



Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment



Rock Creek Park ROCR

Cycle 5 Report

Prepared By: Federal Highway Administration

Road Inventory Program (RIP)

Data Collected: 04/2013 Report Date: 10/2013

Rock Creek Park in District of Columbia

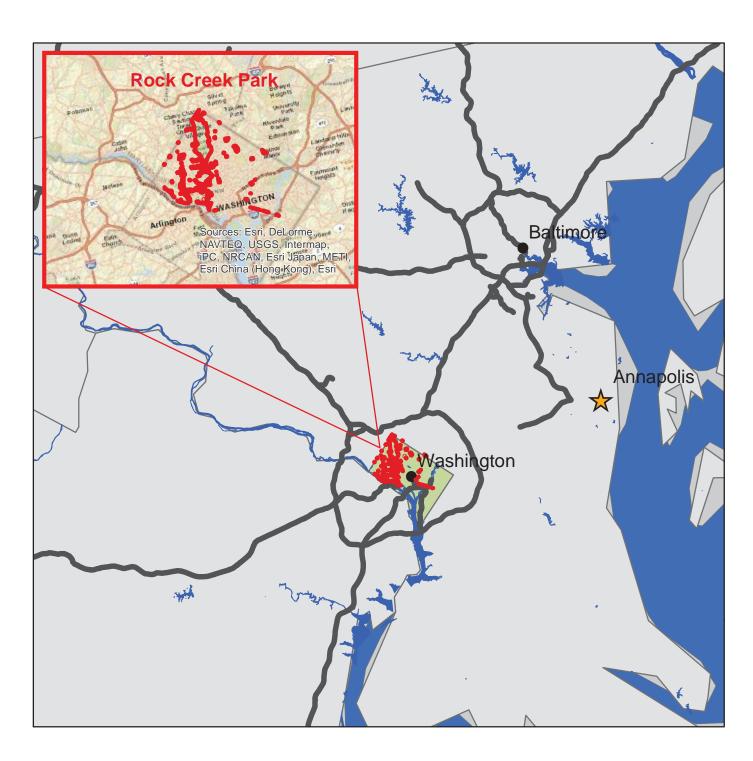




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Section 1 Introduction



Rock Creek Park



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.

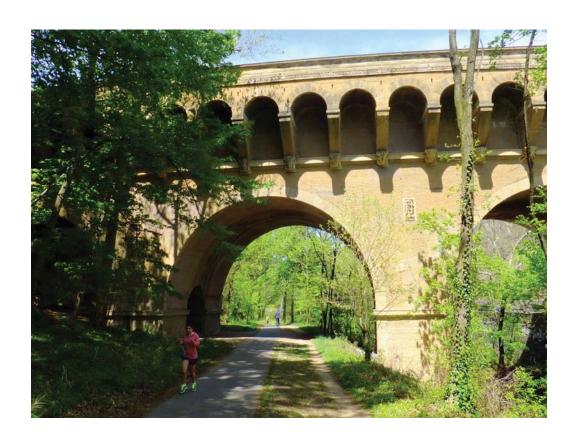
FLH is responsible for the accuracy of all data presented in this report. Any questions or comments concerning the contents of this report should be directed to the national RIP Coordinator located in Sterling, Virginia.

Respectfully,

FHWA RIP Team

FHWA/Eastern Federal Lands 21400 Ridgetop Circle Sterling, VA 20166 (703) 404-6371 FHWA/Central Federal Lands 12300 West Dakota Ave Lakewood, CO 80228 (720) 963-3556

Section 2 Park Route Inventory



Rock Creek Park



Road Inventory Program 10/16/2013

(Numerical By Route #)

Yellow = Unpaved Routes, DCV not Driven

Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

Shading Color Key: Red text denotes approx. mileage

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).

** DCV - Data Collection Vehicle

White = Paved Routes, DCV Driven

*** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

ROCR

ROCK CREEK PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route De	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0001	5	26130		ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND	FROM ROUTE 0932 (THOMPSON'S BOAT CENTER PARKING LOT) ON LEFT AND VIRGINIA AVENUE NORTHWEST ON RIGHT	TO CALVERT STREET NORTHWEST	N/A	2.16	0.00	2.16	1		AS	3
0002	5	51639		ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND	FROM CALVERT STREET NORTHWEST	TO ROUTE 0932 (THOMPSON'S BOAT CENTER PARKING LOT) ON RIGHT AND VIRGINIA AVENUE NORTHWEST ON LEFT	N/A	2.16	0.00	2.16	1		AS	3
0010	5	26716		BEACH DRIVE NORTHWEST	FROM PARK BOUNDARY AT MARYLAND STATE LINE (SIGN AND GATE)	TO ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND) AND ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	N/A	6.48	0.00	6.48	1		AS	1,2,3
0011	5	26727		WEST BEACH DRIVE NORTHWEST	FROM PARKSIDE DRIVE NORTHWEST ON RIGHT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST)	N/A	0.08	0.00	0.08	1		AS	1
0012	5	26729		WISE ROAD NORTHWEST	FROM OREGON AVENUE NORTHWEST	TO ROUTE 0010 (BEACH DRIVE NORTHWEST)	N/A	0.61	0.00	0.61	1		AS	1
0013	5	27709		SHERRILL DRIVE NORTHWEST	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO 16TH STREET NORTHWEST	N/A	0.33	0.00	0.33	1		AS	1
0014	5	26717		BINGHAM DRIVE NORTHWEST	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO OREGON AVENUE NORTHWEST	N/A	0.42	0.00	0.42	1		AS	1
0015	5	26722		JOYCE ROAD NORTHWEST	FROM MILITARY ROAD NORTHWEST EASTBOUND	TO ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	N/A	0.53	0.00	0.53	1		AS	2
0016	5	26725		ROSS DRIVE NORTHWEST	FROM MILITARY ROAD NORTHWEST WESTBOUND	TO ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST)	N/A	1.27	0.00	1.27	1		AS	2
0017	5	26723		MORROW DRIVE NORTHWEST	FROM ROUTE 0015 (JOYCE ROAD NORTHWEST)	TO 16TH STREET NORTHWEST	N/A	0.61	0.00	0.61	1		AS	2

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Rte. No.	Cycle Collected	FMSS No.	Concess	Route Name	Route De	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0018	5	26726		STAGE ROAD	FROM CONCRETE PATH	TO ROUTE 0017 (MORROW DRIVE NORTHWEST)	N/A	0.43	0.00	0.43	1		AS	2
0019	5	26720		GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST	FROM MILITARY ROAD NORTHWEST	TO ROUTE 0027 (BROAD BRANCH ROAD NORTHWEST) ON LEFT	N/A	1.65	0.00	1.65	1		AS	2
0020	5	27712		EAST GLOVER ROAD	FROM ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST) AT MP 0.13	TO ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST) AT MP 0.41	N/A	0.29	0.00	0.29	1		AS	2
0021	5	26721		GRANT ROAD NORTHWEST	FROM ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST)	TO BROAD BRANCH ROAD NORTHWEST	N/A	0.37	0.00	0.37	1		AS	2
0022	5	26719		BLAGDEN AVENUE NORTHWEST	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO PARK BOUNDARY AT PAVEMENT CHANGE	N/A	0.16	0.00	0.16	1		AS	2
0024	5	26724		PINEY BRANCH PARKWAY NORTHWEST	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO ARKANSAS AVENUE NORTHWEST	N/A	0.84	0.00	0.84	1		AS	3
0025	5	51642		17TH STREET NORTHWEST	FROM ROUTE 0024 (PINEY BRANCH PARKWAY NORTHWEST)	TO PARK BOUNDARY SIGN	N/A	0.11	0.00	0.11	1		AS	3
0026	5	27710		CATHEDRAL AVENUE NORTHWEST	FROM CALVERT STREET NORTHWEST OVERPASS	TO ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND)	N/A	0.14	0.00	0.14	1		AS	3
0027	5	27878		BROAD BRANCH ROAD NORTHWEST	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST) ON RIGHT	N/A	0.05	0.00	0.05	1		AS	2
0100	NC	29191		FORT TOTTEN PARK ACCESS	FROM FORT TOTTEN DRIVE	TO FORT TOTTEN DRIVE	N/A	0.00	0.28	0.28	2		GR	
0101	NC	29321		BARNARD HILL ROAD	FROM BUNKER HILL ROAD	TO END	N/A	0.00	0.42	0.42	2		GR	
0205	4	32670		MILKHOUSE FORD ROAD	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO ROUTE 0010 (BEACH DRIVE NORTHWEST)	N/A	0.14	0.00	0.14	3	7,550	AS	2

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ROCR

cted	FMSS	cess		Route Des	scription	Maint.	Paved	Un- Paved	Total Route	Func.	Manual Pated	Surf.	Area
Cyc	No.	Conc	Route Name	From	То	District	Miles	Miles	Length	Class	SQ/FT	Туре	Maps
4	27711		ROCK CREEK PARK GOLF COURSE ACCESS ROAD	FROM 16TH STREET NORTHWEST	TO END OF LOOP	N/A	0.32	0.00	0.32	3		AS	2
NC	29322		GOLF COURSE ROAD	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	TO END OF ROAD	N/A	0.00	0.54	0.54	5		GR	
4	51646		CENTER FOR URBAN ECOLOGY ROAD	FROM ELLIOT PLACE NORTHWEST	TO ROUTE 0938 (CENTER FOR URBAN ECOLOGY PARKING)	N/A	0.10	0.00	0.10	6		AS	4
4	51647		LOVERS LANE	FROM R STREET NORTHWEST AT PARK BOUNDARY	TO END OF PAVEMENT	N/A	0.19	0.23	0.42	6	9,926	AS	3
NC	29323		OLD ROCK CREEK DAY ROAD	FROM ROCK CREEK DRIVE	TO END OF ROAD	N/A	0.00	0.07	0.07	5		GR	
NC	51648		DUMDARTON OAKS ACCESS	FROM ROUTE 0405 (LOVERS LANE)	TO CONCRETE BARRIER	N/A	0.00	0.22	0.22	5		GR	
NC	33709		KLINGLE MANSION SERVICE COURT AREA ROAD	FROM ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD)	TO KLINGLE ROAD	N/A	0.00	0.15	0.15	5		GR	
NC	33706		KLINGLE MANSION ENTRANCE LOOP ROAD	FROM END OF ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD)	TO END OF LOOP	N/A	0.00	0.11	0.11	5		GR	
4	51640		HORSE STABLE ROAD	FROM OREGON AVENUE NORTHWEST	TO ROUTE 0904 (H3 STABLE PARKING)	N/A	0.18	0.00	0.18	5		AS	1
5	33705		KLINGLE MANSION ENTRANCE ROAD	FROM WILLIAMSBURG LANE NORTHWEST	TO BEGINNING OF ROUTE 0409 (KLINGLE MANSION ENTRANCE LOOP ROAD)	N/A	0.12	0.00	0.12	7		AS	3
5	51644		NORTH WATERSIDE DRIVE	FROM MASSACHUSETTS AVENUE NORTHWEST	TO ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND)	N/A	0.16	0.00	0.16	7		AS	3
5	51649		RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO "K" STREET	FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND) AND ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO K STREET NORTHWEST - WHITEHURST FREEWAY	N/A	0.28	0.00	0.28	7		AS	3
	NC 4 4 NC NC NC NC 5	4 27711 NC 29322 4 51646 4 51647 NC 29323 NC 51648 NC 33709 NC 33706 4 51640 5 33705 5 51644	4 27711 NC 29322 4 51646 4 51647 NC 29323 NC 51648 NC 33709 NC 33706 4 51640 5 33705 5 51644	4 27711 ROCK CREEK PARK GOLF COURSE ACCESS ROAD NC 29322 GOLF COURSE ROAD 4 51646 CENTER FOR URBAN ECOLOGY ROAD 4 51647 LOVERS LANE NC 29323 OLD ROCK CREEK DAY ROAD NC 51648 DUMDARTON OAKS ACCESS NC 33709 KLINGLE MANSION SERVICE COURT AREA ROAD NC 33706 KLINGLE MANSION ENTRANCE LOOP ROAD 4 51640 HORSE STABLE ROAD 5 33705 KLINGLE MANSION ENTRANCE ROAD 5 51644 NORTH WATERSIDE DRIVE 5 51649 RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO "K"	4 27711 ROCK CREEK PARK GOLF COURSE ACCESS ROAD NC 29322 GOLF COURSE ROAD FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD) 4 51646 CENTER FOR URBAN ECOLOGY ROAD FROM RULIOT PLACE NORTHWEST 4 51647 LOVERS LANE FROM R STREET NORTHWEST AT PARK BOUNDARY ROAD NC 29323 OLD ROCK CREEK DAY ROAD FROM ROUTE 0405 (LOVERS LANE) NC 51648 DUMDARTON OAKS ACCESS (LOVERS LANE) NC 33709 KLINGLE MANSION SERVICE COURT AREA ROAD FROM ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD) NC 33706 KLINGLE MANSION ENTRANCE ROAD) 4 51640 HORSE STABLE ROAD FROM OREGON AVENUE NORTHWEST 5 33705 KLINGLE MANSION ENTRANCE ROAD) FROM WILLIAMSBURG LANE NORTHWEST FROM MASSACHUSETTS AVENUE NORTHWEST FROM ROUTE 0001 (ROCK CREEK PARK WAY YORTHWEST) FROM MASSACHUSETTS AVENUE NORTHWEST FROM ROUTE 0001 (ROCK CREEK PARK WAY YORTHWEST) FROM MASSACHUSETTS AVENUE NORTHWEST FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY YORTHBOUND) AND ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY)	ROCK CREEK PARK GOLF COURSE ACCESS ROAD FROM 16TH STREET NORTHWEST TO END OF LOOP	4 27711 ROCK CREEK PARK GOLF COURSE ACCESS ROAD NC 29322 GOLF COURSE ROAD 4 51646 CENTER FOR URBAN ECOLOGY ROAD 5 1646 CENTER FOR URBAN ECOLOGY ROAD 4 51647 LOVERS LANE 5 1647 LOVERS LANE 1 COUNTY FROM ROTHWEST NORTHWEST TO END OF ROAD N/A NC 29323 OLD ROCK CREEK DAY ROAD NC 29323 OLD ROCK CREEK DAY ROAD NC 33709 KLINGLE MANSION ENTRANCE COAD NC 33709 KLINGLE MANSION ENTRANCE ROAD NC 33706 KLINGLE MANSION ENTRANCE ROAD NC 33706 KLINGLE MANSION ENTRANCE ROAD NC 33706 KLINGLE MANSION ENTRANCE ROAD NC NC 33705 KLINGLE MANSION ENTRANCE ROAD NC NC 33705 ROAD FROM DO FROM	1	A 27711 ROCK CREEK PARK GOLF COURSE ACCESS ROAD ROCK THE STREET NORTHWEST TO END OF LOOP N/A 0.32 0.00	A 27711	A 27711 ROCK CREEK PARK GOLF COURSE ACCESS ROAD RORTHWEST TO END OF LOOP N/A 0.32 0.00 0.32 3	A 27711	A 27711

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ROCR

ROCK CREEK PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0505	5	51650		RAMP FROM S/B ROCK CREEK PARKWAY TO PENNSYLVANIA AVENUE	FROM ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO PENNSYLVANIA AVENUE NORTHWEST	N/A	0.08	0.00	0.08	7		AS	3
0506	5	51725		RAMP FROM "P" STREET TO N/B ROCK CREEK PARKWAY	FROM P STREET NORTHWEST	TO ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND)	N/A	0.08	0.00	0.08	7		AS	3
0507ZZ	5	51726		RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY AND RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET	FROM P STREET NORTHWEST AND ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND) AND P STREET NORTHWEST	N/A	0.19	0.00	0.19	7		AS	3
0508	5	51727		RAMP TO HARVARD STREET	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO HARVARD STREET NORTHWEST	N/A	0.07	0.00	0.07	7		AS	3
0509ZZ	5	27924		SOUTH WATERSIDE DRIVE N/B & S/B	FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND) AND MASSACHUSSETTS AVENUE NORTHWEST	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND) AND MASSACHUSSETTS AVENUE NORTHWEST	N/A	0.77	0.00	0.77	7		AS	3
0511ZZ	5	51638		RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW AND RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW	FROM ROUTE 0015 (JOYCE ROAD NORTHWEST)	TO 17TH STREET NORTHWEST ON RIGHT AND MILITARY ROAD NORTHWEST WESTBOUND	N/A	0.27	0.00	0.27	7		AS	2
0900ZZ	4	51728		KLINGLE MANSION PARKING AREAS	ADJACENT TO ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD)		N/A	0.00	0.00	0.00		7,526	AS	3
0902ZZ	5	51730		CARTER BARRON PARKING AREAS	FROM ROUTE 0018 (STAGE ROAD)	TO ROUTE 0018 (STAGE ROAD) AND COLORADO AVENUE NORTHWEST	N/A	0.00	0.00	0.00		245,503	AS	2
0903ZZ	4	51731		ROCK CREEK GOLF COURSE PARKING AREAS	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	TO PARKING	N/A	0.00	0.00	0.00		43,428	AS	2

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Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	cription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0904	4	51732		H3 STABLE PARKING	FROM END OF ROUTE 0500 (HORSE STABLE ROAD)	TO PARKING	N/A	0.00	0.00	0.00		17,789	AS	1
0910	5	51734		EDGEWATER STABLE PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	TO PARKING	N/A	0.00	0.00	0.00		26,658	AS	3
0911	4	51735		PICNIC GROVE #2 PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST)	TO ROUTE 0010 (BEACH DRIVE NORTHWEST)	N/A	0.00	0.00	0.00		11,025	AS	3
0912ZZ	4	51736		USPP PARKING AREA AREAS	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT AND RIGHT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	N/A	0.00	0.00	0.00		7,280	AS	2
0913	4	51738		PICNIC GROVE #6 PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON RIGHT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON RIGHT	N/A	0.00	0.00	0.00		23,731	AS	2
0914	4	51739		PICNIC GROVE #7 PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	N/A	0.00	0.00	0.00		18,240	AS	1
0915	4	51740		PICNIC GROVE # 8 PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	N/A	0.00	0.00	0.00		12,065	AS	1
0916	4	51780		PICNIC GROVE #9 PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	N/A	0.00	0.00	0.00		10,884	AS	1
0917	4	51783		PICNIC GROVE #10 PARKING	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	N/A	0.00	0.00	0.00		14,571	AS	1
0918	5	51784		PICNIC GROVE #1 PARKING	FROM SHOEMAKER STREET NORTHWEST	TO PARKING	N/A	0.00	0.00	0.00		10,686	AS	3
0920	4	51787		TENNIS COURT PARKING LOOP	FROM PARK ROAD NORTHWEST	TO PARKING	N/A	0.00	0.00	0.00		15,510	AS	3
0921	4	51788		PICNIC AREA #2 NORTH / BROAD BRANCH PARKING	FROM ROUTE 0027 (BROAD BRANCH ROAD NORTHWEST)	TO PARKING	N/A	0.00	0.00	0.00		11,944	AS	2
0922	5	51790		PICNIC GROVE #27 PARKING	FROM ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST)	TO PARKING	N/A	0.00	0.00	0.00		1,979	AS	2
0923	4	51792		PICNIC GROVE #13 PARKING	FROM ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST)	TO ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST)	N/A	0.00	0.00	0.00		23,115	AS	2

