

The Road Inventory Of Cumberland Gap National Historical Park CUGA– 5230 Cycle 4







Prepared By: Federal Highway Administration Road Inventory Program Cycle 4



Cumberland Gap National Historical Park in Kentucky / Virginia / Tennessee

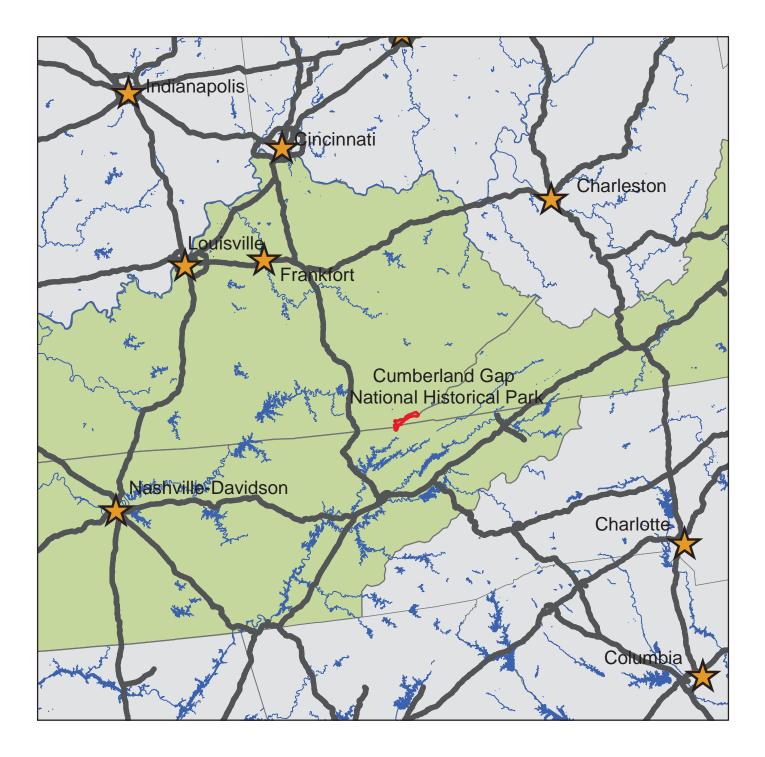
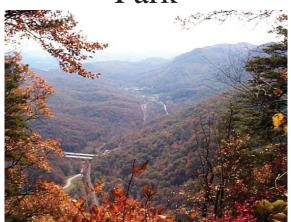




TABLE OF CONTENTS

	<u>SECTION</u>	PAGE
1.	INTRODUCTION	1 - 1
2.	PARK SUMMARY INFORMATION Paved Route Miles and Percentages by Functional Class and PCR ARAN Road Condition Summary Parkwide Condition Summary Cycle 2 vs Cycle 3 vs Cycle 4 Condition Comparisons	2 - 1 2 - 2 2 - 5 2 - 6
3.	PARK ROUTE LOCATION / CONDITION MAPS Route Location Key Map Route Location Area Map Route Condition Key Map – PCR Mile by Mile Route Condition Area Map – PCR Mile by Mile	3 - 1 3 - 2 3 - 6 3 - 7
4.	PARK ROUTE INVENTORY Route Identification Report	4 – 1
5.	PAVED ROUTE CONDITION RATING SHEETS (CRS) CRS Pages	5 – 1
6.	MANUALLY RATED PAVED ROUTE CONDITION RATING SHEETS (MRR) MRR Pages	6 – 1
7.	PARKING AREA CONDITION RATING SHEETS Paved Parking Area Pages	7 – 1
8.	PARKWIDE / ROUTE MAINTENANCE FEATURES	
	SUMMARIES Parkwide Maintenance Features Summary Route Maintenance Features Summary Structure List	8 - 1 8 - 2 8 - 5
9.	PARK ROUTE MAINTENANCE FEATURES ROAD LOGS Route Maintenance Features Road Logs	9 – 1
10.	APPENDIXA. Glossary of Terms and AbbreviationsB. Description of Rating SystemC. General Information on RIP SystemsD. Metadata	10 - 1 10 - 2 10 - 8 10 - 11

Cumberland Gap National Historical Park



Section 1 Introduction

INTRODUCTION

Background: In 1976, the National Park Service (NPS) and the Federal Highway Administration (FHWA) entered into a Memorandum of Agreement (MOA), establishing the Road Inventory Program (RIP). In 1980, the NPS and the FHWA terminated the 1976 MOA and entered into a new MOA that provided for the completion of the initial phase of the RIP. The purpose of the RIP, per the 1980 MOA was to maintain and update RIP data in order to develop long-range costs and programs to bring National Park Service (NPS) roads up to, or to maintain, designated standards, and establish a maintenance management program.

The FHWA's Federal Lands Highway (FLH) was assigned the task of identifying condition deficiencies and corrective priorities along with associated corrective costs, inventorying maintenance features (e.g., culverts, signs, guardrail, etc.), summarizing the data and findings in a report and providing a photographic record of the road system.

The FLH completed the initial phase of the RIP in the early 1980's. As a result of this effort, each park received a RIP book, also known as the "Brown Book," that included the information collected during this initial RIP phase.

In an effort to maintain and update the RIP data, a cyclical data collection and reporting process was reestablished in the 1990's. The FLH completed two cycles of RIP data collection between 1994 and 2001. Cycle 1 was collected in 44 large parks from 1994 to 1996. This data was found to be unusable for comparison to future cycles. Cycle 2 data was collected from March 1997 to January 2001 in 79 large parks and 5 small parks containing 4,874 route miles. Each park received a copy of a Cycle 2 RIP Report, also known as the "Blue Book". Cycle 3 was completed from 2001 through 2004, and included data collection in all parks that contain pavement.

Since 1984, the RIP Program has been funded through the Federal Lands Highway Program's Park Roads and Parkways (PRP) Program. Currently, the NPS Washington Headquarters' Park Facility Management Division is responsible for coordinating the RIP program with the FLH. 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) which requires the Federal Highway Administration and the National Park Service, to develop, by rule, a Pavement Management System (PMS) for the park roads and parkways serving the National Park System. As a result of the requirements in TEA-21, the NPS and FHWA are in the process of developing a PMS. The PMS will assist the decision-makers in effectively spending limited PRP Program funds. The PMS will provide information for planning and programming road maintenance, rehabilitation, and reconstruction activities. RIP data will provide the basic information for this system.

Key information included in the RIP is the mileage inventory and condition assessments accomplished by the RIP Program. The mileage and condition data are used in the current allocation formula of PRP Program funds.

<u>RIP Cycle 4:</u> Cycle 4 data collection was initiated in spring 2006, where 86 large parks, consisting of 5,553 route miles and 6,232 paved parking areas, were selected as a representative sample of the entire NPS paved road network. Cycle 4 is scheduled for completion in spring 2009 and will serve the PMS in further development of its pavement preservation techniques.

In the Cycle 4 Reports, a general condition rating of excellent, good, fair and poor is ascribed to each one-mile section of paved roadway, and to each paved parking area. This condition rating system provides a realistic means of assessing the general funding needs for road improvements. Along with these descriptive condition ratings, a numerical rating between 0 and 100 is ascribed to each mile of road and to each parking area. This numerical rating is called a Pavement Condition Rating (PCR). The PCR rating system is described in Section 10 of this report.

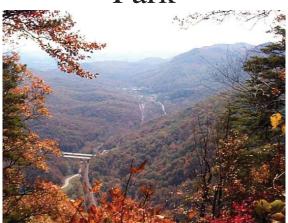
All of the fieldwork required for obtaining inventory, condition, and maintenance feature information is coordinated with each park and the regional offices to ensure that the information in the RIP reports is accurate.

The FLH is responsible for all the data presented in this report. Anyone having questions or comments regarding the contents of this report is encouraged to contact the FHWA RIP Coordinator. It is our aim to provide exceptional customer satisfaction in our delivery of the RIP program.

The FHWA RIP Team

FHWA/EFLHD 21400 Ridgetop Circle Sterling, VA 20166 (703) 404-6371 FHWA/CFLHD 12300 West Dakota Ave. Lakewood, CO 80228 (720) 963-3560

Cumberland Gap National Historical Park



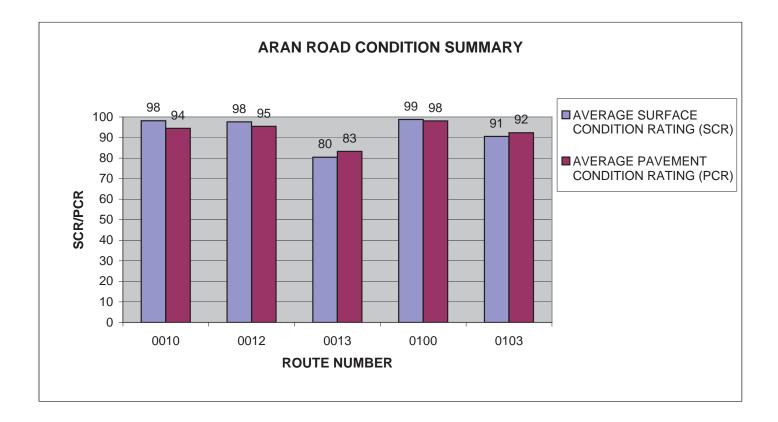
Section 2 Park Summary Information

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

		P	avement C	ondition R	Rating (PCF	र)			
	Poor (•	<=60)	Fair (6	1-84)	Good	(85-94)	Excellent	(95-100)	TOTAL
F.C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES
1	0.14	1.28%	0.56	5.10%	1.19	10.84%	2.92	26.59%	4.81
2	0.02	0.18%	0.08	0.73%	0.37	3.37%	2.56	23.32%	3.03
3			0.15	1.37%	0.60	5.46%	2.28	20.77%	3.03
4									
5							0.11	1.00%	0.11
6									
7									
8									
Totals	0.16	1.46%	0.79	7.19%	2.16	19.67%	7.87	71.67%	10.98

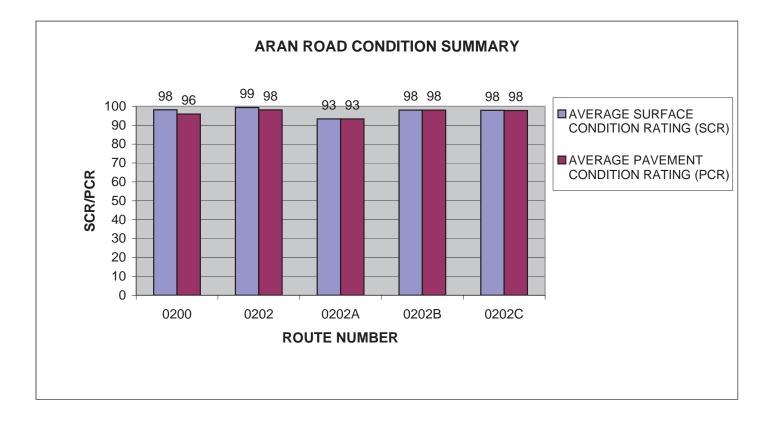
CUGA: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH	Seruried	AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	PINNACLE ROAD	1	3.99	ASPHALT	98	94
0012	BARTLETT PARK ROAD	1	0.74	ASPHALT	98	95
0013	US HIGHWAY 25E SOUTHBOUND ACCESS ROAD	1	0.33	ASPHALT	80	83
0100	SUGAR RUN OVERLOOK ROAD	2	2.77	ASPHALT	99	98
0103	DANIEL BOONE PARKING ACCESS ROAD	2	0.26	ASPHALT	91	92



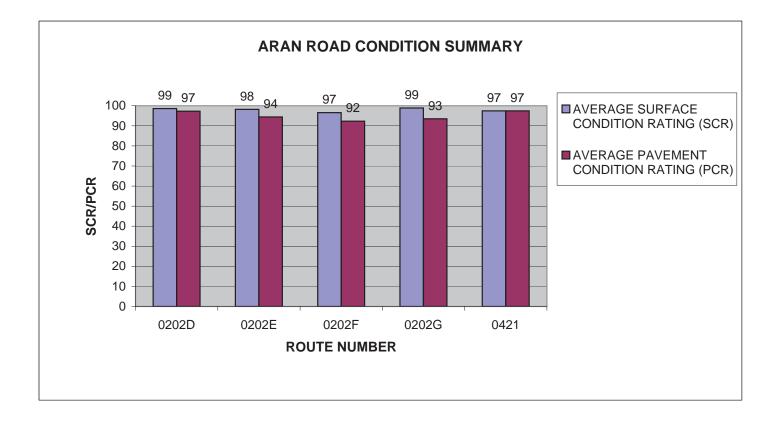
CUGA: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0200	WILDERNESS ROAD PICNIC AREA	3	0.49	ASPHALT	98	96
0202	WILDERNESS ROAD CAMPGROUND	3	0.9	ASPHALT	99	98
0202A	WILDERNESS ROAD CAMPGROUND A	3	0.09	ASPHALT	93	93
0202B	WILDERNESS ROAD CAMPGROUND B	3	0.12	ASPHALT	98	98
0202C	WILDERNESS ROAD CAMPGROUND C	3	0.18	ASPHALT	98	98



CUGA: ARAN ROAD CONDITION SUMMARY

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0202D	WILDERNESS ROAD CAMPGROUND D	3	0.23	ASPHALT	99	97
0202E	WILDERNESS ROAD CAMPGROUND E	3	0.19	ASPHALT	98	94
0202F	WILDERNESS ROAD CAMPGROUND F	3	0.14	ASPHALT	97	92
0202G	WILDERNESS ROAD CAMPGROUND G	3	0.69	ASPHALT	99	93
0421	DUPLEX DRIVE	5	0.11	ASPHALT	97	97

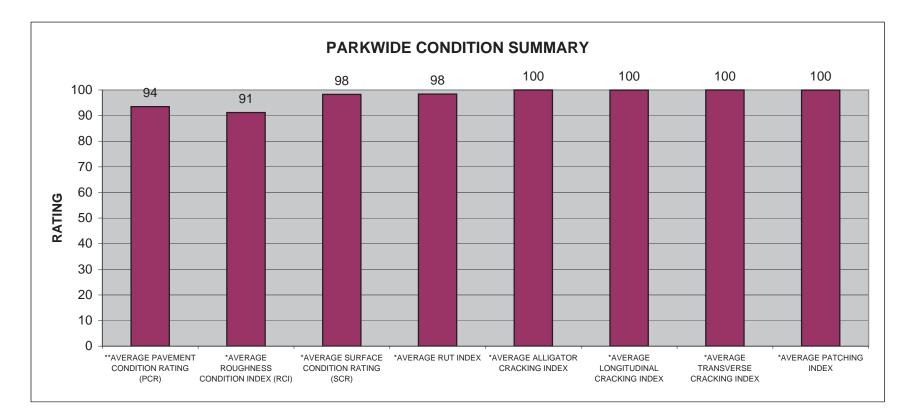


CUGA: PARKWIDE CONDITION SUMMARY

**AVERAGE	*AVERAGE	*AVERAGE		*AVERAGE	*AVERAGE	*AVERAGE	
PAVEMENT	ROUGHNESS	SURFACE		ALLIGATOR	LONGITUDINAL	TRANSVERSE	*AVERAGE
CONDITION	CONDITION	CONDITION	*AVERAGE	CRACKING	CRACKING	CRACKING	PATCHING
RATING (PCR)	INDEX (RCI)	RATING (SCR)	RUT INDEX	INDEX	INDEX	INDEX	INDEX
94	91	98	98	100	100	100	100

** PCR Index is based on all ARAN-driven roads, parking areas, and manually rated routes.

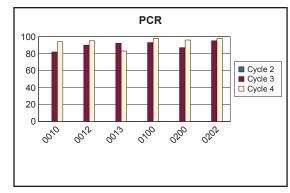
* Index values are based on ARAN-driven roads only.

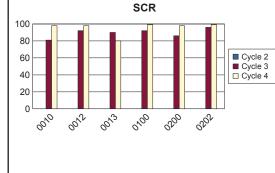


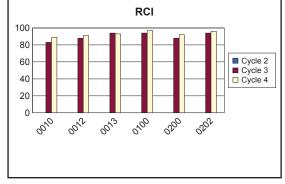
				1	EMENT RATIN		DITION CR)	S			ONDITION (SCR)	F	ROUG		CONDITION K (RCI)	1
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0010	4.06	0.00	4.06	N/A	82	94	+15%	N/A	81	98	+21%	N/A	83	89	+7%	
0012	0.50	0.00	0.50	N/A	90	95	+6%	N/A	92	98	+7%	N/A	88	91	+3%	
0013	0.38	0.00	0.38	N/A	92	83	-10%	N/A	90	80	-11%	N/A	94	93	-1%	
0100	2.80	0.00	2.80	N/A	93	98	+5%	N/A	92	99	+8%	N/A	94	97	+3%	
0200	0.50	0.00	0.50	N/A	87	96	+10%	N/A	86	98	+14%	N/A	88	92	+5%	

CUGA CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS

0202 0.90 0.00 0.90 N/A 95 98 +3% N/A 96 99 +3% N/A 94 96 +2%



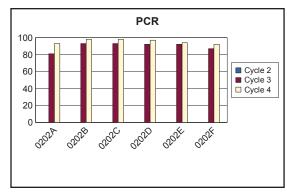


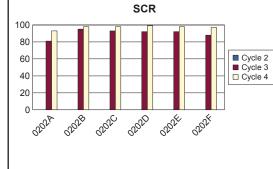


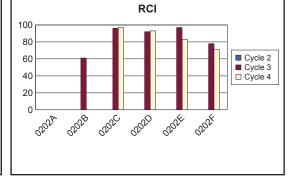
Cycle 4 Data Collected 6/1/2009 - 6/1/2009

				1	EMENT RATII		DITION CR)	S		ACE CO ATING	ONDITION (SCR)		ROUG	HNESS INDEX	CONDITION (RCI)	1
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0202A	0.10	0.00	0.10	N/A	81	93	+15%	N/A	81	93	+15%	N/A	N/A	N/A	N/A	No RCI collected in Cycles in 3 and 4.
0202B	0.13	0.00	0.13	N/A	93	98	+5%	N/A	95	98	+3%	N/A	61	N/A	N/A	No RCI collected in Cycle 4.
0202C	0.19	0.00	0.19	N/A	93	98	+5%	N/A	93	98	+5%	N/A	96	97	+1%	
0202D	0.24	0.00	0.24	N/A	92	97	+5%	N/A	92	99	+8%	N/A	92	93	+1%	
0202E	0.20	0.00	0.20	N/A	92	94	+2%	N/A	92	98	+7%	N/A	97	83	-14%	
0202F	0.15	0.00	0.15	N/A	87	92	+6%	N/A	88	97	+10%	N/A	78	71	-9%	

CUGA CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS





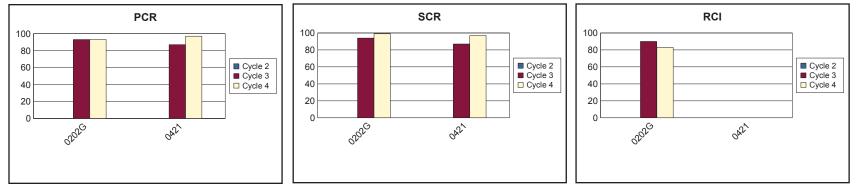


Cycle 4 Data Collected 6/1/2009 - 6/1/2009

Page 2 - 7

				1 · · ·	EMENT RATII		DITION CR)	S			ONDITION (SCR)		ROUG	HNESS INDEX	CONDITION (RCI)	1
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0202G	0.71	0.00	0.71	N/A	93	93	0%	N/A	94	99	+5%	N/A	. 90	83	-8%	
0421	0.12	0.00	0.12	N/A	87	97	+11%	N/A	87	97	+11%	N/A	N/A	N/A	N/A	No RCI collected in Cycles in 3 and 4.

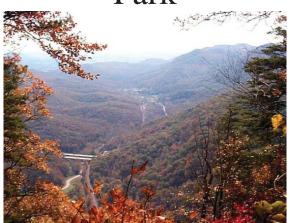
CUGA CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS



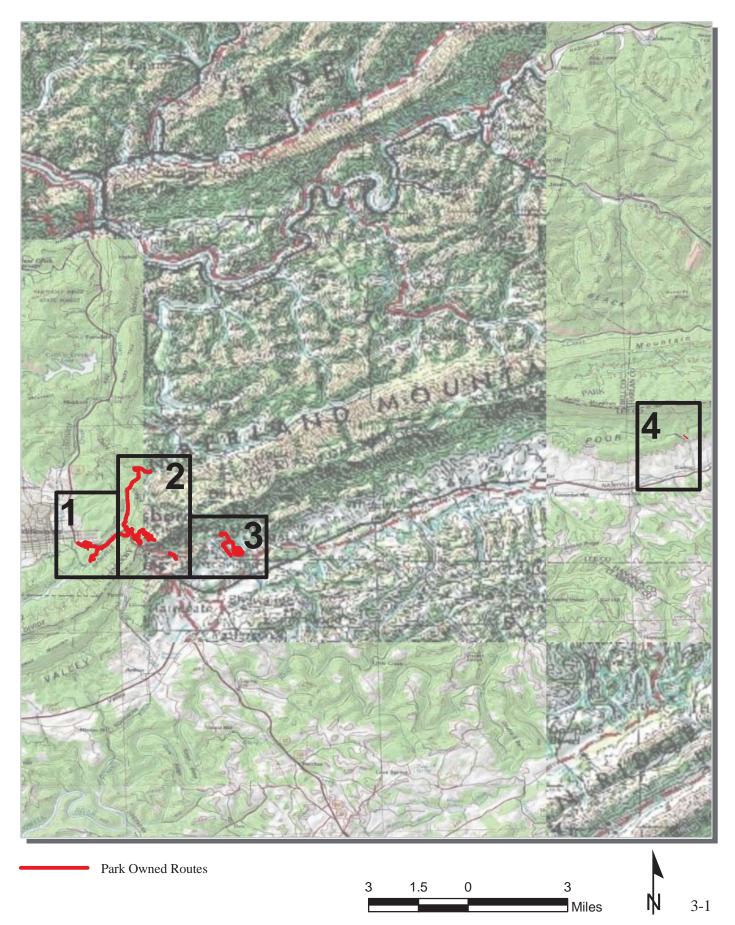
Cycle 4 Data Collected 6/1/2009 - 6/1/2009

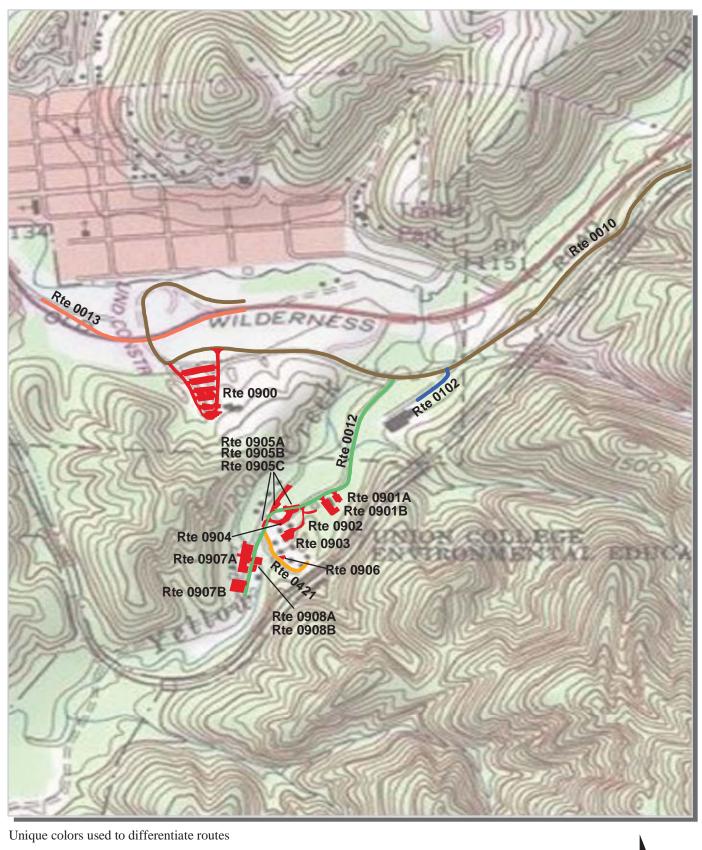
Page 2 - 8

Cumberland Gap National Historical Park

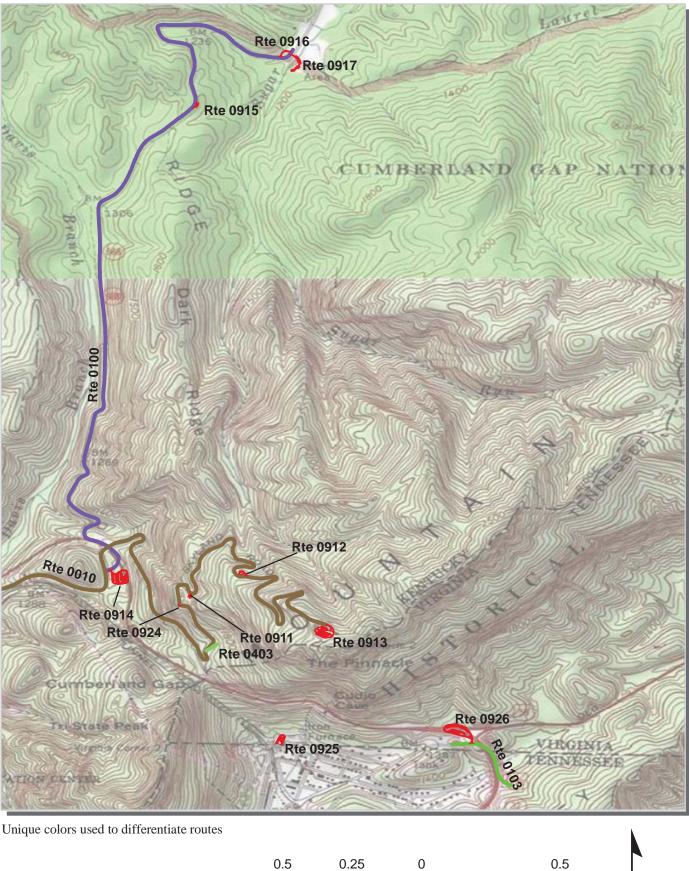


Section 3 Park Route Location / Condition Maps



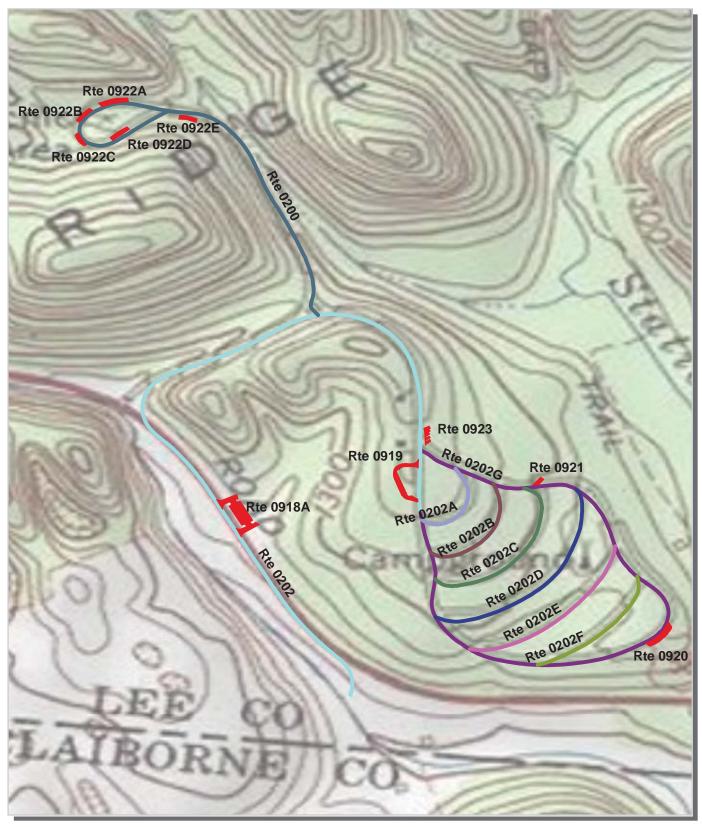






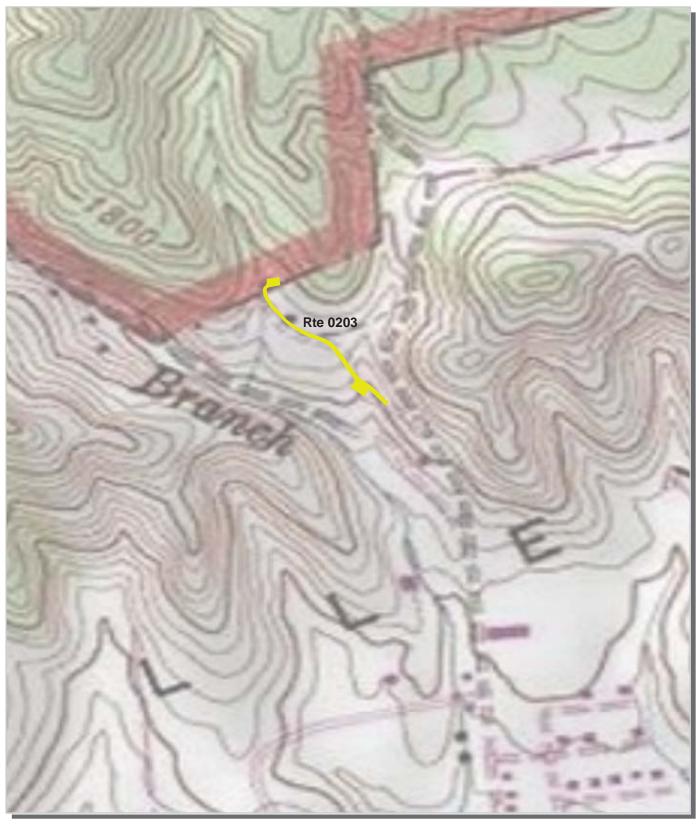


3-3



Unique colors used to differentiate routes

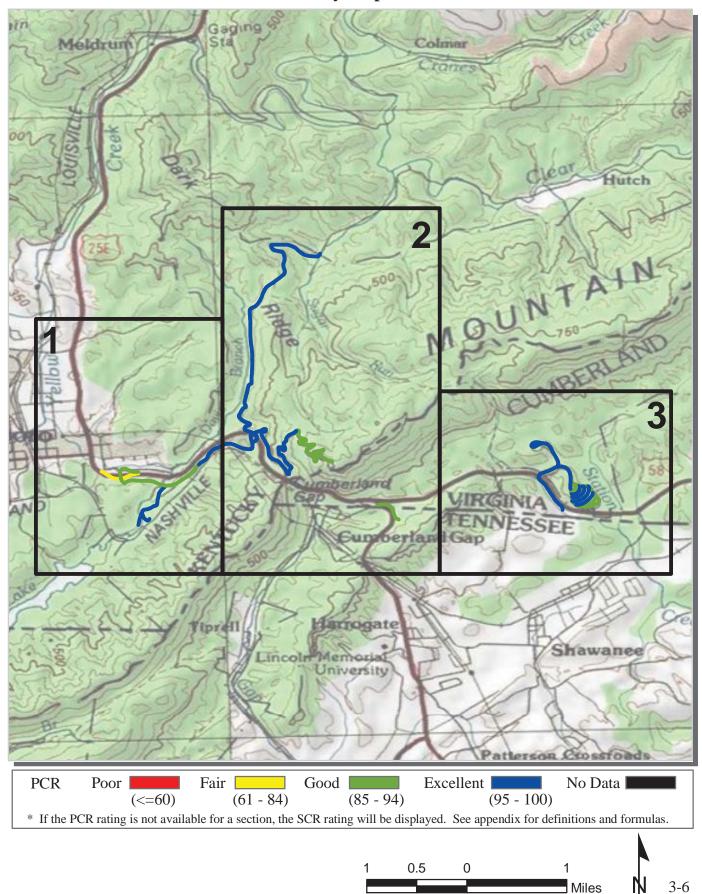




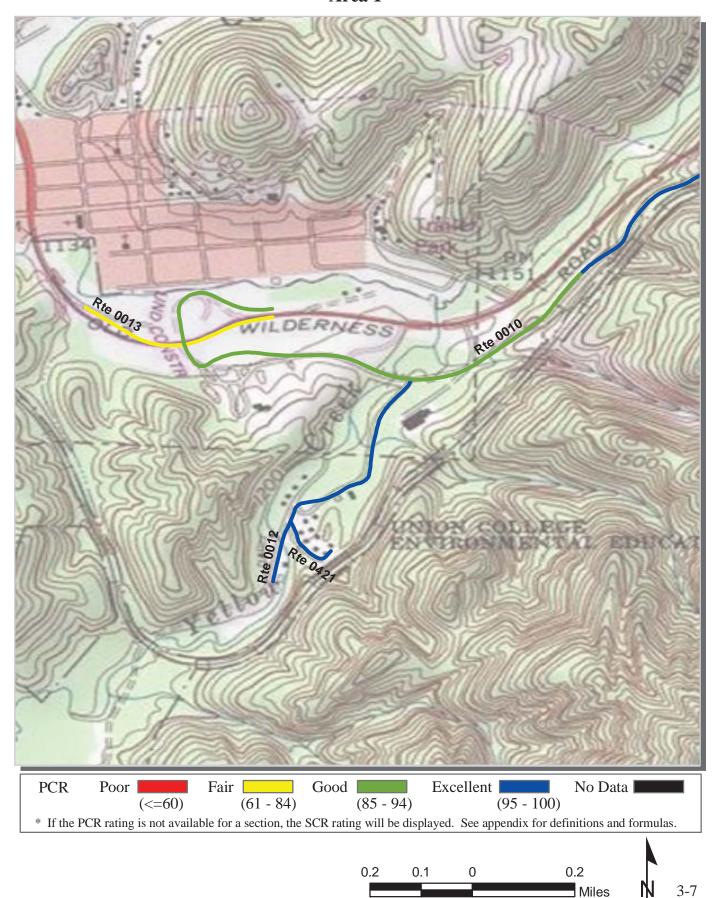
Unique colors used to differentiate routes



