

Everglades National Park  
Accessibility Assessment

Summary Report  
Findings and Recommendations

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Keith Whisenant, Park Superintendent

Project Coordinators

Mike Jester, Chief of Maintenance



National  
Center on  
Accessibility

Dr. Sherril York, Executive Director

Project Team

Ray Bloomer, Director of Training & Education

Alice Voigt, Accessibility Specialist

Nikki Montembeault, Accessibility Specialist

Jeff Townsend, Accessibility Specialist

Michelle E. Cook, Accessibility Specialist

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Everglades National Park  
Accessibility Assessment  
Summary Report of Findings and Recommendations  
Assessment Dates: March 28-31, 2011

## I. Assessment Team

National Center on Accessibility  
501 N. Morton St., Suite 109  
Bloomington, IN 47404  
Voice: (812) 856-4422  
TTY: (812) 856-4421  
Fax: (812) 856-4480

Sherril York, Ph.D., CAPE  
Executive Director  
Voice: (812) 856-4425  
shyork@indiana.edu

Nikki Montembeault  
Accessibility Specialist  
Voice: (812) 856-3680  
nmontemb@indiana.edu

Alice Voigt  
Accessibility Specialist  
Voice: (812) 856-4427  
ajvoigt@indiana.edu

Ray Bloomer  
Director of Training & Education  
Voice: (812) 856-4424  
rbloomer@indiana.edu

Jeff Townsend  
Accessibility Specialist  
Voice: (812) 856-4479  
jdtownse@indiana.edu

Michelle E. Cook  
Accessibility Specialist  
Voice: (812) 856-4426  
cook32@indiana.edu

## II. Final Locations as Identified in FMSS

The final list of locations assessed at Everglades National Park is contained in each of the appendices at the conclusion of this report. The areas assessed include: Coe Visitor Center, Flamingo, Everglades City, Long Pine Key, Pinelands, Hidden Lake, Chekika, Royal Palm, Route 10, and Shark Valley.

## III. Introduction

The accessibility assessment for Everglades National Park was conducted by the National Center on Accessibility assessment team during a 4-day on-site visit March 28-31, 2011. The purpose of this narrative report is to provide an overview of the most significant findings and recommendations to improve access for Park visitors with disabilities at the locations assessed during the on-site visit.

This document is organized to address common Park-wide accessibility barriers in addition to providing information specific to varying Park areas and districts. Sections I through VII address commonalities between all areas and districts of Everglades National Park and should be reviewed by the appropriate Park personnel for all locations. Section VIII identifies each area or district individually and further

highlights accessibility deficiencies and recommendations for compliance that are specific to those locations.

Specific detail of programmatic and physical barriers has been identified in the NPS Facilities Management Software System (FMSS) with barrier removal recommendation. Cost estimates for each work order generated in FMSS has been completed in the Cost Estimating Software System (CESS) and is available for the Park to request funding and perform the work needed.

#### **IV. The National Center on Accessibility Assessment Approach**

The National Center on Accessibility assessment process is designed to identify barriers to participation for people with disabilities, make recommendations for barrier removal and improved access, and develop associated work orders and cost estimates to assist park personnel in long-term planning. The NCA assessment team utilizes the federal standard for program access, Section 504 of the 1973 Rehabilitation Act, as a guiding principle for viewing the programs, activities and services of the National Park or Historic Site in its entirety for consideration of barrier removal. The assessment team looks critically at the programs that make up the visitor experience from the point of view of persons who have impairments to vision, hearing, mobility, or cognitive processes. This approach focuses the assessment process and outcomes on the visitor experience and beyond the realm of solely the physical environment. The NCA assessment team views the physical environment as a catalyst for program access and thus forms recommendations for barrier removal with program access at the forefront of the investigative and reporting processes.

At Everglades National Park, the assessment team from the National Center on Accessibility performed an accessibility assessment of the physical aspects and programmatic elements conducted within the park. The team also interviewed key park personnel, collecting information in order to provide a broad range of recommendations for improving access for visitors with disabilities.

#### **V. Referenced Standards and Guidelines**

The National Park Service is legislatively mandated to provide accessible facilities and programs for their visitors with disabilities. Based on these mandates, the National Center on Accessibility utilizes the following accessibility standards and guidelines for their assessment:

##### **Architectural Barriers Act of 1968, as amended (U.S. Access Board, 2004; General Services Administration, effective date May 8, 2006)**

This document contains scoping and technical requirements for accessibility to sites, facilities, buildings, and elements by individuals with disabilities. The requirements are to be applied during the design, construction, addition to, alteration, and lease of sites, facilities, buildings, and elements to the extent required by regulations issued by Federal agencies under the Architectural Barriers Act of 1968 (ABA).

### **Rehabilitation Act of 1973, as amended in 1978, Section 504**

Section 504 of the Rehabilitation Act (1973) reads, "No otherwise qualified individual with a disability in the United States shall solely by reason of his disability, be excluded from the participation in, be denied benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance, or under any program or activity conducted by an Executive Agency."

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

This section, amended in 2000, requires access to electronic and information technology provided by the Federal government. The law applies to all Federal agencies when they develop, procure, maintain, or use electronic and information technology. Federal agencies must ensure that this technology is accessible to employees and members of the public with disabilities to the extent it does not pose an "undue burden."

### **NPS Director's Order #42: Accessibility for Visitors with Disabilities in National Park Service Programs and Service**

This NPS Director's Order reiterates the NPS goal to ensure that all people, including the estimated 54 million citizens with disabilities, have the highest level of accessibility that is reasonable to their programs, facilities and services in conformance with applicable regulations and standards. Five objectives are outlined including: incorporation of the highest level of accessibility as a long range goal; implementation through daily operation, policies, organizational relationships and strategies; provision of guidance and direction regarding the NPS interpretation of laws and policies; establishment of a framework for effective implementation; and ensuring the implementation of "universal design" principles within the national park system.

### **Programmatic Accessibility Guidelines for National Park Service Interpretive Media (August 2009)**

These NPS Guidelines combine laws, policies, and best practices for interpretive media. The guidelines acknowledge that no interpretive media product works alone. Media products are interdependent and each has inherent strengths and weaknesses. Park visitors sample and benefit from an array of interpretive media. These guidelines describe design and presentation solutions that are acceptable in most interpretive media situations. It should be noted however that these guidelines present highlights only and are not comprehensive.

### **Draft Final Accessibility Guidelines for Outdoor Developed Areas (U.S. Access Board, October 19, 2009)**

Achieving accessibility in outdoor environments has long been a source of inquiry due to challenges and constraints posed by terrain, the degree of development, construction practices and materials, and other factors. These guidelines are proposed by the U.S. Access Board as new scoping and technical requirements for outdoor developed areas covered by the Architectural Barriers Act. The guidelines will cover new and altered trails, beaches, picnic and camping facilities and viewing areas. While these guidelines are not yet enforceable as requirements for Federal entities, they should be integrated into

the planning, construction, and renovation of outdoor recreation areas and facilities and in the provision of programs and services provided to the public as best practice guidelines.

In addition to legislative mandates and proposed rulemaking, the NCA assessment team has made recommendations based on best practices in the field in order to create greater opportunities for participation and benefit among visitors with disabilities.

### **Principles of Universal Design**

Universal Design is the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design. The intent of Universal Design is to simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost. Universal Design benefits people of all ages and abilities.

There are times when NCA may use the concept of Universal Design for recommendations that are not requirements but are seen as “best practices”. An example would be providing recommendations for benches in the outdoor environment, installing power assisted exterior doors, marking parking spaces uniformly at 11 feet wide, and/or utilizing the advisories in ABAAS when appropriate due to accessibility issues that contribute to safety risks.

### **Smithsonian Guidelines for Accessible Exhibition Design**

The Smithsonian Guidelines is one of the very first and most formidable resources addressing exhibit design considerations for museum patrons with disabilities. The Smithsonian Guidelines are referenced as best practice for designing to various learning styles and functional abilities in the interpretive environment and especially in situations where the accessibility standards do not fully transfer to unique exhibition designs.

### **NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities D24 (2420) (October 20, 2006)**

A series of official disability rights complaints and testimony received at a Congressional oversight hearing on disability access revealed that the NPS has many audiovisual programs that are not captioned or audio-described; assembly areas that are not equipped with assistive listening systems; and in some cases, captioning systems that are broken and have not been repaired. This initiative established the fundamental goal that the films and audio-visual programs presented in parks provide three basic services: open captions, audio-description, and assistive listening devices for those with hearing loss.

### **Architectural and Transportation Barriers Compliance Board Revised Draft Guidelines for Accessible Public Rights-of-Way (November 23, 2005)**

Sidewalks, street crossings, and other elements of the public rights-of-ways present unique challenges to accessibility for which specific guidance is considered essential. These proposed guidelines for public rights-of-way 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.

## VI. Key Findings and Recommendations

The following text highlights common barriers to accessibility identified by the NCA assessment team at Everglades National Park. Additional detail, deficiencies and solutions will be included in the work orders generated in the Facility Management Software System database. Supplemental information for the unique areas and districts within the Park is discussed in the appendix sections of this document.

The deficiencies are given a priority rating by the assessors, as established by the National Park Service within FMSS. The three accessibility deficiency priorities are:

**Critical** - A critical priority would be given to those deficiencies that occur in an asset or facility that is utilized by a significantly high number of people (visitors or employees); or "prohibits" or seriously inhibits people with disabilities from utilizing the facility.

**Serious** - A serious priority would be given to those deficiencies that occur in an asset or facility but only modestly inhibit an individual with a disability from utilizing the facility.

**Minor** - A minor priority would be given to those deficiencies that occur in any asset or facility but only slightly inhibit an individual with a disability from utilizing the facility. Minor classifications can also signify that the deficiency can be easily corrected with maintenance and/or minor adjustments or that correction might take more time and money but only needs to be corrected when renovations/replacements are scheduled.

### 1. Policy Considerations & Best Practices

During the review of assessment data, NCA accessibility specialists identified a number of barriers to accessibility, unique to Everglades National Park, that are not explicitly addressed in the above referenced standards. As a result of discussion with Park management, and in collaboration with recommendations from the U.S. Access Board, the following policy considerations were identified.

**Scoping for Parking Areas:** The Architectural Barriers Act Accessibility Guidelines state that when more than one parking facility is provided on a site, the number of accessible parking spaces provided on a site shall be calculated according to the number of spaces required for each parking facility. At Everglades National Park, there are areas where multiple parking facilities are located on a site; the minimum number of required accessible parking spaces was determined within each facility based on whether the purpose of a facility differed from the others on a site. An example of this is seen in the Flamingo Visitor Center and Marina parking areas. In addition to standard car and van parking spaces, the parking area offers parking facilities for boat trailer parking (both parallel and pull through). These are three separate types of facilities (standard car and van, parallel boat

trailer, and pull through boat trailer) and were scoped as such; each facility was assessed to ensure the minimum number of accessible parking spaces was provided.

Park management has decided to adopt the following best practices to maximize accessibility for visitors with disabilities.

**Exterior Doors:** While there is no identified accessibility standard for the opening force of exterior doors, it is recommended as best practice for the Park to adjust exterior door closers to reduce the operating force to as close to 5 pounds (maximum force requirement for interior doors) as possible. If this is not possible, the Park should investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability.

**Waysides & Interpretive Panels:** As new waysides and interpretive panels are installed, or maintenance is conducted to existing routes where waysides and interpretive panels are furnished, clear ground space complying with ABAAS 305 should be provided, positioned for either a forward or parallel approach, centered on the frame.

**Benches:** All new accessible benches should be installed with adjacent clear floor or ground space for wheelchair seating that does not overlap the accessible route. As benches are repaired or replaced, accessible benches should be provided until a minimum of 20 percent are accessible in each location. Accessible benches should have back support and at least one armrest and should be installed along an accessible route or outdoor recreation access route.

## ***2. Visitor Orientation & Wayfinding***

The facilities and features of Everglades National Park are communicated through signage, maps, and publications designed to welcome and orient the visitor to the Park. Vertical information kiosks, maps of the Park, maps of trails, and the Park brochure are not provided in electronic, large print, or tactile formats for people with low vision or who are blind. While accessibility guidelines do not address visitor orientation and way finding, visitor orientation signage and a topographical/tactile map should be provided at the Visitor Centers which will allow individuals with low vision or who are blind to orient themselves to the surroundings in the park.

## ***3. Publications***

The standard Park unigrid brochure, which includes basic visitor information and maps, (including Flamingo and Long Pine Key camping facility maps) along with other secondary publications, are not available in alternate formats such as audio, large print, Braille, or electronic format.

The Everglades unigrid brochure and all other readily available publications should be converted to Braille, designed for large print, and formatted for audio and electronic distribution. Utilize the Harpers Ferry Center large print brochure template to adapt all primary standard Park brochures to large print. In addition, translate the content for the primary standard Park brochures to Braille, electronic text file



(.txt, .rtf, .doc), and audio (cassette, CD, mp3). Maintain the alternate formats of all primary standard Park brochures in stock for random visitor requests and provide signage at the Visitor Center reception areas stating that the information is available. Develop a procedure for translating content of secondary brochures and insert a statement in those publications indicating, “alternate formats of this publication are available upon request.”

Add a section to the primary Park brochures explaining the availability of services for visitors with disabilities including information to request a sign language interpreter, availability of an assistive listening system, alternate formats, trail information, accessibility improvements to the Park, and the contact information for the Park’s accessibility coordinator. Ensure that the same information is added to the Park’s website.

#### **4. Interpretive Exhibits**

The Visitor Centers throughout Everglades National Park provide accessible routes through the exhibit spaces for visitors with physical disabilities. Unfortunately, the majority of the interpretive program content in the exhibit areas is not presented in a format that is accessible for people with visual and cognitive impairments. There is no audio description component to any of the interpretive exhibit elements throughout the Park. Many of the significant artifacts and exhibit components are contained in display cases and are not provided in a tactile or audio described representation (with the exception of the Everglades City Visitor Center and a few in the Coe Visitor Center), which creates a barrier for individuals who are blind or have low vision. None of the maps provided throughout the exhibit spaces provide a tactile experience. In some locations, the orientation of exhibit lighting that causes glare, shadows, poor contrast, and backlit text, also poses a barrier to individuals with low vision.

All of the interpretive wayside exhibits give graphic and textual information. The information, however, is not presented in a format that is accessible for people with visual and cognitive impairments. As such, the interpretive program throughout the Park should be evaluated and prioritized to develop a new interpretive program of wayside exhibits, maps and models where the information is presented in multiple modes of delivery including graphic, textual, audio, and tactile information. Develop a comprehensive plan for the use of an audio component and its delivery system at waysides. Wayside exhibits should be placed throughout the recreation area and include tactile indicators in the pathway surface system to indicate to people they are approaching a wayside with interpretive information. The physical accessibility requirements of the exhibit panels include elements such as accessible fonts, text size and contrast along with panel viewing height and viewing angles. Where exhibits are placed at inaccessible locations, consider posting wayside content on the Park website. Waysides should be installed and constructed in consideration of acceptable reach range and viewing height, clear floor or ground space that is firm and stable and unobstructed views of exhibits and park features. Wayside exhibits shall be regularly maintained to ensure accessibility of information for all visitors.

The interpretive program content should be designed to communicate as effectively to people with disabilities as it does to people without disabilities. Generally, this requires purposeful design in the planning phase to accommodate what may be a wide range of sensory and cognitive impairments. At a

minimum, interpretive panels should be replaced with high-contrast, no glare, sans serif or simple serif font and larger font size appropriate for viewing distance and height. An audio described program of the interpretive content should be developed. Maps of each district should be made tactually available for all visitors.

## **5. Audio/Visual Programs**

All new media productions shall be open captioned and audio described per Section 508 and the NPS Audio-Visual Accessibility Initiative. All existing media shall be captioned, audio described and available for use with an assistive listening system. The accessible features of the audio/visual programs such as assistive listening, audio description and open captioning shall be maintained through periodic testing and staff training. An assistive listening system should also be available upon visitor request for demonstrations, special events and tours. The equipment shall be independently useable and any operating parts shall not require tight grasping, pinching or twisting of the wrist to operate. Assistive listening units shall incorporate volume control. The Park should display signage at reception areas indicating that the assistive listening system is available and market its availability through brochures, program announcements and the Park website. While assistive listening systems were available throughout the park, most staff were unaware of their existence, did not know how to use the system, or the system was not operational at the time of the assessment.

Computer operated exhibits in the Visitor Centers do not feature any audio components, tactile menu indicators or audio description. The existing computer content incorporates a large amount of text, images and video. Navigation of the computer stations is not intuitive, causing a potential barrier for persons with cognitive impairments. The Park should work with a consultant to evaluate the existing computer stations to determine the feasibility of adding accessible features such as tactile controls and assistive technology (i.e. screen reader software), for navigation, and audio description of videos and images.

## **6. Parking**

Many of the parking areas throughout the Park lack the minimum required number of van and standard-size accessible parking spaces based on the total number of spaces provided in a facility. Some of the existing designated accessible parking spaces lack adjoining access aisles and vertical signage. Each accessible parking space must have an adjoining access aisle and vertical signage must be provided at the front of each space. Signs identifying van accessible parking spaces shall contain the designation "van accessible." A number of parking facilities have deteriorating asphalt causing the striping of individual spaces to be faded and not easily discernible. There is no accessible parking provided at the pull-offs along Route 10.

## **7. Restrooms**

Where restrooms are provided for visitor use, they must be accessible for persons with disabilities. There are multiple deficiencies to the accessible features of the restrooms throughout the Park. Common barriers within restrooms and comfort stations include, but are not limited to: signage; height and centerline of water closets; size and positioning of grab bars; location of flush controls; size of

wheelchair accessible toilet compartments; knee clearance beneath lavatories; height of counter tops and baby changing stations; location of fixtures (i.e. toilet paper dispensers, etc.); and reach range for common use elements (i.e. hooks, paper towel dispensers, toilet seat cover dispensers etc.).

## **8. Camping Facilities**

The Draft Final Accessibility Guidelines for Outdoor Developed Areas (Draft Final – Outdoor) apply to Federal land management agencies, including the National Park Service. The guidelines also apply to non-federal entities that construct or alter facilities on Federal lands on behalf of the Federal government.