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

^{**} DCV - Data Collection Vehicle

Road Inventory Program 10/16/2013

(Numerical By Route #)

Blue = All Paved Parking Areas Green = All Unpaved Parking Areas

Shading Color Key: Red text denotes approx. mileage

White = Paved Routes, DCV Driven Yellow = Unpaved Routes, DCV not Driven

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Grey = Paved Routes, DCV not Driven

Black = State, Local or Private non-NPS Routes

= Concession Route Flag ON

*** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

ROCR

Rte. No.	Cycle Collected	FMSS No.	Concess	Route Name	Route Des From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0924	4	51794		NATURE CENTER ACCESS PARKING	FROM ROUTE 0020 (EAST GLOVER ROAD)	TO PARKING	N/A	0.00	0.00	0.00		49,835	AS	2
0925ZZ	4	51797		BOARDING STABLE ACCESS ROAD PARKING AREAS	FROM ROUTE 0924 (NATURE CENTER ACCESS PARKING)	TO PARKING	N/A	0.00	0.00	0.00		27,444	AS	2
0926	4	51798		ROCR MAINTENANCE PARKING	FROM ROUTE 0020 (EAST GLOVER ROAD)	TO PARKING	N/A	0.00	0.00	0.00		64,421	AS	2
0927	4	51800		PICNIC GROVE #20 PARKING	FROM ROUTE 0016 (ROSS DRIVE NORTHWEST)	TO ROUTE 0016 (ROSS DRIVE NORTHWEST)	N/A	0.00	0.00	0.00		1,253	AS	2
0928	4	51801		PICNIC GROVE #20A PARKING	FROM ROUTE 0016 (ROSS DRIVE NORTHWEST)	TO ROUTE 0016 (ROSS DRIVE NORTHWEST)	N/A	0.00	0.00	0.00		2,401	AS	2
0929	4	51802		PICNIC GROVE #21 PARKING	FROM ROUTE 0016 (ROSS DRIVE NORTHWEST)	TO PARKING	N/A	0.00	0.00	0.00		1,660	AS	2
0930	4	51804		PICNIC GROVE #22 PARKING	FROM ROUTE 0016 (ROSS DRIVE NORTHWEST)	TO PARKING	N/A	0.00	0.00	0.00		2,515	AS	2
0931	NC	51805		BATTERY KEMBLE ACCESS PARKING	FROM CHAIN BRIDGE ROAD	TO PARKING	N/A	0.00	0.00	0.00		23,295	GR	
0932	4	51807		THOMPSON'S BOAT CENTER PARKING LOT	FROM ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND) AT END	TO PARKING	N/A	0.00	0.00	0.00		35,683	AS	3
0933	4	51809		CARTER BARRON STAGE PARKING	FROM ROUTE 0018 (STAGE ROAD) AT MP 0.05 (ON RIGHT)	TO PARKING	N/A	0.00	0.00	0.00		3,368	AS	2
0934	4	51810		CARTER BARRON STAGE OVERFLOW PARKING	ADJACENT TO ROUTE 0018 (STAGE ROAD) AT MP 0.03 (ON RIGHT)		N/A	0.00	0.00	0.00		2,486	AS	2
0935	4	51811		ROCK CREEK GOLF COURSE MAINTENANCE PARKING	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD) AT MP 0.25 (ON LEFT)	TO PARKING	N/A	0.00	0.00	0.00		6,092	AS	2
0936	4	51813		PICNIC GROVE #11 PARKING	FROM ROUTE 0014 (BINGHAM DRIVE NORTHWEST) AT MP 0.25 (ON LEFT)	TO ROUTE 0014 (BINGHAM DRIVE NORTHWEST) AT MP 0.27 (ON LEFT)	N/A	0.00	0.00	0.00		2,243	AS	1
0937	4	51814		PICNIC GROVE #12 PARKING	FROM ROUTE 0014 (BINGHAM DRIVE NORTHWEST) AT MP 0.34 (ON LEFT)	TO ROUTE 0014 (BINGHAM DRIVE NORTHWEST) AT MP 0.36 (ON LEFT)	N/A	0.00	0.00	0.00		2,303	AS	1

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^{**} DCV - Data Collection Vehicle

Road Inventory Program 10/16/2013 (Numerical By Route #) Page 7 of 9

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

*** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

ROCR

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Des From	cription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0938	5	51815		CENTER FOR URBAN ECOLOGY PARKING	FROM END OF ROUTE 0404 (CENTER FOR URBAN ECOLOGY ROAD)	TO PARKING	N/A	0.00	0.00	0.00		19,178	СО	4
0939	4	51641		BOX OFFICE ROAD & PARKING	FROM COLORADO AVENUE NORTHWEST	TO COLORADO AVENUE NORTHWEST	N/A	0.00	0.00	0.00		18,781	AS	2
0940	5			PIERCE MILL BUS LOOP	FROM TILDEN STREET NORTHWEST	TO TILDEN STREET NORTHWEST	N/A	0.00	0.00	0.00		4,274	AS	3

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^{**} DCV - Data Collection Vehicle

Road Inventory Program 10/16/2013

(Numerical By Route #)

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Shading Color Key: Red text denotes approx. mileage

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^{***} Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

MARY TOTALS FOR ROCK CREEK PARK	
CYCLE 5 COLLECTED CONCESSION TOTALS	
71 Concession Paved Route Miles	0.00
Concession Paved Parking Area SQFT	0
71 Concession Manually Rated Routes SQFT	0
CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VAI	UES
DCV Driven PCR	50
**Manually Rated Routes PCR	N/A
**Parking PCR	72
***Total Equivalent Lane Miles	43.18
7 7	CYCLE 5 COLLECTED CONCESSION TOTALS Concession Paved Route Miles Concession Paved Parking Area SQFT Concession Manually Rated Routes SQFT CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VAL DCV Driven PCR **Manually Rated Routes PCR **Parking PCR

TOTAL F	PARK SUMM	ARY FOR ROCK CREEK PARK
ROUTE TOTALS		
TOTAL PAVED PARK ROUTE MILES	21.64	
TOTAL PAVED PARKING (SQFT)	745,871	

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

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

^{**} DCV - Data Collection Vehicle

^{** -} 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.

Road Inventory Program 10/16/2013

(Numerical By Route #)

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Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

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White = Paved Routes, DCV Driven

*** Only Functional Class 1, 2, & 7 routes, and previously uncollected routes were collected in Cycle 5

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
- Connector Park Road (Public Roads) Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, Class 2 camparounds, etc. Route Numbers 100-199.
- Special Purpose Park Road (Public Roads) Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, Class 3 concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
- Primitive Park Roads (Public Roads) Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These Class 4 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 guarters, or utility areas. Route Numbers 400-499.
- Restricted Road (Administrative Roads) All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. Class 6 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.
- 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 Class 7 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.
- 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 Class 8 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:

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- 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

^{*}Unpayed route data was obtained from NPS and was not inventoried by the Road Inventory Program (RIP)

^{**} DCV - Data Collection Vehicle

Road Inventory Program 10/16/2013

(Numerical By Subcomponent #)

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= Concession Route Flag ON

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ROCR

Rte.	FMSS	Cycle Collected		Route De	escription	Concess Route	ss	Paved	Un- Paved	Total Route	Manual Rated
No.	No.	٥٥	Route Name	From	То	<u>0</u> 2	Func. Class	Miles	Miles	Length	SQ/FT
0504ZZ	51649	5	RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO "K" STREET	FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND) AND ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO K STREET NORTHWEST - WHITEHURST FREEWAY		7	0.28	0.00	0.28	
0507ZZ	51726	5	RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY AND RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET	FROM P STREET NORTHWEST AND ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND) AND P STREET NORTHWEST		7	0.19	0.00	0.19	
0509ZZ	27924	5	SOUTH WATERSIDE DRIVE N/B & S/B	FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND) AND MASSACHUSSETTS AVENUE NORTHWEST	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND) AND MASSACHUSSETTS AVENUE NORTHWEST		7	0.77	0.00	0.77	
0511ZZ	51638	5	RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW AND RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW	FROM ROUTE 0015 (JOYCE ROAD NORTHWEST)	TO 17TH STREET NORTHWEST ON RIGHT AND MILITARY ROAD NORTHWEST WESTBOUND		7	0.27	0.00	0.27	
0900ZZ	51728	4	KLINGLE MANSION PARKING AREAS	ADJACENT TO ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD)				0.00	0.00	0.00	7,526
0902ZZ	51730	5	CARTER BARRON PARKING AREAS	FROM ROUTE 0018 (STAGE ROAD)	TO ROUTE 0018 (STAGE ROAD) AND COLORADO AVENUE NORTHWEST			0.00	0.00	0.00	245,503
0903ZZ	51731	4	ROCK CREEK GOLF COURSE PARKING AREAS	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	43,428
0912ZZ	51736	4	USPP PARKING AREA AREAS	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT AND RIGHT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT			0.00	0.00	0.00	7,280
0925ZZ	51797	4	BOARDING STABLE ACCESS ROAD PARKING AREAS	FROM ROUTE 0924 (NATURE CENTER ACCESS PARKING)	TO PARKING			0.00	0.00	0.00	27,444

Road Inventory Program 10/16/2013

(Numerical By Subcomponent #)

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= Concession Route Flag ON

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ROCR

ROCR-	ROCR-0504ZZ Subcomponent Breakdown										
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De From	escription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0504AZ	51649	5	RAMP FROM N/B ROCK CREEK PARKWAY TO "K" STREET	FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND)	TO K STREET NORTHWEST - WHITEHURST FREEWAY		7	0.06	0.00	0.06	
0504BZ	51649	5	RAMP FROM S/B ROCK CREEK PARKWAY TO "K" STREET	FROM K STREET NORTHWEST - WHITEHURST FREEWAY	TO ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND)		7	0.07	0.00	0.07	
0504CZ	51649	5	RAMP FROM "K" STREET TO N/B ROCK CREEK PARKWAY	FROM ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO 28TH STREET NORTHWEST ON RIGHT AND K STREET NORTHWEST - WHITEHURST FREEWAY ON LEFT		7	0.08	0.00	0.08	
0504DZ	51649	5	RAMP FROM "K" STREET TO S/B ROCK CREEK PARKWAY	FROM K STREET NORTHWEST - WHITEHURST FREEWAY	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)		7	0.07	0.00	0.07	

ROCR-	05072	ZZ S	Subcomponent Breakd	lown							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De	scription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
				110111	10	7 -	ш О	НПСЗ	1		54,11
0507AZ	51726	5	RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY	FROM P STREET NORTHWEST	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)		7	0.09	0.00	0.09	
0513BZ	51726	5	RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET	FROM ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)	TO P STREET NORTHWEST		7	0.10	0.00	0.10	

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(Numerical By Subcomponent #)

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= Concession Route Flag ON

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ROCR

ROCR-	-05092	ZZ S	Subcomponent Breakd	lown							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De From	scription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0509AZ	27924	5	SOUTH WATERSIDE DRIVE N/B	FROM ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND) AND MASSACHUSETTS AVENUE NORTHWEST	TO MASSACHUSETTS AVENUE NORTHWEST AND ROUTE 0001 (ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND)		7	0.38	0.00	0.38	
0510BZ	27924	5	SOUTH WATERSIDE DRIVE S/B	FROM MASSACHUSETTS AVENUE NORTHWEST	TO ROUTE 0002 (ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND)		7	0.39	0.00	0.39	_

ROCR-	05112	ZZ S	Subcomponent Breakd	lown							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route De From	escription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0511CZ	51638	5	RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW	FROM ROUTE 0015 (JOYCE ROAD NORTHWEST)	TO 17TH STREET NORTHWEST ON RIGHT		7	0.08	0.00	0.08	
0511DZ	51638	5	RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW	FROM ROUTE 0015 (JOYCE ROAD NORTHWEST)	TO MILITARY ROAD NORTHWEST WESTBOUND		7	0.19	0.00	0.19	

ROCR-	-0900Z	ZZ S	Subcomponent Breakd	lown							
Rte.	FMSS	Cycle Collected		Route Descr	iption	Concess Route	Func. Class	Paved	Un- Paved	Total Route	Manual Rated
No.	No.	<u> </u>	Route Name	From	То	0 %	2 ∺	Miles	Miles	Length	SQ/FT
0900AZ	51728	4	KLINGLE MANSION PARKING A	FROM ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD)	TO PARKING			0.00	0.00	0.00	3,690
0900BZ	51728	4	KLINGLE MANSION PARKING B	ADJACENT TO ROUTE 0502 (KLINGLE MANSION ENTRANCE ROAD)				0.00	0.00	0.00	3,836

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= Concession Route Flag ON

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ROCR

ROCR-	-09022	ZZ \$	Subcomponent Breakd	own							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route D From	escription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0902AZ	51730	5	CARTER BARRON PARKING AREA - LOT A	FROM ROUTE 0018 (STAGE ROAD)	TO ROUTE 0902BZ (CARTER BARRON PARKING AREA - LOT B)			0.00	0.00	0.00	17,507
0902BZ	51730	5	CARTER BARRON PARKING AREA - LOT B	FROM ROUTE 0018 (STAGE ROAD)	TO ROUTE 0902AZ (CARTER BARRON PARKING AREA - LOT A) AND ROUTE 0902CZ (CARTER BARRON PARKING AREA - LOT C)			0.00	0.00	0.00	139,771
0902CZ	51730	5	CARTER BARRON PARKING AREA - LOT C	FROM ROUTE 0902BZ (CARTER BARRON PARKING AREA - LOT B)	TO COLORADO AVENUE NORTHWEST			0.00	0.00	0.00	88,225

ROCR-0903ZZ Subcomponent Breakdown										
FMSS	rcle ollected			•	oncess oute	nc. ass	Paved	Un- Paved	Total Route	Manual Rated
NO.	<u> ပ်ပ</u>	Route Name	From	То	0 %	2 ö	Miles	Miles	Length	SQ/FT
51731	4	ROCK CREEK GOLF COURSE PARKING A	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	14,019
51731	4	ROCK CREEK GOLF COURSE PARKING B	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	16,128
51731	4	ROCK CREEK GOLF COURSE PARKING C	FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	13,281
	FMSS No. 51731 51731	FMSS No. 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FMSS No. 20 To Route Name 51731 4 ROCK CREEK GOLF COURSE PARKING A 51731 4 ROCK CREEK GOLF COURSE PARKING B	Route Des Route Name From From 51731 4 ROCK CREEK GOLF COURSE PARKING A PARK GOLF COURSE ACCESS ROAD) 51731 4 ROCK CREEK GOLF COURSE PARKING B FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD) 51731 4 ROCK CREEK GOLF COURSE PARKING B FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD) 51731 4 ROCK CREEK GOLF COURSE PARKING FROM ROUTE 0206 (ROCK CREEK	Route Description Route Name Route Name From To To 1731 4 ROCK CREEK GOLF COURSE PARKING A PARK GOLF COURSE ACCESS ROAD) FI731 4 ROCK CREEK GOLF COURSE PARKING B PARK GOLF COURSE ACCESS ROAD) FI731 4 ROCK CREEK GOLF COURSE PARKING B PARK GOLF COURSE ACCESS ROAD) FI731 4 ROCK CREEK GOLF COURSE PARKING FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE ACCESS ROAD)	FMSS No. 20 Route Name From To 51731 4 ROCK CREEK GOLF COURSE PARKING A PARK GOLF COURSE ACCESS ROAD) 51731 4 ROCK CREEK GOLF COURSE PARKING B FROM ROUTE 0206 (ROCK CREEK PARKING PARK GOLF COURSE ACCESS ROAD) 51731 4 ROCK CREEK GOLF COURSE PARKING B FROM ROUTE 0206 (ROCK CREEK PARKING PARK GOLF COURSE ACCESS ROAD) 51731 4 ROCK CREEK GOLF COURSE PARKING FROM ROUTE 0206 (ROCK CREEK TO PARKING PARK GOLF COURSE ACCESS ROAD)	Route Description Route Name From To SS 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	Route Description Route Name From To Parking Parking A Park GOLF COURSE PARKING B FROM ROUTE 0206 (ROCK CREEK PARK GOLF COURSE PARKING B PARK GOLF COURSE ACCESS ROAD) TO PARKING PARK GOLF COURSE PARKING B FROM ROUTE 0206 (ROCK CREEK TO PARKING PARK GOLF COURSE PARKING PARK GOLF COURSE ACCESS ROAD) TO PARKING PARK GOLF COURSE PARKING PARK GOLF COURSE ACCESS ROAD) TO PARKING PARK GOLF COURSE PARKING PARK GOLF COURSE PARKING PARK GOLF COURSE ACCESS ROAD)	Route Description Route Description To Route Name From To Paved Miles Route Name From To Parking P	Route Description Route Name From To Paved Miles Paved Miles From To Paved Miles From From To Paved Miles From From To Paved Miles From From From From From From From From

ROCR-	09122	ZZ S	Subcomponent Breakd	lown							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Des	scription To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0912AZ	51736	4	USPP PARKING AREA A	FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT	TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT			0.00	0.00	0.00	5,458
0912BZ	51736	4	USPP PARKING AREA B / PICNIC GROVE #5	ADJACENT TO ROUTE 0010 (BEACH DRIVE NORTHWEST) ON RIGHT				0.00	0.00	0.00	1,822

Road Inventory Program 10/16/2013

(Numerical By Subcomponent #)

Page 5 of 5

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).

