

Reconstruction Era National Historical Park Accessibility Assessment



Summary Report

Gary Everhardt Park Break Program

July 2023



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Table of Contents

I.	Introduction	3
II.	Reconstruction Era National Historical Park: Overview	3
III.	Gary E. Everhardt Park Break and Assessment Team	4
IV.	REER Facilities	8
V.	Accessibility Laws, Policies, Standards, and Guidelines	9
VI.	Key Findings and Recommendations	9
	a. General Programmatic Accessibility Guidance	9
	i. Visual Accessibility	10
	ii. Auditory Accessibility	11
	iii. Cognitive Accessibility	11
	b. Accessibility Deficiencies	12
	i. Old Beaufort Firehouse (249629)	13
	ii. Beaufort Historic District Landscape Areas (256455)	22
	iii. Darrah Hall (249624)	25
	iv. Darrah Hall Restroom (249625)	35
	v. Darrah Hall Landscape (249626)	45
	vi. Darrah Hall Parking Unpaved (257842)	49
	vii. Capers Creek Trail at Darrah Hall (256675)	50
	viii. Brick Baptist Church (249628)	54
	ix. Penn Center Brick Church Grounds (257201)	59
	x. Old Fort and Camp Saxton Site (Pinckney-Porter's Chapel) (257200)	60
	xi. Camp Saxton (Old Fort) Landscape (Heritage Park) (249630)	74
	xii. Camp Saxton (Old Fort) Landscape (Fort Frederick) (249630)	86
	xiii. Learning Center (256673)	90
VII.	Summary and Conclusion	103

I. Introduction

Located in the beautiful coastal town of Beaufort, South Carolina, the Reconstruction Era National Historical Park (REER) attracts visitors from across the country and around the world. Established in 2017, REER has numerous facilities including: Beaufort Firehouse and the Learning Center in Beaufort; Pinckney-Porter's Chapel and Camp Saxton in Port Royal; and Darrah Hall, Capers Creek Trail, and Brick Baptist Church at Penn Center National Historic Landmark District on St. Helena Island.

The accessibility assessment for Reconstruction Era National Historic Park was conducted by the Clemson University Institute for Parks (CUIP) Gary Everhardt Park Break Program assessment team during a six-day on-site visit, May 15-20, 2023. The objective of this assessment was to identify facility improvements necessary to meet the standards of the Architectural Barriers Act (ABA). The ABA requires that buildings and facilities that are designed, constructed, or altered with federal funds, or leased by a federal agency, comply with federal standards for physical and cognitive accessibility. In addition, the assessment team also utilized federal standards for program access, Section 504 of the 1973 Rehabilitation Act, and National Park Service policy and guidelines, as guiding principles for reviewing REER's programs, activities, and services.

The purpose of this report is to provide detailed findings and recommendations to improve access for REER visitors. The assessment team identified specific physical and programmatic barriers to accessibility for people with disabilities and made recommendations for barrier removal and programmatic improvement. These recommendations also assist park personnel in developing associated work orders and long-term planning objectives. The assessment team specifically looked at four key areas of the park including Darrah Hall at Penn Center, Camp Saxton, the Old Beaufort Firehouse, and the Learning Center in Beaufort.

II. Reconstruction Era National Historical Park: Overview

The Reconstruction Era began during the Civil War and lasted until the dawn of Jim Crow racial segregation in the 1890s. It remains one of the most complicated and poorly understood periods in American history. During Reconstruction, four million African Americans newly freed from bondage, sought to integrate themselves into free society. This included the educational, economic, and political life of the United States during this time. This began in November 1861 in Beaufort County, South Carolina, after Union forces won the Battle at Port Royal Sound and brought the 'Lowcountry' along the South Carolina coast under Union control. More than 10,000 enslaved peoples remained in the area as their enslavers fled the lucrative cotton and rice plantations. The Lincoln Administration initiated the 'Port Royal Experiment' in Beaufort County to support the former enslaved people's transition to self-sufficiency.

III. Gary E. Everhardt Park Break and Assessment Team

The Gary E. Everhardt Park Break is a seven-to-ten-day park-based leadership and service-learning program for graduate students from diverse backgrounds. Applications are solicited prior to the program. Between seven and ten graduate students considering careers in park and cultural site management are selected for participation. Upon arrival, the selected students explore topics of importance to the host park and interact with park researchers, natural and cultural resource managers, and policy makers. The program is focused on providing graduate students with leadership opportunities in parks and protected areas, and is the only graduate-level service, science, and stewardship program that focuses on scientific and other scholarly inquiry in a park managed by the National Park Service (NPS). Since 2008, more than 140 students have participated in the program which is coordinated by the Clemson University Institute for Parks in partnership with the George Wright Society. Below are the biographies of the seven “Everhardt Fellows” and the three faculty facilitators that participated in the 2023 REER program.

Assessment Team



Everhardt Fellows



Ezekiel Adesawe

Ezekiel is a master's student in Clemson University's Department of Parks, Recreation, and Tourism. His primary research interests revolve around outdoor recreation, youth development, wildlife, and conservation management. He employs qualitative research methods to explore topics within these themes using the lenses of constructivism and interpretivism. He loves designing outdoor programs and games for youths.



Jill Brigham

Jill is a M.S. Natural Resources student and teaching assistant with the Environmental Education and Interpretation program at University of Wisconsin Stevens Point. Jill has worked at numerous National Park Service sites in a range of roles. Currently she is researching engagement and curiosity with observational tools in environmental education. Jill has enjoyed family road trips to national parks since she was a child and her interests include visiting museums, natural world exploration, art, and traveling.



Page Bullard

Page is a graduate student at the University of Georgia at Warnell School of Forestry and Natural Resources. She is a recent graduate from the University of North Carolina at Greensboro studying Recreation and Parks Management concentrating in Event Planning with a Minor in Environmental Studies. She hopes to get the opportunity to serve in one of our nation's federal or state parks as a park ranger. She is a mother, United States Air Force Veteran, and retired Roller Derby Champ. In her free time, she enjoys going to the beach, hiking, kayaking, and spending time with friends, family, and her dog Kane.



Georgie Corkery

Georgie is a graduate student in the Department of Environment and Society at Utah State University earning a degree in Ecology. Her academic and research interests involve environmental justice, place attachment, aspen ecology, and queer ecology. She has worked for environmental non-profits doing urban agriculture, policy advocacy, public education, and program development. After earning her degree, she hopes to continue making science and outdoor recreation accessible for everyone.



Paige Fery

Paige is a PhD student in the Department of Parks, Recreation, and Tourism at the University of Utah. Her academic and research interests involve issues related to parks and protected areas, outdoor recreation, and user experiences. She received her master's degree from the University of Colorado Boulder where she focused on public land policy.



Liam Harry

Liam is an M.S. student in the Parks, Tourism, and Recreation Department in the W.A. Franke College of Forestry and Conservation department at the University of Montana. He holds a B.S. in Economics from Westminster College in Salt Lake City, Utah. He focuses his studies on socioeconomic impacts, user experience, and program management related to outdoor recreation in parks and protected areas. He uses quantitative data and analysis to address challenges in outdoor recreation to improve recreation access and sustainable management.



Hunter Lee

Hunter is a master’s student and GRA at Michigan State University in the Department of Community Sustainability. After graduating with a B.S. in Environmental and Plant Sciences from the University of Arizona, Hunter served in the Peace Corps in Senegal and in AmeriCorps in NY. Her interests include issues and outreach pertaining to diversity, equity, and inclusion, climate change, resilience, and community engagement. In her free time Hunter enjoys traveling, volunteering as an EMT, running, working on her motorcycle, and rock climbing.

Faculty Facilitators



Bob Powell

Bob is the Director of the Institute for Parks at Clemson University and the George B. Hartzog, Jr. Endowed Professor in the Department of Parks, Recreation, and Tourism Management. He also has an appointment in the Department of Forestry and Environmental Conservation where he teaches Forest Recreation Management and Planning. His research and outreach program has taken him to over 40 countries and 7 continents and focuses on environmental education and interpretation, park and protected area management, ecotourism, and biodiversity conservation.



Lauren Stephens

Lauren is a Lecturer and the EDGE Coordinator for the Department of Parks, Recreation and Tourism Management at Clemson University. She holds a B.S. in Secondary Education, M.P.W. in Professional Writing, and Ph.D. in Parks, Recreation and Tourism Management, with a Youth Development program focus. She is passionate about student learning and engagement, where her approach to teaching and mentoring is grounded in viewing students as people first and students second. Stephens’ research explores the ways contextual factors, such as relationships and social media, influence student-athletes’ perceptions of body image, eating behaviors, and related symptoms.



Jeff Townsend

Jeff is a graduate of the University of Illinois, receiving his undergraduate degree in May 2004 and a Master’s degree in Recreation, Sport and Tourism with an emphasis in Sport Management in 2006. Prior to coming to Clemson, Townsend worked as an accessibility specialist for the National Center on Accessibility, which is nationally renowned for their expertise and personalized technical assistance on a broad range of issues related to compliance with disability legislation and accessibility standards. Townsend has more than twenty-five years of experience in adapted sport and recreation.

IV. REER Facilities

The following REER facilities and associated programs and services were assessed:

249624	Darrah Hall
249625	Darrah Hall Restroom
249626	Darrah Hall Landscape
249627	Darrah Hall Access Road
249628	Brick Baptist Church
249629	Old Beaufort Firehouse
249630	Camp Saxton (Old Fort) Landscape
256455	Beaufort Historic District Landscape Areas (Planned)
256673	Learning Center (Planned)
256675	Capers Creek Trail (Planned)
256751	Beaufort Historic District and Area
256752	Penn Center National Historic Landmark District
257200	Old Fort and Camp Saxton Site
257201	Penn Center Brick Church Grounds
257842	Darrah Hall Parking Unpaved

V. Accessibility Laws, Policies, Standards, and Guidelines

The National Park Service is legislatively mandated to provide accessible facilities and programs for visitors with disabilities. Based on these mandates, the Clemson University Institute for Parks Gary Everhardt Park Break team utilized the following accessibility standards and guidelines for their assessment for REER:

- Architectural Barriers Act of 1968 and updated 2010 version
- Rehabilitation Act of 1973, Sections 504 and 508
- National Park Service Director’s Order 42
- National Park Service Management Policies: Section 1.9.3 – Accessibility for Persons with Disabilities
- National Park Service Programmatic Accessibility Guidelines for NPS Interpretive Media, Harpers Ferry Center
- National Park Service Audio-Visual Accessibility Initiative for Visitors with Disabilities
- Principles of Universal Design
- Smithsonian Guidelines for Accessible Exhibition Design

VI. Key Findings and Recommendations

Since designation in 2017, REER has rapidly expanded the facilities and programming to preserve and interpret the resources and complex stories associated with Reconstruction in the Beaufort area. REER has successfully established partnerships with a range of organizations and local universities to develop and install temporary (non-permanent) waysides and exhibits across an expanding portfolio of facilities.

This report 1) provides general programmatic guidance as well as 2) identifies any current physical and programmatic accessibility deficiencies associated with each location and provides specific guidance and recommendations (Section VI.B.).

A. General Programmatic Accessibility Guidance:

The accessibility assessment team recognizes that REER has just completed their initial Long Range Interpretive Plan (LRIP) and will now transition from temporary waysides and exhibits to more permanent interpretive assets. REER management is aware of many of these deficiencies and is actively seeking to address accessibility in its services and programs throughout the park. Because of fiscal constraints and limited park resources, REER will need to prioritize programmatic improvements that benefit the greatest numbers of park visitors with disabilities. As outlined in the LRIP, the following accessibility considerations need to be addressed for all informational, wayfinding, exhibit, wayside, and programmatic planning and development:

Visual accessibility

Information provided in only print, graphic, and visual formats is not accessible to people who are blind. Textual and graphic information that is presented should have sufficient font sizes, contrast, and lighting to be accessible to people with low vision. This could include alternative formats such as braille, large print, audio descriptions, or electronic format to accommodate visitors who have low vision or are blind. Additionally, tactile maps and exhibits offer the visually impaired alternative ways of interacting with park resources.

- a. **Typography:** Making fonts accessible requires considering not only type but also: size, line length, leading, letter and word spacing, color, lighting, contrast, etc. Readability of exhibit and wayside labels by visitors with various degrees of visual impairment will be enhanced by following Harper Ferry Interpretive Media guidelines.
- b. **Audio Description:** Audio description describes the visual content of video or multimedia programs and provides individuals who are visually impaired with information that further describes the visual content not provided in the primary audio track. Audio description is a separate audio track synchronized with the program's primary audio track and describes actions, gestures, scene changes, and other visual information.
- c. **Multisensory and Tactile Opportunities:** Multisensory, tactile, and interactive exhibit components provide visitors with visual and cognitive impairments an equal opportunity to understand and benefit from the primary interpretive themes.
- d. **Assistive Listening Systems (ALS):** An assistive listening system is an amplification system utilizing transmitters, receivers, and coupling devices to amplify the volume and bring the sound directly to a person's ear. There are several assistive listening systems and device configurations available that can be tailored to each space requirement.
- e. **Braille:** Publications that are considered "readily available" shall be available in braille and should conform with the currently applicable codes set forth by the Braille Authority of North America (BANA).

Auditory accessibility

For people with hearing loss, closed captioning, and assistive listening systems (ALS) can improve auditory accessibility. ALS are portable or permanent systems that reduce background noise and reverberation, delivering the desired audio directly to the listener's ears or hearing aids.

- f. **Assistive Listening Systems (ALS):** An assistive listening system is an amplification system utilizing transmitters, receivers, and coupling devices to amplify the volume and bring the sound directly to a person's ear. There are several assistive listening systems and device configurations available that can be tailored to each space requirement.
- g. **Captioning:** All programs created after January 2009 must provide open captions or subtitles (SDH) that are displayed on screen at all times.
- h. **Sign Language:** Qualified sign language (and cued speech) interpreters shall be available for scheduled and/or announced tours upon request with reasonable advance notice.

Cognitive Accessibility

Incorporation of interactive features, tactile exhibits, assistive listening devices, and audio described programs not only provide effective communication to visitors who have sensory impairments but may also enhance learning opportunities for visitors with cognitive impairments.

- i. **Accessibility Information and Wayfinding:** The park website provides information about park resources and for trip planning. One key aspect of trip planning for individuals with disabilities is the availability of accessibility services. REER should consider developing an Accessibility Guide, which is an official park brochure that lists services and facilities available for persons with disabilities and describes significant barriers. Parks can take this a step further by producing a specialized Accessibility Site Bulletin with more detailed information pertinent to visitors with disabilities. Template options for bulletins are posted for internal use on NP Gallery. For more information please visit: <https://www.nps.gov/subjects/hfc/publications.htm>. Note that these site bulletins should be in large print size—18-point minimum—and follow the large print size criteria.