According to the Draft Final – Outdoor, a camping facility is defined as, “a site, or portion of a site, developed for outdoor recreational purposes that contains camping units.” A camping unit is defined as, “an outdoor space in a camping facility used for camping that contains outdoor constructed features, parking spaces for recreational vehicles or other vehicles, tent pads or tent platforms, or camp shelters.” Traditionally these two terms, camping facility and camping unit, have been known as a campground and a camp site. Throughout this document they will be referred to as camping facilities and camping units, based on the language used in the Draft Final-Outdoor Guidelines.

There are multiple camping facilities at Everglades National Park. In each facility there are different types of units (i.e. tent camping only, tent and RV camping, sites with utilities hookups, sites without utilities hookups, etc.). Each type of camping unit should be considered a separate camping experience and therefore triggers the need to provide accessible camping units within those unique areas or groupings of units. Camping units that provide a unique experience should be considered separately when determining the minimum number of camp units to make accessible. Any amenities that are available to campers, such as restrooms, convenience stores, drinking fountains, picnic areas, amphitheaters, etc. should also include accessibility features.

## **9. Picnic Facilities**

According to the Draft Final – Outdoor, a picnic facility is defined as, “a site, or portion of a site, developed for outdoor recreational purposes that contains picnic units.” Where a picnic unit is, “an outdoor space in a picnic facility used for picnicking that contains outdoor constructed features.” Throughout this document they will be referred to as a picnic facilities and picnic units, based on the language used in the Draft Final-Outdoor Guidelines.

There are multiple picnic facilities throughout Everglades National Park. The individual picnic units within each facility offer a variety of options (i.e. picnic shelters, on the grounds, in the shade, in the sun, etc.). Each option provides a separate picnicking experience. When determining the minimum number and placement of accessible picnic units within each facility, consider the varying experiences offered, and disperse the accessible units so that visitors with disabilities are offered equivalent experiences as visitors without disabilities.

Outdoor constructed features such as grills, fire rings, picnic tables, and others should be accessible within an accessible picnic unit; however, if more than one of the same type of feature is provided in a unit, no more than 20 percent but not less than two should comply. Common use outdoor constructed features such as drinking fountains, benches, trash and recycling receptacles, and others should also be accessible for use by persons with disabilities.

### ***10. Trails, Trailheads & Trailhead Signage***

According to the Draft Final – Outdoor, a trail is defined as, “a pedestrian route developed primarily for outdoor recreational purposes. A pedestrian route developed primarily to connect elements, spaces, or facilities within a site is not a trail.”

Where the Park determines that a specific portion of a trail does not permit full compliance with the trail guidelines of the Draft Final Guidelines for the Outdoor Developed Areas, the Park shall ensure that the trail complies with the guidelines to the maximum extent feasible. The Park shall document the basis for the determination, and shall maintain the documentation with the records for the construction or alteration project.

A comprehensive plan for trailhead signage should be developed. The signage designating the trails at trailheads should include a minimum of the following: the length of the trail or trail segment; surface type; typical and minimum tread width; typical and maximum running slope; and typical and maximum cross slope. The information provided on the signs should also be made available in alternate formats.

A common misconception among park and recreation practitioners is that the “program access” standard under Section 504 of the Rehabilitation Act only applies to staffed, structured, traditional programs, such as specially scheduled interpretive tours. The program access standard applies to every good, service or activity provided by the Park to the public, including trails. In addition to assessing the trails for physical access, the programmatic elements offered on each individual trail were also assessed. Program access on trails encompasses more than just information provided on waysides found along the trail; it includes the entire experience that the trail offers to a visitor. The experience could include prominent features found along a trail, facilities and/or amenities along the trail, or a type of environment provided on a trail that may not be found elsewhere within the park. Therefore, it was necessary to first look at the entire trail system at Everglades National Park, and then at each individual trail, to adequately determine if visitors with disabilities are being offered equal programmatic experiences on the trails.

### ***11. Concessions***

A number of facilities operated by park partners, either under contract or cooperative agreement, were assessed. The accessibility assessment findings and recommendations should be thoroughly reviewed with each park partner to develop a clear line of responsibility for undertaking corrective actions that should become part of the transition planning process.

Eastern National is the primary concessionaire located at Everglades National Park. Concessions for the Park are provided in the form of bookstores/gift shops, vending areas, bike rentals, other recreational equipment, and boat and bus tours. Some of the primary concerns regarding concessions are: absence of lowered sales and service counters; vending areas that do not comply with accessibility requirements for reach range; inaccessible buses and boats for tours; and a misinterpretation of responsibilities between the Park and park partners for providing accommodations.

Provision of accessible goods, activities and services by the concessionaire should be reviewed as part of the annual NPS contracts evaluation. At a minimum, the concessionaire should strive to achieve the same level of program access as is expected of the programs or services offered by the National Park Service. As such, taking action on the recommendations to improve program access as outlined in this report would also be prescribed for the concessionaire.

## **VII. Action Planning**

Upon receipt of the assessment data, it will be critical for Park personnel to review and embark on a series of actions to continue planning for improved access to the programs and facilities throughout Everglades National Park.

Park senior management is encouraged to establish a core accessibility management team with representation from various divisions including interpretation, maintenance, administration, concessions and senior management. Representation should include individuals with decision-making authority in order to appropriately prioritize funds while assuming responsibilities for compliance oversight in those key areas.

A process to review and prioritize corrective actions to improve park access for visitors with disabilities should be developed. In addition, a strategy and timeline should be outlined to conduct accessibility assessments of facilities and programs as they are changed or updated so that any deficiencies may be entered into FMSS, and proposed corrective actions can be cost estimated to serve future planning and budget requests.

A process to review all new construction and renovation plans or designs should be implemented to ensure the minimum accessibility standards and guidelines are appropriately applied and opportunities for the application of universal design are seized. In addition, a process to inspect all construction projects for compliance with the minimum accessibility standards and guidelines should be established.

Provide staff training for full-time staff, seasonal staff and volunteers on select topics including the application of the accessibility standards and guidelines for Park maintenance; the principles of universal design; program access; methods for developing accessible interpretive programs; the accommodation process; techniques for interacting with people with disabilities and the use of people first language. Interpretive staff should receive more specific training on the provision of audio description for people with visual impairments and tailoring talks for people with cognitive impairments. Frontline customer service staff should also receive a seasonal update on accessibility improvements in order to field and/or refer questions on accessibility from the public. Staff training on the use of the available auxiliary aids

such as the assistive listening systems, as well as the development of a routine maintenance program to ensure they are operable should be instituted.

An ongoing evaluation of programs, services and activities should be instituted to ensure the Park is meeting the needs of visitors with disabilities.

## **VIII. Appendix: Narrative Summary Recommendations by Area**

# Coe Visitor Center

## Key Findings and Recommendations

### Final Locations as Identified in FMSS

70477 Coe Visitor Center

70478 Coe VC Comfort Station

86584 Coe Parking

### Introduction

As part of Everglades National Park, the Coe Visitor Center was opened and dedicated in 1996 in honor of Ernest F. Coe, whose efforts over twenty years led to the Park's establishment. The new center replaces one destroyed in 1992's Hurricane Andrew.

Visitors can experience various interpretive elements of the Park in the Visitor Center. The interpretation portrays the history of the Everglades and explains the plant and animal species and their role in the environment within the South Florida ecosystem. The orientation video describes the important role of water to the survival of the Everglades.

### Parking

The designated accessible parking area for the Coe Visitor Center is provided in an area that also serves as the location for storm drainage. The storm drainage system requires a significant slope of the asphalt parking area in order to achieve maximum results. Accessible parking areas have strict requirements for slope and the drainage component poses a significant challenge to this requirement. There are also deficiencies to the accessible route adjacent to the accessible parking area. The slope of the curb ramp is too steep and the size of the landing and width of the accessible route at the top of the ramp is too small. In addition, the signage for the accessible parking spaces does not meet minimum height requirements.

The recommended corrective action for the parking area is to consult with design services to reach a harmonious conclusion between providing accessible parking and storm drainage. The Park should continue to provide a minimum of four accessible parking spaces with one designed for van accessibility. Alterations to the curb ramp and adjoining accessible route will need to be undertaken to correct for slope, turning space, and clear width. During the on-site assessment, lowering the sidewalk to parking lot grade for the entire width of the accessible parking area was discussed as a possible solution. During renovations, signage should be removed and reinstalled to comply with minimum height requirements.

### Exterior Interpretive Exhibits

There are multiple interpretive elements in the outdoor spaces of the Coe Visitor Center. All interpretive information shall be communicated as effectively to persons with disabilities as it is to persons without disabilities.



The clear space on both sides of the information kiosk on the center island of the parking lot has excessive slope. The concrete foundation beneath the kiosk requires grading to correct for slope and minimize the potential barrier for an individual with a disability.

The interpretive pavilion adjacent to the parking lot and comfort station incorporates maps and interpretive panels designed to welcome and orient visitors to the Park. The map exhibit is installed at a zero degree angle (parallel) in relation to the ground surface, making it difficult for individuals who are seated or of shorter stature to access the interpretive information. There is no tactile component to the map for persons who are blind. The text on the map is too small (minimum 12 point font) to be readable by persons with low vision. The recommended corrective action to make the map accessible to all audiences is for consultation with design services to replace the existing map with a new unit to include accessibility features such as appropriate font size, type and contrast, tactile elements and exhibit size consistent with reach range requirements, angled positioning in relation to the ground surface, and simplified content and map symbols to enhance the communication of the information to individuals with cognitive impairments.

There are four waysides provided at the Coe Visitor Center. All of the waysides incorporate inaccessible font type and size. One wayside (in the restroom pavilion) includes text over image and poor contrast, making the text virtually unreadable by persons with low vision. None of the waysides incorporate audio or tactile components for individuals who are blind or cognitively impaired. The Park shall devise a comprehensive wayside design plan that will address future design and installation requirements consistent with accessibility requirements and best practice. Accessibility features to be considered include: use of sans serif or simple serif font, appropriate font size and contrast, limited use of italics, incorporation of tactile elements, and audio description.

## **Visitor Center Exhibits**

The exhibits in the Coe Visitor Center present information in a variety of modes intended to stimulate learning including exhibit panels, audio components, and visual elements of the features and unique characteristics of the Everglades. A number of exhibits are designed or installed in such a way that creates a barrier to effective communication for individuals with disabilities including those visitors with impairments to vision, hearing and/or cognition.

The small alcove in the exhibit space containing three viewing scopes does not allow room for a person in a wheelchair to maneuver into the space, turn around, and exit the space. The slope of the concrete route into the exhibit exceeds maximum requirements and the height of the lowered viewing scope does not meet minimum viewing height recommendations. The Park shall consult with design services to alter the viewing scope exhibit, remodel the enclosed exhibit space and provide accessible features. At a minimum, the design team shall consider the height of the lowered viewing scope, the route into the space, and the size of the clear floor space at the lowered viewing scope.

The “Everglades in the News” and “Global Protected Areas” exhibits contain binders with information provided in text only. The pages of the binders require tight grasping and pinching to manipulate. Exhibits that are intended to be manually controlled by visitors shall be operable with a closed fist. The Park shall consult with design services to simplify and condense the information in the “Everglades in the News” and “Global Protected Areas” binders. Reorient both binders to a landscape orientation with the rings placed at the top of the pages and place the binders at an angle on the counter. A landscape orientation placed at an angle provides easier page manipulation for individuals with limited dexterity. Ensure pages have tabs attached and staggered along the edges to provide separation between the pages, allowing them to be turned with a closed fist. Both exhibits shall incorporate accessible font type, size and contrast. The printed information shall also be made available in alternate formats such as large print, Braille and audio.

The presentation of information at “The Great Water Debate”, “Night Shift” and “Vanishing Wildlife” exhibits is not accessible for individuals who are blind or have low vision. The exhibits incorporate a push-button activated component for delivery of interpretive information. There are no raised line labels for the selection of information on varying topics. There is no audio description to the visual components of the exhibits. The backlit text on the fiber optic map and interpretive panels is not easily readable by persons with low vision. The recommended corrective action for these exhibits is to add raised line number labels to the front panel at each push-button mechanism identifying each selection for persons who are blind or have low vision. As the exhibits are repaired or replaced, consider eliminating the use of backlit text to enhance the readability by a variety of visitors. Corresponding audio description for each exhibit shall be developed with the comprehensive audio described tour of the Coe Visitor Center.

The handheld audio devices at “The Great Water Debate” exhibit require tight grasping to manipulate which could prevent some individuals with limited dexterity from accessing the information. None of the headsets are equipped with volume control or t-coil compatibility for individuals who have hearing loss. The audio information is not provided in a format that is accessible for people who are deaf. The recommended solution is to replace a minimum of one handheld audio device with a unit that does not require tight grasping to manipulate. Consider the use of headphones for use by persons with limited dexterity. The new unit shall also include volume control and t-coil compatibility. Signage shall be provided indicating that the headset is equipped with volume control and is t-coil compatible. The Park shall provide a transcript of the audio information that is readily available to visitors. The script for each audio element shall be printed, laminated and provided in a binder that is housed in a storage compartment fixed to the base or adjacent wall of the exhibit. Providing the information in this way eliminates the need for a person who is deaf to self-disclose that they require an accommodation to fully participate in the program.

There are two computer operated exhibits in the Visitor Center. The touch-screen computer stations do not include any audio navigation, an incorporated screen reader, tactile menu indicators, audio description or other elements as required by Section 508 of the Rehabilitation Act of 1973. The existing computer content incorporates a large amount of text, maps and images. Navigation of the computer

stations is not intuitive, causing a potential barrier for persons with cognitive impairments. A consultant shall evaluate the existing computer stations to determine the feasibility of adding accessible features including tactile controls and assistive technology, such as screen reader software for navigation, and audio description of maps and images. The results of the evaluation of the existing computer stations may trigger the need for the computer(s) to be replaced with equipment that will allow the use of assistive technology. It is recommended that the Park consult with Harpers Ferry Center on alternative accessible computer delivery methods that are being utilized for a similar purpose.

There are many visual elements to the Visitor Center facility and exhibits that do not have corresponding audio components or audio description. This provides a barrier to full participation for visitors who are blind or have low vision. The Park shall work with a consultant to develop and record a script that will incorporate the visual elements of the Visitor Center into an audio described tour. Be sure to include the following elements in development of the script: a general orientation to the Coe Visitor Center, the exterior interpretive pavilion, waysides, photos and text on interpretive panels, computer stations, "Gators in Motion" video, flip books and binders, tactile components throughout exhibit area, "The Great Water Debate" exhibit, the "Night Shift" exhibit, viewing scope exhibit, and the "Vanishing Wildlife" exhibit. Ensure that a raised-line numbered orientation system for interactive exhibits (The Great Water Debate, Night Shift and Vanishing Wildlife) is included in the audio description. Where audio description for exhibits is provided, incorporate signage alerting to the availability of audio description.

Interpretive elements such as a partially submerged gator, gator tracks, the lower portion of a gator jaw, spoonbill beak, and gator eggs and hatchlings are presented as a tactile experience for visitors. However, when important exhibit components, such as wildlife, are presented in segments or pieces, individuals with visual impairments do not necessarily receive the "big picture". Where persons without visual impairments are able to see images of the complete specimen, visitors with visual impairments do not receive the same information, in its entirety. It is important to consider where tactile opportunities are provided, that a frame of reference to the "bigger picture" is included. Tactile opportunities shall be included in the audio described tour of the Coe Visitor Center.

There are multiple components to the lighting scheme in the Coe Visitor Center that provide a barrier for individuals with low vision. Backlit text on exhibit panels is not easily readable, overhead track lighting creates glare on the surface of the exhibit panels washing out segments of text and images, and areas of low lighting can obscure text altogether. Exhibits such as "Night Shift" that rely on lighting for the visitor to gain the full experience exclude individuals with low vision from that program opportunity. The Park management shall work with a design consultant to adjust the lighting for exhibits in the Coe Visitor Center. Particular attention should be given to details such as glare, low lighting, and light level for backlit text. The "Night Shift" exhibit shall be evaluated for providing a secondary or alternative means of lighting the exhibits above the reader board to draw the visitor's attention to the supplementary exhibit components.

## **Theatre**

The tactile room identification signage at the entrance to the theatre exceeds maximum height requirements. The sign indicating the availability of the assistive listening system is installed below the tactile sign. Lower the tactile room identification signage to comply with height requirements for accessibility. The sign for the assistive listening system should be positioned directly above or next to the tactile sign.

The theatre at the Coe Visitor Center has 73 fixed seats with two wheelchair seating spaces and one designated aisle seat in the front of the theatre. The existing accessible seating does not meet requirements for minimum number of wheelchair seats and companion seats. Four wheelchair seating spaces with accompanying companion seats are required for a theatre of this size. Just like any other visitor, those with disabilities want to sit with their family and friends in this kind of venue. Companion seats shall be located to provide shoulder alignment with the adjacent wheelchair spaces. The Park shall provide two additional wheelchair accessible spaces at the rear of the theatre – one on each side. This action will bring the total number of wheelchair seating spaces with accompanying companion seats to three. The total number of wheelchair spaces will be four (in the first row, two wheelchair spaces are permitted to be located side-by-side). An additional companion seat is required, but space limitations do not permit installation of a fixed or movable companion seat. The clear space adjacent to the designated aisle seat shall not be considered a wheelchair seating space. When the theatre is renovated, ensure that wheelchair seating spaces, companion seats and designated aisle seats are provided in compliance with ABAAS F221. When the seating area is altered, ensure that wheelchair spaces are an integral part of the seating plan and that lines-of-sight and dispersion requirements are met.

## **Audio/Visual Programs**

The 15 minute film, “River of Life”, is audio described; however, the script misses some critical descriptive components (i.e. animal sounds, native music, etc.) of the visual information for persons who are blind. The Park management shall work with a consultant to evaluate and alter the existing audio description script for the 15-minute film. When the audio description is evaluated, consider consulting with the local community of persons who are blind or have low vision to ensure that the script captures the most important visual information being presented in the film.

The “Gators in Motion” video is open captioned, but lacks audio description for individuals who are blind or have low vision. Park management shall work with a consultant to develop and record an audio described script for the film that will be integrated with the comprehensive audio described tour of the Coe Visitor Center.

All future video programs, presented by the Park or Park partners, shall incorporate open captions and audio description.

## Viewing Areas

At the exterior viewing deck behind the Coe Visitor Center there is no lowered section of railing for an unobstructed view of the borrow pit. The Park should lower a section of the recycled lumber railing, consistent with the Draft Final Guidelines for Outdoor Developed Areas, to provide an unobstructed view of the borrow pit for individuals who are seated or of shorter stature.