ROCR

ROCR-	-09252	ZZS	Subcomponent Breakd	lown							
Rte. No.	FMSS No.	Cycle Collected	Route Name	Route Descri From	ption To	Concess Route	Func. Class	Paved Miles	Un- Paved Miles	Total Route Length	Manual Rated SQ/FT
0925AZ	51797	4	BOARDING STABLE ACCESS ROAD PARKING A	FROM ROUTE 0924 (NATURE CENTER ACCESS PARKING)	TO PARKING			0.00	0.00	0.00	10,506
0925BZ	51797	4	BOARDING STABLE ACCESS ROAD PARKING B	FROM ROUTE 0925AZ (BOARDING STABLE ACCESS ROAD PARKING A)	TO PARKING			0.00	0.00	0.00	16,938

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - ROCR

	ROUTES	S ADDED FROM PREVIOUS IN	VENTORY:
Route #	Route Name	Reason for Addition	Comments
0940	PIERCE MILL BUS LOOP	OTHER	PAVED PARKING AREA ADDED IN CYCLE 5.
	ROUTES	MODIFIED FROM PREVIOUS II	NVENTORY:
Route #	Route Name	Type of Modification	Comments
0900ZZ	KLINGLE MANSION PARKING AREAS	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE (0900AZ) TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
0910	EDGEWATER STABLE PARKING	SQ FEET CHANGE	ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
0918	PICNIC GROVE #1 PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY. RECOLLECTED IN CYCLE 5.
0922	PICNIC GROVE #27 PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY. RECOLLECTED IN CYCLE 5.
0927	PICNIC GROVE #20 PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
0938	CENTER FOR URBAN ECOLOGY PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY. MULTIPLE SURFACE TYPES: AS 2 PARTS, 6626 SF; CO PAD= 1 PART, 12552 SF.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - ROCR

	OTHER O	CHANGES FROM PREVIOUS IN	IVENTORY:
Route #	Route Name	Type of Change	Comments
0015	JOYCE ROAD NORTHWEST	ROUTES COMBINED	MOVED THE ROUTE START POINT BACK TO MILITARY ROAD NW TO INCLUDE THE ON-RAMP. THE ON-RAMP WAS PART OF 0511ZZ IN CYCLE 4.
0016	ROSS DRIVE NORTHWEST	ROUTES COMBINED	REVERSED DIRECTION AND INCLUDED THE ON-RAMP. THE ON-RAMP WAS PART OF 0511ZZ IN CYCLE 4.
0019	GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST	ROUTE NAME	NAME CHANGED FROM "GLOVER ROAD NORTHWEST" TO "GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST".
0405	LOVERS LANE	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGE FROM 5 TO 6 IN CYCLE 5.
0504ZZ	RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO "K" STREET	ROUTE NAME	NAME CHANGED FROM "RAMP A FOR K STREET NORTHWEST-WHITEHURST FREEWAY" TO "RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO "K" STREET" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.
0505	RAMP FROM S/B ROCK CREEK PARKWAY TO PENNSYLVANIA AVENUE	ROUTE NAME	NAME CHANGED FROM "PENNSYLVANIA AVENUE RAMP" TO "RAMP FROM S/B ROCK CREEK PARKWAY TO PENNSYLVANIA AVENUE" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.
0506	RAMP FROM "P" STREET TO N/B ROCK CREEK PARKWAY	ROUTE NAME	NAMED CHANGED FROM "P STREET RAMP NORTHBOUND" TO "RAMP FROM "P" STREET TO N/B ROCK CREEK PARKWAY" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.
0507ZZ	RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY AND RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET	ROUTE NAME	NAME CHANGED FROM "P STREET RAMPS SOUTHBOUND" TO "RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY AND RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.
0509ZZ	SOUTH WATERSIDE DRIVE N/B & S/B	ROUTE NAME	NAME CHANGED FROM "SOUTH WATERSIDE DRIVE NORTHWEST" TO "SOUTH WATERSIDE DRIVE N/B & S/B" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - ROCR

	OTHER CHANGES FROM PREVIOUS INVENTORY:										
Route #	Route Name	Type of Change	Comments								
0511ZZ	RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW AND RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW	ROUTE SPLIT	LENGTH SHORTER IN CYCLE 5 BECAUSE TWO OF THE RAMPS WERE SPLIT OUT OF 0511ZZ AND COMBINED WITH ROUTES 0015 & 0016. NAME CHANGED FROM "RAMPS FOR MILITARY ROAD NORTHWEST" TO "RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW AND RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.								
0902ZZ	CARTER BARRON PARKING AREAS	ROUTE NAME	NAME CHANGED FROM "CARTER BARRON TENNIS CENTER PARKING" TO "CARTER BARRON PARKING AREAS".								
0921	PICNIC AREA #2 NORTH / BROAD BRANCH PARKING	ROUTE NAME	NAME CHANGED FROM "BIKE ROUTE PARKING / PICNIC AREA #2" TO "PICNIC AREA #2 NORTH/ BROAD BRANCH PARKING" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.								
0926	ROCR MAINTENANCE PARKING	ROUTE NAME	NAMED CHANGED FROM "HEADQUARTERS PARKING" TO "ROCR MAINTENANCE PARKING" IN CYCLE 5.								
0939	BOX OFFICE ROAD & PARKING	ROUTE NAME	NAME CHANGED FROM "CARTER BARRON LOOP AND PARKING AREA" TO "BOX OFFICE ROAD & PARKING" PER USPP RECOMMENDATION AND PARK'S APPROVAL IN CYCLE 5.								
	ROUTES	REMOVED FROM PREVIOUS I	NVENTORY:								
Route #	Route Name	Reason for Removal	Comments								
0919	PIERCE MILL PARKING	OTHER	NO LONGER A PARKING AREA, REMOVED IN CYCLE 5.								

Section 3 Park Summary Information



Rock Creek Park



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

	Pavement Condition Rating (PCR)								
	Poor (0	0-60)	Fair (6	1-84)	Good	(85-94)	Excellent (95-100)		TOTAL
F.C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES
1	8.57	41.38%	5.69	27.47%	2.68	12.94%	1.75	8.45%	18.69
2									
3									
4									
5									
6									
7	0.89	4.30%	0.48	2.32%	0.30	1.45%	0.35	1.69%	2.02
8									
Totals	9.46	45.68%	6.17	29.79%	2.98	14.39%	2.10	10.14%	20.71

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.

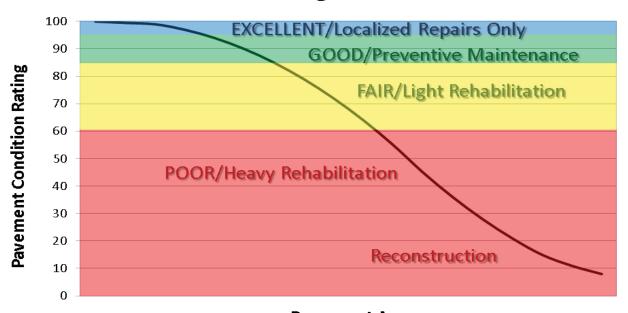
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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.

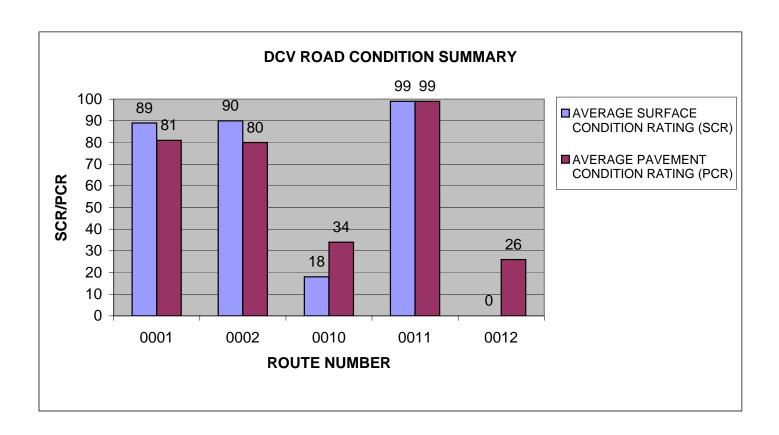
At this time, specific Maintenance and Rehabilitation activities should be evaluated and recommended at the project level. Site-specific conditions that influence treatment type should be determined based on performing a subsurface investigation and/or pavement condition survey, and not be based solely 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.

Condition Categories and Treatments



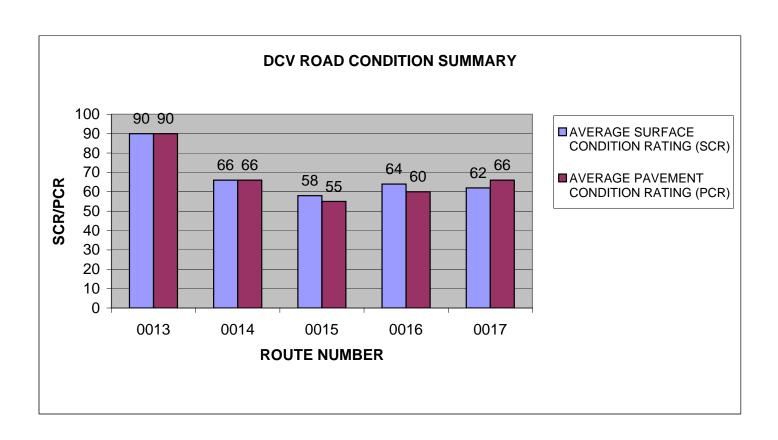
DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	50141102	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0001	ROCK CREEK AND POTOMAC PARKWAY	1	2.16	ACDIIAIT	90	0.1
0001	NORTHBOUND ROCK CREEK AND POTOMAC PARKWAY	1	2.16	ASPHALT	89	81
0002	SOUTHBOUND	1	2.16	ASPHALT	90	80
0010	BEACH DRIVE NORTHWEST	1	6.48	ASPHALT	18	34
0011	WEST BEACH DRIVE NORTHWEST	1	0.08	ASPHALT	99	99
0012	WISE ROAD NORTHWEST	1	0.61	ASPHALT	0	26



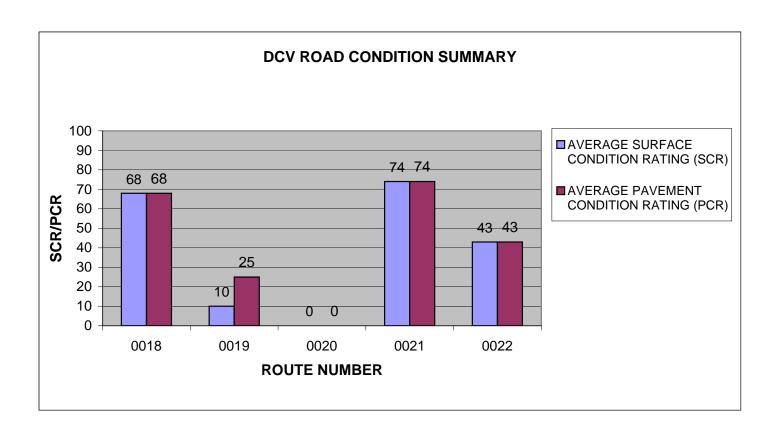
DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0013	SHERRILL DRIVE NORTHWEST	1	0.33	ASPHALT	90	90
0014	BINGHAM DRIVE NORTHWEST	1	0.42	ASPHALT	66	66
0015	JOYCE ROAD NORTHWEST	1	0.53	ASPHALT	58	55
0016	ROSS DRIVE NORTHWEST	1	1.27	ASPHALT	64	60
0017	MORROW DRIVE NORTHWEST	1	0.61	ASPHALT	62	66



DCV - Data Collection Vehicle

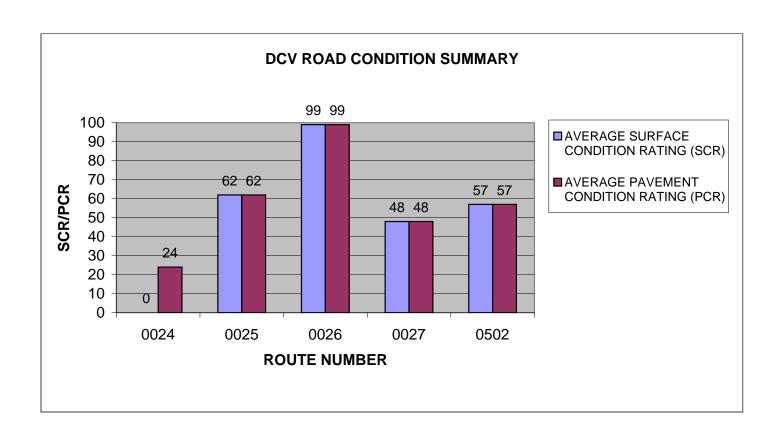
ROUTE		FUNCT	PAVED	SURFACE	AVERAGE SURFACE CONDITION	AVERAGE PAVEMENT CONDITION
NUMBER	ROUTE NAME	CLASS	LENGTH	TYPE	RATING (SCR)	RATING (PCR)
0018	STAGE ROAD	1	0.43	ASPHALT	68	68
	GLOVER ROAD NORTHWEST/ RIDGE ROAD					
0019	NORTHWEST	1	1.65	ASPHALT	10	25
0020	EAST GLOVER ROAD	1	0.29	ASPHALT	0	0
0021	GRANT ROAD NORTHWEST	1	0.37	ASPHALT	74	74
0022	BLAGDEN AVENUE NORTHWEST	1	0.16	ASPHALT	43	43



Data Collected 04/2013 3-5

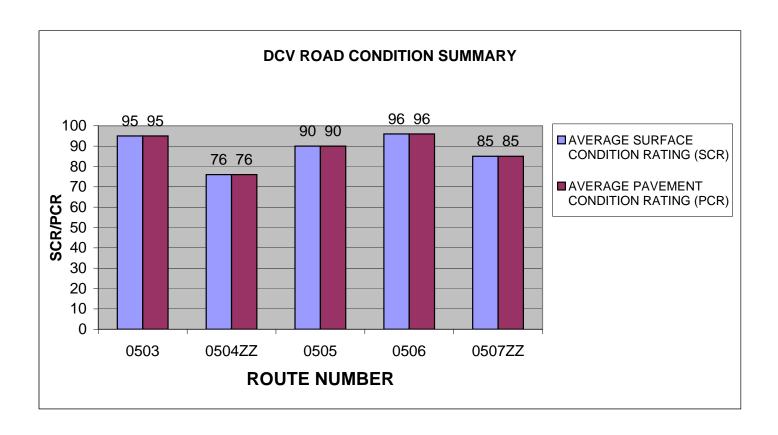
DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0024	PINEY BRANCH PARKWAY NORTHWEST	1	0.84	ASPHALT	0	24
0025	17TH STREET NORTHWEST	1	0.11	ASPHALT	62	62
0026	CATHEDRAL AVENUE NORTHWEST	1	0.14	ASPHALT	99	99
0027	BROAD BRANCH ROAD NORTHWEST	1	0.05	ASPHALT	48	48
0502	KLINGLE MANSION ENTRANCE ROAD	7	0.12	ASPHALT	57	57



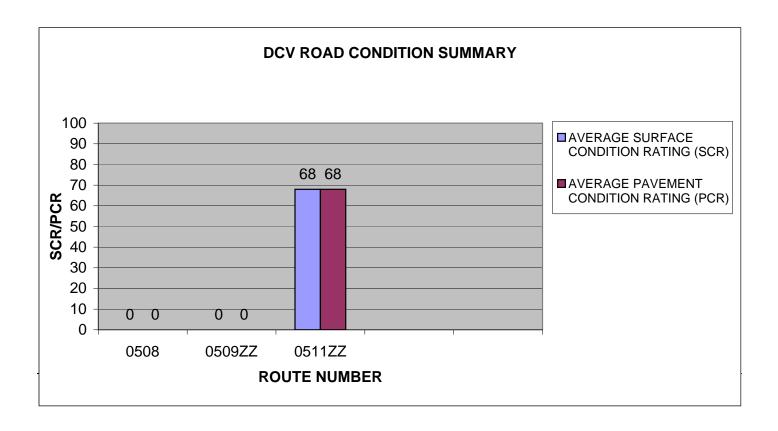
DCV - Data Collection Vehicle

					AVERAGE	AVERAGE
					SURFACE	PAVEMENT
ROUTE		FUNCT	PAVED	SURFACE	CONDITION	CONDITION
NUMBER	ROUTE NAME	CLASS	LENGTH	TYPE	RATING (SCR)	RATING (PCR)
0503	NORTH WATERSIDE DRIVE	7	0.16	ASPHALT	95	95
	RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO					
0504ZZ	"K" STREET	7	0.28	ASPHALT	76	76
	RAMP FROM S/B ROCK CREEK PARKWAY TO					
0505	PENNSYLVANIA AVENUE	7	0.08	ASPHALT	90	90
0506	RAMP FROM "P" STREET TO N/B ROCK CREEK	7	0.08	ASPHALT	96	96
	RAMP FROM "P" STREET TO S/B ROCK CREEK					
	PARKWAY AND RAMP FROM S/B ROCK CREEK					
0507ZZ	PARKWAY TO "P" STREET	7	0.19	ASPHALT	85	85



DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0508	RAMP TO HARVARD STREET	7	0.07	ASPHALT	0	0
0509ZZ	SOUTH WATERSIDE DRIVE N/B & S/B	7	0.77	ASPHALT	0	0
	RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET					
	NW AND RAMP FROM S/B JOYCE ROAD NW TO					
0511ZZ	MILITARY ROAD NW	7	0.27	ASPHALT	68	68



Data Collected 04/2013 3-8

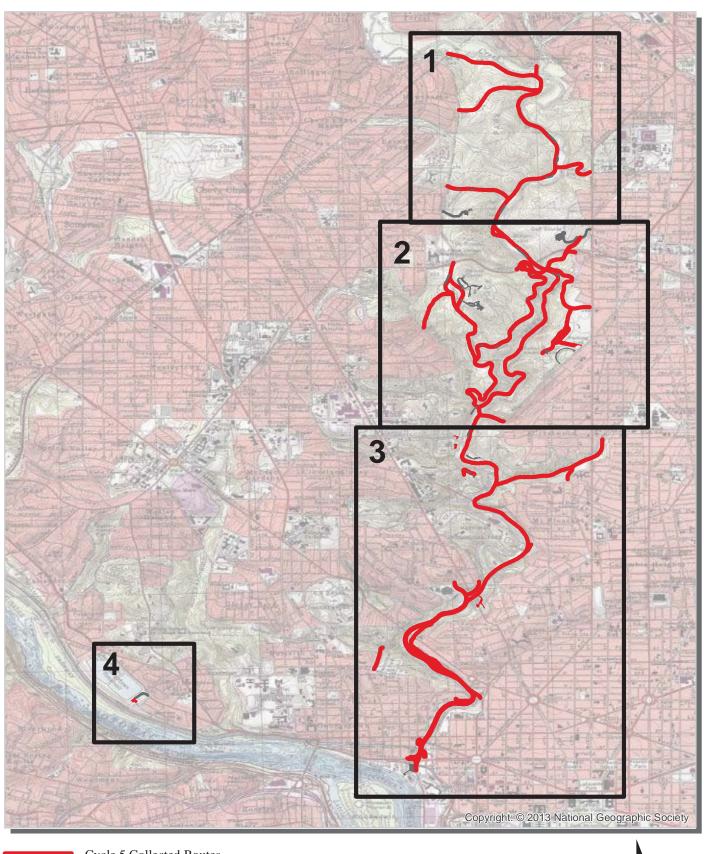
Section 4 Park Route Location Maps



Rock Creek Park



Rock Creek Park Route Location Map Key Map

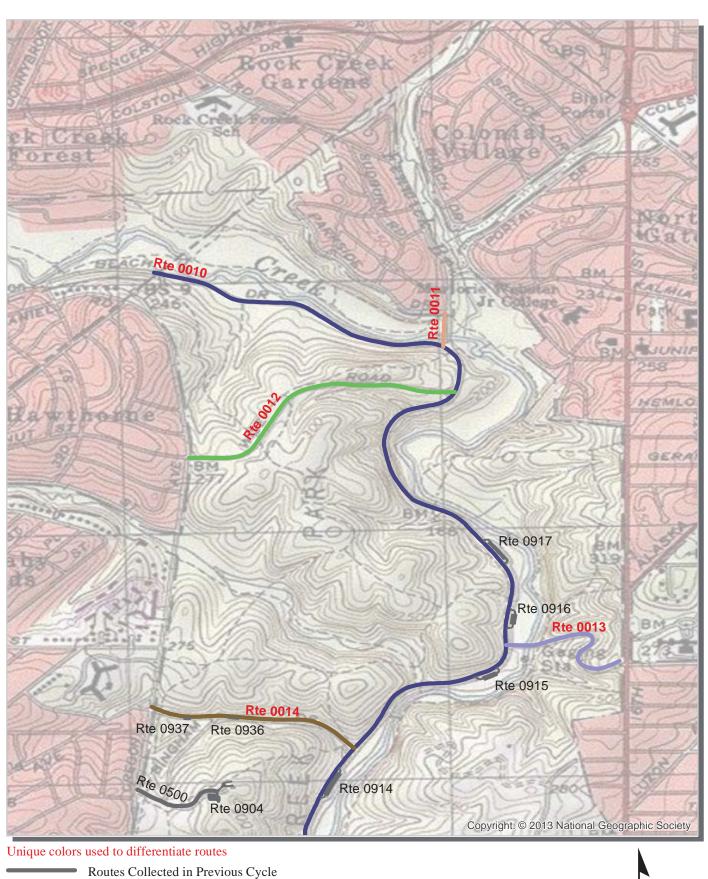


Cycle 5 Collected Routes

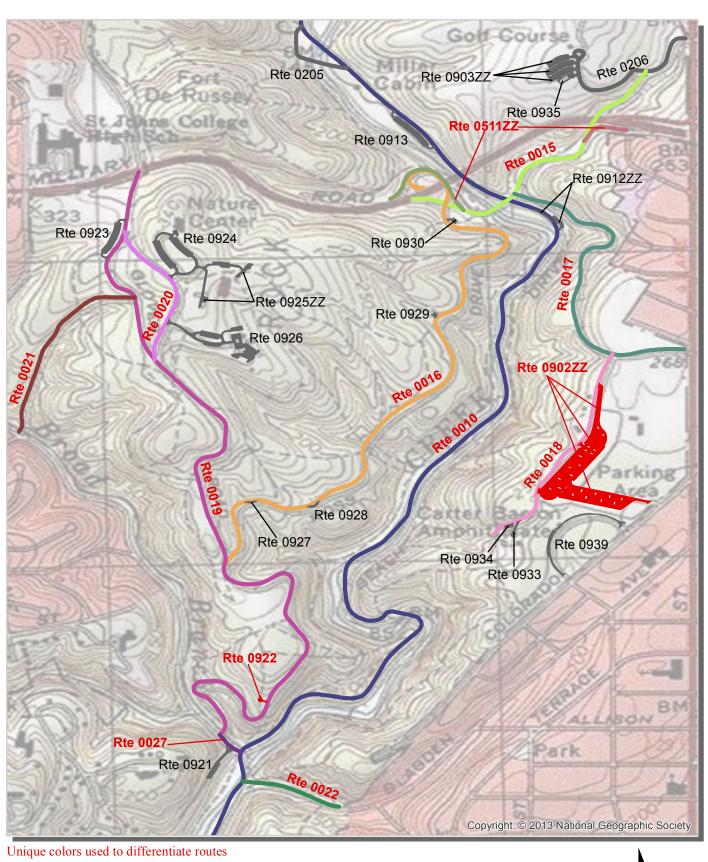
Routes Collected in Previous Cycle 0.8 0.4 0 0.8

