



Federal Lands Highway Road Inventory Program

Road Inventory and Condition Assessment



Grand Canyon National Park
GRCA

Cycle 5 Report

Prepared By: Federal Highway Administration
Road Inventory Program (RIP)
Data Collected: 06/2012
Report Date: 02/2013

Grand Canyon National Park in Arizona





DCV = Data Collection Vehicle

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Section 1 Introduction



Grand Canyon National Park



Federal Lands Highway
Road Inventory Program

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

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Section 2 Park Route Inventory



Grand Canyon National Park



Federal Lands Highway
Road Inventory Program

Cycle 5 NPS/RIP Route ID Report

Road Inventory Program 02/26/2013

(Numerical By Route #)

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Shading Color Key:
Red text denotes approx. mileage

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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

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

GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0010	5	56125		POINT IMPERIAL ROAD	FROM ROUTE 0013 (CAPE ROYAL ROAD) AT MP 5.43 ON LEFT TO ROUTE 0967 (POINT IMPERIAL PARKING)	NORTH RIM	2.65	0.00	2.65	1		AS	1
0011	5	51500		DESERT VIEW DRIVE	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO EAST PARK BOUNDARY	SOUTH RIM	24.85	0.00	24.85	1		AS	6,7,8,9
0012	5	56511		SOUTH ENTRANCE ROAD	FROM PAVEMENT CHANGE AND MOQUI DRIVE (ON THE LEFT) TO ROUTE 0500 (VILLAGE LOOP DRIVE)	SOUTH RIM	7.80	0.00	7.80	1		AS	6,10
0013	5	56512		CAPE ROYAL ROAD	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 9.86 ON LEFT TO ROUTE 1015 (CAPE ROYAL PARKING)	NORTH RIM	19.83	0.00	19.83	1		AS	1,2,3
0014	5	56513		NORTH ENTRANCE ROAD (HWY 67)	FROM NORTH PARK BOUNDARY (PAVEMENT CHANGE AT PARK SIGN, THE END OF ROUTE 5000 (STATE ROUTE 67)) TO ROUTE 0965ZZ (GRAND CANYON LODGE PARKING AREAS)	NORTH RIM	12.84	0.00	12.84	1		AS	1,2
0015	5	56514		HERMIT REST ROAD	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.52 ON RIGHT TO ROUTE 0920 (HERMIT'S REST PARKING)	SOUTH RIM	7.04	0.00	7.04	1		AS	4,5
0016	5	56515		CENTER ROAD	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 3.47 ON LEFT TO ROUTE 0500 (VILLAGE LOOP DRIVE)	SOUTH RIM	1.61	0.00	1.61	1		AS	6
0017	5	90373		MARKET PLAZA ROAD	FROM ROUTE 0016 (CENTER ROAD) AT MP 0.43 TO ROUTE 0940 (BUSINESS CENTER PARKING)	SOUTH RIM	1.04	0.00	1.04	1		AS	6
0018	NC	108703		HOPI STREET	FROM ROUTE 0417 (HUALAPAI ROAD) TO END	SOUTH RIM	0.00	0.17	0.17	1		GR	
0100	NC	79659		KANABOWNITS ROAD (W4)	FROM NORTH PARK BOUNDARY PAST KANABOWNITS TO ROUTE 0293 (POINT SUBLIME ROAD (W1))	NORTH RIM	0.00	16.40	16.40	2		GR	
0101	NC	56516		SWAMP POINT ROAD (W4)	FROM ROUTE 0100 (KANABOWNITS ROAD (W4)) AT MP 0.50 TO END OF SWAMP POINT	NORTH RIM	0.00	7.86	7.86	2		GR	
0102	NC	56517		FIRE POINT ROAD (FS 223)	FROM WEST PARK BOUNDARY TO FIRE POINT (LOCATED NORTH OF ROUTE 0101 (SWAMP POINT ROAD (W4)))	NORTH RIM	0.00	0.97	0.97	2		GR	

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0150	NC	114698		TOROWEAP VALLEY ROAD	FROM NORTH PARK BOUNDARY TO VISITORS CENTER	NORTH RIM	0.00	6.85	6.85	2		GR	
0151	NC	114699		TOROWEAP POINT ROAD	FROM ROUTE 0150 (TOROWEAP VALLEY ROAD) TO PARKING	NORTH RIM	0.00	9.18	9.18	1		GR	
0160	5	56522		ROWE WELL ROAD	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 0.13 ON LEFT TO PARK BOUNDARY AT MP 4.19	SOUTH RIM	0.56	3.63	4.19	1		AS	5
0161	NC	56523		PASTURE WASH ROAD	FROM ROUTE 0160 (ROWE WELL ROAD) TO PASTURE WASH RANGER STATION	SOUTH RIM	0.00	15.33	15.33	1		GR	
0162	NC	56524		BASS TRAIL ROAD	FROM ROUTE 0161 (PASTURE WASH ROAD) TO TRAILHEAD	SOUTH RIM	0.00	3.64	3.64	1		GR	
0164	NC	114697		WEST RIM DRIVE CONNECTOR TO ROUTE 161	FROM ROUTE 0015 (HERMIT REST ROAD) TO ROUTE 0161 (PASTURE WASH ROAD)	SOUTH RIM	0.00	1.58	1.58	1		GR	
0166	NC	56527		GRANDVIEW ENTRANCE ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO SOUTH PARK BOUNDARY	SOUTH RIM	0.00	0.60	0.60	1		GR	
0167	5	90433		PIMA POINT ROAD	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 6.26 ON RIGHT TO END OF LOOP	SOUTH RIM	0.47	0.00	0.47	2		AS	4
0168	5	90434		MOHAVE POINT ROAD	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 3.09 TO ROUTE 0015 (HERMIT REST ROAD) AT MP 3.22	SOUTH RIM	0.22	0.00	0.22	2		AS	4
0169	5	90435		POWELL MEMORIAL ROAD	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 2.22 TO ROUTE 0015 (HERMIT REST ROAD) AT MP 2.29	SOUTH RIM	0.19	0.00	0.19	2		AS	5
0170	5	90374		ZUNI WAY	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO ROUTE 0017 (MARKET PLAZA ROAD)	SOUTH RIM	0.15	0.00	0.15	2		AS	6
0171	4	104056		DESERT VIEW GAS STATION ACCESS ROAD	FROM ROUTE 0172 (DESERT VIEW ACCESS ROAD) TO END OF LOOP	SOUTH RIM	0.35	0.00	0.35	3		AS	9
0172	4	103961		DESERT VIEW ACCESS ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO ROUTE 1026 (DESERT VIEW VISITOR PARKING)	SOUTH RIM	0.21	0.00	0.21	3		AS	9
0200	NC	114696		WIDFORSS TRAILHEAD ROAD	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) TO ROUTE 0293 (POINT SUBLIME ROAD (W1))	NORTH RIM	0.00	0.73	0.73	2		GR	

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0201	4	56530		NORTH RIM CAMPGROUND ROAD	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 11.74 ON RIGHT TO INTERSECTION OF ROUTES 0273ZZ (NORTH RIM CAMPGROUND ROADS) AND 0489 (INN CABIN LOOP)	NORTH RIM	0.26	0.00	0.26	3		AS	2
0250	NC	79801		TOROWEAP LAKE ROAD / LAVA FALLS TRAILHEAD	FROM ROUTE 0150 (TOROWEAP VALLEY ROAD) TO END	NORTH RIM	0.00	0.75	0.75	4		GR	
0251	NC	114694		TUCKUP TRAIL ROAD	FROM INTERSECTION OF ROUTE 0151 (TOROWEAP POINT ROAD) TO END	NORTH RIM	0.00	3.00	3.00	4		GR	
0262	5	56536		YAKI POINT ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 1.14 ON LEFT TO END OF LOOP	SOUTH RIM	1.10	0.00	1.10	2		AS	7
0263	5	56537		KAIBAB TRAIL ACCESS ROAD	FROM ROUTE 0262 (YAKI POINT ROAD) TO ROUTE 0949 (KAIBAB TRAIL SERVICE ROAD PARKING)	SOUTH RIM	0.20	0.00	0.20	2		AS	7
0264	5	59028		GRANDVIEW POINT ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 8.81 TO END OF LOOP	SOUTH RIM	0.77	0.00	0.77	2		AS	8
0265	5	56538		MORAN POINT ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 14.77 TO END OF LOOP	SOUTH RIM	0.25	0.00	0.25	2		AS	8
0266	5	56545		TUSAYAN RUIN ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 18.58 TO END OF LOOP	SOUTH RIM	0.27	0.00	0.27	2		AS	9
0267	5	56546		LIPAN POINT ROAD	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 19.89 ON LEFT TO ROUTE 0981 (LIPAN POINT PARKING)	SOUTH RIM	0.44	0.00	0.44	2		AS	9
0270	4	56724		DESERT VIEW CAMPGROUND	FROM ROUTE 0171 (DESERT VIEW GAS STATION ACCESS ROAD) TO END OF LOOP	SOUTH RIM	0.64	0.00	0.64	3		AS	9
0271	4	56547		MATHER CAMPGROUND ACCESS ROAD	FROM ROUTE 0017 (MARKET PLAZA ROAD) TO ROUTE 0272ZZ (MATHER CAMPGROUND ROADS)	SOUTH RIM	0.37	0.00	0.37	3		AS	6
0272ZZ	4	56549		MATHER CAMPGROUND ROADS	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) THROUGH CAMPGROUND LOOPS	SOUTH RIM	3.53	0.00	3.53	3		AS	6

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0273ZZ	4	98941		NORTH RIM CAMPGROUND ROADS	FROM INTERSECTION OF ROUTES 0201 (NORTH RIM CAMPGROUND ROAD) AND 0489 (INN CABIN LOOP) THROUGH CAMPGROUND	NORTH RIM	1.08	0.00	1.08	3		AS	2
0277ZZ	4	56550		TRAILER VILLAGE OUTER LOOP ROADS	FROM ROUTE 0017 (MARKET PLAZA ROAD) AROUND OUTER LOOPS	SOUTH RIM	1.03	0.00	1.03	3		AS	6
0279ZZ	4	102247		TRAILER VILLAGE ROADS	FROM 0277ZZ (TRAILER VILLAGE OUTER LOOP ROADS) THROUGH INTERIOR TRAILER ROADS	SOUTH RIM	2.19	0.00	2.19	3		AS	6
0287	5	56551		ACCESS ROAD	FROM ROUTE 0160 (ROWE WELL ROAD) TO ROUTE 0908ZZ (MASWICK STANDARD PARKING AREAS)	SOUTH RIM	0.29	0.00	0.29	2		AS	5
0288	4	56552		CLINIC ACCESS ROAD	FROM ROUTE 0016 (CENTER ROAD) AT MP 0.62 TO ROUTE 0016 (CENTER ROAD) AT MP 0.89	SOUTH RIM	0.41	0.00	0.41	3		AS	6
0291	NC	90437		KANABOWNITS CABIN ROAD	FROM ROUTE 0100 (KANABOWNITS ROAD (W4)), SOUTHWEST TO END	NORTH RIM	0.00	0.40	0.40	4		GR	
0292	NC	90438		KANABOWNITS TOWER ROAD	FROM ROUTE 0100 (KANABOWNITS ROAD (W4)), NORTHEAST TO END	NORTH RIM	0.00	0.10	0.10	4		GR	
0293	NC	79656		POINT SUBLIME ROAD (W1)	FROM ROUTE 0200 (WIDFORSS TRAILHEAD ROAD) TO POINT SUBLIME (W1)	NORTH RIM	0.00	14.70	14.70	4		GR	
0294	NC	79689		RANGE ROAD (W1A)	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 4.21 ON RIGHT TO ROUTE 0293 (POINT SUBLIME ROAD (W1))	NORTH RIM	0.00	5.50	5.50	4		GR	
0295	NC	115183		TIPOVER SPRINGS ROAD	FROM ROUTE 0100 (KANABOWNITS ROAD (W4)) TO END AT TIPOVER SPRING	NORTH RIM	0.00	1.00	1.00	6		GR	
0296	NC	79802		T-8 TOROWEAP CAMPGROUND ROAD	FROM ROUTE 0151 (TOROWEAP POINT ROAD) TO DEAD END	NORTH RIM	0.00	0.60	0.60	4		GR	
0297	NC	79804		KANAB POINT ROAD	FROM BLM (BEREAU LAND MANAGEMENT) 1058 TO DEAD END	NORTH RIM	0.00	4.40	4.40	4		GR	
0298	NC	79806		SB POINT ROAD	FROM ROUTE 0299 (150 MILE CANYON ROAD) TO OVERLOOK	NORTH RIM	0.00	7.70	7.70	4		GR	
0299	NC	79819		150 MILE CANYON ROAD	FROM BLM (BEREAU LAND MANAGEMENT) 1057 TO TRAILHEAD	NORTH RIM	0.00	5.90	5.90	4		GR	
0300	NC	79821		TUCKUP CANYON ROAD	FROM BLM (BEREAU LAND MANAGEMENT) 1057 TO TRAILHEAD	NORTH RIM	0.00	8.40	8.40	4		GR	

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0301	5	112573	■	RAILROAD TRACK ACCESS ROAD	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) TO ROUTE 0501 (VILLAGE LOOP BYPASS)	SOUTH RIM	0.23	0.00	0.23	3		AS	6
0302	NC	41106		WALDRON TRAIL ACCESS	FROM ROUTE 0160 (ROWE WELL ROAD) TO END	SOUTH RIM	0.00	2.50	2.50	4		GR	
0303	NC	87858		TUWEEP ROAD	FROM TRUMBLE ROAD (FOREST SERVICE) TO END	NORTH RIM	0.00	6.60	6.60	4		GR	
0400	NC	114701		MARBLE FLATS SERVICE ROAD	FROM ROUTE 0294 (RANGE ROAD (W1A)) TO LANDFILL	NORTH RIM	0.00	1.52	1.52	6		GR	
0401	NC	77464		SERVICE ROAD TO LANDFILL	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO END	SOUTH RIM	0.00	1.30	1.30	5		GR	
0402	5	77469		SERVICE ROAD TO SUPAI CAMP	FROM ROUTE 0160 (ROWE WELL ROAD) TO ROUTE 0160 (ROWE WELL ROAD) UNPAVED PORTION	SOUTH RIM	0.24	0.00	0.24	5		AS	5
0403	4	56556		TONTO STREET	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.53 ON RIGHT TO ROUTE 0432 (NAVAJO STREET)	SOUTH RIM	0.15	0.00	0.15	5		AS	5
0404	4	56557		AUTO SHOP ROAD	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 12.00 ON RIGHT TO END OF LOOP	NORTH RIM	0.18	0.00	0.18	5		AS	2
0405	4	56559		ADMIN LOOP	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 11.56 ON RIGHT TO END OF LOOP	NORTH RIM	0.28	0.00	0.28	5		AS	2
0406	NC	90440		MULE CORRAL AND MAINTENANCE AREA	FROM ROUTE 0963 (KAIBAB TRAILHEAD PARKING) TO CORRAL	NORTH RIM	0.00	0.61	0.61	5		GR	
0407	NC	90441		LINDBERG HILL MAINTENANCE AREA	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) TO LINDBERG HILL FIRE CAMP	NORTH RIM	0.00	0.19	0.19	6		GR	
0408	4	56560		COCONINO ROAD	FROM INTERSECTION OF ROUTES 0500 (VILLAGE LOOP DRIVE) AND 0426 (MASWICK TRANSPORTATION CENTER ROAD) TO ROUTE 0601 (ALBRIGHT AVENUE)	SOUTH RIM	0.28	0.00	0.28	5		AS	5
0409	4	56561		BOULDER STREET	FROM ROUTE 0408 (COCONINO ROAD) TO ROUTE 0016 (CENTER ROAD)	SOUTH RIM	0.28	0.00	0.28	5		AS	5
0410	NC	110201		PIMA STREET	FROM END OF ROUTE 0417 (HUALAPAI ROAD) TO ROUTE 0420ZZ (MATHER STREET AREA)	SOUTH RIM	0.00	0.05	0.05	5		GR	

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GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0411	4	56563		BOULDER ALLEY	FROM ROUTE 0408 (COCONINO ROAD) AT MP 0.07 ON LEFT TO ROUTE 0409 (BOULDER STREET)	SOUTH RIM	0.24	0.00	0.24	5		AS	5
0413	4	56565		APACHE STREET	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.53 ON LEFT TO INTERSECTION OF ROUTES 0408 (COCONINO ROAD) AND 0414 (APACHE WEST)	SOUTH RIM	0.23	0.00	0.23	5		AS	5
0414	4	56567		APACHE WEST	FROM INTERSECTION OF ROUTES 0408 (COCONINO ROAD) AND 0413 (APACHE STREET) TO DEAD END AT MP 0.21	SOUTH RIM	0.14	0.07	0.21	5		AS	5
0415	4	56568		APACHE ALLEY	FROM ROUTE 0413 (APACHE STREET) TO ROUTE 0500 (VILLAGE LOOP DRIVE)	SOUTH RIM	0.16	0.00	0.16	5		AS	5
0416	4	56569		MUAV COURT	FROM ROUTE 0601 (ALBRIGHT AVENUE) TO ROUTE 1010ZZ (MUAV COURT PARKING AREAS)	SOUTH RIM	0.14	0.00	0.14	5		AS	5
0417	4	56570		HUALAPAI ROAD	FROM ROUTE 0416 (MUAV COURT) TO INTERSECTION OF ROUTES 0410 (PIMA STREET) AND 0419 (KOLB CIRCLE)	SOUTH RIM	0.20	0.00	0.20	5		AS	5
0419	4	56573		KOLB CIRCLE	FROM ROUTE 0410 (PIMA STREET) TO INTERSECTION OF ROUTES 0417 (HUALAPAI ROAD) AND 0410 (PIMA STREET)	SOUTH RIM	0.04	0.00	0.04	5		AS	5
0420ZZ	4	56574		MATHER STREET AREA	FROM ROUTE 0417 (HUALAPAI ROAD) THROUGH MATHER STREET AREA	SOUTH RIM	0.17	0.00	0.17	5		AS	5
0421	4	56576		POWELL AVENUE A	FROM ROUTE 0417 (HUALAPAI ROAD) AT MP 0.12 TO ROUTE 0417 (HUALAPAI ROAD) AT MP 0.17	SOUTH RIM	0.26	0.00	0.26	5		AS	5
0422	4	56577		SOUTH MOHAVE STREET	FROM ROUTE 0601 (ALBRIGHT AVENUE) TO ROUTE 1004 (MOHAVE SOUTH STREET PARKING)	SOUTH RIM	0.17	0.00	0.17	5		AS	5
0423	4	56578		MOHAVE COURT	FROM ROUTE 0422 (SOUTH MOHAVE STREET) AT MP 0.03 TO ROUTE 0422 (SOUTH MOHAVE STREET) AT MP 0.08	SOUTH RIM	0.16	0.00	0.16	5		AS	5
0426	4	56583		MASWICK TRANSPORTATION CENTER ROAD	FROM INTERSECTION OF ROUTES 0500 (VILLAGE LOOP DRIVE) AND 0408 (COCONINO ROAD) TO ROUTE 0923 (MASWICK TRANSPORTATION CENTER PARKING)	SOUTH RIM	0.17	0.00	0.17	5		AS	5
0427	4	56585		KENNELS ROAD	FROM ROUTE 0160 (ROWE WELL ROAD) TO ROUTE 0939 (WASTEWATER TREATMENT AREA)	SOUTH RIM	0.17	0.00	0.17	5		AS	5

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GRCA

GRAND CANYON NATIONAL PARK

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					From	To								
0428	4	56586		SHUTTLE BUS ROAD	FROM ROUTE 0016 (CENTER ROAD) AT MP 0.17 ON LEFT	TO ROUTE 0999 (NEW MAINTENANCE AREA)	SOUTH RIM	0.60	0.00	0.60	5		AS	6
0429ZZ	5	56587		PAIUTE COURT ROADS	FROM ROUTE 0601 (ALBRIGHT AVENUE)	TO END	SOUTH RIM	0.29	0.00	0.29	5		AS	6
0430	4	56589		LAPP LOOP	FROM ROUTE 0016 (CENTER ROAD)	TO ROUTE 0016 (CENTER ROAD)	SOUTH RIM	0.07	0.00	0.07	5	9,240	AS	5
0431	4	56590		JUNIPER HILL	FROM ROUTE 0403 (TONTOSTREET) AT MP 0.06 ON RIGHT	TO ROUTE 0435 (SUNSET DRIVE)	SOUTH RIM	0.27	0.00	0.27	5		AS	5
0432	4	56591		NAVAJO STREET	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 1.28 ON RIGHT	TO ROUTE 0431 (JUNIPER HILL)	SOUTH RIM	0.17	0.00	0.17	5		AS	5
0433	4	56593		TAPEATS CIRCLE	FROM ROUTE 0444 (KAIBAB STREET) AT MP 0.11	TO ROUTE 0444 (KAIBAB STREET) AT MP 0.18	SOUTH RIM	0.11	0.00	0.11	5		AS	5
0434	4	56594		HERMIT CIRCLE	FROM ROUTE 0435 (SUNSET DRIVE) AT MP 0.27	TO ROUTE 0435 (SUNSET DRIVE) AT MP 0.24	SOUTH RIM	0.08	0.00	0.08	5		AS	5
0435	4	56596		SUNSET DRIVE	FROM ROUTE 0431 (JUNIPER HILL) AT MP 0.27	TO ROUTE 0437 (PARK CIRCLE) AT MP 0.52	SOUTH RIM	0.36	0.00	0.36	5		AS	5
0436ZZ	4	56598		BRIGHT ANGEL LOOP ROADS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE)	THROUGH BRIGHT ANGEL LOOPS	SOUTH RIM	0.19	0.00	0.19	5		AS	5
0437	4	56600		PARK CIRCLE	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.09 ON RIGHT	TO END OF LOOP AT ROUTE 0437 (PARK CIRCLE) AND ROUTE 0435 (SUNSET DRIVE) INTERSECTION	SOUTH RIM	0.52	0.00	0.52	5		AS	6
0438	4	56601		BARRY HANCE CIRCLE	FROM ROUTE 0451 (HAVASUPAI ROAD) AT MP 0.42 ON LEFT	TO END OF LOOP	SOUTH RIM	0.45	0.00	0.45	5		AS	6
0439	4	56603		PONDEROSA STREET	FROM ROUTE 0451 (HAVASUPAI ROAD)	TO END OF ROUTE	SOUTH RIM	0.03	0.00	0.03	5	3,485	AS	6
0440	4	56604		RANDY THOMPSON CIRCLE	FROM ROUTE 0288 (CLINIC ACCESS ROAD)	TO END OF LOOP	SOUTH RIM	0.56	0.00	0.56	5		AS	6
0441	4	56605		BOB MANN STREET	FROM ROUTE 0440 (RANDY THOMPSON CIRCLE) AT MP 0.11	TO ROUTE 0440 (RANDY THOMPSON CIRCLE) AT MP 0.38	SOUTH RIM	0.17	0.00	0.17	5		AS	6

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GRCA

GRAND CANYON NATIONAL PARK

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0442	4	56606		MORAN AVENUE	FROM INTERSECTION OF ROUTES 0421 (POWELL AVENUE) AT MP 0.23 AND 0443 (LIPAN STREET)	TO ROUTE 0421 (POWELL AVENUE) AT MP 0.04	SOUTH RIM	0.10	0.00	0.10	5		AS	5
0443	4	56607		LIPAN STREET	FROM INTERSECTION OF ROUTES 0421 (POWELL AVENUE) AT MP 0.03 AND 0442 (MORAN AVENUE)	TO ROUTE 0421 (POWELL AVENUE) AT MP 0.24	SOUTH RIM	0.06	0.00	0.06	5		AS	5
0444	4	56609		KAIBAB STREET	FROM ROUTE 0432 (NAVAJO STREET)	TO ROUTE 0437 (PARK CIRCLE)	SOUTH RIM	0.54	0.00	0.54	5		AS	5
0445ZZ	4	56610		NAVAJO RESIDENCE ROADS	FROM ROUTE 0432 (NAVAJO STREET)	THROUGH NAVAJO RESIDENCE ROADS	SOUTH RIM	0.11	0.00	0.11	5		AS	5
0446	5	56612		WEST SHUTTLE ACCESS ROAD	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 6.88	TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 5.63	SOUTH RIM	0.69	0.00	0.69	5		AS	6
0447	5	56613		EAST SHUTTLE ACCESS ROAD	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)	TO END OF LOOP	SOUTH RIM	0.25	0.00	0.25	5		CO	6
0448ZZ	4	58274		CONCESSIONAIRE ROADS	FROM ROUTE 0404 (AUTO SHOP ROAD)	THROUGH CONCESSION AREA	NORTH RIM	0.64	0.12	0.76	5		AS	2
0449	4	56615		NORTH RIM RESIDENCE LOOP	FROM ROUTE 0450 (WASTEWATER PLANT / HELIPAD ROAD)	TO ROUTE 0405 (ADMIN LOOP)	NORTH RIM	0.24	0.00	0.24	6		AS	2
0450	4	56616		WASTEWATER PLANT / HELIPAD ROAD	FROM ROUTE 0405 (ADMIN LOOP)	TO END OF LOOP	NORTH RIM	0.35	0.00	0.35	6		AS	2
0451	4	56525		HAVASUPAI ROAD	FROM ROUTE 0435 (SUNSET DRIVE)	TO ROUTE 0288 (CLINIC ACCESS ROAD)	SOUTH RIM	0.61	0.00	0.61	5		AS	6
0461ZZ	4	56745		EAST ENTRANCE RESIDENCE ROADS	FROM ROUTE 0171 (DESERT VIEW GAS STATION ACCESS ROAD)	TO RESIDENTIAL AREAS	SOUTH RIM	0.77	0.05	0.82	5		AS	9
0462	NC	56618		DESERT VIEW SERVICE ROAD	FROM ROUTE 1025ZZ (DESERT VIEW BUS PARKING AREAS)	TO END OF ROUTE	SOUTH RIM	0.00	0.39	0.39	4		GR	
0464	4	56619		TANK C PUMPHOUSE ROAD	FROM ROUTE 0277ZZ (TRAILER VILLAGE OUTER LOOP ROADS)	TO DEAD END AND PAVED TRAIL	SOUTH RIM	0.15	0.00	0.15	4		AS	6
0465	NC	56621		LIVESTOCK TRAINING FACILITY ROAD	FROM ROUTE 0160 (ROWE WELL ROAD)	TO GRAVEL PIT	SOUTH RIM	0.00	1.14	1.14	4		GR	
0466	NC	56622		HORSETHIEF TANK ROAD	FROM ROUTE 0164 (WEST RIM DRIVE CONNECTOR TO ROUTE 161)	TO ROUTE 0161 (PASTURE WASH ROAD)	SOUTH RIM	0.00	2.23	2.23	4		GR	

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GRAND CANYON NATIONAL PARK

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0467	NC	114700		SOUTH BOUNDARY CONNECTOR TO ROUTE 0161	FROM SOUTH PARK BOUNDARY TO ROUTE 0161 (PASTURE WASH ROAD)	SOUTH RIM	0.00	1.18	1.18	4		GR	
0468	NC	77350		SEWAGE DISPOSAL POND	FROM ROUTE 0161 (PASTURE WASH ROAD) TO END OF ROUTE	SOUTH RIM	0.00	1.30	1.30	4		GR	
0477	NC	98816		PISTOL RANGE ROAD	FROM ROUTE 0294 (RANGE ROAD (W1A)) TO END	NORTH RIM	0.00	0.20	0.20	6		GR	
0478	NC	90444		ENTRANCE RESIDENCE ROAD / NORTH RIM LOOKOUT TOWER ROAD	FROM ROUTE 0960 (OFF ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 0.18) TO END	NORTH RIM	0.00	1.40	1.40	6		GR	
0479	NC	90472		FIRE ROAD	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 0.17 ON RIGHT TO END	NORTH RIM	0.00	0.28	0.28	6		GR	
0488	4	90475		FIRE STATION ACCESS ROAD	FROM ROUTE 0428 (SHUTTLE BUS ROAD) TO UNPAVED FIRE STATION PARKING	SOUTH RIM	0.05	0.00	0.05	5		AS	6
0489	4	90476		INN CABIN LOOP	FROM INTERSECTION OF ROUTE 0273ZZ (NORTH RIM CAMPGROUND ROADS) AND END OF ROUTE 0201 (NORTH RIM CAMPGROUND ROAD) ON RIGHT TO END OF LOOP	NORTH RIM	0.20	0.00	0.20	5		AS	2
0490	4	90477		CAMPGROUND STORE / CONCESSION ACCESS ROAD	FROM ROUTE 0489 (INN CABIN LOOP) (THROUGH CABIN AREA) TO ROUTE 0998 (NORTH RIM CAMPGROUND DUMP STATION)	NORTH RIM	0.07	0.00	0.07	5		AS	2
0491	4	90479		EXPOSED FRAME CABIN RESIDENCE ROAD	FROM ROUTE 0489 (INN CABIN LOOP) TO ROUTE 0489 (INN CABIN LOOP)	NORTH RIM	0.20	0.00	0.20	5	16,896	AS	2
0492	4	104068		DESERT VIEW MAINTENANCE / RANGER STATION ROAD	FROM ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS) AT MP 0.29 ON LEFT TO ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS) AT MP 0.08	SOUTH RIM	0.07	0.00	0.07	5		AS	9
0494	NC	77352		SERVICE ROAD TO FIRING RANGE	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO END	SOUTH RIM	0.00	1.00	1.00	6		GR	
0495	NC	77456		SERVICE ROAD TO POWDER MAG	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO END	SOUTH RIM	0.00	0.30	0.30	6		GR	
0496	NC	77458		SERVICE ROAD TO SHOSHONE POINT	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO END	SOUTH RIM	0.00	1.10	1.10	6		GR	

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0497	NC	77459		SERVICE ROAD TO DESERT VIEW DRY DUMP	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO END	SOUTH RIM	0.00	0.30	0.30	6		GR	
0498	NC	77462		SERVICE ROAD TO DESERT VIEW WATER TANK	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO END	SOUTH RIM	0.00	0.50	0.50	6		GR	
0499	NC	77463		SERVICE ROAD TO DESERT VIEW SEWER PONDS	FROM ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS) TO END	SOUTH RIM	0.00	0.40	0.40	6		GR	
0500	4	56624		VILLAGE LOOP DRIVE	FROM END OF ROUTE 0012 (SOUTH ENTRANCE ROAD) TO END OF LOOP	SOUTH RIM	1.32	0.00	1.32	3		AS	6
0501	4	56625		VILLAGE LOOP BYPASS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.55 TO ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 1.07	SOUTH RIM	0.31	0.00	0.31	3		AS	5
0502	5	97062		SOUTH ENTRANCE BYPASS LANE	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 0.35 ON RIGHT TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 0.76 ON RIGHT	SOUTH RIM	0.45	0.00	0.45	5		AS	10
0503	5	238607		MATHER POINT SHUTTLE LOOP	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 5.83 ON RIGHT TO END OF LOOP	SOUTH RIM	0.14	0.00	0.14	5		CO	6
0504	5	235836	■	CONC VILLAGE LOOP CONCESSION HOUSING ACCESS ROAD	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) TO END	SOUTH RIM	0.00	0.00	0.00	5	6,218	AS	6
0601	5	56627		ALBRIGHT AVENUE	FROM ROUTE 0409 (BOULDER STREET) AT MP 0.11 TO ROUTE 0016 (CENTER ROAD)	SOUTH RIM	0.62	0.00	0.62	2		AS	6
0603	NC	103464		SOUTH KAIBAB TRAILHEAD SERVICE ROAD	FROM ROUTE 0263 (KAIBAB TRAIL ACCESS ROAD) TO END	SOUTH RIM	0.00	0.11	0.11	5		GR	
0604	NC	109803		SERVICE ROAD TO HEADWORKS BUILDING	FROM ROUTE 0939 (WASTEWATER TREATMENT AREA) TO HEADWORKS BUILDING	SOUTH RIM	0.00	0.10	0.10	5		GR	
0900	4	58280		SOUTH ENTRANCE GRAND CANYON PARKING	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 0.46 TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 0.52	SOUTH RIM	0.00	0.00	0.00		22,873	AS	10
0901	4	58281		SOUTH ENTRANCE STATION PARKING	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO ROUTE 0012 (SOUTH ENTRANCE ROAD)	SOUTH RIM	0.00	0.00	0.00		6,944	AS	10

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0903	4	58283		HEADQUARTERS PARKING	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 6.88	TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 7.10	SOUTH RIM	0.00	0.00	0.00		88,846	AS	6
0904ZZ	4	58288		EL TOVAR/VERKAMPS PARKING AREAS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE)	TO PARKING	SOUTH RIM	0.00	0.00	0.00		66,278	AS	5
0905	4	58289		KACHINA LODGE PARKING	FROM ROUTE 0904BZ (EL TOVAR/VERKAMPS PARKING B)	TO ROUTE 0906 (THUNDERBIRD LODGE PARKING)	SOUTH RIM	0.00	0.00	0.00		21,954	AS	5
0906	4	58291		THUNDERBIRD LODGE PARKING	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.18	TO ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.28	SOUTH RIM	0.00	0.00	0.00		20,872	AS	5
0907	4	58292		BRIGHT ANGEL LODGE PARKING	FROM ROUTE 0500 (VILLAGE LOOP DRIVE)	TO ROUTE 0436ZZ (BRIGHT ANGEL LOOP ROADS)	SOUTH RIM	0.00	0.00	0.00		29,055	AS	5
0908ZZ	4	58293		MASWICK STANDARD PARKING AREAS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) ON LEFT AND RIGHT	TO PARKING	SOUTH RIM	0.00	0.00	0.00		217,249	AS	5
0909	4	58297		SERVICE PARKING AREA	FROM ROUTE 0500 (VILLAGE LOOP DRIVE)	TO ROUTE 0501 (VILLAGE LOOP BYPASS)	SOUTH RIM	0.00	0.00	0.00		64,883	AS	5
0910	4	58340		HUMAN RESOURCES PARKING	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 1.03	TO PARKING	SOUTH RIM	0.00	0.00	0.00		6,074	AS	5
0911	4	58343		TRAILVIEW PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 1.11		SOUTH RIM	0.00	0.00	0.00		5,568	AS	5
0912	4	58348		GRAND CANYON VISTA PARKING	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 1.44	TO ROUTE 0015 (HERMIT REST ROAD) AT MP 1.48	SOUTH RIM	0.00	0.00	0.00		9,848	AS	5
0913	4	58350		MARICOPA POINT PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 1.78		SOUTH RIM	0.00	0.00	0.00		4,199	AS	5
0914	4	58356		POWELL MEMORIAL PARKING	ADJACENT TO ROUTE 0169 (POWELL MEMORIAL ROAD)		SOUTH RIM	0.00	0.00	0.00		6,180	AS	5
0915	4	58358		HOPI POINT PARKING	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 2.36	TO ROUTE 0015 (HERMIT REST ROAD) AT MP 2.39	SOUTH RIM	0.00	0.00	0.00		17,600	AS	5
0916	4	58360		HOPI POINT II PARKING	FROM ROUTE 0015 (HERMIT REST ROAD) AT MP 2.41	TO ROUTE 0015 (HERMIT REST ROAD) AT MP 2.44	SOUTH RIM	0.00	0.00	0.00		5,355	AS	5

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GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0917	4	58362		MOHAVE POINT PARKING	ADJACENT TO ROUTE 0168 (MOHAVE POINT ROAD)	SOUTH RIM	0.00	0.00	0.00		4,877	AS	4
0918	4	58363		ABYSS PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 4.14	SOUTH RIM	0.00	0.00	0.00		2,797	AS	4
0919	4	58372		PIMA POINT PARKING	ADJACENT TO ROUTE 0167 (PIMA POINT ROAD)	SOUTH RIM	0.00	0.00	0.00		4,952	AS	4
0920	4	58384		HERMIT'S REST PARKING	FROM END OF ROUTE 0015 TO PARKING (HERMIT REST ROAD)	SOUTH RIM	0.00	0.00	0.00		24,020	AS	4
0921	4	58385		TRAIN STATION PARKING	ADJACENT TO ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.07	SOUTH RIM	0.00	0.00	0.00		9,943	AS	5
0923	4	58386		MASWICK TRANSPORTATION CENTER PARKING	FROM ROUTE 0426 TO PARKING (MASWICK TRANSPORTATION CENTER ROAD)	SOUTH RIM	0.00	0.00	0.00		104,782	AS	5
0924ZZ	5	58388		RANGER OPERATIONS AND MAGISTRATE PARKING	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.59 TO PARKING	SOUTH RIM	0.00	0.00	0.00		25,415	AS	6
0925	4	58390		GENERAL OFFICES PARKING	FROM ROUTE 0432 TO PARKING (NAVAJO STREET)	SOUTH RIM	0.00	0.00	0.00		14,758	AS	5
0926	4	58393		CHAPEL PARKING	FROM ROUTE 0409 TO PARKING (BOULDER STREET)	SOUTH RIM	0.00	0.00	0.00		11,673	AS	5
0927	4	103177		BOULDER STREET RESIDENCE PARKING	FROM ROUTE 0409 TO PARKING (BOULDER STREET)	SOUTH RIM	0.00	0.00	0.00		4,668	AS	5
0928	5	58396		COCONINO SCHOOL PARKING	FROM ROUTE 0601 (ALBRIGHT AVENUE) AND END OF ROUTE 0408 (COCONINO ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		38,898	AS	6
0930	4	58401		CONCESSIONS OPERATION COMPLEX PARKING	FROM ROUTE 0601 TO ROUTE 0601 (ALBRIGHT AVENUE) AT MP 0.49 (ALBRIGHT AVENUE) AT MP 0.57	SOUTH RIM	0.00	0.00	0.00		121,601	AS	5
0931	4	58402		SHUTTLE BUS PARKING	FROM ROUTE 0488 (FIRE STATION ACCESS ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		54,128	AS	6
0932	4	58403		FIRE STATION PARKING	FROM ROUTE 0488 (FIRE STATION ACCESS ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		7,486	AS	6

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GRCA

GRAND CANYON NATIONAL PARK

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					From	To								
0933	4	90376		GRAND CANYON ASSOCIATION PARKING	FROM ROUTE 0403 (TONTOSTREET)	TO PARKING	SOUTH RIM	0.00	0.00	0.00		11,406	AS	5
0934ZZ	5	58405		STABLE PARKING AREAS	FROM ROUTE 0431 (JUNIPER HILL)	TO PARKING	SOUTH RIM	0.00	0.00	0.00		30,595	AS	6
0935	4	58407		FRED HARVEY SERVICE STATION PARKING	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.43	TO ROUTE 0016 (CENTER ROAD) AT MP 1.46	SOUTH RIM	0.00	0.00	0.00		8,617	AS	5
0936	NC	90377		MAINTENANCE AREA PARKING	FROM ROUTE 0410 (PIMASTREET)	TO PARKING	SOUTH RIM	0.00	0.00	0.00		6,500	GR	
0937ZZ	4	58411		CLINIC EMS PARKING AREAS	FROM ROUTE 0288 (CLINIC ACCESS ROAD) ON LEFT AND RIGHT	TO PARKING	SOUTH RIM	0.00	0.00	0.00		59,747	AS	6
0938	4	58412		XANTERRA CONCESSIONS LAUNDRY PARKING	FROM ROUTE 0287 (ROUTE 0160 ACCESS ROAD) AT MP 0.22	TO ROUTE 0287 (ROUTE 0160 ACCESS ROAD) AT MP 0.25	SOUTH RIM	0.00	0.00	0.00		9,719	AS	5
0939	4	58413		WASTEWATER TREATMENT AREA	FROM ROUTE 0427 (KENNELS ROAD)	TO PARKING	SOUTH RIM	0.00	0.00	0.00		38,764	AS	5
0940	4	58414		BUSINESS CENTER PARKING	FROM ROUTE 0446 (WEST SHUTTLE ACCESS ROAD)	TO ROUTE 0017 (MARKET PLAZA ROAD)	SOUTH RIM	0.00	0.00	0.00		148,337	AS	6
0941	4	58416		MATHER CAMPGROUND SERVICES PARKING	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD)	TO PARKING	SOUTH RIM	0.00	0.00	0.00		28,368	AS	6
0942	4	58417	■	YAVAPAI EAST PARKING	FROM ROUTE 0446 (WEST SHUTTLE ACCESS ROAD) AT MP 0.13	TO ROUTE 0446 (WEST SHUTTLE ACCESS ROAD) AT MP 0.37	SOUTH RIM	0.00	0.00	0.00		82,463	AS	6
0943	4	58418	■	YAVAPAI WEST I PARKING	FROM ROUTE 0446 (WEST SHUTTLE ACCESS ROAD) ON RIGHT	TO PARKING	SOUTH RIM	0.00	0.00	0.00		71,873	AS	6
0944	4	58419	■	YAVAPAI WEST II PARKING	FROM ROUTE 0446 (WEST SHUTTLE ACCESS ROAD) ON RIGHT	TO PARKING	SOUTH RIM	0.00	0.00	0.00		55,697	AS	6
0945	4	58420		PARKING AT MP 0.14	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 0.14		SOUTH RIM	0.00	0.00	0.00		5,597	AS	6
0946	4	58421		PIPE CREEK PARKING 1	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 0.70		SOUTH RIM	0.00	0.00	0.00		8,187	AS	6
0947	4	58430		PIPE CREEK PARKING 2	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 0.87		SOUTH RIM	0.00	0.00	0.00		6,396	AS	6

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GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
0948	4	58433		YAKI POINT PARKING	ADJACENT TO ROUTE 0262 (YAKI POINT ROAD)	SOUTH RIM	0.00	0.00	0.00		5,238	AS	7
0949	4	56628		KAIBAB TRAIL SERVICE ROAD PARKING	FROM END OF ROUTE 0263 (KAIBAB TRAIL ACCESS ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		21,330	AS	7
0950	4	58436		DUCK-ON-A-ROCK OVERLOOK PARKING	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 3.91 TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 4.00	SOUTH RIM	0.00	0.00	0.00		23,141	AS	7
0951	4	58438		TWIN OVERLOOK PARKING 1	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 4.79	SOUTH RIM	0.00	0.00	0.00		5,923	AS	7
0952	4	58441		TWIN OVERLOOK PARKING 2	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 4.87	SOUTH RIM	0.00	0.00	0.00		5,948	AS	7
0953	4	58444		THOR'S HAMMER OVERLOOK PARKING	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 6.61	SOUTH RIM	0.00	0.00	0.00		11,010	AS	7
0954	4	58446		BUGGELN PICNIC AREA	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 12.12 TO PARKING	SOUTH RIM	0.00	0.00	0.00		11,485	AS	8
0955	4	58447		NO-NAME POINT PARKING	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 19.61 TO ROUTE 0011 (DESERT VIEW DRIVE) AT MP 19.67	SOUTH RIM	0.00	0.00	0.00		14,513	AS	9
0956	4	58448		NAVAJO POINT PARKING	FROM ROUTE 0011 (DESERT VIEW DRIVE) AT MP 21.06 TO PARKING	SOUTH RIM	0.00	0.00	0.00		26,140	AS	9
0958	4	58452		DESERT VIEW GAS STATION	FROM ROUTE 0171 (DESERT VIEW GAS STATION ACCESS ROAD) TO ROUTE 0270 (DESERT VIEW CAMPGROUND)	SOUTH RIM	0.00	0.00	0.00		25,019	AS	9
0959	4	58453		DESERT VIEW RANGER AND MAINTENANCE PARKING	FROM ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS) TO ROUTE 0492 (DESERT VIEW MAINTENANCE / RANGER STATION ROAD)	SOUTH RIM	0.00	0.00	0.00		3,178	AS	9
0960	4	58455		NORTH RIM ENTRANCE PARKING	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 0.18 TO ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 0.23	NORTH RIM	0.00	0.00	0.00		6,677	AS	1
0961	4	58456		NORTH RIM FOREST PARKING (PICNIC AREA)	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 4.04 TO ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 4.09	NORTH RIM	0.00	0.00	0.00		10,440	AS	1
0962	NC	90480		WIDFORSS TRAILHEAD PARKING	FROM ROUTE 0200 (WIDFORSS TRAILHEAD ROAD) TO PARKING	NORTH RIM	0.00	0.00	0.00		12,825	GR	

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GRCA

GRAND CANYON NATIONAL PARK

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0963	4	58457		KAIBAB TRAILHEAD PARKING	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 10.77 TO ROUTE 0406 (MULE CORRAL AND MAINTENANCE AREA)	NORTH RIM	0.00	0.00	0.00		25,941	AS	2
0964	NC	90481		PICNIC AREA PARKING	ADJACENT TO ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 11.92	NORTH RIM	0.00	0.00	0.00		4,600	GR	
0965ZZ	4	58459		GRAND CANYON LODGE PARKING AREAS	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) TO PARKING	NORTH RIM	0.00	0.00	0.00		160,154	AS	2
0966	4	58460		MIXED BLESSINGS PARKING	FROM ROUTE 0013 (CAPE ROYAL ROAD) AT MP 3.81 TO ROUTE 0013 (CAPE ROYAL ROAD) AT MP 3.85	NORTH RIM	0.00	0.00	0.00		4,624	AS	1
0967	4	58462		POINT IMPERIAL PARKING	FROM END OF ROUTE 0010 (POINT IMPERIAL ROAD) TO PARKING	NORTH RIM	0.00	0.00	0.00		52,450	AS	1
0968	4	58465		VISTA ENCANTADA/PICNIC AREA	FROM ROUTE 0013 (CAPE ROYAL ROAD) AT MP 10.13 TO ROUTE 0013 (CAPE ROYAL ROAD)	NORTH RIM	0.00	0.00	0.00		12,744	AS	3
0969	4	58467		ROOSEVELT POINT PARKING	FROM ROUTE 0013 (CAPE ROYAL ROAD) AT MP 11.83 TO ROUTE 0013 (CAPE ROYAL ROAD) AT MP 11.87	NORTH RIM	0.00	0.00	0.00		6,581	AS	3
0970	4	58468		WAHALLA PLATEAU OVERLOOK PARKING	FROM ROUTE 0013 (CAPE ROYAL ROAD) AT MP 18.39 TO ROUTE 0013 (CAPE ROYAL ROAD) AT MP 18.50	NORTH RIM	0.00	0.00	0.00		27,274	AS	3
0971	4	58469		GAS STATION PARKING	FROM ROUTE 0201 (NORTH RIM CAMPGROUND ROAD) AT MP 0.04 TO ROUTE 0201 (NORTH RIM CAMPGROUND ROAD) AT MP 0.08	NORTH RIM	0.00	0.00	0.00		10,110	AS	2
0972	4	58470		NORTH RIM CAMPGROUND SHOWERS & LAUNDRYMAT PARKING	ADJACENT TO ROUTE 0201 (NORTH RIM CAMPGROUND ROAD)	NORTH RIM	0.00	0.00	0.00		4,559	AS	2
0973	4	58472		NORTH RIM CAMPGROUND GENERAL STORE PARKING	ADJACENT TO ROUTE 0273ZZ (NORTH RIM CAMPGROUND ROADS)	NORTH RIM	0.00	0.00	0.00		2,443	AS	2
0975ZZ	4	58475		NORTH RIM RESIDENCE PARKING AREAS	ADJACENT TO ROUTE 0449 (NORTH RIM RESIDENCE LOOP)	NORTH RIM	0.00	0.00	0.00		9,414	AS	2
0976	4	58478		NORTH RIM ADMINISTRATIVE BUILDING PARKING	ADJACENT TO ROUTES 0405 (ADMIN LOOP) AND 0449 (NORTH RIM RESIDENCE LOOP)	NORTH RIM	0.00	0.00	0.00		3,437	AS	2

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GRAND CANYON NATIONAL PARK

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0977	4	58482		NORTH RIM FIRE PARKING	ADJACENT TO ROUTE 0013 (CAPE ROYAL ROAD) AT MP 14.00	NORTH RIM	0.00	0.00	0.00		1,734	AS	3
0978	4	58485		GREENLAND LAKES CABIN PARKING	ADJACENT TO ROUTE 0013 (CAPE ROYAL ROAD) AT MP 8.09	NORTH RIM	0.00	0.00	0.00		1,300	AS	3
0979ZZ	4	58488		GENERAL OFFICES TAXI AND XANTERRA GARAGE PARKING AREAS	ADJACENT TO ROUTE 0012 (SOUTH ENTRANCE ROAD)	SOUTH RIM	0.00	0.00	0.00		8,478	AS	5
0980ZZ	4	90482		GRANDVIEW POINT ROAD PARKING AREAS	ADJACENT TO ROUTE 0264 (GRANDVIEW POINT ROAD)	SOUTH RIM	0.00	0.00	0.00		14,138	AS	8
0981	4	90485		LIPAN POINT PARKING	FROM END OF ROUTE 0267 (LIPAN POINT ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		15,184	AS	9
0982	4	90486		MAINTAINING MOUNTAIN MEADOWS PARKING	ADJACENT TO ROUTE 0013 (CAPE ROYAL ROAD) AT MP 1.53 RIGHT	NORTH RIM	0.00	0.00	0.00		2,592	AS	1
0983ZZ	4	102309		APACHE WEST PARKING AREAS	ADJACENT TO ROUTE 0414 (APACHE WEST)	SOUTH RIM	0.00	0.00	0.00		11,271	AS	5
0984	4	90378		YAVAPAI POINT PARKING	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		76,840	AS	6
0986	4	90496		BOULDER WEST PARKING	FROM ROUTE 0408 (COCONINO ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		4,020	AS	5
0987	4	90498		LOOP STREET PARKING	FROM ROUTE 0408 (COCONINO ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		26,388	AS	5
0989ZZ	5	90500		PAIUTE APARTMENTS PARKING AREAS	ADJACENT TO ROUTE 0429ZZ (PAIUTE COURT ROADS) ON LEFT AND RIGHT	SOUTH RIM	0.00	0.00	0.00		26,135	AS	6
0990ZZ	4	90501		TUSAYAN MUSEUM AND RUIN PARKING AREAS	ADJACENT TO ROUTE 0266 (TUSAYAN RUIN ROAD)	SOUTH RIM	0.00	0.00	0.00		7,608	AS	9
0991ZZ	4	90503		MORAN POINT PARKING AREAS	ADJACENT TO ROUTE 0265 (MORAN POINT ROAD)	SOUTH RIM	0.00	0.00	0.00		9,339	AS	8
0993	5	90380		BOOK STORE EMPLOYEE PARKING	FROM ROUTE 1054ZZ (VISITOR CENTER PARKING AREAS) TO PARKING	SOUTH RIM	0.00	0.00	0.00		4,761	AS	6
0994	4	90505		TRAILER VILLAGE DORM PARKING	FROM ROUTE 0277ZZ (TRAILER VILLAGE OUTER LOOP ROADS) TO PARKING	SOUTH RIM	0.00	0.00	0.00		19,039	AS	6

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GRAND CANYON NATIONAL PARK

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0995	4	90382		DAY CARE AND RECREATION CENTER PARKING	FROM INTERSECTION OF ROUTES 0601 (ALBRIGHT AVENUE) AND 0422 (SOUTH MOHAVE STREET) TO PARKING	SOUTH RIM	0.00	0.00	0.00		32,541	AS	5
0996	4	90506		YAVAPAI LODGE BUS PARKING	ADJACENT TO ROUTE 0446 (WEST SHUTTLE ACCESS ROAD)	SOUTH RIM	0.00	0.00	0.00		4,649	AS	6
0997	4	90508		CAMPGROUND REGISTRATION/ CAMPFIRE PROGRAM PARKING	FROM ROUTE 0201 (NORTH RIM CAMPGROUND ROAD) TO ROUTE 0273ZZ (NORTH RIM CAMPGROUND ROADS)	NORTH RIM	0.00	0.00	0.00		19,479	AS	2
0998	4	90509		NORTH RIM CAMPGROUND DUMP STATION	FROM ROUTE 0273ZZ (TO ROUTE 0273ZZ (NORTH RIM CAMPGROUND ROADS)) TO ROUTE 0273ZZ (NORTH RIM CAMPGROUND ROADS)	NORTH RIM	0.00	0.00	0.00		6,959	AS	2
0999	4	90383		NEW MAINTENANCE AREA	FROM END OF ROUTE 0428 (SHUTTLE BUS ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		181,685	CO	6
1000	4	90384		WEIGH STATION PARKING	FROM ROUTE 0428 (SHUTTLE BUS ROAD) TO ROUTE 0428 (SHUTTLE BUS ROAD)	SOUTH RIM	0.00	0.00	0.00		3,956	AS	6
1001ZZ	4	90385		RANDY THOMPSON CIRCLE PARKING AREAS	ADJACENT TO ROUTE 0440 (RANDY THOMPSON CIRCLE)	SOUTH RIM	0.00	0.00	0.00		3,779	AS	6
1002	4	90388		BARRY HANCE CIRCLE PARKING	ADJACENT TO ROUTE 0438 (BARRY HANCE CIRCLE)	SOUTH RIM	0.00	0.00	0.00		1,671	AS	6
1003ZZ	4	90511		HERMIT CIRCLE PARKING AREAS	ADJACENT TO ROUTE 0434 (HERMIT CIRCLE)	SOUTH RIM	0.00	0.00	0.00		6,236	AS	5
1004	4	90513		MOHAVE SOUTH STREET PARKING	FROM END OF ROUTE 0422 (SOUTH MOHAVE STREET) TO PARKING	SOUTH RIM	0.00	0.00	0.00		4,745	AS	5
1005	4	56581		DELEWARE NORTH APARTMENT PARKING	FROM ROUTE 0422 (SOUTH MOHAVE STREET) ON LEFT TO PARKING	SOUTH RIM	0.00	0.00	0.00		9,239	AS	5
1006	4	56582		GRAND CANYON DELEWARE NORTH PARKING	FROM ROUTE 0422 (SOUTH MOHAVE STREET) ON RIGHT TO PARKING	SOUTH RIM	0.00	0.00	0.00		8,706	AS	5
1007ZZ	4	90389		MOHAVE COURT PARKING AREAS	ADJACENT TO ROUTE 0423 (MOHAVE COURT)	SOUTH RIM	0.00	0.00	0.00		17,618	AS	5
1008ZZ	4	90396		KOLB CIRCLE PARKING AREAS	ADJACENT TO ROUTE 0419 (KOLB CIRCLE)	SOUTH RIM	0.00	0.00	0.00		2,188	AS	5
1009	4	56572		HUALAPAI COURT PARKING	FROM ROUTE 0417 (HUALAPAI ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		7,148	AS	5