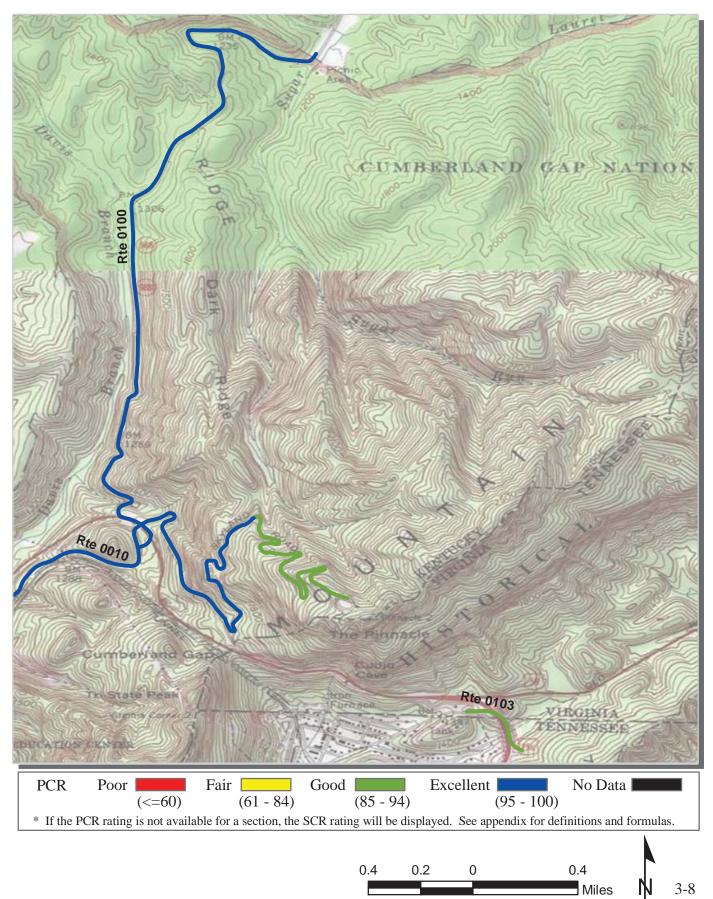
Cumberland Gap National Historic Park Route Condition Map PCR - Mile by Mile Key Map



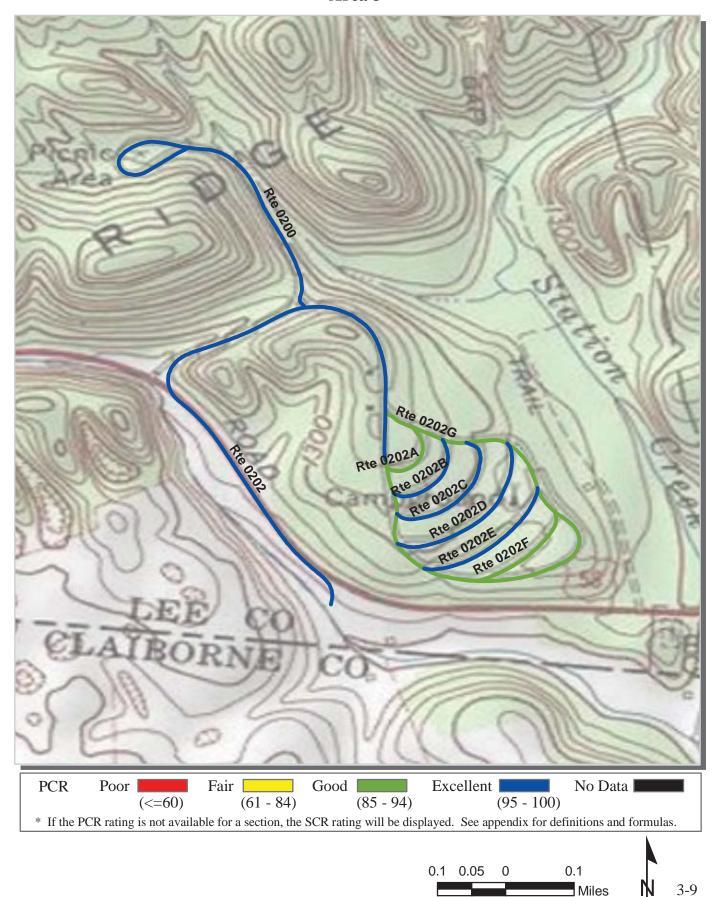
Cumberland Gap National Historic Park Route Condition Map PCR - Mile by Mile Area 1



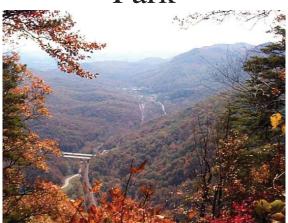
Cumberland Gap National Historic Park Route Condition Map PCR - Mile by Mile Area 2



Cumberland Gap National Historic Park Route Condition Map PCR - Mile by Mile Area 3



Cumberland Gap National Historical Park



Section 4 Park Route Inventory

Road Inventory Program 04/09/2010

CUGA

(Numerical By Route #)

Page 1 of 6

0 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Are	eas	Green = All Unpaved Parking Areas
Red text denotes approx. mileage	Grey = Paved Routes, ARAN not Driven	Black = Paved State, Local or Private non-NPS Rou	es, ARAN Driven	= Concess	sion Route Flag ON

** Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

Rte.	FMSS	ess ite	Route Name	Route De	scription	Maint.	Paved	Un- Paved	Total Route	Func.	Rte.	Manual	Surf.	Area
No.	No.	Concess Route		From	То	District	Miles	Miles	Length	Class	Lanes	Rated SQ/FT	Туре	Maps
0010	38600		PINNACLE ROAD	FROM US HIGHWAY 25E NORTHBOUND	TO ROUTE 0913 (PINNACLE PARKING)	N/A	3.990	0.000	3.990	1		0	AS	1,2
0012	38590		BARTLETT PARK ROAD	FROM ROUTE 0010 (PINNACLE ROAD) AT MP 0.64	TO END OF PAVEMENT AND ROUTE 0909 (STORAGE AREA) ON LEFT	N/A	0.490	0.250	0.740	1		0	AS	1
0013	101467		US HIGHWAY 25E SOUTHBOUND ACCESS ROAD	FROM US HIGHWAY 25E SOUTHBOUND	TO US HIGHWAY 25E SOUTHBOUND	N/A	0.330	0.000	0.330	1		0	AS	1
0100	38592		SUGAR RUN OVERLOOK ROAD	FROM ROUTE 0010 (PINNACLE ROAD) AT MP 1.60	TO PARK BOUNDARY	N/A	2.770	0.000	2.770	2		0	AS	2
0102	102565		LITTLE YELLOW CREEK ROAD	FROM ROUTE 0010 (PINNACLE ROAD)	TO ROUTE 0910 (LITTLE YELLOW CREEK OVERFLOW PARKING)	N/A	0.070	0.000	0.070	2		7,762	AS	1
0103	225928		DANIEL BOONE PARKING ACCESS ROAD	FROM US HIGHWAY 58	TO PARK BOUNDARY	N/A	0.260	0.000	0.260	2		0	AS	2
0200	38591		WILDERNESS ROAD PICNIC AREA	FROM ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) AT MP 0.59	TO END OF LOOP	N/A	0.490	0.000	0.490	3		0	AS	3
0202	38593		WILDERNESS ROAD CAMPGROUND	FROM US HIGHWAY 58	TO BEGINNING OF ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)	N/A	0.900	0.000	0.900	3		0	AS	3
0202A	100394		WILDERNESS ROAD CAMPGROUND A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.00	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.66	N/A	0.090	0.000	0.090	3		0	AS	3
0202B	100395		WILDERNESS ROAD CAMPGROUND B	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.03	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.62	N/A	0.120	0.000	0.120	3		0	AS	3
0202C	100396		WILDERNESS ROAD CAMPGROUND C	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.06	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.58	N/A	0.180	0.000	0.180	3		0	AS	3
0202D	100397		WILDERNESS ROAD CAMPGROUND D	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.11	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.53	N/A	0.230	0.000	0.230	3		0	AS	3
0202E	100398		WILDERNESS ROAD CAMPGROUND E	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.16	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.46	N/A	0.190	0.000	0.190	3		0	AS	3
0202F	100400		WILDERNESS ROAD CAMPGROUND F	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.23	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.42	N/A	0.140	0.000	0.140	3		0	AS	3

Road Inventory Program 04/09/2010

CUGA

(Numerical By Route #)

Page 2 of 6

0 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Are	as	Green = All Unpaved Parking Areas
Red text denotes approx. mileage	Grey = Paved Routes, ARAN not Driven	Black = Paved State, Local or Private non-NPS Rou	tes, ARAN Driven	= Concess	sion Route Flag ON

** Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

Rte.			Route Name	Route Description		Maint.	Paved	Un- Paved	Total Route	Func.	Rte.	Manual Rated	Surf.	Area
No.	NO.	Conc Rou		From	То	District	Miles	Miles	Length	Class	Lanes	SQ/FT	Туре	Maps
0202G	100401		WILDERNESS ROAD CAMPGROUND G	FROM END OF ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) AND BEGINNING OF ROUTE 0202A (WILDERNESS ROAD CAMPGROUND A)	TO END OF LOOP WITH ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)	N/A	0.690	0.000	0.690	3		0	AS	3
0203	99965		ENTRANCE ROAD AT TWCP	FROM COUNTY ROUTE 724	TO END OF ROUTE	N/A	0.140	0.000	0.140	2		20,839	AS	4
0204	38595		SHILLALAH CREEK ROAD	FROM STATE ROUTE 217	TO BROWNIES CREEK ROAD	N/A	0.000	5.000	5.000	4		0	GR	
0403	102573		PUMP HOUSE SERVICE ROAD	FROM ROUTE 0010 (PINNACLE ROAD)	TO END	N/A	0.040	0.000	0.040	6		1,901	AS	2
0409	102521		DAVIS BRANCH ROAD	FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	TO END	N/A	0.000	1.500	1.500	6		0	GR	
0411	100402		CUMBERLAND COLLEGE ROAD	FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	TO END	N/A	0.000	1.000	1.000	6		0	ОТ	
0421	100403		DUPLEX DRIVE	FROM ROUTE 0012 (BARTLETT PARK ROAD) AT MP 0.37	TO DEAD END	N/A	0.110	0.000	0.110	5		0	AS	1
0422	38601		COLSON LANE	FROM U.S. HIGHWAY 58	TO END	N/A	0.000	0.500	0.500	6		0	GR	
0423	38589		CUPP CABIN ROAD	FROM BROWNIES CREEK ROAD	TO END	N/A	0.000	0.220	0.220	6		0	GR	
0424	38775		HOOT OWL HOLLOW ROAD	FROM TIPRELL ROAD	TO END	N/A	0.000	1.000	1.000	6		0	GR	
0900	100247		VISITOR CENTER PARKING	FROM ROUTE 0010 (PINNACLE ROAD)	TO ROUTE 0010 (PINNACLE ROAD)	N/A	0.000	0.000	0.000			86,083	AS	1
0901A	100406		RANGER STATION EMPLOYEE PARKING A	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			4,410	AS	1
0901B	100407		RANGER STATION EMPLOYEE PARKING B	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			10,664	AS	1
0902	100408		VIP CAMPSITE PARKING	FROM ROUTE 0903 (HEADQUARTERS PARKING)	TO PARKING	N/A	0.000	0.000	0.000			1,796	AS	1
0903	100409		HEADQUARTERS PARKING	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			11,501	AS	1
0904	100410		HEADQUARTERS EMPLOYEE PARKING	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO ROUTE 0012 (BARTLETT PARK ROAD)	N/A	0.000	0.000	0.000			10,535	AS	1
0905A	100411		BARTLETT PARK PICNIC AREA PARKING A	ADJACENT TO ROUTE 0012 (BARTLETT PARK ROAD)		N/A	0.000	0.000	0.000			1,543	AS	1
0905B	100412		BARTLETT PARK PICNIC AREA PARKING B	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			9,680	AS	1

Road Inventory Program 04/09/2010

(Numerical By Route #)

Page 3 of 6

0 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Are	as	Green = All Unpaved Parking Areas	
Red text denotes approx. mileage	Grey = Paved Routes, ARAN not Driven	Black = Paved State, Local or Private non-NPS Rou	tes, ARAN Driven	= Concess	sion Route Flag ON	

** Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

CUGA cu

Rte. No.	FMSS No.	Concess Route	Route Name	Route De From	escription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Rte. Lanes	Manual Rated SQ/FT	Surf. Type	Area Maps
0905C	100413		BARTLETT PARK PICNIC	ADJACENT TO ROUTE 0012		N/A	0.000	0.000	0.000			1,031	AS	1
0906	100414		AREA PARKING C HEADQUARTERS HANDICAPPED PARKING	(BARTLETT PARK ROAD) FROM ROUTE 0421 (DUPLEX DRIVE)	TO PARKING	N/A	0.000	0.000	0.000			974	AS	1
0907A	100416		MAINTENANCE AREA A	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			21,155	AS	1
0907B	100576		MAINTENANCE AREA B	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			11,910	AS	1
0908A	100578		RESOURCE MANAGEMENT PARKING A	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			3,537	AS	1
0908B	100592		RESOURCE MANAGEMENT PARKING B	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			1,682	AS	1
0909	102574		STORAGE AREA	FROM ROUTE 0012 (BARTLETT PARK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			20,000	GR	
0910	102571		LITTLE YELLOW CREEK OVERFLOW PARKING	FROM END OF ROUTE 0102 (LITTLE YELLOW CREEK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			60,000	GR	
0911	100593		FORT MCCOOK PARKING	FROM ROUTE 0010 (PINNACLE ROAD)	TO PARKING	N/A	0.000	0.000	0.000			3,874	AS	2
0912	101151		MIDWAY PARKING	FROM ROUTE 0010 (PINNACLE ROAD)	TO PARKING	N/A	0.000	0.000	0.000			6,219	AS	2
0913	101152		PINNACLE PARKING	FROM END OF ROUTE 0010 (PINNACLE ROAD)	TO PARKING	N/A	0.000	0.000	0.000			40,943	AS	2
0914	93475		THOMAS WALKER PARKING	FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			51,519	AS	2
0915	101153		DARK RIDGE OVERLOOK PARKING	FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	TO ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	N/A	0.000	0.000	0.000			4,634	AS	2
0916	101154		SUGAR RUN TURNAROUND	FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	TO ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	N/A	0.000	0.000	0.000			5,284	AS	2
0917	101155		SUGAR RUN PICNIC AREA PARKING	FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)	TO PARKING	N/A	0.000	0.000	0.000			16,182	AS	2
0918A	101156		WILDERNESS ROAD TRAILHEAD PARKING A	FROM ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)	TO ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)	N/A	0.000	0.000	0.000			15,354	AS	3
0918B	101157		WILDERNESS ROAD TRAILHEAD PARKING B	FROM ROUTE 0918A (WILDERNESS ROAD TRAILHEAD PARKING A)	TO ROUTE 0918A (WILDERNESS ROAD TRAILHEAD PARKING A)	N/A	0.000	0.000	0.000			9,000	GR	
		l												L

Road Inventory Program 04/09/2010

CUGA

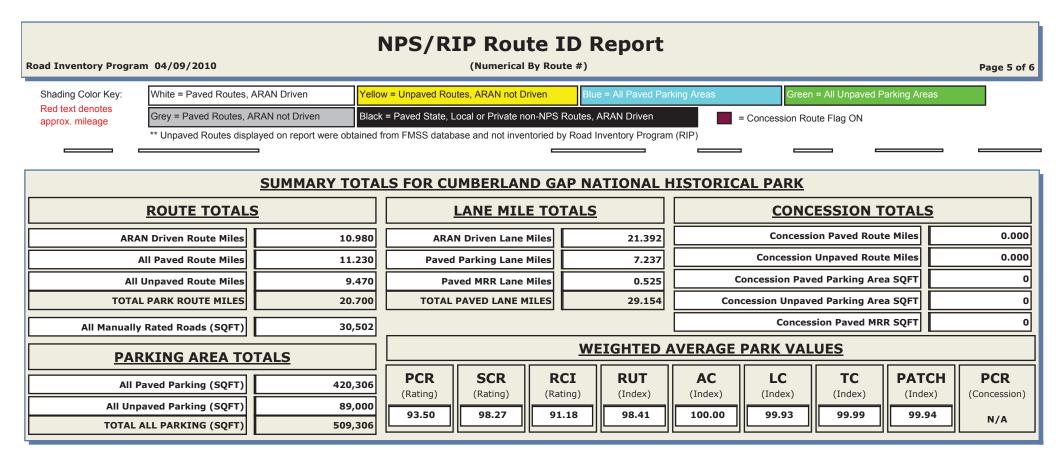
(Numerical By Route #)

Page 4 of 6

0 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Are	eas	Green = All Unpaved Parking Areas	
Red text denotes approx. mileage	Grey = Paved Routes, ARAN not Driven	Black = Paved State, Local or Private non-NPS Rou	= Concess	sion Route Flag ON		

** Unpaved Routes displayed on report were obtained from FMSS database and not inventoried by Road Inventory Program (RIP)

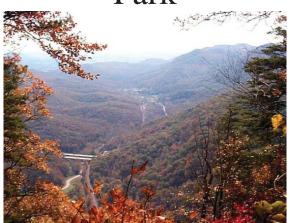
Rte. No.	FMSS No.	Concess Route	Route Name	Route Des From	cription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Rte. Lanes	Manual Rated SQ/FT	Surf. Type	Area Maps
0919	101158		WILDERNESS ROAD CAMPGROUND DUMP STATION	FROM ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)	TO ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)	N/A	0.000	0.000	0.000			8,301	AS	3
0920	101159		GROUP CAMPING PARKING	ADJACENT TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)		N/A	0.000	0.000	0.000			4,950	AS	3
0921	101160		AMPHITHEATER HANDICAPPED PARKING	ADJACENT TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)		N/A	0.000	0.000	0.000			1,237	AS	3
0922A	101161		WILDERNESS ROAD PICNIC AREA PARKING A	ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)		N/A	0.000	0.000	0.000			3,865	AS	3
0922B	101162		WILDERNESS ROAD PICNIC AREA PARKING B	ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)		N/A	0.000	0.000	0.000			2,113	AS	3
0922C	101163		WILDERNESS ROAD PICNIC AREA PARKING C	ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)		N/A	0.000	0.000	0.000			1,804	AS	3
0922D	101164		WILDERNESS ROAD PICNIC AREA PARKING D	ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)		N/A	0.000	0.000	0.000			2,583	AS	3
0922E	101165		WILDERNESS ROAD PICNIC AREA PARKING E	ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)		N/A	0.000	0.000	0.000			2,076	AS	3
0923	101166		WILDERNESS ROAD CAMPGROUND REGISTRATION PARKING	ADJACENT TO ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)		N/A	0.000	0.000	0.000			2,079	AS	3
0924	101167		PULLOUT PARKING	ADJACENT TO ROUTE 0010 (PINNACLE ROAD)		N/A	0.000	0.000	0.000			721	AS	2
0925	101389		IRON FURNACE PARKING	FROM PENNLYN AVENUE	TO PENNLYN AVENUE	N/A	0.000	0.000	0.000			15,344	AS	2
0926	93433		DANIEL BOONE PARKING	FROM ROUTE 0103 (DANIEL BOONE PARKING ACCESS ROAD)	TO PARKING	N/A	0.000	0.000	0.000			54,724	AS	2



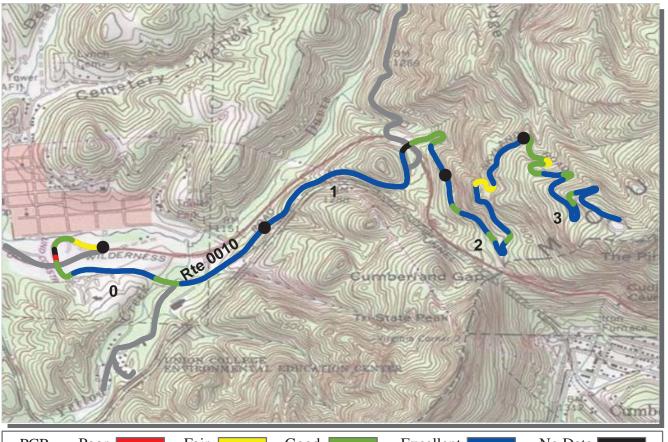
ad Inventory Pr	ogram 04/09/2010	NPS/RIP Route I (Numerical By Route	-	Page				
Shading Color Key Red text denotes approx. mileage	Grey = Paved Routes, ARAN not Driven							
Class 2 Connect campgri Class 3 Special concess Class 4 Primitiv roads fr r Class 5 Adminis quarters Class 6 Restrict	Park Road/Rural Parkway (Public Roads) Roads which constitute umbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are nu or Park Road (Public Roads) - Roads which provide access within a unds, etc. Route Numbers 100-199. Purpose Park Road (Public Roads) - Roads which provide circulatio onaire facilities, etc. These roads generally serve low-speed traffic erark Roads (Public Roads) - Roads which provide circulation thro equently have no minimum design standards and their use may be lote: Functional Classes 3 and 4 have the same route numbers be trative Access Road (Administrative Roads) - All public roads inten , or utility areas. Route Numbers 400-499.	park to areas of scenic, scientific, recreational or cultural interest, so n within public areas, such as campgrounds, picnic areas, visitor cen and are often designed for one-way circulation. Route Numbers 20 ugh remote areas and/or access to primitive campgrounds and unde l limited to specially equipped vehicles. Route Numbers 200-299.	r Park. Route Numbers 5000-5999 uch as overlooks, liter complexes, 0-299. eveloped areas. These park offices, employee Route Numbers 400-499. little distinction between	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				
Class 7 Urban P an urba thereof, Class 8 City Str	arkway (Urban Parkways and City Streets) - These facilities serve h a area. This category of roads primarily encompasses the major pa however, may be included in this category. Route Numbers 1-9. hets (Urban Parkways and City Streets) - City streets are usually ex-	high volumes of park and non-park related traffic and are restricted, rkways which serve as gateways to our nation's capital. Other major tensions of the adjoining street system that are owned and maintain	or park roads or portions ned by the National Park					
A park road system agencies. The assignr The historic route e nationwide which are o one-way routes are no	contains those roads within or giving access to a park or other un ent of a functional classification (FC) to a park road is not based o umbering system also included a 300 number series for interpretiv lesignated by the 300 and 500 series. The numbers for these road t as clearly tied to a specific functional class, the 300 and 500 serie	epted local engineering practice and local conditions. Route Number ************************************	**************************************					

are driven for GPS, Video Log and Road Features only.

Cumberland Gap National Historical Park



Section 5 Paved Route Condition Rating Sheets (CRS)



 PCR
 Poor
 Fair
 Good
 Excellent
 No Data

 * If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.
 No Data

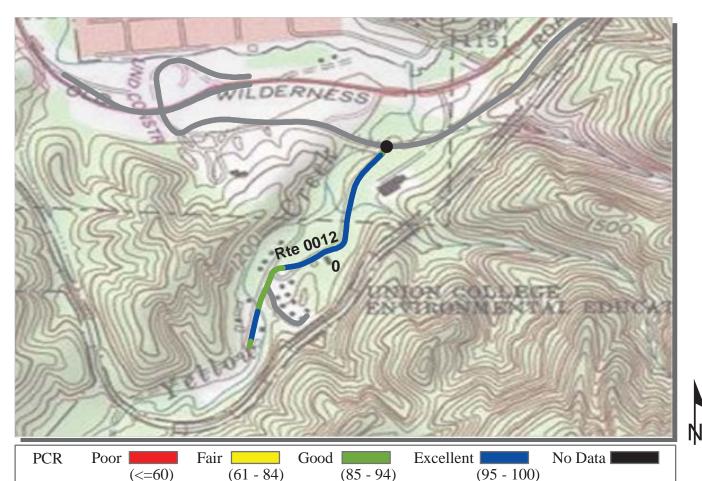
ROUTE: 0010 PINNACLE ROAD CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

				COLLECTED:				
SOUTHEAST REGION				TAL LENGTH:	3.99 Miles			
Section Number	0	1	2	3				
Section Length (mi)	1.00	1.00	1.00	0.99				
Traffic								
AADT		5	d at www.efl.fh NPS Traffic Da	U				
SADT		all parks have		ta				
ADT Date	(11010.11017	in parks nave	tranic data)					
Cross Section Information								
Number of Lanes	1	2	2	2				
Paved Width (ft)	27	24	21	21				
Lane Width (ft)	11	10	9	9				
Shoulder Width Right (ft)	NC	NC	NC	NC				
Shoulder Width Left (ft)	NC	NC	NC	NC				
Roadway Condition Information								
SCR (Surface Condition Rating)	96	100	99	98				
PCR (Pavement Condition Rating)	91	97	95	93				
Distress Index Values								
Alligator Cracking Index	100	100	100	100				
Longitudinal Cracking Index	100	100	100	100				
Tranverse Cracking Index	100	100	100	100				
Patching Index	100	100	100	100				
Rutting Index	96	100	99	98				
Roughness Condition Index (RCI)	90	93	86	82				

ROUTE: 0010 PINNACLE ROAD

6/1/2000

COLLECTED.



