID Number that is automatically generated when adding a new project into the Project Management Information System



**Project planning team:** This group is a subgroup of the interdisciplinary design team and includes DSC planners and PWR staff. This team collects baseline data, facilitates calls, develops the participant guide, plans for and facilitates the workshop, and produces the draft and final documents.

**Readily achievable:** Easily accomplished and able to be carried out without much difficulty or expense.

**Recommended solution:** The action to eliminate the identified barrier.

**Responsible person:** The person/position responsible for seeing that the elimination of a barrier is completed.

**Service, activity, and program:** A service, activity, or program that is undertaken by a department and affords benefits, information, opportunities, and activities to one or more members of the public.

**Standard:** A standard is something considered by an authority or by general consent as a basis of comparison; an approved model. It is a specific low-level mandatory control that helps enforce and support a law.

**Time frame:** Time frames for implementation of a recommended solution are primarily based on park's ability of the park to complete the improvements within normal scheduling of park operations and planned projects. They describe when staff will eliminate the barrier. Recommended solutions are divided into four time frames including: immediate, short-term, mid-term, and long-term.

## **APPENDIX C: CONTRIBUTORS**

### **LAKE MEAD NATIONAL RECREATION AREA**

Nancy Bernard, VIP Program Manager

Renee Flores, Facility Management System Specialist

David Hughey, Deputy Chief of Maintenance

Chelsea Kennedy, Public Affairs Specialist

Cheryl Marsh, Commercial Services Management Specialist

Sky McClain, Interpretive Specialist

Elizabeth Skinner, Interpretive Specialist

Matt Stark, Supervisory Park Ranger

Kevin Turner, Visitor Services and Education Manager

Christie Vanover, Public Affairs Officer

Chad Vellinga, Supervisory Civil Engineer, Accessibility Coordinator

Erik Westpfahl, Supervisory Law Enforcement Ranger

### **PACIFIC WEST REGIONAL OFFICE**

Patricia Brouillette, Project Manager

Trung-Son Nguyen, Former Regional Accessibility Coordinator

### **DENVER SERVICE CENTER**

Megan Braunschweig, Landscape Architect

Tamara Delaplane, Project Manager

Laurie Domler, Project Specialist

Colin Heffern, Landscape Architect

Marc Kochheiser, Landscape Architect

Katie Ryan, Landscape Architect

Laura Watt, Contract Editor

## APPENDIX D: PARK AREAS NOT ASSESSED

The following park areas are those not assessed for this Accessibility Self-Evaluation and Transition Plan. The selection process determined that key park experiences provided in these park areas were available in an equivalent way within the areas that were assessed. If any of the park areas not assessed are improved by new construction or alterations in the future, the area will be assessed and improved to comply with the current Architectural Barriers Act Accessibility Standards.

Rationales are provided below for park areas not assessed for this plan:

Park Area	Rationale
<b>6-Mile and 9-Mile Coves</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively high visitation levels but a relatively low diversity of services, activities, and programs. It is a sandy beach, and there are challenges with parking blockages which may limit accessibility. A similar visitor experience is provided at Cottonwood Cove. A similar visitor experience is provided at Boulder Beach.
<b>Greggs Hideout Road</b>	This park road is connected to five key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, and biological resources and diverse terrestrial habitats. It has low visitation levels and a low diversity of services, activities, and programs. The area contains no visitor facilities and requires a 4 x 4 to access. The road and parking are similar to the experience at St. Thomas Townsite.
<b>Blue Point Spring</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. It has low visitation levels and a low diversity of services, activities, and programs. It is a hilly area with a sensitive frog species. A similar visitor experience is provided at Rogers Spring.
<b>Boulder Harbor</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively high visitation levels and a low diversity of services, activities, and programs. A similar visitor experience is provided at Hemenway Harbor.
<b>Cabinsite Point</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively low visitation levels and a relatively low diversity of services, activities, and programs. A similar visitor experience is provided at Boulder Beach.
<b>Christmas Tree Pass</b>	This park area is a road connected to seven key park experiences, including outdoor recreation, dramatic scenery, geological and paleontological features,