Cycle 5 NPS/RIP Route ID Report

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(Numerical By Route #)

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Shading Color Key:

White = Paved Routes, DCV Driven

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GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
1010ZZ	4	90517		MUAV COURT PARKING AREAS	ADJACENT TO ROUTE 0416 (MUAV COURT) ON LEFT AND RIGHT	SOUTH RIM	0.00	0.00	0.00		19,662	AS	5
1012	4	90527		GENERATOR LOOP PARKING	FROM ROUTE 0450 (WASTEWATER PLANT / HELIPAD ROAD) TO PARKING	NORTH RIM	0.00	0.00	0.00		7,939	AS	2
1013	4	90528		BUNKHOUSE PARKING	ADJACENT TO ROUTE 0405 (ADMIN LOOP) ON LEFT	NORTH RIM	0.00	0.00	0.00		1,329	AS	2
1014ZZ	5	90529	■	CONCESSIONAIRE DORM PARKING AREAS	ADJACENT TO ROUTE 0448ZZ (CONCESSIONAIRE ROADS)	NORTH RIM	0.00	0.00	0.00		39,298	AS	2
1015	NC	90530		CAPE ROYAL PARKING	FROM END OF ROUTE 0013 (CAPE ROYAL ROAD) TO DEAD END	NORTH RIM	0.00	0.00	0.00		43,560	GR	
1016	4	90398		MATHER CAMPGROUND DUMP STATION	FROM ROUTE 0941 (MATHER CAMPGROUND SERVICES PARKING) TO PARKING	SOUTH RIM	0.00	0.00	0.00		7,352	AS	6
1017	4	90531		RESIDENCE PARKING AREA	ADJACENT TO ROUTE 0405 (ADMIN LOOP)	NORTH RIM	0.00	0.00	0.00		1,866	AS	2
1021	4	103380		BUS LOADING PARKING	ADJACENT TO ROUTE 0409 (BOULDER STREET)	SOUTH RIM	0.00	0.00	0.00		5,490	AS	5
1025ZZ	4	102350		DESERT VIEW BUS PARKING AREAS	FROM ROUTE 0172 (DESERT VIEW ACCESS ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		80,359	AS	9
1026	4	102351		DESERT VIEW VISITOR PARKING	FROM ROUTE 0172 (DESERT VIEW ACCESS ROAD) TO ROUTE 0172 (DESERT VIEW ACCESS ROAD)	SOUTH RIM	0.00	0.00	0.00		108,353	AS	9
1027ZZ	4	104064		FOUR PLEX PARKING AREAS	ADJACENT TO ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS)	SOUTH RIM	0.00	0.00	0.00		2,794	AS	9
1031	4	97463		MOHAVE RESIDENTIAL PARKING	FROM ROUTE 0422 (SOUTH MOHAVE STREET) TO PARKING	SOUTH RIM	0.00	0.00	0.00		12,837	AS	5
1033	4	97343		1ST EAST OF MOHAVE PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 2.86	SOUTH RIM	0.00	0.00	0.00		2,746	AS	4
1034	4	97345		1ST EAST OF PIMA POINT PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 6.23	SOUTH RIM	0.00	0.00	0.00		3,926	AS	4

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GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
1035	4	97344		1ST EAST OF THE ABYSS PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 3.92	SOUTH RIM	0.00	0.00	0.00		2,000	AS	4
1036	4	97341		2ND EAST OF MOHAVE POINT PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 2.59	SOUTH RIM	0.00	0.00	0.00		1,898	AS	5
1037	4	97346		2ND EAST OF PIMA POINT PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 5.05	SOUTH RIM	0.00	0.00	0.00		5,688	AS	4
1038	4	97342		2ND EAST OF THE ABYSS PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 3.66	SOUTH RIM	0.00	0.00	0.00		6,445	AS	4
1039	4	97339		3RD EAST OF PIMA POINT PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 4.80	SOUTH RIM	0.00	0.00	0.00		5,393	AS	4
1040	4	97337		4TH PAST PIMA POINT PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 4.53	SOUTH RIM	0.00	0.00	0.00		2,042	AS	4
1041	4	97340		3RD EAST OF THE ABYSS PARKING	ADJACENT TO ROUTE 0015 (HERMIT REST ROAD) AT MP 3.31	SOUTH RIM	0.00	0.00	0.00		1,120	AS	4
1043	4	104065		PARKING FOR NPS 8-PLEX	FROM ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS) TO ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS)	SOUTH RIM	0.00	0.00	0.00		14,632	AS	9
1044ZZ	4	102298		RANGER OPERATIONS PARKING LOTS	ADJACENT TO ROUTE 0016 (CENTER ROAD)	SOUTH RIM	0.00	0.00	0.00		2,959	AS	5
1045	4	227126		EAST ENTRANCE SIGN PARKING	ADJACENT TO ROUTE 0011 (DESERT VIEW DRIVE)	SOUTH RIM	0.00	0.00	0.00		3,046	AS	9
1046	4	227129		EAST ENTRANCE STATION PARKING	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO ROUTE 0011 (DESERT VIEW DRIVE)	SOUTH RIM	0.00	0.00	0.00		6,405	AS	9
1047	4	227130		EAST STATION EMPLOYEE PARKING	FROM ROUTE 0011 (DESERT VIEW DRIVE) TO PARKING	SOUTH RIM	0.00	0.00	0.00		6,145	AS	9
1048	4	103378		YAVAPAI LODGE SERVICE ROAD/PARKING	FROM ROUTE 0446 (WEST SHUTTLE ACCESS ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		10,226	AS	6
1049	4	227131		MATHER CAMPGROUND CHECK IN PARKING	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) TO ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD)	SOUTH RIM	0.00	0.00	0.00		12,745	AS	6
1050	4	103562		REAR DORM PARKING	ADJACENT TO ROUTE 0277ZZ (TRAILER VILLAGE OUTER LOOP ROADS)	SOUTH RIM	0.00	0.00	0.00		6,537	AS	6

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GRCA

GRAND CANYON NATIONAL PARK

Rte. No.	Cycle Collected	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un-Paved Miles	Total Route Length	Func. Class	Manual Rated SQ/FT	Surf. Type	Area Maps
1051	4	104061		XANTERRA DESERT VIEW PARKING	FROM ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS) TO PARKING	SOUTH RIM	0.00	0.00	0.00		8,666	AS	9
1052	4	227140		EMS PARKING	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) TO ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67))	NORTH RIM	0.00	0.00	0.00		40,588	AS	2
1053	NC	227132		LINDBERG HILL FIRE CAMP PARKING	FROM ROUTE 0407 (LINDBERG HILL MAINTENANCE AREA) TO PARKING	NORTH RIM	0.00	0.00	0.00		43,560	GR	
1054ZZ	5	97059		VISITOR CENTER PARKING AREAS	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		537,373	AS	6
1055	NC	113939		TUWEEP PARKING AREA	FROM ROUTE 0151 (TOROWEAP POINT ROAD) TO ROUTE 0151 (TOROWEAP POINT ROAD)	NORTH RIM	0.00	0.00	0.00		4,000	GR	
1056	NC	85736		HELIPORT & FIRE BASE PARKING	FROM ROUTE 0488 (FIRE STATION ACCESS ROAD) TO ROUTE 0488 (FIRE STATION ACCESS ROAD)	SOUTH RIM	0.00	0.00	0.00		26,814	GR	
1058	NC	97347		AZ TRAIL TURNOFF PARKING	FROM ROUTE 0166 (GRANDVIEW ENTRANCE ROAD) TO ROUTE 0166 (GRANDVIEW ENTRANCE ROAD)	SOUTH RIM	0.00	0.00	0.00		1,763	GR	
1060	NC	89161		ANGELS WINDOW OVERLOOK PARKING	FROM END OF 0013 (CAPE ROYAL ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		1,413	GR	
1061	NC	108294		BRIGHT ANGEL TRAILHEAD PARKING	FROM END OF ROUTE 0436ZZ (BRIGHT ANGEL LOOP ROADS) TO PARKING	SOUTH RIM	0.00	0.00	0.00		35,180	GR	
1062	5	112574		BUS LOADING/ PARKING AREA	ADJACENT TO ROUTE 0301 (RAILROAD TRACK ACCESS ROAD)	SOUTH RIM	0.00	0.00	0.00		6,577	CO	6
1063	NC	231676		TUSAYAN PARK AND RIDE LOT	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO PARKING	SOUTH RIM	0.00	0.00	0.00		60,000	GR	
1065	NC	97460		NAVAJO RESIDENCE PARKING	FROM ROUTE 0445ZZ (NAVAJO RESIDENCE ROADS) TO ROUTE 0445 (NAVAJO RESIDENCE ROADS)	SOUTH RIM	0.00	0.00	0.00		1,152	GR	
1066	NC	97061		TRANSIT STAGING PARKING	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) TO ROUTE 0012 (SOUTH ENTRANCE ROAD)	SOUTH RIM	0.00	0.00	0.00		100,000	AS	
5000	4	231432		STATE ROUTE 67	FROM MILE MARKER SIGN 598 IN KAIBAB NATIONAL FOREST TO NORTH PARK BOUNDARY AND ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) (PAVEMENT CHANGE AT PARK SIGN)	NORTH RIM	12.37	0.00	12.37			AS	1

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CYCLE 5 COLLECTED SUMMARY TOTALS FOR GRAND CANYON NATIONAL PARK

CYCLE 5 COLLECTED ROUTE TOTALS

DCV Driven Route Miles	85.45
Manually Rated Route Miles	0.03
TOTAL PARK ROUTE MILES COLLECTED IN CYCLE 5	85.48
Manually Rated Routes (SQFT)	6,218

CYCLE 5 COLLECTED CONCESSION TOTALS

Concession Paved Route Miles	0.23
Concession Paved Parking Area SQFT	9,348
Concession Manually Rated Rotes SQFT	6,218

CYCLE 5 COLLECTED WEIGHTED AVERAGE PARK VALUES

DCV Driven PCR	91
**Manually Rated Routes PCR	53
**Parking PCR	88
***Total Equivalent Lane Miles	203.65

* CYCLE 5 COLLECTED PARKING AREA TOTALS

Paved Parking (SQFT)	633,944
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TOTAL PARK SUMMARY FOR GRAND CANYON NATIONAL PARK

ROUTE TOTALS

TOTAL PAVED PARK ROUTE MILES	108.34
TOTAL PAVED PARKING (SQFT)	3,693,177

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

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

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

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General Park Road Functional Classification Table

- Class 1** Principal Park Road/Rural Parkway (Public Roads) Roads which constitute the main access route, circulatory tour, or thoroughfare for park visitors. Route Numbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are numbered 1 - 9. State Routes Inventoried for Park. Route Numbers 5000-5999
- Class 2** Connector Park Road (Public Roads) - Roads which provide access within a park to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, etc. Route Numbers 100-199.
- Class 3** Special Purpose Park Road (Public Roads) - Roads which provide circulation within public areas, such as campgrounds, picnic areas, visitor center complexes, concessionaire facilities, etc. These roads generally serve low-speed traffic and are often designed for one-way circulation. Route Numbers 200-299.
- Class 4** Primitive Park Roads (Public Roads) - Roads which provide circulation through remote areas and/or access to primitive campgrounds and undeveloped areas. These roads frequently have no minimum design standards and their use may be limited to specially equipped vehicles. Route Numbers 200-299. Note: Functional Classes 3 and 4 have the same route numbers because, historically, they were numbered similarly.
- Class 5** Administrative Access Road (Administrative Roads) - All public roads intended for access to administrative developments or structures such as park offices, employee quarters, or utility areas. Route Numbers 400-499.
- Class 6** Restricted Road (Administrative Roads) - All roads normally closed to the public, including patrol roads, truck trails, and other similar roads. Route Numbers 400-499. Note: Functional Classes 5 and 6 have the same route numbers because historically they were numbered similarly and often there is little distinction between these routes. For example, because utility areas and employee housing are often closed to the public, this restriction would result in classification of FC 6 rather than FC 5.
- Class 7** Urban Parkway (Urban Parkways and City Streets) - These facilities serve high volumes of park and non-park related traffic and are restricted, limited-access facilities in an urban area. This category of roads primarily encompasses the major parkways which serve as gateways to our nation's capital. Other major park roads or portions thereof, however, may be included in this category. Route Numbers 1-9.
- Class 8** City Streets (Urban Parkways and City Streets) - City streets are usually extensions of the adjoining street system that are owned and maintained by the National Park Service. The construction and/or reconstruction should conform with accepted local engineering practice and local conditions. Route Numbers 600-699.

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

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

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

Surface Type Abbreviations:

- AS - Asphaltic Concrete Pavement**
- CO - Portland Cement Concrete Pavement**
- BR - Brick or Pavers Road Bed**
- CB - Cobble Stone Road Bed**
- GR - Gravel Road Bed**
- SA - Sand Road Bed**
- NV - Native or Dirt Material Road Bed**
- OT - Other Materials Road Bed**

NPS/RIP Subcomponent Details for GRCA

Road Inventory Program 02/25/2013

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GRAND CANYON NATIONAL PARK

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			Route Name	From To						
0272ZZ	56549	4	MATHER CAMPGROUND ROADS	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) THROUGH CAMPGROUND LOOPS		3	3.53	0.00	3.53	
0273ZZ	98941	4	NORTH RIM CAMPGROUND ROADS	FROM INTERSECTION OF ROUTES 0201 (NORTH RIM CAMPGROUND ROAD) AND 0489 (INN CABIN LOOP) THROUGH CAMPGROUND		3	1.08	0.00	1.08	
0277ZZ	56550	4	TRAILER VILLAGE OUTER LOOP ROADS	FROM ROUTE 0017 (MARKET PLAZA ROAD) AROUND OUTER LOOPS		3	1.03	0.00	1.03	
0279ZZ	102247	4	TRAILER VILLAGE ROADS	FROM 0277ZZ (TRAILER VILLAGE OUTER LOOP ROADS) THROUGH INTERIOR TRAILER ROADS		3	2.19	0.00	2.19	
0420ZZ	56574	4	MATHER STREET AREA	FROM ROUTE 0417 (HUALAPAI ROAD) THROUGH MATHER STREET AREA		5	0.17	0.00	0.17	
0429ZZ	56587	5	PAIUTE COURT ROADS	FROM ROUTE 0601 (ALBRIGHT AVENUE) TO END		5	0.29	0.00	0.29	
0436ZZ	56598	4	BRIGHT ANGEL LOOP ROADS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) THROUGH BRIGHT ANGEL LOOPS		5	0.19	0.00	0.19	
0445ZZ	56610	4	NAVAJO RESIDENCE ROADS	FROM ROUTE 0432 (NAVAJO STREET) THROUGH NAVAJO RESIDENCE ROADS		5	0.11	0.00	0.11	
0448ZZ	58274	4	CONCESSIONAIRE ROADS	FROM ROUTE 0404 (AUTO SHOP ROAD) THROUGH CONCESSION AREA		5	0.64	0.12	0.76	
0461ZZ	56745	4	EAST ENTRANCE RESIDENCE ROADS	FROM ROUTE 0171 (DESERT VIEW GAS STATION ACCESS ROAD) TO RESIDENTIAL AREAS		5	0.77	0.05	0.82	
0904ZZ	58288	4	EL TOVAR/VERKAMPS PARKING AREAS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) TO PARKING			0.00	0.00	0.00	66,278
0908ZZ	58293	4	MASWICK STANDARD PARKING AREAS	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) ON LEFT AND RIGHT TO PARKING			0.00	0.00	0.00	217,249
0924ZZ	58388	5	RANGER OPERATIONS AND MAGISTRATE PARKING	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.59 TO PARKING			0.00	0.00	0.00	25,415
0934ZZ	58405	5	STABLE PARKING AREAS	FROM ROUTE 0431 (JUNIPER HILL) TO PARKING			0.00	0.00	0.00	30,595
0937ZZ	58411	4	CLINIC EMS PARKING AREAS	FROM ROUTE 0288 (CLINIC ACCESS ROAD) ON LEFT AND RIGHT TO PARKING			0.00	0.00	0.00	59,747
0965ZZ	58459	4	GRAND CANYON LODGE PARKING AREAS	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) TO PARKING			0.00	0.00	0.00	160,154
0975ZZ	58475	4	NORTH RIM RESIDENCE PARKING AREAS	ADJACENT TO ROUTE 0449 (NORTH RIM RESIDENCE LOOP)			0.00	0.00	0.00	9,414
0979ZZ	58488	4	GENERAL OFFICES TAXI AND XANTERRRA GARAGE PARKING AREAS	ADJACENT TO ROUTE 0012 (SOUTH ENTRANCE ROAD)			0.00	0.00	0.00	8,478
0980ZZ	90482	4	GRANDVIEW POINT ROAD PARKING AREAS	ADJACENT TO ROUTE 0264 (GRANDVIEW POINT ROAD)			0.00	0.00	0.00	14,138

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GRAND CANYON NATIONAL PARK

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0983ZZ	102309	4	APACHE WEST PARKING AREAS	ADJACENT TO ROUTE 0414 (APACHE WEST)				0.00	0.00	0.00	11,271
0989ZZ	90500	5	PAIUTE APARTMENTS PARKING AREAS	ADJACENT TO ROUTE 0429ZZ (PAIUTE COURT ROADS) ON LEFT AND RIGHT				0.00	0.00	0.00	26,135
0990ZZ	90501	4	TUSAYAN MUSEUM AND RUIN PARKING AREAS	ADJACENT TO ROUTE 0266 (TUSAYAN RUIN ROAD)				0.00	0.00	0.00	7,608
0991ZZ	90503	4	MORAN POINT PARKING AREAS	ADJACENT TO ROUTE 0265 (MORAN POINT ROAD)				0.00	0.00	0.00	9,339
1001ZZ	90385	4	RANDY THOMPSON CIRCLE PARKING AREAS	ADJACENT TO ROUTE 0440 (RANDY THOMPSON CIRCLE)				0.00	0.00	0.00	3,779
1003ZZ	90511	4	HERMIT CIRCLE PARKING AREAS	ADJACENT TO ROUTE 0434 (HERMIT CIRCLE)				0.00	0.00	0.00	6,236
1007ZZ	90389	4	MOHAVE COURT PARKING AREAS	ADJACENT TO ROUTE 0423 (MOHAVE COURT)				0.00	0.00	0.00	17,618
1008ZZ	90396	4	KOLB CIRCLE PARKING AREAS	ADJACENT TO ROUTE 0419 (KOLB CIRCLE)				0.00	0.00	0.00	2,188
1010ZZ	90517	4	MUAV COURT PARKING AREAS	ADJACENT TO ROUTE 0416 (MUAV COURT) ON LEFT AND RIGHT				0.00	0.00	0.00	19,662
1014ZZ	90529	5	CONCESSIONAIRE DORM PARKING AREAS	ADJACENT TO ROUTE 0448ZZ (CONCESSIONAIRE ROADS)		■		0.00	0.00	0.00	39,298
1025ZZ	102350	4	DESERT VIEW BUS PARKING AREAS	FROM ROUTE 0172 (DESERT VIEW ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	80,359
1027ZZ	104064	4	FOUR PLEX PARKING AREAS	ADJACENT TO ROUTE 0461ZZ (EAST ENTRANCE RESIDENCE ROADS)				0.00	0.00	0.00	2,794
1044ZZ	102298	4	RANGER OPERATIONS PARKING LOTS	ADJACENT TO ROUTE 0016 (CENTER ROAD)				0.00	0.00	0.00	2,959
1054ZZ	97059	5	VISITOR CENTER PARKING AREAS	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)	TO PARKING			0.00	0.00	0.00	537,373

NPS/RIP Subcomponent Details for GRCA

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Red text denotes approx. mileage

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0272ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0272AAZ	56549	4	MATHER CAMPGROUND ASPEN LOOP CUT THRU	FROM ROUTE 0272AZ (MATHER CAMPGROUND ASPEN LOOP) AT MP 0.13 TO ROUTE 0272AZ (MATHER CAMPGROUND ASPEN LOOP) AT MP 0.41		3	0.04	0.00	0.04	
0272AZ	56549	4	MATHER CAMPGROUND ASPEN LOOP	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.14 TO ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.19		3	0.59	0.00	0.59	
0272BZ	56549	4	MATHER CAMPGROUND SAGE LOOP 1	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) TO END OF LOOP		3	0.19	0.00	0.19	
0272CZ	56549	4	MATHER CAMPGROUND SAGE LOOP 2	FROM ROUTE 0272BZ (MATHER CAMPGROUND SAGE LOOP 1) AT MP 0.01 TO ROUTE 0272BZ (MATHER CAMPGROUND SAGE LOOP 1) AT MP 0.05		3	0.07	0.00	0.07	
0272DZ	56549	4	MATHER CAMPGROUND SAGE LOOP 3	FROM ROUTE 0272BZ (MATHER CAMPGROUND SAGE LOOP 1) AT MP 0.04 TO ROUTE 0272BZ (MATHER CAMPGROUND SAGE LOOP 1) AT MP 0.09		3	0.05	0.00	0.05	
0272EZ	56549	4	MATHER CAMPGROUND SAGE LOOP 4	FROM ROUTE 0272BZ (MATHER CAMPGROUND SAGE LOOP 1) AT MP 0.07 TO ROUTE 0272BZ (MATHER CAMPGROUND SAGE LOOP 1) AT MP 0.01		3	0.08	0.00	0.08	
0272FAZ	56549	4	MATHER CAMPGROUND FIR LOOP CUT THRU	FROM ROUTE 0272FZ (MATHER CAMPGROUND FIR LOOP) AT MP 0.13 TO ROUTE 0272FZ (MATHER CAMPGROUND FIR LOOP) AT MP 0.35		3	0.04	0.00	0.04	
0272FZ	56549	4	MATHER CAMPGROUND FIR LOOP	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.22 TO ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.28		3	0.49	0.00	0.49	
0272GZ	56549	4	MATHER CAMPGROUND PINE LOOP	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.25 TO ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.27		3	0.47	0.00	0.47	
0272HZ	56549	4	MATHER CAMPGROUND JUNIPER LOOP 1	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.30 TO ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.34		3	0.33	0.00	0.33	
0272IZ	56549	4	MATHER CAMPGROUND JUNIPER LOOP 2	FROM ROUTE 0272HZ (MATHER CAMPGROUND JUNIPER LOOP 1) AT MP 0.14 TO ROUTE 0272HZ (MATHER CAMPGROUND JUNIPER LOOP 1) AT MP 0.18		3	0.44	0.00	0.44	
0272JZ	56549	4	MATHER CAMPGROUND OAK LOOP 1	FROM ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) AT MP 0.34 TO ROUTE 0272LZ (MATHER CAMPGROUND MAPLE LOOP) AT MP 0.17		3	0.25	0.00	0.25	
0272KZ	56549	4	MATHER CAMPGROUND OAK LOOP 2	FROM ROUTE 0272JZ (MATHER CAMPGROUND OAK LOOP 1) AT MP 0.13 TO ROUTE 0272JZ (MATHER CAMPGROUND OAK LOOP 1) AT MP 0.20		3	0.24	0.00	0.24	
0272LZ	56549	4	MATHER CAMPGROUND MAPLE LOOP	FROM END OF ROUTE 0271 (MATHER CAMPGROUND ACCESS ROAD) TO END OF LOOP		3	0.25	0.00	0.25	

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0273ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0273AZ	98941	4	NORTH RIM CAMPGROUND OUTER LOOP	FROM END OF ROUTE 0201 (NORTH RIM CAMPGROUND ROAD) ON LEFT TO END OF LOOP WITH ROUTE 0201 (NORTH RIM CAMPGROUND ROAD) ON THE RIGHT		3	0.63	0.00	0.63	
0273BZ	98941	4	NORTH RIM CAMPGROUND SITES 80 TO 83	FROM ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.04 TO ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.54		3	0.06	0.00	0.06	
0273CZ	98941	4	NORTH RIM CAMPGROUND SITES 74 TO 79	FROM ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.06 TO ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.49		3	0.09	0.00	0.09	
0273DZ	98941	4	NORTH RIM CAMPGROUND SITES 64 TO 73	FROM ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.11 TO ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.43		3	0.11	0.00	0.11	
0273EZ	98941	4	NORTH RIM CAMPGROUND SITES 53 TO 63	FROM ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.16 TO ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.40		3	0.11	0.00	0.11	
0273FZ	98941	4	NORTH RIM CAMPGROUND SITES 47 TO 52	FROM ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.19 TO ROUTE 0273AZ (NORTH RIM CAMPGROUND OUTER LOOP) AT MP 0.34		3	0.08	0.00	0.08	

GRCA-0277ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0277AZ	56550	4	TRAILER VILLAGE OUTER LOOP A	FROM ROUTE 0017 (MARKET PLAZA ROAD) AT MP 1.00 TO INTERSECTION OF ROUTE 0279AZ (TRAILER VILLAGE ROAD A) AND ROUTE 1050 (REAR DORM PARKING)		3	0.66	0.00	0.66	
0277BZ	56550	4	TRAILER VILLAGE OUTER LOOP B	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.48 ON RIGHT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.35		3	0.37	0.00	0.37	

NPS/RIP Subcomponent Details for GRCA

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0279ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0279AZ	102247	4	TRAILER VILLAGE ROAD A	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.33 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.72		3	0.05	0.00	0.05	
0279BZ	102247	4	TRAILER VILLAGE ROAD B	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.34 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.70		3	0.07	0.00	0.07	
0279CZ	102247	4	TRAILER VILLAGE ROAD C	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.37 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.69		3	0.08	0.00	0.08	
0279DZ	102247	4	TRAILER VILLAGE ROAD D	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.38 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.68		3	0.08	0.00	0.08	
0279EZ	102247	4	TRAILER VILLAGE ROAD E	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.40 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.68		3	0.09	0.00	0.09	
0279FZ	102247	4	TRAILER VILLAGE ROAD F	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.41 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.66		3	0.09	0.00	0.09	
0279GZ	102247	4	TRAILER VILLAGE ROAD G	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.42 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.65		3	0.10	0.00	0.10	
0279HZ	102247	4	TRAILER VILLAGE ROAD H	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.43 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.64		3	0.10	0.00	0.10	
0279IZ	102247	4	TRAILER VILLAGE ROAD I	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.44 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.63		3	0.10	0.00	0.10	
0279JZ	102247	4	TRAILER VILLAGE ROAD J	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.45 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.62		3	0.10	0.00	0.10	
0279KZ	102247	4	TRAILER VILLAGE ROAD K	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.46 ON LEFT TO ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.61		3	0.11	0.00	0.11	
0279LLZ	102247	4	TRAILER VILLAGE ROAD LL	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.37 ON RIGHT TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.27		3	0.10	0.00	0.10	
0279LZ	102247	4	TRAILER VILLAGE ROAD L	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.48 ON LEFT TO 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.58		3	0.11	0.00	0.11	

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0279ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT	
			Route Name	From							To
0279MZ	102247	4	TRAILER VILLAGE ROAD M	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.38 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.24		3	0.12	0.00	0.12	
0279NZ	102247	4	TRAILER VILLAGE ROAD N	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.39 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.22		3	0.13	0.00	0.13	
0279OZ	102247	4	TRAILER VILLAGE ROAD O	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.40 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.21		3	0.14	0.00	0.14	
0279PZ	102247	4	TRAILER VILLAGE ROAD P	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.41 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.18		3	0.14	0.00	0.14	
0279RZ	102247	4	TRAILER VILLAGE ROAD R	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.43 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.16		3	0.13	0.00	0.13	
0279SZ	102247	4	TRAILER VILLAGE ROAD S	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.44 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.15		3	0.12	0.00	0.12	
0279TZ	102247	4	TRAILER VILLAGE ROAD T	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.46 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.13		3	0.12	0.00	0.12	
0279UZ	102247	4	TRAILER VILLAGE ROAD U	FROM ROUTE 0277AZ (TRAILER VILLAGE OUTER LOOP A) AT MP 0.47 ON RIGHT	TO ROUTE 0277BZ (TRAILER VILLAGE OUTER LOOP B) AT MP 0.12		3	0.11	0.00	0.11	

GRCA-0420ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT	
			Route Name	From							To
0420AZ	56574	4	MATHER STREET A	FROM ROUTE 0417 (HUALAPAI ROAD)	TO ROUTE 0420BZ (MATHER STREET B)		5	0.07	0.00	0.07	
0420BZ	56574	4	MATHER STREET B	FROM ROUTE 0417 (HUALAPAI ROAD)	TO END OF LOOP		5	0.10	0.00	0.10	

NPS/RIP Subcomponent Details for GRCA

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0429ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0429AZ	56587	5	PAIUTE COURT A	FROM ROUTE 0601 (ALBRIGHT AVENUE) TO END OF LOOP		5	0.26	0.00	0.26	
0429BZ	56587	5	PAIUTE COURT B	FROM ROUTE 0429AZ (PAIUTE COURT A) TO END		5	0.03	0.00	0.03	2,365

GRCA-0436ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0436AZ	56598	4	BRIGHT ANGEL LOOP ROAD A	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) TO END OF LOOP		5	0.13	0.00	0.13	
0436BZ	56598	4	BRIGHT ANGEL LOOP ROAD B	FROM ROUTE 0436AZ (BRIGHT ANGEL LOOP ROAD A) TO END OF LOOP		5	0.06	0.00	0.06	

GRCA-0445ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From To						
0445AZ	56610	4	NAVAJO RESIDENCE ROAD A	FROM ROUTE 0432 (NAVAJO STREET) TO END OF PAVEMENT		5	0.07	0.00	0.07	
0445BZ	56610	4	NAVAJO RESIDENCE ROAD B	FROM ROUTE 0445AZ (NAVAJO RESIDENCE ROAD A) TO END OF LOOP		5	0.04	0.00	0.04	

NPS/RIP Subcomponent Details for GRCA

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0448ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From						
0448AZ	58274	4	EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD	FROM ROUTE 0404 (AUTO SHOP ROAD)		5	0.20	0.00	0.20	
0448BZ	58274	4	CONCESSIONAIRE RESIDENCE ROAD	FROM ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)		5	0.17	0.00	0.17	
0448CZ	58274	4	RV CONCESSIONAIRE RESIDENCE ROAD	FROM ROUTE 0448BZ (CONCESSIONAIRE RESIDENCE ROAD)		5	0.10	0.00	0.10	
0448DZ	58274	4	DORM ACCESS ROAD	FROM ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)		5	0.17	0.12	0.29	
				TO DEAD END AT MULE CONCESSIONAIRE						
				TO ROUTE 0448DZ (DORM ACCESS ROAD)						
				TO ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)						
				TO ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD) AT MP 0.29						

GRCA-0461ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Description		Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
			Route Name	From						
0461AZ	56745	4	CEDAR MOUNTAIN ROAD	FROM ROUTE 0171 (DESERT VIEW GAS STATION ACCESS ROAD) AT MP 0.07		5	0.31	0.00	0.31	
0461BZ	56745	4	COLTER LANE	FROM ROUTE 0461AZ (CEDAR MOUNTAIN ROAD) AT MP 0.30		5	0.32	0.05	0.37	
0461CZ	56745	4	NANKOWEAP ROAD	FROM ROUTE 0461BZ (COLTER LANE) AT MP 0.17		5	0.11	0.00	0.11	
0461DZ	56745	4	CARDENAS COURT	FROM ROUTE 0461BZ (COLTER LANE) AT MP 0.09		5	0.03	0.00	0.03	
				TO BEGINNING OF ROUTE 0499 (SERVICE ROAD TO DESERT VIEW SEWER PONDS)						
				TO ROUTE 0461AZ (CEDAR MOUNTAIN ROAD) AT MP 0.13						
				TO ROUTE 0461BZ (COLTER LANE) AT MP 0.29						
				TO DEAD END						

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0904ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0904AZ	58288	4	EL TOVAR/VERKAMPS PARKING A	FROM ROUTE 0500 (VILLAGE LOOP DRIVE)	TO END OF LOOP			0.00	0.00	0.00	14,648
0904BZ	58288	4	EL TOVAR/VERKAMPS PARKING B	FROM ROUTE 0905 (KACHINA LODGE PARKING)	TO PARKING			0.00	0.00	0.00	11,851
0904CZ	58288	4	EL TOVAR/VERKAMPS PARKING C	FROM ROUTE 0904AZ (EL TOVAR/VERKAMPS PARKING A) AND ROUTE 0904DZ (EL TOVAR/VERKAMPS PARKING D)	TO PARKING			0.00	0.00	0.00	36,416
0904DZ	58288	4	EL TOVAR/VERKAMPS PARKING D	FROM ROUTE 0904CZ (EL TOVAR/VERKAMPS PARKING C)	TO PARKING			0.00	0.00	0.00	3,363

GRCA-0908ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0908AZ	58293	4	MASWICK STANDARD PARKING A	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.66 ON LEFT	TO ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.76			0.00	0.00	0.00	18,062
0908BZ	58293	4	MASWICK STANDARD PARKING B	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.70 ON RIGHT	TO ROUTE 0908ZZ (MASWICK STANDARD PARKING AREAS)			0.00	0.00	0.00	35,158
0908CZ	58293	4	MASWICK STANDARD PARKING C	FROM ROUTE 0908BZ (MASWICK STANDARD PARKING B)	TO PARKING			0.00	0.00	0.00	43,858
0908DZ	58293	4	MASWICK STANDARD PARKING D	FROM ROUTE 0908BZ (MASWICK STANDARD PARKING B)	TO PARKING			0.00	0.00	0.00	26,702
0908EZ	58293	4	MASWICK STANDARD PARKING E	FROM ROUTE 0500 (VILLAGE LOOP DRIVE) AT MP 0.76 ON RIGHT	TO ROUTE 0908ZZ (MASWICK STANDARD PARKING AREAS)			0.00	0.00	0.00	93,469

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-0924ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0924AZ	58388	4	RANGER OPERATIONS PARKING	FROM ROUTE 0016 (CENTER ROAD) AT MP 1.59	TO ROUTE 0924BZ (MAGISTRATE EMPLOYEE)			0.00	0.00	0.00	18,209
0924BZ	58388	5	MAGISTRATE EMPLOYEE	FROM ROUTE 0924AZ (RANGER OPERATIONS PARKING)	TO PARKING			0.00	0.00	0.00	7,206

GRCA-0934ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0934AZ	58405	4	STABLE PARKING AREA A	FROM ROUTE 0431 (JUNIPER HILL)	TO ROUTE 0435 (SUNSET DRIVE)			0.00	0.00	0.00	20,372
0934BZ	58405	5	STABLE PARKING AREA B	FROM ROUTE 0435 (SUNSET DRIVE) ON LEFT AND ROUTE 0432 (NAVAJO STREET)	TO PARKING			0.00	0.00	0.00	10,223

GRCA-0937ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0937AZ	58411	4	CLINIC EMS PARKING A	FROM ROUTE 0288 (CLINIC ACCESS ROAD)	TO ROUTE 0288 (CLINIC ACCESS ROAD)			0.00	0.00	0.00	5,461
0937BZ	58411	4	PRIVATE RESIDENCE AND CLINIC PARKING	FROM ROUTE 0288 (CLINIC ACCESS ROAD)	TO ROUTE 0288 (CLINIC ACCESS ROAD)			0.00	0.00	0.00	16,445
0937CZ	58411	4	AMBULANCE PARKING	FROM ROUTE 0288 (CLINIC ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	8,273
0937DZ	58411	4	CLINIC EMS PARKING D	FROM ROUTE 0937BZ (PRIVATE RESIDENCE AND CLINIC PARKING)	TO ROUTE 0288 (CLINIC ACCESS ROAD)			0.00	0.00	0.00	12,927
0937EZ	58411	4	CLINIC EMS PARKING E	FROM ROUTE 0288 (CLINIC ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	16,641

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GRAND CANYON NATIONAL PARK

GRCA-0965ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0965Z	58459	4	NORTH RIM VISITOR CENTER PARKING	FROM ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67)) AT MP 12.70	TO PARKING			0.00	0.00	0.00	136,799
0974Z	58459	4	GRAND CANYON LODGE PARKING	FROM END OF ROUTE 0014 (NORTH ENTRANCE ROAD (HWY 67))	TO PARKING			0.00	0.00	0.00	23,355

GRCA-0975ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0975AZ	58475	4	NORTH RIM RESIDENCE PARKING A	ADJACENT TO ROUTE 0449 (NORTH RIM RESIDENCE LOOP)				0.00	0.00	0.00	7,128
0975BZ	58475	4	NORTH RIM RESIDENCE PARKING B	ADJACENT TO ROUTE 0449 (NORTH RIM RESIDENCE LOOP)				0.00	0.00	0.00	606
0975CZ	58475	4	NORTH RIM RESIDENCE PARKING C	ADJACENT TO ROUTE 0449 (NORTH RIM RESIDENCE LOOP)				0.00	0.00	0.00	1,063
0975DZ	58475	4	NORTH RIM RESIDENCE PARKING D	ADJACENT TO ROUTE 0449 (NORTH RIM RESIDENCE LOOP)				0.00	0.00	0.00	617

GRCA-0979ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0979AZ	58488	4	GENERAL OFFICES TAXI PARKING	ADJACENT TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 7.73				0.00	0.00	0.00	6,366
0979BZ	58488	4	XANTERRA GARAGE PARKING	ADJACENT TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 7.75				0.00	0.00	0.00	2,112

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GRAND CANYON NATIONAL PARK

GRCA-0980ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0980AZ	90482	4	GRANDVIEW POINT ROAD PARKING A	ADJACENT TO ROUTE 0264 (GRANDVIEW POINT ROAD) AT MP 0.66 ON RIGHT				0.00	0.00	0.00	5,342
0980BZ	90482	4	GRANDVIEW POINT ROAD PARKING B	ADJACENT TO ROUTE 0264 (GRANDVIEW POINT ROAD) AT MP 0.73 ON RIGHT				0.00	0.00	0.00	5,809
0980CZ	90482	4	GRANDVIEW POINT ROAD PARKING C	ADJACENT TO ROUTE 0264 (GRANDVIEW POINT ROAD) AT MP 0.74 ON LEFT				0.00	0.00	0.00	2,987

GRCA-0983ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0983AZ	102309	4	APACHE WEST PARKING A	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.13 ON RIGHT				0.00	0.00	0.00	1,128
0983BZ	102309	4	APACHE WEST PARKING B	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.11 ON LEFT				0.00	0.00	0.00	4,620
0983CZ	102309	4	APACHE WEST PARKING C	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.11 ON RIGHT				0.00	0.00	0.00	550
0983DZ	102309	4	APACHE WEST PARKING D	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.08 ON RIGHT				0.00	0.00	0.00	359
0983EZ	102309	4	APACHE WEST PARKING E	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.07 ON RIGHT				0.00	0.00	0.00	549
0983FZ	102309	4	APACHE WEST PARKING F	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.07 ON LEFT				0.00	0.00	0.00	1,457
0983GZ	102309	4	APACHE WEST PARKING G	ADJACENT TO ROUTE 0414 (APACHE WEST) AT MP 0.05 ON LEFT				0.00	0.00	0.00	2,608

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GRAND CANYON NATIONAL PARK

GRCA-0989ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0989AZ	90500	5	PAIUTE APARTMENTS PARKING A	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT				0.00	0.00	0.00	3,188
0989BZ	90500	5	PAIUTE APARTMENTS PARKING B	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT				0.00	0.00	0.00	4,352
0989CZ	90500	5	PAIUTE APARTMENTS PARKING C	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT				0.00	0.00	0.00	5,914
0989DZ	90500	5	PAIUTE APARTMENTS PARKING D	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON LEFT				0.00	0.00	0.00	3,143
0989EZ	90500	5	PAIUTE APARTMENTS PARKING E	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT				0.00	0.00	0.00	1,703
0989FZ	90500	5	PAIUTE APARTMENTS PARKING F	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON LEFT				0.00	0.00	0.00	2,914
0989GZ	90500	5	PAIUTE APARTMENTS PARKING G	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT				0.00	0.00	0.00	2,043
0989HZ	90500	5	PAIUTE APARTMENTS PARKING H	ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON LEFT				0.00	0.00	0.00	2,878

GRCA-0990ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0990AZ	90501	4	TUSAYAN MUSEUM AND RUIN PARKING A	ADJACENT TO ROUTE 0266 (TUSAYAN RUIN ROAD) ON RIGHT				0.00	0.00	0.00	4,649
0990BZ	90501	4	TUSAYAN MUSEUM AND RUIN PARKING B	ADJACENT TO ROUTE 0266 (TUSAYAN RUIN ROAD) ON LEFT				0.00	0.00	0.00	2,959

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GRAND CANYON NATIONAL PARK

GRCA-0991ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
0991AZ	90503	4	MORAN POINT PARKING A	ADJACENT TO ROUTE 0265 (MORAN POINT ROAD) ON RIGHT			0.00	0.00	0.00	6,064	
0991BZ	90503	4	MORAN POINT PARKING B	ADJACENT TO ROUTE 0265 (MORAN POINT ROAD) ON LEFT			0.00	0.00	0.00	3,275	

GRCA-1001ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1001AZ	90385	4	RANDY THOMPSON CIRCLE PARKING A	ADJACENT TO ROUTE 0440 (RANDY THOMPSON CIRCLE) AT MP 0.33			0.00	0.00	0.00	1,246	
1001BZ	90385	4	RANDY THOMPSON CIRCLE PARKING B	ADJACENT TO ROUTE 0440 (RANDY THOMPSON CIRCLE) AT MP 0.36			0.00	0.00	0.00	1,290	
1001CZ	90385	4	RANDY THOMPSON CIRCLE PARKING C	ADJACENT TO ROUTE 0440 (RANDY THOMPSON CIRCLE) AT MP 0.40			0.00	0.00	0.00	1,243	

GRCA-1003ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1003AZ	90511	4	HERMIT CIRCLE PARKING A	ADJACENT TO ROUTE 0434 (HERMIT CIRCLE)			0.00	0.00	0.00	3,771	
1003BZ	90511	4	HERMIT CIRCLE PARKING B	ADJACENT TO ROUTE 0434 (HERMIT CIRCLE)			0.00	0.00	0.00	2,465	

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-1007ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1007AZ	90389	4	MOHAVE COURT PARKING A	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.02 ON RIGHT				0.00	0.00	0.00	1,927
1007BZ	90389	4	MOHAVE COURT PARKING B	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.02 ON LEFT				0.00	0.00	0.00	2,673
1007CZ	90389	4	MOHAVE COURT PARKING C	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.04 ON RIGHT				0.00	0.00	0.00	1,835
1007DZ	90389	4	MOHAVE COURT PARKING D	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.10 ON LEFT				0.00	0.00	0.00	2,029
1007EZ	90389	4	MOHAVE COURT PARKING E	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.11 ON RIGHT				0.00	0.00	0.00	2,139
1007FZ	90389	4	MOHAVE COURT PARKING F	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.15 ON RIGHT				0.00	0.00	0.00	4,379
1007GZ	90389	4	MOHAVE COURT PARKING G	ADJACENT TO ROUTE 0423 (MOHAVE COURT) AT MP 0.14 ON LEFT				0.00	0.00	0.00	2,636

GRCA-1008ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1008AZ	90396	4	KOLB CIRCLE PARKING A	ADJACENT TO ROUTE 0419 (KOLB CIRCLE)				0.00	0.00	0.00	1,525
1008BZ	90396	4	KOLB CIRCLE PARKING B	ADJACENT TO ROUTE 0419 (KOLB CIRCLE)				0.00	0.00	0.00	663

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-1010ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1010AZ	90517	4	MUAV COURT PARKING A	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.04 ON RIGHT				0.00	0.00	0.00	2,895
1010BZ	90517	4	MUAV COURT PARKING B	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.04 ON LEFT				0.00	0.00	0.00	2,330
1010CZ	90517	4	MUAV COURT PARKING C	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.07 ON RIGHT				0.00	0.00	0.00	3,000
1010DZ	90517	4	MUAV COURT PARKING D	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.07 ON LEFT				0.00	0.00	0.00	2,598
1010EZ	90517	4	MUAV COURT PARKING E	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.10 ON LEFT				0.00	0.00	0.00	2,162
1010FZ	90517	4	MUAV COURT PARKING F	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.13 ON LEFT				0.00	0.00	0.00	3,311
1010GZ	90517	4	MUAV COURT PARKING G	ADJACENT TO ROUTE 0416 (MUAV COURT) AT MP 0.13 ON RIGHT				0.00	0.00	0.00	3,366

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GRCA

GRAND CANYON NATIONAL PARK

GRCA-1014ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1014AZ	90529	4	CONCESSION DORM PARKING	ADJACENT TO ROUTE 0448BZ (CONCESSIONAIRE RESIDENCE ROAD)		■		0.00	0.00	0.00	7,176
1014BZ	90529	4	CONCESSIONAIRE CAFETERIA PARKING	ADJACENT TO ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)		■		0.00	0.00	0.00	1,634
1014CZ	90529	4	CAFETERIA EMPLOYEE PARKING	FROM ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)	TO PARKING	■		0.00	0.00	0.00	2,175
1014DZ	90529	4	CONCESSIONAIRE DORM PARKING #1	ADJACENT TO ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)		■		0.00	0.00	0.00	4,458
1014EZ	90529	4	CONCESSIONAIRE DORM PARKING #2	ADJACENT TO ROUTE 0448AZ (EMPLOYEE DINING ROOM / MULE CONCESSIONAIRE ROAD)		■		0.00	0.00	0.00	3,801
1014FZ	90529	5	CONCESSIONAIRE DORM PARKING #3	ADJACENT TO ROUTE 0448BZ (CONCESSIONAIRE RESIDENCE ROAD)		■		0.00	0.00	0.00	2,771
1014GZ	90529	4	REAR EMPLOYEE DORM HOUSING	FROM ROUTE 0448DZ (DORM ACCESS ROAD) AT MP 0.02 ON LEFT	TO PARKING	■		0.00	0.00	0.00	11,756
1014HZ	90529	4	FRONT EMPLOYEE DORM PARKING	FROM ROUTE 0448DZ (DORM ACCESS ROAD) AT MP 0.04 ON LEFT	TO PARKING	■		0.00	0.00	0.00	5,527

GRCA-1025ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1025AZ	102350	4	DESERT VIEW BUS PARKING A	FROM ROUTE 0172 (DESERT VIEW ACCESS ROAD)	TO PARKING			0.00	0.00	0.00	67,845
1025BZ	102350	4	DESERT VIEW BUS PARKING B	ADJACENT TO ROUTE 1025AZ (DESERT VIEW BUS PARKING A)				0.00	0.00	0.00	12,514

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GRAND CANYON NATIONAL PARK

GRCA-1027ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1027AZ	104064	4	FOUR PLEX PARKING A	ADJACENT TO ROUTE 0461BZ (COLTER LANE)			0.00	0.00	0.00	749	
1027BZ	104064	4	FOUR PLEX PARKING B	ADJACENT TO ROUTE 0461BZ (COLTER LANE)			0.00	0.00	0.00	2,045	

GRCA-1044ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1044AZ	102298	4	MAGISTRATE PARKING A	ADJACENT TO ROUTE 0016 (CENTER ROAD)			0.00	0.00	0.00	1,161	
1044BZ	102298	4	MAGISTRATE PARKING B	ADJACENT TO ROUTE 0016 (CENTER ROAD)			0.00	0.00	0.00	1,798	

GRCA-1054ZZ Subcomponent Breakdown

Rte. No.	FMSS No.	Cycle Collected	Route Name	From	To	Concess Route	Func. Class	Paved Miles	Un-Paved Miles	Total Route Length	Manual Rated SQ/FT
1054AZ	97059	5	VISITOR CENTER PARKING #1	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)	TO ROUTE 0012 (SOUTH ENTRANCE ROAD)			0.00	0.00	0.00	131,202
1054BZ	97059	5	VISITOR CENTER PARKING #2	FROM ROUTE 1054AZ (VISITOR CENTER PARKING #1)	TO ROUTE 1054AZ (VISITOR CENTER PARKING #1)			0.00	0.00	0.00	80,976
1054CZ	97059	5	VISITOR CENTER PARKING #3	FROM ROUTE 1054AZ (VISITOR CENTER PARKING #1)	TO PARKING			0.00	0.00	0.00	74,550
1054DZ	97059	5	VISITOR CENTER PARKING #4	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)	TO ROUTE 0993 (BOOK STORE EMPLOYEE PARKING)			0.00	0.00	0.00	101,318
1054EZ	97059	5	VISITOR CENTER COMERCIAL BUS PARKING	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)	TO PARKING			0.00	0.00	0.00	149,327

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - GRCA

ROUTES ADDED FROM PREVIOUS INVENTORY:			
Route #	Route Name	Reason for Addition	Comments
0301	RAILROAD TRACK ACCESS ROAD	OTHER	PAVED ROUTE ADDED IN CYCLE 5.
0502	SOUTH ENTRANCE BYPASS LANE	OTHER	PAVED ROUTE ADDED IN CYCLE 5.
0504	CONC VILLAGE LOOP CONCESSION HOUSING ACCESS ROAD	OTHER	PAVED ROUTE ADDED IN CYCLE 5.
1062	BUS LOADING/ PARKING AREA	OTHER	PAVED PARKING; ADDED IN CYCLE 5.
1066	TRANSIT STAGING PARKING	OTHER	FUTURE PAVED PARKING ADDED IN CYCLE 5 IS IN A PLANNING STAGE.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - GRCA

ROUTES MODIFIED FROM PREVIOUS INVENTORY:			
Route #	Route Name	Type of Modification	Comments
0429ZZ	PAIUTE COURT ROADS	RECONSTRUCTED	CONFIGURATION OF THIS ROUTE CHANGED AFTER RECONSTRUCTION. NAME ALSO CHANGED FROM NPS HOUSING ROAD TO PAIUTE COURT ROADS.
0928	COCONINO SCHOOL PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
0934ZZ	STABLE PARKING AREAS	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
0979ZZ	GENERAL OFFICES TAXI AND XANTERRRA GARAGE PARKING AREAS	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY. NAME CHANGED FROM "GARAGE PARKING AREAS" TO "GENERAL OFFICES TAXI AND XANTERRA GARAGE PARKING AREAS". SUMMARY RECORD FOR ROUTES 0979AZ AND 0979BZ.
0984	YAVAPAI POINT PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
0989ZZ	PAIUTE APARTMENTS PARKING AREAS	RECONSTRUCTED	THIS AREA WAS RECONSTRUCTED.
0993	BOOK STORE EMPLOYEE PARKING	RECONSTRUCTED	THIS AREA WAS RECONSTRUCTED.
1012	GENERATOR LOOP PARKING	SQ FEET CHANGE	MINOR ADJUSTMENT MADE TO SHAPE TO REFLECT PARKING LOT GEOMETRY ACCURATELY.
1054ZZ	VISITOR CENTER PARKING AREAS	RECONSTRUCTED	THIS AREA WAS RECONSTRUCTED.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - GRCA

OTHER CHANGES FROM PREVIOUS INVENTORY:			
Route #	Route Name	Type of Change	Comments
0171	DESERT VIEW GAS STATION ACCESS ROAD	FUNCTIONAL CLASS CHANGE	FUNCTIONAL CLASS CHANGED FROM 1 TO 3 IN CYCLE 5.
0402	SERVICE ROAD TO SUPAI CAMP	SURFACE TYPE CHANGE	UNPAVED IN PREVIOUS CYCLE, PAVED IN CYCLE 5.
0446	WEST SHUTTLE ACCESS ROAD	LENGTH CHANGE	ROUTE WAS SHORTENED IN CYCLE 5. ENDS AT THE INTERSECTION WITH ROUTE 0012.
0447	EAST SHUTTLE ACCESS ROAD	RECONSTRUCTED	ROUTE 0447 WAS NOT COLLECTED IN CYCLE 4 BECAUSE THE AREA WAS UNDER CONSTRUCTION. THE ROUTE HAS CHANGED SINCE CYCLE 3.
0465	LIVESTOCK TRAINING FACILITY ROAD	OTHER	NAME CHANGED FROM "RIM GRAVEL PIT ROAD" TO "LIVESTOCK TRAINING FACILITY ROAD" IN CYCLE 5.
0503	MATHER POINT SHUTTLE LOOP	RECONSTRUCTED	ROUTE 0902 WAS REMOVED AFTER RE-CONSTRUCTION. ROUTE 0503 WAS ADDED IN CYCLE 5 AND IS NOW LOCATED IS IN THIS AREA.
0924ZZ	RANGER OPERATIONS AND MAGISTRATE PARKING	ROUTES COMBINED	ROUTE 0493 FROM CYCLE 4 WAS CHANGED TO PARKING IN CYCLE 5 AND COMBINED WITH ROUTE 0924.
0935	FRED HARVEY SERVICE STATION PARKING	OTHER	NAME CHANGED FROM "SCHOOL BUS PARKING" TO "FRED HARVEY SERVICE STATION PARKING", IN CYCLE 5.
0938	XANTERRA CONCESSIONS LAUNDRY PARKING	OTHER	NAME CHANGED FROM "MAINTENANCE PARKING" TO "XANTERRA CONCESSIONS LAUNDRY PARKING" IN CYCLE 5.