Miles

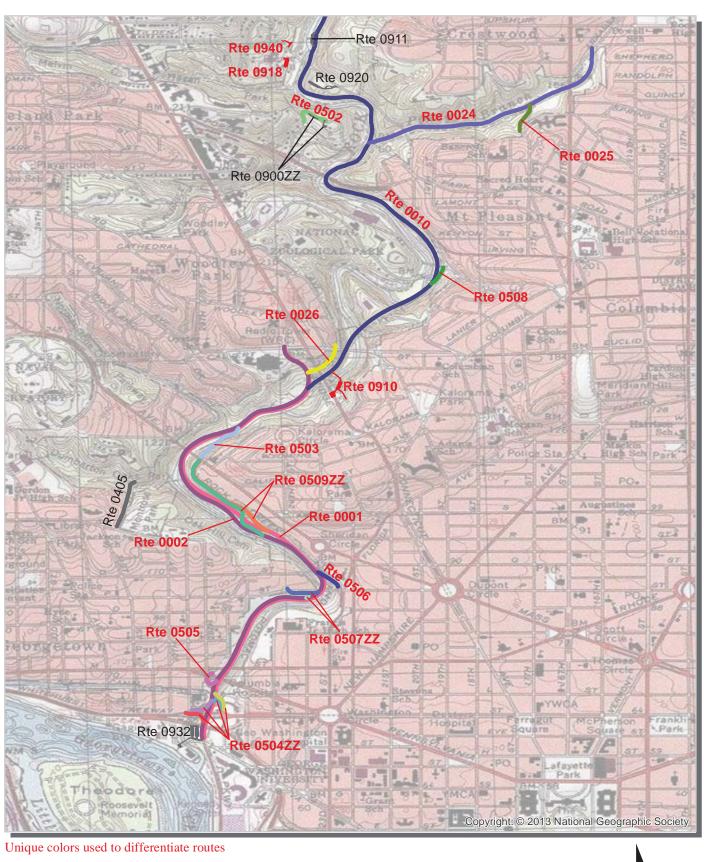
Rock Creek Park Route Location Map Area 1



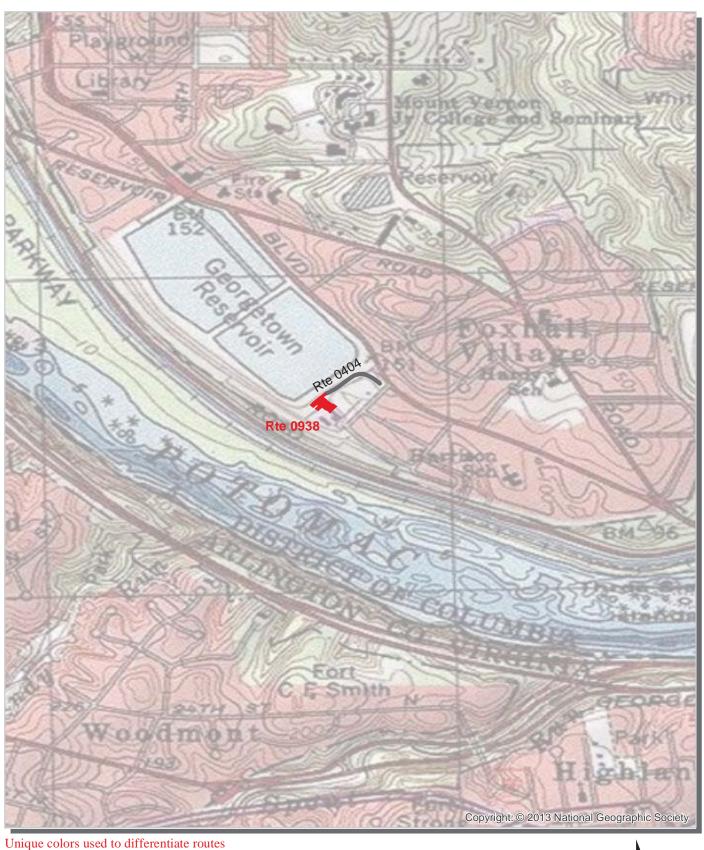
Rock Creek Park Route Location Map Area 2



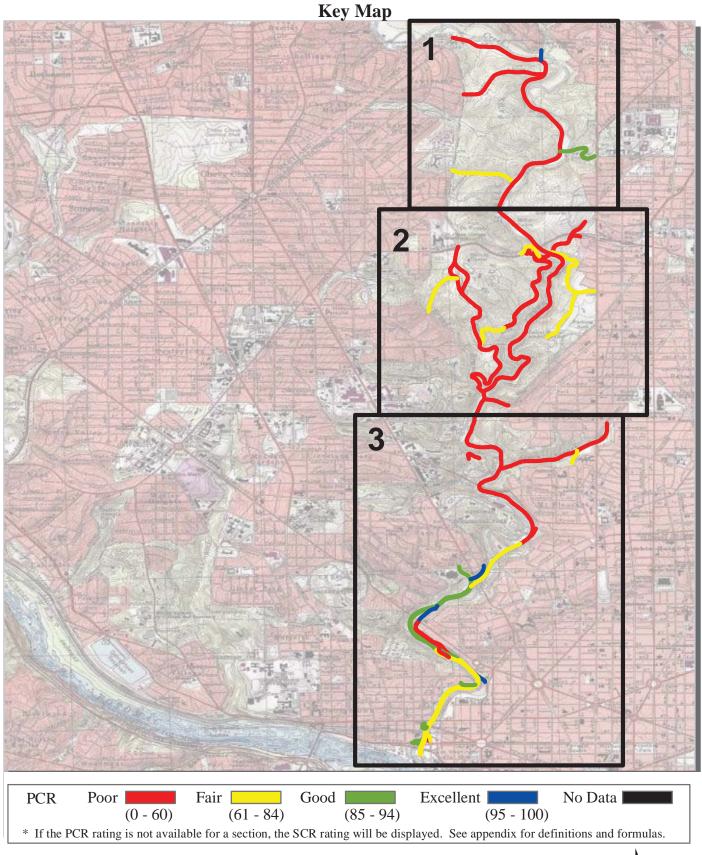
Rock Creek Park Route Location Map Area 3



Rock Creek Park Route Location Map Area 4

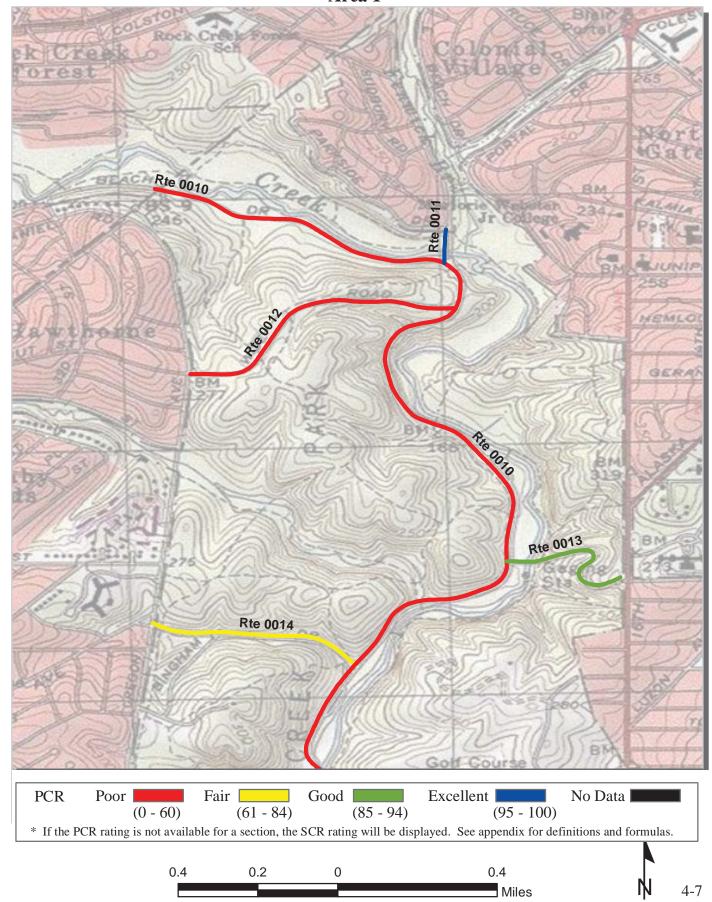


Rock Creek Park Route Condition Map PCR - Mile by Mile

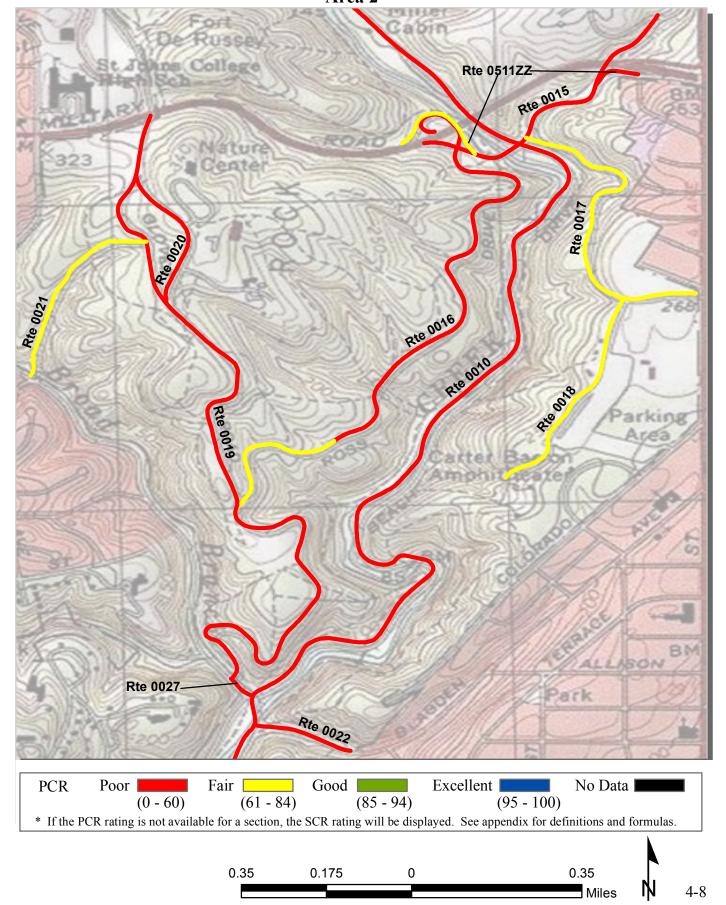


Note: Only routes collected by the DCV in Cycle-5 are displayed.

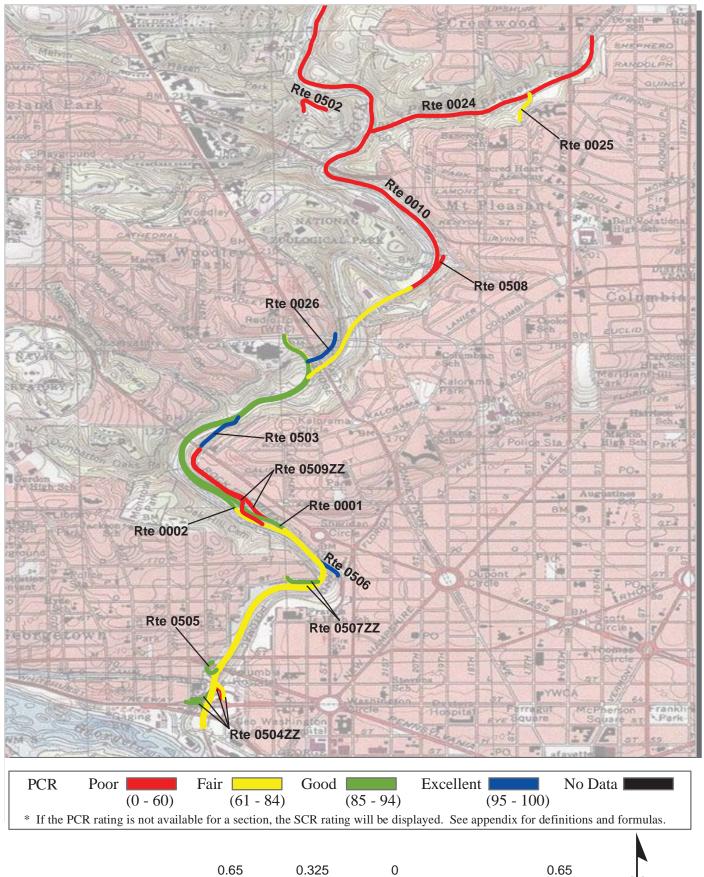
Rock Creek Park Route Condition Map PCR - Mile by Mile Area 1



Rock Creek Park Route Condition Map PCR - Mile by Mile Area 2



Rock Creek Park Route Condition Map PCR - Mile by Mile Area 3



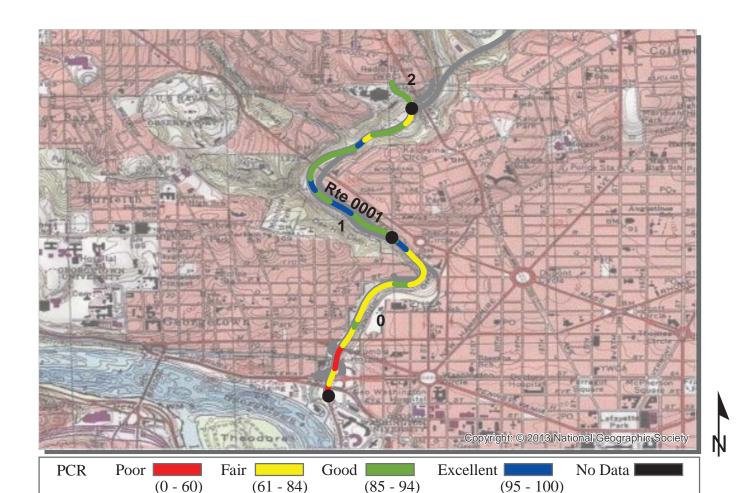
Miles

Section 5 Paved Route Condition Rating Sheets



Rock Creek Park





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

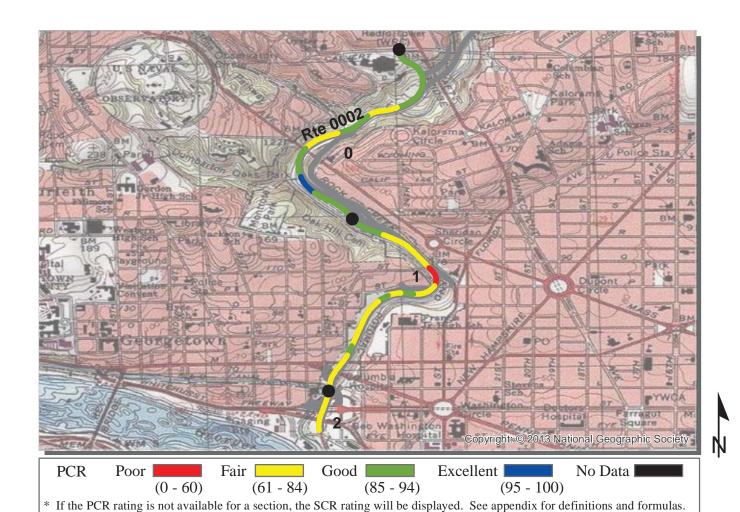
COLLECTED:

2/16/2013

ROUTE: 0001 ROCK CREEK AND POTOMAC PARKWAY NORTHBOUND

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION	TOTAL	LENGTH:	2.16 Miles		
Section Number	0	1	2		
Section Length (mi)	1.00	1.00	0.16		
Cross Section Information					
Number of Lanes	2	2	1		
Paved Width (ft)	24	22	14		
Lane Width (ft)	11	10	11		
Roadway Condition Information					
SCR (Surface Condition Rating)	78	98	99		
PCR (Pavement Condition Rating)	74	88	84		
Distress Index Values					
Structural Crack Index	78	98	99		
Transverse Cracking Index	82	100	100		
Patching Index	100	100	100		
Rutting Index	99	100	99		
Roughness Condition Index (RCI)	68	73	61		

