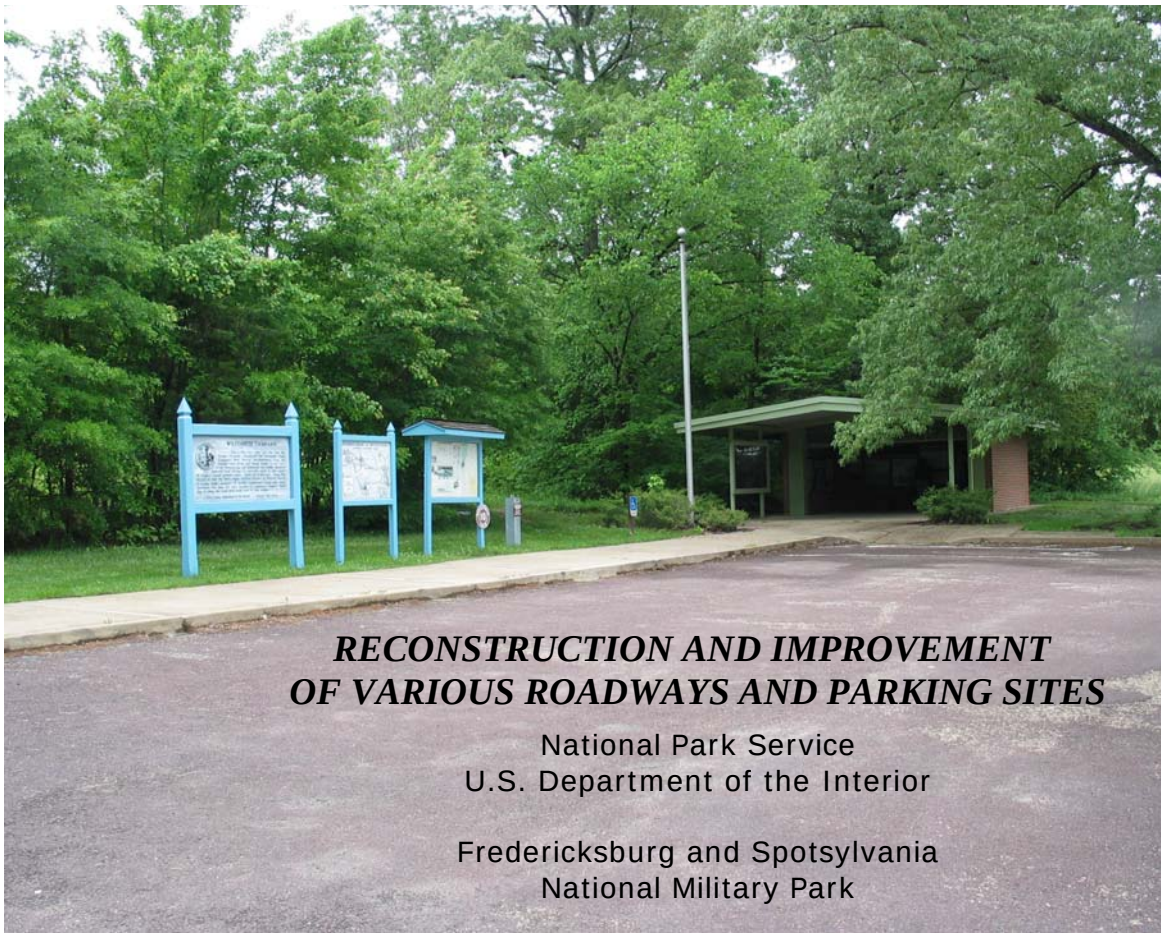
ENVIRONMENTAL ASSESSMENT



RECONSTRUCTION AND IMPROVEMENT OF VARIOUS ROADWAYS AND PARKING SITES

National Park Service
U.S. Department of the Interior

Fredericksburg and Spotsylvania
National Military Park

Prepared in cooperation with the
U.S. Department of Transportation
Federal Highway Administration
Eastern Federal Lands Highway Division

December 2005

Prepared pursuant to the Council on Environmental Quality s regulations for implementing the National Environmental Policy Act (43 CFR 1500), 42 U.S.C. 4332(2)(C), and National Park Service Director's Order #12: Conservation Planning, Environmental Impact Analysis, and Decisionmaking and Handbook (2003) (DO-12).

SUMMARY

At Fredericksburg and Spotsylvania National Military Park, the National Park Service (NPS) proposes to improve various roadways and to improve, relocate, and/or create parking sites within the Park. These roadways include: Route 501, Route 11 Grant Drive, Anderson Drive, Gordon Drive, Bloody Angle Drive, and Burnside Drive. This action is needed to rehabilitate the deteriorated road surfaces and address parking deficiencies as well as to improve visitor access to the Park's historical sites.

This Environmental Assessment (EA) prepared in cooperation with the Federal Highway Administration, Eastern Federal Lands Highway Division, examines in detail the No Action Alternative and the Build Alternative (the National Park Service Preferred Alternative). The preferred alternative includes rehabilitation of the existing roadway service, obliterating East Angle Drive, and relocating, improving, and creating additional parking areas.

The preferred alternative would have negligible or no impacts on wetlands, environmental justice, special status species, floodplains, socioeconomic environment, water quality, air quality, soundscape, geology and soils, ethnographic resources, park operations, sustainability, energy resources, prime and unique farmlands, and viewsheds. Minor impacts to cultural resources, vegetation, wildlife and wildlife habitat, visitor use and experience, and visitor conflicts and safety would result from the preferred alternative.

Public Comment

If you wish to comment on the environmental assessment, you may mail comments to the name and address below. This environmental assessment will be on public review for 30 days. Please note that the names and addresses of people who comment become part of public record. If you wish us to withhold your name and/or address, you must state this prominently at the beginning of your comment. We will make all submissions from organizations, businesses, and from individuals identifying themselves as representatives or officials of organizations or businesses available for public inspection in their entirety.

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1. INTRODUCTION

Fredericksburg and Spotsylvania National Military Park (Park) was created to preserve the resources and memory of four Civil War Battles: Fredericksburg, Spotsylvania Court House, Wilderness, and Chancellorsville. Congress established the Park on February 14, 1927 and Executive Order 6166 transferred control of the park from the War Department to the National Park Service (NPS) in 1933.

Driving tour routes link important battle areas of all four battlefields. Along the tour route, pull-offs provide visitors the opportunity to experience historically significant viewsheds and allow visitors to read the historical markers. Numerous walking trails also traverse the historic ground. The Park contains rich forests and wetlands, developed parkland, farmsteads, and historic landscapes.

1.1 Project Location

Fredericksburg is located 50 miles south of Washington, D.C. and 50 miles north of Richmond, V.A. The Park is an 8,374-acre site in a suburban area located along either side of I-95 in Caroline, Orange, Spotsylvania, and Stafford Counties, and the City of Fredericksburg in the northeastern portion of Virginia.

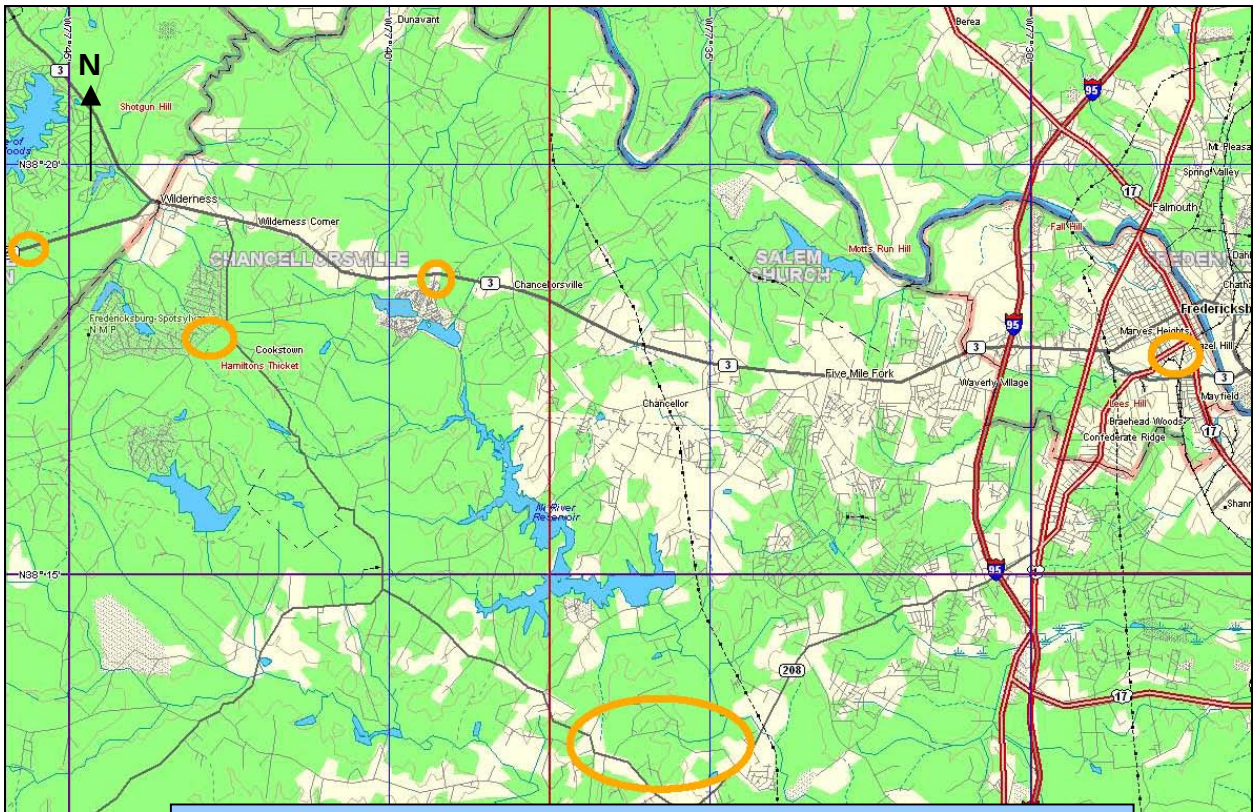

Figure 1. The project locations are shown circled in orange on the topographic map.

1.2 Purpose for the Proposed Action

At Fredericksburg and Spotsylvania National Military Park, Caroline, Orange, Spotsylvania, and Stafford counties, Virginia, the National Park Service (Park) proposes to rehabilitate the following roads and parking areas: Route 501, Route 11 Grant Drive, Anderson Drive, Gordon Drive, Bloody Angle Drive, Burnside Drive, Fredericksburg Visitor Center Parking Area, Chancellorsville Visitor Center Parking Area, Wilderness Exhibit Parking Area, Spotsylvania Battlefield Exhibit Shelter Parking Area, Upton Road Pullout, Bloody Angle Tour Stop, Anderson Drive Bus Parking, and the Natural Resources Driveway and Parking Lot. The Park also proposed to create additional parking areas at Anderson-Gordon Drive Intersection, East-Angle Drive – Gordon/Burnside Drive Intersection, Vermont Monument Parking Area, and the Longstreet Interpretive Pulloff, and obliterate unnecessary gravel and pavement. The purpose of this project is to return the roadways and parking areas to a more serviceable state, reducing short-term maintenance costs, facilitate snow plowing, and provide for a safer, more enjoyable visitor experience. The Park also proposes to improve visitor access and interpretation in the Orange Plank Road corridor of the Wilderness Battlefield by erecting a monument provided by an organization representing the State of Vermont, and creating an associated trail. Since the proposed sites have similar characteristics, they are being combined into one project.

1.3 Need for the Proposed Action

This action is needed because the asphalt surfaces have deteriorated and continue to deteriorate as evidenced by potholes, cracks, collapsing edges, humps, and road base failures. The pavement failure creates safety hazards for both motorists and pedestrians. The existing chip seal surface treatment creates hazardous snow removal conditions because of the non-uniform roadway surfaces, causing unsafe driving conditions in winter weather.

The Park has also stated a need to improve interpretation and visitor accessibility to areas within the Park, including the Bloody Angle area and Wilderness Battlefield area. The presentation of a monument from the State of Vermont to be placed in the Wilderness Battlefield area presents a need to provide a parking area and a visitor trail to access the monument.

In 1998, an engineering study was performed to prioritize and request funding for roadway improvement projects. As a result of this study the National Park Service rehabilitated several roads, parking areas, drainage structures, and intersections within the Fredericksburg and Spotsylvania National Military Park in 2003. These roadways and parking areas included: Furnace Road, Sickles Drive, Stuart Drive, and Bullock Road; Berry-Paxton Drive; Jackson Trail East; Jackson Trail West; Jackson Shrine Road; Hancock Road; and McCoull House Road. The previously listed roadways and parking areas were also indentified in the engineering study for improvements. Rehabilitating the additional roadways and parking areas as proposed in this project will make those roadways consistent with the previously rehabilitated areas of the park.

1.4 Scoping

Scoping is an early and open process to determine the extent of environmental issues and alternatives to be addressed. In March 2004, the roadways and parking areas that needed improvement were identified by the Park and some concern was raised regarding archeological resources in the area (Design Scoping Report). In July 2005 additional concern was raised by the Park regarding archeological resources and determined the need for shovel testing the undisturbed areas proposed for parking areas. Traffic management and the timing of construction were also stated as concerns. The Park would like to keep traffic flowing through the park to limit the disruption to visitors.

1.5 Impact Topics

As a result of scoping, specific impact topics were developed to address potential natural, cultural, and social impacts that might result from the proposed rehabilitation and new construction. These include those identified above and address federal laws, regulations and orders, *Fredericksburg and Spotsylvania National Military Park* management documents, and NPS knowledge of limited or potential impacts to resources. A brief rationale for the selection of each impact topic follows:

Impact Topics Requiring Further Analysis

Vegetation

The NEPA requires an examination of impacts on the components of affected ecosystems. NPS policy requires the protection of the natural abundance and diversity of all the Park's naturally occurring communities. Clearing and grubbing would be required for the creation of parking areas; therefore the impacts to vegetation will be addressed for each alternative.

Wildlife and Wildlife Habitat

The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the Park's natural ecosystem. Removal of vegetation and the construction of an alternative could affect the Park's wildlife; therefore this impact topic will be addressed further.

Cultural Resources

The National Historic Preservation Act of 1966, the National Environmental Policy Act of 1969 (NEPA), the 1916 NPS Organic Act, NPS Management Policies, and NPS-28 require Federal agencies to consider the effects of their proposed actions on cultural resources. Protection and preservation of cultural resources at the Park are of critical importance and will be discussed as part of this analysis.

The FHWA and the NPS, in consultation with the Virginia State Historic Preservation Officer, have determined that the *Fredericksburg and Spotsylvania National Military Park* meets the criteria of eligibility for the National Register of Historic Places. In addition, the setting of the *Fredericksburg and Spotsylvania National Military Park* is managed to ensure that Park visitors are afforded a serene and informational travel experience, highlighted by the historic and natural landscapes of the Park. Perpetuation of these aesthetic characteristics of the Park's cultural landscape is an important design consideration of the current project. Therefore, in accordance with 36 CFR 800, an assessment is required of the effect that the construction would have on the Park and other potential cultural resources in the project area.

Visitor Use and Experience

NPS Management Policies 2001 state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. Disruptions to traffic patterns during the construction activities could occur. The duration of these impacts are anticipated to be less than one constructions season. Since the proposed action has the potential to impact visitor use and operations during construction, this topic will be discussed further.

Visitor Conflicts and Safety

The *NPS Management Policies 2001* state that the NPS will seek to provide a safe and healthful environment for visitors and employees. Traffic management during construction activities has the potential to create visitor safety concerns, therefore this topic will be discussed further.

Impact Topics Dismissed from Further Analysis

Wetlands

Executive Order 11990 (Protection of Wetlands) requires an examination of impacts to wetlands. National Wetland Inventory Maps identified wetlands within the Park; however they showed no wetlands in the project area. Absence was confirmed through a site visit and discussion with Park environmental staff. Therefore the impact topic does not require further discussion and was removed from further consideration.