There are five steps down to the viewing platform of the borrow pit at the rear exterior of the Coe Visitor Center. The 2x6 inch lumber board guard rail on each side of the stair flight does not meet minimum gripping surface requirements for handrails. Handrails shall be provided, fixed to the existing guardrails, on each side of the stair flight to the borrow pit viewing platform. The new handrails shall meet length, height, and diameter of the gripping surface requirements as identified in ABAAS 505.

## Physical Building Elements

### Accessible Routes

While the majority of the rooms and spaces in and around the Coe Visitor Center do provide accessible routes, the concrete access route originating at the east end of the parking lot heading toward the Coe Visitor Center has running slope that exceeds maximum requirements just before it transitions to a recycled lumber surface. Due to the excessive slope, this route shall be considered a ramp and requires the installation of handrails. Where the surface material transitions from concrete to recycled lumber boards, there is an opening that exceeds maximum requirements for an accessible route. Handrails measuring a minimum of ten feet shall be installed on both sides of the top section of the concrete route. The opening between the two surface materials shall be eliminated by replacing a section of the recycled plastic lumber boards.

### Restrooms

The Coe Visitor Center comfort station provides a men's, women's, and family restroom; all have similar reoccurring accessibility deficiencies. The force required to open all three doors of the restrooms exceeds the required maximum operating force. The door closers shall be adjusted to a maximum force of 5 pounds. Lavatory pipes are not insulated to protect against contact. The Park shall purchase and install insulation for the lavatories in each restroom. The centerline of the wall-mounted water closet in the family restroom exceeds maximum requirements. The unit shall be removed and re-mounted to correct for centerline measurements. This action will involve relocating the corresponding auto flush sensor for the unit. The continuous L-shaped side and rear grab bars in each restroom do not meet minimum length requirements and do not meet the absolute measurement of 1 ½ inches between the inside surface of the grab bar and the wall. The continuous L-shaped grab bars shall be removed and replaced with two separate side and rear grab bars in each restroom. In the women's restroom only, the mirrors and the lavatory counter exceed maximum height requirements. A minimum of one mirror shall be lowered and the counter (including three drop-in lavatories) shall be lowered to correct for height.

### Built-In Elements

The donation box consists of four decorative etched glass panels over a solid wood base. The opening in the top of the box for money deposits exceeds maximum reach range requirements. The Park has chosen to alter the wood base of the donation box to ensure that the height of the money deposit slot complies with requirements for reach range.

The operable parts of the payphone provided at the comfort station exceed maximum reach range requirements. The payphone is not equipped with volume control. The payphone shall be replaced with a unit that features volume control and operable parts within accessible reach range requirements.

The dimensions of the high-low drinking fountain at the Coe Visitor Center comfort station are consistent with those required for accessibility. However, the higher unit for standing persons creates a protruding object into the path of travel creating a potential safety hazard for individuals who are blind. The Park shall install a privacy style partition adjacent to the higher unit of the drinking fountain to provide a detectable warning of the protruding object for individuals who are blind.

### **Concessions**

The bookstore is operated and maintained by concessionaire, Eastern National. The service counter does not incorporate a lowered section for persons who are seated or of shorter stature. The Park shall work in conjunction with Eastern National to ensure that a lowered section of the counter is provided in the bookstore. Responsibilities of concessionaires to provide accessible features shall be addressed during the annual review of contracts.

# Flamingo

## Key Findings and Recommendations

### Final Locations as Identified in FMSS

67314 Flamingo Visitor Center	67209 Flamingo Marina Store
103958 Flamingo Parking	86693 Marina Access Parking
103978 Flamingo Parking	86695 Boat Ramp Parking
77946 Guy Bradley Trail	73182 White Water Bay Marina
70993 Flamingo Amphitheater	75401 Florida Bay Marina
77874 Walk-in campground	66833 A Loop Campground
79271 Walk-in comfort station	77871 B Loop Campground
66835 Walk-in comfort station	77873 T Loop Campground
103921 925B Parking	66836 A Loop Comfort Station
103926 925E Parking	66838 A Loop Comfort Station
103942 925F Parking	66839 B Loop Comfort Station
226603 Flamingo fee station	66846 B Loop Comfort Station
67206 Building with VC Elevator/Restaurant	66852 T Loop Comfort Station
67315 Flamingo Fish Cleaning Station/Marina	66854 T Loop Comfort Station

### Introduction

The Flamingo area of Everglades National Park began as a small coastal settlement on the eastern end of Cape Sable on the southern tip of the Florida peninsula, facing Florida Bay. It is now the southernmost headquarters of the Park. The settlement known as Flamingo received its name in 1893 when settlers to the area had to choose a name for their new post office. They chose Flamingo as it was a symbol of the area and the most distinctive bird seen in the region.

The visitor experience within the Flamingo area of the park is more recreation based than interpretive; however, visitors can experience various interpretive elements of the park in the visitor center. The Flamingo area includes the following major locations: the Flamingo Visitor Center, a large campground broken down into three different types of camping experiences, an amphitheater, the Guy Bradley trail and a marina with slips providing access to both Florida Bay and White Water Bay.

There are a variety of options for recreation within Flamingo such as canoeing and kayaking, walk-in camping, RV camping, drive in camping, hiking the trails, boat tours, fishing, and more. Visitors can experience these options through ranger led activities including hikes, talks and interpretive audio-visual presentations held at the amphitheater. In addition visitors can also choose from a number of guided tours provided by concessionaires or they can choose to do a self-guided exploration of the area by land and/or water. In addition to a visitor's recreation participation, the interpretation provided in the visitor center portrays the history of Flamingo, and explains the plant and animal species and their role in the environment at Flamingo.

## **Parking**

### Guy Bradley Trail

There is no designated accessible parking provided in the loop at the trailhead for the Guy Bradley Trail and comfort station closest to the amphitheater. There is also no designated accessible parking provided at any of the parking areas providing access to the walk-in campground or the second comfort station. A minimum of one van accessible parking space shall be created in three of those locations: one nearest the Guy Bradley trailhead, a second one providing access to the walk-in campground, and the third at the second comfort station.

### Visitor Center

There are four parking areas associated with the Flamingo Visitor Center (location numbers 103978, 103958, 103954, and 86692); these parking areas have multiple deficiencies. In location number 103978 there are six designated accessible parking spaces (five standard parking spaces and one van parking space); the existing van accessible parking space and adjacent access aisle do not meet minimum width requirements. Given the total number of spaces provided in this location, only five accessible parking spaces are required. The recommendation is to restripe the accessible parking area to provide a total of four standard and one van accessible parking space, and three shared access aisles to ensure minimum width requirements are met. Five of the six vertical parking signs are not installed to the minimum height requirements; after striping the new parking spaces, the signs will need to be installed to ensure that height requirements are met.

In location number 103958 there are two designated accessible parking spaces - one van and one standard accessible parking space. The vertical signage is not installed to the minimum height requirement. There is a concrete wheel stop located at the front of the access aisle which prevents access to the accessible route from the parking space. The recommendation is to reinstall the vertical signage at both accessible parking spaces to ensure height requirements are met, and to remove the wheel stop from the head of the access aisle.

In location numbers 103954 and 86692, there are a total of 54 parking spaces that are a combination of angled, parallel and pull-through boat trailer spaces; there are no designated accessible parking spaces located in either of these two locations. The recommendation for location number 103954 is to provide two accessible parking spaces (one standard and one van) in the angled parking area that allows boat trailer parking. The two spaces may share a striped access aisle between them. The Park shall purchase and install to meet requirements, two signs that include the “International Symbol of Accessibility” and one sign containing the designation “van accessible.”

The recommendation for location number 86692 is to provide one accessible parking space in the pull-through boat trailer parking area by restriping an existing space as accessible. The accessible parking space shall be permitted to maintain its existing width (to preserve its function and purpose) provided it is a minimum width of 132 inches. Stripe an adjacent access aisle on the passenger side of the new



accessible parking space. Since that this is a pull-through parking space, it is not feasible to provide vertical signage at the front of the parking space designating it as accessible. As a result, the Park shall provide a marking on the asphalt surface within the accessible parking space containing the “International Symbol of Accessibility” to ensure the space is clearly defined.

At locations 103978, 103958, 103954, and 86692; there is no accessible route from the existing and/or newly proposed accessible parking spaces to the Flamingo Visitor Center and Flamingo Marina area. Visitors must travel behind parked vehicles, with the flow of traffic through parking areas, and cross a street that does not have a designated pedestrian cross walk to reach the sidewalk for access to the Visitor Center and the marina. The recommendation is to provide an accessible route from each of the accessible parking space locations to the Visitor Center and Marina sidewalk. In doing so, the Park should ensure that when visitors are required to cross main streets and parking areas, that designated pedestrian cross walks are created. The Park should also evaluate the existing speed limit for the street leading into the parking areas to determine if it is an appropriate speed limit for the new pedestrian routes of travel. In redirecting the traffic flow, there could be potential for increased risk in an area that did not previously have a lot of pedestrian traffic. This item could be considered a health, life, and safety risk.

#### Camping Facility

The designated parking within both the A Loop (location number 66833) and B loop (location number 77871) camping facilities at Flamingo does not meet minimum width guidelines for accessible parking and RV accessible parking spaces per the Draft Final Accessibility Guidelines for Outdoor Developed Areas. A contributing factor to this is the overgrown grass that has decreased the parking space width, and the area is not receiving routine maintenance. The recommendation for the A Loop camping facility is for the Park to perform initial maintenance of the accessible parking areas to expose the existing asphalt surface beneath the overgrown grass. After completing this process the Park should lay asphalt to bring each camping unit into compliance with width recommendations. After the parking spaces widths have been corrected, the Park should implement a routine maintenance schedule to ensure the parking space widths are being maintained (covered in more detail in the section Planning and Maintenance).

Within Flamingo T Loop camping facility there are 65 individual camping units, none of which have been designated as accessible. None of the individual camping units meet accessibility guidelines for accessible parking spaces per the Draft Final Accessibility Guidelines for the Outdoor Developed Areas. The recommendation for the T Loop camping facility is to designate and provide at least four accessible RV camping units in the T Loop camping facility. Working in cooperation with Park staff, units 23, 24, 37 and 38 in the T Loop have initially been identified as the individual camping units that should be designated and retrofitted as the accessible units to meet the scoping and technical guidelines in the Draft Final Accessibility Guidelines for the Outdoor Developed Areas. The Park should provide an accessible parking space at each RV camping unit that meets or exceeds width recommendations in the *National Center on Accessibility*

guidelines. Laying asphalt at the north side of the parking space in each camping unit will be necessary to avoid having to move the electrical hook ups and/or remove trees.

### Marina Parking

There are a total of 57 standard parking spaces plus two designated accessible spaces in the Flamingo Marina parking lot. Scoping requires that there be 3 accessible spaces. The space designated as van accessible does not meet minimum width requirements. The existing vertical signage for both of the accessible spaces does not meet minimum height requirements. The recommendation is to restripe this area and provide two standard accessible spaces, one van accessible parking space and two shared access aisles. The Park shall provide vertical signage at each accessible parking space and ensure that height requirements are met.

The boat ramp parking lot of the Flamingo Marina has a total of 80 parking spaces that are angled, pull through boat trailer spaces. There are no designated accessible spaces located in that parking lot. The recommendation for this area is to provide four accessible parking spaces and two shared access aisles in the angled parking spaces that allow boat trailer parking. Due to the use of the parking space as a pull-through parking space, it is not feasible to provide signage at the front of the parking space designating it as accessible. As a result, the Park shall provide a marking on the asphalt surface within the accessible parking space containing the International Symbol of Accessibility to ensure the space is clearly defined.

## **Amphitheater**

The amphitheater in the Flamingo area is a location for visitors to view movies sponsored by the Park, as well as a location for Park staff to conduct interpretive programs. The seating in the amphitheater provides the required number of wheelchair accessible seats; however, the Park should modify the seating to provide the recommended number of retractable armrests (two required) on any of the 24 aisle seats to allow visitors with disabilities to transfer from their own mobility device.

The Park shall also assure that any movies shown on the amphitheater screen are open-captioned. Signage shall be added at the amphitheater announcing the availability of the assistive listening devices provided at the Flamingo Visitor Center for use at the amphitheater, if equipment is not currently or cannot be placed on site in the future. A policy in regards to providing sign-language interpretation at programs held at the amphitheater shall be developed and posted on the Park's accessibility portion of the website.

## **Camping Facilities**

The walk-in camping facility is open during camping season and also depending on the time of year, weather and/or Park staffing capabilities it may also remain open during portions of the off-season. There are 64 camping units in the Flamingo walk-in camping facility, and none of the units are

accessible. The Park should create a total of four accessible camping units in the walk-in camping facility. The surface of the walk-in camping facility is a natural dirt and grass surface which is exposed to the adjacent Florida Bay and other natural elements. The ground surface is not consistently firm and stable year round due to potential for coastal flooding. As a result of the non-firm and non-stable surface, there is a need for outdoor recreation access routes that meet recommendations connecting the newly recommended accessible parking to the four newly recommended accessible camping units. There are no existing outdoor recreation access routes within the walk-in facility. There are also no outdoor recreation access routes connecting the outdoor constructed features (such as grills and picnic tables) to each other within the accessible camping units. While there are not raised or defined tent pads in each of the camping units, a clear ground space that meets the requirements for width and a firm and stable surface still needs to be provided around tent pads. A tent pad is a defined space with prepared surfaces for setting up and securing tents. The recommended solution is to allot for an average sized tent pad (to be determined by the Park according to their average user needs) at the four accessible camping units, and then to construct the firm and stable clear ground space around that area. This will provide an individual the option to utilize the defined tent pad and the accessible surrounding surface if they should so chose. The recommended and agreed upon surface material for the outdoor recreation access routes and the clear ground space within the camping units is a compacted and crushed aggregate. The park should reference the current recommended guidelines in the Draft Final Accessibility Guidelines for Outdoor Developed Areas (or updated standard) when undertaking this project to ensure guidelines are met in each aspect of the project.

The outdoor constructed features are also not accessible. The outdoor constructed features included in the walk- in camping facility are picnic tables, pedestal grills and fire rings. The picnic tables do not provide the proper knee clearance for an individual using a wheelchair to pull up to the table. The clear ground space at the wheelchair accessible space and the 36 inches of clear ground space around all usable portions of the table is not firm and stable. Both types of grills in the walk-in camping facility, the fire rings and the pedestal grills, do not meet accessibility guidelines. The fire rings have a cooking surface that does not meet the minimum height requirements and the pedestal grills have a cooking surface that exceeds maximum height requirements. The recommendation is to purchase four picnic tables and four pedestal grills that meet the recommendations for accessibility outlined in the FMSS work orders, and to install them in the four newly recommended camping units. The Park should ensure that, once installed, the features within each unit are connected by an outdoor recreation access route and are provided the required clear ground space.

There are a total of eight designated accessible camping units within the A and B Loops at the Flamingo camping facility. Within each of those camping units there is either a pedestal grill or a fire ring centered on a concrete pad which does not allow for the recommended clear ground space on all usable sides of the grill or fire ring. A contributing factor to the decrease in clear ground space is the overgrown grass that has decreased the concrete pad width, and is not receiving routine maintenance. The recommendation for these areas is for the Park to perform initial maintenance of the cooking areas to

expose the existing concrete surface underneath the overgrown grass. After completing this process the Park should add concrete to each pad to bring the accessible camping units into compliance with clear ground space recommendations for grills and/or fire rings. After the clear ground space widths have been corrected, the Park should implement a routine maintenance schedule to ensure the clear ground space around accessible elements is being maintained (covered in more detail in the section Planning and Maintenance).

Within Flamingo T Loop camping facility there are 65 individual camping units, none of which have been designated as accessible. None of the individual camping units meet accessibility guidelines for having an outdoor recreation access route from the RV parking space to the outdoor constructed features (picnic table and pedestal grill), which are currently in the grass. The outdoor constructed features (picnic table and pedestal grill) at the newly designated accessible RV camping units do not meet minimum accessibility recommendations for outdoor constructed features per the Draft Final Accessibility Guidelines for the Outdoor Developed Areas. The picnic tables do not provide the proper knee clearance under the element for an individual using a wheelchair to pull up to the table. The clear ground space at the wheelchair accessible space and the 36 inches of clear ground space around all usable portions of the table is not firm and stable. The height and placement of the pedestal grills does not meet accessibility guidelines. The recommendation for the T Loop camping facility is to designate and provide at least four accessible RV camping units in the T Loop camping facility. Working in cooperation with Park staff, units 23, 24, 37 and 38 in the T Loop have initially been identified as the individual camping units that should be designated and retrofitted as the accessible units to meet the scoping and technical guidelines in the Draft Final Accessibility Guidelines for the Outdoor Developed Areas. Each of the newly designated RV accessible camping units should contain a picnic table and a pedestal grill that meet accessibility requirements; these should be interconnected by an outdoor recreation access route. To provide a firm and stable surface at the grills and picnic tables, and to provide the recommended clear ground space, the Park should extend the parking spaces by pouring a concrete pad that will be large enough to contain the picnic table and pedestal grill while ensuring the clear ground space requirements at and around the elements are met. Remove and replace the existing picnic tables with accessible tables at each of the four newly designated accessible camping units; ensure the new table is installed on the newly recommended concrete pad. Uninstall the pedestal grills from the natural ground surface in each of the four designated accessible camping units and reinstall the grills onto the newly recommended concrete pad.

Accessible camping units are not required to be identified by signs; however, if the Park prefers that they be labeled, a simple sign containing the International Symbol of Accessibility will suffice. Identifying the parking spaces as accessible is not necessary. The Park should provide information as to the location of accessible camping units on the Park website, external reservation websites, in brochures, and on bulletin boards or information kiosks at the camping facility. Where the park operates a reservation system for camping units or assigns camping units upon arrival, the park should establish policies to ensure that accessible camping units are reserved for persons with disabilities until all the camping units are occupied.