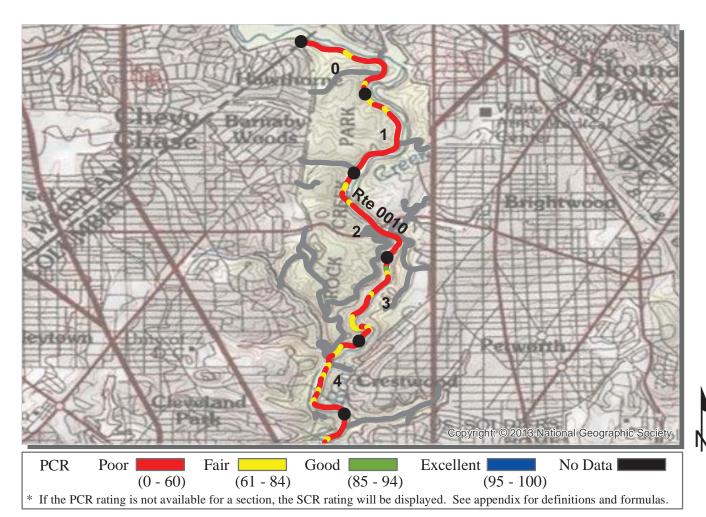


2/16/2013

ROUTE: 0002 ROCK CREEK AND POTOMAC PARKWAY SOUTHBOUND

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION				LENGTH:	2.16 Miles
Section Number	0	1	2		
Section Length (mi)	1.00	1.00	0.16		
Cross Section Information					
Number of Lanes	2	2	2		
Paved Width (ft)	21	24	26		
Lane Width (ft)	11	11	11		
Roadway Condition Information					
SCR (Surface Condition Rating)	99	81	84		
PCR (Pavement Condition Rating)	86	75	70		
Distress Index Values					
Structural Crack Index	99	81	91		
Transverse Cracking Index	100	90	84		
Patching Index	100	99	100		
Rutting Index	100	98	95		
Roughness Condition Index (RCI)	66	67	48		

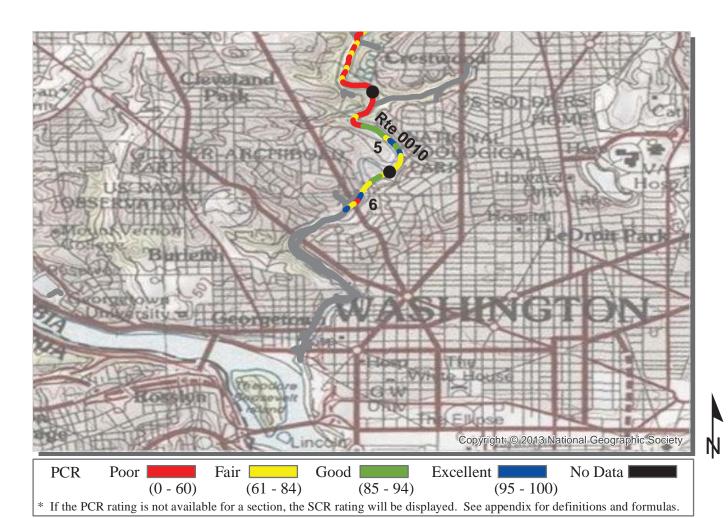


2/21/2013

ROUTE: 0010 BEACH DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION			TOTAL	LENGTH:	6.48 Miles
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	19	19	19	20
Lane Width (ft)	10	9	9	9	9
Roadway Condition Information					
SCR (Surface Condition Rating)	9	0	0	15	3
PCR (Pavement Condition Rating)	26	25	23	33	20
Distress Index Values					
Structural Crack Index	9	0	0	15	3
Transverse Cracking Index	97	99	98	99	99
Patching Index	95	93	94	97	93
Rutting Index	89	89	92	95	91
Roughness Condition Index (RCI)	51	63	57	59	46



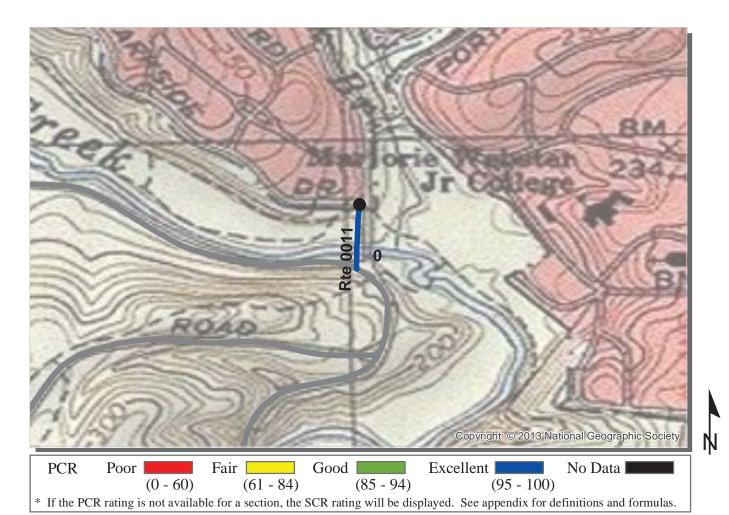
ROUTE: 0010 BEACH DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION			TOTAL LEN	GTH:	6.48 Miles
Section Number	5	6			
Section Length (mi)	1.00	0.48			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	22	22			
Lane Width (ft)	10	10			
Roadway Condition Information					
SCR (Surface Condition Rating)	43	91			
PCR (Pavement Condition Rating)	53	82			
Distress Index Values					
Structural Crack Index	43	91			
Transverse Cracking Index	99	95			
Patching Index	99	100			
Rutting Index	96	96			
Roughness Condition Index (RCI)	67	69			

COLLECTED:

2/21/2013

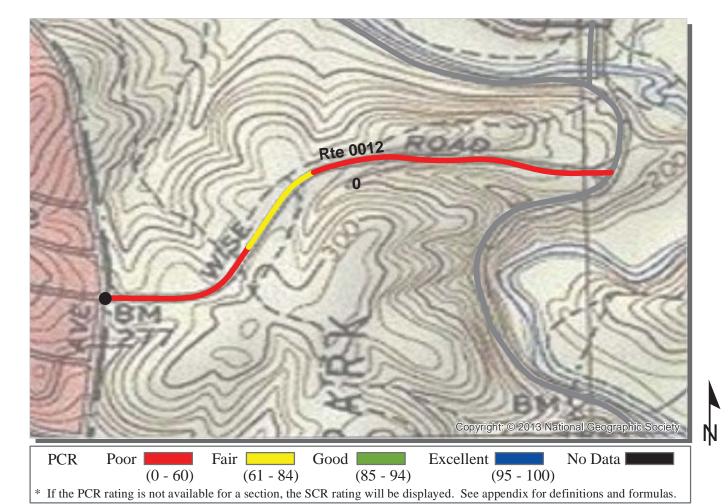


2/21/2013

ROUTE: 0011 WEST BEACH DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.08 Miles
Section Number	0			
Section Length (mi)	0.08			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	25			
Lane Width (ft)	12			
Roadway Condition Information				
SCR (Surface Condition Rating)	99			
PCR (Pavement Condition Rating)	99			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	99			
Patching Index	100			
Rutting Index	99			
Roughness Condition Index (RCI)	NC			

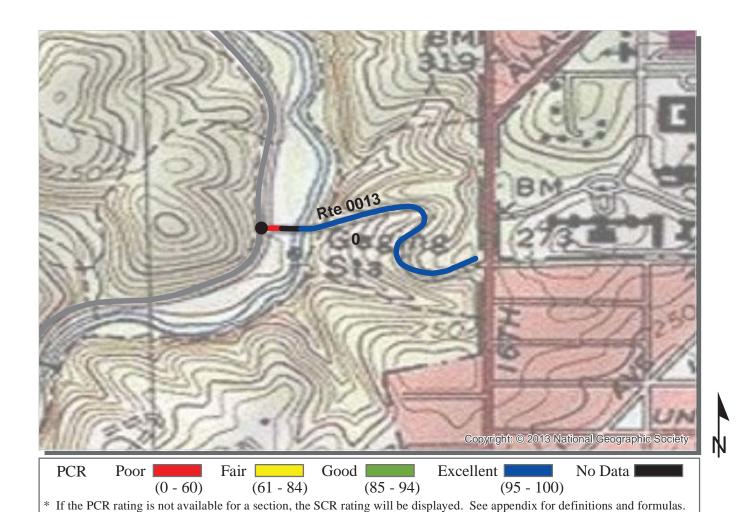


2/21/2013

ROUTE: 0012 WISE ROAD NORTHWEST

ROCR: ROCK CREEK PARK

TOTAL LENGTH: NATIONAL CAPITAL REGION **0.61 Miles** Section Number Section Length (mi) 0.61 **Cross Section Information** Number of Lanes 22 Paved Width (ft) 11 Lane Width (ft) Roadway Condition Information SCR (Surface Condition Rating) PCR (Pavement Condition Rating) 26 Distress Index Values 0 Structural Crack Index 99 Transverse Cracking Index 93 Patching Index **Rutting Index** 95 Roughness Condition Index (RCI) 65

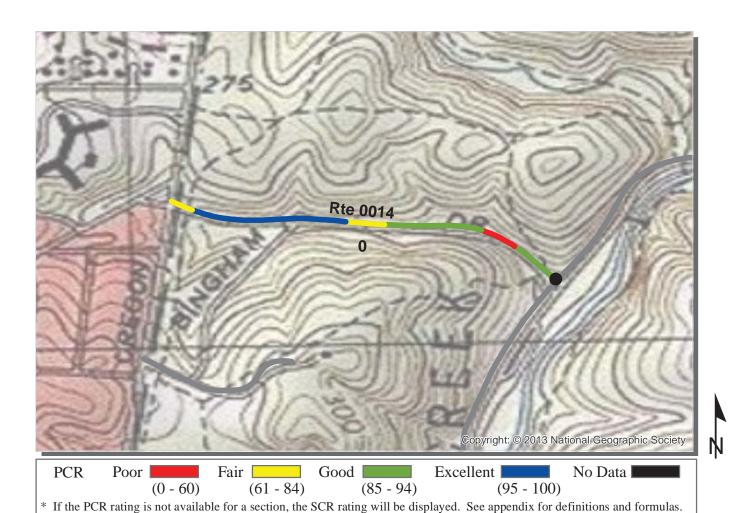


2/21/2013

ROUTE: 0013 SHERRILL DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.33 Miles
Section Number	0			
Section Length (mi)	0.33			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	19			
Lane Width (ft)	9			
Roadway Condition Information				
SCR (Surface Condition Rating)	90			
PCR (Pavement Condition Rating)	90			
Distress Index Values				
Structural Crack Index	90			
Transverse Cracking Index	99			
Patching Index	100			
Rutting Index	99			
Roughness Condition Index (RCI)	NC			

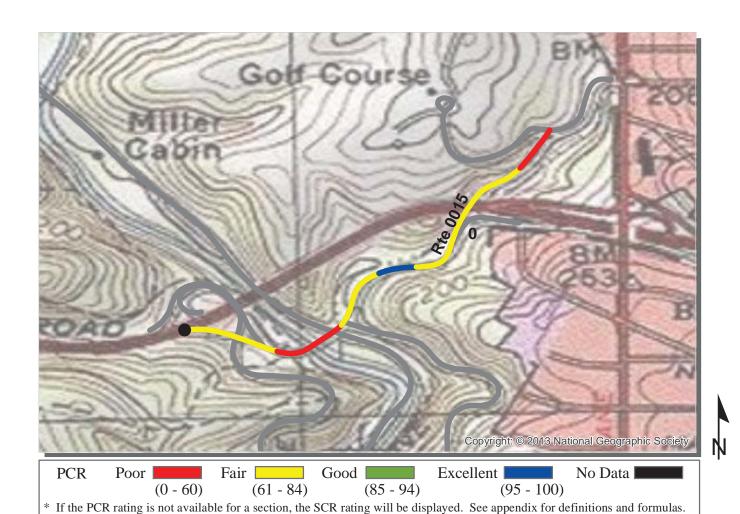


2/21/2013

ROUTE: 0014 BINGHAM DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.42 Miles
Section Number	0			
Section Length (mi)	0.42			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	18			
Lane Width (ft)	9			
Roadway Condition Information				
SCR (Surface Condition Rating)	66			
PCR (Pavement Condition Rating)	66			
Distress Index Values				
Structural Crack Index	66			
Transverse Cracking Index	96			
Patching Index	100			
Rutting Index	99			
Roughness Condition Index (RCI)	NC			



ROUTE: 0015 JOYCE ROAD NORTHWEST

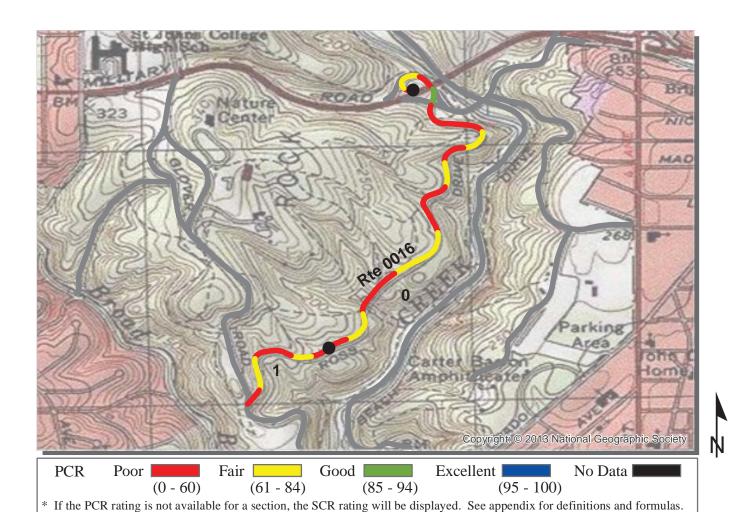
ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.53 Miles
Section Number	0			
Section Length (mi)	0.53			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	23			
Lane Width (ft)	14			
Roadway Condition Information				
SCR (Surface Condition Rating)	58			
PCR (Pavement Condition Rating)	55			
Distress Index Values				
Structural Crack Index	58			
Transverse Cracking Index	93			
Patching Index	99			
Rutting Index	98			
Roughness Condition Index (RCI)	50			

COLLECTED:

2/21/2013



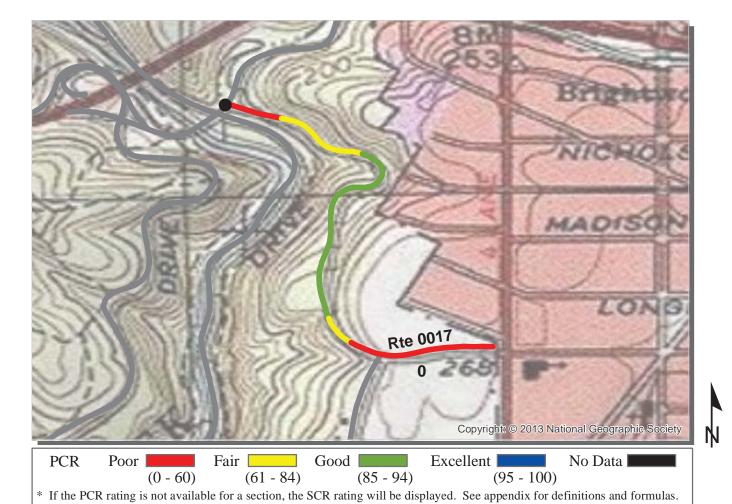
ROUTE: 0016 ROSS DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION				LENGTH:	1.27 Miles
Section Number	0	1			
Section Length (mi)	1.00	0.27			
Cross Section Information					
Number of Lanes	2	2			
Paved Width (ft)	19	22			
Lane Width (ft)	10	11			
Roadway Condition Information					
SCR (Surface Condition Rating)	63	69			
PCR (Pavement Condition Rating)	59	66			
Distress Index Values					
Structural Crack Index	63	70			
Transverse Cracking Index	93	95			
Patching Index	99	100			
Rutting Index	72	69			
Roughness Condition Index (RCI)	52	61			

COLLECTED:

2/16/2013



2/21/2013

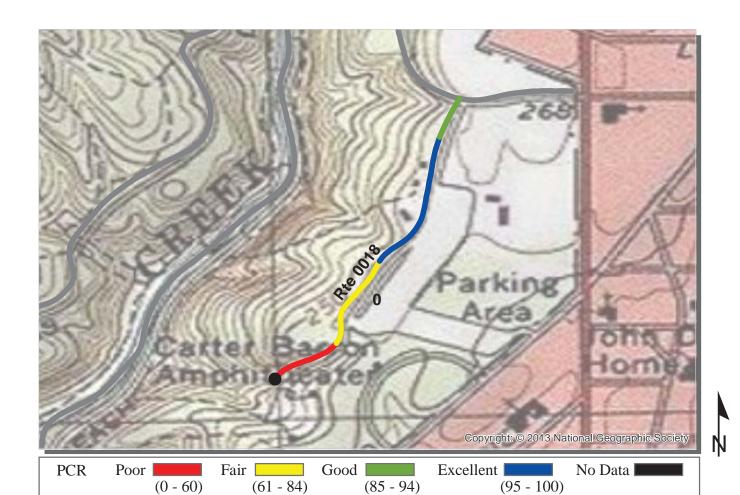
ROUTE: 0017 MORROW DRIVE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.61 Miles
Section Number	0			
Section Length (mi)	0.61			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	24			
Lane Width (ft)	11			
Roadway Condition Information				
SCR (Surface Condition Rating)	62			
PCR (Pavement Condition Rating)	66			
Distress Index Values				
Structural Crack Index	62			
Transverse Cracking Index	97			
Patching Index	98			
Rutting Index	96			
Roughness Condition Index (RCI)	71			

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.