Park Area	Rationale
	biological resources and diverse terrestrial habitats, solitude, cultural resources, and scientific research opportunities. However, it has low visitation levels and a low diversity of services, activities, and programs. The area is of unique tribal importance as the birthplace of the Yuman speaking people, but it is culturally sensitive and difficult to access on a dirt road with no facilities. The road is similar to the experience at St. Thomas Townsite.
<b>Colorado River Heritage Greenway Park and Trail</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has relatively low visitation levels and a relatively low diversity of services, activities, and programs. A similar visitor experience is provided at Historic Railroad Trail Trailhead.
<b>Cottonwood Cove East</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has low visitation levels and a low diversity of services, activities, and programs. Accessing the area requires a 4 x 4 vehicle, and the area is sensitive due to a threatened and endangered fish species (razorback suckers). The road and parking are similar to the experience at St. Thomas Townsite.
<b>Echo Bay</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively low visitation levels compared to other areas with similar experiences, and a relatively high diversity of services, activities, and programs. However, there are no services available on the water. A similar visitor experience is provided at Boulder Beach Campground.
<b>Grapevine Canyon Trail</b>	This park area is connected to all eight key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, solitude, cultural resources, and scientific research opportunities. It has relatively high visitation levels but a relatively low diversity of services, activities, and programs. The trail goes through wilderness and tribally sensitive areas and requires scrambling to get over the sandy and rocky trail. A similar visitor experience is provided at St. Thomas Townsite.
<b>Goldstrike Canyon</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively high visitation levels but a low diversity of services, activities, and programs. Rock scrambling and repelling is required along the trail and the area is multijurisdictional and seasonally closed. A similar visitor experience is provided at White Rock Canyon.
<b>Government Wash</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. However, it has relatively low visitation

Park Area	Rationale
	levels and a low diversity of services, activities, and programs. The area is steep, with a sandy and rocky trail. The road and parking is similar to the experience at Hemenway Harbor.
<b>Kingman Wash</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. However, it has low visitation levels and a low diversity of services, activities, and programs. Accessing the area generally requires a 4 x 4. The road and parking are similar to St. Thomas Townsite.
<b>Lakeshore Road Overlooks</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and cultural resources. It has relatively high visitation levels but a relatively low diversity of services, activities, and programs. A similar visitor experience is provided at Lakeview Overlook.
<b>Las Vegas Bay</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has low visitation levels and a relatively low diversity of services, activities, and programs. A similar visitor experience is provided at Callville Bay.
<b>Nelson Landing/Placer Cove</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has relatively low visitation levels and a relatively low diversity of services, activities, and programs. Grades between parking lots are steep. The road and parking are similar to the experience at Boulder Beach.
<b>Nevada Telephone Cove</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively high visitation levels but a relatively low diversity of services, activities, and programs. The road and parking are similar to the experience at Boulder Beach.
<b>North Arizona Telephone Cove</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively high visitation levels but a relatively low diversity of services, activities, and programs. The road and parking are similar to the experience at Boulder Beach.
<b>North Shore Road Overlooks</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has relatively low visitation levels and a relatively low diversity of services, activities, and programs. A similar visitor experience is provided at Lakeview Overlook.