## Physical Building Elements

### Visitor Center Restrooms

At the Flamingo Visitor Center, there are two family restrooms located on the bottom floor; both restrooms have similar reoccurring accessibility deficiencies. Signage indicating the accessible restroom is located on the restroom door and not on the wall to the latch side of the door. In addition, the signage does not contain the required elements of tactile characters and Braille. The Park shall purchase accessible signage and properly install it at the latch side of the doors. The force required to open both doors of the restrooms exceed the recommended maximum operating force. While there is no identified standard for the opening force of exterior doors in the accessibility standards, it is recommended as best practice for the park to adjust the closer on the door to reduce the operating force to as close to 5 pounds (maximum force for interior doors) as possible. If after adjustment of the door closers, the operating force cannot be decreased, the park should investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability. Lavatory pipes are not insulated to protect against contact. The Park shall purchase and install insulation on the pipes for at least one lavatory in each restroom. The coat hooks installed inside the restroom stalls exceed the maximum reach range requirements; the Park shall purchase and install within reach range an additional coat hook in the accessible stalls. Flush controls are located on the closed side of the toilet compartment, which requires an individual to reach across the toilet to utilize the flush; the plumbing associated with the flush controls shall be rotated. Grab bars are installed with a space that exceeds the absolute requirement of 1 ½ inches between the wall and the inside of the grab bar and shall be replaced. The sanitary dispensers are installed in front of the toilets on the stall partitions decreasing the required clear ground space in front of the toilet and shall be relocated onto the stall wall.

### Flamingo Marina Store Restrooms

The restrooms located at the Flamingo Marina Store have many similar reoccurring accessibility deficiencies. The Flamingo Marina Store restroom deficiencies include the signage for the men's and women's restrooms are installed on the doors and not on the adjacent wall to the latch side of the door. Signage does not include the International Symbol of Accessibility and other required elements. The operating force of the exterior doors to both restrooms exceeds the recommended maximum operating force. The recommendation is to purchase restroom identification signage that includes Braille, raised characters, pictograms and the International Symbol for Accessibility and install it onto the wall on the latch side of the door. While there is no identified standard for the opening force of exterior doors in the accessibility standards it is recommended as best practice for the park to adjust the closer on the door to reduce the operating force to as close to 5 pounds (maximum force for interior doors) as feasible. If this is not possible, the Park should investigate the installation of a power assisted or automatic door openers to minimize the potential barrier for an individual with a disability.

Other reoccurring deficiencies in the restrooms located at the Flamingo Marina Store include the operating controls of lavatories in both the men's and women's restrooms require tight grasping,

pinching and twisting of the wrist. The paper towel dispensers in both restrooms exceed maximum reach range requirements. The mirrors in the men's restroom are mounted above the lavatories and exceed maximum height requirements. The wall hung urinals in the men's restroom also exceed maximum height requirements. The recommendation is to remove and replace the operating controls of at least one lavatory in each restroom with an accessible lever fixture that can be operable with one hand and does not require tight grasping, pinching or twisting of the wrist. Upon discussion with the Park the recommended solution for the paper towel dispensers is to remove and replace them with automatic hand dryers that can be installed to ensure the sensor triggering the operation of the unit is located within reach range requirements. Remove and lower one of the mirrors in the men's restroom. Remove and remount one of the urinals to meet accessibility requirements. Ensure that the force required for all operable parts in the restrooms does not exceed 5 pounds maximum.

The men's and women's wheelchair accessible toilet stalls at the Flamingo Marina Store are either nonexistent or do not meet minimum requirements in a number of areas. The women's restroom does not have a wheelchair accessible toilet stall and will need to be redesigned to allow for a compliant stall, and the associated elements (i.e. grab bars etc.), to be incorporated into the existing space. The wheelchair accessible stall in the men's restroom has flush controls located on the closed side of the compartment, does not meet minimum height requirements for the water closet and lacks side and rear grab bars and the hook on the back of the stall compartment door exceeds reach range requirements.

#### Fish Cleaning Station Restrooms

The Flamingo fish cleaning station restroom deficiencies include the signage for the men's and women's restrooms installed on the doors and not on the adjacent wall to the latch side of the door. Signage does not include the International Symbol of Accessibility and other required elements. The operating force of the exterior doors to both restrooms exceeds the recommended maximum operating force. The recommendation is to purchase restroom identification signage that includes Braille, raised characters, pictograms and the International Symbol for Accessibility and install it onto the wall on the latch side of the door. While there is no identified standard for the opening force of exterior doors in the accessibility standards it is recommended as best practice for the park to adjust the closer on the door to reduce the operating force to as close to 5 pounds (maximum force for interior doors) as feasible. If this is not possible, the Park should investigate the installation of a power assisted or automatic door openers to minimize the potential barrier for an individual with a disability.

Other reoccurring deficiencies in the restrooms located at the fish cleaning station include mirrors in both restrooms that exceed maximum height requirements, pipes below the lavatories in both restrooms are not insulated against contact and the wall hung urinal in the men's restroom also exceed maximum height requirements. The recommendation is to remove and remount at least one mirror in each restroom, insulate the lavatory pipes to protect against contact, and remove and remount the urinal in the men's restroom to meet accessibility height requirements.

The wheelchair accessible stalls in the men's and women's restrooms located at the fish cleaning station have multiple deficiencies. Deficiencies include lack of minimum width of the stall, height of the water closet, flush controls mounted on the closed side of the compartment, grab bar installed so that they do not meet location requirements in relation to the water closet and coat hooks installed beyond reach range requirements. Retrofitting will require removing the stall partition and repositioning to ensure that the minimum width of the accessible stall is achieved. Rotate the plumbing of the water closets so that the flush control is on the open side of the compartment. Remove and remount grab bars to meet accessibility requirements and installing additional coat hooks in the accessible stall within reach range requirements.

### Comfort Stations

There are numerous reoccurring deficiencies found in the comfort stations in the walk-in camping facility and in Camping facility Loops A, B, and T. The utility sinks that are provided outside of the comfort stations in the walk-in camping facility exceed height requirements, making them inaccessible to people using wheelchairs and/or individuals of shorter stature. This could potentially create a safety hazard as the sinks may not be accessible to individuals that need to utilize them to extinguish fires in the campground grills and fire rings. The sinks need to be lowered to ensure the rim heights and operating mechanisms are within maximum reach range requirements. The operating mechanisms on the utility sinks in the walk-in camping facility are not operable with a closed fist, and shall be replaced with accessible levers.

Signage indicating the men's and women's accessible restrooms is located on the doors and not on the wall to the latch side of the door. The force required to open the exterior doors of the men's and women's restrooms exceeds the recommended maximum operating force. While there is no identified standard for the opening force of exterior doors in the accessibility standards, it is recommended as best practice for the Park to adjust the closer on the door to reduce the operating force to as close to 5 pounds (maximum force for interior doors) as possible. Upon request from the Park, the solution is to replace the existing door closers due to the effects of age and environmental conditions. If after replacement of the door closers, the operating force is not decreased, the Park should investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability.

The push button hand dryers exceed height requirements for reach range; upon the guidance of the Park the recommended solution is to replace all existing units with automatic hand dryers that can be installed to ensure the sensor triggering the operation of the unit is located within reach range requirements.

The majority of mirrors installed in the restrooms are single, oval mirrors with wide wooden frames; these exceed height requirements as a result of being hung 40 inches above the finish floor to the

bottom of the wood frame rather than to the reflective surface. The Park shall lower one mirror in of the men's and women's restroom.

In a few of the accessible restroom stalls, a wood box has been constructed over the pipes projecting into the stall to protect against contact; however, it decreases the clear space required for the stall. The Park can continue to cover the pipes to ensure they are not a safety hazard, but the recommendation is to reduce the total size of the boxes to ensure the required clear floor space is met. A number of the accessible stalls are too narrow to meet the required clear width of a wheelchair accessible toilet compartment. In order to increase the width of the stalls, both the side stall partitions and three inch pilasters will need to be replaced. The three inch pilaster will need to be replaced with a wider pilaster to ensure the space needed to compensate for the stall width is achieved. Other reoccurring deficiencies for the restroom stalls include coat hooks installed too high; grab bars that do not meet required length, spacing between the wall and inside of the bar, and/or installation location; toilets that are installed too far from the side wall or partition and/or too high above the finish floor; and toilet paper dispensers that obstruct the full use of the side grab bar. Toilet seat cover dispensers all exceed height requirements, and upon request from the Park, the solution is to remove them completely from the stalls.

Urinals in the men's restrooms have multiple deficiencies: the rim is too high, the depth does not meet the minimum requirements, and in some instances the required clear width is not provided at the urinal due to the location of privacy partitions. The urinals shall be replaced and installed to ensure that the rim height is within maximum requirements and that the depth meets minimum requirements. When privacy partitions are installed and decrease the required clear width, those partions not directly adjacent to a lavatory shall be removed to ensure the required clear width is provided.

### Showers

There are numerous reoccurring deficiencies found in the showers throughout the comfort stations in the walk-in camping facility, and in the A, B, and T Loop camping facilities. The hot and cold water knobs require tight grasping and twisting of the wrist to operate and the shower head is fixed out of reach range. Many of the grab bars installed along the back wall of the roll-in type shower compartments do not meet minimum length requirements. Each shower unit has multiple coat hooks, which exceed maximum reach range requirements. The recommendation is to remove and replace the existing hot and cold water knobs in the shower compartments of the comfort stations with lever handles. Remove and replace the existing fixed shower heads (piping) with adjustable spray units that can be used both as a fixed-position shower head and as a hand-held shower unit. Remove and replace the existing grab bars on the back wall with compliant grab bars. Add additional coat hooks in the shower compartments to comply with reach range requirements.

The shower compartments at the Flamingo Marina Store have not been designed and built with accessibility in mind. The signage for the two compartments have been installed on the door and lack



Braille, raised characters, and pictograms. The existing hardware on the doors to the shower compartments requires tight grasping and twisting of the wrist to operate. The operating force of the exterior doors to the two shower compartments exceed the recommended maximum operating force which could potentially cause a barrier for an individual with a disability. The shower stall dimensions for both compartments do not meet minimum accessibility requirements. The water fixtures in both compartments require tight gripping and twisting of the wrist to operate. The shower head for both compartments is fixed out of reach range. Because neither compartment was designed to be accessible there is a curb running the full depth of the shower transitioning from the floor into the shower compartment and there are no grab bars. The light switch and the hook/towel rack for both compartments exceed maximum height requirements for reach range. There is a mirror in each of the shower compartments that exceeds maximum height requirements. The recommendation for the shower compartments at the Flamingo Marina Store is to redesign at least one of the compartments (in cooperation with the redesign of the restrooms) to maximize the space while meeting accessibility requirements. Based on measurements taken during the assessment process it is recommended to make shower compartment #1 the accessible shower. Accessible shower compartments shall have sizes and clearances that meet one of the 3 types outlined in ABAAS: Transfer, Standard Roll-In, or Alternate Roll-In. The park shall construct an accessible shower to meet one of the 3 types of accessible shower compartments. During the redesign of the accessible shower compartment ensure that all operable parts, hooks, mirrors and dispensers are within reach range and compliant with ABAAS standards.

#### Fish Cleaning Facility

The fish cleaning station/pavilion located at the Flamingo Marina has numerous deficiencies. There is no accessible work surface at the fish cleaning station. The cleaning table work surface in the middle of the room exceeds maximum height requirements for an accessible fish cleaning station. The hardware to turn on the faucets at the cleaning table exceeds maximum height requirements and requires tight grasping, pinching and twisting of the wrist to operate. Where work surfaces are provided at least 5 percent shall be accessible, therefore, the recommendation is to design and construct at least one accessible workstation at the Flamingo Fish Cleaning Station.

#### Picnic Units

The restaurant at the Flamingo Visitor Center has a total of 12 non-fixed wood picnic tables provided in the outdoor dining area. Of those 12 tables, none meet the recommendations for an accessible picnic table as the toe and knee clearances do not meet the minimum requirements. As a result of these tables being associated with the restaurant, the requirements for scoping for this area are found in ABAAS under dining surfaces, and not in the Draft Final Outdoor Developed Areas Guidelines that are referenced below for other deficiencies. At least 5 percent of the picnic tables shall be accessible; however, the recommendation upon park request is to remove three of the picnic tables and replace them with tables that meet the requirements identified in FMSS work orders.

There are a total of 12 non-fixed wood picnic tables surrounding the Flamingo Marina Store; none of which meet the minimum recommendations for toe and knee clearances for an accessible picnic table. At least 20 percent but not less than two of the picnic tables should be made accessible, therefore the recommendation is to remove three of the picnic tables and replace them with tables that meet the requirements identified in FMSS work orders.

There are a total of 2 non-fixed picnic tables at the Flamingo Fishing Cleaning Station neither of which meets the minimum recommendations for the knee and toe clearances for an accessible picnic table. At least 20 percent but not less than one of outdoor constructed features (i.e. picnic tables) should be made accessible in common use and public use areas, therefore the recommendation is to remove one picnic table and replace it with a table that meet the requirements identified in FMSS work orders.

### Benches

At the Flamingo Visitor Center, there is an outdoor seating area at the back patio where Park Rangers conduct interpretive programs and visitors are welcome to sit. In keeping with best practices for accessibility, the Park has decided to provide 20 percent of accessible benches within a given area. There are 10 non-fixed wood benches located on the back patio that do not have the recommended back support, at least one armrest, and have seat surfaces that do not meet the minimum height recommendations. The Park has agreed to replace a minimum of two of these benches with benches that meet the recommendations identified in the FMSS work order.

### Florida Bay and White Water Bay Marina

On the White Water Bay side of the marina there is a piece of PVC tube acting as a monofilament fishing line recycling container that exceeds maximum reach range requirements. Upon further review and discussion with park staff it was determined that this element was mounted at a specific height for safety reasons. Based on the fact that this element is a safety risk if lowered the Park should enact a policy as a program alternative for any visitors who are not able to access this recycling container due to the height of the element.

### Built-in Elements

The ramp that provides access from the parking lot to the Flamingo Visitor Center has running slope that exceeds maximum requirements. The concrete ramp and a stairway at the front of the building are the only methods of accessing the Visitor Center. The Park has created work orders and construction plan designs to rehabilitate the building that houses the restaurant and to retrofit the freight elevator to provide an accessible entrance in the Visitor Center. NCA's recommendation is to provide the required accessible route to the elevator and from the elevator to the Visitor Center entrance. The retrofitted elevator, which serves as part of the accessible route, also must meet the minimum requirements as established in ABAAS.

The ramp at the rear of the restaurant at the Flamingo Visitor Center has a rise greater than 6 inches but does not have the required handrails. The Park shall install handrails along both sides of the ramp run, ensuring that they are installed to the correct height and that all required handrail extensions return to the ramp landing surface.

The drinking fountain located inside the Flamingo Visitor Center has a spout height that exceeds requirements for standing persons, and there is no drinking fountain installed for individuals in a seated position or who are of short stature. Due to space restrictions inside the Visitor Center, it is not feasible to replace the fountain with a combination high-low unit. Therefore, the Park shall reinstall the existing drinking fountain for standing persons to ensure the spout height requirements are met and install a paper cup dispenser on the wall adjacent to the drinking fountain within the required reach range for a forward approach in lieu of an accessible low unit.

## **Concessions**

The height of the sales and service counter in the Flamingo Marina Store exceeds maximum height requirements with no lower portion. The recommendation is to redesign the existing sales and service counter to provide a lowered section. Responsibilities of concessionaires to provide accessible features shall be addressed during the annual review of contracts.

## **Visitor Center Exhibits**

A large portion of the text for the exhibits provided in the Flamingo Visitor Center is black text on clear plexi-glass panels. The black text gets lost in the images that are in the exhibit case and/or photos that are behind the text. There is not sufficient contrast provided between the text and the background to make it readable by people with low vision. Overprinting (type on an imaged background) is unreadable for people with low vision and perceptual difficulties. High contrast between text and background, and print on a solid background are essential elements for accessible exhibit labels. In areas where exhibit label text is provided, the text is provided on the plexi-glass. Adhere a white background onto the back of the second pane to provide the necessary contrast with the black text.

In the Flamingo Museum, the track lighting does not illuminate the corner exhibit displays. In other areas of the Flamingo Museum, the manner in which the track lighting is installed and positioned also creates areas where light illuminates certain objects less than others, providing areas of low light throughout the exhibit space. There must be sufficient lighting on objects to make them visible to all visitors unless the light level will do substantial damage to the objects. When not prohibited from doing so by conservation requirements, provide at least 100 – 300 lux of light on an object. The Park shall ensure that the track lighting is adjusted to provide an equal amount of diffused light in the areas where there are no restrictions due to artifact preservation. There were instances where light bulbs were burnt out or missing; these need to be replaced.

The majority of the interpretive information in the Flamingo Visitor Center and in the Flamingo Museum is provided through interpretive panels and displays in exhibit cases or behind plexi-glass. Individuals with cognitive and/or visual impairments are not getting the same experience from the exhibit content as those without disabilities. Therefore, the recommendation is to recreate those items that are essential to the Park's main themes, in a variety of methods, to ensure that they are presented to visitors of all abilities. The Park shall make various items essential to understanding the main Park themes available as tactile reproductions. Items such as alligators, crocodiles, and other animal and plant species would be beneficial for visitors to understand the purpose of preserving the Everglades. These items shall be on display in the Visitor Center and museum for all visitors to experience.

The Park does not have a tactile model of the Everglades or specifically of the Flamingo area. The existing orientation panels and maps in the Flamingo area do not include the tactile elements that are critical to the effective communication of the orientation of the areas within the Park to each other, the size of the Park, and the current location of the visitor at Flamingo. The recommendation is the Park shall work with a consultant to design a tactile map of the Flamingo area. The tactile map shall include components such as accessible font size and type, raised lines, and scale orientation options. The overall size of the tactile model shall not exceed maximum allowed reach ranges. Font type shall be sans serif or simple serif for essential information and shall be large enough to convey the information to the widest range of visitors with and without visual impairments. This model would be most effective placed in the main section of the Flamingo Visitor Center.

### **Audio/Visual Programs**

In the Flamingo Visitor Center a computer located on the service counter provides information about the Flamingo area and the various other sections of the Park. This computer is operated with a mouse and does not meet the requirements of Section 508 of the Rehabilitation Act of 1973. The computer systems found within the Park have the same reoccurring deficiencies. They do not have associated assistive listening devices for visitors with hearing impairments. There are no screen readers associated with the program to ensure visitors with visual impairments can better navigate the programs/screens. Navigation of the computer programs is not intuitive or independently navigable; there is a lot of content that is embedded in each screen making it overwhelming for both screen readers and visitors to receive the information. The recommendation is to evaluate the existing computer system to determine if it is feasible to ensure accessibility requirements can be met. If not, it is likely that the computers will need to be replaced.