B. Accessibility Deficiencies: Summary Table and Detailed Descriptions and Recommendations

Description	Location #	# of Deficiencies	# of Critical Priorities
Old Beaufort Firehouse	249629	7	2
Beaufort Historic District Landscape	256455	3	2
Darrah Hall	249624	9	3
Darrah Hall Restroom	249625	10	5
Darrah Hall Landscape	249626	4	0
Darrah Hall Parking Unpaved	257842	1	0
Capers Creek Trail at Darrah Hall	256675	3	0
Brick Baptist Church	249628	5	4
Penn Center Brick Church Grounds	257201	1	0
Old Fort and Camp Saxton Site (Pinckney-Porter's Chapel)	257200	13	1
Camp Saxton (Old Fort) Landscape (Heritage Park)	249630	10	3
Camp Saxton (Old Fort) Landscape (Fort Frederick)	249630	4	1
Learning Center	256673	11	6

Old Beaufort Firehouse

Entry Door

Location #: 249629

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Vertical change in level

Photo Reference:



Deficiency: The front entry to the Firehouse has several deficiencies. The vertical rise on the brick to the front entrance door is 3 inches. The front entrance also has a temporary ramp outside with a slope of 26.2 percent and a temporary ramp from the exterior door inside of 24.3 percent.

Recommendations: Consult with design and landscape services to design a new ramp with materials in kind to meet minimum requirements for accessibility. Elements of the redesign to take into consideration include, but are not limited to, the following:

The running slope of the new ramp shall not exceed 8.33 percent, and the cross slope shall not exceed 2.08 percent. Provide a minimum 5 feet by 5 feet landing at the top and bottom of the ramp run. The rise for any ramp run shall be 30 inches maximum. Intermediate landings located along a ramp run shall be 60 inches deep minimum and at least as wide as the ramp. The slope of a landing shall not exceed 2.08 percent. The clear width of the ramp shall be 36 inches minimum measured between the handrails.

Handrails shall be installed on both sides of the ramp run at a consistent height between 34 inches and 38 inches above the ramp surface measured to the top of the gripping surface. Handrails shall be continuous within the full length of the ramp run and shall include 12-inch

horizontal extensions at the top and bottom landings. Extensions shall return to a wall, guard, or the landing surface. Ensure that the new handrails comply with the cross-section requirements for a gripping surface. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum.

Edge protection shall be provided on each side of the ramp run and at each side of ramp landings having a vertical drop-off greater than ½ inch. Edge protection can be provided by extending the ground surface 12 inches minimum beyond the inside face of the handrail, or a curb or barrier shall be provided that prevents the passage of a 4-inch diameter sphere, where any portion of the sphere is within 4 inches of the ground surface.

Reference: ABAAS F206.2.2, 302.1, 405.2, 405.3, 405.4

Interior Bench

Location #: 249629

Priority: Critical, Serious, **Minor**

Action: Repair, **Replace**, Remove, Investigate, Perform

Brief Description: Provide accessible bench

Photo Reference:



Deficiency: There is one bench in the main visitor center area. This bench is not fixed. The bench height from floor to sitting area is 16¼ inches. The bench depth is 15½ inches. Due to the height and depth measurement results, this bench does not meet accessibility standards.

Recommendations: In keeping with best practices for Universal Design, the recommendation is that when replacing the existing bench, provide a fully accessible bench. Factors to include are back support and at least one armrest. The back support shall be 2½ inches maximum from the rear edge of the seat measured horizontally. The seat height shall measure between 17 inches

and 19 inches above the ground. The seat depth shall measure between 20 inches deep (minimum) and 24 inches deep (maximum). Ensure that clear ground space measuring 36 inches by 48 inches minimum is positioned near the bench, but not overlapping the path of travel, for companion seating. The slope of the clear ground space shall not exceed 2.08 percent in any direction.

Reference: ABAAS F247.5, 903.3, 903.4, 903.5, 1011

Restroom

Location #: 249629

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Reconfigure restroom

Photo Reference:



Deficiency: The accessible toilet compartment in the bathroom at the Firehouse has multiple deficiencies. The unisex signage on the door for the bathroom does not contain the required raised characters or braille and does not meet the 48 inches height standard. The light switches were measured at 54 inches from the floor to the usable part. The bathroom mirror height was measured at 56¼ inches which does not meet accessibility requirements. The pipes under the sink are not wrapped. The doorway entry and minimum maneuvering clearances at the entry door and swing of the door is impeded by the sink with a minimum clearance of 23 inches which does not meet minimum clear floor space requirement. The rear grab bar exceeds the maximum wall gap requirements at 1¾ inches. The rear grab bar exceeds the maximum height from the finished floor at 37¾ inches. The length of the rear grab bar is less than the minimum acceptable length and was measured at 25 inches long. The side grab bar length is less than the minimum required measuring at 37 inches long. The height from the finished floor measured at 37¾ inches high, which exceeds the maximum height requirement of 36 inches. The coat hook

is installed in the wheelchair accessible toilet compartment at 62 inches, which exceeds the maximum height requirements for accessibility.

Recommendations: Consult with design services to reconfigure the designated accessible restroom in the Firehouse Visitor Center to meet accessibility requirements. When consulting the design services the following accessibility requirements shall be taken into consideration:

Wheelchair accessible compartments shall be 60 inches wide minimum measured perpendicular to the side wall, and 56 inches deep minimum for wall hung water closets and 59 inches deep minimum for floor mounted water closets measured perpendicular to the rear wall.

Provide restroom identification signage for a single user, accessible restroom that includes braille, raised characters, and pictograms, and install the sign onto the wall on the latch side of the doors. Install signage to ensure that the tactile characters are located 48 inches minimum above the ground measured from the baseline of the lowest tactile character and 60 inches maximum above the ground measured from the baseline of the highest tactile character.

Further recommendations include the following: reversing the swing of the door and approach to bathroom door to be a pull door, opening into the common area, with a minimum of 60 inches perpendicular to doorway and 18 inches minimum parallel to doorway, including a clear floor space that is 30 inches, minimum by 48 inches minimum (305.3) with a forward approach from inside the bathroom.

For the water closet, ensure that the centerline of the water closet is 16 inches minimum and 18 inches maximum from the side wall. The seat height of the water closet shall be 17 inches minimum and 19 inches maximum above the finished floor, measured to the top of the seat in the down position.

Install rear and side grab bars in the newly created designated accessible restroom. Ensure that when installing the rear grab bar, the gap between the wall and the bar is 1½ inches. Ensure both the side and rear grab bars in the stall have the top of the gripping surface at 33 inches minimum and 36 inches maximum above the finished floor. When installing the side grab bar, ensure that it measures at least 42 inches long, one end measures 12 inches maximum from the rear wall and the other is 54 inches minimum from the rear wall. The rear bar shall measure 36 inches long and shall extend from the centerline of the toilet 12 inches minimum on one side and 24 inches minimum on the other side.

The sink shall be installed with the front of the higher rim 34 inches maximum above the finished floor or ground while maintaining knee and toe clearance. The sink shall have a toe clearance of 9 inches above the ground surface for a minimum depth of 17 inches and knee

clearance of 27 inches above the ground surface for a minimum depth of 8 inches at the wheelchair space. To avoid injury or burns, water supply and drainage pipes under lavatories and sinks must be insulated, enclosed, or configured to prevent contact and shall cover any sharp or abrasive surfaces.

The bathroom mirror shall be mounted so that the bottom edge of the reflecting surface is 40 inches maximum above the finished floor or ground.

For elements of the restrooms such as the soap dispenser, paper towel dispenser, sharps container, coat hook, etc. where a forward reach is unobstructed, the high forward reach shall be 48 inches maximum, and the low forward reach shall be 15 inches minimum above the finished floor or ground. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches maximum where the reach depth is 20 inches maximum. Where the reach depth exceeds 20 inches, the high forward reach shall be 44 inches maximum, and the reach depth shall be 25 inches maximum.

The toilet paper dispenser shall be installed so it is 7 inches minimum to 9 inches maximum in front of the toilet measured to the centerline of the dispenser. The dispenser's outlet shall be 15 inches minimum to 48 inches maximum above the finished floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. If toilet paper dispensers are installed above the side wall grab bar, the outlet of the toilet paper dispenser must be 48 inches maximum above the finished floor.

Reference: ABAAS F205.1, F216.2, 308.3.1, 309.1, 309.4, 404.2, 603.3, 604.5, 604.7, 604.8.1, 606.3, 606.5, 609.4, 703.1-703.7

Interpretive Services

Location #: 249629

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Portable assistive listening system

Photo Reference: No photo reference.

Deficiency: There is no portable assistive listening system available for visitors with hearing loss who participate in ranger-led walks, talks and tours at the Old Beaufort Firehouse. People with hearing loss must be provided with effective communication and an equal opportunity to participate in the various programs offered to all visitors.

Recommendations: A portable assistive listening system is required to provide effective communication to visitors with hearing loss. Therefore, the park shall acquire a portable FM assistive listening system. Due to concurrent programs and tours that occur at the Old Beaufort Firehouse, a minimum of 20 portable multi-channel assistive listening system receivers (at least 7 shall be hearing-aid compatible) and 3 portable multi-channel transmitters shall be made available at the Old Beaufort Firehouse. The park should determine how many additional transmitters and receivers may be needed based on visitation numbers and the number of concurrent programs at the Old Beaufort Firehouse. Display a sign including the International Symbol of Access for Hearing Loss at the Visitor Contact Station indicating that the assistive listening system is available. Include a notice on the park website when the portable assistive listening system is acquired.

Reference: ABAAS F216.10, 703.5, 703.7.2.4, 706; Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media

Interpretive Exhibits

Location #: 249629

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Redesign of interpretive exhibits

Photo Reference:



Deficiency: There are multiple deficiencies in the presentation of interpretive exhibits and signage at the Old Beaufort Firehouse. The variety of exhibits is heavily visual and textual with no touchable and interactive experiences. These exhibits include the following on the building's exterior; the bench on the north side of the Firehouse, standing park sign for the visitor center, cultural district sign, and two plaques on the Firehouse building. Additionally, the following exhibits are inside the Firehouse: art installation interpretation sign, three wall exhibits, one standing horizontal exhibit, framed Senate resolution on west wall, wall canvas, reconstruction map, two retractable banners, and two waysides. Many of the photos and labels are difficult to

read. The text on much of the exhibit content is too small for the viewing distance. There is no uniform font or size, and insufficient contrast of the text on background. There is also insufficient positioning, glare, and a lack of audio or tactile elements that all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments.

Recommendations: Park management shall work with design services to investigate a comprehensive redesign of interpretive exhibits and panels throughout the exterior of the Old Beaufort Firehouse. When panels and/or exhibits 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 non-uniform text fonts and size), minimal use of italics, contrast between text and background of 70 percent to 95 percent, and the incorporation of audio and tactile elements. Text should not appear over images or in shadow as the stylistic presentation of information can interfere with readability. Additionally, tactile experiences are essential to people with visual impairments and can assist in conveying the interpretive message to many people with cognitive disabilities. Select tactile objects and models that provide a coherent explanation of the exhibition topic and provide an equal opportunity to understand what is displayed in exhibit cases or behind barriers. Include these tactile exhibits in the audio described tour recommended in a separate work order.

Reference: Rehabilitation Act of 1973, as amended, Section 504; Programmatic Accessibility Guidelines for NPS Interpretive Media; Smithsonian Guidelines for Accessible Exhibition Design; NPS Director's Order #42

Interpretive Exhibits

Location #: 249629

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Audio description

Photo Reference: No photo reference.

Deficiency: The existing visual elements and features at the Old Beaufort Firehouse and surrounding grounds do not have corresponding audio components or audio description. This presents a barrier to full participation for visitors who are blind or have low vision, and for some individuals with cognitive impairments. While the park does offer ranger led tours it does not provide a comprehensive audio described tour of the Firehouse's interpretation for the standing park sign for the visitor center, cultural district sign, plaques on the Firehouse building, art installation interpretation sign, three wall exhibits, one standing horizontal exhibit, framed

senate resolution on west wall, wall canvas, reconstruction map, two retractable banners, two waysides, and self-guided tour information provided in the park unigrid brochure and mobile application.

Recommendations: The park shall work with a consultant to develop and record a script that will incorporate the visual elements of the Old Beaufort Firehouse into a comprehensive audio described tour. Be sure to include the following elements in development of the script: a general orientation to the site, grounds, and landscape; tactile maps and models (i.e., supplemental work orders); waysides; photos and text on interpretive exhibits; and exhibit items in display cases. The consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (i.e., so that visitors can explore their surroundings tactilely), is able to be independently operated, and is hearing-aid compatible. Equipment shall be made available at Old Beaufort Firehouse. Display signage at Old Beaufort Firehouse indicating that audio description is available and include a notice on the park website when the program is obtained.

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media; NPS Director's Order #42

Map

Location #: 249629

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Three-dimensional map

Photo Reference: No photo reference.

Deficiency: A map is not available in a tactile format to communicate the location and scope of the Park's properties for visitors who are blind, have low vision, or those with cognitive impairments.

Recommendations: The park shall work with a consultant to design and produce a scale three-dimensional map of Old Beaufort Firehouse and the surrounding points of interest to effectively communicate locations of key attractions, topography, and features to visitors who are blind, have low vision or cognitive impairments. The tactile map shall include a "you are here" method of orientation to the location of Old Beaufort Firehouse in relation to other park features and landmarks. A variety of textures should be used to distinguish between different park features and landscapes, such as bodies of water, natural surface recreation and special

event areas, roads, and memorial properties. The map shall include components such as raised lines and scale orientation options. The map material should be able to withstand high visitor use, be comfortable to the touch (i.e., be able to withstand temperature extremes), and be finished with a coating that allows for routine cleaning. Any text used to communicate essential information shall incorporate accessible font size and type, shall be sans serif or simple serif, and shall be large enough to convey the information to the widest range of visitors with and without visual impairments. Any incorporated text shall be accompanied by Grade 2 contracted braille. It is recommended that the three-dimensional map is not larger than the average adult arm span (approximately 4 feet) for an individual to explore the entire map from a central, stationary position. Ensure that the map is designed and installed in a manner that complies with the accessible reach range, as identified in ABAAS 308. Reach range shall be measured to the furthest tactile map component, measured from the edge of the associated clear ground space. A level clear ground space measuring 30 inches by 48 inches minimum shall be provided at the front, center of the map, positioned for a forward approach. Allow for a knee clearance that is a minimum of 36 inches wide and 27 inches clear height above the floor or ground surface. Where it does not create a hazard for persons with low vision, 29 inches high knee space is recommended for wheelchair users. The tactile map shall be made available in a location that is determined by park management to be a primary site of visitor arrival/pedestrian traffic associated with Old Beaufort Firehouse. Include the tactile map in the comprehensive audio described tour of the park (separate work order).

Reference: ABAAS 306, 308; Rehabilitation Act of 1973, as amended, Section 504; Smithsonian Guidelines for Accessible Exhibition Design; Programmatic Accessibility Guidelines for NPS Interpretive Media

Beaufort Historic District Landscape Areas

Exterior Stormwater Grate

Location #: 256455

Priority: Critical, Serious, Minor

Action: Repair, Replace, Remove, Investigate, Perform

Brief Description: Grade accessible route

Photo Reference:



Deficiency: The north side accessible route to the Old Beaufort Firehouse has two drainage grates with openings 1½ inches wide. The openings to the drainage grates run parallel with the path of travel. There is no detectable warning present.

