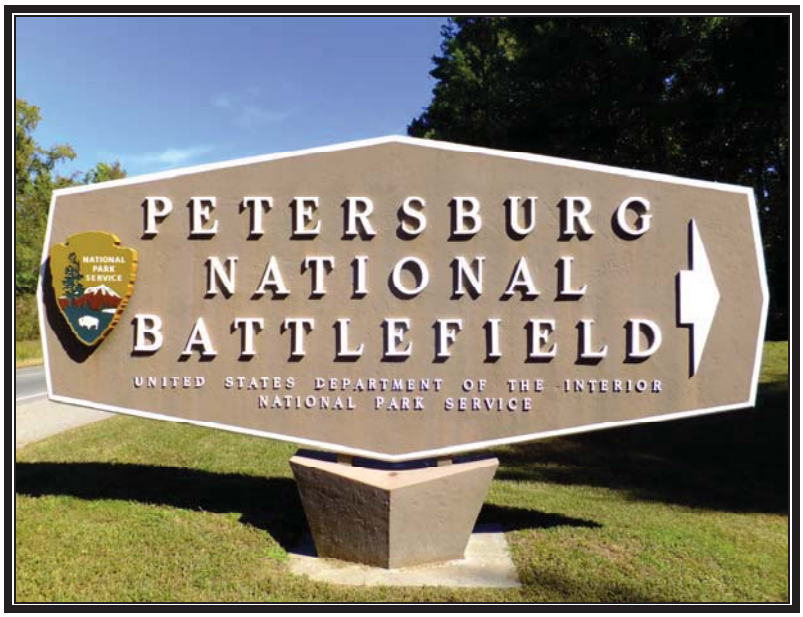
Federal Lands Highway

Road Inventory Program

Road Inventory and Condition Assessment

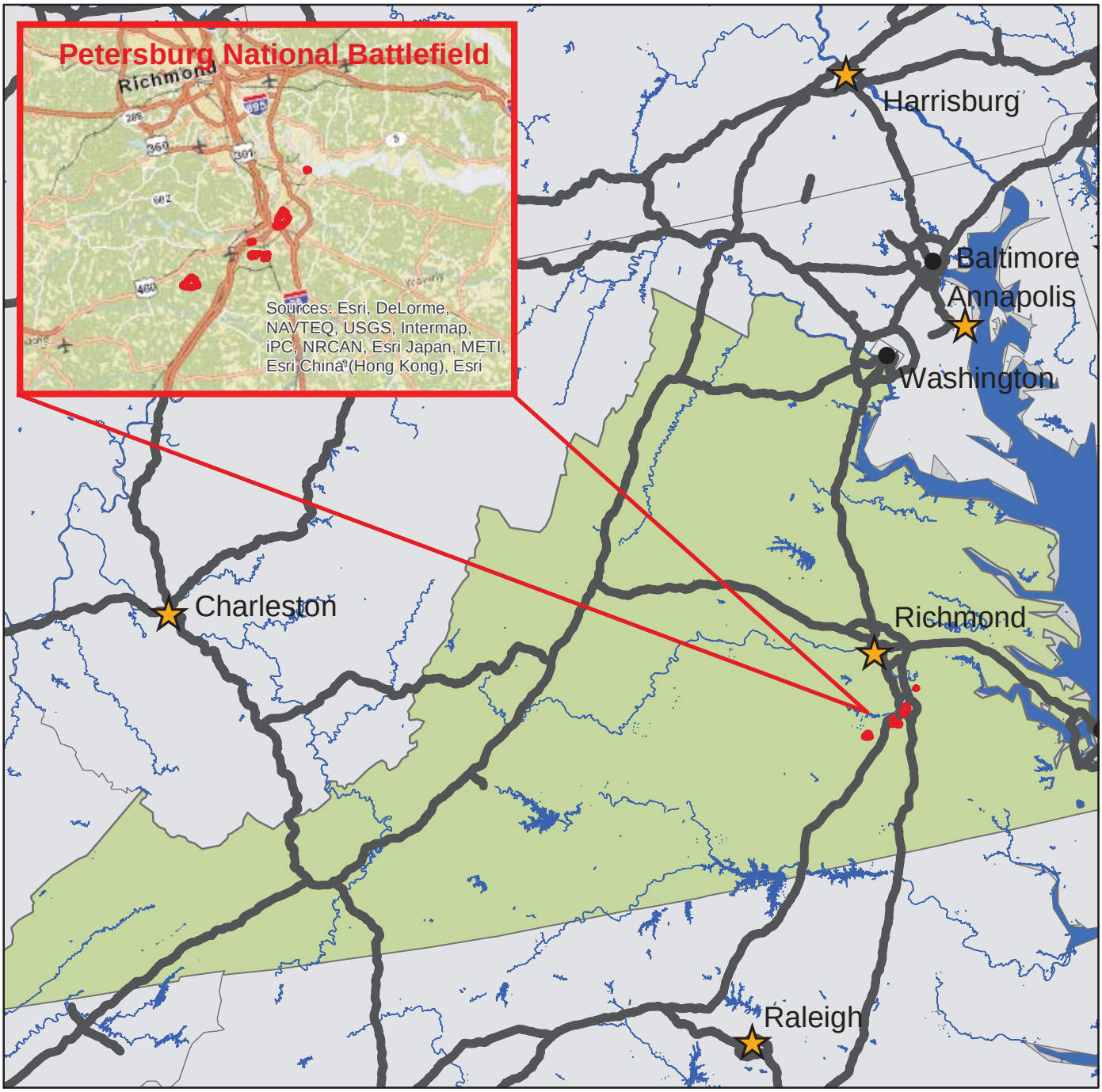


Petersburg National Battlefield
PETE

Cycle 5 Report

Prepared By: Federal Highway Administration
Road Inventory Program (RIP)
Data Collected: 01/2014
Report Date: 09/2014

Petersburg National Battlefield
in
Virginia



DCV = Data Collection Vehicle

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Petersburg National Battlefield

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INTRODUCTION

The Federal Highway Administration, (FHWA), in the mid 1970s, was charged with the task of identifying surface condition deficiencies and corrective priorities on National Park Service (NPS) roads and parkways. Additionally, FHWA was tasked with establishing an integrated maintenance features inventory, locating features such as culverts, guardrails, and signs, among others, along NPS roads and parkways. As a result, in 1976 the NPS and FHWA entered into an MOA (Memorandum Of Agreement) which established the RIP (Road Inventory Program). This MOA was terminated and revised in 1980 to establish a new MOA aiming to update RIP data and develop a long-range program to improve and maintain NPS roads to designated condition standards and establish a maintenance management program.

The FHWA completed this initial phase of the RIP in the early 1980s. As a result of this effort, each NPS site included in the study received a RIP Report known as the "Brown Book" which included the information collected during this first RIP phase.

In the 1990s, the effort was again renewed to update and maintain the RIP data. By this time the computer age was upon us and a process was employed that relied heavily on electronic data collection and computer technology. A cyclical program was developed and the RIP completed two cycles of data collection from 1994 to 2001. Cycle 1, starting in 1994, was conducted in 44 "large parks" (parks containing 10 or more paved route miles). Cycle 2 began in 1997 and comprised 79 large parks and 5 small parks totaling 4,874 paved route miles. Each of these parks received a RIP Report known as the "Blue Book". Cycle 3, from 2001 to 2004, was conducted in all parks, large and small, that contained any paved routes, including parking areas and, again, each park received a RIP Report and associated electronic files.

Cycle 4 was initiated in the spring of 2006 covering 86 large parks and several associated small parks consisting of 5,553 paved route miles and 6,232 paved parking areas. Data collection has been completed for Cycle 4 and all data has been delivered to the NPS.

In 2005, the FHWA began implementing the use of a Pavement Management System (PMS) to assist the NPS in prioritizing Pavement Maintenance and Rehabilitation activities. The PMS used by FHWA is the Highway Pavement Management Application (HPMA) and this software has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Regional, Park, or Route level. A regional prioritized list and optimization have been produced for most regions and the Federal Highway Deferred Maintenance is calculated via the HPMA.

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions, an extensive study was completed throughout 2010 that has resulted in changes to the RIP condition reporting method, specifically the distresses and indexes that comprise the Pavement Condition Rating (PCR). It was determined that a better representation of PCR could

be achieved by modifying the relative impact certain distresses would have on the overall rating. The changes that were implemented were endorsed by management at both the FHWA and NPS in October 2010. These changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection. Because of these changes, the PCR Condition ratings reported in Cycle 5 do not directly relate to the condition ratings reported in previous cycle RIP Reports. For more detailed information about the changes, see Section 3 and Section 10 in this RIP Report.

Cycle 5 has launched in the summer of 2010 and will again comprise all parks, large and small, that are served by paved roads and/or parking areas. For Cycle 5, the decision was made to collect condition data in large parks on Functional Class 1, 2, and 7 paved routes only, as well as any new routes that were previously not collected. In small parks, all paved routes and parking areas will be collected. As a result, this will include 81 large parks with 4,459 paved route miles and 231 small parks with 529 paved route miles and associated paved parking areas.

Since 1984, the Road Inventory Program has been funded through the Federal Lands Highway Park Roads and Parkways (PRP) Program. Currently, coordination of the RIP with FLH is under the NPS Washington Headquarters Park Facility Management Division. The FLH Washington office coordinates policy and prepares national reports and needs assessment studies for Congress.

In 1998, the Transportation Equity Act for the 21st Century (TEA-21) amended Title 23 U.S.C., and inserted Section 204(a)(6) requiring the FHWA and NPS, to develop by rule, a Pavement Management System (PMS) applied to park roads and parkways serving the National Park System.

FLH is responsible for the accuracy of all data presented in this report. Any questions or comments concerning the contents of this report should be directed to the national RIP Coordinator located in Sterling, Virginia.

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands
21400 Ridgetop Circle
Sterling, VA 20166
(703) 404-6371

FHWA/Central Federal Lands
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(720) 963-3556

Section 2
Park Route Inventory

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

Cycle 5 NPS/RIP Route ID Report

Shading Color Key:
Red text denotes approx. mileage

White = Paved Routes, DCV Driven
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= Concession Route Flag ON

*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

** DCV - Data Collection Vehicle NC - Not Collected

PETE

PETERSBURG NATIONAL BATTLEFIELD

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0010	5	22942		VISITOR CENTER ACCESS ROAD	FROM STATE ROUTE 36 (OAKLAWN BOULEVARD)	TO ROUTE 0904 (VISITOR CENTER PARKING)	N/A	0.39	0.00	0.39	1		AS	2
0011	5	231698		SHORT FLANK ROAD	FROM PARK BOUNDARY	TO FLANK ROAD	N/A	0.29	0.00	0.29	1		AS	4
0012	5	46005		STATE ROUTE 36 ACCESS ROAD	FROM ROUTE 0010 (VISITOR CENTER ACCESS ROAD)	TO STATE ROUTE 36 (OAKLAWN BOULEVARD)	N/A	0.16	0.00	0.16	1		AS	2
0013	5	46006		ROUTE 0010 ACCESS ROAD	FROM STATE ROUTE 36 (OAKLAWN BOULEVARD)	TO ROUTE 0010 (VISITOR CENTER ACCESS ROAD)	N/A	0.09	0.00	0.09	1		AS	2
0014	NC	231690		CRATER VISTA ACCESS ROAD	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO END	N/A	0.00	0.12	0.12	6		GR	
0202	NC	24529		BEACH ACCESS ROAD	FROM TOP OF BLUFF NEAR ROUTE 0900 (MAIN VISITOR PARKING)	TO WATERFRONT	N/A	0.00	0.04	0.04	3		GR	
0300	5	22766		POPLAR GROVE CEMETERY ROAD	FROM VAUGHAN ROAD	TO END OF LOOP	N/A	0.33	0.00	0.33	2		AS	4
0301	5	23019		FLANK ROAD	FROM SQUIRREL LEVEL ROAD	TO CHURCH ROAD	N/A	0.90	0.00	0.90	3		AS	4
0400	NC	22825		MANOR HOUSE ENTRANCE DRIVE	FROM PECAN STREET	TO MANOR HOUSE	N/A	0.00	0.17	0.17	5		GR	
0402	5	45375		HEADQUARTERS ACCESS ROAD	FROM STATE ROUTE 109 (HICKORY HILL ROAD)	TO END OF LOOP	N/A	0.49	0.00	0.49	5		AS	3
0403	5	45850		RANGER ACCESS ROAD	FROM STATE ROUTE 109 (HICKORY HILL ROAD)	TO END OF ROUTE 0408 (RANGER ACCESS TO HEADQUARTERS ROAD)	N/A	0.11	0.00	0.11	5		AS	3
0404	5	45864		BUILDING 34 ACCESS ROAD	FROM STATE ROUTE 109 (HICKORY HILL ROAD)	TO END	N/A	0.04	0.00	0.04	6		AS	3
0406	5	22993		SERVICE ROAD	FROM SOUTH WHITEHILL DRIVE	TO ROUTE 0500 (PETERSBURG TOUR ROAD)	N/A	0.33	0.00	0.33	6		AS	2
0407	NC	22861		SHAND HOUSE ROAD	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO COLUMBIA GAS LINE RIGHT OF WAY	N/A	0.00	0.34	0.34	5		GR	
0408	5	51263		RANGER ACCESS TO HEADQUARTERS ROAD	FROM ROUTE 0402 (HEADQUARTERS ACCESS ROAD)	TO END OF ROUTE 0403 (RANGER ACCESS ROAD)	N/A	0.05	0.00	0.05	5		AS	3

Cycle 5 NPS/RIP Route ID Report

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PETE

PETERSBURG NATIONAL BATTLEFIELD

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0410	NC	22857		NALDARA ENTRANCE DRIVE	FROM PECAN STREET	TO END	N/A	0.00	0.04	0.04	5		GR	
0411	**5**	**45878**		**QUARTERS 29 ACCESS ROAD**	**FROM STATE ROUTE 109 (HICKORY HILL ROAD)**	**TO ROUTE 0939 (HICKORY HILL HIKE / BIKE PARKING AREA)**	**N/A**	**0.13**	**0.00**	**0.13**	**6**		**AS**	**3**
0412	NC	22880		MORTAR LOOP TRAIL ROAD	FROM STATE ROUTE 36 (OAKLAWN BOULEVARD)	TO END	N/A	0.00	0.87	0.87	5		GR	
0413	NC	22822		CONFEDERATE ESCAPE ROAD	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO END	N/A	0.00	1.40	1.40	6		NV	
0414	NC	22818		GILLIAM FIELD ROAD	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO END	N/A	0.00	0.11	0.11	6		NV	
0415	NC	22824		WAGON ROAD	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO END	N/A	0.00	0.18	0.18	6		NV	
0416	NC	238402		VISITOR CENTER SERVICE ROAD	FROM ROUTE 0904 (VISITOR CENTER PARKING)	TO VISITOR CENTER	N/A	0.00	0.08	0.08	6		GR	
0500	**5**	**22461**		**PETERSBURG TOUR ROAD**	**FROM ROUTE 0010 (VISITOR CENTER ACCESS ROAD)**	**TO SOUTH CRATER ROAD**	**N/A**	**3.43**	**0.00**	**3.43**	**1**		**AS**	**2,3**
0900	**5**	**24557**		**MAIN VISITOR PARKING**	**FROM CEDAR LANE**	**TO PARKING**	**N/A**	**0.00**	**0.00**	**0.00**		**23,113**	**AS**	**1**
0901	**5**	**24532**		**WATER STREET 1 PARKING**	**FROM WATER STREET**	**TO PECAN STREET**	**N/A**	**0.00**	**0.00**	**0.00**		**8,678**	**AS**	**1**
0902	**5**	**46014**		**WATER STREET 2 PARKING**	**FROM WATER STREET**	**TO PARKING**	**N/A**	**0.00**	**0.00**	**0.00**		**6,177**	**AS**	**1**
0903	NC	22827		MANOR HOUSE PARKING	FROM ROUTE 0400 (MANOR HOUSE ENTRANCE DRIVE)	TO PARKING	N/A	0.00	0.00	0.00		750	GR	
0904	**5**	**51262**		**VISITOR CENTER PARKING**	**FROM END OF ROUTE 0010 (VISITOR CENTER ACCESS ROAD)**	**TO PARKING**	**N/A**	**0.00**	**0.00**	**0.00**		**42,573**	**AS**	**2**
0905	**5**	**45869**		**MAINTENANCE AREA PARKING**	**FROM ROUTE 0010 (VISITOR CENTER ACCESS ROAD)**	**TO MAINTENANCE AREA**	**N/A**	**0.00**	**0.00**	**0.00**		**47,654**	**AS**	**2**
0906	**5**	**51168**		**FORT FREN PARKING**	**FROM ROUTE 0500 (PETERSBURG TOUR ROAD)**	**TO ROUTE 0500 (PETERSBURG TOUR ROAD)**	**N/A**	**0.00**	**0.00**	**0.00**		**1,376**	**AS**	**2**

Cycle 5 NPS/RIP Route ID Report

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PETE

PETERSBURG NATIONAL BATTLEFIELD

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0907	5	51191		SUTLERS STORE PARKING	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO ROUTE 0500 (PETERSBURG TOUR ROAD)	N/A	0.00	0.00	0.00		5,073	AS	2
0908	5	51192		SUTLERS STORE OVERFLOW PARKING	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO ROUTE 0500 (PETERSBURG TOUR ROAD)	N/A	0.00	0.00	0.00		11,877	AS	2
0911	5	51211		HARRISONS CREEK PARKING	ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)		N/A	0.00	0.00	0.00		1,381	AS	2
0912	5	51212		FORT STEDMAN PARKING	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO ROUTE 0500 (PETERSBURG TOUR ROAD)	N/A	0.00	0.00	0.00		7,026	AS	2
0913	5	51213		FORT HASKELL PARKING	ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)		N/A	0.00	0.00	0.00		2,292	AS	3
0915	5	51215		CRATER PARKING	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO ROUTE 0500 (PETERSBURG TOUR ROAD)	N/A	0.00	0.00	0.00		6,784	AS	3
0916	5	51216		CRATER BUS PARKING	ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)		N/A	0.00	0.00	0.00		1,876	AS	3
0917	NC	51219		HORSE PARKING	FROM ROUTE 0402 (HEADQUARTERS ACCESS ROAD)	TO PARKING	N/A	0.00	0.00	0.00		150,000	GR	
0919	5	51224		RESOURCE MANAGEMENT PARKING	FROM MAHONE AVENUE	TO PARKING	N/A	0.00	0.00	0.00		18,006	AS	3
0920	5	45371		MAHONE PARKING	FROM MAHONE AVENUE	TO MAHONE AVENUE	N/A	0.00	0.00	0.00		35,370	AS	3
0921	5	43966		FORT WADSWORTH PARKING	FROM HALIFAX ROAD	TO FLANK ROAD	N/A	0.00	0.00	0.00		8,540	AS	4
0922	5	51225		POPLAR GROVE CEMETERY PARKING	FROM ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)	TO ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)	N/A	0.00	0.00	0.00		9,653	AS	4
0923	5	51239		FORT URMSTON PARKING	ADJACENT TO ROUTE 0301 (FLANK ROAD)		N/A	0.00	0.00	0.00		1,214	AS	4
0924	5	51242		FORT CONAHEY 1 PARKING	ADJACENT TO ROUTE 0301 (FLANK ROAD) ON RIGHT		N/A	0.00	0.00	0.00		2,241	AS	4

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0925	5	51248		FORT CONAHEY 2 PARKING	ADJACENT TO ROUTE 0301 (FLANK ROAD) ON LEFT		N/A	0.00	0.00	0.00		1,595	AS	4
0926	5	51249		FORT FISHER PARKING	ADJACENT TO ROUTE 0301 (FLANK ROAD)		N/A	0.00	0.00	0.00		2,127	AS	4
0927	5	43968		CONFEDERATE FORT GREGG PARKING AREA	FROM 7TH AVENUE	TO 7TH AVENUE	N/A	0.00	0.00	0.00		8,338	AS	4
0928	5	43964		A FINAL STAND PARKING	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO STATE ROUTE 613 (WHITE OAK ROAD)	N/A	0.00	0.00	0.00		6,074	AS	5
0929	5	43962		ATTACK ON THE ANGLE PARKING	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO STATE ROUTE 613 (WHITE OAK ROAD)	N/A	0.00	0.00	0.00		5,353	AS	5
0930	5	43961		UNION CAVALRY ATTACK PARKING	FROM STATE ROUTE 627 (COURTHOUSE ROAD)	TO STATE ROUTE 627 (COURTHOUSE ROAD)	N/A	0.00	0.00	0.00		6,992	AS	5
0931	5	43965		CRAWFORDS SWEEP PARKING	FROM STATE ROUTE 627 (COURTHOUSE ROAD)	TO STATE ROUTE 627 (COURTHOUSE ROAD)	N/A	0.00	0.00	0.00		6,995	AS	5
0933	5	51258		HEADQUARTERS PARKING	ADJACENT TO ROUTE 0402 (HEADQUARTERS ACCESS ROAD)		N/A	0.00	0.00	0.00		2,762	AS	3
0934	5	51259		RANGER PARKING	ADJACENT TO ROUTE 0403 (RANGER ACCESS ROAD)		N/A	0.00	0.00	0.00		1,326	AS	3
0935	5	114397		FIVE FORKS VCS ACCESS ROAD AND PARKING AREA	FROM STATE ROUTE 627 (COURTHOUSE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		42,324	AS	5
0936	5	114398		FIVE FORKS MAINTENANCE AREA ACCESS ROAD AND PARKING AREA	FROM ROUTE 0935 (FIVE FORKS VCS ACCESS ROAD AND PARKING AREA)	TO PARKING	N/A	0.00	0.00	0.00		12,379	AS	5
0937	5	116479		OPERATIONS PARKING AREA	FROM INTERSECTION OF ROUTE 0500 (PETERSBURG TOUR ROAD) AND ROUTE 0406 (SERVICE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		12,415	AS	2
0938	NC	228717		FIVE FORKS HIKE / BIKE PARKING AREA	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO PARKING	N/A	0.00	0.00	0.00		11,926	GR	
0939	5	228716		HICKORY HILL HIKE / BIKE PARKING AREA	FROM STATE ROUTE 109 (HICKORY HILL ROAD)	TO STATE ROUTE 109 (HICKORY HILL ROAD)	N/A	0.00	0.00	0.00		19,023	AS	3

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PETERSBURG NATIONAL BATTLEFIELD

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From	Route Description To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0940	NC	115176		MARTIN FIELD HORSE PARKING	FROM STATE ROUTE 613 (WHITE OAK ROAD)	TO PARKING	N/A	0.00	0.00	0.00		86,763	GR	
0941	**5**	**231664**		**MASSACHUSETTS MONUMENT PARKING**	**ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)**		**N/A**	**0.00**	**0.00**	**0.00**		**901**	**AS**	**3**
0945ZZ	**5**	**228082**		**TAYLOR HOUSE SITE PARKING AREAS**	**FROM ROUTE 0500 (PETERSBURG TOUR ROAD)**	**TO ROUTE 0500 (PETERSBURG TOUR ROAD)**	**N/A**	**0.00**	**0.00**	**0.00**		**6,410**	**AS**	**3**
0946	**5**	**238419**		**WHITE OAK VISITOR PARKING AREA**	**FROM STATE ROUTE 613 (WHITE OAK ROAD)**	**TO STATE ROUTE 613 (WHITE OAK ROAD)**	**N/A**	**0.00**	**0.00**	**0.00**		**9,766**	**AS**	**5**

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CYCLE 5 SUMMARY TOTALS FOR PETERSBURG NATIONAL BATTLEFIELD

CYCLE 5 ROUTE TOTALS

DCV Driven Route Miles	6.74
Manually Rated Route Miles	0.00
TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5	6.74
Manually Rated Routes (SQFT)	0
TOTAL UNPAVED PARK ROUTE MILES	3.34

CYCLE 5 CONCESSION TOTALS

Concession Paved Route Miles	0.00
Concession Unpaved Route Miles	0.00
TOTAL CONCESSION ROUTE MILES	0.00
Concession Paved Parking Area SQFT	0
Concession Unpaved Parking Area SQFT	0
TOTAL CONCESSION PARKING AREA SQFT	0
Concession Manually Rated Routes SQFT	0

* CYCLE 5 PARKING AREA TOTALS

Paved Parking (SQFT)	385,684
Unpaved Parking (SQFT)	249,439
TOTAL PARKING (SQFT)	635,123

CYCLE 5 WEIGHTED AVERAGE PARK VALUES

DCV Driven PCR	94
**Manually Rated Routes PCR	N/A
**Parking PCR	84
***Total Equivalent Lane Miles	18.16

* - The Parking Area Totals SQFT value represents **all** parking areas collected in Cycle 5, both park and concessionaire.

** - Parking and Manually Rated Routes are assigned the following PCR values based on their observed condition: Construction=-1, Excellent=97, Good=90, Fair=73, and Poor=45.

*** - Equivalent Lane Miles are calculated by route using the following equations : DCV and Manually Rated Lines Routes=(PAVE_WIDTHxPAVED_MI)/11 foot lane. Parking Areas=SQ_FEET/5280/11. Manually Rated Polygons=SQ_FEET/5280/11.

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** DCV - Data Collection Vehicle NC - Not Collected

General Park Road Functional Classification Table

Class 1 Principal Park Road/Rural Parkway (Public Roads) Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Route Numbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are numbered 1 - 9. State Routes Inventoried for Park. Route Numbers 5000-5999

Class 2 Connector Park Road (Public Roads) - Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.

Class 3 Special Purpose Park Road (Public Roads) - Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.

Class 4 Primitive Park Roads (Public Roads) - Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299.
Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.

Class 5 Administrative Access Road (Administrative Roads) - All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.

Class 6 Restricted Road (Administrative Roads) - All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. Note: Functional Classes 5 and 6 have the same route numbers because historically they were numbered similarly and often there is little distinction between these routes. For example, because utility areas and employee housing are often closed to the public, this restriction would result in classification of FC 6 rather than FC 5.

Class 7 Urban Parkway (Urban Parkways and City Streets) - These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.

Class 8 City Streets (Urban Parkways and City Streets) - City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

****

A park road system contains those roads within or giving access to a park or other unit of the NPS which are administered by the NPS, or by the Service in cooperation with other agencies. The assignment of a functional classification (FC) to a park road is not based on traffic volumes or design speed, but on the intended use or function of that road or route.

The historic route numbering system also included a 300 number series for interpretive roads, and a 500 series for one-way roads. There are approximately 250 roads nationwide which are designated by the 300 and 500 series. The numbers for these roads will be maintained for reporting consistency. However, since these interpretive and one-way routes are not as clearly tied to a specific functional class, the 300 and 500 series will be discontinued for future use.

5000 route numbers are assigned to Non-NPS Routes that are State, County or City owned which border, traverse, or provide access to Park Facilities or Locations. 5000 Routes are driven for GPS and Video Log only.

Surface Type Abbreviations:

AS - Asphaltic Concrete Pavement

CO - Portland Cement Concrete Pavement

BR - Brick or Pavers Road Bed

CB - Cobble Stone Road Bed

GR - Gravel Road Bed

SA - Sand Road Bed

NV - Native or Dirt Material Road Bed

OT - Other Materials Road Bed

NPS/RIP Subcomponent Details for PETE

Shading Color Key:
Red text denotes approx. mileage

White = Paved Routes, DCV Driven
Yellow = Unpaved Routes, DCV not Driven
Blue = All Paved Parking Areas
Green = All Unpaved Parking Areas
Grey = Paved Routes, DCV not Driven
Black = State, Local or Private non-NPS Routes
= Concession Route Flag ON

*Unpaved route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP).