ROUTE IDENTIFICATION CHANGES TO PAVED ROUTES FROM PREVIOUS CYCLE - GRCA

ROUTES REMOVED FROM PREVIOUS INVENTORY:			
Route #	Route Name	Reason for Removal	Comments
0204	NPS ACADEMY LOOP ROAD	OTHER	ROUTE WAS MOVED FROM GRCA TO HOAL IN CYCLE 5.
0485	EMPLOYEE SERVICE ROAD	RECONSTRUCTED	ROUTE WAS NOT COLLECTED IN CYCLE 4 BECAUSE THE AREA WAS UNDER CONSTRUCTION. IT HAS BEEN REMOVED (IT WAS LOCATED IN THE AREA OF ROUTES 0012 AND 0447 IN CYCLE 3).
0487	EMPLOYEE ACCESS ROAD	RECONSTRUCTED	ROUTE WAS NOT COLLECTED IN CYCLE 4 BECAUSE THE AREA WAS UNDER CONSTRUCTION. IT HAS BEEN REMOVED AND INCORPORATED INTO ROUTE 1054ZZ.
0929	DORMITORY PARKING	OTHER	ROUTE WAS MOVED FROM GRCA TO HOAL IN CYCLE 5.
0988	ALBRIGHT TRAINING GARAGE PARKING	OTHER	ROUTE WAS MOVED FROM GRCA TO HOAL IN CYCLE 5.
1028	GENERAL OFFICES TAXI PARKING	OTHER	IT WAS A DUPLICATE OF ROUTE 0979BZ, DELETED IN CYCLE 5.

Section 3

Park Summary Information



Grand Canyon National Park



Federal Lands Highway
Road Inventory Program

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

F.C.	Pavement Condition Rating (PCR)								TOTAL MILES
	Poor (0-60)		Fair (61-84)		Good (85-94)		Excellent (95-100)		
	MILES	%	MILES	%	MILES	%	MILES	%	
1	0.77	0.90%	14.78	17.30%	27.11	31.73%	35.56	41.61%	78.22
2	0.41	0.48%	1.58	1.85%	1.05	1.23%	1.93	2.26%	4.97
3	0.04	0.05%	0.04	0.05%	0.09	0.11%	0.06	0.07%	0.23
4									
5	0.29	0.34%	0.07	0.08%	0.48	0.56%	1.19	1.39%	2.03
6									
7									
8									
Totals	1.51	1.77%	16.47	19.27%	28.73	33.62%	38.74	45.33%	85.45

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.

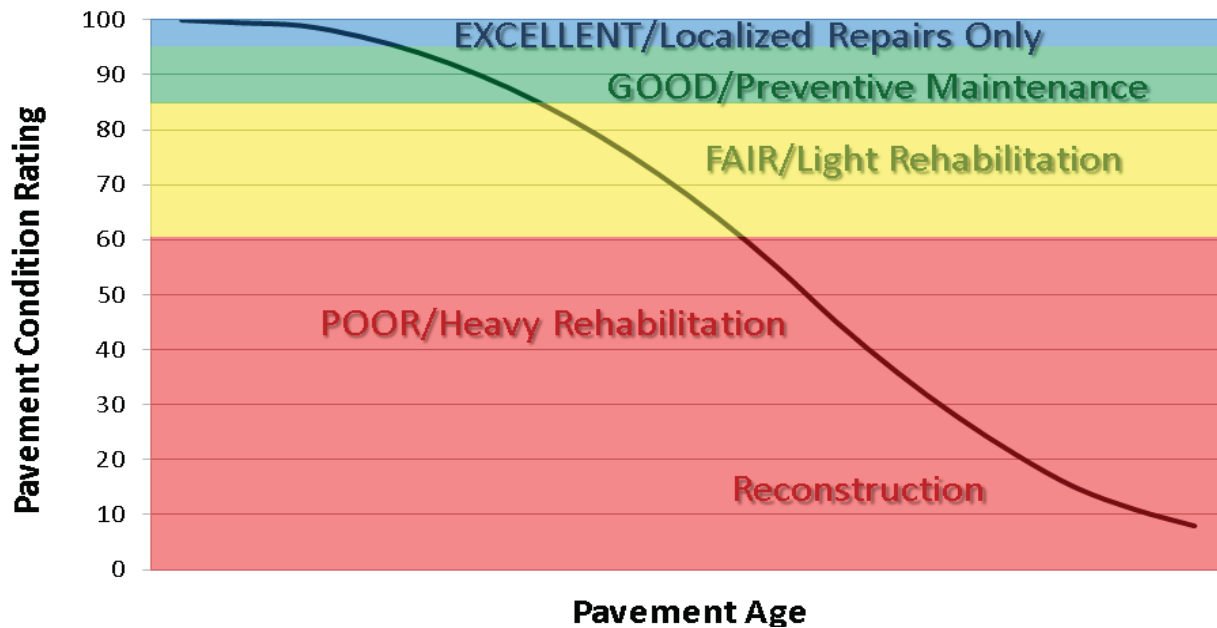
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

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.

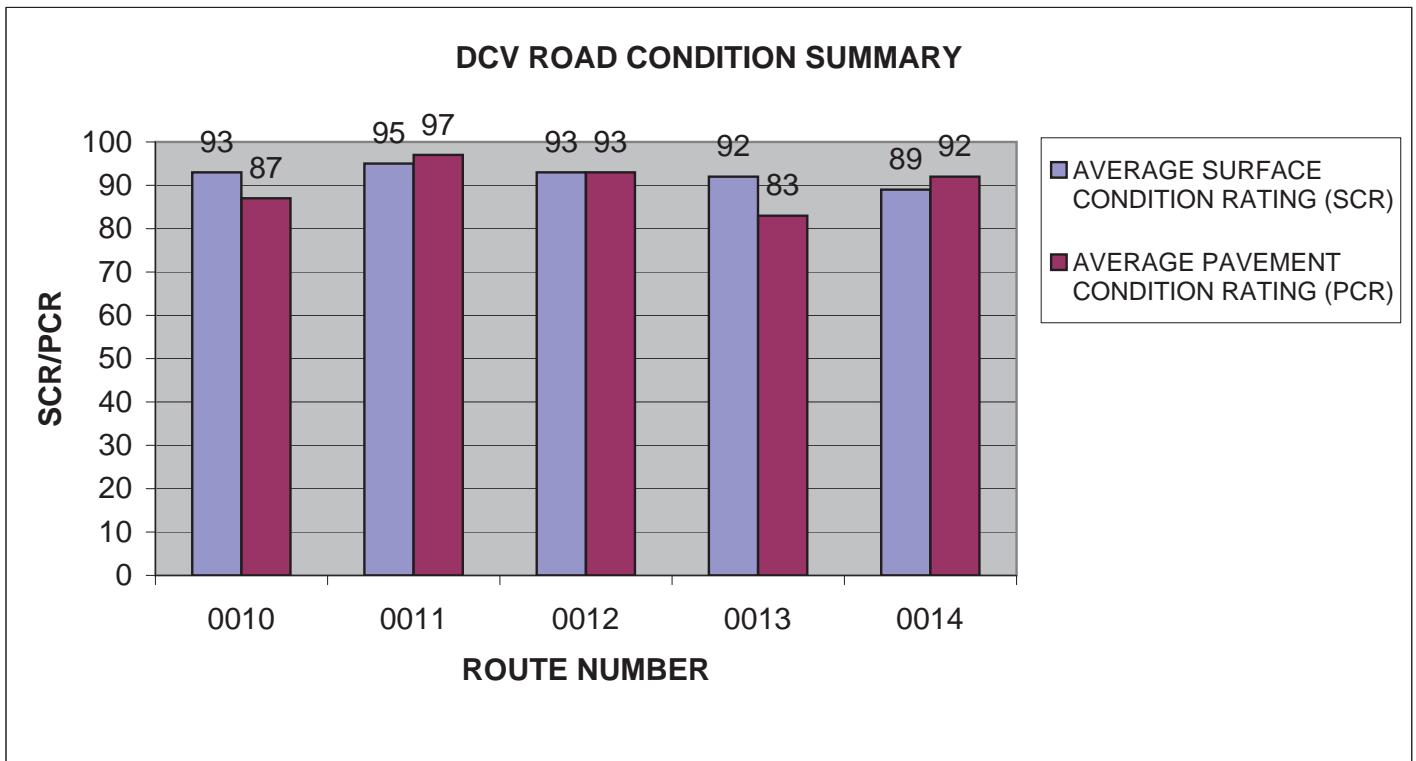
Condition Categories and Treatments



GRCA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

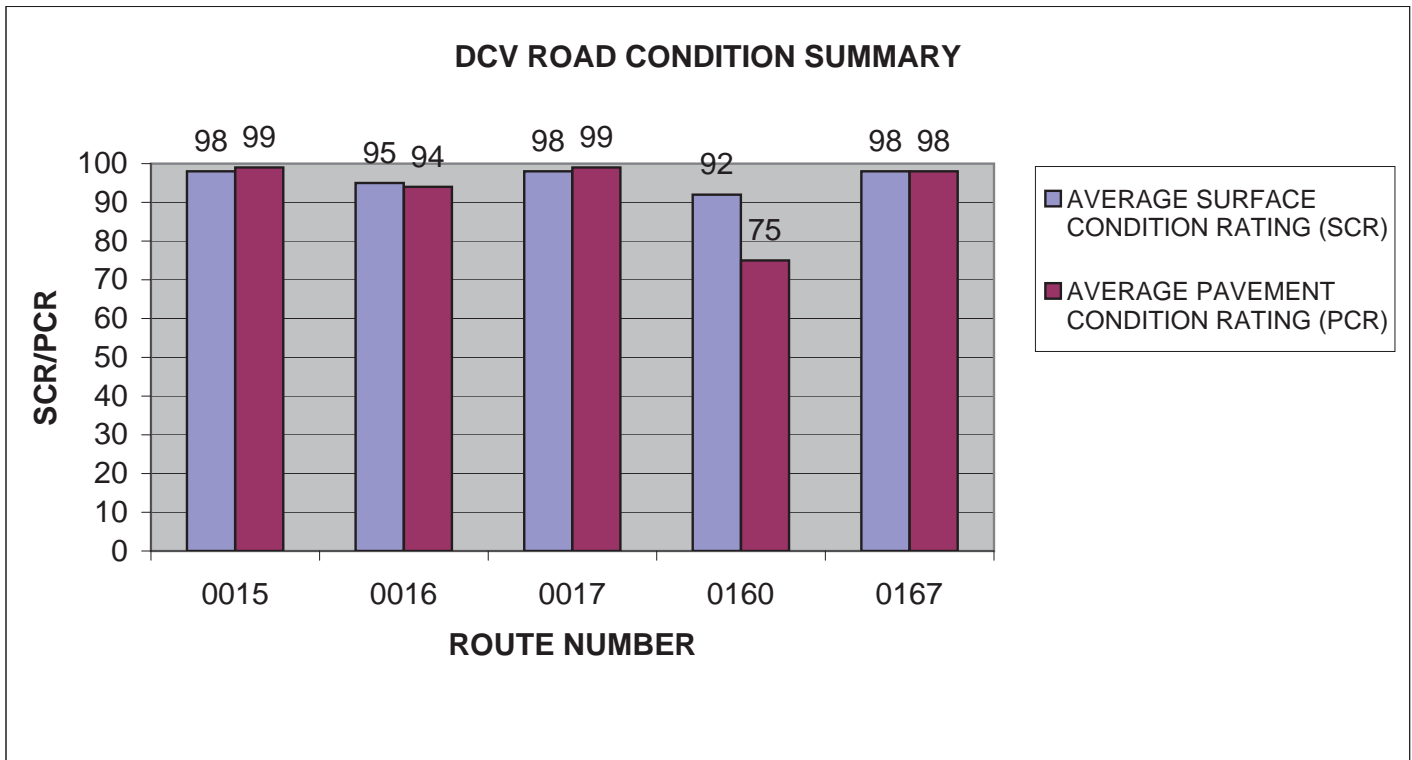
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	POINT IMPERIAL ROAD	1	2.65	ASPHALT	93	87
0011	DESERT VIEW DRIVE	1	24.85	ASPHALT	95	97
0012	SOUTH ENTRANCE ROAD	1	7.80	ASPHALT	93	93
0013	CAPE ROYAL ROAD	1	19.83	ASPHALT	92	83
0014	NORTH ENTRANCE ROAD (HWY 67)	1	12.84	ASPHALT	89	92



GRCA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

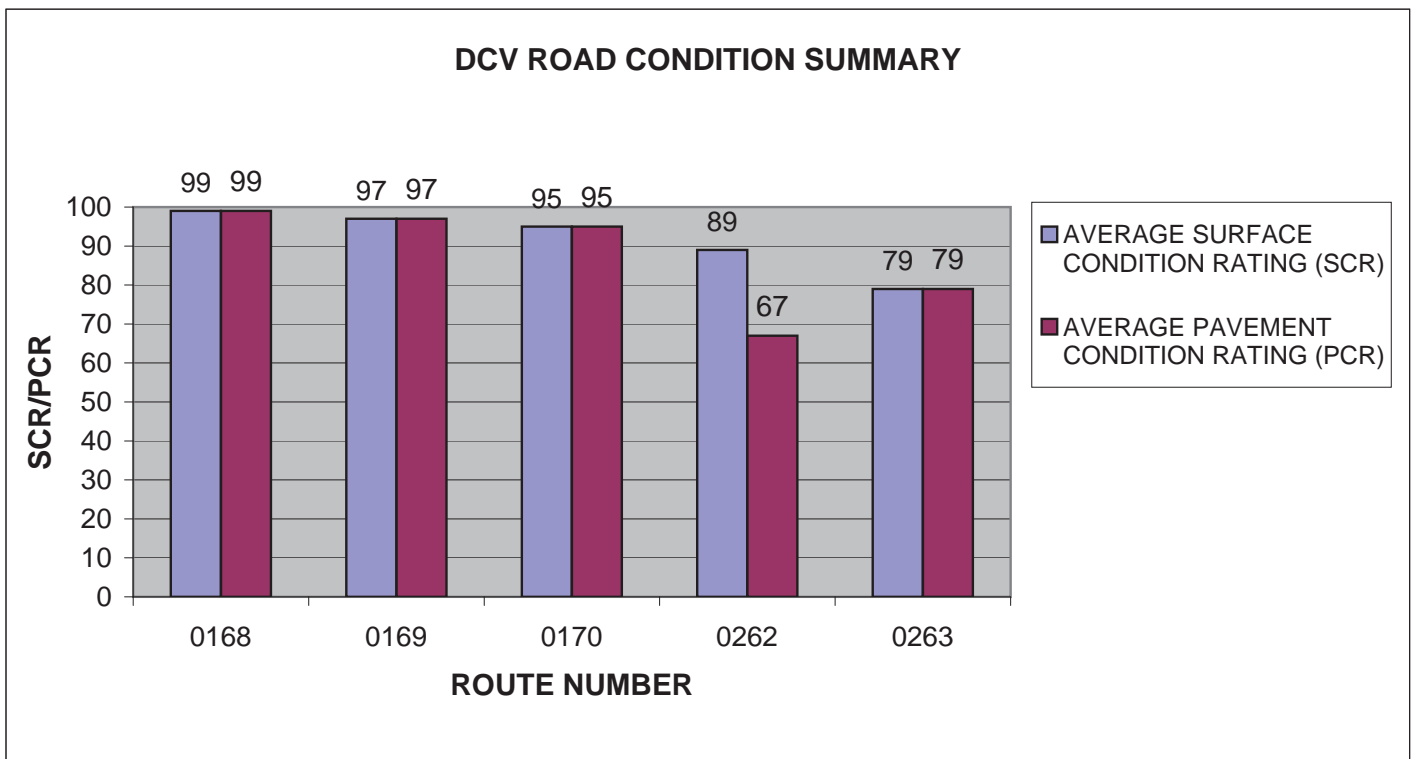
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0015	HERMIT REST ROAD	1	7.04	ASPHALT	98	99
0016	CENTER ROAD	1	1.61	ASPHALT	95	94
0017	MARKET PLAZA ROAD	1	1.04	ASPHALT	98	99
0160	ROWE WELL ROAD	1	0.56	ASPHALT	92	75
0167	PIMA POINT ROAD	2	0.47	ASPHALT	98	98



GRCA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

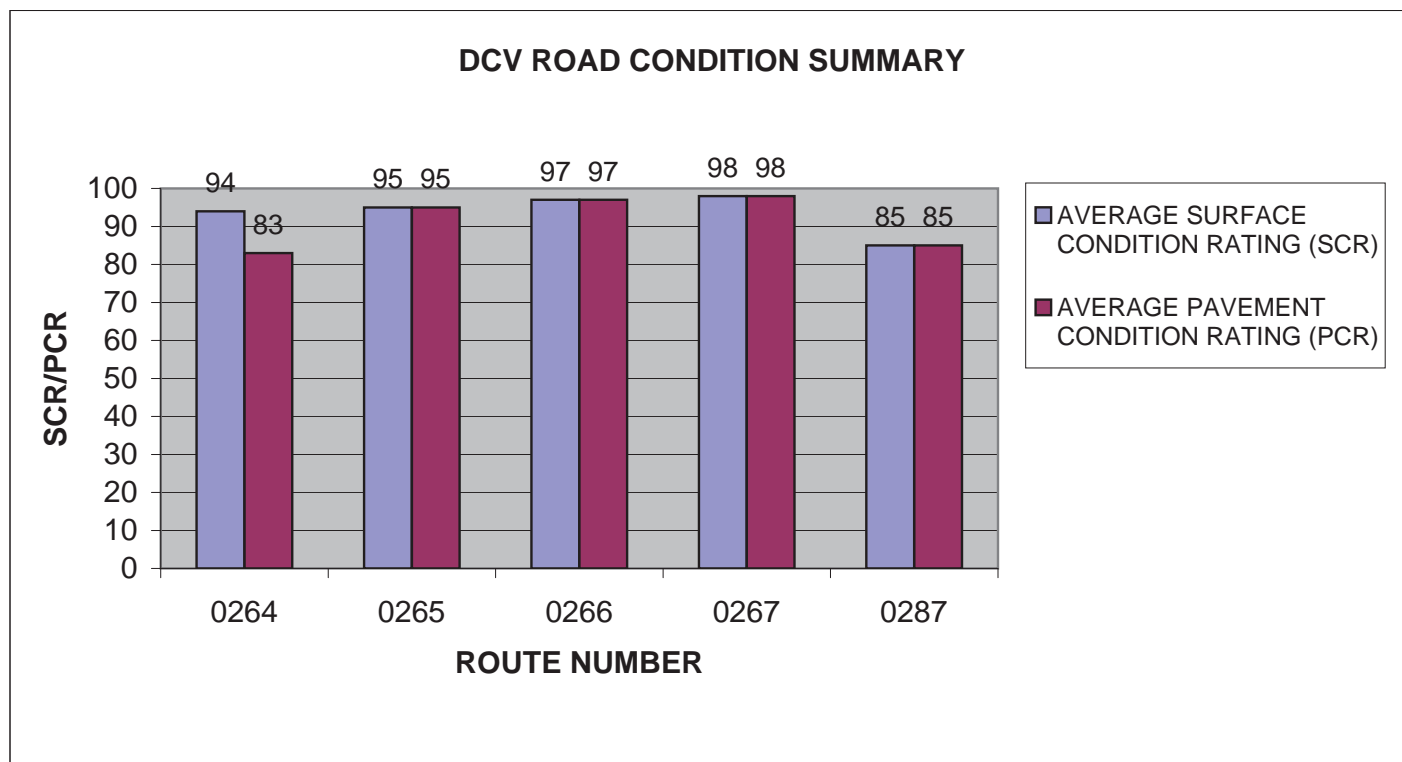
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0168	MOHAVE POINT ROAD	2	0.22	ASPHALT	99	99
0169	POWELL MEMORIAL ROAD	2	0.19	ASPHALT	97	97
0170	ZUNI WAY	2	0.15	ASPHALT	95	95
0262	YAKI POINT ROAD	2	1.10	ASPHALT	89	67
0263	KAIBAB TRAIL ACCESS ROAD	2	0.20	ASPHALT	79	79



GRCA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

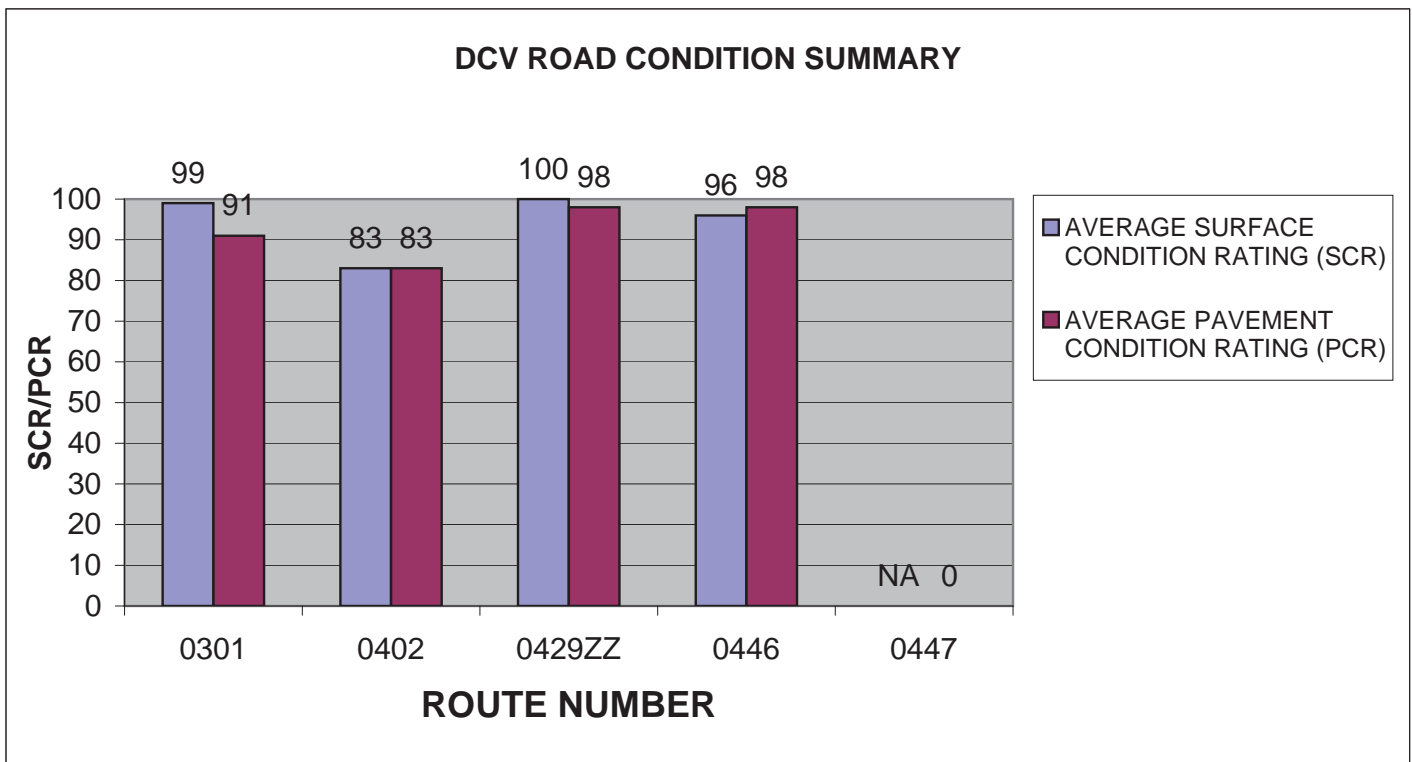
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0264	GRANDVIEW POINT ROAD	2	0.77	ASPHALT	94	83
0265	MORAN POINT ROAD	2	0.25	ASPHALT	95	95
0266	TUSAYAN RUIN ROAD	2	0.27	ASPHALT	97	97
0267	LIPAN POINT ROAD	2	0.44	ASPHALT	98	98
0287	ACCESS ROAD	2	0.29	ASPHALT	85	85



GRCA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

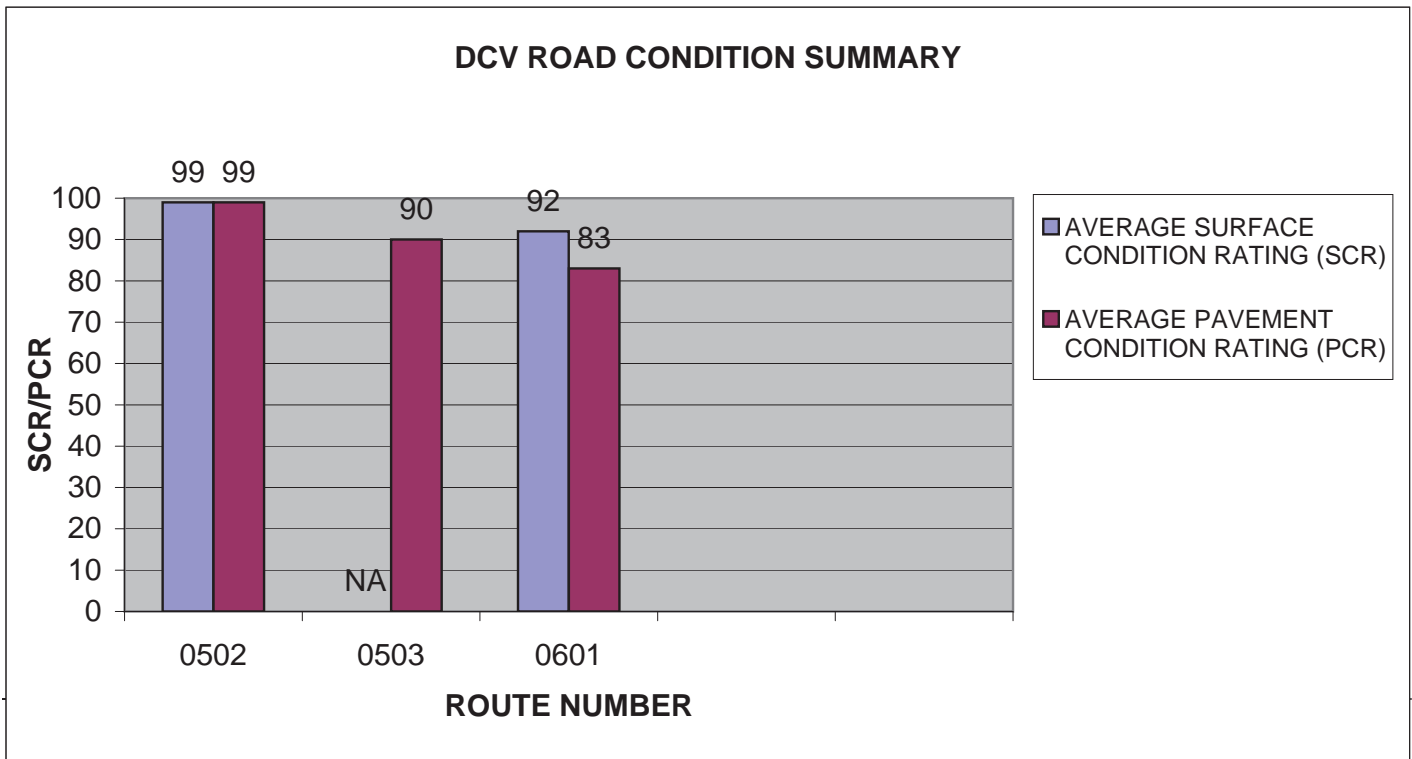
ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0301	RAILROAD TRACK ACCESS ROAD	3	0.23	ASPHALT	99	91
0402	SERVICE ROAD TO SUPAI CAMP	5	0.24	ASPHALT	83	83
0429ZZ	PAIUTE COURT ROADS	5	0.29	ASPHALT	100	98
0446	WEST SHUTTLE ACCESS ROAD	5	0.69	ASPHALT	96	98
0447	EAST SHUTTLE ACCESS ROAD	5	0.25	CONCRETE	NA	0



GRCA: DCV ROAD CONDITION SUMMARY

DCV - Data Collection Vehicle

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	PAVED LENGTH	SURFACE TYPE	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0502	SOUTH ENTRANCE BYPASS LANE	5	0.45	ASPHALT	99	99
0503	MATHER POINT SHUTTLE LOOP	5	0.14	CONCRETE	NA	90
0601	ALBRIGHT AVENUE	2	0.62	ASPHALT	92	83



Section 4

Park Route Location Maps

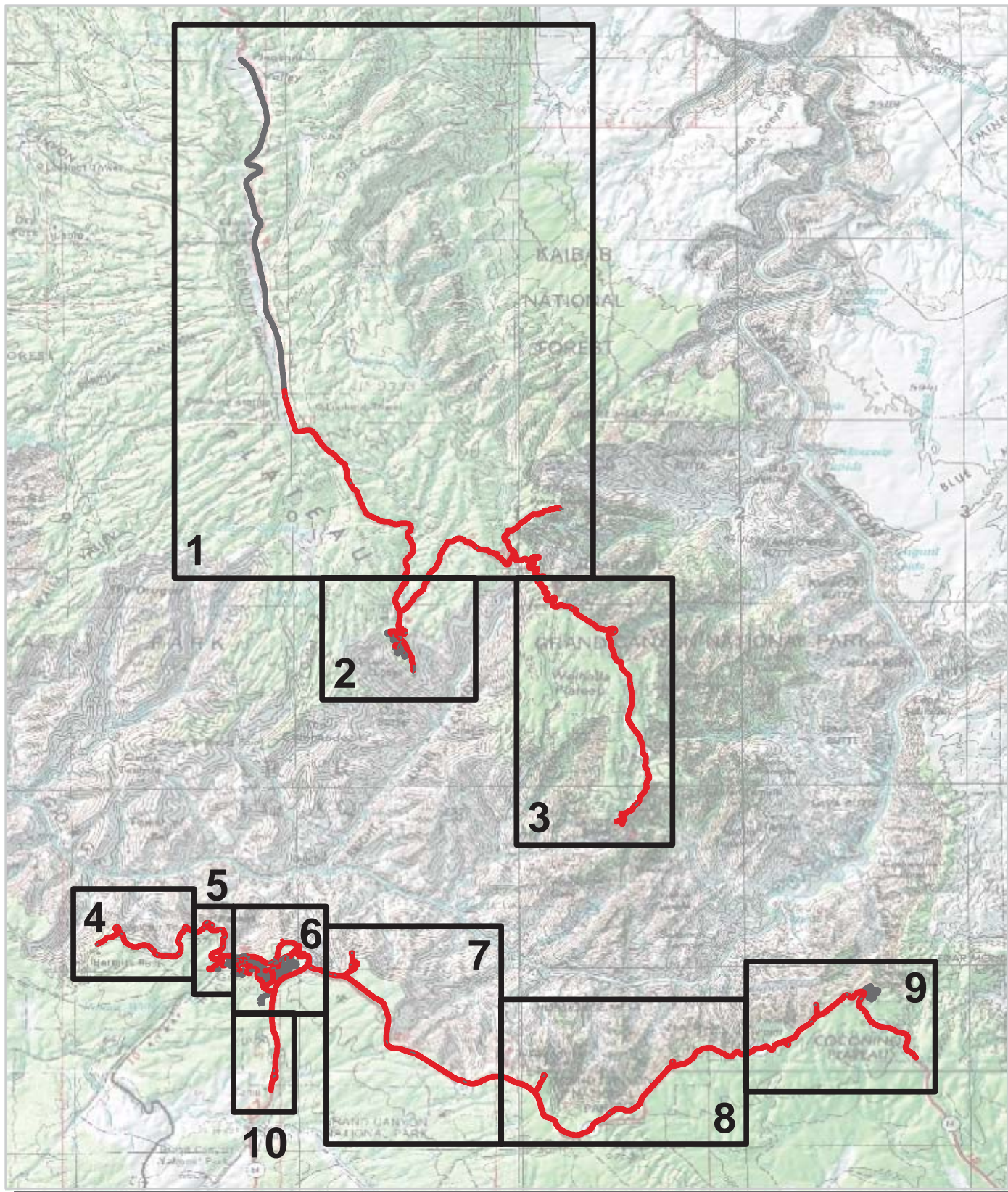


Grand Canyon National Park



Federal Lands Highway
Road Inventory Program

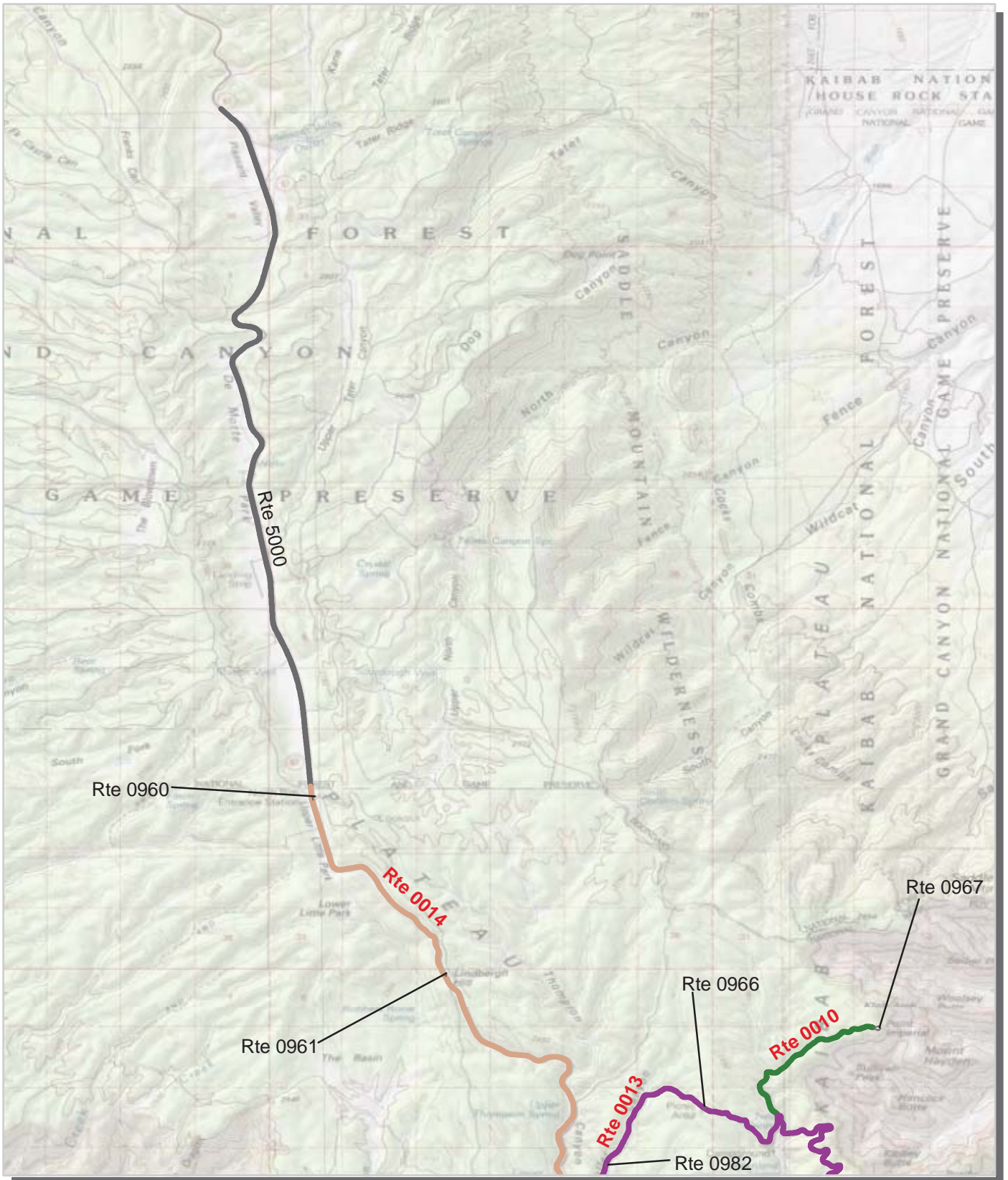
Grand Canyon National Park Route Location Map Key Map



— Cycle 5 Collected Routes
— Routes Collected in Previous Cycle



Grand Canyon National Park Route Location Map Area 1

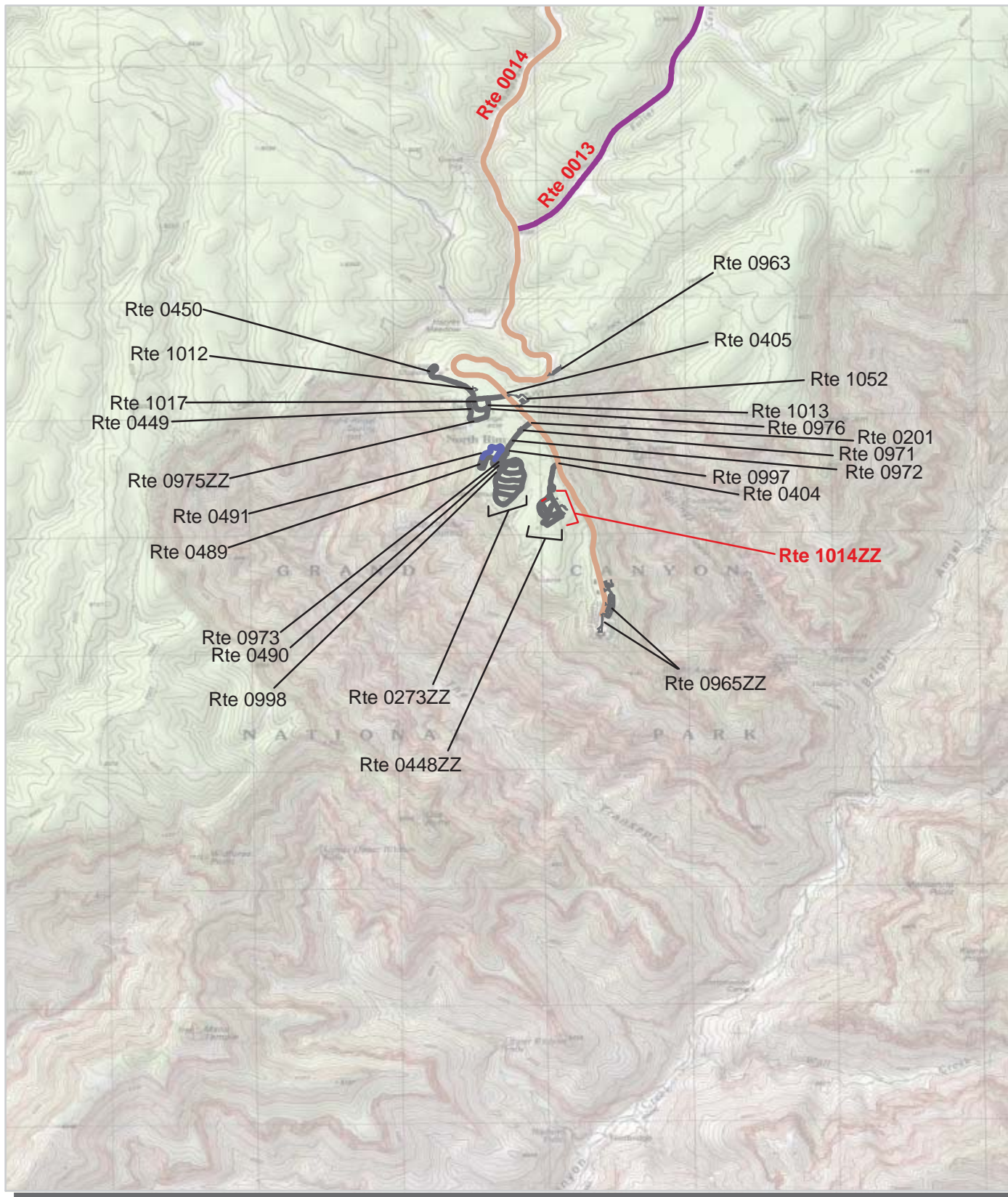


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Grand Canyon National Park Route Location Map Area 2

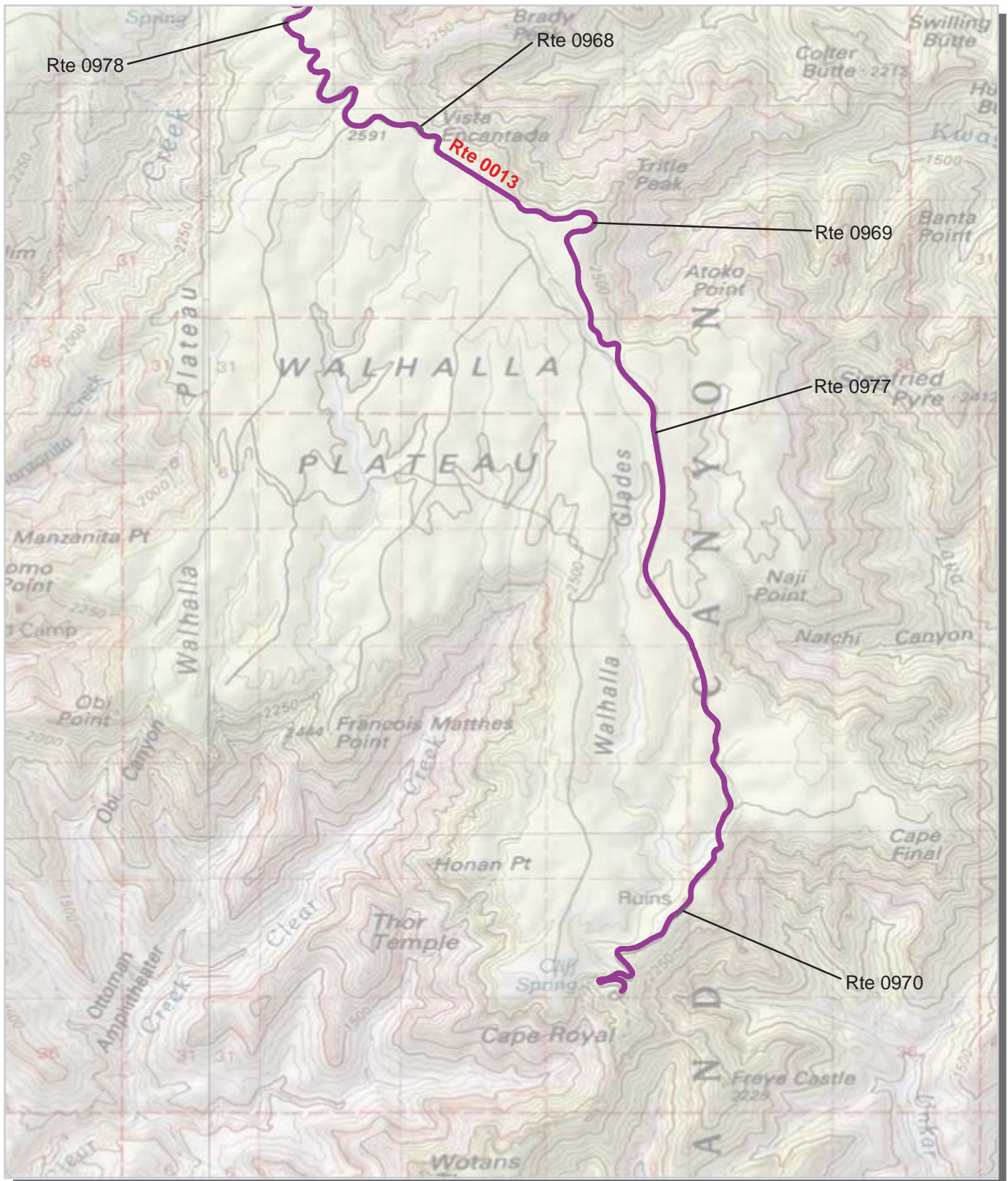


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle

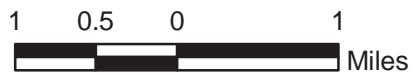


Grand Canyon National Park Route Location Map Area 3

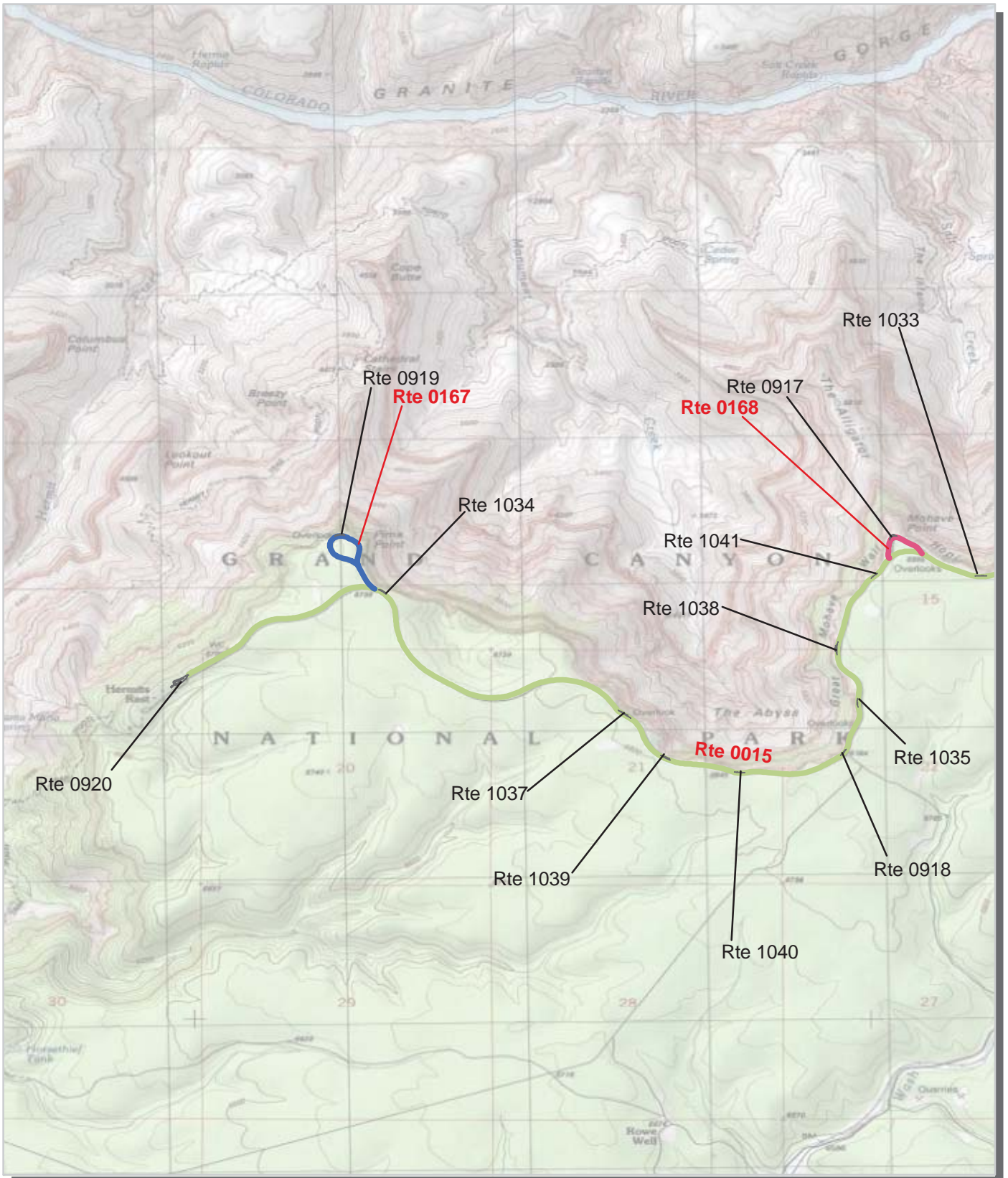


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Grand Canyon National Park Route Location Map Area 4

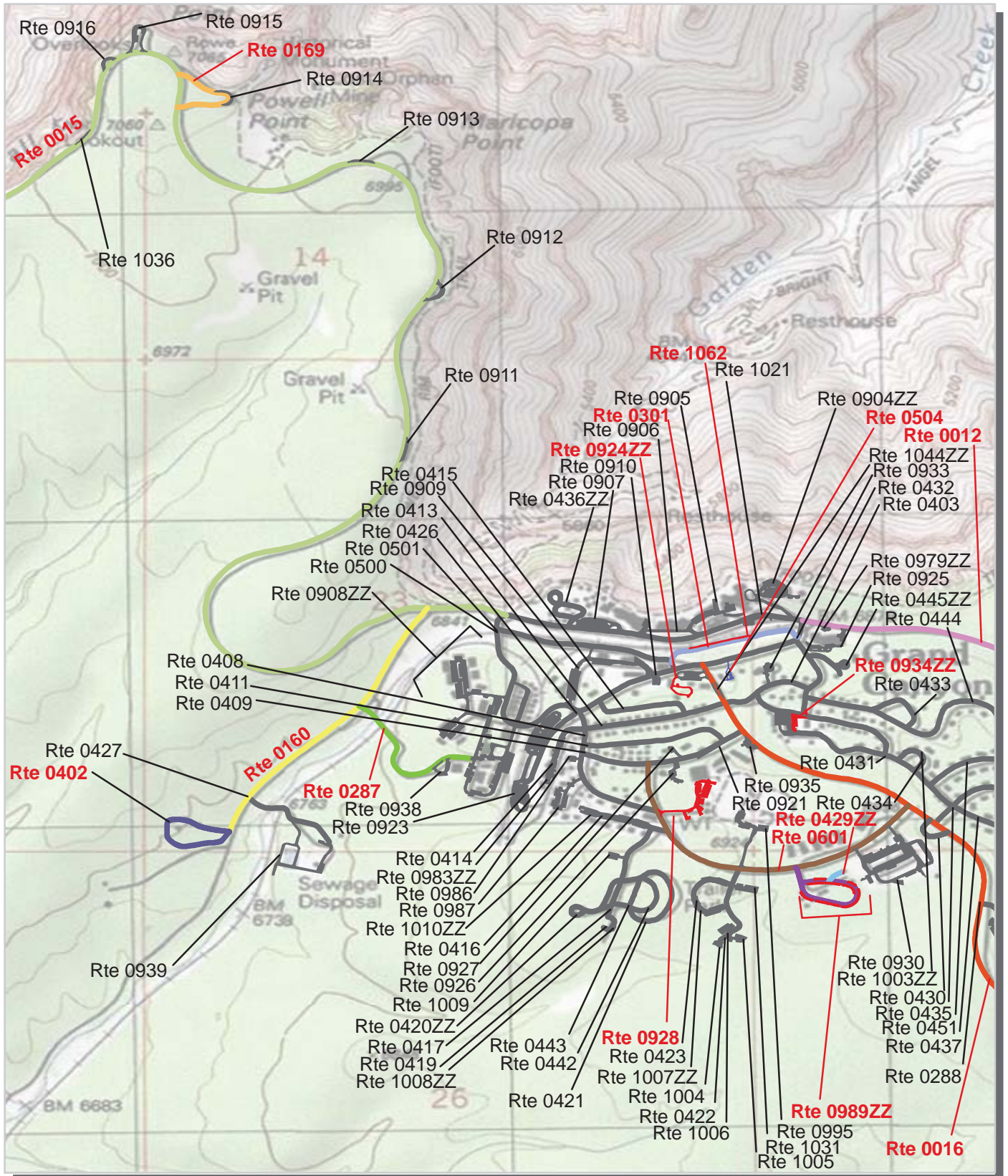


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



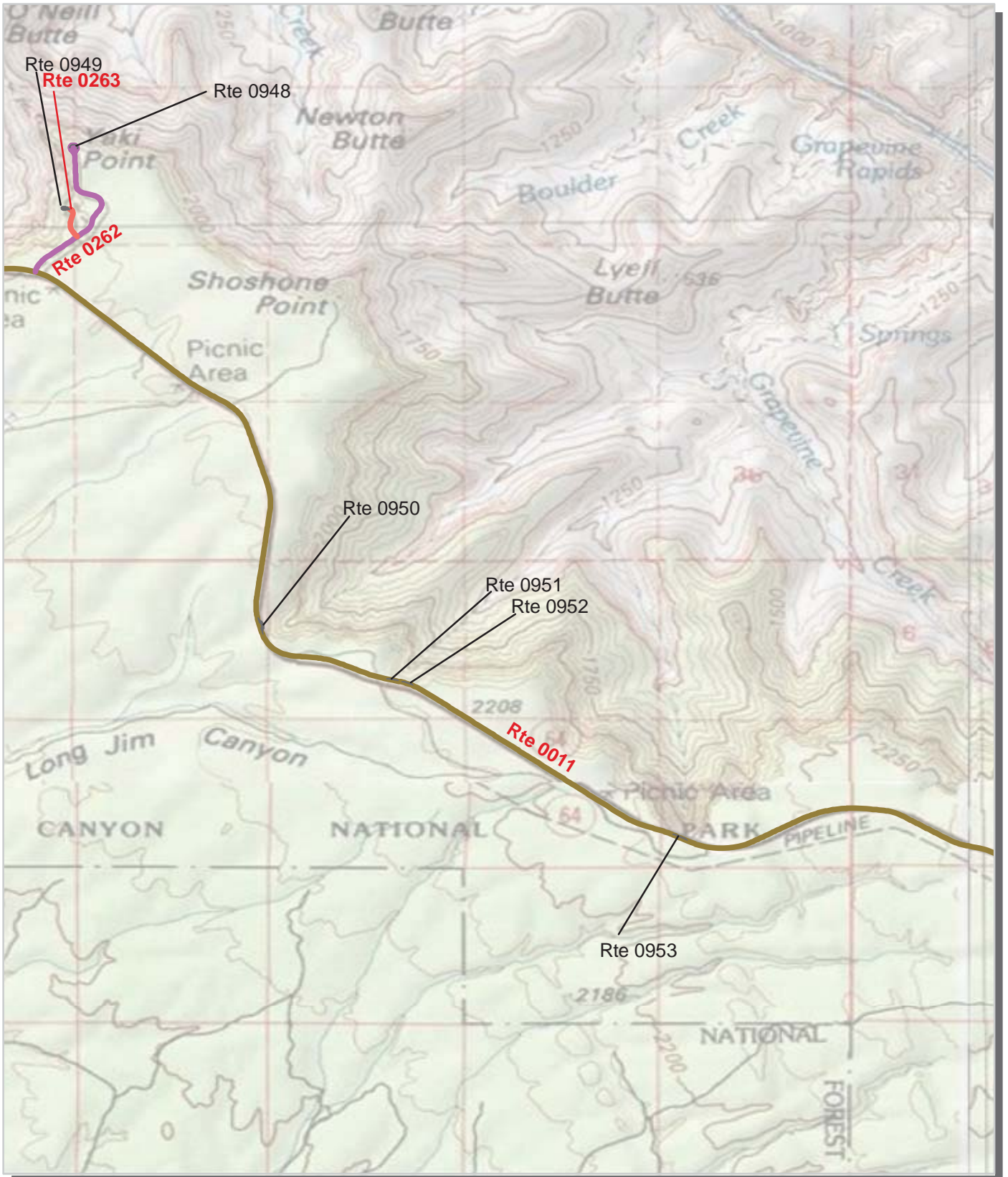
Grand Canyon National Park Route Location Map Area 5