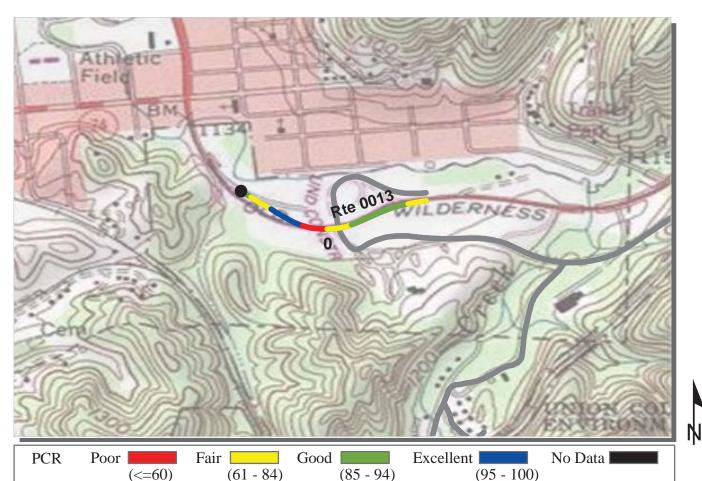
* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

ROUTE: 0012 BARTLETT PARK ROAD CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

SOUTHEAST REGION			•••	COLLECTED: TOTAL LENGTH:			
Section Number	0						
Section Length (mi)	0.49						
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have trafi	Traffic Data	t.gov			
Cross Section Information							
Number of Lanes	2						
Paved Width (ft)	19						
Lane Width (ft)	9						
Shoulder Width Right (ft)	NC						
Shoulder Width Left (ft)	NC						
Roadway Condition Information							
SCR (Surface Condition Rating)	97						
PCR (Pavement Condition Rating)	95						
Distress Index Values							
Alligator Cracking Index	100						
Longitudinal Cracking Index	100						
Tranverse Cracking Index	100						
Patching Index	100						
Rutting Index	97						
Roughness Condition Index (RCI)	90						

ROUTE: 0012 BARTLETT PARK ROAD

NC - Not Collected



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

ROUTE: 0013 US HIGHWAY 25E SOUTHBOUND ACCESS ROAD CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	COLLECTED:		
SOUTHEAST REGION			TOTAL	LENGTH:	0.33 Miles	
Section Number	0					
Section Length (mi)	0.33					
Traffic						
AADT		nay be found at v OGRAMS / NPS		t.gov		
SADT		l parks have traff				
ADT Date	(Hote: Hot al	i parks have train	ie data)			
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	29					
Lane Width (ft)	18					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	81					
PCR (Pavement Condition Rating)	83					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	99					
Tranverse Cracking Index	100					
Patching Index	100					
Rutting Index	82					
Roughness Condition Index (RCI)	93					

ROUTE: 0013 US HIGHWAY 25E SOUTHBOUND ACCESS ROAD



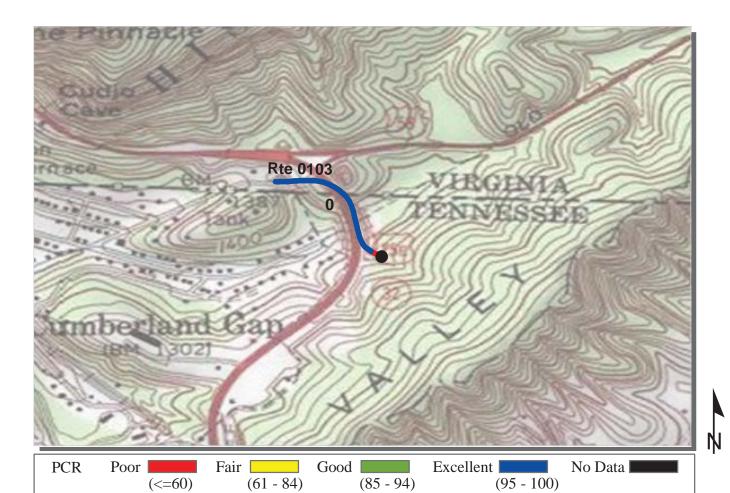
Ŵ

PCR	Poor	Fair	Good	Excellent	No Data
	(<=60)	(61 - 84)	(85 - 94)	(95 - 100))
* If the PC	R rating is not availa	ble for a section, the	SCR rating will be dis	played. See appendix for	definitions and formulas.

ROUTE: 0100 SUGAR RUN OVERLOOK ROAD CUGA : CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009
SOUTHEAST REGION			TOTAL	LENGTH:	2.77 Miles
Section Number	0	1	2		
Section Length (mi)	1.00	1.00	0.77		
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	may be found a OGRAMS / NP Il parks have tra		ot.gov	
Cross Section Information					
Number of Lanes	2	2	2		
Paved Width (ft)	22	21	21		
Lane Width (ft)	10	9	9		
Shoulder Width Right (ft)	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC		
Roadway Condition Information					
SCR (Surface Condition Rating)	98	99	99		
PCR (Pavement Condition Rating)	97	99	98		
Distress Index Values					
Alligator Cracking Index	100	100	100		
Longitudinal Cracking Index	100	100	100		
Tranverse Cracking Index	100	100	100		
Patching Index	100	100	100		
Rutting Index	98	99	99		
Roughness Condition Index (RCI)	95	100	96		

ROUTE: 0100 SUGAR RUN OVERLOOK ROAD

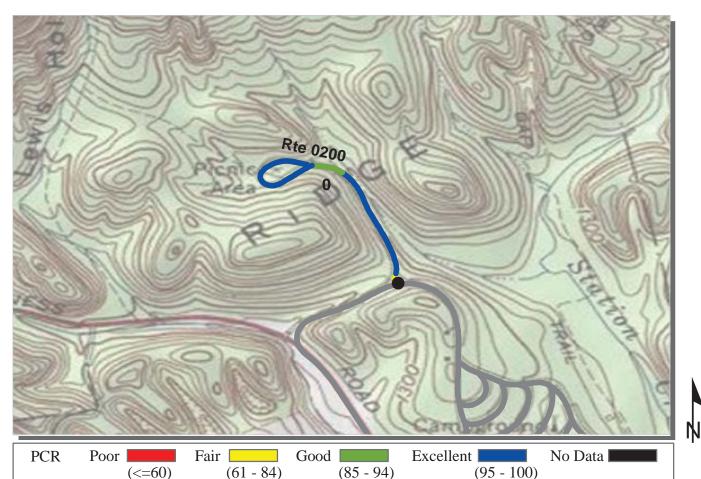


* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas. **ROUTE: 0103 DANIEL BOONE PARKING ACCESS ROAD**

CUGA : CUMBERLAND GAP NATIONAL HISTORICAL PARK

				LLECTED:	6/1/2009
SOUTHEAST REGION			TOTAL	LENGTH:	0.26 Miles
Section Number	0				
Section Length (mi)	0.26				
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have traff	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	31				
Lane Width (ft)	12				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	91				
PCR (Pavement Condition Rating)	92				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	97				
Tranverse Cracking Index	99				
Patching Index	100				
Rutting Index	94				
Roughness Condition Index (RCI)	98				

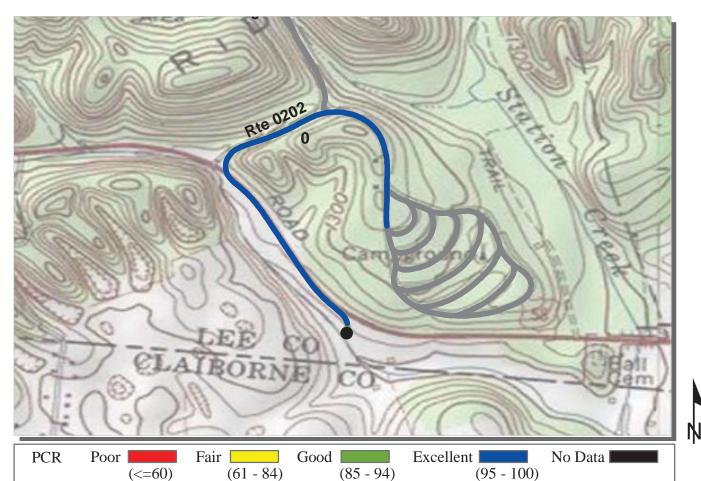
ROUTE: 0103 DANIEL BOONE PARKING ACCESS ROAD



ROUTE: 0200 WILDERNESS ROAD PICNIC AREA CUGA : CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009
SOUTHEAST REGION		TOTAL LENGTH:			0.49 Miles
Section Number	0				
Section Length (mi)	0.49				
<i>Traffic</i> AADT SADT ADT Date	Click on PRC	nay be found at v)GRAMS / NPS l parks have trafi	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	17				
Lane Width (ft)	10				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	98				
PCR (Pavement Condition Rating)	96				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	92				

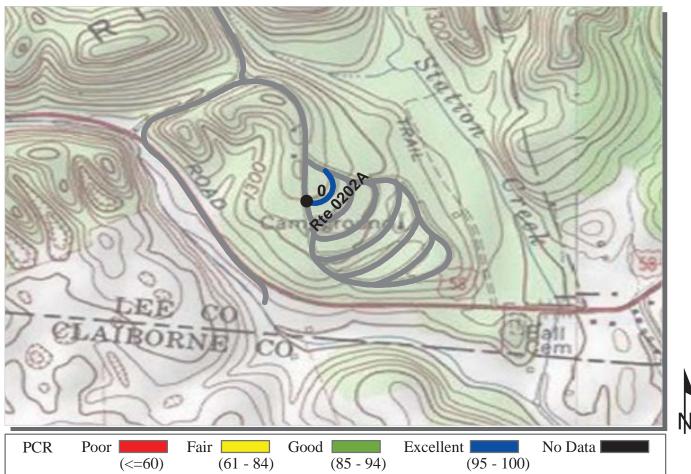
ROUTE: 0200 WILDERNESS ROAD PICNIC AREA



ROUTE: 0202 WILDERNESS ROAD CAMPGROUND CUGA : CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009
SOUTHEAST REGION		TOTAL LENGTH: 0.9			
Section Number	0				
Section Length (mi)	0.90				
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v)GRAMS / NPS l parks have trafi	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	22				
Lane Width (ft)	10				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	99				
PCR (Pavement Condition Rating)	98				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	100				
Patching Index	100				
Rutting Index	99				
Roughness Condition Index (RCI)	96				

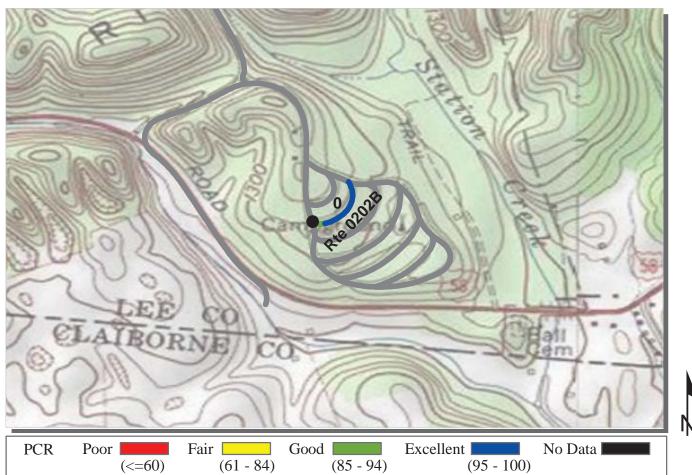
ROUTE: 0202 WILDERNESS ROAD CAMPGROUND



ROUTE: 0202A WILDERNESS ROAD CAMPGROUND A CUGA : CUMBERLAND GAP NATIONAL HISTORICAL PARK

			•••	COLLECTED:		
SOUTHEAST REGION			TOTAL	LENGTH:	0.09 Miles	
Section Number	0					
Section Length (mi)	0.09					
Traffic	Troffic data a	nor he found at r		4		
AADT		nay be found at v OGRAMS / NPS		l.gov		
SADT		l parks have traff				
ADT Date	(1100011100 41	Pullo nu te d'un	iio uuu)			
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	15					
Lane Width (ft)	15					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	94					
PCR (Pavement Condition Rating)	94					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	100					
Tranverse Cracking Index	100					
Patching Index	100					
Rutting Index	94					
Roughness Condition Index (RCI)	NC					

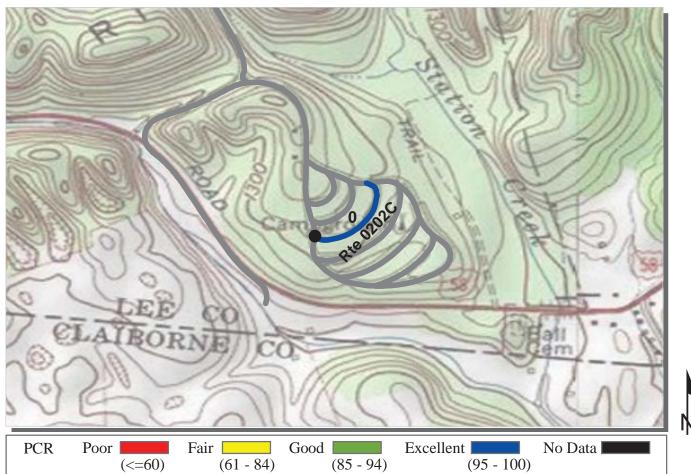
ROUTE: 0202A WILDERNESS ROAD CAMPGROUND A



ROUTE: 0202B WILDERNESS ROAD CAMPGROUND B CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

				COLLECTED:		
SOUTHEAST REGION			TOTAL	LENGTH:	0.12 Miles	
Section Number	0					
Section Length (mi)	0.12					
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have traff	Traffic Data	ıt.gov		
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	15					
Lane Width (ft)	15					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	98					
PCR (Pavement Condition Rating)	98					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	100					
Tranverse Cracking Index	100					
Patching Index	100					
Rutting Index	98					
Roughness Condition Index (RCI)	NC					

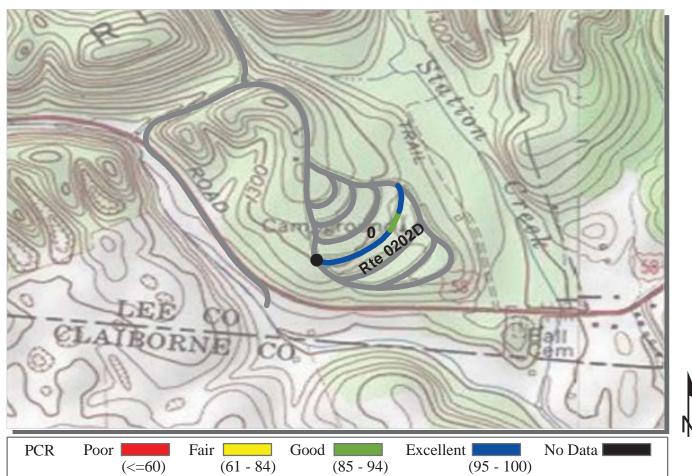
ROUTE: 0202B WILDERNESS ROAD CAMPGROUND B



ROUTE: 0202C WILDERNESS ROAD CAMPGROUND C CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009	
SOUTHEAST REGION		TOTAL LENGTH:			0.18 Miles	
Section Number	0					
Section Length (mi)	0.18					
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have trafi	Traffic Data	t.gov		
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	18					
Lane Width (ft)	18					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	98					
PCR (Pavement Condition Rating)	98					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	100					
Tranverse Cracking Index	100					
Patching Index	100					
Rutting Index	98					
Roughness Condition Index (RCI)	97					

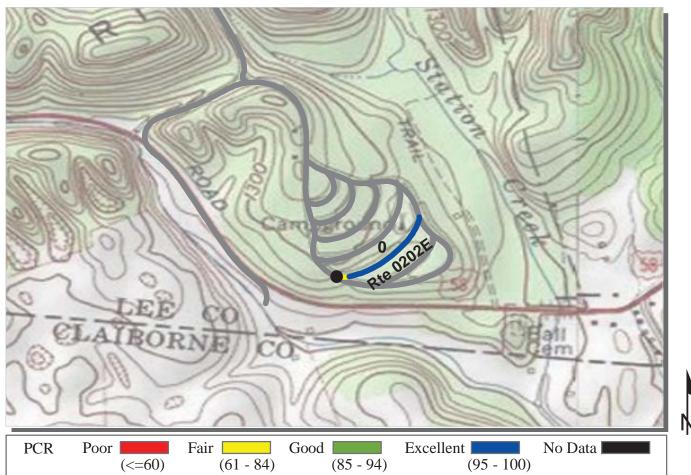
ROUTE: 0202C WILDERNESS ROAD CAMPGROUND C



ROUTE: 0202D WILDERNESS ROAD CAMPGROUND D CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

				COLLECTED:		
SOUTHEAST REGION	0		TOTAL	LENGTH:	0.23 Miles	
Section Number	0 0.23					
Section Length (mi)	0.25					
<i>Traffic</i> AADT	Traffic data n	nay be found at v	www.efl.fhwa.do	ot.gov		
		OGRAMS / NPS		C		
SADT	(Note: Not al	l parks have traff	fic data)			
ADT Date		1	1		r	
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	16					
Lane Width (ft)	16					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	99					
PCR (Pavement Condition Rating)	97					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	100					
Tranverse Cracking Index	100					
Patching Index	100					
Rutting Index	99					
Roughness Condition Index (RCI)	93					

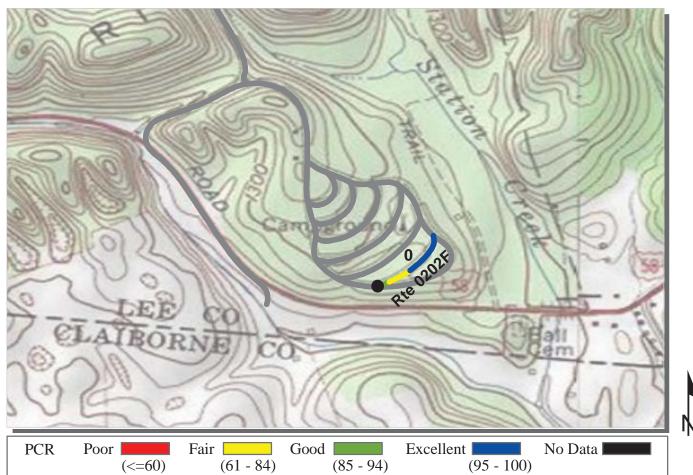
ROUTE: 0202D WILDERNESS ROAD CAMPGROUND D



ROUTE: 0202E WILDERNESS ROAD CAMPGROUND E CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009
SOUTHEAST REGION			TOTAL	0.19 Miles	
Section Number	0				
Section Length (mi)	0.19				
<i>Traffic</i> AADT SADT ADT Date	Click on PRC	nay be found at v OGRAMS / NPS l parks have traff	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	16				
Lane Width (ft)	16				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	98				
PCR (Pavement Condition Rating)	95				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	83				

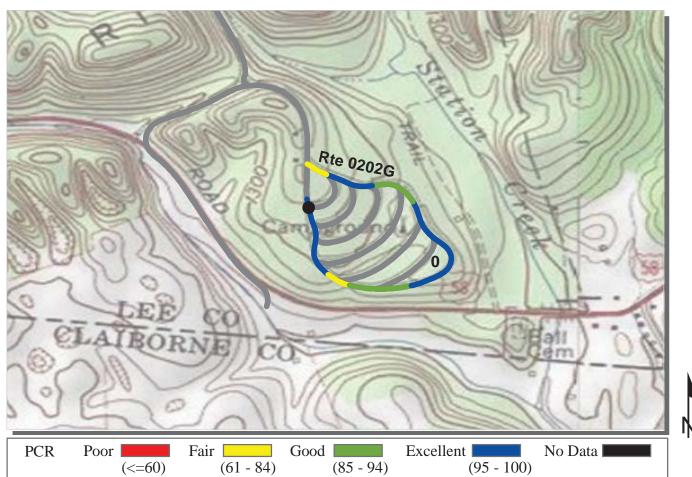
ROUTE: 0202E WILDERNESS ROAD CAMPGROUND E



ROUTE: 0202F WILDERNESS ROAD CAMPGROUND F CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009
SOUTHEAST REGION			TOTAL	0.14 Miles	
Section Number	0				
Section Length (mi)	0.14				
<i>Traffic</i> AADT SADT ADT Date	Click on PRC	nay be found at v OGRAMS / NPS l parks have traff	Traffic Data	ıt.gov	
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	15				
Lane Width (ft)	15				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	97				
PCR (Pavement Condition Rating)	92				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	100				
Patching Index	100				
Rutting Index	97				
Roughness Condition Index (RCI)	71				

ROUTE: 0202F WILDERNESS ROAD CAMPGROUND F



ROUTE: 0202G WILDERNESS ROAD CAMPGROUND G CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	COLLECTED:		
SOUTHEAST REGION			TOTAL LENGTH:			
Section Number	0					
Section Length (mi)	0.69					
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have traff	Traffic Data	t.gov		
Cross Section Information						
Number of Lanes	1					
Paved Width (ft)	15					
Lane Width (ft)	13					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	99					
PCR (Pavement Condition Rating)	93					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	100					
Tranverse Cracking Index	100					
Patching Index	100					
Rutting Index	99					
Roughness Condition Index (RCI)	83					

ROUTE: 0202G WILDERNESS ROAD CAMPGROUND G



Ņ

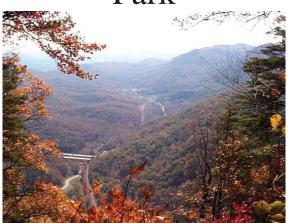
PCR	Poor	Fair	Good	Excellent	No Data
	(<=60)	(61 - 84)	(85 - 94)	(95 - 10	0)
* If the PC	R rating is not availa	ble for a section, the	SCR rating will be dis	played. See appendix for	or definitions and formulas.

ROUTE: 0421 DUPLEX DRIVE CUGA: CUMBERLAND GAP NATIONAL HISTORICAL PARK

			CO	LLECTED:	6/1/2009
SOUTHEAST REGION	TOTA			LENGTH:	0.11 Miles
Section Number	0				
Section Length (mi)	0.11				
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have trafi	Traffic Data	ıt.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	17				
Lane Width (ft)	8				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	98				
PCR (Pavement Condition Rating)	98				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	100				
Patching Index	100				
Rutting Index	98				
Roughness Condition Index (RCI)	NC				

ROUTE: 0421 DUPLEX DRIVE

Cumberland Gap National Historical Park



Section 6 Manually Rated Paved Route Condition Rating Sheets (MRR)

LITTLE YELLOW CREEK ROAD FROM ROUTE 0010 (PINNACLE ROAD) TO ROUTE 0910 (LITTLE YELLOW CREEK OVERFLOW PARKING)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0102	PUBLIC	4/1	6/2009	7,762	0.13	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



Rie 0102

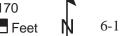
170

85

0



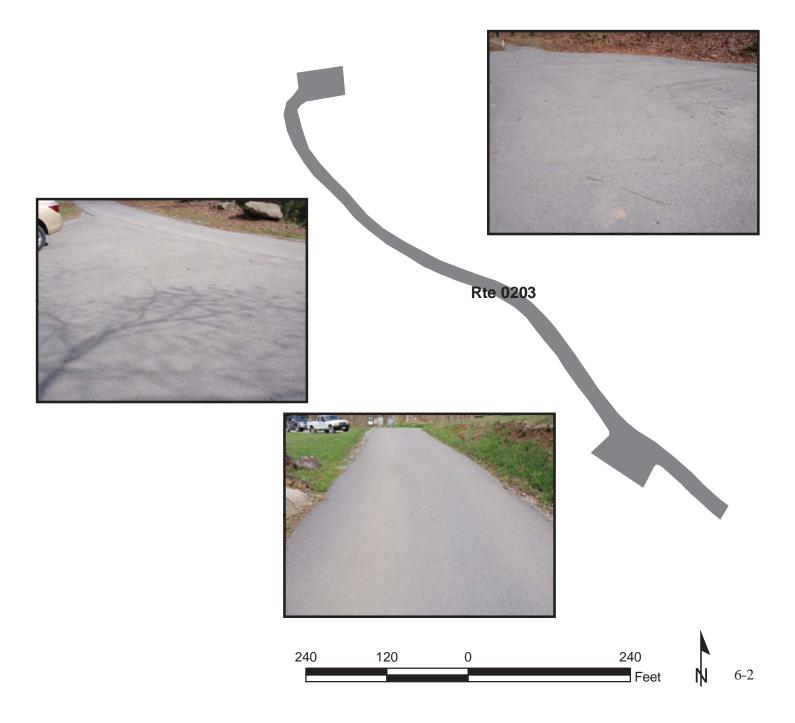
170



Rte 0010

ENTRANCE ROAD AT TWCP FROM COUNTY ROUTE 724 TO END OF ROUTE

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0203	PUBLIC	4/1	6/2009	20,839	0.36	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	1	1	0	GUTTER	NO CURB	GOOD/90



PUMP HOUSE SERVICE ROAD

FROM ROUTE 0010 (PINNACLE ROAD)

TO END

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0403	NONPUBLIC	4/1	6/2009	1,901	0.03	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	FAIR/73

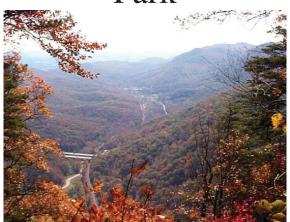
* Lane miles are based on 11' lane widths

Rte 0403





Cumberland Gap National Historical Park



Section 7 Parking Area Condition Rating Sheets

VISITOR CENTER PARKING FROM ROUTE 0010 (PINNACLE ROAD) TO ROUTE 0010 (PINNACLE ROAD)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0900	PUBLIC	4/1	6/2009	86,083	1.48	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	18	0	0	AND GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths











490

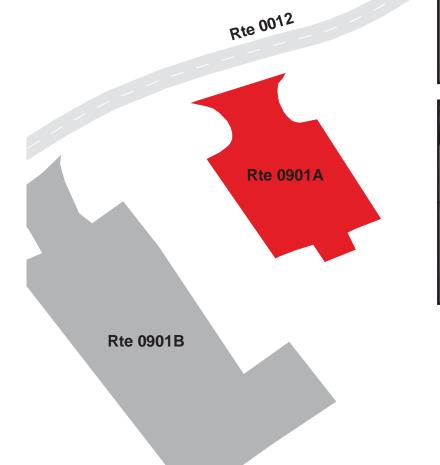


RANGER STATION EMPLOYEE PARKING A FROM ROUTE 0012 (BARTLETT PARK ROAD)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0901A	NONPUBLIC	4/1	6/2009	4,410	0.08	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
1	0	0	0	GUTTER	NO CURB	GOOD/90







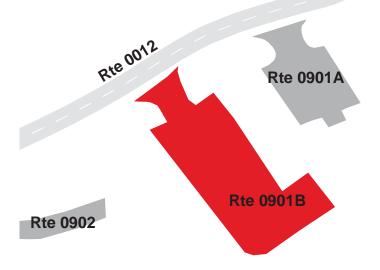


RANGER STATION EMPLOYEE PARKING B FROM ROUTE 0012 (BARTLETT PARK ROAD)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0901B	NONPUBLIC	4/1	6/2009	10,664	0.18	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	1	0	GUTTER	NO CURB	GOOD/90







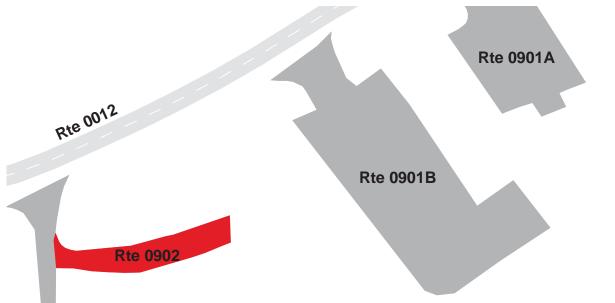


VIP CAMPSITE PARKING FROM ROUTE 0903 (HEADQUARTERS PARKING)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0902	PUBLIC	4/1	6/2009	1,796	0.03	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



Rte 0903



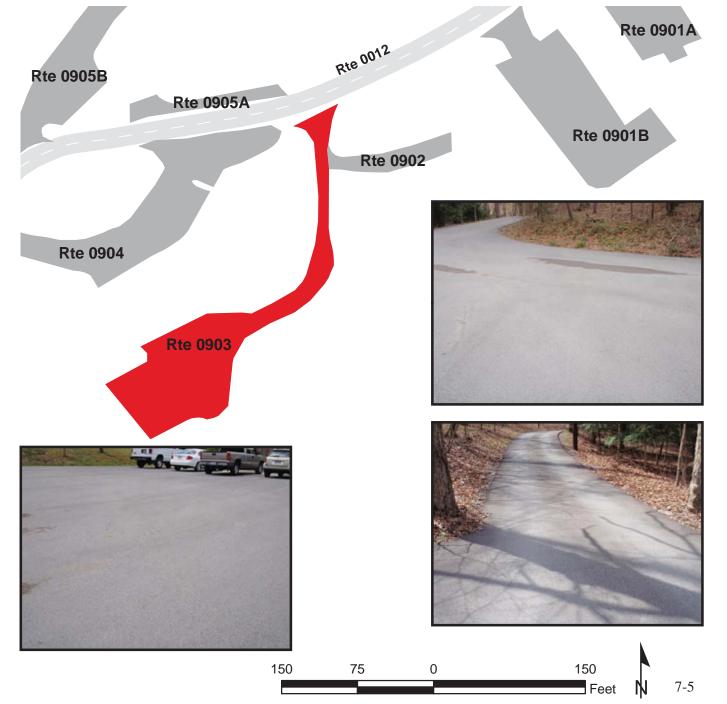
0

Feet

HEADQUARTERS PARKING FROM ROUTE 0012 (BARTLETT PARK ROAD)

TO PARKING

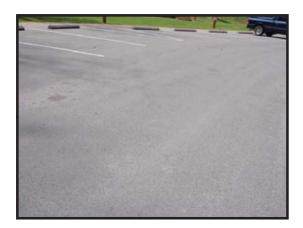
Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0903	PUBLIC	4/1	6/2009	11,501	0.20	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	1	0	0	GUTTER	NO CURB	GOOD/90

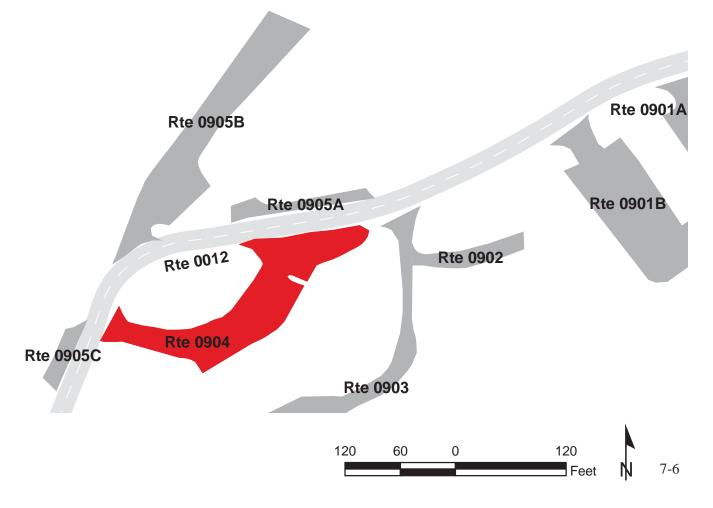


HEADQUARTERS EMPLOYEE PARKING FROM ROUTE 0012 (BARTLETT PARK ROAD) TO ROUTE 0012 (BARTLETT PARK ROAD)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0904	NONPUBLIC	4/1	6/2009	10,535	0.18	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90