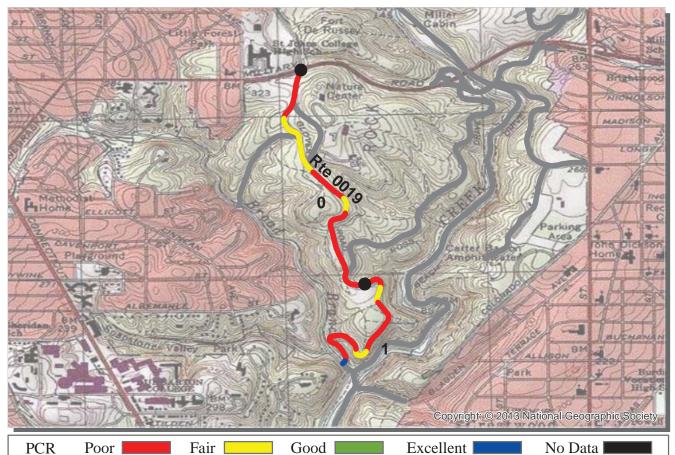
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

COLLECTED:

2/21/2013

ROUTE: 0018 STAGE ROAD ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.43 Miles
Section Number	0			
Section Length (mi)	0.43			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	21			
Lane Width (ft)	13			
Roadway Condition Information				
SCR (Surface Condition Rating)	68			
PCR (Pavement Condition Rating)	68			
Distress Index Values				
Structural Crack Index	68			
Transverse Cracking Index	94			
Patching Index	100			
Rutting Index	99			
Roughness Condition Index (RCI)	NC			



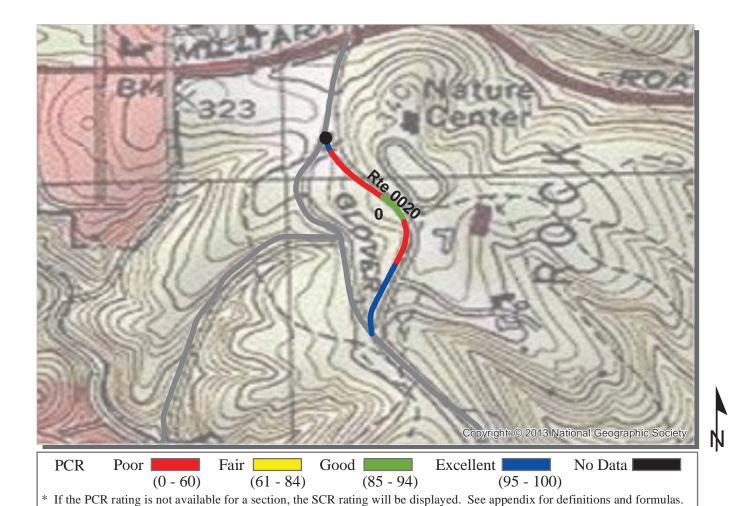
(95 - 100)(0 - 60)(61 - 84)(85 - 94)* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0019 GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST

ROCR: ROCK CREEK PARK

COLLECTED: 2/16/2013 NATIONAL CAPITAL REGION **TOTAL LENGTH: 1.65 Miles**

MATIONAL CALITAL REGION			TOTAL LEMOTH.	1.05 Willes
Section Number	0	1		
Section Length (mi)	1.00	0.65		
Cross Section Information				
Number of Lanes	2	2		
Paved Width (ft)	19	18		
Lane Width (ft)	9	7		
Roadway Condition Information				
SCR (Surface Condition Rating)	0	25		
PCR (Pavement Condition Rating)	20	33		
Distress Index Values				
Structural Crack Index	0	25		
Transverse Cracking Index	92	95		
Patching Index	99	93		
Rutting Index	89	89		
Roughness Condition Index (RCI)	50	45		



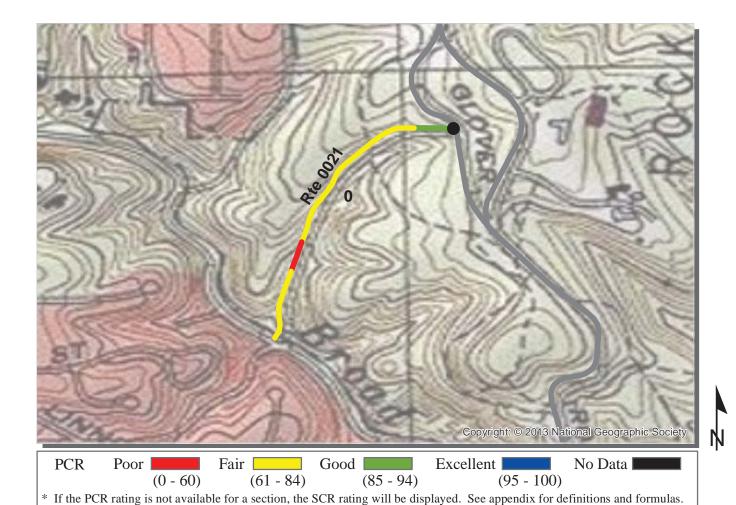
2/21/2013

ROUTE: 0020 EAST GLOVER ROAD

ROCR: ROCK CREEK PARK

NATIONAL CADITAL DECION

NATIONAL CAPITAL REGION	TIONAL CAPITAL REGION		TOTAL	LENGTH:	0.29 Miles
Section Number	0				
Section Length (mi)	0.29				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	9				
Roadway Condition Information					
SCR (Surface Condition Rating)	0				
PCR (Pavement Condition Rating)	0				
Distress Index Values					
Structural Crack Index	0				
Transverse Cracking Index	96				
Patching Index	99				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

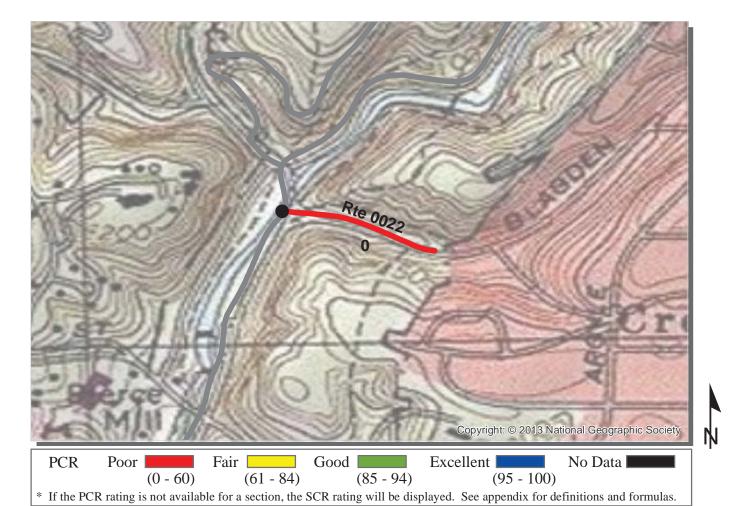


2/21/2013

ROUTE: 0021 GRANT ROAD NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.37 Miles
Section Number	0			
Section Length (mi)	0.37			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	18			
Lane Width (ft)	8			
Roadway Condition Information				
SCR (Surface Condition Rating)	74			
PCR (Pavement Condition Rating)	74			
Distress Index Values				
Structural Crack Index	75			
Transverse Cracking Index	99			
Patching Index	100			
Rutting Index	74			
Roughness Condition Index (RCI)	NC			



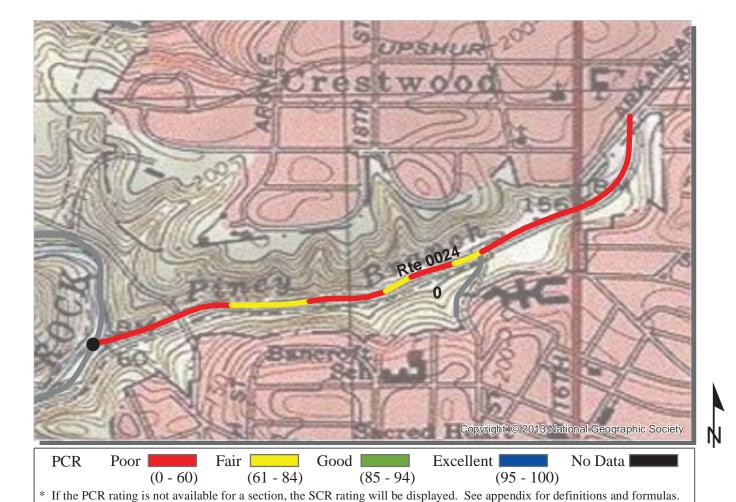
2/16/2013

ROUTE: 0022 BLAGDEN AVENUE NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION

NATIONAL CAPITAL REGION		TOTAI	LENGTH:	0.16 Miles
Section Number	0			
Section Length (mi)	0.16			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	21			
Lane Width (ft)	9			
Roadway Condition Information				
SCR (Surface Condition Rating)	43			
PCR (Pavement Condition Rating)	43			
Distress Index Values				
Structural Crack Index	43			
Transverse Cracking Index	89			
Patching Index	98			
Rutting Index	95			
Roughness Condition Index (RCI)	NC			



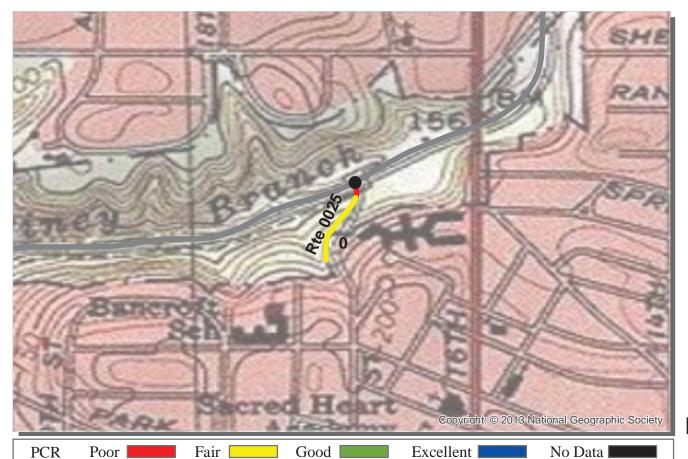
2/16/2013

ROUTE: 0024 PINEY BRANCH PARKWAY NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.84 Miles
Section Number	0			
Section Length (mi)	0.84			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	23			
Lane Width (ft)	10			
Roadway Condition Information				
SCR (Surface Condition Rating)	0			
PCR (Pavement Condition Rating)	24			
Distress Index Values				
Structural Crack Index	0			
Transverse Cracking Index	96			
Patching Index	97			
Rutting Index	95			
Roughness Condition Index (RCI)	61			



(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.

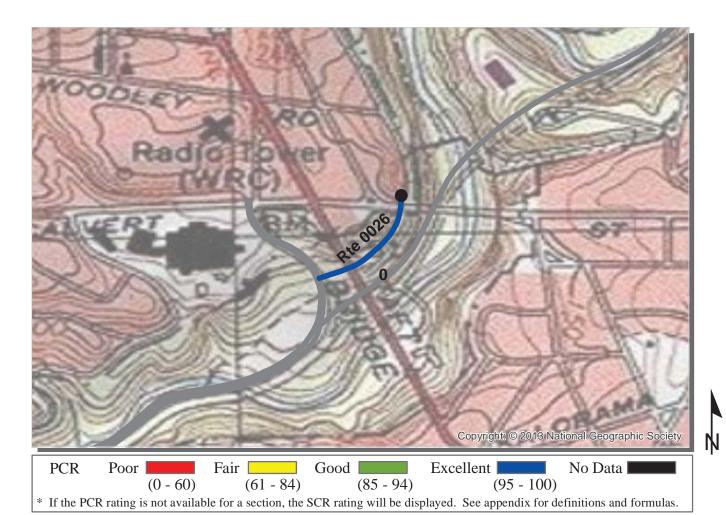
COLLECTED:

2/16/2013

ROUTE: 0025 17TH STREET NORTHWEST

ROCR: ROCK CREEK PARK

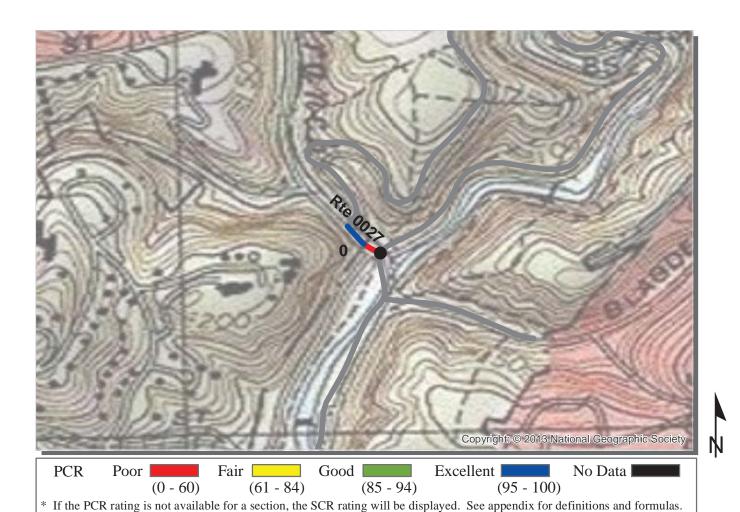
NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.11 Miles
Section Number	0			
Section Length (mi)	0.11			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	22			
Lane Width (ft)	11			
Roadway Condition Information				
SCR (Surface Condition Rating)	62			
PCR (Pavement Condition Rating)	62			
Distress Index Values				
Structural Crack Index	62			
Transverse Cracking Index	92			
Patching Index	99			
Rutting Index	94			
Roughness Condition Index (RCI)	NC			



ROUTE: 0026 CATHEDRAL AVENUE NORTHWEST

ROCR: ROCK CREEK PARK

Section Number	0		
Section Length (mi)	0.14		
Cross Section Information			
Number of Lanes	2		
Paved Width (ft)	31		
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	99		
Patching Index	100		
Rutting Index	100		
Roughness Condition Index (RCI)	NC		



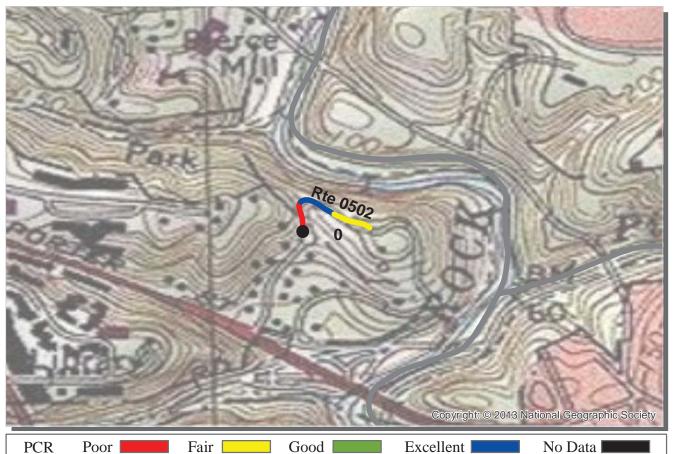
2/16/2013

ROUTE: 0027 BROAD BRANCH ROAD NORTHWEST

ROCR: ROCK CREEK PARK

NATIONAL CADITAL DECION

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.05 Miles
Section Number	0			
Section Length (mi)	0.05			
Cross Section Information				
Number of Lanes	2			
Paved Width (ft)	21			
Lane Width (ft)	8			
Roadway Condition Information				
SCR (Surface Condition Rating)	48			
PCR (Pavement Condition Rating)	48			
Distress Index Values				
Structural Crack Index	48			
Transverse Cracking Index	91			
Patching Index	100			
Rutting Index	88			
Roughness Condition Index (RCI)	NC			



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

COLLECTED:

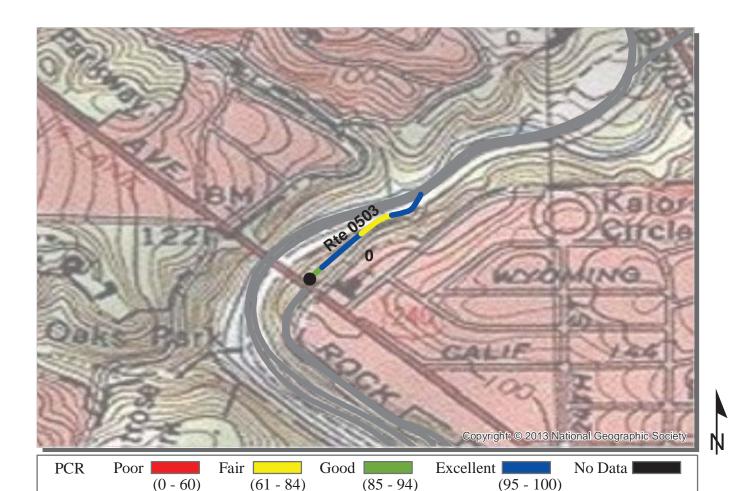
2/21/2013

ROUTE: 0502 KLINGLE MANSION ENTRANCE ROAD

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.12 Miles
Section Number	0			
Section Length (mi)	0.12			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	13			
Lane Width (ft)	12			
Roadway Condition Information				
SCR (Surface Condition Rating)	57			
PCR (Pavement Condition Rating)	57			
Distress Index Values				
Structural Crack Index	57			
Transverse Cracking Index	99			
Patching Index	99			
Rutting Index	93			
Roughness Condition Index (RCI)	NC			



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

COLLECTED:

2/16/2013

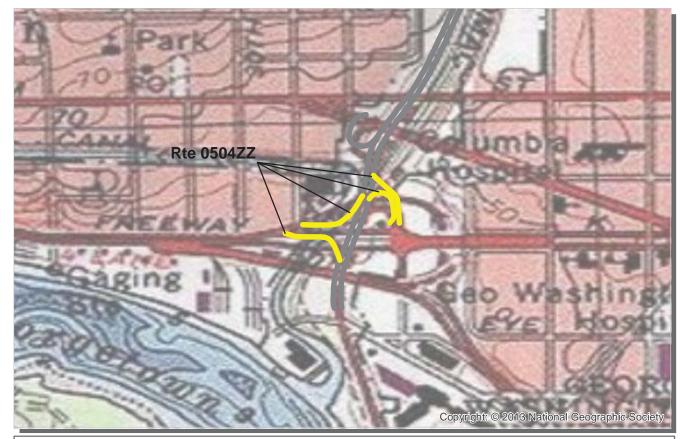
ROUTE: 0503 NORTH WATERSIDE DRIVE

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION

NATIONAL CAPITAL REGION		TOTAL	LENGTH:	0.16 Miles
Section Number	0			
Section Length (mi)	0.16			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	15			
Lane Width (ft)	15			
Roadway Condition Information				
SCR (Surface Condition Rating)	95			
PCR (Pavement Condition Rating)	95			
Distress Index Values				
Structural Crack Index	95			
Transverse Cracking Index	98			
Patching Index	100			
Rutting Index	99			
Roughness Condition Index (RCI)	NC			



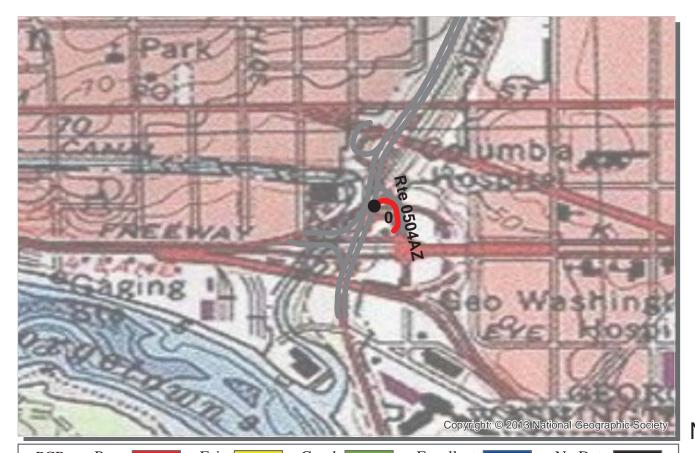


No Data Fair [Good | Excellent **PCR** Poor | (61 - 84)(0 - 60)(85 - 94)(95 - 100)* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0504ZZ RAMPS FROM N/B & S/B ROCK CREEK PARKWAY TO "K" STREET **ROCR: ROCK CREEK PARK**

COLLECTED: 2/16/2013 **Summary Record**

NATIONAL CAPITAL REGION		7	TOTAL LENGTH:	0.28 Miles
Section Number				
Section Length (mi)				
Cross Section Information				
Number of Lanes	N/A			
Paved Width (ft)	N/A			
Lane Width (ft)	N/A			
Roadway Condition Information				
SCR (Surface Condition Rating)	76			
PCR (Pavement Condition Rating)	76			
Distress Index Values				
Structural Crack Index	N/A			
Transverse Cracking Index	N/A			
Patching Index	N/A			
Rutting Index	N/A			
Roughness Condition Index (RCI)	N/A			