Recommendations: Grade the sub-base and replace the existing concrete path. When grading and replacing the concrete path, ensure that the cross slope along this route does not exceed 2.08 percent, the running slope does not exceed 5 percent, and that there are no changes in level in the ground surface greater than ¼ inch high.

In addition, detectable warnings shall consist of a surface of truncated domes and shall comply with ABAAS 705. Truncated domes in a detectable warning surface shall have a base diameter of 1-inch minimum and 1⅝ inches maximum, a top diameter of 50 percent of the base diameter minimum to 65 percent of the base diameter maximum, and a height of ¼ inch. Truncated domes in a detectable warning surface shall have a center-to-center spacing of 1⅝ inches minimum and 2⅝ inches maximum, and a base-to-base spacing of ¾ inch minimum, measured between the most adjacent domes on a square grid. Detectable warning surfaces shall contrast visually with adjacent walking surfaces either light-on-dark, or dark-on-light.

Reference: ABAAS 302.3, 705.1.1, 705.1.2, 705.1.3

Sidewalk

Location #: 256455

Priority: Critical, Serious, Minor

Action: Repair, Replace, Remove, Investigate, Perform

Brief Description: Accessible route

Photo Reference:



Deficiency: The accessible route on the east side of the Old Beaufort Firehouse has multiple deficiencies. The maximum running slope of the curved sidewalk was measured to be 8.1 percent and the cross slope was 4.8 percent. The sidewalk section with non-compliant slope from brick pavers to 45 feet 3 inches to the curve had a width of 71 inches. The vertical change in the level of the sidewalk at 21 feet was 1¼ inches.

Recommendations: Replace the sidewalk and grade the ground surface. When grading, ensure the concrete sidewalk cross slope does not exceed 2.08 percent, running slope does not exceed 5 percent, and that there are no changes in level in the ground surface greater than ¼ inch high.

Reference: ABAAS 303, 403.3, 403.4

Sidewalk

Location #: 256455

Priority: Critical, **Serious**, Minor

Action: **Repair**, Replace, Remove, Investigate, Perform

Brief Description: Accessible route

Photo Reference:



Deficiency: There was a vertical change in the sidewalk level on the north side of the building near the street with vertical change in the level of the sidewalk of 1 inch, which exceeds maximum requirements. This vertical change in sidewalk had a width up to 3¼ inches and was 32¾ inches in length, which also exceeds maximum requirements for opening on ground surfaces.

Recommendations: Grade the concrete sidewalk slabs to ensure that the cross slope along this route does not exceed 2.08 percent, running slope does not exceed 5 percent, and that there are no changes in level in the ground surface greater than ¼ inch high. Fill in the gap in the concrete between concrete sidewalk pavement slabs on the north side of the Old Beaufort Firehouse to ensure that the openings do not allow passage of a sphere more than ½ inch in diameter.

Reference: ABAAS 302.3, 303.2

Darrah Hall

Front Entry Steps

Location #: 249624

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Close stair risers, add compliant handrail

Photo Reference:



Deficiency: Stairs with open risers do not meet accessibility requirements. All five stairs have open risers. The handrail on the front porch is 9¼ inches from nosing to the end of edge of the handrail.

Recommendations: Close in open risers at the front porch. The handrail gripping surface shall be continuous along the length of the stair flight and shall not be obstructed along the top or sides. The bottom of the handrail gripping surface shall not be obstructed for more than 20 percent of the total length of the handrail. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. At the top of the stair flight, the handrails shall extend horizontally above the landing for 12 inches minimum above the first riser nosing. At the bottom of a stair flight, the handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extensions shall return to a wall, guard, or the landing surface.

Reference: ABAAS F210, 504.3, 504.6, 505

Front Porch Railing

Location #: 249624

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Add front porch edge protection

Photo Reference:



Deficiency: The perimeter railing system of the front porch at Darrah Hall is unprotected and does not provide edge protection (46 feet 9 inches).

Recommendations: Install additional brass material to cover the openings on rails at the front porch of Darrah Hall. This will reduce the security risks. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1½ inches minimum. The handrail gripping surface shall be continuous along its length and shall not be obstructed along its top or sides. The bottom of the handrail gripping surface shall not be obstructed for more than 20 percent of its length. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum.

Reference: ABAAS 504

Ramp

Location #: 249624

Priority: Critical, Serious, Minor

Action: Repair, **Replace**, Remove, Investigate, Perform

Brief Description: Ramp and add handrails

Photo Reference:



Deficiency: On the north side of Darrah Hall, there is a ramp 42 feet 7 inches long. The slope of the ramp varied with the highest measurement of 10.6 percent running slope, which does not meet accessibility requirements for a ramp. Additionally, neither side of the ramp has the required handrails.

Recommendations: Remove and replace the existing wood ramp. The slope needs to be corrected so that the maximum slope is 8.33 percent or less. The running slope of the new ramp shall not exceed 8.33 percent, and the cross slope shall not exceed 2.08 percent. Provide a minimum 5 feet by 5 feet landing at the top and bottom of the ramp run. The rise for any ramp run shall be 30 inches maximum. Intermediate landings located along a ramp run shall be 60 inches deep minimum and at least as wide as the ramp. The slope of a landing shall not exceed 2.08 percent. The clear width of the ramp shall be 36 inches minimum measured between the handrails.

Purchase and install two compliant handrails into the wooden surface on each side of the ramps. Handrails are required on both sides of a ramp that serve as part of an accessible route. Each handrail shall be an approximated total length of 44 feet 7 inches long on each side. The top gripping surface of handrails shall be 34 inches minimum and 38 inches maximum vertically above the ramp surface. The handrail gripping surfaces shall be continuous along their length and shall not be obstructed along the tops or sides. The bottom of the handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section

dimension of 2¼ inches maximum. At the top and bottom of a ramp run, the handrail shall extend horizontally above the landing for 12 inches minimum. Extensions shall return to a wall, guard, or landing surface.

Reference: ABAAS F206.2.2, 405, 505

Side Entry Stairs

Location #: 24624

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Add compliant handrails, repair riser height

Photo Reference:



Deficiency: Both hand railings at the bottom of the stairs extended 8¼ inches beyond the last riser nosing with a tread of 11½ inches. The hand railing on the top of the stairs does not extend to 12 inches and is not continuous on both sides. The bottom riser was not uniform in height with other stairs.

Recommendations: At the top of a stair flight, handrails on both sides shall extend horizontally above the landing for 12 inches minimum beginning directly above the first riser nosing. Move the railing inward toward the center of stairs and wrap the top of the railing around the top posts. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth of 11½ inches beyond the last riser nosing. Extension shall return to the landing surface. All steps on a flight of stairs shall have uniform riser heights and uniform tread depths. General maintenance to clear the area of the bottom riser height of 6¼ inches.

Reference: ABAAS 504, 505

Interpretive Exhibits

Location #: 249624

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Redesign of interpretive exhibits

Photo Reference:



Deficiency: There are multiple deficiencies associated with the interpretive exhibits at Darrah Hall. The exhibits are heavily visual and textual with no touchable and interactive experiences. These exhibits include the four glass case exhibit boxes, four standing informational boards, two four-panel informational panels, one vertical retractable banner, and seven wall posters. The text on much of the exhibit content is too small for the viewing distance. There is non-uniform font, size, and insufficient contrast of text on background. There is also insufficient positioning and lack of audio or tactile elements that create barriers to effective

communication for persons with low vision, or individuals who are blind or have cognitive impairments.

Recommendations: Park management shall work with design services to investigate a comprehensive redesign of interpretive exhibits and panels throughout Darrah Hall. When panels and/or exhibits are replaced, ensure that the information is presented in a way that is accessible to the widest range of visitors and follows NPS. Things to consider in interpretive design include the use of sans serif or simple serif fonts (i.e., as opposed to non-uniform text fonts and size), minimal use of italics, contrast between text and background of 70 percent to 95 percent, and the incorporation of audio and tactile elements. Text should not appear over images or in shadow as the stylistic presentation of information can interfere with readability. Additionally, tactile experiences are essential to people with visual impairments and may assist in conveying the interpretive message to many people with cognitive disabilities. Select tactile objects and models that provide a coherent explanation of the exhibition topic and provide an equal opportunity to understand what is displayed in exhibit cases or behind barriers. Touchable models or reproductions of items central to the interpretive story shall be considered. Include these tactile exhibits in the audio described tour recommended in a separate work order.

Reference: Rehabilitation Act of 1973, as amended, Section 504; Programmatic Accessibility Guidelines for NPS Interpretive Media (2019); Smithsonian Guidelines for Accessible Exhibition Design; NPS Director's Order #42

Interpretive Exhibits

Location #: 249624

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Obtain portable assistive listening system

Photo Reference: No photo reference.

Deficiency: There is no portable assistive listening system available for visitors with hearing loss who participate in ranger-led walks, talks and tours at Darrah Hall. People with hearing loss must be provided with effective communication and an equal opportunity to participate in the various programs offered to all visitors.

Recommendations: A portable assistive listening system is required to provide effective communication to visitors with hearing loss. Therefore, the park shall acquire a portable FM assistive listening system. Due to concurrent programs and tours that occur at Darrah Hall, a minimum of 20 portable multi-channel assistive listening system receivers (at least seven shall

be hearing-aid compatible) and three portable multi-channel transmitters should be made available at Darrah Hall. The park should determine how many additional transmitters and receivers may be needed based on visitation numbers and the number of concurrent programs at Darrah Hall. Display a sign including the International Symbol of Access for Hearing Loss at the Visitor Contact Station indicating the assistive listening system is available. Include a notice on the park website when the portable assistive listening system is acquired.

Reference: ABAAS F216.10, 703.5, 703.7.2.4, 706; Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media

Printed Materials

Location #: 249624

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Acquisition of alternate format publications

Photo Reference: No photo reference.

Deficiency: The printed NPS publications, including the primary site brochure for Darrah Hall and interpretive handouts are not provided in alternate formats.

Recommendations: Provide primary publications that are considered "readily available," like the official park brochure, newspapers, and site bulletins in all alternate formats including contracted (Grade 2) braille, large print for visitors with low vision, and audio and electronic versions for visitors who are blind. Alternate format publications shall be available for visitors to take with them, just as the standard unigrid brochure. Any electronically available document produced in pdf format, which is not always accessible, also needs to be produced in plain text format to ensure that all screen reader software can access the information. Publications provided in electronic format shall be included on the park's website. Develop a procedure for translating content of secondary brochures to alternate formats and insert a statement in those publications indicating "alternate formats of this publication are available upon request."

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Director's Order #42; Programmatic Accessibility Guidelines for NPS Interpretive Media

Interpretive Exhibits

Location #: 249624

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Addition of audio description and equipment

Photo Reference:



Deficiency: The existing visual elements and features within Darrah Hall and surrounding grounds do not have corresponding audio components or audio description. This presents a barrier to full participation for visitors who are blind or have low vision, and for some individuals with cognitive impairments. While the park does offer ranger-led tours it does not provide a comprehensive audio described tour of Darrah Hall's interpretation including the 4 glass case exhibit boxes, 4 standing informational boards, 2 four-panel informational panels, 1 vertical retractable banner, 7 wall posters and self-guided tour information provided in the park unigrid brochure and mobile application. The video planning at Darrah Hall includes open

captioning that is 3¼ inches in height, which limits the audio description necessary for visitors who have visual and cognitive impairments to gain an equal understanding of the subject matter.

Recommendations: The park shall work with a consultant to develop and record a script that will incorporate the visual elements of the Darrah Hall into a comprehensive audio described tour. Be sure to include the following elements in development of the script: a general orientation to the site, grounds, and landscape; tactile maps and models (i.e., supplemental work orders); waysides; photos and text on interpretive exhibits; and exhibit items in display cases. The consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (i.e., so that visitors can explore their surroundings tactilely), is able to be independently operated, and is hearing-aid compatible. Equipment shall be made available at Darrah Hall. Display signage at Darrah Hall indicating that audio description is available and include a notice on the park website when the program is obtained.

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media; NPS Director's Order #42

Map-Wayfinding

Location #: 249624

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Design and production of three-dimensional map

Photo Reference: No photo reference.

Deficiency: A map is not available in a tactile format to communicate the location and scope of the park's properties for visitors who are blind, have low vision, or those with cognitive impairments.

Recommendations: The park shall work with a consultant to design and produce a scale three-dimensional map of Darrah Hall and the surrounding points of interest to effectively communicate locations of key attractions, topography, and features to visitors who are blind, have low vision or cognitive impairments. The tactile map should include a "you are here" method of orientation to the location of Darrah Hall in relation to other park features and landmarks. A variety of textures should be used to distinguish between different park features and landscapes, such as bodies of water, natural surface recreation and special event areas, roads, and memorial properties. The map should include components such as raised lines and

scale orientation options. The map material should be able to withstand high visitor use, be comfortable to the touch (i.e., be able to withstand temperature extremes), and be finished with a coating that allows for routine cleaning. Any text used to communicate essential information shall incorporate accessible font size and type, shall be sans serif or simple serif, and shall be large enough to convey the information to the widest range of visitors with and without visual impairments. Any incorporated text shall be accompanied by Grade 2 contracted braille. It is recommended that the three-dimensional map's size not be larger than the average adult arm span (about 4 feet) for an individual to explore the entire map from a central, stationary position. Ensure the map is designed and installed to comply with accessible reach range, as identified in ABAAS 308. Reach range shall be measured to the furthest tactile map component, measured from the edge of the associated clear ground space. A level clear ground space measuring 30 inches by 48 inches minimum shall be provided at the front, center of the map, positioned for a forward approach. Allow for a knee clearance that is a minimum of 36 inches wide and 27 inches clear height above the floor or ground surface. Where it does not create a hazard for persons with low vision, 29 inches high knee space is recommended for wheelchair users. The tactile map shall be made available in a location that is determined by park management to be a primary site of visitor arrival/pedestrian traffic associated with Darrah Hall. Include the tactile map in the comprehensive audio described tour of the park (separate work order).

Reference: ABAAS 306, 308; Rehabilitation Act of 1973, as amended, Section 504; Smithsonian Guidelines for Accessible Exhibition Design; Programmatic Accessibility Guidelines for NPS Interpretive Media

Darrah Hall Restroom

Men's Restroom

Location #: 249625

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Lower soap dispensers

Photo Reference:



Deficiency: In the men's restroom two of the soap dispensers were measured 16 $\frac{5}{8}$ inches above the sink counter. The height of the counter is 34 $\frac{5}{8}$ inches, which brings the total height of the soap dispenser from the floor to 51 $\frac{1}{4}$ inches. This exceeds the 44-inch maximum height.

Recommendations: Lower the two soap dispensers 7 $\frac{1}{4}$ inches towards the sink so that the height for forward reach is 44 inches maximum and the reach depth is 25 inches maximum.