Environmental Justice

Executive Order 12898: Federal Actions to Address Environmental Justice in Minority and Low Income Populations forbids Federal agencies from disproportionately affecting minority and/or low-income communities. The project area and all related work will be within the boundaries of the Park. Any impacts of the project would affect all park visitors equally and would not disproportionately affect low-income or minority individuals or populations. Therefore environmental justice does not require further discussion.

Special Status Species

Section 7 of the Endangered Species Act directs all Federal agencies to use their authority in furtherance of the purposes of the Act by carrying out programs for the conservation of threatened and endangered species. Federal agencies are required to consult with the U. S. Fish and Wildlife Service (FWS) to ensure that any actions authorized, funded, and/or carried out by the agency does not jeopardize the continued existence of any listed species or critical habitat. In cooperation with the NPS, the Eastern Federal Lands Highway Division initiated consultation with the FWS on May 7, 2004 per Section 7 of the Endangered Species Act (ESA). The FWS determined, based on the proposed plans to rehabilitate and reconstruct sites within the Park, that the project is "not likely to adversely affect" federally listed or proposed species or adversely modify critical habitat in a letter dated June 14, 2004. After the addition of the Vermont Monument, parking area and trail to the project consultation was reinitiated. A response from FWS dated September 16, 2005 stated "We have reviewed the information you have provided and believe that the proposed action will not adversely affect federally listed species or federally designated critical habitat because no federally listed species are known to occur in the project area. The Virginia Department of Conservation and Natural Resources determined in a letter dated June 15, 2005 that "…we do not anticipate that this project will adversely impact these natural heritage resources." Therefore this impact topic was dismissed from further analysis. Copies of agency correspondence regarding special status species can be found in Appendix A.

Floodplains

Development within floodplains and floodways is regulated by federal and state laws to reduce the risk of property damage and loss of life due to flooding, as well as to preserve the natural benefits floodplain areas have on the environment. Executive Order 11988: Floodplain Management requires all federal agencies to avoid construction within 100-year floodplains unless no other practical alternative exists. Through the consultation of Federal Emergency Management Agency maps and site visits to the project, it was determined that there were no floodplains within the project area, therefore floodplain impacts was dismissed from further analysis.

Socioeconomic Environment

Socioeconomic issues are defined as actions that have the potential to create a negative change to the demographics, housing, employment, and economy of an area. The project site is entirely on National Park Service property and the primary industries adjacent to the park are retail, office, light industrial, agriculture, mining, and small businesses. Spotsylvania County is a typical fast growing suburban county. Spotsylvania census data indicates population growth has increased by approximately 57.5% from 1990 to 2000. Although a rich history and scenic appeal exists, tourism is a minor component of the county's service employment base, as evidenced by the retail sales per capita, equivalent to the statewide average. The NPS does not charge visitors a fee for entering the park,

however there are donation bins which assists in generating minimal revenue for park upgrades.

The proposed alternative would create negligible beneficial short-term impacts on the local economy from construction employees using local commercial establishments; however the long-term effects would be negligible. Therefore this topic was dismissed from further analysis.

Water Quality/Hydrology

NPS Management Policies (2001) require protection of water quality consistent with the Clean Water Act. The proposed action may create negligible temporary impacts during construction. All potential Best Management Practices (BMPs), erosion control measures, and activities as necessary to prevent degradation of state water quality standards will be used. The increase in impervious surface from the proposed parking areas would have negligible effects on the water quality/hydrology since the amount of increased impervious surface is estimated to be less than one half acre, and the proposed obliteration of East Angle Drive would remove approximately 0.9 acre of impervious surface from the Park. Therefore the project as a whole will decrease the amount of impervious surface in the Park.

Air Quality

The 1963 Clean Air Act, as amended (42 U.S.C. 7401 et seq.) requires federal land managers to protect Park air quality. Section 118 of the CAA requires the NPS to meet all federal state, and local air pollution standards. In 1992, Stafford County was listed as a non-attainment area under the Clean Air Act. However, Spotsylvania and Orange Counties, where the project is located, have been determined by the Environmental Protection Agency (EPA) to be in an attainment area for purposes of the Clean Air Act, i.e., pollution levels are below the minimum levels established by the EPA. Should the preferred alternative be selected, the parking lots would be expanded to accommodate current visitation. Immediately following the opening of the Vermont Monument, new trips may be generated to visit this new addition to the Park landscape. The minor increase in visitation would have a negligible impact on air quality. Construction may have a negligible impact on air quality as a result of dust and vehicle emissions. The impacts will be temporary; ending at the completion of the project. Therefore this impact topic was dismissed from further analysis.

Sound Environment/Soundscape

The *NPS Management Policies 2001* state that the NPS will strive to protect the natural quiet and natural sounds associated with the physical and biological resources of the park. The soundscape of the park is comprised of the natural sound conditions and exists in the absence of any human-produced noises. This is the basis for determining the "affected environment" and impacts on the park soundscape. The majority of human-made noise being generated by commercial and recreational vehicular traffic on I-95, Route 1, and VA Route 3. These routes occur within 5 miles of the Park.

The proposed action is not anticipated to produce inappropriate noise levels, or impact visitor experience for which the park was established and planned. Minor adverse temporary noise impacts are expected from construction. Should the preferred alternative be selected, it may generate some new trips to visit the Vermont Monument; however these trips would be routed along the existing Orange Plank Road. Orange Plank Road, County Road 621, is currently used as a commuter route and to access residential communities in the area, so the vehicle noise would be consistent with its current use. The increase in traffic is anticipated to be minor and temporary after the monument is first open to the public. Noise increases from the slight visitation increase would be negligible compared to existing ambient noise levels. Therefore this impact topic was dismissed from further analysis.

Geology and Soils

The park is situated in the piedmont physiographic province of the eastern United States. The Battle of Fredericksburg occurred along the ridge that forms the fall line separating the Piedmont from the Coastal Plain province. The majority of the site has soils that are deep, moderately to well-drained, medium to coarse-textured. Beyond the ridge is a series of Piedmont terraces cut by numerous small streams with soils that are poorly drained, medium to fine textured. Water tables are generally high during wet seasons. A preliminary geotechnical analysis of soil conditions indicated the project would have negligible impacts within the park. Although earthwork is involved with the rehabilitation, all measures would be implemented to minimize temporary wind or erosion impacts, and accommodate changes in drainage and flow patterns having potential to affect underlying soil stability. An increase in impervious surface would have long-term adverse impacts to the permeability of the soil, however the proportion of impervious surface to the park, and the distance to streams and rivers makes these impacts negligible. Therefore this impact topic was dismissed from further analysis.

Ethnographic Resources

Ethnographic resources are objects and places, including sites, structures, landscapes, and natural resources, with traditional cultural meaning and value to associated peoples. Research and consultation with associated people identifies and explains the places and things they find culturally meaningful. Ethnographic resources eligible for the National Register of Historic Places are called traditional cultural properties. There are no known ethnographic resources within the Park that would be affected by the proposed action based on current information at the park; therefore this topic was dismissed from further analysis.

Park Operations

Routine maintenance activities for the Park include maintenance of the trails, mowing, and possibly prescribed fires. Should the preferred alternative be selected, Park operations would experience temporary negligible effects because the Visitor Centers and Exhibit Shelters would need to be closed for mill and overlay activities through staged

construction and temporary one-lane road closures. The roadways through the Spotsylvania area would remain open throughout construction, except for possibly Anderson Drive and Burnside Drive at Bloody Angle. Following construction, maintenance activities would experience negligible changes. The amount of roadway and parking area that would need to be plowed in winter weather would increase slightly, however the roadway will be easier to plow due to its smooth asphalt surface, eliminating the difficult areas of gravel and chip seal. Because park operations would be negligibly affected by road reconstruction and improvement activities, this topic was dismissed from further analysis.

Prime and Unique Farmlands

Prime and unique farmlands are protected under the Farmland Protection Policy Act (7 U.S.C. 4201 et seq.) which states that Federal agency programs must assess the effects of their actions on farmland soils classified by the U.S. Department of Agriculture's (USDA) Natural Resource Conservation Service (NRCS) as prime or unique. Prime farmland is defined in the Act as "land that has the best combination of physical and chemical characteristics for producing food, feed, fiber, forage, oilseed, and other agricultural crops with minimum inputs of fuel, fertilizer, pesticides, and labor, and without intolerable soil erosion," while unique farmlands are lands "other than prime farmland that is used for the production of specific high-value food and fiber crops." None of the mapped soil types in the project area are classified as prime or unique farmlands, therefore this impact topic was dismissed from further analysis.

Viewsheds

Part of the NPS mission, as outlined in the *NPS Management Policies 2001*, the agency works to understand, maintain, restore, and protect the inherent integrity of the natural resources, processes, systems, and values of the parks. Scenic views and visual resources are considered important characteristics that are individual to each park unit. The Bloody Angle tour stop parking area has a historically significant viewshed of the Spotsylvania Courthouse battle. The Anderson-Gordon drive intersection has a significant viewshed of the Harrison House, a private residence during the Civil War. The park's interpretive plan identifies this location as an opportunity to describe civilian life during the war. The associated construction activities would have a short-term, negligible adverse impact on the visual resources of the Park during the construction period because of the addition of construction equipment and personnel. The proposed improvements would result in no long-term adverse changes to visual resources. This impact topic was dismissed from further analysis.

1.6 Interrelationship with Other Plans and Projects

General Management Plan

The 1986 General Management Plan (GMP) for the Fredericksburg and Spotsylvania National Military Park serves as a manager's guide for meeting the objectives established for the Park and as a public statement of the National Park Service's management intentions. The GMP establishes long-range strategies for resource management, visitor use, and development of an

integrated park system. The Park currently operates under the direction of the approved *Strategic Plan for Fiscal Years 2000 - 2005 (SP).* Management objectives identified within the *SP* direct the maintenance and upgrading of roadways and associated bridges in order to provide for a positive visitor experience and to ensure effective parkway operations. The proposed action to perform needed repairs and make improvements to various roadway and parking areas within the Fredericksburg and Spotsylvania National Military Park is entirely consistent with the Park's management documents.

2 DESCRIPTION OF ALTERNATIVES

The following are descriptions of the proposed alternatives to rehabilitate park roads and parking areas within the Fredericksburg and Spotsylvania National Military Park in Spotsylvania and Orange Counties, Virginia.

2.1 No Action Alternative

Under the No Action alternative, no substantial improvements would be performed other than in accordance with planned routine maintenance operations. The existing safety concerns would not be addressed. None of the existing roadways or parking areas would be paved or reconstructed. Maintenance and some limited construction activities would occur in the foreseeable future to address preservation needs, the no action alternative would not address future impacts created by higher visitation rates and longer-term maintenance needs.

2.2 Build Alternative (Preferred Alternative)

The build alternative involves rehabilitating several park road sections, and upgrading parking area conditions at selected locations. The type of proposed improvements at the sites consist of four construction activities, to include overlay with asphalt pavement, obliterate pavement and reestablish, minor reconstruction of gravel area with pavement overlay, and new construction. Culvert cleaning would also be included. Additional photos are available in Appendix C.

<u>Pavement Improvements</u>
The existing pavement would be overlaid with asphalt pavement. Milling would be required to transition the asphalt adjacent to curbing; however the pavement structure would not be impacted below the subbase layer. Routes 11, 19, 20, and 22 - Grant Drive, Burnside Drive, Bloody Angle Drive, Anderson Drive, and Gordon Drive would all be rehabilitated consistent with the previous rehabilitation project completed in 2003. These roadways and parking areas included: Furnace Road, Sickles Drive, Stuart Drive, and Bullock Road; Berry-Paxton Drive; Jackson Trail East; Jackson Trail West; Jackson Shrine Road; Hancock Road; and McCoull House Road. A typical road section is included in Appendix C.

<u>Fredericksburg Visitor Center Parking Area</u>
The entire parking area and access road around the Visitor Center would be milled and overlaid. A smaller parking area is located adjacent to this access road. The current condition of the pavement in this location does not warrant milling the surface, but would be overlaid.

<u>Chancellorsville Visitor Center Parking Area</u>
The parking area would be rehabilitated with an asphalt mill and overlay.

<u>Wilderness Exhibit Parking Area</u>
The entire parking area would be milled and overlaid. A concrete handicapped accessible ramp would also be constructed.

Site 1 (Spotsylvania Battlefield Exhibit Shelter)
The proposed work at this site includes milling and overlaying of the existing parking area, replacing accessible asphalt ramps with concrete ramps to improve handicap accessibility. The sidewalk would also be rehabilitated.

Site 3 (Upton Road Pullout)
The existing gravel pull-off would be reconstructed with asphalt pavement. NPS requested a 2-vehicle parallel parking capacity be accommodated at the Upton Road site. In addition to asphalt pavement, a low-level mountable curb would be constructed to facilitate drainage and prevent vehicle edge runoff.

Site 4 (Bloody Angle Tour Stop)
At Bloody Angle Tour Stop the existing gravel parking area and bus parking would be removed and relocated north of their current location (figure 2). Eleven head-in parking stalls would be created east of Grant Drive, with a 2 bus capacity parallel parking area across from the proposed car parking area. A narrow piece would be retained from the current parking location to serve as a pedestrian access path to connect the new parking area and exiting trailhead on the eastside of Anderson Drive (figure 3). The remaining portion outside of the gravel pedestrian path would be obliterated and revegetated. New 5 foot-wide graveled strips would be provided to link the exiting gravel areas to create a continuous pedestrian path.

Figure 2. The proposed parking area is highlighted in blue.

Figure 3. The gravel parking area to be retained as a path is highlighted in blue.

Site 6 (Anderson- Gordon Drive Intersection)
A new pull-off would be constructed near the intersection of Gordon Drive and Anderson Drive with asphalt pavement and a low-profile mountable curb (figure 4). NPS requested a 2-vehicle parallel parking capacity be accommodated. This location is important due to its viewshed of the Harrison House, a private residence during the Civil War. The park's interpretive plan identifies this location as an opportunity to describe civilian life during the war.

Figure 4. The proposed pull-off between Gordon Drive and Anderson Drive is highlighted in blue.

Site 7 (Anderson Drive Bus Parking)
The existing bus parking area would be overlaid with asphalt.

Site 8 (East Angle Drive – Gordon/Burnside Drive Intersection)
This reconstruction involves the placement of embankment, subbase, and asphalt pavement. A one-way direction is proposed along Gordon/Burnside Drive at East Angle Drive allowing the remaining lane to be utilized for vehicle and bus parking. A 6-vehicle and 2-bus parking capacity is proposed. A low-profile mountable curb would be constructed along the intersection. East Angle Drive would be obliterated, regraded with aggregate-topsoil and revegetated (figure 5). NPS requires historical features of the existing road prism, ie, current configuration, pipe culverts, and all other historically significant features, remain in-place upon removal of the roadbed and asphalt pavement material.

Figure 5. East Angle Drive, highlighted in blue, would be obliterated and revegetated.

Vermont Monument Parking Area and Trail

A new parking area would be located adjacent to the Brock Road – Plank Road Intersection Tour Stop Pulloff. This parking area would accommodate approximately 11 cars and a bus pulloff and would enter from and exit to Orange Plank Road. The Vermont Monument would be located within the Wilderness Battlefield area, and be connected to the parking area via a trail. The trail is not expected to exceed approximately two miles in length. The proposed action includes construction of a base for the monument as well as an interpretive center. Figure 6 shows the general vicinity of the parking area, to the west of the existing gravel pulloff area. The existing pulloff area may be incorporated into the parking area, depending on constraints including a crest to the west of this area and an intersection to the east the existing pulloff, which will be taken into consideration during the design process. The trail from the parking area to the monument would meander through the larger trees.

Figure 6. View looking west from the existing Wilderness pulloff.