The Flamingo Visitor Center has an assistive listening system available for visitors who request the accommodation; however, signage is not provided denoting the availability of equipment. In addition, at the time of the assessment, NCA staff requested the equipment from the Park staff at the Visitor Center information desk and the staff was not familiar with the location of, availability of, or operation of the equipment. The Park shall ensure that all staff (seasonal, full-time, and volunteers) are trained in the operation, location and maintenance of the assistive listening equipment so that visitors can be

provided the accommodation necessary to ensure their program experience in the Visitor Center is accessible.

## **Planning and Maintenance**

At the time of the assessment in the A, B, and T Loop camping facilities overgrown grass had reduced the width of the asphalt parking space and concrete pad where the outdoor constructed feature (i.e. pedestal grill or fire ring) was placed at each designated accessible camping unit. A maintenance schedule should be created and implemented for routine maintenance of the accessible camping units in the walk-in (planned), A, B, and T Loop (planned) camping facility. This will ensure that the full width of the parking space at each unit and that the clear ground space at the outdoor constructed features (i.e. pedestal grill or fire ring) is maintained on all usable sides of the grills and fire rings.

As part of the routine maintenance schedule for both the walk-in (planned) camping facility and the A, B, and T Loop (planned) it is the Park's responsibility to ensure that all non-fixed outdoor constructed features (i.e. picnic tables, fire rings) placed within an accessible camping unit at the Flamingo Campground maintain the proper placement on a firm and stable surface and compliance with the required clear ground space identified in the Draft Final Accessibility Guidelines for the Outdoor Developed Areas.

## Everglades City

### Key Findings and Recommendations

#### Final Locations as Identified in FMSS

67621 Everglades City Visitor Center  
85989 Everglades City Visitor Center Parking  
86893 Everglades City Chickee  
111345 Everglades City Marina

#### Introduction

Everglades City provides visitors with a variety of amenities, programs and experiences. Within Everglades City is the Gulf Coast Visitor Center, which offers interpretive exhibit displays, orientation films, park brochures and backcountry permits. In addition to the NPS-run Visitor Center, a concessionaire is located downstairs from the Visitor Center and offers boat tours and canoe rentals to visitors. Visitors come to this area of the park as an easy access to the “Ten Thousand Islands” which are the mangrove islands, in addition to waterways that lead to Flamingo and Florida Bay. Visitors can choose to experience the Florida waterways via a variety of boat tours that embark from the marina. All boats are maintained, owned and operated by the concessionaire.

The Gulf Coast Visitor Center provides an extremely hands-on, tactile experience for visitors; allowing visitors to touch skeletal structures of animals, beach shells and an alligator head, and hold tools used for excavating. The variety of videos offered include NPS videos, videos on the history of the Everglades, on animals in the park, videos for children and some videos of other parks.

#### Parking

The parking lot at the Everglades City Visitor Center is not striped for individual parking spaces; however, there is enough space for approximately 82 standard size vehicles. There are three designated accessible spaces. A minimum of four spaces is required. None of the spaces are designed to be van accessible. Vertical signage for the accessible parking spaces does not meet minimum height requirements. The Park shall add one van accessible parking space with an adjoining access aisle. The posts for the parking signage will be removed and replaced to ensure that the signs meet minimum height requirements. An additional sign including the International Symbol for Accessibility and the designation “van accessible” shall be installed at the new van accessible space.

#### Physical Building Elements

##### Restrooms

The men’s and women’s restrooms at the Everglades City Visitor Center have reoccurring deficiencies. The signage is installed above the door and not on the wall to the latch side of the door; the automatic

door openers were not operational during the time of the assessment causing the door pressure to exceed maximum recommendations at 7 pounds of force; the mirrors above the lavatories exceed maximum height; and the clear width at the urinal in the men's room does not meet minimum requirements due to the presence of a grab bar on the adjacent stall partition. The Park shall purchase signage that includes the International Symbol of Accessibility, Braille, raised characters, and pictograms and install to the wood siding at the latch side of the restroom door. Repair the automatic door opener and ensure that the controls do not require more than 5 pounds of force to operate. Lower at least one of the rectangular mirrors above the lavatories so that the bottom edge of the reflective surface to ensure maximum height requirements is met. Remove and dispose of the grab bar installed into the stall partition, and relocate the privacy partition near the sink, 4 inches closer to the sink, to provide the minimum required clear width at the urinal.

In the accessible stalls, the reoccurring deficiencies include: the baby changing tables exceed maximum height requirements to the top of the handle and to the top of the work surface; the mirrors exceed maximum height requirements; the centerline of the toilets exceed maximum distance requirements from the side wall; the toilet paper dispenser obstructs the use of the side grab bar; and the rear grab bar in the women's restroom does not provide the exact space required between the wall and the inside of the bar. The Park shall remove and reinstall the baby changing table to ensure that the top of the handle is within reach range when in the closed position and that the work surface is within maximum height requirements when in the open position. Ensure that when reinstalling the baby changing table it is positioned for a forward approach and is mounted to ensure knee clearance underneath the table (in the open position) is provided. Lower the rectangular mirror so that the bottom edge of the reflective surface is within height requirements. Remove and reinstall the wall-mounted toilet using an offset flange to meet centerline requirements. Remove and reinstall the toilet paper dispenser on the metal stall partition to ensure that the bottom of the fixture is installed a minimum of 12 inches above the side grab bar.

#### Drinking Fountains

The drinking fountain provided in the restroom alcove at the Everglades City Visitor Center is a single wall-hung fountain that does not meet accessibility requirements for persons who are either seated or standing. The knee clearance at the unit does not meet minimum height requirements for persons who are seated. The spout height does not meet minimum height requirements for a drinking fountain for standing persons. The recommendation is to replace the existing unit with a high-low combination unit that meets accessibility requirements for both standing persons and persons who are seated or are of short stature.

#### Built-in Elements

The ramp at the exterior of the Everglades City Visitor Center provides the designated accessible route to the Visitor Center, bookstore and restrooms; however, it has a running slope that exceeds maximum requirements. The excessive running slope occurs at the top of the ramp and is a result of the Park

having patched the surface on multiple occasions. The recommendation is to remove the existing ramp and replace it, lengthening it by a foot to ensure the maximum slope requirements are not exceeded, and install new handrails.

The limited use/limited application (LULA) elevator that provides access to the Everglades City Visitor Center has multiple deficiencies. The swinging elevator door does not open and close automatically. The signage for the elevator, installed onto the door, does not provide tactile characters and Braille. The up and down arrow control buttons outside the elevator are not identified by tactile characters. The call control buttons for the first and second floors are not identified by tactile characters. The labels for floor designations are below each button and do not contain raised characters or Braille and do not provide a visible indicator to show that a call has been registered. The control button for the emergency stop is not identified with the appropriate tactile symbol. There is no car emergency signaling device provided. To call the elevator, the visitor has to retrieve the key from the bookstore, or have the bookstore call the Visitor Center to have the elevator sent down. The process to use the elevator does not facilitate independent operation. The recommended solution is to have a product representative come to the site and conduct an evaluation of the existing LULA to determine the feasibility of altering it to ensure all of the requirements are met; or to determine whether the LULA shall be replaced with a compliant elevator to meet all requirements.

The handrails along the stairs providing access from the Everglades City Visitor Center to the ground floor have multiple deficiencies. The handrail gripping surface exceeds maximum height requirements, is not continuous along their length as they are obstructed along the sides, the inside handrails are not continuous between stair flights, and the tops and bottoms do not have the required extensions. The Park shall replace the existing handrails with handrails that meet all requirements.

### Benches

There are six fixed benches installed into a natural surface off of the asphalt walkway adjacent to the marina (beginning opposite from the accessible parking area). There are at least ten non-fixed benches and two planter boxes with bench seating at the orientation plaza off of the parking lot. None of the seating areas feature accessible benches. Consistent with best practices for accessibility, Park management has decided to provide a minimum of 20 percent accessible benches where outdoor seating is provided. Accessible benches should have back support and at least one armrest as well as comply with seat height requirements. A clear ground space should be positioned near the accessible benches for companion seating. At the orientation plaza, the Park should remove a minimum of two non-fixed benches and replace them with units designed for accessibility.

Along the marina walkway, the paved route is wide enough to accommodate the recommended clear ground space for wheelchair seating located near the fixed benches. However, the clear ground space should not overlap the accessible route or diminish the accessible route width to less than 36 inches. Coming into compliance will involve replacing two fixed benches, cutting away a section of concrete



curb, grading the natural surface and extending the asphalt surfacing to provide surfacing beneath the bench and for the recommended clear space that will allow strollers and/or an individual using a mobility assistive device to sit outside of the path of travel. Because the natural ground surface is at a higher elevation than the asphalt, additional asphalt shall be installed around the clear space as a retaining wall to prevent degradation of the natural surface.

### **Visitor Center Exhibits**

The Park does not have a tactile model of the Everglades or specifically for the Everglades City area. The existing orientation panels and maps in the Everglades City area do not include the tactile elements that are critical to the effective communication to the orientation of the areas within the Park to each other, the size of the Park, and the current location of the visitor at Everglades City. The Park shall work with a consultant to design a tactile map of the Everglades City area. The tactile map shall include components such as accessible font size and type, raised lines, and scale orientation options. The overall size of the tactile model shall not exceed maximum allowed reach ranges. Font type shall be sans serif or simple serif for essential information and shall be large enough to convey the information to the widest range of visitors with and without visual impairments. This model would be most effective placed in the main section of the Everglades City Visitor Center.

### **Audio/Visual Programs**

In the Everglades City Visitor Center, a computer located on the service counter provides information about the Everglades City area and the various other sections of the Park. This computer is operated with a mouse and does not meet the requirements of Section 508 of the Rehabilitation Act of 1973. The computer systems found within the Park have the same reoccurring deficiencies. They do not have associated assistive listening devices for visitors with hearing impairments. There are no screen readers associated with the program to ensure visitors with visual impairments can better navigate the programs/screens. Navigation of the computer programs is not intuitive or independently navigable; there is a lot of content that is embedded in each screen making it overwhelming for both screen readers and visitors to receive the information. The recommendation is to evaluate the existing computer system to determine if it is feasible to ensure accessibility requirements can be met. If not, it is likely that the computers will need to be replaced.

There are many visual and tactile exhibits in the Everglades City Visitor Center that do not have corresponding audio components, audio description or accessible labels. The lack of audio description and tactile labels for individuals with visual impairments to identify and learn about the exhibits presents a barrier to full participation. The recommendation is for the Park to work with a consultant to develop and record a script that will incorporate the visual elements of the Visitor Center into an audio described tour. Be sure to include the following elements in development of the script: a general orientation to the Everglades City Visitor Center, the exterior interpretive waysides and bulletin boards, photos and text on interpretive panels, computer stations, movies listed on the playlist, and tactile

components throughout the exhibit area. Ensure that a raised-line numbered orientation system for interactive exhibits is included in the audio description. Where audio description for exhibits is provided, incorporate a 2x2 inch sign alerting to the availability of audio description. In addition, the consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs.

The Everglades City Visitor Center has an assistive listening system available for visitors who request the accommodation; signage is provided on the Visitor Center front entrance door denoting the available equipment. At the time of the assessment, the equipment was requested from the Park staff at the Visitor Center information desk; however, the staff was not familiar with the location of, availability of, or operation of the equipment. The Park shall ensure that all staff (seasonal, full-time, and volunteers) are trained in the operation, location and maintenance of the assistive listening equipment so that visitors can be provided the accommodation necessary to ensure their program experience in the Visitor Center is accessible.

## **Publications**

There is a laminated list of movies near the television for visitors to select which movie they would like to play; the list is not available in alternate formats. The Park shall produce the list of movies in both large print and Braille to ensure the information is effectively communicated to visitors with low vision or who are blind.

The publications available in the Everglades City Visitor Center are not available in alternate formats. Lack of alternate formats of standard park publications is a reoccurring deficiency. Any additional information provided to visitors involving boat rentals and/or tours shall also be provided in alternate formats.

## **Exterior Interpretive Elements**

There are multiple interpretive elements within the outdoor spaces of Everglades City. All interpretive information shall be communicated as effectively to persons with disabilities as it is to persons without disabilities. The Everglades City interpretation program should be commended for its appropriate use and formatting of text and images on its vertical panels and waysides to communicate to the largest audience possible. However, there is no audio or tactile component to the orientation information for individuals who are blind. The content of the exterior interpretive elements should be included in the recommended audio described tour of the Everglades City Visitor Center.

## **Picnic Areas**

Everglades City contains two picnic facilities. One picnic facility is a picnic shelter; the other is an uncovered area on the grounds that contain individual picnic units. On the grounds, the term picnic unit shall be used to identify a single picnic table.

There are six picnic units (tables) within the covered picnic facility (shelter) at the Everglades City Marina. Only one of those picnic tables is designed for accessibility. A minimum of two accessible tables is recommended in this area. The Park will relocate one inaccessible picnic table from the covered picnic facility to a location on the grounds of the marina. The Park will purchase and install one picnic table designed for accessibility within the covered picnic facility in place of the relocated inaccessible table.

There are eight individual picnic units dispersed throughout the grounds at the Everglades City Marina. Two picnic tables sit on an asphalt surface. Only one of the two tables on the asphalt pad is designed for accessibility. A minimum of two accessible tables is recommended in this area. The Park will relocate one inaccessible picnic table from the asphalt pad to another location on the grounds of the marina. The Park will purchase and install one picnic table designed for accessibility on the asphalt pad bringing the total number of accessible units on the grounds to two.

Accessible picnic tables should have one wheelchair space for every 24 linear feet of tabletop perimeter and knee and toe clearance beneath the table and clear ground space positioned for a forward approach to the unit. All accessible picnic units should include a firm and stable ground space around and beneath the tables and an outdoor recreation access route to them. The recommended clear ground space should be provided around all usable sides of accessible picnic tables, measured from the back edge of the benches.

### Grounds

There is no outdoor recreation access route to the covered picnic facility (shelter). The natural ground surface between the paved asphalt walkway around the marina and the concrete pad of the picnic facility is not firm and stable. The Park has decided to install an outdoor recreation access route from the paved asphalt walkway around the marina to the concrete foundation of the covered picnic facility.

The asphalt outdoor recreation access route and adjoining asphalt pad beneath the two non-fixed picnic units on the marina grounds is deteriorated, creating changes in level, loose fill and an uneven/unstable surface. The outdoor recreation access route and asphalt pad beneath the picnic units will be repaired to provide a firm and stable surface. When resurfacing the area, the size of the asphalt pad beneath the picnic units should permit the minimum recommended clear ground space around the tables measured from the back edge of the benches.

### **Concessions**

Any entity that provides programs, goods or services in partnership with the National Park Service shall be held to providing the same standard of access for persons with disabilities. When the concessionaire contract is renewed for boat tours, accessibility should be at the forefront of discussion, negotiation and planning. Currently none of the boat tours are accessible to people with disabilities.

### Program Access

The NPS park staff and operators of the concessionaire are not trained to provide audio description during boat tours for individuals who are blind or have low vision. Any staff member (NPS or concessionaire) who delivers verbal interpretation programs should be trained to provide audio description in order to provide an equal program experience for individuals with impairments to vision.

For people with hearing loss, assistive listening systems can aid in accessing audio information of programs such as the boat tours. There is an assistive listening system available at the NPS information desk; however, it is unclear whose responsibility – the Park or the concessionaire’s – it would be to provide the assistive listening system for boat tours. Proper staff training (NPS and concessionaire) on assistive devices including their use, maintenance and location is essential. The amplification system on the primary tour vessel, the Manatee II, is insufficient and is not an assistive listening delivery system. There is not a clear delineation of responsibility between the Park and the concessionaire as to who is responsible for providing the assistive technology to effectively communicate with individuals with hearing loss. Similarly, responsibility is not defined for provision of sign language interpreter services. As concessions contracts are reviewed and renewed, the Park should clarify the roles and responsibilities for provision of auxiliary aids and services and ensure that the appropriate entity is providing those services.

### Physical Access

The service counter in the bookstore of the Everglades City Visitor Center has a counter height that exceeds maximum requirements. The recommended solution is to cut and lower a portion of the service counter that is located between the two cashiers in order to ensure that a required portion of the counter meets accessibility requirements.

In the Everglades City Bookstore, there were non-fixed items such as merchandise shelves, which could not be entered into FMSS as deficiencies; some of these non-fixed items decreased the required minimum clear width of the accessible route throughout the bookstore. The Park shall ensure that concessionaires are informed of their responsibilities to ensure a clear width of 36 inches for all accessible routes through their concession buildings which are accessed by visitors.

The ramps and gangways in the marina do not meet requirements for slope, clear width, and slip resistance. Some of the ramps used to board the smaller passenger vessels do not have handrails or edge protection and are a critical safety risk for all visitors. At a minimum, longer ramps shall be provided including handrails, edge protection, and a slip resistant surface.

Once on board the Manatee II, visitors must select to go up or down a flight of stairs to enter the designated viewing areas. This poses a major problem for individuals who use mobility assist devices such as wheelchairs. An individual who uses a wheelchair for mobility is restricted to the lower level and

thus does not receive an equal program experience. When the concessionaire contract is renewed, physical access to the tour boats shall be addressed.

## **Marina**

While the marina at Everglades City was not on the NCA schedule of locations to assess during the on-site visit, NCA staff discussed the potential barriers to participation for individuals with disabilities and identified some recommended solutions for compliance.

None of the boats in the marina are accessible to individuals with mobility impairments. The ramps (wooden and metal) used to board the Manatee II and the Carolina Skiffs are unsafe due to size and slope deficiencies. The slope of the ramps depends on the water levels during tidal fluctuations. The tide schedule is not consistently posted at the concessionaire or Visitor Center locations. There is no lift or transfer system in place to allow visitors to safely board the Carolina Skiffs. The existing metal ramps and gangway systems are not wide enough (42 inches), long enough (10 feet), and are not designed to accommodate requirements for running slope at low tide. The slip resistant surfacing is deteriorated on a number of the gangways.

