ENVIRONMENTAL ASSESSMENT

REHABILITATION OF NORTH SHORE ROAD AND CONSTRUCTION OF CRUZ BAY OVERLOOK

VIRGIN ISLANDS NATIONAL PARK

Prepared by the
U.S. Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division

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ABSTRACT

This Environmental Assessment (EA) addresses the plans of the National Park Service (NPS) to rehabilitate North Shore Road (Route 20), modify Cinnamon Bay Parking Area and construct Cruz Bay Overlook (Lind Point) in the Virgin Islands National Park, St. John Island, U.S. Virgin Islands.

The location of this proposed project is along North Shore Road, on the northern side of St. John Island. The roadway pavement currently shows signs of medium to severe longitudinal cracking with rutting occurring on the gravel shoulders. The proposed construction includes pavement spot reconstruction and overlay, installation of paved waterways on eroded shoulders, replacement/installation of concrete low water crossings, and miscellaneous safety improvements. Along with simply repairing the road, the NPS would like to add traffic-calming devices such as rumble strips, signs and pavement markings to discourage high speeds along North Shore Road.

The Park's goal is to improve the safety and operation of North Shore Road. Although safety was the major concern, serious thought and effort were given to preserve the Park's natural and cultural resources by minimizing impacts to the environment.

This document determines which aspects of the proposed action have potential for social, economic, or environmental impact and it identifies measures that may mitigate adverse environmental impacts. The review of other alternatives is also presented as is the public involvement and coordination/consultation with other Government agencies. Copies of public meeting announcements and handouts, as well as letters from other agencies are included in the Appendix.

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I. INTRODUCTION

Virgin Islands National Park is located near the Tropic of Cancer in a group of small islands known as the Lesser Antilles that separate the Caribbean Sea from the Atlantic Ocean. The most northwesterly of this clustered island chain are the Virgins Islands of the United States and Great Britain, and approximately 70 miles to the west, the U.S. Commonwealth of Puerto Rico. The U.S. Virgin Islands is made up of three main islands and 57 smaller, mostly uninhabited, islands and cays. The Virgin Islands were discovered by Columbus in his second voyage, in 1494, and named Las Virgenes, in honor of St Ursula and her companions.

The island of St. John, approximately 20 square miles in size, is the smallest and least developed of the three main U.S. owned Virgin Islands. Virgin Islands National Park comprises over half of the island of St. John. Established in 1956, the Park was expanded in 1962 to encompass 8.7 miles of the surrounding waters. In 1978 Congress authorized an additional 135 acres on Hassel Island in the Charlotte Amalie Harbor, St. Thomas to the Park.

Because of its internationally significant natural resources, Virgin Islands National Park was designated a international biosphere reserve in 1976 and is one of the few biosphere reserves that has both marine and terrestrial resources. The Park was included in the United Nations Biosphere Reserve System as a representative example of Lesser Antillean Cultural and natural ecosystems.

Virgin Islands National Park contains examples of most tropical Atlantic terrestrial, coastal and marine ecosystems. This includes various examples of subtropical dry to moist forest, salt ponds, beaches, mangroves, seagrass beds, coral reefs and algal plains. Terrestrial topography is quite dramatic with average slopes being 30 percent. The highest mountain peak plunges sharply to the sea over a distance of three-quarters of a mile. Rock petroglyphs, middens and three settlements are several of the remains of prehistoric cultures found to date. European settlement patterns and plantations systems significantly altered St. John's biology and ecology, removing native forest, building structures, terraces, rock walls and roads, and importing vegetation and mammals. The plantation settlements took advantage of the labor of African slaves.

In terms of visitor attractions, scenery and beaches are probably the most significant features of Virgin Islands National Park. However, there are an estimated 250 historic structures within the Park, most of them remnants of the Danish sugar plantation era, which are increasingly popular with tourists. Over the past ten years, visitation to the Park has averaged approximately 942,800 persons annually.

North Shore Road (Route 20) provides access to picnic areas, overlooks, and to various trails, including several that lead down to beaches. Visitors often access water-related activities like sunbathing, swimming, and snorkeling from this road. And for many, the road itself is the destination, a quiet scenic drive along the northern side of the island. The traffic volume on this road averages approximately 650 vehicles per day during peak season.

Proposed Improvements Include:

1. Pavement Improvements
   Repair existing areas of pavement cracking and settlement along North Shore Road.

2. Cruz Bay – Lind Point Overlook
   Expand area for vehicle pull-offs.
   Provide stone masonry faced retaining wall to expand pull-off.

3. Hawksnest Parking Area
   Convert vehicle circulation in existing parking area to one-way.
   Provide additional parallel parking spaces adjacent to existing island.
   Convert existing parking spaces to angled parking spaces.
   Close the opening in the middle of the existing roadside parking island.
   Plant additional trees in the parking island.
   Install traffic-calming features.
   Correct drainage.

4. Jumbie Bay
   Provide new low water crossing in roadway.
   Provide management boulders to control off road parking.

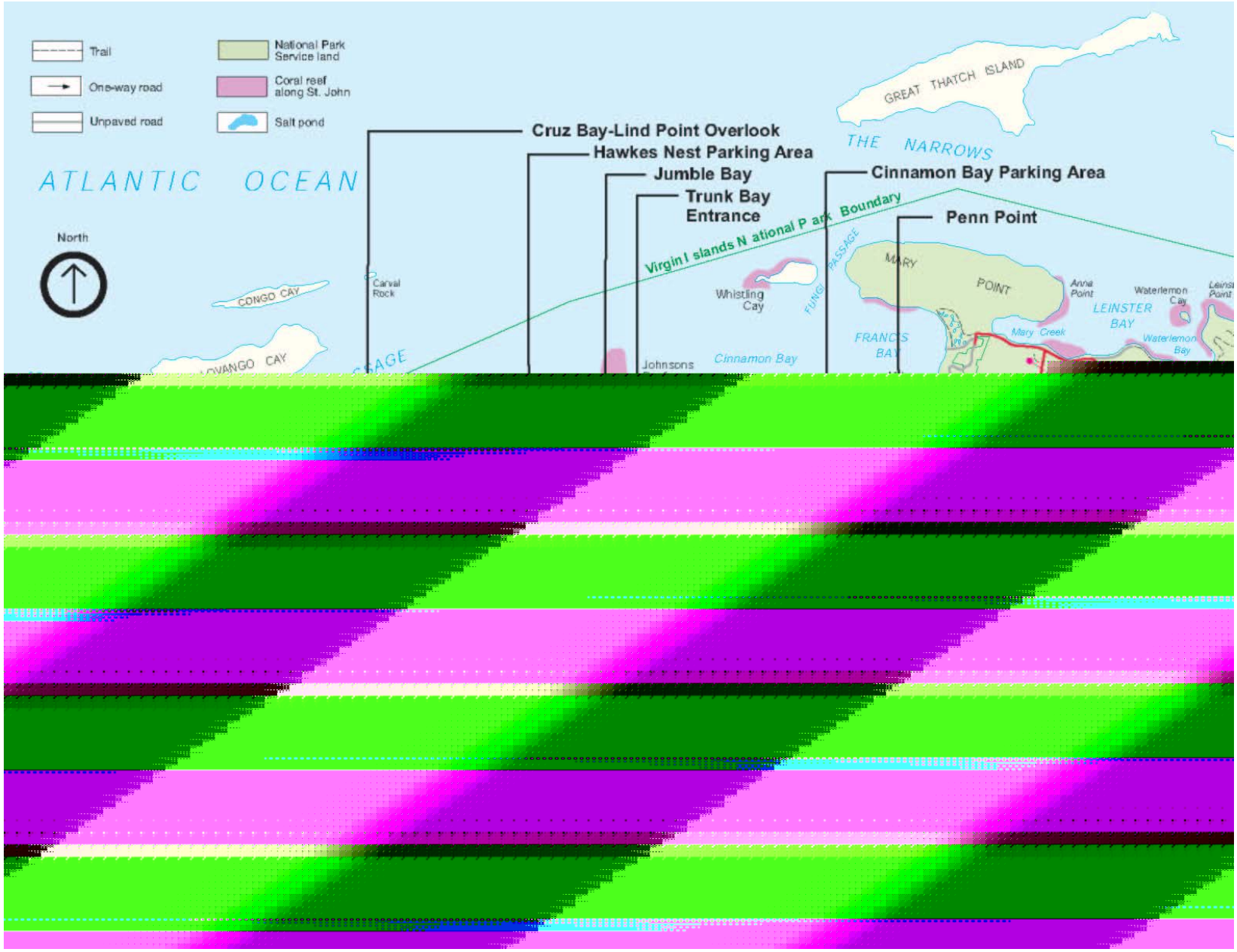
5. Trunk Bay Parking Area
   Provide modified low water crossing in roadway.
   Provide traffic-calming feature in roadway, uphill of parking area exit.
   Provide management boulders to control off road parking.

6. Cinnamon Bay Parking Area
   Increase parking by 12 spaces, consistent with 1983 General Management Plan.
   Provide traffic-calming features.

7. Penn Point
   Increase sight distance and improve safety by increasing curve radius.
   Cut back existing embankment on inside of curve.

8. Maho Bay
   Placement of 50 management boulders to prevent vehicles from encroaching and damaging natural vegetation adjacent to the beach area.

A. Location Map



B. Purpose of the Action

The National Park Service (NPS) proposes to resurface and rehabilitate the North Shore Road, making it safer to motorist and the environment. North Shore road is located on the northern side of St. John Island.

The purpose of this action is to provide a safe and environmentally friendly way for motorist to travel around the northern end of the island, while providing them with scenic views and an overall pleasurable experience. The proposed work on the road includes spot reconstruction, guardrail installation and improvements, construction of paved waterways to control erosion along existing shoulders, striping and other safety improvements, and general resurfacing of North Shore Road from Cruz Bay to the area of Annaberg Access Road.