Longstreet Interpretive Pulloff

On the southwest side of Orange Plank Road, an existing gravel pulloff will be reconstructed with asphalt pavement to accommodate 2 passenger vehicles or 1 oversized vehicle. The existing gravel pulloff across Orange Plank Road on the southeast side will be removed and revegetated.

Natural Resource Office Driveway and Parking Lot

The existing gravel driveway and parking lot would be reconstructed with asphalt pavement.

Staging Area and Construction Access

Construction Staging would be required to take place on existing asphalt surface within the limits of the Park.

Construction Cost and Schedule

In accordance with the Federal Lands Highway Program, to date, approximately $1,500,000 (estimate), in Federal Lands Highway Program funds, have been set aside for planning, design, and construction of the proposed action. If it is determined that the preferred alternative would not result in significant impacts, then construction would be expected to begin as early as the Fall of 2006. Construction is anticipated to be completed in one season. The build alternative does not propose new construction that would use natural resources or materials at increased levels in the future.

Mitigation

Specific mitigation measures were addressed immediately following any possible impacts to the respective resources in their pertinent section above. Listed below is a summary of those mitigation measures.

1) The final construction plans should include guidance and specifications to the Contractor on revegetation and reestablishment of disturbed areas. Non-invasive native plant species shall be used for reestablishment.
2) The final construction plans should include directions and clearly articulate locations where the Contractor is responsible for avoiding disturbance of sensitive vegetation and archeological sites.
3) An Erosion and Sediment Control Plan should be prepared and included in the final construction plans. Best Management Practices should also be used.
4) Monitoring for cultural resources should continue throughout any ground disturbing activities. If archeological artifacts are encountered during excavation operations, construction shall be halted immediately. The NPS Superintendent for the Fredericksburg National Military Park and the Virginia State Historic Preservation Office should be notified. All required procedures shall be implemented in accordance with NPS policies.

2.3 Alternatives Considered but Dismissed

The project was focused on addressing the deteriorating pavement and increasing Park interpretation and therefore feasible alternatives were limited to fixing the existing pavement and strategically locating parking areas as to best increase visitor interpretation and enjoyment of the park and minimize safety concerns. A number of design and construction options were identified during scoping to improve various roadways and parking areas within Fredericksburg Spotsylvania National Military Park. These options were deemed unreasonable and were not carried forward for analysis in this EA. Justification for eliminating these options from further analysis was based on factors outlined in DO-12:

- the alternative's lack of technical feasibility;
- inability to meet the project's purpose and need;

- duplication with other less environmentally damaging or less expensive alternatives;
- conflict with an up-to-date park plan, statement of purpose and significance, or other policy;
- severe environmental impact; or, as a secondary, supporting reason, economic infeasibility.

Site 2
A new 3-car capacity pull-off on north side of Grant Drive was removed from the project due to a lack of definitive planning for the proposed trail connection.

Site 5
Paving a 3-car capacity gravel pull-off on the north side of Anderson Drive was removed from the project after the NPS decided it was not necessary.

Site 9
A new 3-car capacity pull-off in the Laurel Hill Engagement area was removed from the project due to safety considerations related to traffic speeds within the area.

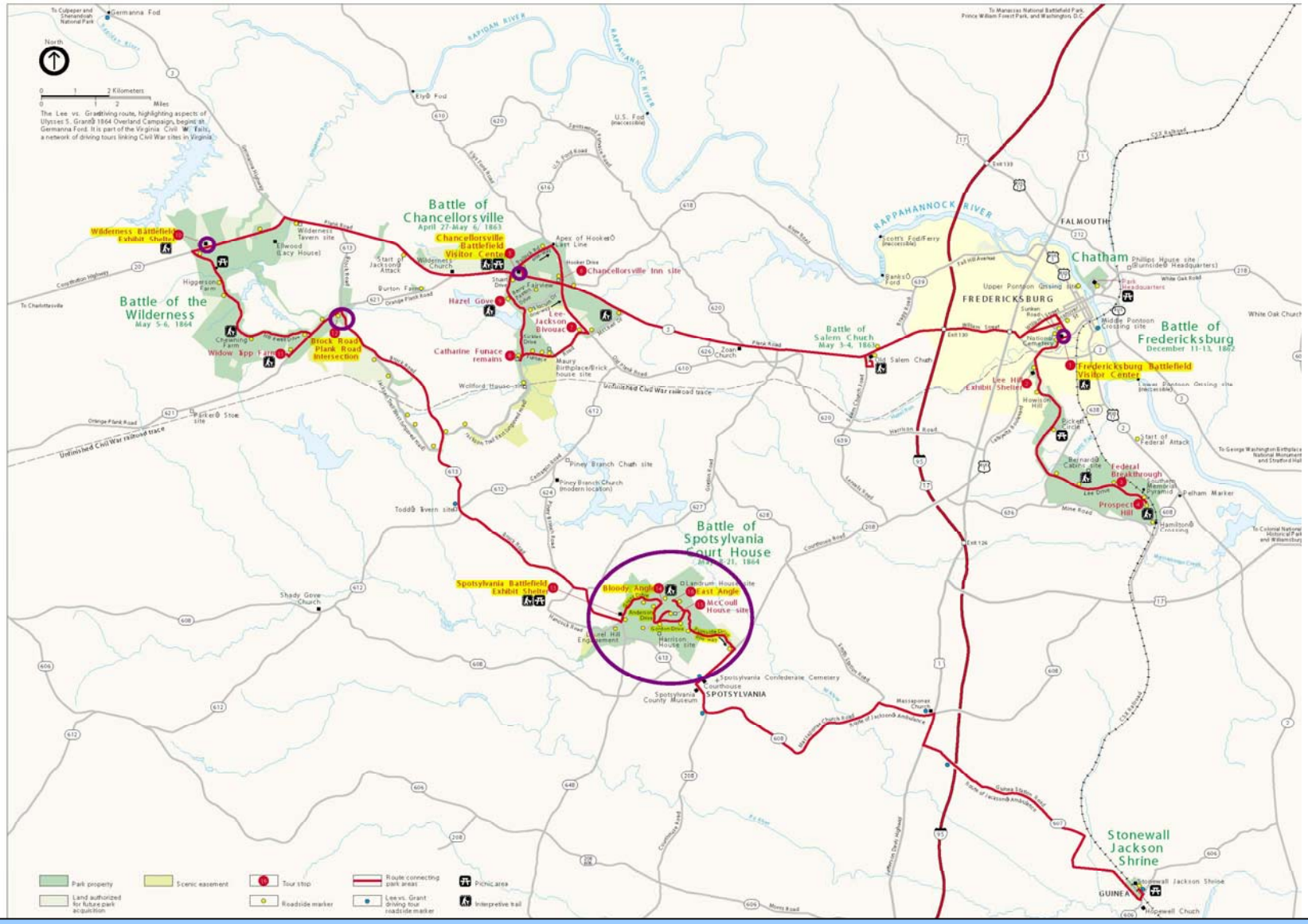

Figure 7. Park map of Fredericksburg Spotsylvania National Military Park, project locations are circled and highlighted.

2.4 Preferred Alternative

The No Action Alternative does not address the roadway deficiencies or improve interpretation of the Wilderness Battlefield area, and therefore does not meet the purpose and need for the action. The Build Alternative has been selected as the preferred alternative since it addresses the roadway deficiencies (minor patching, rutting and/or cracking) and meets American Disability Act (ADA) Guidelines. The Build Alternative protects existing facilities and returns the roadways and parking areas to a more serviceable state, reducing short-term maintenance costs. The Build Alternative also improves the interpretation of the Wilderness Battlefield by providing a parking area for visitors, a trail to the Vermont Monument, and also an interpretive center. Although there are minor impacts to the Park (see Table 3.6), the increase in interpretation and the roadway improvements will enhance visitor experience.

Purpose of the Project	No Action Alternative	Build (Preferred) Alternative
Return the roadways and parking areas to a more serviceable state	Roadway deterioration would continue.	New asphalt would make roadways and parking areas easier to service.
Reducing short-term maintenance costs	Maintenance needs would increase as the roadway continues to deteriorate.	New asphalt would be reduce maintenance such as crack sealing, pot-hole patching, etc.
Facilitate snow plowing	Chip seal surface would continue to hinder snow plowing.	The snow plow could get closer to the smoother asphalt surface, making roadways safer to drive on in winter weather.
Provide for a safer, more enjoyable visitor experience	Road deterioration, two way traffic and inadequate parking hinder access to interpretive areas.	Routing more traffic as one-way decreases pedestrian vehicle conflicts. Better parking facilitates access to interpretive areas.
Improve visitor access and interpretation in the Orange Plank Road corridor	The Orange Plank corridor would continue to lack interpretation.	The positioning of the Vermont Monument in the Orange Plank Corridor allows visitors to learn more about the Wilderness Battlefield and Vermont's contribution to the Civil War.

2.5 Environmentally Preferred Alternative

As defined by the CEQ: "The environmentally preferred alternative is the alternative that would promote the national environmental policy as expressed in NEPA's Section 101. Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative which best protects, preserves, and enhances historic, cultural, and natural resources (CEQ 2005a)."

The environmentally preferred alternative is the alternative that best:

1. Fulfills the responsibilities of each generation as trustee of the environment for succeeding generations.
2. Ensures for all Americans, safe, healthful, productive, and aesthetically and culturally pleasing surroundings.
3. Attains the widest range of beneficial uses of the environment without degradation, risk of health or safety, or other undesirable and unintended consequences.
4. Preserves important historic, cultural, and natural aspects of our national heritage and maintain, wherever possible, and environment that supports diversity and variety of individual choice.
5. Achieves a balance between population and resource use that would permit high standards of living and a wide sharing of life's amenities.
6. Enhances the quality of renewable resources and approach the maximum attainable recycling of depleteable resources.

The No Action Alternative would not create additional impacts vegetation and wildlife, but the deteriorated roads and parking areas are not aesthetically pleasing to most visitors, and therefore does not fully meet criteria 2 or 5. The No Action Alternative does not fully meet criteria 3 since deteriorated roadways are parking areas may cause safety hazards, especially during inclement weather. The lack of interpretation at the Wilderness Battlefield area does not fully meet criteria 1 or 4. Neither the No Action Alternative nor the Build Alternative better meets criteria 6.

The Build Alternative is the environmentally preferred alternative because best meets all of the above stated criteria. It provides additional opportunity for visitors to see and learn about the Civil War battles through the placement of the Vermont Monument in to Wilderness Battlefield area with associated trail parking and interpretive signs, which fulfills criteria 1 and 4. Improvements to the existing roadways and parking areas would provide for a more aesthetically pleasing and safer park experience, which meets criteria 2 and 3. Minor impacts to the natural environment through tree clearing, grubbing, and paving for parking, would be necessary, however these minor impacts would be offset by the potential improvement in visitor education and experience, fulfilling criteria 5.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The following addresses the affected environment and the environmental consequences for the No Action Alternative and the Build Alternative (Preferred Alternative). The study area for each impact topic is the land encompassed by the limits of the Fredericksburg and Spotsylvania National Military Park. Information for each impact topic was collected during site visits to the Park, preliminary design plan reviews, and interviews with Park staff.

Fredericksburg and Spotsylvania National Military Park consists of approximately 8,374 acres in Spotsylvania, Caroline, Orange, and Stafford Counties, and City of Fredericksburg, Virginia. The park has 23-miles of trails, open fields, and forest areas. An interspersion of vegetative types provides habitats for a wide variety of wildlife in the park and numerous streams and swamps on gently rolling wooded plateaus are found throughout the park. A rich collection of forest and wetlands, developed parkland, farmsteads all add to the overall natural resource element.

Methodology

The methodology of the impact analysis follows the guidance provided in NPS DO-12 and CEQ's NEPA implementation guidelines at 40 CFR Parts 1500 through 1508. The environmental consequences associated with the proposed alternatives are considered in terms of direct, indirect, and cumulative impacts. A direct impact is one that is caused by an action and occurs at the same time and place. An indirect impact is one that is caused by an action that is later in time or further removed in distance, but still reasonably foreseeable.

Each impact is further described in terms of type (beneficial or adverse); context (site-specific, local, or regional); intensity (negligible, minor, moderate, or major); duration (short- or long-term); and impairment (would or would not impair park resources and values). A definition of impacts is located below. Detailed definitions pertaining to each impact topic can be found in Appendix B.

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 lasting more than a couple years.

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

4. Negligible: Little or no impacts (not measurable).

5. Minor: Changes or disruptions may occur, but do not result in a substantial resource impact.

6. Moderate: Easily defined and measurable, but does not result in a substantial resource impact.

7. Major: Easily defined and measurable. Results in a substantial resource impact.

8. Impairment: An impact that would harm the integrity of Park resources or values, including the opportunities that otherwise would be present for the enjoyment of those resources or values.

Cumulative Impacts

Cumulative effects are defined by CEQ as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions" (40 CFR 1508.7).

Needed rehabilitation improvements to several park roads, intersections, parking areas, and drainage structures was performed within the Fredericksburg and Spotsylvania National Military Park, Spotsylvania and Caroline Counties, Virginia in 2002. These roadways included: Route 13 (Furnace Road, Sickles Drive, Stuart Drive, and Bullock Road); Route 15 (Berry-Paxton Drive); Route 16 (Jackson Trail East); Route 17 (Jackson Trail West); Route 21 (Jackson Shrine Road); Route 100 (Hancock Road); and Route 300 (McCoull House Road).

No maintenance projects are planned for the park in addition to routine maintenance of the trails, mowing, and possibly prescribed fires. No driveway or paving projects are planned.

A project proposed for construction by the Virginia Department of Transportation is the Route 208 Courthouse Road, Spotsylvania Courthouse Bypass. This project is located south of the Battlefield of Spotsylvania Courthouse and proposes to connect with the intersection of Burnside Drive and Courthouse Road (Route 208).

Impairment

NPS Director's Order 12 requires an impairment finding for actions that impact NPS resources. The 'fundamental purpose' of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. National Park Service managers must always seek ways to avoid or minimize to the greatest degree practicable adverse impacts on park and monument resources and values. However, the laws do give NPS management discretion to allow impacts to park resources and values when necessary and appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given NPS management discretion to allow certain impacts within parks, that discretion is limited by statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise.

The prohibited impairment is an impact that, in the professional judgment of the responsible NPS manager, would harm the integrity of park resources or values, including opportunities that otherwise would be present for the enjoyment of those resources or values. An impact to any park resource or value may constitute impairment. However, an impact would more likely constitute impairment to the extent it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified as a goal in the park's Master Plan or General Management Plan or other relevant NPS planning documents.

A determination on impairment is made in the conclusion section.

3.1 Vegetation

Affected Environment

The vegetation of the battlefields is classified as oak-hickory forest in the temperate deciduous biome. Typical tree species include oaks, hickories, red maple, sweetgum, and yellow poplar. Subcanopy trees consist of dogwood, red cedar, tupelo, mountain laurel and sassafras. Shrub species include blackberries, poison ivy, and American hazelnut. Virginia pine and shortleaf pine are found in areas recently cultivated or pastured.

Environmental Effects

No Action Alternative

The No Action alternative would not affect the vegetation, and would not contribute to the introduction or spreading of non-native species because there would be no clearing or grubbing outside of park maintenance operations. Park maintenance operations include mowing and possibly prescribed burns would continue to temporarily impact vegetation.

Build Alternative (Preferred Alternative)

Construction activities related to the build alternative would result in minor impacts to vegetation. Relocation and reestablishment of existing parking areas would have long term beneficial impacts in areas where sensitive viewsheds exist. Ten to fifteen larger trees would be removed at the proposed Bloody Angle Tour Stop vehicle parking area, and approximately three larger trees would be removed from the East Angle Drive – Gordon/Burnside Drive Intersection Site. Approximately 30 trees would be removed in order to construct the Vermont Monument Parking Area. The meandering trail would have minor vegetation impacts since it would avoid removing larger trees, but there would be a need to clear ground vegetation. There would be additional minor temporary adverse vegetation impacts during construction for the grading of the parking area shoulders, and for the access of construction equipment. These areas would be revegetated with native species. The East Angle Drive would be obliterated completely and graded with aggregate topsoil and revegetated. A total of approximately 50 trees are estimated for removal, however the exact number and species of trees necessary for removal would not be known until the actual impact area limit is determined during final design. Selective vegetative management would be employed to limit access and encourage public use in designated areas,

and replace all existing features. As a result of the construction of a new parking area and associated trail there will be a higher likelihood of the transport of invasive species from vehicles and humans.