Unique colors used to differentiate routes



Grand Canyon National Park Route Location Map Area 7

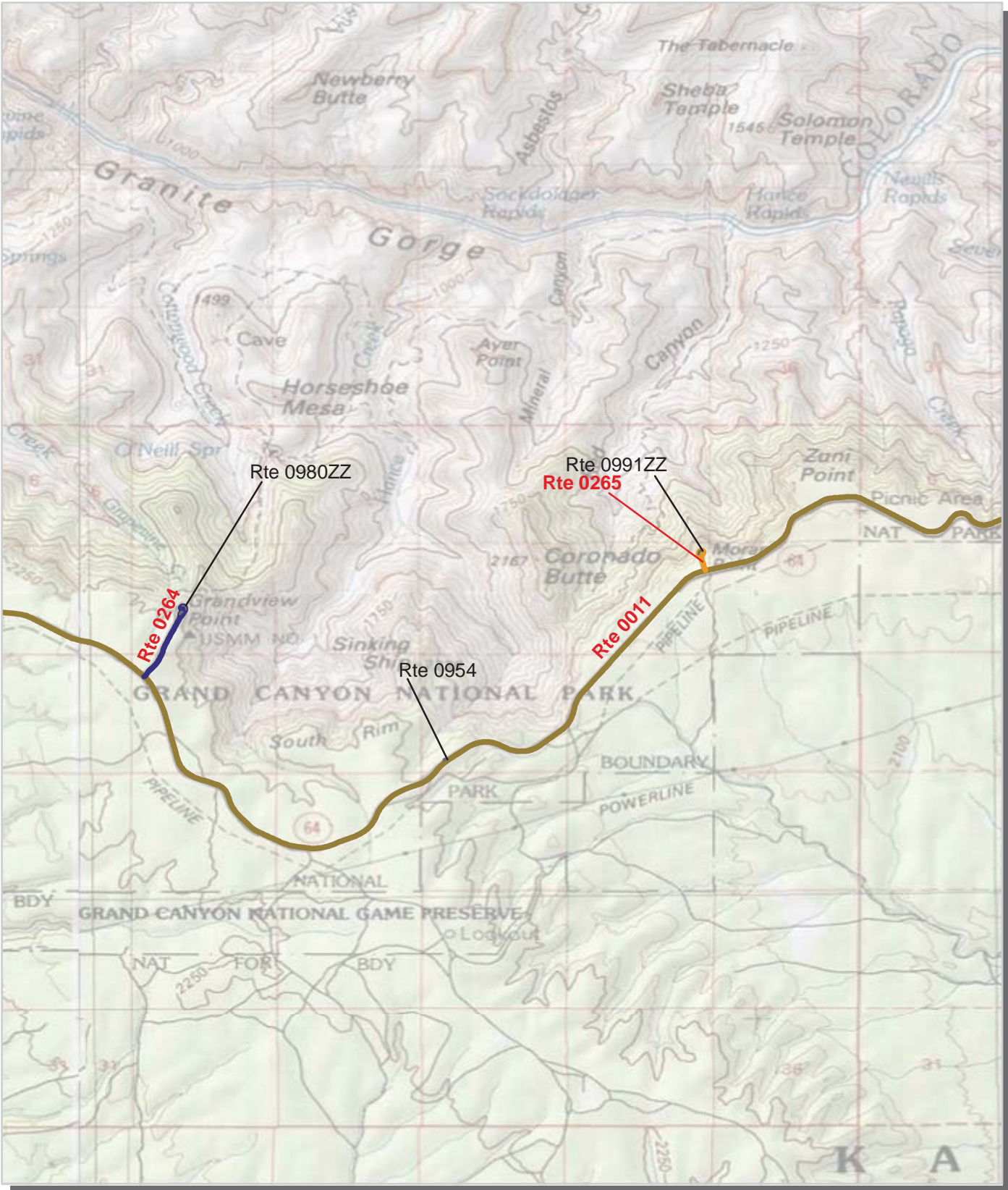


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Grand Canyon National Park Route Location Map Area 8

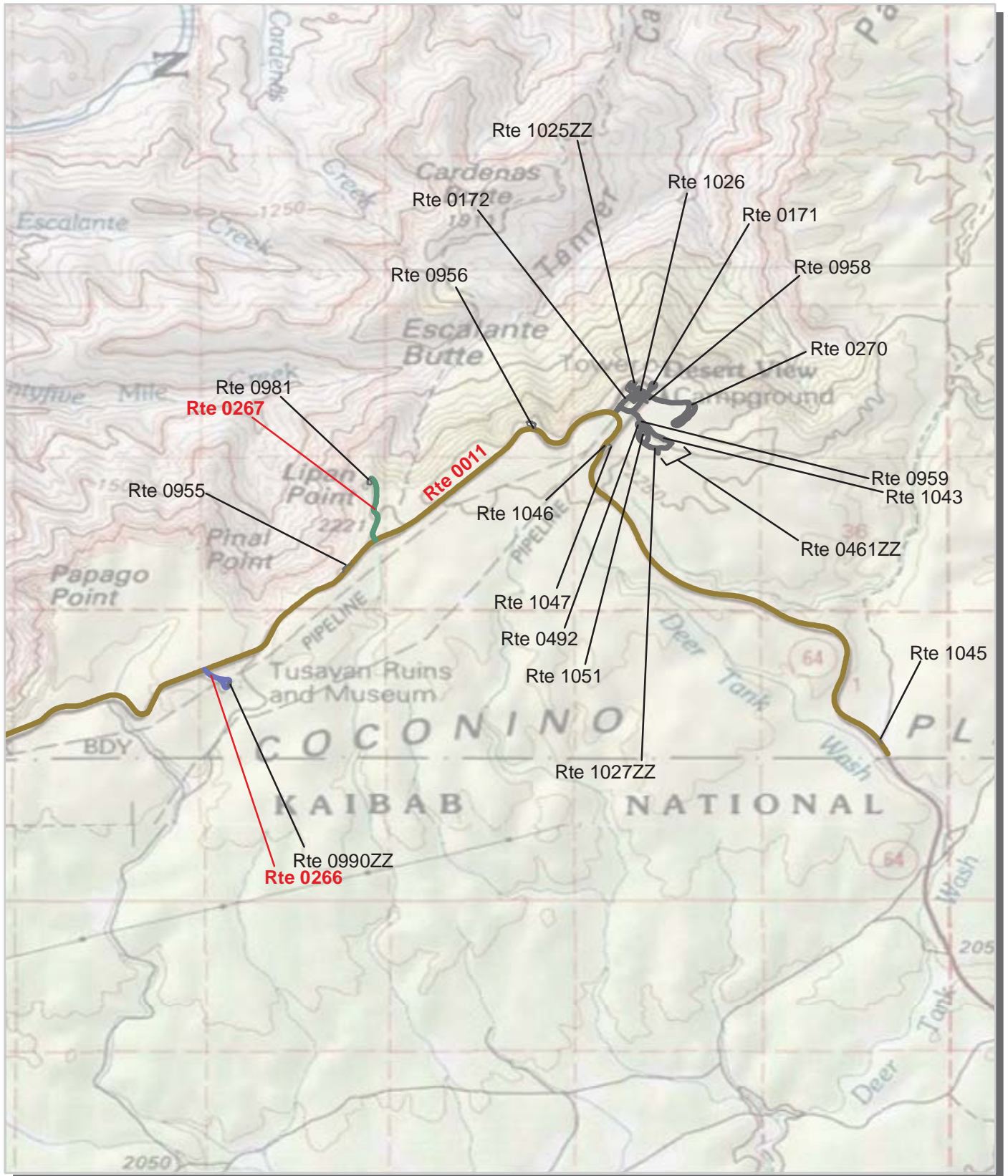


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Grand Canyon National Park Route Location Map Area 9

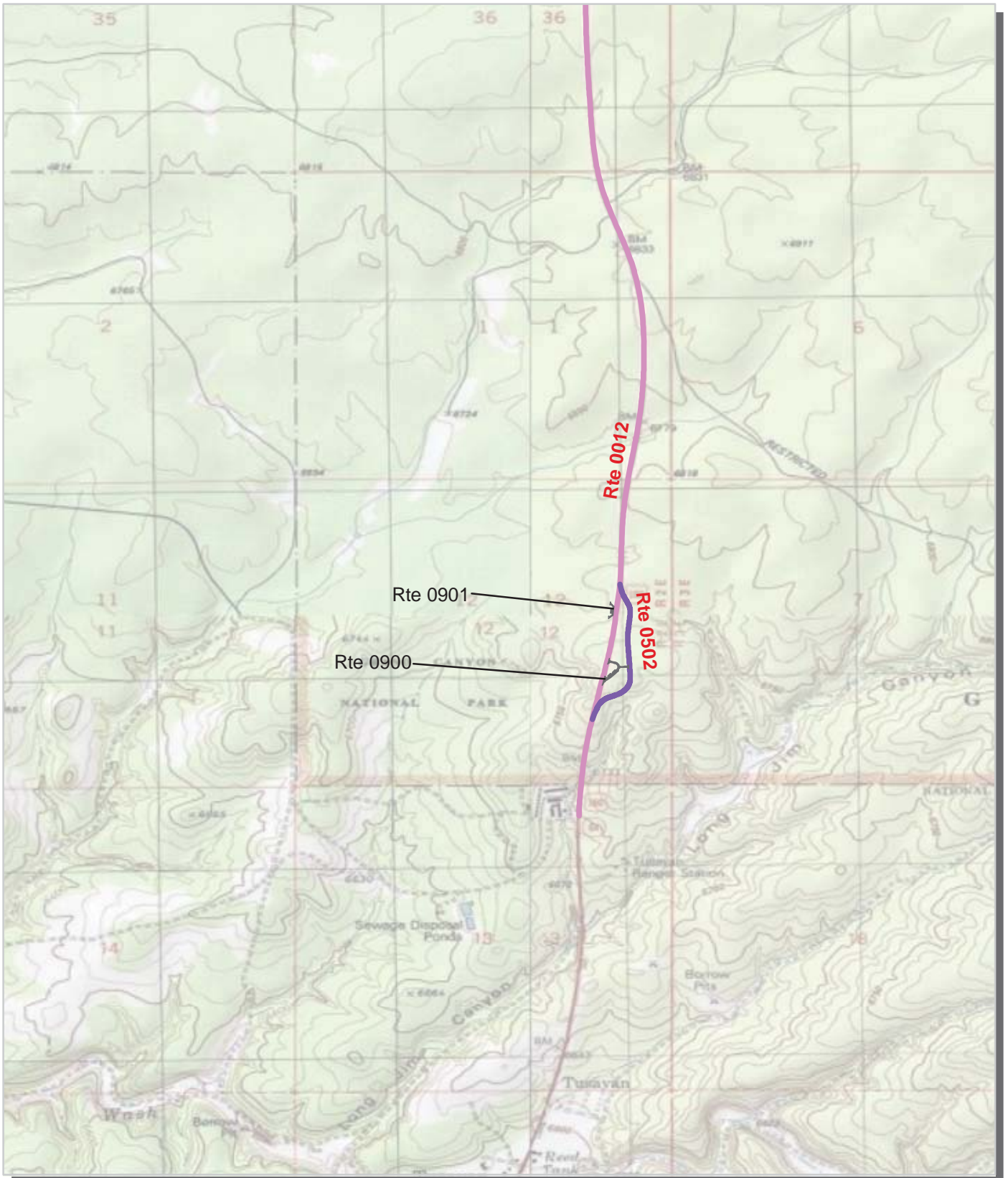


Unique colors used to differentiate routes

Routes Collected in Previous Cycle

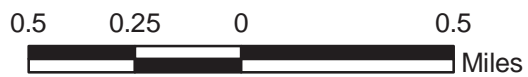


Grand Canyon National Park Route Location Map Area 10

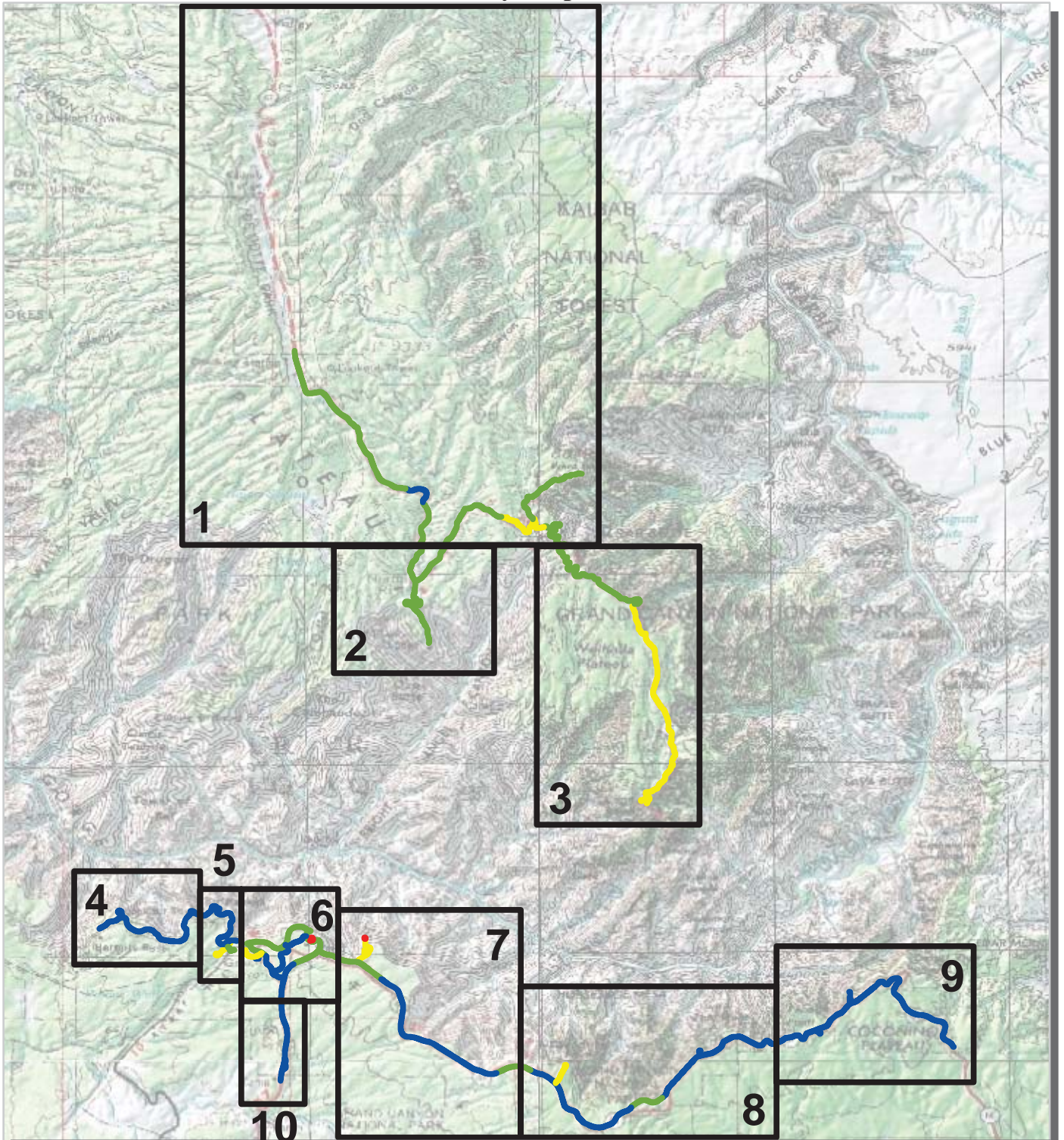


Unique colors used to differentiate routes

— Routes Collected in Previous Cycle



Grand Canyon National Park Route Condition Map PCR - Mile by Mile Key Map



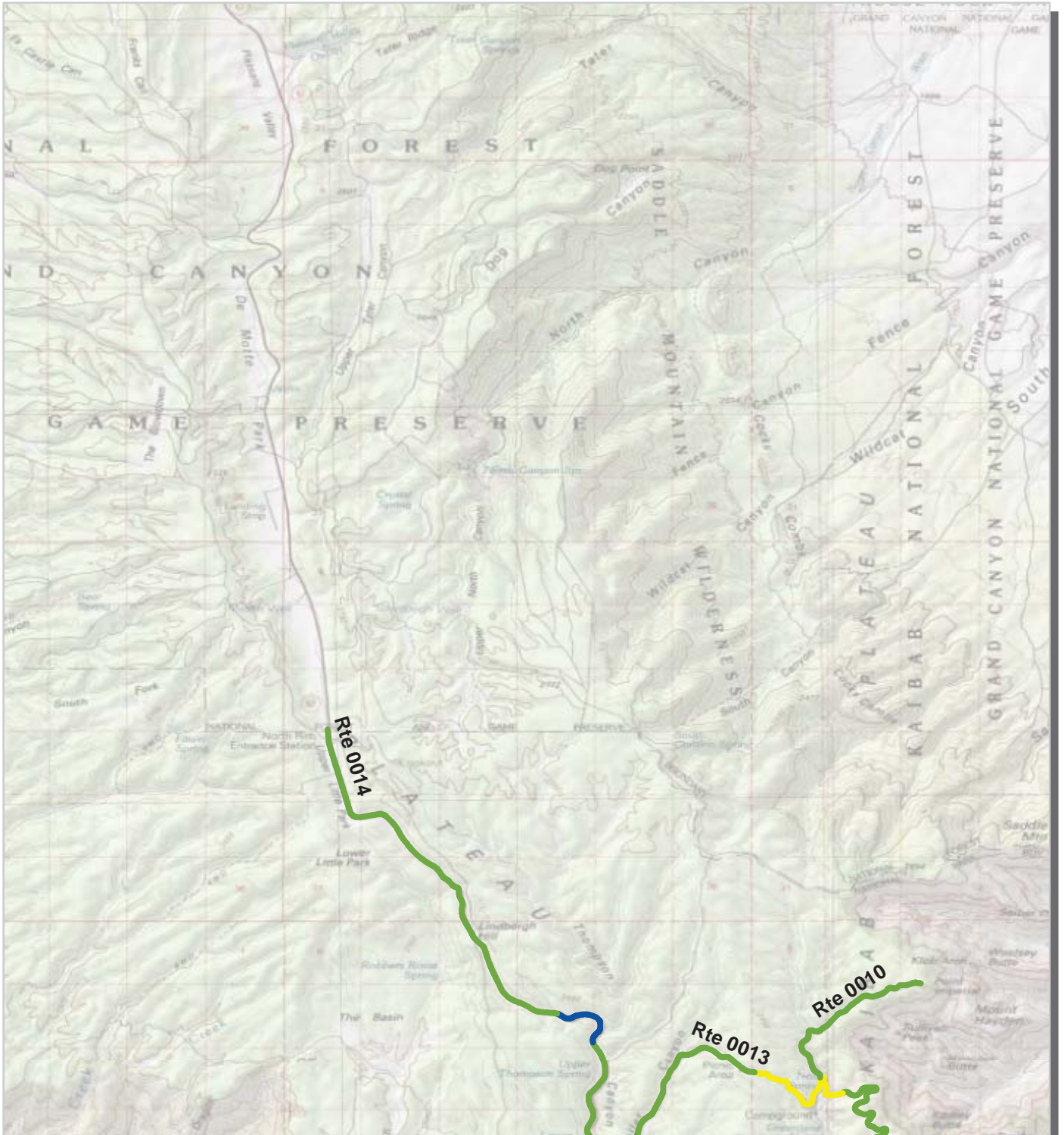
PCR	Poor	■	Fair	■	Good	■	Excellent	■	No Data	■
	(0 - 60)		(61 - 84)		(85 - 94)		(95 - 100)			

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

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



Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 1

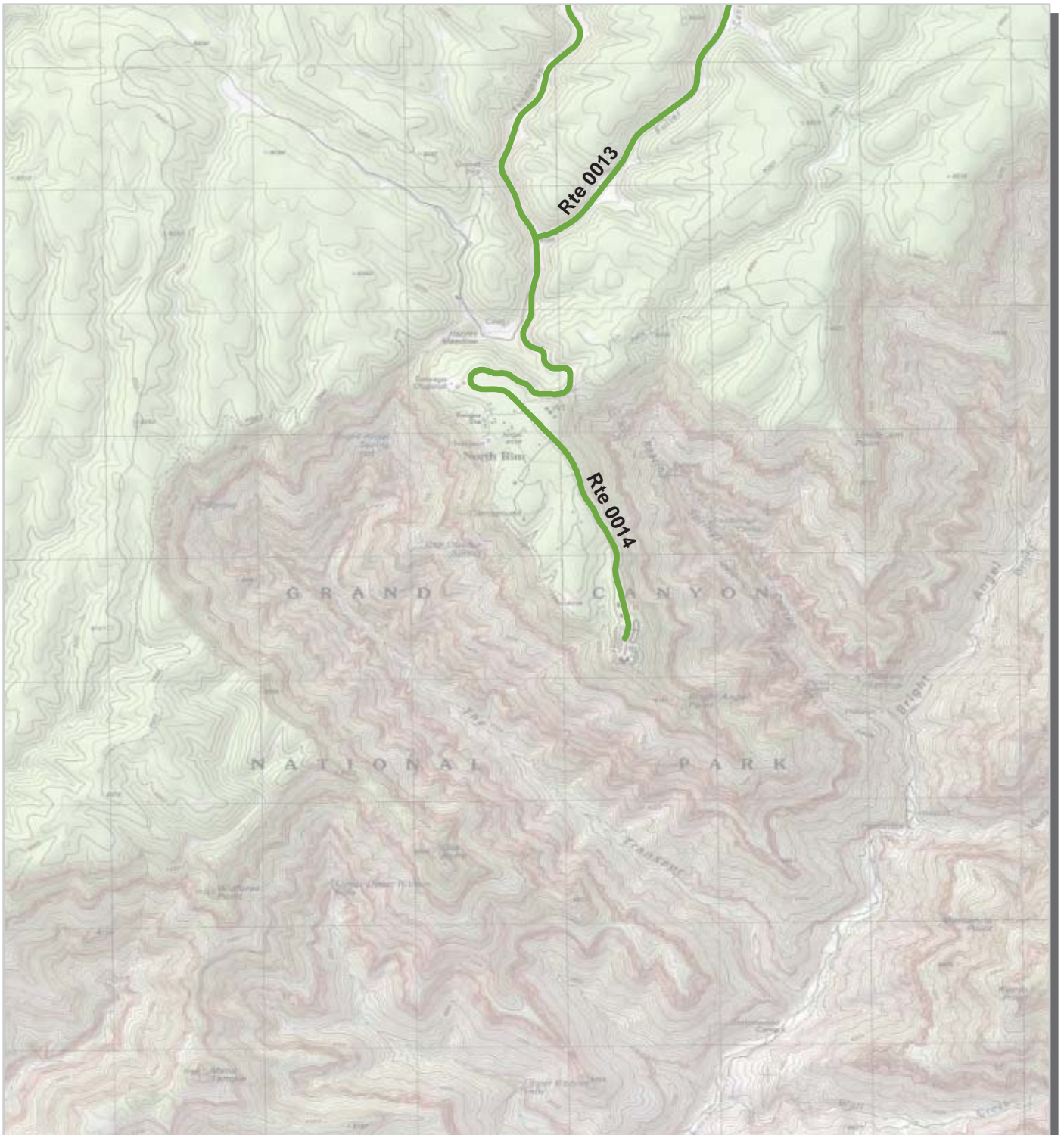


PCR	Poor	Fair	Good	Excellent	No Data
	■	■	■	■	■
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

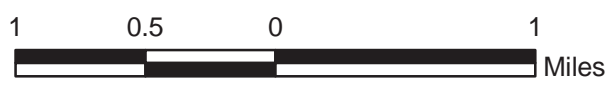


Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 2

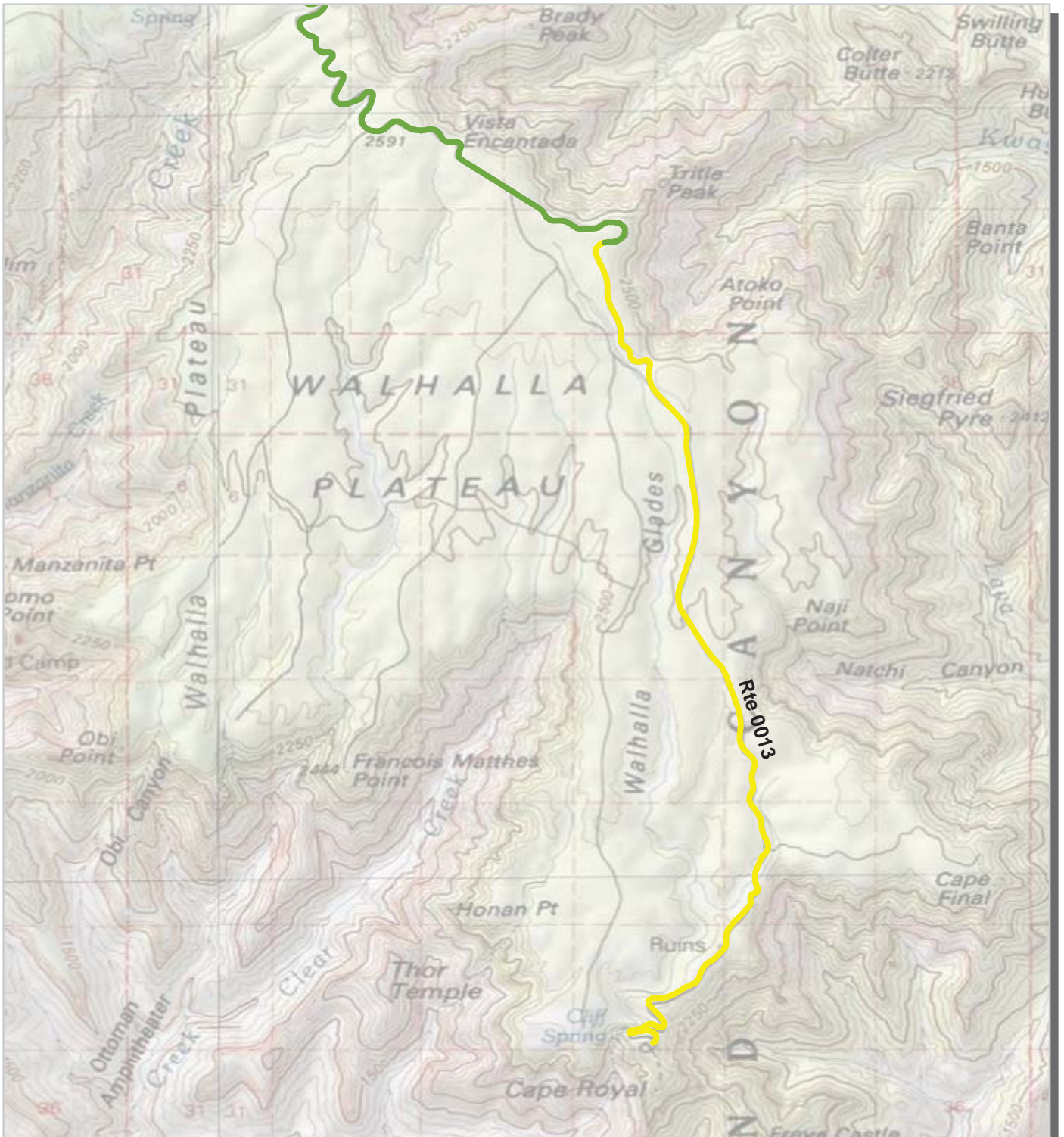


PCR	Poor		Fair		Good		Excellent		No Data	
	(0 - 60)		(61 - 84)	(85 - 94)	(95 - 100)					

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

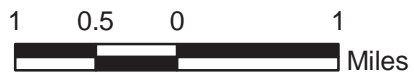


Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 3

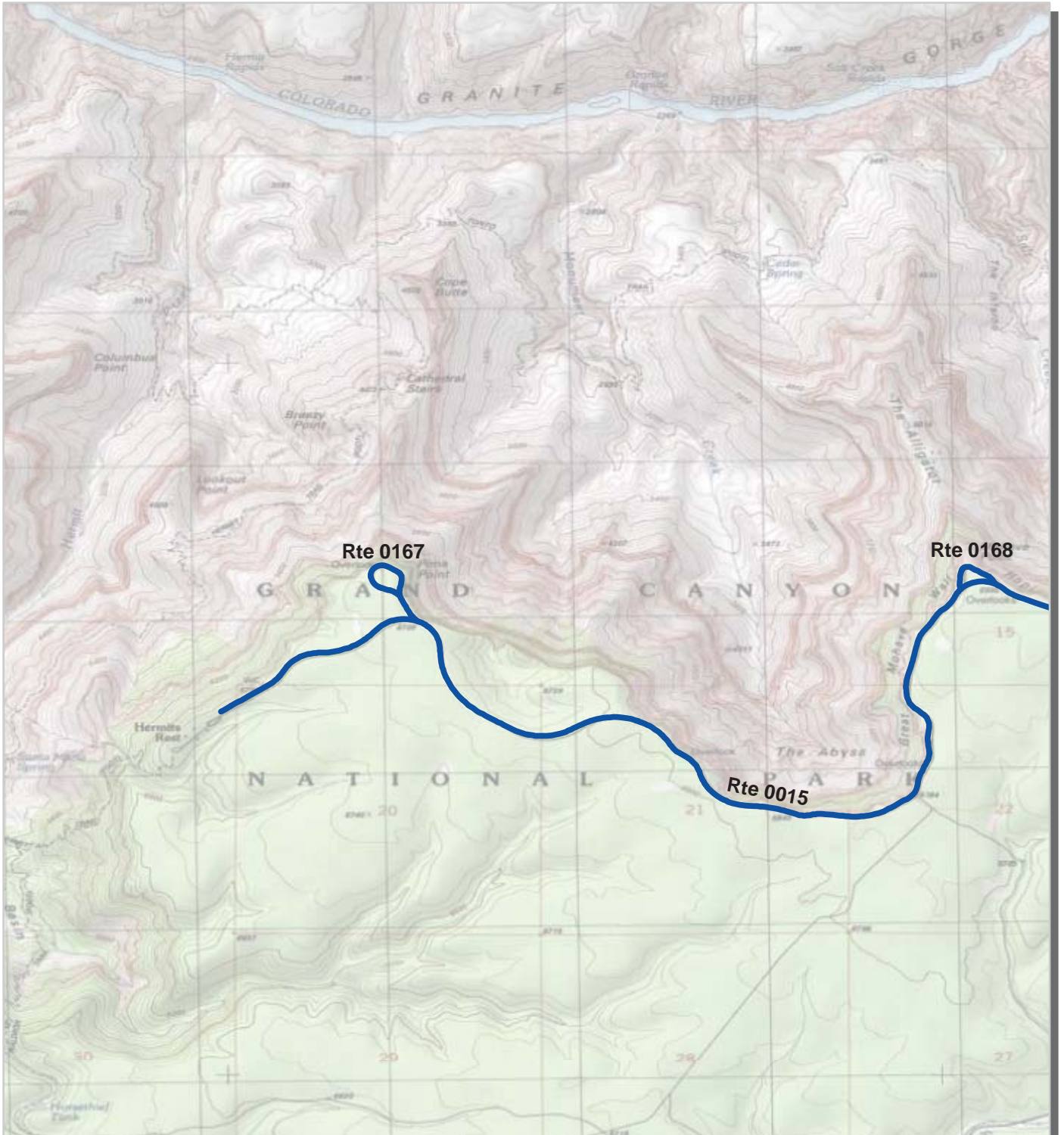


PCR	Poor		Fair		Good		Excellent		No Data	
	(0 - 60)		(61 - 84)	(85 - 94)	(95 - 100)					

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



Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 4

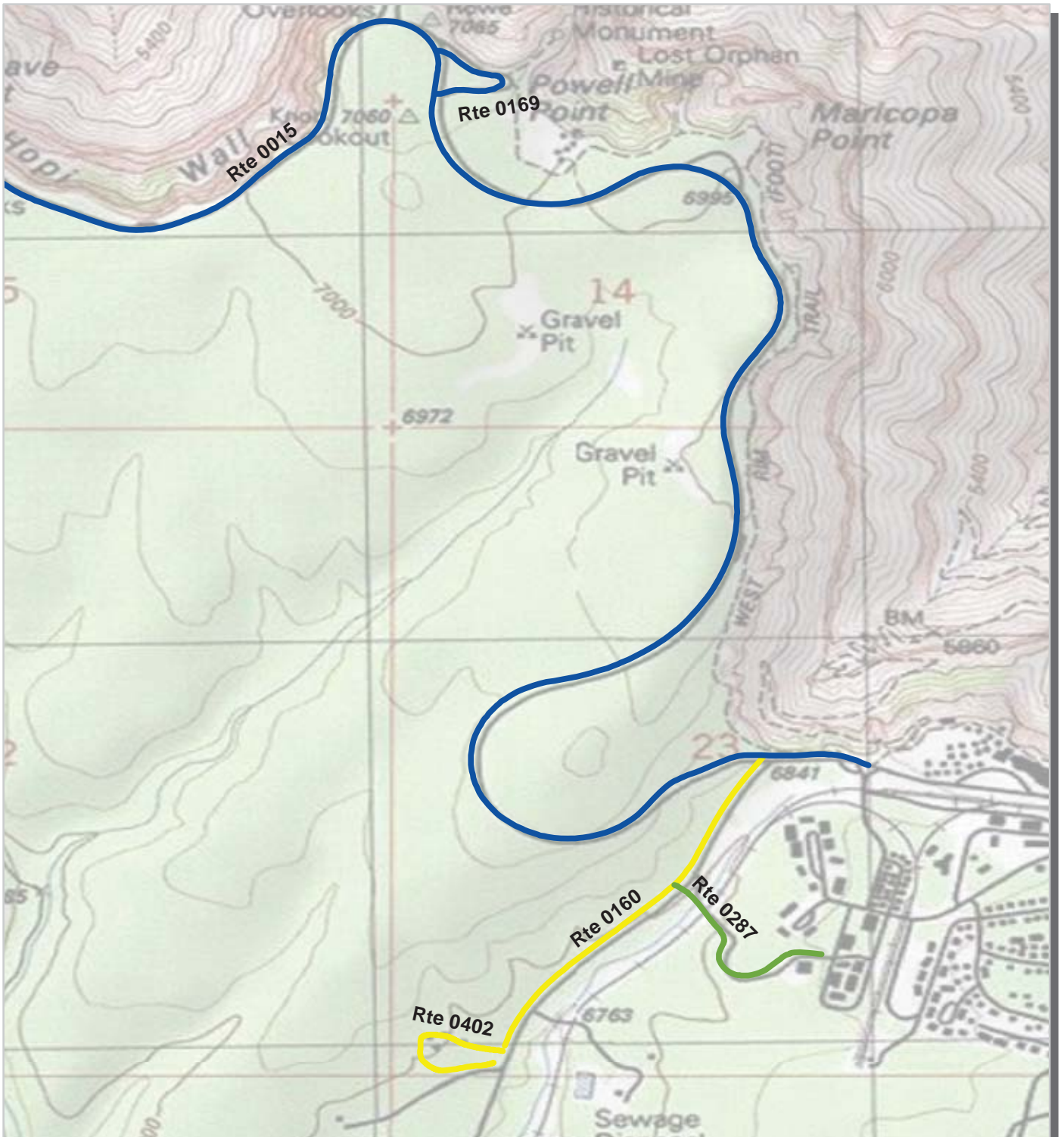


PCR	Poor	Fair	Good	Excellent	No Data
					
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

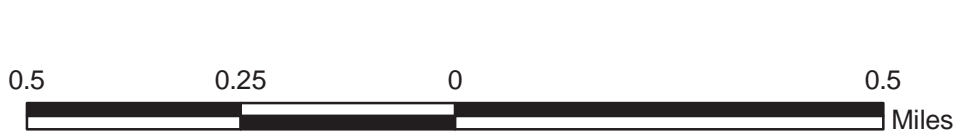


Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 5

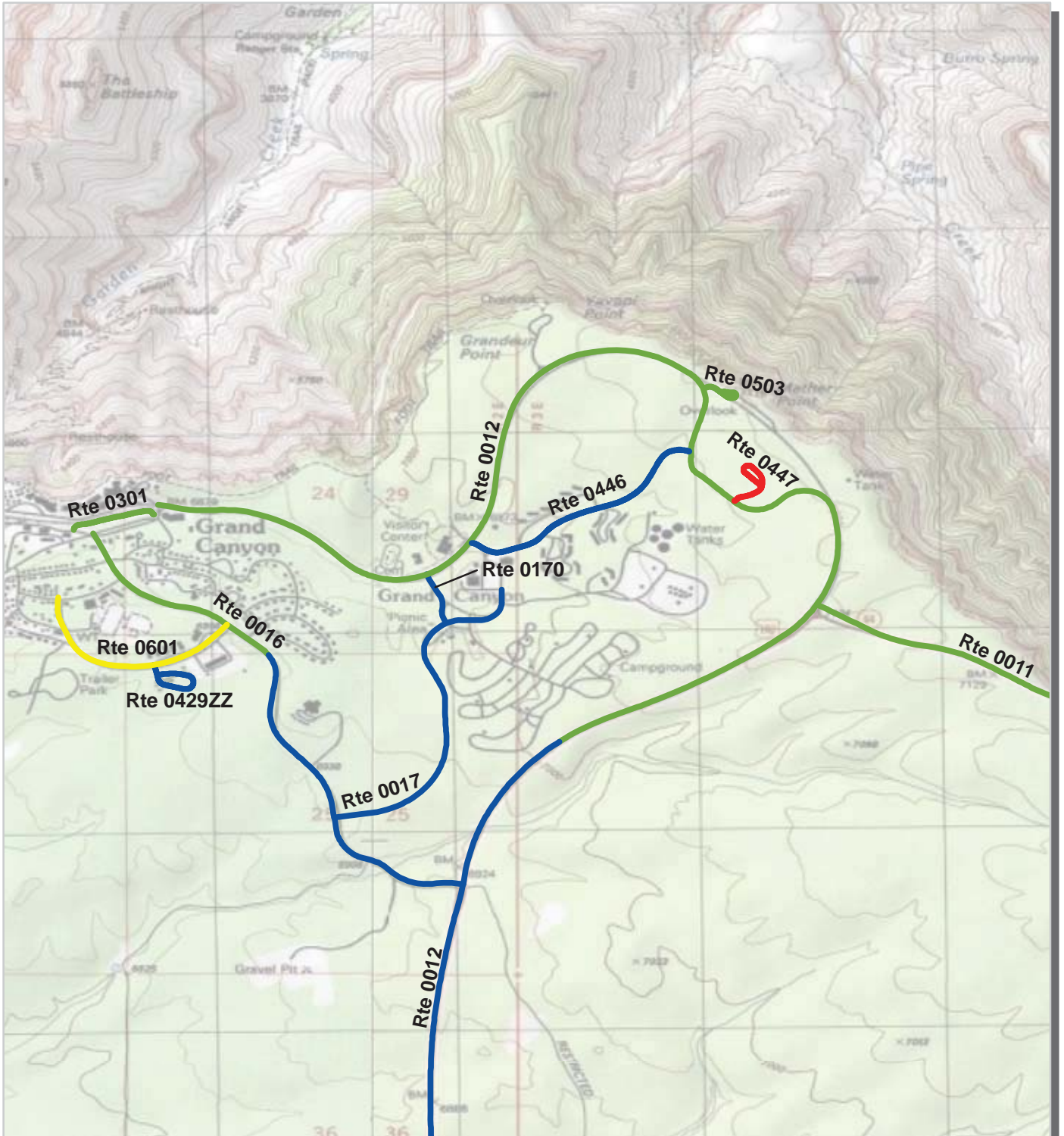


PCR	Poor	Fair	Good	Excellent	No Data
	■	■	■	■	■
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

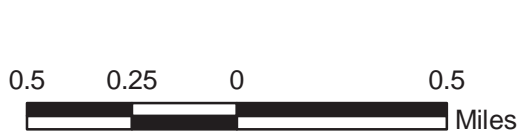


Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 6

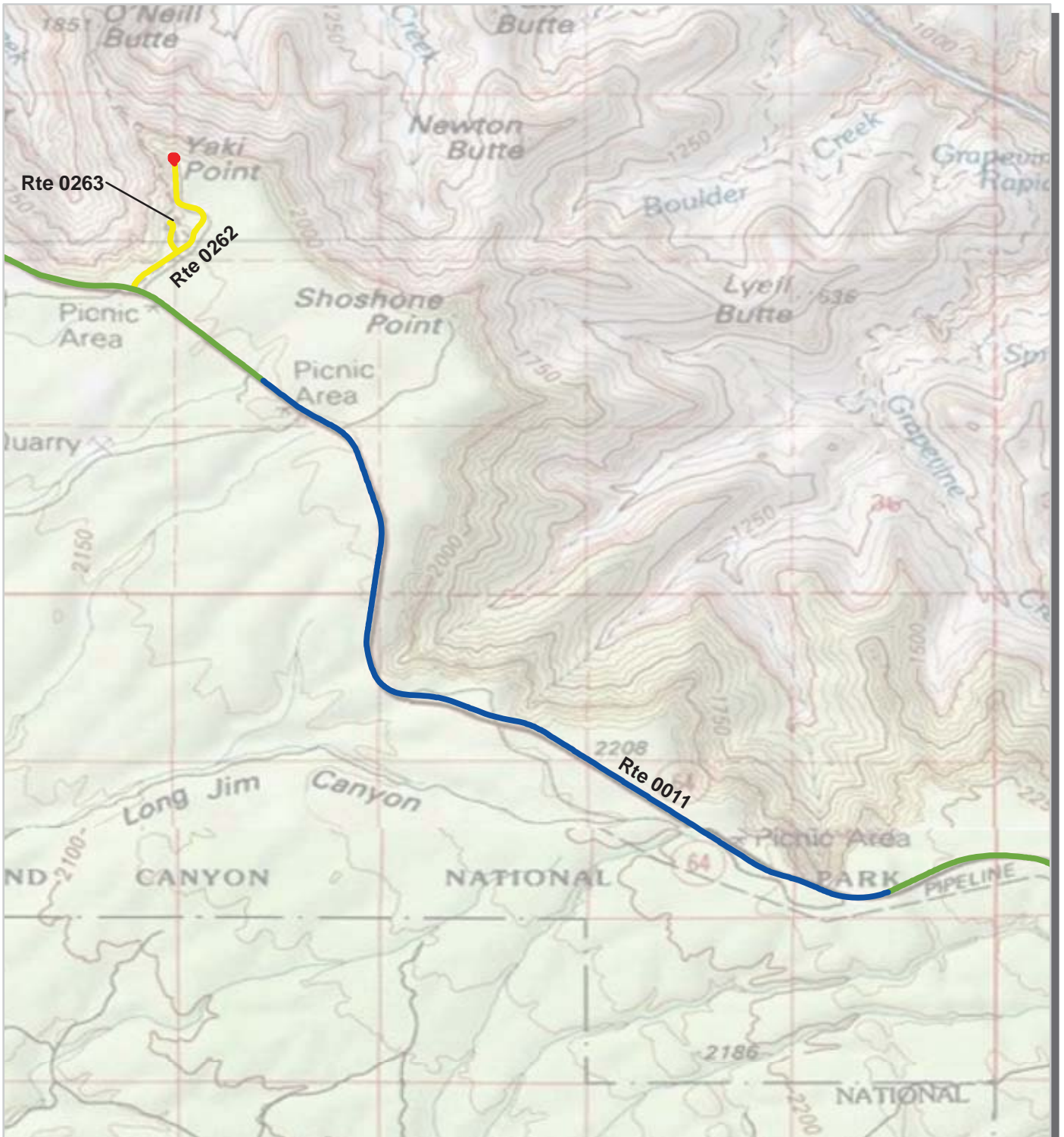


PCR	Poor	Fair	Good	Excellent	No Data
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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



Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 7

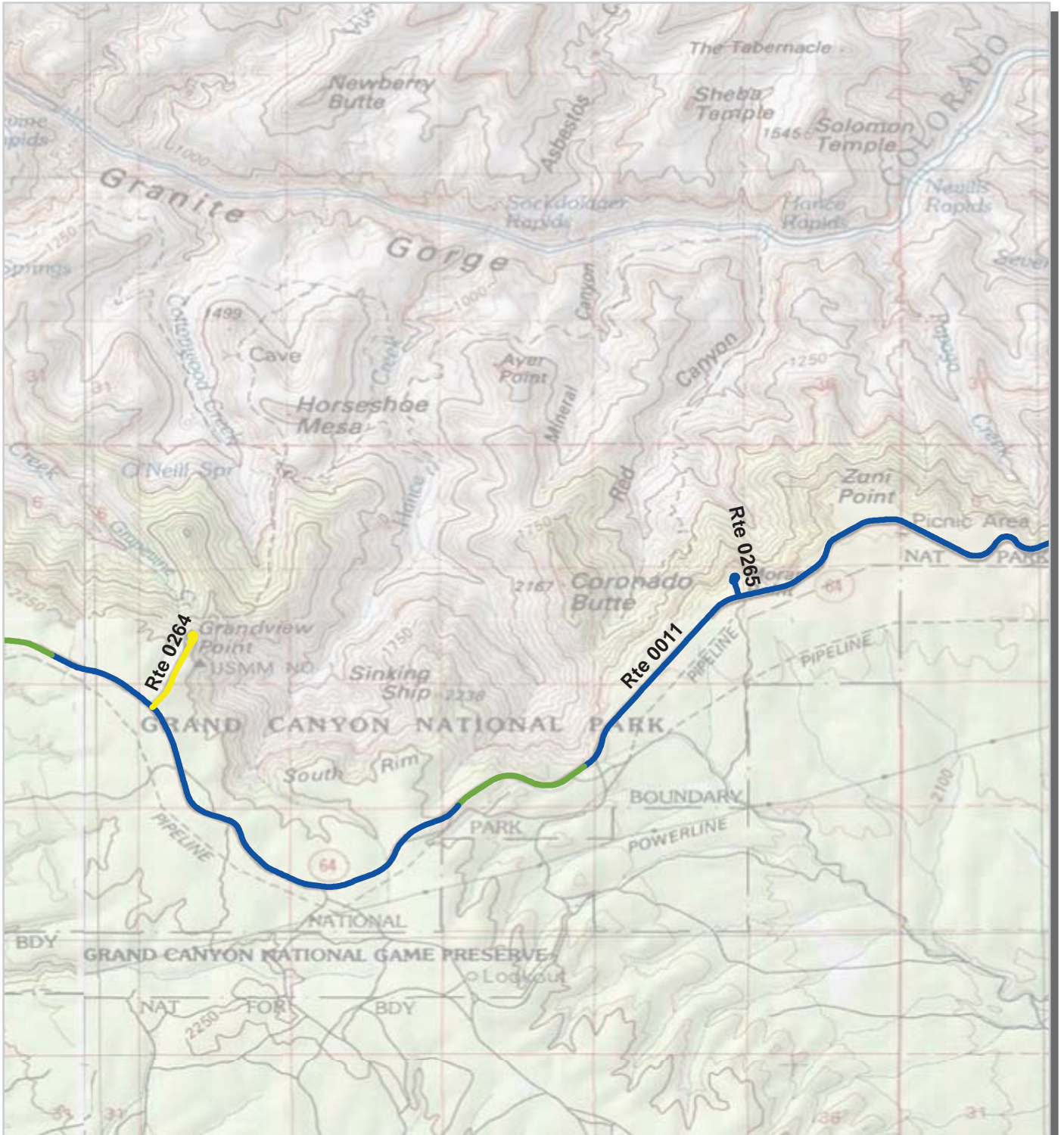


PCR	Poor		Fair		Good		Excellent		No Data	
	(0 - 60)		(61 - 84)	(85 - 94)	(95 - 100)					

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

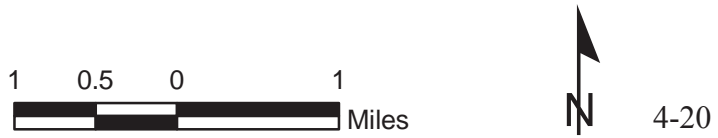


Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 8

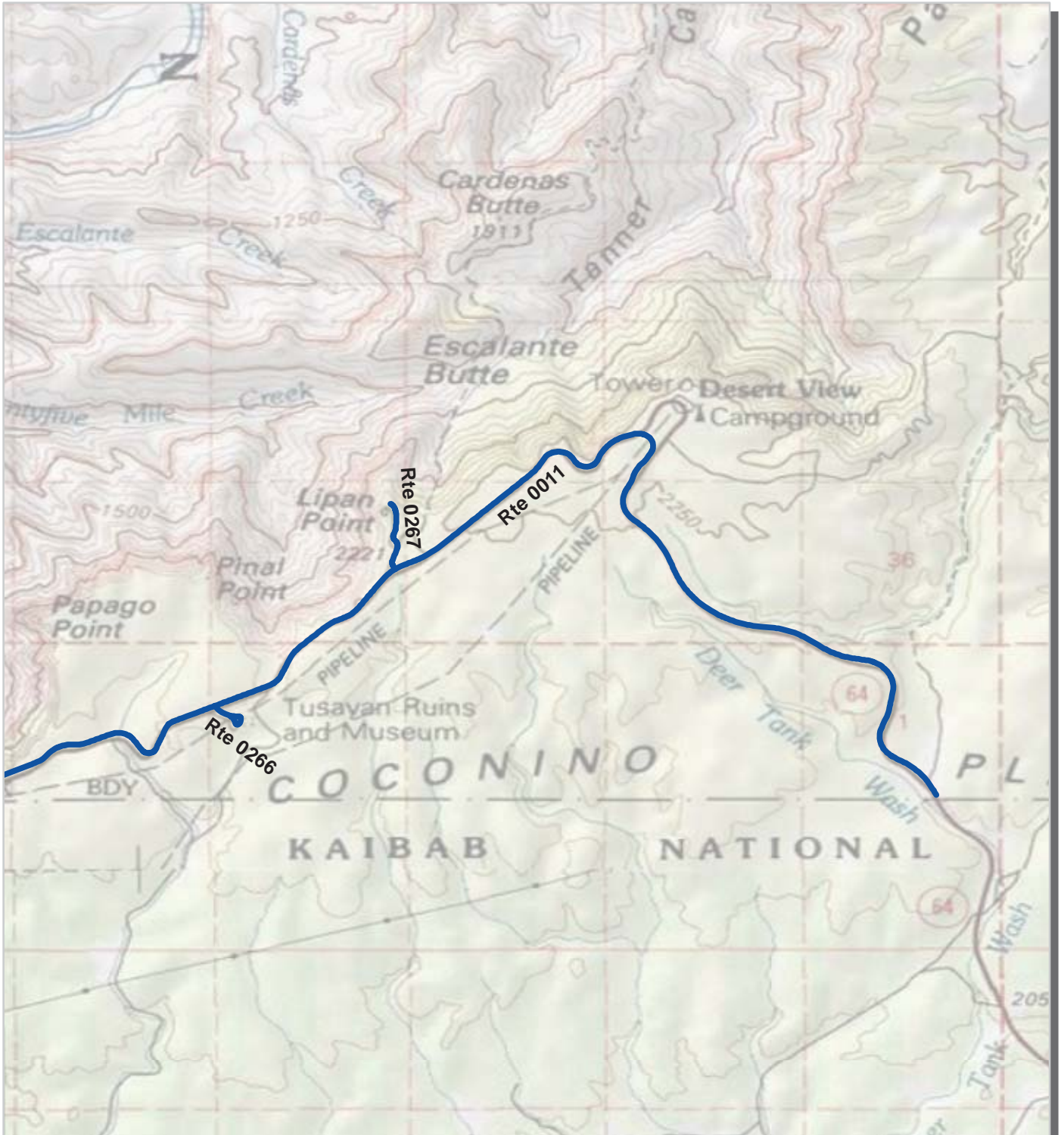


PCR	Poor	Fair	Good	Excellent	No Data
					
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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



Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 9

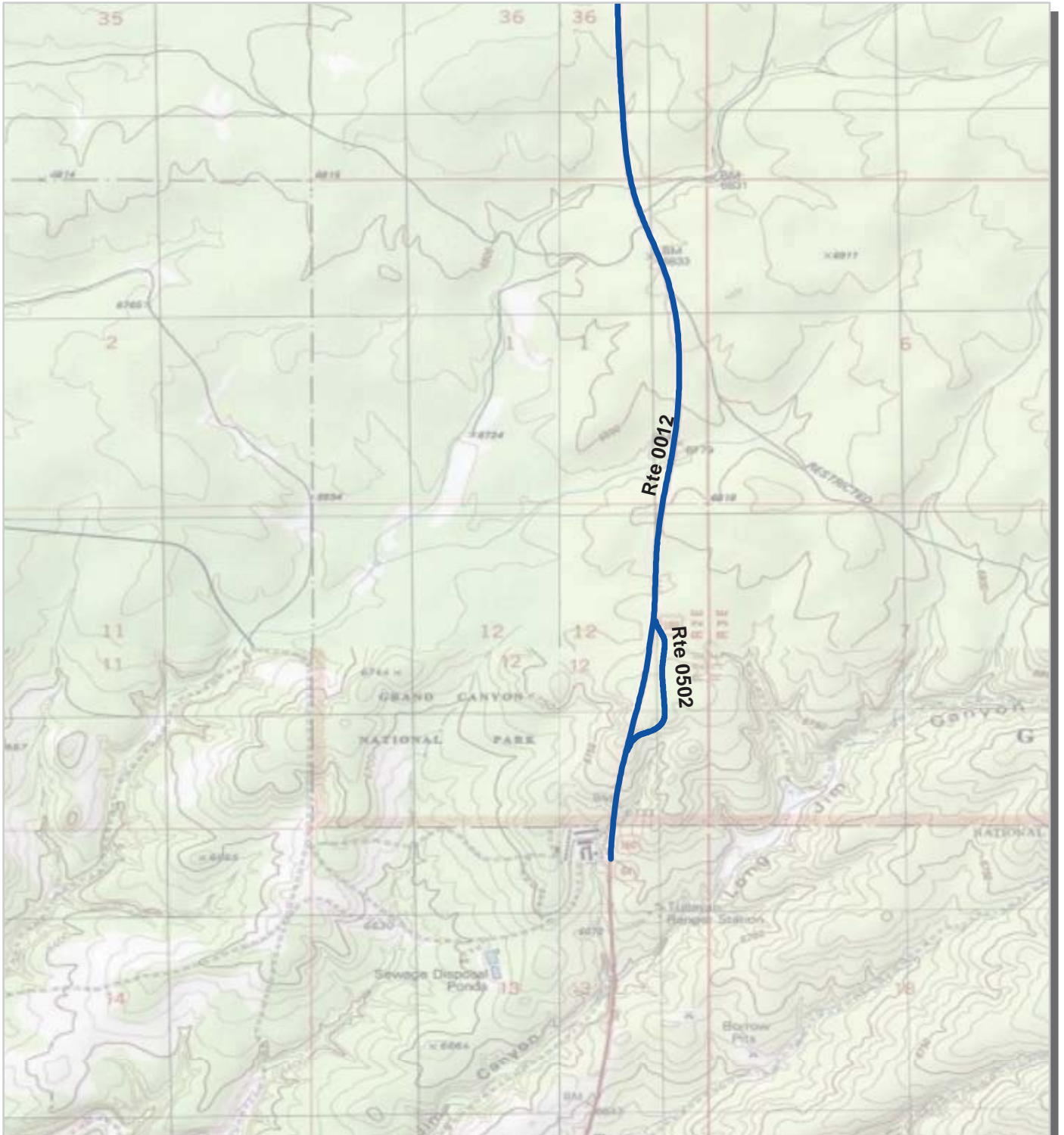


PCR	Poor	Fair	Good	Excellent	No Data
					
	(0 - 60)	(61 - 84)	(85 - 94)	(95 - 100)	

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

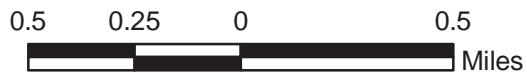


Grand Canyon National Park Route Condition Map PCR - Mile by Mile Area 10



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.