Because the marina has less than 25 boat slips, there are certain exceptions that apply to the slope requirements for the gangways. However, the Park should investigate a re-design of the existing boat slips that will provide the highest level of accessibility possible. The accessible gangway should be at least 30 feet long. A minimum of one accessible boat slip is required at the Everglades City Marina. Accessible boat slips shall have a minimum clear pier space of 60 inches and be at least as long as the slip. Providing more than 60 inches wide clear space will improve safety for people with disabilities, especially on floating piers. This space is the minimum necessary for individuals with disabilities to have sufficient space adjacent to their boat slip to use a chair lift or transfer device for getting on or off the vessel and provide a turning space for changing directions. The Park shall investigate providing a chair lift at the designated accessible boat slip.

## Long Pine Key, Pinelands Trail & Hidden Lake

### Key Findings and Recommendations

#### Final Locations as Identified in FMSS

77877	Long Pine Key Campground	81309	Pinelands Trail
70997	Comfort Station 148	86606	Pinelands Parking
70998	Comfort Station 149	228503	Pinelands Waysides
70999	Comfort Station 150		
71000	Comfort Station 151	70979	Hidden Lake Shelter
71004	Long Pine Key Picnic Area	70977	Hidden Lake Chickee
86590	Long Pine Key Picnic Area Parking	70978	Hidden Lake Comfort Station
72937	Comfort Station 168	97846	Hidden Lake Waterfront
72946	Comfort Station 169		
70966	Long Pine Key Entrance Station		
77609	Long Pine Key Amphitheater		
228479	Long Pine Key Waysides		

#### Introduction

The Long Pine Key Campground and Picnic Area are part of an area known as the Pinelands. This is an area of higher ground that is infrequently flooded. The Pinelands are the most diverse habitat in Everglades National Park, set in a forest of southern slash pines, saw palmetto and over 200 species of subtropical plants.

The Long Pine camping facility stretches along one side of a pond with a picnic facility bordering the opposite side. The facility offers 108 camping units; 81 units are available for either RV or tent camping and the remaining 27 units are for tents only. There is also a group camping unit offered, as well as an amphitheater for Park programs. Significant changes are recommended to make the camping program in this facility accessible to campers with disabilities. Barriers within camping units, comfort stations and the amphitheatre are addressed in this report.

The Pinelands Walking Trail is an asphalt trail measuring less than half of a mile. Some interpretation is offered, explaining the diverse habitat of the Pinelands and how its borders can be changed by fire or weather.

Hidden Lake is a private camping facility primarily used for the Everglades Environmental Education Program offered to the Boy Scouts and various Florida school programs. The National Park Service maintains the camping facility, but the programs operated at the site are group specific. A picnic

pavilion, grill and food preparation area, five elevated camp shelters, comfort station, group campfire ring, and canoe launch are provided at the site. The camping facility typically floods during the rainy season. There is significant probability that a teacher or student who visits Hidden Lake will have a disability. Hidden Lake currently offers no accessibility features aside from access into two camping shelters. As discussed below, there is no access to the restrooms, the canoe launch, picnic facilities, water sources, nor are there accessible routes between any of these features.

## **Parking**

### Long Pine Key Picnic Area Parking

There are two accessible parking spaces designated in this location; three are required based on the total number of spaces in the lot. The lot is not striped for general parking spaces. The accessible spaces had once been striped but are now faded and difficult to see. The Park shall stripe two standard car spaces and one van-accessible space, and provide vertical signage for each of the three spaces.

### Pinelands Trail Parking

There are no striped or designated accessible parking spaces near the Pinelands Trail trailhead. Based on the size of the entire parking lot, three accessible parking spaces are required. The Park shall stripe two standard car spaces and one van-accessible space, and provide vertical signage for each of the three spaces.

## **Exterior Accessible Routes**

### Hidden Lake

Access to Hidden Lake is via a dirt road that leads from the paved park road to the camping facility. Campers are dropped off at the beginning of the dirt road and must travel on foot approximately ½ mile to the site. This road would be very difficult, if not impossible, for a camper with a mobility disability to travel due to large ruts and uneven surfacing. Create a programmatic policy alternative to allow drive-in access to the facility upon request as an accommodation for a person with a disability. Long term planning for this area should involve installation of a paved road or an accessible walkway that runs parallel to the unimproved access road.

The outdoor recreation access routes throughout the Hidden Lake camping facility consist of a natural surface and, in many areas, large gravel. Gravel is used along the routes leading to the accessible camp shelters. Because gravel is not a firm and stable surface, it is very difficult to maneuver a wheelchair or other mobility device through it. The gravel should be replaced with an accessible aggregate surface material. Excessive slopes in other areas of the facility, particularly leading to the comfort station, present significant barriers to campers with varying disabilities that affect motor skills and stamina.

Conducting a landscape study to determine what solutions there are for the terrain and the ground surface should be a priority for Hidden Lake, as this area is widely used by teachers and students for educational purposes.

## **Exterior Interpretive Exhibits**

### Pinelands Trail

Visitors will find a small shelter approximately 50 feet beyond the trailhead of the Pinelands Trail. The shelter houses six exhibit panels that hang on the walls. They describe the destruction that has been done to the Pinelands as a result of hurricanes and fires. The panels have reached the end of their life cycle and have become faded. The color contrast necessary for readability for visitors with low vision is no longer provided. As is necessary throughout the Park, a comprehensive design plan should include the interpretation along this trail, making it accessible for visitors with visual and cognitive impairments.

## **Camping Facility**

### Long Pine Key

The Long Pine Key Campground provides 108 camping units; 27 are tent-only and the remaining 81 are tent/RV spaces. At the time of the assessment, the first two camping units in the facility were designated as accessible, although the parking spaces and outdoor constructed features (grills, fire rings) did not fully comply. Based on the total number of units, it is recommended that eight units be made accessible and dispersed throughout the facility – three in the tent-only area and five in the tent/RV area. It is not required, nor always desired that all of the accessible spaces be grouped together or placed near a comfort station. The spaces should provide varying experiences for visitors with disabilities. The Park should choose those units they wish to modify and widen the parking spaces to 16 feet for tent sites and 20 feet for those that must accommodate RVs. Each of the eight accessible units should include a minimum of one accessible picnic table located within the unit to provide the recommended clear width around its perimeter. The existing fire rings should be replaced with accessible units. While the original two accessible sites offered pedestal grills as the accessible alternative for cooking, grills do not provide the same experience as a fire ring, often used as a gathering point for campers.

Identifying the new accessible spaces with signage is not required; however, if the Park prefers that they be labeled, a simple sign containing the International Symbol of Accessibility will suffice. Identifying the parking spaces as accessible is not necessary. Because reservations are not accepted for this camping facility, it is important that the Park provide information about the location of accessible camping units on any camping facility maps, on the Park website, in brochures, and on bulletin boards or information kiosks at the camping facility.

The group camping unit can accommodate 8-20 campers. At the time of the assessment, the group site provided no accessibility features. At any time, a group of campers could include a person with a disability who requires accommodation. That person must be able to have an equal opportunity to participate in and benefit from the camping program. The parking space for the site should be widened to 20 feet minimum. At least 20 percent of the picnic tables, but not less than two, should provide the required clear width, knee and toe clearance to accommodate wheelchair seating. The existing pedestal grill, which exceeds maximum height requirements, should be replaced with a lower unit. Although the



group camping unit did not provide a fire ring, if one is provided in the future, it should meet all accessibility recommendations.

## **Comfort Stations**

Providing camping facilities like Long Pine and offering the use of a facility like Hidden Lake to the public requires the Park to provide an equal opportunity for everyone to participate in the programs offered there regardless of their level of ability. Basic amenities like restroom facilities are vital and must be accessible to all.

### Long Pine Key

Only one of the four comfort stations in the Long Pine Key Campground has accessibility features. Because visitors with disabilities can use any of the camping units within the facility, and with the proposed addition of more accessible units throughout the camping facility, it is important that all four of the comfort stations be accessible. The designated accessible comfort station has numerous deficiencies that need to be addressed, including excessive door pressure, lavatory pipes that are not insulated against contact, grab bars that are impeded by center braces, dispensers obstructing use of the grab bar, and a urinal that exceeds maximum height requirements.

The other three comfort stations offer men's and women's restrooms. Reconfiguring each facility could result in a decreased fixture count. As an alternative, an addition can be built onto each of the three comfort stations to provide an accessible single-user toilet room. This option provides a means for opposite sex family members or personal attendants to provide unconstrained assistance in the facility.

The utility tubs at the comfort stations are not accessible for people who use wheelchairs because of their location in alcoves and/or inaccessible operating controls. As part of the design study for the single-user restroom additions, new locations and operating controls for these tubs will be necessary.

There are two comfort stations in the Long Pine Key Picnic Area; one is designated as accessible although it does have some deficiencies that must be corrected, including lavatory pipes that are not insulated against contact, grab bars that are impeded by center braces, dispensers obstructing use of the grab bar, a urinal that exceeds maximum height requirements and an offset toilet. The second comfort station has no accessibility features. It is recommended that the proposed single-user toilet room be built as an addition to this inaccessible facility.

### Hidden Lake

The men's and women's restrooms at Hidden Lake do not include any accessibility features. Renovations for accessibility will include adding signage, relocating the water closets, installing grab bars, replacing door knobs, lowering the urinal, insulating pipes beneath the lavatories, installing full length mirrors, and relocating a utility sink. As this is the only restroom facility for this area, barrier removal should be a priority.

## **Drinking Fountains**

### Long Pine Key

There are ten stone pedestal drinking fountains in the Long Pine Key Campground and two in the picnic facility. This style of fountain does not allow access for people who use wheelchairs. Scoping requires that where multiple fountains are provided, 50 percent of the total number must be accessible for people who use wheelchairs and the other 50 percent must be accessible for standing persons.

A minimum of five fountains in the camping facility and one in the picnic facility should be replaced. High-low units offering the clear ground space for a forward approach in a wheelchair as well as a higher spout for those who have difficulty bending or stooping can meet the needs of most visitors. Provide units that offer a spigot for filling larger containers. When replacing the remaining fountains in the future, replace with high-low units so that all visitors can access all fountains. Ensure that the new units can be operable with one hand and do not require tight grasping, pinching, or twisting of the wrist.

### Hidden Lake

The drinking fountain and the water spigot for filling larger containers at the chickee are not accessible fixtures, and clear ground space in front of them is not level, firm or stable. It is recommended that both fixtures be removed and a new high-low unit be installed. Select a unit that offers a spigot for filling larger containers. Locate the new unit so that it is on an accessible route and has a level, firm and stable clear ground space.

## **Trails**

### Pinelands Trail

The Pinelands Trail runs through a forest of pines, palmettos, and wildflowers. The trail's tread width is 48 inches wide, which triggers the need for passing spaces measuring 60x60 inches. These passing spaces should occur at intervals of 1000 feet maximum. Based on its length, this trail requires three passing spaces. One already exists at the intersection of the loop. Two additional passing spaces should be added along the length of the trail.

## **Amphitheatre**

### Long Pine Key

The outdoor amphitheatre at the Long Pine Key Campground is used for winter programming. It has a seating capacity of approximately 180, but there is no designated wheelchair seating. Having wheelchairs in the aisles blocks access for others. Scoping requires that five wheelchair spaces be provided. By removing portions of some of the existing benches, visitors who use wheelchairs can sit with their companions and be integrated into the crowd.

An old, faded sign on the projection booth at the amphitheatre shows that assistive listening devices are available for visitors with hearing loss; however, staff stated that this was not the case. Because visitors with hearing loss must be provided an equal opportunity to participate in all programs, a portable assistive listening system is required for this assembly area. It should be available for use at all Park

programs such as talks, presentations or performances. One transmitter and five receivers would serve an amphitheatre of this size; two of the receivers are required to be hearing-aid compatible. Display a new sign in the media room indicating that the assistive listening system is available.

## **Picnic Tables, Fire Rings and Grills**

### Long Pine Key

There are two accessible picnic tables at the Long Pine Key Campground located in units 1 and 2. When the recommended number of accessible camping units (8) is developed at this facility, each will need an accessible table that provides space for wheelchair seating. The two existing tables in the group camping unit should be replaced with accessible units.

All of the camping units at the Long Pine Key Campground have fire rings, and there are four in the picnic facility. None meet accessibility guidelines for the height of the fire building and top cooking surfaces. The proposed eight accessible camping units should each have an accessible fire ring, and two of the fire rings in the picnic facility should be replaced. Accessible fire rings provide a fire-building surface and cooking surface that are within reach range for a person in a wheelchair.

The large grill in the group camping unit exceeds height recommendations for the top cooking surface and should be replaced with a unit that is accessible.

### Hidden Lake

There are no accessible picnic tables provided at Hidden Lake. Replace at least two of the six existing tables within the chickee with accessible tables that provide space for wheelchair seating.

There are two grills at Hidden Lake; both have a top cooking surface that exceeds maximum height recommendations. Because the ground around these grills does not meet requirements for slope or firmness and stability, it is recommended that a concrete pad be added below the units, which can reduce the height of the cooking surfaces.

## **Hidden Lake Canoe Platform**

Hidden Lake offers canoeing as a program for the campers. There are steps required to reach the elevated platform and steps to the launch area at the water's edge. There is no transfer system in place for visitors with mobility disabilities to enter the canoes. The Park should investigate possibilities of redesigning the canoe launch or purchasing and installing an accessible transfer system so that visitors can independently transfer from a seated position into the canoes.

# Chekika

## Key Findings and Recommendations

### Final Locations as Identified in FMSS

86703 Chekika Parking  
72914 Chekika Boardwalk  
72906 Chekika Cabin  
72907 Picnic Pavilion A  
72908 Picnic Pavilion B  
72909 Picnic Pavilion C  
72910 Picnic Pavilion D  
228513 Chekika Waysides  
72897 Chekika Grounds

### Introduction

In the 1940s, Chekika Hammock was a private resort called Grossman Hammock Mineral Springs. It was named for Mark Grossman who hit a sulphur spring while prospecting for oil, creating an artesian well. The water flowed into a man-made lake, which attracted bathers who thought the spring waters had healing powers. The resort also included a picnic area and campground. In 1970, Grossman retired and sold the property to the state, where it served as the Chekika State Recreation Area until 1991. At that time it became part of Everglades National Park.

The present day Chekika Hammock is a free recreational day-use area offering picnic facilities, open grassy areas and both a boardwalk trail and natural trail. The area has been damaged over the years from several hurricanes. The restroom facility is no longer operational and will be demolished.

### Parking

The Chekika parking lot has 158 total parking spaces, nine of which are intended to be accessible. None of the spaces include the designation "van accessible". Two of the accessible parking spaces do not include vertical signage and none have adjoining access aisles. The seven existing vertical signs do not meet minimum height requirements for accessibility. A minimum of six accessible parking spaces is required at Chekika. One of those spaces shall be designed and designated for van accessibility. The accessible parking area shall be re-striped to include five standard accessible parking spaces and one van accessible space. Every accessible parking space shall have an adjoining access aisle. Access aisles shall be striped to discourage parking in them. Access aisles shall be permitted to be shared between two accessible parking spaces. Vertical signage shall be installed at the front of each accessible parking space. Signage at the van accessible space shall include the designation "van accessible."

## **Exterior Interpretive Elements**

There are multiple interpretive elements at the outdoor spaces of Chekika. All interpretive information shall be communicated as effectively to persons with disabilities as it is to persons without disabilities.

There are two waysides installed along the boardwalk trail (providing identical information) and four vertical interpretive panels on the grounds at Chekika. There are multiple deficiencies to the presentation of interpretive information. Serif font, insufficient contrast, text over image, and lack of audio or tactile elements all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments. Park management shall work with design services to create a comprehensive wayside and interpretive panel design and replacement plan for the Chekika area. When panels are replaced, ensure that the information is presented in a way that is accessible to the widest range of visitors. Things to consider in interpretive design include the use of sans serif or simple serif fonts (as opposed to serif fonts), minimal use of italics, contrast between text and background of 70-95 percent, and the incorporation of audio and tactile elements. Ensure that text is readable against any background images and limit special effects such as shadowing of large display text as it can interfere with readability.

The Park does not have a tactile model of the Everglades or, specifically, for the Chekika area. The existing orientation panels and maps at Chekika do not include the tactile elements that are critical to the effective communication of the orientation of the areas within the Park to each other, the size of the Park, and the current location of the visitor at Chekika. The Park shall work with a consultant to design a tactile map of the Chekika area. The tactile map shall include components such as accessible font size and type, raised lines, and scale orientation options. The overall size of the tactile model shall not exceed maximum allowed reach ranges. Font type shall be sans serif or simple serif for essential information and shall be large enough to convey the information to the widest range of visitors with and without visual impairments. This model would be best served being placed along the Boardwalk Trail.

## **Trails**

There were no accessibility deficiencies identified along the Boardwalk Trail. Grossmans Hammock Trail was not assessed during the on-site visit. Park staff should assess the trail to identify its current accessible features and ensure that future trail improvement projects include the addition or maintenance of accessible features. The current accessibility of the trail should be documented and findings made available to the public.

## **Restrooms**

The existing restroom structure is non-operational and is scheduled to be demolished. Two single port-o-lets are provided: one in the parking lot and one near the Chekika Cabin. Neither unit meets minimum requirements for an accessible toilet compartment. The size of the interior floor space does not meet minimum requirements and there are deficiencies with the toilet height, toilet centerline, and length and positioning of grab bars. The port-o-lets sit on a natural surface that is not firm and stable. The required maneuvering clearance is not provided at the port-o-let door. Both port-o-lets shall be replaced

with units that are designed for accessibility including the required clear floor space, grab bars, toilet seat height, toilet centerline, and other features for an accessible toilet room. A level surface area for maneuvering clearance in front of the port-o-let doors shall be provided using a firm and stable surface (the Park preference at the time of the assessment was to use a soil stabilizer). The maneuvering clearance shall be connected to an accessible route.

## **Drinking Fountain**

The existing drinking fountain near the Chekika Cabin is constructed of two metal bowls and spouts with PVC piping beneath. There is no knee or toe clearance provided beneath the low unit positioned for a forward approach. The natural surface beneath the drinking fountain is not firm and stable. There is no outdoor recreation access route providing access to the element. The Park has identified a solution to remove the existing metal bowl and PVC piping drinking fountain and replace with an accessible high-low unit. The low unit shall have clear ground space positioned for a forward approach, centered on the unit, with the required knee and toe clearance. Operable parts of the new unit shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist.