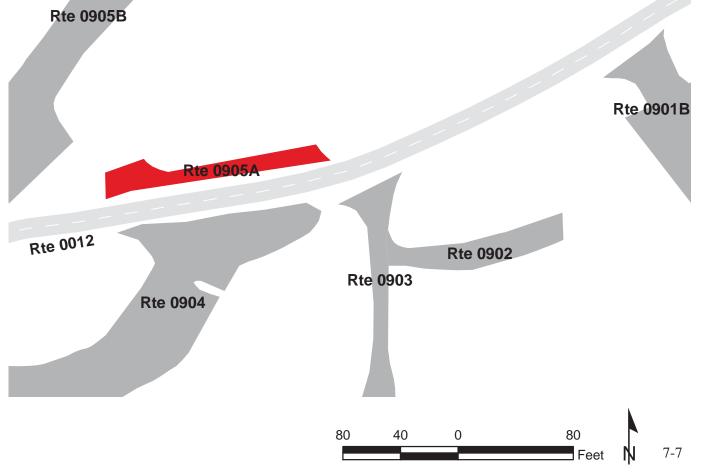


BARTLETT PARK PICNIC AREA PARKING A ADJACENT TO ROUTE 0012 (BARTLETT PARK ROAD)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0905A	PUBLIC	4/1	6/2009	1,543	0.03	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

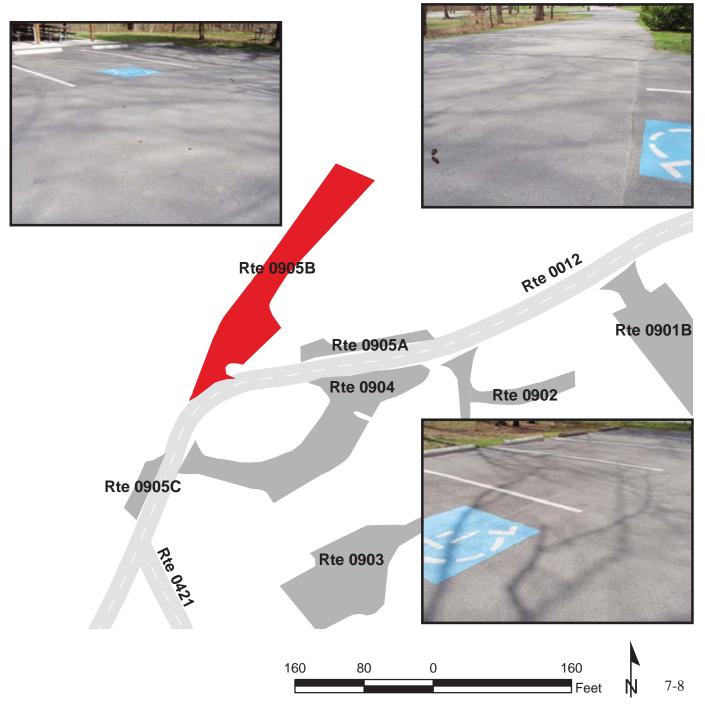






BARTLETT PARK PICNIC AREA PARKING B FROM ROUTE 0012 (BARTLETT PARK ROAD) TO PARKING

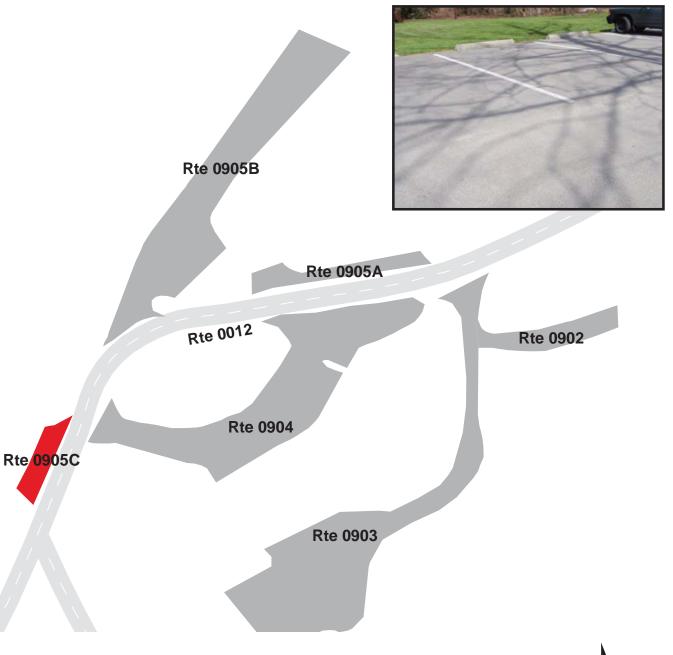
Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0905B	PUBLIC	4/1	6/2009	9,680	0.17	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90



BARTLETT PARK PICNIC AREA PARKING C ADJACENT TO ROUTE 0012 (BARTLETT PARK ROAD)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0905C	PUBLIC	4/1	6/2009	1,031	0.02	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



100

50

0



100

Feet

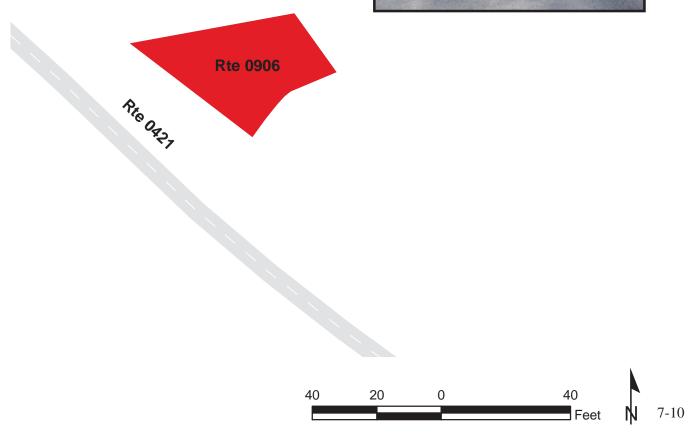
HEADQUARTERS HANDICAPPED PARKING

FROM ROUTE 0421 (DUPLEX DRIVE)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0906	PUBLIC	4/1	6/2009	974	0.02	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

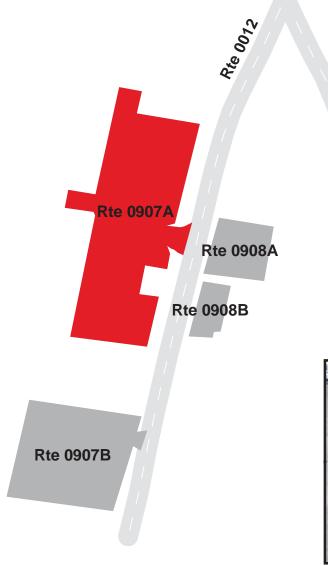




MAINTENANCE AREA A FROM ROUTE 0012 (BARTLETT PARK ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0907A	NONPUBLIC	4/1	6/2009	21,155	0.36	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
1	0	1	0	GUTTER	NO CURB	FAIR/73

* Lane miles are based on 11' lane widths





Rte 0906

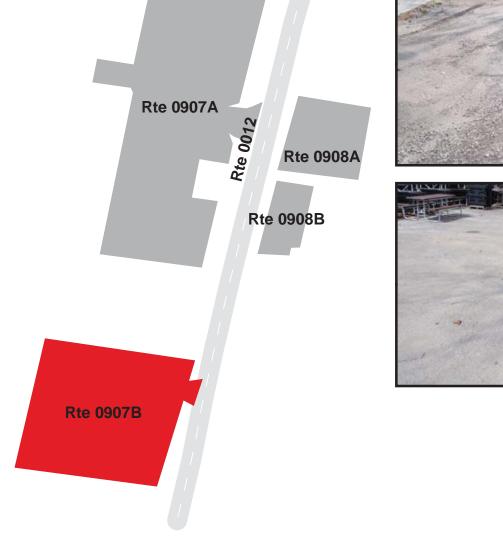






MAINTENANCE AREA B FROM ROUTE 0012 (BARTLETT PARK ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0907B	NONPUBLIC	4/16/2009		11,910	0.21	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	2	0	GUTTER	NO CURB	POOR/45



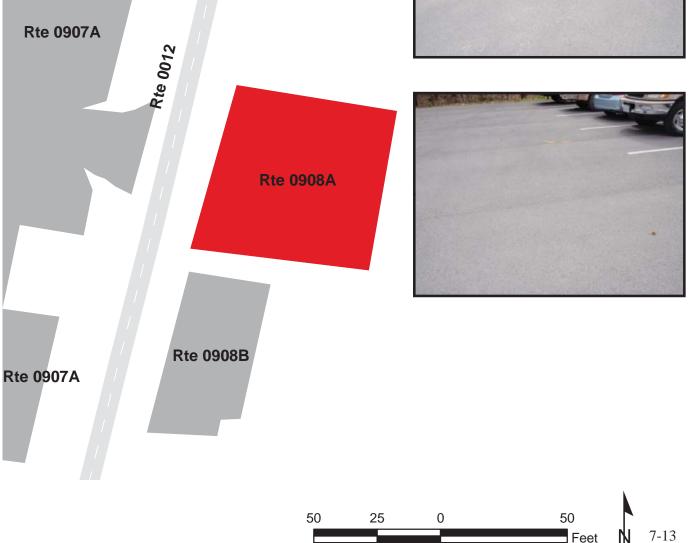




RESOURCE MANAGEMENT PARKING A FROM ROUTE 0012 (BARTLETT PARK ROAD) TO PARKING

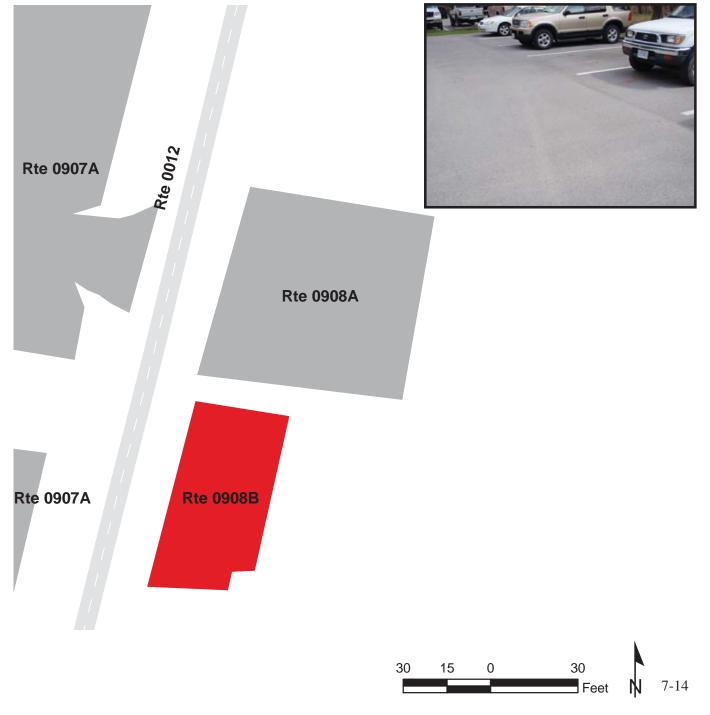
Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0908A	NONPUBLIC	4/16/2009		3,537	0.06	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90





RESOURCE MANAGEMENT PARKING B FROM ROUTE 0012 (BARTLETT PARK ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0908B	NONPUBLIC	4/1	6/2009	1,682	0.03	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90



FORT MCCOOK PARKING

FROM ROUTE 0010 (PINNACLE ROAD)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0911	PUBLIC	4/1	5/2009	3,874	0.07	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	1	0	0	GUTTER	STONE CURB	GOOD/90

* Lane miles are based on 11' lane widths

Rte 0010

Rte 0911







MIDWAY PARKING

FROM ROUTE 0010 (PINNACLE ROAD)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0912	PUBLIC	4/1	5/2009	6,219	0.11	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	1	0	0	GUTTER	CURB	GOOD/90

* Lane miles are based on 11' lane widths

Rte 0912





Rte 0010



PINNACLE PARKING

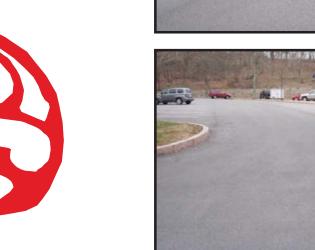
FROM END OF ROUTE 0010 (PINNACLE ROAD)

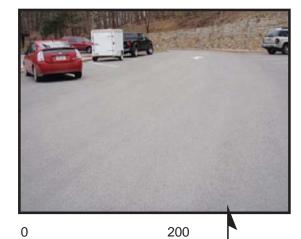
TO PARKING

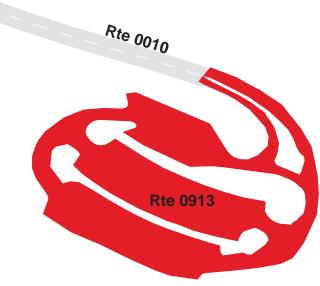
Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	4/1	5/2009	40,943	0.71	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	9	0	0	GUTTER	STONE CURB	GOOD/90

* Lane miles are based on 11' lane widths









200

100

Feet

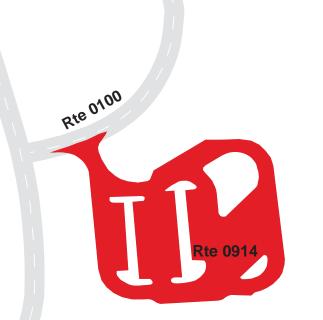
THOMAS WALKER PARKING

FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)

TO PARKING

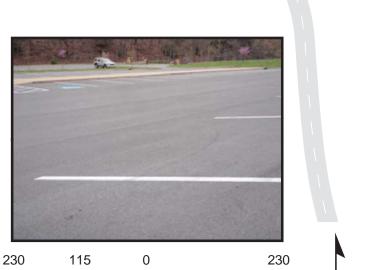
Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0914	PUBLIC	4/15/2009		51,519	0.89	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	4	1	0	GUTTER	STONE CURB	GOOD/90

* Lane miles are based on 11' lane widths









Ate 0010

ſŊ

Feet

DARK RIDGE OVERLOOK PARKING FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD) TO ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0915	PUBLIC	4/1	5/2009	4,634	0.08	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	1	0	0	GUTTER	CURB	GOOD/90

* Lane miles are based on 11' lane widths

Rte 0100



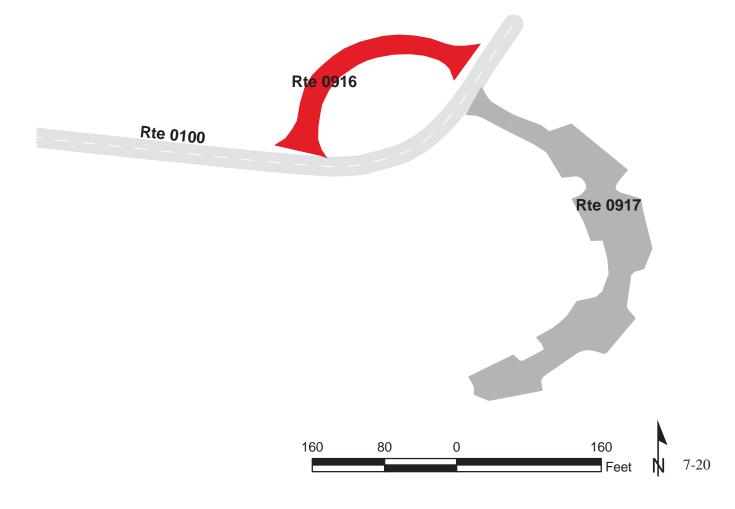


SUGAR RUN TURNAROUND FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD) TO ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0916	PUBLIC	4/1	5/2009	5,284	0.09	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
1	0	0	0	GUTTER	NO CURB	GOOD/90







SUGAR RUN PICNIC AREA PARKING FROM ROUTE 0100 (SUGAR RUN OVERLOOK ROAD) TO PARKING

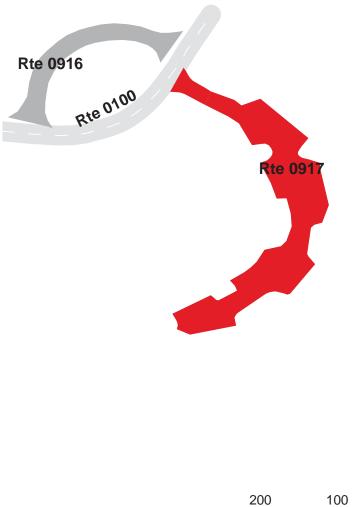
Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0917	PUBLIC	4/1	5/2009	16,182	0.28	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
1	0	1	0	GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths



7-21

Feet



WILDERNESS ROAD TRAILHEAD PARKING A FROM ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) TO ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0918A	PUBLIC	4/1	6/2009	15,354	0.26	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
2	0	2	0	GUTTER	NO CURB	EXCELLENT/97

* Lane miles are based on 11' lane widths

Ate 0101

Rte 0918A





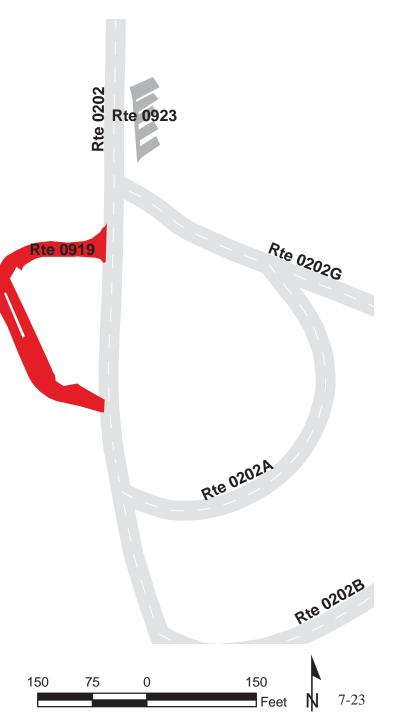


WILDERNESS ROAD CAMPGROUND DUMP STATION FROM ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) TO ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)

	Route	Public /					
ľ	Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
	0919	PUBLIC	4/16/2009		8,301	0.14	AS
				Fire			
0	Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
					NO CURB AND		
	0	0	0	0	GUTTER	NO CURB	GOOD/90







GROUP CAMPING PARKING

ADJACENT TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0920	PUBLIC	4/1	6/2009	4,950	0.09	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	EXCELLENT/97

Rte 0920

* Lane miles are based on 11' lane widths

Rte 0202F

Rte 0202G



100 50 0 100 Feet 7-24

AMPHITHEATER HANDICAPPED PARKING ADJACENT TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)

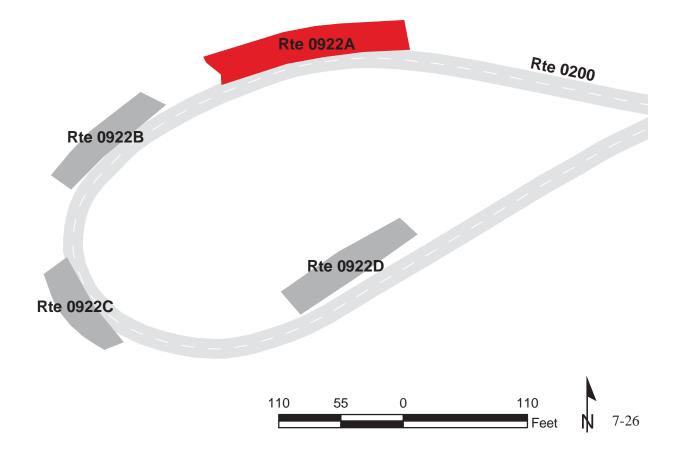
Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0921	PUBLIC	4/1	6/2009	1,237	0.02	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	EXCELLENT/97



WILDERNESS ROAD PICNIC AREA PARKING A ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0922A	PUBLIC	4/1	6/2009	3,865	0.07	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
1	0	0	0	GUTTER	NO CURB	EXCELLENT/97

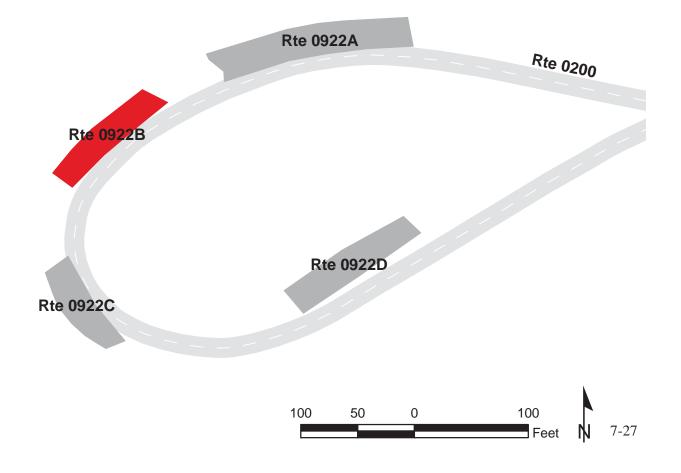




WILDERNESS ROAD PICNIC AREA PARKING B ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0922B	PUBLIC	4/1	6/2009	2,113	0.04	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
1	0	0	0	GUTTER	NO CURB	EXCELLENT/97

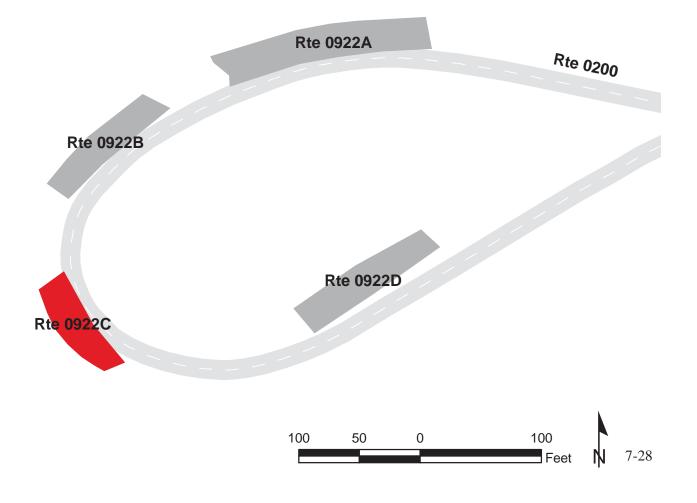




WILDERNESS ROAD PICNIC AREA PARKING C ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0922C	PUBLIC	4/1	6/2009	1,804	0.03	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	EXCELLENT/97

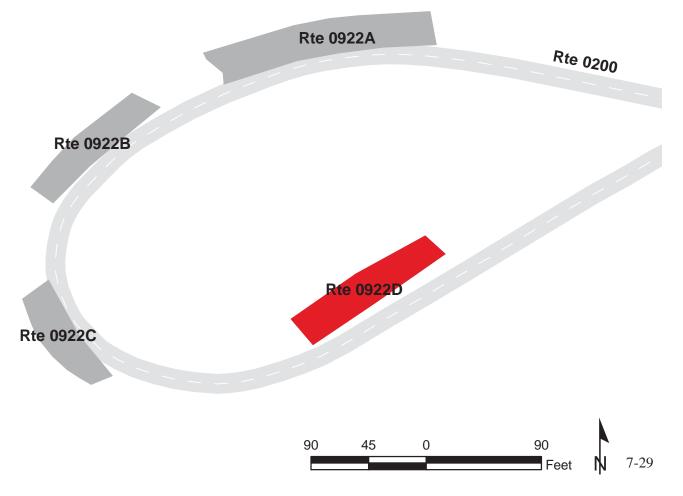




WILDERNESS ROAD PICNIC AREA PARKING D ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0922D	PUBLIC	4/1	6/2009	2,583	0.04	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	EXCELLENT/97

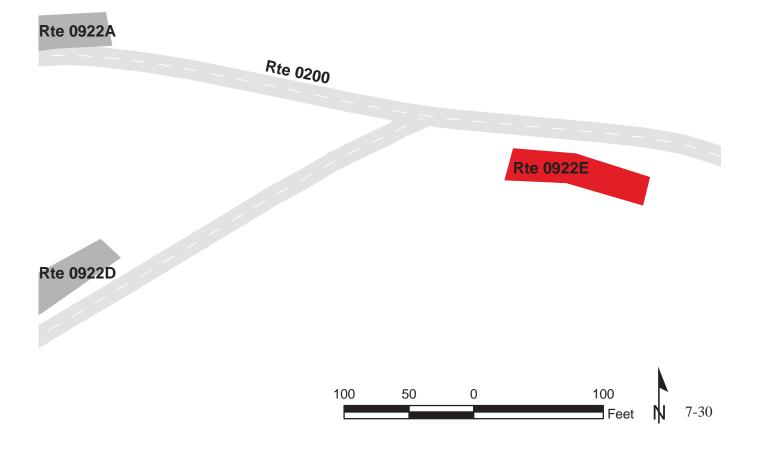




WILDERNESS ROAD PICNIC AREA PARKING E ADJACENT TO ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0922E	PUBLIC	4/1	6/2009	2,076	0.04	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	EXCELLENT/97





WILDERNESS ROAD CAMPGROUND REGISTRATION PARKING ADJACENT TO ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0923	PUBLIC	4/1	6/2009	2,079	0.04	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

* Lane miles are based on 11' lane widths

Rte 0202

Rte 0919



PULLOUT PARKING

ADJACENT TO ROUTE 0010 (PINNACLE ROAD)

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0924	PUBLIC	4/16/2009		721	0.01	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90

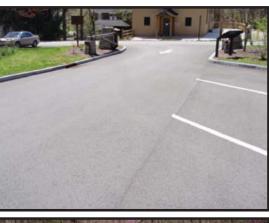






IRON FURNACE PARKING FROM PENNLYN AVENUE TO PENNLYN AVENUE

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0925	PUBLIC	4/16/2009		15,344	0.26	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	2	2	0	GUTTER	STONE CURB	GOOD/90











DANIEL BOONE PARKING

FROM ROUTE 0103 (DANIEL BOONE PARKING ACCESS ROAD)

TO PARKING

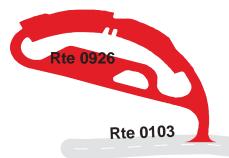
Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0926	PUBLIC	4/16/2009		54,724	0.94	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	3	1	0	GUTTER	STONE CURB	GOOD/90











Cumberland Gap National Historical Park



Section 8 Parkwide / Route Maintenance Features Summaries

CUGA: PARKWIDE MAINTENANCE FEATURES SUMMARY

Notice: Culverts and drop inlets were marked only on a limited number of roads in Cycle 4, therefore the culvert and drop inlet count below includes only those select roads, plus culverts and drop inlets in Manually Rated Routes and Paved Parking Areas.

FEATURE	LINEAR FEET	COUNT
BARRIER	4,298	
BOLLARD	0	
BRIDGE		3
CABLE	0	
CATTLE GUARD		0
CULVERT		65
CURB	348	
DROP INLET		48
FIRE HYDRANT		2
GATE		16
GUARD/GUIDE RAIL	3,210	
GUARD/GUIDE WALL	1,088	
INTERSECTION		123
LOW WATER CROSSING	0	0
MILE MARKER		0
OVERPASS		3
OVERHEAD SIGN		0
PARK BOUNDARY		4
PAVED DITCH	30,983	
PULLOUT		0
RAILROAD CROSSING		0
RETAINING WALL	0	0
SIGN		153
STATE BOUNDARY		0
TEMPORARY BARRIER	0	
TRAFFIC LIGHT		0
TUNNEL	0	0
TURNOUT	0	

Data Collected 6/1/2009

CUGA: ROUTE MAINTENANCE FEATURES SUMMARY

FEATURE	ROUTE 0010 PINNACLE ROAD	ROUTE 0012 BARTLETT PARK ROAD	ROUTE 0013 US HIGHWAY 25E SOUTHBOUND ACCESS ROAD	ROUTE 0100 SUGAR RUN OVERLOOK ROAD	ROUTE 0103 DANIEL BOONE PARKING ACCESS ROAD	ROUTE 0200 WILDERNESS ROAD PICNIC AREA	UNIT
BARRIER	3,020	111	0	0	861	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
BRIDGE	2	1	0	0	0	0	EACH
CABLE	0	0	0	0	0	0	LINEAR FEET
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	57	0	0	0	0	0	EACH
CURB	348	0	0	0	0	0	LINEAR FEET
DROP INLET	7	0	0	0	0	0	EACH
FIRE HYDRANT	0	1	0	0	0	0	EACH
GATE	1	1	0	1	0	1	EACH
GUARD/GUIDE RAIL	1,932	111	0	0	861	0	LINEAR FEET
GUARD/GUIDE WALL	1,088	0	0	0	0	0	LINEAR FEET
INTERSECTION	15	17	6	10	5	11	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
OVERHEAD SIGN	0	0	0	0	0	0	EACH
OVERPASS	2	0	0	1	0	0	EACH
PARK BOUNDARY	0	1	0	1	1	0	EACH
PAVED DITCH	17,318	0	0	0	0	2,191	LINEAR FEET
PULLOUT	0	0	0	0	0	0	EACH
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	43	15	5	22	14	6	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET
TURNOUT	0	0	0	0	0	0	LINEAR FEET

Note 4: Notice: Culverts and drop inlets were marked only on a limited number of roads in Cycle 4, therefore the culvert and drop inlet count above includes only those select roads, plus culverts and drop inlets in Manually Rated Routes and Paved Parking Areas.