Section 5
Paved Route
Condition Rating Sheets



Grand Canyon National Park



Federal Lands Highway
Road Inventory Program



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: 0010 POINT IMPERIAL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 2.65 Miles

INTERMOUNTAIN REGION

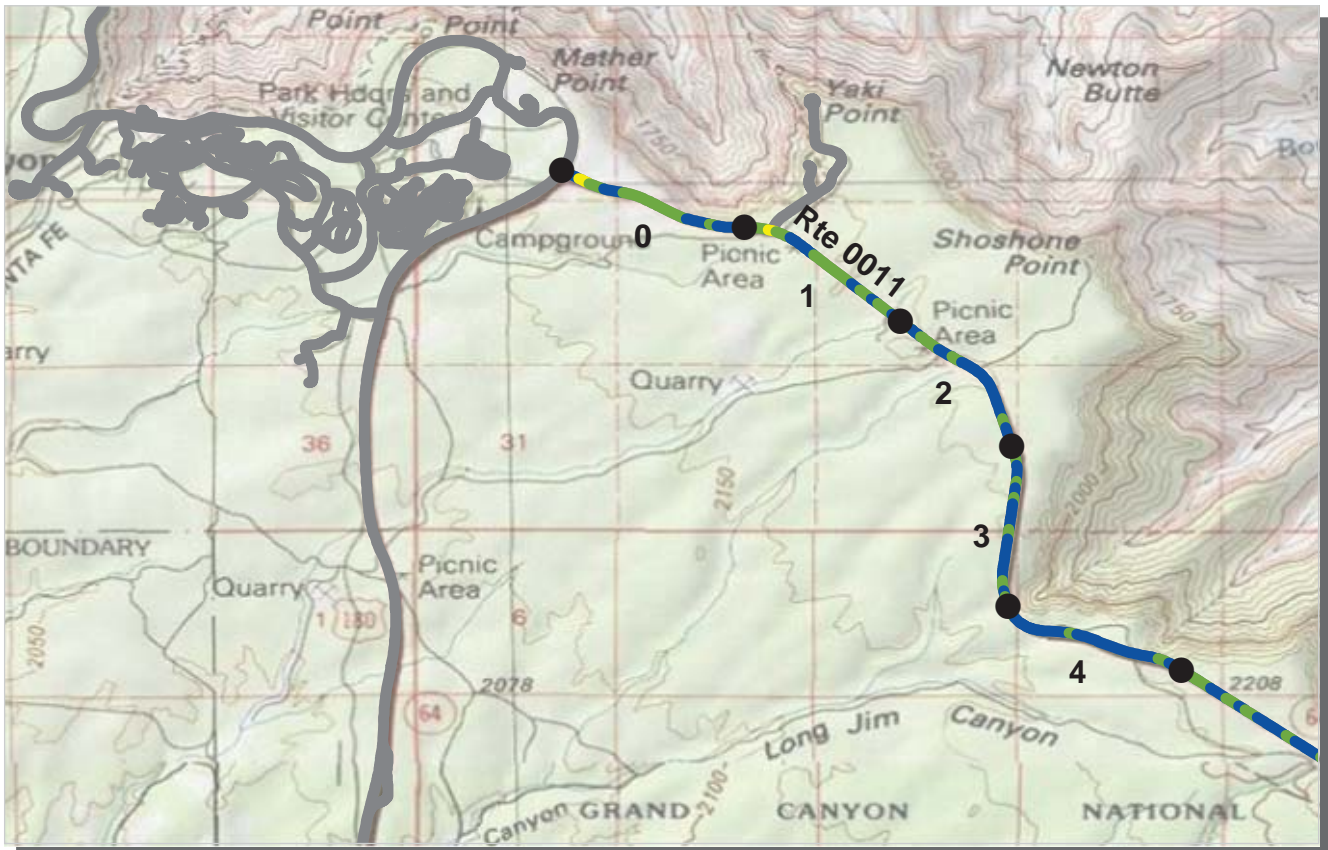
<i>Section Number</i>	0	1	2		
<i>Section Length (mi)</i>	1.00	1.00	0.65		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	20	20	21		
Lane Width (ft)	9	8	9		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	92	93	95		
PCR (Pavement Condition Rating)	85	89	86		
<i>Distress Index Values</i>					
Structural Crack Index	99	100	100		
Transverse Cracking Index	99	99	100		
Patching Index	100	100	100		
Rutting Index	92	93	95		
Roughness Condition Index (RCI)	75	82	73		

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0010 POINT IMPERIAL ROAD



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: 0011 DESERT VIEW DRIVE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 24.85 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	26	26	26	26
Lane Width (ft)	11	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	90	88	92	94	95
PCR (Pavement Condition Rating)	94	93	95	96	97
<i>Distress Index Values</i>					
Structural Crack Index	90	88	92	94	95
Transverse Cracking Index	93	97	97	98	98
Patching Index	100	100	100	100	100
Rutting Index	94	95	97	95	97
Roughness Condition Index (RCI)	100	100	100	100	100

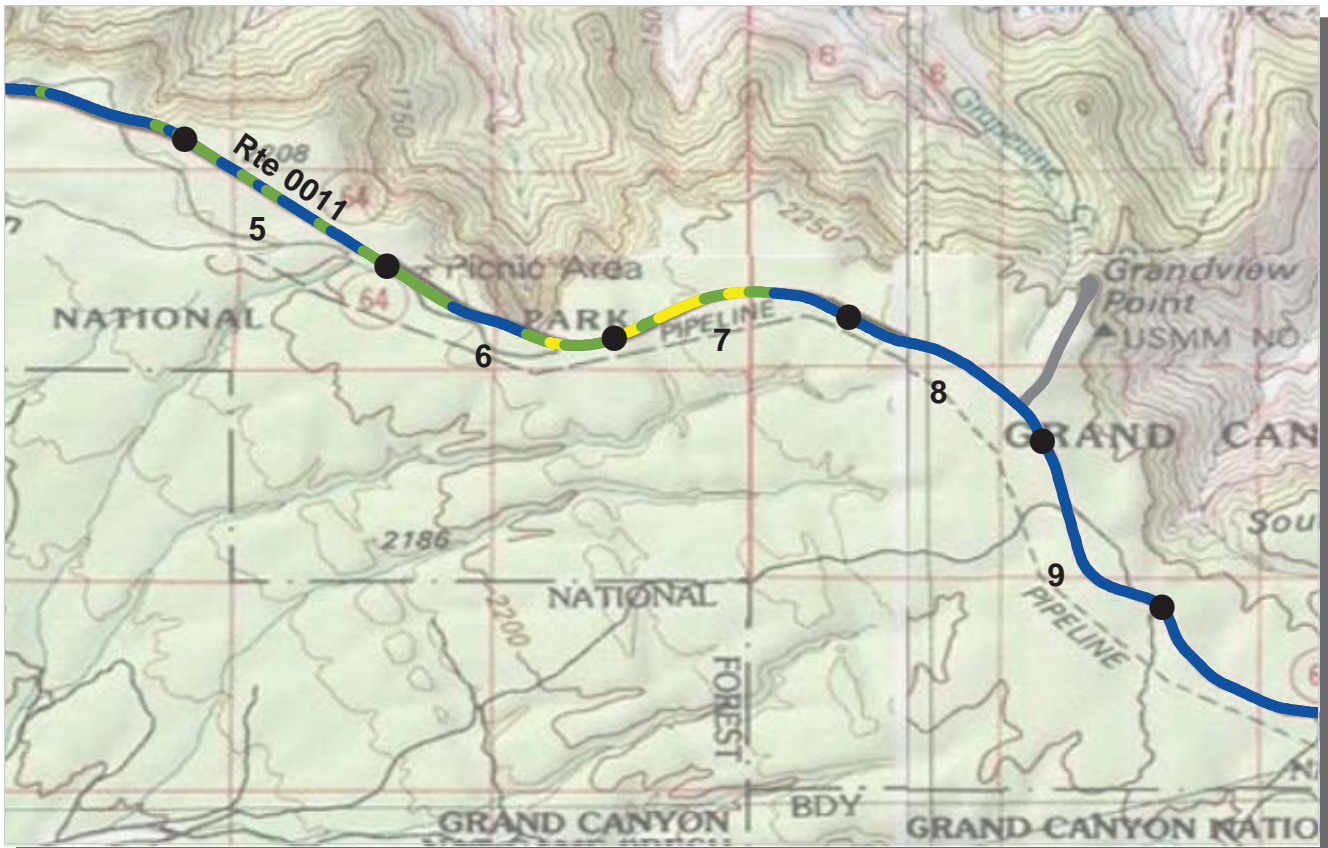
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 DESERT VIEW DRIVE



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: 0011 DESERT VIEW DRIVE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 24.85 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	26	26	26	26
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	93	93	92	95	96
PCR (Pavement Condition Rating)	96	96	94	97	98
<i>Distress Index Values</i>					
Structural Crack Index	96	93	95	100	100
Transverse Cracking Index	98	94	95	100	99
Patching Index	100	100	100	100	100
Rutting Index	93	94	92	95	96
Roughness Condition Index (RCI)	100	100	96	100	100

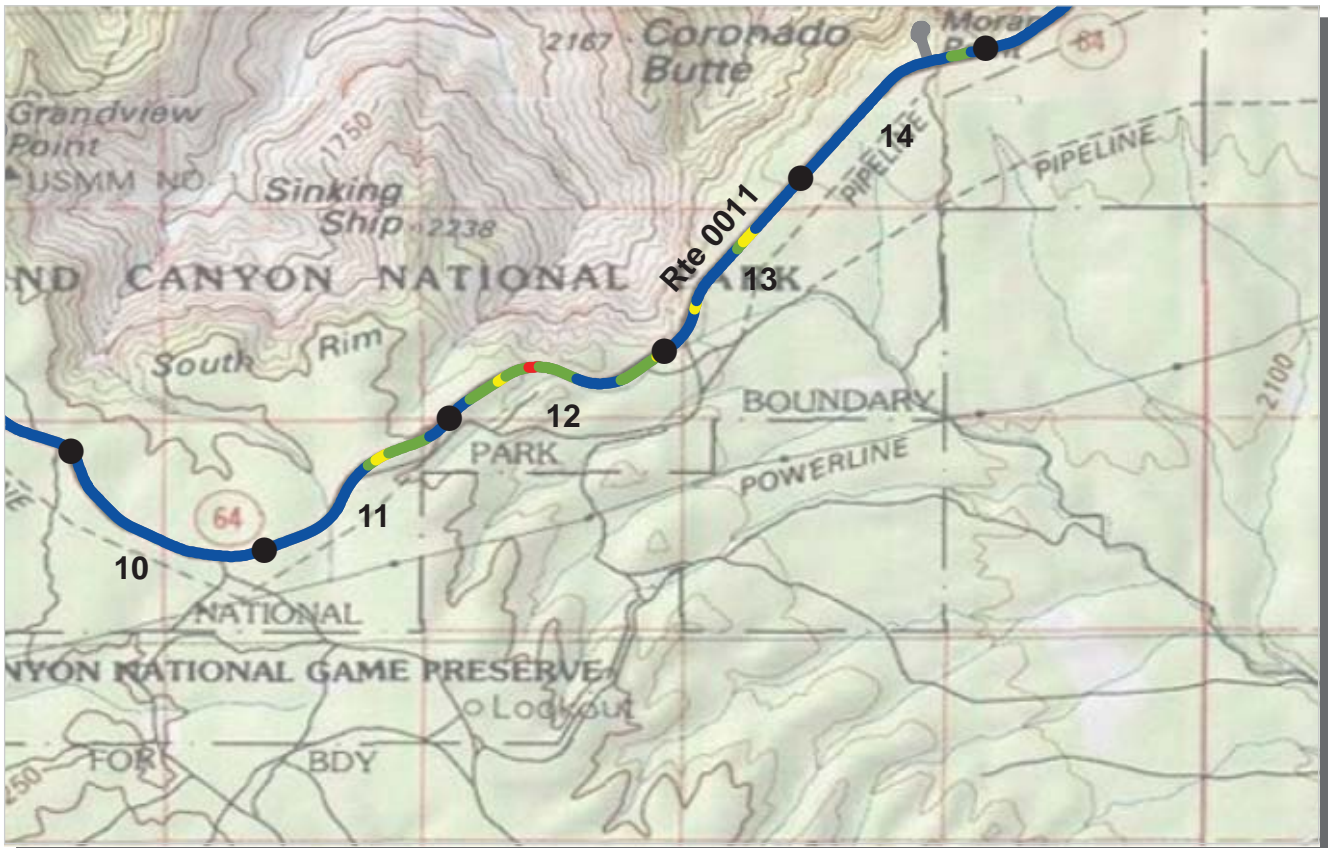
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 DESERT VIEW DRIVE



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: 0011 DESERT VIEW DRIVE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 24.85 Miles

INTERMOUNTAIN REGION

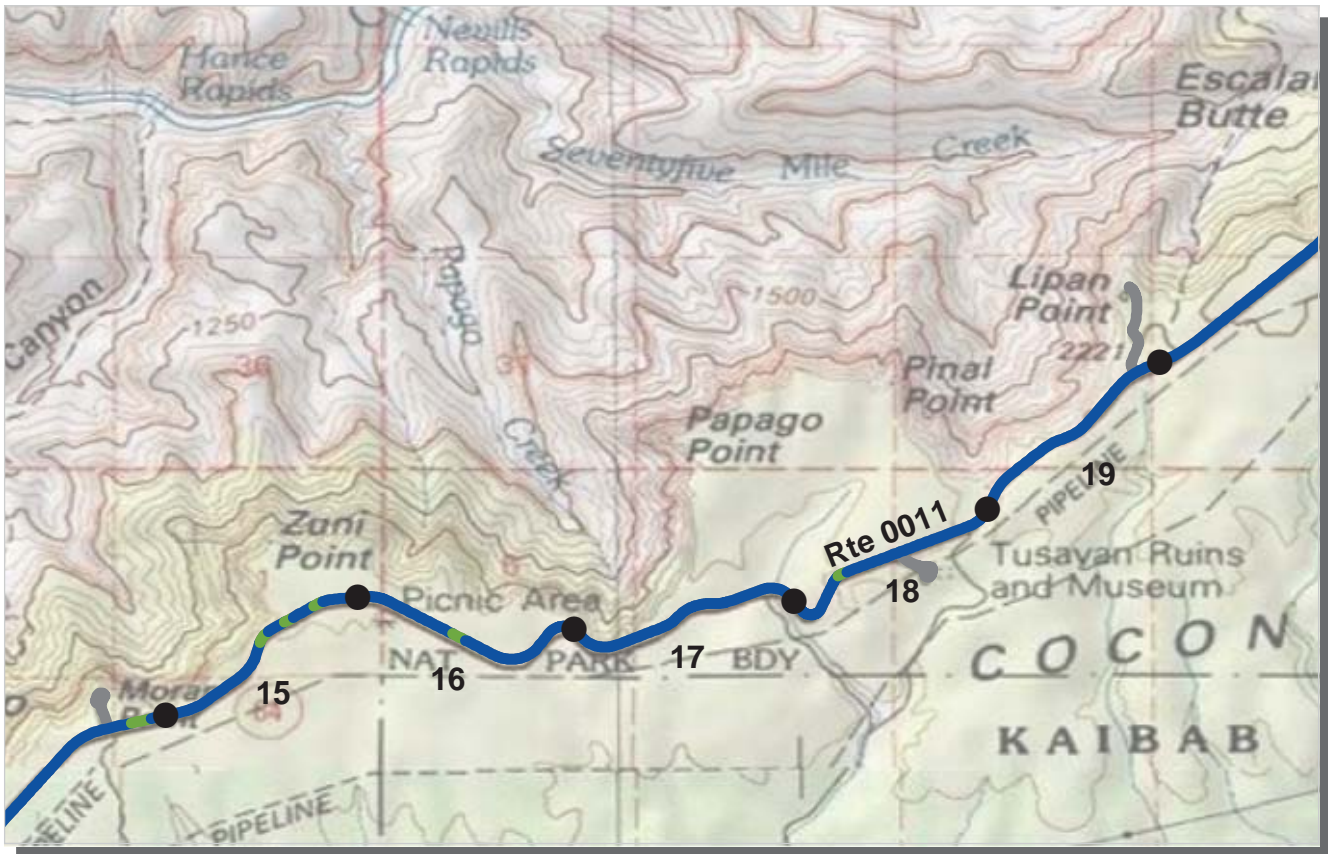
<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	27	27	26	26
Lane Width (ft)	11	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	96	93	93	94
PCR (Pavement Condition Rating)	99	98	93	96	96
<i>Distress Index Values</i>					
Structural Crack Index	100	96	93	95	97
Transverse Cracking Index	100	97	94	93	94
Patching Index	100	100	100	100	100
Rutting Index	99	97	96	96	96
Roughness Condition Index (RCI)	100	100	94	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0011 DESERT VIEW DRIVE



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: 0011 DESERT VIEW DRIVE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 24.85 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	15	16	17	18	19
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	26	26	27	28
Lane Width (ft)	10	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	94	94	95	97	98
PCR (Pavement Condition Rating)	96	96	97	98	99
<i>Distress Index Values</i>					
Structural Crack Index	99	98	99	99	100
Transverse Cracking Index	94	94	95	97	100
Patching Index	100	100	100	100	100
Rutting Index	97	97	98	97	98
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 DESERT VIEW DRIVE



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: 0011 DESERT VIEW DRIVE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 24.85 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	20	21	22	23	24
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	0.85
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	27	36	27	27	26
Lane Width (ft)	10	11	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	98	97	100	100	99
PCR (Pavement Condition Rating)	99	97	100	100	99
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	98	97	100	100	99
Roughness Condition Index (RCI)	100	98	100	100	100

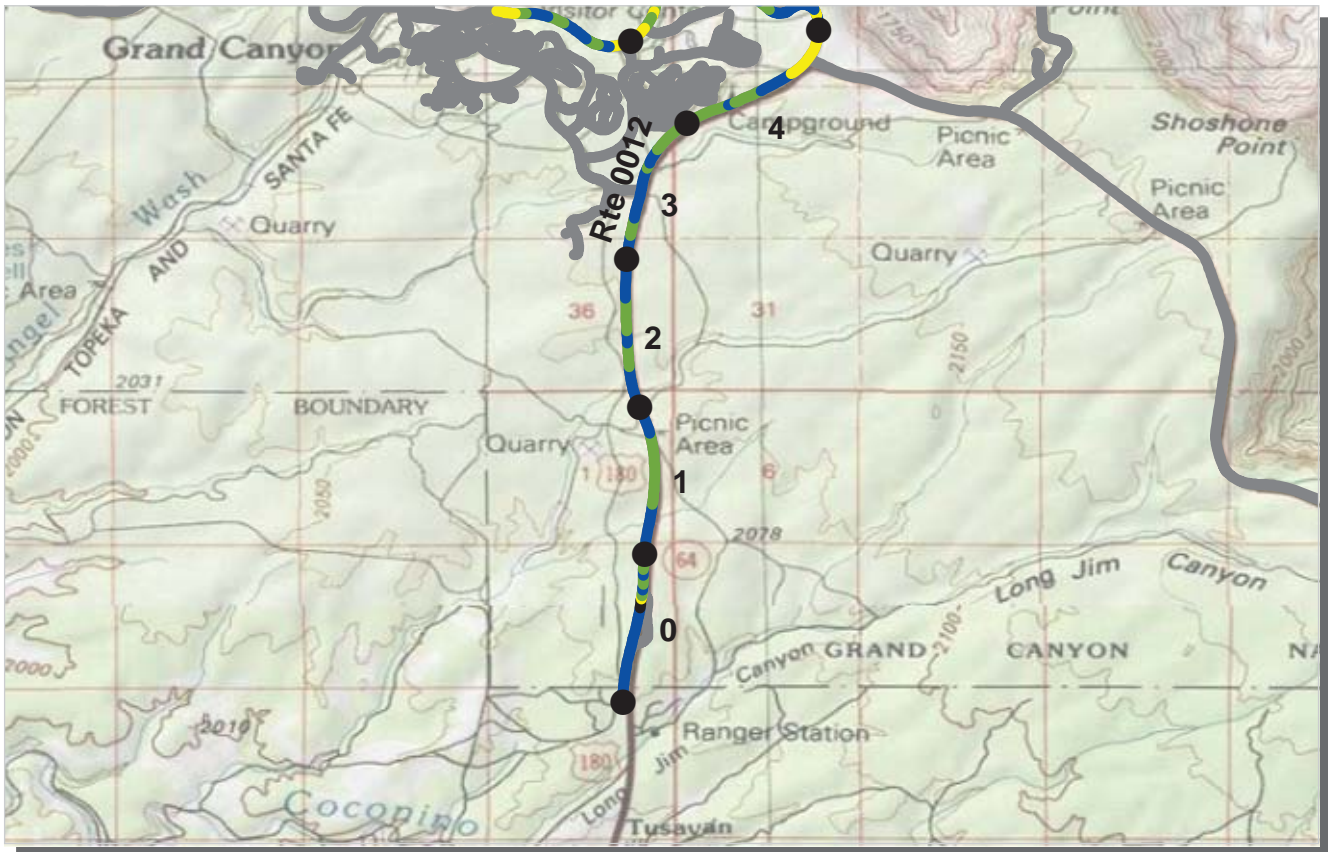
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0011 DESERT VIEW DRIVE



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: 0012 SOUTH ENTRANCE ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 7.80 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	3	2	2	2	2
Paved Width (ft)	49	30	30	33	33
Lane Width (ft)	15	12	11	12	12
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	97	91	93	92	90
PCR (Pavement Condition Rating)	98	95	96	95	91
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	95
Transverse Cracking Index	100	100	100	100	97
Patching Index	100	100	100	100	100
Rutting Index	97	91	93	92	90
Roughness Condition Index (RCI)	100	100	100	100	93

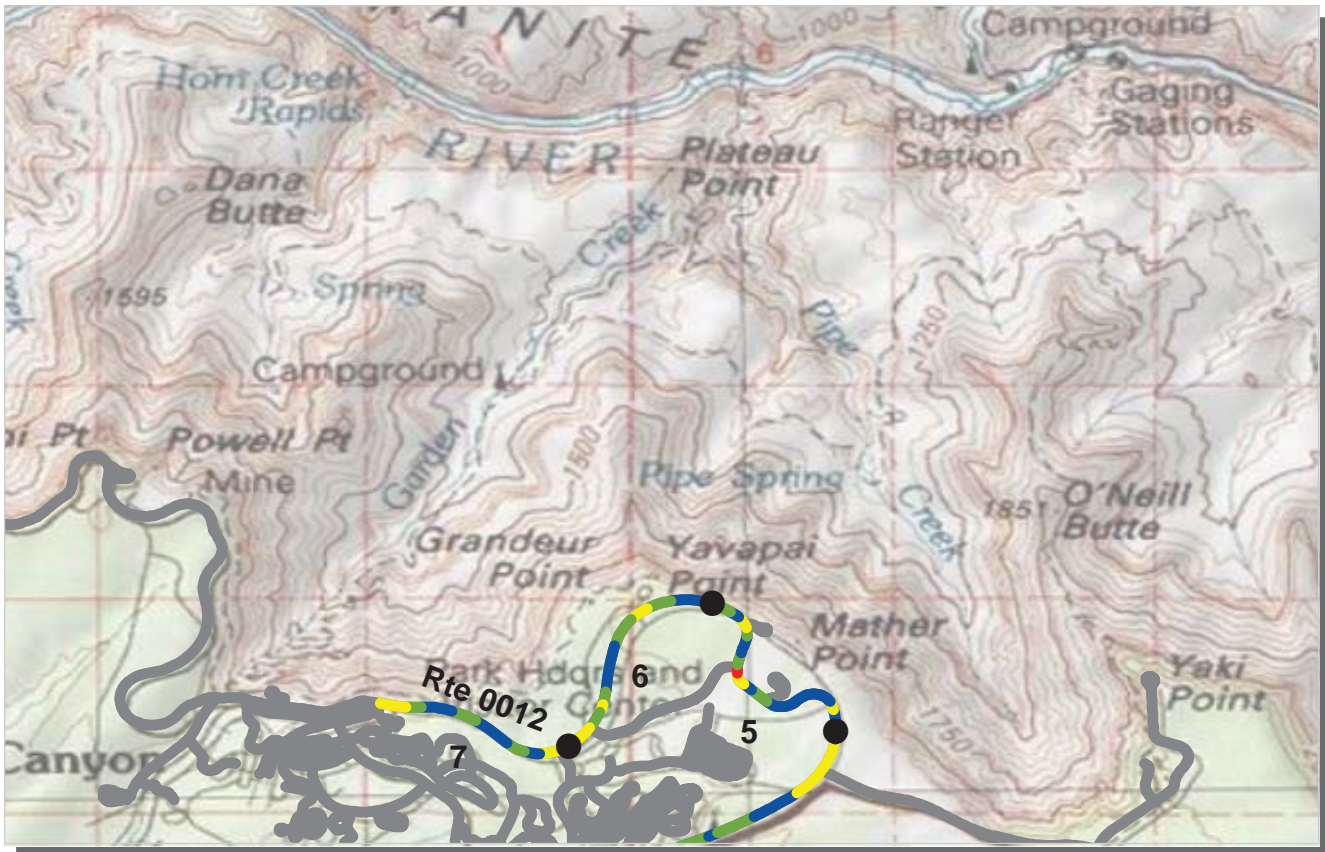
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0012 SOUTH ENTRANCE ROAD



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: 0012 SOUTH ENTRANCE ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 7.80 Miles

INTERMOUNTAIN REGION

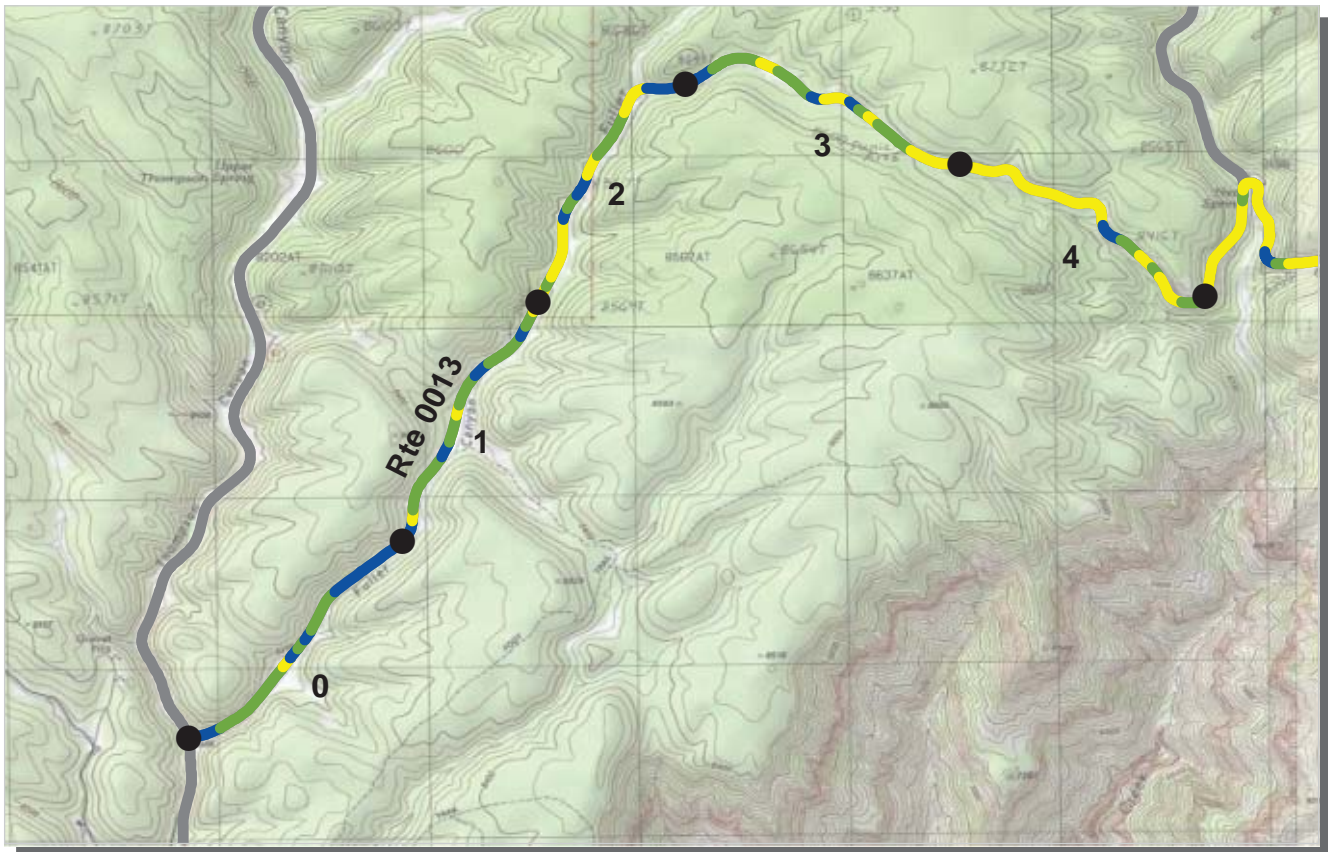
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<i>Section Length (mi)</i>	1.00	1.00	0.80		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	29	34	31		
Lane Width (ft)	12	13	12		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	97	91	91		
PCR (Pavement Condition Rating)	93	86	92		
<i>Distress Index Values</i>					
Structural Crack Index	100	98	99		
Transverse Cracking Index	100	98	97		
Patching Index	100	100	100		
Rutting Index	97	91	91		
Roughness Condition Index (RCI)	87	78	93		

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0012 SOUTH ENTRANCE ROAD



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

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

ROUTE: 0013 CAPE ROYAL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 19.83 Miles

INTERMOUNTAIN REGION

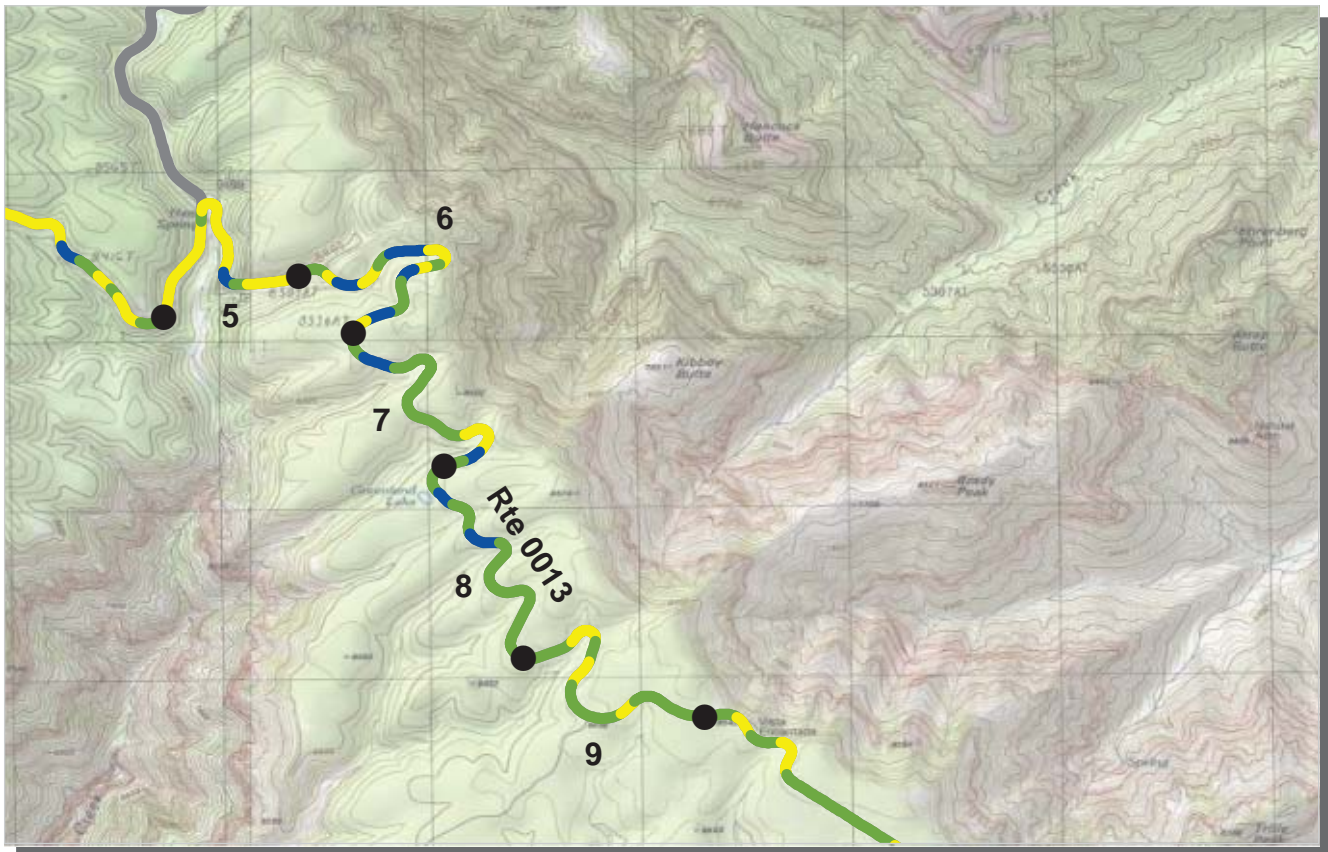
<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	21	20	21	21	21
Lane Width (ft)	9	8	9	9	9
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	94	95	93	93	93
PCR (Pavement Condition Rating)	92	90	87	86	81
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	94	95	93	93	93
Roughness Condition Index (RCI)	88	83	77	76	62

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0013 CAPE ROYAL ROAD



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: 0013 CAPE ROYAL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 19.83 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	5	6	7	8	9
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	19	20
Lane Width (ft)	9	8	9	8	8
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	92	97	95	96	94
PCR (Pavement Condition Rating)	78	88	89	91	85
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	100	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	92	97	95	96	94
Roughness Condition Index (RCI)	56	75	79	83	72

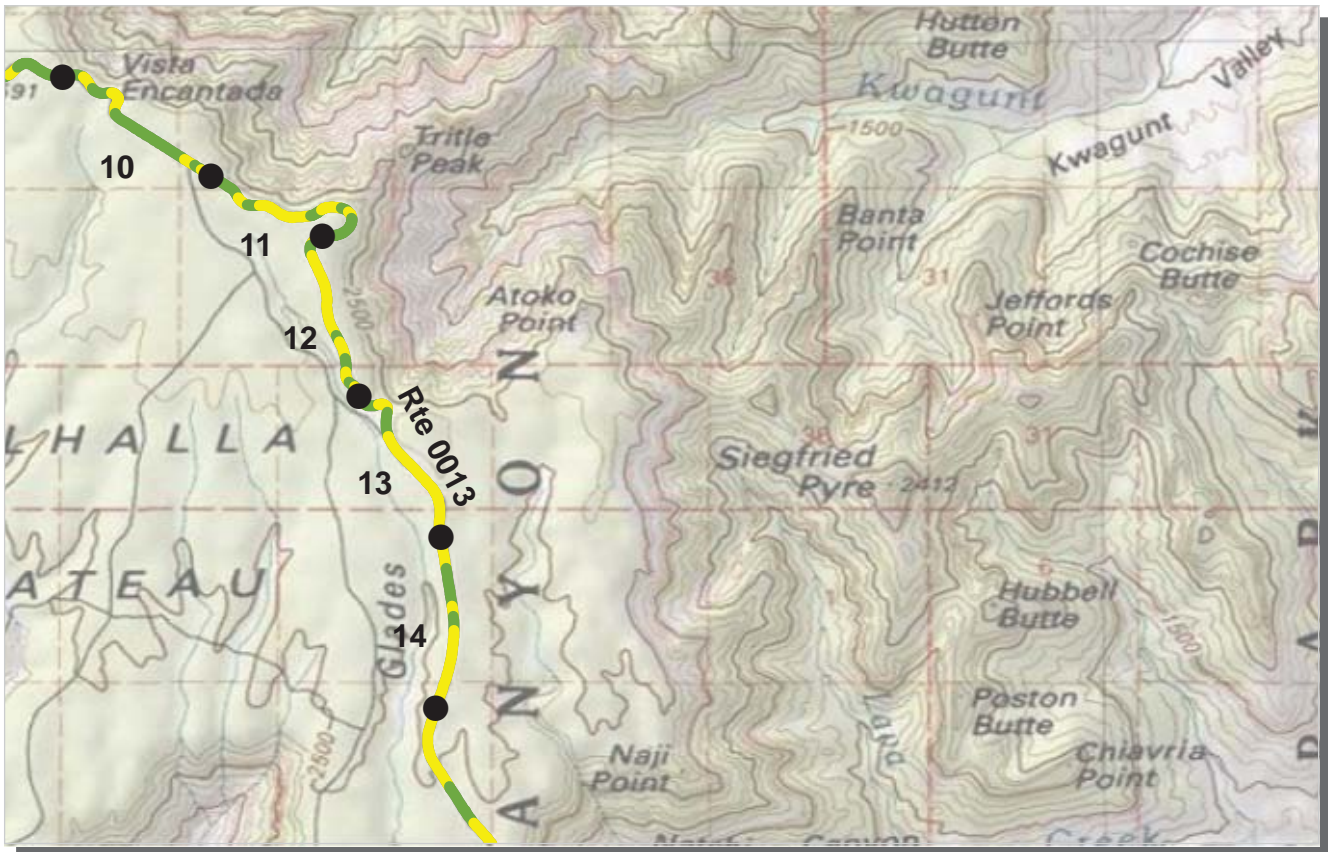
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0013 CAPE ROYAL ROAD



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: 0013 CAPE ROYAL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 19.83 Miles

INTERMOUNTAIN REGION

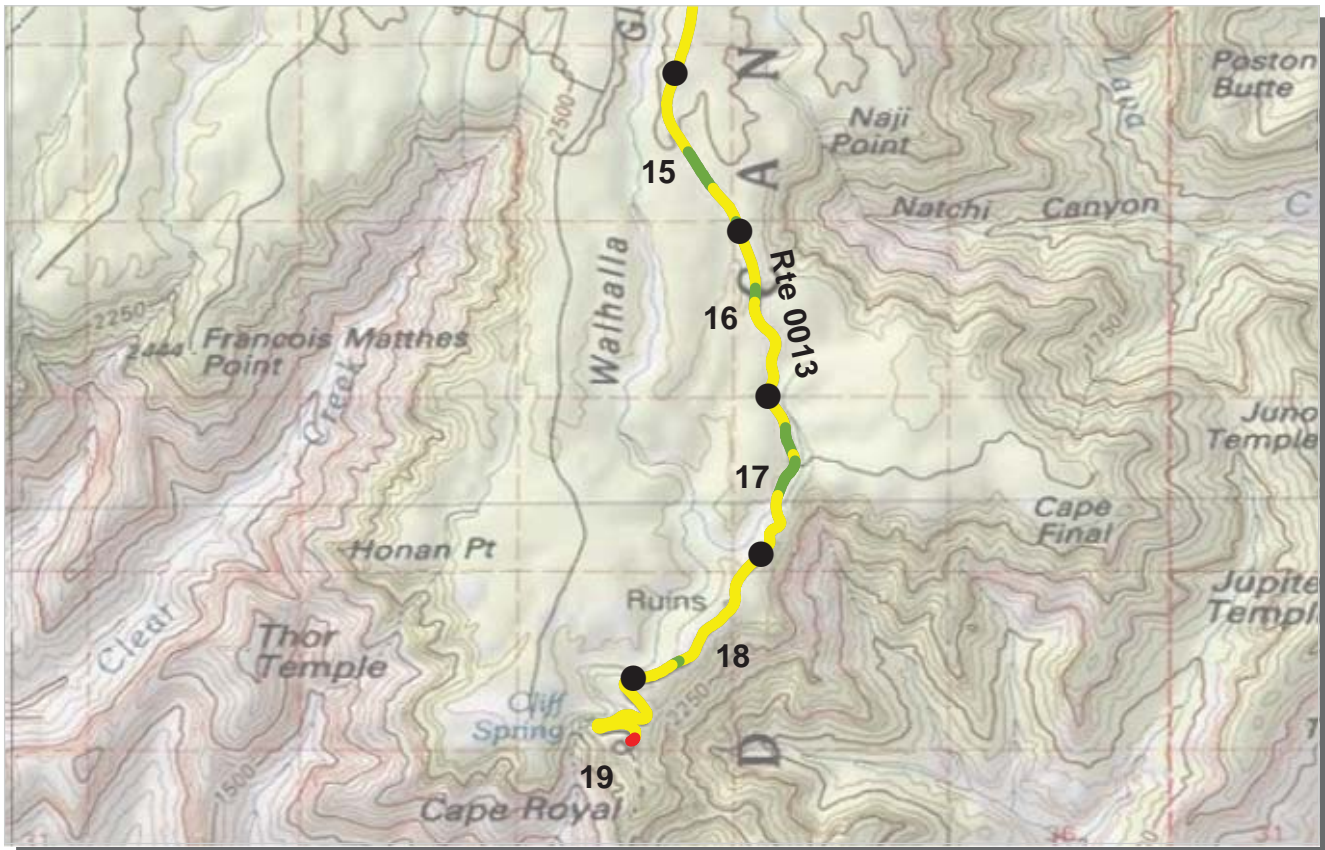
<i>Section Number</i>	10	11	12	13	14
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	20	20	20	20
Lane Width (ft)	8	8	9	8	8
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	92	95	95	90	88
PCR (Pavement Condition Rating)	85	85	82	75	74
<i>Distress Index Values</i>					
Structural Crack Index	100	100	99	90	88
Transverse Cracking Index	100	100	98	92	95
Patching Index	100	100	100	100	100
Rutting Index	92	95	95	95	93
Roughness Condition Index (RCI)	75	70	62	53	53

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0013 CAPE ROYAL ROAD



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: 0013 CAPE ROYAL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 19.83 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	15	16	17	18	19
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	0.83
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	20	19	20	20	18
Lane Width (ft)	8	8	8	9	8
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	92	88	89	87	86
PCR (Pavement Condition Rating)	78	78	81	76	72
<i>Distress Index Values</i>					
Structural Crack Index	92	88	92	92	88
Transverse Cracking Index	95	90	89	87	86
Patching Index	100	100	100	100	100
Rutting Index	95	95	96	95	94
Roughness Condition Index (RCI)	56	63	69	60	51

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0013 CAPE ROYAL ROAD



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

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

ROUTE: 0014 NORTH ENTRANCE ROAD (HWY 67)
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 12.84 Miles

INTERMOUNTAIN REGION

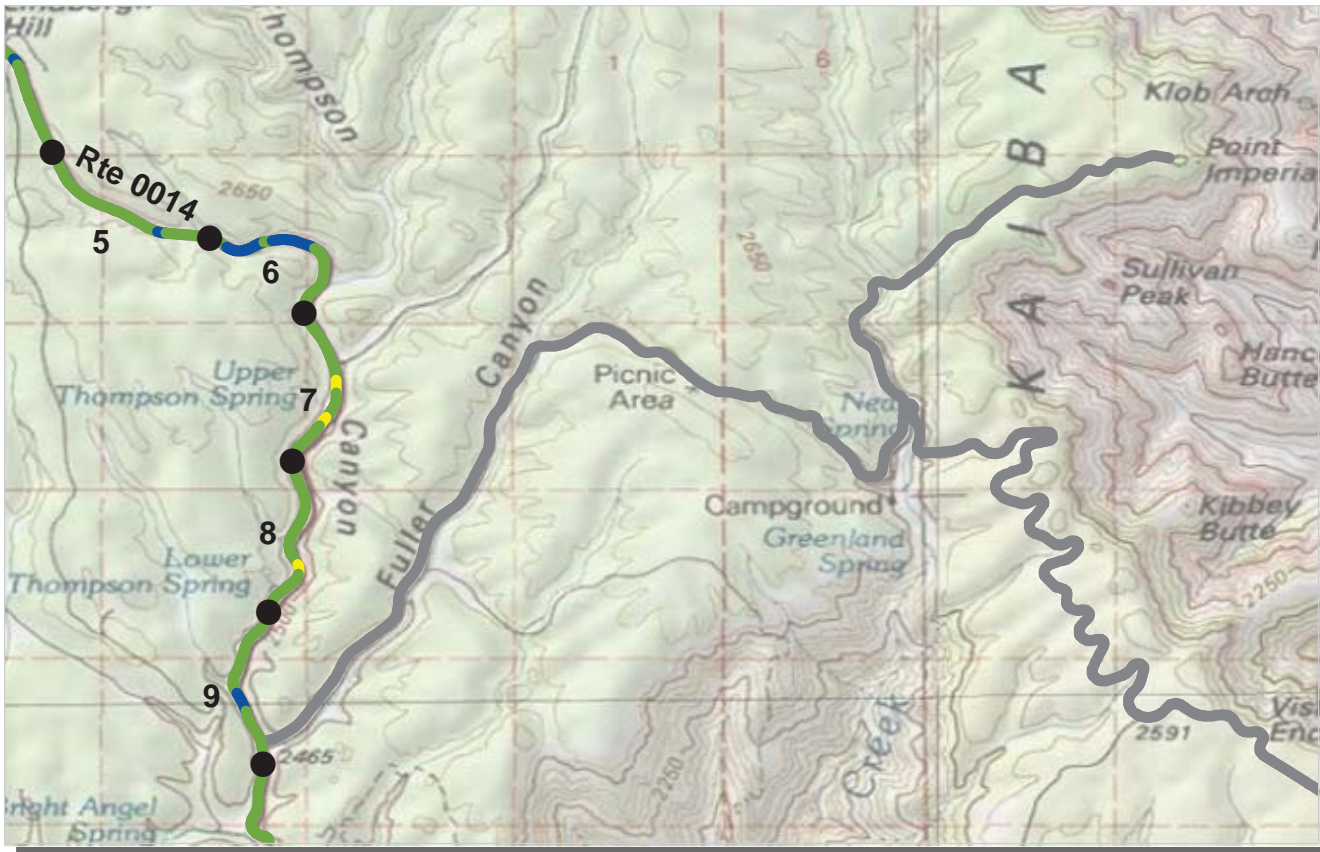
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	28	25	24	26	25
Lane Width (ft)	11	10	10	10	9
Roadway Condition Information					
SCR (Surface Condition Rating)	88	87	88	91	89
PCR (Pavement Condition Rating)	86	89	93	94	93
Distress Index Values					
Structural Crack Index	99	96	99	100	100
Transverse Cracking Index	98	98	99	100	100
Patching Index	100	100	100	100	100
Rutting Index	88	87	88	91	89
Roughness Condition Index (RCI)	83	91	100	99	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0014 NORTH ENTRANCE ROAD (HWY 67)



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: 0014 NORTH ENTRANCE ROAD (HWY 67)
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 12.84 Miles