Cumulative Impacts
The majority of the build alternative is located in Spotsylvania County, of which 21% of the land is agricultural, and 70% of the land is forested (Chesapeake Bay Program, 2001). The Route 208 Courthouse Road, Spotsylvania Courthouse Bypass project would have a minor impact on vegetation, as the new alignment and intersection in the vicinity of the Burnside Drive-Courthouse Road intersection would necessitate clearing and grubbing. The amount of forested and agricultural land impacted by the build alternative combined with the Route 208 project is proportionately minor.

3.2 Wildlife and Wildlife Habitat

Affected Environment
Habitat for open land wildlife is plentiful and includes a diverse range of species including rabbits, woodchucks, quail, mourning dove, hawks, owls, field sparrows and several bird species normally found in cropland, pasture, meadow and brushy idle land. Woodland wildlife includes white-tailed deer, gray squirrels, raccoon, opossum, wild turkey, ruffed grouse, woodpeckers and warblers. Wetland wildlife includes beaver, mink, muskrat, ducks, geese and other water birds that live along streams. There are also a wide variety of reptiles and amphibians. This species composition is commonly found throughout the park.

A search of the Virginia Natural Heritage Resources database for sensitive species was conducted. The only species identified within Spotsylvania and Orange Counties were the Bivalvia (Mussels) (*Elliptio lanceolata, Lasmigona subviridis, Alasmidonta heterodon, Elliptio lanceolata, Lampsilis radiata*), and a species of vascular plant (*Isotria medeoloides*). Coordination has occurred with the Virginia Department of Conservation and Recreation to address impacts on sensitive species within the project area.

The ranges for terrestrial animals are limited within the park. Predominant mammal species include those associated with high adaptation and tolerance to changing environments. These include: deer, raccoon, possum, skunk, and squirrel. Bird species common to the park include starling, European sparrows, and crows.

Environmental Effects
No Action Alternative
The No Action alternative would not have any effect on wildlife and wildlife habitat within the project area. Maintenance activities such as mowing and prescribed burns would continue to effect wildlife due to noise impacts from mowing and temporary habitat loss during the burns.

Build Alternative (Preferred Alternative)
The Bloody Angle Parking Area would be constructed adjacent to the existing road. The Vermont Monument Parking Area would be constructed adjacent to the existing road and would incorporate the existing gravel pulloff. The existing conditions create increased light and noise, which limits the presence of wildlife, except for those species listed above that are highly

tolerant of changing environments. The build alternative would have a minor impact on wildlife and wildlife habitat since the new parking areas would be constructed adjacent to the existing roads, but the amount of wildlife habitat that would experience increased light and noise would increase. The Vermont Parking Area and trails would increase human presence and therefore limit the presence of wildlife. The obliteration of East Angle Drive would have a beneficial impact on wildlife because the lack of vehicle traffic would improve the potential for wildlife movement.

Cumulative Impacts

The Route 208 project would construct a new roadway through existing forested and agricultural land. This would have minor impacts to wildlife and wildlife habitat because of the decrease in habitat area, loss of habitat connectivity, and increase in vehicle-wildlife conflicts. The Route 208 project in addition to the build alternative would have minor impacts because the build alternative's negligible impacts are primarily due to the temporary increase in noise during construction.

3.3 Cultural Resources

Affected Environment

Fredericksburg and Spotsylvania National Military Park was established on February 14, 1927, and provides several unique resources of historical significance. During the Civil War, the Fredericksburg area was a key strategic area for both armies. Fredericksburg is located midway between Richmond, VA and Washington, D.C., capitals of the Confederacy and the United States, respectively and the shortest way for the Union Army to capture Richmond was to go through Fredericksburg. The Confederate Army's main goal was to stop the Union Army from capturing Richmond. The natural obstacles of the Rappahannock and Rapidan Rivers helped the Confederates to defend their land from the invading Union troops. More than 15,000 Federal soldiers killed in and near Fredericksburg are buried in the park's national cemetery.

Archeological Resources

The historic significance of the park is reflected primarily in historic resources relating to and commemorating the Civil War Battles of Fredericksburg, Chancellorsville, Wilderness and Spotsylvania Courthouse, and four related sites- Salem Church, Stonewall Jackson Shrine, Chatham Manor and the Fredericksburg National Cemetery. Informal surveys have identified at least 150 archaeological sites.

Historic Resources

When the battle lines were drawn in 1861, Fredericksburg was squarely between the contending capitals Washington, D.C., and Richmond, Virginia. The Civil War campaigns were fought within the 100 mile long corridor between the two cities and suffered over 100,000 casualties. The confrontation between the two sides gave indication to how gruesome and long the war was going to be.

Located within the approximately 8,000 acres of battlefield area is Fredericksburg National Cemetery. The NPS recognizes a total of 222 significant historic/prehistoric structures and features within the Park, nearly all of which are now listed on the National Register of Historic Places. These features include sites containing earthen structures known as earthworks, used

during battles to shield and protect troops from opposing forces and ordinance. Project elements are required to avoid impacting all earthwork locations.

Environmental Effects

No Action Alternative

No archeological resources or historic resources would be disturbed or lost under the No Action Alternative because there would be no ground disturbing or construction activities, however the Orange Plank corridor would continue to lack sufficient interpretation.

Build Alternative (Preferred Alternative)

Archeological Resources

Archaeological monitoring of ground-disturbing activities would be conducted by NPS. All assessments of the effects of this undertaking have been made in accordance with regulations of the Advisory Council on historic Preservation (ACHP), "Protection of Historic and Cultural Properties" (36 CFR §800). Although there are no direct historic properties impacted by the build alternative, and potential effects appear minimal for visible resources, all provisions would be included to ensure no unnecessary harm occurs as a result of the improvement project.

The build alternative would have a negligible adverse impact on archaeological resources. The potential exists that any ground disturbing activity may expose unidentified historic artifacts.

Historic Resources

Previous field testing and studies have identified sensitive earthworks within areas at the proposed reconstruction sites. During construction, onsite provisions would be implemented preventing disturbance to sensitive sites. These provisions include delineation and separating the construction area from earthworks and areas where a high potential exists for resource discovery. Earthwork locations have been identified by the NPS. Avoidance measures were incorporated into alternative development at sites where earthworks exist.

NPS conducted a comprehensive analysis of significant historic/prehistoric structures and features within the park, nearly all of which are listed on the National Register of Historic Places. None of these sites would be directly impacted by the build alternative; therefore there would be negligible adverse impacts. Shovel testing was done to in the areas proposed for new construction, with the exception of the Vermont Monument parking area. No historic resources were found during the testing. The Section 106 report was made available for public comment, and subsequently was sent to the Virginia State Historic Preservation Officer (SHPO) for review. The SHPO review period will end in mid-December.

A Programmatic Agreement (PA) was developed in August 2004 between the NPS and the SHPO for improving visitor access and interpretation to the Orange Plank corridor of the Wilderness Battlefield. This PA includes the new proposed parking area that will facilitate and accommodate the Vermont Monument, and outlines the agreed upon process for carrying out the Section 106 process (see Appendix A).

Cumulative Impacts
The Route 208 project may have minor impacts to cultural resources since the areas surrounding the park were movement corridors for troops during the Civil War, and ground disturbance would be necessary to construct a road on a new alignment. Therefore the possibility exists that the Route 208 project combined with the build alternative's negligible impacts would cause minor adverse impacts to historic and archeological resources.

3.4 Visitor Use and Experience

Affected Environment
The park visitor centers are open daily from 9:00 am to 5:00 pm all year long, except for December 25 and January 1. The peak visitation season runs from April through Labor Day. In 2004, the total number of recreational visits to the park was approximately 443,841, decreasing from 466,017 in 2003. Driving tour routes link important battle areas on all four battlefields. Numerous walking trails also traverse the historic ground. Driving tours begin at the Wilderness and Spotsylvania Battlefield Shelters, and also beside the Chancellorsville Visitors Center parking lot. The driving tour route through the Spotsylvania Battlefield includes Grant, Anderson, Gordon and Burnside Drive. Traffic counts on Anderson Drive for the last year (June 2004 through May 2005) range from a low of 1254 in January 2005 to a high of 5867 in March 2005.

Fredericksburg and Spotsylvania National Military Park provides opportunities for recreational activities such as auto touring, biking, and hiking. The Visitor Center offers walking tours of the battlefields on the weekends.

Environmental Effects
No Action Alternative
Long-term minor adverse impacts to driver experience may occur as roadway conditions continue to deteriorate due to increased noise and decreased rideability. Visitor experience may also become impacted as the current available parking becomes limited with increased visitor use.

Build Alternative (Preferred Alternative)
Under the build alternative visitor facilities would be improved to provide better access to sites. Visitation rates have increased by approximately 2% per year, with the exception of 2004, which saw a decrease in the number of visitors to the Park. Expansion of sites and improvements of existing parking areas would better distribute activity among different sites within the park. Visitors would experience improved travel conditions throughout the park. Rideability, accessibility, and safety concerns would be addressed at spot locations along the designated tour route. Connecting visitors with key interpretive sites through the new pull-off areas, increasing parking capacity, and pedestrian access should allow visitors to better experience and appreciate the historical significance of the Park. Therefore the Build Alternative would have a long-term beneficial minor impact on visitor experience and use.

Cumulative Impacts
The Route 208 project would have a negligible impact to the Park's visitor use and experience because although the intersection is in the vicinity of the Burnside Drive-Courthouse Road intersection, portions of the roadway through the Battle of Spotsylvania Courthouse are one-way with low traffic speeds, which would inhibit additional traffic unrelated to park visitation. The Route 208 project would not change access to the Park because the access point to visit the Battle of Spotsylvania Courthouse is located at the intersection of Brock Road and Grant Drive. The build alternative together with the Route 208 project would have a long-term beneficial minor impact on visitor experience and use.

3.5 Visitor Conflicts and Safety

Affected Environment
Deterioration of the existing roadway, as well as the chip seal surface on some of the roadways impedes snow removal, making conditions unsafe for motorists. The ineffective or nonexistent parking lay outs in the pulloffs and parking areas cause an inefficient use of these areas thereby causing vehicles to be parking along the roadway during peak visitation periods. The cracking and rough pavement diminishes the driving experience for the visitors.

Environmental Effects
No Action Alternative
The continued deterioration of the roadway would have a minor adverse impact on visitor conflicts and safety due to unsafe inclement winter weather conditions.

Build Alternative (Preferred Alternative)
The build alternative would alleviate the difficulty in plowing deteriorated pavement and chip seal pavement, increasing visitor safety during inclement weather, therefore having a long-term beneficial minor improvement.

Cumulative Impacts
The Route 208 project may cause minor adverse impacts to visitor conflicts and safety, because adding another roadway in the vicinity of the park increases turning movements and traffic numbers. The build alternative combined with the Route 208 project would have a negligible adverse impact on visitor conflicts and safety, due to the increase in traffic in the area.

3.5 Conclusions

No Action Alternative
The No Action Alternative would have no impact on vegetation or wildlife and wildlife habitat within the park. No archeological resources or historic resources would be disturbed or lost under the No Action Alternative because there would be no ground disturbing or construction activities. However the Orange Plank corridor would continue to lack interpretation. Minor adverse impacts to visitor use and experience and visitor conflicts and safety would occur as roadway conditions continued to deteriorate. No impairment to any park resource or value would occur with the No Action Alternative.

Build Alternative (Preferred Alternative)

The Build Alternative would have minor short-term impacts due to the removal of vegetation and minor long-term impacts due to the unavoidable removal of trees within the project area. The removal of trees would be minimized to only those necessary to complete the project. The Build Alternative would have minor long term impacts on wildlife and wildlife habitat. The Build Alternative would have temporary minor adverse effects during construction because of increased noise, human activity, and vegetation removal. The build alternative is not anticipated to affect the park's archaeological and historic resources, nor impair the integrity and interpretive qualities of the sensitive sites. During earth disturbing activities monitoring for archeological resources would be done. In the event of inadvertent discovery of archeological resources, all construction would stop and the NPS would be notified. The Build Alternative provides the opportunity for enhanced experience with improved travel options, and safer roads. Temporary impacts to visitor use and experience would occur during construction at the proposed sites. No impairment to any park resource or value would occur under the Preferred Alternative.

Table 3.6 Summary of Environmental Consequences/Impact Comparison Matrix

Factor	No Action Alternative	Build (Preferred) Alternative
Vegetation	No impacts to vegetation would occur.	Some vegetation removal and clearing would occur in areas proposed for parking expansion. Obliterated areas would be reseeded and allowed to return to natural conditions.
Wildlife and Wildlife Habitat	No impacts to birds, fish and wildlife are anticipated.	No impacts to birds, fish and wildlife are anticipated.
Cultural Resources	No change from the existing conditions.	No impacts to cultural resources are anticipated.
Visitor Use and Experience	Safety concerns would remain. Deterioration of roadways would continue to occur. No enhancement of the visitor experience.	Temporary disruptions and impacts during construction. Improved driving and visitor experience are anticipated after construction.
Visitor Conflicts and Safety	No change from the existing conditions.	Improved intersection safety and driving conditions. Less short-term maintenance costs are anticipated.

4 PUBLIC INVOLVEMENT AND 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 following people, organizations, and agencies were contacted for information, which assisted in identifying important issues, developing alternatives, and analyzing impacts:

Consulted Party	**Appendix Location of Consultation Results**
U. S. Fish and Wildlife Service	Page 37
Virginia State Historic Preservation Office	Page 43
Virginia Department of Conservation and Recreation	Page 41

4.1 Permits/Coordination

The Clean Water Act (CWA) of 1972 was created to restore and maintain waters of the United States. Several sections of the CWA are applicable to activities in or near waters of the United States, including both navigable waters and adjacent wetlands. Section 404 of the CWA, which is administered by the U.S. Army Corps of Engineers, regulates the discharge of dredged or fill material. The actions proposed are not anticipated to impact waters of the United States, and therefore not anticipated to be subject to U.S. Army Corps of Engineers review under the 404 regulatory program. Section 401 of the CWA, administered by the Virginia Department of Environmental Quality through the Virginia Wetland Protection Permit (Virginia Code 62.1-44.15), must certify that proposed activities that would result in discharges to surface water are consistent with the CWA. Section 402 National Pollutant Discharge Elimination System (NPDES) is administered by Virginia Department of Conservation and Recreation, as authorized by the Environmental Protection Agency. Stormwater discharges from construction activities that disturb a total of 1 or more acres of land require a NPDES permit.

Coastal Zone Management Act of 1972
Congress enacted the Coastal Zone Management Act to "preserve, protect, develop and, where possible, to restore and enhance the resources of the nation's coastal zone for this and succeeding generations."

The Coastal Zone Management Act (CZMA) of 1972 gives states with federally approved coastal programs the lead in coordinating and strengthening coastal zone management activities of all levels of government. Specifically, the CZMA gives state coastal programs the ability to require federal agencies to carry out their activities within the coastal zone in ways that are consistent with the state costal program's policies. Federal consistency is the review of federal projects for consistency with state coastal policies.

Federal consistency applies to any activity that is in, or affects land use, water use or any natural resource in the coastal zone, if the activity is conducted by or on behalf of a federal government agency, requires a federal license or permit, receives federal funding, or is a plan for exploration, development or production from any area leased under the Outer Continental Shelf Lands Act. The Virginia Coastal Resources Management Program was established in 1986 to protect and manage an area know as Virginia's "coastal zone." This zone encompasses 29 counties, 17 cities and 42 incorporated towns in "Tidewater Virginia," including Spotsylvania County, and therefore is required for this project.