## **Grounds**

The natural ground surface of the Chekika area is not firm and stable. There are no designated routes to the accessible features and various areas of interest. The existing ground surface may present a barrier to participation and safety hazard for individuals who have mobility impairments including those who use an assistive device such as a cane, walker, crutches, or wheelchair. The Park shall conduct a landscape design study to determine the location of outdoor recreation access routes that will connect the accessible features and areas of interest at Chekika. The outdoor recreation access route system should include access to the newly constructed accessible picnic pavilion (addressed in the 'Picnic Areas' section of this report), two newly acquired accessible picnic units (tables), accessible port-o-lets, drinking fountain, trash receptacle, interpretive waysides and panels, the artesian well, Chekika Cabin, and Grossmans Hammock and the Boardwalk Trail.

## **Picnic Areas**

Chekika contains two picnic facilities. One picnic facility consists of four picnic shelters; the other is an uncovered area of the grounds that contain individual picnic units. On the grounds, the term picnic unit shall be used to identify a single picnic table. At Chekika, outdoor constructed features shall be considered picnic tables, grills, drinking fountains, and trash receptacles.

There are four picnic shelters with concrete floors provided at Chekika; each has two picnic tables and one grill. Only one table in Pavilion C is wheelchair accessible; none of the grills are accessible due to a lack of clear ground space around all usable sides of the unit and the lack of an outdoor recreation access route adjoining the grills to the pavilions. The concrete pads of the picnic shelters are not large enough to provide the recommended clear ground space around an accessible picnic table. Construct a new picnic pavilion and provide two accessible picnic tables beneath the shelter. The new picnic pavilion should have a concrete pad that is large enough to ensure that the recommended clear ground space is

provided around all usable sides of two accessible picnic tables, measured from the back edge of the benches. Provide an accessible pedestal grill adjacent to the shelter that is connected to the space by a concrete outdoor recreation access route. Ensure that the recommended clear ground space is provided on all usable sides of the grill and meets all recommended dimensions and characteristics for accessibility.

There are six additional picnic tables scattered around the grounds. None are accessible due to lack of outdoor recreation access routes to them and insufficient dimensions for knee and toe clearance. A minimum of two accessible picnic units (tables) should be provided on the grounds. Accessible picnic tables should have one wheelchair space for every 24 linear feet of table top perimeter and knee and toe clearance beneath the table and clear space positioned for a forward approach to the unit. Both accessible picnic units should include a firm and stable ground space around and beneath the tables and an outdoor recreation access route to them.

# Royal Palm

## Key Findings and Recommendations

### Final Locations as Identified in FMSS

- 70974 Royal Palm Contact Station
- 86587 Royal Palm Parking
- 77363 Anhinga Trail
- 70980 Anhinga Boardwalk
- 77373 Gumbo Limbo Trail

### Introduction

Royal Palm features two popular trails. The .3 mile Anhinga Trail leads through a man-made canal along the edge of Taylor Slough and provides access to a variety of wildlife, particularly during the dry season. Wildlife is drawn to the area because of the abundance of water in this particular section of the park. The Gumbo-Limbo Trail, also .3 miles, provides access to the thicket of vegetation found in a hardwood hammock. In the dry season, Royal Palm is a favorite gathering place for the park's wading birds. Because of its access to plentiful wildlife as well as views of various Everglades landforms, Royal Palm is one of the most popular places for visitors in the entire park.

### Parking

There are five designated accessible parking spaces at Royal Palm. One space is marked for van accessibility. Vertical signage for the accessible spaces does not meet minimum height requirements. The striping of the parking lot is faded and it is difficult to discern the access aisles and parking spaces. The parking lot shall be re-striped to provide four standard accessible parking spaces and one van accessible parking space. Every accessible parking space shall have an adjoining access aisle. Access aisles are permitted to be shared between two accessible parking spaces. The signage at each accessible space shall be reinstalled to ensure compliance with minimum height requirements. Signage for the van accessible parking space shall include the designation "van accessible."

There are five bus parking spaces at Royal Palm but no designated loading zone for passenger drop off/pick up. The asphalt sidewalk between the end of the Gumbo Limbo Trail and the designated accessible parking area shall serve as the accessible passenger loading zone. A portion of the route will need to be removed and reinstalled with materials in kind to provide a larger paved area for passenger loading. The new loading zone portion of the accessible route will be 8 feet wide by 20 feet long.

### Exterior Interpretive Elements

There are multiple interpretive elements at the outdoor spaces of Royal Palm. All interpretive information shall be communicated as effectively to persons with disabilities as it is to persons without disabilities.



There is a tri-panel upright information kiosk/bulletin board at the contact station patio that provides information about the Park and its activities. All three sides of the kiosk exceed maximum height recommendations for upright displays. During the assessment, Park staff indicated that the original design plans called for the bottom edge of the interpretive display panels to be installed at a lower height, complying with accessibility recommendations for cane detectability. The three metal frame panels should be lowered on the upright supports to ensure that the bottom edge of the frame meets height recommendations for accessibility.

There are a total of four waysides along the Anhinga Trail. Three of the waysides (*Anhinga Trail, Unwelcome Guests – Exotic Fish Species, How Much Water for Wildlife*) are installed on the opposite side of a retaining wall or wood guardrail. The waysides being installed not directly adjacent to the trail tread creates a barrier for some individuals with impairments to vision and/or mobility. The recommended corrective action is to remove and relocate the three waysides closer to the trail tread. Visitors should be able to gain a full unobstructed view of the interpretive information. This action accommodates the widest range of visitors including those with mobility and visual impairments.

The four waysides (*Anhinga Trail, Unwelcome Guests – Exotic Fish Species, How Much Water for Wildlife, Paradise Key Hammock*) and three interpretive panels (*The Slough*) installed along the Anhinga Trail, and two waysides (*Hurricane Andrew's Impact along the Gumbo Limbo Trail, Solution Holes*) and two interpretive panels (*Gumbo Limbo Trail x2*) installed along the Gumbo Limbo Trail, have multiple deficiencies to the presentation of interpretive information. Use of serif font, insufficient contrast, text over image, and lack of audio or tactile elements all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments. The Park shall create a comprehensive wayside and interpretive panel design and replacement plan for Royal Palm. When panels are replaced, ensure that the information is presented in a way that is accessible to the widest range of visitors.

The Park does not have a tactile model of the Everglades or, specifically, for the Royal Palm area. The existing orientation panels and maps at Royal Palm do not include the tactile elements that are critical to the effective communication of the orientation of the areas within the Park to each other, the size of the Park, and the current location of the visitor at Royal Palm. The Park shall work with a consultant to design a tactile map of the Royal Palm area. This model would be best served being placed on the patio of the Royal Palm contact station.

## **Trails**

### Anhinga Trail

The Anhinga Boardwalk section of the Anhinga Trail has openings up to 1 inch in between the deteriorating lumber board surfacing which creates a potential safety risk for an individual with a disability. The Park shall replace the deteriorating lumber surfacing and edging with recycled lumber boards to match the recycled lumber surface material already in place along the beginning of the boardwalk section.

### Gumbo Limbo Trail

There are multiple deficiencies to the tread surface on the Gumbo Limbo Trail: a large opening in the asphalt surface due to heaving tree roots decreases the required width of the trail tread and should be corrected. When grading and resurfacing the area maintain the recommended running and cross slopes for trails.

Where the trail surface material changes from asphalt to recycled lumber boards, there is a 2-inch-high change in level, which exceeds maximum recommendations for accessibility. Asphalt patchwork should be installed in this area to provide a smooth transition between the asphalt and recycled lumber board surfacing.

At the end of the Gumbo Limbo Trail there is an upright interpretive panel installed into a natural surface not directly adjacent to the trail tread. This may prevent some individuals with mobility and/or visual impairments from accessing the interpretive information. The asphalt trail surface should be extended to provide clear ground space in front of the interpretive panel.

### Trailhead Signage

Currently, a wayside designates the trailhead of the Anhinga Trail. Similarly, a vertical orientation panel is installed at the beginning of the Gumbo Limbo Trail. Both interpretive fixtures provide map and orientation information for the trail. However, some critical information is missing that would enable a visitor with a disability to independently determine if he/she would prefer to traverse the trail. When trailhead signage is installed or replaced it should include a minimum of the following: length of the trail or trail segment; surface type; typical and minimum tread width; typical and maximum running slope; and typical and maximum cross slope.

## **Physical Building Elements**

### Restrooms

At the Royal Palm Contact Station, the men's and women's restrooms have similar reoccurring accessibility deficiencies. The restroom identification signage is not installed on the wall to the latch side of the door. The Park shall purchase and install an additional sign for each restroom to be installed to the latch side of the doors. The handle of the baby changing table exceeds maximum height requirements when in the closed position and the work surface exceeds maximum height requirements when in the opened position. The baby changing tables in both restrooms shall be removed and reinstalled at the correct height and reach range requirements. The mirrors exceed maximum height requirements measured to the bottom of the reflective surface. At least one mirror in both restrooms shall be lowered to comply with height requirements. Two lavatory counters are present in both the men's and women's restrooms. The counters do not provide sufficient knee clearance and do not meet minimum height requirements measured to the top of the counter. Pipes are not wrapped beneath any of the lavatories (three in each restroom). The counter containing a single lavatory shall be raised in both restrooms and pipes shall be wrapped to protect against contact. The force required to open both doors to the restrooms exceeds the recommended maximum operating force. While there is no

identified standard for the opening force of exterior doors in the accessibility standards, it is recommended as best practice for the Park to adjust the closer on the door to reduce the operating force to as close to 5 pounds as feasible. If this is not possible, the Park shall investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability.

In the men's restroom only, the lower urinal exceeds maximum requirements for the height of the rim, and the side grab bar in the accessible stall does not meet minimum length requirements. The Park shall lower one wall-hung urinal and replace the side grab bar in the accessible stall to comply with dimensions for accessibility.

In the women's restroom only, the side grab bar does not meet minimum length requirements and the rear grab bar is not positioned properly in relation to the centerline of the water closet. There is an additional lavatory provided in the accessible stall whose pipes are not wrapped to protect against contact. There are a total of six toilet stalls in the women's restroom. There is no ambulatory stall provided. One ambulatory stall is required where restrooms have six or more stalls. The Park shall replace the side grab bar and reposition the existing rear grab bar to comply with dimensions for accessibility. The lavatory pipes in the accessible stall shall be wrapped to protect against contact. Reconfiguration of the stall partitions of the three toilet compartments on the left side of the women's restroom (opposite side from where the wheelchair accessible stall is provided) is necessary to provide one ambulatory stall. Grab bars shall be installed on both sides of the ambulatory toilet compartment.

#### Drinking Fountains

There are two high-low drinking fountains installed outside of the men's and women's restrooms. Both units create a protruding object into the path of travel creating a potential safety hazard for individuals who are blind. The Park shall install a privacy style partition adjacent to the high and low sides of the two drinking fountains to provide a detectable warning of the protruding object for individuals who are blind.

#### Benches

Consistent with best practices for accessibility, the Park has decided to replace 20 percent of the total number of benches with accessible units in each unique location. Accessible benches shall have a seat height between 17 and 19 inches above the finish floor or ground surface and should have back support and at least one armrest.

There are a total of 21 fixed benches installed throughout the Contact Station patio. None of the benches provide back support and at least one armrest. A total of five benches should be replaced in this area.

There is a covered shelter along the paved section of the Anhinga Trail that does not feature any accessible seating. A minimum of one accessible bench is recommended for installation at the covered shelter.

There is one seating area provided along the Gumbo Limbo Trail. There are no accessible benches provided in this area. A minimum of one accessible bench is recommended for installation.

## **Concessions**

The bookstore is operated and maintained by concessionaire, Eastern National. The service counter does not incorporate a lowered section for persons who are seated or of shorter stature. The Park shall work in conjunction with Eastern National to ensure that a lowered section of the counter is provided in the bookstore.

The four vending machines on the Contact Station patio are leased and maintained through a concessionaire. The operating controls for all four machines exceed maximum reach range requirements. The Park shall work in conjunction with the concessionaire to provide accessible vending machines (one of each type).

Responsibilities of concessionaires to provide accessible features shall be addressed during the annual review of contracts.

# Route 10

## Key Findings and Recommendations

### Final Locations as Identified in FMSS

67313	West Lake Comfort Station	77710	Mahogany Hammock Boardwalk
77926	West Lake Boardwalk	228493	Mahogany Hammock Waysides
85991	West Lake Parking	86544	Pa-hay-o-kee Parking
228496	West Lake Waysides	77390	Pa-hay-o-kee Boardwalk
86657	Paurotis Pond Parking	228495	Pa-hay-o-kee Waysides
81278	Paurotis Pond Grounds	81313	Rock Reef Boardwalk
86658	Nine Mile Pond Parking	228494	Rock Reef Boardwalk Waysides
81280	Nine Mile Pond Grounds	228505	Route 10 Pull Off A
86121	Mrazek Pond Grounds	228506	Route 10 Pull Off B
81263	Coot Bay	228507	Route 10 Pull Off C
86546	Mahogany Hammock Parking	228508	Route 10 Pull Off D

### Introduction

There are multiple areas for visitors to stop along Route 10 between the Coe Visitor Center and the Flamingo area. Some of these areas are intended to be canoe and kayak launch areas where individuals or guided groups can embark and explore the waterway trail that goes all the way to Everglades City. Other areas offer a picnic area with a pond/water view or a boardwalk through grasslands. Some of the larger areas such as West Lake provide a boat launch, interpretive boardwalk trails and nature trails. Much like the Flamingo area, the intention behind the majority of the stops along Route 10 are for recreational purposes, but some Everglades interpretation is included by way of interpretive waysides, panels and overlooks.

### Parking

#### West Lake

There are two accessible parking spaces identified in the West Lake Parking area, one van accessible and one standard accessible space. Both spaces meet the required widths, but the vertical signage identifying the spaces is installed incorrectly; the van accessible signage is installed in the standard parking space and vice versa. Additionally, the van accessible sign does not meet minimum height requirements. The slope of the designated van accessible space exceeds maximum requirements as a result of the eroding asphalt surface. The Park shall resurface the existing accessible parking area and stripe one van accessible parking space, one standard accessible parking space, and a shared access aisle. Vertical signage shall be installed at the required height and with the proper designation.

#### Nine Mile Pond

There are 12 parking spaces in the Nine Mile Pond Parking area with three designated as accessible. Two of the three spaces are at the south end of the parking area, and one parking space is located at the

northern end of the parking area. None of the three parking spaces have access aisles or vertical signage and none are designated as van accessible. While only one van accessible space is required in this area, the Park has requested that at least two accessible parking spaces continue to be designated. Therefore the recommendation is to provide two total accessible parking spaces (one van and one standard) and two adjacent access aisles. The northern accessible space shall be restriped as a van accessible parking space; an access aisle shall be striped adjacent to the parking space. The parking space shall be a minimum of 132 inches wide; and the adjacent access aisle shall be a minimum of 60 inches wide. The two southern accessible spaces shall be restriped as one standard accessible parking space and one adjacent access aisle. The standard parking space shall be a minimum of 96 inches wide and the adjacent access aisle shall be a minimum of 60 inches wide. Signage shall be purchased and installed on posts at each of the two accessible parking spaces to meet requirements; a sign containing the designation “van accessible” shall be installed in the van accessible parking space.

#### Route 10 Pull-Offs

There are five pull-offs along Route 10; one provides parking for the Rock Reef Boardwalk, the other four offer interpretive waysides that present information about the surrounding environment. None of the asphalt areas are marked for individual parking spaces. Because these five areas provide a programmatic experience, people with disabilities must have an equal opportunity to participate. As they exist, the pull-offs do not provide an asphalt surface large enough to allow a visitor driving an accessible van to park and lower a lift to exit the vehicle. Because widening the asphalt area could have an effect on the natural surroundings, a design study should be conducted, taking into consideration both the cultural and environmental implications.

#### Pa-hay-o-kee

The parking lot at Pa-hay-o-kee has three spaces designated as accessible; one is van accessible and the others are standard vehicle spaces. The spaces are compliant with accessibility standards, but the striping is very faded and difficult to see. Each of the three spaces has vertical signage, but the signs do not meet minimum height requirements. While only two accessible parking spaces are required for a parking lot of this size, it is recommended that all three existing spaces be maintained by restriping for clear designation and replacing the vertical signage posts to achieve height requirements.

#### Mahogany Hammock

The parking lot at Mahogany Hammock has three spaces designated as accessible; one is van accessible and the other two are standard accessible vehicle spaces. None of the spaces meet minimum width requirements, and the striping is faded. Each of the three spaces has vertical signage, but the signs are faded and weathered and do not meet minimum height requirements. The parking area shall be restriped to provide one van accessible space and two standard accessible spaces. Each space shall have an adjacent access aisle; however, two spaces are permitted to share one between them. The vertical signage posts, the three parking signs and one “van accessible” sign shall be replaced and installed so that the signage is at or above minimum height requirements.

## **Benches**

In keeping with best practices for accessibility, the Park has decided to provide 20 percent of accessible benches within a given area. Therefore, along the West Lake Boardwalk Trail, one accessible bench should be added near the existing bench; one accessible bench should be added to the Rock Reef Boardwalk viewing platform; one bench on the Pa-hay-o-kee Boardwalk viewing platform should be replaced; and, two benches along the Mahogany Hammock Boardwalk should be replaced. Accessible benches should have back support, at least one armrest and a seat height between 17 and 19 inches above the ground. The Park should ensure that a clear ground space positioned near the bench, but not overlapping the path of travel of the boardwalk, is provided for companion seating.

## **Picnic Units**

### Coot Bay

In Coot Bay, there are two concrete picnic units that consist of one picnic table each, in a public use area, each on a concrete pad that is not large enough to provide the required clear ground space around the unit. The tables do not meet knee and toe clearance recommendations. Additionally, there is no outdoor recreation access route connecting the pull-off parking area to either of the picnic units. The recommended solution is to pour a new concrete pad, large enough to contain an accessible picnic table, including the recommended clear ground space around it. Create a concrete outdoor recreation access route connecting the pull-off parking area to the new concrete pad. Ensure the outdoor recreation access route is a minimum width of 5 feet. Purchase or build a concrete picnic table that meets recommendations for knee and toe clearance and place it on the new concrete pad.

### West Lake

In the West Lake Shelter, there are five non-fixed picnic tables in the picnic facility that do not provide the required toe clearance. The recommended solution is to replace two of the existing picnic tables with two newly purchased picnic tables that meet accessibility requirements.