INTERMOUNTAIN REGION

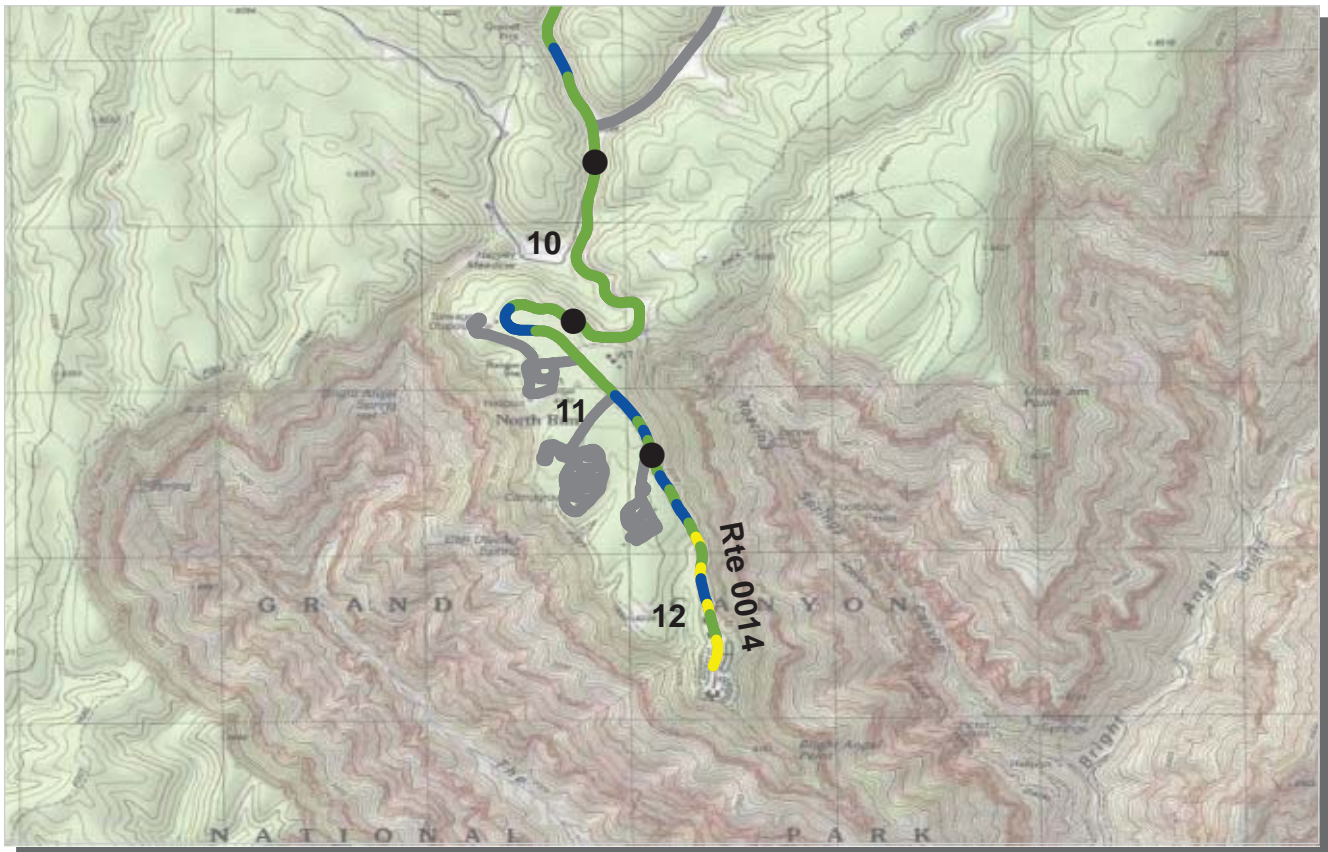
Section Number	5	6	7	8	9
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	26	28	27	27	27
Lane Width (ft)	10	11	11	10	10
Roadway Condition Information					
SCR (Surface Condition Rating)	88	91	87	85	89
PCR (Pavement Condition Rating)	93	95	90	91	93
Distress Index Values					
Structural Crack Index	100	100	99	100	100
Transverse Cracking Index	100	99	99	100	100
Patching Index	100	100	100	100	100
Rutting Index	88	91	87	85	89
Roughness Condition Index (RCI)	100	100	94	99	100

ROUTE: 0014 NORTH ENTRANCE ROAD (HWY 67)

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



PCR Poor ■ 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: 0014 NORTH ENTRANCE ROAD (HWY 67)
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/12/2012
TOTAL LENGTH: 12.84 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	10	11	12		
<i>Section Length (mi)</i>	1.00	1.00	0.84		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	26	27	26		
Lane Width (ft)	10	10	10		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	89	90	91		
PCR (Pavement Condition Rating)	92	94	89		
<i>Distress Index Values</i>					
Structural Crack Index	98	99	100		
Transverse Cracking Index	99	100	100		
Patching Index	100	100	100		
Rutting Index	89	90	91		
Roughness Condition Index (RCI)	96	100	85		

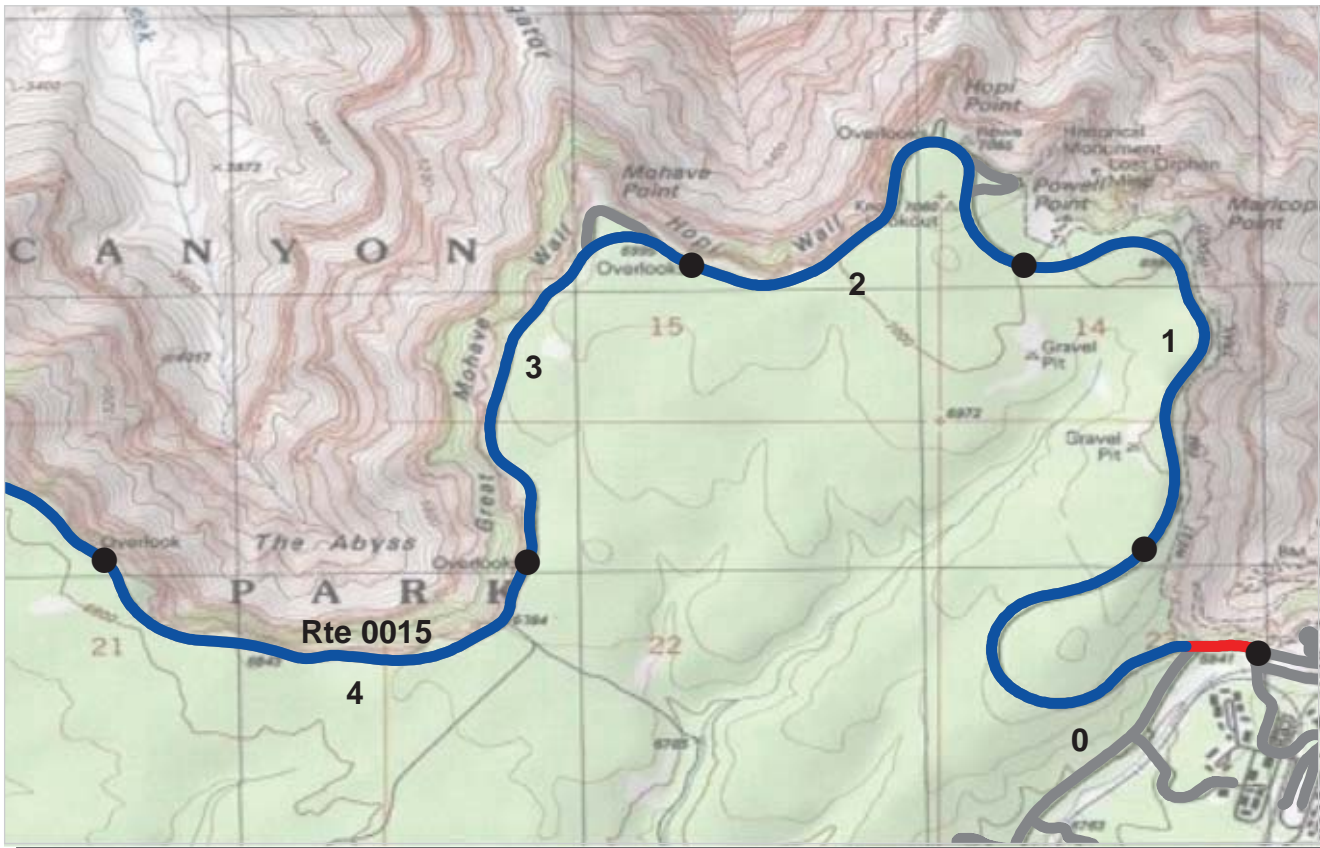
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0014 NORTH ENTRANCE ROAD (HWY 67)



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: 0015 HERMIT REST ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 7.04 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	0	1	2	3	4
<i>Section Length (mi)</i>	1.00	1.00	1.00	1.00	1.00
<i>Cross Section Information</i>					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	25	24	24	24	24
Lane Width (ft)	11	10	10	10	10
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	97	97	98	99	98
PCR (Pavement Condition Rating)	98	98	99	99	99
<i>Distress Index Values</i>					
Structural Crack Index	100	100	100	100	100
Transverse Cracking Index	99	100	100	100	100
Patching Index	100	100	100	100	100
Rutting Index	97	97	98	99	98
Roughness Condition Index (RCI)	100	100	100	100	100

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0015 HERMIT REST ROAD



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: 0015 HERMIT REST ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 7.04 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	5	6	7		
<i>Section Length (mi)</i>	1.00	1.00	0.04		
<i>Cross Section Information</i>					
Number of Lanes	2	2	2		
Paved Width (ft)	24	24	23		
Lane Width (ft)	10	10	11		
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	99	99	94		
PCR (Pavement Condition Rating)	99	99	95		
<i>Distress Index Values</i>					
Structural Crack Index	100	100	99		
Transverse Cracking Index	100	100	100		
Patching Index	100	100	100		
Rutting Index	99	99	94		
Roughness Condition Index (RCI)	100	100	97		

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0015 HERMIT REST ROAD



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: 0016 CENTER ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 1.61 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	0	1			
<i>Section Length (mi)</i>	1.00	0.61			
<i>Cross Section Information</i>					
Number of Lanes	2	2			
Paved Width (ft)	23	24			
Lane Width (ft)	10	10			
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	96	94			
PCR (Pavement Condition Rating)	96	92			
<i>Distress Index Values</i>					
Structural Crack Index	99	99			
Transverse Cracking Index	96	99			
Patching Index	100	100			
Rutting Index	96	94			
Roughness Condition Index (RCI)	97	90			

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0016 CENTER ROAD



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: 0017 MARKET PLAZA ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 1.04 Miles

INTERMOUNTAIN REGION

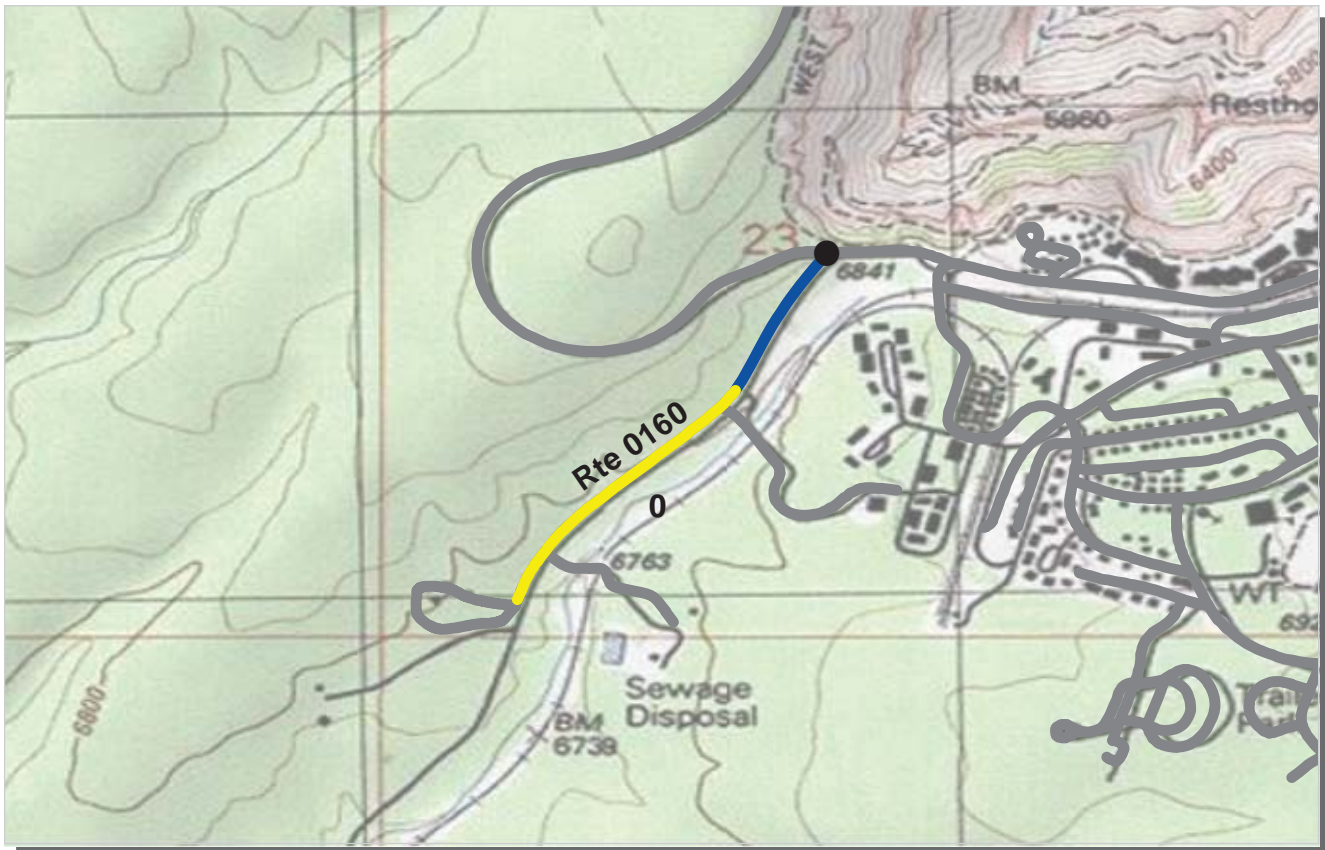
<i>Section Number</i>	0	1			
<i>Section Length (mi)</i>	1.00	0.04			
<i>Cross Section Information</i>					
Number of Lanes	2	2			
Paved Width (ft)	28	27			
Lane Width (ft)	12	12			
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	98	93			
PCR (Pavement Condition Rating)	99	96			
<i>Distress Index Values</i>					
Structural Crack Index	98	99			
Transverse Cracking Index	99	99			
Patching Index	100	100			
Rutting Index	99	93			
Roughness Condition Index (RCI)	100	100			

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0017 MARKET PLAZA ROAD



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: 0160 ROWE WELL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.56 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.56				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	92				
PCR (Pavement Condition Rating)	75				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	92				
Roughness Condition Index (RCI)	50				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0160 ROWE WELL ROAD



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: 0167 PIMA POINT ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.47 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.47				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	27				
Lane Width (ft)	17				
Roadway Condition Information					
SCR (Surface Condition Rating)	98				
PCR (Pavement Condition Rating)	98				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

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



ROUTE: 0167 PIMA POINT ROAD



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: 0168 MOHAVE POINT ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.22 Miles

INTERMOUNTAIN REGION

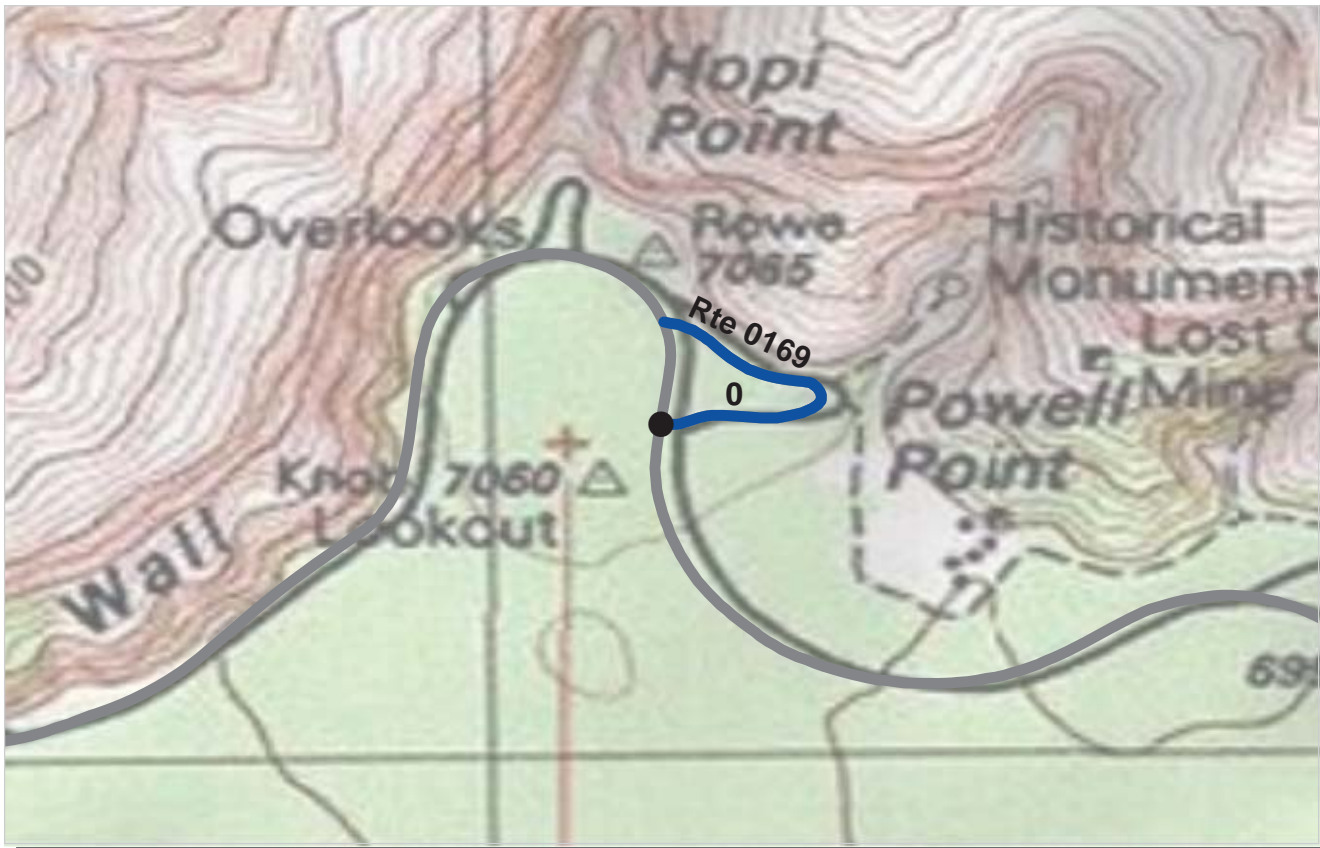
Section Number	0				
Section Length (mi)	0.22				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	24				
Lane Width (ft)	24				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	100				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0168 MOHAVE POINT ROAD



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: 0169 POWELL MEMORIAL ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.19 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.19				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	21				
Lane Width (ft)	21				
Roadway Condition Information					
SCR (Surface Condition Rating)	97				
PCR (Pavement Condition Rating)	97				
Distress Index Values					
Structural Crack Index	98				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0169 POWELL MEMORIAL ROAD



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: 0170 ZUNI WAY
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.15 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.15				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	30				
Lane Width (ft)	12				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Structural Crack Index	96				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	95				
Roughness Condition Index (RCI)	NC				

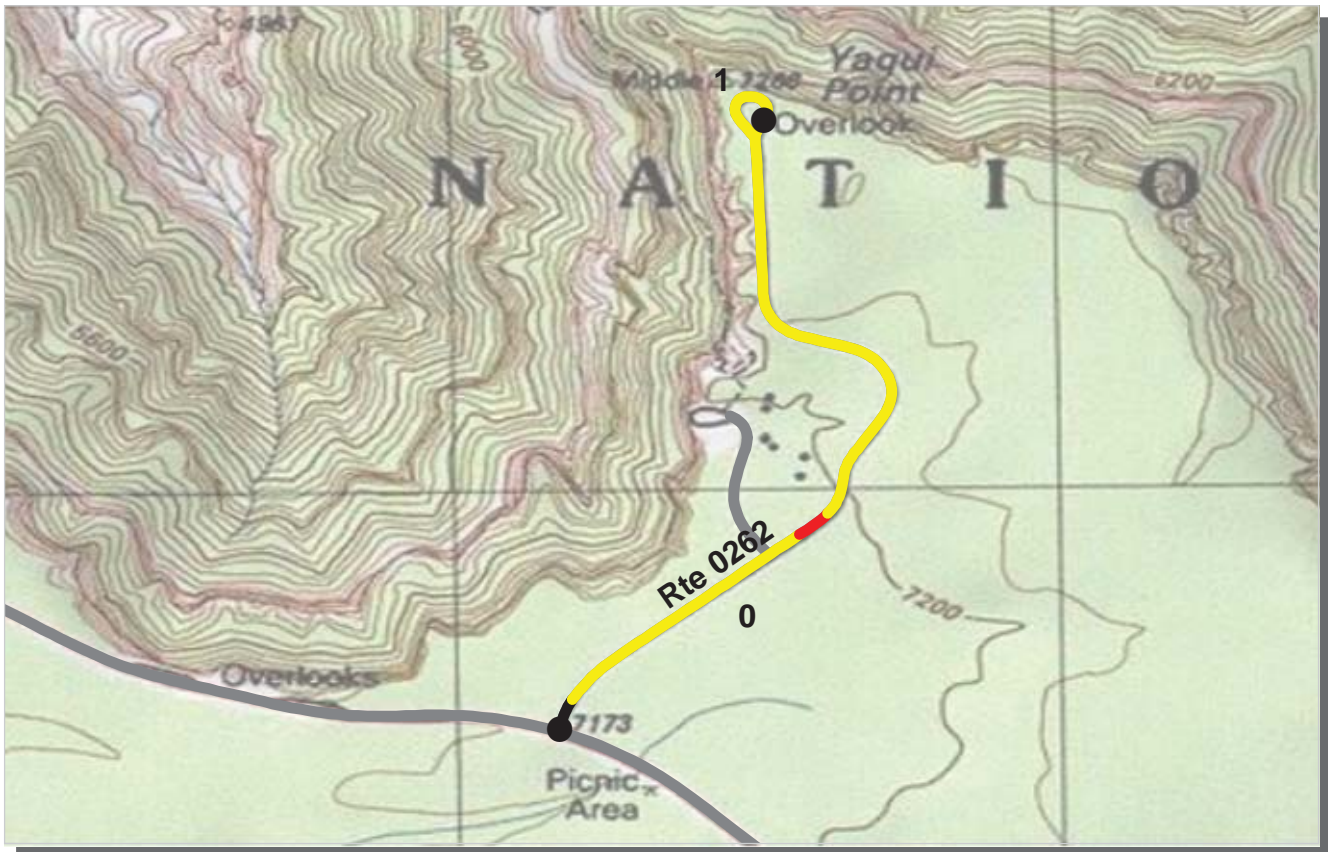
NOTES:

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

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

NC - Not Collected N/A - Not Applicable

ROUTE: 0170 ZUNI WAY



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: 0262 YAKI POINT ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 1.10 Miles

INTERMOUNTAIN REGION

Section Number	0	1			
Section Length (mi)	1.00	0.10			
Cross Section Information					
Number of Lanes	2	1			
Paved Width (ft)	22	21			
Lane Width (ft)	11	21			
Roadway Condition Information					
SCR (Surface Condition Rating)	89	84			
PCR (Pavement Condition Rating)	68	59			
Distress Index Values					
Structural Crack Index	97	88			
Transverse Cracking Index	95	98			
Patching Index	100	100			
Rutting Index	89	84			
Roughness Condition Index (RCI)	36	21			

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0262 YAKI POINT ROAD



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: 0263 KAIBAB TRAIL ACCESS ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.20 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.20				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	21				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	79				
PCR (Pavement Condition Rating)	79				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	98				
Patching Index	100				
Rutting Index	79				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0263 KAIBAB TRAIL ACCESS ROAD



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: 0264 GRANDVIEW POINT ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.77 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.77				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	94				
PCR (Pavement Condition Rating)	83				
Distress Index Values					
Structural Crack Index	97				
Transverse Cracking Index	94				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	67				

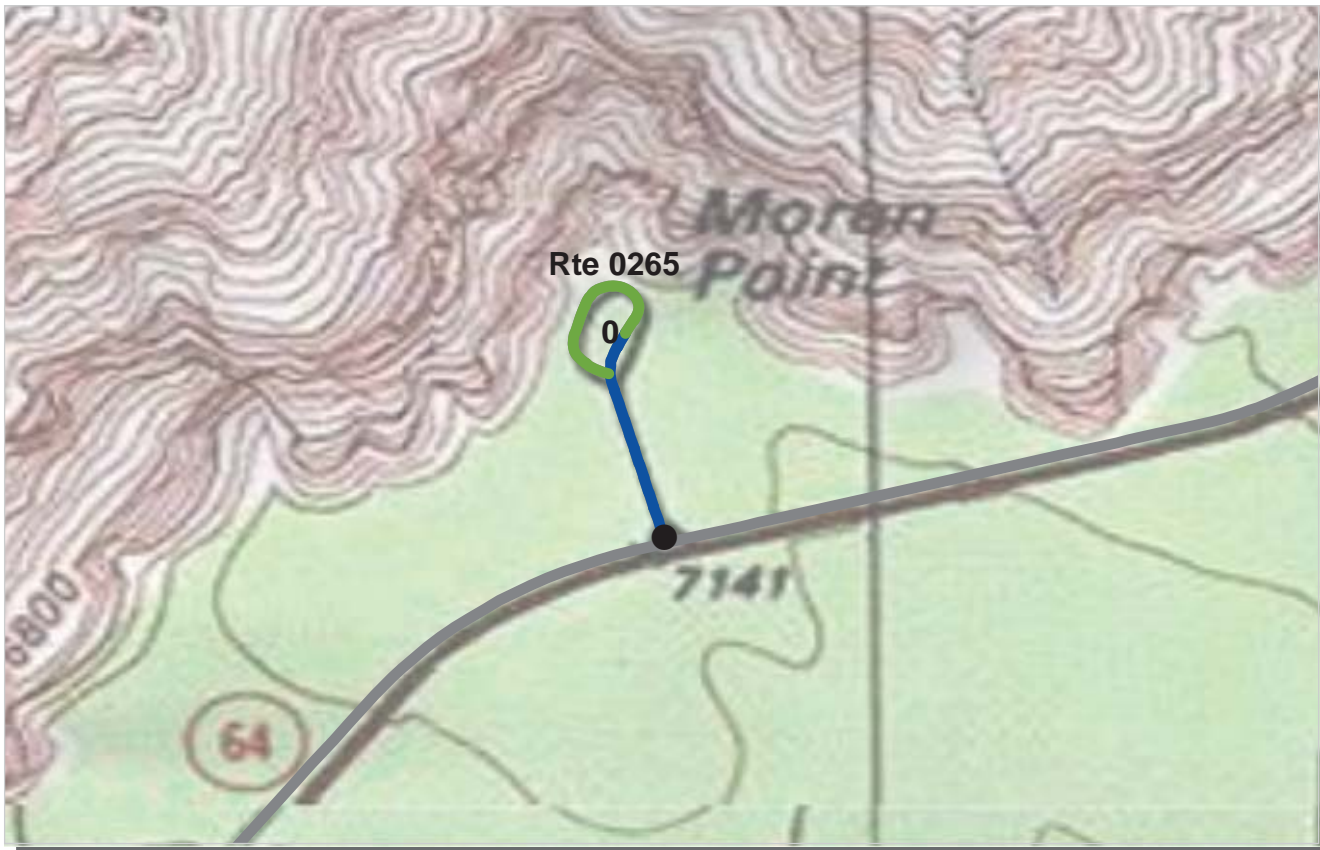
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0264 GRANDVIEW POINT ROAD



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: 0265 MORAN POINT ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.25 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.25				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	19				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	95				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Structural Crack Index	97				
Transverse Cracking Index	95				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

NOTES:

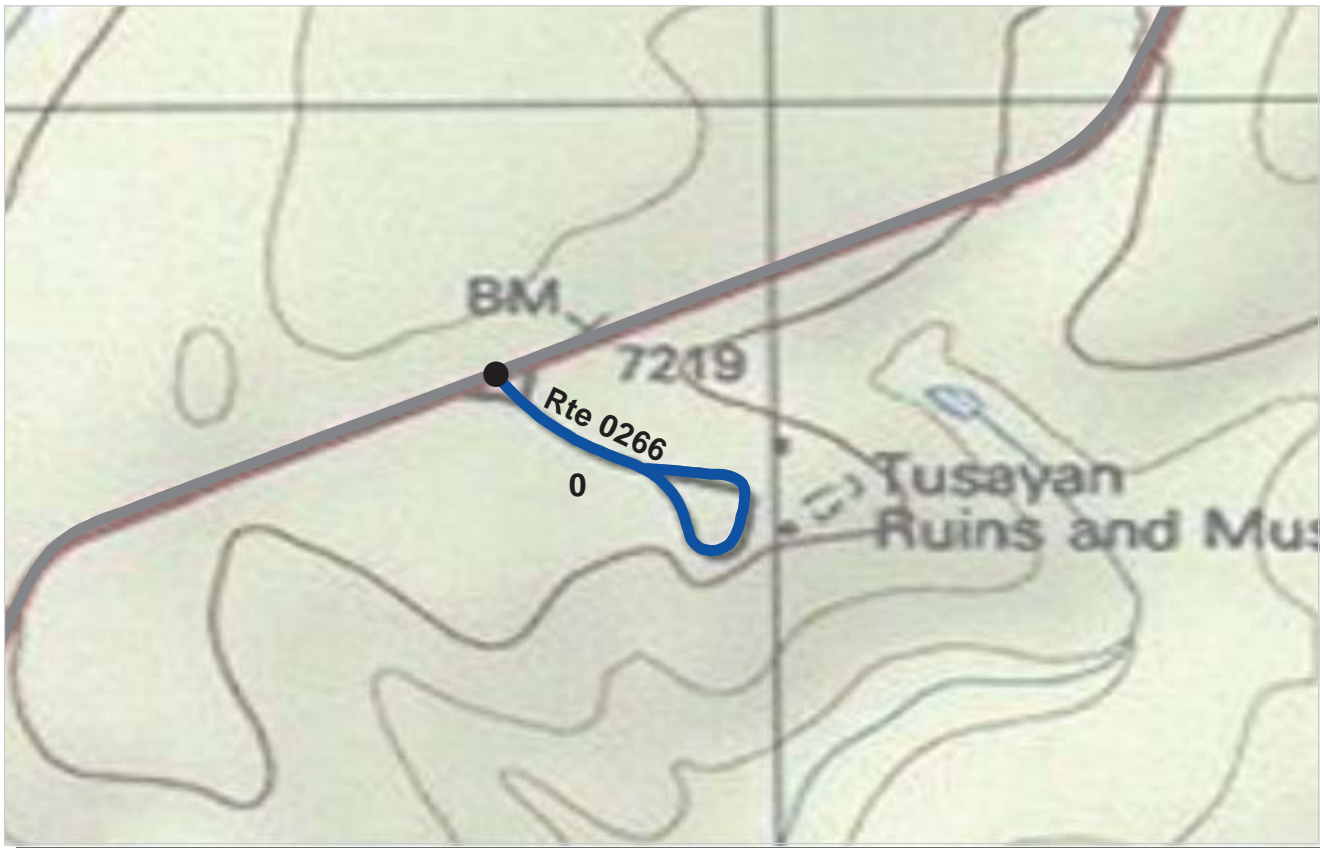
Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0265 MORAN POINT ROAD



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: 0266 TUSAYAN RUIN ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.27 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.27				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	18				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	97				
PCR (Pavement Condition Rating)	97				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0266 TUSAYAN RUIN ROAD



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: 0267 LIPAN POINT ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.44 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.44				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	24				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	98				
PCR (Pavement Condition Rating)	98				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

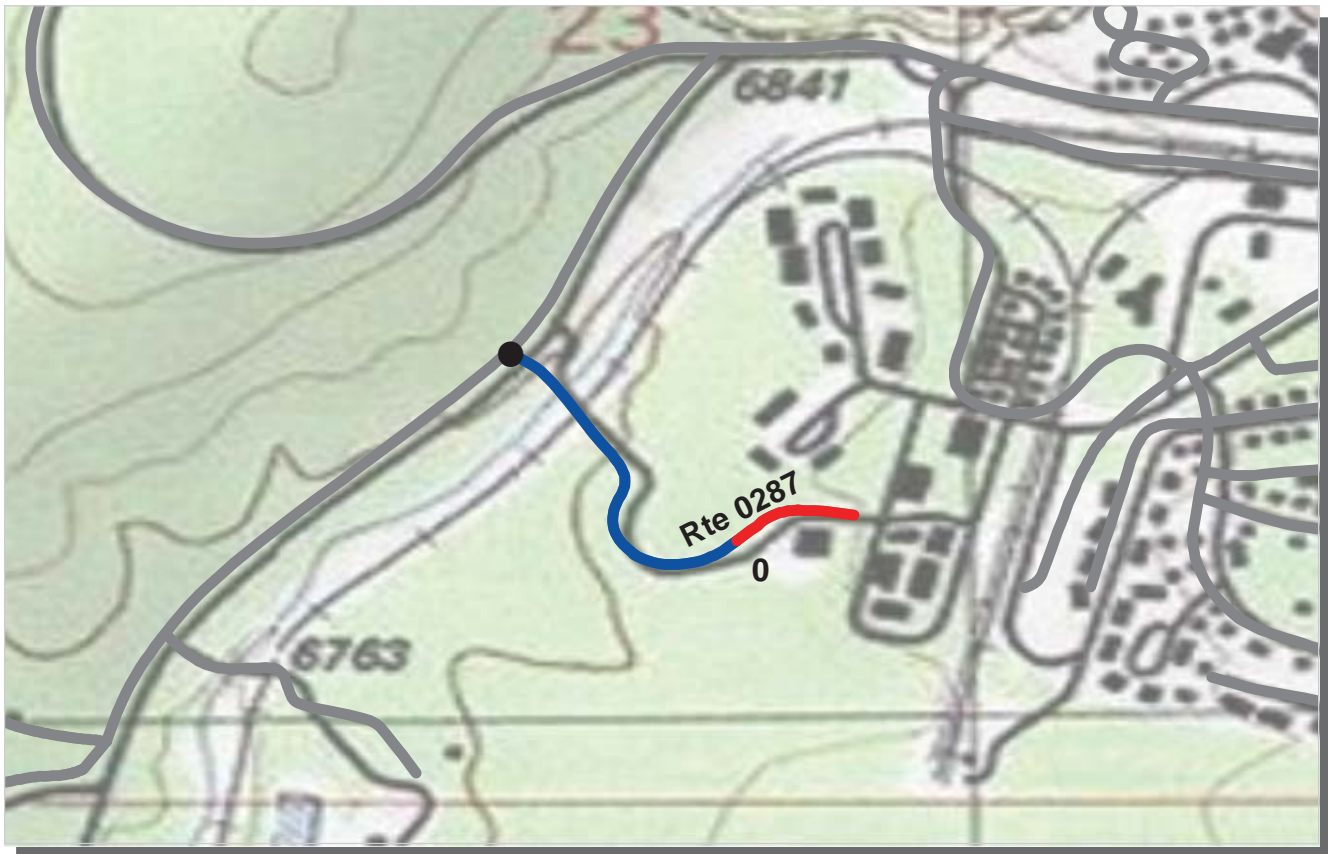
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0267 LIPAN POINT ROAD



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: 0287 ACCESS ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.29 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.29				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	10				
Roadway Condition Information					
SCR (Surface Condition Rating)	85				
PCR (Pavement Condition Rating)	85				
Distress Index Values					
Structural Crack Index	85				
Transverse Cracking Index	97				
Patching Index	99				
Rutting Index	97				
Roughness Condition Index (RCI)	NC				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0287 ACCESS ROAD



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: 0301 RAILROAD TRACK ACCESS ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.23 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.23				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	16				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	91				
Distress Index Values					
Structural Crack Index	99				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	79				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0301 RAILROAD TRACK ACCESS ROAD



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: 0402 SERVICE ROAD TO SUPAI CAMP
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.24 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.24				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	13				
Lane Width (ft)	6				
Roadway Condition Information					
SCR (Surface Condition Rating)	83				
PCR (Pavement Condition Rating)	83				
Distress Index Values					
Structural Crack Index	83				
Transverse Cracking Index	99				
Patching Index	100				
Rutting Index	94				
Roughness Condition Index (RCI)	NC				

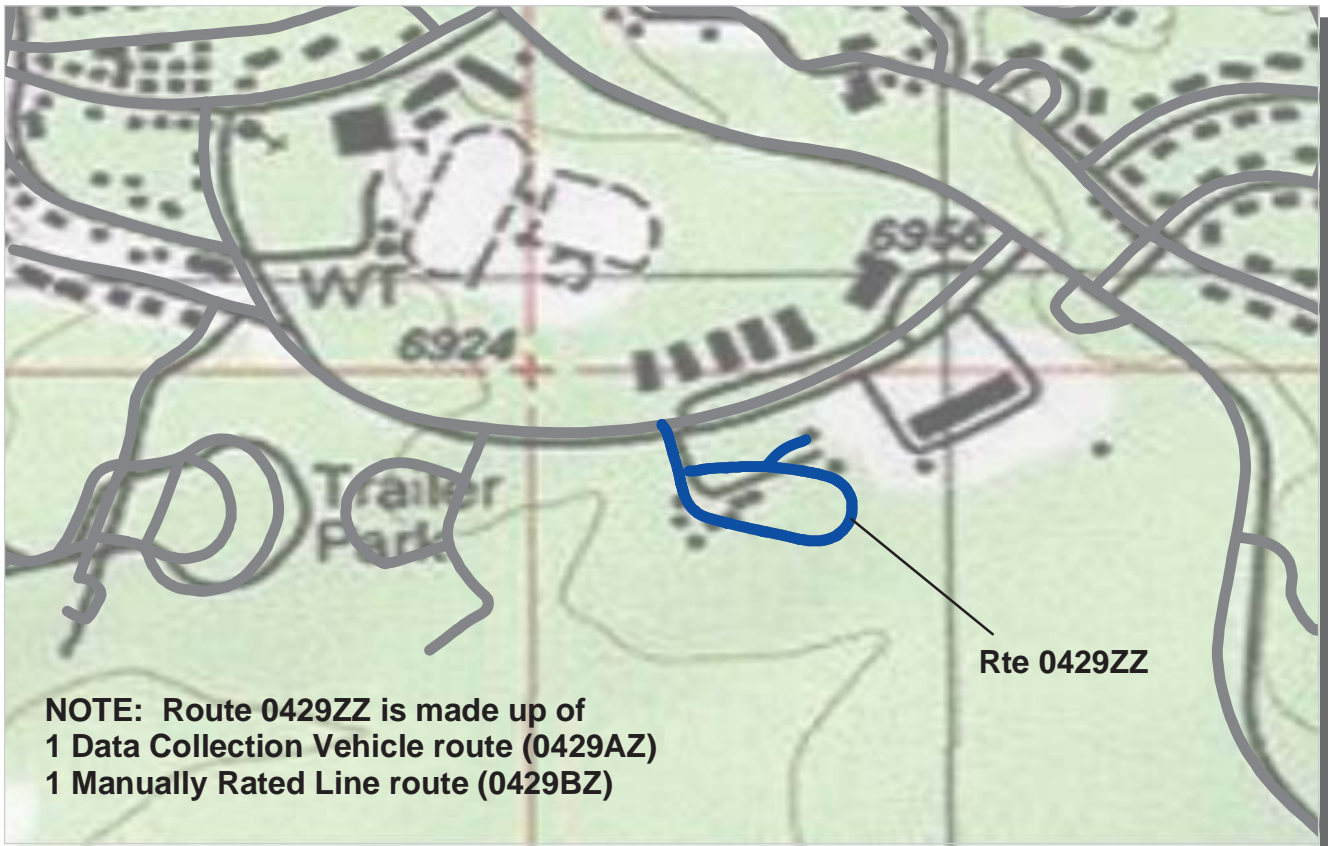
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0402 SERVICE ROAD TO SUPAI CAMP



**NOTE: Route 0429ZZ is made up of
1 Data Collection Vehicle route (0429AZ)
1 Manually Rated Line route (0429BZ)**

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: 0429ZZ PAIUTE COURT ROADS
GRCA : GRAND CANYON NATIONAL PARK**

Summary Record COLLECTED: 6/8/2012
 INTERMOUNTAIN REGION TOTAL LENGTH: 0.29 Miles

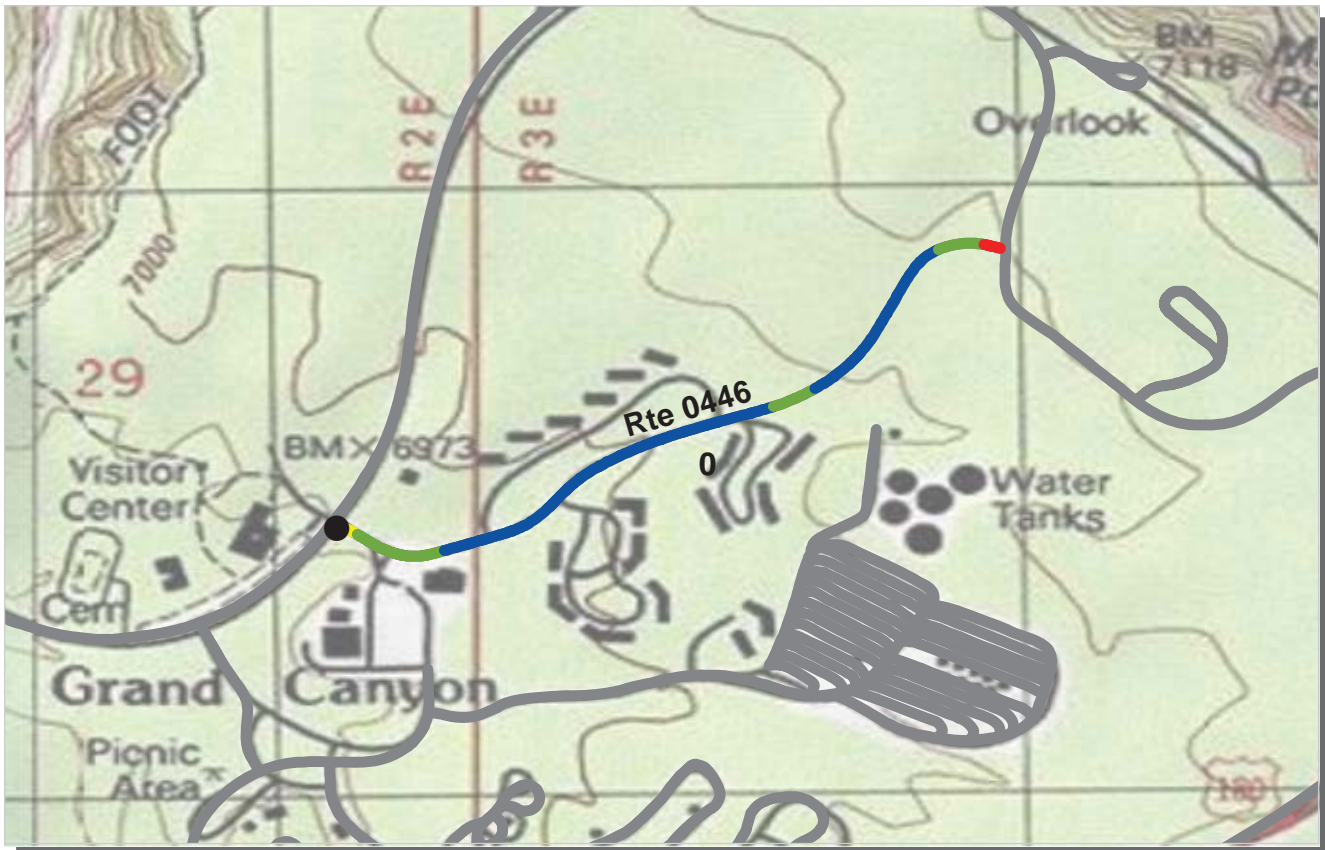
Section Number					
Section Length (mi)					
Cross Section Information					
Number of Lanes	N/A				
Paved Width (ft)	N/A				
Lane Width (ft)	N/A				
Roadway Condition Information					
SCR (Surface Condition Rating)	100				
PCR (Pavement Condition Rating)	98				
Distress Index Values					
Structural Crack Index	N/A				
Transverse Cracking Index	N/A				
Patching Index	N/A				
Rutting Index	N/A				
Roughness Condition Index (RCI)	N/A				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0429ZZ PAIUTE COURT ROADS



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: 0446 WEST SHUTTLE ACCESS ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.69 Miles

INTERMOUNTAIN REGION

<i>Section Number</i>	0				
<i>Section Length (mi)</i>	0.69				
<i>Cross Section Information</i>					
Number of Lanes	2				
Paved Width (ft)	29				
Lane Width (ft)	12				
<i>Roadway Condition Information</i>					
SCR (Surface Condition Rating)	96				
PCR (Pavement Condition Rating)	98				
<i>Distress Index Values</i>					
Structural Crack Index	98				
Transverse Cracking Index	96				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	100				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0446 WEST SHUTTLE ACCESS ROAD



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: 0447 EAST SHUTTLE ACCESS ROAD
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.25 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.25				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	30				
Lane Width (ft)	15				
Roadway Condition Information					
SCR (Surface Condition Rating)	NC				
PCR (Pavement Condition Rating)	0				
Distress Index Values					
Structural Crack Index	NC				
Transverse Cracking Index	NC				
Patching Index	NC				
Rutting Index	NC				
Roughness Condition Index (RCI)	0				

NOTES:

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

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

NC - Not Collected N/A - Not Applicable



ROUTE: 0447 EAST SHUTTLE ACCESS ROAD



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: 0502 SOUTH ENTRANCE BYPASS LANE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.45 Miles

INTERMOUNTAIN REGION

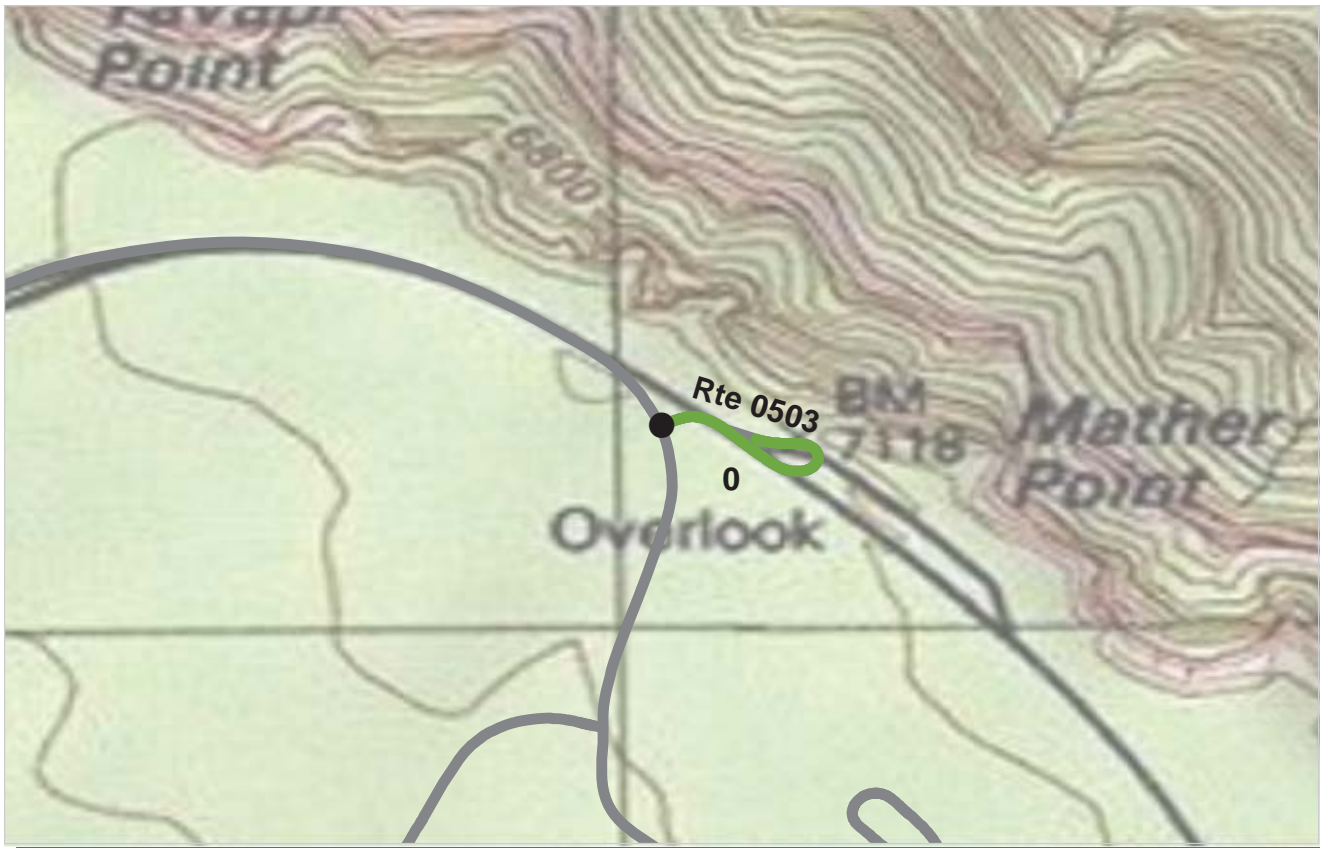
Section Number	0				
Section Length (mi)	0.45				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	18				
Lane Width (ft)	13				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	99				
Distress Index Values					
Structural Crack Index	100				
Transverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	NC				

NOTES:

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



ROUTE: 0502 SOUTH ENTRANCE BYPASS LANE



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: 0503 MATHER POINT SHUTTLE LOOP
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.14 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.14				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	27				
Lane Width (ft)	19				
Roadway Condition Information					
SCR (Surface Condition Rating)	NC				
PCR (Pavement Condition Rating)	90				
Distress Index Values					
Structural Crack Index	NC				
Transverse Cracking Index	NC				
Patching Index	NC				
Rutting Index	NC				
Roughness Condition Index (RCI)	NC				

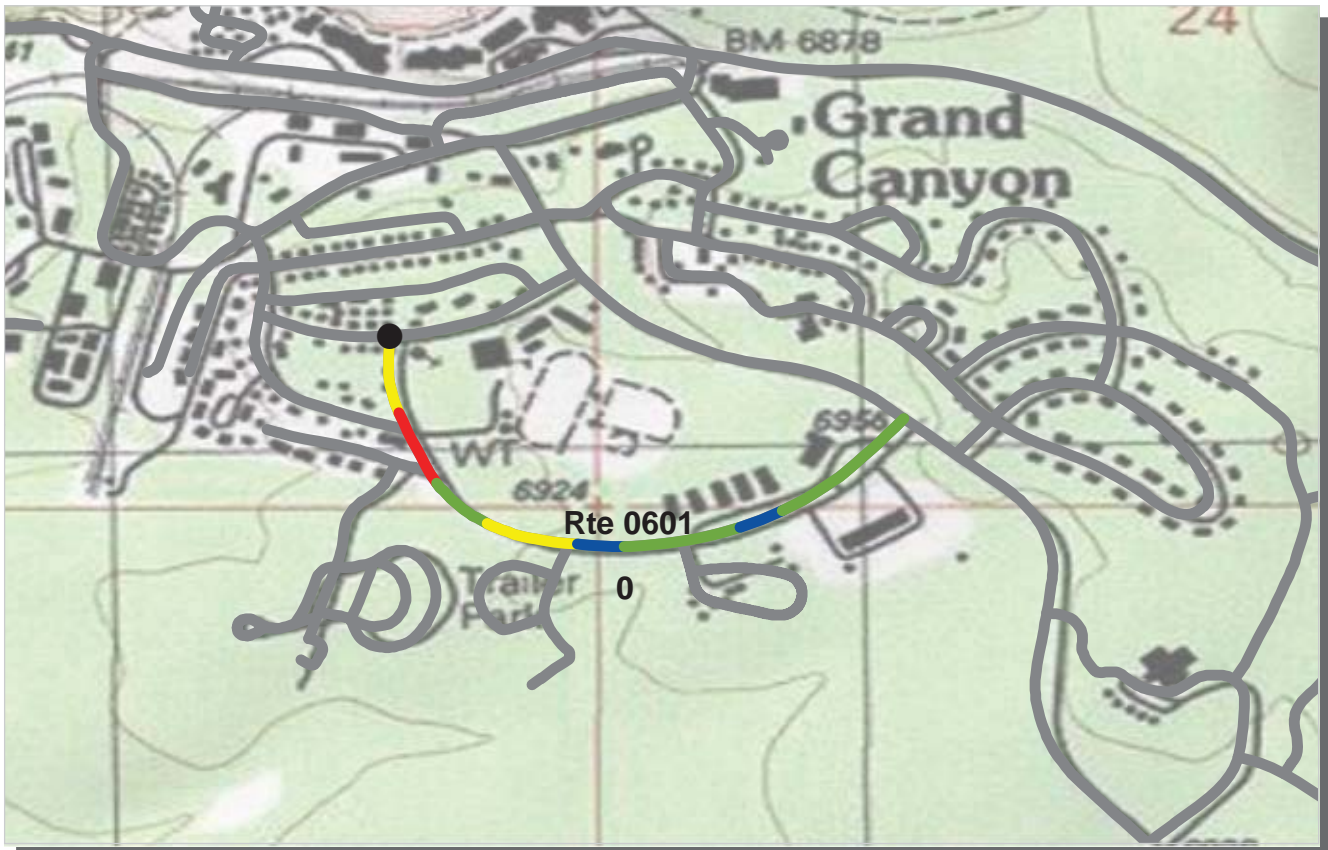
NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable



ROUTE: 0503 MATHER POINT SHUTTLE LOOP



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: 0601 ALBRIGHT AVENUE
GRCA : GRAND CANYON NATIONAL PARK

COLLECTED: 6/8/2012
TOTAL LENGTH: 0.62 Miles

INTERMOUNTAIN REGION

Section Number	0				
Section Length (mi)	0.62				
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	23				
Lane Width (ft)	11				
Roadway Condition Information					
SCR (Surface Condition Rating)	92				
PCR (Pavement Condition Rating)	83				
Distress Index Values					
Structural Crack Index	96				
Transverse Cracking Index	92				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	69				

NOTES:

Structural Crack Index is a combination of the Longitudinal Cracking Index and Alligator Cracking Index.
 See Section 10 for explanation of SCR, PCR, & all Distress Index Values.