Coastal Zone Management Act Consistency Determination

This document provides the Commonwealth of Virginia with the National Park Service's, in cooperation with the Federal Highway Administration, Consistency Determination under the Coastal Zone Management Act, sections 307(c)(1) [or (2)] and 15 CFR Part 930, sub-part C, for the Reconstruction and Improvement of Various Roadways and Parking Areas in Fredericksburg Spotsylvania National Military Park. This activity includes the work detailed in section 2.2 of the document.

The NPS has determined that the proposed build alternative affects the land or water uses or natural resources of Virginia as detailed in sections 1.5 and 4.1.

The Virginia Coastal Resources Management Program contains the following enforceable policies:

Fisheries Management
Subaqueous Lands Management
Wetlands Management
Dunes Management
Non-point Source Pollution Control
Point Source Pollution Control
Shoreline Sanitation
Air Pollution Control
Coastal Lands Management

Based upon the following information, data, and analysis, the NPS finds that the proposed build alternative is consistent to the maximum extent practicable with the enforceable policies of the Virginia Coastal Resources Management Program. Compliance with Section 401 and Section 402, the use of best management practices, and the implementation of and erosion and sediment control plan during construction will address impacts to Non-point Source Pollution Control and Point Source Pollution Control. The remainder of the enforceable policies would not be impacted as the proposed action is located in an upland area, does not impact waters of the United States, involves no septic installation and does not provide additional capacity for increased traffic.

Pursuant to 15 CFR Section 930.41, the Virginia Coastal Resources Management Program has 60 days from the receipt of this letter in which to concur with or object to this Consistency Determination, or to request and extension under 15 CFR Section 930.41(b). Virginia's

concurrence will be presumed if its response is not received by the NPS on the 60th day from receipt of this determination. The State's response should be sent to:

Brigitte Mandel
Eastern Federal Lands Highway Division
Federal Highway Administration
21400 Ridgetop Circle
Sterling, VA 20166

4.2 Public Notice/Public Scoping

In order to give the public and all interested parties a chance to review the EA, it will be noticed for public comment for a minimum of 30 days through local newspapers and on the world-wide-web. During this 30-day period, the EA will be available for review at the Visitor Center of the Fredericksburg and Spotsylvania National Military Park located at 120 Chatham Lane, Fredericksburg, Virginia 22405 and on the world wide web at http://www.efl.fhwa.dot.gov/planning/nepa/index.htm. Copies of the EA will also be sent to applicable Federal, State, and local agencies for their review and comment.

4.3 List of Preparers/Reviewers

The following individuals contributed to the development of this document:

Federal Highway Administration
- Brigitte A. Mandel, Environmental Compliance Engineer
- Lisa Thaxton, Environmental Protection Specialist
- Robert Morris, Project Manager

Fredericksburg and Spotsylvania National Military Park
- Russell Smith, Superintendent
- Keith Kelly, Chief Ranger
- Gregg Kneipp, Natural Resource Management Specialist
- Eric Mink, Cultural Resources Management Specialist

National Park Service, Denver Service Center
- Kristie Franzmann, Project Manager

VII. **References**

Conservation, Planning, Environmental Impact Analysis, and Decision Making. Director's Order #12 and Handbook. National Park Service, 2003.

Design Scoping Report, Project Number PRA-FRSP 11(1), 19(1), 20(1), 200(1), and 501(1) for Fredericksburg and Spotsylvania National Military Park. Federal Highway Administration, Eastern Federal Lands Highway Division. Sterling, Virginia, March 2004

Draft Fredericksburg and Spotsylvania National Military Park, VA, Engineering Study. Federal Highway Administration, Eastern Federal Lands Highway Division, Sterling, VA, May 1998.

Fredericksburg & Spotsylvania National Military Park, Resource Management Plan, March 11, 1999.

Geotechnical Report No. 29-99, Project PRA FRSP 13(1),15(1), 16(1), 17(1), 21(1) Fredericksburg and Spotsylvania National Military Park, Spotsylvania and Caroline Counties, Virginia. Federal Highway Administration, Eastern Federal Lands Highway Division. Sterling, Virginia, February 2000.

Federal Consistency Reviews. Virginia Department of Environmental Quality. http://www.deq.state.va.us/eir/federal.html.

Fredericksburg Projects, Virginia Department of Transportation. http://www.virginiadot.org/projects/district-projects.asp?ID=6

Fredericksburg and Spotsylvania National Military Park, National Park Service. http://www.nps.gov/frsp/pphtml/facilities.html

Virginia's Erosion and Sediment Control Program, Virginia Department of Conservation and Resources. http://www.virginiadot.org/projects/district-projects.asp?ID=6

Save the Bay, Land and the Chesapeake Bay. http://www.savethebay.org/land/landuse/maps/natural.html

XI. Appendix A: Documentation of Agency Consultation

MAY 7 2004

Refer to: HFPP-15

Ms. Karen L. Mayne
Field Supervisor
U.S. Fish and Wildlife Service
6669 Short Lane
Gloucester, VA 23061

Dear Ms. Mayne:

In cooperation with the National Park Service, the Eastern Federal Lands Highway Division, of the Federal Highway Administration , is currently preparing plans to rehabilitate park roads within the Fredericksburg and Spotsylvania National Military Park (Park) in Spotsylvania and Caroline Counties, Virginia. The project will include the Fredericksburg Battlefield Visitor Center Parking Area, Grant Drive/Bloody Angle Drive/Burnside Drive, Anderson Drive, Gordon Drive, eight parking areas, Chancellorsville Battlefield Visitor Center Parking Area, and Wilderness Battlefield Exhibit Shelter Parking Area. This project has been designated Project No. PRA-FRSP 11(1), 19(1), 20(1), 200(1), 202(1), and 501(1).

The existing roads within the Park are experiencing minor cracking, raveling, rutting, patching, and potholing. The pavement structure and treatment is based on the existing conditions, current and projected traffic volume. Grant Drive/Bloody Angle Drive/Burnside Drive, Gordon Drive, Anderson Drive, the Fredericksburg Battlefield Visitor Center Parking Area, the Chancellorsville Battlefield Visitor Center Parking Area, the Wilderness Battlefield Exhibit Shelter Parking Area, and parking areas 1 and 7, are proposed to be overlaid with asphalt concrete. Parking areas 3, 4, and 6 are existing gravel and will be paved. Parking areas 2, 5, and 8 are new parking areas proposed to be constructed. Additionally, drainage culverts throughout the project will be cleaned.

An erosion and sediment control plan will be prepared for this project and implemented during construction. All disturbed areas will be stabilized with permanent vegetation cover prior to the removal of sediment control measures.

We request that you review the project area to determine if any federally-listed species may be present or affected by the proposed project. If so, please provide any restrictions or mitigation measures that should be included in the final project plans and specifications to ensure that this project does not adversely affect any federally-listed threatened or endangered species.

CONCURRENCES
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RTG. SYMBOL HFPP-1
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DATE 5/7/2004
RTG. SYMBOL HFPP-15
INITIAL/SIG
DATE 5/7/04

A set of quad maps, location maps, and examples of typical proposed parking areas are enclosed for your review. Questions concerning this matter should be directed to Ms. Brigitte Azran, Environmental Compliance Specialist, at 703-404-6283, or Mr. Damon Hassan, Highway Engineer, at 571-434-1560.

Sincerely yours,

FOR Alan T. Teikari
Planning and Programming Engineer

Enclosures

cc:
Mr. Russ Smith, Superintendent, Fredericksburg and Spotsylvania NMP, NPS, Fredericksburg, VA
Mr. Gregg Kneipp, Natural Resource Manager Specialist, Fredericksburg and Spotsylvania NMP, NPS, Fredericksburg, VA
Mr. Robert Holzheimer, FLHP Coordinator, Northeast Region, NPS, Boston, MA
Ms. Kristie Franzmann, Project Manager, DSC-NPS, Denver, CO

FHWA:DHassan:1560:jb:5/7/2004:\M:\project\frsp\13(1)\p&c\environ\sec7.fws
cc: Official File Copy w/copy of original, Chrono, P&P Reading, PD(K.Atkins)

04061-1

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
6669 Short Lane
Gloucester, VA 23061

June 14, 2004

Ms. Brigitte Azran
U.S. Department of Transportation
Environmental Compliance Specialist
21400 Ridgetop Drive
Sterling, Virginia 20166-6511

Re: Road Repair at Fredericksburg and Spotsylvania National Military Park, Project # sec7-3382, Spotsylvania and Orange Counties, Virginia

Dear Ms. Azran:

The U.S. Fish and Wildlife Service (Service) received your May 7, 2004 letter on May 13, 2004. The following comments are provided under provisions of the Endangered Species Act of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

The U.S. Department of Transportation, Eastern Federal Lands Highway Division proposes to repair roads at Fredericksburg and Spotsylvania National Military Park. The Service believes that the proposed action is not likely to adversely affect federally listed species.

If you have any questions, please contact Mr. Eric Davis at (804) 693-6694, extension 104.

Sincerely,

Karen L. Mayne

Karen L. Mayne
Supervisor
Virginia Field Office

U. S. Department
of Transportation

**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

AUG 22 2005

Refer to: HFPP-15

Ms. Karen L. Mayne
Field Supervisor
U.S. Fish and Wildlife Service
6669 Short Lane
Gloucester, VA 23061

Subject: Project # Section 7-3382, Road Repair at Fredericksburg and Spotsylvania National Military Park, Spotsylvania and Orange Counties, Virginia

Dear Ms. Mayne:

In a letter dated May 7, 2004, the Eastern Federal Lands Highway Division, in cooperation with the National Park Service, requested review of the project area for the Road Repairs to Fredericksburg and Spotsylvania National Military Park (Park) FRSP 11(1), 19(1), 20(1), 200(1), 202(1), and 501(1). A copy of the letter has been enclosed.

The response letter from the U.S. Fish and Wildlife Service dated June 14, 2004, stated, "The U.S. Department of Transportation, Eastern Federal Lands Highway Division proposes to repair roads at Fredericksburg and Spotsylvania National Military Park. The Service believes that the proposed action is not likely to adversely affect federally listed species." A copy of the letter has been enclosed.

In addition to the work proposed in the previous letter, the Park is proposing to place a monument, parking area, and trail in the vicinity of the Orange Plank-Brock Road intersection. The parking area will be sized to accommodate approximately 10 cars and the total disturbed area is estimated to be less than 0.5 acre. The parking area will be located within the highlighted area on the topographic map provided. Exact location will be decided during design. Construction activities would include vegetation clearing, earth moving and excavation, and paving.

During a phone conversation with Mr. Eric Davis of the Virginia Field Office of the U.S. Fish and Wildlife Service, he indicated concern regarding the presence of a federally listed species, the small-whorled pogonia (*Isotria medeoloides*), occurring within the area. There have been no recorded sightings of the small-whorled pogonia within the Park, however, should the enclosed photographs of the proposed general location of the monument and parking area indicate suitable habitat for the small-whorled pogonia, please contact Ms. Lisa Thaxton, Environmental Protection Specialist, to coordinate the necessary action(s) needed to verify presence or absence of this species.

BUCKLE UP AMERICA

An erosion and sediment control plan will be prepared for this project and implemented during construction. All disturbed areas will be stabilized with permanent vegetation cover prior to the removal of sediment control measures.

In addition to the previously mentioned enclosures are photographs of a typical portion of the proposed parking location, a quad map showing approximate location, and typical parking plan to facilitate your review. Questions concerning this matter should be directed to Ms. Lisa Thaxton, at 571-434-1552.

Sincerely yours,

Brigitte A. Mandel
Environment Compliance Specialist

Enclosures

cc:
Mr. Eric Davis, Virginia Field Office, FWS, Richmond, VA
Mr. Russ Smith, Superintendent, Fredericksburg and Spotsylvania National Military Park, National Park Service, Fredericksburg, VA
Mr. Gregg Kneipp, Natural Resource Manager Specialist, Fredericksburg and Spotsylvania National Military Park, National Park Service, Fredericksburg, VA
Mr. Robert Holzheimer, FLHP Coordinator, Northeast Region, National Park Service, Boston, MA
Ms. Kristie Franzmann, Project Manager, Denver Service Center, National Park Service, Denver, CO

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Ecological Services
6669 Short Lane
Gloucester, VA 23061

Date: September 16, 2005

Project name: ROAD REPAIR - FREDERICKSBURG & SPOTSYLVANIA NMP

Project number: SEC7-3382 City/County, VA SPOTSYLVANIA

The U.S. Fish and Wildlife Service (Service) has reviewed your request for information on federally listed or proposed endangered or threatened species and designated critical habitat for the above referenced project. The following comments are provided under provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 *et seq.*).

✓ We have reviewed the information you have provided and believe that the proposed action will not adversely affect federally listed species or federally designated critical habitat because no federally listed species are known to occur in the project area. Should project plans change or if additional information on listed and proposed species becomes available, this determination may be reconsidered.

_____ We recommend that you contact **both** of the following State agencies for site specific information on listed species in Virginia. Each agency maintains a different database and has differing expertise and/or regulatory responsibility:

Virginia Dept. of Game & Inland Fisheries
Environmental Services Section
P.O. Box 11104
Richmond, VA 23230
(804) 367-1000

Virginia Dept. of Conservation and Recreation
Division of Natural Heritage
217 Governor Street, 2nd Floor
Richmond, VA 23219
(804) 786-7951

If either agency indicates a federally listed species **is present**, please resubmit your project description with letters from both agencies attached.

_____ If **appropriate habitat may be present**, we recommend surveys within appropriate habitat by a qualified surveyor. Enclosed are county lists with fact sheets that contain information the species' habitat requirements and lists of qualified surveyors. If this project involves a Federal agency (Federal permit, funding, or land), we encourage the Federal agency to contact this office if appropriate habitat is present and if they determine their proposed action may affect federally listed species or critical habitat.

_____ Determinations of the presence of waters of the United States, including wetlands, and the need for permits are made by the U.S. Army Corps of Engineers. They may be contacted at: Regulatory Branch, U.S. Army Corps of Engineers, Norfolk District, 803 Front Street, Norfolk, Virginia 23510, telephone (757) 441-7652.

Our website http://virginiafieldoffice.fws.gov contains many resources that may assist with project reviews. Point of contact is MIKE DRUMMOND at (804) 693-6694, ext. 114.

Sincerely,

Karen L. Mayne

Karen L. Mayne
Supervisor
Virginia Field Office

U. S. Department
of Transportation

**Federal Highway
Administration**

Eastern Federal Lands
Highway Division

21400 Ridgetop Circle
Sterling, VA 20166-6511

MAY - 2 2005

Refer to: HFPP-15

Ms. Rene Hypes
DCR Division of Natural Heritage
217 Governor Street
Richmond, VA 23219

Subject: Project No. PRA-FRSP 11(1), 19(1)
Fredericksburg and Spotsylvania National Military Park

Dear Ms. Hypes:

In cooperation with the National Park Service, the Eastern Federal Lands Highway Division, of the Federal Highway Administration, is currently preparing plans to rehabilitate park roads within the Fredericksburg and Spotsylvania National Military Park (Park) in Spotsylvania and Orange Counties, Virginia. The project will include the Fredericksburg Battlefield Visitor Center Parking Area, Grant Drive/Bloody Angle Drive/Burnside Drive, Anderson Drive, Gordon Drive, eight parking areas, Chancellorsville Battlefield Visitor Center Parking Area, and Wilderness Battlefield Exhibit Shelter Parking Area.