PETE

PETERSBURG NATIONAL BATTLEFIELD

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description From	Route Description To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0945ZZ	228082	5	TAYLOR HOUSE SITE PARKING AREAS	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO ROUTE 0500 (PETERSBURG TOUR ROAD)			0.00	0.00	0.00	6,410

PETE-0945ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Description From	Route Description To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0945AZ	228082	5	TAYLOR HOUSE SITE PARKING	FROM ROUTE 0500 (PETERSBURG TOUR ROAD)	TO ROUTE 0500 (PETERSBURG TOUR ROAD)			0.00	0.00	0.00	4,527
0945BZ	228082	5	TAYLOR HOUSE SITE BUS PARKING	ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)				0.00	0.00	0.00	1,883

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - PETE

ROUTES ADDED FROM PREVIOUS INVENTORY:

Route #	Route Name	Reason for Addition	Comments
0935	FIVE FORKS VCS ACCESS ROAD AND PARKING AREA	OTHER	ROUTE ADDED DURING 2008 ALIGNMENT.
0936	FIVE FORKS MAINTENANCE AREA ACCESS ROAD AND PARKING AREA	OTHER	ROUTE ADDED DURING 2008 ALIGNMENT.
0941	MASSACHUSETTS MONUMENT PARKING	OTHER	ROUTE ADDED THROUGH ROADS PORTAL ALIGNMENT ON JULY 2010.
0945ZZ	TAYLOR HOUSE SITE PARKING AREAS	OTHER	NEW PARKING ADDED IN CYCLE 5. ROUTE 0914 (CYCLE 3 TAYLOR HOUSE PARKING) WAS DEMOLISHED DUE TO AN ALIGNMENT CHANGE TO ROUTE 0500. THE PARK REBUILT TAYLOR HOUSE SITE PARKING (NOW ROUTE 0945ZZ) IN A DIFFERENT LOCATION)
0946	WHITE OAK VISITOR PARKING AREA	OTHER	ROUTE ADDED THROUGH ALIGNMENT.

ROUTES MODIFIED FROM PREVIOUS INVENTORY:

Route #	Route Name	Type of Modification	Comments
0905	MAINTENANCE AREA PARKING	RECONSTRUCTED	ROUTE WAS RECONSTRUCTED AND CHANGED FROM NONPUBLIC TO PUBLIC IN CYCLE 5 AS PER NPS.
0919	RESOURCE MANAGEMENT PARKING	OTHER	A NEW SECTION OF PAVEMENT HAS BEEN ADDED.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - PETE

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	**Route Name**	**Type of Change**	**Comments**
0403	RANGER ACCESS ROAD	OTHER	FUNCTIONAL CLASS CHANGED FROM 6 TO 5 DURING THE ROUTE ID MEETING. ROUTE IS A ADMINISTRATIVE ROAD WITH PUBLIC USE PERMITTED TO ACCESS HORSE TRAILER. ROUTE LENGTH DECREASED DUE TO A SECTION OF ROAD (PAST GATE) BEING SPLIT OUT AS A TRAIL. ROUTE WAS .026 MI LONG IN CYCLE 3.
0406	SERVICE ROAD	ROUTE SPLIT	CYCLE 3 ROUTE 0406 WAS SPLIT INTO ROUTES 0406 AND 0937 (PARKING) IN CYCLE 5
0408	RANGER ACCESS TO HEADQUARTERS ROAD	SURFACE TYPE CHANGE	ROUTE HAS BEEN PAVED SINCE DATA COLLECTION.
0500	PETERSBURG TOUR ROAD	REALIGNED	ROUTE REALIGNED AT MP 2.4. FUNCTIONAL CLASS CHANGED FROM 3 TO 1 BECAUSE ROUTE IS MAIN ACCESS TO PARK.
0922	POPLAR GROVE CEMETERY PARKING	SURFACE TYPE CHANGE	ROUTE CHANGE TO PAVED IN CYCLE 5, WAS UNPAVED IN CYCLE 3.
0927	CONFEDERATE FORT GREGG PARKING AREA	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5. NAME CHANGED FROM "FIVE FORKS ENTRANCE PARKING" TO “CONFEDERATE FORT GREGG PARKING AREA”.
0928	A FINAL STAND PARKING	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5
0929	ATTACK ON THE ANGLE PARKING	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5
0930	UNION CAVALRY ATTACK PARKING	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5
0931	CRAWFORDS SWEEP PARKING	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - PETE

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	**Route Name**	**Type of Change**	**Comments**
0933	HEADQUARTERS PARKING	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5. USER ACCESS CHANGED FROM NONPUBLIC.
0934	RANGER PARKING	SURFACE TYPE CHANGE	ROUTE CHANGED FROM UNPAVED IN CYCLE 3 TO PAVED IN CYCLE 5. USER ACCESS CHANGED FROM NONPUBLIC.
0937	OPERATIONS PARKING AREA	ROUTE SPLIT	CYCLE 3 ROUTE 0406 WAS SPLIT INTO ROUTES 0406 AND 0937 (PARKING) IN CYCLE 5.
0939	HICKORY HILL HIKE / BIKE PARKING AREA	OTHER	CYCLE 3 ROUTES 0200 AND 0201 WERE COMBINED INTO A NEW PARKING AREA CONSTRUCTED ADJACENT TO ROUTE 0201, PER THE PARK'S REQUEST

ROUTES REMOVED FROM PREVIOUS INVENTORY:			
Route #	**Route Name**	**Reason for Removal**	**Comments**
0909	OLD TOUR ROAD PICNIC AREA PARKING	OTHER	ROUTE DEMOLISHED AFTER CYCLE 3 BECAUSE IT COULD NOT BE MADE TO MEET ADA STANDARDS.
0910	TOUR ROAD PICNIC AREA PARKING	OTHER	ROUTE DEMOLISHED AFTER CYCLE 3 BECAUSE IT COULD NOT BE MADE TO MEET ADA STANDARDS.
0914	TAYLOR HOUSE PARKING	CLOSED/ABANDONED	ROUTE 0914 WAS DEMOLISHED DUE TO AN ALIGNMENT CHANGE TO ROUTE 0500. THE PARK REBUILT TAYLOR HOUSE SITE PARKING (NOW ROUTE 0945ZZ) IN A DIFFERENT LOCATION.
0918	SEASONAL HOUSING PARKING	OTHER	ROUTE DEMOLISHED AFTER CYCLE 3 AND REMOVED FROM FMSS DURING ALIGNMENT.

Section 3
Park Summary Information

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

PETE: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1	0.06	0.89%	0.49	7.27%	0.83	12.31%	2.98	44.21%	**4.36**
2			0.05	0.74%	0.10	1.48%	0.18	2.67%	**0.33**
3			0.10	1.48%	0.28	4.15%	0.52	7.72%	**0.90**
4									
5					0.34	5.04%	0.31	4.60%	**0.65**
6			0.14	2.08%	0.26	3.86%	0.10	1.48%	**0.50**
7									
8									
Totals	**0.06**	**0.89%**	**0.78**	**11.57%**	**1.81**	**26.85%**	**4.09**	**60.68%**	**6.74**

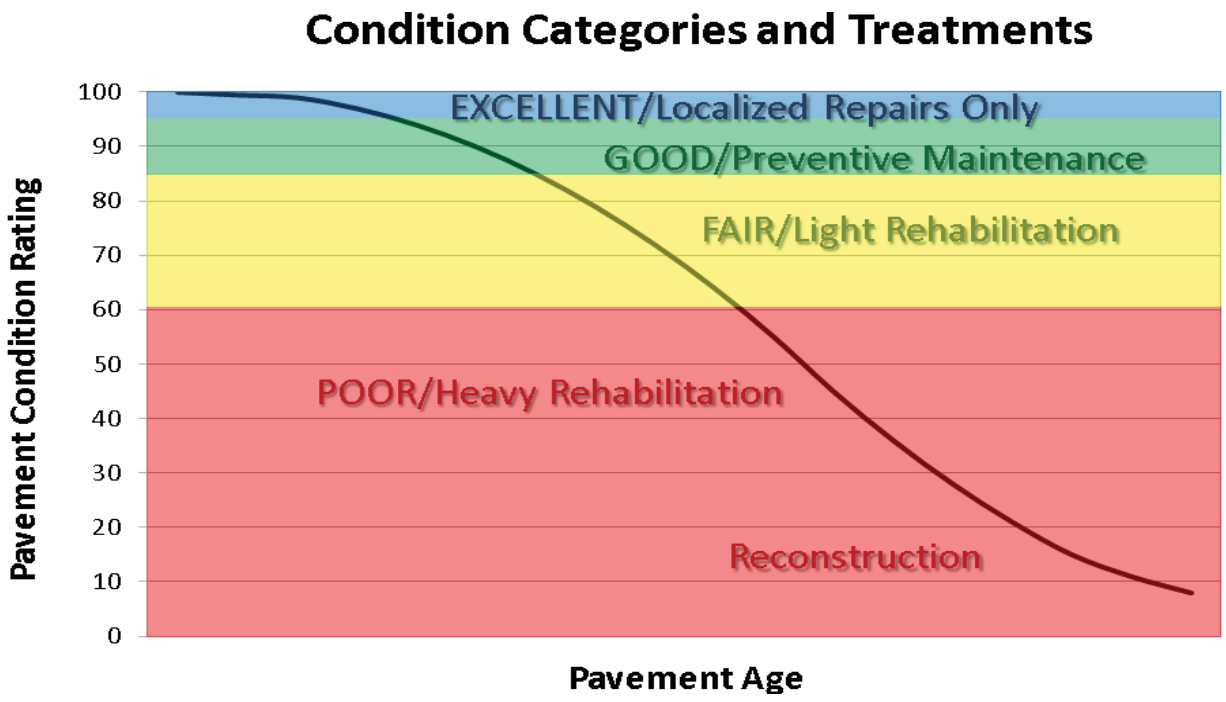
Note: **The information in this table is derived from the PMS_20 table in the Park database, which only contains processed data from routes collected with the Data Collection Vehicle (DCV). Information for Manually Rated Routes (MRR) and Parking Areas is not reported in this table. Only Functional Class 1, 2, & 7 routes, and any new routes not previously collected by RIP, are collected in Large Parks.**

Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

In addition to the RIP Index changes that have been implemented in Cycle 5, we will also aim to provide greater assistance in translating excellent/good/fair/poor categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the types of treatments that should be considered now and into the future.

- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this range will likely be candidates of Light Rehabilitation (L3R). Examples include single-lift overlays up to 2.5 inches in total thickness, milling and overlays.
- Poor: PCR of 0-60. Pavements in this range will likely be candidates of Heavy Rehabilitation or Reconstruction (H3R or 4R). Examples include Pulverization, Multiple Lift Overlays, and Reconstruction.

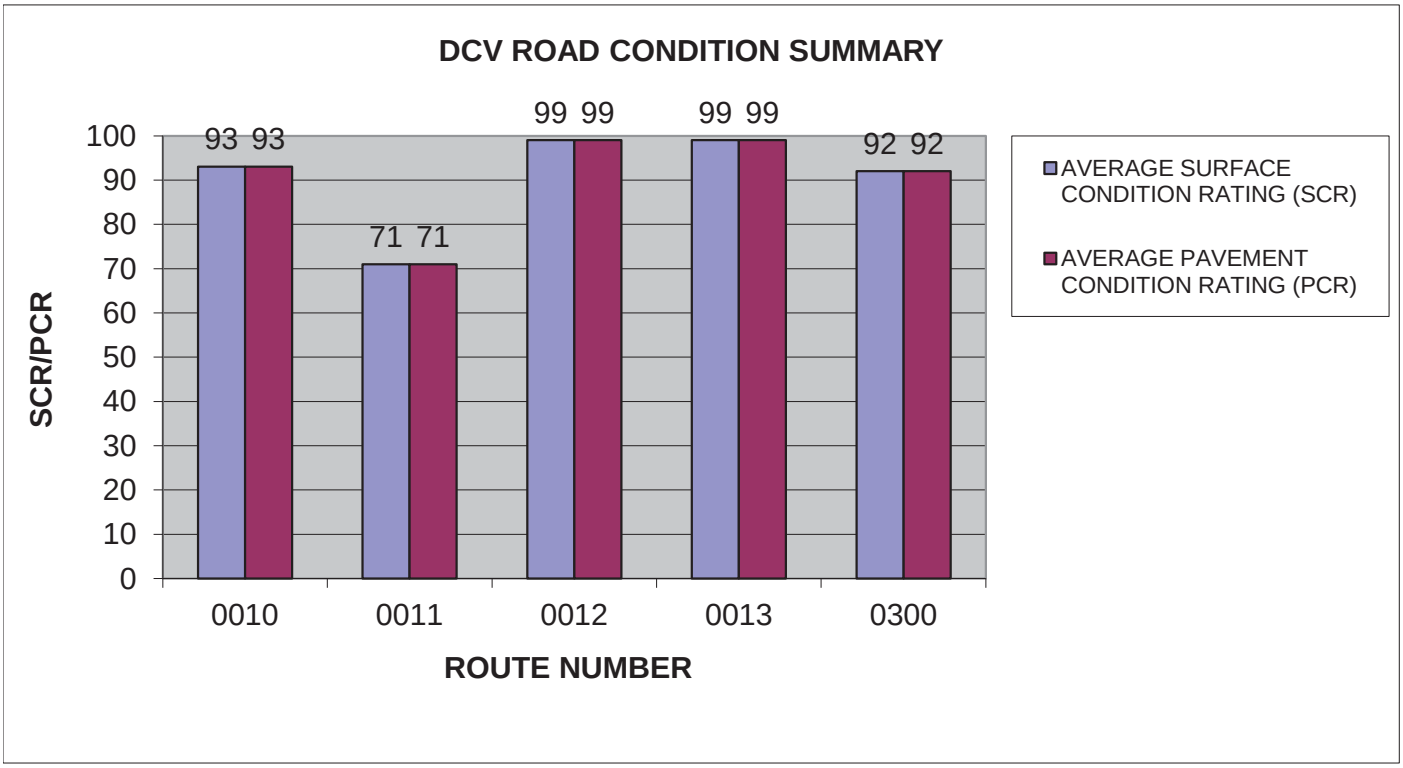
At this time, specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely on RIP data. Additionally, RIP produces a snapshot of conditions the year in which the data was collected. For further information or to obtain additional Pavement Management System's data from our Highway Pavement Management Application (HPMA) please contact the Eastern Federal Lands pavement team.



PETE: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

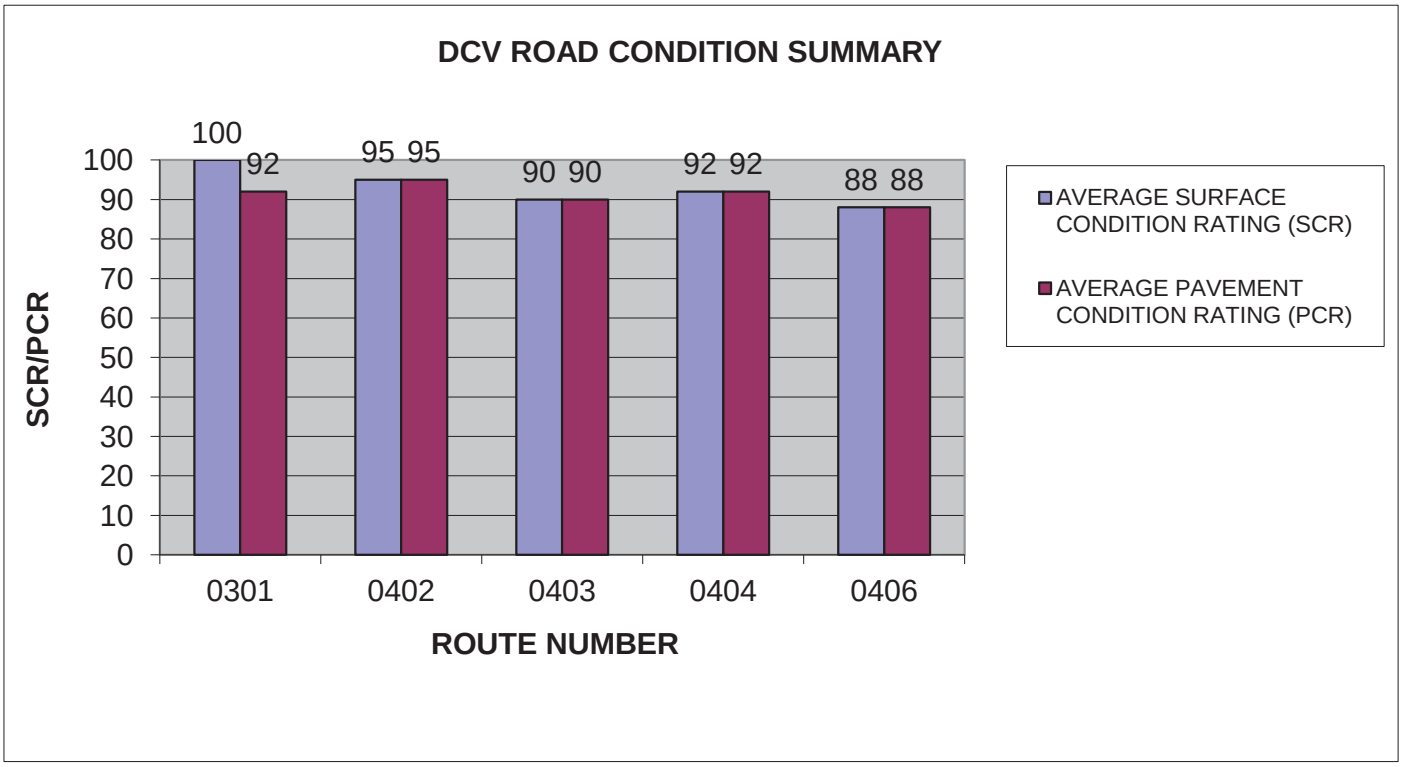
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	VISITOR CENTER ACCESS ROAD	1	0.39	ASPHALT	93	93
0011	SHORT FLANK ROAD	1	0.29	ASPHALT	71	71
0012	STATE ROUTE 36 ACCESS ROAD	1	0.16	ASPHALT	99	99
0013	ROUTE 0010 ACCESS ROAD	1	0.09	ASPHALT	99	99
0300	POPLAR GROVE CEMETERY ROAD	2	0.33	ASPHALT	92	92



PETE: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

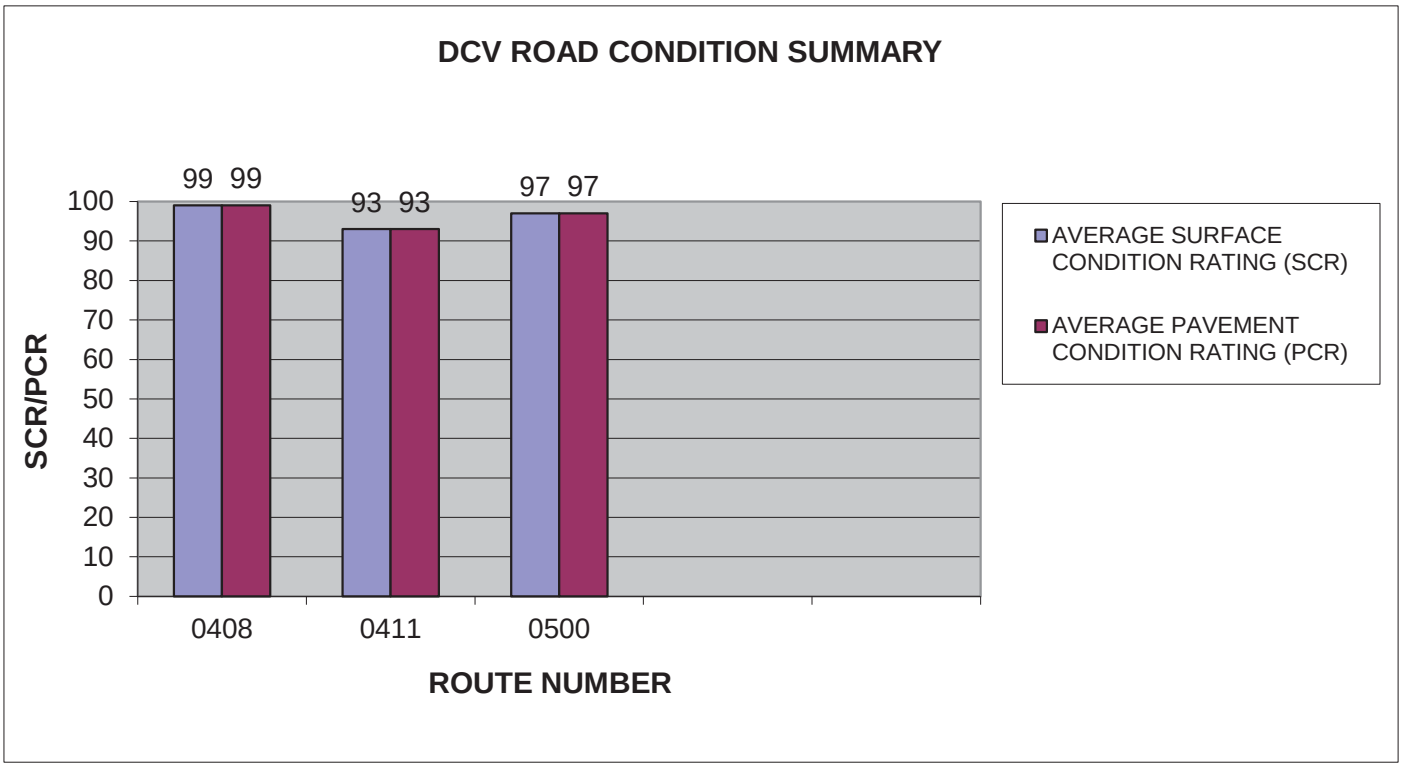
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0301	FLANK ROAD	3	0.90	ASPHALT	100	92
0402	HEADQUARTERS ACCESS ROAD	5	0.49	ASPHALT	95	95
0403	RANGER ACCESS ROAD	5	0.11	ASPHALT	90	90
0404	BUILDING 34 ACCESS ROAD	6	0.04	ASPHALT	92	92
0406	SERVICE ROAD	6	0.33	ASPHALT	88	88



PETE: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

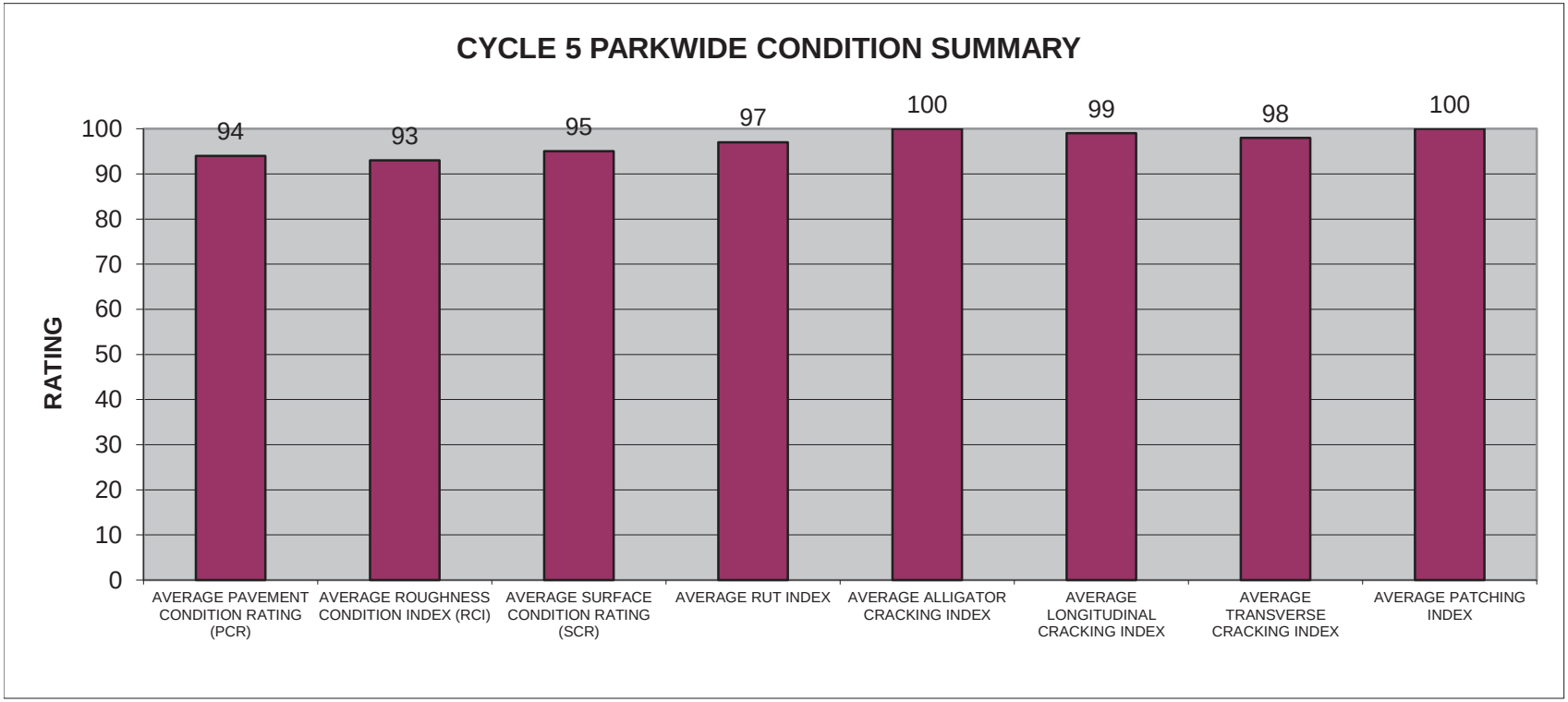
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0408	RANGER ACCESS TO HEADQUARTERS ROAD	5	0.05	ASPHALT	99	99
0411	QUARTERS 29 ACCESS ROAD	6	0.13	ASPHALT	93	93
0500	PETERSBURG TOUR ROAD	1	3.43	ASPHALT	97	97



PETE: PARKWIDE DCV CONDITION SUMMARY

AVERAGE PAVEMENT CONDITION RATING (PCR)	AVERAGE ROUGHNESS CONDITION INDEX (RCI)	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE RUT INDEX	AVERAGE ALLIGATOR CRACKING INDEX	AVERAGE LONGITUDINAL CRACKING INDEX	AVERAGE TRANSVERSE CRACKING INDEX	AVERAGE PATCHING INDEX
94	93	95	97	100	99	98	100

All Index values are based on Data Collection Vehicle (DCV) driven roads that were collected in Cycle-5.
Roughness data is only collected on routes with lengths greater than 0.5 miles and a posted speed limit of 25 MPH or greater.