NC - Not Collected N/A - Not Applicable

ROUTE: 0601 ALBRIGHT AVENUE

Section 6
**Manually Rated Paved Route
Condition Rating Sheets**



Grand Canyon National Park



**Federal Lands Highway
Road Inventory Program**

GRAND CANYON NATIONAL PARK

Route 0429ZZ

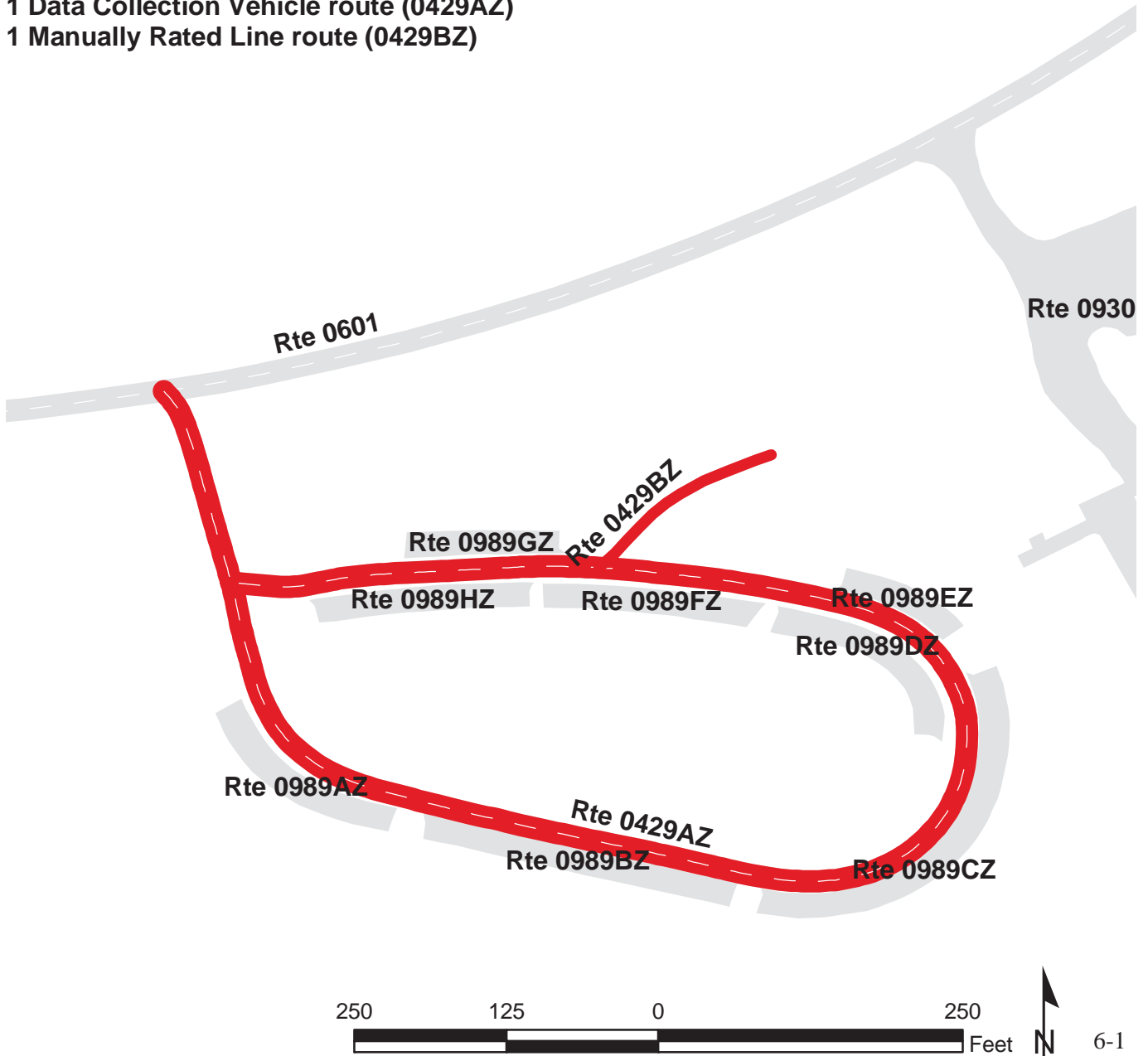
PAIUTE COURT ROADS
 FROM ROUTE 0601 (ALBRIGHT AVENUE)
 TO END

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Paved Length (mi)	Paved Width (ft)
0429ZZ	PUBLIC	6/8/2012	N/A	0.63	0.29	23.9
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR	Surface Type
NC	NC	0	N/A	N/A	SUMMARY/98	AS

* Lane miles are based on 11' lane widths

NOTE: Route 0429ZZ is made up of
 1 Data Collection Vehicle route (0429AZ)
 1 Manually Rated Line route (0429BZ)



GRAND CANYON NATIONAL PARK

Route 0429BZ

PAIUTE COURT B

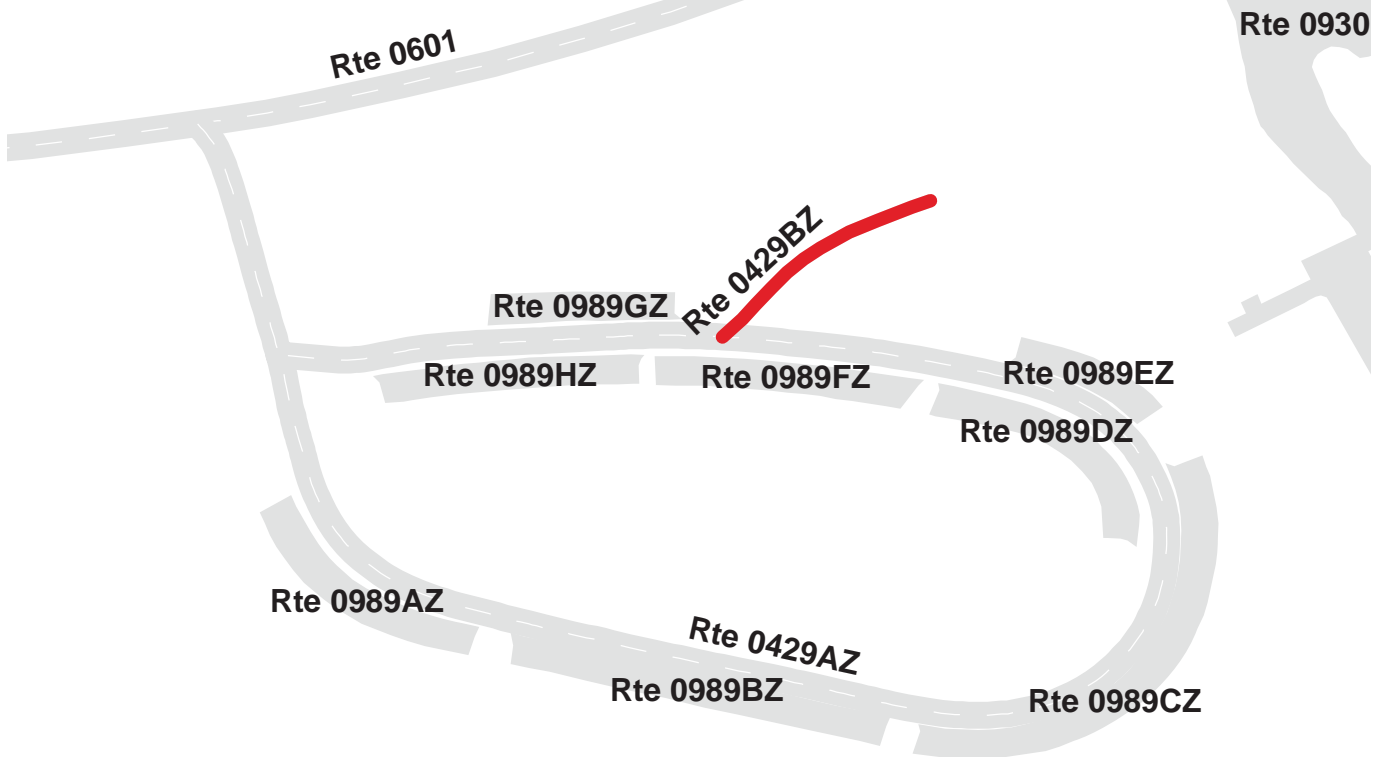
FROM ROUTE 0429AZ (PAIUTE COURT A)

TO END

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Paved Length (mi)	Paved Width (ft)
0429BZ	PUBLIC	8/15/2011	2,365	0.04	0.03	16
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR	Surface Type
0	0	0	NO CURB AND GUTTER	NO CURB	FAIR/73	AS

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0504

CONC VILLAGE LOOP CONCESSION HOUSING ACCESS ROAD
FROM ROUTE 0500 (VILLAGE LOOP DRIVE)
TO END

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0504	PUBLIC	6/8/2012	6,218	0.11	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



Rte 0301

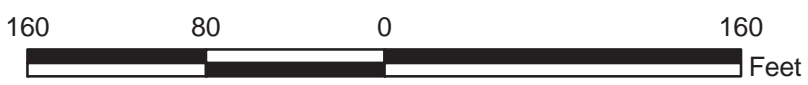
Rte 0500



Rte 0504



Rte 0933



Section 7
Parking Area
Condition Rating Sheets



Grand Canyon National Park



Federal Lands Highway
Road Inventory Program

GRAND CANYON NATIONAL PARK

Route 0924ZZ

RANGER OPERATIONS AND MAGISTRATE PARKING

FROM ROUTE 0016 (CENTER ROAD) AT MP 1.59

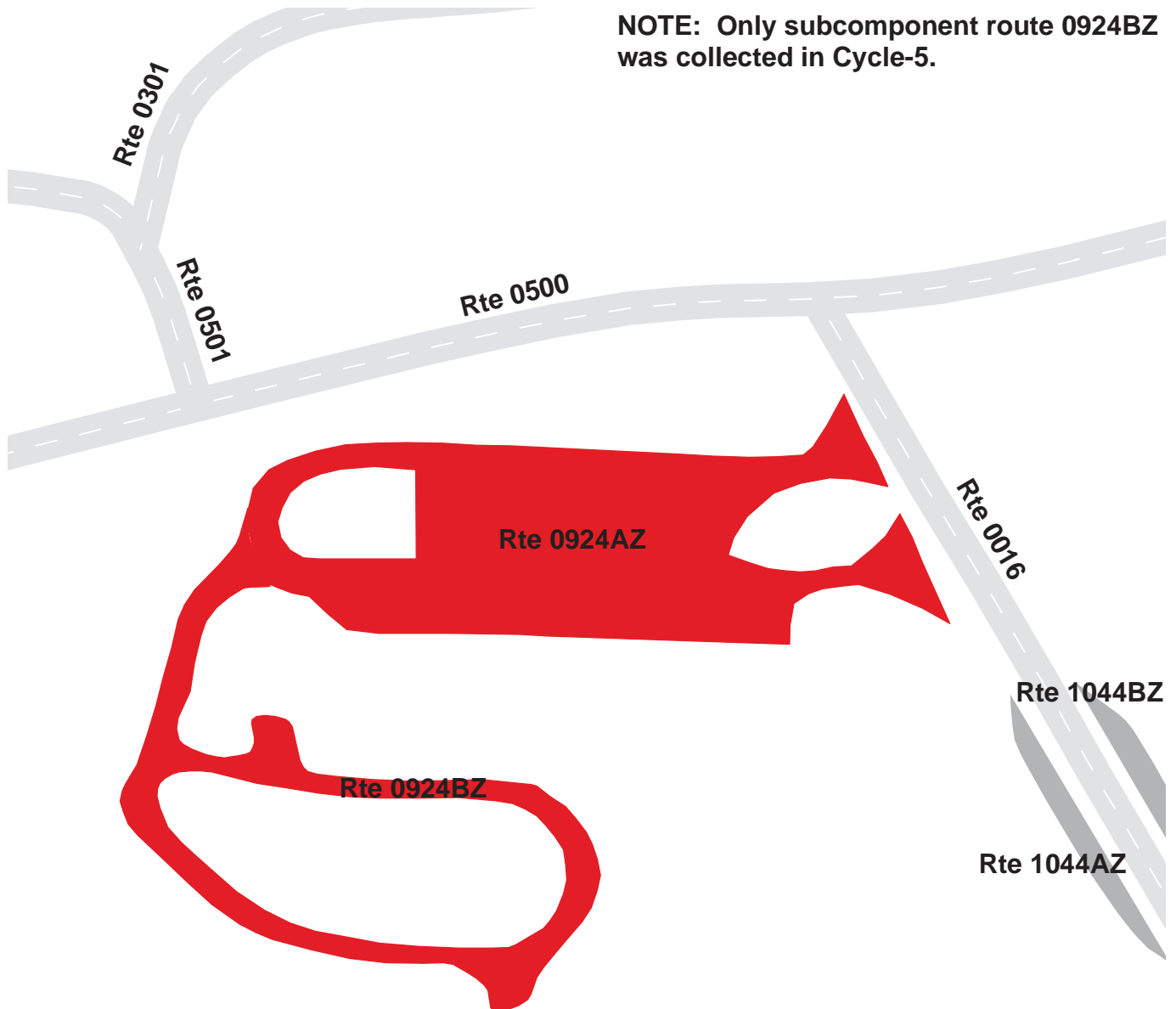
TO PARKING

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0924ZZ	PUBLIC	8/15/2011	25,415	0.44	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
N/A	N/A	N/A	N/A	N/A	SUMMARY/N/A

* Lane miles are based on 11' lane widths

NOTE: Only subcomponent route 0924BZ was collected in Cycle-5.



GRAND CANYON NATIONAL PARK

Route 0924BZ

MAGISTRATE EMPLOYEE

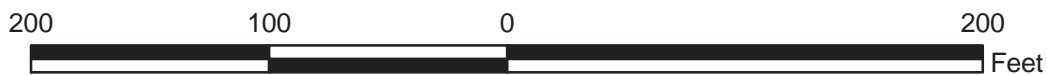
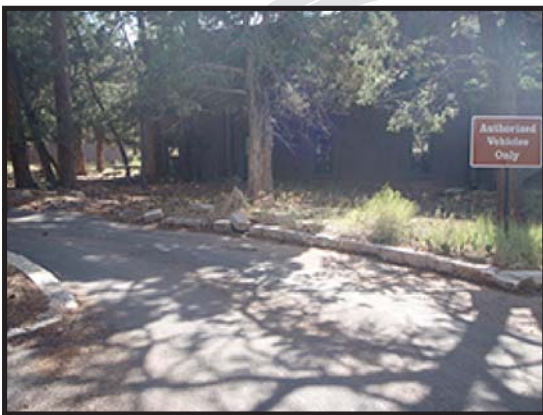
FROM ROUTE 0924AZ (RANGER OPERATIONS PARKING)

TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0924BZ	PUBLIC	8/15/2011	7,206	0.12	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	STONE CURB	POOR/45

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

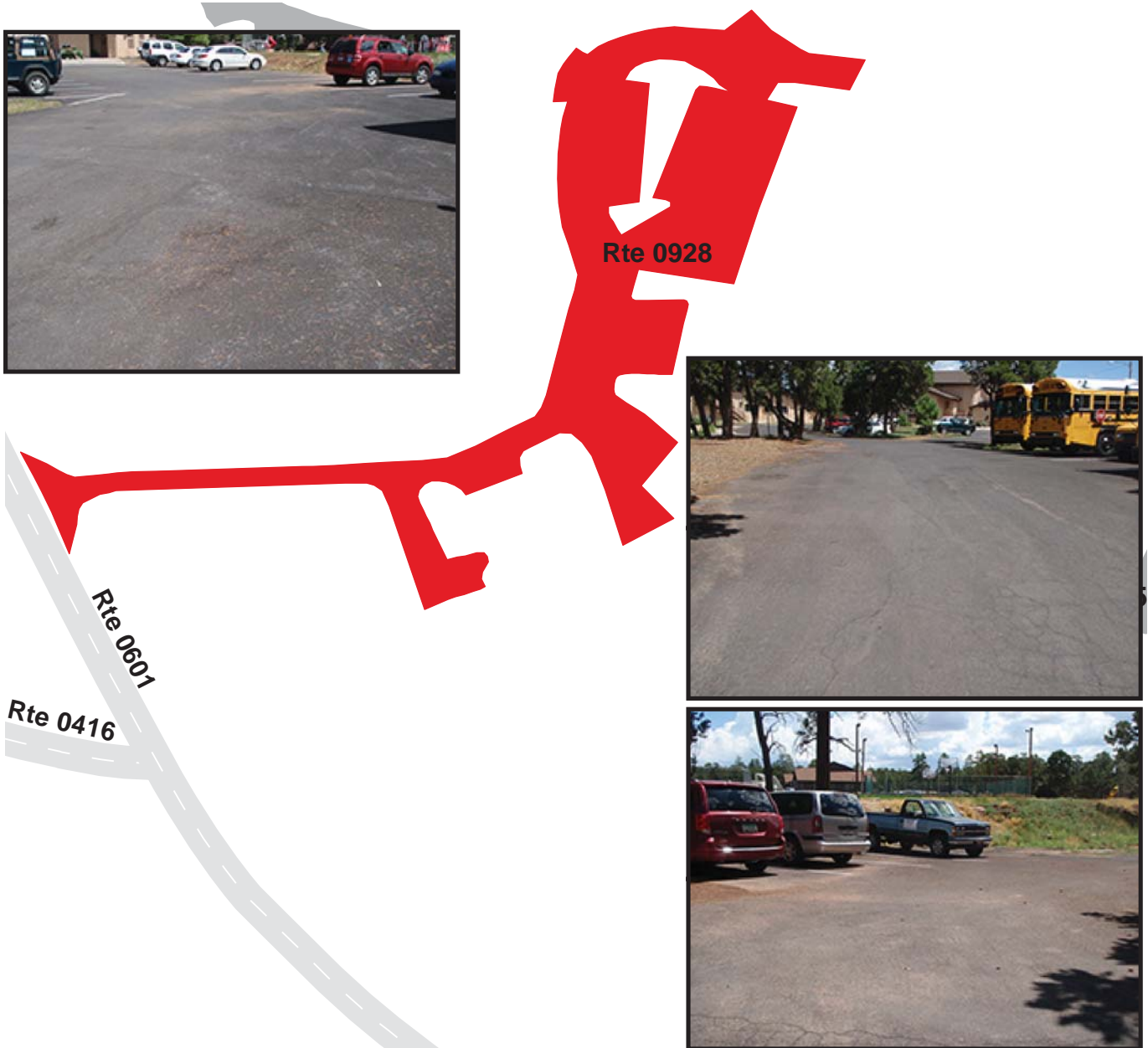
Route 0928

COCONINO SCHOOL PARKING

FROM ROUTE 0601 (ALBRIGHT AVENUE) AND END OF ROUTE 0408 (COCONINO ROAD)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0928	PUBLIC	8/15/2011	38,898	0.67	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	1	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

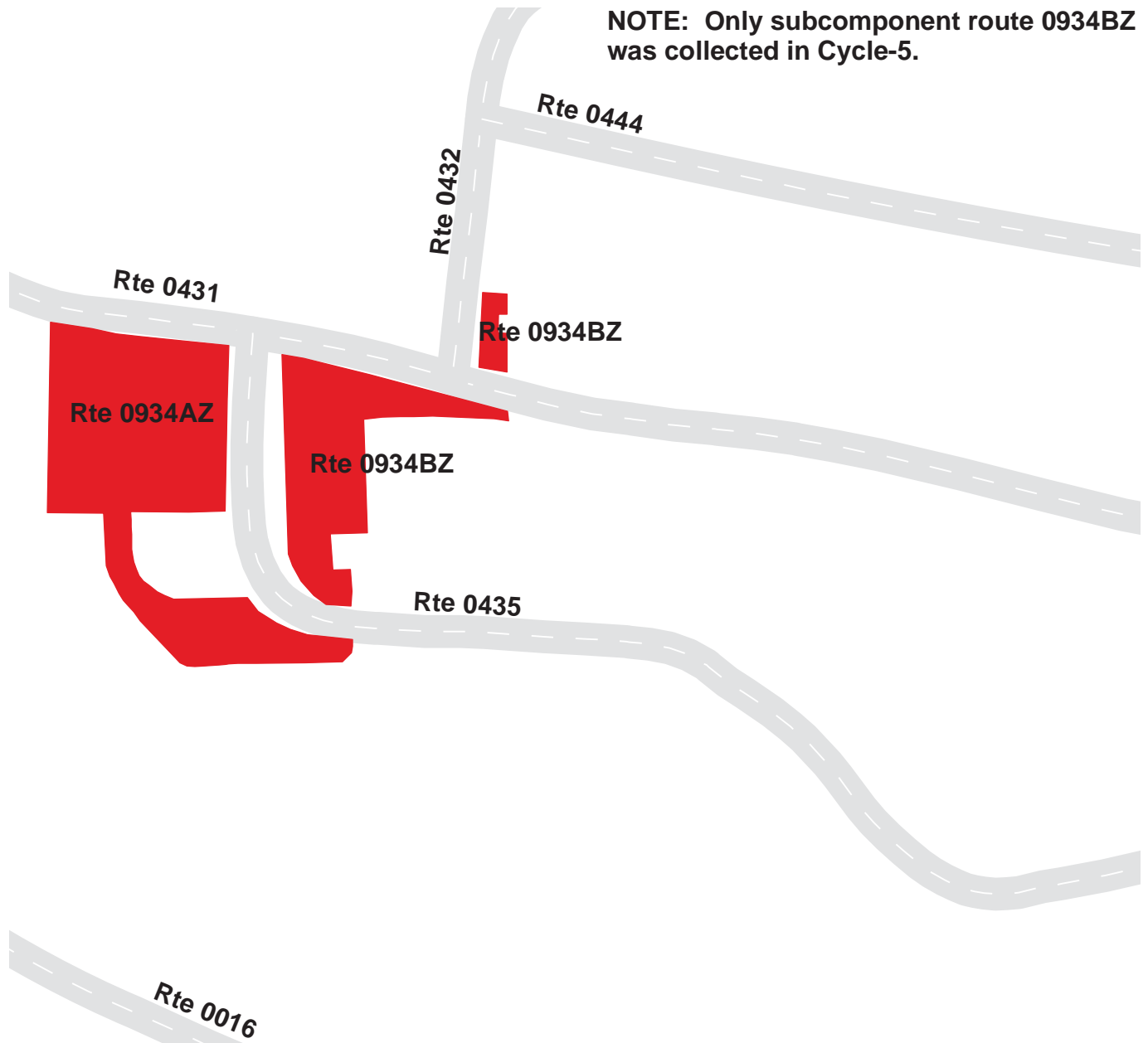
Route 0934ZZ

STABLE PARKING AREAS
FROM ROUTE 0431 (JUNIPER HILL)
TO PARKING
Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0934ZZ	PUBLIC	8/15/2011	30,595	0.53	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
N/A	N/A	N/A	N/A	N/A	SUMMARY/N/A

* Lane miles are based on 11' lane widths

NOTE: Only subcomponent route 0934BZ was collected in Cycle-5.



GRAND CANYON NATIONAL PARK

Route 0934BZ

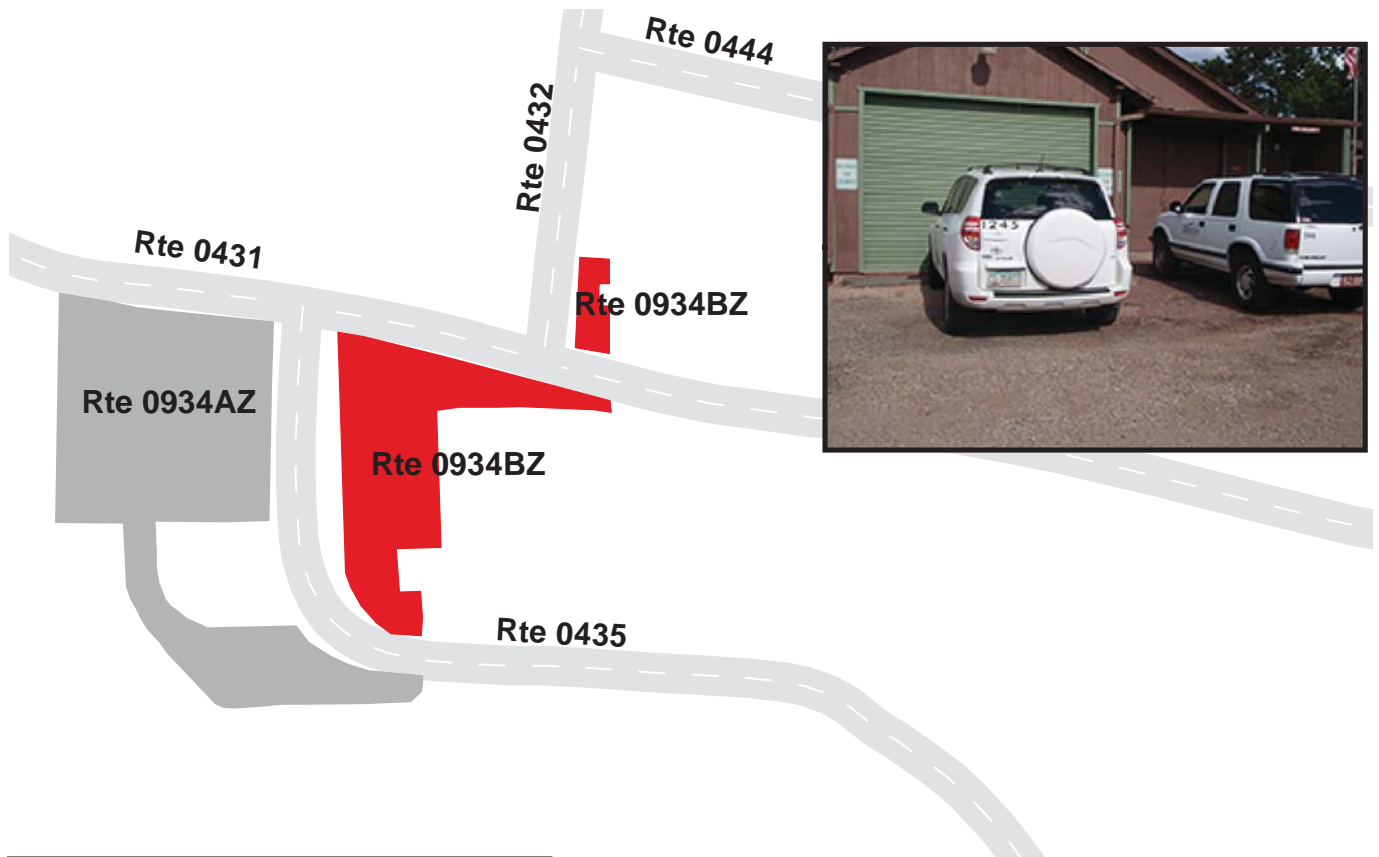
STABLE PARKING AREA B

FROM ROUTE 0435 (SUNSET DRIVE) ON LEFT AND ROUTE 0432 (NAVAJO STREET)
TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0934BZ	PUBLIC	8/15/2011	10,223	0.18	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	NO CURB	POOR/45

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989ZZ

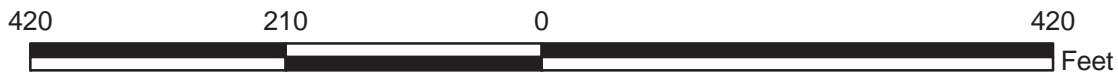
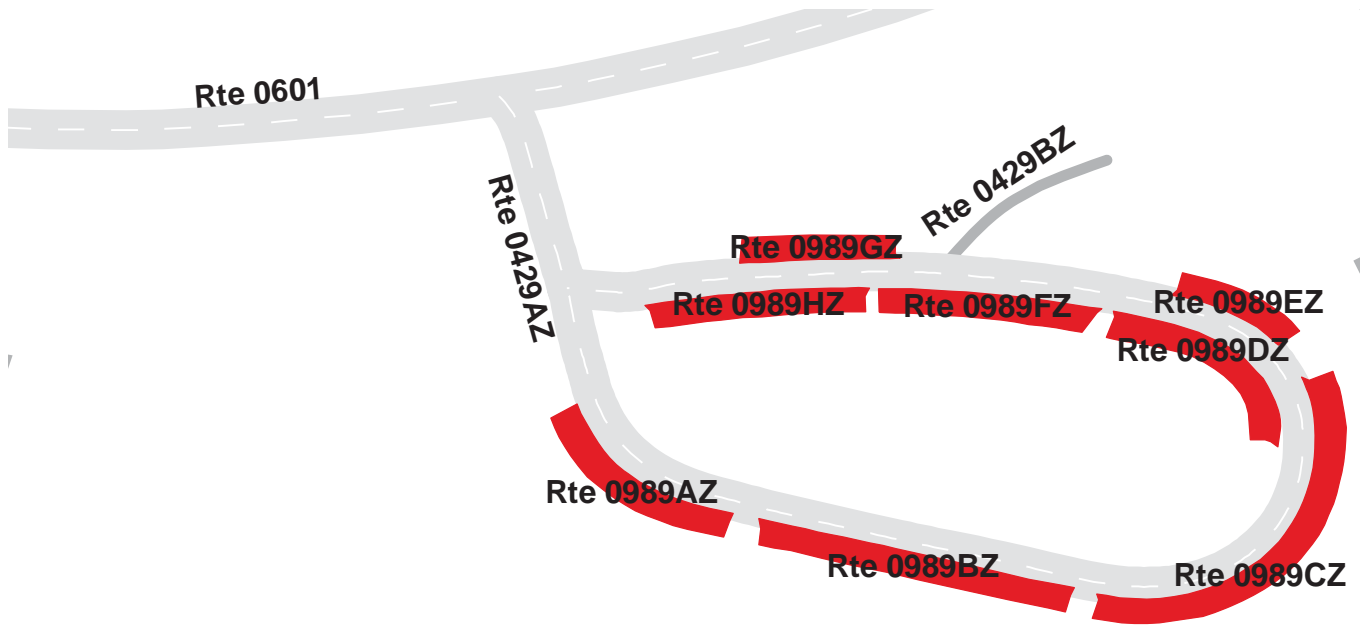
PAIUTE APARTMENTS PARKING AREAS

ADJACENT TO ROUTE 0429ZZ (PAIUTE COURT ROADS) ON LEFT AND RIGHT

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989ZZ	PUBLIC	8/15/2011	26,135	0.45	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	SUMMARY/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989AZ

PAIUTE APARTMENTS PARKING A

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989AZ	PUBLIC	8/15/2011	3,188	0.06	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

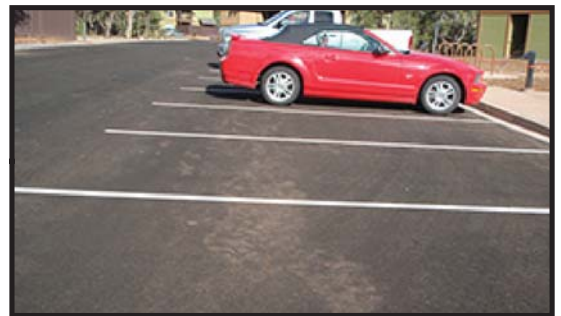
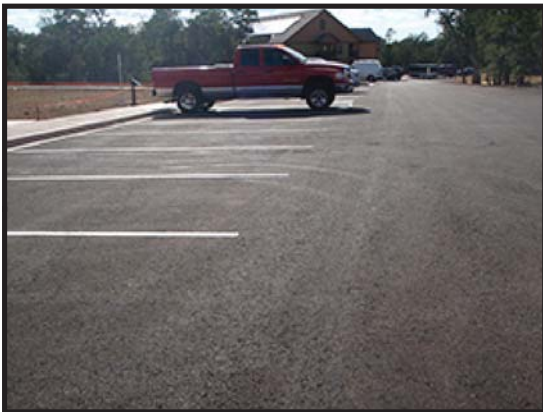
Route 0989BZ

PAIUTE APARTMENTS PARKING B
 ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989BZ	PUBLIC	8/15/2011	4,352	0.08	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989CZ

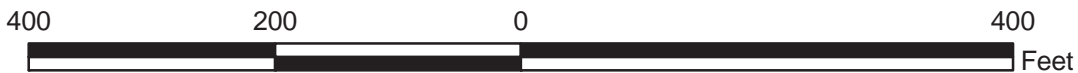
PAIUTE APARTMENTS PARKING C

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989CZ	PUBLIC	8/15/2011	5,914	0.10	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989DZ

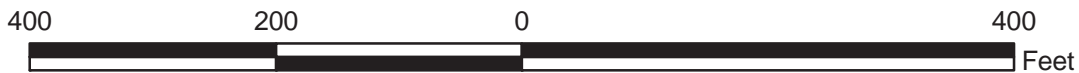
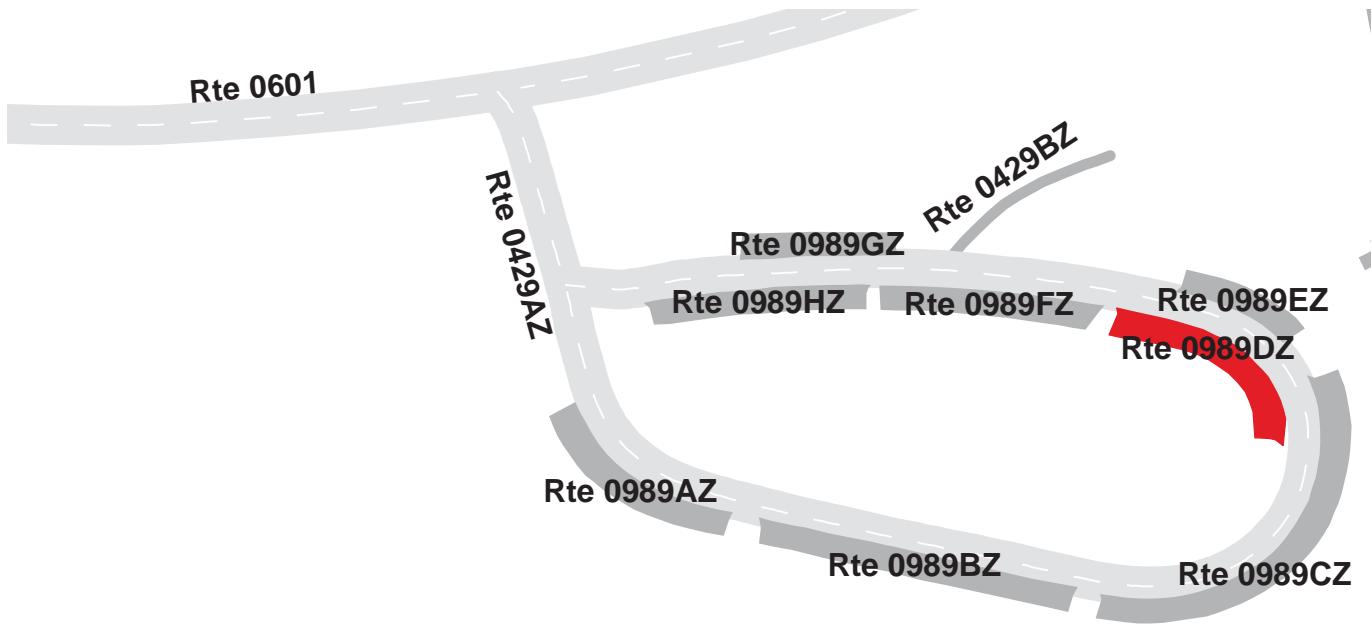
PAIUTE APARTMENTS PARKING D

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON LEFT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989DZ	PUBLIC	8/15/2011	3,143	0.05	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989EZ

PAIUTE APARTMENTS PARKING E

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989EZ	PUBLIC	8/15/2011	1,703	0.03	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989FZ

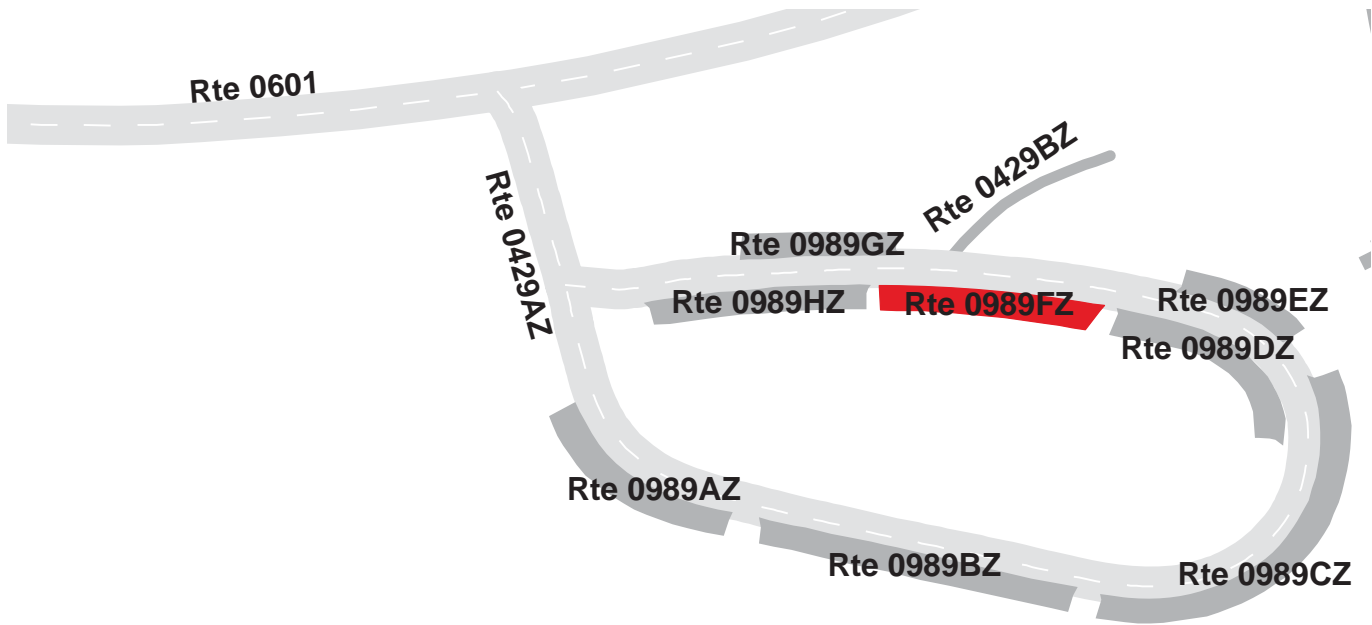
PAIUTE APARTMENTS PARKING F

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON LEFT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989FZ	PUBLIC	8/15/2011	2,914	0.05	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989GZ

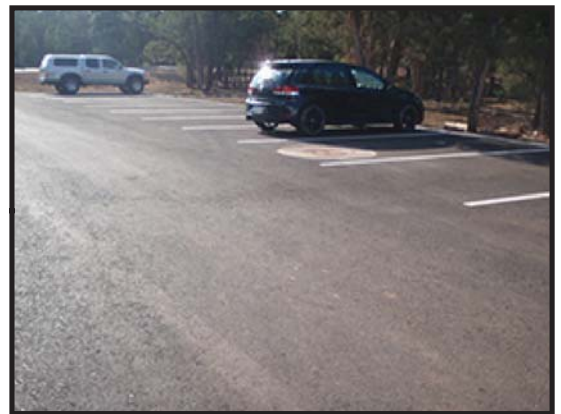
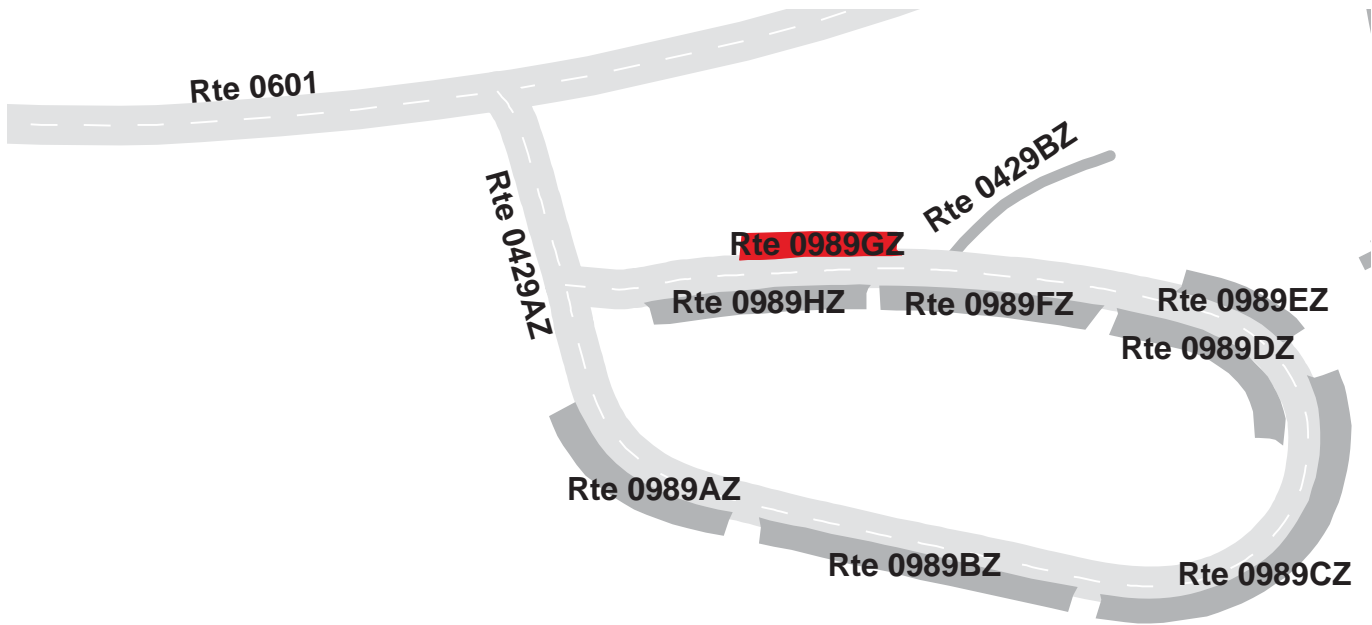
PAIUTE APARTMENTS PARKING G

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON RIGHT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989GZ	PUBLIC	8/15/2011	2,043	0.04	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0989HZ

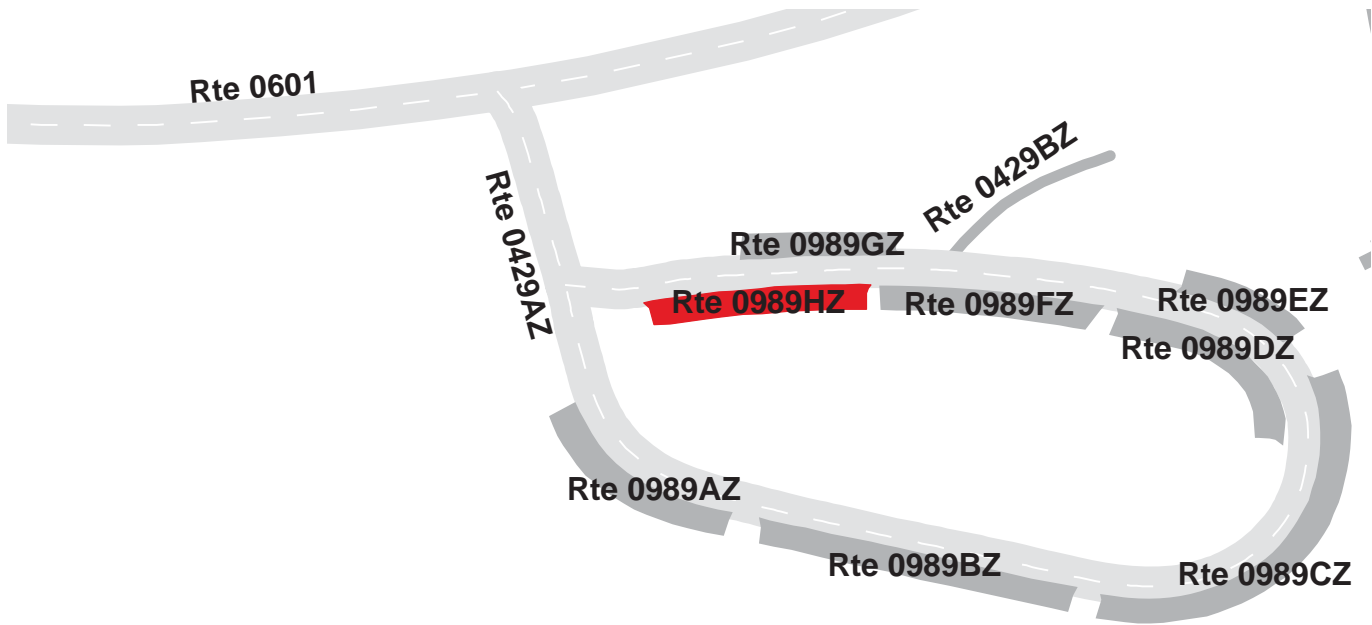
PAIUTE APARTMENTS PARKING H

ADJACENT TO ROUTE 0429AZ (PAIUTE COURT A) ON LEFT

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0989HZ	PUBLIC	8/15/2011	2,878	0.05	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	CONCRETE CURB AND GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 0993

BOOK STORE EMPLOYEE PARKING
FROM ROUTE 1054ZZ (VISITOR CENTER PARKING AREAS)
TO PARKING

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
0993	NONPUBLIC	8/15/2011	4,761	0.08	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
1	0	0	NO CURB AND GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 1014ZZ

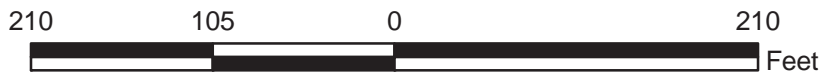
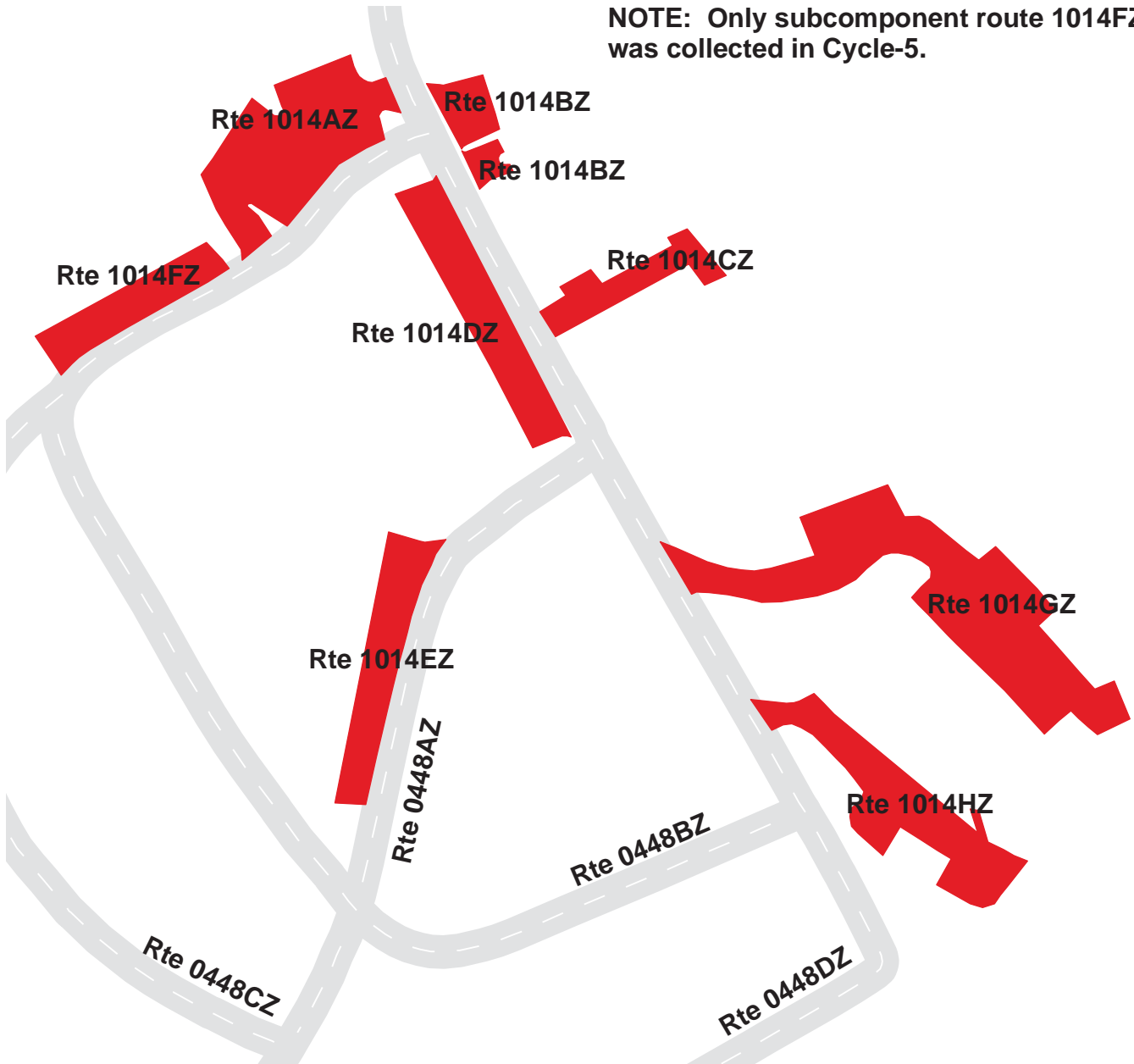
CONCESSIONAIRE DORM PARKING AREAS
ADJACENT TO ROUTE 0448ZZ (CONCESSIONAIRE ROADS)

Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1014ZZ	PUBLIC	8/12/2011	39,298	0.68	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
N/A	N/A	N/A	N/A	N/A	SUMMARY/N/A

* Lane miles are based on 11' lane widths

NOTE: Only subcomponent route 1014FZ was collected in Cycle-5.