The existing roads within the Park are experiencing minor cracking, raveling, rutting, patching, and potholing. The pavement structure and treatment is based on the existing conditions and current and projected traffic volume. Grant Drive/Bloody Angle Drive/Burnside Drive, Gordon Drive, Anderson Drive, the Fredericksburg Battlefield Visitor Center Parking Area, the Chancellorsville Battlefield Visitor Center Parking Area, the Wilderness Battlefield Exhibit Shelter Parking Area, and parking areas 1 and 10, are proposed to be overlaid with asphalt pavement. Parking areas 3 and 7 are existing gravel and will be paved. Parking areas 6 and 8 are new parking areas proposed to be constructed. East Angle Drive will be partially obliterated, leaving an 8-foot wide multiple use trail, and revegetated, and parking area 4 will also be obliterated and revegetated. Additionally, drainage culverts throughout the project will be cleaned.

An erosion and sediment control plan will be prepared for this project and implemented during construction. All disturbed areas will be stabilized with permanent vegetation cover prior to the removal of sediment control measures.

BUCKLE UP AMERICA

We request that you review the project area to determine if any species of concern may be present or affected by the proposed project. If so, please provide a list of the species present and any recommendations regarding restrictions or mitigation measures that should be included in the final project plans and specifications to ensure that this project does not adversely affect any species of concern.

A set of quad maps, location maps, and examples of typical proposed parking areas are enclosed for your review. Questions concerning this matter should be directed to Ms. Lisa Thaxton, Environmental Protection Specialist, at 571-434-1552.

Sincerely yours,

Brigitte Mandel
Environmental Compliance Specialist

Enclosures

cc:
Mr. Russ Smith, Superintendent, Fredericksburg and Spotsylvania National Military Park, National Park Service, Fredericksburg, VA
Mr. Gregg Kneipp, Natural Resource Manager Specialist, Fredericksburg and Spotsylvania National Military Park, National Park Service, Fredericksburg, VA
Mr. Robert Holzheimer, FLHP Coordinator, Northeast Region, National Park Service, Boston, MA
Ms. Kristie Franzmann, Project Manager, Denver Service Center, National Park Service, Denver, CO

050621-PC-7

W. Tayloe Murphy, Jr.
Secretary of Natural Resources

Joseph H. Maroon
Director

COMMONWEALTH of VIRGINIA

DEPARTMENT OF CONSERVATION AND RECREATION

217 Governor Street
Richmond, Virginia 23219-2010
Telephone (804) 786-7951 FAX (804) 371-2674 TDD (804) 786-2121

June 15, 2005

Lisa Thaxton, Environmental Protection Specialist
U.S. Department of Transportation
21400 Ridgetop Circle
Sterling, VA 20166-6511

Re: Project # PRA-FRSP 11(1), 19(1) Fredericksburg & Spotsylvania National Military Park

Dear Ms. Thaxton:

The Department of Conservation and Recreation's Division of Natural Heritage (DCR) has searched its Biotics Data System for occurrences of natural heritage resources from the areas outlined on the submitted map. Natural heritage resources are defined as the habitat of rare, threatened, or endangered plant and animal species, unique or exemplary natural communities, and significant geologic formations.

Biotics documents the presence of natural heritage resources in the project areas. However, due to the scope of the activity and the distance to the resources, we do not anticipate that this project will adversely impact these natural heritage resources.

Under a Memorandum of Agreement established between the Virginia Department of Agriculture and Consumer Services (VDACS) and the Virginia Department of Conservation and Recreation (DCR), DCR represents VDACS in comments regarding potential impacts on state-listed threatened and endangered plant and insect species. The current activity will not affect any documented state-listed plants or insects.

In addition, our files do not indicate the presence of any State Natural Area Preserves under DCR's jurisdiction in the project vicinity.

DCR recommends the use of native species similar to those found in surrounding areas when revegetating disturbed areas. The native plant materials should preferably come from reputable nurseries propagating their stock from local sources. Some nurseries also offer native wetland species seed mixes. Invasive species should not be used. In open areas, native warm-season grasses, such as big bluestem, little bluestem, indian grass, broomsedge, panic grass, and gamma grass, offer good alternatives to alien cool season grasses and legumes. If the use of slow-to-establish native species is not practical for projects requiring erosion control, the use of non-native, *non-invasive*, annual species for temporary stabilization is recommended. For example, a good choice is combining annual rye with a native perennial mix. In a wetland several millet species are available alternatives. The benefit of these annual species is they will die-off in one to two years, allowing the native species to recolonize the site. Also available for erosion

control are nets, blankets, and wattles made from plant fiber, which stabilize the soil while plantings become established.

Any absence of data may indicate that the project area has not been surveyed, rather than confirm that the area lacks natural heritage resources. New and updated information is continually added to Biotics. Please contact DCR for an update on this natural heritage information if a significant amount of time passes before it is utilized.

The Virginia Department of Game and Inland Fisheries maintains a database of wildlife locations, including threatened and endangered species, trout streams, and anadromous fish waters, which may contain information not documented in this letter. Their database may be accessed from http://www.dgif.virginia.gov/wildlife/info_map/index.html , or contact Shirl Dressler at (804) 367-6913.

Should you have any questions or concerns, feel free to contact me at 804-692-0984. Thank you for the opportunity to comment on this project.

Sincerely,

Michelle E. Edwards

Michelle E. Edwards
Locality Liaison

050725-PC-4

United States Department of the Interior

TAKE PRIDE IN AMERICA

NATIONAL PARK SERVICE
Fredericksburg and Spotsylvania
National Military Park
120 Chatham Lane
Fredericksburg, Virginia 22405

IN REPLY REFER TO:

July 19, 2005

Eastern Federal Lands Highway Division
Federal Highway Administration
Attn: Lisa Thaxton, HFPP-15
21400 Ridgetop Circle
Sterling, VA 20166

Dear Lisa:

Enclosed you will find a copy of the Programmatic Agreement (PA) developed for improving visitor access and interpretation to the Orange Plank corridor of the Wilderness Battlefield. This document, signed by both the NPS and the Virginia SHPO, described the project, which includes the new proposed parking area that will facilitate and accommodate the Vermont Monument. The PA is our commitment to work closely with the SHPO throughout every step of the project and outlines the process we have agreed upon for carrying out Section 106.

For the purposes of the EA, I suggest that in the section dealing with the new Wilderness Battlefield parking area that you simply reference the PA and append it to the document. While a PA does not close the Section 106 process, it is our binding agreement with the SHPO that it will be carried out in close consultation with that office.

If you have any questions, please don't hesitate to call.

Sincerely,

Eric J. Mink

Eric J. Mink
Historian and Cultural Resources Manager

PROGRAMMATIC AGREEMENT
AMONG THE NATIONAL PARK SERVICE AND THE VIRGINIA STATE HISTORIC PRESERVATION OFFICE
FOR IMPROVING VISITOR ACCESS AND INTERPRETATION TO THE ORANGE PLANK CORRIDOR OF THE WILDERNESS BATTLEFIELD

August 2004

WHEREAS Fredericksburg and Spotsylvania County Battlefields Memorial National Military Park (FRSP) is a unit of the National Park Service (NPS) and is charged to meet the directives of the NPS Organic Act of 1916 (P.L. 64-235, 39 Stat. 535) 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," as it applies to the Fredericksburg, Chancellorsville, Wilderness, Spotsylvania, Salem Church, and Jackson Shrine units; and

WHEREAS the FRSP is also charged to meet the directives of "An Act to Establish a National Military Park At and Near Fredericksburg, Virginia, and to Mark and Preserve Historical Points Connected with the Battles of Fredericksburg, Spotsylvania Court House, Wilderness, and Chancellorsville, Including Salem Church, Virginia, Approved February 14, 1927" (44 Stat. 1091) to "open, construct, and repair such roads, highways, paths, and other approaches as may be necessary to make the historical points accessible," and to "to mark and preserve for historical purposes the breastworks, earthworks, gun emplacements, walls, or other defenses or shelters used by the armies on the said battles … and together also with such additional land as the Secretary of War may deem necessary for monuments, markers, tablets, roads, highways, paths, approaches…"; and

WHEREAS The FRSP proposes to improve visitor access and interpretation in the Orange Plank Road corridor of the Wilderness Battlefield by: 1) allowing a private non-profit organization, representing the State of Vermont, to erect a monument; 2) constructing two new vehicular parking and/or pull off areas; 3) improving pedestrian access through the construction of approximately three miles of low-impact visitor trails; 4) and improve interpretation through the erection of wayside exhibits; and

WHEREAS In accordance with 36 CFR Part 800.4, the FRSP proposes to phase implementation of developing access to and improving and interpreting the Orange Plank Road corridor by implementing these actions over a period of time of five years depending upon funding and other factors; and

WHEREAS The FRSP has determined that these undertakings may have an effect upon properties included in or eligible for inclusion in the National Register of Historic Places (NRHP) and has consulted with the Virginia State Historic Preservation Officer (SHPO) pursuant to Section 800.14(a) of the regulations (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act (16 U.S.C. 470); and

WHEREAS, the FRSP has invited the participation of the Advisory Council on Historic Preservation (Council) in this consultation, and the Council has declined to participate; and

WHEREAS, The FRSP identified the following organizations, agencies, and institutions and invited them to participate in consultation towards this PA, but chose to decline:

County of Spotsylvania

Mary Washington College

Central Virginia Battlefields Trust

Virginia Council on Indians

Friends of the Fredericksburg Area Battlefields

Rappahannock Valley Civil War Round Table

WHEREAS This PA builds upon and does not supercede the 1995 Programmatic Agreement (1995 PA, Appendix A) executed by the NPS, the Council, and The National Conference of State Historic Preservation Officers (NCSHPO) that encourages the development of park and project specific programmatic agreements that may be independent of and supplement the 1995 PA; and

NOW, THEREFORE, The FRSP and the SHPO agree upon the FRSP's decision to proceed with the Undertaking, the FRSP shall ensure that the following stipulations are implemented in order to take into account the effects of the Project on historic properties, and that these stipulations shall govern the Project and all of its parts until this MOA expires or is terminated.

Stipulations

The FRSP will ensure that the following measures are carried out:

I. Consultation

FRSP shall consult with the SHPO in carrying out the terms of this agreement. Such consultation may include but not be limited to:

Written correspondence
Conference calls
Face-to-face meetings
Field visits.

II. Planning and Compliance Preparation

A. FRSP

1. Consistent with the provisions of the 1995 PA, the FRSP will prepare documentation for the actions using the "Assessment of Actions Having an Effect on Cultural Resources" form (also called the Assessment of Effect form). Any forms will be reviewed by cultural resource advisors who meet the professional qualifications set forth in the Secretary of the Interior's Standards and Guidelines for Archeology and Historic Preservation in the fields of archeology, history, historic landscape architecture, and historic architecture.

2. Actions that meet the criteria for programmatic exclusions, found in Stipulation IV.B of the 1995 PA, will require no further review. The FRSP will submit Assessment of Effect forms to the SHPO to document actions that the FRSP considers to meet the criteria for programmatic exclusions, found in Stipulation IV.B of the 1995 PA. If the criteria for programmatic exclusions are not met, the FRSP will submit the assessment forms to the SHPO for review and comment.

3. The FRSP will develop plans and specifications for implementing the actions compatible with the historic structures, contributing landscapes and landscape features of Fredericksburg and Spotsylvania and consistent with the recommended approaches to preserving its historic setting; and will provide the Virginia SHPO with a set of design plans for review.

4. If the FRSP determines that the proposed improvements may alter the qualities that make a contributing structure, landscape or landscape feature significant, the FRSP will prepare design alternatives and/or landscape treatment plans to avoid, minimize, or mitigate the project's adverse effects for submission to the SHPO for review and approval prior to implementation.

B. Identification, Evaluation and Treatment of Archaeological Sites

1. If the FRSP determines in consultation with the SHPO that further efforts are needed to identify archeological sites, the FRSP shall ensure that an archeological

testing program is developed in consultation with the SHPO. Prior to affecting any potentially eligible archeological site, the FRSP will develop a testing program of sufficient intensity to provide an evaluation of eligibility for the National Register of Historic Places by the FRSP in consultation with the SHPO, following the regulations outlined in 36 CFR 800.4(c).

2. If the FRSP determines that the proposed improvements may alter the qualities that make a contributing structure, landscape or landscape feature significant, the FRSP will prepare design alternatives and/or landscape treatment plans to avoid, minimize, or mitigate the project's adverse effects for submission to the SHPO for review and approval prior to implementation.

3. If as a result of the testing program, archeological sites are identified that are eligible for the National Register of Historic Places, the FRSP shall develop a plan for their avoidance, protection, recovery of information or destruction without data recovery, in consultation with the SHPO. The plan shall be submitted to the SHPO for review and approval prior to implementation.

4. All data recovery plans prepared under the terms of this PA shall include the following elements:

   a) Information on the archeological property or properties where data recovery is to be carried out, and the context in which such properties are eligible for the National Register;

   b) Information on any property, properties, or portions of properties that will be destroyed without data recovery;

   c) Discussion of the research questions to be addressed through the data recovery with an explanation/ justification of their relevance and importance;

   d) Description of the recovery methods to be used, with an explanation of their pertinence to the research questions;

e) Information on arrangements for any regular progress reports or meetings to keep the NPS and the SHPO up to date on the course of the work. The plan should contain the expected timetable for excavation, analysis and preparation of the final report.

C. Identification, Evaluation and Treatment of Cultural Landscapes

1. If the FRSP determines in consultation with the SHPO that further efforts are needed to identify cultural landscapes, the FRSP shall ensure that an identification effort is developed in consultation with the SHPO. Prior to affecting any potentially eligible cultural landscapes, the NPS will develop a report of sufficient intensity to provide an evaluation of eligibility for the National Register of Historic Places by the FRSP in consultation with the SHPO, following the regulations outlined in 36 CFR 800.4(c).

2. If the FRSP determines that the proposed improvements may alter the qualities that make a contributing structure, landscape or landscape feature significant, the FRSP will prepare design alternatives and/or landscape treatment plans to avoid, minimize, or mitigate the project's adverse effects for submission to the SHPO for review and approval prior to implementation.

3. If as a result of the identification efforts, cultural landscapes are identified that are eligible for the National Register of Historic Places, the FRSP shall develop a plan for their avoidance, protection, recovery of information in consultation with the SHPO. The plan shall be submitted to the SHPO for review and approval prior to implementation.

C. Review of Documentation

1. The FRSP shall submit two copies of the draft of all technical reports bound in a spiral binding and on acid free paper to the SHPO for review and comment. The FRSP shall ensure that all comments received within thirty (30) days of report receipt shall be addressed in the final technical reports. Two copies of all final technical reports shall be provided to the SHPO.

2. Unless otherwise specified in this PA, concurring parties shall have thirty (30) calendar days after receipt of any document distributed by the FRSP for review and comment. Failure to comment within this time period shall be construed as agreement with the document's findings, conclusions, and/or recommendations. Any concurring party may request in writing to the FRSP an extension of the review period for up to an additional thirty (30) days.

D. Curation of all archeological materials and appropriate field and research notes, maps, drawings and photographic records collected as part of this PA will be cared for in accordance with the requirements of 36 CFR Part 79, *Curation of Federally Owned and Administered Archeological Collections* and the *National Park Service Museum Handbook.*

E. Professional Qualifications

1. All archeological work will be conducted by or under the direct supervision of a qualified archeologist who meets, at a minimum, the qualifications set forth in the Secretary of the Interior's *Professional Qualifications Standards* (48 FR 44 738-9).

2. Work concerning historic structures and districts will be carried out by or under the supervision of a qualified architectural historian or historians who meets, at a minimum the qualifications set forth in the Secretary of the Interior's *Professional Qualifications Standards* (48 FR 44738-9).