Reference: ABAAS 308.2.2

Men's Restroom

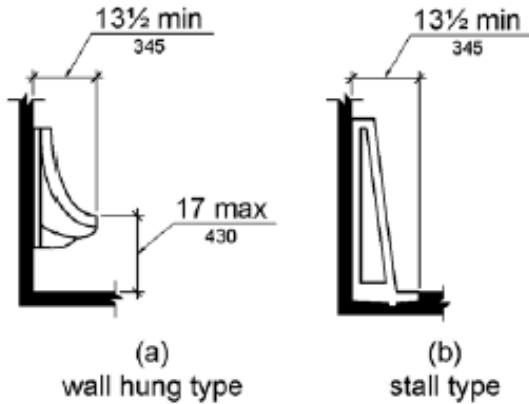
Location #: 249625

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Lower urinal unit

Photo Reference:



Deficiency: The wall hung urinal in the men's restroom at the Darrah Hall Men's Restroom area exceeds maximum height requirements of 17 inches maximum at 23½ inches above the finish floor to the top of the rim. In addition, the flush handle is 53 inches tall, which does not meet accessibility requirements.

Recommendations: Remove and lower the wall hung porcelain urinal so that the rim is 17 inches maximum above the finish floor. Ensure during reinstallation that the depth of the urinal, measured between the wall and outer surface of the rim, is maintained at 13½ inches minimum.

Reference: ABAAS F213.3.3, 605.2

Men's Restroom

Location #: 249625

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: men's wheelchair accessible toilet compartment

Photo Reference:



Deficiency: The wheelchair accessible toilet compartment in the men's restroom at the Darrah Hall has multiple deficiencies. The water closet seat exceeds maximum distance requirements at 18½ inches from the side wall to the centerline of the toilet. The latch hook on the toilet compartment door is not operable with one hand and requires tight grasping, pinching, or twisting of the wrist.

Recommendations: Remove and reinstall the wall mounted water closet in the men's restroom wheelchair accessible toilet compartment so that the centerline of the water closet is 16 inches minimum and 18 inches maximum from the side wall. Also ensure that the seat height remains 17 inches minimum and 19 inches maximum above the finished floor. Replace the door latch with an accessible lock mechanism that is operable with one hand and does not require tight grasping, pinching, or twisting of the wrist.

Reference: ABAAS 309.4, 604.2, 604.7

Men's Restroom

Location #: 249625

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Lower sharps container

Photo Reference:



Deficiency: The Sharp Safety container was measured at 54¾ inches from the floor to the usable portion of the container which does not meet accessibility requirements for reach range.

Recommendations: Because the Sharp Safety container is a forward reach that is unobstructed, the high forward reach to where the Sharp Safety container is accessed shall be 48 inches maximum above the finished floor.

Reference: ABAAS 308.2.1

Men's Restroom

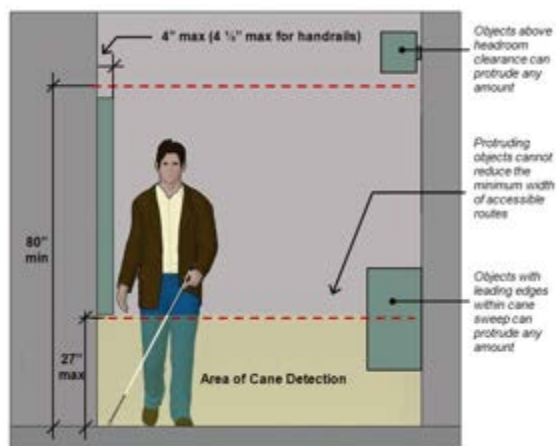
Location #: 249625

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Lower fire extinguisher

Photo Reference:



Deficiency: The bottom of the fire extinguisher was measured at 30 inches above the floor and 5½ inches away from the wall, protruding into the path of travel. A protruding object is an accessibility deficiency when the object protrudes more than 4 inches into the path of travel above 27 inches from the finished floor or ground surface.

Recommendations: Remove the fire extinguisher from the wall and lower it so that the bottom of the fire extinguisher is no higher than 27 inches from the floor. Objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground shall protrude 4 inches maximum horizontally into the circulation path. When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact.

Reference: ABAAS 307.2

Women's Restroom

Location #: 249625

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Lower sharps container

Photo Reference:



Deficiency: The Sharp Safety container was measured at 54½ inches from the floor to the usable portion of the container, which does not meet accessibility requirements for reach range.

Recommendations: Because the Sharp Safety container is a forward reach that is unobstructed, the high forward reach to where the Sharp Safety container is accessed shall be 48 inches maximum above the finished floor.

Reference: ABAAS 308.2.1

Women's Restroom

Location #: 249625

Priority: Critical, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Women's wheelchair accessible toilet compartment

Photo Reference:



Deficiency: The wheelchair accessible toilet compartment in the women's restroom at the Darrah Hall has multiple deficiencies. The water closet seat exceeds maximum distance requirements at 18½ inches from the side wall to the centerline of the toilet. The rear grab bar exceeds maximum wall gap requirements at 1¾ inches. The coat hook is installed in the wheelchair accessible toilet compartment at 65½ inches, which exceeds the maximum height requirements for accessibility.

Recommendations: Remove and reinstall the wall mounted water closet in the women's restroom wheelchair accessible toilet compartment so that the centerline of the water closet is 16 inches minimum and 18 inches maximum from the side wall. Also ensure that the seat height remains 17 inches minimum and 19 inches maximum above the finished floor. Ensure when installing the rear grab bar, that the gap between the wall and the bar is 1½ inches. Ensure both the side and rear grab bars in the stall have the top of the gripping surface is 33 inches minimum and 36 inches maximum above the finish floor. Ensure that when reinstalling the side grab bar, one end measures 12 inches maximum from the rear wall and the other is 54 inches minimum from the rear wall. The rear bar shall extend from the centerline of the toilet 12 inches minimum on one side and 24 inches minimum on the other side. Remove and reinstall the coat hook so that the high forward reach to the top of the hook is 48 inches maximum above the finish floor.

Reference: ABAAS 604.2, 604.4, 604.5, 604.8.3, 609.4

Women's Restroom

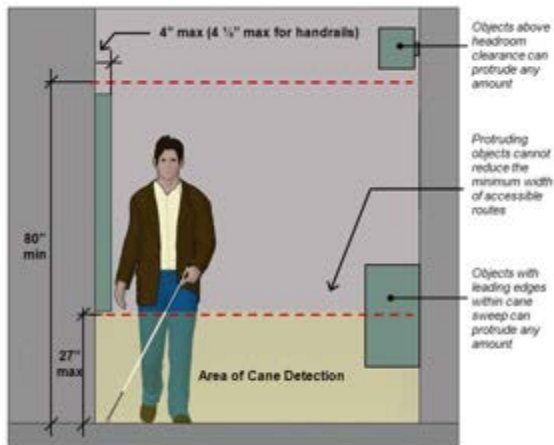
Location #: 249625

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, **Remove**, Investigate, Perform

Brief Description: Lower fire extinguisher

Photo Reference:



Deficiency: The bottom of the fire extinguisher was measured at 30 inches above the floor and 5½ inches away from the wall, protruding into the path of travel. A protruding object is an accessibility deficiency when the object protrudes more than 4 inches into the path of travel above 27 inches from the finished floor or ground surface.

Recommendations: Remove the fire extinguisher from the wall and lower it so that the bottom of the fire extinguisher is no higher than 27 inches from the floor. Objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground shall protrude 4 inches maximum horizontally into the circulation path. When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact.

Reference: ABAAS 307.2

Drinking Fountain

Location #: 249625

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Drinking fountain

Photo Reference:



Deficiency: The drinking fountain outside of the restroom building at Darrah Hall is only a single, high unit. There is no low unit for individuals of short stature, individuals who use a wheelchair, or for children.

Recommendations: Install a drinking fountain that meets the requirement for a low drinking fountain unit. Knee clearance for the low unit shall be 27 inches minimum above the ground, and the spout height of the low unit shall be 36 inches maximum above the ground. Ensure that the existing high unit continues to have a spout height of 38 inches to 43 inches above the ground. Ensure controls do not require tight grasping, pinching, or twisting of the wrist, and do not require more than 5 pounds of force to operate.

Reference: ABAAS F211.2, 307, 309.4, 602

Exterior

Location #: 249625

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide compliant restroom signage

Photo Reference:



Deficiency: Signage for the men’s and women’s restrooms at the Darrah Hall restroom does not contain the required raised characters, braille, or the International Symbol for Accessibility.

Recommendations: Purchase restroom identification signage for the men’s and women’s restrooms that include braille, raised characters, and pictograms and install the signs onto the wall on the latch side of the doors. Install signage to ensure that the tactile characters are located 48 inches minimum above the ground measured from the baseline of the lowest tactile character and 60 inches maximum above the ground measured from the baseline of the highest tactile character. Because these restrooms do not meet accessibility standards, the International Symbol for Accessibility should not be included on these signs up until the time when these restrooms meet the requirements for a wheelchair accessible restroom.

Reference: ABAAS F216.2, 703.1-703.5

Darrah Hall Landscape

Exterior Restroom Bench

Location #: 249626

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Add two accessible benches

Photo Reference:



Deficiency: There are two non-fixed plastic benches outside the Darrah Hall restroom building, one on the women's restroom side and one on the men's restroom side. Neither of these benches have an armrest.

Recommendations: In keeping with best practices for Universal Design, the recommendation is that when replacing the existing benches, provide 100 percent accessible benches within a given area. Until the park decides to remove existing benches, the recommendation is to add two new accessible benches and install them outside the restroom building. Accessible benches shall have back support, at least one armrest and a seat height between 17 inches and 19 inches above the ground. Benches shall have a seat depth between 20 inches deep minimum and 24 inches deep maximum. The back support shall be 2½ inches maximum from the rear edge of the seat measured horizontally. Accessible benches shall be installed on an accessible route. Ensure that clear ground space measuring 36 inches by 48 inches minimum is positioned near the bench, but not overlapping the path of travel, for companion seating. The slope of the clear ground space shall not exceed 2.08 percent in any direction.

Reference: ABAAS F247.5, 903.3, 903.4, 903.5, 1011; Rehabilitation Act of 1973, as amended, Section 504

Accessible Route to Parking

Location #: 249626

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Install accessible route from parking

Photo Reference:



Deficiency: There is no accessible route from the proposed accessible parking to the existing pedestrian accessible route in front of Darrah Hall.

Recommendations: Park management shall install an accessible route from the proposed access aisle in the designated parking area to the existing pedestrian accessible route in front of Darrah Hall. Grade the affected area and resurface with in-kind materials so that the cross slope of the route does not exceed 2.08 percent and the running does not exceed 5 percent. The accessible route from the proposed accessible parking would be 51 feet 11 inches long by 60 inches wide from the back of the proposed access aisle adjoining the proposed accessible parking to the existing front sidewalk. The clear width of walking surfaces shall be 36 inches minimum.

Reference: ABAAS F206.2.1, 302.1, 402.2, 403.3, 403.5.1

Picnic Area

Location #: 249626

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Add an accessible picnic table

Photo Reference:



Deficiency: There are 9 non-fixed wood picnic tables provided around Darrah Hall for visitor use. Only one of the tables meets accessibility recommendations, and none of the tables are on an outdoor recreation access route or provide a firm and stable surface around the table.

Recommendations: Provide a minimum of two accessible picnic units at Darrah Hall. Where picnic facilities contain more than two picnic units, at least 20 percent but not less than two of the units shall be accessible. Disperse the two new accessible picnic units accordingly to provide choices of picnic units comparable to, and integrated with, those available to others (i.e., near restroom facilities, shade, etc.).

Purchase of one accessible rectangle picnic table with an overhang that provides toe clearance of 9 inches above the ground surface for a minimum depth of 17 inches and knee clearance of 27 inches above the ground surface for a minimum depth of 8 inches at the wheelchair space. Ensure table braces, bolts, etc. do not impede the required toe and knee clearance. Ensure the new table provides at least one wheelchair space for each 24 linear feet of usable table surface perimeter. Wheelchair spaces shall be 30 inches minimum by 48 inches minimum positioned for a forward approach to the table. The accessible tables shall be located on an outdoor recreation access route and shall provide 36 inches minimum clear space along all usable sides of the table measured from the back edge of the benches.

Reference: ABAAS F245, 306, 1011.2, 1011.4, 1016; Rehabilitation Act of 1973, as amended, Section 504

Wayside

Location #: 249626

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Move existing wayside

Photo Reference:



Deficiency: The height of the wayside outside of Darrah Hall is 31½ inches, which does not meet the minimum requirement of 32 inches.

Recommendations: Remove the existing movable wayside outside of Darrah Hall. Find a stable surface that meets the recommended height of waysides at 32 inches from the bottom of the wayside frame to the ground surface.

Reference: Rehabilitation Act of 1973, as amended, Section 504; Programmatic Accessibility Guidelines for NPS Interpretive Media

Darrah Hall Parking Unpaved

Parking

Location #: 257842

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Install accessible parking and signage

Photo Reference:



Deficiency: There is no current existing designated accessible parking.

Recommendations: Park management shall configure the vehicular parking at Darrah Hall to provide one van accessible parking space that is 8 feet wide with an accompanying access aisle that is 8 feet wide that can access the sidewalk. The sidewalk adjacent to accessible parallel parking spaces shall be free of signs, street furniture, and other obstructions to permit the deployment of a van side-lift or ramp or for the vehicle occupant to transfer to a wheelchair or scooter. The van accessible parking space should be located where there is existing parking, with the access aisle directly connected to the current sidewalk in position to the right of the van accessible parking space. The access aisles shall be 8 feet wide and shall extend the full length of the parking space and connect to a pedestrian accessible route. The access aisle shall not encroach on the vehicular travel lane. Install signage with one van accessible designated parking sign. The bottom of the sign shall be 60 inches minimum above the ground surface measured and installed centered at the head of the parking space.

Reference: ABAAS F208.1, F208.2.4, 502

Capers Creek Trail at Darrah Hall

Trail

Location #: 256675

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide an accessible trail

Photo Reference:



Deficiency: The trail surface is unstable and is not accessible for people with mobility issues. The second issue is that the trailhead sign does not provide required detailed information.

Recommendations: Currently the trail is in development and is a “backcountry” trail that is not accessible for people with mobility issues. The park should consider hardening the walking surface to conform to ABAAS accessibility standards. Suggestions for providing a firm and stable walking surface include framing the trail edges of the trail with 2-inch by 6-inch pressure treated lumber and filling the trail with “crusher run” gravel at a depth of 4 inches.

Note to park personnel for specific trail distances:

Darrah Hall parking lot to trailhead: 549 feet

Trailhead to first benches: 233 feet

First benches to second set of benches and table: 598 feet

Second benches to trail spur to dilapidated observation deck: 41 feet

Observation deck spur to Penn Center Dock: 354 feet

Penn Center Dock to Penn Center Butler House: 1400 feet

Butler House to Darrah Hall Driveway entrance: 543 feet

Darrah Hall driveway to Darrah Hall parking lot: 431 feet

Total round trip: 4149 feet

Reference: ABAAS 1017.2, 1017.10

Trail Benches

Location #: 256675

Priority: Critical, Serious, **Minor**

Action: Repair, **Replace**, Remove, Investigate, Perform

Brief Description: Provide accessible benches

Photo Reference:



Deficiency: There are four wooden benches along the trail behind Darrah Hall. None of these benches have an armrest or back support.