GRAND CANYON NATIONAL PARK

Route 1014FZ

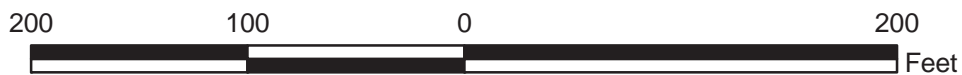
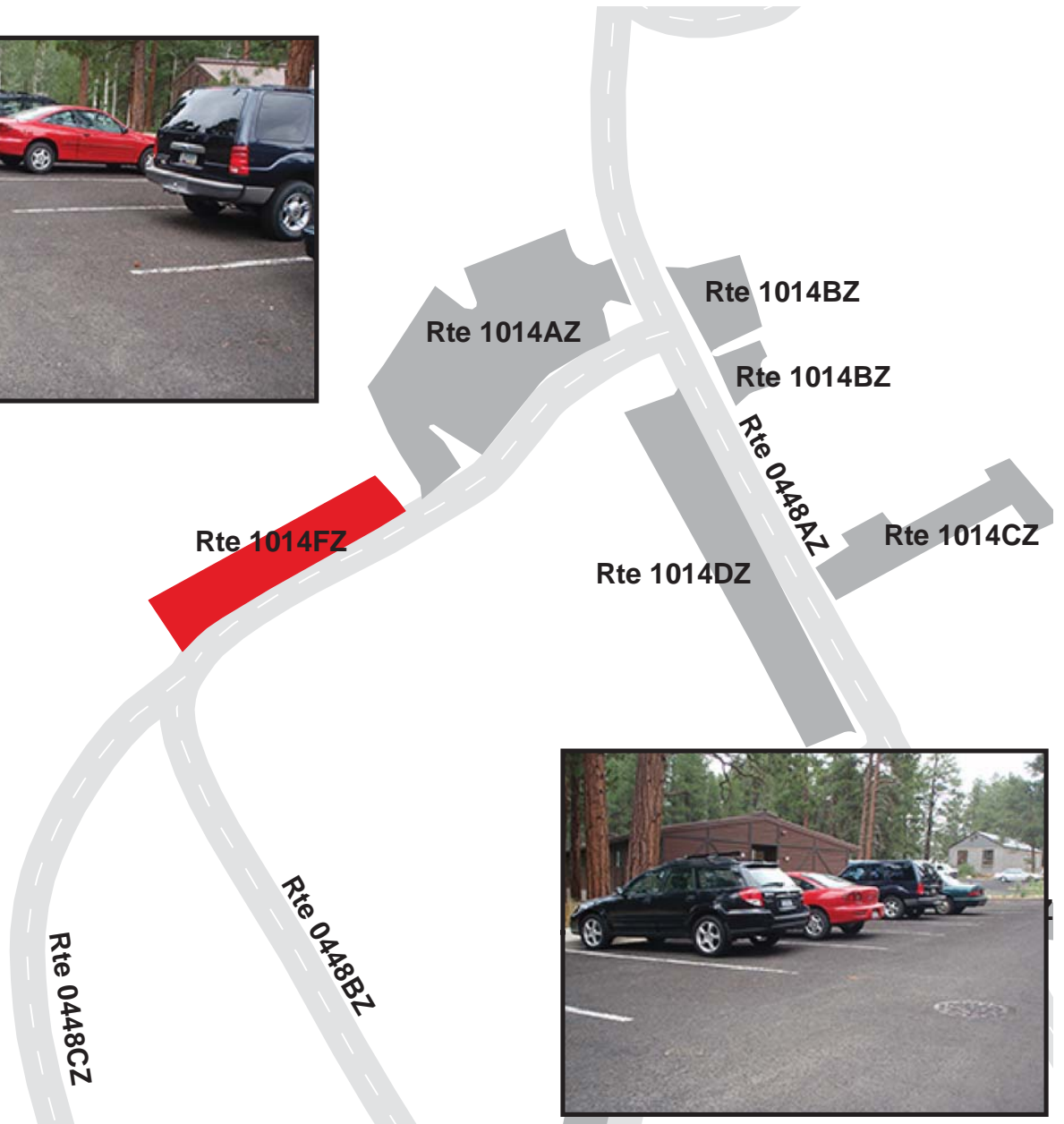
CONCESSIONAIRE DORM PARKING #3

ADJACENT TO ROUTE 0448BZ (CONCESSIONAIRE RESIDENCE ROAD)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1014FZ	PUBLIC	8/12/2011	2,771	0.05	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	1	0	CONCRETE CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



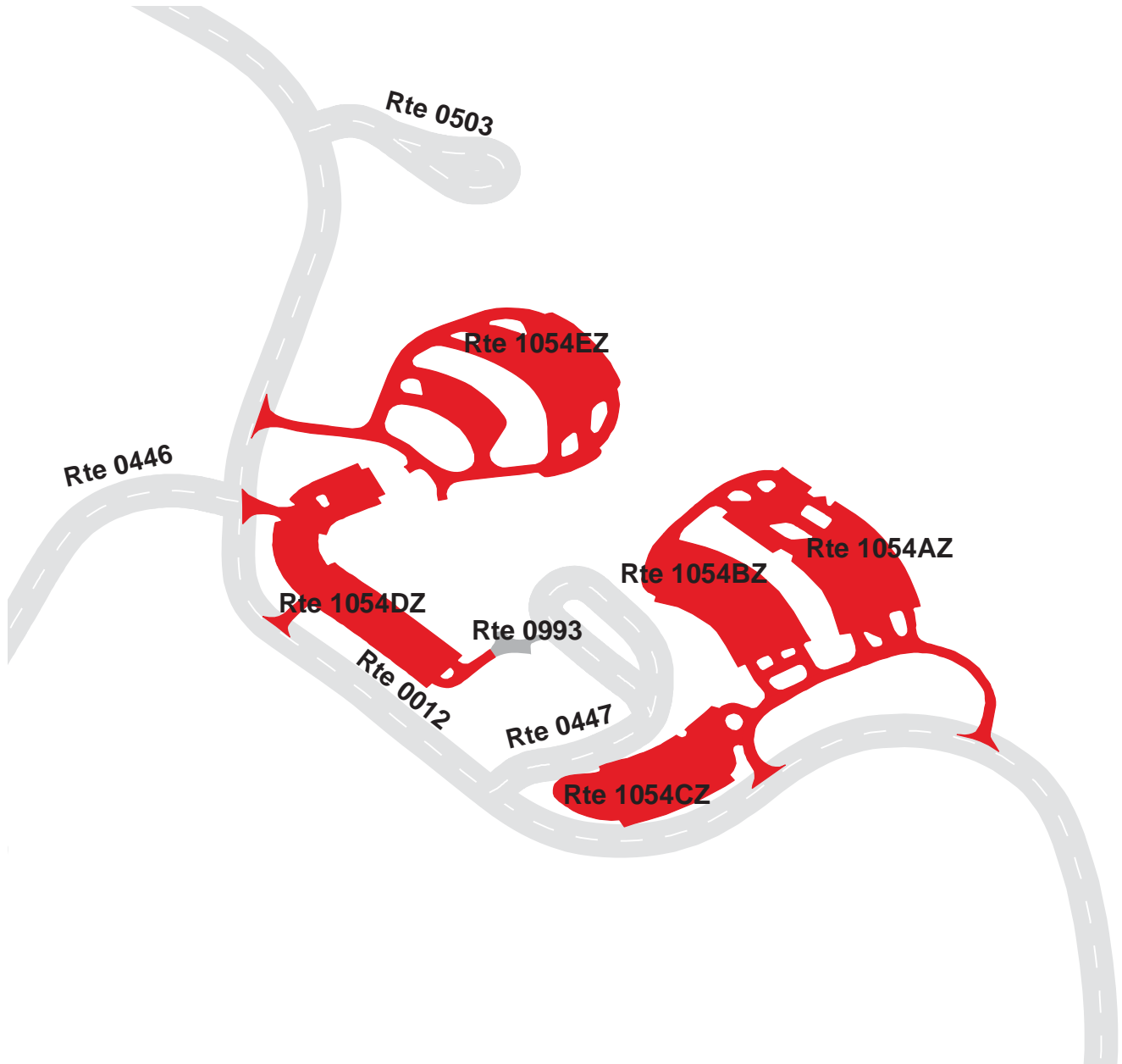
GRAND CANYON NATIONAL PARK

Route 1054ZZ

VISITOR CENTER PARKING AREAS
FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)
TO PARKING
Summary Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1054ZZ	PUBLIC	8/15/2011	537,373	9.25	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
1	2	0	NO CURB AND GUTTER	CONCRETE CURB	SUMMARY/90

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 1054AZ

VISITOR CENTER PARKING #1

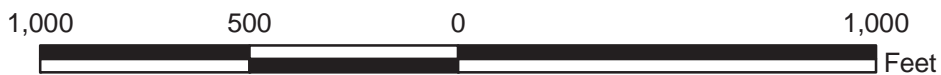
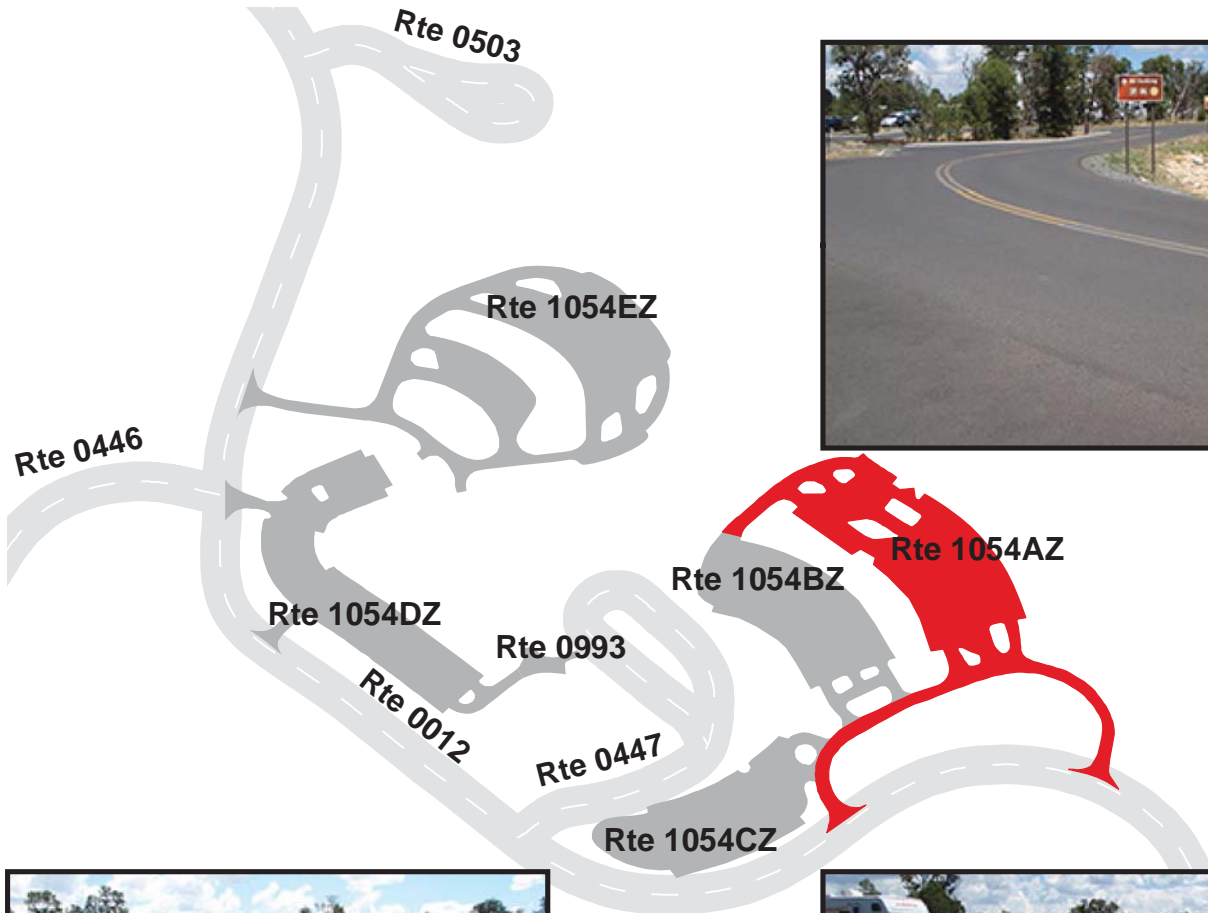
FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)

TO ROUTE 0012 (SOUTH ENTRANCE ROAD)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1054AZ	PUBLIC	8/15/2011	131,202	2.26	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	1	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 1054BZ

VISITOR CENTER PARKING #2

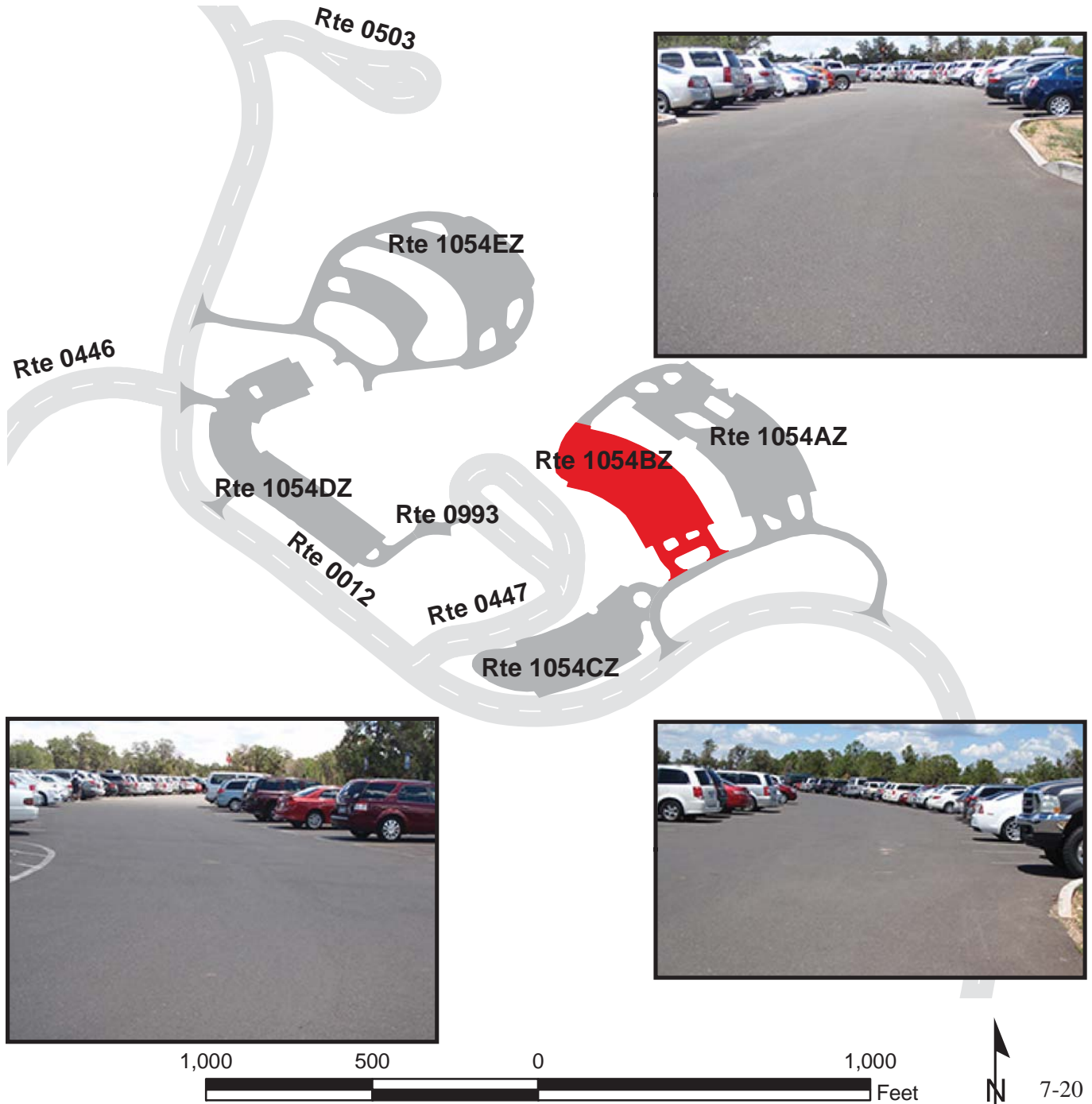
FROM ROUTE 1054AZ (VISITOR CENTER PARKING #1)

TO ROUTE 1054AZ (VISITOR CENTER PARKING #1)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1054BZ	PUBLIC	8/15/2011	80,976	1.39	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	1	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 1054CZ

VISITOR CENTER PARKING #3

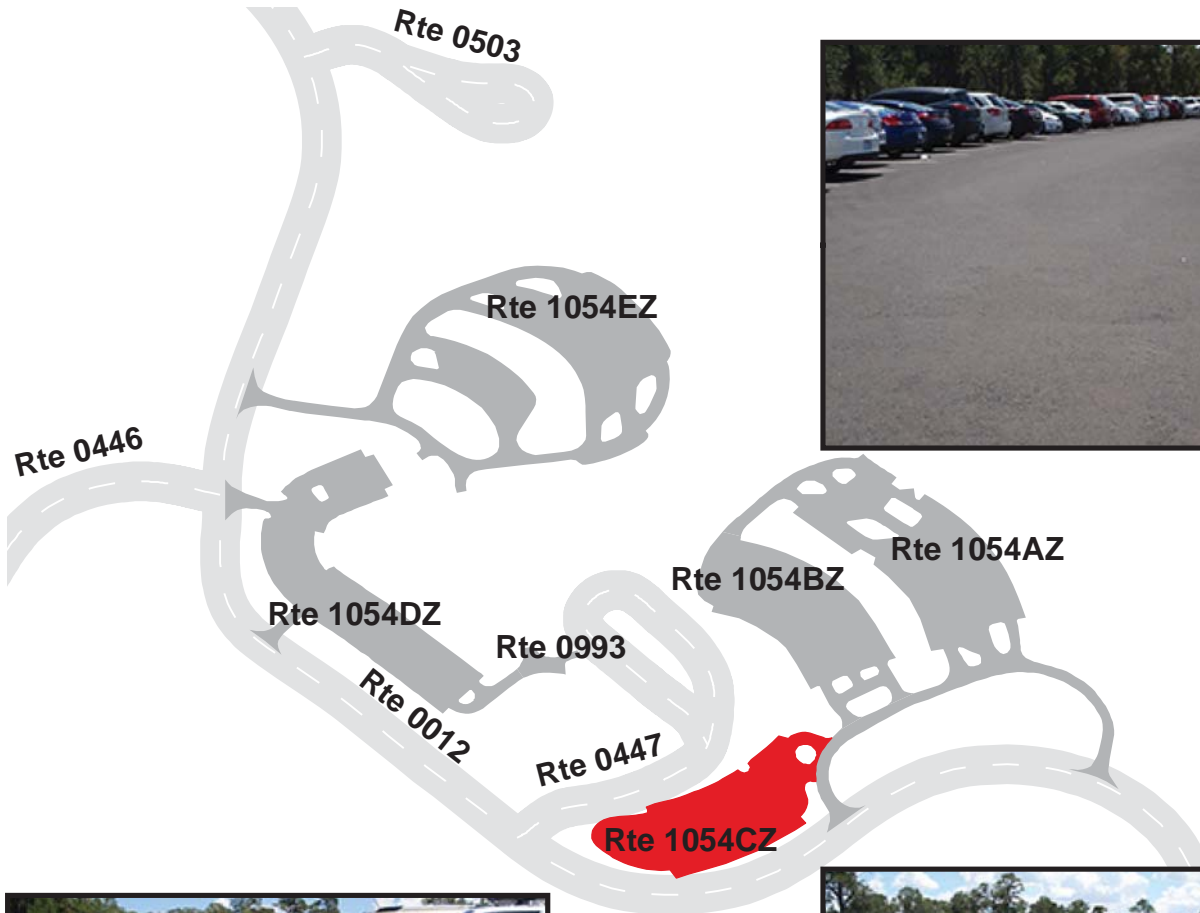
FROM ROUTE 1054AZ (VISITOR CENTER PARKING #1)

TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1054CZ	PUBLIC	8/15/2011	74,550	1.28	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 1054DZ

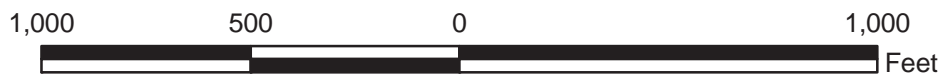
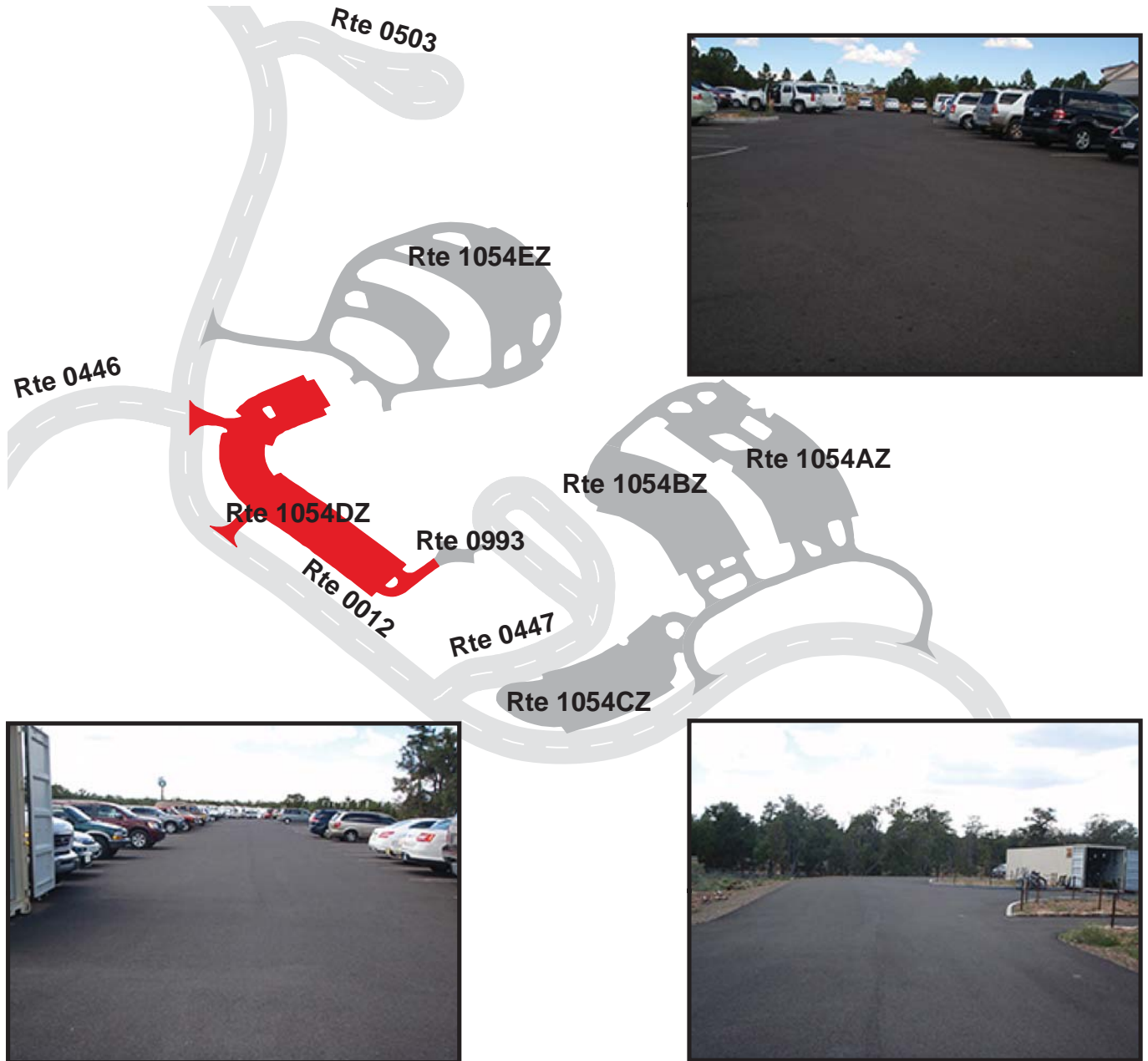
VISITOR CENTER PARKING #4

FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)
TO ROUTE 0993 (BOOK STORE EMPLOYEE PARKING)

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1054DZ	PUBLIC	8/15/2011	101,318	1.74	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

Route 1054EZ

VISITOR CENTER COMERCIAL BUS PARKING

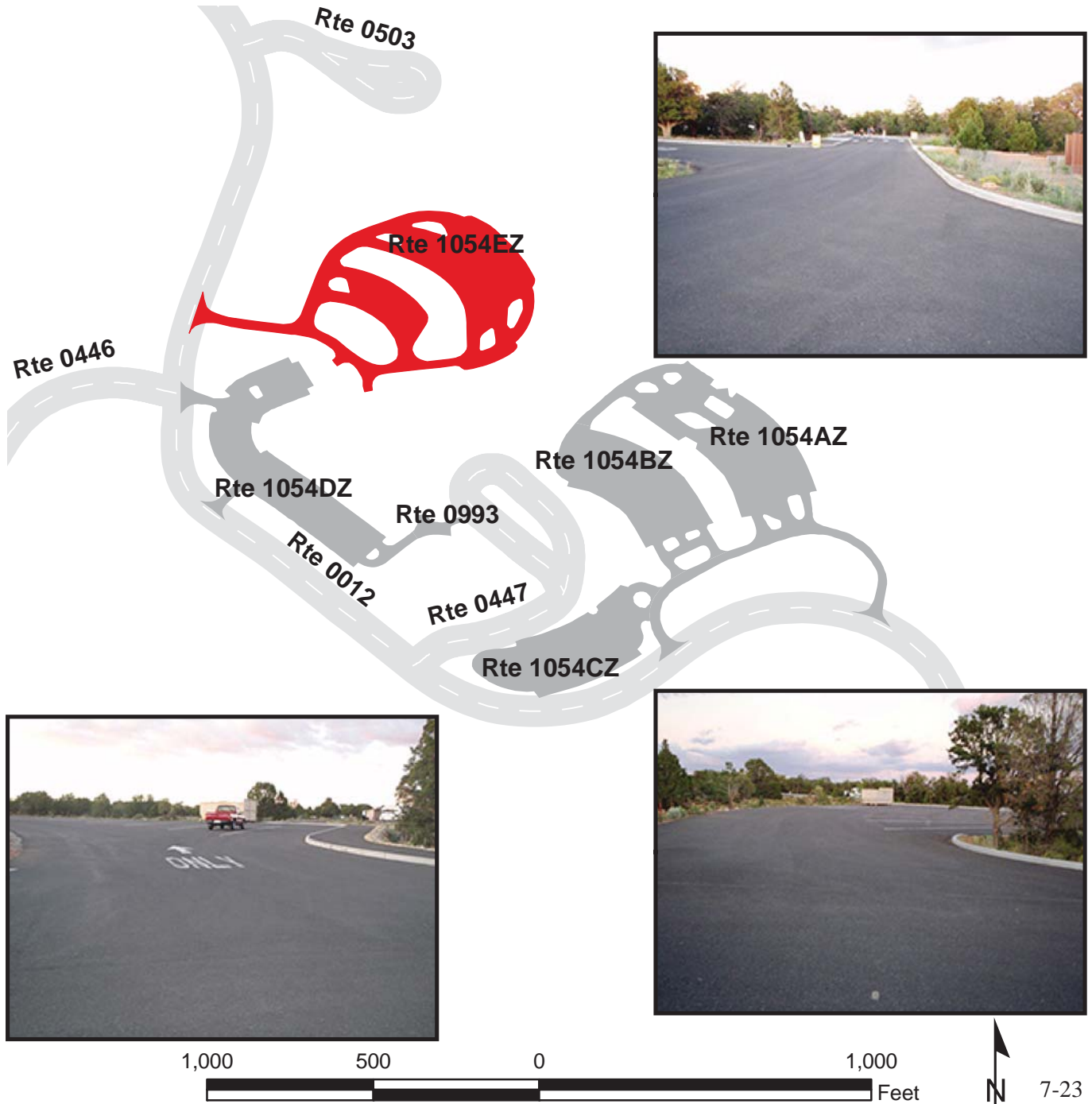
FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)

TO PARKING

Subcomponent Record

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1054EZ	PUBLIC	8/15/2011	149,327	2.57	AS
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
1	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



GRAND CANYON NATIONAL PARK

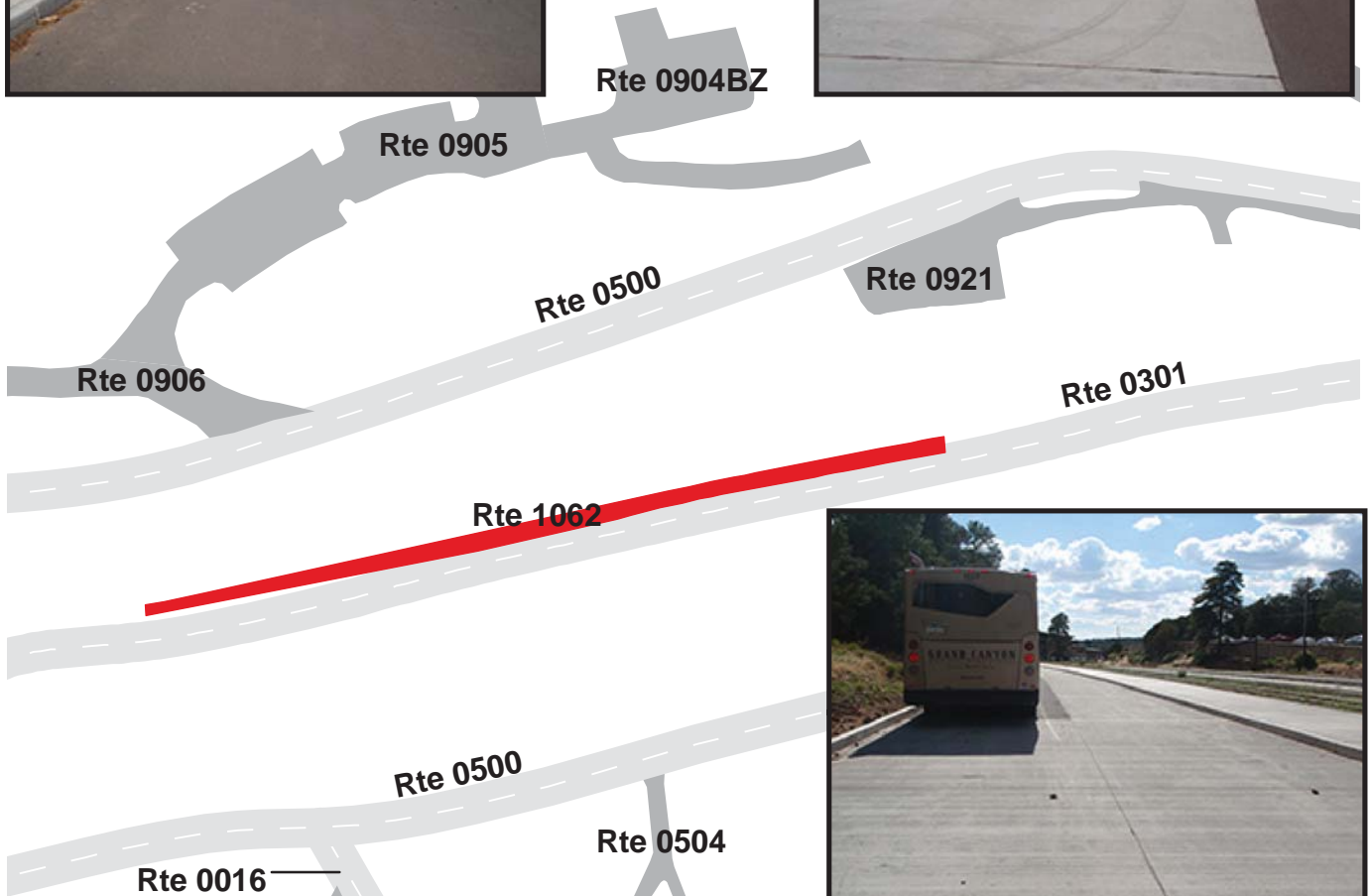
Route 1062

BUS LOADING/ PARKING AREA

ADJACENT TO ROUTE 0301 (RAILROAD TRACK ACCESS ROAD)

Route Number	Public / NonPublic	Date Visited	Area (sq ft)	Lane Miles *	Surface Type
1062	NONPUBLIC	8/15/2011	6,577	0.11	CO
Culverts	Drop Inlets	Gates	Curb & Gutter	Curb	PCR
0	0	0	NO CURB AND GUTTER	CONCRETE CURB	GOOD/90

* Lane miles are based on 11' lane widths



Section 8
Route Maintenance
Features Summaries



Grand Canyon National Park



**Federal Lands Highway
Road Inventory Program**

GRCA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were NOT marked by NPS in Cycle 5 along new or re-aligned DCV driven routes.

FEATURE	ROUTE 0301 RAILROAD TRACK ACCESS ROAD	ROUTE 0402 SERVICE ROAD TO SUPAI CAMP	ROUTE 0429AZ PAIUTE COURT A	ROUTE 0446 WEST SHUTTLE ACCESS ROAD	ROUTE 0447 EAST SHUTTLE ACCESS ROAD	ROUTE 0502 SOUTH ENTRANCE BYPASS LANE	UNIT
BRIDGE	0	0	0	0	0	0	EACH
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	0	0	0	0	0	0	EACH
CURB	1,399	0	116	512	1,009	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
GATE	0	0	0	0	0	1	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	0	LINEAR FEET
CABLE	0	0	0	0	0	0	LINEAR FEET
NON-CABLE	0	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
NON TEMP/BOLLARD	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	5	4	15	15	5	5	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	0	0	0	0	0	EACH
PAVED DITCH	0	0	0	0	0	0	LINEAR FEET
PULLOUT	0	0	0	0	0	0	EACH
PULLOUT	0	0	0	0	0	0	LINEAR FEET
RAILROAD CROSSING	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	EACH
RETAINING WALL	0	0	0	0	0	0	LINEAR FEET
SIGN	8	1	8	23	9	11	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TRAFFIC LIGHT	0	0	0	1	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET

GRCA: DCV ROUTE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were NOT marked by NPS in Cycle 5 along new or re-aligned DCV driven routes.

FEATURE	ROUTE 0503 MATHER POINT SHUTTLE LOOP	UNIT
BRIDGE	0	EACH
CATTLE GUARD	0	EACH
CULVERT	0	EACH
CURB	317	LINEAR FEET
DROP INLET	0	EACH
GATE	1	EACH
GUARD/GUIDE RAIL	0	LINEAR FEET
CABLE	0	LINEAR FEET
NON-CABLE	0	LINEAR FEET
GUARD/GUIDE WALL	0	LINEAR FEET
BOLLARD	0	LINEAR FEET
TEMPORARY BARRIER	0	LINEAR FEET
NON TEMP/BOLLARD	0	LINEAR FEET
INTERSECTION	7	EACH
LOW WATER CROSSING	0	EACH
LOW WATER CROSSING	0	LINEAR FEET
MILE MARKER	0	EACH
OVERPASS	0	EACH
PARK BOUNDARY	0	EACH
PAVED DITCH	0	LINEAR FEET
PULLOUT	0	EACH
PULLOUT	0	LINEAR FEET
RAILROAD CROSSING	0	EACH
RETAINING WALL	0	EACH
RETAINING WALL	0	LINEAR FEET
SIGN	5	EACH
STATE BOUNDARY	0	EACH
TRAFFIC LIGHT	0	EACH
TUNNEL	0	EACH
TUNNEL	0	LINEAR FEET

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



Grand Canyon National Park



**Federal Lands Highway
Road Inventory Program**

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0301: RAILROAD TRACK ACCESS ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0500 (VILLAGE LOOP DRIVE)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0500 (VILLAGE LOOP DRIVE)
0.000	0.000	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.000	0.226	ONE-WAY	N/A	N/A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0500 (VILLAGE LOOP DRIVE)
0.002	0.002	SIGN	LEFT	GUIDE, S. VILLAGE
0.004	0.004	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.004	0.004	SIGN	RIGHT	REGULATORY, ONE WAY
0.005	0.194	CURB	LEFT	N/A
0.005	0.081	CURB	RIGHT	N/A
0.006	0.006	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.033	0.033	SIGN	RIGHT	REGULATORY, AUTHORIZED BUS PARKING ONLY
0.120	0.120	INTERSECTION	RIGHT	ROUTE 1062 (BUS LOADING/ PARKING AREA)
0.193	0.193	SIGN	RIGHT	REGULATORY, AUTHORIZED BUS PARKING ONLY
0.226	0.226	INTERSECTION	LEFT	ROUTE 0501 (VILLAGE LOOP BYPASS)
0.226	0.226	INTERSECTION	RIGHT	ROUTE 0501 (VILLAGE LOOP BYPASS)
0.226	0.226	SIGN	RIGHT	GUIDE, 64 MARKET PLAZA PARK EXITS BACKCOUNTRY INFO. MASWIK LODGE
0.226	0.226	ROUTE END	N/A	TO ROUTE 0501 (VILLAGE LOOP BYPASS)

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0402: SERVICE ROAD TO SUPAI CAMP

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0160 (ROWE WELL ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0160 (ROWE WELL ROAD) UNPAVED SECTION
0.000	0.000	INTERSECTION	LEFT	ROUTE 0160 (ROWE WELL ROAD)
0.234	0.234	SIGN	RIGHT	REGULATORY, STOP
0.238	0.238	INTERSECTION	LEFT	ROUTE 0160 (ROWE WELL ROAD) UNPAVED SECTION
0.238	0.238	INTERSECTION	RIGHT	ROUTE 0160 (ROWE WELL ROAD) UNPAVED SECTION
0.238	0.238	ROUTE END	N/A	TO ROUTE 0160 (ROWE WELL ROAD) UNPAVED PORTION

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0429AZ: PAIUTE COURT A

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0601 (ALBRIGHT AVENUE)
0.000	0.000	SIGN	N/A	REGULATORY, DO NOT ENTER
0.000	0.000	SIGN	RIGHT	REGULATORY, WRONG WAY
0.000	0.000	SIGN	LEFT	REGULATORY, WRONG WAY
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0601 (ALBRIGHT AVENUE)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0601 (ALBRIGHT AVENUE)
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.005	0.005	SIGN	LEFT	GUIDE, PAIUTE CIR
0.034	0.034	INTERSECTION	LEFT	ROUTE 0429AZ (PAIUTE COURT A)
0.038	0.041	CURB-AND-GUTTER	LEFT	N/A
0.043	0.043	SIGN	LEFT	REGULATORY, STOP
0.043	0.043	SIGN	RIGHT	REGULATORY, DO NOT ENTER
0.044	0.044	INTERSECTION	RIGHT	UNPAVED ROUTE
0.048	0.053	CURB-AND-GUTTER	RIGHT	N/A
0.065	0.065	INTERSECTION	RIGHT	ROUTE 0989AZ (PAIUTE APARTMENTS PARKING A)
0.073	0.077	CURB-AND-GUTTER	RIGHT	N/A
0.096	0.096	INTERSECTION	RIGHT	ROUTE 0989BZ (PAIUTE APARTMENTS PARKING B)
0.118	0.122	CURB-AND-GUTTER	RIGHT	N/A
0.153	0.153	INTERSECTION	RIGHT	ROUTE 0989CZ (PAIUTE APARTMENTS PARKING C)
0.167	0.173	CURB-AND-GUTTER	RIGHT	N/A
0.171	0.171	INTERSECTION	LEFT	ROUTE 0989DZ (PAIUTE APARTMENTS PARKING D)
0.178	0.178	INTERSECTION	RIGHT	ROUTE 0989EZ (PAIUTE APARTMENTS PARKING E)
0.210	0.210	INTERSECTION	LEFT	ROUTE 0989FZ (PAIUTE APARTMENTS PARKING F)
0.214	0.214	INTERSECTION	RIGHT	ROUTE 0429BZ (PAIUTE COURT B)
0.233	0.233	INTERSECTION	RIGHT	ROUTE 0989GZ (PAIUTE APARTMENTS PARKING G)
0.243	0.243	INTERSECTION	LEFT	ROUTE 0989HZ (PAIUTE APARTMENTS PARKING H)
0.255	0.255	SIGN	RIGHT	REGULATORY, STOP
0.261	0.261	INTERSECTION	LEFT	ROUTE 0429AZ (PAIUTE COURT A)
0.261	0.261	INTERSECTION	RIGHT	ROUTE 0429AZ (PAIUTE COURT A)
0.261	0.261	ROUTE END	N/A	TO END OF LOOP

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0446: WEST SHUTTLE ACCESS ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 6.88
0.000	0.000	SIGN	N/A	GUIDE, RIM LODGES CAMPGROUND PARKING AREA A
0.000	0.000	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0903 (HEADQUARTERS PARKING)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.003	0.017	CURB	LEFT	N/A
0.003	0.016	CURB	RIGHT	N/A
0.009	0.009	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.009	0.009	SIGN	LEFT	REGULATORY, 4-WAY
0.009	0.009	SIGN	LEFT	REGULATORY, STOP
0.017	0.017	SIGN	LEFT	GUIDE, RIM LODGES PARK EXITS
0.027	0.027	INTERSECTION	RIGHT	ROUTE 0940 (BUSINESS CENTER PARKING)
0.034	0.042	CURB	N/A	N/A
0.038	0.038	SIGN	N/A	GUIDE, YAVAPAI LODGE MARKET PLAZA TRAILER VILLAGE
0.044	0.044	SIGN	LEFT	GUIDE, RIM LODGES YAVAPAI ROOMS VISITOR CENTER PARK EXIT
0.046	0.046	INTERSECTION	RIGHT	ROUTE 0940 (BUSINESS CENTER PARKING)
0.051	0.064	CURB	RIGHT	N/A
0.056	0.056	SIGN	RIGHT	GUIDE, YAVAPAI ROOMS ONLY
0.061	0.086	CURB	LEFT	N/A
0.070	0.070	INTERSECTION	RIGHT	ROUTE 0996 (YAVAPAI LODGE BUS PARKING)
0.082	0.082	SIGN	LEFT	GUIDE, YAVAPAI LODGE MARKET PLAZA VILLAGE
0.084	0.089	CURB	RIGHT	N/A
0.088	0.088	SIGN	RIGHT	GUIDE, CANYON
0.089	0.089	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.089	0.089	SIGN	LEFT	WARNING, GRAPHIC SIGN NO TEXT
0.092	0.111	CURB	LEFT	N/A
0.099	0.099	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.104	0.104	SIGN	LEFT	REGULATORY, UNABLE TO READ FROM VIDEO
0.120	0.120	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0446: WEST SHUTTLE ACCESS ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.133	0.133	INTERSECTION	LEFT	ROUTE 0942 (YAVAPAI EAST PARKING)
0.133	0.133	INTERSECTION	RIGHT	ROUTE 1048 (YAVAPAI LODGE SERVICE ROAD/PARKING)
0.138	0.138	SIGN	LEFT	GUIDE, GRAPHIC SIGN NO TEXT
0.138	0.138	SIGN	RIGHT	GUIDE, YAVAPAI WEST YAVAPAI EAST
0.197	0.197	SIGN	RIGHT	GUIDE, ROOMS 7001-7096
0.206	0.206	INTERSECTION	RIGHT	ROUTE 0943 (YAVAPAI WEST I PARKING)
0.228	0.228	SIGN	RIGHT	GUIDE, ROOMS 7101-7164
0.272	0.272	INTERSECTION	LEFT	ROUTE 0942 (YAVAPAI EAST PARKING)
0.370	0.370	INTERSECTION	LEFT	ROUTE 0942 (YAVAPAI EAST PARKING)
0.376	0.376	SIGN	RIGHT	GUIDE, ROOMS 7101-7164
0.389	0.389	INTERSECTION	RIGHT	ROUTE 0944 (YAVAPAI WEST II PARKING)
0.679	0.679	SIGN	LEFT	GUIDE, YAVAPAI LODGE MARKET PLAZA
0.684	0.684	SIGN	LEFT	REGULATORY, SPEED LIMIT 25
0.685	0.685	SIGN	RIGHT	REGULATORY, STOP
0.685	0.685	TRAFFIC LIGHT	RIGHT	N/A
0.693	0.693	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.693	0.693	INTERSECTION	RIGHT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.693	0.693	INTERSECTION	N/A	ROUTE 1054DZ (VISITOR CENTER PARKING #4)
0.693	0.693	ROUTE END	N/A	TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 5.63

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0447: EAST SHUTTLE ACCESS ROAD

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.006	0.006	SIGN	LEFT	REGULATORY, STOP
0.006	0.006	SIGN	RIGHT	GUIDE, SHUTTLE BUSES ONLY
0.080	0.080	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.083	0.083	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.086	0.086	SIGN	RIGHT	REGULATORY, STOP
0.095	0.254	ONE-WAY	N/A	N/A
0.095	0.095	INTERSECTION	LEFT	ROUTE 0447 (EAST SHUTTLE ACCESS ROAD)
0.125	0.125	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.127	0.230	CURB	LEFT	N/A
0.128	0.171	CURB	RIGHT	N/A
0.146	0.146	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.147	0.147	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.178	0.223	CURB	RIGHT	N/A
0.200	0.200	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.254	0.254	INTERSECTION	LEFT	ROUTE 0447 (EAST SHUTTLE ACCESS ROAD)
0.254	0.254	INTERSECTION	RIGHT	ROUTE 0447 (EAST SHUTTLE ACCESS ROAD)
0.254	0.254	ROUTE END	N/A	TO END OF LOOP

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0502: SOUTH ENTRANCE BYPASS LANE

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 0.35 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.000	0.000	INTERSECTION	N/A	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.000	0.452	ONE-WAY	N/A	N/A
0.026	0.026	SIGN	RIGHT	REGULATORY, AUTHORIZED VEHICLES ONLY
0.044	0.044	SIGN	LEFT	GUIDE, PREPAID/PASSES USE LANE 1 COMMERCIAL VEHICLES MUST USE RIGHT LANE
0.052	0.052	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.127	0.127	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.183	0.183	SIGN	RIGHT	REGULATORY, STOP HERE TO ACTIVATE GATE
0.183	0.183	SIGN	RIGHT	REGULATORY, STOP
0.187	0.187	SIGN	RIGHT	REGULATORY, IF GATE FAILS TO OPEN TURN LEFT AND PROCEED TO ENTRANCE STATION
0.193	0.193	SIGN	RIGHT	REGULATORY, ONE WAY
0.195	0.195	INTERSECTION	LEFT	ROUTE 0900 (SOUTH ENTRANCE GRAND CANYON PARKING)
0.200	0.200	GATE	N/A	N/A
0.405	0.405	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.436	0.436	SIGN	RIGHT	WARNING, GRAPHIC SIGN NO TEXT
0.452	0.452	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.452	0.452	SIGN	RIGHT	REGULATORY, YIELD
0.452	0.452	INTERSECTION	RIGHT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.452	0.452	ROUTE END	N/A	TO ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 0.76 ON RIGHT

GRCA: ROUTE MAINTENANCE FEATURES ROAD LOG

ROUTE 0503: MATHER POINT SHUTTLE LOOP

Notice: Culverts and drop inlets were NOT marked by NPS nor inventoried by RIP in Cycle 5 on any new or re-aligned DCV driven routes. Therefore no culverts or drop inlets are reported in Section 9, unless a culvert has a BIP structure number attached to it.

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0012 (SOUTH ENTRANCE ROAD) AT MP 5.83 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.004	0.004	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.005	0.005	SIGN	LEFT	REGULATORY, STOP
0.009	0.009	SIGN	RIGHT	GUIDE, SHUTTLE BUSES ONLY
0.012	0.012	GATE	N/A	N/A
0.015	0.047	CURB	LEFT	N/A
0.048	0.048	INTERSECTION	LEFT	ROUTE 0012 (SOUTH ENTRANCE ROAD)
0.048	0.139	ONE-WAY	N/A	N/A
0.073	0.073	INTERSECTION	LEFT	PAVED CUT-THRU
0.089	0.089	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.102	0.102	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.111	0.139	CURB	RIGHT	N/A
0.121	0.121	INTERSECTION	LEFT	PAVED CUT-THRU
0.139	0.139	INTERSECTION	LEFT	ROUTE 0502 (SOUTH ENTRANCE BYPASS LANE)
0.139	0.139	INTERSECTION	N/A	ROUTE 0502 (SOUTH ENTRANCE BYPASS LANE)
0.139	0.139	ROUTE END	N/A	TO END OF LOOP

Section 10 Appendix



Grand Canyon National Park



**Federal Lands Highway
Road Inventory Program**

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

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

In an effort to improve the accuracy of treatment recommendations and pavement condition descriptions vis a vis the distresses and indexes that comprise the Pavement Condition Rating (PCR), an extensive study was completed throughout 2010 that has 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. The 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.

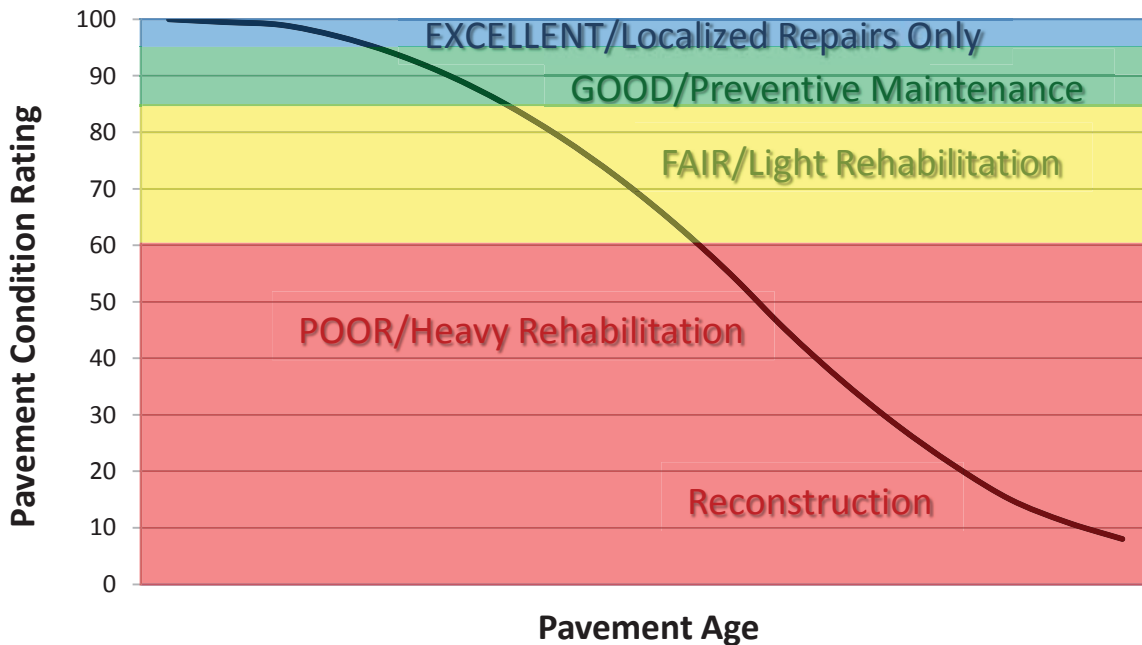
Explanation of the Excellent, Good, Fair and Poor Condition Descriptions

In addition to the RIP Index changes that will be implemented in Cycle 5, we will also aim to 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.

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



DESCRIPTION OF RATING SYSTEM

The Federal Highway Administration (FHWA), Road Inventory Program (RIP) for the National Park Service (NPS), collects roadway condition data on paved surfaces (asphalt, concrete, brick, and cobblestone) on roads, parkways, and parking areas in national parks nationwide. The road surface condition data is collected using an automated Data Collection Vehicle (DCV). Roads having brick or cobblestone surfacing are not normally surveyed with the DCV, but are manually rated for condition rating.

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 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. In truth, the FHWA RIP distress types are similar to those described in the LTPP manual with some modifications. This 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 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, 168 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:

$$\text{Asphalt PCR} = (0.60 * \text{SCR}) + (0.40 * \text{RCI})$$

$$\text{Concrete PCR} = \text{RCI}$$

A detailed description of each distress index formula, roughness index formula, SCR and PCR is provided in this document beginning on page 23.

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
Crack Width	LOW	L	M	H
	MED	M	M	H
	HI	H	H	H

LONGITUDINAL CRACKING

Description

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

Severity Levels

LOW

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

MED

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

HIGH

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

TRANSVERSE CRACKING

Description

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

Severity Levels

LOW

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

MED

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

HIGH

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

PATCHING AND POTHOLES

Description

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

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

Severity Levels

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

RUTTING

Description

Rutting is a longitudinal surface depression in the wheelpath.

Severity Levels

LOW

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

MED

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

HIGH

Ruts with a measured depth $\geq 1.00''$

Ruts $< 0.20''$ are not included in the distress calculations.

ROUGHNESS

Description

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

Severity Levels

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

TABLE 3: IRI

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

INDEX FORMULAS

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

Alligator Crack Index

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

Where:

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

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

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

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

Percent of total area is computed as:

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

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

Longitudinal Crack Index

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

Where:

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

These values are ≥ 0 and can exceed 100.

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

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

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

Percent of interval length is computed as:

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

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

Structural Crack Index

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

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

Transverse Crack Index

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

Where:

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

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

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

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

Number of cracks is computed as:

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

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

Patching Index

$$\text{PATCH_INDEX} = 100 - 40 * (\% \text{PATCHING} / 80)$$

Where:

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

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

Percent of total area is computed as:

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

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

$$\text{RUT_INDEX} = 100 - 40 * [(\% \text{LOW} / 535) + (\% \text{MED} / 205) + (\% \text{HI} / 40)]$$

Where:

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

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

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

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

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

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

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

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

Roughness Condition Index (Asphalt)

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

Where:

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

Average IRI is computed as:

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

There is no applicable threshold for failure for this index.

Roughness Condition Index (Concrete)

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

For concrete, PCR = RCI

Surface Condition Rating Index

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

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

Where:

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

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

Data Collection Vehicle Subsystems

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

CAMERAS

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

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

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

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

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

DMI (Distance Measuring Instrument)

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

ROUGHNESS (IRI)

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

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

RUTTING

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

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

GPS & INERTIAL SYSTEMS

GPS is collected by an onboard system employing Omnistar real time correction and a gyroscope Inertial Measuring Unit (IMU) to provide accurate positioning data in instances of satellite obstruction. All GPS coordinates are tied to image and linear distance measurements.

GPS SPECIFICATIONS	
Static accuracy	Sub-meter
Dynamic accuracy	2-3 meters
Receiver	12 satellite tracking
Coordinate system	Lat Lon WGS 84
Environment	Day or night
Cross-slope	+ - 0.1 degrees
Grade	+ - 0.1 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.

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 tables 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.

GLOSSARY OF TERMS AND ABBREVIATIONS

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