CUGA: ROUTE MAINTENANCE FEATURES SUMMARY

FEATURE	ROUTE 0202 WILDERNESS ROAD CAMPGROUND	ROUTE 0202A WILDERNESS ROAD CAMPGROUND A	ROUTE 0202B WILDERNESS ROAD CAMPGROUND B	ROUTE 0202C WILDERNESS ROAD CAMPGROUND C	ROUTE 0202D WILDERNESS ROAD CAMPGROUND D	ROUTE 0202E WILDERNESS ROAD CAMPGROUND E	UNIT
BARRIER	306	0	0	0	0	0	LINEAR FEET
BOLLARD	0	0	0	0	0	0	LINEAR FEET
BRIDGE	0	0	0	0	0	0	EACH
CABLE	0	0	0	0	0	0	LINEAR FEET
CATTLE GUARD	0	0	0	0	0	0	EACH
CULVERT	0	0	0	0	0	0	EACH
CURB	0	0	0	0	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
FIRE HYDRANT	1	0	0	0	0	0	EACH
GATE	0	0	0	0	0	0	EACH
GUARD/GUIDE RAIL	306	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	0	0	0	LINEAR FEET
INTERSECTION	13	4	4	4	4	4	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
OVERHEAD SIGN	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	1	0	0	0	0	0	EACH
PAVED DITCH	2,608	438	597	1,431	1,051	1,093	LINEAR FEET
PULLOUT	0	0	0	0	0	0	EACH
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	29	1	2	4	1	0	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
TRAFFIC LIGHT	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	EACH
TUNNEL	0	0	0	0	0	0	LINEAR FEET
TURNOUT	0	0	0	0	0	0	LINEAR FEET

Note 4: Notice: Culverts and drop inlets were marked only on a limited number of roads in Cycle 4, therefore the culvert and drop inlet count above includes only those select roads, plus culverts and drop inlets in Manually Rated Routes and Paved Parking Areas.

CUGA: ROUTE MAINTENANCE FEATURES SUMMARY

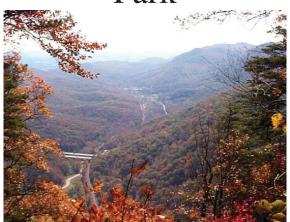
FEATURE	ROUTE 0202F WILDERNESS ROAD CAMPGROUND F	ROUTE 0202G WILDERNESS ROAD CAMPGROUND G	ROUTE 0421 DUPLEX DRIVE	UNIT
BARRIER	0	0	0	LINEAR FEET
BOLLARD	0	0	0	LINEAR FEET
BRIDGE	0	0	0	EACH
CABLE	0	0	0	LINEAR FEET
CATTLE GUARD	0	0	0	EACH
CULVERT	0	0	0	EACH
CURB	0	0	0	LINEAR FEET
DROP INLET	0	0	0	EACH
FIRE HYDRANT	0	0	0	EACH
GATE	0	0	0	EACH
GUARD/GUIDE RAIL	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	LINEAR FEET
INTERSECTION	4	18	4	EACH
LOW WATER CROSSING	0	0	0	EACH
LOW WATER CROSSING	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	EACH
OVERHEAD SIGN	0	0	0	EACH
OVERPASS	0	0	0	EACH
PARK BOUNDARY	0	0	0	EACH
PAVED DITCH	649	3,606	0	LINEAR FEET
PULLOUT	0	0	0	EACH
RAILROAD CROSSING	0	0	0	EACH
RETAINING WALL	0	0	0	EACH
RETAINING WALL	0	0	0	LINEAR FEET
SIGN	1	8	2	EACH
STATE BOUNDARY	0	0	0	EACH
TEMPORARY BARRIER	0	0	0	LINEAR FEET
TRAFFIC LIGHT	0	0	0	EACH
TUNNEL	0	0	0	EACH
TUNNEL	0	0	0	LINEAR FEET
TURNOUT	0	0	0	LINEAR FEET

Note 4: Notice: Culverts and drop inlets were marked only on a limited number of roads in Cycle 4, therefore the culvert and drop inlet count above includes only those select roads, plus culverts and drop inlets in Manually Rated Routes and Paved Parking Areas.

CUGA: STRUCTURE LIST

ROUTE NUMBER	FUNCTIONAL CLASS	MILEPOST START	MILEPOST END	FEATURE	STRUCTURE NUMBER
0010	1	0.15	0.15	CULVERT	5230-008
0010	1	0.183	0.213	BRIDGE	5230-005
0010	1	0.598	0.598	CULVERT	5230-003
0010	1	0.835	0.835	OVERPASS	5230-010
0010	1	0.858	0.858	OVERPASS	5230-009
0010	1	1.674	1.714	BRIDGE	5230-001
0012	1	0.387	0.395	BRIDGE	5230-002
0100	2	0.118	0.118	OVERPASS	5230-001

Cumberland Gap National Historical Park



Section 9 Park Route Maintenance Features Road Logs

ROUTE 0010: PINNACLE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM US HIGHWAY 25E NORTHBOUND
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (US HIGHWAY 25E NORTHBOUND / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (US HIGHWAY 25E NORTHBOUND / NON NPS)
0.027	0.027	SIGN	RIGHT	WARNING, EXIT 35 M.P.H.
0.047	0.047	SIGN	LEFT	GUIDE, EXIT
0.065	0.175	GUARD/GUIDE RAIL	RIGHT	
0.079	0.079	SIGN	RIGHT	WARNING, 20 M.P.H.
0.079	0.079	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.108	0.108	SIGN	LEFT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.150	0.150	CULVERT	N/A	
0.172	0.172	DROP INLET	LEFT	
0.172	0.172	SIGN	RIGHT	WARNING, 20 M.P.H.
0.172	0.172	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.173	0.222	GUARD/GUIDE RAIL	LEFT	
0.174	0.174	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.175	0.221	GUARD/GUIDE RAIL	RIGHT	
0.183	0.213	BRIDGE	N/A	5230-005 (U.S. ROUTE 25E BRIDGE #2)
0.221	0.221	DROP INLET	LEFT	
0.221	0.221	DROP INLET	RIGHT	
0.223	0.223	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.232	0.232	SIGN	LEFT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.242	0.242	INTERSECTION	LEFT	ROUTE 0013 (US HIGHWAY 25E SOUTHBOUND ACCESS ROAD)
0.242	0.242	INTERSECTION	RIGHT	ROUTE 0013 (US HIGHWAY 25E SOUTHBOUND ACCESS ROAD)
0.258	0.258	SIGN	RIGHT	GUIDE, 25 E NORTH SOUTH TN HISTORIC AREA CAMPGROUND
0.272	0.272	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.291	0.291	SIGN	RIGHT	GUIDE, VISITOR CENTER & CRAFT SHOP PARK HEADQUARTERS PINNACLE OVERLOOK
0.293	0.293	INTERSECTION	RIGHT	ROUTE 0900 (VISITOR CENTER PARKING)
0.293	0.293	SIGN	RIGHT	REGULATORY, STOP
0.304	0.363	CURB-AND-GUTTER	RIGHT	
0.318	0.318	DROP INLET	RIGHT	

ROUTE 0010: PINNACLE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.318	0.318	DROP INLET	RIGHT	
0.371	0.371	INTERSECTION	RIGHT	ROUTE 0900 (VISITOR CENTER PARKING)
0.383	0.389	CURB-AND-GUTTER	RIGHT	
0.397	0.397	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.428	0.428	DROP INLET	RIGHT	
0.451	0.451	CULVERT	N/A	
0.584	0.618	GUARD/GUIDE RAIL	RIGHT	
0.586	0.618	GUARD/GUIDE RAIL	LEFT	
0.598	0.598	CULVERT	N/A	
0.631	0.631	SIGN	RIGHT	GUIDE, PINNACLE OVERLOOK PARK HEADQUARTERS BARTLETT PARK/PICNIC AREA
0.633	0.633	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.633	0.633	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.640	0.640	INTERSECTION	RIGHT	ROUTE 0012 (BARTLETT PARK ROAD)
0.688	0.688	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.719	0.719	INTERSECTION	RIGHT	ROUTE 0102 (LITTLE YELLOW CREEK ROAD)
0.722	0.722	SIGN	LEFT	GUIDE, FOOT TRAVEL ONLY
0.722	0.722	SIGN	LEFT	GUIDE, THOMAS WALKER TRAIL
0.731	0.811	PAVED DITCH	LEFT	
0.746	0.746	CULVERT	N/A	
0.751	0.751	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.751	0.751	SIGN	RIGHT	WARNING, PED XING
0.810	0.866	GUARD/GUIDE WALL	LEFT	
0.829	0.833	PAVED DITCH	RIGHT	
0.835	0.835	OVERPASS	N/A	5230-010 (SKYLAND ROAD BRIDGE #2)
0.858	0.858	OVERPASS	N/A	5230-009 (SKYLAND ROAD BRIDGE #1)
0.861	0.895	PAVED DITCH	LEFT	
0.864	1.047	PAVED DITCH	RIGHT	
0.900	0.900	CULVERT	N/A	
0.909	0.909	DROP INLET	RIGHT	
0.948	0.948	CULVERT	N/A	

ROUTE 0010: PINNACLE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.992	0.992	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.997	0.997	CULVERT	N/A	
1.004	1.035	PAVED DITCH	LEFT	
1.069	1.216	PAVED DITCH	RIGHT	
1.083	1.111	PAVED DITCH	LEFT	
1.121	1.121	CULVERT	N/A	
1.161	1.161	CULVERT	N/A	
1.218	1.218	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.218	1.218	SIGN	RIGHT	WARNING, PED XING
1.279	1.279	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.294	1.657	PAVED DITCH	LEFT	
1.303	1.383	PAVED DITCH	RIGHT	
1.333	1.333	CULVERT	N/A	
1.385	1.385	CULVERT	N/A	
1.428	1.428	CULVERT	N/A	
1.476	1.476	CULVERT	N/A	
1.526	1.526	CULVERT	N/A	
1.571	1.571	SIGN	RIGHT	GUIDE, PINNACLE OVERLOOK SUGAR RUN THOMAS WALKER PARKING
1.578	1.578	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
1.592	1.592	CULVERT	N/A	
1.602	1.602	INTERSECTION	RIGHT	ROUTE 0100 (SUGAR RUN OVERLOOK ROAD)
1.609	1.609	SIGN	RIGHT	GUIDE, PROHIBITED ALL TRAILERS ALL VEHICLES OVER 20 FT. IN LENGTH
1.609	1.609	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
1.609	1.609	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
1.623	1.623	GATE	N/A	
1.623	1.623	SIGN	N/A	REGULATORY, ROAD CLOSED
1.628	1.628	CULVERT	N/A	
1.637	1.637	SIGN	RIGHT	GUIDE, GATE CLOSES AT DARK
1.649	1.649	SIGN	RIGHT	GUIDE, VISITOR CENTER SUGAR RUN HWY 988

ROUTE 0010: PINNACLE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.652	1.652	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
1.667	1.717	GUARD/GUIDE RAIL	RIGHT	
1.667	1.667	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.669	1.669	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
1.670	1.715	GUARD/GUIDE RAIL	LEFT	
1.674	1.714	BRIDGE	N/A	5230-001 (SUGAR RUN ROAD BRIDGE)
1.716	1.716	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.718	1.718	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
1.725	1.725	CULVERT	N/A	
1.725	1.830	PAVED DITCH	RIGHT	
1.790	1.790	CULVERT	N/A	
1.822	1.822	CULVERT	N/A	
1.831	1.870	PAVED DITCH	RIGHT	
1.831	1.880	PAVED DITCH	LEFT	
1.881	1.914	PAVED DITCH	LEFT	
1.882	1.882	CULVERT	N/A	
1.914	2.127	PAVED DITCH	LEFT	
1.975	1.975	CULVERT	N/A	
2.013	2.013	CULVERT	N/A	
2.015	2.035	PAVED DITCH	RIGHT	
2.038	2.038	CULVERT	N/A	
2.070	2.070	CULVERT	N/A	
2.086	2.086	CULVERT	N/A	
2.110	2.110	CULVERT	N/A	
2.147	2.362	PAVED DITCH	LEFT	
2.175	2.175	CULVERT	N/A	
2.207	2.207	CULVERT	N/A	
2.254	2.254	CULVERT	N/A	
2.267	2.289	PAVED DITCH	RIGHT	
2.293	2.293	CULVERT	N/A	
2.294	2.301	PAVED DITCH	RIGHT	

ROUTE 0010: PINNACLE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
2.307	2.318	PAVED DITCH	RIGHT	
2.320	2.320	CULVERT	N/A	
2.323	2.323	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
2.376	2.376	CULVERT	N/A	
2.378	2.400	PAVED DITCH	RIGHT	
2.405	2.405	INTERSECTION	RIGHT	ROUTE 0403 (PUMP HOUSE SERVICE ROAD)
2.412	2.412	CULVERT	N/A	
2.436	2.744	PAVED DITCH	RIGHT	
2.443	2.443	CULVERT	N/A	
2.526	2.526	CULVERT	N/A	
2.554	2.585	GUARD/GUIDE WALL	LEFT	
2.575	2.575	CULVERT	N/A	
2.619	2.619	INTERSECTION	LEFT	ROUTE 0924 (PULLOUT PARKING)
2.694	2.712	GUARD/GUIDE WALL	LEFT	
2.704	2.704	CULVERT	N/A	
2.725	2.759	PAVED DITCH	LEFT	
2.744	2.745	CURB	RIGHT	
2.745	2.745	SIGN	RIGHT	GUIDE, FORT MCCOOK CIVIL WAR EARTH WORK
2.749	2.749	INTERSECTION	RIGHT	ROUTE 0911 (FORT MCCOOK PARKING)
2.756	3.204	PAVED DITCH	RIGHT	
2.761	2.761	CULVERT	N/A	
2.860	2.860	CULVERT	N/A	
2.915	2.915	CULVERT	N/A	
2.986	2.986	CULVERT	N/A	
3.061	3.061	CULVERT	N/A	
3.099	3.099	CULVERT	N/A	
3.138	3.138	CULVERT	N/A	
3.169	3.256	PAVED DITCH	LEFT	
3.236	3.236	CULVERT	N/A	
3.253	3.395	PAVED DITCH	RIGHT	
3.274	3.274	INTERSECTION	LEFT	ROUTE 0912 (MIDWAY PARKING)

ROUTE 0010: PINNACLE ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
3.278	3.278	CULVERT	N/A	
3.337	3.337	CULVERT	N/A	
3.376	3.595	PAVED DITCH	LEFT	
3.451	3.523	GUARD/GUIDE WALL	RIGHT	
3.476	3.476	CULVERT	N/A	
3.526	3.526	CULVERT	N/A	
3.557	3.557	CULVERT	N/A	
3.580	3.580	CULVERT	N/A	
3.602	3.777	PAVED DITCH	RIGHT	
3.606	3.606	CULVERT	N/A	
3.626	3.626	CULVERT	N/A	
3.718	3.718	CULVERT	N/A	
3.785	3.954	PAVED DITCH	LEFT	
3.858	3.858	CULVERT	N/A	
3.887	3.916	GUARD/GUIDE WALL	RIGHT	
3.894	3.894	CULVERT	N/A	
3.957	3.957	INTERSECTION	LEFT	UNPAVED ROUTE (GATED)
3.967	3.967	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
3.977	3.977	CULVERT	N/A	
3.978	3.990	PAVED DITCH	RIGHT	
3.990	3.990	INTERSECTION	N/A	ROUTE 0913 (PINNACLE PARKING)
3.990	3.990	ROUTE END	N/A	TO ROUTE 0913 (PINNACLE PARKING)

ROUTE 0012: BARTLETT PARK ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (PINNACLE ROAD) AT MP 0.64
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (PINNACLE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (PINNACLE ROAD)
0.000	0.000	SIGN	RIGHT	REGULATORY, STOP
0.020	0.020	SIGN	RIGHT	GUIDE, TO 25E VISITOR CENTER PINNACLE OVERLOOK
0.020	0.020	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.041	0.041	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
0.058	0.058	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.234	0.234	INTERSECTION	LEFT	ROUTE 0901A (RANGER STATION EMPLOYEE PARKING A)
0.249	0.249	FIRE HYDRANT	LEFT	
0.257	0.257	INTERSECTION	LEFT	ROUTE 0901B (RANGER STATION EMPLOYEE PARKING B)
0.260	0.260	SIGN	LEFT	GUIDE, RANGER STATION
0.290	0.290	INTERSECTION	LEFT	ROUTE 0903 (HEADQUARTERS PARKING)
0.299	0.299	INTERSECTION	RIGHT	ROUTE 0905A (BARTLETT PARK PICNIC AREA PARKING A)
0.306	0.306	INTERSECTION	LEFT	ROUTE 0904 (HEADQUARTERS EMPLOYEE PARKING)
0.326	0.326	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.328	0.328	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.330	0.330	INTERSECTION	RIGHT	ROUTE 0905B (BARTLETT PARK PICNIC AREA PARKING B)
0.346	0.346	INTERSECTION	LEFT	ROUTE 0904 (HEADQUARTERS EMPLOYEE PARKING)
0.356	0.356	INTERSECTION	RIGHT	ROUTE 0905C (BARTLETT PARK PICNIC AREA PARKING C)
0.368	0.368	INTERSECTION	LEFT	ROUTE 0421 (DUPLEX DRIVE)
0.379	0.379	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
0.384	0.396	GUARD/GUIDE RAIL	RIGHT	
0.386	0.386	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
0.386	0.395	GUARD/GUIDE RAIL	LEFT	
0.387	0.387	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.387	0.395	BRIDGE	N/A	5230-002 (LITTLE YELLOW CREEK BRIDGE #1)
0.390	0.390	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.391	0.391	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
0.416	0.416	SIGN	RIGHT	GUIDE, MAINTENANCE AREA

ROUTE 0012: BARTLETT PARK ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.424	0.424	INTERSECTION	LEFT	ROUTE 0908A (RESOURCE MANAGEMENT PARKING A)
0.424	0.424	INTERSECTION	RIGHT	ROUTE 0907A (MAINTENANCE AREA A)
0.439	0.439	INTERSECTION	LEFT	ROUTE 0908B (RESOURCE MANAGEMENT PARKING B)
0.446	0.446	SIGN	LEFT	GUIDE, RESOURCE MANAGEMENT OFFICE
0.469	0.469	INTERSECTION	RIGHT	ROUTE 0907B (MAINTENANCE AREA B)
0.473	0.473	GATE	N/A	
0.490	0.490	INTERSECTION	N/A	UNPAVED ROUTE (ENVIRONMENTAL SCHOOL ROAD / NON NPS)
0.490	0.490	PARK BOUNDARY	N/A	
0.490	0.490	INTERSECTION	LEFT	ROUTE 0909 (STORAGE AREA)
0.490	0.490	ROUTE END	N/A	TO END OF PAVEMENT AND ROUTE 0909 (STORAGE AREA) ON LEFT

ROUTE 0013: US HIGHWAY 25E SOUTHBOUND ACCESS ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM US HIGHWAY 25E SOUTHBOUND
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (US HIGHWAY 25E SOUTHBOUND / NON NPS)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (US HIGHWAY 25E SOUTHBOUND / NON NPS)
0.000	0.330	ONE-WAY	N/A	
0.049	0.049	SIGN	RIGHT	WARNING, EXIT 35 M.P.H.
0.064	0.064	SIGN	LEFT	GUIDE, EXIT
0.128	0.128	SIGN	LEFT	REGULATORY, WRONG WAY
0.171	0.171	SIGN	LEFT	REGULATORY, DO NOT ENTER
0.171	0.171	SIGN	RIGHT	REGULATORY, STOP
0.180	0.180	INTERSECTION	LEFT	ROUTE 0010 (PINNACLE ROAD)
0.180	0.180	INTERSECTION	RIGHT	ROUTE 0010 (PINNACLE ROAD)
0.330	0.330	INTERSECTION	N/A	PAVED ROUTE (US HIGHWAY 25E SOUTHBOUND / NON NPS)
0.330	0.330	INTERSECTION	LEFT	PAVED ROUTE (US HIGHWAY 25E SOUTHBOUND / NON NPS)
0.330	0.330	ROUTE END	N/A	TO US HIGHWAY 25E SOUTHBOUND

ROUTE 0100: SUGAR RUN OVERLOOK ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (PINNACLE ROAD) AT MP 1.60
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (PINNACLE ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (PINNACLE ROAD)
0.000	0.000	SIGN	N/A	GUIDE, TO 25E VISITOR CENTER PINNACLE OVERLOOK TRAILERS & VEHICLES OVER 20' PROHIBITED
0.004	0.004	SIGN	RIGHT	REGULATORY, STOP
0.011	0.011	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.011	0.011	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.015	0.015	INTERSECTION	RIGHT	ROUTE 0914 (THOMAS WALKER PARKING)
).118	0.118	OVERPASS	N/A	5230-001 (SUGAR RUN ROAD BRIDGE)
).197	0.197	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
).216	0.216	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
).737	0.737	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
.878	0.878	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
).881	0.881	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
).963	0.963	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
.261	1.261	INTERSECTION	LEFT	UNPAVED ROUTE
1.506	1.506	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
.963	1.963	INTERSECTION	RIGHT	ROUTE 0915 (DARK RIDGE OVERLOOK PARKING)
.982	1.982	INTERSECTION	RIGHT	ROUTE 0915 (DARK RIDGE OVERLOOK PARKING)
2.320	2.320	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
2.323	2.323	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.697	2.697	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
2.706	2.706	GATE	N/A	
2.718	2.718	INTERSECTION	LEFT	ROUTE 0916 (SUGAR RUN TURNAROUND)
2.733	2.733	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
	2.749	INTERSECTION	RIGHT	ROUTE 0917 (SUGAR RUN PICNIC AREA PARKING)
2.750	2.750	SIGN	RIGHT	GUIDE, CUMBERLAND GAP NATIONAL HISTORICAL PARK
2.752	2.752	SIGN	RIGHT	REGULATORY, COMMERCIAL VEHICLES EXCLUDED
2.752	2.752	SIGN	LEFT	GUIDE, SUGAR RUN AREA CUMBERLAND GAP NATIONAL HISTORICAL PARK

ROUTE 0100: SUGAR RUN OVERLOOK ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
2.760	2.760	INTERSECTION	LEFT	ROUTE 0916 (SUGAR RUN TURNAROUND)
2.766	2.766	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
2.766	2.766	SIGN	RIGHT	REGULATORY, NORTH
2.766	2.766	SIGN	RIGHT	REGULATORY, 988
2.770	2.770	INTERSECTION	N/A	PAVED ROUTE (US HIGHWAY 988 / NON NPS
2.770	2.770	PARK BOUNDARY	N/A	
2.770	2.770	SIGN	RIGHT	REGULATORY, ADOPT A HIGHWAY LITTER CONTROL NEXT 20 MILES
2.770	2.770	ROUTE END	N/A	TO PARK BOUNDARY

ROUTE 0103: DANIEL BOONE PARKING ACCESS ROAD

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM US HIGHWAY 58
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (US HIGHWAY 58 / NON NPS)
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (US HIGHWAY 58 / NON NPS)
0.010	0.010	SIGN	RIGHT	REGULATORY, STOP
0.011	0.011	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.011	0.011	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.011	0.011	SIGN	RIGHT	REGULATORY, TO
0.011	0.011	SIGN	RIGHT	REGULATORY, 58
0.011	0.011	SIGN	RIGHT	REGULATORY, 25 E
0.011	0.011	SIGN	RIGHT	REGULATORY, EAST
0.031	0.031	INTERSECTION	LEFT	PAVED ROUTE (ADAMS INDUSTRIAL LANE / NON NPS)
0.037	0.096	GUARD/GUIDE RAIL	LEFT	
0.038	0.038	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.038	0.038	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.051	0.123	GUARD/GUIDE RAIL	RIGHT	
0.068	0.068	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.107	0.107	SIGN	RIGHT	GUIDE, IRON FURNACE CUMBERLAND GAP
0.136	0.136	SIGN	RIGHT	GUIDE, NATIONAL PARK VISITOR CENTER 2 CAMPGROUND 1
0.203	0.235	GUARD/GUIDE RAIL	LEFT	
0.205	0.205	INTERSECTION	RIGHT	ROUTE 0926 (DANIEL BOONE PARKING)
0.218	0.218	SIGN	RIGHT	GUIDE, DANIEL BOONE PARKING AREA
0.218	0.218	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
0.260	0.260	PARK BOUNDARY	N/A	
0.260	0.260	INTERSECTION	N/A	PAVED ROUTE (N CUMBERLAND DRIVE / NON NPS)
0.260	0.260	ROUTE END	N/A	TO PARK BOUNDARY

ROUTE 0200: WILDERNESS ROAD PICNIC AREA

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) AT MP 0.59
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)
0.008	0.008	SIGN	RIGHT	REGULATORY, YIELD
0.008	0.008	INTERSECTION	LEFT	ROUTE 0200 (WILDERNESS ROAD PICNIC AREA) SPUR
0.014	0.014	GATE	N/A	
0.014	0.014	SIGN	N/A	GUIDE, CLOSED
0.015	0.262	PAVED DITCH	LEFT	
0.032	0.032	SIGN	RIGHT	GUIDE, GATE CLOSES AT DARK
0.214	0.214	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
0.240	0.240	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.273	0.273	INTERSECTION	LEFT	ROUTE 0922E (WILDERNESS ROAD PICNIC AREA PARKING E)
0.294	0.490	ONE-WAY	N/A	
0.294	0.294	INTERSECTION	LEFT	ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)
0.301	0.301	SIGN	LEFT	REGULATORY, ONE WAY
0.311	0.394	PAVED DITCH	LEFT	
0.342	0.342	INTERSECTION	RIGHT	ROUTE 0922A (WILDERNESS ROAD PICNIC AREA PARKING A)
0.371	0.371	INTERSECTION	RIGHT	ROUTE 0922B (WILDERNESS ROAD PICNIC AREA PARKING B)
0.396	0.396	INTERSECTION	RIGHT	ROUTE 0922C (WILDERNESS ROAD PICNIC AREA PARKING C)
0.405	0.490	PAVED DITCH	RIGHT	
0.445	0.445	INTERSECTION	LEFT	ROUTE 0922D (WILDERNESS ROAD PICNIC AREA PARKING D)
0.490	0.490	INTERSECTION	LEFT	ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)
0.490	0.490	INTERSECTION	N/A	ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)
0.490	0.490	ROUTE END	N/A	TO END OF LOOP

ROUTE 0202: WILDERNESS ROAD CAMPGROUND

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM US HIGHWAY 58
0.000	0.000	SIGN	N/A	REGULATORY, 58
0.000	0.000	SIGN	N/A	REGULATORY, UNABLE TO READ FROM VIDEO
0.000	0.000	SIGN	N/A	REGULATORY, GRAPHIC SIGN, NO TEXT
0.000	0.000	PARK BOUNDARY	N/A	
0.000	0.000	INTERSECTION	RIGHT	PAVED ROUTE (US HIGHWAY 58 / NON NPS)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (US HIGHWAY 58 / NON NPS)
0.000	0.000	SIGN	N/A	REGULATORY, GRAPHIC SIGN, NO TEXT
0.005	0.005	SIGN	RIGHT	GUIDE, WILDERNESS
0.007	0.065	GUARD/GUIDE RAIL	LEFT	
0.007	0.007	SIGN	LEFT	REGULATORY, ONE WAY
0.007	0.007	SIGN	RIGHT	REGULATORY, STOP
0.008	0.008	SIGN	RIGHT	REGULATORY, 58
0.008	0.008	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.027	0.027	SIGN	RIGHT	GUIDE, THOMAS B FUGATE WILDERNESS ROAD AREA CUMBERLAND GAP NATIONAL HISTORICAL PARK
0.051	0.051	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.067	0.067	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.221	0.221	INTERSECTION	RIGHT	ROUTE 0918A (WILDERNESS ROAD TRAILHEAD PARKING A)
0.257	0.257	INTERSECTION	RIGHT	ROUTE 0918A (WILDERNESS ROAD TRAILHEAD PARKING A)
0.368	0.783	PAVED DITCH	RIGHT	
0.392	0.392	SIGN	RIGHT	GUIDE, COLSON TRAIL
0.464	0.464	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.581	0.581	INTERSECTION	LEFT	ROUTE 0200 (WILDERNESS ROAD PICNIC AREA) SPUR
0.587	0.587	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.587	0.587	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.587	0.587	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.594	0.594	INTERSECTION	LEFT	ROUTE 0200 (WILDERNESS ROAD PICNIC AREA)
0.714	0.714	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.771	0.771	SIGN	LEFT	GUIDE, PRIVATE DRIVE
0.786	0.786	FIRE HYDRANT	RIGHT	

ROUTE 0202: WILDERNESS ROAD CAMPGROUND

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.793	0.793	INTERSECTION	LEFT	ROUTE 0923 (WILDERNESS ROAD CAMPGROUND REGISTRATION PARKING)
0.793	0.793	SIGN	RIGHT	GUIDE, REGISTRATION REQUIRED
0.806	0.806	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.806	0.900	ONE-WAY	N/A	
0.812	0.812	SIGN	RIGHT	GUIDE, WELCOME
0.815	0.815	SIGN	LEFT	REGULATORY, ONE WAY
0.818	0.826	PAVED DITCH	LEFT	
0.821	0.821	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.827	0.827	INTERSECTION	RIGHT	ROUTE 0919 (WILDERNESS ROAD CAMPGROUND DUMP STATION)
0.831	0.831	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) CUT- THRU
0.832	0.835	PAVED DITCH	RIGHT	
0.833	0.833	SIGN	RIGHT	GUIDE, CAMPGROUND HOST
0.836	0.836	SIGN	RIGHT	GUIDE, QUIET HOURS 10:00 PM - 6:00 AM ENFORCED
0.843	0.843	SIGN	RIGHT	GUIDE, NO PICNICKING
0.852	0.900	PAVED DITCH	RIGHT	
0.867	0.867	INTERSECTION	RIGHT	ROUTE 0919 (WILDERNESS ROAD CAMPGROUND DUMP STATION)
0.870	0.890	PAVED DITCH	LEFT	
0.872	0.872	SIGN	LEFT	REGULATORY, ONE WAY
0.883	0.883	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.891	0.891	INTERSECTION	LEFT	ROUTE 0202A (WILDERNESS ROAD CAMPGROUND A)
0.900	0.900	SIGN	LEFT	GUIDE, A
0.900	0.900	INTERSECTION	N/A	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.900	0.900	ROUTE END	N/A	TO BEGINNING OF ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)

ROUTE 0202A: WILDERNESS ROAD CAMPGROUND A

FROM <u>MILEPOST</u>	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.00
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.090	ONE-WAY	N/A	
0.007	0.090	PAVED DITCH	LEFT	
0.036	0.036	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.090	0.090	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.090	0.090	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.090	0.090	ROUTE END	N/A	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.66