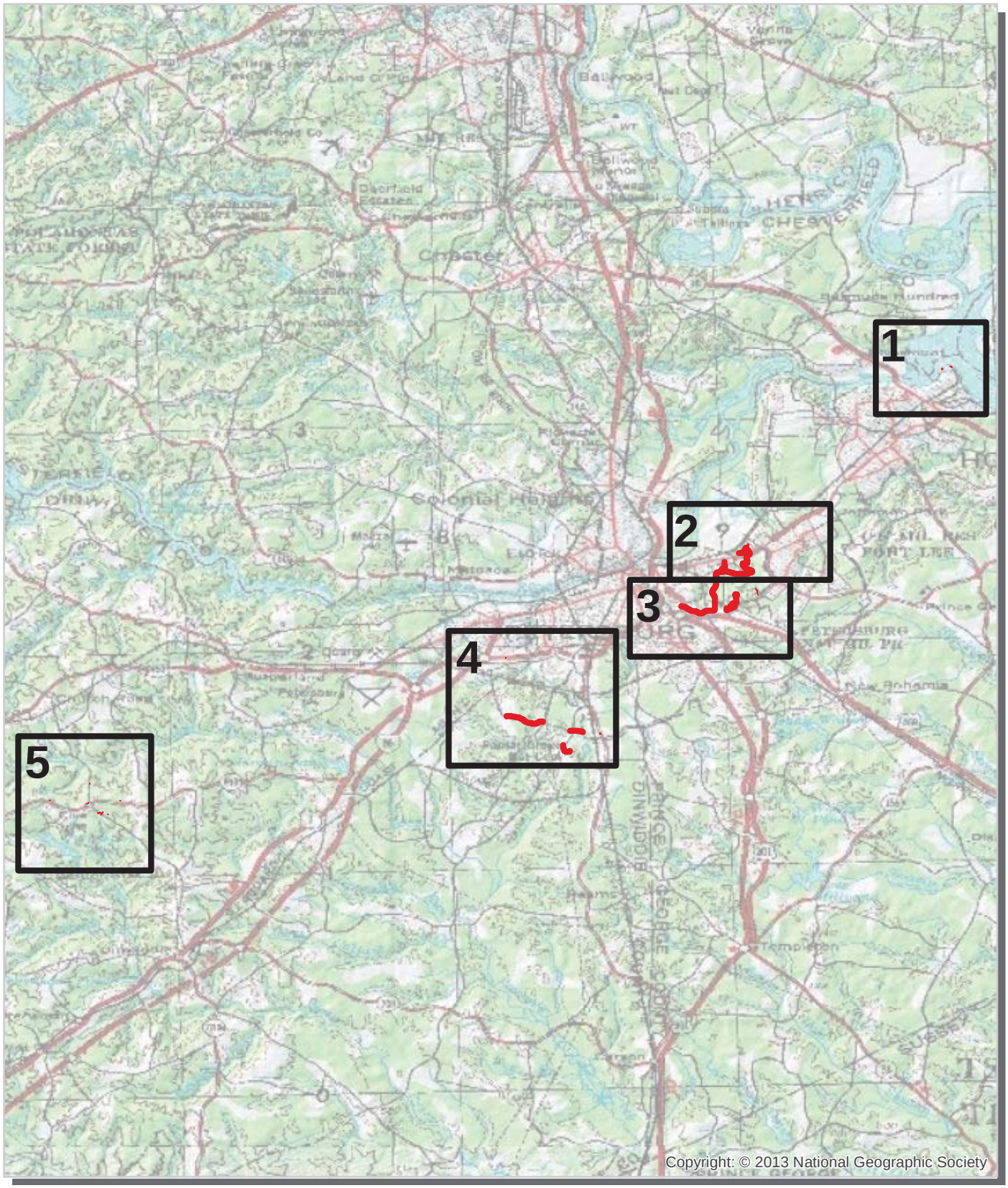


Section 4
Park Route Location Maps

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

Petersburg National Battlefield
Route Location Map
Key Map

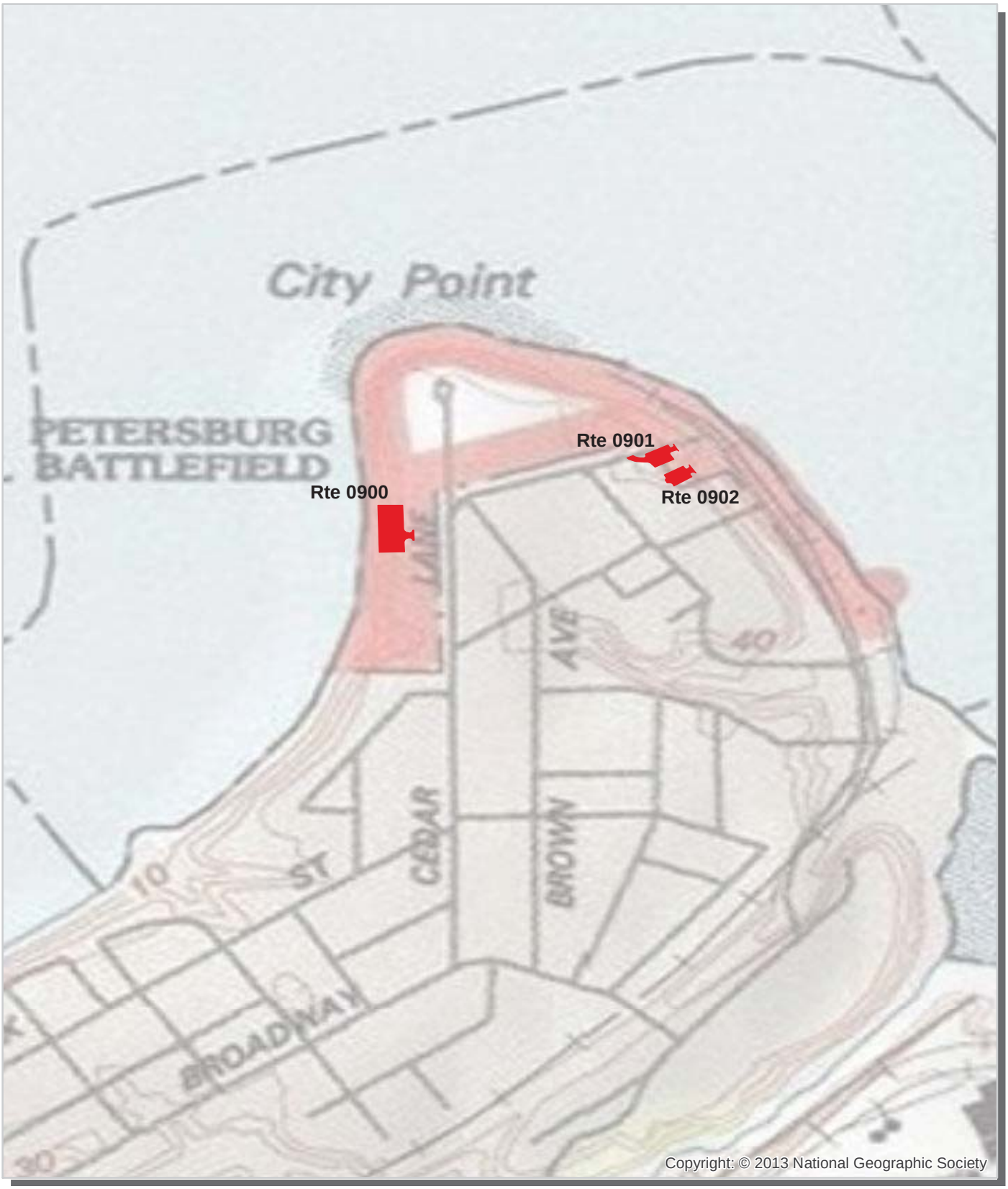


Cycle 5 Collected Routes

3.5 1.75 0 3.5
Miles

N

Petersburg National Battlefield
Route Location Map
Area 1

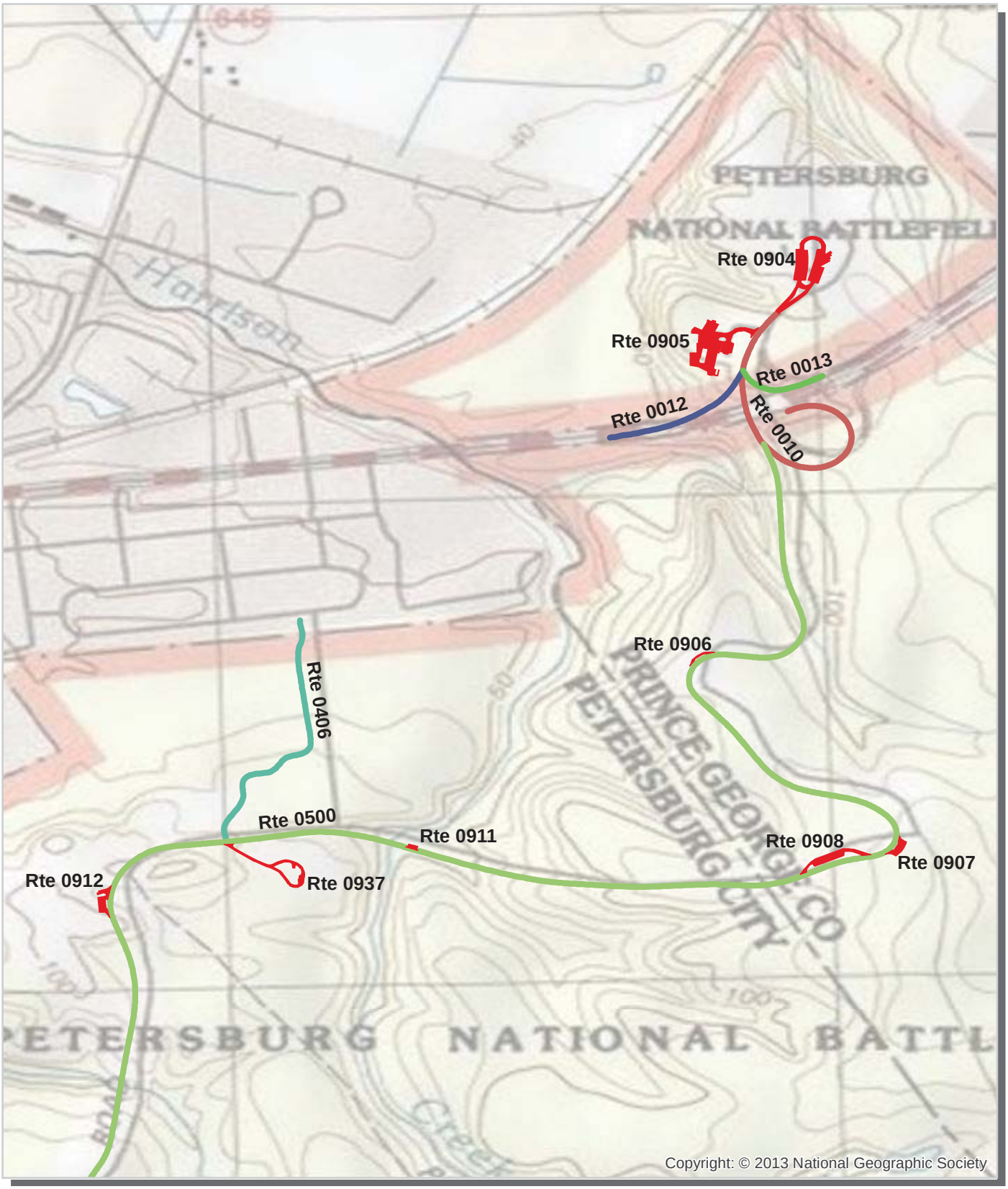


Unique colors used to differentiate routes

0.1 0.05 0 0.1
Miles

N

Petersburg National Battlefield
Route Location Map
Area 2

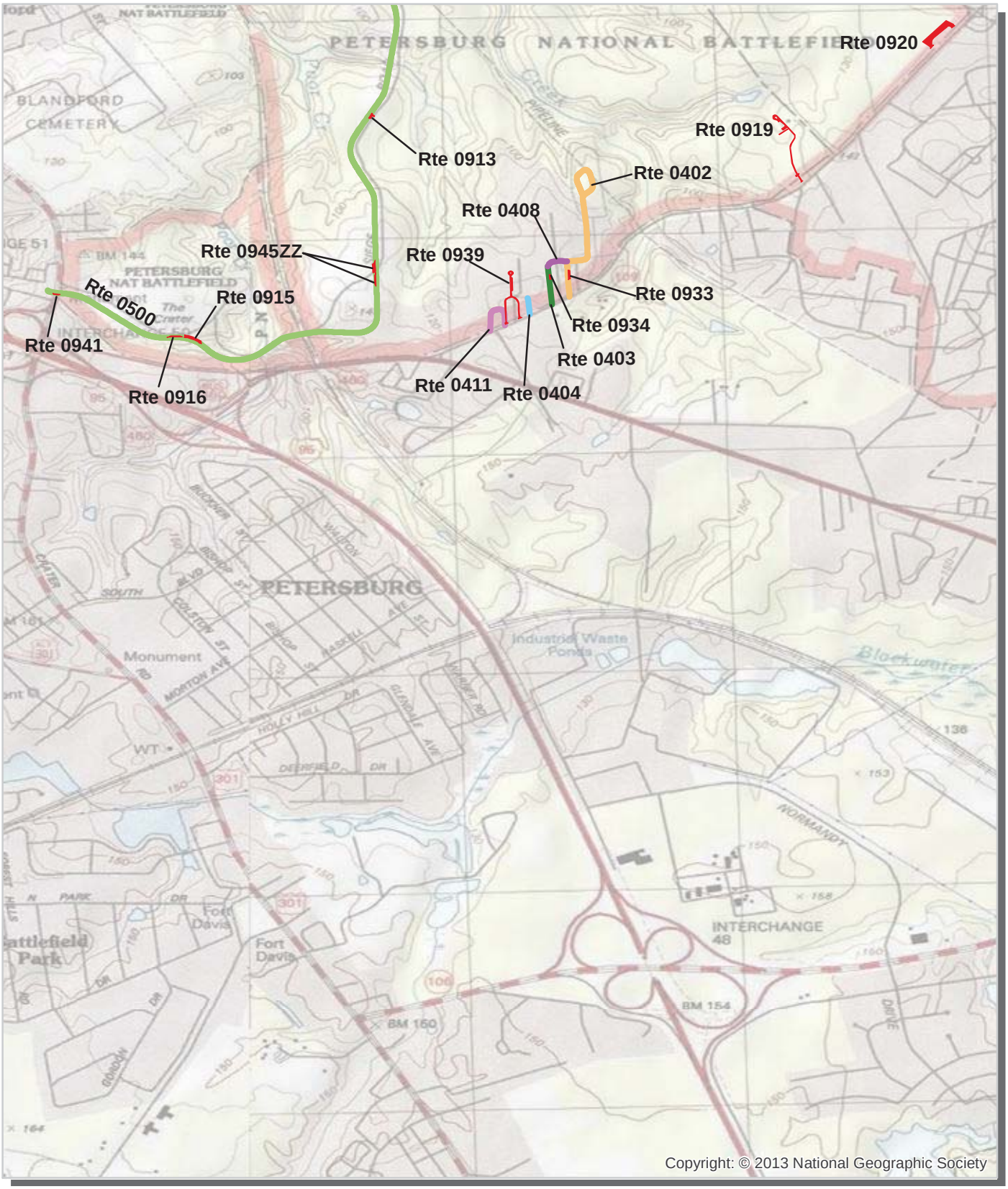


Unique colors used to differentiate routes

0.15 0.075 0 0.15
Miles

N

Petersburg National Battlefield
Route Location Map
Area 3

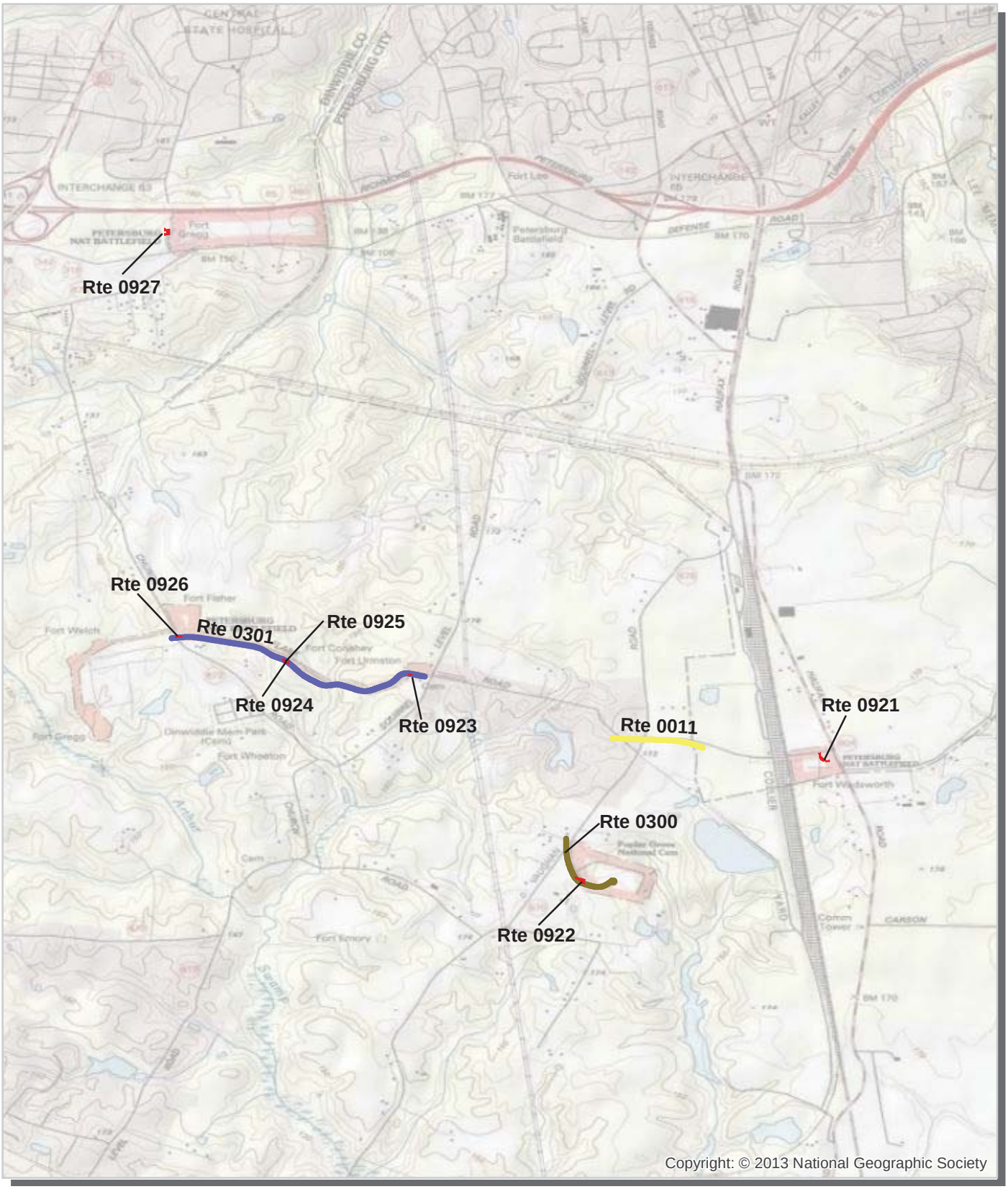


Unique colors used to differentiate routes

0.4 0.2 0 0.4
Miles

N

Petersburg National Battlefield
Route Location Map
Area 4

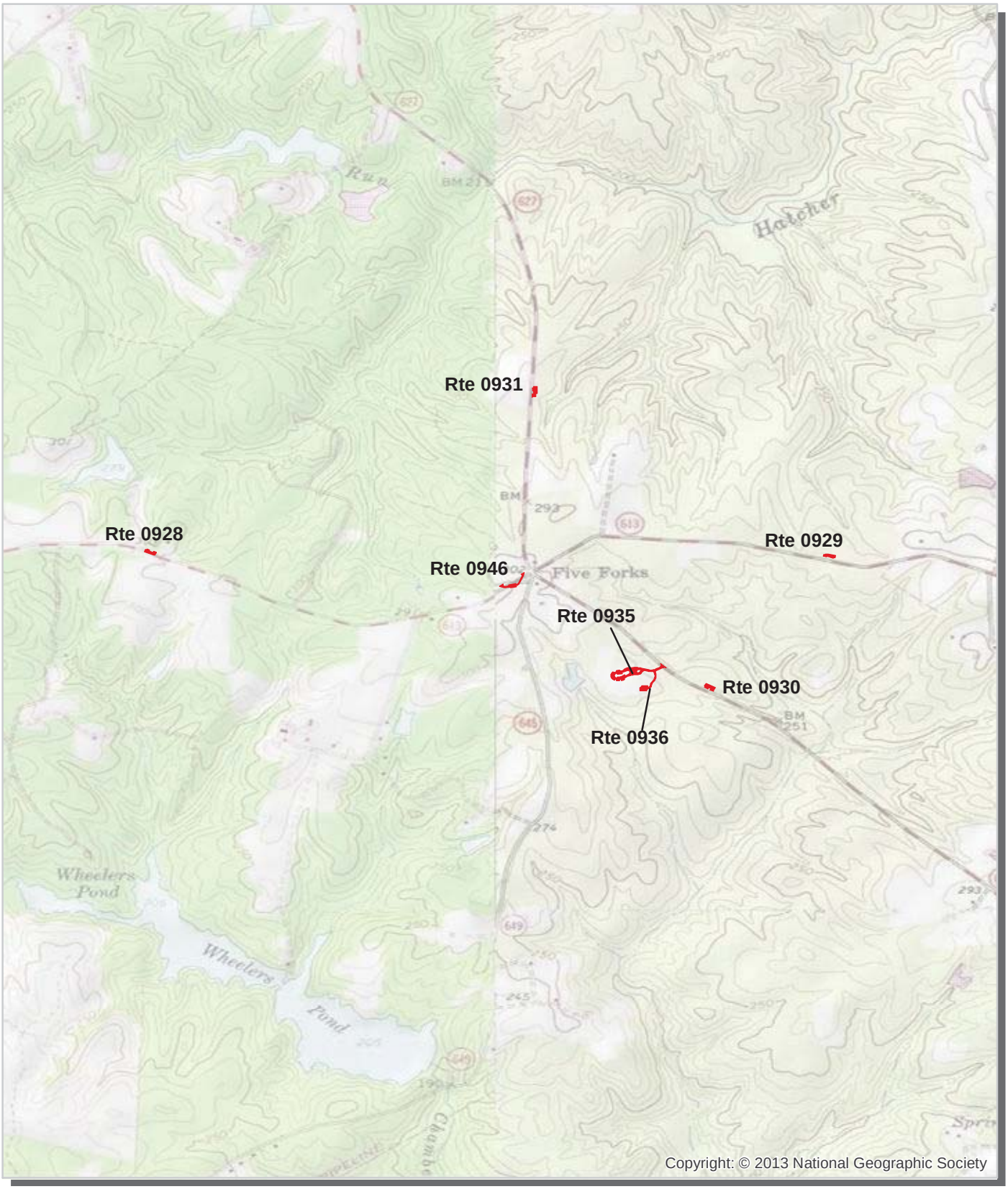


Unique colors used to differentiate routes

0.55 0.275 0 0.55
Miles

N

Petersburg National Battlefield
Route Location Map
Area 5

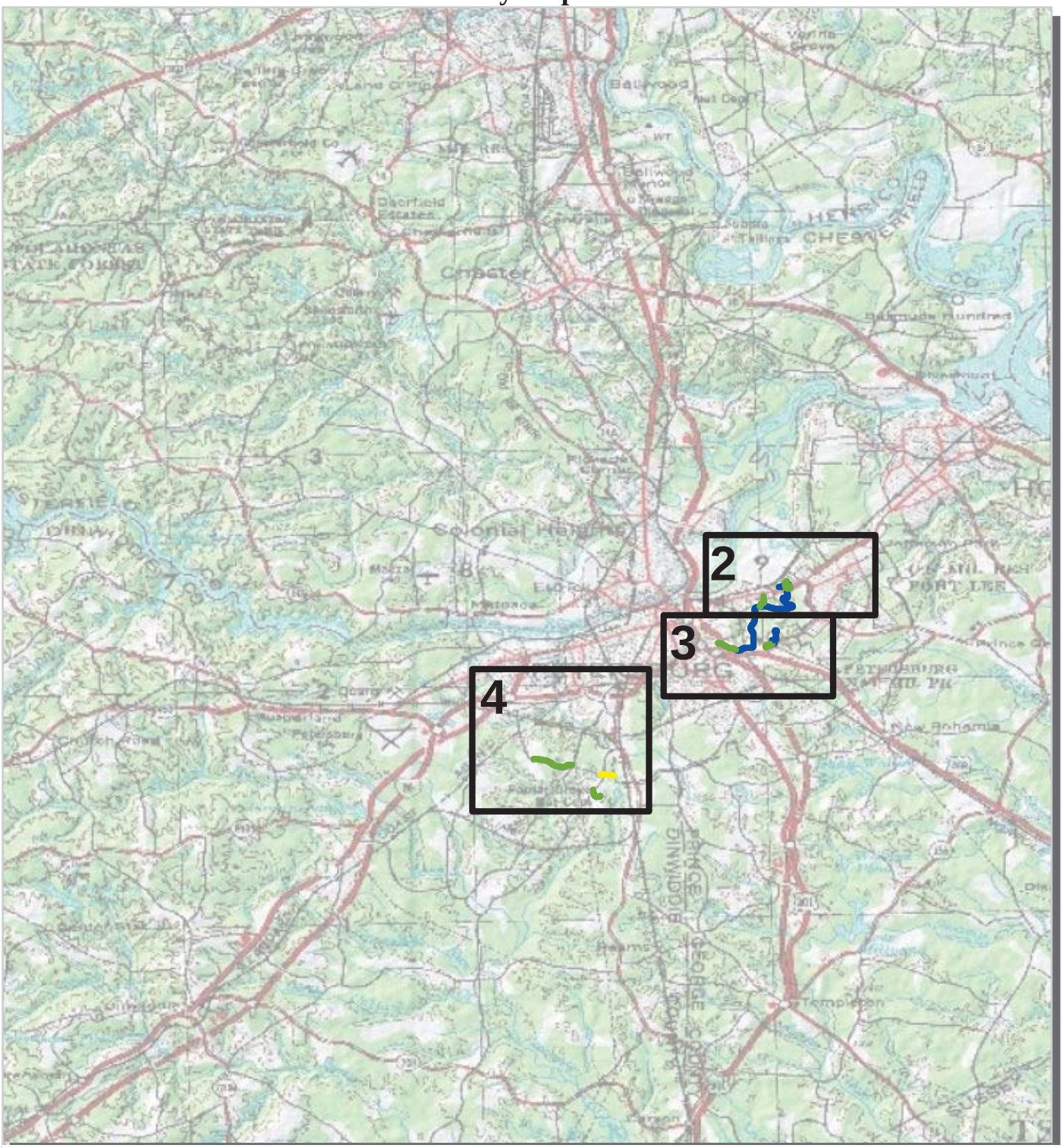


Unique colors used to differentiate routes

0.4 0.2 0 0.4 Miles

N

Petersburg National Battlefield
Route Condition Map
PCR - Mile by Mile
Key Map



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

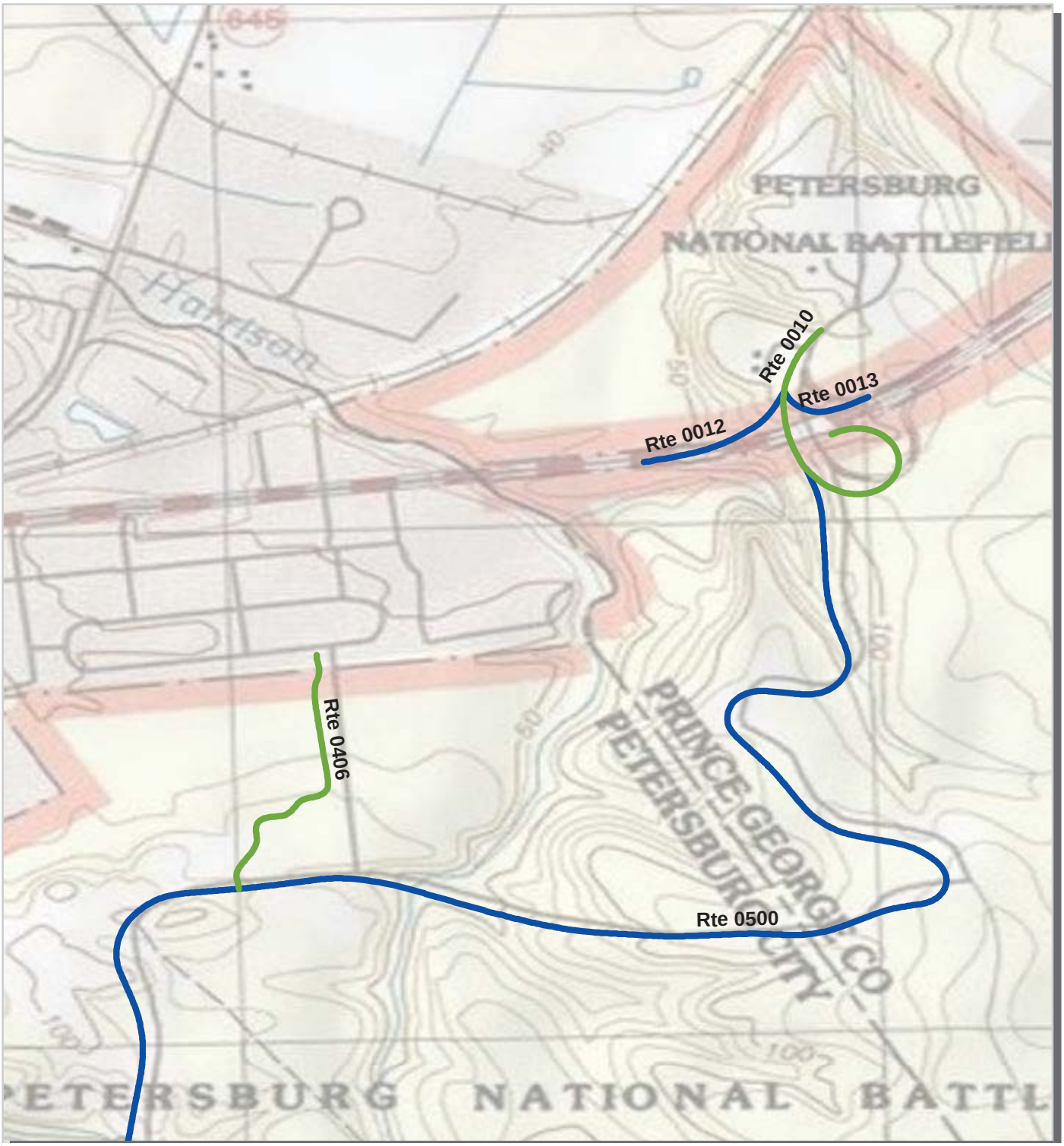
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

Note: Only routes collected by the DCV in Cycle-5 are displayed.