3. Work concerning rural historic landscapes will be carried out by or under the supervision of a qualified landscape historian or landscape architect, and in accordance with the applicable guidelines set forth in the National Register Bulletin 30 (*Guidelines for Evaluating and Documenting Rural Historic Landscapes).*

F. Reporting Standard

1. All archeological studies, resulting from this PA, including data recovery plan(s), shall be consistent with the *Secretary of the Interior's Standards and Guidelines for Archeological Documentation (48 FR 4434-37)*, the Director's Order 28, Technical Guidelines, and the SHPO's *Guidelines for Conducting Cultural Resource Survey in Virginia: Additional Guidance for the Implementation of the Federal Standards Entitled Archaeology and Historic Preservation: Secretary of the Interior's Standards*

and Guidelines (48 FR 44742, September 29, 1983) 1999, rev. 2000, and shall take into account the Council's publications, *Consulting About Archeology Under Section 106* (1990) and *Recommended Approach for Consultation on Recovery of Significant Information from Archeological Sites* (1999).

2. All historical and architectural studies resulting from the PA shall be consistent with pertinent standards and guidelines of the Secretary of the Interior, including as applicable the Secretary of the Interior's *Standards and Guidelines for Historical Documentation* (48 FR 44728-30) and for *Architectural and Engineering Documentation* (48 FR 44730-34).

III. Project Coordination and Implementation

A. The FRSP will coordinate the Section 106 review activities of all federal agencies that participate in the actions associated with the Fredericksburg and Spotsylvania National Military Park on NPS property or funded by the federal government.

B. To coordinate compliance with project contracting, the FRSP will submit the Assessment of Effect forms to the SHPO to document actions that the FRSP considers to meet the criteria for programmatic exclusions found in Stipulation IV.B of the 1995 PA that will require no further review. If the criteria for programmatic exclusions are not met, the FRSP will submit the Assessment of Effect forms to the SHPO for review and comment.

IV. Report Requirements

A. The FRSP shall ensure that any documentation pertaining to activities carried out pursuant to this agreement is provided to the SHPO in draft and final format, as appropriate. Concurring parties will be notified of the status of the documentation and will be provided copies upon request.

B. The FRSP shall ensure that decisions regarding the dissemination of information generated as a result of carrying out the terms of this agreement are made in accordance with Section 304 of the NHPA and the Draft NPS Guidelines for Withholding Information About Historic Resources (February 15, 2000) (to be superceded by the final document once completed for purposes of the PA). When the information in question has been developed in the course of an agency's compliance with Section 106 or 110(f), the Secretary shall consult with the Council in reaching determinations under subsections (a) and (b).

V. Monitoring of Performance under the Agreement

A. Annual Report

1. On or before October 31 of each year until the FRSP determines that the terms of this PA have been fulfilled and so notifies the other consulting parties, the FRSP will prepare and provide an annual report to all parties to this agreement, addressing:

- Status of project implementation
- Progress in work
- Coordination of work with planning and construction schedules
- Any problems or unexpected issues encountered during the year, and
- Any proposed changes to this agreement.

2. The FRSP shall ensure that its annual report is made available for public inspection, that potentially interested members of the public are made aware of its availability, and that interested members of the public are invited to provide comments.

3. The FRSP shall review the annual report and any comments it receives from the public and will provide comments to the parties to this agreement. Based on this review any party to this agreement may request that the parties meet to facilitate review and comment, to resolve questions or to resolve adverse comments.

4. Based on this review, the FRSP and the SHPO will consult to determine whether this PA shall continue in force, be amended, or be terminated.

B. The SHPO may monitor activities carried out pursuant to this PA, and the Council may review such activities if so requested. The FRSP will cooperate with the SHPO in carrying out their monitoring and review responsibilities.

VI. Post Review Discoveries

A. In the event that a previously unidentified archeological resource is discovered during ground disturbing activities, the FRSP shall immediately notify the SHPO. All construction work involving subsurface disturbance will be halted in the area of the resource and in the surrounding area where further subsurface remains can reasonably be expected to occur. The FRSP and the SHPO, or an archeologist approved by them, immediately will inspect the work site and determine the area and the nature of the affected archeological property. Construction work may then continue in the project area outside the site area. Within two working days of the original notification of discovery, the FRSP in

consultation with the SHPO will determine the National Register eligibility of the resource.

If the resource is determined to meet National Register Criteria (36 CFR Part 60.6), the NPS will ensure compliance with Section 800.13 of the Council's regulations. Work in the affected area shall not proceed until either (a) the development or implementation of appropriate data recovery or other recommended mitigation procedures, or (b) the determination is made that the located remains are not eligible for inclusion on the National Register.

VII. Dispute Resolution

A. Should any party to this PA object to any action carried out or proposed by the FRSP with respect to implementation of this PA, the FRSP will consult with the objecting party to resolve the objection.

B. If after initiating such consultation, the FRSP determines that the objection cannot be resolved through consultation, the FRSP shall forward all documentation relevant to the objection to the Council, including the proposed response to the objection.

C. Within forty-five (45) days after receipt of all pertinent documentation, the Council shall exercise one of the following options:

1. Advise the FRSP that the Council concurs in the proposed response to the objection, whereupon the FRSP will respond to the objection accordingly;

2. Provide the FRSP with recommendations, which the FRSP shall take into account in reaching a final decision regarding its response to the objections; or

3. Notify the FRSP that the objection will be referred for Council comment pursuant to Section 110(1) of the National Historic Preservation Act and 36 CFR 800.7(c), and proceed to refer the objection for comment. Any Council comment rendered pursuant to this stipulation shall be understood to apply only to the subject of the objection; all other responsibilities of the parties stipulated in agreement shall remain unchanged.

D. Should the Council not exercise one of the above options within forty-five (45) days after receipt of all pertinent documentation, the FRSP may assume the Council's concurrence in its proposed response to the objection.

E. At any time during implementation of the measures stipulated in this agreement, should an objection pertaining to this agreement be raised by a member of the public, the party to this agreement receiving the objection shall notify the other parties to this agreement and the FRSP will take the objection into account, consulting with the objector and, should the objector so request, with any of the parties to this agreement to resolve the objection.

VIII. Amending the Agreement

Any party to this PA may propose to the FRSP that the PA be amended, whereupon the FRSP will consult with the other parties to this PA to consider such an amendment. All signatories to the PA must agree to the proposed amendment in accordance with 800.5(e) (5).

IX. Terminating the Agreement

A. If the FRSP determines that it cannot implement the terms of this PA, or if the SHPO determines that the agreement is not being properly implemented, the FRSP or the SHPO may propose to the other party that it be terminated.

B. Termination shall include the submission of any outstanding technical reports on any work done up to and including the date of termination.

C. A party proposing to terminate this agreement shall so notify all parties to the agreement, explaining the reasons for termination and affording them at least thirty (30) days to consult and seek alternatives to termination. The parties shall then consult.

D. Should such consultation fail and the agreement be terminated, the FRSP will comply with the 1995 PA and 36 CFR 800.3 through 800.6 with regard to individual actions covered by this PA.

X. Duration of the Agreement

This PA will continue in full force and effect until five years after the date of the last signature. At any time in the sixth-month period prior to such date, the NPS may request the signatory parties to consider an extension or modification of this agreement. No extension or modification will be effective unless all parties to the PA have agreed with it in writing.

Execution of this PA by the FRSP and the SHPO, and its submission to the Council in accordance with 36 CFR

800.6(b)(1)(iv), shall, pursuant to 36 CFR 800.6(c), be considered to be an agreement with the Council for the purposes of Section 110(1) of NHPA. Execution and submission of this PA and implementation of its terms evidence that the FRSP has afforded the Council an opportunity to comment on the Project and its effects on historic properties, and that the FRSP has taken into account the effects of the Project in historic properties.

Signatures

NATIONAL PARK SERVICE

By: Russell P. Smith Date: 8/24/04

Russell P. Smith
Superintendent, Fredericksburg & Spotsylvania National Military Park

VIRGINIA STATE HISTORIC PRESERVATION OFFICER

By: _____ Date: 9/24/04

Kathleen S. Kilpatrick
Director, Department of Historic Resources

Appendix B: Environmental Impact Methodologies and Thresholds

The National Park Service (NPS)'s *Management Policies, 2001* (2000a) require analysis of potential effects to determine whether actions would impair park resources. The fundamental purpose of the National Park System, established by the Organic Act and reaffirmed by the General Authorities Act, as amended, begins with a mandate to conserve park resources and values. NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts to park resources and values. However, the laws do give the NPS the management discretion to allow impacts to park resources and values when necessary and as appropriate to fulfill the purposes of a park, as long as the impact does not constitute impairment of the affected resources and values. Although Congress has given the NPS the management discretion to allow certain impacts, that discretion is limited by the statutory requirement that the NPS must leave park resources and values unimpaired, unless a particular law directly and specifically provides otherwise. The prohibited impairment is an impact that, in the best professional judgment of the responsible NPS manager, would harm the integrity of park resources or values. An impact to any park resource or value may constitute an impairment; however, an impact would more likely constitute an impairment to the extent that it has a major adverse effect upon a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park;
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park; or
- identified as a goal in the park's general management plan or other relevant NPS planning documents.

Impairment may result from NPS activities in managing the park, visitor activities, or activities undertaken by concessionaires, contractors, and others operating in the park.

1. Vegetation

Available information on vegetation and vegetative communities potentially impacted by the proposed alternatives was compiled. To the extent possible, location of sensitive vegetation species, populations, and communities were identified and avoided. Predictions about short-term and long-term impacts to vegetation were based on previous experience of projects of similar scope and vegetative characteristics. Analyses of the potential intensity of impacts on vegetation were derived from the available information on the parkway and the professional judgment of the park staff.

<u>Definition of Intensity Levels:</u>

Negligible: Native vegetation would not be affected, or some individual native plants would be affected as a result of the alternative, but there would be no effect on native species populations. The effects would be on a small scale and no species of special concern would be affected.

Minor: The alternative would affect some individual native plants and would also affect a relatively small portion of that species population. Mitigation to offset adverse effects, including special measures to avoid affecting species of concern, would be required and would be effective.

Moderate: The alternative would affect some individual native plants and would also affect a sizeable segment of the species population and over a relatively large area. Mitigation to offset the adverse effects could be extensive, but would likely be successful. Some species of special concern could be affected.

Major: The alternative would have a considerable effect on native plant populations, including species of special concerns, and could affect a relatively large area in and outside of the park. Mitigation measures to offset the adverse effects would be required, extensive, and success of the mitigation measures would not be guaranteed.

Definition of Duration:

Short-term: Effects lasting less than 3 years
Long-term: Effects lasting longer than 3 years.

3. Wildlife and Wildlife Habitat

The NPS Organic Act, which directs parks to conserve wildlife unimpaired for future generations, is interpreted by the agency to mean that native animal life should be protected and perpetuated as part of the park's natural ecosystem. Natural processes are relied on to control populations of native species to the greatest extent possible; otherwise they are protected from harvest, harassment, or harm by human activities. According to NPS Management Policies 2001, the restoration of native species is a high priority. Management goals for wildlife include maintaining components and processes of naturally evolving park ecosystems, including natural abundance, diversity, and the ecological integrity of plants and animals.

The following thresholds were used to determine the magnitude of effects on wildlife and wildlife habitat:

Negligible: There would be no observable or measurable impacts to native species, their habitats, or the natural processes sustaining them. Impacts would be of short duration and well within natural fluctuations.

Minor: Impacts would be detectable, but they would not be expected to e outside the natural range of variability and would not be expected to have any long-term effects on native species, their habitats, or the natural processes sustaining them.

Population numbers, population structure, genetic variability, and other demographic factors for species might have small, short-term changes, but long-term characteristics would remain stable and viable. Occasional responses to disturbance by some individuals could be expected, but without interference to feeding, reproduction, or other

factors affecting population levels.

Key ecosystem processes might have short-term disruptions that would be within natural variation. Sufficient habitat would remain functional to maintain viability of all species. Impacts would be outside critical reproduction periods for sensitive native species.

Moderate: Breeding Animals of concern are present; animals are present during particularly vulnerable life-stages, such as migration or juvenile states; mortality or interference with activities necessary for survival can be expected on an occasional basis, but is not expected to threaten the continued existence of species in the park unit.

Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, and they could be outside the natural range of variability for short periods of time. Population numbers, population structure, genetic variability, and other demographic factors for species might have short-term changes, but would be expected to rebound to pre-impact numbers and to remain stable and viable in the long terms. Frequent responses to disturbance by some individuals could be expected, with some negative impacts to feeding, reproductions, or other factors affecting short-term population levels.

Key ecosystem processes might have short-term disruptions that would be outside natural variation (but would soon return to natural conditions). Sufficient habitat would remain functional to maintain viability of all native species. Some impacts might occur during critical periods of reproductions or in key habitat for sensitive native species.

Major: Impacts on native species, their habitats, or the natural processes sustaining them would be detectable, and they would be expected to be outside the natural range of variability for long periods of time or be permanent.

Population numbers, population structure, genetic variability, and other demographic factors for species might have large, short-term declines, with long-term population numbers significantly depressed. Frequent responses to disturbance by some individuals would be expected, with negative impacts to feeding, reproduction, or other factors resulting in a long-term decrease in population levels. Breeding colonies of native species might relocate to other portions of the park.

Key ecosystem processes might be disrupted in the long term or permanently. Loss of habitat might affect the viability of at least some native species.

Impairment: Some of the major impacts described above might be an impairment of park resources if their severity, duration, and timing resulted in the elimination of a native species or significant population declines in a native species, or they precluded the parks' ability to meet recovery objectives for listed species. In addition, these adverse, major impacts to park resources and values would:

- Contribute to deterioration of the park's wildlife resources and values to the extent that the park's purpose could not be fulfilled as established in its enabling legislation;
- Affect resources key to the park's natural or cultural integrity or opportunities for

enjoyment; or

- Affect the resource whose conservation is identifies as a goal in the park's general management plan or other park planning documents.

7. Sound Environment/Soundscape

The NPS *Management Policies* 2001, states that the NPS will strive to preserve the natural quiet and natural sounds associated with the physical and biological resources of parks.

NPS policy requires the restoration of degraded soundscapes to the natural condition whenever possible, and the protection of natural soundscapes from degradation due to noise (undesirable human-caused sound) (*Management Policies 2001,* sec. 4.9). The NPS is specifically directed to "take action to prevent or minimize all noise that, through frequency, magnitude, or duration, adversely affects the natural soundscape or other park resources or values, or that exceeds levels that have been identified as being acceptable to, or appropriate for, visitor uses at the sites being monitored" (*Management Policies 2001,* sec. 4.9). Overriding all of this is the fundamental purpose of the national park system, established in law (e.g., 16 USC 1 et seq.), which is to conserve park resources and values (*Management Policies 2001*. sec. 1.4.3). NPS managers must always seek ways to avoid, or to minimize to the greatest degree practicable, adverse impacts on park resources and values (*Management Policies 2001,* sec 1.4.3).

Noise can adversely affect park resources by modifying or intruding upon the natural soundscape, and can also indirectly impact resources by interfering with sounds important for animal communication, navigation, mating, nurturing, predation, and foraging functions. Noise can also adversely impact park visitor experiences by intruding upon or disrupting experiences of solitude, serenity, tranquility, contemplation, or a completely natural or historical environment.

The methodology used to assess noise impacts in this document is consistent with NPS *Management Policies 2001* and *Director's Order #47: Soundscape Preservation and Noise Management.*

Context, time, and intensity together determine the level of impact for an activity. It is usually necessary to evaluate all three factors together to determine the level of noise impact. In some cases an analysis of one or more factors may indicate one impact level, while an analysis of another factor may indicate a different impact level, according to the criteria below. In such cases, best professional judgment based on a documented rationale must be used to determine which impact level best applies to the situation being evaluated.

- National literature was used to estimate the average decibel levels.
- Areas of use by visitors were identified in relation to where the activity is proposed. Personal observation from park staff and monthly use reports were used to identify these areas.
- Other considerations, such as topography and prevailing winds, were then used to

identify areas where noise levels could be exacerbated or minimized.

Definition of Intensity Levels

Negligible: Effects to natural sound environment would be at or below the level of detection and such changes would be so slight that they would not be of any measurable or perceptible consequence to the visitor experience or to biological resources.