Recommendations: In keeping with best practices for Universal Design, the Park has decided that when replacing the existing benches, provide 100 percent accessible benches within a given area. Remove the four existing wood benches and purchase four new accessible benches and install them along the Capers Creek Trail at Darrah Hall. Accessible benches shall have back support, at least one armrest and a seat height between 17 inches and 19 inches above the

ground. Accessible benches shall be installed on an accessible route. Ensure that clear ground space measuring 36 inches by 48 inches minimum is positioned near the bench, but not overlapping the path of travel, for companion seating. The slope of the clear ground space shall not exceed 2.08 percent in any direction.

Reference: ABAAS 903.4, 903.5, 1011; Rehabilitation Act of 1973, as amended, Section 504

Trail Signage and Wayfinding

Location #: 256675

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide trail signage

Photo Reference:



Deficiency: Current trailhead sign does not have required information.

Recommendations: While the installation of accessible trailhead signs is triggered only when new trail signs are being installed, it is recommended as a best practice that the park conduct a comprehensive trail sign development plan. Sign standards require a comprehensive approach to effectively communicating trailhead information. In addition to required information, information should be delivered multi-modally. Text should have a high contrast from the background. The upright panel provides information visually. The horizontal panel provides the same information tactilely, with braille and textures to differentiate areas. Speakers on the front edge deliver audio descriptions on demand to provide information aurally.

This development plan would ultimately determine the design, construction, and installation of trail signs for each of the trails in the park. Providing information in the form of trailhead

signage allows visitors to determine for themselves whether they have the ability to traverse the trail based on its technical specifications. The minimum recommendations for information provided on accessible trailhead signs include: 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. It is helpful to provide additional information such as seating options along the trail, shade provided, and accessible amenities (i.e., accessible restrooms, drinking fountains, trash receptacles). These trail signs should be consistent throughout the park.

Trailhead signs should be installed at the beginning of each of the trails and should contain a clear ground space that measures 30 inches by 48 inches positioned for either a forward or parallel approach to the sign. Clear ground space shall be firm, stable and slip resistant, and should not exceed 2.08 percent slope in any direction. It is recommended that the accessible trailhead signs be installed after the trail renovations take place (i.e., separate work orders).

Trailhead signage should be installed on either end of the trail because visitors can access the trail from either direction. Signage should be installed near the entrance of the trail so that they have the necessary information before descending the stairway.

Reference: ABAAS F247.6, 1017.11; Rehabilitation Act of 1973, as amended, Section 504

Brick Baptist Church

Ramp

Location #: 249628

Priority: **Critical**, Serious, Minor

Action: Repair, **Replace**, Remove, Investigate, Perform

Brief Description: Exterior ramp

Photo Reference:



Deficiency: The running slope of the ramp at Brick Baptist Church was measured up to 9.8 percent, which does not meet accessibility guidelines. There is no edge protection on the open (i.e., grass side) side of the ramp. On the building side of the ramp, there is no handrail. There is an exterior rail approximately 33¾ inches tall; however, the height of the handrail is not consistent and does not meet accessibility guidelines.

Recommendations: Remove and dispose of the existing 17 feet 5 inches long concrete ramp, including the existing handrails. Consult with design and landscape services to redesign a new ramp with materials in kind to meet minimum requirements for accessibility. Elements of the redesign to take into consideration include, but are not limited to, the following:

The running slope of the new ramp shall not exceed 8.33 percent, and the cross slope shall not exceed 2.08 percent. Provide a minimum of 5 feet by 5 feet landing at the top and bottom of the ramp run. The rise for any ramp run shall be 30 inches maximum. Intermediate landings located along a ramp run shall be 60 inches deep minimum and at least as wide as the ramp. The slope of a landing shall not exceed 2.08 percent. The clear width of the ramp shall be 36 inches minimum, measured between the handrails.

Handrails shall be installed on both sides of the ramp and run consistently between 34 inches and 38 inches above the ramp surface measured to the top of the gripping surface. Handrails shall be continuous for the entire length of the ramp run and shall include 12-inch horizontal extensions at the top and bottom landings. Extensions shall return to a wall, guard, or landing surface. Ensure that the new handrails comply with the cross-section requirements for a gripping surface. Handrail gripping surfaces with a circular cross-section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross-section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum and a cross-section dimension of 2¼ inches maximum.

Edge protection shall be provided on each side of the ramp run and at each side of ramp landings having a vertical drop-off greater than ½ inch. Edge protection can be provided by extending the ground surface 12 inches minimum beyond the inside face of the handrail, or a curb or barrier shall be provided that prevents the passage of a 4-inch diameter sphere, where any portion of the sphere is within 4 inches of the ground surface.

Lastly, it was noted by the park facilities manager that the brick wall has drainage issues causing deterioration behind the ramp (note the dark black color). Consider a ramp replacement with a design that combats water drainage damage.

Reference: ABAAS F206.2.2, 405, 505

Side Entry Stairs

Location #: 249628

Priority: Critical, **Serious**, Minor

Action: **Repair**, Replace, Remove, Investigate, Perform

Brief Description: Steps and handrail

Photo Reference:



Deficiency: The stair flight on the south side of the Brick Baptist Church that leads to the top of the ramp and the south side entrance includes two risers, one that measures 6 $\frac{1}{8}$ inches and a second that measures 4 inches. This does not meet the minimum requirements for accessibility. The existing handrail extensions do not extend at the top and bottom landings; therefore, they do not meet minimum length requirements. The handrail height measured 27 $\frac{1}{2}$ inches from the nosing of the steps and does not meet the minimum requirements for height.

Recommendations: Repair steps to a uniform riser height between 4 inches and 7 inches. All steps on a flight must have uniform riser heights within a range of 4 inches to 7 inches and uniform tread depths that are a minimum of 11 inches. Open risers are prohibited. Remove the existing handrails along the stairs leading to the south entrance. Each handrail shall include the required 12-inch extensions at the top and bottom landings and the length required to return the rails to the cement landing surface. The top gripping surface of handrails shall be 34 inches minimum and 38 inches maximum measured vertically above the stair nosing. The handrail gripping surface shall be continuous along its length and shall not be obstructed along its top or sides. The bottom of the handrail gripping surface shall not be obstructed for more than 20 percent of its length. Handrail gripping surfaces with a non-circular cross-section shall have a perimeter dimension of 4 inches minimum and 6 $\frac{1}{4}$ inches maximum and a cross-section dimension of 2 $\frac{1}{4}$ inches maximum. Handrail gripping surfaces with a circular cross-section shall have an outside diameter of 1 $\frac{1}{4}$ inches minimum and 2 inches maximum.

Reference: ABAAS F210, 504.2, 504.3, 504.6, 505

Interpretive Experience

Location #: 249628

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Provide audio description.

Photo Reference: No photo reference.

Deficiency: The existing visual elements and features of the Brick Baptist Church and surrounding grounds do not have corresponding audio components or audio descriptions. This presents a barrier to full participation for visitors who are blind or have low vision and for some individuals with cognitive impairments. Audio description is necessary for visitors who have visual and cognitive impairments to gain an equal understanding of the subject matter.

Recommendations: The park shall work with a consultant to develop and record a script that will incorporate the visual elements of the Brick Baptist Church into a comprehensive audio-described tour. Be sure to include the following elements in the script's development: a general orientation to the site, grounds, and landscape; tactile maps and models (i.e., supplemental work orders); waysides; photos and text on interpretive exhibits. The consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (i.e., so that visitors can explore their surroundings tactilely), is able to be independently operated, and is hearing-aid compatible.

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media; NPS Director's Order #42

Interpretive Experience

Location #: 249628

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Provide a virtual tour

Photo Reference: No photo reference.

Deficiency: Not all visitors are allowed inside Brick Church, and if they were, the ramp does not meet accessibility requirements.

Recommendations: Using a professional film company, design and produce a virtual tour media presentation of the Brick Baptist Church for individuals who cannot climb the stairs or enter the church. All new media productions shall be open captioned, audio described, and available for use with an assistive listening system per Section 508 of the Rehabilitation Act and the NPS Directive. The video shall be made available for visitors in Darrah Hall. Display a sign indicating that a virtual tour video is available and market its availability through brochures, program announcements, and the park website.

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media

Interpretive Media

Location #: 249628

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Provide assistive listening

Photo Reference: No photo reference.

Deficiency: There is no portable assistive listening system available for visitors with hearing loss who participate in ranger-led walks, talks, and tours at the Brick Baptist Church. People with hearing loss must be provided with effective communication and an equal opportunity to participate in the various programs offered to all visitors.

Recommendations: A portable assistive listening system is required to provide effective communication to visitors with hearing loss. Therefore, the Park shall acquire a portable FM assistive listening system. Display a sign that includes the International Symbol of Access for Hearing Loss at the Visitor Contact Station indicating that the assistive listening system is available. Include a notice on the park website when the portable assistive listening system is acquired.

Reference: ABAAS F216.10, 703.5, 703.7.2.4, 706; Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media

Penn Center Brick Church Grounds

Parking

Location #: 257201

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Install accessible parking and signage

Photo Reference:



Deficiency: The current existing accessible parking does not meet guidelines; there is no firm and stable surface, no access aisle. The signage was measured at 29½ inches from the ground to the bottom of the sign. There is no van-accessible designation.

Recommendations: Park management shall configure the vehicular parking at Brick Baptist Church to provide one van-accessible parking space that is 8 feet wide with an accompanying access aisle that is 8 feet wide that can access the sidewalk. The sidewalk adjacent to accessible parallel parking spaces shall be free of signs, street furniture, and other obstructions to permit the deployment of a van side-lift or ramp or for the vehicle occupant to transfer to a wheelchair or scooter. The van-accessible parking space should be located directly parallel to the current sidewalk access next to the church. The access aisles shall be 8 feet wide and shall extend the entire length of the parking space and connect to a pedestrian-accessible route. The access aisle shall not encroach on the vehicular travel lane. Replace the current signage with one van-accessible designated parking sign. The bottom of the sign shall be 60 inches minimum above the ground surface, measured, and installed centered at the head of the parking space.

Reference: ABAAS F208.1, F208.2.4, 502

Old Fort and Camp Saxton Site (Pinckney-Porter's Chapel)

Entry Stairs

Location #: 257200

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Riser height and handrails

Photo Reference:



Deficiency: Bottom stair tread is 11½ inches which does not meet the 11 inches accessibility standards. The stair risers are not uniform. The first riser is 5¾ inches, the second and fourth risers are 6¼ inches each, and the third riser is 6 inches. The handrail height measurement is at 33¼ inches on the right-hand side and the left handrail measurement is at 33¼ inches. Concrete on the bottom was poured higher on one side leading to varying riser height for the first step.

Recommendations: Fix dimensions of bottom stair. The handrail gripping surface shall be continuous along the length of the stair flight and shall not be obstructed along the top or sides. The bottom of the handrail gripping surface shall not be obstructed for more than 20 percent of the total length of the handrail. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. At the top of the stair flight, the handrails shall extend horizontally above the landing for 12 inches minimum above the first riser nosing. At the bottom of a stair flight, the handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. Extensions shall return to a wall, guard, or the landing surface.

Note: There is noticeable deterioration and rust on the handrail, which may stop someone who needs the use of the handrail from using it.

Reference: ABAAS F210, 504.2, 504.6, 505

Ramp

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Adjust ramp slope handrail

Photo Reference:



Deficiency: Running slope for the ramp at Pinckney-Porters Chapel exceeds maximum running slope requirements for a ramp with a measurement of up to 10.2 percent before first landing and 8.7 percent after first landing. On both sides of the ramp run, the handrails do not extend past the bottom of the ramp, so they do not meet accessibility standards.

Recommendations: Running slope greater than 8.33 percent is not permitted on a ramp. Ramp handrails shall extend horizontally above the landing for 12 inches minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run.

Reference: ABAAS F206.2.2, 405.2, 505.10.1

Restroom

Location #: 257200

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Accessible toilet compartment

Photo Reference:



Deficiency: The accessible toilet compartment in the restroom at Pinckney-Porter's Chapel has multiple deficiencies. The rear grab bar exceeds the maximum wall gap requirements at $1\frac{1}{4}$ inches. The side grab bar exceeds the maximum height from the finished floor at $36\frac{1}{2}$ inches. The bathroom lock was not able to be used with a closed fist, therefore it is out of compliance. Signage for the restroom at the Pinckney Porter's Chapel restroom does not contain the required raised characters or braille.

Recommendations: Ensure when installing the rear grab bar, that the gap between the wall and the bar is $1\frac{1}{2}$ inches. The side grab bar shall be moved to 33 inches minimum and 36 inches maximum above the finish floor measured to the top of the gripping surface. The lock on the

bathroom door shall be replaced with one that is operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. Purchase restroom identification signage for the men's and women's restrooms that include braille, raised characters, and pictograms, and install the signs onto the wall on the latch side of the doors. Install signage to ensure that the tactile characters are located 48 inches minimum above the ground measured from the baseline of the lowest tactile character and 60 inches maximum above the ground measured from the baseline of the highest tactile character.

Reference: ABAAS F216.2, 309.4, 604.5, 609.4, 703.1-703.5

Parking

Location #: 257200

Priority: Critical, Serious, **Minor**

Action: **Repair**, Replace, Remove, Investigate, Perform

Brief Description: Accessible parking spaces and access aisle

Photo Reference:



Deficiency: There are two 8-foot accessible parking spaces at Pinckney Church at Camp Saxton, including one access aisle. However, restriping has faded on all parking spots and the access aisle. The accessibility post and sign were measured at 24 $\frac{3}{8}$ inches in height, which does not meet the 60-inch minimum. In addition, one of the two accessible parking spaces needs to be designated as van accessible. The access aisle was measured to be 90 inches wide, which does not meet the 96-inch minimum.

Recommendations: The signage post with the International Symbol of Accessibility on the left parking space as you face the building shall be a minimum of 60 inches in height. Designate one of the two parking spaces as van accessible. All signage for accessible parking spaces shall

include the International Symbol of Accessibility. Signage for van accessible parking spaces shall include the designation, “van accessible”. Ensure that the appropriate signage is retained at each space. Restripe the two accessible parking spaces and mark the access aisle to discourage parking in accordance with ABAAS 503.3 and include the International Symbol of Accessibility. Create an access aisle 96 inches in width with two adjacent 8-foot accessible parking spaces on either side of the access aisle.

Reference: ABAAS 502.6, 503.3

Back Stairs

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: **Repair**, Replace, Remove, Investigate, Perform

Brief Description: Stair handrail

Photo Reference:



Deficiency: The existing handrail extensions extend 4½ inches at the top of the stairs therefore they do not meet minimum length requirements. The handrail height measured 33 inches from the nosing of the steps and does not meet the minimum requirements for height.