3.5 1.75 0 3.5 Miles

N

Petersburg National Battlefield
Route Condition Map
PCR - Mile by Mile
Area 2



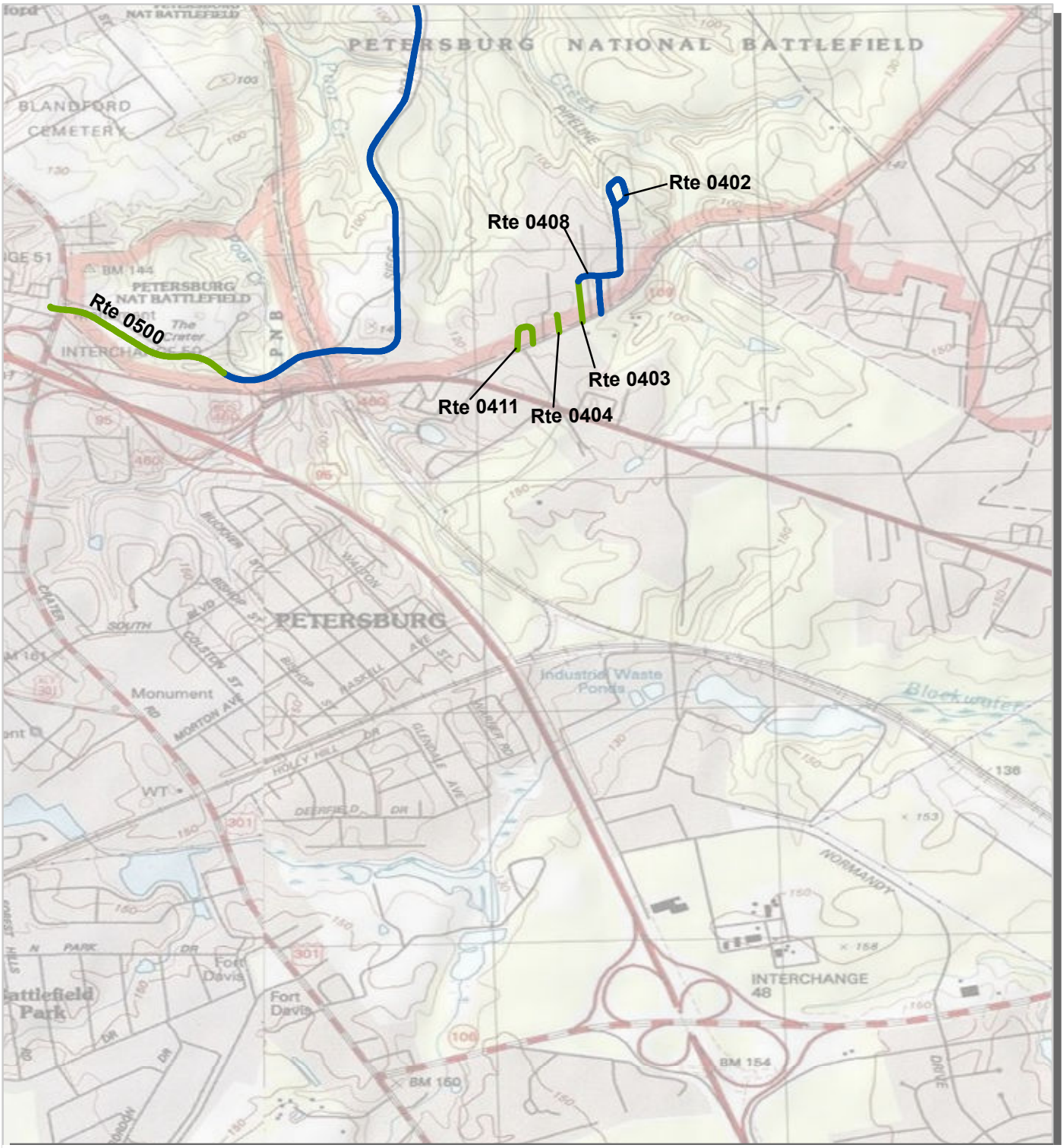
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

0.15 0.075 0 0.15
Miles

N

Petersburg National Battlefield
Route Condition Map
PCR - Mile by Mile
Area 3



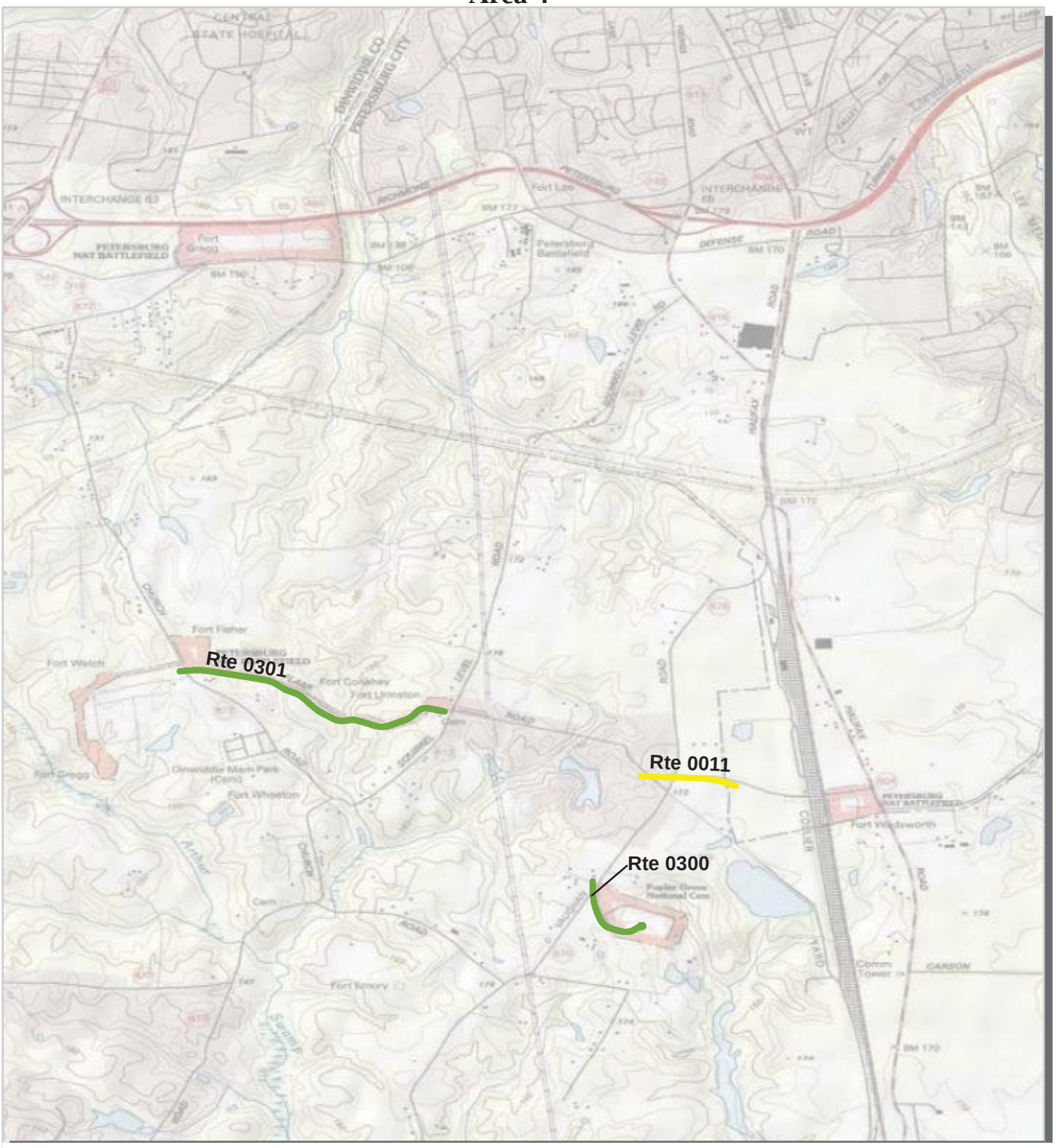
PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

0.4 0.2 0 0.4 Miles

N

Petersburg National Battlefield
Route Condition Map
PCR - Mile by Mile
Area 4



PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

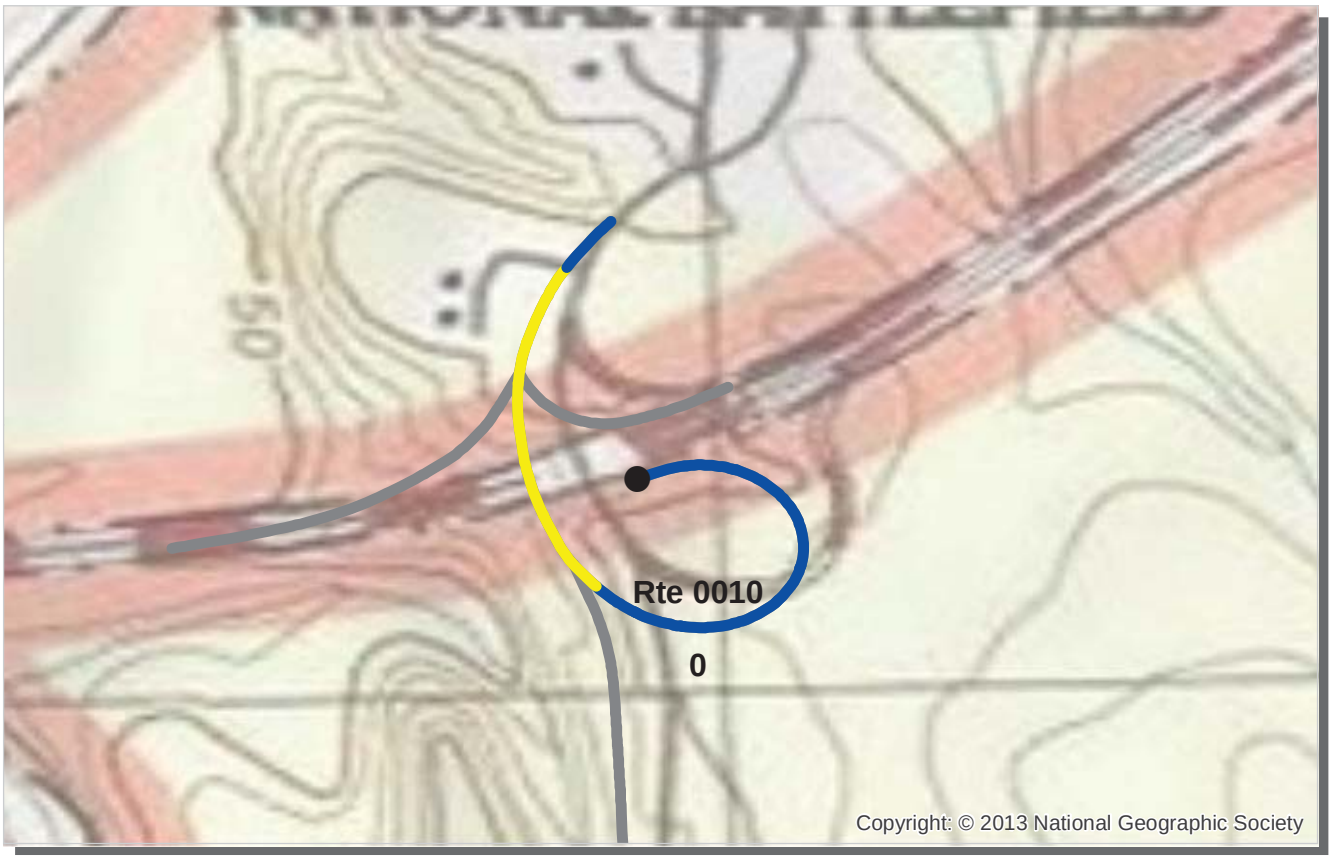
0.55 0.275 0 0.55 Miles

N

Section 5
Paved Route
Condition Rating Sheets

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0010 VISITOR CENTER ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014
NORTHEAST REGION **TOTAL LENGTH: 0.39 Miles**

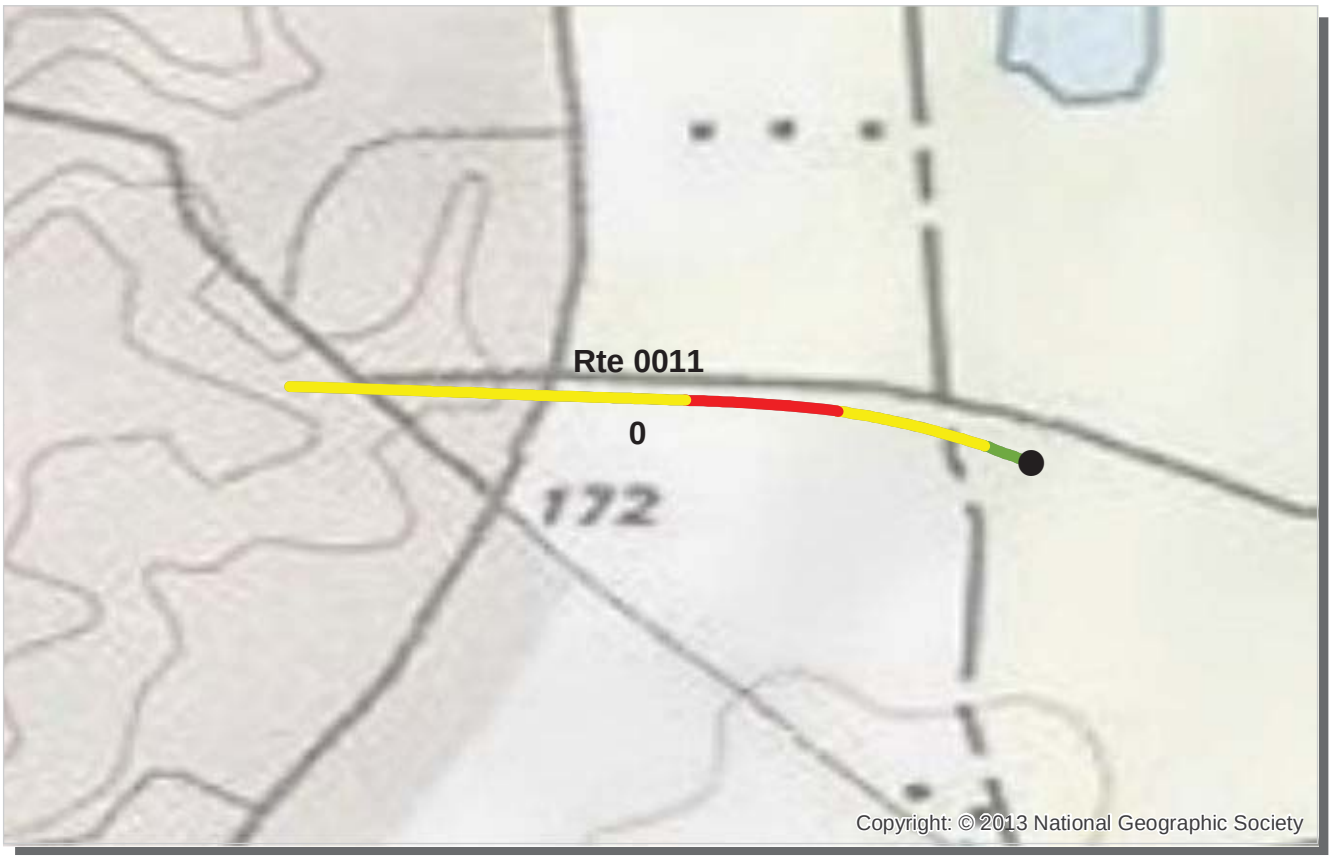
Section Number	0				
Section Length (mi)	0.39				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	33				
Lane Width (ft)	17				
Roadway Condition Information					
SCR (Surface Condition Rating)	93				
PCR (Pavement Condition Rating)	93				
Distress Index Values					
Structural Crack Index	93				
Transverse Cracking Index	97				
Patching Index	100				
Rutting Index	96				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0011 SHORT FLANK ROAD

PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 0.29 Miles**

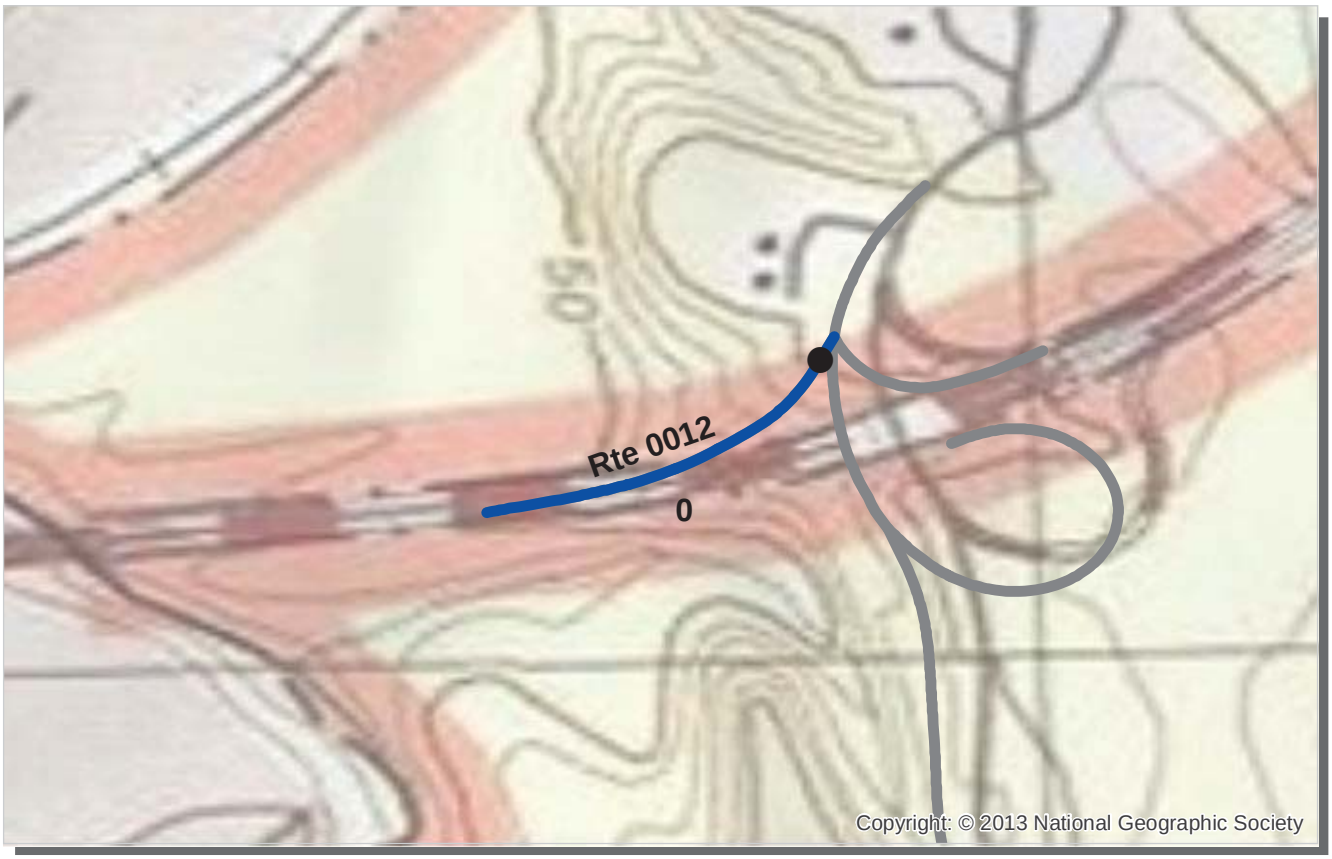
Section Number	0				
Section Length (mi)	0.29				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	71				
PCR (Pavement Condition Rating)	71				
Distress Index Values					
Structural Crack Index	97				
Transverse Cracking Index	71				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0012 STATE ROUTE 36 ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 0.16 Miles**

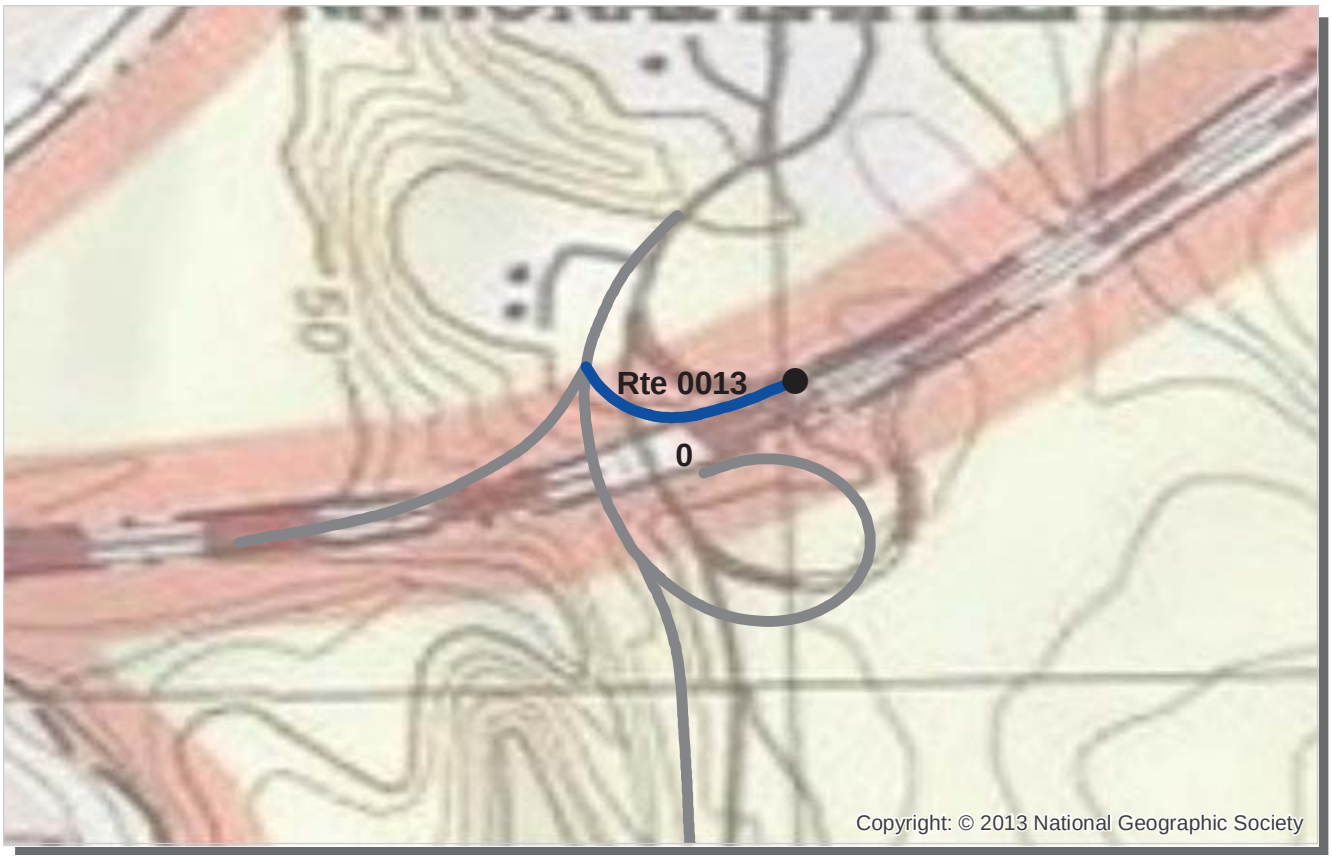
Section Number	0				
Section Length (mi)	0.16				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	14				
Lane Width (ft)	14				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

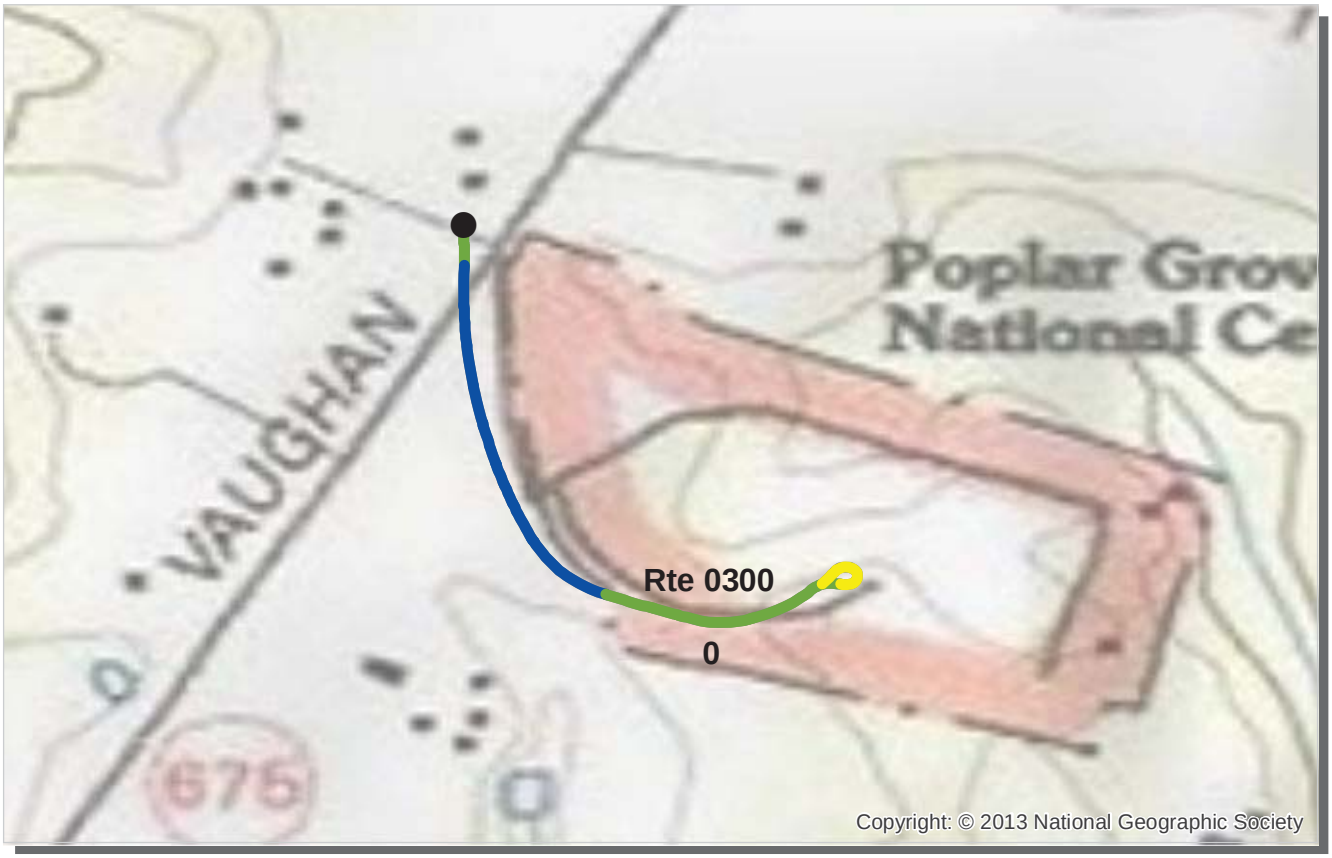
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0013 ROUTE 0010 ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014
NORTHEAST REGION **TOTAL LENGTH: 0.09 Miles**