C. Need for the Action

The section of North Shore Road (V.I. Route 20) between Cruz Bay and the area of Annaberg Access Road, is a paved, two-way roadway with an average pavement width of 18 feet. The pavement width does not meet the minimum requirements set in the *1984 Park Road Standards* and is substandard for two-way traffic. The inadequate lane widths have created unsafe driving conditions, as evidenced by areas where vehicles clearly travel on the existing shoulders. Damage to roadside vegetation occurs due to visitors pulling off the road onto undesignated areas. The existing pavement surface is rough and undergoing severe deterioration in some areas. The road has inadequate drainage structures that have worsened the condition of the road and severely deteriorated the shoulders.

D. Photos of Existing Conditions

Typical example of pavement cracking on North Shore Road.

Typical example of deteriorated road shoulders, showing the need for paved waterways.

Proposed Layout of Cinnamon Bay Parking Area. Plans are only preliminary since construction would take place at a later date.

E. Decisions to be Made

The National Environmental Policy Act of 1969 (NEPA) requires consideration of the environmental effects of proposed Federal actions. This Environmental Assessment (EA) provides the required environmental, socioeconomic analysis for the proposed work along North Shore Road. As part of the planning and analysis, this EA has been prepared to evaluate alternatives and options for accomplishing this work with the least impact to Park resources and Park visitors. The Eastern Federal Lands Highway Division of the Federal Highway Administration has prepared this EA for the National Park Service.

A public meeting was held on September 18, 2002, at the Virgin Islands Legislature Building. The meeting was an open forum with displays providing an overview of the purpose and need for the project. At the time, representatives of the NPS and the FHWA were available to discuss the proposed project, answer questions, and solicit comments.

F. Issues and Impact Topics

Specific impact topics were developed to address potential natural, cultural, and social impacts that might result from the proposed construction work. These topics are derived from the issues identified above and address federal laws, regulations and orders, VIIS management documents, and NPS knowledge of limited or easily impacted resources. They are used to focus the information presented and discussed in the affected environment and environmental consequences sections. Each impact topic is given below:

1. Cultural Resources
2. Biotic Communities
3. Special Status Species
4. Water Quality/Wetlands
5. Visitor Use, Park Operations, and Public Safety
6. Socioeconomic Environment

Each impact topic relates to a specific aspect of the park and it's surrounding community; which are essential to protect. These resources were chosen because they represent a broad spectrum of resources, including natural as well as human, and take the park visitors and the surrounding community into account as well. Cultural Resources will address both Historical and Archaeological resources. Any actions that could potentially affect the Historical and Archeological resources of the Park, in the project area, will be addressed.

G. Permits

The U.S. Fish and Wildlife Service (FWS) has been consulted regarding the presence of federally listed threatened or endangered species within the study area. If any such species are known to inhabit the area, appropriate measures would be developed to protect the species from harm. In addition, coordination is ongoing with the Virgin Islands Wildlife Resources Agency to ensure that species, listed by the Virgin Islands, within the Park are protected.
Persons who conduct any activity that involves the alteration of waters of the Virgin Islands require a territorial and possibly a Federal permit. Permits will need to be authorized by Department of Army (DA) Permits pursuant to Section 10 of the 1899 Rivers and Harbors Act and/or, Section 404 of the Clean Water Act (CWA), and Coastal Zone Management (CZM) approvals, respectively. In addition to mitigation for federal permits, Virgin Islands Department of Environment and Conservation may also require an Aquatic Resource Alteration Permit (ARAP) pursuant to Virgin Islands Water Quality Control Act.

H. Interrelationship with Other Plans and Projects

1. The General Management Plan for the Park

The 1983 General Management Plan (GMP) for Virgin Islands National Park serves as a manager's guide for meeting the objectives established for the Park and as a public statement of National Park Service management intentions. The GMP establishes long-range strategies for resource management, visitor use, and development of an integrated park system. The proposed action is compliant with the Park's stated primary purpose "perpetuating and enhancing the Park's nationally significant natural and cultural resources and to continue the variety of resource-based activities now enjoyed by visitors."

If repairs are not performed on the road, the road may eventually deteriorate and become more of a safety hazard, thereby requiring that North Shore Road be closed for an unspecified amount of time while repairs are performed. While the proposed action does require a temporary road closure during construction, the intended purpose of the project is to make the road safe for two-way traffic, extend the life of the existing road, and consequentially keep the road open to traffic and safe for motorists for a prolonged period of time.

2. The National Park Service Organic Act of August 25, 1916

This Act states that the fundamental purpose of national parks is "to conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations." Both alternatives are supportive of this act because they are unobtrusive on the natural and historic environment, and maintain the historic road corridor for future Park visitors.

II. DESCRIPTION OF ALTERNATIVES

The National Park Service initiated the project in the late 1990's when it became apparent improvements needed to be made to North Shore Road. Points of main concerns were the deteriorated pavement of the paved sections, deterioration of the shoulders and drainage ways, the narrow width of the shoulders, and other safety concerns. Additional safety improvements would include the placement of traffic-calming devices to discourage speeding along North Shore Road. In September 2002, a public information meeting was held to facilitate interest in the project and solicit public comments. At this meeting, the Build and No Build alternatives were presented and discussed.

A. No Action Alternative

Under the No Action Alternative, no substantial improvements would be performed other than in accordance with routine maintenance operations. North Shore Road would continue to see further deterioration and overall driver safety concerns would remain unresolved. Cracking in the pavement would continue to impact the ride and feel of the road. Eroded and deteriorated shoulders, lack of adequate sight distances, and inadequate roadway width would continue to pose safety threats to vehicles and motorists. Safety issues would remain unresolved and maintenance costs within the Park would rise.

B. Build Alternative – Follow Existing Alignment of North Shore Road

The Build Alternative includes reconstructing North Shore Road, with modified NPS Standards, from Cruz Bay to the Area of Annaberg Access Road. The existing alignment would be maintained while performing minor widening in select sections to eliminate those places where vehicles currently drive on the shoulder. Construction of paved waterways along the roadway would be built to control erosion and minimize damage caused by storm water runoff. In areas where paved waterways are constructed, the road would not be widened, as this would add more pavement than desired and potentially reduce the already narrow shoulder.

Additionally, proposed improvements include:

1. Pavement Improvements
   Repair existing areas of pavement cracking and settlement on North Shore Road (NPS Route 20), from Cruz Bay to the area of Annaberg Access Road. Movement has been detected and pavement reconstruction would be done to prevent further deterioration of the roadway. It is anticipated that a geotextile base material would be used to strengthen the underlying roadway material. Once the base material has been strengthened, the roadway surface would be repaved with asphalt.

2. Cruz Bay – Lind Point Overlook
   Expand area for vehicle pull-offs. A stone masonry faced retaining wall is proposed that would allow for the expansion of the road and the construction of the pull-off. The proposed pull-off would be approximately 15-feet wide and 150-

feet long, providing area where vehicles could pull off the road to admire the views without impeding the flow of traffic.

3. Hawksnest Parking Area
   Regrade the parking lot to correct drainage and prevent water from ponding on the paved surfaces. Close the opening in the middle of the existing roadside parking island. Plant additional trees in the newly closed portion of the island to match the existing portions of the island. Convert vehicle circulation in existing parking area to one-way. Provide additional parallel parking spaces adjacent to newly closed portion of the parking island. Convert existing parking spaces to angled parking spaces. Install traffic-calming features, such as signs and rumble strips. The parking lot and modifications would stay within the existing parking lot footprint.

4. Jumbie Bay
   Provide a new concrete low water crossing in the roadway, which would efficiently channel storm water flow across the road and into a riprap basin.
   Provide management boulders to control off road parking. Management boulders would be places singly- several feet apart - but would be in close proximity so as to prevent vehicles from parking on the side of the road. Typical management boulders are approximately 10 cubic feet in volume and weigh approximately 0.7 tons.

5. Trunk Bay Parking Area
   Provide modified concrete low water crossing in roadway.
   Provide traffic-calming features in roadway, such as signs and rumble strips, uphill of parking area exit.
   Provide management boulders to control off road parking.

6. Cinnamon Bay Parking Area
   Increase parking by 12 spaces, nearly doubling the size of the parking area (consistent with 1983 General Management Plan).
   Provide traffic-calming features, such as signs and rumble strips.

7. Penn Point
   Cut back the existing embankment on the inside of the curve, regrade, and shift the road toward the inside of the curve. These changes would increase driver sight distance and improve safety conditions, while also increasing the size of the existing pull off. The curve radius would be increased to meet current safety standards.

8. Maho Bay
   Placement of 50 management boulders to prevent vehicles from encroaching and damaging natural vegetation adjacent to the beach area.

Construction activities would incorporate appropriate erosion and sediment control measures to minimize soils loss. Typical erosion and sediment control measures include the use of silt fences and check dams where applicable. Specific control measures would be determined during the design of the project and would utilize best management practices. Contractors would be required to consult park staff for specific recommendations during the design phase; to include determining appropriate erosion and sediment control measures, seed mixtures required for the Park, and any other specific details. Typical construction projects of this magnitude would require the use of heavy equipment. Exact type and size of equipment would depend on equipment availability and the ability to transport the equipment to the project site.

Preliminary quantity computations estimate that the project as proposed would involve less than 0.1 acres of clearing and grubbing work, where vegetation has grown excessively and is now invading road space. However, an additional 1.0 acre has been marked for selective clearing, bringing the total area of clearing to approximately 1.1 acres. Vegetation in areas marked for selective clearing and grubbing are invasive species that are overgrown and encroaching on the roadway. The selective clearing area is divided up into various small sites located along North Shore Road, primarily where there are curves in the road. The purpose of the selective clearing is to improve the sight distances around the curves in the road, creating a safer driving environment.

C. Preferred Alternative

The preferred alternative is the Build Alternative. Even though the possibility exists that some of the construction activities, if not properly conducted, could lead to damaging environmental consequences, these possibilities can be minimized through the use of appropriate sediment and erosion control methods. Through the Build Alternative the safety concerns of the road would be addressed making the road safer for island residents and tourists. In addition to correcting the safety concerns the Build Alternative also addresses some of the ongoing environmental problems, such as erosion from poor drainage and the destruction of vegetation from unregulated parking.