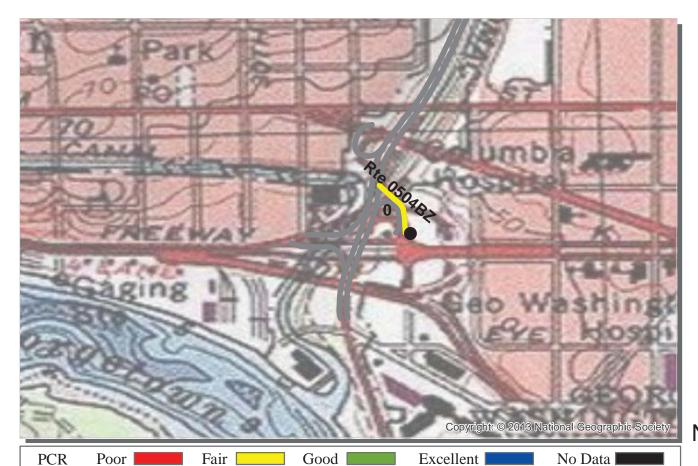
Fair [Good Excellent No Data **PCR** Poor | (61 - 84)(0 - 60)(85 - 94)(95 - 100)* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0504AZ RAMP FROM N/B ROCK CREEK PARKWAY TO "K" STREET

ROCR: ROCK CREEK PARK

COLLECTED: 2/16/2013 **Subcomponent Record** TOTAL LENGTH: 0.06 Miles NATIONAL CAPITAL REGION

NATIONAL CAPITAL REGION		IOIAL LENGIH:	0.06 Miles
Section Number	0		
Section Length (mi)	0.06		
Cross Section Information			
Number of Lanes	1		
Paved Width (ft)	20		
Lane Width (ft)	19		
Roadway Condition Information			
SCR (Surface Condition Rating)	51		
PCR (Pavement Condition Rating)	51		
Distress Index Values			
Structural Crack Index	51		
Transverse Cracking Index	64		
Patching Index	100		
Rutting Index	98		
Roughness Condition Index (RCI)	NC		



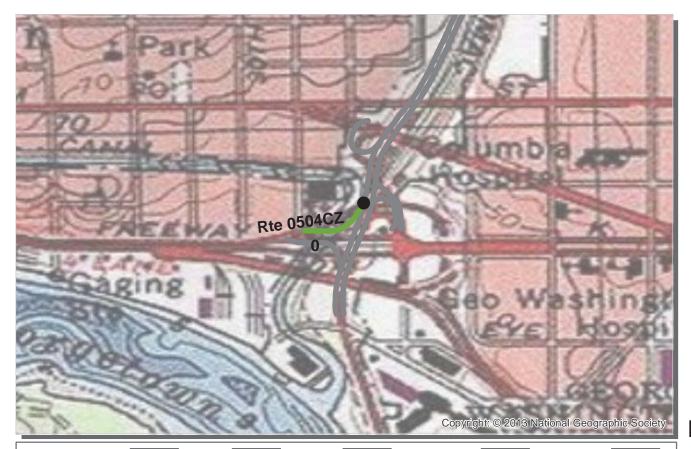
(61 - 84)(0 - 60)(85 - 94)(95 - 100)* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0504BZ RAMP FROM S/B ROCK CREEK PARKWAY TO "K" STREET

ROCR: ROCK CREEK PARK

COLLECTED: 2/16/2013 **Subcomponent Record** NATIONAL CAPITAL REGION TOTAL LENGTH: 0.07 Miles

NATIONAL CAPITAL REGION			IOIAL	LENGIII:	0.07 Willes
Section Number	0	·		·	
Section Length (mi)	0.07				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	20				
Lane Width (ft)	18				
Roadway Condition Information					
SCR (Surface Condition Rating)	74				
PCR (Pavement Condition Rating)	74				
Distress Index Values					
Structural Crack Index	75				
Transverse Cracking Index	74				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				



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

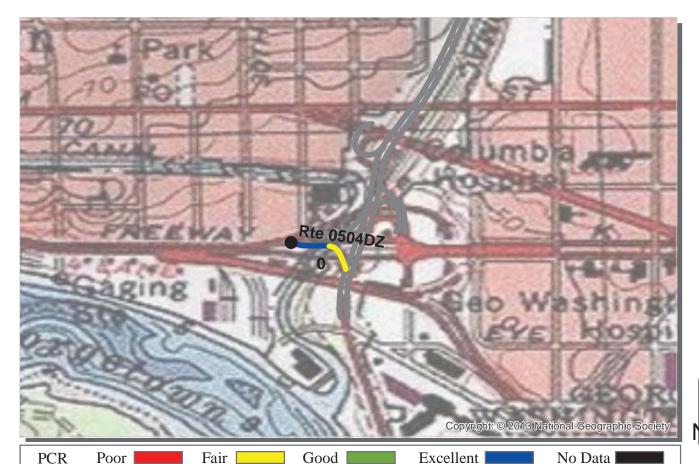
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0504CZ RAMP FROM "K" STREET TO N/B ROCK CREEK PARKWAY

ROCR: ROCK CREEK PARK

Subcomponent Record COLLECTED: 2/16/2013
NATIONAL CAPITAL PECION TOTAL LENGTH: 0.08 Milos

NATIONAL CAPITAL REGION		TOTAL LENGTH:			0.08 Miles
Section Number	0				
Section Length (mi)	0.08				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	23				
Lane Width (ft)	22				
Roadway Condition Information					
SCR (Surface Condition Rating)	87				
PCR (Pavement Condition Rating)	87				
Distress Index Values					
Structural Crack Index	89				
Transverse Cracking Index	87				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				



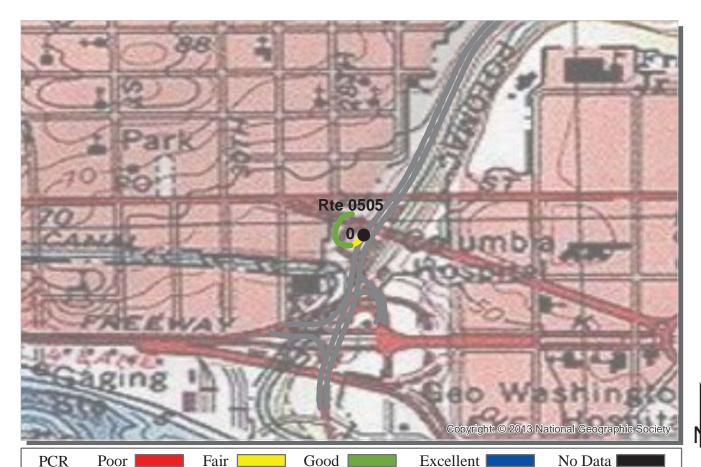
PCR Poor | (61 - 84)(85 - 94)(0 - 60)(95 - 100)* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0504DZ RAMP FROM "K" STREET TO S/B ROCK CREEK PARKWAY

ROCR: ROCK CREEK PARK

COLLECTED: 2/16/2013 Subcomponent Record

NATIONAL CAPITAL REGION		TOTAL	0.07 Miles	
Section Number	0			
Section Length (mi)	0.07			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	18			
Lane Width (ft)	18			
Roadway Condition Information				
SCR (Surface Condition Rating)	86			
PCR (Pavement Condition Rating)	86			
Distress Index Values				
Structural Crack Index	98			
Transverse Cracking Index	86			
Patching Index	100			
Rutting Index	98			
Roughness Condition Index (RCI)	NC			



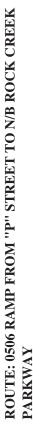
(0 - 60)(61 - 84)(85 - 94)(95 - 100)* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

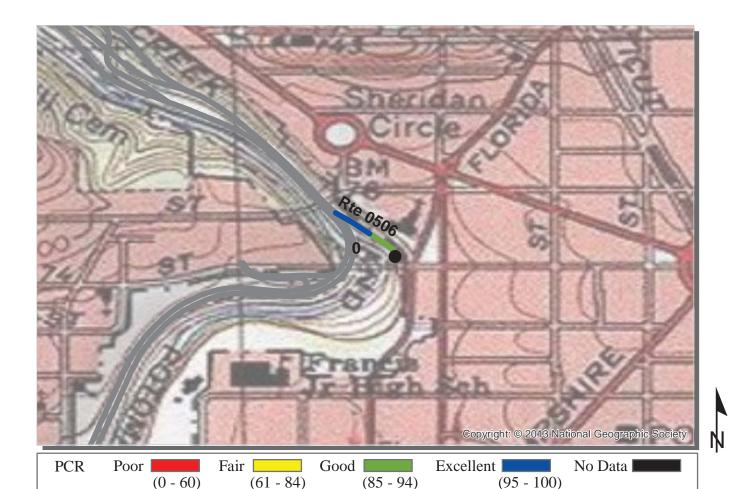
ROUTE: 0505 RAMP FROM S/B ROCK CREEK PARKWAY TO PENNSYLVANIA AVENUE

ROCR: ROCK CREEK PARK

COLLECTED: 2/16/2013 NATIONAL CAPITAL REGION TOTAL LENGTH: **0.08 Miles** Section Number 0.08 Section Length (mi)

Cross Section Information Number of Lanes Paved Width (ft) 14 Lane Width (ft) 13 Roadway Condition Information 90 SCR (Surface Condition Rating) PCR (Pavement Condition Rating) 90 Distress Index Values 90 Structural Crack Index 91 Transverse Cracking Index Patching Index 100 99 **Rutting Index** Roughness Condition Index (RCI) NC





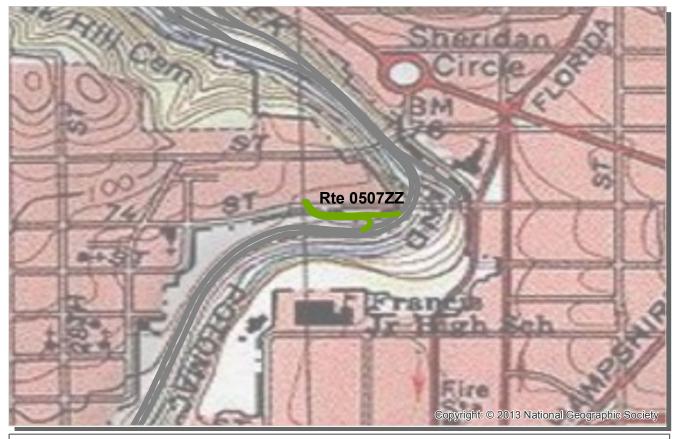
ROUTE: 0506 RAMP FROM "P" STREET TO N/B ROCK CREEK PARKWAY

ROCR: ROCK CREEK PARK

COLLECTED: 2/16/2013
NATIONAL CAPITAL REGION TOTAL LENGTH: 0.08 Miles

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

MATIONAL CALITAL REGION	101711	LENGIII.	0.00 Miles	
Section Number	0			
Section Length (mi)	0.08			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	20			
Lane Width (ft)	15			
Roadway Condition Information				
SCR (Surface Condition Rating)	96			
PCR (Pavement Condition Rating)	96			
Distress Index Values				
Structural Crack Index	96			
Transverse Cracking Index	98			
Patching Index	100			
Rutting Index	98			
Roughness Condition Index (RCI)	NC			



Fair [Good | Excellent No Data **PCR** Poor | (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.

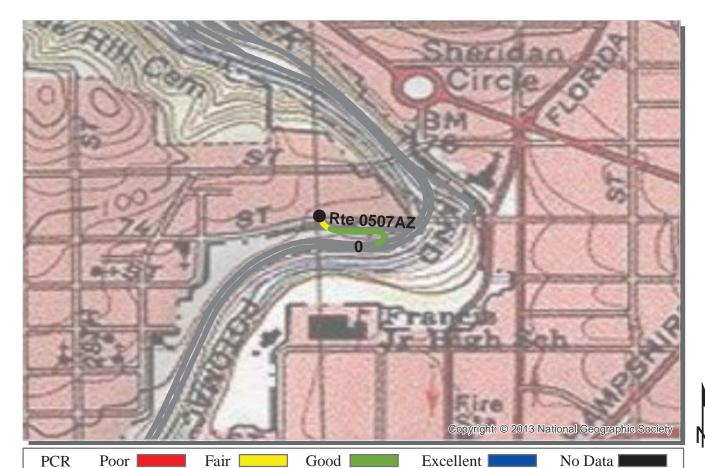
ROUTE: 0507ZZ RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY AND RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET **ROCR: ROCK CREEK PARK**

COLLECTED: 4/2/2013 Summary Record NATIONAL CAPITAL REGION **TOTAL LENGTH: 0.19 Miles**

Section Number			
Section Length (mi)			
Cross Section Information			
Number of Lanes	N/A		
Paved Width (ft)	N/A		
Lane Width (ft)	N/A		
Roadway Condition Information			
SCR (Surface Condition Rating)	85		
PCR (Pavement Condition Rating)	85		
Distress Index Values			
Structural Crack Index	N/A		
Transverse Cracking Index	N/A		
Patching Index	N/A		
Rutting Index	N/A		
Roughness Condition Index (RCI)	N/A		

NOTES:

"P" STREET



(61 - 84)(0 - 60)(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.

ROUTE: 0507AZ RAMP FROM "P" STREET TO S/B ROCK CREEK PARKWAY

ROCR: ROCK CREEK PARK

COLLECTED: 4/2/2013 **Subcomponent Record** NATIONAL CAPITAL REGION TOTAL LENGTH: 0.09 Miles

NATIONAL CAPITAL REGION		IOIAL	LENGIII.	0.09 Willes
Section Number	0			
Section Length (mi)	0.09			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	17			
Lane Width (ft)	15			
Roadway Condition Information				
SCR (Surface Condition Rating)	84			
PCR (Pavement Condition Rating)	84			
Distress Index Values				
Structural Crack Index	100			
Transverse Cracking Index	84			
Patching Index	100			
Rutting Index	98			
Roughness Condition Index (RCI)	NC			



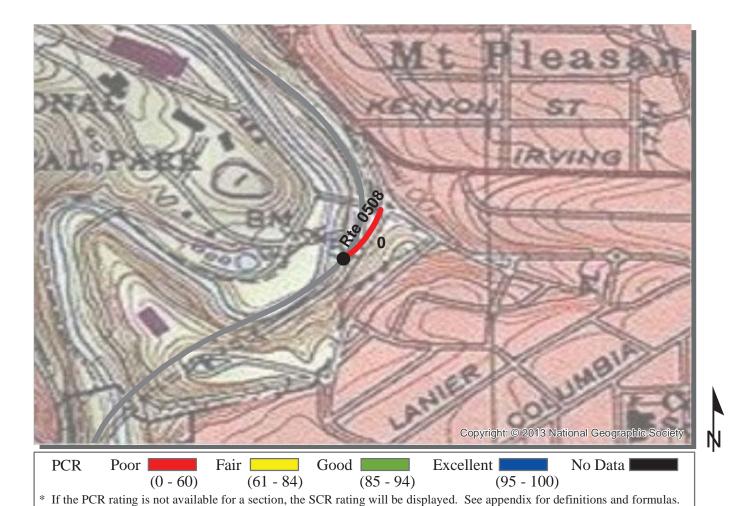
PCR Poor Fair Good Excellent No Data (0 - 60) (61 - 84) (85 - 94) (95 - 100)

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

ROUTE: 0513BZ RAMP FROM S/B ROCK CREEK PARKWAY TO "P" STREET ROCR: ROCK CREEK PARK

Subcomponent Record COLLECTED: 2/16/2013
NATIONAL CAPITAL REGION TOTAL LENGTH: 0.10 Miles

NATIONAL CAPITAL REGION		TOTAL LENGTH:	0.10 Miles
Section Number	0		
Section Length (mi)	0.10		
Cross Section Information			
Number of Lanes	1		
Paved Width (ft)	16		
Lane Width (ft)	15		
Roadway Condition Information			
SCR (Surface Condition Rating)	85		
PCR (Pavement Condition Rating)	85		
Distress Index Values			
Structural Crack Index	98		
Transverse Cracking Index	85		
Patching Index	100		
Rutting Index	100		
Roughness Condition Index (RCI)	NC		



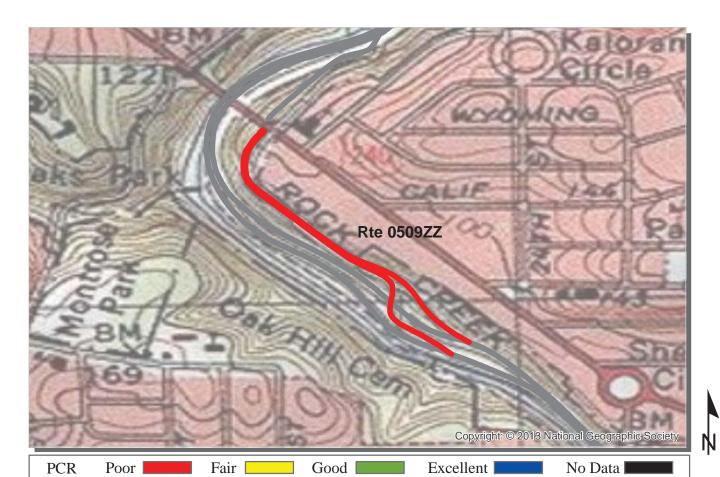
COLLECTED:

2/16/2013

ROUTE: 0508 RAMP TO HARVARD STREET

ROCR: ROCK CREEK PARK

NATIONAL CAPITAL REGION **TOTAL LENGTH: 0.07 Miles** Section Number 0.07 Section Length (mi) **Cross Section Information** Number of Lanes 13 Paved Width (ft) Lane Width (ft) 13 Roadway Condition Information SCR (Surface Condition Rating) PCR (Pavement Condition Rating) 0 Distress Index Values Structural Crack Index 87 Transverse Cracking Index Patching Index 96 88 **Rutting Index** Roughness Condition Index (RCI) NC



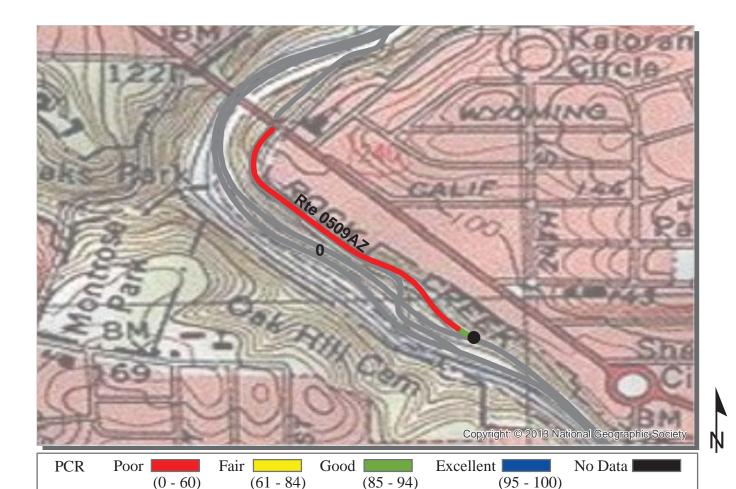
 $(0-60) \qquad (61-84) \qquad (85-94) \qquad (95-100)$ * If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0509ZZ SOUTH WATERSIDE DRIVE N/B & S/B

ROCR: ROCK CREEK PARK

Summary Record COLLECTED: 4/2/2013

NATIONAL CAPITAL REGION		TOTAL	0.77 Miles	
Section Number				
Section Length (mi)				
Cross Section Information				
Number of Lanes	N/A			
Paved Width (ft)	N/A			
Lane Width (ft)	N/A			
Roadway Condition Information				
SCR (Surface Condition Rating)	0			
PCR (Pavement Condition Rating)	0			
Distress Index Values				
Structural Crack Index	N/A			
Transverse Cracking Index	N/A			
Patching Index	N/A			
Rutting Index	N/A			
Roughness Condition Index (RCI)	N/A			