Section Number	0				
Section Length (mi)	0.09				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	17				
Lane Width (ft)	17				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	N/A				

NOTES:
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.
NC - Not Collected N/A - Not Applicable



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0300 POPLAR GROVE CEMETERY ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014
NORTHEAST REGION **TOTAL LENGTH: 0.33 Miles**

Section Number	0				
Section Length (mi)	0.33				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	11				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	92				
PCR (Pavement Condition Rating)	92				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	92				
Roughness Condition Index (RCI)	N/A				

NOTES:
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.
NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0301 FLANK ROAD

PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 0.90 Miles**

Section Number	0				
Section Length (mi)	0.90				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	20				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	100				
PCR (Pavement Condition Rating)	92				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	80				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0402 HEADQUARTERS ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014
NORTHEAST REGION **TOTAL LENGTH: 0.49 Miles**

Section Number	0				
Section Length (mi)	0.49				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	12				
Lane Width (ft)	12				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0403 RANGER ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 0.11 Miles**

Section Number	0				
Section Length (mi)	0.11				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	12				
Lane Width (ft)	12				
Roadway Condition Information					
SCR (Surface Condition Rating)	90				
PCR (Pavement Condition Rating)	90				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	90				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0404 BUILDING 34 ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014
NORTHEAST REGION **TOTAL LENGTH: 0.04 Miles**

Section Number	0				
Section Length (mi)	0.04				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	15				
Lane Width (ft)	7				
Roadway Condition Information					
SCR (Surface Condition Rating)	92				
PCR (Pavement Condition Rating)	92				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	92				
Roughness Condition Index (RCI)	N/A				

NOTES:
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.
NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0406 SERVICE ROAD

PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 0.33 Miles**

Section Number	0				
Section Length (mi)	0.33				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	88				
PCR (Pavement Condition Rating)	88				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	88				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0408 RANGER ACCESS TO HEADQUARTERS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014
NORTHEAST REGION **TOTAL LENGTH: 0.05 Miles**

Section Number	0				
Section Length (mi)	0.05				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	N/A				

NOTES:
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
See Section 10 for explanation of SCR, PCR, & all Distress Index Values.
NC - Not Collected N/A - Not Applicable

PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0411 QUARTERS 29 ACCESS ROAD
PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 0.13 Miles**

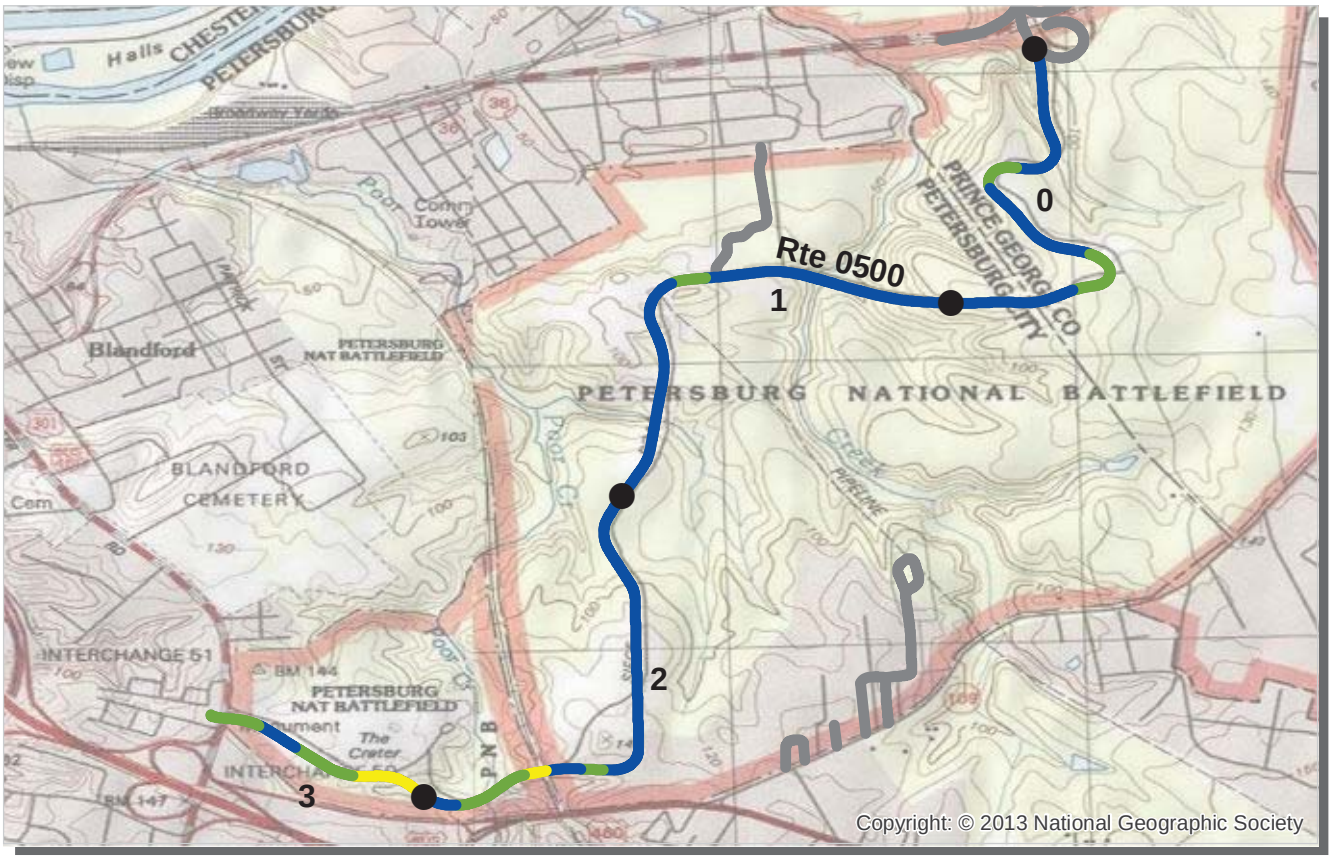
Section Number	0				
Section Length (mi)	0.13				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	93				
PCR (Pavement Condition Rating)	93				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	93				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor (0 - 60) Fair (61 - 84) Good (85 - 94) Excellent (95 - 100) No Data

* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0500 PETERSBURG TOUR ROAD

PETE : PETERSBURG NATIONAL BATTLEFIELD

COLLECTED: 1/18/2014

NORTHEAST REGION **TOTAL LENGTH: 3.43 Miles**

Section Number	0	1	2	3	
Section Length (mi)	1.00	1.00	1.00	0.43	
Cross Section Information					
Number of Lanes	1	1	1	1	
Paved Width (ft)	21	20	20	19	
Lane Width (ft)	12	13	13	13	
Roadway Condition Information					
SCR (Surface Condition Rating)	97	99	98	94	
PCR (Pavement Condition Rating)	97	99	97	90	
Distress Index Values					
Structural Crack Index	100	100	100	94	
Transverse Cracking Index	100	100	100	97	
Patching Index	100	100	100	100	
Rutting Index	97	99	98	98	
Roughness Condition Index (RCI)	98	100	96	84	

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

Section 6
Manually Rated Paved Route Condition Rating Sheets

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

MANUALLY RATED ROUTE CONDITION RATING SHEETS

No data available for this section.

Section 7
Parking Area
Condition Rating Sheets

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

PETERSBURG NATIONAL BATTLEFIELD

Route 0900

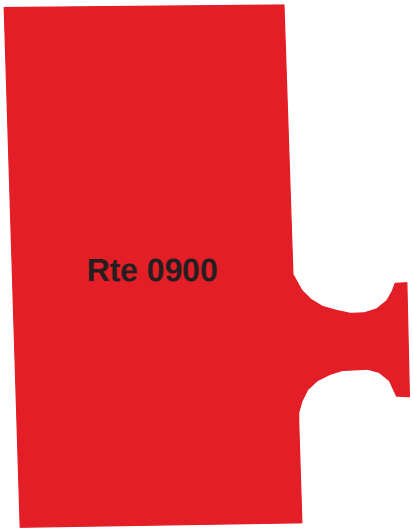
MAIN VISITOR PARKING

FROM CEDAR LANE

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0900	PUBLIC	2/10/2013	23,113	0.40	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



180 90 0 180

Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0901

WATER STREET 1 PARKING

FROM WATER STREET

TO PECAN STREET

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0901	PUBLIC	2/11/2013	8,678	0.15	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE & WOOD CURB	FAIR/73

* Lane miles are based on 11' lane widths

180 90 0 180 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0902

WATER STREET 2 PARKING

FROM WATER STREET

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902	PUBLIC	2/11/2013	6,177	0.11	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths

180 90 0 180 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

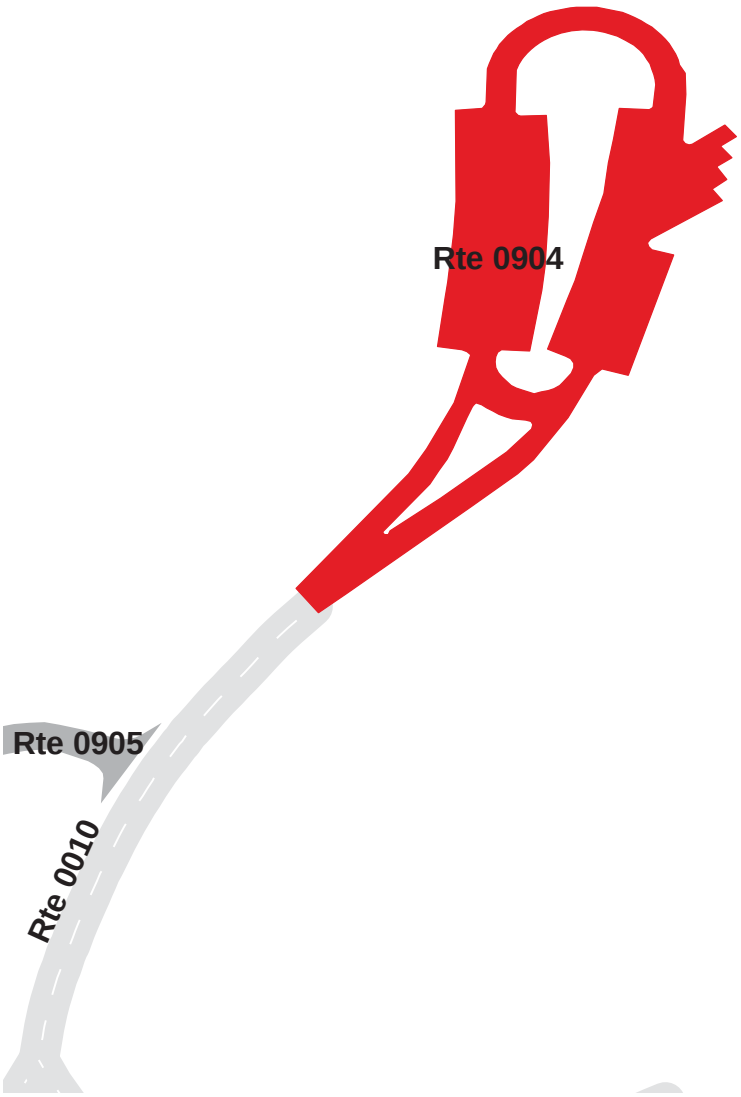
Route 0904

VISITOR CENTER PARKING

FROM END OF ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0904	PUBLIC	2/12/2013	42,573	0.73	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	5	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



360 180 0 360 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

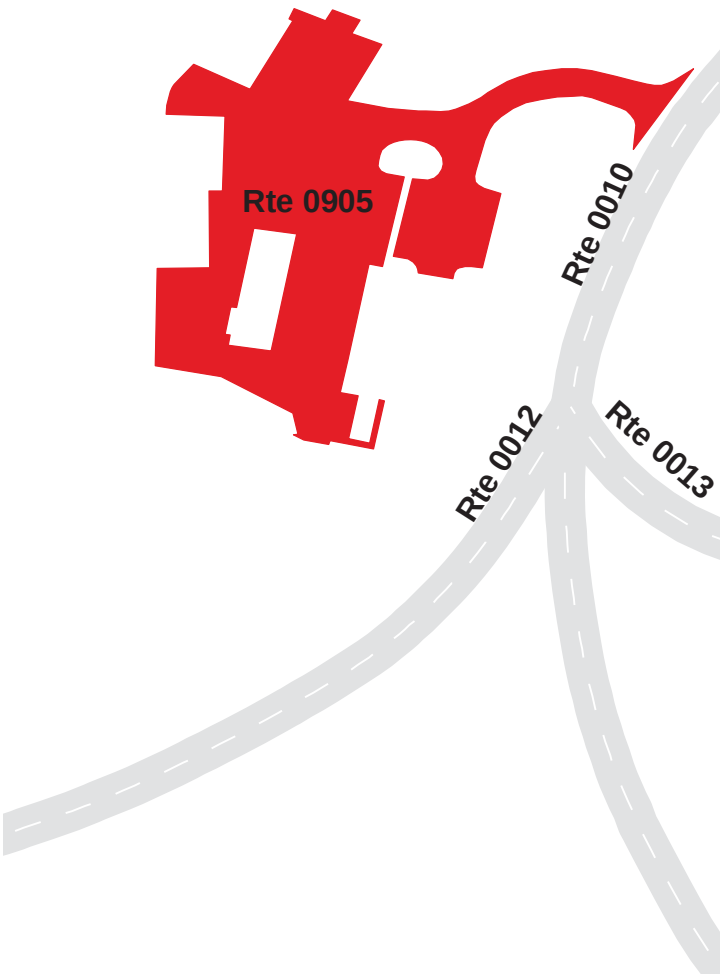
Route 0905

MAINTENANCE AREA PARKING

FROM ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
TO MAINTENANCE AREA

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0905	PUBLIC	2/11/2013	47,654	0.82	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	1	4	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



360 180 0 360
Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0906

FORT FREN PARKING

FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0906	PUBLIC	2/11/2013	1,376	0.02	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	1	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths

PETERSBURG NATIONAL BATTLEFIELD

Route 0907

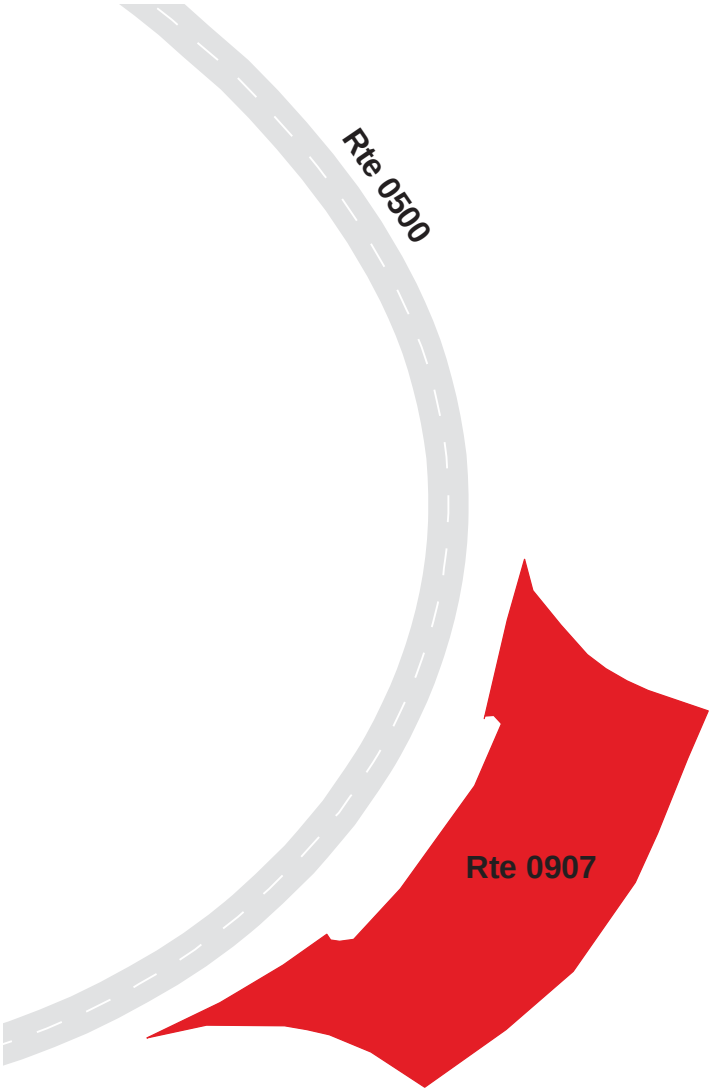
SUTLERS STORE PARKING

FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0907	PUBLIC	2/11/2013	5,073	0.09	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	1	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



100 50 0 100 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0908

SUTLERS STORE OVERFLOW PARKING

FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0908	PUBLIC	2/11/2013	11,877	0.20	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

225 112.5 0 225

Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0911

HARRISONS CREEK PARKING

ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0911	PUBLIC	2/11/2013	1,381	0.02	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	1	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths

80 40 0 80 Feet

PETERSBURG NATIONAL BATTLEFIELD

Route 0912

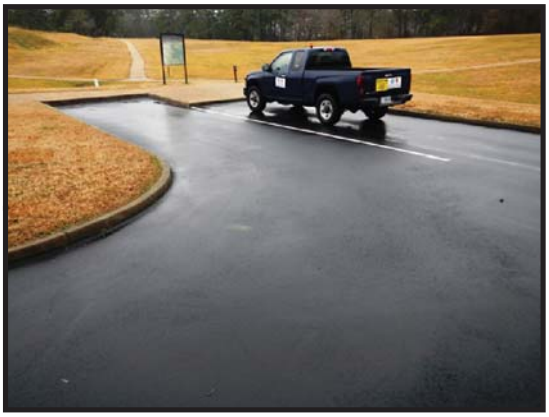
FORT STEDMAN PARKING

FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0912	PUBLIC	2/11/2013	7,026	0.12	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	2	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0913

FORT HASKELL PARKING

ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	2/11/2013	2,292	0.04	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

PETERSBURG NATIONAL BATTLEFIELD

Route 0915

CRATER PARKING

FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0915	PUBLIC	2/11/2013	6,784	0.12	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	FAIR/73

* Lane miles are based on 11' lane widths

PETERSBURG NATIONAL BATTLEFIELD

Route 0916

CRATER BUS PARKING

ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0916	PUBLIC	2/11/2013	1,876	0.03	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths

180 90 0 180 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0919

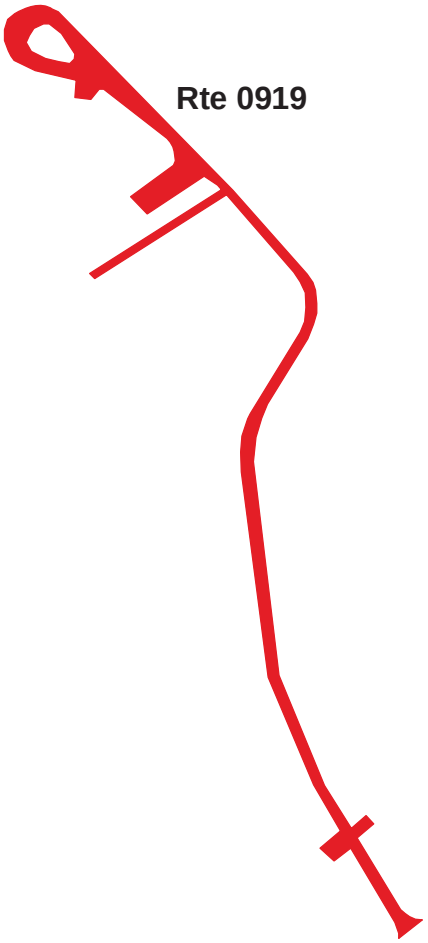
RESOURCE MANAGEMENT PARKING

FROM MAHONE AVENUE

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0919	NONPUBLIC	2/11/2013	18,006	0.31	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



PETERSBURG NATIONAL BATTLEFIELD

Route 0920

MAHONE PARKING

FROM MAHONE AVENUE

TO MAHONE AVENUE

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0920	PUBLIC	2/11/2013	35,370	0.61	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	2	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths

360 180 0 360

Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0921

FORT WADSWORTH PARKING

FROM HALIFAX ROAD

TO FLANK ROAD

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0921	PUBLIC	2/11/2013	8,540	0.15	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

140 70 0 140 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0922

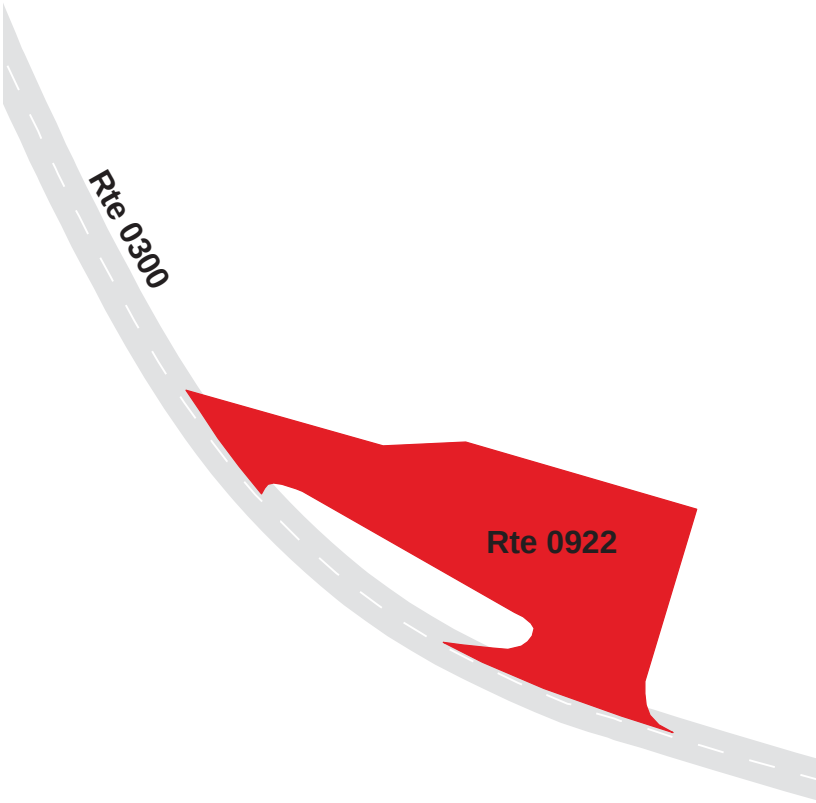
POPLAR GROVE CEMETERY PARKING

FROM ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)

TO ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0922	PUBLIC	2/11/2013	9,653	0.17	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



180 90 0 180 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

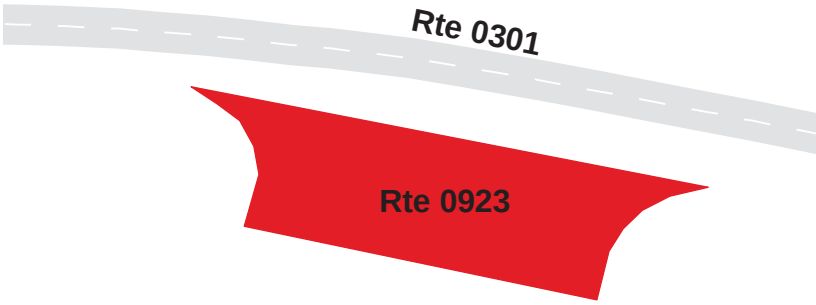
Route 0923

FORT URMSTON PARKING

ADJACENT TO ROUTE 0301 (FLANK ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0923	PUBLIC	2/11/2013	1,214	0.02	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



70 35 0 70 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

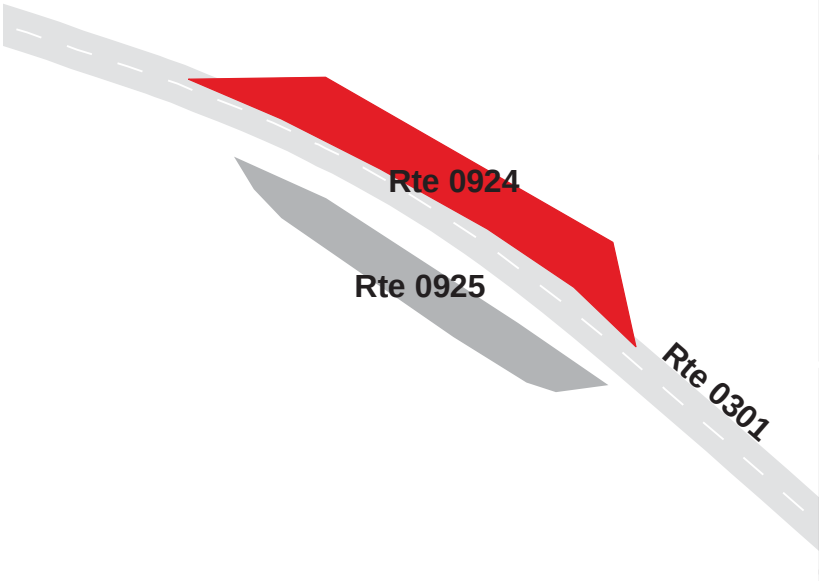
Route 0924

FORT CONAHEY 1 PARKING

ADJACENT TO ROUTE 0301 (FLANK ROAD) ON RIGHT

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0924	PUBLIC	2/11/2013	2,241	0.04	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

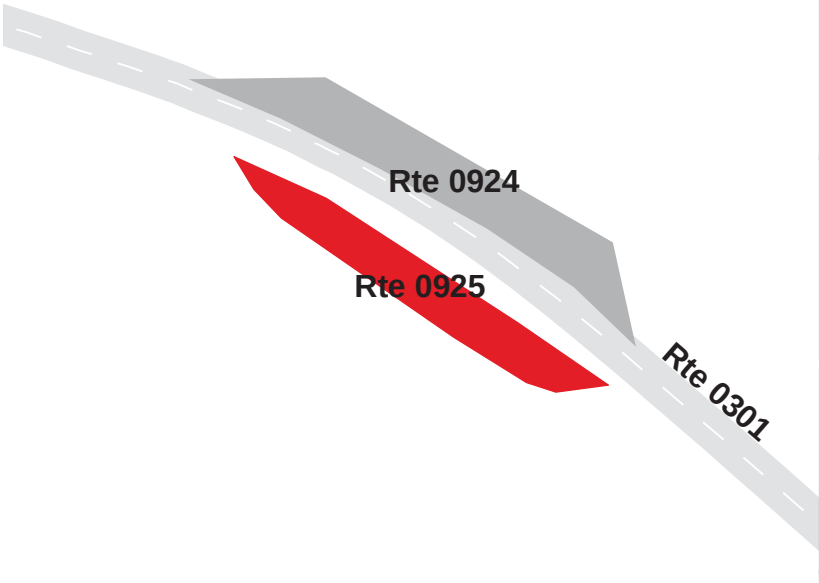
Route 0925

FORT CONAHEY 2 PARKING

ADJACENT TO ROUTE 0301 (FLANK ROAD) ON LEFT

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0925	PUBLIC	2/11/2013	1,595	0.03	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