D. Environmentally Preferred Alternative

The environmentally preferred alternative is also the Build Alternative. There is the possibility of harm arising from the construction process, however, through the use of sediment and erosion control measures and best management practices, the possibilities of environmental damage can be minimized. Conversely the erosion associated with the currently existing poor drainage conditions is transporting harmful sediment and depositing it in rivers and ultimately around the coral communities. Improper parking by visitors is damaging the natural vegetation on St. John, thereby also damaging habitats for the various Island species. In addition to these smaller impacts, the road itself is showing areas where the pavement is separating from the mountain and shifting towards the ocean. If this movement is not corrected road failure may occur, which could cause a small landslide, depositing tons of material into the waters below the road.

Comparison of Alternatives

The following chart summarizes and compares the likely results of implementing the No Action Alternative and the Build Alternative as they relate to the environment.

Factor	No Action Alternative	Build Alternative
Design Standard	No change from existing.	Park Road Standards (Mod.)
Surface Type	Asphalt/Gravel	Asphalt Pavement: Includes parking areas.
Roadway Width	Approximately 18 feet	10 feet per lane 9 feet in some areas
Shoulder Width	No designated shoulder	1 foot each side in areas where space is available.
Change in grade	No change from existing	Match existing.
Alignment	No change from existing	Follows existing alignment and pavement "foot print".
Clearing & Grubbing	No change from existing (0 acres)	Approx. 0.1 acres + 1.0 acre of selective clearing
Area of disturbance	No change from existing (0 acres)	Approx. 1.0 acre
Roadway Excavation	No change from existing	Approx. 4850 cubic yards (remove existing / replace / recompact)
Embankment Construction	No change from existing	Approx. 4300 cubic yards (remove existing / recompact)
Design Speed	No change from existing (20 mph)	No change from existing (20 mph)
Posted Speed Limit	No change from existing (20 mph)	No change from existing (20 mph)
Paved Waterway	No change from existing	Additional 390 square yards
Number of construction days	0 days	Approx. 300 days
Length of new retaining wall	No new retaining walls	Approx. 195' Retaining wall at Cruz Bay Overlook.

III. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The following addresses the affected environment and the environmental consequences for the No Action alternative and the Build Alternative. A definition of impacts is located below:

1. Temporary impacts - Impacts anticipated during construction only. Upon completion of the construction activities, conditions are likely to return to those that existed prior to construction.

2. Short-term impacts - Impacts that may extend past the construction period, but are not anticipated to last more than a couple of years.

3. Long-term impacts - Impacts that may extend past the construction period, and are anticipated lasting more than a couple of years.

4. Negligible - Little or no impact (not measurable).

5. Minor - Not easily defined or measurable. Changes or disruptions may occur, but does not result in a substantial resource impact.

6. Major - Easily defined and measurable. Results in a substantial resource impact.

The Virgin Islands National Park is distinguished by the fact that it was designated an international biosphere reserve in 1976, and is one of the few biosphere reserves that has both marine and terrestrial resources. The purpose and mission of the Park is to preserve these exceptionally diverse resources, and to provide for public benefit and enjoyment of them in ways that will leave the resources and the dynamic natural processes of which they are a part, essentially unaltered.

A. Traffic Conditions

Affected Environment

The purpose of Park roads remains in sharp contrast to that of the Federal and State Highway Systems. Park roads are not intended to provide fast and convenient transportation; they are intended to enhance the visitor experience while providing safe and efficient accommodation of Park visitors and to serve essential management access needs.

North Shore Road is an 8.5 mile road with a posted speed limit of 20 mph. The traffic volume on this road averages approximately 400 vehicles per day and can reach 850 vehicles per day during peak season.

The communities surrounding Virgin Islands National Park are experiencing significant growth. Restrictions on bringing rental cars from St. Thomas have been lifted and St. John rental car agencies have been granted the right to expand their fleets. Combined with the increased use of rental cars on the island, there has been an increase in the number of vacation homes being constructed; therefore vehicular traffic within the Park is very likely to increase significantly. This increase in traffic volumes is presumed to occur whether or not this project is completed.

Environmental Effects

a. No Action Alternative

   In the short-term, the No Action Alternative would not result in any changes to the existing traffic conditions. However, over time the condition of the road would continue to deteriorate which may increase liability for the Park with respect to the unsafe driving conditions.

b. Build Alternative

   Under the Build Alternative, the restrictions imposed on traffic during construction would result in temporary minor impacts for Park personnel, as well as island residents and visitors. The traffic restrictions could temporarily increase traffic volumes on Centerline Road, but many of the larger vehicles are expected to continue using North Shore Road. During the construction period, notices would be put in place to notify visitors of roadway conditions and alternative destinations. Due to the fact that several locations are only accessible by North Shore Road, one lane of traffic will remain open throughout the construction process. The proposed project would improve traffic capacity by improving the roads ability to accommodate two-way traffic safely. Access for emergency vehicles and private in-holdings will be maintained at all times. Disruption of Park management and visitor activities will be minimized.

c. Conclusion

   With the No Action Alternative, visits to the Park would remain unchanged – unless road failure occured. Under the Build Alternative, minor temporary impacts would occur during the construction process. However, after construction, the traffic conditions would improve because the proposed roadway would provide sufficient width for two vehicles to safely pass each other. The improved road surface would also provide for a

smoother ride and increase the ability of drivers to remain on the roadway. No significant impacts to the Park's traffic conditions would occur under either of the alternatives.

B. Cultural Resources

Affected Environment

1. Archeological Resources

Twenty-two prehistoric sites have been recorded on St. John, thirteen of which are on National Park Service land. Only two of these sites are currently on the National Register, the Reef Bay petroglyphs and the Cinnamon Bay site. Nine additional sites may be eligible for National Register listing. The largest and best known site on St. John is at Coral Bay outside the Park boundary.

The roadwork will not directly impact any of these sites.

A letter dated December 20, 2002, from the Cultural Resource Manager/Archeologist for the Virgin Islands National Park, stated, "the project will have no adverse impacts as proposed." The letter also absolved the necessity for any further consultation with the State Historic Preservation Office; as per the programmatic agreement between the NPS and the SHPO.

2. Historic Resources

There are 236 historic structures on the 1989 List of Classified Structures for St. John. Seventeen of these are still roofed or with vestiges of roofing. Nine structures are in use. Sixteen historic districts are recorded on the National Register, all of which are on Federal land. These contain 180 individual structures. Seven individual structures are recorded on the National Register, four of which are on federal land. Structures range in function from Danish plantation great house, cook house, slave village and sugar processing factory, to colonial fort and battery, to a school and even a guard custom house. They date from 1718. Many of the structures have fallen to ruinous piles of rock not considered salvageable and should be removed from the List of Classified Structures (LCS) and added to the Cultural Sites Inventory (CSI) as historic archeological sites. Basic inventories are not complete. Portions of structures and new historic archeological sites hidden by years of vegetative growth are still being discovered. Historic structures reports have not been completed for most structures undergoing stabilization.
The Reef Bay Great House is considered the most important historic structure in the Park and illustrates West Indian formal architecture. It is

on the National Register (H-15) and has been nominated for National Historic Landmark status.

Fourteen known historic districts and one individual building exist on/in holdings within the authorized boundary on St. John. Nine of them may qualify for nomination to the National Register for the historical associations and their integrity. They include: Caneel Bay Plantation (H6); Susannaberg Plantation (H7); Adrian Plantation (H8); Oynes Point Custom Guard House (H9); Leinster Bay Plantation (H29); More Hill (H38); Frederiksdal and Mount Pleasant (H41). The State Preservation Office has nominated two of them to the National Register: Frederiksvaern, Fortsberg, Coral Bay (H44); and Whistling Cay Customs Guard House (H47).

The roadwork will not directly impact any of these sites.

A letter dated December 20, 2002, from the Cultural Resource Manager/Archeologist for the Virgin Islands National Park, stated, "the project will have no adverse impacts as proposed." The letter also indicated that there was no need for any further consultation with the State Historic Preservation Office; as per the programmatic agreement between the NPS and the SHPO.

Environmental Effects

a. No Action Alternative

Archeological Resources

No archeological resources would be disturbed or lost under the No Action Alternative. No opportunities for interpretation of the resource would be provided.

Historic Resources

No historical resources would be disturbed or lost under the No Action Alternative. No opportunities for interpretation of the resource would be provided.

b. Build Alternative

Archeological Resources

The project limits of the proposed action are within the existing roadway prism and would involve work in areas that have been previously disturbed by the initial roadway construction. For these reasons, it is determined that the proposed action would have no effect on archeological resources. If resources are encountered, construction activities would cease, and Virgin Islands Historic officials would be contacted for further action.

Historic Resources

No historical resources would be disturbed or lost under the Build Alternative.

c. Conclusion

Archeological Resources

None of the alternatives would cause any impact to the Park's archeological resources. No impairment to the Park's archeological resources would occur under either of the alternatives.

Historic Resources

None of the alternatives would cause any impact to the Park's historic resources. No impacts to the Park's historic resources would occur. No impairment to the Park's historic resources would occur under either of the alternatives.

C. Natural Resources

Affected Environment

1. Physiography

The islands are mostly rocky, or sandy and barren, but such portions as are under cultivation yield sugar, maize, coffee, cotton and indigo. Guinea grass grows abundantly on the hillsides, affording excellent pasturage; the forests, though few, include mahogany and other useful trees. The coasts abound with fish.

The bedrock of St. John primarily consists of Cretaceous Age volcanic formations. Based on the "Caribbean Geological Investigations" published by the Geological Society of America, Inc., 1966, North Shore Road lies within the Louisenhoj Formation. The Louisenhoj Formation is predominantly augite andesite and varies in mode of deposition from pyroclastic, explosively or aerially ejected, to epiclastic, mechanically deposited from weathered rock. In western St. John, the formation consists predominantly of coarse slump debris from the eruptive volcanic center. The bedrock on St. John forms a homoclinal structure cut by two sets of strike-slip faults trending N 450 W and N 550 E and a normal fault that trends roughly north-south from Cinnamon Bay to Fish Bay. The joints and fractures in the rock formations on St. John seem to be randomly oriented. However, there are three well-defined joint sets that parallel each of the three major fault directions.