ROUTE 0202B: WILDERNESS ROAD CAMPGROUND B

FROM <u>MILEPOST</u>	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.03
0.000	0.120	ONE-WAY	N/A	
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.007	0.120	PAVED DITCH	LEFT	
0.061	0.061	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.120	0.120	SIGN	N/A	REGULATORY, ONE WAY
0.120	0.120	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.120	0.120	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.120	0.120	ROUTE END	N/A	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.62

ROUTE 0202C: WILDERNESS ROAD CAMPGROUND C

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.06
0.000	0.174	ONE-WAY	N/A	
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.007	0.180	PAVED DITCH	LEFT	
0.035	0.128	PAVED DITCH	RIGHT	
0.081	0.081	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.089	0.089	SIGN	RIGHT	GUIDE, AND MAINTENANCE
0.089	0.089	SIGN	RIGHT	GUIDE, CAMPGROUND HOST
0.174	0.174	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.174	0.174	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.175	0.180	PAVED DITCH	RIGHT	
0.176	0.176	SIGN	RIGHT	REGULATORY, ONE WAY
0.180	0.180	ROUTE END	N/A	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.58

ROUTE 0202D: WILDERNESS ROAD CAMPGROUND D

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.11
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.228	ONE-WAY	N/A	
0.006	0.170	PAVED DITCH	LEFT	
0.108	0.108	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.134	0.152	PAVED DITCH	RIGHT	
0.189	0.206	PAVED DITCH	RIGHT	
0.228	0.228	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.228	0.228	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.230	0.230	ROUTE END	N/A	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.53

ROUTE 0202E: WILDERNESS ROAD CAMPGROUND E

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.16
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.186	ONE-WAY	N/A	
0.006	0.057	PAVED DITCH	LEFT	
0.031	0.072	PAVED DITCH	RIGHT	
0.072	0.154	PAVED DITCH	LEFT	
0.143	0.176	PAVED DITCH	RIGHT	
0.186	0.186	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.186	0.186	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.190	0.190	ROUTE END	N/A	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.46

ROUTE 0202F: WILDERNESS ROAD CAMPGROUND F

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.23
0.000	0.138	ONE-WAY	N/A	
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.006	0.033	PAVED DITCH	LEFT	
0.029	0.125	PAVED DITCH	RIGHT	
0.066	0.066	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.138	0.138	INTERSECTION	LEFT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.138	0.138	INTERSECTION	RIGHT	ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G)
0.140	0.140	ROUTE END	N/A	TO ROUTE 0202G (WILDERNESS ROAD CAMPGROUND G) AT MP 0.42

ROUTE 0202G: WILDERNESS ROAD CAMPGROUND G

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM END OF ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) AND BEGINNING OF ROUTE 0202A (WILDERNESS ROAD CAMPGROUND A)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0202A (WILDERNESS ROAD CAMPGROUND A)
0.000	0.000	INTERSECTION	N/A	ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)
0.000	0.690	ONE-WAY	N/A	
0.005	0.171	PAVED DITCH	RIGHT	
0.016	0.032	PAVED DITCH	LEFT	
0.033	0.033	INTERSECTION	LEFT	ROUTE 0202B (WILDERNESS ROAD CAMPGROUND B)
0.040	0.062	PAVED DITCH	LEFT	
0.063	0.063	INTERSECTION	LEFT	ROUTE 0202C (WILDERNESS ROAD CAMPGROUND C)
0.070	0.104	PAVED DITCH	LEFT	
0.108	0.108	INTERSECTION	LEFT	ROUTE 0202D (WILDERNESS ROAD CAMPGROUND D)
0.116	0.157	PAVED DITCH	LEFT	
0.161	0.161	INTERSECTION	LEFT	ROUTE 0202E (WILDERNESS ROAD CAMPGROUND E)
0.191	0.225	PAVED DITCH	LEFT	
0.231	0.231	INTERSECTION	LEFT	ROUTE 0202F (WILDERNESS ROAD CAMPGROUND F)
0.236	0.433	PAVED DITCH	LEFT	
0.242	0.242	SIGN	RIGHT	GUIDE, GROUP CAMPING ONLY RESERVATIONS REQUIRED
0.308	0.308	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
0.335	0.335	INTERSECTION	RIGHT	ROUTE 0920 (GROUP CAMPING PARKING)
0.416	0.416	INTERSECTION	LEFT	ROUTE 0202F (WILDERNESS ROAD CAMPGROUND F)
0.455	0.455	INTERSECTION	LEFT	ROUTE 0202E (WILDERNESS ROAD CAMPGROUND E)
).467	0.498	PAVED DITCH	RIGHT	
0.471	0.501	PAVED DITCH	LEFT	
0.502	0.502	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
).528	0.531	PAVED DITCH	RIGHT	
).530	0.530	INTERSECTION	LEFT	ROUTE 0202D (WILDERNESS ROAD CAMPGROUND D)
).536	0.536	SIGN	RIGHT	REGULATORY, ONE WAY
0.541	0.541	SIGN	RIGHT	GUIDE, GIBSON GAP TRAIL
0.566	0.571	PAVED DITCH	RIGHT	

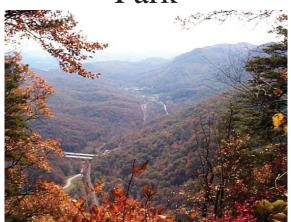
ROUTE 0202G: WILDERNESS ROAD CAMPGROUND G

FROM <u>MILEPOST</u>	TO MILEPOST	FEATURE	SIDE	COMMENT
0.571	0.571	SIGN	RIGHT	GUIDE, AMPHITHEATER
0.575	0.575	INTERSECTION	RIGHT	ROUTE 0921 (AMPHITHEATER HANDICAPPED PARKING)
0.579	0.630	PAVED DITCH	RIGHT	
0.584	0.584	INTERSECTION	LEFT	ROUTE 0202C (WILDERNESS ROAD CAMPGROUND C)
0.587	0.596	PAVED DITCH	LEFT	
0.617	0.617	INTERSECTION	LEFT	ROUTE 0202B (WILDERNESS ROAD CAMPGROUND B)
0.622	0.653	PAVED DITCH	LEFT	
0.629	0.629	SIGN	RIGHT	GUIDE, GREEN LEAF NATURE TRAIL
0.657	0.657	INTERSECTION	LEFT	ROUTE 0202A (WILDERNESS ROAD CAMPGROUND A)
0.666	0.670	PAVED DITCH	LEFT	
0.675	0.675	INTERSECTION	LEFT	ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) CUT-THRU
0.679	0.688	PAVED DITCH	LEFT	
0.686	0.686	SIGN	RIGHT	GUIDE, LEWIS HOLLOW TRAIL
0.690	0.690	INTERSECTION	LEFT	ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)
0.690	0.690	INTERSECTION	N/A	ROUTE 0202 (WILDERNESS ROAD CAMPGROUND) OPPOSITE LANE
0.690	0.690	ROUTE END	N/A	TO END OF LOOP WITH ROUTE 0202 (WILDERNESS ROAD CAMPGROUND)

ROUTE 0421: DUPLEX DRIVE

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0012 (BARTLETT PARK ROAD) AT MP 0.37
0.000	0.000	INTERSECTION	LEFT	ROUTE 0012 (BARTLETT PARK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0012 (BARTLETT PARK ROAD)
0.004	0.004	SIGN	RIGHT	REGULATORY, STOP
0.052	0.052	INTERSECTION	LEFT	ROUTE 0906 (HEADQUARTERS HANDICAPPED PARKING)
0.063	0.063	SIGN	RIGHT	GUIDE, PRIVATE DRIVE
0.110	0.110	INTERSECTION	N/A	DEAD END
0.110	0.110	ROUTE END	N/A	TO DEAD END

Cumberland Gap National Historical Park



Section 10 Appendix

APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

TERM ORABBREVIATIONDESCRIPTION OR DEFINITION

ADDREVIATION	
AADT	(Annual Average Daily Traffic) The estimate of typical daily traffic on a road segment for all days of the week over the period of one year.
CRS	Condition Rating Sheets. (Section 5)
Excellent	Excellent rating with an index value of 95 or greater
Fair	Fair rating with an index value from 61 to 84
Func. Class	Funtional Classification (see Route ID, Section 4)
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
MRR	Manually Rated Route
N/A	Not Applicable
NC	Not Collected
Paved Width	Width from edge-of-pavement to edge-of-pavement
PCR	Pavement Condition Rating (Appendix B, Section 10)
Poor	Poor Rating with an index value of 60 or less
RCI	Roughness Condition Index
SADT	(Seasonal Annual Daily Traffic) The AADT adjusted to represent just the period of the year containing 80 percent of the total annual traffic.
SCR	Surface Condition Rating (Appendix B, Section 10)
Shoulder Width	Distance from fogline to hinge point, or if no fogline, from edge-of- pavement to hinge point.

APPENDIX B: DESCRIPTION OF RATING SYSTEM

A numerical roadway rating system is used to describe the overall condition of the paved roadways and paved parking areas. In this system, a numerical rating between 0 and 100 is ascribed to each 0.02 miles of road. This numerical rating is called a Pavement Condition Rating (PCR). A "perfect" road, newly constructed with no surface distresses and a smooth surface, would be assigned a PCR rating of 100. Based on the type, severity, and extent of surface distresses points are deducted from 100 to arrive at the final PCR.

Data is collected on the following distresses and conditions:

- **Alligator Cracking** a series of interconnecting cracks resembling alligator skin or chicken wire, which can occur anywhere in the lane.
- **Longitudinal Cracking** cracks which are parallel to the pavement centerline or asphalt lay-down direction.
- **Transverse Cracking** cracks perpendicular to the pavement centerline.
- **Pothole (patch)** a bowl-shaped hole in the pavement surface. May be patched or not.
- **Rutting** surface depressions in the wheel paths.
- **Roughness** is collected as International Roughness Index (IRI) and is used in the PCR formula. Roughness is measured in inches of vertical displacement of the vehicle per mile traveled.

A Distress Rating Index value is calculated for each of the individual distresses at the 0.02 mile, or every 105.6 feet.

Calculation of Index Values

<u>Note:</u> Index values < 0 default 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.

All severity protocols are taken from the SHRP Distress Identification Manual.

Condition Ranges for all Indices

Excellent	>=95
Good	$>=\!85$ and $<\!\!95$
Fair	>60 and <85
Poor	<=60

Alligator Crack Index

 $AC_INDEX = 100 - 40 * [(\%LOW / 70) + (\%MED / 30) + (\%HI / 10)]$

Where :

The values %LOW, %MED and %HI describe the percent of the total WX measured area that is affected by alligator cracking of each severity level. These values range from ≥ 0 to ≤ 100 .

%LOW = (Total square area WX measured low severity alligator cracking) / (Section length * WX measured lane width)

%MED = (Total square area WX measured medium severity alligator cracking) / (Section length * WX measured lane width) %HI = (Total square area WX measured high severity alligator cracking) / (Section length * WX measured

%HI = (Total square area WX measured high severity alligator cracking) / (Section length * WX measured lane width)

The denominators 70, 30, and 10 are the maximum allowable extents for the numerator value in the same units. For example, low severity alligator cracking totaling 70% of the measured section area would alone fail that section of road for this index.

The threshold for failure for this index is $AC_INDEX = 60$.

Severity Levels:

Low severity alligator cracking describes an area of cracks with no or only a few connecting cracks; cracks are not spalled (cracked, broken, chipped, frayed along the cracks); pumping (water seepage from beneath the pavement through the cracks) is not evident. Any sealed alligator cracks are low severity alligator cracks, as long as the sealant is still in good condition. If the sealant has reopened, and the crack is visible and can be measured, the crack severity is assigned according to that measurement.

Medium severity alligator cracking describes an area of interconnected cracks forming a complete pattern; cracks may be slightly spalled; pumping is not evident.

High severity alligator cracking describes an area of moderately or severely spalled interconnected cracks forming a complete pattern; pieces may move when subjected to traffic; pumping may be evident.

Longitudinal Crack Index

 $LC_INDEX = 100 - 40 * [(\% LOW / 350) + (\% MED / 200) + (\% HI / 75)]$

Where:

The values %LOW, %MED and %HI describe the length of longitudinal cracking of each severity as a percent of the section length. These values are ≥ 0 and can exceed 100.

%LOW = (Total linear feet WX measured low severity longitudinal cracking) / (Section length in linear feet)

%MED = (Total linear feet WX measured medium severity longitudinal cracking) / (Section length in linear feet)

%HI = (Total linear feet WX measured high severity longitudinal cracking) / (Section length in linear feet)

The denominators 350, 200, and 75 are the maximum allowable extents for the numerator value in the same units. For example, medium severity longitudinal cracking with a total length that is 200% of the length of the section would alone fail that section of road for this index.

The threshold for failure for this index is $LC_INDEX = 60$.

Severity Levels:

Low severity longitudinal cracks have a mean width $\leq \frac{1}{4}$ ", or are sealed cracks of indeterminate width whose sealant material is in good condition.

Medium severity longitudinal cracks have a mean width $> \frac{1}{4}$ " and $\leq \frac{3}{4}$ ".

High severity longitudinal cracks have a mean width $> \frac{3}{4}$ ".

Transverse Crack Index

$$TC_INDEX = 100 - \{ [20 * ((LOW / 15.1) + (MED / 7.5))] + [40 * (HI / 1.9)] \}$$

Where:

The values LOW, MED and HI describe a count of the total number of transverse cracks of each severity level, where one transverse crack unit is equal to the WX measured lane width. These values are ≥ 0 .

LOW = (Total linear feet WX measured low severity transverse cracking) / (WX measured lane width) MED = (Total linear feet WX measured medium severity transverse cracking) / (WX measured lane width) HI = (Total linear feet WX measured high severity transverse cracking) / (WX measured lane width)

The denominators 15.1, 7.5, and 1.9 are the maximum allowable extents for the numerator value in the same units. For example, high severity transverse cracking with a total length that amounts to 1.9 times the WX measured lane width would alone fail that section of road for this index.

The threshold for failure for this index is $TC_INDEX = 60$.

Severity Levels:

Low severity transverse cracks have a mean width $\leq \frac{1}{4}$ ", or are sealed cracks of indeterminate width whose sealant material is in good condition.

Medium severity transverse cracks have a mean width > $\frac{1}{4}$ " and $\leq \frac{3}{4}$ ".

High severity transverse cracks have a mean width $> \frac{3}{4}$ ".

Patching Index

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

Where:

The value %PATCHING describes the percent of the total WX measured area that is affected by patching. This value ranges from ≥ 0 to ≤ 100 .

%PATCHING = (Total area WX measured patching) / (Section length * WX measured lane width)

The denominator 80 is the maximum allowable extent for the numerator value in the same units. Patching totaling 80% or more of the measured section area fails a section of road for this index.

The threshold for failure for this index is $PATCH_INDEX = 60$.

There are no severity levels for patching.

Rutting Index

 $\mathbf{RUT_INDEX} = 100 - 40 * [(\% \text{LOW} / 160) + (\% \text{MED} / 80) + (\% \text{HI} / 40)]$

Where:

10 ARAN rut depth measurements are taken per full .02 section for each of 2 wheel paths (left and right), resulting in a total of 20 measurements taken for both wheel paths. The values %LOW, %MED and %HI describe the number of ARAN rut depth measurements of both wheel paths in the section whose values are of each severity level, calculated as a percentage of the total number of ARAN rut depth measurements taken for a single wheel path in the section. These values range from ≥ 0 to ≤ 200 .

%LOW = (Total number of ARAN measured low severity ruts in section for both wheel paths) / (Total number of ARAN rut measurements in section for a single wheel path)
%MED = (Total number of ARAN measured medium severity ruts in section for both wheel paths) / (Total number of ARAN rut measurements in section for a single wheel path)
%HI = (Total number of ARAN measured high severity ruts in section for both wheel paths) / (Total number of ARAN rut measurements in section for a single wheel path)

The denominators 160, 80, and 40 are the maximum allowable extents for the numerator value in the same units. For example, low severity ruts recorded in 16 of the 20 total readings (or 160% of a full wheel path's worth of readings) for a full .02 section would fail that section for this index.

The threshold for failure for this index is $RUT_INDEX = 60$.

Severity Levels:

Ruts with an ARAN measured depth < 0.20" are not included in the distress calculations.

Low severity ruts have an ARAN measured depth ≥ 0.20 " and ≤ 0.49 ".

Medium severity ruts have an ARAN measured depth ≥ 0.50 " and ≤ 0.99 ".

High severity ruts have an ARAN measured depth ≥ 1.00 ".

Roughness Condition Index

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

Where:

The value AVG IRI describes the average value of the Left IRI and Right IRI measurements for the section. This value can range from approximately 40 to over 1000.

AVG IRI = (ARAN measured Left IRI + ARAN measured Right IRI) / 2

There is no applicable threshold for failure for this index.

NOTE: Collection of roughness data is dependent on the data collection vehicle traveling at a minimum speed of 12 mph. In the event that a route cannot be safely traveled at this minimum speed, and results in no roughness data, the SCR only will be calculated.

Surface Condition Rating Index

```
SCR = 100 - [(100 - AC_INDEX) + (100 - LC_INDEX) + (100 - TC_INDEX) + (100 - PATCH_INDEX) + (100 - RUT_INDEX)]
```

Where:

See above for determinations of AC_INDEX, LC_INDEX, TC_INDEX, PATCH_INDEX and RUT_INDEX.

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

Pavement Condition Rating Index Asphaltic Concrete Pavement (AS)

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

Where:

See above for determinations of SCR and RCI.

The values 0.60 and 0.40 function as weights within the formula.

If SCR equals zero (which means that the road surface condition is very poor), then the formula simply reduces to: PCR = 0.40 * RCI.

If RCI equals zero (which means that this value was not available for some reason), then the formula becomes: PCR = SCR.

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

Pavement Condition Rating Index Portland Cement Concrete Pavement (CO)

Concrete PCR = -0.0012(IRI^2)+0.0499(IRI)+99.542

Where:

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

Parking Lot and Manually Rated Road Condition Rating

Surface Condition Distresses- Chip Seal:

Raveling – loss of surface rock chips revealing previous surface Bleeding – asphalt or tar is bleeding through to the surface where surface looks slick with asphalt Rutting Potholes/Patching

Ratings - Chip Seal:

Excellent – None of the surface affected by the above (recently constructed) Good – Less than 10% of surface affected by the above Fair – Between 10% and 40% of surface affected by the above Poor – More than 40% of surface affected by the above

Surface Condition - Asphalt:

Cracking of any type Rutting Potholes/Patching

Ratings - Asphalt:

Excellent – None of the surface affected by the above (recently constructed) Good – Less than 10% of surface affected by the above Fair – Between 10% and 40% of surface affected by the above Poor – More than 40% of surface affected by the above

Index Values of Visual Ratings on Parking Lots and Manually Rated Roads

Under Construction 100 Excellent 97 Good 90 Fair 73 Poor 45

APPENDIX C: GENERAL INFORMATION ON RIP SYSTEMS

DMI (Distance Measuring Instrument)

The DMI (Distance Measuring Instrument) obtains road length measurements that are highly accurate (to 0.001 miles). The DMI is connected to the outside of the rear wheel on the driver's side, and is wired into the antilock braking system (ABS). The number of pulses recorded for each wheel rotation by the ABS is registered by the DMI, which transmits a measurement of distance traveled to the processing computers in the ARAN. The DMI distance measurements are the foundation to which all the other subsystems are tied.

Digital Image Information

All images collected in Cycle 4 are digital images in .jpg format. These images provide adequate resolution for identifying sign and feature inventories and pavement evaluations. The images can be viewed with an interactive software program called VisiData. Each park will receive a copy of the VisiData program. Cycle 4 data, as well as Cycle 3 data, can be viewed using the Visi-Data software program. This program is a data presentation and analysis tool that can be accessed either at the individual park, park region or at NPS headquarters. The data is organized in a hierarchical manner and presented in tabular and graphical formats. The user is able to perform queries and drill down through the data to find the particular information they are looking for. Associated digital right-of-way images from either the LAN, USB port, individual DVD can be presented along with GPS locations.

Right-of-way (ROW) Video

Three digital cameras are mounted above the vehicle's windshield that point directly forward and slightly to the left and right. These cameras each collect one image every 0.002 miles (10.56 feet) in the primary-direction lane, to give a panoramic field-of-view of about 160 degrees. (Forward-facing video from the center camera only is collected in the opposite-direction lane of travel.)

If data collection speed exceeds 35-40 mph, the network and storage computers may become overwhelmed and may begin to drop individual video frames. Occasional common video quality issues include sun glare and rapid changes between sunlight and shadow. The camera system is equipped with auto risers that sometimes cannot adjust quickly enough to collect optimal video images.

FHWA ARAN CAMERA SPECIFICATIONS							
Forward-Facing Cameras (ROW)							
Focal length	10 mm						
Chip size	8.71mm X 6.90mm						
Naming convention of each image	chainage.jpg						
Image resolution	1300 X 1030						
Image pixel size	depends on distance						
Relative position of the GPS unit to each	2.104 meters from front-center rutbar to						
camera	camera						
The ARAN has a lever arm setting which te	ells the POS system where the center of the						
rutbar is with respect to the GPS antennas	· · · · · ·						

Pavement Video

Pavement video images are collected by the data collection vehicle to use in later analysis to determine extents and severities of different types of pavement distress. The pavement in the primary-direction road lane is filmed continuously by two analog cameras attached to booms extended from the rear of the ARAN on the left and right sides. Strobe lights fire synchronously with the opening of the camera shutters to eliminate shadows and motion blur. The images from the two cameras overlap, and are stitched together in real time to create a continuous strip image of the pavement in the primary direction lane. This strip has a maximum width of 3.0 meters (actual width depends on pavement camera calibration) and is sectioned for ease of file management every 0.010 miles (52.8 feet).

The cameras both have a resolution of 640 x 480, making the threshold of visible pavement cracks about 3 mm. Because the cameras are triggered by time and not distance traveled, this subsystem requires a minimum operating speed of 6 mph, otherwise images are taken on top of one another and result in checkered or black pavement video.

FHWA ARAN CAMERA SPECIFICATIONS Pavement Cameras						
Image Pixel size	3.135 mm /side					
Image Resolution	640 X 480					
Area that images cover	1.5 m X 1.2 m					
Full color or grayscale	grayscale					
Vehicle speed limitations	80km/h					
Aperture setting	Auto-iris					
Exposure setting	1/50000					

FHWA ARAN GPS & Inertial System

GPS is collected by a NovAtel MiLLenium, 12 channel, dual frequency L1/L2, DGPS ready receiver with a MiLLennium 502 GPS antenna. An OmniStar 3000 LR provides real-time differential correction. An Applanix POS/LV is the inertial system that fills in when GPS is unavailable. The antenna is mounted in the center of the roof, slightly toward the rear of the vehicle, but a lever arm is applied to place the operational location of GPS recording at the center of the rutbar on the front bumper of the vehicle. Expected accuracy under ideal conditions is sub meter.

GPS Collected on Manually Rated Routes

Parking areas and roads that are not fully drivable with the ARAN data collection vehicle are collected manually by field technicians. GPS is collected for these routes using GPS field data collection utilizes Trimble ProXRS or ProXH Receivers matched with Trimble TSC1 or Ranger handheld Data Loggers, connected to Trimble Hurricane Antennas giving sub meter accuracy in ideal conditions. This collection equipment has varied as technology has improved over the years of RIP data collection. Some GPS files collected as early as 1998 have been verified for accuracy and perpetuated through the current cycle of data collection.

GPS SHAPEFILES

Type of Route and Collection Shape Filename		
Roads driven by ARAN	Line	park_road_04.dbf/.shp/.shx
Parking Areas	Polygon	park_pkg_04.dbf/.shp/.shx
Roads Manually Rated as Lines (not in every park)	Line	park_mrl_04.dbf/.shp/.shx
Roads Manually Rated as Polygons (not in every park)	Polygon	park_mrp_04.dbf/.shp/.shx

• Datum for all GPS shapefiles is LL_WGS84_DD (Latitude Longitude _World Geodetic Survey 1984_Decimal Degrees)

• In filename, "park" is NPS four-letter alphabetic code.

• The source for route data required for data processing and report production is the PARK_RouteInfo.mdb.

Condition Photos Taken of Manually Rated Roads

One or more digital photos are taken by Canon Power Shot G2 4.0 Mega Pixel digital camera for each manually rated route in a National Park. They are stored in .jpg format named with the four-letter NPS park alphabetic code, route number, and the photo number assigned by the camera. For example, YOSE_0900_4434.jpg is the filename of the photo named 4434 by the camera that was taken of Yosemite National Park route 0900.

Scenic Photos

Scenic photos are taken by Canon Power Shot G2 4.0 Mega Pixel digital camera throughout each park and are named with the four-letter NPS park alphabetic code and the count of the photo taken in that park. For example, GRCA003.jpg is the filename of the third scenic photo taken in Grand Canyon National Park. The number of scenic photos provided will vary between parks.

APPENDIX D: METADATA

FHWA – NPS Road Inventory Program Cycle 4 Metadata

The purpose of these sheets is to provide users of the Road Inventory Program's data with data accuracies and tolerances to help users define ways in which the RIP data can and cannot be used. For further information on specifics of data collection equipment, data collection procedures, equipment calibrations, or quality control/quality assurance procedures, please contact Jim Kennedy, Project Manager, Data Quality Assurance, at 720-963-3560 or jim.kennedy@fhwa.dot.gov.

All Road Inventory Program data undergoes quality control and quality assurance testing. This document represents the known data accuracies and tolerances for the data collection equipment, data collection procedures, and data processing procedures currently in use. Many additional tests conducted on the park databases during the quality assurance phase to ensure data integrity are not listed as a part of this document. Before it is delivered, a park database undergoes a large set of table design consistency, field data format consistency, data completeness, uniqueness of key fields, data reasonableness, acceptable data range, within-field data consistency, between-field data consistency, and between-table data consistency tests. Additional data sampling checks are conducted to ensure proper data upload from raw files into the park database and to quality check the pavement crack analysis. Further information is detailed in the FHWA – NPS RIP Quality Assurance Manual, available upon request.

This description of metadata includes only the known accuracies with which a data field matches its expected value. The tables that follow this page show each database field's:

- Field field name
- Format data type and number of characters of field
- Expected Value meaning of value assigned to field
- Source when in process field value obtained
- Validation how field value obtained
- Expected Accuracy accuracy with which contents of field match Expected Value

Verifying and continually improving the accuracy of Road Inventory Program data is an ongoing goal of the Federal Highway Administration and the National Park Service. Field testing and post-collection analysis of ARAN (Automatic Road ANalyzer) -collected data will continue in Cycle 4. Data quality is expected to improve as the FHWA – NPS Road Inventory Program continues to operate, due to the fact that future data collection cycles will consist in large part of data updates. Also, technological improvements are expected to render the data increasingly consistent with actual roadway conditions as data collection cycles progress.

Specific Caveats

- MUTCD based on contents & colors of sign, not on size
- Database records that show a Portland Cement Concrete (CO) surface type sometimes include distress index values that seem to show a perfect roadway. Condition assessments on concrete pavements are not conducted for Alligator Cracking, Transverse or Longitudinal Cracking, Patching, or Rutting. Perfect values for concrete road sections for these indexes are default values and do not represent a condition assessment of the concrete surfaces.
- On the USB drive, in the Database folder, parks are provided with intersection lists and exceptions lists. These documents should be treated as raw files and are not accurate. Refer to the final database for accurately post-processed intersection data.
- Most roadway data is collected in the primary direction lane of a roadway. To save data storage space and to reduce data analysis efforts, the assumption was made that the paved surface condition of a route's primary lane adequately represents the surface condition of the full roadway. Therefore, in the database, opposite-direction records in the PMS_Tenth table do not include assessed values for roadway surface distresses. Values such as 0, N/A, -1, or a repeat of the primary-direction assessed value indicate that no assessment was performed. The PMS_20 and PMS_Mile tables simply exclude all opposite routes.

- Roadway Data is collected in intervals of 0.010 miles (52.8feet) constituting a "station".
- Most roadway features are collected relative to the primary direction lane of a roadway, using the primarydirection video and mileage. Signs and Mile Markers are the only features collected using the oppositedirection video with mileage location referenced to the primary direction lane of the roadway.
- Route_GPS table contains GPS positional information collected by the ARAN and post processed with Applanix POSPac Land 5.0 post-processing software. No manual adjustments have occurred on this table.
- Modifications to the Park_ROAD_04.dbf/.shp/.shx files may have been necessary for report esthetics.
- Modifications to the Park_PKG_04. dbf/.shp/.shx files may have been necessary for report esthetics.
- Cycle 4 utilizes the Microsoft Office 2003 suite of products and Crystal Reports XI for document and data file generation and reporting.
- All PDF files are in Adobe Acrobat 7.0 Professional format.
- All ArcGIS files are created using ESRI Version 9.x software.
- Thumbnail images are created at 1/10 original image size for Right-of-Way and Pavement Images.
- FHWA is investigating the rutting methodology and calculated values it currently reports. Equipment limitations and analysis methods may be over reporting, low severity rutting.

Key to Notes in Tables

(1): Note that only one value fits in field, so even if this value varies throughout the route, only predominant value is recorded here.

(2): Shoulder width is measured at route start and every half-mile along the route in the primary direction. Width is the entire width of the drivable shoulder, regardless of the presence or absence of pavement, from the fog line to the shoulder hinge point, or if no fog line exists, from the edge of pavement to the hinge point. Identification of shoulder hinge point can be problematic using video analysis. Some paved ditches may be mistakenly recorded as shoulders where the shoulder hinge point and change in slope are not easily distinguished from the video.

(3): Mileage is measured by the ARAN (Automatic Road ANalyzer) data collection vehicle out to the 0.001 decimal place. The DMI (distance measuring instrument) is very accurate, with extremely slight variations in measurement due to air temperature, tire inflation, curves, hills, and equipment calibration.

(4): Features are measured differently depending on whether they are visible in the forward-facing video of the roadway, but every feature milepost measurement depends on the baseline measurement of the data collection vehicle's mileage. The ARAN (Automatic Road ANalyzer) data collection vehicle's mileage is measured by the DMI (distance measuring instrument) out to the 0.001 decimal place. The DMI is very accurate, with extremely slight variations in measurement due to air temperature, tire inflation, curves, hills, and equipment calibration. If a feature will not be visible in the forward-facing video, its milepost is determined by the data collectors' key press tagging the milepost when the ARAN passes the feature. Key presses are entered into the ARAN software when the vehicle travels typically between 15 and 45 miles/hour, so a delay of a single second as the vehicle passes a feature would result in an inaccuracy of 0.004 miles (22 feet) to 0.012 miles (66 feet). If a feature is visible in the video, its milepost is determined during post-processing using a video measurement software called Surveyor.