140 70 0 140 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0926

FORT FISHER PARKING

ADJACENT TO ROUTE 0301 (FLANK ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0926	PUBLIC	2/11/2013	2,127	0.04	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths

PETERSBURG NATIONAL BATTLEFIELD

Route 0927

CONFEDERATE FORT GREGG PARKING AREA

FROM 7TH AVENUE

TO 7TH AVENUE

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0927	PUBLIC	2/11/2013	8,338	0.14	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

100 50 0 100 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0928

A FINAL STAND PARKING

FROM STATE ROUTE 613 (WHITE OAK ROAD)

TO STATE ROUTE 613 (WHITE OAK ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0928	PUBLIC	2/11/2013	6,074	0.11	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

100 50 0 100 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0929

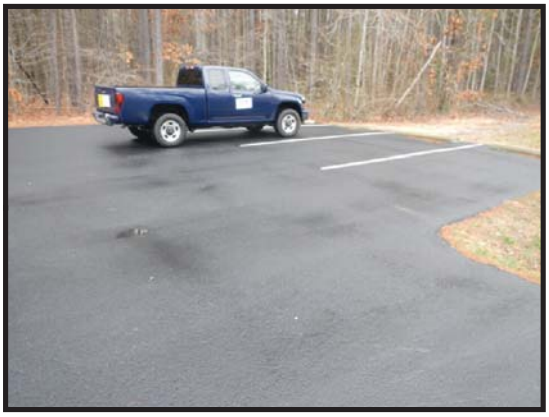
ATTACK ON THE ANGLE PARKING

FROM STATE ROUTE 613 (WHITE OAK ROAD)

TO STATE ROUTE 613 (WHITE OAK ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0929	PUBLIC	2/11/2013	5,353	0.09	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



100 50 0 100 Feet

PETERSBURG NATIONAL BATTLEFIELD

Route 0930

UNION CAVALRY ATTACK PARKING

FROM STATE ROUTE 627 (COURTHOUSE ROAD)

TO STATE ROUTE 627 (COURTHOUSE ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0930	PUBLIC	2/11/2013	6,992	0.12	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

100 50 0 100 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0931

CRAWFORDS SWEEP PARKING

FROM STATE ROUTE 627 (COURTHOUSE ROAD)

TO STATE ROUTE 627 (COURTHOUSE ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0931	PUBLIC	2/11/2013	6,995	0.12	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

100 50 0 100 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

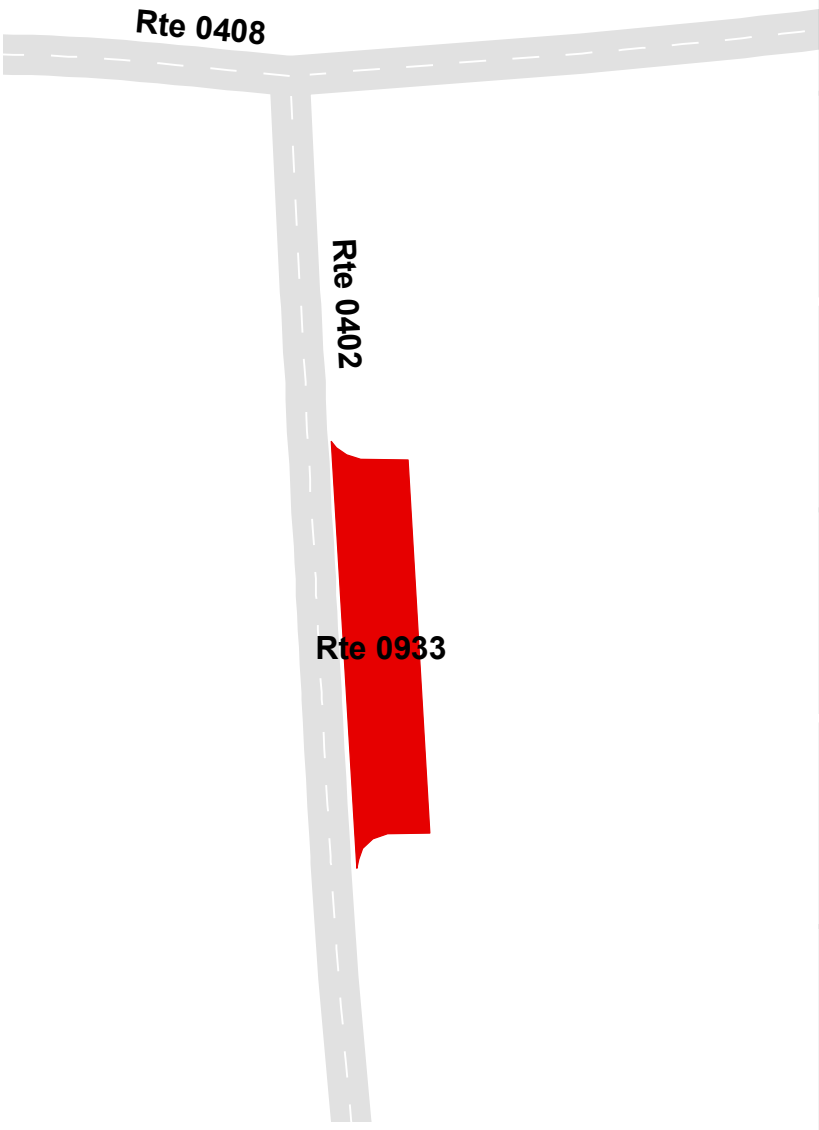
Route 0933

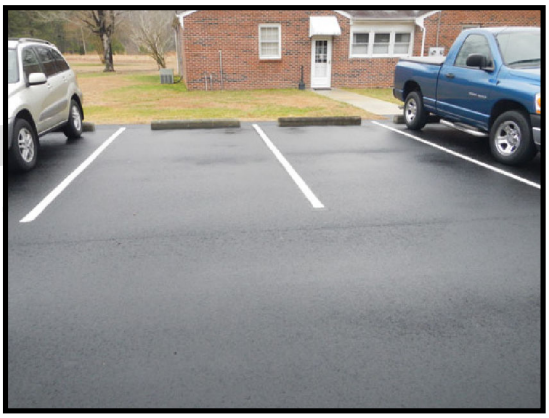
HEADQUARTERS PARKING

ADJACENT TO ROUTE 0402 (HEADQUARTERS ACCESS ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0933	PUBLIC	2/11/2013	2,762	0.05	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths





140 70 0 140 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0934

RANGER PARKING

ADJACENT TO ROUTE 0403 (RANGER ACCESS ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0934	PUBLIC	2/11/2013	1,326	0.02	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

70 35 0 70 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0935

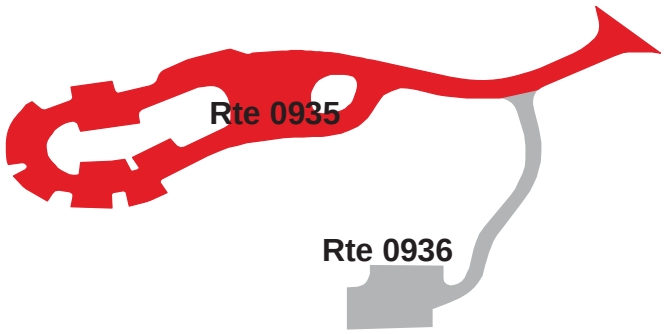
FIVE FORKS VCS ACCESS ROAD AND PARKING AREA

FROM STATE ROUTE 627 (COURTHOUSE ROAD)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0935	PUBLIC	2/11/2013	42,324	0.73	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



540 270 0 540

Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0936

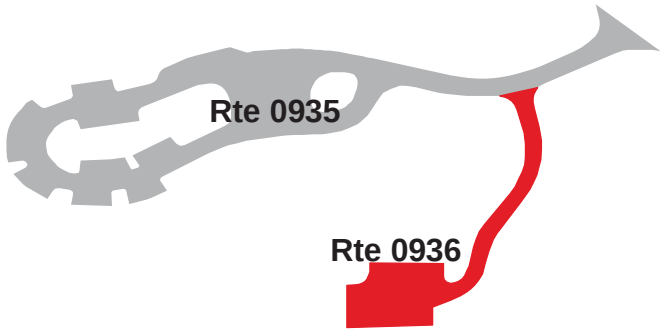
FIVE FORKS MAINTENANCE AREA ACCESS ROAD AND PARKING AREA

FROM ROUTE 0935 (FIVE FORKS VCS ACCESS ROAD AND PARKING AREA)

TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0936	PUBLIC	2/11/2013	12,379	0.21	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	1	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



540 270 0 540 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0937

OPERATIONS PARKING AREA

FROM INTERSECTION OF ROUTE 0500 (PETERSBURG TOUR ROAD) AND ROUTE 0406 (SERVICE ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0937	PUBLIC	2/11/2013	12,415	0.21	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths

450 225 0 450
Feet

PETERSBURG NATIONAL BATTLEFIELD

Route 0939

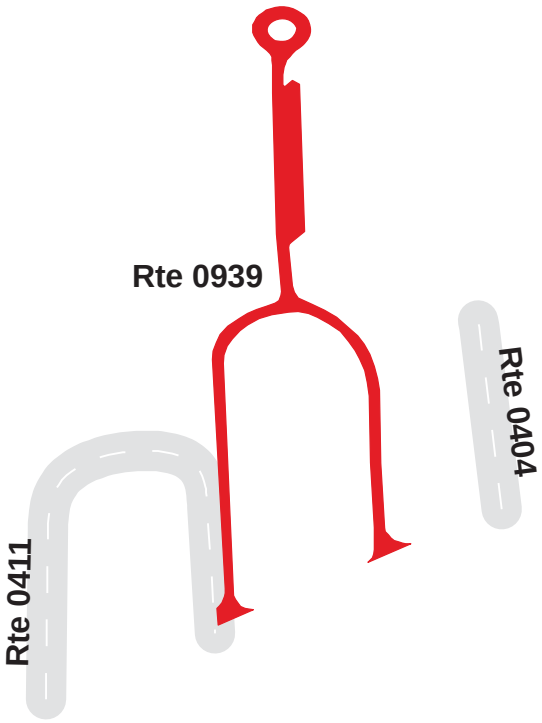
HICKORY HILL HIKE / BIKE PARKING AREA

FROM STATE ROUTE 109 (HICKORY HILL ROAD)

TO STATE ROUTE 109 (HICKORY HILL ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0939	PUBLIC	2/11/2013	19,023	0.33	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
2	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



540 270 0 540 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0941

MASSACHUSETTS MONUMENT PARKING

ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0941	PUBLIC	2/11/2013	901	0.02	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

100 50 0 100 Feet

PETERSBURG NATIONAL BATTLEFIELD

Route 0945ZZ

TAYLOR HOUSE SITE PARKING AREAS

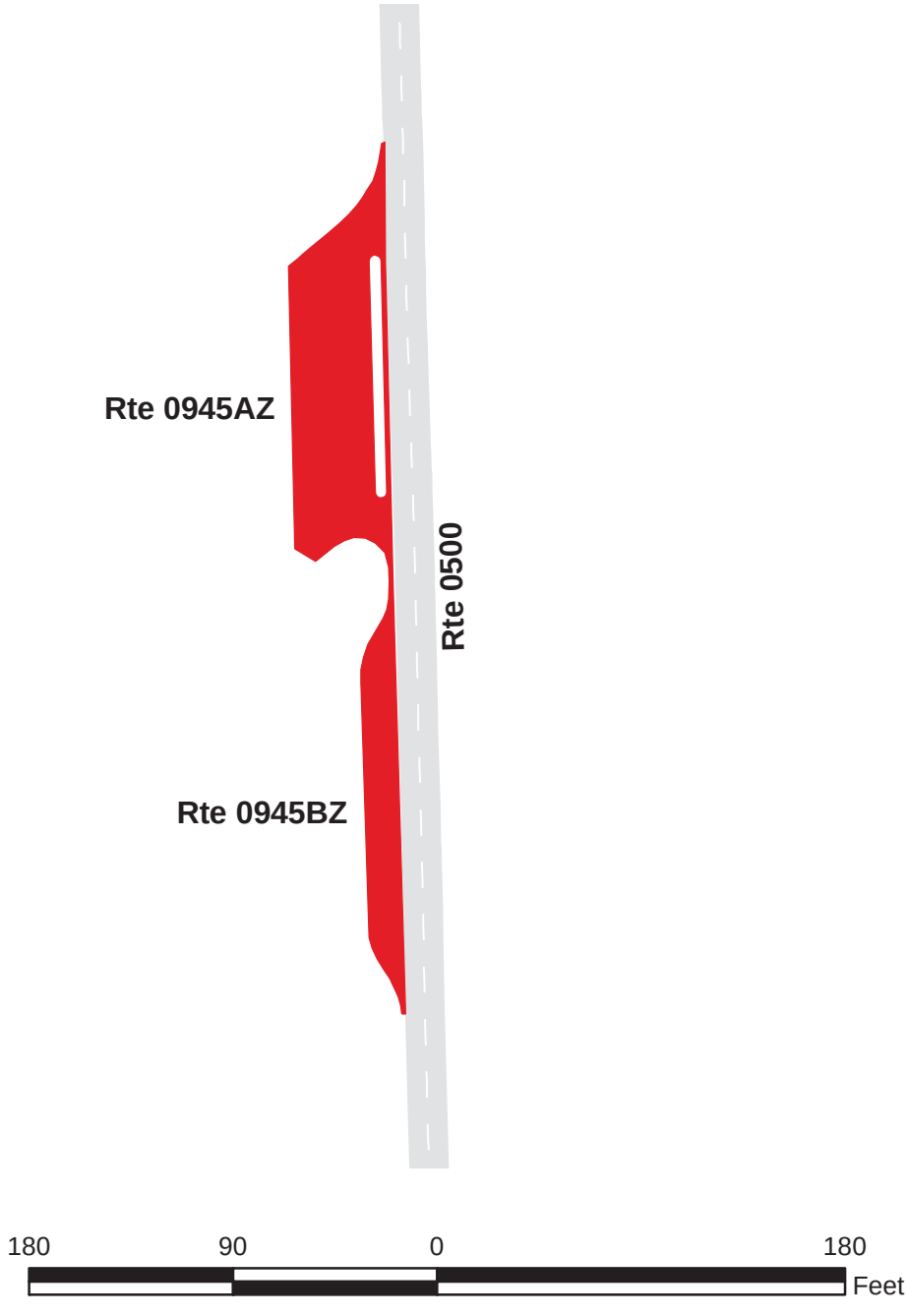
FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0945ZZ	PUBLIC	2/11/2013	6,410	0.11	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	CONCRETE CURB AND GUTTER	NO CURB	SUMMARY/90

* Lane miles are based on 11' lane widths



PETERSBURG NATIONAL BATTLEFIELD

Route 0945AZ

TAYLOR HOUSE SITE PARKING

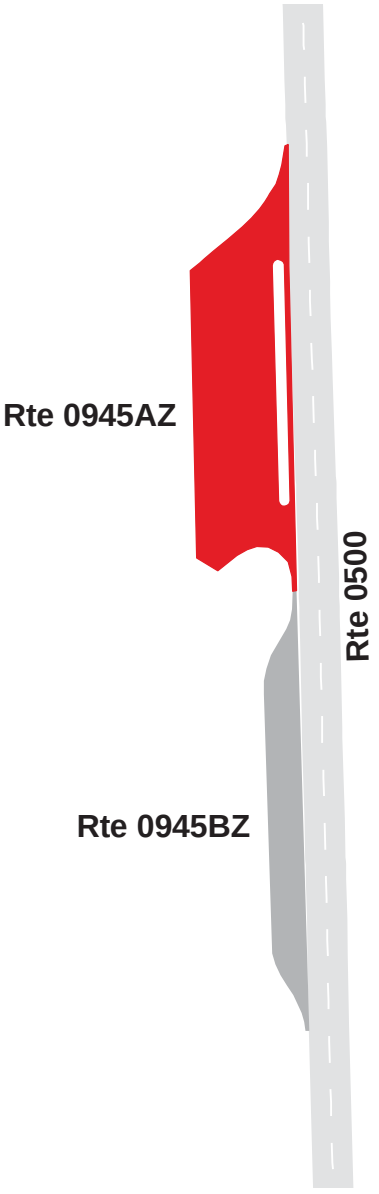
FROM ROUTE 0500 (PETERSBURG TOUR ROAD)

TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0945AZ	PUBLIC	2/11/2013	4,527	0.08	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	CONCRETE CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



180 90 0 180 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0945BZ

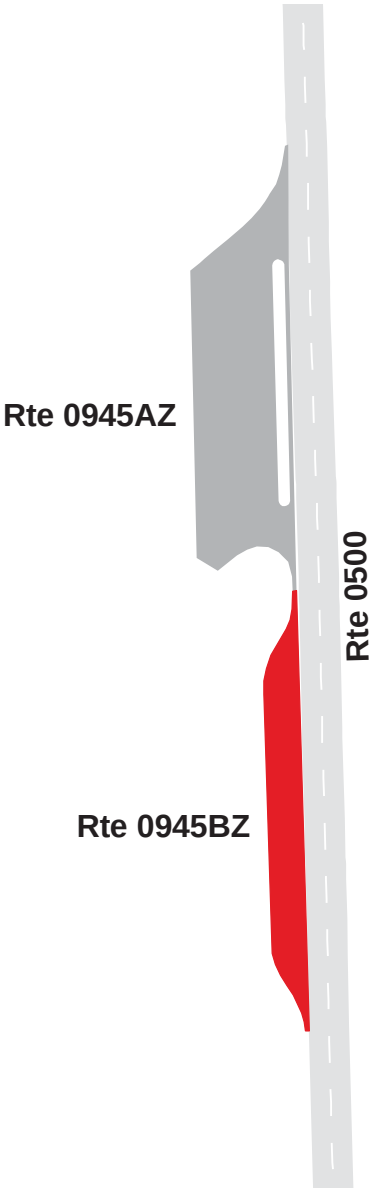
TAYLOR HOUSE SITE BUS PARKING

ADJACENT TO ROUTE 0500 (PETERSBURG TOUR ROAD)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0945BZ	PUBLIC	2/11/2013	1,883	0.03	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



180 90 0 180 Feet

N

PETERSBURG NATIONAL BATTLEFIELD

Route 0946

WHITE OAK VISITOR PARKING AREA

FROM STATE ROUTE 613 (WHITE OAK ROAD)

TO STATE ROUTE 613 (WHITE OAK ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0946	PUBLIC	2/11/2013	9,766	0.17	AS
Culverts	**Drop Inlets**	**Gates**	**Curb & Gutter**	**Curb**	**PCR**
1	0	0	NO CURB AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

270 135 0 270

Feet

Section 8
Parkwide/Route
Maintenance Features Summaries

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

PETE: PARKWIDE MAINTENANCE FEATURES SUMMARY
Includes DCV, MRL, MRP & PKG routes collected in Cycle-5

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all DCV driven routes. Culverts, drop inlets, and gates were also collected on all Manually Rated Routes and Paved Parking areas. Those totals are reflected below.

FEATURE	LINEAR FEET	COUNT
BRIDGE	--	2
CATTLE GUARD	--	0
CULVERT	--	59
CURB	4,251	--
DROP INLET	--	18
GATE	--	16
GUARD/GUIDE RAIL	2,841	--
CABLE	0	--
NON-CABLE	2,841	--
GUARD/GUIDE WALL	21	--
BOLLARD	21	--
TEMPORARY BARRIER	0	--
NON TEMP/BOLLARD	0	--
INTERSECTION	--	100
LOW WATER CROSSING	0	0
MILE MARKER	--	0
OVERPASS	--	0
PARK BOUNDARY	--	6
PAVED DITCH	3,231	--
PULLOUT	163	2
RAILROAD CROSSING	--	0
RETAINING WALL	0	0
SIGN	--	161
STATE BOUNDARY	--	0
TRAFFIC LIGHT	--	0
TUNNEL	0	0

PETE: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5.

FEATURE	ROUTE 0010 VISITOR CENTER ACCESS ROAD	ROUTE 0011 SHORT FLANK ROAD	ROUTE 0012 STATE ROUTE 36 ACCESS ROAD	ROUTE 0013 ROUTE 0010 ACCESS ROAD	ROUTE 0300 POPLAR GROVE CEMETERY ROAD	ROUTE 0301 FLANK ROAD	UNIT
BRIDGE	1	0	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	1	2	0	1	2	7	EACH
CURB	2,028	0	42	32	11	0	LINEAR FEET
DROP INLET	3	0	1	0	0	0	EACH
GATE	1	0	1	1	1	0	EACH
GUARD/GUIDE RAIL	1,795	0	718	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	0	LINEAR FEET
NON-CABLE	1,795	0	718	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	21	LINEAR FEET
BOLLARD	0	0	0	0	0	21	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	8	5	4	4	8	9	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	1	0	0	1	2	EACH
PAVED DITCH	0	0	0	243	0	0	LINEAR FEET
PULLOUT	0	1	0	0	1	0	EACH
PULLOUT	0	121	0	0	42	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	LINEAR FEET
SIGN	14	14	4	9	14	17	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET

PETE: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5.

FEATURE	ROUTE 0402 HEADQUARTERS ACCESS ROAD	ROUTE 0403 RANGER ACCESS ROAD	ROUTE 0404 BUILDING 34 ACCESS ROAD	ROUTE 0406 SERVICE ROAD	ROUTE 0408 RANGER ACCESS TO HEADQUARTERS ROAD	ROUTE 0411 QUARTERS 29 ACCESS ROAD	UNIT
BRIDGE	0	0	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	2	1	0	2	0	1	EACH
CURB	0	0	0	0	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
GATE	1	0	0	1	0	0	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	14	5	3	5	4	5	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	0	0	0	0	0	EACH
PAVED DITCH	0	0	0	0	0	0	LINEAR FEET
PULLOUT	0	0	0	0	0	0	EACH
PULLOUT	0	0	0	0	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	LINEAR FEET
SIGN	20	6	1	5	0	2	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET

PETE: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5.

FEATURE	ROUTE 0500 PETERSBURG TOUR ROAD	UNIT
BRIDGE	1	EACH
CATTLE GUARD	0	EACH
CULVERT	22	EACH
CURB	2,138	LINEAR FEET
DROP INLET	3	EACH
GATE	2	EACH
GUARD/GUIDE RAIL	328	LINEAR FEET
CABLE	0	LINEAR FEET
NON-CABLE	328	LINEAR FEET
GUARD/GUIDE WALL	0	LINEAR FEET
BOLLARD	0	LINEAR FEET
TEMPORARY BARRIER	0	LINEAR FEET
NON TEMP/BOLLARD	0	LINEAR FEET
INTERSECTION	26	EACH
LOW WATER CROSSING	0	EACH
LOW WATER CROSSING	0	LINEAR FEET
MILE MARKER	0	EACH
OVERPASS	0	EACH
PARK BOUNDARY	2	EACH
PAVED DITCH	2,988	LINEAR FEET
PULLOUT	0	EACH
PULLOUT	0	LINEAR FEET
RAILROAD CROSSING	0	EACH
RETAINING WALL	0	EACH
RETAINING WALL	0	LINEAR FEET
SIGN	55	EACH
STATE BOUNDARY	0	EACH
TRAFFIC LIGHT	0	EACH
TUNNEL	0	EACH
TUNNEL	0	LINEAR FEET

PETE: STRUCTURE LIST

ROUTE NUMBER	FUNCTIONAL CLASS	MILEPOST START	MILEPOST END	FEATURE	STRUCTURE NUMBER
0010	1	0.224	0.258	BRIDGE	4770-002
0500	1	2.774	2.794	BRIDGE	4770-001

Section 9
Route Maintenance Features
Road Logs

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0010: VISITOR CENTER ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 36 (OAKLAWN BOULEVARD)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (STATE ROUTE 36 (OAKLAWN BOULEVARD) / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 36 (OAKLAWN BOULEVARD) / NON NPS)
0.015	0.015	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.016	0.062	CURB	LEFT	N/A
0.019	0.019	GATE	N/A	N/A
0.020	0.020	SIGN	RIGHT	REGULATORY, STOP
0.023	0.023	CULVERT	N/A	N/A
0.023	0.023	SIGN	RIGHT	GUIDE, PARK CLOSES AT SUNSET
0.023	0.023	SIGN	RIGHT	REGULATORY, KEEP OFF MEDIAN
0.039	0.039	SIGN	LEFT	GUIDE, PETERSBURG NATIONAL BATTLEFIELD
0.062	0.314	CURB	N/A	N/A
0.062	0.314	GUARD/GUIDE RAIL	N/A	N/A
0.076	0.076	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.076	0.076	SIGN	RIGHT	REGULATORY, RADAR CONTROLLED
0.186	0.186	DROP INLET	N/A	N/A
0.207	0.207	INTERSECTION	LEFT	ROUTE 0500 (PETERSBURG TOUR ROAD)
0.221	0.221	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.224	0.258	BRIDGE	N/A	4770-002 (VA ROUTE 36 BRIDGE)
0.224	0.267	CURB	LEFT	N/A
0.224	0.267	CURB	RIGHT	N/A
0.224	0.268	GUARD/GUIDE RAIL	LEFT	N/A
0.224	0.268	GUARD/GUIDE RAIL	RIGHT	N/A
0.268	0.268	DROP INLET	N/A	N/A
0.268	0.268	DROP INLET	RIGHT	N/A
0.296	0.296	INTERSECTION	LEFT	ROUTE 0012 (STATE ROUTE 36 ACCESS ROAD)
0.309	0.309	INTERSECTION	RIGHT	ROUTE 0013 (ROUTE 0010 ACCESS ROAD)
0.317	0.317	SIGN	RIGHT	REGULATORY, STOP
0.335	0.335	SIGN	LEFT	GUIDE, PARK TOUR ROAD

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0010: VISITOR CENTER ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.343	0.343	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.348	0.348	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.353	0.353	INTERSECTION	LEFT	ROUTE 0905 (MAINTENANCE AREA PARKING)
0.357	0.357	SIGN	RIGHT	GUIDE, ALCOHOLIC BEVERAGES PROHIBITED
0.380	0.380	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.390	0.390	INTERSECTION	N/A	ROUTE 0904 (VISITOR CENTER PARKING)
0.390	0.390	INTERSECTION	LEFT	UNPAVED ROUTE
0.390	0.390	ROUTE END	N/A	TO ROUTE 0904 (VISITOR CENTER PARKING)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0011: SHORT FLANK ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM PARK BOUNDARY
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (FLANK ROAD / NON NPS)
0.011	0.011	SIGN	LEFT	REGULATORY, SPEED LIMIT 45
0.087	0.087	SIGN	LEFT	GUIDE, PETERSBURG CITY LIMITS
0.169	0.169	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.182	0.205	PULLOUT	RIGHT	N/A
0.201	0.201	SIGN	LEFT	WARNING, 13' - 0"
0.201	0.201	SIGN	RIGHT	GUIDE, PETERSBURG NATIONAL BATTLEFIELD WESTERN FRONT
0.211	0.211	SIGN	RIGHT	REGULATORY, STOP
0.212	0.212	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.212	0.212	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.216	0.216	INTERSECTION	RIGHT	PAVED ROUTE (VAUGHAN ROAD)
0.216	0.216	INTERSECTION	LEFT	PAVED ROUTE (VAUGHAN ROAD)
0.217	0.217	CULVERT	N/A	N/A
0.222	0.222	SIGN	LEFT	GUIDE, 675
0.222	0.222	SIGN	LEFT	REGULATORY, CROSS TRAFFIC DOES NOT STOP
0.222	0.222	SIGN	LEFT	REGULATORY, STOP
0.222	0.222	SIGN	LEFT	REGULATORY, 675
0.223	0.223	CULVERT	N/A	N/A
0.248	0.248	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.287	0.287	SIGN	RIGHT	REGULATORY, STOP
0.289	0.289	INTERSECTION	RIGHT	PAVED ROUTE (FLANK ROAD / NON NPS)
0.289	0.289	INTERSECTION	LEFT	PAVED ROUTE (FLANK ROAD / NON NPS)
0.289	0.289	ROUTE END	N/A	TO FLANK ROAD