The natural surficial soils along North Shore Road primarily consist of a thin layer of reddish-brown to very dark brown, gravelly clay loam overlaying weathered rock and ultimately unweathered bedrock. The "Soil Survey of the United States Virgin Islands, 1994", identifies these soils as the Fredriksdal-Susannaberg complex. These soils are typically 12 to 15 inches thick. The Survey indicates that the underlying weathered igneous bedrock extends to a depth of 16 to 21 inches before encountering unweathered igneous bedrock. To a lesser extent, mapped in low-lying areas, along North Shore Road are Cinnamon Bay Gravelly Loam and Jaucas Sand. The Cinnamon Bay Gravelly Loam consists of more than 60 inches of grayish-brown to very pale brown sand.

Temperatures are generally in the 80s (27-33 C) during the day and in the 70s (21-26 C) at night. December-February is slightly cooler and windier than the summer months. There are more frequent short rain showers in the fall. June-November is hurricane season, with August through October being the peak months.

2. Water/Wetland Resources

Several guts or gullies have been know to have permanent pools of freshwater, some of which still contains small populations of several species of shrimp and fish that were once a delicacy among local residents. Guinea and Fish Bay Guts still have populations of shrimp (*Macrobrachyum* sp., *Atya* sp. And *Xiphocaris* sp.) and fish (one of two species of gobies and Mountain Mullet (*Agonostomus monticola*)). Very little is known about these populations or their dynamics. Populations are undoubtedly greatly reduced due to upstream discharges from commercial activities in the Susannaberg area (e.g. Moses' Laundromat, Majestic Construction, etc.).

The pattern of rainfall and soil type is critical to recharge of streams or aquifers. Brief showers do not significantly add to recharge. To create streamflow, 13 to 25 millimeters (2 to 4 inches) in a single rainfall is necessary with a resultant 20 – 75% surface runoff flow.

Two intermittent streams, Guinea Gut and Fish Bay/Battery Gut, are both outside the Park on the south shore. Other smaller intermittent streams and many watercourses carry storm water runoff for a short time after heavy rainstorms, transporting sediment to the sea. In most cases, the streambed and adjacent floodplain restabilize over the years. If changes are made to the cross section, grade, plane or profile of the stream or adjacent flood plain, sediment loss occurs and restabilization must take place. In most cases, construction and changes in land use can be a major disruptive event increasing erosion and sediment transport.

Mangrove habitats are the general equivalent of tidal salt marshes along the U.S. mainland. They mostly occur as a coastal fringe of red mangroves just seaward of terrestrial uplands but can also be found as basin forest at the base of large watersheds. Mangrove shorelines make up a little more than 2% of the shoreline and are found in the protected bays: Cruz Bay, Mary's Creek, Haulover Bay, Newfound Bay, Hurricane Hole, Coral Harbor and Fish Bay. Hurricane Hole may be the most pristine of the remnant mangrove habitats remaining in the USVI (over 50 percent of all mangroves in the USVI have been destroyed during the past 50 years). Mangroves are an important interface between terrestrial processes and marine habitats. They filter other marine ecosystems. They provide a vitally important nursery habitat in their submerged prop roots for many species of coral reef fish. Many species of birds nest or roost in mangroves where they are safe from predators. The mudflats that form behind mangroves support populations of the large gray land crab (*Cardisoma guanhumii*).

Salt ponds are shallow, saline ponds usually found at the base of valley drainage systems. They form as reefs grow from two rocky points of a bay, eventually meeting in the middle and forming a berm created by storm wave tossed coral rubble. This berm isolated the pond from the sea and usually becomes colonized by mangroves and other salt tolerant species. Salt ponds are very effective upland sediment traps, thus maintaining water quality in adjacent marine waters. Ponds are important habitat for many species of shorebirds, bats and waterfowl where they feed on insects and invertebrates living in the pond and nest in the fringing mangrove vegetation. Drastic fluctuations in salinity, temperature turbidity and levels of oxygen and hydrogen sulfide make life in a salt pond a challenge for all but a few adaptable species. Salt ponds also have may traditional uses such as soaking for medicinal purposes and collecting salt for cooking. The salt deposits as the pond dries up during the dry season. The animal and plant

life associated with this ecosystem have not been well studied and the ecology of the salt ponds is only partially understood. There are five salt ponds larger than 2 acres in size on St. John; the largest in on the south shore behind Salt Pond Bay.

3. Vegetation, Wildlife, and Threatened and Endangered Species

The present vegetation exhibits differing degrees of revegetation, ranging from recently disturbed to late-secondary successional forest, which may be as old as 100 years. Eleven vegetation types have been mapped, including: mangroves, salt flats, pasture, upland moist forest, gallery moist forest, basin moist forest, dry evergreen forest, dry thicket and scrub, thorn and cactus, disturbed vegetation, and rock and coastal hedge. About 63% of the island is in the dry evergreen forest category and 17% in the combined moist forest category. The upland moist forest contains some virgin strands with minimal exotic species. The tallest trees on the island grow along the banks of the intermittent streambeds.

Presently, the greatest threats to forest regeneration are human development and growing populations of non-native hogs, goats and donkeys. Goats and donkeys alter forest composition by selectively feeding on palatable species and distributing the seeds of exotic species through their feces. Hogs destroy vegetation through rooting up the plants. Despite disturbance by non-native animals and construction, Park lands continue to be a valuable refuge for native plant species. To date, 747 species of vascular plants have been identified from St. John, of which 642 (86%) are native to the island. The species are found in 117 families, of which 12 are introduced. Almost all species (99.7%) on St. John are found on other islands within the Virgin Islands. Two species are endemic to St. John (*Eugenia earhartii* and *Machaonia woodburyana*) and six others are endemic to the Virgin Islands. Another 25 species are endemic to the Puerto Rico platform. Many specimens and representatives of common plants have been collected by premier botanists and placed in the Park herbarium collection, creating an extensive collection of most species on the Island. As they conduct monitoring and inventories, botanists continue to identify new species. For example, Pedro Acevedo-Rodriguez of the Smithsonian Institute discovered three species new to St. John in 1992.

The only mammals native to St. John are bats. Three of the six native species of bats are protected under the V.I. Endangered and Indigenous Species Act of 1990 (Act No. 5665). Some bat species are important pollinators of many floral species on the island as well as important seed dispersal agents for many species of fruit bearing trees and shrubs. Other species of bats consume vast quantities of insects, including mosquitoes. Fish-eating bats are also present. It has been noted that bat abundance at night on St. John may exceed bird abundance during the day. Except for a

short study using ultrasonic surveys to detect bats, little is known of bat abundance, locations of roosting maternity colonies, or threats to bats on St. John.

Recent museum analysis of materials excavated from the Cinnamon Bay archeological dig during 1998 has yielded some startling discoveries. The remains of at least four extinct animals have been identified, including the Caribbean Monk Seal (*Monachus tropicalis*), Puerto Rican Shrew (*Nesophontes*, sp.), a flightless rail and others. At least six species have been identified which have been extirpated from the Virgin Islands. This dig has revealed considerable information about faunal assemblages on St. John before European colonization, and demonstrated that the Taino Indians lived in a very different natural world from what we find today. These animals were apparently important food sources for these Native American Indians. These Indians may have brought some species such as the Green Iguana (*Iguana iguana*) and the Red-Foot Tortoise (*geochelone carbonaria*) to the Virgin Islands from South America as food sources.

Avifaunas are abundant and varied. The latest National Park Checklist of Birds on St. John includes 170 species in 17 families. St. John is an over-wintering area for migratory warblers using the eastern flyway. Fragmentation of habitat has been suggested for reducing populations of over-wintering warblers. More recent research from 62 permanently marked survey points in moist forest and dry woodland on St. John suggests that the reduction in numbers of overwintering warblers is due primarily to the reduced numbers of one species (Northern Parula) and possible reductions in breeding populations along the southeastern United States from North Carolina to northern Florida. Birds are probably the best-studied group of terrestrial animals in the Park. Continued surveys are necessary to determine trends in populations of resident and migratory species.

The terrestrial reptiles and amphibians on St. John are quite varied. There are three native species of Tree Frogs (*Eleutherodactylus lentus, E. antillensis* and *E. cochranae*) and one introduced species, the Cuban Tree Frog (*Osteopilus septrionalis*), one introduced Marine Toad (*Bufo marinus*), two Geckos (*Hemidactylus mabouia* and *Sphaerodactylus macrolepis*), three species of Anolis Lizard (*Anolis stratulus, A. cristatellus* and *A. pulchellus*), the Red-Foot Tortoise (introduced), Green Iguana (introduced), Ground Lizard (*Ameiva exsul*), Legless Lizard (*Amphisbaena fenestrata*), Worm or Blind Snake (*Typhlops richardii*), a type of Garter Snake (*Arrhyton exiguous*), the Puerto Rican Racer (*Alsophis portoricensis*) and the Slipperyback Skink (*Mabuya mabouya*). Herpetological populations on St. John have not been adequately inventoried or monitored. Species that occur on nearby islands may also occur here, but have not been observed and documented.

Catherine Curry made a checklist of insect species in the Park museum collection in 1970 when ten families were represented and 52 species identified (Curry 1970). William Muchmore (1987) studied terrestrial invertebrates in 1987 and made a collection of common representative insects for the Park. Two hundred and thirty-two species representing 124 families were identified. Arachnida (scorpions, pseudoscorpions, harvestmen, and spiders) made up the largest order. Jeremiah Trimble has identified thirteen species of dragonflies and damselflies (Order Odanata) in VINP (Trimble J., IAR, 1997). Michael Ivie (1983 and 1984) has been studying beetles (Coleoptera) in the Virgin Islands for several years. Before he started, approximately 75 species of beetles had been described for the VI. He has documented over 1500 species (several new species) and expects to find over 2000. Most of these species may be found in VINP, but will only be documented through further studies. Additional inventories covering a greater number of families are needed to more fully document the species and distributions of insects within the VINP.

The Endangered Species Act (PL 93-205) requires that federal agencies protect all listed species and habitats. Sixteen Federally listed endangered and threatened species have been observed in the Park. Five species of whales, as well as several dolphin species may migrate through the Park. The endangered West Indian Manatee had been recorded as being very rare around St. John, although it has been recently recorded (ca. 1990) from West End, Tortola. These listed species include six marine mammals, five birds, three reptiles (sea turtles) and two plants.