Park Area	Rationale
<b>Northshore Summit Trail</b>	This park area is connected to four key park experiences, including outdoor recreation, dramatic scenery, geological and paleontological features, and biological resources and diverse terrestrial habitats. It has relatively low visitation levels and a low diversity of services, activities, and programs. The trail is very steep and leads to wilderness. A similar visitor experience is provided at White Rock Canyon.
<b>Overton Beach</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has low visitation levels and a low diversity of services, activities, and programs. The area is closed to vehicles. A similar visitor experience is provided at Boulder Beach.
<b>Pearce Ferry</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. However, it has low visitation levels and a relatively low diversity of services, activities, and programs. The trail is very sandy and there are tribally sensitive areas. The road and parking are similar to St. Thomas Townsite. The takeout is similar to Boulder Beach.
<b>Princess Cove</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, and scientific research opportunities. It has relatively low visitation levels but a relatively high diversity of services, activities, and programs. The canyon environment is steep and has an extremely steep launch ramp. A similar visitor experience is provided at Boulder Beach.
<b>South Arizona Telephone Cove</b>	This park area is connected to six key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has relatively low visitation levels and a relatively low diversity of services, activities, and programs. The canyon environment has very sandy beaches. A similar visitor experience is provided at Boulder Beach.
<b>South Cove</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has low visitation levels and a relatively low diversity of services, activities, and programs. There are tribally specific areas. A similar visitor experience is provided at Hemenway Harbor.
<b>Temple Bar</b>	This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. It has relatively low visitation levels compared to similar developed areas, and a high diversity of services, activities, and programs. The geography is culturally significant. A similar visitor experience is provided at Callville Bay.



Park Area	Rationale
<b>Wetlands Trail</b>	<p>This park area is connected to seven key park experiences, including outdoor recreation, dramatic scenery, riverine and reservoir ecosystems, geological and paleontological features, biological resources and diverse terrestrial habitats, cultural resources, and scientific research opportunities. However, it has low visitation levels and a relatively low diversity of services, activities, and programs. The trail is quite steep. A similar visitor experience is provided at White Rock Canyon.</p>

## APPENDIX E: ACTIONS TAKEN BY THE PARK

**Identification no.** \_\_\_\_\_

Record this identification number in the implementation table where this action is identified. Use this template to track and document accessibility actions and accomplishments throughout the park.

### Action Taken by Lake Mead National Recreation Area

**Location:** [Park Area]

**Barrier:**

**Action taken:**

**Date work was completed:**

**PMIS Number(s) and Title(s):**

**Cost:**

**Photograph(s), sketches, or notes documenting completed work:**

**Submitted by:**

**Date:**

## APPENDIX F: GUIDANCE FOR PREPARING PMIS PACKAGES FOR ACCESSIBILITY IMPROVEMENTS

**Project description:** Clearly identify what improvements will be addressed as part of the package. Also identify the park location and facility for planned work. Reference work orders for all applicable types of planned work, e.g., deteriorated conditions to be improved (deferred maintenance), health and safety improvements, and code compliance issues such as accessibility improvements. Provide measurements of areas to be improved, e.g., square footage, lineal footage, etc.

**Project justification:** Reference the recently completed “Accessibility Self-Evaluation and Transition Plan” for your park and the implementation strategy dates. Identify the number of visitors affected and other beneficial aspects of the project. You can cite legal and management policies as noted below:

- The Architectural Barriers Act (ABA) of 1968 requires that any building or facility designed, constructed, altered, or leased with federal funds be accessible and usable by any individuals with disabilities. In addition, Section 504 of the Rehabilitation Act of 1973 requires covered entities to consider the accessibility of programs, services, and activities. In 2006, the Architectural Barriers Act Accessibility Standards (ABAAS) were adopted for federal facilities. Subsequently in 2011, standards for Recreational Facilities were added to ABAAS as Chapter 10.
- The National Park Service recommitted to making our parks and programs truly accessible to all in the “*A Call to Action*”. The recently released “*ALL IN! Accessibility in the National Park Service 2015-2020*” included three goals for improved visitor access. This project addresses: Goal 1: Create a welcoming environment by increasing the ability of the National Park Service to serve visitors and staff with disabilities; Goal 2: Ensure that new facilities and programs are inclusive and accessible to people with disabilities; and Goal 3: Upgrade existing facilities, programs, and services to be accessible to people with disabilities.

**Potential eligible fund sources:** Accessibility projects are potentially eligible for a number of NPS fund sources and can be competitive in regard to the capital investment strategy. The following is a list of possible fund sources:

1. Repair/rehabilitation program—identify all work orders that pertain for deferred maintenance, code compliance, health and safety, etc.
2. Flex park base—accessibility is a NPS emphasis area for years 2015-2020.
3. Recreation fee 80% park—excellent fund source for accessibility as the project provides for visitor improvements. This should be a top choice for Fee80 parks.
4. Recreation fee 20% park—excellent fund source for accessibility as the project provides for visitor improvements.