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0012: STATE ROUTE 36 ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
0.008	0.008	SIGN	LEFT	GUIDE, PARK TOUR ROAD CITY OF HOPEWELL CITY OF PETERSBURG
0.017	0.060	GUARD/GUIDE RAIL	RIGHT	N/A
0.019	0.112	GUARD/GUIDE RAIL	LEFT	N/A
0.110	0.110	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.110	0.110	SIGN	RIGHT	REGULATORY, YIELD
0.111	0.111	GATE	N/A	N/A
0.112	0.120	CURB	LEFT	N/A
0.112	0.112	SIGN	LEFT	REGULATORY, STOP
0.118	0.118	DROP INLET	LEFT	N/A
0.157	0.157	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 36 (OAKLAWN BOULEVARD) / NON NPS)
0.157	0.157	INTERSECTION	N/A	PAVED ROUTE (STATE ROUTE 36 (OAKLAWN BOULEVARD) / NON NPS)
0.157	0.157	ROUTE END	N/A	TO STATE ROUTE 36 (OAKLAWN BOULEVARD)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0013: ROUTE 0010 ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 36 (OAKLAWN BOULEVARD)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 36 (OAKLAWN BOULEVARD) / NON NPS)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (STATE ROUTE 36 (OAKLAWN BOULEVARD) / NON NPS)
0.000	0.046	PAVED DITCH	RIGHT	N/A
0.019	0.025	CURB	LEFT	N/A
0.022	0.022	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.032	0.032	SIGN	LEFT	GUIDE, PETERSBURG TOUR NATIONAL BATTLEFIELD
0.032	0.032	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.032	0.032	GATE	N/A	N/A
0.034	0.034	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.034	0.034	SIGN	RIGHT	GUIDE, PARK CLOSES AT SUNSET
0.035	0.035	SIGN	RIGHT	REGULATORY, STOP
0.051	0.051	CULVERT	N/A	N/A
0.052	0.052	SIGN	RIGHT	REGULATORY, RADAR CONTROLLED
0.052	0.052	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.092	0.092	SIGN	RIGHT	REGULATORY, STOP
0.094	0.094	INTERSECTION	LEFT	ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
0.094	0.094	INTERSECTION	N/A	ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
0.094	0.094	ROUTE END	N/A	TO ROUTE 0010 (VISITOR CENTER ACCESS ROAD)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0300: POPLAR GROVE CEMETERY ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM VAUGHAN ROAD
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 675 (VAUGHAN ROAD) / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 675 (VAUGHAN ROAD) / NON NPS)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.016	0.016	CULVERT	N/A	N/A
0.016	0.016	SIGN	RIGHT	GUIDE, 2
0.016	0.016	SIGN	RIGHT	GUIDE, POPLAR GROVE NATIONAL CEMETERY PETERSBURG NATIONAL BATTLEFIELD
0.018	0.018	SIGN	RIGHT	GUIDE, 8005
0.018	0.018	SIGN	RIGHT	GUIDE, 8001
0.018	0.018	SIGN	RIGHT	GUIDE, 8003
0.019	0.019	SIGN	RIGHT	GUIDE, PARK CLOSES AT SUNSET
0.022	0.022	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.031	0.031	SIGN	LEFT	REGULATORY, BATTLEFIELD TOUR
0.131	0.131	INTERSECTION	LEFT	UNPAVED ROUTE / NON NPS
0.134	0.134	SIGN	RIGHT	GUIDE, NATIONAL CEMETERY
0.136	0.136	PARK BOUNDARY	N/A	N/A
0.167	0.167	INTERSECTION	LEFT	ROUTE 0922 (POPLAR GROVE CEMETERY PARKING)
0.170	0.170	SIGN	LEFT	GUIDE, EXIT
0.188	0.188	CULVERT	N/A	N/A
0.188	0.188	SIGN	LEFT	GUIDE, ENTER
0.197	0.197	INTERSECTION	LEFT	ROUTE 0922 (POPLAR GROVE CEMETERY PARKING)
0.201	0.201	SIGN	LEFT	GUIDE, U.S. NATIONAL CEMETERY
0.201	0.201	SIGN	RIGHT	GUIDE, U.S. NATIONAL CEMETERY
0.202	0.202	GATE	N/A	N/A
0.207	0.215	PULLOUT	RIGHT	N/A
0.290	0.292	CURB	RIGHT	N/A
0.297	0.328	ONE-WAY	N/A	N/A
0.297	0.297	INTERSECTION	LEFT	ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0300: POPLAR GROVE CEMETERY ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.328	0.328	INTERSECTION	LEFT	ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)
0.328	0.328	INTERSECTION	N/A	ROUTE 0300 (POPLAR GROVE CEMETERY ROAD)
0.328	0.328	ROUTE END	N/A	TO END OF LOOP

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0301: FLANK ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM SQUIRREL LEVEL ROAD
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (SQUIRREL LEVEL ROAD / NON NPS)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (FLANK ROAD / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (SQUIRREL LEVEL ROAD / NON NPS)
0.000	0.000	PARK BOUNDARY	N/A	N/A
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.006	0.006	CULVERT	N/A	N/A
0.012	0.012	SIGN	RIGHT	GUIDE, ENTERING PETERSBURG NATIONAL BATTLEFIELD UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SER
0.019	0.019	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.019	0.019	SIGN	RIGHT	REGULATORY, COMMERCIAL VEHICLES PROHIBITED
0.047	0.047	INTERSECTION	LEFT	ROUTE 0923 (FORT URMSTON PARKING)
0.058	0.058	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.064	0.064	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.091	0.091	CULVERT	N/A	N/A
0.194	0.194	CULVERT	N/A	N/A
0.273	0.273	CULVERT	N/A	N/A
0.511	0.511	INTERSECTION	LEFT	ROUTE 0925 (FORT CONAHEY 2 PARKING)
0.514	0.514	INTERSECTION	RIGHT	ROUTE 0924 (FORT CONAHEY 1 PARKING)
0.585	0.585	CULVERT	N/A	N/A
0.701	0.701	CULVERT	N/A	N/A
0.790	0.790	CULVERT	N/A	N/A
0.832	0.832	SIGN	RIGHT	WARNING, STOP AHEAD
0.856	0.856	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.866	0.870	GUARD/GUIDE WALL	LEFT	N/A
0.867	0.867	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.877	0.877	INTERSECTION	RIGHT	ROUTE 0926 (FORT FISHER PARKING)
0.881	0.881	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
0.886	0.886	SIGN	RIGHT	REGULATORY, 3
0.887	0.887	SIGN	LEFT	REGULATORY, COMMERCIAL VEHICLES PROHIBITED

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0301: FLANK ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.891	0.891	SIGN	LEFT	GUIDE, LEAVING PETERSBURG NATIONAL BATTLEFIELD
0.891	0.891	SIGN	LEFT	GUIDE, ENTERING PETERSBURG NATIONAL BATTLEFIELD
0.895	0.895	SIGN	RIGHT	REGULATORY, STOP
0.900	0.900	SIGN	N/A	GUIDE, WESTERN FRONT
0.900	0.900	SIGN	N/A	REGULATORY, 672
0.900	0.900	PARK BOUNDARY	N/A	N/A
0.900	0.900	INTERSECTION	LEFT	PAVED ROUTE (CHURCH ROAD / NON NPS)
0.900	0.900	INTERSECTION	RIGHT	PAVED ROUTE (CHURCH ROAD / NON NPS)
0.900	0.900	ROUTE END	N/A	TO CHURCH ROAD

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0402: HEADQUARTERS ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 109 (HICKORY HILL ROAD)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.005	0.005	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.005	0.005	SIGN	RIGHT	GUIDE, PETERSBURG NATIONAL BATTLEFIELD HEADQUARTERS
0.006	0.006	SIGN	RIGHT	GUIDE, 1539 HICKORY HILL RD.
0.006	0.006	CULVERT	N/A	N/A
0.008	0.008	GATE	N/A	N/A
0.010	0.010	SIGN	RIGHT	REGULATORY, STOP
0.056	0.056	SIGN	RIGHT	GUIDE, OFFICE ENTRANCE
0.062	0.062	INTERSECTION	RIGHT	ROUTE 0933 (HEADQUARTERS PARKING)
0.092	0.092	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.095	0.095	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.097	0.097	SIGN	N/A	GUIDE, ENTRANCE
0.097	0.097	SIGN	N/A	GUIDE, UNABLE TO READ FROM VIDEO
0.097	0.097	SIGN	N/A	GUIDE, GRAPHIC SIGN NO TEXT
0.099	0.099	INTERSECTION	LEFT	ROUTE 0408 (RANGER ACCESS TO HEADQUARTERS ROAD)
0.104	0.104	SIGN	LEFT	REGULATORY, GRAPHIC SIGN NO TEXT
0.146	0.146	SIGN	RIGHT	GUIDE, ENTRANCE
0.146	0.146	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
0.314	0.314	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.314	0.314	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.314	0.314	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.314	0.314	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.321	0.321	INTERSECTION	LEFT	ROUTE 0402 (HEADQUARTERS ACCESS ROAD)
0.321	0.491	ONE-WAY	N/A	N/A
0.328	0.328	SIGN	N/A	GUIDE, UNABLE TO READ FROM VIDEO
0.328	0.328	SIGN	N/A	REGULATORY, ONE WAY

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0402: HEADQUARTERS ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.332	0.332	SIGN	N/A	REGULATORY, DO NOT ENTER
0.356	0.356	INTERSECTION	RIGHT	ROUTE 0917 (HORSE PARKING)
0.356	0.356	INTERSECTION	LEFT	ROUTE 0917 (HORSE PARKING)
0.375	0.375	INTERSECTION	RIGHT	ROUTE 0917 (HORSE PARKING)
0.395	0.395	INTERSECTION	RIGHT	ROUTE 0917 (HORSE PARKING)
0.435	0.435	CULVERT	N/A	N/A
0.442	0.442	INTERSECTION	LEFT	ROUTE 0917 (HORSE PARKING)
0.467	0.467	INTERSECTION	LEFT	ROUTE 0917 (HORSE PARKING)
0.487	0.487	INTERSECTION	LEFT	ROUTE 0917 (HORSE PARKING)
0.491	0.491	INTERSECTION	LEFT	ROUTE 0402 (HEADQUARTERS ACCESS ROAD)
0.491	0.491	INTERSECTION	N/A	ROUTE 0402 (HEADQUARTERS ACCESS ROAD)
0.491	0.491	ROUTE END	N/A	TO END OF LOOP

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0403: RANGER ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 109 (HICKORY HILL ROAD)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.003	0.003	SIGN	RIGHT	GUIDE, RANGER STATION
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.007	0.007	CULVERT	N/A	N/A
0.011	0.011	SIGN	RIGHT	GUIDE, 1505 HICKORY HILL RD.
0.036	0.036	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.036	0.036	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.036	0.036	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
0.079	0.079	INTERSECTION	RIGHT	ROUTE 0934 (RANGER PARKING)
0.112	0.112	INTERSECTION	LEFT	UNPAVED
0.112	0.112	INTERSECTION	N/A	ROUTE 0408 (RANGER ACCESS TO HEADQUARTERS ROAD)
0.112	0.112	ROUTE END	N/A	TO END OF ROUTE 0408 (RANGER ACCESS TO HEADQUARTERS ROAD)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0404: BUILDING 34 ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 109 (HICKORY HILL ROAD)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.007	0.007	SIGN	RIGHT	GUIDE, 1445 HICKORY HILL RD.
0.036	0.036	INTERSECTION	N/A	TO END OF PAVEMENT
0.036	0.036	ROUTE END	N/A	TO END

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0406: SERVICE ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM SOUTH WHITEHILL DRIVE
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (SOUTH WHITEHILL DRIVE / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (SOUTH WHITEHILL DRIVE / NON NPS)
0.006	0.006	SIGN	LEFT	REGULATORY, STOP
0.023	0.023	GATE	N/A	N/A
0.023	0.023	SIGN	RIGHT	GUIDE, AUTHORIZED VEHICLES ONLY
0.027	0.027	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.027	0.027	SIGN	LEFT	REGULATORY, VALID RECIEPT OR PASS REQUIRED BEYOND THIS POINT
0.033	0.033	CULVERT	N/A	N/A
0.163	0.163	INTERSECTION	LEFT	UNPAVED ROUTE
0.331	0.331	CULVERT	N/A	N/A
0.333	0.333	INTERSECTION	LEFT	ROUTE 0500 (PETERSBURG TOUR ROAD)
0.333	0.333	INTERSECTION	RIGHT	ROUTE 0500 (PETERSBURG TOUR ROAD)
0.333	0.333	SIGN	N/A	REGULATORY, ONE WAY
0.333	0.333	ROUTE END	N/A	TO ROUTE 0500 (PETERSBURG TOUR ROAD)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0408: RANGER ACCESS TO HEADQUARTERS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0402 (HEADQUARTERS ACCESS ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0402 (HEADQUARTERS ACCESS ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0402 (HEADQUARTERS ACCESS ROAD)
0.054	0.054	INTERSECTION	N/A	ROUTE 0403 (RANGER ACCESS ROAD)
0.054	0.054	INTERSECTION	RIGHT	UNPAVED ROUTE
0.054	0.054	ROUTE END	N/A	TO END OF ROUTE 0403 (RANGER ACCESS ROAD)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0411: QUARTERS 29 ACCESS ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM STATE ROUTE 109 (HICKORY HILL ROAD)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.006	0.006	SIGN	RIGHT	GUIDE, 1429 HICKORY HILL RD.
0.085	0.085	INTERSECTION	LEFT	PAVED ROUTE
0.124	0.124	CULVERT	N/A	N/A
0.124	0.124	SIGN	LEFT	REGULATORY, STOP
0.126	0.126	INTERSECTION	LEFT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.126	0.126	INTERSECTION	RIGHT	PAVED ROUTE (STATE ROUTE 109 (HICKORY HILL ROAD) / NON NPS)
0.126	0.126	ROUTE END	N/A	TO ROUTE 0939 (HICKORY HILL HIKE / BIKE PARKING AREA)

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0500: PETERSBURG TOUR ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (VISITOR CENTER ACCESS ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (VISITOR CENTER ACCESS ROAD) OPPOSITE LANE
0.000	0.000	INTERSECTION	N/A	ROUTE 0010 (VISITOR CENTER ACCESS ROAD) OPPOSITE LANE
0.005	0.005	SIGN	LEFT	GUIDE, PARK TOUR ROAD CITY OF HOPEWELL FORT LEE
0.006	0.006	CULVERT	N/A	N/A
0.008	0.008	SIGN	RIGHT	REGULATORY, ONE WAY
0.012	0.012	GATE	N/A	N/A
0.013	0.013	SIGN	RIGHT	REGULATORY, STOP
0.021	0.021	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.021	0.021	SIGN	RIGHT	REGULATORY, VALID RECIEPT OR PASS REQUIRED BEYOND THIS POINT
0.021	0.021	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.031	0.031	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.046	0.046	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.046	0.046	SIGN	RIGHT	REGULATORY, RADAR CONTROLLED
0.058	0.058	CULVERT	N/A	N/A
0.110	0.110	SIGN	RIGHT	REGULATORY, USE LEFT LANE FOR PARKING, HIKING, BIKING
0.110	0.110	SIGN	RIGHT	REGULATORY, DO NOT PASS
0.135	0.135	CULVERT	N/A	N/A
0.245	0.303	PAVED DITCH	RIGHT	N/A
0.254	0.254	CULVERT	N/A	N/A
0.278	0.303	PAVED DITCH	LEFT	N/A
0.335	0.335	SIGN	RIGHT	GUIDE, 2
0.344	0.344	INTERSECTION	RIGHT	ROUTE 0906 (FORT FREN PARKING)
0.368	0.368	INTERSECTION	RIGHT	ROUTE 0906 (FORT FREN PARKING)
0.415	0.415	CULVERT	N/A	N/A
0.633	0.633	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.633	0.633	CULVERT	N/A	N/A
0.693	0.693	SIGN	LEFT	GUIDE, 3
0.697	0.702	CURB	LEFT	N/A

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0500: PETERSBURG TOUR ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.703	0.703	INTERSECTION	LEFT	ROUTE 0907 (SUTLERS STORE PARKING)
0.711	0.711	SIGN	RIGHT	REGULATORY, ONE WAY
0.723	0.723	INTERSECTION	LEFT	ROUTE 0907 (SUTLERS STORE PARKING)
0.724	0.727	CURB	LEFT	N/A
0.729	0.729	CULVERT	N/A	N/A
0.750	0.750	INTERSECTION	RIGHT	ROUTE 0908 (SUTLERS STORE OVERFLOW PARKING)
0.754	0.754	SIGN	LEFT	REGULATORY, ANY TIME
0.815	0.815	INTERSECTION	RIGHT	ROUTE 0908 (SUTLERS STORE OVERFLOW PARKING)
0.815	0.815	SIGN	LEFT	REGULATORY, ONE WAY
0.833	0.833	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.833	0.833	SIGN	RIGHT	REGULATORY, RADAR CONTROLLED
0.992	0.992	INTERSECTION	RIGHT	UNPAVED ROUTE
1.011	1.196	PAVED DITCH	RIGHT	N/A
1.211	1.211	SIGN	RIGHT	GUIDE, 4
1.223	1.223	SIGN	LEFT	REGULATORY, ONE WAY
1.231	1.231	INTERSECTION	RIGHT	ROUTE 0911 (HARRISONS CREEK PARKING)
1.233	1.240	GUARD/GUIDE RAIL	RIGHT	N/A
1.234	1.240	GUARD/GUIDE RAIL	LEFT	N/A
1.241	1.241	CULVERT	N/A	N/A
1.290	1.409	PAVED DITCH	LEFT	N/A
1.368	1.413	PAVED DITCH	RIGHT	N/A
1.418	1.418	SIGN	LEFT	GUIDE, MAINTENANCE AREA
1.419	1.419	INTERSECTION	LEFT	ROUTE 0937 (OPERATIONS PARKING AREA)
1.421	1.476	PAVED DITCH	LEFT	N/A
1.422	1.422	INTERSECTION	RIGHT	ROUTE 0406 (SERVICE ROAD)
1.423	1.423	SIGN	RIGHT	GUIDE, AUTHORIZED VEHICLES ONLY
1.457	1.457	SIGN	RIGHT	REGULATORY, USE LEFT LANE FOR PARKING, HIKING, BIKING
1.457	1.457	SIGN	RIGHT	REGULATORY, DO NOT PASS
1.471	1.471	SIGN	RIGHT	REGULATORY, ALCOHOLIC BEVERAGES PROHIBITED
1.496	1.496	INTERSECTION	RIGHT	UNPAVED ROUTE /NON NPS

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0500: PETERSBURG TOUR ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.548	1.548	SIGN	RIGHT	GUIDE, 5
1.571	1.571	INTERSECTION	RIGHT	ROUTE 0912 (FORT STEDMAN PARKING)
1.573	1.583	CURB	RIGHT	N/A
1.582	1.582	CULVERT	N/A	N/A
1.590	1.593	CURB	RIGHT	N/A
1.591	1.591	SIGN	LEFT	REGULATORY, ONE WAY
1.593	1.593	INTERSECTION	RIGHT	ROUTE 0912 (FORT STEDMAN PARKING)
1.663	1.663	CULVERT	N/A	N/A
1.690	1.690	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
1.741	1.741	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
1.835	1.835	CULVERT	N/A	N/A
1.940	1.940	CULVERT	N/A	N/A
1.959	1.959	SIGN	LEFT	GUIDE, 6
1.979	1.979	INTERSECTION	LEFT	ROUTE 0913 (FORT HASKELL PARKING)
2.135	2.135	CULVERT	N/A	N/A
2.218	2.218	CULVERT	N/A	N/A
2.262	2.262	DROP INLET	RIGHT	N/A
2.414	2.414	SIGN	RIGHT	GUIDE, 7
2.418	2.418	INTERSECTION	RIGHT	ROUTE 0945AZ (TAYLOR HOUSE SITE PARKING)
2.421	2.438	CURB	RIGHT	N/A
2.445	2.445	INTERSECTION	RIGHT	ROUTE 0945AZ (TAYLOR HOUSE SITE PARKING)
2.446	2.448	CURB-AND-GUTTER	RIGHT	N/A
2.447	2.447	CULVERT	N/A	N/A
2.467	2.467	INTERSECTION	RIGHT	ROUTE 0945BZ (TAYLOR HOUSE SITE BUS PARKING)
2.482	2.482	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
2.589	2.589	CULVERT	N/A	N/A
2.729	2.729	SIGN	LEFT	REGULATORY, NO PARKING ON LEFT LANE NEXT 500 FT
2.763	2.763	SIGN	LEFT	REGULATORY, LEFT LANE ONLY
2.771	2.794	CURB	LEFT	N/A
2.771	2.796	GUARD/GUIDE RAIL	RIGHT	N/A

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0500: PETERSBURG TOUR ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
2.771	2.795	GUARD/GUIDE RAIL	LEFT	N/A
2.771	2.794	CURB	RIGHT	N/A
2.774	2.774	PARK BOUNDARY	N/A	N/A
2.774	2.794	BRIDGE	N/A	4770-001 (RAILROAD BRIDGE)
2.794	2.924	CURB-AND-GUTTER	LEFT	N/A
2.796	2.922	CURB-AND-GUTTER	RIGHT	N/A
2.799	2.799	PARK BOUNDARY	N/A	N/A
2.859	2.859	SIGN	LEFT	REGULATORY, LEFT LANE ONLY
2.872	2.872	CULVERT	N/A	N/A
2.913	2.913	CULVERT	N/A	N/A
2.921	3.000	PAVED DITCH	RIGHT	N/A
2.925	2.925	DROP INLET	LEFT	N/A
2.925	2.925	SIGN	LEFT	REGULATORY, NO PARKING ANY TIME
2.929	2.929	DROP INLET	LEFT	N/A
2.953	2.953	SIGN	LEFT	REGULATORY, LEFT LANE ONLY
3.007	3.033	CURB	RIGHT	N/A
3.016	3.016	CULVERT	N/A	N/A
3.030	3.030	SIGN	RIGHT	GUIDE, 8
3.038	3.038	INTERSECTION	RIGHT	ROUTE 0915 (CRATER PARKING)
3.040	3.071	CURB	RIGHT	N/A
3.068	3.068	SIGN	LEFT	REGULATORY, ONE WAY
3.077	3.077	INTERSECTION	RIGHT	ROUTE 0915 (CRATER PARKING)
3.078	3.081	CURB	RIGHT	N/A
3.101	3.101	INTERSECTION	RIGHT	ROUTE 0916 (CRATER BUS PARKING)
3.136	3.136	CULVERT	N/A	N/A
3.144	3.144	SIGN	LEFT	REGULATORY, LEFT LANE ONLY
3.151	3.151	INTERSECTION	RIGHT	ROUTE 0014 (CRATER VISTA ACCESS ROAD)
3.221	3.221	CULVERT	N/A	N/A
3.237	3.237	SIGN	LEFT	REGULATORY, LEFT LANE ONLY
3.304	3.304	SIGN	RIGHT	GUIDE, PETERSBURG HOPEWELL CITY POINT UNIT

PETE: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0500: PETERSBURG TOUR ROAD

Notice: Culverts and drop inlets were marked by NPS and inventoried by RIP in Cycle 5 on all paved routes.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
3.323	3.323	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
3.330	3.330	SIGN	LEFT	REGULATORY, LEFT LANE ONLY
3.344	3.344	CULVERT	N/A	N/A
3.349	3.349	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
3.349	3.349	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
3.407	3.407	INTERSECTION	RIGHT	ROUTE 0941 (MASSACHUSETTS MONUMENT PARKING)
3.417	3.420	CURB	N/A	N/A
3.419	3.419	GATE	N/A	N/A
3.420	3.420	SIGN	RIGHT	REGULATORY, STOP
3.420	3.420	SIGN	RIGHT	REGULATORY, UNABLE TO READ FROM VIDEO
3.425	3.425	SIGN	RIGHT	GUIDE, GRAPHIC SIGN NO TEXT
3.425	3.425	SIGN	RIGHT	GUIDE, PETERSBURG TOUR VISITORS CENTER
3.425	3.425	SIGN	RIGHT	GUIDE, BLANDFORD CHURCH
3.428	3.428	SIGN	LEFT	REGULATORY, STOP
3.429	3.429	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
3.429	3.429	INTERSECTION	LEFT	PAVED ROUTE (CRATER ROAD / NON NPS)
3.429	3.429	INTERSECTION	RIGHT	PAVED ROUTE (CRATER ROAD / NON NPS)
3.429	3.429	SIGN	LEFT	REGULATORY, STOP
3.429	3.429	ROUTE END	N/A	TO SOUTH CRATER ROAD

Section 10
Appendix

Petersburg National Battlefield

Federal Lands Highway
Road Inventory Program

Explanation of Changes to the RIP Index Equations and Determination of PCR

In 2005, the FHWA began implementing the use of a Pavement Management System to assist the National Park Service in prioritizing Pavement Maintenance and Rehabilitation activities. The PMS used by FHWA is the Highway Pavement Management Application (HPMA) and this software has the ability to store inventory and condition data from RIP and forecast future performance using prediction models. Outputs include performance and condition reports at the National, Region, Park, or Route level. A regional prioritized list and optimization have been produced for most regions and the Federal Highway Deferred Maintenance is calculated via the HPMA as well.

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions in relation to the distresses and indexes that comprise the Pavement Condition Rating (PCR), an extensive study was completed throughout 2010 that resulted in changes to the Road Inventory Program condition reporting method and specifically, the calculation of PCR. It was determined that a better representation of PCR could be achieved by modifying the relative impact certain distresses would have on the overall rating.

Through the use of HPMA data, it was noted that false failure indicators existed with the existing PCR model, and that it would be necessary to reduce their impact. The distresses affected in this way were Rutting and Roughness. Conversely, experience showed that roadways with extensive cracking present were often shown to have a high PCR. Therefore, the crack index models were adjusted to be more sensitive to changes in crack severity or quantity. It was also determined that these issues were not due to a problem with data acquisition (i.e. the RIP "van"), but with the way the collected data was processed. The final change was to provide guidance on when to use the Roughness Condition Index (RCI) in the PCR calculation. Roughness data is of little value to determining overall condition on routes that, due to their length or geometrics, have lower vehicle operating speeds. Therefore, in Cycle 5, only routes that have lengths of one half mile or greater and posted speed limits of 25 mph or greater will have RCI reported and included in the PCR calculations.