Five Federally listed threatened or endangered bird species have been identified. The federally endangered Brown Pelican nests, feeds and roosts both adjacent to and within National Park boundaries. The U.S. Fish and Wildlife Service is evaluating nesting success in considering this species for delisting. The federally endangered Peregrine Falcon is a rare winter migrant. The federally threatened Roseate Tern and endangered Least Tern are summer Residents have both been observed nesting within the Park in recent years (1997 and 1999, respectively). Piping Plover are a very rare summer migrant.

Two of the Federally listed sea turtles are commonly found in Park waters. The Hawksbill Sea Turtle requires coral reefs for food and refuge. Peak nesting season on Park beaches is from July through November, although nesting activity may take place any month of the year. While Green Sea Turtles feed in seagrass beds in Park waters, they are infrequently nesters on St. John beaches.

While considerable information exists on seasonality of nesting for sea turtles using VINP beaches, no rigorous studies of nesting numbers and frequencies on all VINP beaches has been carried out since the early

1980's. While the distribution of endangered plants is relatively well known, the extent of threats to the species is speculative.

4. Floodplains

Generically, the term "floodplain" refers to the area near streams that may be submerged by floodwaters. For streams that have undergone detailed analysis by the Federal Emergency Management Agency (FEMA) as a part of the National Flood Insurance Program, the term "flood plain" is more specifically defined as the area that would be expected to submerge during a 100-year flood (often referred to as the "regulatory flood"). The 100-year flood serves as the "base" flood for purpose of flood plain management measures. The "flood profile elevation" is an associated term that refers to the water level elevation at any point along a stream during a 100-year flood event.

A FEMA evaluation of the project site was unable to be identified. The majority of North Shore Road is located along the coast of St. John, more than 50-feet above sea level. Given these characteristics, it is reasonable to assume that North Shore Road is not located within a floodplain. However, even assuming that the road itself is not located in the floodplain, it is still important to consider drainage, both from the road and from surrounding areas, when designing paved waterways and ditches.

5. Coastal Zone Management (CZM)

Federal Government projects are required to obtain a Federal Coastal Zone Management Consistency determination from the VI Department of Planning and Natural Resources (VIDPNR). This determination is the Federal Government's CZM permit process. A Federal Coastal Zone Consistency determination for the proposed work has been obtained from the VIDPNR per letter dated January 30th, 2003. (See appendix D for a copy of the letter.)

Environmental Effects

1. No Action Alternative

Physiography

The physiography of the area would remain unchanged under the No Action alternative.

Water Resources

The No Action alternative would not substantially affect water resources in the area; however the continued deterioration of the road may facilitate increase sedimentation deposits in all streams and eventually may harm the surrounding coral reefs.

Vegetation, Wildlife, and Threatened and Endangered Species

The No Action alternative would not have any effect on vegetation, wildlife, threatened and endangered species, and would not contribute to the introduction or spreading of non-native species.

Flood Plains

The flood plains of the area would remain unchanged under the No Action alternative.

Coastal Zone Management (CZM)

The No Action alternative would not affect CZM resources in the area. The CZM of the area would remain unchanged under the No Action alternative.

2. Build Alternative

Physiography

The physiography of the area would remain unchanged under the Build Alternative.

Water/Wetland Resources

Potential short-term impacts to water quality due to erosion may exist during construction; however, Best Management Practices would be utilized to minimize the potential impacts; including the temporary work to install retaining walls. Should this alternative be selected, a sediment and erosion control plan, including the use of Best Management Practices, would be prepared by the Federal Highway Administration and included in the final construction plans. The Best Management ppractices would include implementation of a sediment and erosion control plan.

Vegetation, Wildlife, and Threatened and Endangered Species

Wildlife may temporarily be adversely affected during construction due to increased noise levels, however, once construction is complete noise levels would return to previous levels.

Preliminary quantity computations estimate that the Project as proposed would involve approximately 1.0 acre of selective clearing and clearing and grubbing work; areas of shrubs and brush that have been selected by the Park for removal due to the fact that they have overgrown and are encroaching on the road surface, as well as limiting the ability of a driver to safely see around curves. Total area of disturbance of the Build Alternative would be approximately 1.0 acre (0.7 acres), where the seed mixture used to reseeding the disturbed areas shall be specified by the park.

The area does contain potential, but extremely limited, habitat for migratory birds. Considering the small amount of vegetation to be removed and the availability of other suitable habitat in the Park, it is unlikely that migratory birds would be impacted. Nonetheless, if migratory birds did roost during the winter in the vicinity of the project, it would be possible to impact them while removing shrubs and brush during those months. Therefore it is recommended that any clearing of vegetation associated with the Build Alternative occur during the offseason.

Mitigation efforts will first require determining the presence of endangered or threatened migratory birds; or, alternatively, assuming them to be present and consulting with the Park's Natural Resource Specialists and possibly the USFWS based on the presumed presence of the various species. Considering the small amount of vegetation to be removed and other suitable habitat within the Park, there would be no long-term impact regarding migratory birds, if the work were conducted during the summer.

A letter from the U.S. Fish and Wildlife Service dated October 20, 2003 stated " no federally listed or proposed endangered species under the jurisdiction of the USFWS will be adversely affected" by this project as proposed. (See Appendix C for letters from the USFWS).

In accordance with Executive Order 13112 signed by President Clinton on February 3, 1999, and NPS/DOI standards and regulations, the Federal Highway Administration, which would oversee the construction of the proposed action, would require that only invasive-free mulches, topsoil, and seed mixes are used on the project.

Floodplains

Under the Build Alternative, alterations, if any, within the floodplain would be negligible and would not contribute substantively to cumulative floodplain impacts. Drainage improvements would also reduce recurrent flooding of the road during storm events.

Coastal Zone Management (CZM)

In a letter received on the 11th of February, 2003, the Division of Coastal Zone Management approved the proposed scope of work. The Federal Consistency Determination, pursuant to Virgin Islands Rules and Regulations, concurred that the reconstruction activities were consistent with the CZM act.

3. Conclusion

Physiography

No impacts to the Park's soils or geology would occur with either the No Action or Build Alternatives. No impairment to the Park's physiography would occur under either of the alternatives.

Water Resources

Water quality and hydrology would not be affected under the No Action Alternative. Under the Build Alternatives, there are potential effects to the water quality. However, these impacts would be minimized with the implementation of a sediment and erosion control plan. The new paved waterways should reduce erosion and also improve drainage flow throughout the Park.

No impacts to the Park's water quality, hydrology, or wetlands would occur. No impairment to the Park's water resources would occur under either of the alternatives.

Vegetation, Wildlife, and Threatened and Endangered Species

None of the alternatives would have a significant effect on the amount of vegetation present within the Park; however the Build Alternative would have some impact due to the fact that some vegetation may be removed immediately adjacent to the road. The removal of shrubs and brush would be minimized to those areas only necessary to complete the proposed action. No impacts to the Park's vegetation would occur.
The No Action Alternative does not affect birds and other wildlife. Under the Build Alternative any negative affects caused by construction would be

temporary and would cause no significant damage in the future. No impacts to the Park's birds, fish, or wildlife would occur.

Pending a determination if any threatened or endangered migratory birds are present, any tree shrub and brush removal would need to be performed during the summer (June through November).
All other Threatened or endangered species would remain unaffected with the no build alternative. A letter from the U.S. Fish and Wildlife Service dated October 20, 2003 stated " no federally listed or proposed endangered species under the jurisdiction of the USFWS will be adversely affected" by this project as proposed. (See Appendix C for letters from the USFWS).

No impairment to the Park's vegetation, wildlife and threatened and endangered species would occur under either of the alternatives.

Floodplains

The long-term adverse impact of the Build Alternative on the floodplain within the Park would be negligible. No impairment to the Park's floodplains would occur under either of the alternatives.

Coastal Zone Management (CZM)

The construction activities would be consistent with the Coastal Zone Management Act. No adverse impacts are expected. No impairment to the coastal zone would occur under either of the alternatives.

D. Air Quality

Affected Environment

Under the Clean Air Act of 1970, Congress established a National Policy for preserving, protecting and enhancing air quality. The 1977 amendments to this Act designated all National Parks 6,000 acres in size or greater, and wilderness areas in excess of 5,000 acres as mandatory Class I areas worthy of the greatest degree of air quality protection under the Act. This places the Virgin Islands National Park within this class of protection.

Generally the air quality in the vicinity of the park is extremely good.

Environmental Effects

1. No Action Alternative

Air quality levels would remain essentially in the same condition as they are under present conditions.

2. Build Alternative

Because this is a reconstruction and rehabilitation effort, air quality levels would remain essentially in the same condition as they are under present conditions. The temporary air quality impacts from construction are expected to be minor. Construction activities would be conducted in accordance with the Federal Highway Administration's *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects, 1996;* and would require compliance with all applicable local, state, and federal regulations. There are no long-term air quality impacts associated with this alternative.

3. Conclusion

Temporary and minor impacts to air quality may occur under the Build Alternatives during construction. No impacts are anticipated under the No Action Alternative. No adverse air quality impacts would be expected under either alternative. No impairment to the Park's air quality would occur under either of the alternatives.

E. Noise

Affected Environment

Virgin Islands National Park is primarily a serene and quiet environment, with ambient sounds including the surf on the shoreline as well as numerous tree frogs singing after sunset. These sounds are not considered noise pollution because they do not affect the tranquility normally sought by visitors on trails, picnic areas and overlooks; moreover, most visitors enjoy the natural sounds.

Environmental Effects

1. No Action Alternative

Selection of the No Action alternative would not result in any significant increase in noise levels; however, a minimal or imperceptible increase (less than 3dBA) in the noise level may result due to the gradual growth in traffic volumes through the Park. This increase would occur irrespective of performing any roadway repairs.

2. Build Alternative

Because this Project is not substantially changing the capacity of the existing roadway, it is not expected to increase noise levels in the region. Any minimal and imperceptible increase (less than 3dBA) in the noise level is due to a gradual growth in traffic volumes and would occur with or without the Project.