(5): Condition assessments on concrete (PCC) pavements are not conducted for Alligator Cracking, Transverse or Longitudinal Cracking, Patching, or Rutting. Perfect values for concrete road sections for these indexes are default values and do not represent a condition assessment of the concrete surfaces.

(6): Roadway cracking presence, type, severity, and extent are determined by filming the roadway in the primary lane continuously with two overlapping analog cameras of 640 x 480 resolutions. The images from both cameras are stitched together in real time to create a continuous strip image of the roadway pavement in the primary lane. Cracks 3 mm or greater in width are visible in this video. A semi-automatic process running the WiseCrax software with additional input by human operators provides the cracking quantities recorded in these database fields. Quality checks have determined that a consistent 80% or better of the visible cracks are recorded.

Access Database Metadata

MASTER Table Metadata:

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
						100% Referenced to
1	RIP_CYCLE	XX	4, for data collection cycle 4	Route ID Meeting	FHWA Determination	other tables
						100%, Referenced to
2	STATE	XX	State where route is located	Route ID Meeting	Park Input / FHWA Determination	other tables (1)
		******				100%, Referenced to
3	PARK_ALPHA	XXXX	Park alpha code	Route ID Meeting	NPS References	other tables
4	DADK NO	VVVV	Darla muna aria an da	Deute ID Masting	NIDC Deferrer and	100%, Referenced to other tables
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	100%, Referenced to
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Park Input / FHWA Classification	other tables
3	KIE_NO	99997777	Koute number	Koute ID Meeting		100%, Referenced to
						other tables. 100
6	RTE_NAME	(Text)	Route name	Route ID Meeting	Park Input	characters fit in field
0		(10,1)	Koute name	Route ID Meeting		100%, Referenced to
7	FUNCT_CLASS	Х	Route functional classification	Route ID Meeting	Park Input / FHWA Classification	other tables
,			Survey lane: PRI (primary) or			
8	DIRECTION	XXX	OPP (opposite)	Route ID Meeting	Park Input / FHWA Determination	100%,
_						Estimated before data
9	BEG_MP_EST	999.999 (miles)	Estimated starting MP	Route ID Meeting	Park Input / FHWA Determination	collected
		, , ,			· · · · · · · · · · · · · · · · · · ·	Estimated before data
10	END_MP_EST	999.999 (miles)	Estimated ending MP	Route ID Meeting	Park Input / FHWA Determination	collected
11	RTE_LENGTH	999.999 (miles)	Collected route length	ARAN Data Collection	Automatic Output	100%
						100% Referenced to
12	FROM_DESC	(Text)	Beginning terminus of route	Route ID Meeting	Park Input / FHWA Determination	other tables
						100% Referenced to
13	TO_DESC	(Text)	Ending terminus of route	Route ID Meeting	Park Input / FHWA Determination	other tables
14	NO_LANES	Х	Number of lanes in route	ARAN Data Collection	Survey Crew Input	Untested. (1)
						100%, Referenced to
15	SURF_TYPE	XX	Surface type of route	ARAN Data Collection	Survey Crew Input	other tables (1)
			Compass direction of route's			
			primary lane (nearest cardinal			
16	COMP_DIR	XX	direction)	Route ID Meeting	Park Input / FHWA Determination	Untested
17	COMMENTS	(Text)	Special information, if any	Contractor Post-processing	Contractor Input	Untested
18	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	100%
				Route ID Meeting/ARAN	Survey Crew Input/Automatic	
19	SECTION	(Text)	Route section ID	Data Collection	Output	100%

20	FKEY	9999999	Unique record ID	Contractor Post-processing	Database Processing	100%
21	DATE	MM/DD/YY	Data collection date	ARAN Data Collection	Automatic Output	100%
22	BEG_MP	999.999 (miles)	Beginning MP collected	ARAN Data Collection	Automatic Output	100% (3)
23	END_MP	999.999 (miles)	Ending MP collected	ARAN Data Collection	Automatic Output	100% (3)

PMS_FEATURE Table Metadata:

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
						100% Referenced to
1	RIP_CYCLE	XX	4, for data collection cycle 4	Route ID Meeting	FHWA Determination	other tables
					Park Input / FHWA	
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested (1)
						100% Referenced to
3	PARK_ALPHA	XXXX	Park alpha code	Route ID Meeting	NPS References	other tables
	DADU NO					100% Referenced to
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	other tables
_		000011111			Park Input / FHWA	100% Referenced to
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	other tables
			Facility Management			
-		*****	Software System Equipment			
6	FMSS_EQUIP	XXXXXXX	number	NPS FMSS application	NPS References	Untested
7		X7			Park Input / FHWA	100% Referenced to
7	FUNCT_CLASS	Х	Route functional class	Route ID Meeting	Classification	other tables
	DIDECTION	373737	Survey lane: PRI (primary)		Park Input / FHWA	1000/
8	DIRECTION	XXX	or OPP (opposite)	Route ID Meeting	Determination	100%
				ARAN Data		
		000.000 (11)		Collection/Contractor Post-	X7'1 A 1 '	0.001 '1
9	MP	999.999 (miles)	Feature location along route	processing	Video Analysis	<=0.001 mile
10	DEC MD	000,000,(1)	Feature Beginning location	Contractor Dest	X7 Los Assals	< 0.001 m ⁻¹ 1
10	BEG_MP	999.999 (miles)	along route	Contractor Post-processing	Video Analysis	<=0.001 mile
1.1		000,000,(1)	Feature Ending location	Contractor Dest	X7 Los Assals	< 0.001 m ⁻¹ 1
11	END_MP	999.999 (miles)	along route	Contractor Post-processing	Video Analysis	<=0.001 mile
12	FEATURE_LENGTH	999.99 (Feet)	Linear Feature Length	Contractor Post-processing	Database Processing	100%
13	EVENT	XXXX	Event category of feature	Contractor Post-processing	Video Analysis	Untested
			Event sub-category of			
14	EVENT_CODE	XXXX	feature	Contractor Post-processing	Video Analysis	Untested
			Feature designation:			
15	FEATURE_TYPE	(Text)	LINEAR or POINT	Contractor Post-processing	Video Analysis	Untested
			Description of			
16	EVENT_DESC	(Text)	feature/contents of sign	Contractor Post-processing	Video Analysis	Untested
17	MUTCD	(Text)	MUTCD Code of Sign	Contractor Post-processing	Database Processing	95%
			Sign condition. N/A. Not to			Values inaccurate,
18	CONDITION	"N/A"	be populated	Contractor Post-processing	Video Analysis	defaulted to "N/A"
			Sign label, intersecting			
19	COMMENT	(Text)	route, etc.	Contractor Post-processing	Database Processing	Untested
			Offset from Road Edge.			Values inaccurate,
20	OFFSET	"N/A"	N/A. Not to be populated	Contractor Post-processing	Database Processing	defaulted to "N/A"

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Side of route relative to lane			
21	SIDE	(Text)	driven	Contractor Post-processing	Video Analysis	95%
			FHWA bridge structure			
22	STR_NUMBER	(Text)	number	FHWA Post-processing	Database Processing	Untested
23	BARR_MAT	(Text)	Barrier Material Type	Contractor Post-processing	Video Analysis	Untested
24	BARR_TYPE	(Text)	Barrier Type	Contractor Post-processing	Video Analysis	Untested
25	BARR_POST_MAT	(Text)	Barrier Post Materials	Contractor Post-processing	Video Analysis	Untested
26	BARR_BEG_TERM	(Text)	Barrier Approach Treatment	Contractor Post-processing	Video Analysis	Untested
27	BARR_END_TERM	(Text)	Barrier End Treatment	Contractor Post-processing	Video Analysis	Untested
28	CURB_MAT	(Text)	Curb Material Type	Contractor Post-processing	Video Analysis	Untested
29	PAVED_DITCH_MAT	(Text)	Paved Ditch Material Type	Contractor Post-processing	Video Analysis	Untested (2)
30	GATE MAT	(Text)	Gate Material Type	Contractor Post-processing	Video Analysis	Untested
31	GATE_STYLE	(Text)	Gate Style	Contractor Post-processing	Video Analysis	Untested
32	BEG_GPS_LAT 999.999999		GPS Latitude Co-ordinate (decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
33	BEG_GPS_LON	-999.999999	GPS Longitude Co-ordinate (-decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
34	BEG_GPS_ELEV	99999.9	GPS Elevation Feet	Contractor Post-processing	Video Analysis	Untested
35	BEG_GPS_MODE	(Text)	GPS Satellite Mode	Contractor Post-processing	Video Analysis	Untested
			GPS Latitude Co-ordinate			
36	END_GPS_LAT	999.999999	(decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
37	END_GPS_LON	-999.999999	GPS Longitude Co-ordinate (-decimal degrees)	Contractor Post-processing	Video Analysis	<= 3.00 feet
38	END_GPS_ELEV	99999.9	GPS Elevation Feet	Contractor Post-processing	Video Analysis	Untested
39	END_GPS_MODE	(Text)	GPS Satellite Mode	Contractor Post-processing	Video Analysis	Untested
40	DATUM	(Text)	LL_WGS84_DD	Contractor Post-processing	Database Processing	100%
41	VIDEO	<park>C04VID<#></park>	Removable USB video hard drive number	Contractor Post-processing	Database Processing	Untested
42	IMAGE	(Text)	Filename of .jpg image showing feature	Contractor Post-processing	Automatic Output	Untested
43	DATE	MM/DD/YY	Data collection date	ARAN Data Collection	Automatic Output	100%
44	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	100%
45	SECTION	(Text)	Route section ID	Route ID Meeting/ARAN Data Collection	Survey Crew Input/Automatic Output	100%
46	FKEY	(Numeric)	Unique record ID	Contractor Post-processing	Database Processing	100%
47	VISI_FROM	999999 (millimiles)	Raw MP of first video frame showing feature	Contractor Post-processing	Database Processing	Untested
48	VISI_TO	999999 (millimiles)	Raw MP of last video frame showing feature	Contractor Post-processing	Database Processing	Untested

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Unique record ID used by			
49	IDKEY	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested
			Range of mileage to play in			
50	MP_REF	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested

	List of Roadway Features									
#	EVENT	EVENT_CODE	FEATURE_TYPE	EVENT_DESC	STRUCTURE #	COLLECTED BY				
1	BRIDGE	BRDG	LINEAR	BRIDGE	ALWAYS	ARAN				
2	CATTLE GUARD	CGD	POINT	CATTLE GUARD	-	VIDEO RATING				
3	CONSTRUCTION	CNST	LINEAR	CONSTRUCTION WORK ZONE	-	ARAN				
4	CULVERT	CUL	POINT	CULVERT	SOMETIMES	ARAN				
5	CURB	CRBL	LINEAR	CURB ON LEFT	-	VIDEO RATING				
		CRBR	LINEAR	CURB ON RIGHT	-	VIDEO RATING				
6	CURB-AND- GUTTER	CAGL	LINEAR	CURB-AND-GUTTER ON LEFT	-	VIDEO RATING				
		CAGR	LINEAR	CURB-AND-GUTTER ON RIGHT	-	VIDEO RATING				
7	DROP INLET	DINL	POINT	DROP INLET ON LEFT	-	ARAN				
		DINR	POINT	DROP INLET ON RIGHT	-	ARAN				
8	GATE	GATE	POINT	GATE	-	VIDEO RATING				
9	FIRE HYDRANT	FHDL	POINT	FIRE HYDRANT ON LEFT	-	VIDEO RATING				
		FHDR	POINT	FIRE HYDRANT ON RIGHT	-	VIDEO RATING				
10	GUARD/GUIDE WALL	GGWL	LINEAR	GUARD/GUIDE WALL ON LEFT	-	VIDEO RATING				
		GGWR	LINEAR	GUARD/GUIDE WALL ON RIGHT	-	VIDEO RATING				
11	GUARD/GUIDE RAIL	GGRL	LINEAR	GUARD/GUIDE RAIL ON LEFT	-	VIDEO RATING				
		GGRR	LINEAR	GUARD/GUIDE RAIL ON RIGHT	-	VIDEO RATING				
12	INTERSECTION	INTL	POINT	INTERSECTION ON LEFT	-	ARAN				
		INTR	POINT	INTERSECTION ON RIGHT	-	ARAN				
		INTN	POINT	INTERSECTION SIDE N/A	-	ARAN				

13	LANE DEVIATION	LADV	LINEAR	LANE DEVIATION	-	ARAN
14	LOW WATER CROSSING	LWCR	LINEAR	LOW WATER CROSSING	SOMETIMES	VIDEO RATING
15	MILE MARKER	MML	POINT	MILE MARKER ON LEFT	-	VIDEO RATING
		MMR	POINT	MILE MARKER ON RIGHT	-	VIDEO RATING
16	OVERPASS	OPV	POINT	OVERPASS VEHICULAR	SOMETIMES	ARAN
		OPP	POINT	OVERPASS PEDESTRIAN	SOMETIMES	ARAN
		OPRX	POINT	OVERPASS RAILROAD CROSSING	SOMETIMES	ARAN
17	PARK BOUNDARY	PRK	POINT	PARK BOUNDARY	-	ARAN
18	PAVED DITCH	PVDL	LINEAR	PAVED DITCH ON LEFT	-	VIDEO RATING
		PVDR	LINEAR	PAVED DITCH ON RIGHT	-	VIDEO RATING
19	PULLOUT	PLOL	LINEAR	PULLOUT ON LEFT	-	VIDEO RATING
		PLOR	LINEAR	PULLOUT ON RIGHT	-	VIDEO RATING
20	RAILROAD CROSSING	RRX	POINT	RAILROAD CROSSING	-	VIDEO RATING
21	RETAINING WALL	RTWL	LINEAR	RETAINING WALL ON LEFT	-	VIDEO RATING
		RTWR	LINEAR	RETAINING WALL ON RIGHT	-	VIDEO RATING
22	ROUTE BEGIN	RBEG	POINT	ROUTE BEGIN	-	ARAN
23	ROUTE END	REND	POINT	ROUTE END	-	ARAN
24	SIGN	REGU, WARN, GUID, UNKN	POINT	DOCUMENT CONTENTS OF SIGN. (WHAT THE SIGN SAYS) FOR GRAPHICS ONLY SIGNS POPULATED WITH ("GRAPHIC SIGN, NO TEXT") FOR UNREADABLE TEXT POPULATED WITH ("UNABLE TO READ FROM VIDEO")	_	VIDEO RATING
24	STATE	GOID, ORINI	10111			
25	BOUNDARY	STB	POINT	STATE BOUNDARY	-	ARAN
26	TRAFFIC LIGHT	TRF	POINT	TRAFFIC LIGHT	-	VIDEO RATING
27	TUNNEL	TUN	LINEAR	TUNNEL	ALWAYS	ARAN

PMS_20, PMS_MILE, & PMS_TENTH Tables Metadata:

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			4, for RIP data collection			100% Referenced to other
1	RIP_CYCLE	XX	Cycle 4	Route ID Meeting	FHWA Determination	tables
					Park Input/FHWA	
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested. (1)
						100% Referenced to other
3	PARK_ALPHA	XXXX	Park alpha code	Route ID Meeting	NPS References	tables
						100% Referenced to other
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	tables
-	DTE NO	0000	Destauration	Des to ID Martine	Park Input/FHWA	100% Referenced to other
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	tables 100% Referenced to other
6	FUNCT_CLASS	Х	Route functional class	Route ID Meeting	Park Input/FHWA Classification	tables
0	FUNCI_CLASS	Λ	Survey lane: PRI (primary)	Route ID Meeting	Park Input/FHWA	tables
7	DIRECTION	XXX	or OPP (opposite)	Route ID Meeting	Determination	100%
/	DIRECTION	71777	MP at start of road interval			100 /0
			described by database			
8	BEG MP	999.999 (miles)	record	Contractor Post-processing	Database Processing	100% (3)
	_	× /	MP at end of road interval			
			described by database			
9	END_MP	999.999 (miles)	record	Contractor Post-processing	Database Processing	100% (3)
			Length of road interval as			
10	INT_LENGTH	999.9 (ft)	aggregated for data table	Contractor Post-processing	Database Processing	100%
11	RTE_LENGTH	999.999 (miles)	Collected route length	ARAN Data Collection	Automatic Output	100% (3)
12	NO_LANES	99	Number of lanes in route	ARAN Data Collection	Survey Crew Input	Untested. (1)
13	LANE_NO	99	Data collection lane	Contractor Post-processing	Database Processing	Untested
			WiseCrax (crack detection			
14	D_LANE_WIDTH	99.999 (ft)	software) analysis width	Contractor Post-processing	Automatic Output	Untested
15	LANE_WIDTH	99.9 (ft)	Width of lane	Contractor Post-processing	Video Analysis	95%, <=1.0 foot
16	PAVE_WIDTH	99.9 (ft)	Full pavement width	Contractor Post-processing	Video Analysis	95%, <=1.0 foot
17	SHLD_WIDTH_L	99.9 (ft)	Left shoulder width	Contractor Post-processing	Video Analysis	95%, <=1.0 foot (2)
18	SHLD_WIDTH_R	99.9 (ft)	Right shoulder width	Contractor Post-processing	Video Analysis	95%, <=1.0 foot (2)
			N/A. Intended to be Left			Values inaccurate, defaulted
19	SHLD_COND_L	N/A	shoulder condition	ARAN Data Collection	Survey Crew Input	to "N/A"
			N/A. Intended to be Right			Values inaccurate, defaulted
20	SHLD_COND_R	N/A	shoulder condition	ARAN Data Collection	Survey Crew Input	to "N/A"
			N/A. Intended to be Left			Values inaccurate, defaulted
21	DRAIN_COND_L	N/A	drainage condition	ARAN Data Collection	Survey Crew Input	to "N/A"
		NT / A	N/A. Intended to be Right			Values inaccurate, defaulted
22	DRAIN_COND_R	N/A	drainage condition	ARAN Data Collection	Survey Crew Input	to "N/A"

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
23	SURF_TYPE	XX	Surface type of route	ARAN Data Collection	Survey Crew Input	Untested. (1)
24	PCR	999	Pavement Condition Rating	Contractor Post-processing	Database Processing	100% for calculation (6)
25	RCI	999	Roughness Condition Index; -1 if invalid IRI	Contractor Post-processing	Database Processing	100% for calculation
26	SCR	999	Surface Condition Rating	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
27	IRI_AVG	999.9 (inches/mile)	Average IRI	Contractor Post-processing	Database Processing	Untested
28	IRI_SD	999.9 (inches/mile)	IRI standard deviation	Contractor Post-processing	Database Processing	Untested
29	IRI_L	999.9 (inches/mile)	Left wheel path IRI	ARAN Data Collection	Automatic Output	Untested
30	IRI_R	999.9 (inches/mile)	Right wheel path IRI	ARAN Data Collection	Automatic Output	Untested
31	IRI_FLAG	0 or -1	-1 if invalid IRI data	Contractor Post-processing	Database Processing	Untested
32	RUT_INDEX	999	Rut index	Contractor Post-processing	Database Processing	100% for calculation (5)
			Average rut depth of both		U	
33	RUT_AVG	99.99 (inches)	wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
34	RUT_MAX	99.99 (inches)	Maximum rut depth of both wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
35	RUT_SD	9.9	Rut depth standard deviation	Contractor Post-processing	Database Processing	Untested (5)
36	RUT_LOW	999 (%)	Percent of low severity ruts (on a 0-200% scale) in both wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
37	RUT_MED	999 (%)	Percent of medium severity ruts (on a 0-200% scale) in both wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
38	RUT_HI	999 (%)	Percent of high severity ruts (on a 0-200% scale) in both wheelpaths	Contractor Post-processing	Database Processing	Untested (5)
39	XFALL	999.9 (% slope)	Cross fall at start of road interval	ARAN Data Collection	Automatic Output	Untested
40	GRADE	999.9 (% slope)	Grade at start of road interval	ARAN Data Collection	Automatic Output	Untested
41	AC_INDEX	999	Alligator cracking index	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
42	AC_LOW	999.9999 (%)	Percent of WiseCrax measured lane area with low-severity alligator cracking	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
43	AC_MED	999.9999 (%)	Percent of WiseCrax measured lane area with medium-severity alligator cracking	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
44	AC_HI	999.9999 (%)	Percent of WiseCrax measured lane area with high-severity alligator	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)

10-20

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			cracking			
45	LC_INDEX	999	Longitudinal cracking index	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
46	LC_LOW	999.99 (%)	Low-severity longitudinal cracking in lane as a percentage of road interval length	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
47	LC_MED	999.99 (%)	Medium-severity longitudinal cracking in lane as a percentage of road interval length	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
48 49	LC_HI TC_INDEX	999.99 (%) 999	High-severity longitudinal cracking in lane as a percentage of road interval length Transverse cracking index	Contractor Post-processing Contractor Post-processing	Pavement Video Analysis Database Processing	As a Computed 95% Confidence Level (5) (6) 100% for calculation (5) (6)
50	TC_LOW	999.99 (cracks)	Count of low-severity transverse cracks, where one crack unit equals the WiseCrax measured lane width	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
51	TC_MED	999.99 (cracks)	Count of medium-severity transverse cracks, where one crack unit equals the WiseCrax measured lane width	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
52	ТС_НІ	999.99 (cracks)	Count of high-severity transverse cracks, where one crack unit equals the WiseCrax measured lane width	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
53	PATCH_INDEX	999	Patching index	Contractor Post-processing	Database Processing	100% for calculation (5) (6)
54	PATCHING	999.9999 (%)	Percent of WiseCrax measured lane area affected by patching	Contractor Post-processing	Pavement Video Analysis	As a Computed 95% Confidence Level (5) (6)
55	GPS_LAT	999.999999	Latitude coordinate	ARAN Data Collection	Automatic Output	<= 3.00 feet
56	GPS_LON	-999.999999	Longitude coordinate	ARAN Data Collection	Automatic Output	<= 3.00 feet
57	GPS_ELEV	99999.9	Elevation	ARAN Data Collection	Automatic Output	Untested
58	GPS_MODE	XXX	GPS Satellite Mode during collection	ARAN Data Collection	Automatic Output	Untested
59	DATUM	(Text)	LL_WGS84_DD	ARAN Data Collection	Database Processing	100%
60	VIDEO	<park>C04VID<#></park>	Removable USB video hard	Contractor Post-processing	Database Processing	Untested

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			drive number			
			Filename of .jpg image			
61	IMAGE	(Text)	showing road interval	Contractor Post-processing	Automatic Output	Untested
			Average ARAN speed			
62	SPEED	999 (miles/hour)	during data collection	ARAN Data Collection	Automatic Output	Untested
			Flag indicating presence of			
63	BRIDGE_FLAG	0 or 1	bridge in interval	ARAN Data Collection	Survey Crew Input	Untested
			Flag indicating construction			
64	CONSTR_FLAG	0 or 1	in interval	ARAN Data Collection	Survey Crew Input	Untested
			Flag indicating lane			
65	LANEDEV_FLAG	0 or 1	deviation in interval	ARAN Data Collection	Survey Crew Input	Untested
66	DATE	MM/DD/YY	Data collection date	ARAN Data Collection	Automatic Output	100%
			Flag indicating absence of			
67	NODISTRESS	0 OR 1	pavement distress	Contractor Post-processing	Database Processing	100%
68	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	100%
				Route ID Meeting/ARAN Data	Survey Crew Input/Automatic	
69	SECTION	(Text)	Route section ID	Collection	Output	100%
70	FKEY	(Numeric)	Unique record ID	Contractor Post-processing	Database Processing	100%
			Raw MP of first video frame			
71	CONTRACTOR1	(Numeric)	in section	Contractor Post-processing	Database Processing	Untested
			Raw MP of last video frame			
72	CONTRACTOR2	(Numeric)	in section	Contractor Post-processing	Database Processing	Untested
			Unique record ID used by			
73	CONTRACTOR3	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested
			Range of mileage to play in			
74	CONTRACTOR4	(Text)	VisiData	Contractor Post-processing	Database Processing	Untested

ROUTE_GPS table metadata:

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
						100% referenced to other
1	RIP_CYCLE	XX	4, for RIP data collection Cycle 4	Route ID Meeting	FHWA Determination	tables
					Park Input/FHWA	
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested
3	DADV ALDUA	XXXX	Dark alpha aada	Pouto ID Masting	NPS References	100% Referenced to other tables
5	PARK_ALPHA	ΛΛΛΛ	Park alpha code	Route ID Meeting	INFS Kelefences	100% Referenced to other
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	tables
· ·					Park Input/FHWA	100% Referenced to other
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	tables
				<u> </u>	Park Input/FHWA	100% Referenced to other
6	FUNCT_CLASS	Х	Route functional classification	Route ID Meeting	Classification	tables
						100% Referenced to other
						tables . 100 characters fit in
7	RTE_NAME	(Text)	Route name	Route ID Meeting	Park Input	field
		0.0				
8	LANE_NUMBER	99	Data collection lane	Contractor Post-processing	Database Processing	Untested
	DIDECTION	VVV	Survey lane: PRI (primary) or	Deute ID Masting	Park Input/FHWA	Lintented
9	DIRECTION	XXX	OPP (opposite)	Route ID MeetingARAN Data Collection,	Determination	Untested
10	MP	999.999	Mile Post (at 0.01 record)	Contractor Post-processing	Survey Crew Input/GPS Processing	Untested (3)
10	1411	,,,,,,,	GPS Latitude Co-ordinate	ARAN Data Collection,		
11	GPS_LAT	999.999999	(decimal degrees)	Contractor Post-processing	Automatic Output	<= 3.00 feet
			GPS Longitude Co-ordinate	ARAN Data Collection,		
12	GPS_LON	-999.999999	(-decimal degrees)	Contractor Post-processing	Automatic Output	<= 3.00 feet
				ARAN Data Collection,	· · · · · · · · · · · · · · · · · · ·	
13	GPS_ELEV	99999.9	Elevation	Contractor Post-processing	Automatic Output	Untested
			GPS Satellite Mode	ARAN Data Collection,		
14	GPS_MODE	XXX	during collection	Contractor Post-processing	Automatic Output	Untested
			Cross Fall: % Slope at GPS			
15	VEALL	000.0	Location (Caution, Data not	ARAN Data Collection,	Automotic Outout	Lintented
15	XFALL	999.9	Validated) Grade: % Slope at GPS Location	Contractor Post-processing ARAN Data Collection,	Automatic Output	Untested
16	GRADE	999.9	(Caution, Data not Validated)	Contractor Post-processing	Automatic Output	Untested
17	HEADING	999.9	Heading Relative to True North	ARAN Data Collection	Automatic Output	Untested
18	DATUM	(Text)	LL_WGS84_DD	ARAN Data Collection	Database Processing	Untested
19	FILENAME	(Text)	Filename of raw data files	ARAN Data Collection	Automatic Output	Untested
20	FKEY	9999999	Unique record ID	Contractor Post-processing	Database Processing	Untested

21	DATE	MM/DD/YY	ARAN Data Collection Date	ARAN Data Collection	Automatic Output	Untested
22	COMMENT	(Text)	Source of Any Digitized Data	ARAN Data Collection	Database Processing	Untested
23	CONTRACTOR1	(Numeric)	Visi_from	Contractor Post-processing	Database Processing	Untested
24	CONTRACTOR2	(Numeric)	Visi_to	Contractor Post-processing	Database Processing	Untested
25	CONTRACTOR3	(Text)	Visi_dir (ipdated to chapter 1)	Contractor Post-processing	Database Processing	Untested
26	CONTRACTOR4	(Text)	Comments/exceptions	Contractor Post-processing	Database Processing	Untested

FHWA "Route ID Program" Database Database Name: ROUTEINFO.mdb Table Name: ROUTE_ID

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
1	ROUTE_IDENT	XXXX-9999XXX	The Park's Alpha Code + "-" + RTE_NO (below).	Route ID Meeting	Automatic Output	100%, Reference source for all tables
2	RIP_CYCLE	99	4, for RIP data collection Cycle 4	Route ID Meeting	FHWA Determination	100%, Reference source for all tables
3	PARK_ALPHA	XXXX	Park Alpha Code	Route ID Meeting	NPS References	100%, Reference source for all tables
4	GROUP_ALPHA	XXXX	Group Alpha Code	Route ID Meeting	NPS References	100%, Reference source for all tables
5	PARK_NO	9999	Park Numeric Code	Route ID Meeting	NPS References	100%, Reference source for all tables
6	PARK_NAME	(text)	NPS Name of Park	Route ID Meeting	NPS References	100%, Reference source for all tables
7	RTE_NO	9999XXX	Route Number	Route ID Meeting	Park Input	100%, Reference source for all tables
8	RTE_NAME	(Text)	Route Name	Route ID Meeting	Park Input	100%, Reference source for all tables
9	FROM_DESC	(Text)	Beginning terminus of route	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
10	TO_DESC	(Text)	Ending terminus of route	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
11	INSP_DATE	MM/DD/YYYY	Collection Date	ARAN Data Collection	FHWA Determination	100%, Reference source for all tables
12	FUNCT_CLASS	XX	Functional Class	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
13	STATE	XX	State where route is located	Route ID Meeting	Park Input/FHWA Determination	Untested (1)
14	STATE2	XX	Additional State Park Route traverses	Route ID Meeting	Park Input/FHWA Determination	Untested (1)
15	FMSS_NO	(Text)	NPS's Facility Management Software System (FMSS) Asset number	Route ID Meeting	Park Input	100%, Reference source for all tables
16	FMSS_SUR_EQP	(Text)	FMSS Surface Equipment Number	Route ID Meeting	Park Input	Untested
17	M_DISTRICT	(Text)	Park Maintenance District Route resides in	Route ID Meeting	Park Input	100%, Reference source for all tables (1)
18	TOPOGRAPHY	(Text)	Predominate Terrain condition for	Route ID Meeting	FHWA Determination	100%, Reference source for all