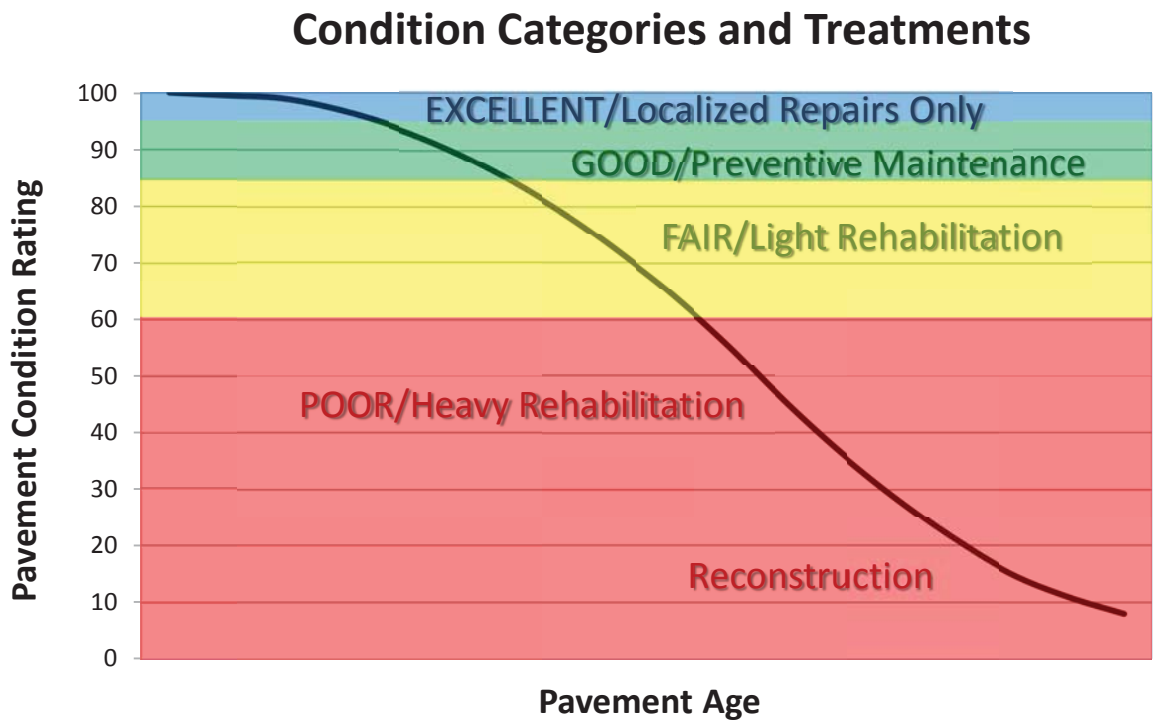
The changes that were implemented were endorsed by management at both the FHWA and NPS. In order to show the effectiveness of these changes, several sites were ground truth tested to ensure that an improvement was achieved between the relationship of PCR and the actual Maintenance and Rehabilitation needs that were represented. These changes will allow greater use of RIP and HPMA data for not simply condition data reporting, but also as a reliable tool for project identification and selection.

Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

In addition to the RIP Index changes that were implemented in Cycle 5, we will provide greater assistance in translating good/fair/poor categories into pavement needs categories. The PCR can be used to indicate the place in the Pavement Life Cycle and the types of treatments that should be considered now and into the future.

- Excellent/New: PCR of 95-100. Pavements in this range will require only spot repairs.
- Good: PCR of 85-94. Pavements in this range will likely be candidates for Preventive Maintenance. Examples include Chip and Slurry Seals, Micro Surfacing and Thin Overlays.
- Fair: PCR of 61-84. Pavements in this range will likely be candidates of Light Rehabilitation (L3R). Examples include single-lift overlays up to 2.5 inches in total thickness, milling and overlays.
- Poor: PCR of 60 or below. Pavements in this range will likely be candidates of Heavy Rehabilitation or Reconstruction (H3R or 4R). Examples include Pulverization, Multiple Lift Overlays, and Reconstruction.

Specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely on RIP data. Additionally, RIP produces a snapshot of conditions the year in which the data was collected. For further information or to obtain additional Pavement Management System's data from our Highway Pavement Management Application (HPMA) please contact the Eastern Federal Lands pavement team.



DESCRIPTION OF RATING SYSTEM

The Federal Highway Administration (FHWA), National Park Service Road Inventory Program (NPS-RIP), collects condition data on paved roads, parkways, and parking areas in park units nationwide. Road surface condition data is collected using an automated Data Collection Vehicle (DCV). Roads having brick, cobblestone, or wood surfaces are not normally surveyed with the DCV, but are manually rated for the purpose of assigning a condition rating. Unpaved roads, parkways, and parking areas are not currently being evaluated for condition. Paved campground pads and driveways are also not currently being evaluated for condition.

The FHWA RIP is implemented based on the premise that an accurate pavement surface condition assessment can be accomplished using automated crack detection technology as applied to digital images. Various methods of pavement condition assessment have been developed over the years with varying degrees of accuracy and acceptance. The use of digital photography to record pavement images and subsequent crack detection and classification has undergone continuous improvements over the past decade. Digital cameras with increasingly superior resolution and high definition have become more affordable, and the proprietary programming code and algorithms have been improved in crack detection software.

With the use of high quality digital photography and automated crack detection software, FHWA RIP is tasked with executing a pavement condition assessment on about 5000 miles of National Park Service roads and parkways. Foremost in setting up the basis of pavement distress identification is employing the distress identification protocols used by FHWA. There is no single distress identification system that is universal among entities conducting a program of distress identification. For the purpose of the NPS-RIP, FHWA employs distress identification protocols that are specific to this program.

FHWA has referenced the *"Distress Identification Manual for the Long-Term Pavement Performance Program", Publication No. FHWA-RD 03-031, June 2003,* as the point-of-reference for distress types on NPS pavement. The FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. The document, *"Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013"* was developed using the *"Distress Identification Manual for the Long-Term Pavement Performance Program"* as a guideline. Definitions of severity levels based on crack width contained in this document adhere to the LTPP Distress ID Manual. Modifications have been made to the definition of Alligator and Longitudinal Cracking and determination of Alligator Cracking severity. This manual also addresses Rutting and Roughness and its application to NPS-RIP.

In 2010, FHWA RIP began the fifth cycle of data collection in national parks. For Cycle 5, data will be collected in approximately 81 large parks (10 or more paved route miles) on Functional Class 1, 2, and 7 routes plus any new routes or parking areas previously not collected, totaling an estimated 4,459 paved route miles. Additionally, 231 small parks will be collected comprising approximately 529 paved route miles and associated paved parking areas. The data is used to support the National Park Service road maintenance program and Pavement Management System (PMS) developed and maintained by FHWA.

This ***"Distress Identification Manual for the NPS Road Inventory Program, Cycle 5, 2010-2013"*** will be used as a reference resource in crack detection and classification, determination of distress severity and extent, and in the calculation of distress index values for the FHWA RIP Cycle 5.

SURFACE DISTRESSES

Surface Condition Rating - SCR

Surface distresses are measured in the primary lane only. In the classification and measurement of all paved surface condition data, results will be reported in the database in record intervals of 0.02 miles (105.6 feet) (smallest granularity) along the route.

Surface distresses determined from digital images

- Transverse Cracks
- Longitudinal Cracks
- Alligator Cracks
- Patching/Potholes

Surface distress measured by DCV (Data Collection Vehicle) LRMS (Laser Rut Measuring System)

- Rutting

Each of the five surface distresses is assigned a computed surface distress index

- Transverse Crack Index
- Longitudinal Crack Index
- Alligator Crack Index
- Patching/Pothole Index
- Rutting Index

Surface distress data are classified as listed above, measured for severity, and quantified for extent. Classification, severity, and extent of these five surface distresses comprise the three main elements for calculation of SCR (Surface Condition Rating).

In addition to the five surface distresses, a **Structural Crack Index** is computed, which is a combination of the Longitudinal Crack Index and the Alligator Crack Index. The Structural Crack Index is then used in lieu of the LC and AC indices to compute SCR.

Roughness Condition Index - RCI

Additional condition data measured by DCV (lasers and accelerometers)

- Roughness (IRI)

Roughness is measured by FHWA's DCV and reported as International Roughness Index (IRI) in inches/mile. Using IRI, the Roughness Condition Index (RCI) is computed.

Pavement Condition Rating - PCR

Using the SCR (computed from the five surface distresses) and the RCI, an overall Pavement Condition Rating (PCR) is computed. The formula for PCR is:

Asphalt PCR = (0.60 * SCR) + (0.40 * RCI)
Concrete PCR = RCI

A detailed description of each distress index formula, roughness index formula, SCR and PCR is provided in this document beginning on page 8.

Each classified surface distress will fall into one or more s*everity*…LOW, MEDIUM, or HIGH based on criteria listed. For each severity, an e*xtent* is established based on the measured quantity of the distress within that severity. Within each *severity* individual distresses are assigned a *Maximum Allowable Extent* (MAE). For example, LOW severity transverse cracking may be allowed up to 21.1 cracks within a 0.02 interval before it reaches MAE and fails.

The index formulas are based on a scale of 0-100. A PCR index value of 100 would indicate a "new" road with no measurable distresses or rough ride. A PCR value of 60 is determined to be *terminable serviceability* and the road is considered failed. The range of index values with condition descriptors is:

POOR (<=60), FAIR (61 - 84), GOOD (85 - 94), EXCELLENT (95 - 100)

Index values are generally computed based on cumulative deducts of the measured severities. As shown in the index formulas below, as any single severity reaches or exceeds MAE, the index computes to a value of 60 or less, and the road fails for that 0.02 interval.

> **Note:** As a result of a unique combination of measured surface distresses and IRI, index values occasionally compute to less than 0 or greater than 100. In this instance, an index value < 0 defaults to 0. Index values > 100 default to 100. For all indices, a higher value indicates a better road condition, and a lower value indicates a poorer road condition.

On the following page, Table 1 summarizes the different types of distresses measured.

TABLE 1: Distress Summary

ASPHALT-SURFACED PAVEMENT DISTRESS TYPES with RUTTING and ROUGHNESS				
DISTRESS TYPE	**UNIT OF MEASURE…**	**…CONVERTED TO**	**DEFINED SEVERITY LEVELS?**	**MEASURED BY**
Alligator Cracking	**Square Feet**	**Percent of Lane Per 0.02 Mile**	**Yes**	**Digital Image Crack Detection Software**
Transverse Cracking	**Linear Feet**	**Number of Cracks Per 0.02 Mile**	**Yes**	**Digital Image Crack Detection Software**
Longitudinal Cracking	**Linear feet**	**Percent of Lane Length Per 0.02 Mile**	**Yes**	**Digital Image Crack Detection Software**
Patching/Potholes	**Square Feet**	**Percent of Lane Per 0.02 Mile**	**No**	**Digital Image Crack Detection Software**
Rutting	**Inches**	**Rut Depth Per 0.02 Mile**	**Yes**	**DCV – Laser Rut Measuring System (LRMS)**
Roughness	**IRI**	***RCI Per 0.02 Mile**	**No**	**DCV – Lasers /Accelerometers**

***Note: Roughness is measured on concrete roadways, but surface distresses and rutting are not measured. For concrete, PCR = RCI**

ALLIGATOR CRACKING

Description

Alligator cracking is considered a combination of fatigue and block cracking. It is a series of interconnected cracks in various stages of development. Alligator cracking develops into a many-sided pattern that resembles chicken wire or alligator skin. It can occur anywhere in the road lane. Alligator cracking must have a quantifiable area.

Severity Levels

LOW
An area of cracks with no or very few interconnecting cracks and the cracks are not spalled. Cracks are <= 0.25 in (6mm) in mean width. Cracks in the pattern are no further apart than 1 foot (0.328 m). May be sealed cracks with sealant in good condition and a crack width that cannot be determined.

MEDIUM
An area of interconnected cracks that form a complete pattern. Cracks may be slightly spalled. Cracks are >0.25 in. (6 mm) and <= 0.75 in. (19 mm) or any crack with a mean width <= 19 mm and adjacent low severity cracking. Cracks in the pattern are no further apart than 6 in. (150 mm).

HIGH
An area of interconnected cracks forming a complete pattern. Cracks are moderately or severely spalled. Cracks are >0.75 in (19mm) or any crack with a mean width <= 0.75 in (19mm) and adjacent medium to high severity random cracking.

A combination of observed crack width and crack pattern is used to determine overall severity of alligator cracking. Based on above description of each severity, the highest level of crack width and crack pattern determines overall severity. Table 2 illustrates this.

TABLE 2: Alligator Crack Severity Levels

ALLIGATOR CRACKING SEVERITY LEVELS		Crack Pattern		
		LOW	**MED**	**HIGH**
Crack Width	**LOW**	L	M	H
	MED	M	M	H
	HI	H	H	H

LONGITUDINAL CRACKING

Description

Longitudinal cracking occurs predominantly parallel to the pavement centerline. It can occur anywhere within the lane. Longitudinal cracks occurring in the wheelpath may be noteworthy.

Severity Levels

LOW
Cracks with a mean width of < 0.25 in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

MED
Cracks with a mean width > 0.25 in. (6 mm) and <= 0.75 in. (19 mm). Also, any crack with a mean width < 0.75 in. (19 mm) and adjacent random low severity cracking.

HIGH
Cracks with a mean width > 0.75 in. (19 mm). Also, any crack with a mean width < 0.75 in. (19 mm) and adjacent random medium to high severity cracking.

TRANSVERSE CRACKING

Description

Transverse cracking occurs predominantly perpendicular to the pavement centerline. It can occur anywhere within the lane.

Severity Levels

LOW
Cracks with a mean width of < 0.25 in. (6 mm). Sealed cracks with sealant in good condition and a width that cannot be determined.

MED
Cracks with a mean width > 0.25 in. (6 mm) and <= 0.75 in. (19 mm). Also, any crack with a mean width < 0.75 in. (19 mm) and adjacent random low severity cracking.

HIGH
Cracks with a mean width > 0.75 in. (19 mm). Also, any crack with a mean width < 0.75 in. (19 mm) and adjacent random medium to high severity cracking.

PATCHING AND POTHOLES

Description

Patching is an area of pavement surface that has been removed and replaced with patching material or an area of pavement surface that has had additional patching material applied. Patching may encompass partial-lane or full-lane width. On full-lane width patching; the total, contiguous length of a patch may not exceed 0.30 mi. (0.48 km). Any full-lane width patch exceeding 0.30 mi. in length is considered a pavement change, not a patch for the purposes of distress analysis. Patching must have a quantifiable area.

Potholes are bowl-shaped holes of various sizes occurring in the pavement surface.

Severity Levels

There are no stratified severities for Patching/Potholes. They either are present or they are not.

RUTTING

Description

Rutting is a longitudinal surface depression in the wheelpath.

Severity Levels

LOW
Ruts with a measured depth $\geq$ 0.20" and $\leq$ 0.49"

MED
Ruts with a measured depth $\geq$ 0.50" and $\leq$ 0.99"

HIGH
Ruts with a measured depth $\geq$ 1.00"

Ruts < 0.20" are not included in the distress calculations.

ROUGHNESS

Description

Roughness is the measurement of the unevenness of the pavement in the direction of travel. It is measured in units of IRI (International Roughness Index), inches per mile, and is indicative of ride comfort.

Severity Levels

There are no stratified severity levels for roughness. The roughness (or smoothness) of a road surface can be defined by IRI in the following table.

TABLE 3: IRI

IRI Descriptions	
Type of Road	**Typical IRI (in/mile)**
New Road, no noticeable roughness	<90
Small level of roughness	90 – 126
Road of average roughness	126 – 190
Road with above average roughness	190 – 253
Road with severe roughness	253 – 380
Nearly impassable	>380

INDEX FORMULAS

Note**:** All index formulas listed below contain MAE applicable to 0.02 mile (105.6 feet) interval.

Alligator Crack Index

AC_INDEX = 100 – 40 * [(%LOW / 35) + (%MED / 15) + (%HI / 5)]

Where:

The values *%LOW*, *%MED* and *%HI* report the percentage of the observed pavement (0.02 mile, primary lane) that contains alligator cracking within the respective severities. These values range from 0 to 100.

%LOW = Percent of total area (primary lane, 0.02 in length), low severity
%MED = Percent of total area (primary lane, 0.02 in length), medium severity
%HI = Percent of total area (primary lane, 0.02 in length), high severity

Percent of total area is computed as:

$$\frac{\text{square foot area of alligator crack severity}}{\text{0.02 mile * lane width}}$$

In AC_INDEX, the denominators 35, 15, and 5 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 35% of low severity alligator cracking for a 0.02 interval before failure, 15% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

Longitudinal Crack Index

LC_INDEX = 100 – 40 * [(%LOW / 175) + (%MED / 75) + (%HI / 25)]

Where:

The values *%LOW*, *%MED*, and *%HI* report the length of longitudinal cracking within each severity as a percent of the section length (0.02 mile, primary lane).
These values are ≥ 0 and can exceed 100.

%LOW = Percent of interval length (primary lane, 0.02 in length), low severity
%MED = Percent of interval length (primary lane, 0.02 in length), medium severity
%HI = Percent of interval length (primary lane, 0.02 in length), high severity

Percent of interval length is computed as:

$$\frac{\text{length of respective longitudinal cracking}}{\text{0.02 mile (105.6 feet)}}$$

In LC_INDEX, the denominators 175, 75, and 25 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 175% of low severity alligator cracking for a 0.02 interval before failure, 75% for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

Structural Crack Index

SC_INDEX = [100 - ((100 - AC_INDEX) + (100 - LC_INDEX))]

Structural Crack Index is a combination of Alligator Cracking and Longitudinal Cracking, and is used in the SCR formula in lieu of AC and LC separately.

Transverse Crack Index

TC_INDEX = 100 – 40 * [(LOW / 21.1) + (MED / 4.4) + (HI / 2.6)]

Where:

The values *LOW*, *MED* and *HI* report a count of the total number of transverse cracks (reported to three decimals) within each severity level, where one transverse crack is equal to the lane width. These values are ≥ 0.

LOW = Number of cracks in interval (primary lane, 0.02 in length), low severity
MED = Number of cracks in interval (primary lane, 0.02 in length), medium severity
HI = Number of cracks in interval (primary lane, 0.02 in length), high severity

Number of cracks is computed as:

$$\frac{\text{Total length of transverse cracks}}{\text{Lane width}}$$

In TC_INDEX, the denominators 21.1, 4.4, and 2.6 are the Maximum Allowable Extents (MAE) for each severity. In other words, we will allow up to 21.1 low severity transverse cracks for a 0.02 interval before failure, 4.4 cracks for medium severity, and so on. As you can see, if any single severity reaches MAE the resulting index value is 60, or failure.

Patching Index

PATCH_INDEX = 100 – 40 * (%PATCHING / 80)

Where:

The value *%PATCHING* reports the percentage of the observed pavement (0.02 mile, primary lane) that contains patching/potholes. This value ranges from 0 to 100.

%PATCHING = Percent of total area (primary lane, 0.02 in length)

Percent of total area is computed as:

$$\frac{\text{square foot area of patching/potholes}}{\text{0.02 mile * lane width}}$$

There are no severity levels for patching. It either exists or does not.

In PATCH_INDEX, the denominator 80 is the Maximum Allowable Extent (MAE) for each severity. In other words, we will allow up to 80% patching for a 0.02 interval before failure. As you can see, if patching/potholes reaches MAE the resulting index value is 60, or failure.

Rutting Index

RUT_INDEX = 100 – 40 * [(%LOW / 535) + (%MED / 205) + (%HI / 40)]

Where:

20 rut depth measurements are taken per 0.02 interval for each of 2 wheel paths (left and right), resulting in a total of 40 measurements taken for both wheel paths. *Each wheelpath is analyzed independently for rut severities.* The values *%LOW*, *%MED* and *%HI* are a *total percentage* of left wheelpath percentage and right wheelpath percentage added together for the respective severity. These values range from 0 to 200.

%LOW = Percent of LOW ruts in left wheelpath based on 20 ruts, plus percent of LOW ruts in right wheelpath based on 20 ruts.
%MED = Percent of MED ruts in left wheelpath based on 20 ruts, plus percent of MED ruts in right wheelpath based on 20 ruts.
%HI = Percent of HI ruts in left wheelpath based on 20 ruts, plus percent of HI ruts in right wheelpath based on 20 ruts.

Percent of rut measurements within each severity can also be computed as:

$$\frac{\text{total number of ruts within each severity in both wheelpaths}}{20} * 100$$

In RUT_INDEX, the denominators 535, 205, and 40 are the Maximum Allowable Extents for each severity. In other words, the formula allows up to 535% low severity

ruts for a 0.02 interval before. However, since 200 is the highest measurable percentage allowed, 535% is unattainable and therefore, no amount of LOW severity rutting will cause the RUT_INDEX to fail a road. Similarly, since the MAE for MED severity rutting is 205, no amount of MED severity rutting will cause the RUT_INDEX to reach 60 and fail the road. As you can see, LOW severity rutting reaches MAE the resulting index value is 60, or failure. This formula was intentionally designed to minimize the impact of LOW and MED severity rutting on RUT_INDEX.

Roughness Condition Index (Asphalt)

RCI = 32 * [5 * (2.718282 ^ (-0.0041 * AVG IRI))]

Where:

The value *AVG IRI* reports the average value of the Left IRI and Right IRI measurements for the interval (0.02 mile, primary lane). This value can range from approximately 40 to 999.0.

Average IRI is computed as:

$$\frac{\text{Left wheelpath IRI + Right wheelpath IRI}}{2}$$

There is no applicable threshold for failure for this index.

Roughness Condition Index (Concrete)

RCI = $-0.0012(IRI^2) + 0.0499(IRI) + 99.542$

For concrete, PCR = RCI

Surface Condition Rating Index

SCR = *Lowest* Index Value Of: [SC_INDEX, TC_INDEX, PATCH_INDEX, RUT_INDEX]

Note: *The modified SCR equation above combines AC_INDEX and LC_INDEX, and considers that a single AC/LC index value of the Structural Crack Index (SC_INDEX). The lowest of the four computed index values (SC_INDEX, TC_INDEX, PATCH_INDEX, or RUT_INDEX) becomes the SCR.*

Where:

See above for determinations of SC_INDEX, TC_INDEX, PATCH_INDEX and RUT_INDEX.

The threshold for failure for this index is SCR = 60.

Data Collection Vehicle Subsystems

Data on paved roads in Cycle 5 is collected by FHWA using a Pathway Services Inc. Data Collection Vehicle (DCV), called PathRunner. The DCV is driven in the primary-direction lane at posted speed limits and less.

CAMERAS

Forward-facing and rear-facing video is collected as .jpg digital imagery at a frequency of 26.4 feet.

Two forward-facing cameras are mounted above the vehicle cab, one pointed straight ahead and the other to the right shoulder providing seamless 120 degree viewing.

CAMERA SPECIFICATIONS **Two Forward/ One Rear Facing**	
Camera lens/type	FUJINON CCTV LENS H16x10B-Y41
Focal length	10 mm – 160 mm
Image size	8.8 mm x 6.6mm
Image format	*.jpg
Image resolution	HD 2000 X 1200
Image pixel size	depends on distance
Zoom ratio	16x
Max Relative Aperture	1:2.5
Iris range	F25-T800 (Equivalent to F800)

Pavement images are created using a Laser Scan Imaging System. This system is composed of a single high resolution line-scan camera and two lasers configured to image an approximate 11-foot wide lane with 1 mm resolution.

CAMERA SPECIFICATIONS **Pavement Line Scan**	
Image size	4280 pixels/line
Image width	4 meters (3950 mm nominal)
Laser class	3B
Power	250W
Vehicle speed limitations	62 mph
Environment	Dry pavement, day or night
Sensor size (approx)	300 mm(H) x 375 mm(L) x 200 mm(D)
Image frame length	26.4 feet

DMI (Distance Measuring Instrument)

The DMI (Distance Measuring Instrument) obtains road length measurements that are accurate to 0.1% for speeds up to 60 mph. The DMI is connected to the hub of the rear wheel on the driver's side, and is calibrated to the revolutions of the rear vehicle axle on a regular basis.

ROUGHNESS (IRI)

The collection system includes a South Dakota type laser profiler manufactured based on active Class 1 ASTM E950 standards. The dynamic profile of the pavement surface is collected from which the IRI roughness data is computed. The sensors include one accelerometer on each wheelpath, one height sensor (laser) on each wheelpath, and a distance transducer.

IRI SPECIFICATIONS	
Reported IRI units	Inches/mile
Vehicle speed limitations	12-62 mph
IRI equipment certification	Texas Transportation Institute (TTI)
Wavelengths accommodated	6 in. – 300 feet
IRI computed & reported	World Bank Technical Paper Number 46
Environment	Dry pavement, day or night, above 32 degrees F
Adherence to specifications	ASTM E950-98 (2004), ASTM E 1926-08, AASHTO MP 11-08, AASHTO PP 49-08

RUTTING

Rutting depths are measured using an INO Laser Rut Measurement System (LRMS). This system is a transverse profiling device that detects and characterizes pavement rutting. The LRMS can acquire full 4 meter width profiles of a pavement lane at normal traffic speeds and uses two laser profilers that digitize transverse sections of the pavement.

RUTTING SPECIFICATIONS	
Reported rut depth units	Inches
Vehicle speed limitations	Up to 62 mph
Sampling rate	30-150 profiles/second
Transverse resolution	1280 points/profile
Transverse field-of-view	4 m
Depth accuracy (nominal)	+/- 1 mm
Environment	Dry pavement, day or night, above 32 degrees F
Adherence to specifications	ASTM E1703M-95 (reapproved 2005)

GPS & INERTIAL SYSTEMS

GPS is collected by an onboard system employing OmniSTAR real-time correction and a gyroscope (spin-type) to provide accurate positioning data (pitch/roll/heading) in instances of satellite obstruction. All GPS coordinates are tied to image and linear distance measurements.

GPS SPECIFICATIONS	
Static accuracy	Sub-meter
Dynamic accuracy	2-3 meters
Receiver	12 satellite tracking
Coordinate system	Lat Lon WGS 84
Environment	Day or night
Cross-slope	+- 0.5 degrees
Grade	+- 0.5 degrees

GPS on Manually Rated Roads (MRR)

Parking areas, some roads, and other paved areas that are not fully drivable with the DCV are collected manually by field technicians. GPS is collected for these routes using portable Trimble GPS backpack units. Paved campground pads and driveways are not typically included in the inventory or GPS.

Geodatabase – Background and Metadata

In addition to this park report, a ***geodatabase*** containing both tabular and spatial data specific to this park has been provided. All data disseminated in the preceding report has been obtained from the tables and fields within said geodatabase. The geodatabase can be referenced for tabular data via Microsoft Access or for both tabular and spatial data via ESRI's ArcGIS Suite of software which consists of; ArcMap, ArcCatalog and ArcExplorer. Consolidating the RIP data into one database creates a seamless relationship of tabular and geographic data. It will allow RIP to facilitate easier updates and enhancements in the future.

A geodatabase can be thought of as simply a database containing spatial data. Many different tables are contained with the park's geodatabase. A complete and thorough description of the tables and fields contained within this geodatabase can be found in the ***metadata***. The metadata is attached directly within the geodatabase and can be accessed via ESRI's ArcCatalog. The metadata portion of the geodatabase also includes data dictionary report functionality that formats the metadata into an easy to read report.

GLOSSARY OF TERMS AND ABBREVIATIONS

TERM OR ABBREVIATION	DESCRIPTION OR DEFINITION
AC	Alligator Cracking
CRS	Condition Rating Sheets (Section 5)
DCV	Data Collection Vehicle
Excellent	Excellent rating with an index value of 95 to 100
Fair	Fair rating with an index value from 61 to 84
FUNCT_CLASS	Functional Classification (see Route ID, Section 2)
Good	Good rating with an index value from 85 to 94
IRI	International Roughness Index
Lane Width	Width from road centerline to fogline, or from centerline to edge-of-pavement when no fogline exists
LC	Longitudinal Cracking
MRR	Manually Rated Route
MRL	Manually Rated Line
MRP	Manually Rated Polygon
N/A	Not Applicable
NC	Not Collected
PATCH	Patching and Potholes
Paved Width	Width from edge-of-pavement to edge-of-pavement
PCR	Pavement Condition Rating
PKG	Parking Area
Poor	Poor rating with an index value of 0 to 60
RCI	Roughness Condition Index
SC	Structural Cracking
SCR	Surface Condition Rating
TC	Transverse Cracking