Existing noise levels would temporarily increase during construction. Park visitors and hikers in the immediate vicinity would be subject to the noise pollution generated from construction. This Alternative is not expected to result in a substantial increase in the existing noise pollution generated from work activities.

3. Conclusion

The No Action Alternative maintains current noise levels. Under the Build Alternative, the noise levels would increase temporarily during construction, but once construction is complete, noise levels would return to previous levels. No impacts to the level of noise within the Park would occur. No impairment to the noise levels in the Park would occur under either of the alternatives.

F. Public Service

Affected Environment

The Park operates and maintains facilities such as ranger stations, visitor centers, campgrounds, etc. all across the island. In general, emergency services are self-contained to a particular side of the Island, except for the Myrah Keating Clinic, which has a heliport.

The North Shore Ranger Station is located near the Cinnamon Bay Parking Area. The Rangers stationed here are responsible for the oversight of the picnic area, North Shore Road, beaches, and other visitor use areas within their district as well. They also provide Search and Rescue and Emergency Medical Services, as well as law enforcement, monitor the road conditions, and provide wild fire protection as needed in the park.

Environmental Effects

1. No Action Alternative

   Public service operations would remain uninterrupted and essentially in the same condition as the present.

2. Build Alternative

   Police, fire, and emergency services seeking access to North Shore Road would be restricted during reconstruction and rehabilitation efforts, specifically during periods of one-lane closures. However, helicopter access and services would not be affected by the proposed roadway project. The entire project is located within the National Park and is primarily attended by Park personnel. Park personnel would be aware of the temporary access restrictions during construction and would be able to coordinate activities and arrange responses. The Build Alternative would improve service response times and emergency services by improving the road surface and increasing the line of sight of drivers.

3. Conclusion

   The No Action Alternative would not affect police, fire, and emergency services. Narrow portions of the road could impact their ability of Public Services to respond. The Build Alternatives would improve access and overall safety of Public Services. Limitations on access during construction would be limited and short-term. No significant impacts to the Park's Public Service functions would occur under either of the alternatives.

G. Socioeconomic

Affected Environment

North Shore Road begins in Cruz Bay and terminates above Coral Bay Harbor, the only town and village on the island, respectively. Centerline Road is the only other major roadway on the island. Since many delivery trucks, water trucks and large commercial vehicles can only travel along North Shore Road, it is essential to the entire island, that the road be repaired.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, directs all Federal agencies to determine whether a proposed action would have an adverse or disproportionate impact on minority and/or low-income populations. It also directs agencies to ensure that representatives of an affected community have every opportunity to provide input regarding the impact of the proposed project. There are minority populations living on the island of St. John, but it is not expected that this Project will have any

adverse impacts on them. North Shore Road is vital to the transportation network on the island. While temporary inconveniences may occur during construction, it is necessary to maintain a safe transportation network that provides safe access to both the Park and local residences along North Shore Road.

Environmental Effects

1. No Action Alternative

   In the short-term, the No Action Alternative would not have any socio-economic impact on the neighboring communities.

2. Build Alternative

   If the Build Alternative were adopted, there would be some short-term economic gains for construction workers performing the work. The improved condition of the roadway could result in a minor increase in tourism for the Park. Short-term maintenance costs would likely decline.

   The short-term road closures associated with this Alternative may affect the volume of tourists on North Shore Road, however, since the project will be performed in the off-season, impacts will be minimal. Aside from minor inconveniences due to construction, little impact is anticipated on the surrounding communities and the Park as a whole.

3. Conclusion

   Although minimal, the Build Alternatives would result in some socio-economic benefits for the community and Park. The No Action alternative would preclude these benefits. No impacts to the Park's socio-economic environment would occur. No significant impacts to any of the socioeconomic considerations would occur under either of the alternatives.

H. Visitor Use and Experience

Affected Environment

North Shore Road is one of the two main cross-island thoroughfares. Although the road services Park travelers with scenic overlooks and planned vistas, it also serves as the sole access to the majority of features along the northern shore of the Island.
The road is heavily traveled during the daytime and usage is low throughout the night. North Shore Road is the premium and main access to the popular North Shore Leeward Beaches. A majority of Park visitors access the Park via taxi bus along the picturesque North Shore Road. Many businesses have concession operations within this area as well.

Aside from Park visitors, many local residents of the island use North Shore Road, both for commuting to work, as well as a means to complete simply daily tasks.

Environmental Effects

1. No Action Alternative

Visitor use and experience and Park operations would remain essentially the same. However, the driver experience may become diminished as the roadway continues to deteriorate. Park maintenance expenses can be expected to increase in order to keep the road functioning and the current safety issues would be unresolved.

2. Build Alternative

Visitors would be inconvenienced due to temporary road closures when work is ongoing. On sections of the road under rehabilitation and open to the public, the visitor experience may be compromised in the short term as visitors traverse through the work zones. Completion of the work as describe would improve the safety and usability of the road by improving the driving surface and providing space for two vehicles to pass.

3. Conclusion

With the No Action Alternative, visits to the Park remain unchanged. Under the Build Alternative, the experience would be enhanced with improved travel conditions, and a safer road. Some temporary impacts to the visitor use and experience of the Park would occur due to the construction along North Shore Road. The Build Alternative with its increased number of parking spaces and pull offs would, after completion, improve visitor use and experience. No impairment to the Park visitor use and experience would occur under either of the alternatives.

I. Cumulative Impacts/Related Actions

Environmental Effects

1. No Action Alternative

The planned projects proposed for construction in 2004 through 2008 are independent maintenance and safety projects needed to meet Park management objectives. The selection of the No Action Alternative would not have a direct bearing on whether or not these projects move forward in the planning process. Future projects are envisioned to be small and localized thus not leading to any substantial cumulative impacts.

2. Build Alternative

The other projects envisioned for construction in the years 2004 through 2008 are independent maintenance and safety projects needed to meet Park management objectives. The selection of The Build Alternative would not have a direct bearing on whether or not these projects move forward in the planning process. However, the number of days in which traffic is likely to be impacted due to construction is greater under The Build Alternative than under the No Action alternative. This subsequently also elongates the period in which temporary noise impacts from construction may occur.

3. Conclusion

The No Action Alternative would not impose any additional impacts to the Park. The Build Alternative would temporarily increase the traffic delays throughout the construction process. After construction, the traffic conditions are expected to return to pre-construction levels. Associated with the construction period are additional noise levels due to generators and motors of the heavy construction equipment. Aside from the temporary traffic and noise impacts, no other areas or features of the Park are anticipated to be effected. No impairment to the Park would occur under either of the alternatives.

J. Mitigation

1. Vegetation

The final construction plans would include directions and specifications to the Contractor for revegetating disturbed areas with non-invasive species as specified by the NPS. Special consideration would be given to not disturb more area than strictly necessary.

2. Cultural Resources

Monitoring for cultural resources will continue throughout the project. If additional archeological resources were to be encountered during construction operations, construction would be immediately halted. The Park archeologist would be contacted immediately so that the resources could be logged, evaluated, and retrieved.

3. Soil and Water Resources

A sediment and erosion control plan utilizing Best Management Practices would be prepared and included in the final construction plans. The Best

Management Practices include: silt fences and haybales placed at the foot of slopes and at other locations to contain excavated material and to filter sediment from stormwater runoff; temporary berms and stream diversion channels to separate stream and other significant drainage flow from erodable soil; and temporary seeding of slopes for short-term re-stabilization.

4. Visitor Use and Experience/Park Operations

Construction would be staged so that traffic flow can continue as much as possible. In the event of lane closures, closures would be advertised to the public and be confined to dates between May 1 and November 30.

IV. SUMMARY OF IMPACTS/ALTERNATIVES

A. Summary of Environmental Consequences for Each Alternative

The following chart summarizes and compares the likely results of implementing the No Action Alternative and the Preferred Alternative as they relate to the environment. The primary point of interest for the No Action Alternative is that it would not provide for the needed improvements to the road and may result in future unplanned, long-term, temporary closures of North Shore Road. The primary point of interest with the Build Alternative is the area the temporary traffic restrictions and road closures during construction.

B. Summary of Proposed Actions

The following chart summarizes and compares the likely results of implementing the No Action Alternative and the Build Alternative as they relate to the environment.

Factor	No Action Alternative	Build Alternative
Vegetation	No change from the existing conditions	Limited vegetation removal and clearing would occur in areas proposed for realignment. Impacts on vegetation would be expected to be minor and short term, with recovery taking place in the first season or two. 1.0 acre of disturbed area.
Special Status Species	No change from the existing conditions	The proposed project is not likely to adversely affect any Special Status Species according to the FWS. (Letter dated October 20, 2003)
Birds & Wildlife	No change from the existing conditions	Birds and other wildlife may avoid habitat within and adjacent to the proposed project site. Since the site occurs along the alignment of the existing roadway, it is likely that these areas are already avoided to some extent and no additional impact may result. Similar habitat is present throughout the Park and would remain protected under current management plans; therefore, the overall impact to birds and wildlife would be minor.
Air Quality	Air quality levels would continue to remain the same.	The proposed project is not likely to affect air quality levels.
Hydrology/ Water Quality/ Wetlands	No change from the existing conditions	Potential impacts would be mitigated through the development and implementation of sediment and erosion control plan and best management practices. Proposed drainage

Factor	No Action Alternative	Build Alternative
		improvements could contribute to better overall water quality. Wetlands would not be impacted.
Soil / Geology	No change from the existing conditions	Some earth disturbance would be required to perform the roadway reconstruction activities. No major or long-term adverse impacts are anticipated.
Noise	The road surface would deteriorate further, resulting in more noise than a paved road would.	Minor temporary impacts are anticipated during construction. A decrease in noise levels after the completion of construction would be anticipated due to improvements in the road surface.
Visitor Use and Experience	The road would continue to deteriorate, and visitors, would continue to be faced with unsafe driving conditions. Also increased erosion could lead to additional sedimentation in streams and guts.	Retention walls are incorporated to a lesser extent in this alternative. The expanded roadway surface would allow vehicles to pull off the road without interrupting the flow of traffic. The retaining walls would provide a safe place for some drivers to stop and admire the natural views.
Cultural Resources	No change from the existing conditions	No change from the existing conditions.