ROUTE: 0509AZ SOUTH WATERSIDE DRIVE N/B

ROCR: ROCK CREEK PARK

Subcomponent Record COLLECTED: 2/16/2013
NATIONAL CAPITAL REGION TOTAL LENGTH: 0.38 Miles

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

NATIONAL CAPITAL REGION		IUIAL LENGIH:	0.38 Milles
Section Number	0		
Section Length (mi)	0.38		
Cross Section Information			
Number of Lanes	1		
Paved Width (ft)	17		
Lane Width (ft)	14		
Roadway Condition Information			
SCR (Surface Condition Rating)	0		
PCR (Pavement Condition Rating)	0		
Distress Index Values			
Structural Crack Index	0		
Transverse Cracking Index	93		
Patching Index	98		
Rutting Index	96		
Roughness Condition Index (RCI)	NC		



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

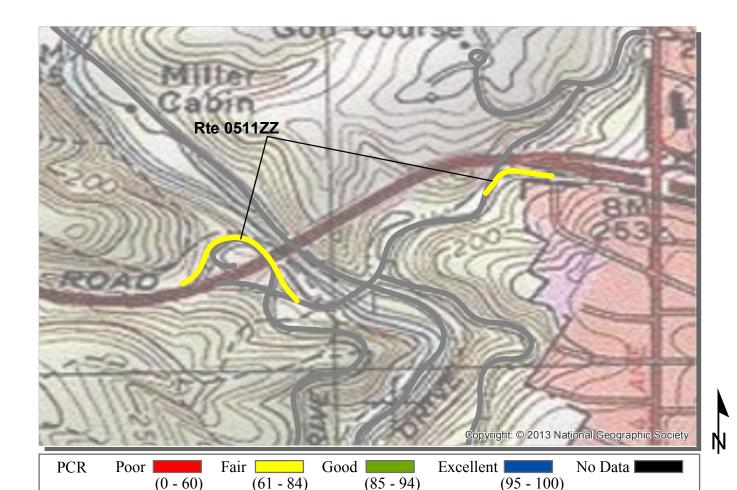
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0510BZ SOUTH WATERSIDE DRIVE S/B

ROCR: ROCK CREEK PARK

Subcomponent Record COLLECTED: 4/2/2013
NATIONAL CAPITAL REGION TOTAL LENGTH: 0.39 Miles

NATIONAL CAPITAL REGION		IOIAL	LENGIII.	0.39 Willes
Section Number	0			
Section Length (mi)	0.39			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	17			
Lane Width (ft)	15			
Roadway Condition Information				
SCR (Surface Condition Rating)	0			
PCR (Pavement Condition Rating)	0			
Distress Index Values				
Structural Crack Index	0			
Transverse Cracking Index	94			
Patching Index	97			
Rutting Index	93			
Roughness Condition Index (RCI)	NC			

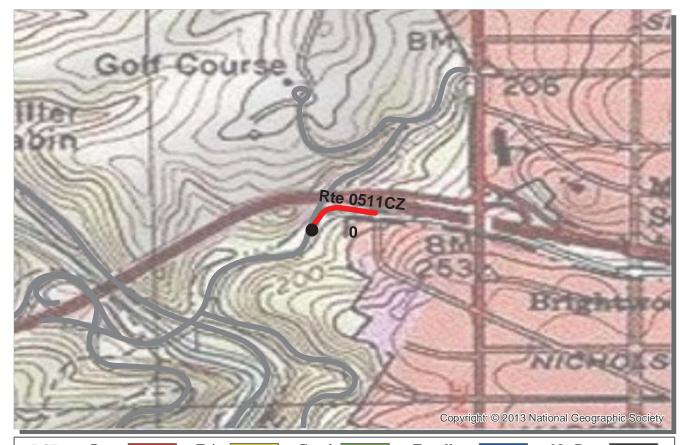


ROUTE: 0511ZZ RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW AND RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW **ROCR: ROCK CREEK PARK**

COLLECTED: 2/21/2013 **Summary Record** NATIONAL CAPITAL REGION TOTAL LENGTH: 0.27 Miles

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

NATIONAL CAPITAL REGION		IOTAL LENGTH:	U.Z / Willes	
Section Number				
Section Length (mi)				
Cross Section Information				
Number of Lanes	N/A			
Paved Width (ft)	N/A			
Lane Width (ft)	N/A			
Roadway Condition Information				
SCR (Surface Condition Rating)	68			
PCR (Pavement Condition Rating)	68			
Distress Index Values				
Structural Crack Index	N/A			
Transverse Cracking Index	N/A			
Patching Index	N/A			
Rutting Index	N/A			
Roughness Condition Index (RCI)	N/A			



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.

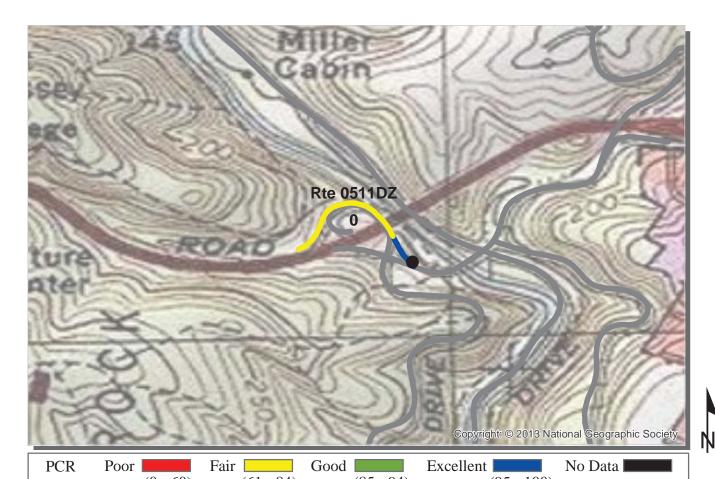
ROUTE: 0511CZ RAMP FROM N/B JOYCE ROAD NW TO 17TH STREET NW

ROCR: ROCK CREEK PARK

Subcomponent Record COLLECTED: 2/21/2013
NATIONAL CAPITAL REGION TOTAL LENGTH: 0.08 Miles

MATIONAL CALITAL REGION		TOTAL LENG	 0.00 Miles
Section Number	0		
Section Length (mi)	0.08		
Cross Section Information			
Number of Lanes	1		
Paved Width (ft)	22		
Lane Width (ft)	22		
Roadway Condition Information			
SCR (Surface Condition Rating)	45		
PCR (Pavement Condition Rating)	45		
Distress Index Values			
Structural Crack Index	45		
Transverse Cracking Index	72		
Patching Index	97		
Rutting Index	98		
Roughness Condition Index (RCI)	NC		





(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.

ROUTE: 0511DZ RAMP FROM S/B JOYCE ROAD NW TO MILITARY ROAD NW

ROCR: ROCK CREEK PARK

COLLECTED: 2/21/2013 **Subcomponent Record** NATIONAL CAPITAL REGION TOTAL LENGTH: 0.19 Miles

NATIONAL CAPITAL REGION		TOTAL	LENGIII:	0.19 Milles
Section Number	0			
Section Length (mi)	0.19			
Cross Section Information				
Number of Lanes	1			
Paved Width (ft)	13			
Lane Width (ft)	13			
Roadway Condition Information				
SCR (Surface Condition Rating)	84			
PCR (Pavement Condition Rating)	84			
Distress Index Values				
Structural Crack Index	92			
Transverse Cracking Index	84			
Patching Index	100			
Rutting Index	100			
Roughness Condition Index (RCI)	NC			

Section 6 Manually Rated Paved Route Condition Rating Sheets



Rock Creek Park



MANUALLY RATED ROUTE CONDITION RATING SHEETS

This park is classified as a Large Park. Therefore, in Cycle 5, no manually rated routes were collected unless the route was modified or previously uncollected by RIP.

Section 7 Parking Area Condition Rating Sheets



Rock Creek Park



ROCK CREEK PARK Route 0902ZZ

CARTER BARRON PARKING AREAS

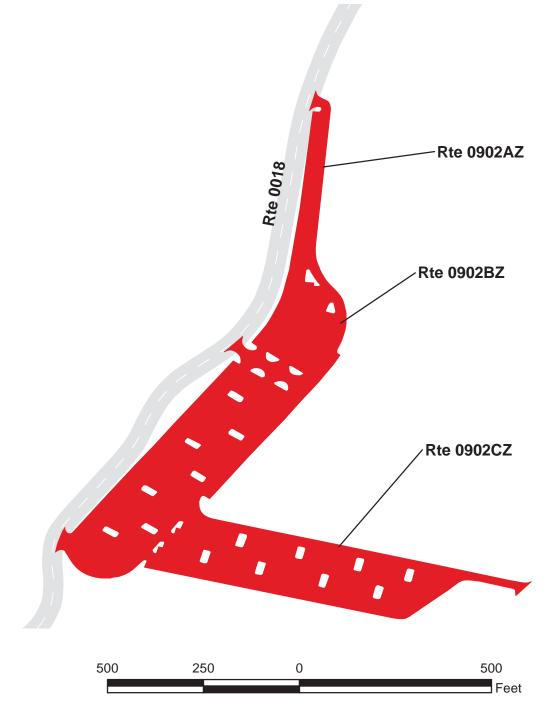
FROM ROUTE 0018 (STAGE ROAD)

TO ROUTE 0018 (STAGE ROAD) AND COLORADO AVENUE NORTHWEST

Summary Record

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902ZZ	PUBLIC	1/8/2013	245,503	4.23	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB	CONCRETE	
0	10	0	AND GUTTER	CURB	SUMMARY/73

^{*} Lane miles are based on 11' lane widths



ROCK CREEK PARK Route 0902AZ

CARTER BARRON PARKING AREA - LOT A

FROM ROUTE 0018 (STAGE ROAD)

TO ROUTE 0902BZ (CARTER BARRON PARKING AREA - LOT B)

Subcomponent Record

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902AZ	PUBLIC	1/8/2013	17,507	0.30	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB	CONCRETE	
0	0	0	AND GUTTER	CURB	FAIR/73

^{*} Lane miles are based on 11' lane widths

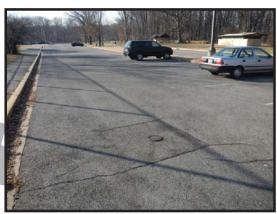




Rte 0902BZ



Rte 0902CZ



ROCK CREEK PARK Route 0902BZ

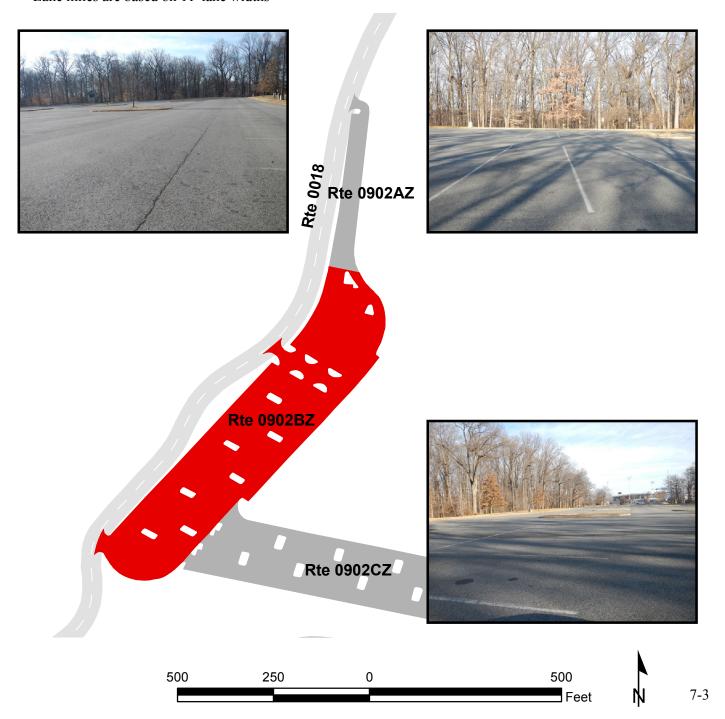
CARTER BARRON PARKING AREA - LOT B

FROM ROUTE 0018 (STAGE ROAD)

TO ROUTE 0902AZ (CARTER BARRON PARKING AREA - LOT A) AND ROUTE 0902CZ (CARTER BARRON PARKING AREA - LOT C) Subcomponent Record

	Public /				
Route Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902BZ	PUBLIC	1/8/2013	139,771	2.41	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB	CONCRETE	
0	5	0	AND GUTTER	CURB	FAIR/73

^{*} Lane miles are based on 11' lane widths



ROCK CREEK PARK Route 0902CZ

CARTER BARRON PARKING AREA - LOT C

FROM ROUTE 0902BZ (CARTER BARRON PARKING AREA - LOT B)

TO COLORADO AVENUE NORTHWEST

Subcomponent Record

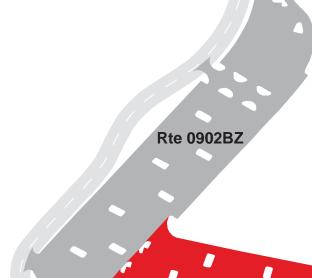
Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0902CZ	PUBLIC	1/8/2013	88,225	1.52	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND	CONCRETE	
0	5	0	GUTTER	CURB	FAIR/73

^{*} Lane miles are based on 11' lane widths



% Rte 0902AZ





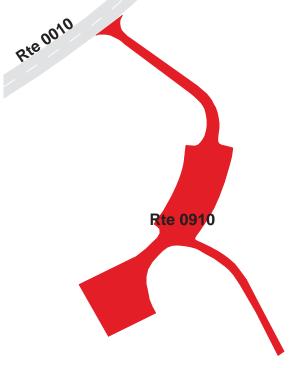


Rte 0902CZ

EDGEWATER STABLE PARKING FROM ROUTE 0010 (BEACH DRIVE NORTHWEST) ON LEFT TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0910	NONPUBLIC	1/8/2013	26,658	0.46	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB	CONCRETE	
0	3	0	AND GUTTER	CURB	POOR/45

^{*} Lane miles are based on 11' lane widths











PICNIC GROVE #1 PARKING FROM SHOEMAKER STREET NORTHWEST TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0918	PUBLIC	1/8/2013	10,686	0.18	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB		
0	2	1	AND GUTTER	NO CURB	GOOD/90

^{*} Lane miles are based on 11' lane widths









PICNIC GROVE #27 PARKING

FROM ROUTE 0019 (GLOVER ROAD NORTHWEST/ RIDGE ROAD NORTHWEST) TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0922	PUBLIC	1/8/2013	1,979	0.03	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND	CONCRETE	
0	1	0	GUTTER	CURB	FAIR/73

^{*} Lane miles are based on 11' lane widths









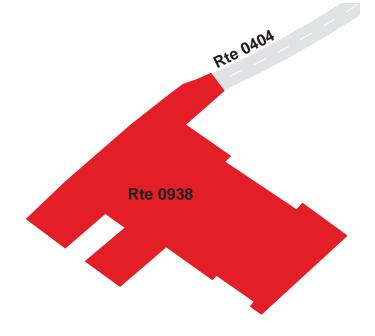
CENTER FOR URBAN ECOLOGY PARKING

FROM END OF ROUTE 0404 (CENTER FOR URBAN ECOLOGY ROAD) TO PARKING

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0938	NONPUBLIC	1/8/2013	19,178	0.33	CO
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			NO CURB AND		
0	5	3	GUTTER	NO CURB	FAIR/73

^{*} Lane miles are based on 11' lane widths









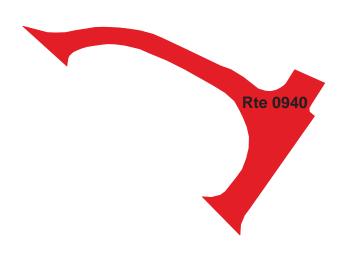
PIERCE MILL BUS LOOP FROM TILDEN STREET NORTHWEST TO TILDEN STREET NORTHWEST

Route	Public /				
Number	NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0940	PUBLIC	1/8/2013	4,274	0.07	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
			CONCRETE CURB		
0	4	0	AND GUTTER	NO CURB	EXCELLENT/97

^{*} Lane miles are based on 11' lane widths









Section 8 Route Maintenance Features Summaries



Rock Creek Park



DCV ROUTE MAINTENANCE FEATURES SUMMARY

This park is classified as a Large Park. Therefore, in Cycle 5, no features asset inventory was conducted unless the route was modified or previously uncollected by RIP.

STRUCTURE LIST

This park is classified as a large park. Therefore, in Cycle 5, BIP-Structures were inventoried only if they were located along routes that were modified or previously uncollected by RIP, so this report does not provide an all-inclusive listing of all BIP-Structures in the park.

Section 9 Route Maintenance Features Road Logs



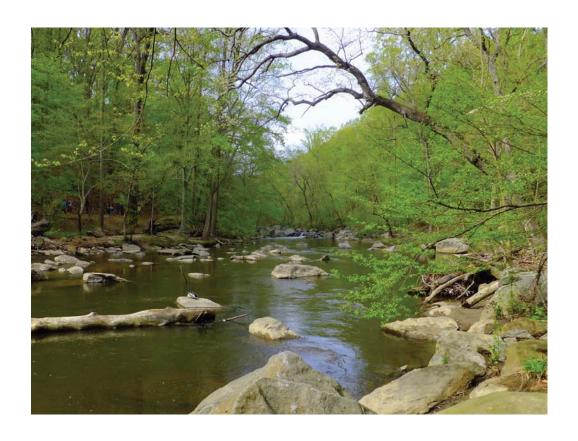
Rock Creek Park



ROUTE MAINTENANCE FEATURES ROAD LOGS

This park is classified as a Large Park. Therefore, in Cycle 5, no features asset inventory was conducted unless the route was modified or previously uncollected by RIP.

Section 10 Appendix



Rock Creek Park



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.

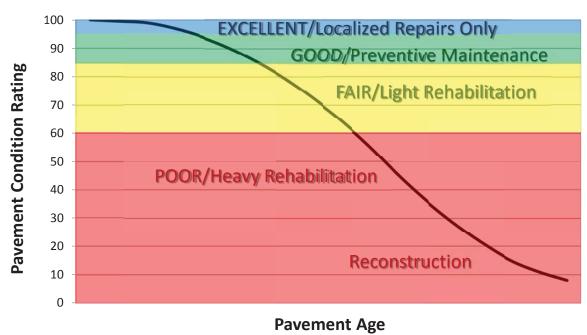
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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.

Condition Categories and Treatments



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 severity...LOW, MEDIUM, or HIGH based on criteria listed. For each severity, an extent 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
	LOW	L	M	Н
ack	MED	M	M	Н
Crac	HI	Н	Н	Н

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 ≥ 0.20 " and ≤ 0.49 "

MED

Ruts with a measured depth ≥ 0.50 " and ≤ 0.99 "

HIGH

Ruts with a measured depth ≥ 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:

square foot area of alligator crack severity
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:

length of respective longitudinal cracking 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:

Total length of transverse cracks

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:

square foot area of patching/potholes
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:

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)

$$\mathbf{RCI} = 32 * [5 * (2.718282 \land (-0.0041 * AVG IRI))]$$

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:

There is no applicable threshold for failure for this index.

Roughness Condition Index (Concrete)

$$\mathbf{RCI} = -0.0012(\mathbf{IRI}^2) + 0.0499(\mathbf{IRI}) + 99.542$$

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 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 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