Recommendations: Remove and repair the existing handrails along the stairs leading to the south entrance. Each handrail shall include the required 12-inch extensions at the top of the flight of the stairs. At the bottom of a stair flight, handrails shall extend at the slope of the stair flight for a horizontal distance at least equal to one tread depth beyond the last riser nosing. The top gripping surface of handrails shall be 34 inches minimum and 38 inches maximum measured vertically above the stair nosing. The handrail gripping surface shall be continuous along its length and shall not be obstructed along its top or sides. The bottom of the handrail

gripping surface shall not be obstructed for more than 20 percent of its length. Handrail gripping surfaces with a non-circular cross-section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. Handrail gripping surfaces with a circular cross-section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum.

Reference: ABAAS 505.4, 505.10.1, 505.10.3

Water Fountain

Location #: 257200

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Raise height of water fountain

Photo Reference:



Deficiency: The height of the higher water fountain (standing) was measured at 37 inches from the floor to the waterspout, which does not meet accessibility standards.

Recommendations: Remove and raise the water foundation to be in the appropriate range of 38 inches to 43 inches above the ground, measuring from the ground level to the waterspout.

Reference: ABAAS F211.2, 602.7

Interpretive Wayside

Location #: 257200

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide accessible text

Photo Reference:



Deficiency: The text size on the front temporary sign is small, text and background coloring need contrast.

Recommendations: Park management shall work with design services to investigate a comprehensive redesign of interpretive exhibits and panels throughout the Sculptors Studio. When panels and/or exhibits 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 (i.e., as opposed to serif fonts), minimal use of italics, contrast between text and background of 70 to 95 percent, and the incorporation of audio and tactile elements. Text should not appear over images or in shadow as the stylistic presentation of information can interfere with readability. Additionally, tactile experiences are essential to people with visual impairments and may greatly assist in conveying the interpretive message to many people with cognitive disabilities. Select tactile objects and models that provide a coherent explanation of the exhibition topic and provide an equal opportunity to understand what is displayed in exhibit cases or behind barriers. Touchable models or reproductions of items central to the interpretive story shall be considered. Include these tactile exhibits in the audio described tour recommended in a separate work order.

Reference: Rehabilitation Act of 1973, as amended, Section 504; Programmatic Accessibility Guidelines for NPS Interpretive Media; Smithsonian Guidelines for Accessible Exhibition Design; NPS Director's Order #42

Interpretive Exhibits

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide interactive experiences

Photo Reference:



Deficiency: There are multiple deficiencies regarding interpretive exhibits at Camp Saxton. The variety of exhibits is heavily visual and textual with no touchable or interactive experiences. These exhibits include the two glass case exhibit boxes, four semi-permanent standing informational boards, eleven temporary poster boards from University of South Carolina Beaufort, Prince Rivers Replica and sign, and interpretation for flag on the wall. Many of the photos and labels are difficult to read. The text on much of the exhibit content is too small for the viewing distance. There is non-uniform font, size, and insufficient contrast of text on background. There is also insufficient positioning, glare, and lack of audio description, assisted listening, and tactile elements all create barriers to effective communication for persons with low vision, or individuals who are blind or have cognitive impairments.

Recommendations: Park management shall work with design services to investigate a comprehensive redesign of interpretive exhibits and panels throughout Camp Saxton. When panels and/or exhibits 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 non-uniform text fonts and size), minimal use of italics, contrast between text and background of 70 percent to 95 percent, and the incorporation of audio and tactile elements. Text should not appear over images or in shadow as the stylistic presentation of information can interfere with readability. Additionally, tactile experiences are essential to people with visual impairments and may greatly assist in conveying the interpretive message to many people with cognitive disabilities. Select tactile objects and models that provide a coherent explanation of the exhibition topic and provide an equal opportunity to understand what is displayed in exhibit cases or behind barriers. Touchable models or reproductions of artifacts, and other items central to the interpretive story shall be considered while the park does provide a period jacket for visitors to try on. Include these tactile exhibits in the audio described tour recommended in a separate work order.

Reference: Rehabilitation Act of 1973, as amended, Section 504; Programmatic Accessibility Guidelines for NPS Interpretive Media; Smithsonian Guidelines for Accessible Exhibition Design; NPS Director's Order #42

Interpretive Exhibits

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Obtain portable assistive listening system

Photo Reference: No photo reference.

Deficiency: There is no portable assistive listening system available for visitors with hearing loss who participate in ranger-led walks, talks and tours at Camp Saxton. People with hearing loss must be provided with effective communication and an equal opportunity to participate in the various programs offered to all visitors.

Recommendations: A portable assistive listening system is required to provide effective communication to visitors with hearing loss. Therefore, the park shall acquire a portable FM assistive listening system. The park should determine how many additional transmitters and receivers may be needed based on visitation numbers and the number of concurrent programs at Camp Saxton. Display a sign that includes the International Symbol of Access for Hearing Loss at the Visitor Contact Station indicating that the assistive listening system is available. Include a notice on the park website when the portable assistive listening system is acquired.

Reference: ABAAS F216.10, 703.5, 703.7.2.4, 706; Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media

Interpretive Publications and Wayfinding

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Acquisition of alternate format publications

Photo Reference: No photo reference.

Deficiency: The printed NPS publications, including the primary site brochure for Camp Saxton and interpretive handouts are not provided in alternate formats.

Recommendations: Provide primary publications that are considered "readily available," like the official park brochure, newspapers, and site bulletins in all alternate formats including contracted (Grade 2) braille, large print for visitors with low vision, and audio and electronic versions for visitors who are blind. Alternate format publications shall be available for visitors to

take with them, just as the standard unigrid brochure. Any electronically available document produced in pdf format, which is not always accessible, also needs to be produced in plain text format to ensure that all screen reader software can access the information. Publications provided in electronic format shall be included on the park's website. Develop a procedure for translating content of secondary brochures to alternate formats and insert a statement in those publications indicating "alternate formats of this publication are available upon request."

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Director's Order #42; Programmatic Accessibility Guidelines for NPS Interpretive Media.

Interpretive Exhibits

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Addition of audio description and equipment

Photo Reference: No photo reference.

Deficiency: The existing visual elements and features within Camp Saxton and surrounding grounds do not have corresponding audio components or audio description. This presents a barrier to full participation for visitors who are blind or have low vision, and for some individuals with cognitive impairments. While the park does offer ranger led tours it does not provide a comprehensive audio described tour of Camp Saxton's interpretation including the two glass case exhibit boxes, four semi-permanent standing informational boards, eleven temporary poster boards from University of South Carolina Beaufort, Prince Rivers Replica and sign, and interpretation for flag on the wall. The video at Camp Saxton includes open captioning that is 3¼ inches in height, which limits the audio description necessary for visitors who have visual and cognitive impairments to gain an equal understanding of the subject matter.

Recommendations: The park shall work with a consultant to develop and record a script that will incorporate the visual elements of Camp Saxton into a comprehensive audio described tour. Be sure to include the following elements in development of the script: a general orientation to the site, grounds, and landscape; tactile maps and models (i.e., supplemental work orders); waysides; photos and text on interpretive exhibits and exhibit items in display cases. The consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (i.e., so that visitors can explore their surroundings tactilely), is able to be independently operated, and is hearing-aid compatible. Equipment shall be made available at Camp Saxton. Display signage at Camp Saxton indicating that audio description is available and include a notice on the park website when the program is obtained.

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media; NPS Director’s Order #42

Map

Location #: 257200

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Design and production of three-dimensional map

Photo Reference: No photo reference.

Deficiency: A map is not available in a tactile format to communicate the location and scope of the park’s properties for visitors who are blind, have low vision, or those with cognitive impairments.

Recommendations: The park shall work with a consultant to design and produce a scale three-dimensional map of Camp Saxton and the surrounding points of interest to effectively communicate locations of key attractions, topography, and features to visitors who are blind, have low vision or cognitive impairments. The tactile map should include a “you are here” method of orientation to the location of Camp Saxton in relation to other park features and landmarks. A variety of textures should be used to distinguish between different park features and landscapes, such as bodies of water, natural surface recreation and special event areas, roads, and memorial properties. The map should include components such as raised lines and scale orientation options. The map material should be able to withstand high visitor use, be comfortable to the touch (i.e., be able to withstand temperature extremes), and be finished with a coating that allows for routine cleaning. Any text used to communicate essential information shall incorporate accessible font size and type, shall be sans serif or simple serif, and shall be large enough to convey the information to the widest range of visitors with and without visual impairments. Any incorporated text should be accompanied by Grade 2 contracted braille. It is recommended that the size of the three-dimensional map not be larger than the average adult arm span (approximately 4 feet) for an individual to explore the entire map from a central, stationary position. Ensure that the map is designed and installed in a manner to comply with accessible reach range, as identified in ABAAS 308. Reach range shall be measured to the furthest tactile map component, measured from the edge of the associated clear ground space. A level clear ground space measuring 30 inches by 48 inches minimum shall be provided at the front, center of the map, positioned for a forward approach. Allow for a knee clearance that is a minimum of 36 inches wide and 27 inches clear height above the floor or ground surface. Where it does not create a hazard for people with low vision, 29 inches high

knee space is recommended for wheelchair users. The tactile map shall be made available in a location that is determined by park management to be a primary site of visitor arrival/pedestrian traffic associated with Camp Saxton. Include the tactile map in the comprehensive audio described tour of the park (separate work order).

Reference: Rehabilitation Act of 1973, as amended, Section 504; Smithsonian Guidelines for Accessible Exhibition Design; Programmatic Accessibility Guidelines for NPS Interpretive Media; ABAAS 306, 308

Waysides

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide accessible wayside exhibits

Photo Reference:



Deficiency: Wayside dimensions are 24½ inches by 40½ inches which meets standards, however, texts are fading. Also, no tactile map for interpretation and audio description for waysides are present.

Wayside 1: 41.85 degrees, 31½ inches

Wayside 2: 43.4 degrees, 31½ inches

Wayside 3: 42.55 degrees, 31¼ inches (e.g., black text over black background)

Wayside 4: 45.25 degrees, 31½ inches

Wayside 5: 41.9 degrees, 31½ inches

Recommendations: Measurements need to be at 30 degrees or 45 degrees and height at 32 inches. The measurements may be due to the ground surface that signs are in, therefore it is recommended that the waysides be moved to a stable surface to meet standards.

Reference: Programmatic Accessibility Guidelines for NPS Interpretive Media; Rehabilitation Act of 1973, as amended, Section 504

Camp Saxton (Old Fort) Landscape (Heritage Park)

Heritage Park Sidewalk

Location #: 249630

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Repair cross slope



Deficiency: There were numerous cross slope deficiencies along the path at Naval Heritage Park, which exceeded the cross slope of 2.08 degrees. All measurements were taken on the pathway starting at Pinckney Porter’s Chapel at the outer loop of the pathway system on the south side of the park.

Cross slope measured at:

23 feet with a cross slope of 3 percent

65 feet with a cross slope of 3.4 percent

83 feet with a cross slope of 2.5 percent

212 feet with a cross slope of 2.4 percent

232 feet with a cross slope of 4.3 percent

685 feet (path intersection) with a cross slope of 2.3 percent

289 feet with a cross slope of 2.1 percent

Recommendations: Grade the affected area and resurface with in-kind materials so that the cross slope of the route does not exceed 2.08 degrees at any given location.

Reference: ABAAS 403.3

Heritage Park Exercise Equipment

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide accessible route to gym equipment

Photo Reference:



Deficiency: Access to the outdoor gym equipment at the Naval Heritage Park does not contain the required accessible route to the concrete platform.

Recommendations: Install at least one accessible route from the existing Naval Heritage Park path to the gym equipment platform. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 5 percent, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. Floor and ground surfaces shall be stable, firm, and slip resistant.

Reference: ABAAS 302.1, 402.1

Benches

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Addition of accessible benches

Photo Reference:

Bench 1 (83 feet):



Bench 2 (179 feet):



Bench 3 (707 feet):



Bench 4 (340 feet):



Bench 5 (454 feet):



Bench 6 (730 feet):



Bench 7 (750 feet):



Benches 8-10 (no feet noted):



Deficiency: There are 10 fixed benches provided at the Naval Heritage Park for visitor use. None of the benches meet accessibility recommendations. Benches 6, 7, and 8-10 are not on an accessible route or provide a firm and stable surface around the benches.

For Benches 1, 2, 6, 7, and 8-10, the height does not meet accessibility standards at 20 $\frac{3}{4}$ inches high. The seat depth does not meet accessibility standards at 14 $\frac{3}{8}$ inches deep. The benches have no arm rests or back rests.

Recommendations: In keeping with best practices for Universal Design, the recommendation is that when replacing the existing benches, provide 100 percent accessible benches within a given area. Until the park decides to remove existing benches, the recommendation is to add two new accessible benches and install them along the Naval Heritage Park Path. Accessible

benches shall have back support, at least one armrest and a seat height between 17 inches and 19 inches above the ground. Benches shall have a seat depth between 20 inches deep minimum and 24 inches deep maximum. The back support shall be 2½ inches maximum from the rear edge of the seat measured horizontally. Accessible benches shall be installed on an accessible route. Ensure that clear ground space measuring 36 inches by 48 inches minimum is positioned near the bench, but not overlapping the path of travel, for companion seating. The slope of the clear ground space shall not exceed 2.08 percent in any direction.

Reference: ABAAS F247.5, 903.3, 903.4, 903.5, 1011; Rehabilitation Act of 1973, as amended, Section 504

Benches

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide accessible benches under pergola

Photo Reference:

Bench 3 (707 feet):



Bench 4 (340 feet):



Bench 5 (454 feet):



Deficiency: There are 3 fixed benches provided at the Naval Heritage Park under a pergola for visitor use. None of the benches meet accessibility recommendations.

For Bench 3, the seat height is 21 inches, which does not meet accessibility standards. Seat depth is 16½ inches, which does not meet accessibility standards. The bench does not have at least one armrest.

For Bench 4, the seat height is 20 inches, which does not meet accessibility standards. The seat depth is 16 inches, which does not meet accessibility standards. The bench does not have at least one armrest.

For Bench 5, the seat height is 20¼ inches, which does not meet accessibility standards. Seat depth is 16¼ inches, which does not meet accessibility standards. The bench does not have at least one armrest.

Recommendations: Given the fact that the bench is underneath the pergola, the recommendation is to make the necessary adjustments to meet accessibility standards for one of the existing benches to meet accessibility standards. Accessible benches shall have back support, at least one armrest and a seat height between 17 inches and 19 inches above the ground. Benches shall have a seat depth between 20 inches deep minimum and 24 inches deep maximum. Accessible benches shall be installed on an accessible route. Ensure that clear ground space measuring 36 inches by 48 inches minimum is positioned near the bench, but not overlapping the path of travel, for companion seating. The slope of the clear ground space shall not exceed 2.08 percent in any direction.