V. COMMITMENTS AND RESOURCES

A. Irreversible and Irretrievable Commitment of Resources

To date, approximately $2,950,000 (estimate) in Federal Lands Highway Program funds, has been set aside for planning, design, and construction. Should design and construction of the Build Alternative occur, these resources would be consumed. Currently, approximately $500,000 has been irreversibly and irretrievably committed during the environmental data collection and preliminary design phase of this Project. Should the Build Alternative not be chosen, these resources would be unrecoverable.

B. Unavoidable Adverse Environmental Effects

Natural impacts, including numerous diseases, bleaching and hurricane damages occur to the Park resources every year. Since resource managers are unable to alter the majority of the natural impacts, every effort must be made to minimize human impacts. Through improper and inadequate control measures, past construction projects have caused damage to sensitive-and-already stressed offshore communities. Ironically, these are the same communities people are flocking to the Virgin Islands to see, and in such numbers that the roadway is in disrepair due to overuse. The up-slope vegetation is being destroyed by long-term, inappropriate and unregulated parking. Although the risk exists that construction project could result in harmful environmental consequences, the Park welcomes the risk in order to prevent the many sustained activities that are definitely negatively affecting Park resources. No substantial unavoidable adverse environmental effects are anticipated, however short term impacts will result in forms of minor vegetation loss and inconvenience to the visitors and residents who use North Shore Road.

C. Local Short-Term Uses and Maintenance/Enhancement of Long-Term Productivity

Short-term maintenance costs would decline if the proposed reconstruction and rehabilitation work occurs in the near future. As a result, the Park may allocate more time and personnel to the protection of the Park's more prominent cultural and natural resources.

D. Natural or Depletable Resources

The use of some natural resources would be required under any of the Build Alternatives in order to complete construction operations, however no natural resources would be depleted. The quantity of materials in comparison to those readily available would be negligible.

E. Energy Requirements and Conservation

The preferred alternative, the Build Alternative, would be expected to provide some benefits in terms of energy conservation. These benefits would be most realized by widening the road and reducing the amount of time vehicles spend idling as they wait for other vehicles to pass.

F. Applicability to Environmental Laws

1. National Environmental Policy Act (NEPA)

   Requires Federal agencies to evaluate the environmental impacts of their actions and to integrate such evaluations into their decision making process.

2. Clean Water Act (CWA)

   Controls and regulates Non-point source pollutants such as pesticide runoff, forestry operations, and parking lots / roads.

3. Clean Air Act (CAA)

   Establishes standards for air quality in regard to the pollutants generated by internal combustion engines. These standards, know as the National Ambient Air Quality Standards (NAAQS), define the concentration of these pollutants that are allowable in air to which the general public is exposed ("ambient air").

4. Endangered Species Act (ESA)

   Prohibits the harming of any species listed by the U.S. Fish and Wildlife Service (USFWS) as being either Threatened or Endangered. Harming such species includes not only directly injuring or killing them, but also disrupting the habitat on which they depend.

5. Archaeological Resources Protection Act (ARPA)

   Ensures the protection and preservation of archeological resources on Federal lands.

6. National Historic Preservation Act (NHPA)

   Provides protection of cultural resources, and ensure that they are considered during Federal project planning and execution.

7. National Park Service Organic Act of 1916

   Established the National Park Service to manage national parks for the purposes of conserving the scenery, natural resources, historic objects, and wildlife within the parks, and providing for the enjoyment of these resources in such manner that will leave them unimpaired for the enjoyment of future generations.

8. Executive Order 12898: Environmental Justice

   Executive Order 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations, directs all federal agencies to determine whether a proposed action will have an adverse or disproportionate impact on minority and/or low-income populations. It also directs agencies to ensure that representatives of an affected community have every opportunity to provide input regarding the impact of the proposed project.

   No residential owners or occupants would be displaced, nor would there be any impact to minority and/or low-income populations from either of the alternatives.

Neither the No Action Alternative nor the Build Alternative would violate or contradict any of the above environmental laws.

VI. PUBLIC INVOLVEMENT AND COORDINATION

A. Public Information Meetings

In accordance with Section 5.5 of the *Director Order 12,* coordination and public involvement in the planning and preliminary design of the proposed action was initiated early in the process.

A public meeting was held to provide an opportunity for interested citizens and interest groups to solicit information and provide comments on the proposed project. Copies of the meeting announcement and handout can be found in Appendix A.

B. Summary of Public Comment

Public Information Meeting:

A public information meeting was held on September 18, 2002 at the Virgin Islands Legislature Building, Cruz Bay, St. John from 6 pm to 8 pm.

1. The meeting was held in an open forum format.

2. Representatives from the National Park Service and the Federal Highway Administration were available to discuss the project and answer questions.

3. Seven persons (public) attended the meeting.

4. Notice of the meeting was advertised in 1 newspaper, posted on the NPS and FHWA web sites and mailed to individuals and groups on the NPS Virgin Islands National Park mailing list.

Verbal and Written Comments:

A 30-day public comment period was held from September 18 until October 18, 2002. One written comment was received. That comment related to ownership of North Shore Road within the Park boundary. This issue is not under consideration and does not impact this undertaking, the comment was noted and directed to the Park for consideration. The following is a listing of verbal comments received at the public information meeting:

1. Maintain the existing character of the roadway.

2. Construction should not impede tourist and taxi access to the attractions along North Shore Road. It was suggested that the work be undertaken during periods of reduced tourist visitation.

3. Minimize impacts to park resources (ie. flora and fauna, land features).

C. Agency Coordination

As required by NPS policies and planning documents, it is the Park's objective to work with state, federal, and local governmental and private organizations to ensure that the Park and its programs are coordinated with theirs, and are supportive of their objectives, as far as proper management of the Park permits, and that their programs are similarly supportive of Park programs.

Consultation and coordination have occurred with numerous agencies for the development of the alternatives and preparation of the EA. The consultation was initiated at an early stage and is on-going with various interested parties. The following people, organizations, and agencies were contacted for information, which assisted in identifying important issues, developing alternatives, and analyzing impacts:

Virgin Island Department of Planning and Natural Resources (VI DPNR)
Virgin Islands Coastal Zone Management
U.S. Fish and Wildlife Service

D. List of Preparers and Reviewers

The following individuals contributed to the development of this document:

Federal Highway Administration
Jack Van Dop, Environmental Compliance Specialist
Brigitte A. Azran, Environmental Compliance Engineer
Nicholas O. Finch, Highway Engineer (Environmental)
Dave Weber, Project Manager

National Park Service
Rafe Boulon, Chief of Resource Management, Virgin Islands National Park
Thomas Kelly, Natural Resources Manager, Virgin Islands National Park
Jami Hammond, Regional Coordinator, National Park Service (Southeast Region)

VII. REFERENCES

National Park Service Organic Act of August 25, 1916.

Curry, C. 1970. Entomological checklist for the Virgin Island Ecological Research Station and Virgin Islands National Park Museum. Report to NPS. 25 pages.

Muchmore, W. 1987. Terrestrial Invertebrate Animals of the Virgin Islands National Park, St. John, USVI: an annotated checklist. University of Rochester, Rochester, NY.

National Park Service, Southeast Regional Office. 1983. General Management Plan/Development Concept Plan/Environmental Assessment, Virgin Islands National Park. U.S. Department of the Interior, Atlanta, GA. 350 pages.

National Park Service. 1989. Natural Resource Management Guideline (NPS-77). U.S. Department of the Interior, Washington, D.C. 750 pages.

National Park Service. 1997. Land Protection Plan, Virgin Islands National Park. Cruz bay, St. John, U.S. Virgin Islands. 120 pages.

National Park Service. 1999. Resource Management Plan Virgin Islands National Park. Division of Resource Management, Biosphere Research Buildings, Cruz Bay, St. John, U.S. Virgin Islands. 250 pages.

National Park Service. 2001. Management Policies. U.S. Department of the Interior, Washington, D.C. 350 pages.

National Park Service. 2001. Conservation Planning, Environmental Impact Analysis, and Decision Making: Director's Order # 12 and Handbook. U.S. Department of the Interior, Washington, D.C. 123 pages.

APPENDIX A

PUBLIC INFORMATION ANNOUNCEMENTS
AND
ORIGINAL HANDOUTS FROM PUBLIC MEETINGS

PROPOSED ROADWAY REHABILITATION
AND
MINOR PARKING IMPROVEMENTS

NORTH SHORE ROAD

in
Virgin Islands National Park
St. John, United States Virgin Islands

PUBLIC INFORMATION MEETING

September 18, 2002
6:00 P.M.

Virgin Islands Legislature Building
Cruz Bay, St. John

National Park Service
Virgin Islands National Park
Cruz Bay, St John, USVI

In cooperation with the

Federal Highway Administration
Eastern Federal Lands Highway Division
Sterling, VA

PROJECT DESCRIPTION

The National Park Service (NPS), in cooperation with the Eastern Federal Lands Highway Division (EFLHD) of the Federal Highway Administration (FHWA), is initiating actions to rehabilitate sections of eight mile long North Shore Road (Route 20) within the Virgin Islands National Park. The project also proposes parking and safety improvements in the area of Lind Point Overlook, Hawksnest Parking Area, Jumbie Bay, Trunk Bay, Cinnamon Bay, Penn Point and Maho Bay. The proposed improvements are located on or adjacent to North Shore Road between the Park Entrance in Cruz Bay and the area of the Annaberg Access Road. Recommendations consist primarily of maintenance activities and surface improvements designed to extend the pavement life of the existing roadway, as well as minor parking expansions and safety measures at the adjacent sites.

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PUBLIC INFORMATION MEETING

Public information meetings provide an opportunity for the National Park Service and Federal Highway Administration, to present information on the proposed improvements to the general public. It also offers an opportunity for individuals, representatives of civic groups, public agencies, and governing bodies to offer comments, submit written material, and ask questions regarding the proposed project, as well as to become informed of the schedule for future events in the process. Representatives of the NPS and FHWA will be available at the meeting to answer questions and describe the proposed improvements. Maps and other pertinent information will be provided as displays at the meeting. Informal public information meetings are beneficial to the community, the NPS and the FHWA. Comments will assist the NPS and FHWA in addressing the community's concerns.