Minor: Effects to the natural sound environment would be detectable, although the effects would be localized, and would be small and of little consequence to the visitor experience or to biological resources. Mitigation measures, if needed to offset adverse effects, would be simple and successful.

Moderate: Effects to the natural sound environment would be readily detectable, localized, with consequences at the regional or population level. Mitigation measures, if needed to offset adverse effects, would be extensive and likely successful.

Major: Effects to the natural sound environment would be obvious and have substantial consequences to the visitor experience or to biological resources in the region. Extensive mitigation measures would be needed to offset any adverse effects and success would not be guaranteed.

Definition of Duration

Short-term - occurs only during the construction period
Long-term - occurs even after the construction period

8. Cultural Resources

Potential impacts on cultural resources must be addressed under the provisions for assessing effects outlined in 36 CFR, Part 800, regulations issued by the Advisory Council on Historic Preservation implementing Section 106 of the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470 et seq.). Under the "Criteria of Effect" (36 CFR Part 800.9[a]), Federal undertakings are considered to have an effect when they alter the character, integrity, or use of a cultural resource, or the qualities that qualify a property for listing on the National Register of Historic Places.

Certain important research questions about human history can only be answered by the actual physical material of cultural resources. Archeological resources have the potential to answer, in whole or in part, such research questions. An archeological site(s) can be eligible to be listed in the National Register of Historic Places if the site(s) has yielded, or may be likely to yield, information important in prehistory or history. An archeological site(s) can be nominated to the National Register in one of three historic contexts or levels of significance: local, state, or national (see National Register Bulletin #15, *How to Apply the National Register Criteria for Evaluation*). For purposes of analyzing impacts to archeological resources, thresholds of change for the intensity of an impact are based upon the potential of the site(s) to yield information important in prehistory or history, as

well as the probable historic context of the affected site(s).

Definition of Intensity Levels

Negligible: Impact is at the lowest levels of detection - barely measurable with no perceptible consequences, either adverse or beneficial, to archeological resources. For purposes of Section 106, the determination of effect would be no adverse effect.

Minor: Adverse impact - disturbance of a site(s) results in little, if any, loss of significance or integrity and the National Register eligibility of the site(s) is unaffected. For purposes of Section 106, the determination of effect would be no adverse effect. Beneficial impact – maintenance and preservation of a site(s). For purposes of Section 106, the determination of effect would be no adverse effect.

Moderate: Adverse impact - disturbance of a site(s) does not diminish the significance or integrity of the site(s) to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be adverse effect. Beneficial impact – stabilization of a site(s). For purposes of Section 106, the determination of effect would be no adverse effect.

Major: Adverse impact – disturbance of a site(s) diminishes the significance and integrity of the site(s) to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be adverse effect. Beneficial impact – active intervention to preserve a site(s). For purposes of Section 106, the determination of effect would be no adverse effect.

9. Historic Structures/Buildings

In order for a structure or building to be listed in the National Register of Historic Places, it must be associated with an important historic context, i.e. possess significance – the meaning or value ascribed to the structure or building, *and* have integrity of those features necessary to convey its significance, i.e. location, design, setting, workmanship, materials, feeling, and association (see National Register Bulletin #15, *How to Apply the National Register Criteria for Evaluation*).

Definition of Intensity Levels

Negligible: Impact(s) is at the lowest levels of detection - barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be *no adverse effect.*

Minor: Adverse impact - impact would not affect the character defining features of a National Register of Historic Places eligible or listed structure or building. For purposes of Section 106, the determination of effect would be *no adverse effect*. Beneficial impact - stabilization/ preservation of character defining features in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Moderate: Adverse impact - impact would alter a character defining feature(s) of the structure or building but would not diminish the integrity of the resource to the extent that its National Register eligibility is jeopardized. For purposes of Section 106, the determination of effect would be *no adverse effect*. Beneficial impact – rehabilitation of a structure or building in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

Major: Adverse impact - impact would alter a character defining feature(s) of the structure or building, diminishing the integrity of the resource to the extent that it is no longer eligible to be listed in the National Register. For purposes of Section 106, the determination of effect would be *adverse effect*. Beneficial impact – restoration of a structure or building in accordance with the *Secretary of the Interior's Standards for the Treatment of Historic Properties*. For purposes of Section 106, the determination of effect would be *no adverse effect*.

10. Cultural Landscape

In this environmental assessment/assessment of effect, impacts to cultural landscape resources are described in terms of type, context, duration, and intensity, which is consistent with the regulations of the Council on Environmental Quality (CEQ) that implement the National Environmental Policy Act (NEPA). These impact analyses are intended, however, to comply with the requirements of both NEPA and Section 106 of the National Historic Preservation Act (NHPA). In accordance with the Advisory Council on Historic Preservation's regulations implementing Section 106 of the NHPA (36 CFR Part 800, *Protection of Historic Properties*), impacts to cultural landscapes were identified and evaluated by (1) determining the area of potential effects; (2) identifying cultural resources present in the area of potential effects that are either listed in or eligible to be listed in the National Register of Historic Places; (3) applying the criteria of adverse effect to affected cultural resources either listed in or eligible to be listed in the National Register; and (4) considering ways to avoid, minimize or mitigate adverse effects.

Under the Advisory Council's regulations, a determination of either *adverse effect* or *no adverse effect* must also be made for affected, National Register eligible cultural resources. An *adverse effect* occurs whenever an impact alters, directly or indirectly, any characteristic of a cultural resource that qualifies it for inclusion in the National Register, e.g. diminishing the integrity of the resource's location, design, setting, materials, workmanship, feeling, or association. Adverse effects also include reasonably foreseeable effects caused by the preferred alternative that would occur later in time, be farther removed in distance or be cumulative (36 CFR 800.5, *Assessment of Adverse Effects*). A determination of *no adverse effect* means there is an effect, but the effect would not diminish in any way the characteristics of the cultural resource that qualify it for inclusion in the National Register.

CEQ regulations and the NPS's *Conservation Planning, Environmental Impact Analysis and Decision Making* (Director's Order #12; NPS, 2001) also call for a discussion of the appropriateness of mitigation, as well as an analysis of how effective the mitigation would be in reducing the intensity of a potential impact, e.g. reducing the intensity of an

impact from major to moderate or minor. Any resultant reduction in intensity of impact due to mitigation, however, is an estimate of the effectiveness of mitigation under NEPA only. It does not suggest that the level of effect as defined by Section 106 is similarly reduced. Cultural resources are non-renewable resources and adverse effects generally consume, diminish, or destroy the original historic materials or form, resulting in a loss in the integrity of the resource that can never be recovered. Therefore, although actions determined to have an adverse effect under Section 106 may be mitigated, the effect remains adverse.

In order for a cultural landscape to be listed in the National Register, it must meet one or more of the following criteria of significance: A) associated with events that have made a significant contribution to the broad patterns of our history; B) associated with the lives of persons significant in our past; C) embody the distinctive characteristics of a type, period, or method of construction, or represent the work of a master, or possess high artistic value, or represent a significant and distinguishable entity whose components may lack individual distinction; D) have yielded, or may be likely to yield, information important in prehistory or history (National Register Bulletin, How to Apply the National Register Criteria for Evaluation). The landscape must also have integrity of those patterns and features - spatial organization and land forms; topography; vegetation; circulation networks; water features; and structures/buildings, site furnishings or objects - necessary to convey its significance (Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for the Treatment of Cultural Landscapes).

Definition of Intensity Levels

Negligible: Impact(s) is at the lowest levels of detection - barely perceptible and not measurable. For purposes of Section 106, the determination of effect would be no adverse effect.

Minor: Adverse impact – impact(s) would alter a pattern(s) or feature(s) of the cultural landscape but would not diminish the overall integrity of the landscape. For purposes of Section 106, the determination of effect would be no adverse effect.

Moderate: Adverse impact - impact(s) would alter a pattern(s) or feature(s) of the cultural landscape, diminishing the overall integrity of the landscape. For purposes of Section 106, the determination of effect would be adverse effect. A Memorandum of Agreement is executed among the NPS and applicable state or tribal historic preservation officer and, if necessary, the Advisory Council on Historic Preservation in accordance with 36 CFR 800.6(b). The mitigation measures identified in the Memorandum of Agreement reduce the intensity of impact from major to moderate.

Major: Adverse impact - impact(s) would alter a pattern(s) or feature(s) of the cultural landscape, diminishing the overall integrity of the resource. For purposes of Section 106, the determination of effect would be adverse effect. The NPS and applicable state or tribal historic preservation officer are unable to negotiate and execute a Memorandum of Agreement in accordance with 36 CFR 800.6(b).

Definition of Duration

Short-term – Effects lasting for the duration of the construction activities (less than 1 year);
Long-term – Effects lasting longer than the duration of the construction (longer than 1 year).

12. Visitor Use and Experience

NPS *Management Policies 2001* state that the enjoyment of park resources and values by the people of the United States is part of the fundamental purpose of all parks and that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks.

Part of the purpose of the Park is to offer opportunities for recreation, education, inspiration, and enjoyment. Consequently, one of the park's management goals is to ensure that visitors safely enjoy and are satisfied with the availability, accessibility, diversity, and quality of park facilities, services, and appropriate recreational opportunities.

Definition of Intensity Levels

Negligible: Changes in visitor use and/or experience would be below or at the level of detection. The visitor would not likely be aware of the effects associated with the alternative.

Minor: Changes in visitor use and/or experience would be detectable, although the changes would be slight. The visitor would be aware of the effects associated with the alternative, but the effects would be slight.

Moderate: Changes in visitor use and/or experience would be readily apparent. The visitor would be aware of the effects associated with the alternative and would likely be able to express an opinion about the changes.

Major: Changes in visitor use and/or experience would be readily apparent and severely adverse or exceptionally beneficial. The visitor would be aware of the effects associated with the alternative and would likely express a strong opinion about the changes.

Definition of Duration

Short-term – occurs only during the treatment action
Long-term – occurs after the treatment action.

13. Visitor Conflicts and Safety

In addition to the guiding regulations and policies discussed in the "Visitor Experience"

section, the *NPS Management Policies 2001* state that the NPS is committed to providing appropriate, high-quality opportunities for visitors to enjoy the parks. The policies also state, "While recognizing that there are limitations on its capability to totally eliminate all hazards, the Service and its concessioners, contactors, and cooperators will seek to provide a safe and healthful environment for visitors and employees" Furthermore the NPS will strive to protect human life and provide for injury-free visits.

Director's Order #9: Law Enforcement Program (NPS 2000a), in conjunction with *Reference Manual 9: Law Enforcement*, establishes and defines standards and procedures for NPS law enforcement. Along with education and resource management, law enforcement is an important tool in achieving this mission. Commissioned rangers perform resource stewardship, educations, and visitor use management activities, including law enforcement. They provide for tranquil, sustainable use and enjoyment of park resources while simultaneously protecting these resources from all forms of degradation. The objectives of the law enforcement program are to (1) prevent criminal activities through resource education, public safety efforts, and deterrence, (2) detect and investigate criminal activity, and (apprehend and successfully prosecute criminal violators.

Definitions of Intensity Levels:

Negligible: The impact to visitor safety would not be measurable or perceptible.

Minor: The impact would be measurable or perceptible, and it would be limited to a relatively small number of visitors at localized areas. Impacts to visitor safety could be realized through a minor increase or decrease in the potential for visitor conflicts in current accident areas.

Moderate: The impact to visitor safety would be sufficient to cause a permanent change in accident rates at existing low accident locations or to create the potential for additional visitor conflicts in areas that currently do not exhibit noticeable visitor conflict trends.

Major: The impact to visitor safety would be substantial either through the elimination of potential hazards or the creation of new areas with a high potential for serious accidents or hazards.

Appendix C: Additional Photographs

Figure 1 Chancellorsville Battlefield Visitor's Center and Parking Lot

Figure 2 Spotsylvania Battlefield Exhibit Shelter and Parking Lot (Site 1)

Figure 3 Wilderness Battlefield Exhibit Shelter and Parking Lot

Figure 4 Anderson Drive (Site 7)

Figure 5 Fredericksburg Visitors Center Parking Lot

Figure 6 Upton Road Pulloff

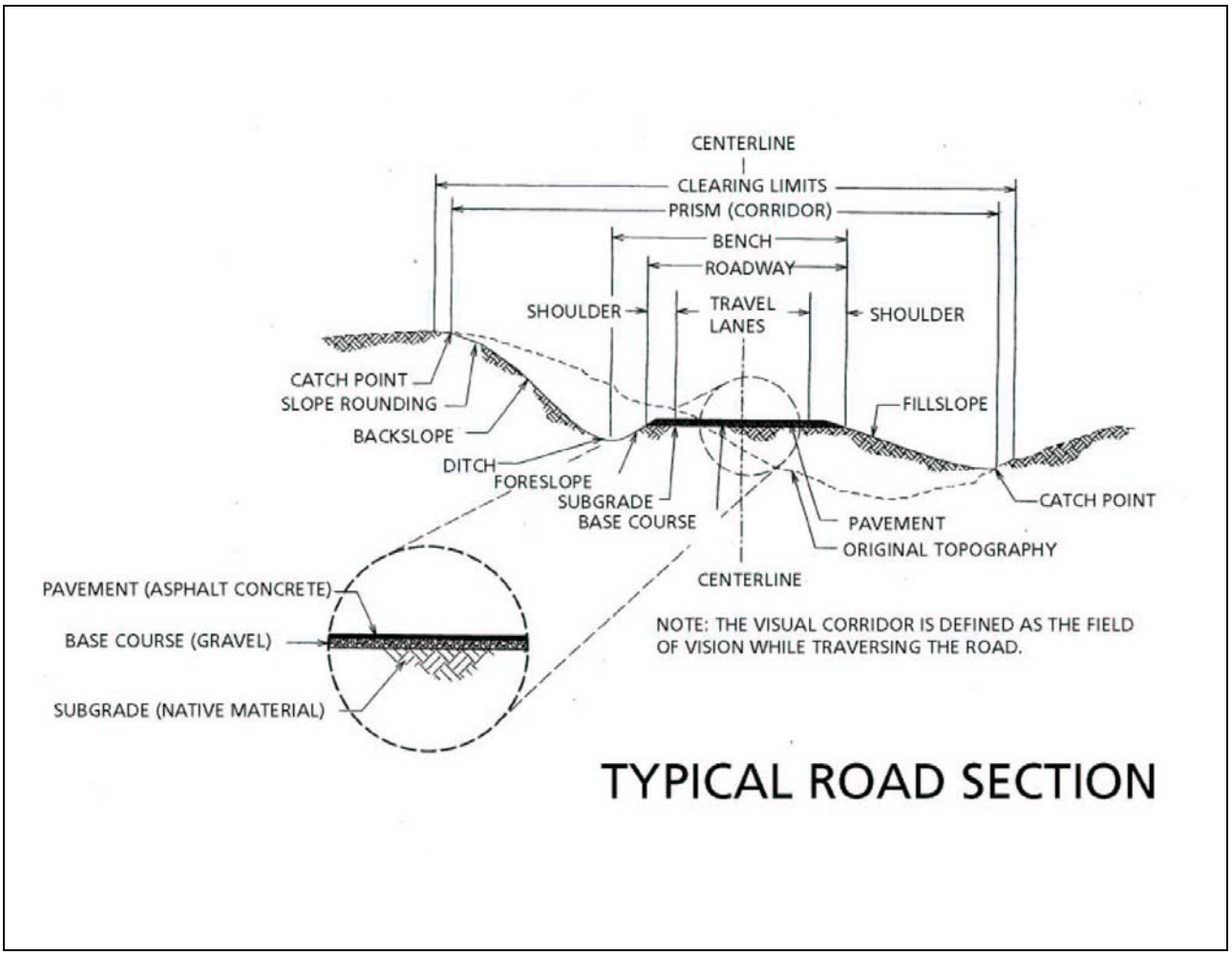

Figure 7 Typical Road Section