### Nine Mile Pond

There are two non-fixed picnic units (tables) provided in the public use area of Nine Mile Pond; neither table provides the required knee and toe clearance for wheelchair access. The picnic units are not connected to an outdoor recreation access route and do not have the required clear ground space provided around the element. There is one trash receptacle provided in the public use area; it is not on an outdoor recreation access route and does not have clear ground space at the unit. A minimum of one accessible picnic unit is recommended; the Park shall purchase one table designed for accessibility. Place the picnic unit on the asphalt surface at the northernmost portion of the parking area to ensure the clear ground space around the element is provided. Relocate the trash receptacle to the asphalt surface at the northernmost portion of the parking area to ensure clear ground space at the unit is provided.

### Paurotis Pond

There are two non-fixed picnic units (tables) provided in the public use area of Paurotis Pond; neither picnic unit provides the required knee and toe clearance for wheelchair access. The units are not

connected to an outdoor recreation access route and do not have the required clear ground space provided around the element. The recommendation is to purchase and install a minimum of one picnic table designed for accessibility in the Paurotis Pond common use picnic facility. Ensure the accessible table provides the recommended knee and toe clearance. Place the picnic table on the asphalt surface at the southernmost portion of the parking area to ensure the clear ground space around the element is provided.

## **Exterior Interpretive Exhibits**

At the West Lake Boardwalk, which is designated as accessible, the vertical interpretation panel/trailhead sign contains a text overlay on an image background, which does not provide the minimum recommended guidelines for contrast. The lack of sufficient contrast creates a barrier to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments. This is one of newly designed interpretive panels and was installed just prior to NCA's assessment of the Park. It was noted at the time of the closeout meeting that this design does not meet accessibility standards and that future interpretive panels included in this project scope should be evaluated. The accessibility related information at the bottom of the existing panel includes the total distance, time allowed for walking the trail, surface material and whether it is accessible. The recommendations for an accessible trailhead sign, as defined in the Draft Final Accessibility Guidelines for Outdoor Developed Areas, include the following: length of the trail; surface type; typical and minimum tread width; typical and maximum running slope; and typical and maximum cross slope. Upon replacement of this sign in the future, the Park should ensure that these deficiencies are corrected.

### Waysides

Waysides are provided at the four Route 10 roadside pull-offs and at Rock Reef, Pa-hay-o-kee and Mahogany Hammock Boardwalks. All have multiple deficiencies to the presentation of interpretive information. Small font size, fonts with varying line thickness, insufficient contrast due to significant fading and text over images (the English text is more readable than the Spanish text), and lack of audio or tactile elements all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments. On all waysides, the Spanish translation of the information is in a lighter font than the English version.

Park management shall work with design services to create a comprehensive wayside and interpretive panel design and replacement plan for the waysides provided at the Route 10 attractions. When interpretive panels are replaced, ensure that the information is presented in a way that is accessible to the widest range of visitors. Things to consider in interpretive design include the use of sans serif or simple serif fonts (as opposed to serif fonts), font size, minimal use of italics, contrast between text and background of 70-95 percent, and the incorporation of audio and tactile elements. Ensure that text is readable against any background images and limit special effects, such as shadowing, as it can interfere with readability.



## Physical Elements

### Accessible Routes

The concrete curb ramp located on the accessible route from the accessible parking to the West Lake Shelter has a running slope that exceeds maximum requirements for a curb ramp. At the request of the Park, the recommendation is to remove the existing curb ramp, and install a new ramp that runs parallel to the shelter. The slope of the new ramp will require the installation of handrails along both sides of the ramp run. Handrails shall be installed at the proper height and include top and bottom extensions that return to the landing surface.

There are two stairways at the West Lake Shelter; neither has handrails installed that meet accessibility requirements. The handrails installed at the stairway closest to the restrooms which leads to the dock, are not continuous due to obstructions, and do not have the required extensions at the top and bottom of the stair flight. The Park shall purchase two new handrails and install them to ensure accessibility requirements are met, including top and bottom extensions that return to the ground surface. The stairway closest to the boat launch does not have handrails; the Park shall purchase two new handrails and install them to ensure accessibility requirements are met, including top and bottom extensions that return to the ground surface.

The stair flight near the viewing platform on the Pa-hay-o-kee Boardwalk does not have accessible handrails. The existing top rails do not meet minimum requirements for accessible gripping surfaces. Install three sections of handrail: one on the outside of each of the two stair flights and a single rail on the inside that is continuous around the bend. The handrails shall have the required extensions at the top and bottom and will return to the boardwalk surface.

There are three wayside panels along Rock Reef Boardwalk; two are mounted to the railing along the boardwalk, and the third is mounted to the railing on the viewing platform. The floor of the boardwalk beneath each wayside does not extend beyond the railing, creating the risk of the front casters of a wheelchair going off the edge if someone makes a forward approach to the wayside. In order to provide edge protection beneath the wayside panels, add a horizontal rail to the wood support posts beneath each of the three waysides.

At the top viewing platform of the Pa-hay-o-kee Boardwalk, there are two rail-mounted wayside panels and one freestanding wayside in the center of the platform. All three of the panels protrude into the path of travel along the viewing platform and create a safety hazard for individuals who are blind or have low vision. In order to make the panels cane detectable, the leading edges must be a maximum of 27 inches above the ground. By installing panels to the sides of each wayside so the bottom edges are 27 inches maximum above the platform floor, the bottom leading edge will be cane detectable, and the risks presented by a protruding object are eliminated.

## Restrooms

At the West Lake Shelter, the men's and women's restroom have multiple deficiencies. The signage for both restrooms is installed on the doors and not at the latch side; signage shall be relocated to the wall on the latch side of the door. In the men's room, the urinal rim exceeds height requirements and the clear width at the urinal does not meet minimum requirements due to the presence of a stall partition and counter. The urinal shall be reinstalled to ensure that the maximum rim height requirements are met. The counter shall be shortened in length and the stall partition relocated further away from the urinal to ensure the required clear width at a urinal located in an alcove is met. In the men's room, the centerline of the water closet exceeds maximum requirements from the side wall, and the flush control is located on the closed side. The Park shall relocate the water closet to ensure that the centerline is between 16 inches minimum and 18 inches maximum from the side wall, and rotate the plumbing on the water closet to ensure the flush control is located on the open side. In both restrooms, the side grab bars do not meet length requirements and need to be replaced. The toilet paper dispensers are installed too close to the side grab bar, and the hooks on the accessible stall doors are installed out of maximum reach range. The toilet paper dispensers shall be relocated to ensure they are at the required distance from the grab bar, and a hook installed within reach range shall be provided. In the women's restroom, the soap dispenser is installed out of reach range and shall be relocated.

# Shark Valley

## Key Findings and Recommendations

### Final Locations as Identified in FMSS

73247 Shark Valley Visitor Center  
226205 Shark Valley VC Comfort Station  
86710 Shark Valley VC Parking  
226237 Shark Valley Entrance Station  
228511 Shark Valley VC Waysides  
73219 Shark Valley Tower  
97839 Tower Comfort Station  
228510 Shark Valley Tower Waysides  
79595 Shark Valley Tower Trail  
115765 Shark Valley Concessions Building

### Introduction

A year before Everglades National Park was established, Humble Oil Company was drilling for oil in the current Shark Valley area. Shark Valley is now one of the most popular attractions in Everglades National Park. It sits in the heart of the Shark River Slough and offers visitors spectacular views of the “River of Grass”, the hardwood hammocks and “borrow pits”, all home to a variety of wildlife. The 15-mile loop trail and smaller off-shoot trails provide opportunities for walking, biking or taking a tram ride to get a close-up view of the fragile environment.

In 1952, a steel frame fire tower was constructed and later replaced in 1965 with the existing concrete tower. It was initially used as a fire tower, but after the Shark Valley area was opened to the public in 1966, it became an observation tower for visitors to enjoy the wide expanse of scenery and wildlife.

Shark Valley provides interpretive elements for its visitors focusing on ecology, history and environmental issues by means of displays at the Visitor Center, interpretive panels throughout the area and through ranger-led activities.

### Parking

There are a total of 108 parking spaces provided at Shark Valley; a minimum of five accessible spaces is required. The original four designated accessible parking spaces provided near the existing Visitor Center are marked with the international symbol for accessibility but do not have marked access aisles or vertical signage. There are four newer accessible parking spaces provided near the comfort station that include the required striping and signage. However, the slope of these spaces creates a drainage issue and pooling occurs at the top of the easternmost spaces. None of the existing eight spaces are designated “van accessible”.

Future plans are to demolish the existing Visitor Center and rebuild a new one near the comfort station. The newer parking spaces will serve that area. However, while the existing Visitor Center is still in use, accessible parking should be provided on the shortest accessible route to the entrance. Maintain a minimum of one van accessible space near the Visitor Center by striping an access aisle adjacent to one space and providing vertical signage. This will bring the total number to the required five. Eliminate the other spaces near the Visitor Center as they do not meet the standard. Consult with an architectural and engineering firm to remedy the slope issue at the parking spaces near the comfort station. There is a concern that any drainage from the parking lot, that could contain oil or other contaminants, might affect the surrounding environment.

## **Exterior Accessible Routes**

The sloped concrete route from the parking lot to the concessionaire building and Visitor Center has a running slope that constitutes a ramp and requires the installation of handrails with top and bottom extensions on both sides of the run.

There is a wayside exhibit panel at the Borrow Pit Trail trailhead. The asphalt surface in front of the wayside greatly exceeds maximum slope requirements and creates a potential safety risk for those visitors who use wheelchairs or other mobility devices, or are unsteady on their feet when they stop to view this panel. This area should be graded and resurfaced to ensure an accessible slope of 2.08 percent at the exhibit while maintaining an accessible route onto the trail.

## **Exterior Interpretive Exhibits**

### Visitor Center

There is a single-panel vertical exhibit and two tri-panel vertical exhibits around the outside of the Visitor Center. The single panel near the front entrance and the three-panel exhibit beneath a kiosk to the right of the Visitor Center are installed too far from the accessible route for readability. The concrete route should be extended to provide a closer approach to the panels. The three-panel exhibit on the right side of the building is installed too high and should be lowered to the recommended reading height.

There are two waysides, seven reader rail panels and 13 interpretive panels installed throughout Shark Valley. There are multiple deficiencies to the presentation of interpretive information. Serif fonts, insufficient contrast, text over image, and lack of audio or tactile elements all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments. As is necessary throughout the Park, a comprehensive design plan should include the interpretation presented at Shark Valley, making it accessible for visitors with visual and cognitive impairments.

The Park does not have a tactile model of the Everglades or specifically of the Shark Valley area. The existing orientation panels and maps in the Shark Valley area do not include the tactile elements that are critical to the effective communication of the orientation of the areas within the Park to each other,

the size of the Park, and the current location of the visitor at Shark Valley. The recommendation is the Park shall work with a consultant to design a tactile map of the Shark Valley area. The tactile map shall include components such as accessible font size and type, raised lines, and scale orientation options. The overall size of the tactile model shall not exceed maximum allowed reach ranges. Font type shall be sans serif or simple serif for essential information and shall be large enough to convey the information to the widest range of visitors with and without visual impairments.

### Shark Valley Tower

There are two interpretive panels and a 360-degree scenic view at the top of the Shark Valley Tower. Visitors with mobility impairments that are unable to reach the top of the Tower due to the length and slope of the route are not provided this experience and access to the interpretive information. In order to provide an equivalent programmatic experience, the Park shall create a video or virtual tour of the 360-degree view from the top of the tower. The video should include the content of the interpretive information that is displayed at the viewing area. The video should also have open captioning for visitors with hearing impairments and audio description for visitors with visual impairments.

Tactile models are critical interpretive tools for people who are blind to understand their surroundings and the elements presented. The Tower at Shark Valley is a unique structure that should be interpreted for those unable to experience the site. Provide a tactile scale model of the Tower for use by all visitors.

## **Interior Interpretive Exhibits**

### Visitor Center

The Visitor Center at Shark Valley has several exhibit pieces that are available for tactile examination. This opportunity is valuable, not only for visitors who are blind, but for children, visitors with low vision and those with cognitive impairments. However, few of the exhibit pieces are labeled to inform the visitor what it is they are holding. Any existing labels are not provided in alternate formats. Provide alternate forms of labels (e.g. Braille, audio, large print) within the exhibition space. An audio described tour that includes the existing tactile exhibits should be created if the new Visitor Center will not be ready for public access in the near future. The lowered portion of the service counter at the Visitor Center is used to hold exhibits. These exhibit pieces should be removed so that the lowered portion of the counter can be used for service to persons who use wheelchairs or are of short stature.

## **Comfort Stations/Restrooms**

### Visitor Center Comfort Station

There are multiple barriers to accessibility for persons with disabilities in all four of the restrooms in the Visitor Center comfort station: the operating force of the exterior doors exceeds maximum recommendations; mirrors installed above the lavatories, toilet seats and urinal rims exceed maximum height requirements; the centerline of toilets exceed maximum requirements measured from the side wall; grab bars are not positioned according to standard; toilet paper dispensers impede the use of the side grab bars; and baby changing tables are installed beyond maximum reach range requirements.

Barrier removal must include adjustment or replacement of door closers and relocation or replacement of mirrors, toilets, urinals, grab bars, toilet paper dispensers and baby changing tables. All of these requirements are the result of testing and research and are in place so that people with disabilities can safely and independently use these facilities.

### Shark Valley Tower Restrooms

The restrooms at the base of the Shark Tower were a Mission 66 project. The concrete ground area outside of the restrooms has areas of significant slope. With a 10.3 percent slope up to the restrooms and additional areas of excessive running slope at the entrance doors, the facility can be very difficult to access for visitors independently using a mobility device or those with limited physical ability or stamina. Devising a plan for barrier removal will require the collaboration of design services, historic architects and cultural resources staff. Discussions should include options such as grading, resurfacing, installation of automatic door openers and an alternate prefabricated accessible comfort station structure located in the vicinity.

The men's restroom at the Tower has several deficiencies. The two urinals are wall-mounted near the entrance door. While both are mounted at an accessible height, the clear space of the urinal closest to the door overlaps with the maneuvering clear space required at the door. As these spaces cannot overlap, the urinals will need to be relocated to the empty wall to the right of the entry door where lavatories were previously provided.

The restroom sign for the men's restroom is faded and should be replaced; it should be located on the wall to the latch side of the door instead of in its current location on the face of the door. The rear grab bar in the accessible toilet stall needs to be relocated and the side grab bar should be replaced to meet length requirements.

### **Shark Valley Tram Tours**

Shark Valley Tram Tours is a concessionaire that offers two-hour narrated tram tours along the loop road from the Visitor Center, stopping midway at the Shark Valley observation tower. Reservations are not required but are strongly recommended during the peak season (end of December through April). The older tram units provide ramps for people who use wheelchairs to board the vehicle. The ramps cannot accommodate the 32 inch rise into the vehicle at an accessible slope. Larger scooters have bottomed-out at the top of the ramps. In these instances, visitors have been offered a manual chair to use. It was discussed that, should a visitor be unable to board the tram, a possible change in policy would need to be considered. One example presented was to allow that visitor to follow the tram in his or her own vehicle. Safety and liability issues would need to be studied.

The newer trams have a ramp that pulls out from below the vehicles. The first row of seats on the tram can be removed to accommodate wheelchair seating. It was discussed with the park that when wheelchair seating is required for the newer trams, the bottom of the ramp should rest on the elevated sidewalk, reducing the total rise and achieving an accessible ramp slope. However, at the drop-off point

for the observation tower, no sidewalk exists, resulting in a steeper slope for the ramp. The Park shall work with the concessionaire to provide an elevated loading and unloading zone at the observation tower. They should also work together to ensure that all future accessible trams purchased meet requirements set forth in the ADA Accessibility Guidelines for Transportation Vehicles, including those for scoping, ramps, lifts, space for wheelchair seating and securement.

Assistive listening systems are provided for visitors who have hearing impairments to use during the narrated tram tour. The symbol showing that the system is available is displayed on the entry door to the Visitor Center. It is recommended that it also be displayed at the concessions counter where tram tour tickets are purchased. Staff from both the Park and the concessions company shall receive training regarding the location of the assistive listening system. It shall be clarified which staff is responsible for the operation and maintenance of the equipment.

A pre-recorded audio described tour would not be useful for the Shark Valley tram tour as the wildlife and experience will vary for each trip. However, the staff conducting the narration for the tours should receive training in audio description to understand key elements that should be relayed to visitors who have visual impairments.

## **Visitor Center/Concessions**

### Visitor Center

The operating force of the four exterior doors of the Visitor Center exceeds maximum recommendations at 12 pounds each. While there is no identified standard for the opening force of exterior doors in the accessibility standards, it is recommended as best practice for the Park to adjust the closer on exterior doors to reduce the operating force to as close to 5 pounds as feasible. If this is not possible, investigate the installation of a power assisted or automatic door opener to minimize the potential barrier for an individual with a disability.

The rear deck of the Visitor Center provides viewing opportunities for visitors to get a close-up view of a waterway that is home to alligators, birds and insects. The railing of the deck is at a height that can block the view for individuals who are seated or of short stature. Lowering portions of the railing will allow all visitors to have an equal opportunity to view the landscape and wildlife.

### Concessions

The service counters at the bike rental station, at the tram ticket station and in the gift shop exceed maximum height requirements and are not accessible for individuals who are seated or of short stature. Provide lowered portions of counter space for each of these service areas.

The three vending machines in the concessions area are leased and maintained through a concessionaire. The Dasani vending machine is accessible, but the operating controls for the other two machines exceed maximum reach range requirements. The Park shall work in conjunction with the

concessionaire to provide accessible vending machines (one of each type). Responsibilities of concessionaires to provide accessible features shall be addressed during the annual review of contracts.

### Benches

Consistent with best practices for accessibility, the Park has decided to replace 20 percent of the total number of benches with accessible units in each unique location. Accessible benches shall have a seat height between 17 and 19 inches above the finish floor or ground surface and should have back support and at least one armrest.

There are 12 non-fixed benches located adjacent to the tram ticketing counter where visitors can wait in a shaded area for the tram. None of the benches provide back support and at least one armrest. A total of three benches should be replaced in this area.

There are four fixed benches next to the Visitor Center; none are accessible. A minimum of one accessible bench is recommended for installation in this area.