The proposed project's improvements, location and access points, as well as, possible temporary impacts due to construction activities will be presented. Preliminary design plans and general information regarding the proposed project will be available for viewing and to aid in discussing details of possible affects on adjacent properties.

CORRESPONDENCE AND COMMENT

Verbal and written comments from the public regarding the project are requested. Comments may be presented at the meeting or in writing following the meeting. Written statements and other exhibits may be submitted to Mr. John H. King, Superintendent, Virgin Islands National Park, 1300 Cruz Bay Creek, Cruz Bay, St. John, USVI 00830, until October 18, 2002. Fax copies of comments can be sent to Superintendent King at (340) 693-9500.

TENTATIVE PROJECT DEVELOPMENT SCHEDULE

Public Information Meeting	September 18, 2002
End of Comment Period	October 18, 2002
Construction Begins	Summer 2003
Construction Completed	Summer 2004

PUBLIC COMMENT – SUBMISSION FORM

You are invited to submit any comments or suggestions regarding the National Park Service's plans to rehabilitate sections of eight mile long, North Shore Road (Route 20), within the Virgin Islands National Park. The project also proposes parking and safety improvements in the area of Lind Point Overlook, Hawksnest Parking Area, Jumbie Bay, Trunk Bay, Cinnamon Bay, Penn Point and Maho Bay. The proposed improvements are located on or adjacent to North Shore Road between the Park Entrance in Cruz Bay and the area of the Annaberg Access Road. Recommendations consist primarily of maintenance activities and surface improvements designed to extend the pavement life of the existing roadway, as well as minor parking expansions and safety measures at the adjacent sites.

The needs and comments of the local residents, interested organizations and public agencies are important considerations for this project. Feel free to submit any concern, suggestion or comment utilizing this form. We ask that you please submit comments by mail or facsimile to the address indicated below, prior to October 18, 2002.

Name: _____

Address:_____
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Comments:_____
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Please submit Comment Forms to: Mr. John H. King, Superintendent
Virgin Islands National Park
1300 Cruz Bay Creek
Cruz Bay, St. John, USVI 00830
Fax No. (340) 693-9500

For further information contact: Mr. John Javor, Park Facilities Manager @ (340) 693-8989, ext 25

Rehabilitation of North Shore Road and Minor Parking Improvements
VIRGIN ISLANDS NATIONAL PARK
St. John, USVI

Proposed Improvements Include:

x Pavement Improvements

a. Repair of existing areas of pavement cracking and settlement in North Shore Road
b. Drainage improvement in North Shore Road in area of Kings Hill

x Cruz Bay – Lind Point Overlook

a. Expand area for vehicle pull-offs
b. Provide stone masonry faced retaining wall to expand pull-off

x Hawksnest Parking Area

a. Convert to one-way vehicle circulation in existing parking area
b. Provide additional parallel parking spaces adjacent to existing island
c. Convert existing parking spaces to angled parking
d. Close the opening in the middle of the existing roadside parking island
e. Plant additional trees in the parking island
f. Install traffic-calming features
g. Correct drainage

x Jumbie Bay

a. Provide new low water crossing in roadway
b. Provide management boulders to control off road parking

x Trunk Bay Parking Area

a. Provide modified low water crossing in roadway
b. Provide traffic-calming feature in roadway, uphill of parking area exit
c. Provide management boulders to control off road parking

x Cinnamon Bay Parking Area

a. Increase parking by 12 spaces, consistent with 1983 General Management Plan
b. Provide traffic-calming features

x Penn Point

a. Increase sight distance and improve safety by increasing curve radius
b. Cut back existing embankment on inside of curve
c. Install new guardrail

x Maho Bay

a. Extend seawall adjacent to north side on North Shore Road to protect roadway

APPENDIX B

Cultural Resources

Letters and Correspondences Received.

IN REPLY REFER TO:

December 20, 2002

To: Superintendent, VIIS

Through: Chief, Resource Management,

From: Cultural Resource Manager/ Archeologist, VIIS

Subject: Management Report on Archeological Survey for Proposed Federal Highway Projects along the North Shore.

Cruz Bay Overlook

In July 2002, Virgin Islands National Park reviewed all proposed road work along the North Shore Road. Archeological testing was determined necessary at two locations for the installation of an overlook at Lind Point and for a proposed parking extension at Cinnamon Bay. The park's cultural resource manager/archeologist, completed the work field work with the assistance of Americorp students. The assistance of these students greatly facilitated the completion of the fieldwork required in completing these projects.

The location of the proposed overlook extends from the Lindholm Estate boundary downhill towards Cruz Bay. The proposed project is situated where vehicles stop to view the town of Cruz Bay and in the evenings to watch sunsets. The stopped vehicles create a situation that can be hazardous as this area is also curved and on a slope. The installation of the overlook will widen the road to allow cars and taxis to pull over from the two-way traffic.

Survey of the proposed construction area began with vegetation removal within the proposed project corridor. Once accomplished it became obvious that the area had a low probability that any cultural resources would be present. The terrain consists of natural rock outcrops that exhibited no evidence of having been altered by humans. A surface survey for cultural remains was conducted with negative results. Subsurface testing was not attempted, as there is little to no soil on this predominately rocky slope. The area is cleared for construction as required to complete this project.

Cinnamon Bay Parking Lot Extension

Investigations in the area proposed to construct a parking lot extension at Cinnamon Bay began by establishing a survey grid in the project area. A visual surface survey was completed within the project grid area. This initial survey indicated that portions of the project area were disturbed by heavy earth moving equipment as spoil piles were noted just east of the present amphitheater.

A total of fifteen subsurface tests were excavated within the project boundary. The 50 X 50 cm tests were excavated in ten centimeter levels. The tests confirmed that a large portion of the area had been disturbed by heavy equipment. Most artifacts recovered were found in disturbed context. One test however, did produce artifacts from undisturbed soils. The material recovered suggests a black smith shop may have been present in the area. The test is located in an area of the project that is avoided in the current construction plans for the parking extension. No further archeological work is required for the construction of this parking extension.

Conclusion

All proposed road work along the North Shore Road has been reviewed for adverse impacts to cultural resources. The investigations found that the project will have no adverse impacts as proposed. As no adverse impacts will occur as a result of this project, Section 106 consultation with SHPO is not necessary.

APPENDIX C

Threatened and Endangered Species

Letters and Correspondences Received.

Enclosed please find a general vicinity map for the proposed project area and a copy of the preliminary plans. Questions concerning this matter should be directed to Mr. Nicholas Finch, Highway Engineer (Environmental), at 571-434-1548.

Sincerely yours,

Alan T. Teikari
Planning & Programming Engineer

Enclosures

cc:
Mr. John H. King, Superintendent, Virgin Islands National Park, National Park Service, St. John, VI
Mr. Kent Cochran, FLHP Coordinator, Southeast Region, National Park Service, Atlanta, GA

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Boqueron Field Office
P.O. Box 491
Boqueron, Puerto Rico 00622

October 20, 2003

Mr. Alan T. Teikari
Planning & Programming Engineer
Eastern Federal Lands Highway Division
Federal Highway Administration
21400 Ridgetop Circle
Sterling, VA 20166-6511

Re: PRA-VIIS 100(2)
St. John, USVI

Dear Mr. Teikari:

Thank you for your letter of September 23, 2003, providing the additional information we requested. In a letter dated September 2, 2003, we addressed our concerns about possible impacts to marine communities by a proposed extension to a seawall located adjacent to the north side of North Shore Road. The extension of the seawall was one of the above referenced project's components.

According your letter, the extension of the seawall has been removed from the proposed project and no impact to any mangroves and/or subtidal communities are expected. Based on this information, we do not object to the project and concur with your determination that no Federally listed or proposed endangered species under the jurisdiction of the U.S. Fish and Wildlife Service will be adversely affected by project as proposed.

If you have any questions, please contact Ana Román from our staff at (787) 851-7297, ext. 22.

Sincerely yours,

Carlos A. Díaz
Assistant Field Supervisor

amr
cc: COE, San Juan

APPENDIX D

COASTAL ZONE MANAGEMENT

Letters and Correspondences Received.

GOVERNMENT OF THE VIRGIN ISLANDS OF THE UNITED STATES
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DEPARTMENT OF PLANNING AND NATURAL RESOURCES
Division of Coastal Zone Management
Cyril E. King Airport, Terminal Building Second Floor
St. Thomas, Virgin Islands 00802

Fax: (340) 714-9524 Tel.: (340) 774-3320

January 30th, 2003

Mr. Alan Teikari
US Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division
21400 Ridgetop Circle
Sterling, VA 20166-6511

Re: **Federal Consistency Determination-US Department of Transportation-Rehabilitation of Route 20 (North Shore Road) St. John USVI, Project PRA-VIIS 100 (2)**

Dear Mr. Teikari:

This is in response to your Federal Consistency Determination dated November 14th, 2002 to rehabilitate sections of Route 20 (North Shore Road) on St. John USVI. The proposed project includes parking and safety improvements at the Lind Point Overlook, Trunk Bay, Cinnamon Bay, Penn Point and Maho Bay. The sites scheduled for rehabilitation are all located on Route 20 between the National Park entrance in Cruz Bay and the Annaberg Access Road.

The Federal Consistency Determination and the proposed scope of work have been reviewed and we concur with your determination that the activity is consistent with the Virgin Islands Coastal Zone Management Act. Therefore, pursuant to VI Rules and Regs. Tit.12, Section 904-7(a) your request is hereby approved.

Please notify the Department of Planning and Natural Resources, Division of Coastal Zone Management at least forty eight (48) hours prior to commencement of work.

If we can be of further assistance to you please contact Mr. Janice D. Hodge, Director of CZM at 774-3320 extension 5115.

Sincerely,

Dean C. Plaskett, Esq.
Commissioner

cc: Janice D. Hodge, Director of CZM