5. Concession/permitted facilities—consider these fund sources when the facility is included in a Concession contract or permit.
6. Regular cyclic maintenance—excellent fund source for replacement of picnic tables, grills, trash containers, etc.
7. Exhibit cyclic maintenance—excellent fund source for replacing non-compliant waysides, exhibits, etc.
8. FLHP—include accessibility improvements with parking lot, parking spaces, accessible routes, curb cuts, sidewalks, signage, etc. as part of road improvement projects where appropriate.
9. Line item construction (LIC) —if you have a project in the LIC program, ensure inclusion of all appropriate accessibility improvements.

**PMIS packages:** Conduct a search in PMIS for projects previously funded for accessibility.

## APPENDIX G: TRAIL SUMMARY SHEETS

[NAME OF TRAIL]

Instructions: Remove this appendix if trails are not pertinent to the park.

### Trail Access Information Summary

<b>Park Name</b>	Lake Mead National Recreation Area
<b>Trail Name</b>	[Name of trail]
<b>Segment</b>	[Segment information]
<b>Type</b>	—

Trail Description Elements	Measurements and Data	Measurements and Data
<b>Length</b>	[Length information]	—
<b>Elevation Gain</b>	[Elevation gain] file]	—
<b>Elevation Loss</b>	[Elevation loss information]	—
<b>Trail Uses Allowed</b>	—	—
—	—	—
—	—	—
<b>Trail Uses NOT Allowed</b>	—	—
—	—	—
—	—	—
<b>Typical Grade</b>	[%]	Max = [X%]
Intermediate	—	—
Maximum	—	—
—	Standard Ramp Grade is [X%]	—
<b>Typical Cross Slope</b>	[%]	Max = [X%]

Trail Description Elements	Measurements and Data	Measurements and Data
Intermediate	—	—
Maximum	—	—
<b>Typical Tread Width</b>	[X in (X cm)]	Min = [X in (X cm)]
Intermediate	—	—
Minimum	—	—
<b>Surface Type</b>	[Surface Type]	—
<b>Surface Category</b>	X % of Trail is [Surface Type]	X % of Trail is [Surface Type]
—	X % of Trail is [Surface Type]	X % of Trail is [Surface Type]
—	X % of Trail is [Surface Type]	—
<b>Firmness</b>	Typical: X	Minimum: X
<b>Stability</b>	Typical: X	Minimum: X
<b>Obstructions:</b>	—	—

Type:	Size (Height):	Remaining Tread:	Location:
X	X in (X cm)	X in (X cm)	X ft (X m)
X	X in (X cm)	X in (X cm)	X ft (X m)
X	X in (X cm)	X in (X cm)	X ft (X m)

Warning: [Add notes from rtf file]
[Add notes from rtf file]
Signage created by Beneficial Designs Inc. from data collected by a Certified Trail Assessment Coordinator using the High Efficiency Trail Assessment Process (HETAP).



## APPENDIX H: TRAIL ASSESSMENT PROTOCOL

**References:** Architectural Barrier Act Accessibility Standards (ABAAS)

- Chapter 2 Scoping Requirements: Section F247 Trails, Section F216.13 Trailhead Signs
- Chapter 10 Recreation Facilities, Section 1017 Trails, Section 1019 Condition for Exceptions

**Background standards:** The ABAAS trail accessibility requirements are included in “Chapter 2 Scoping Requirements” and “Chapter 10 Recreation Facilities.” Refer to ABAAS for the complete standards prior to planning any trail work or conducting assessments; the following bullets highlight some pertinent sections of the standards in regard to conducting assessments:

- F216.13 Trailhead Signs. Where new trail information signs are provided at trailheads on newly constructed or altered trails designed for use by hikers or pedestrians, the signs shall comply with 1017.10.
- F247.1 General. Where a trail is designed for use by hikers or pedestrians and directly connects to a trailhead or another trail that substantially meets the requirements in 1017, the trail shall comply with 1017. A trail system may include a series of connecting trails. Only trails that directly connect to a trailhead or another trail that substantially meets the requirements in 1017 are required to comply with 1017.
- F247.1 Advisory Trails. Trails that have a designed use for hikers or pedestrians are required to comply with 1017. Trails that have a designed use for other than hikers or pedestrians are not required to comply with 1017.
- F247.2 Existing Trails. Where the original design, function, or purpose of an existing trail is changed and the altered portion of the trail directly connects to a trailhead or another trail that substantially meets the requirements in 1017, the altered portion of the trail shall comply with 1017.
- F247.4 Advisory Trail Facilities. Facilities are required to comply with F247.4 regardless of whether the trail complies with 1017. (Note: this includes camping facilities, picnic facilities, and viewing areas that must comply with appropriate standards.)
- F247.5 Outdoor Constructed Features. Where outdoor constructed features are provided on trails, other than within facilities specified in F247.4, at least 20 percent, but not less than one, of each type of outdoor constructed feature at each location shall comply with 1011.
- 1017.1 General. Trails shall comply with 1017.
  - Exception 1. When an entity determines that a condition in 1019 (see below) does not permit full compliance with a specific provision in 1017 on

a portion of a trail, the portion of the trail shall comply with the provision to the extent practicable.

- Exception 2. After applying Exception 1, when an entity determines that it is impracticable for the entire trail to comply with 1017, the trail shall not be required to comply with 1017.
- 1017.1 Advisory General Exception 2. An entity must apply Exception 1 before using Exception 2. The entity should consider the portions of the trail that can and cannot fully comply with the specific provisions in 1017 and the extent of compliance where full compliance cannot be achieved when determining whether it would be impracticable for the entire trail to comply with 1017. The determination is made on a case-by-case basis. Federal agencies must document the basis for their determination when using Exceptions 1 or 2, and must notify the Access Board when using Exception 2.
- 1019.1 General (Conditions for Exceptions). Exceptions to specific provisions in 1017 shall be permitted when an entity determines that any of the following conditions does not permit full compliance with the provision:
  - 1) Compliance is not practicable due to terrain.
  - 2) Compliance cannot be accomplished with the prevailing construction practices.
  - 3) Compliance would fundamentally alter the function or purpose of the facility or the setting.
  - 4) Compliance is limited or precluded by any of the following laws, or by decisions or opinions issued or agreements executed pursuant to any of the following laws:
    - Endangered Species Act (16 U.S.C. §§ 1531 et seq.);
    - National Environmental Policy Act (42 U.S.C. §§ 4321 et seq.);
    - National Historic Preservation Act (16 U.S.C. §§ 470 et seq.);
    - Wilderness Act (16 U.S.C. §§ 1131 et seq.); or
    - Other federal, state, or local law the purpose of which is to preserve threatened or endangered species; the environment; or archaeological, cultural, historical, or other significant natural features.
- 1019.1 Clarification. Entities should consider all design options before using the exceptions. On trails, the exceptions apply only on the portion of the route where the condition applies. The trail is required to fully comply with the provisions in 1017, as applicable, at all other portions of the route where the conditions do not apply. There are additional exceptions that apply to an entire trail in 1017.1.

**Identifying trails for assessments:** Parks vary considerably in what key experiences are provided to visitors. A small historical park may have minimal or no trails but will have various walks and outdoor recreation access routes providing universal access. Some

parks may have a few identified trails that they provide for universal access. While at other parks, the primary key experience for visitors may be the recreational trail system.

There are various sources of information to inform a decision on which trails to assess as part of the SETP process. The following sources can be researched and actions taken when identifying what trails are appropriate for assessment:

Sources:

- Trails that the park has identified in visitor information as being wheelchair accessible to visitors with disabilities.
- There are five classifications of trails defined within FMSS including:
  - Class 1 primitive/undeveloped
  - Class 2 simple/minor development
  - Class 3 developed/improved
  - Class 4 highly developed
  - Class 5 fully developed.