Reference: ABAAS F247.5, 903.3, 903.4, 903.5, 1011; Rehabilitation Act of 1973, as amended, Section 504

Pavilion Ramp

Location #: 249630

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Reduce running slope of ramp to pavilion

Photo Reference:



Deficiency: The running slope for the ramp at the Naval Heritage Park ramp exceeds maximum running slope requirements for a ramp with a measurement of up to 10.6 percent. The entrance from the path to the ramp has a vertical change in level of 1 inch, which does not meet requirements. Due to the recorded running slope in this location, each section is considered a ramp; however, neither route includes the required handrails.

Recommendations: Running slope greater than 8.33 percent is not permitted on a ramp. Ramp handrails shall extend horizontally above the landing for 12 inches minimum beyond the top and bottom of ramp runs. Extensions shall return to a wall, guard, or the landing surface, or shall be continuous to the handrail of an adjacent ramp run. Ramp needs to be adjusted so change in level is reduced from 1 inch to ¼ inch. Anything above ¼ inch needs to be beveled. Purchase and install 2 compliant handrails onto each side of the ramp. Handrails are required on both sides of a ramp that serve as part of an accessible route. Each handrail shall be a total length of approximately 92 linear feet. This length includes the length of the ramp run and the required 12-inch top and bottom extensions. The top gripping surface of handrails shall be 34 inches minimum and 38 inches maximum vertically above the ramp surface. The handrail gripping surfaces shall be continuous along their length and shall not be obstructed along their tops or sides. The bottom of the handrail gripping surfaces shall not be obstructed for more than 20 percent of their length. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches

minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. At the top and bottom of a ramp run, the handrail shall extend horizontally above the landing for 12 inches minimum. Extensions shall return to a wall, guard, or landing surface.

Reference: ABAAS F206.2.2, 303.2, 405.2, 405.8, 505, 505.10.1

Pavilion Picnic Tables

Location #: 249630

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide two accessible picnic units

Photo Reference:



Deficiency: There are 2 non-fixed wood picnic tables provided under the pavilion for visitor use. Neither of the tables meet accessibility standards.

Recommendations: Add one accessible picnic table unit to the pavilion. This should include the purchase of one accessible picnic table that provides toe clearance of 9 inches above the ground surface for a minimum depth of 17 inches and knee clearance of 27 inches above the ground surface for a minimum depth of 8 inches at the wheelchair space. Ensure table braces, bolts, etc. do not impede the required toe and knee clearance. Ensure the new table provides at least one wheelchair space for each 24 linear feet of usable table surface perimeter. Wheelchair spaces shall be 30 inches minimum by 48 inches minimum positioned for a forward approach to the table. The accessible tables shall be located on an outdoor recreation access route and shall provide 36 inches minimum clear space along all usable sides of the table measured from the back edge of the benches.

Reference: ABAAS F245, 306, 1011.2, 1011.4, 1016; Rehabilitation Act of 1973, as amended, Section 504

Pavilion Stairs

Location #: 249630

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide handrails for pavilion stairs

Photo Reference:



Deficiency: The riser height of the pavilion stairs at Naval Heritage Park are not uniform. The first riser height measures at 6 inches, the second and third riser measure at 7¼ inches, and the fourth riser measures at 7½ inches. There is no hand railing on either side.

Recommendations: Handrails shall be provided on both sides of the stairway. Purchase and install two wooden handrails into the existing wooden structure on each side of the stairs. Clearance between handrail gripping surfaces and adjacent surfaces shall be 1½ inches minimum. The handrail gripping surface shall be continuous along its length and shall not be obstructed along its top or sides. The bottom of the handrail gripping surface shall not be obstructed for more than 20 percent of its length. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum.

Reference: ABAAS F210, 504.2, 504.6, 505

Heritage Park Picnic Tables

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Accessible route to picnic tables

Photo Reference:



Deficiency: There are four non-fixed wood picnic tables provided at Heritage Park for visitor use. None of the tables meets accessibility recommendations, and none of the tables are on an outdoor recreation access route or provide a firm and stable surface around the table.

Recommendations: Provide a minimum of two accessible picnic units at Heritage Park. Where picnic facilities contain more than two picnic units, at least 20 percent but not less than two of the units shall be accessible. Disperse the two new accessible picnic units accordingly to provide choices of picnic units comparable to, and integrated with, those available to others (i.e., near shade, etc.). Pave a trail spur to each accessible unit and provide solid surface under and around each accessible unit.

The recommendation includes the purchase of two accessible rectangle picnic tables with an overhang that provides toe clearance of 9 inches above the ground surface for a minimum depth of 17 inches and knee clearance of 27 inches above the ground surface for a minimum depth of 8 inches at the wheelchair space. Ensure table braces, bolts, etc. do not impede the required toe and knee clearance. Ensure the new tables provide at least one wheelchair space for each 24 linear feet of usable table surface perimeter. Wheelchair spaces shall be 30 inches minimum by 48 inches minimum positioned for a forward approach to the table. The accessible tables shall be located on an outdoor recreation access route and shall provide 36 inches minimum clear space along all usable sides of the table measured from the back edge of the benches.

Reference: ABAAS F206, F245.2, 306, 1011.2, 1011.4, 1016; Rehabilitation Act of 1973, as amended, Section 504

Accessible Route—Trash Cans

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Provide trash receptacles on accessible route

Photo Reference:



Deficiency: Two trash receptacles are not on an accessible route.

Recommendations: Install stable accessible route surface to the trash receptacles, such as asphalt or concrete. An accessible route shall consist of the following components as needed: walking surfaces with a running slope not steeper than 5 percent, ramps, and surface widths greater than 36 inches. Floor and ground surfaces shall be stable, firm, and slip resistant.

Reference: ABAAS 302.1, 402.1

Water Hydrant

Location #: 249630

Priority: Critical, **Serious**, Minor

Action: **Repair**, Replace, Remove, Investigate, Perform

Brief Description: Provide accessible route to water hydrant

Photo Reference:



Deficiency: The water hydrant measured at 83 feet along the Naval Heritage Park outside of the Pinckney Church at Camp Saxton was not on an accessible route and was measured to be 11 feet 1 inch from the walking path.

Recommendations: An accessible route should be built to access the water hydrant. Floor and ground surfaces shall be stable, firm, and slip resistant. Accessible routes shall consist of one or more of the following components: walking surfaces with a running slope not steeper than 5 percent, doorways, ramps, curb ramps excluding the flared sides, elevators, and platform lifts. The running slope of walking surfaces shall not be steeper than 5 percent. The cross slope of walking surfaces shall not be steeper than 2.08 percent.

This outdoor feature shall have accessible clear ground space that adjoins or overlaps with an outdoor recreation access route or trail.

Reference: ABAAS 302.1, 1011.2, 1011.2.1

Camp Saxton (Old Fort) Landscape (Fort Frederick)

Accessible Route

Location #: 249630

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Landscape design study for accessible route

Photo Reference:



Deficiency: There is not an accessible route to the five existing waysides, Fort Frederick tabby sign, and tide water level distance point at Fort Frederick.

Recommendations: The park shall conduct a landscape design study to determine the feasibility of designing one concrete accessible route to meet requirements for running slope. The total distance of the route will be 433 feet 6 inches. The wooden ramp to the first wayside measures 30 feet. From the wayside one to wayside two is 115 feet 6 inches. From wayside two to wayside 3 the distance measures 54 feet 6 inches. From wayside 3 to wayside 4 measures 46 feet. From wayside 4 to wayside 5 measures 26 feet and 6 inches. From wayside 5 to the tabby sign measures 46 feet. Distance from tabby sign to mean tide water level distance point 115 feet. Floor and ground surfaces shall be stable, firm, and slip resistant. Openings in floor or ground surfaces shall not allow passage of a sphere more than $\frac{1}{2}$ inch diameter. Elongated openings shall be placed so that the long dimension is perpendicular to the dominant direction of travel. Changes in level of $\frac{1}{4}$ inch high maximum shall be permitted to be vertical. Changes in level between $\frac{1}{4}$ inch high minimum and $\frac{1}{2}$ inch high maximum shall be beveled with a slope not steeper than 1:2. The clear floor or ground space shall be 30 inches minimum by 48 inches minimum. The clear width of walking surfaces shall be 36 inches minimum. Where the accessible route makes a 180 degree turn around an element which is less than 48 inches wide, clear width shall be 42 inches minimum approaching the turn, 48 inches minimum at the turn and 42 inches minimum leaving the turn.

Accessible routes shall have a running slope no greater than 5 percent. Accessible routes with running slopes between 5 percent and 8.33 percent shall be considered a ramp and require the installation of handrails and edge protection on both sides of the ramp run. A running slope greater than 8.33 percent is not permitted. The rise for any ramp run shall be 30 inches maximum. A level landing shall be provided at the top and bottom of each ramp run. Landings shall be 60 inches long minimum and at least as wide as the widest adjoining ramp run. Landings shall have a slope no greater than 2.08 percent in any direction. Cross slope on any portion of the accessible route, including along ramp runs, shall not exceed 2.08 percent. Handrails along ramp runs shall comply with ABAAS 505.

Reference: ABAAS 302.1, 302.3, 303.2, 303.3, 305.3, 402, 403, 403.3, 403.5.1, 403.5.2, 505

Parking

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Adjust cross slope of access aisle

Photo Reference:



Deficiency: The cross slope in the access aisle located at Fort Frederick is measured up to 2.6 percent which does not meet accessibility slope requirements.

Recommendations: Perform alterations to the access aisle to ensure that the cross slope of the access aisle for the van-accessible parking space does not exceed 2.08 percent in any direction. Grading and resurfacing may be required.

Reference: ABAAS 405.3, 502.4

Picnic Pavilion

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Addition of accessible picnic table

Photo Reference:



Deficiency: There are ten fixed metal picnic tables, nine under the pavilion and one down a paved route, only one of the tables meets accessibility recommendations.

Recommendations: Add one additional fixed metal wheelchair-accessible picnic table under the pavilion. Where picnic facilities contain more than two picnic units, at least 20 percent but not less than two of the units shall meet accessibility requirements. Disperse the two new accessible picnic units accordingly to provide choices of picnic units comparable to, and integrated with, those available to others (i.e., near restroom facilities, shade, etc.).

The accessible picnic table shall have a toe clearance of 9 inches above the ground surface for a minimum depth of 17 inches and knee clearance of 27 inches above the ground surface for a minimum depth of 8 inches at the wheelchair space. Ensure table braces, bolts, etc. do not impede the required toe and knee clearance. Ensure the new table provides at least one wheelchair space for each 24 linear feet of usable table surface perimeter. Wheelchair spaces shall be 30 inches minimum by 48 inches minimum positioned for a forward approach to the table. The accessible tables shall be located on an outdoor recreation access route and shall provide 36 inches minimum clear space along all usable sides of the table measured from the back edge of the benches.

Reference: ABAAS 306, F245, 1011.2, 1011.4, 1016; Rehabilitation Act of 1973, as amended, Section 504

Bridge to Fort Frederick from Parking Lot

Location #: 249630

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Reduce vertical rise

Photo Reference:



Deficiency: The entry to the walkway is 1¼ inches above grade and the exit end is 3 inches above the grade.

Recommendations: The difference between grade and the start and the end of the walkway needs to be no more than ¼-inch vertical rise. Add solid surfacing material (e.g., crushed run gravel) to reduce the difference in the ground and walkway.

Reference: ABAAS 303.2

Learning Center

Front Entry

Location #: 256673

Priority: Critical, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Exterior entry door

Photo Reference:



Deficiency: Exterior entry door operable side opening clear width measurement is 31 inches and does not meet minimum requirements for clear width. Interior and exterior door handles/knobs are not operable with a closed fist.

Recommendations: If retaining both doors is planned, install an automated double door entry system (both doors open simultaneously). This will increase the clear width to 63 inches. Door openings shall provide a clear width of 32 inches minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Operable parts shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist.

Reference: ABAAS 309.4, 404.2.3

Accessible Entry

Location #: 256673

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Accessible ramp

Photo Reference:



Deficiency: There is no accessible entry into the Learning Center. The step into the threshold is 8½ inches and the maximum rise is 7 inches. The front porch at the Learning Center measures 10 feet ¼ inch by 6 feet 1 inch and is currently 5 inches above grade. Currently the perimeter of the front porch is unprotected and does not provide edge protection.

Recommendations: The park shall conduct a design study to provide an accessible means of entry into the Learning Center. Raise entry platform to level with entry door threshold (approximately 8 inches). Add edge protection around the perimeter of the front porch and add

railing where appropriate. Develop ramp and accessible route from designated accessible parking. This will also require adding a single step onto the landing platform with a riser height of 6½ inches (with a platform height of 13 inches above grade this will make riser height equal).

The running slope of the new ramp shall not exceed 8.33 percent and the cross slope shall not exceed 2.08 percent. Provide a minimum 5 feet by 5 feet landing at the top and bottom of the ramp run. The rise for any ramp run shall be 30 inches maximum. Intermediate landings located along a ramp run shall be 60 inches deep minimum and at least as wide as the ramp. The slope of a landing shall not exceed 2.08 percent. The clear width of the ramp shall be 36 inches minimum measured between the handrails.

Handrails shall be installed on both sides of the ramp run at a consistent height between 34 inches and 38 inches above the ramp surface measured to the top of the gripping surface. Handrails shall be continuous within the full length of the ramp run and shall include 12-inch horizontal extensions at the top and bottom landings. Extensions shall return to a wall, guard, or the landing surface. Ensure that the new handrails comply with the cross-section requirements for a gripping surface. Handrail gripping surfaces with a circular cross section shall have an outside diameter of 1¼ inches minimum and 2 inches maximum. Handrail gripping surfaces with a non-circular cross section shall have a perimeter dimension of 4 inches minimum and 6¼ inches maximum, and a cross-section dimension of 2¼ inches maximum.

Edge protection shall be provided on each side of the ramp run and at each side of ramp landings having a vertical drop-off greater than ½ inch. Edge protection can be provided by extending the ground surface 12 inches minimum beyond the inside face of the handrail, or a curb or barrier shall be provided that prevents the passage of a 4-inch diameter sphere, where any portion of the sphere is within 4 inches of the ground surface.

Reference: ABAAS F206.2.2, 405, 504, 505

Parking

Location #: 256673

Priority: Critical, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Install accessible parking and accessible parking signage

Photo Reference:



Deficiency: There is no current existing designated accessible parking.

Recommendations: Park management shall configure the vehicular parking at the Learning Center to provide one van-accessible parking space that is 8 feet wide, one car-accessible parking space that is 8 feet wide, and an accompanying access aisle that is 8 feet wide. The access aisle shall be positioned in between the van-accessible and the car-accessible parking space. Any new sidewalk between the building and the access aisle shall be free of signs, street furniture, and other obstructions to permit the deployment of a van side lift or ramp or for the vehicle occupant to transfer to a wheelchair or scooter. The van-accessible parking space should be located where there is existing parking, with the access aisle directly connected to the newly proposed accessible route in position to the right of the van-accessible parking space. The access aisle shall be 8 feet wide and shall extend the full length of the parking space and connect to a pedestrian-accessible route. The access aisle shall not encroach on the vehicular travel lane. Stripe the accessible parking space and mark the access aisle to discourage parking in accordance with ABAAS 503.3 and include the International Symbol of Accessibility. Install signage with one van-accessible designated parking sign and one car-accessible designated parking sign. The bottom of the signs shall be 60 inches minimum above the ground surface measured and installed centered at the head of each parking space.

Reference: ABAAS F208.1, F208.2.4, 502, 503.3

Accessible Route

Location #: 257842

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Install accessible route from parking

Photo Reference:



Deficiency: There is no accessible route from the proposed accessible parking to the existing pedestrian-accessible route at the Learning Center.

Recommendations: Park management shall install an accessible route from the proposed access aisle in the designated parking area to the proposed pedestrian-accessible route in front of the Learning Center. This route should run parallel to the building in front of the accessible parking area. Grade the affected area and resurface with in-kind materials so that the cross slope of the route does not exceed 2.08 percent and the running slope does not exceed 5 percent. The accessible route from the proposed accessible parking would be approximately 16 feet long by 60 inches wide from the back of the proposed access aisle adjoining the proposed accessible parking to the existing front sidewalk. The clear width of walking surfaces shall be 36 inches minimum.

Reference: ABAAS F206.2.1, 302.1, 402.2, 403.3, 403.5.1

Benches

Location #: 256673

Priority: Critical, Serious, **Minor**

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Add accessible benches

Photo Reference:



Smaller bench



Larger bench

Deficiency: There are two benches outside of the Learning Center. Neither of the benches have arm rests. The top of the seat surface of the smaller bench measures at a height of 19 ¼ and 12 inches in depth and the top of the seat surface of the larger bench measures at a height of 19½ inches and 11 inches in depth, which does not meet accessibility requirements. Neither bench is on an accessible surface.

Recommendations: In keeping with best practices for Universal Design, the recommendation is that when replacing the existing benches, provide 100 percent accessible benches within a given area. Until the park decides to remove existing benches, the recommendation is to add two new accessible benches and install them along an accessible route of the exterior of the Learning Center. Accessible benches shall have back support, at least one armrest, and a seat height between 17 inches and 19 inches above the ground. Benches shall have a seat depth between 20 inches deep minimum and 24 inches deep maximum. The back support shall be 2½ inches maximum from the rear edge of the seat measured horizontally. Accessible benches shall be installed on an accessible route. Ensure that clear ground space measuring 36 inches by 48 inches minimum is positioned near the bench, but not overlapping the path of travel, for companion seating. The slope of the clear ground space shall not exceed 2.08 percent in any direction.

Reference: ABAAS F247.5, 903.3, 903.4, 903.5, 1011; Rehabilitation Act of 1973, as amended, Section 504

Interior Doors

Location #: 256673

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Width of doorways

Photo Reference:



Deficiency: The first north doorway is 31 inches wide and the second north doorway (which has no door) measures 27 inches wide. The south doorway is 31 inches wide.

Recommendations: Consult with design services to ensure there is an accessible route through the building to all visitor areas. The recommendation is to make the south doorway the accessible route to the restrooms. Door openings shall provide a clear width of 32 inches minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. Openings more than 24 inches deep shall provide a clear opening of 36 inches minimum. There shall be no projections into the required clear opening width lower than 34 inches above the finished floor or ground. Projections into the clear opening width between 34 inches and 80 inches above the finished floor or ground shall not exceed 4 inches.

Reference: ABAAS 404.2.3

Public Restroom

Location #: 256673

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Learning Center single-user restrooms

Photo Reference:



Deficiency: There are two restrooms in the Learning Center building. Neither of the two restrooms are designated as accessible and neither meet accessibility requirements. Where multiple single-user toilet rooms are clustered at a single location, at least one but no more than 50 percent of the single user toilet rooms shall be required to be accessible. The door for the bathroom closest to the stage is measured at 27½ inches, which does not meet accessibility requirements.

Recommendations: Consult with design services to configure at least one of the two existing restrooms in the Learning Center to meet accessibility requirements. When consulting the design services the following accessibility requirements shall be taken into consideration:

Wheelchair accessible compartments shall be 60 inches wide minimum measured perpendicular to the side wall, and 56 inches deep minimum for wall hung water closets and 59 inches deep minimum for floor mounted water closets measured perpendicular to the rear wall.

Provide restroom identification signage for a single user, accessible restroom that includes braille, raised characters, and pictograms, and install the sign onto the wall on the latch side of the doors. Install signage to ensure that the tactile characters are located 48 inches minimum above the ground measured from the baseline of the lowest tactile character and 60 inches maximum above the ground measured from the baseline of the highest tactile character.

For the water closet, ensure that the centerline of the water closet is 16 inches minimum and 18 inches maximum from the side wall. The seat height of the water closet shall be 17 inches minimum and 19 inches maximum above the finished floor, measured to the top of the seat in the down position.

Install rear and side grab bars in the newly created designated accessible restroom. Ensure that when installing the rear grab bar, that the gap between the wall and the bar is 1½ inches. Ensure both the side and rear grab bars in the stall have the top of the gripping surface at 33 inches minimum and 36 inches maximum above the finished floor. When installing the side grab bar, ensure that it measures at least 42 inches long, one end measures 12 inches maximum from the rear wall and the other is 54 inches minimum from the rear wall. The rear bar shall measure 36 inches long and shall extend from the centerline of the toilet 12 inches minimum on one side and 24 inches minimum on the other side.

The sink shall be installed with the front of the higher rim 34 inches maximum above the finished floor or ground while maintaining knee and toe clearance. The sink shall have a toe clearance of 9 inches above the ground surface for a minimum depth of 17 inches and knee clearance of 27 inches above the ground surface for a minimum depth of 8 inches at the wheelchair space. To avoid injury or burns, water supply and drainage pipes under lavatories and sinks must be insulated, enclosed, or configured to prevent contact and shall cover any sharp or abrasive surfaces.

The bathroom mirror shall be lowered and remounted so that the bottom edge of the reflecting surface is 40 inches maximum above the finished floor or ground.

For elements of the restrooms such as the soap dispenser, paper towel dispenser, sharps container, coat hook, etc. where a forward reach is unobstructed, the high forward reach shall be 48 inches maximum, and the low forward reach shall be 15 inches minimum above the finished floor or ground. Where a high forward reach is over an obstruction, the clear floor space shall extend beneath the element for a distance not less than the required reach depth over the obstruction. The high forward reach shall be 48 inches maximum where the reach depth is 20 inches maximum. Where the reach depth exceeds 20 inches, the high forward reach shall be 44 inches maximum, and the reach depth shall be 25 inches maximum.

The toilet paper dispenser shall be installed so it is 7 inches minimum to 9 inches maximum in front of the toilet measured to the centerline. The outlet of the dispenser shall be 15 inches minimum to 48 inches maximum above the finished floor and shall not be located behind grab bars. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow. If toilet paper dispensers are installed above the side wall grab bar, the outlet of the toilet paper dispenser must be 48 inches maximum above the finished floor.

Door openings shall provide a clear width of 32 inches minimum. Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees. We recommend the door should swing outward from the bathroom.

Reference: ABAAS F205.1, F216.2, 308.3.1, 309.1, 309.4, 404.2, 603.2.3, 603.3, 604.5, 604.7, 604.8.1, 606.3, 606.5, 609.4, 703.1-703.7

Fire Extinguishers

Location #: 256673

Priority: **Critical**, Serious, Minor

Action: Repair, Replace, Remove, Investigate, **Perform**

Brief Description: Height of fire extinguishers

Photo Reference:



Deficiency: At the backstage of the Learning Center, the fire extinguisher is as high as 54 $\frac{3}{8}$ inches and the other fire extinguisher inside the Learning Center in the lobby/common area is 59 inches high. A protruding object is an accessibility deficiency when the object protrudes more than 4 inches into the path of travel above 27 inches from the finished floor or ground surface. The fire extinguishers are also outside of accessibility reach range requirements.

Recommendations: Remove the two fire extinguishers from the wall and lower them so that the bottom of the fire extinguisher is no higher than 27 inches from the floor. Objects with leading edges more than 27 inches and not more than 80 inches above the finish floor or ground shall protrude 4 inches maximum horizontally into the circulation path. When a cane is used and the element is in the detectable range, it gives a person sufficient time to detect the element with the cane before there is body contact. The high forward reach is unobstructed, so

the high forward reach to where the fire extinguisher is accessed shall be 48 inches maximum above the finished floor.

Reference: ABAAS 307.2, 308.2.1

Interpretive Exhibits

Location #: 256673

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Redesign of interpretive exhibits at Learning Center

Photo Reference:



Deficiency: Wall canvases in the Learning Center need audio descriptions; pamphlets and posters in the hallway behind the stage need alternate format. The existing visual elements and

features within the Learning Center and surrounding grounds do not have corresponding audio components or audio description. This presents a barrier to full participation for visitors who are blind or have low vision, and for some individuals with cognitive impairments. The park does not provide a comprehensive audio description of the eight wall canvases and two hanging posters or self-guided tour information provided in the park unigrid brochure and mobile application. Audio description is necessary for visitors who have visual and cognitive impairments to gain an equal understanding of the subject matter.

Recommendations: The park shall work with a consultant to develop and record a script that will incorporate the visual elements of the Learning Center into a comprehensive audio described tour. Be sure to include the following elements in development of the script: a general orientation to the site, grounds, and landscape; tactile maps and models (i.e., supplemental work orders); waysides; photos and text on interpretive exhibits; exhibit items in display cases; the bas-relief panels, pamphlets, and other architectural features and symbolism of the Learning Center. The consultant should assist in determining what equipment would be most appropriate for the site's specific audio description needs. Ensure that the equipment is hands-free or has a hands-free option (i.e., so that visitors can explore their surroundings tactilely), is able to be independently operated, and is hearing-aid compatible. Equipment shall be made available at the Learning Center. Display signage at the Learning Center indicating that audio description is available and include a notice on the park website when the program is obtained.

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media; NPS Director's Order #42

Interpretive Exhibits

Location #: 256673

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Obtain portable assistive listening system

Photo Reference: No photo reference.

Deficiency: There is no portable assistive listening system available for visitors with hearing loss who participate in ranger-led walks, talks and tours at the Learning Center. People with hearing loss must be provided with effective communication and an equal opportunity to participate in the various programs offered to all visitors.

Recommendations: A portable assistive listening system is required to provide effective communication to visitors with hearing loss. Therefore, the park shall acquire a portable FM assistive listening system. Due to concurrent programs that occur at the Learning Center, a minimum of 20 portable multi-channel assistive listening system receivers (i.e., at least seven shall be hearing-aid compatible) and three portable multi-channel transmitters shall be made available at the Learning Center. The park should determine how many additional transmitters and receivers may be needed based on visitation numbers and the number of concurrent programs at the Learning Center. Display a sign that includes the International Symbol of Access for Hearing Loss at the Visitor Contact Station indicating that the assistive listening system is available. Include a notice on the park website when the portable assistive listening system is acquired.

Reference: ABAAS F216.10, 703.5, 703.7.2.4, 706; Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Audio-Visual Accessibility Initiative for Visitors with Disabilities; Programmatic Accessibility Guidelines for NPS Interpretive Media

Interpretive Publications

Location #: 256673

Priority: Critical, **Serious**, Minor

Action: Repair, Replace, Remove, **Investigate**, Perform

Brief Description: Acquisition of alternate format publications

Photo Reference:



Deficiency: The printed NPS publications, including the primary site brochure for the Learning Center and interpretive handouts, are not provided in alternate formats.

Recommendations: Provide primary publications that are considered "readily available," like the official park brochure, newspapers, and site bulletins in all alternate formats including contracted (Grade 2) braille, large print for visitors with low vision, and audio and electronic versions for visitors who are blind. Alternate format publications shall be available for visitors to take with them, just as the standard unigrid brochure. Any electronically available document produced in pdf format, which is not always accessible, also needs to be produced in plain text format to ensure that all screen reader software can access the information. Publications provided in electronic format shall be included on the park's website. Develop a procedure for translating content of secondary brochures to alternate formats and insert a statement in those publications indicating "alternate formats of this publication are available upon request."

Reference: Rehabilitation Act of 1973, as amended, Section 504, Section 508; NPS Director's Order #42; Programmatic Accessibility Guidelines for NPS Interpretive Media

VII. Summary and Conclusion

The assessment of the facilities and programs at the Reconstruction Era National Historical Park highlights the commendable efforts made with the available resources. While improvements are needed, such as repainting parking spots and fixing signage at Camp Saxton, adjusting stairs and ramps, and enhancing the bathroom, there is already substantial progress by the management. Similarly, at Fort Frederick, adding another accessible picnic table and improving pathways will enhance navigation and inclusivity. The assessment of Darrah Hall calls for designated accessible parking, addressing ramp steepness, and handrail deficiencies. It also includes resolving open stair riser issues, installing a low water fountain unit, and improving bathroom accessibility. By implementing these recommendations, the interpretation area will provide a more inclusive and welcoming experience for all visitors.

Furthermore, the assessment of the Old Beaufort Firehouse highlights the need for improvements in the accessible route, including grading concrete paths and designing a new ramp with appropriate materials. Enhancing accessibility in the toilet area involves installing unisex braille signage outside the doorway, repositioning the light switch, lowering the bathroom mirror, insulating pipes, and ensuring knee and toe space clearance around the sinks. Reversing the door swing to make it a pull door would also improve accessibility. Additional recommendations include providing portable assistive listening systems, incorporating tactile and interactive elements in exhibits, adding audio description equipment, and creating a three-dimensional map of the Firehouse.

The Brick Baptist Church holds immense historical significance, representing a connection to other Reconstruction Era sites. It not only serves as a community asset but also provides an educational opportunity for visitors to learn about the era's first schools for formerly enslaved individuals. The church, built by enslaved individuals in 1855, bears visible fingerprints that serve as a powerful reminder of its history. To improve accessibility at Brick Baptist Church, it is recommended to establish van accessible parking and ensure accessible routes around the church and cemetery. If the church remains inaccessible to the public, providing a portable assistive listening system would enable visitors to engage with its story. Additionally, the creation of a 360-virtual tour media presentation could offer an alternative experience for those unable to enter the church.

Finally, the Learning Center presents a valuable opportunity to enhance accessibility and provide more inclusive resources and interpretation. This includes creating accessible pathways to the center, constructing an accessible bathroom, and ensuring that permanent interpretation materials are accessible to all visitors.

In conclusion, it is evident that REER management is committed to making the park more accessible and welcoming to all. The collaboration between the park and its partners, as well as the passion for preserving history and engaging visitors, sets a solid foundation for further improvements. By implementing the recommended accessibility enhancements, the park will create an inclusive environment that enables individuals of all abilities to fully enjoy and appreciate the park's natural and cultural resources. These improvements will not only provide equal access to facilities and programs but also enhance the overall visitor experience and contribute to the park's mission of education, inspiration, and enjoyment for present and future generations.