Note: Class 4 and class 5 trails by definition have potential for universal access.

- FMSS trail listings in which parks have identified those trails that are ABA compliant and/or ABA designated trails. In December 2015, there were 98 trails in 32 parks identified in the region meeting those requirements.

Actions:

- Select a representative number of trails for assessment to provide visitors the maximum access to key park experiences. Eliminate those trails that are not practical because of terrain, cannot be altered to meet standards with prevailing construction practices, or exempt as a result of environmental or historical laws. For each trail, document within the park evaluation the reasons for elimination.
- Outdoor recreation facilities are often targeted in ABAAS to provide for access to at least 20% of the facilities but not less than one of each type of facility at each location. The 20% figure could be used as a general guide in identifying the number of trails to be assessed at various locations.
- Evaluate what is a reasonable expectation for making trail improvements in the 10-year time-frame of the transition plan. Possibly four to six trail assessments would be the maximum scheduling capacity for trail improvements at a park within 10 years. Identify planned trail assessments and improvements for each time frame category. **Requirements for trail assessments:** ABAAS Section 1017 provides the access standards for constructing and altering trails. These standards shall also be used for the assessment process. It is critical to note that although a trail may not meet Section 1017 accessibility standards, all constructed facilities on the trail or at the destination must comply with ABAAS standards, i.e., camping, picnicking, view areas, restrooms and other constructed facilities. Many visitors with disabilities can

navigate non-standard trails into the backcountry but upon arrival may be unable to use constructed facilities with physical barriers. The only exemption for backcountry facilities is the primitive outhouse with riser on a hole dug into the ground.

**Trailhead signs:** Trail information signs at trailheads shall include the following:

1. Length of the trail or trail segment
2. Surface type
3. Typical and minimum tread width
4. Typical and maximum running slope
5. Typical and maximum cross slope

**Conducting trail assessments:** The High Efficiency Trail Assessment Process (HETAP) tool provides the most effective means of conducting trail assessments. This tool is a wheeled carriage (baby jogger size) with a mounted computer that stores photos, barrier observations, and field data such as length, running slope, and cross-slope measurements at designated intervals. A Rotational Penetrometer (RP) should be used in tandem with the HETAP tool to measure the firmness and stability of the trail surface. The data collected can be used for evaluating the trail in meeting ABAAS Section 1017 requirements, including trail length, width, surface, running slope, cross slope, and tread obstacles. The park can generate a report from the data to estimate and plan trail improvements. In addition, the data can be used in providing information for trailhead signage. The final HETAP trail data is presented in excel spreadsheets and should be left with the park for future planning purposes. If HETAP equipment is not available, information can be collected by a measuring wheel, tape measure, and smart level. (Note: The HETAP equipment is manufactured by Beneficial Design, Inc. and is used by several parks. Other manufacturers may carry this equipment.

# LAKE MEAD NATIONAL RECREATION AREA ACCESSIBILITY SELF-EVALUATION AND TRANSITION PLAN [DATE]

This Accessibility Self-Evaluation and Transition Plan has been prepared as a collaborative effort between Lake Mead National Recreation Area, Pacific West Regional staff, and the Denver Service Center and is recommended for approval by the superintendent.

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**Approved**

Superintendent, Lake Mead National Recreation Area

Date



As the nation's principal conservation agency, the Department of the Interior has responsibility for most of our nationally owned public lands and natural resources. This includes fostering sound use of our land and water resources; protecting our fish, wildlife, and biological diversity; preserving the environmental and cultural values of our national parks and historic places; and providing for the enjoyment of life through outdoor recreation. The department assesses our energy and mineral resources and works to ensure that their development is in the best interests of all our people by encouraging stewardship and citizen participation in their care. The department also has a major responsibility for American Indian reservation communities and for people who live in island territories under U.S. administration.

LAKE [TIC number ###/#####]

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