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Route. (FLAT, ROLLING, MOUNTAINOUS, or URBAN)			tables (1)
			Posted Speed Limit for Route			
19	POSTED_SPEED	99	(Value is Predominate Speed Limit along Route)	Route ID Meeting	Park Input/FHWA Determination	Untested (1)
17	TOSTED_STEED			Route ID Meeting		100%, Reference source for all
20	ARAN_ROUTE	XXX	Yes/No	Route ID Meeting	Park Input/FHWA Determination	tables
21	PARKING_AREA	XXX	Yes/No	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
22	CONCESSION	XXX	Yes/No	Route ID Meeting	Park Input	100%, Reference source for all tables
23	PAVED_MI	999.999	Paved mileage (to the nearest 0.001)	ARAN Data Collection	Automatic Output	100%, Reference source for all tables
24	UNPAVED_MI	999.999	Unpaved mileage (to the nearest 0.001)	Route ID Meeting	Automatic Output	100%, Reference source for all tables
25	RTE_LENGTH	999.999	Official Route Length	Contractor Post- processing	Automatic Output	100%, Reference source for all tables
26	SURF_TYPE	XX	Surface type (PAVED: AS (asphalt, includes composite), CO (concrete), BR (brick/pavers), CB (cobblestone), OT (other))	Route ID Meeting	Survey Crew Input	100%, Reference source for all tables (1)
20	SUKF_ITE	ΛΛ	(cobblestolle), OT (other))	Route ID Meeting	Survey Crew Input	100%, Reference source for all
27	UNPAVED	XXXX	Unpaved Route (Yes/No/Both)	Route ID Meeting	Automatic Output	tables
28	UNPAVED_CAT	XXX	Unpaved Road Category	Route ID Meeting	Automatic Output	Untested
29	CURB	(Text)	Parking Area with Curb around perimeter.	Route ID Meeting	Park Input/FHWA Determination	Untested
30	CURB_GUTTER	(Text)	Parking Area with Curb and Gutter around perimeter.	Route ID Meeting	Park Input/FHWA Determination	Untested
31	ADJ_ROUTE	9999XXX	Route number	Route ID Meeting	Automatic Output	100%, Reference source for all tables
32	USER_ACCESS	(Text)	Access Designation for Parking	Route ID Meeting	Park Input/FHWA Determination	100%, Reference source for all tables
33	PHOTO_NO	(Text)	Photo or Image	Route ID Meeting	Survey Crew Input	100%, Reference source for all tables
34	PLOT_SIZE	(Text)	Unpaved Parking Area Size	Route ID Meeting	Automatic Output	100%, Reference source for all tables
35	SQ_FEET	999.999	Route Square Footage	Contractor Post- processing	Automatic Output	100%, Reference source for all tables
36	M_RATING	(Text)	Manual Rating	Route ID Meeting	Automatic Output	100%, Reference source for all tables

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
				Contractor Post-		100%, Reference source for all
37	SQ_YARDS	999.999	Route Square Yardage	processing	Automatic Output	tables
38	LANES	XX	Route travel lanes	Route ID Meeting	Automatic Output	Untested (1)
			Pavement Width (Weighted			
39	PAVE_WIDTH	999.99	average)	RIP Post-processing	Automatic Output	100% Referenced to other tables
				F		
10		000.000				100%, Reference source for all
40	LANE_MILES	999.999	Route Equivalent Lane Miles	RIP Post-processing	Automatic Output	tables
41	ADEA MAD	(Tout)	1 on 2 digit number	Contractor Post-	ELWA (Contractor Input	100%, Reference source for all
41	AREA_MAP	(Text)	1 or 2-digit number General remarks on Park route	processing Contractor Post-	FHWA/Contractor Input	tables
42	REMARKS	(Memo)	and data collection operations.	processing	FHWA/Contractor Input	Untested
	KLWARKS	(ivicilio)	ROUTE_IDENT of summary	processing		100%, Reference source for all
43	SUMMARY_REC	XXXX-9999XXX	Park Asset	Route ID Meeting	Park Input/FHWA Determination	tables
	_			<u> </u>		100%, Reference source for all
44	NPS_REGION	(Text)	Park Region	Route ID Meeting	Park Input/FHWA Determination	tables
						100%, Reference source for all
45	DIVISION	(Text)	FHWA Division	Route ID Meeting	Park Input/FHWA Determination	tables
			Route Weighted Average PCR			
46	PCR	999.99	value	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Weighted Average SCR			
47	SCR	999.99	value	RIP Post-processing	Automatic Output	100% Referenced to other tables
48	AADT	999	Average Adjusted Daily Traffic	RIP	Automatic Output	Untested
49	SADT	999	Seasonal Adjusted Daily Traffic	RIP	Automatic Output	Untested
50	ADT_DATE	MM/DD/YYYY	Traffic Date of Collection	RIP	Automatic Output	Untested
			Route Begin GPS Latitude Co-		Î.	
			ordinate	ARAN Data		<= 3.00 feet, Referenced from
51	BEG_LAT	999.999999	(decimal degrees)	Collection	Automatic Output	other tables
			Route Begin GPS Longitude Co-			
50	DEC LON	000 000000	ordinate	ARAN Data	Automatic Output	<= 3.00 feet, Referenced from
52	BEG_LON	-999.999999	(-decimal degrees)	Collection ARAN Data	Automatic Output	other tables
53	BEG_ELEV	99999.9	Route Begin Elevation	Collection	Automatic Output	100% Referenced to other tables
- 55	220_000		Route Begin GPS Satellite Mode	ARAN Data		
54	BEG_MODE	XXX	during collection	Collection	Automatic Output	100% Referenced to other tables
			Route End GPS Latitude Co-		· · · · · · · · · · · · · · · · · · ·	
1			ordinate	ARAN Data		<= 3.00 feet, Referenced from
55	END_LAT	999.999999	(decimal degrees)	Collection	Automatic Output	other tables

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Route End GPS Longitude Co-			
56	END_LON	-999.999999	ordinate (-decimal degrees)	ARAN Data Collection	Automatic Output	<= 3.00 feet, Referenced from other tables
50	LIU_LOIV	,,,,,,,,,,,		ARAN Data		
57	END_ELEV	99999.9	Route End Elevation	Collection	Automatic Output	100% Referenced to other tables
58	END_MODE	XXX	Route End GPS Satellite Mode during collection	ARAN Data Collection	Automatic Output	100% Referenced to other tables
59	DATUM	(Text)	LL_WGS84_DD	ARAN Data Collection	Automatic Output	100% Referenced to other tables
60	CHILD_ROUTE	XXX	Yes/No	Route ID Meeting	Automatic Output	100% Reference source for all tables
61	CULVERT_CNT	999	Route Culvert Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
62	DROP_INLET_CNT	999	Route Drop Inlet Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
63	GATE_CNT	999	Route Gate Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
64	TRAFLIGHT_CNT	999	Route Traffic Light Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
65	SIGN_CNT	999	Route Sign Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
66	LWCROSS_CNT	999	Route Low Water Crossing Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
67	BRIDGE_CNT	999	Route Bridge Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
68	TUNNEL_CNT	999	Route Tunnel Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
69	PULLOUT_CNT	999	Route Pullout Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
70	INTERSEC_CNT	999	Route Intersection Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
71	ST_BNDRY_CNT	999	Route State Boundary Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
72	PRK_BNDRY_CNT	999	Route Park Boundary Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
73	RETWALL_CNT	999	Route Retaining Wall Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
74	RR_CROSS_CNT	999	Route RR Crossing Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
75	CATTLE_CNT	999	Route Cattle Guard Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
76	OVHDSIGN_CNT	999	Route Overhead Sign Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
77	MILEMARK_CNT	999	Route Mile Marker Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
78	FHYD_CNT	999	Route Fire Hydrant Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
79	OVERPASS_CNT	999	Route Overpass Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
80	CABLE_TLNG	9999.999 (ft)	Route Total Length Cable Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
			Route Total Length Guard/Guide			
81	GDRAIL_TLNG	9999.999 (ft)	Rail Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Guard/Guide			
82	GDWALL_TLNG	9999.999 (ft)	Wall Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Temporary			
83	TEMP_BARR_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Bollard			
84	BOLLARD_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
85	BARRIER_TLNG	9999.999 (ft)	Route Total Length All Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Curbing			
86	CURB_TLNG	9999.999 (ft)	(excludes Parking Areas)	RIP Post-processing	Automatic Output	100% Referenced to other tables
			Route Total Length Low Water			
87	LWCROSS_TLNG	9999.999 (ft)	Crossings	RIP Post-processing	Automatic Output	100% Referenced to other tables
						100% Referenced to other tables
88	PAVDITCH_TLNG	9999.999 (ft)	Route Total Length Paved Ditch	RIP Post-processing	Automatic Output	(2)
89	TURNOUT_TLNG	9999.999 (ft)	Route Total Length Turnouts	RIP Post-processing	Automatic Output	100% Referenced to other tables
90	LANE_NUMBER	99	Number of Lane Tested	RIP Post-processing	Automatic Output	100% Referenced to other tables
						100% Reference source for all
91	LOCAL_FACTOR	9.9999	Park Location Factor	NPS Partner	Automatic Output	tables
						100% Reference source for all
92	E_ZONE	XXX	Route Environmental Zone	FHWA HPMA	Automatic Output	tables
						100% Reference source for all
93	PAVEMENT_DM	\$99,999,999.99	Pavement Deferred Maintenance	FHWA HPMA	Automatic Output	tables
						100% Reference source for all
94	CRV	\$99,999,999.99	Current Replacement Value	RIP Post-processing	Automatic Output	tables

Database Name: ROUTEINFO.mdb Table Name: PARK_TOTALS

		FORMAT		COUDCE		EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY 100% Referenced to other
1	DID CVCLE	99	4, for RIP data collection Cycle 4	Poute ID Meeting	FHWA Determination	tables
1	RIP_CYCLE	99	4, for Kir data conection Cycle 4	Route ID Meeting	FHWA Determination	100% Referenced to other
2	PARK_ALPHA	XXXX	Park Alpha Code	Route ID Meeting	FHWA Determination	tables
					THWA Determination	100% Referenced to other
3	GROUP_ALPHA	XXXX	Group Alpha Code	Route ID Meeting	NPS References	tables
						100% Referenced to other
4	PARK_NO	9999	Park Numeric Code	Route ID Meeting	NPS References	tables
				<u> </u>		100% Referenced to other
5	PARK_NAME	XXXX	NPS Name of Park	Route ID Meeting	NPS References	tables
				Route ID Meeting and		
			Date that data was collected in the park	ARAN Data		100% Referenced to other
6	INSP_DATE	MM/DD/YYYY	(completion date).	Collection	FHWA Determination	tables
						100% Referenced to other
7	NPS_REGION	XXXX	Park Region	Route ID Meeting	Park Input	tables
						100% Referenced to other
8	DIVISION	XXXX	FHWA Division	Route ID Meeting	FHWA Determination	tables
						100% Referenced to other
9	T_PAVED_MI	999.999	Total Park Paved Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
10	T_UNPAVED_MI	999.999	Total Park Unpaved Miles	RIP Post-processing	Automatic Output	tables
1.1		000.000				100% Referenced to other
11	T_ROUTE_MILES	999.999	Total Park Route Miles	RIP Post-processing	Automatic Output	tables
10	T_ARAN_DRIVEN	999.999	Total Park ARAN Driven Miles	RIP Post-processing	Automatic Output	100% Referenced to other tables
12	I_ARAN_DRIVEN	999.999	Total Park ARAN Driven Miles	KIP Post-processing		100% Referenced to other
13	T_ARAN_LMILES	999.999	Total Park ARAN Lane Miles	RIP Post-processing	Automatic Output	tables
15	I_ARAN_LWILLES	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		KII I Ost-processing		100% Referenced to other
14	T_CONCESS_PAVED	999.999	Total Park Concession Paved Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
15	T_CONCESS_UNPAVED	999.999	Total Park Concession Unpaved Miles	RIP Post-processing	Automatic Output	tables
_					· · · · F · · ·	100% Referenced to other
16	T_PRK_PAVEDSQFT	999.999	Total Park Parking Paved Square Feet	RIP Post-processing	Automatic Output	tables
	-		Total Park Parking Unpaved Square			100% Referenced to other
17	T_PRK_UNPAVEDSQFT	999.999	Feet	RIP Post-processing	Automatic Output	tables
			Total Park Concession Parking Paved			100% Referenced to other
18	T_CPRK_PAVEDSQFT	999.999	Square Feet	RIP Post-processing	Automatic Output	tables

		FORMAT		SOUDCE		EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
10	T CDDK UNDAVEDSOFT	000 000	Total Park Concession Parking Unpaved Square Feet	DID Doct processing	Automotic Output	100% Referenced to other tables
19	T_CPRK_UNPAVEDSQFT	999.999	Square reet	RIP Post-processing	Automatic Output	100% Referenced to other
20	T_PARKING_SQFT	999.999	Total Park Parking Square Feet	RIP Post-processing	Automatic Output	tables
20	I_IAKKINO_SQI'I	,,,,,,	Total Park Parking Equivalent Lane	Kii Tost-processing	Automatic Output	100% Referenced to other
21	T_PARKING_LMILES	999.999	Miles	RIP Post-processing	Automatic Output	tables
21		///////////////////////////////////////	Total Park Manually Rated Road Square	itil 10st processing		100% Referenced to other
22	T_MRR_SQFT	999.999	Feet	RIP Post-processing	Automatic Output	tables
			Total Park Concession Manually Rated			100% Referenced to other
23	T_CMRR_SQFT	999.999	Road Square Feet	RIP Post-processing	Automatic Output	tables
			Total Park Manually Rated Road		1	100% Referenced to other
24	T_MRR_LMILES	999.999	Equivalent Lane Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
25	T_LMILES	999.999	Total Park Lane Miles	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
26	T_CULVERT_CNT	999	Total Park Culvert Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
27	T_DROP_INLET_CNT	999	Total Park Drop Inlet Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
28	T_GATE_CNT	999	Total Park Gate Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
29	T_TRAFLIGHT_CNT	999	Total Park Traffic light Count	RIP Post-processing	Automatic Output	tables
20		000		DIDD		100% Referenced to other
30	T_SIGN_CNT	999	Total Park Sign Count	RIP Post-processing	Automatic Output	tables
31	T LWCDOSS CNT	999	Total Dark Low Water Count	DID Dest processing	Automotic Output	100% Referenced to other tables
51	T_LWCROSS_CNT	999	Total Park Low Water Count	RIP Post-processing	Automatic Output	100% Referenced to other
32	T_BRIDGE_CNT	999	Total Park Bridge Count	RIP Post-processing	Automatic Output	tables
52	I_DRIDGE_CIVI	,,,,		Kii Tost-processing	Automatic Output	100% Referenced to other
33	T_TUNNEL_CNT	999	Total Park Tunnel Count	RIP Post-processing	Automatic Output	tables
55		,,,,		itil 10st processing		100% Referenced to other
34	T_PULLOUT_CNT	999	Total Park Pullout Count	RIP Post-processing	Automatic Output	tables
-						100% Referenced to other
35	T_INTERSEC_CNT	999	Total Park Intersections Count	RIP Post-processing	Automatic Output	tables
					1	100% Referenced to other
36	T_ST_BNDRY_CNT	999	Total Park State Boundaries Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
37	T_PRK_BNDRY_CNT	999	Total Park Boundaries Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
38	T_RETWALL_CNT	999	Total Park Retaining Wall Count	RIP Post-processing	Automatic Output	tables
39	T_RR_CROSS_CNT	999	Total Park RR Crossing Count	RIP Post-processing	Automatic Output	100% Referenced to other
59	1_IVIC_CICOD2_CIVI	177	Total Lark IXIX Crossing Count	Kii i üst-processing		

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
						tables
						100% Referenced to other
40	T_CATTLE_CNT	999	Total Park Cattle Guard Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
41	T_OVHDSIGN_CNT	999	Total Park Overhead Sign Count	RIP Post-processing	Automatic Output	tables
10		000		DIDD		100% Referenced to other
42	T_MILEMARK_CNT	999	Total Park Mile Marker Count	RIP Post-processing	Automatic Output	tables
12	T EUVD CNT	999	Total Dark Fire Hydront Count	DID Doct processing	Automotic Output	100% Referenced to other
43	T_FHYD_CNT	999	Total Park Fire Hydrant Count	RIP Post-processing	Automatic Output	tables 100% Referenced to other
44	T_OVERPASS_CNT	999	Total Park Overpass Count	RIP Post-processing	Automatic Output	tables
			Total Laik Overpass Count	Kii Tost-processing		100% Referenced to other
45	T_CABLE_TLNG	9999.999 (ft)	Total Length Park Cable Barriers	RIP Post-processing	Automatic Output	tables
-10			Total Length Park Guard/Guide Rail	The Fost processing		100% Referenced to other
46	T_GDRAIL_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	tables
			Total Length Park Guard/Guide Wall			100% Referenced to other
47	T_GDWALL_TLNG	9999.999 (ft)	Barriers	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
48	T_TEMP_BARR_TLNG	9999.999 (ft)	Total Length Park Temporary Barriers	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
49	T_BOLLARD_TLNG	9999.999 (ft)	Total Length Park Bollard Barriers	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
50	T_BARRIER_TLNG	9999.999 (ft)	Total Length All Park Barriers	RIP Post-processing	Automatic Output	tables
~ .						100% Referenced to other
51	T_CURB_TLNG	9999.999 (ft)	Total Length Park Curbing	RIP Post-processing	Automatic Output	tables
50	T LWODOGG TING	0000 000 (6)	Tetal Local Del Lee Weter Construct			100% Referenced to other
52	T_LWCROSS_TLNG	9999.999 (ft)	Total Length Park Low Water Crossings	RIP Post-processing	Automatic Output	tables 100% Referenced to other
53	T_PAVDITCH_TLNG	9999.999 (ft)	Total Length Park Paved Ditches	RIP Post-processing	Automatic Output	tables (2)
55		9999.999 (IL)	Total Length Fark Faved Ditelles	KII I Ost-processing		100% Referenced to other
54	T_TURNOUT_TLNG	9999.999 (ft)	Total Length Park Turnouts	RIP Post-processing	Automatic Output	tables
51		//////////////////////////////////////		itil 10st processing		100% Referenced to other
55	PARK_PCR	99.99	Overall Park PCR Rating	RIP Post-processing	Automatic Output	tables
				1	T	100% Referenced to other
56	PARK_RCI	99.99	Overall Park RCI Rating	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
57	PARK_SCR	99.99	Overall Park SCR Rating	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
58	PARK_RUT_INDEX	99.99	Overall Park Rutting Index Rating	RIP Post-processing	Automatic Output	tables
		00.00	Overall Park Alligator Cracking Index			100% Referenced to other
59	PARK_AC_INDEX	99.99	Rating	RIP Post-processing	Automatic Output	tables

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
			Overall Park Longitudinal Cracking			100% Referenced to other
60	PARK_LC_INDEX	99.99	Index Rating	RIP Post-processing	Automatic Output	tables
			Overall Park Transverse Cracking Index			100% Referenced to other
61	PARK_TC_INDEX	99.99	Rating	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
62	PARK_PATCH_INDEX	99.99	Overall Park Patching Index Rating	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
63	PARK_CONC_PCR	99.99	Overall Park Concession PCR Rating	RIP Post-processing	Automatic Output	tables

Business Practices for Route Numbering and Roadway Asset Identification

Introduction and Background:

Beginning in November 2006, inventory and condition information gathered by the Federal Highway Administration (FHWA) has been stored in FMSS to enable NPS to report Deferred Maintenance (DM) and Current Replacement Value (CRV) for NPS paved roads, paved parking areas, bridges, and tunnels. The NPS Roads Working Group (RWG) has been tasked with developing and implementing the procedures necessary to transfer DM and CRV from FHWA's databases to NPS' Facility Management Software System (FMSS).

Current business practices for roadway definition in national parks involve face-to-face meetings between FHWA personnel and individual park staff known as "Route ID" meetings. These meetings have been ongoing for several years and have been performed within the context of the Road Inventory Program (RIP) executed mainly by FHWA. The primary focus of these meetings has been on defining roadway static information such as route names, numbers, functional class, etc. The FHWA personnel are the primary individuals responsible for implementing the RIP and the route ID meetings are an integral and fundamental part of that process. The RIP process provides route numbers for each individual road and parking area in each park. After the route ID meetings establish a given park's roadway asset base, various types of condition and inventory data are collected either manually or with a data collection van that drives each individual road with an individual route number.

The FMSS requires asset numbers as unique identifiers for all asset types including roadways. **The current practice is that all roadways that are assigned a route number at route ID, also are defined as assets and therefore also receive an FMSS asset number** (Route names and functional classes are also collaboratively assigned during the face-to-face route ID meetings). This practice began midway through the third RIP data collection cycle (ending in 2003) and was further reinforced during an asset alignment process conducted in the summer of 2006. The alignment process ensured that each route number in RIP and each asset number in FMSS were matched to the correct road and parking area.

Issue Statement:

As a result of various pre-existing business practices associated with the RIP, which predates FMSS by several years, route numbers are assigned for routes that are often very small. In tandem with the current business practice that all routes with route numbers are considered assets, this has caused a proliferation of asset numbers within FMSS. Over the past year, the RWG has learned that this business practice has significantly increased time and resources that parks must dedicate to administering FMSS data entry and management. This additional work effort is due to the fact that tying FMSS asset records to the more detailed, granular RIP route numbers has generated numerous new assets that require additional database and work order management. This has led to a situation where assets are not being defined the way they are managed.

The following proposed practices seek to create an asset definition process that is dictated by to how road assets are managed at the park level, not according to the pre-existing practices used in RIP for collecting detailed road information. RIP practices assign route numbers mainly based on how data are collected and driven with a data collection device. These procedures will disassociate the driving of roads with the data collection van from the process of assigning them asset status. **The end goal is to only assign asset numbers based on how parks manage their facilities within guidelines set up within FMSS and herein.** Driving the road with the data collection van allows for the collection of higher quality data as well as the ability to view road segments with video viewing software (Visidata). By de-linking driving the roads with the assignment of "asset status", we are able to get the best quality data without the proliferation of assets that has serious negative ramifications for managing roadways in parks using asset management tools.

Proposed Actions:

- 1. Make a distinction within the route number field in the RIP database between those route numbers that represent assets, those that are subcomponents of assets and those that are groups of sub-components. The route number field in the RIP database will be expanded from 6 to 7 characters. The additional character will denote the asset status of the route in question. Combined routes will be designated with a double "zz", while subcomponents will be designated with one "z". Whenever possible, a combined route should use the lowest route number to be combined as the combined route number.
- 2. Only show assets, whether a group of subcomponents or a single component, on the Route ID report. Assets that are composed of subcomponents will have "zz" in the route number. Individual routes will have no additional characters in the route number. Subcomponents (designated in RIP with a "z") will not be listed on the route ID report. Only assign asset numbers to those routes listed on the route ID report.
- 3. Provide a separate reporting function (other than the Route ID report) to identify and display information for route numbers not representing assets. Specific reporting requirements and format TBD.
- 4. Add a new field to the RIP database to indicate the "asset status" of a route number. The flag will have three possible values:
 - a. Asset with no subcomponents.
 - b. Asset with subcomponents.
 - c. Non-asset (i.e. subcomponent).

Both a change in the route number and a new "asset ID" field in the RIP database are recommended. It is easier to perform queries and other database manipulations using a separate field instead of a character within the route number field. The character in the route number field allows for rapid identification of the asset status of a road without having to access the database as a whole. Even thought non-asset routes will not be included in the route ID report (the primary location for parks to view road information in RIP), there are many other reports as well as the Visidata application where the route number is displayed. In these cases, the character in the route number will clearly identify the asset status of the roadway.

- 5. Focus asset definition practices on NPS asset management needs. Create roadway assets based on how parks manage these assets within the following guidelines:
 - a. Individual road segments (asset subcomponents) may be combined into a single asset. Note that all the attributes of individual subcomponents (paved area, equipment, work orders, etc) will be included in the combined asset.
 - b. In general, combination should be used in complex circulatory environments such as campground areas, housing and other administrative areas, maintenance areas, etc.
 - c. Public and non-public segments may not be combined.
 - d. Segments with differing functional classes may not be combined.
 - e. Discrete parking areas may be combined into a single asset where they service the same facility or resource and are within walking distance of each other.
 - f. Parking areas and roads may not be combined. This includes short road segments that may be near or adjacent to parking areas. See 5h below for exceptions to this.
 - g. Where the primary purpose of a road is to provide access to a parking area, and that road segment is approximately 0.25 miles in length or shorter, the access road should be considered part of the parking area (Note that this is an existing RIP business practice).
 - h. Particularly long routes may be divided into multiple assets based on how a park manages the roadway network. This should not be confused with the use of sub-components listed in 5a.
 - i. Roads that are actively managed by concession operations may not be combined with those managed by the NPS.

Discussion:

The first four items listed above are actions required by FHWA RIP to allow for the adoption of the practices shown in 5a-i. The following will provide additional direction and examples for guidelines listed.

Individual road segments (asset subcomponents) may be combined into a single asset. Where previous route ID practices have generated more assets (routes) than are practical from an asset management standpoint, small, discrete road lengths may be designated as asset subcomponents and then combined into a larger single asset. A subcomponent is NOT an FMSS term. Subcomponents will be used in RIP to indicate which routes are small, drivable individual road segments and which routes may include these segments. Once a piece of road is designated a subcomponent of another route, it will no longer have any individual identity in FMSS. Only those routes listed on the RIP Route ID report will have asset numbers in FMSS. As stated in business rule 2 above, subcomponents will not be listed on the route ID. The quantity information (length, area) will be included into the larger route of which they are a part. See Figures 1 and 2 for an example of how existing assets may be combined using subcomponents. Note that subcomponents will have an identity in the RIP database and, if driven by RIP team, may be referenced in RIP reports, Visidata, or other RIP documentation.

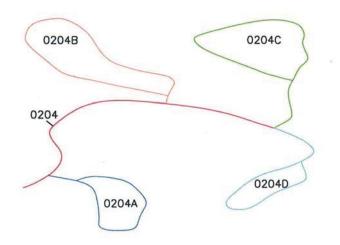


Figure 1: Campground with five routes and five assets

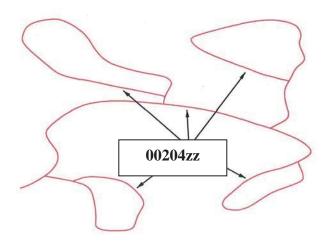


Figure 2: Campground with all loops combined into one route and one asset. This has eliminated four assets.

In general, combination should occur in complex circulatory environments such as campground areas, housing and other administrative areas, maintenance areas, etc.

Typically these complex situations are where too many assets have been used to define roadways. Combining simple "point A to point B" roads that are clearly defined and provide access to different facilities or locations may not be done.

<u>Public and non-public segments may not be combined</u>. Roads that are posted as closed to the public or are intended as administrative access only (maintenance areas, housing areas, fire roads, etc) can not be combined with roads open to the public.

<u>Segments with differing functional classes may not be combined.</u> The roadway functional class is found on the Route ID report. Functional class indicates the type of circulatory function a given road provides. Functional class is used in a variety of applications (engineering, safety, funding) so it is important to maintain the correct functional class attributes of individual roads/assets. There are some cases where functional class was erroneously assigned in prior Route ID meetings such as where campground loops have a different functional class than the campground road. Functional class of individual roads may be modified to correct discrepancies. The functional class definitions may not be modified.

Discrete parking areas may be combined into a single asset where they service the same facility or resource and are within walking distance of each other. These combined areas should be maintained as one asset. There are many instances where small (5-10 space), discrete parking areas have been separated into individual assets even though they provide parking for the same area or facility. These may be combined into a single asset. Figures 3 and 4 shows examples of combining parking areas.

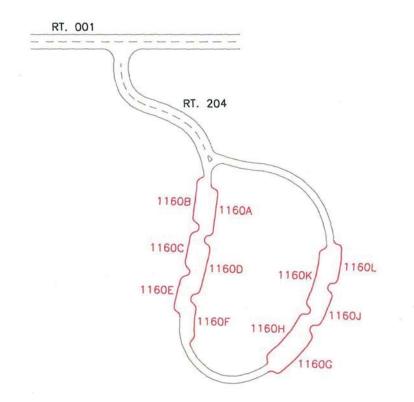


Figure 3: Parking with access route 204 and multiple parking areas (1160 A-L). Currently, this parking area is 12 routes and 12 assets (one 1100 asset and 11 1300 assets).

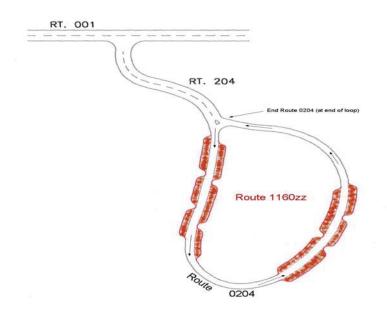


Figure 4: Parking with access route 204 and one parking area 1160zz. Route 204 is assumed longer than 0.25 miles. There are now 2 assets (one 1100 asset, one 1300 asset) instead of 12.

<u>Parking areas and roads may not be combined.</u> Parking areas and roads are tracked as separate asset types (1300 vs. 1100) in FMSS and as such should not be combined except in situations described by 5g. In Figure 5, Route 207 is a spur road from the main route running through parking area 1102. Since the spur road continues through and beyond the parking area, it will remain a separate route.

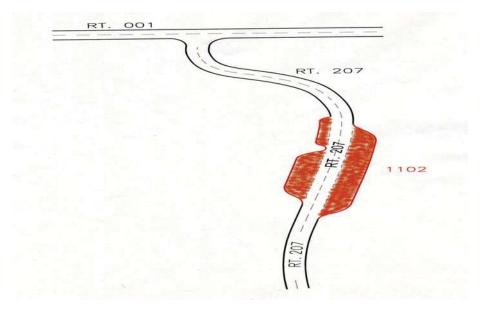


Figure 5: Parking with access route 207 running through and continuing beyond parking 1102. This access route cannot be considered a part of the parking area and two routes and two assets continue to exist.

Where the primary purpose of a road is to provide access to a parking area, and that road segment is less than 0.25 miles in length, the access road should be considered part of the parking area. See Figures 8. Where a road continues on past a parking area to another facility or destination, even if it is less than 0.25 miles to the initial parking area, the road and parking area may not be combined.

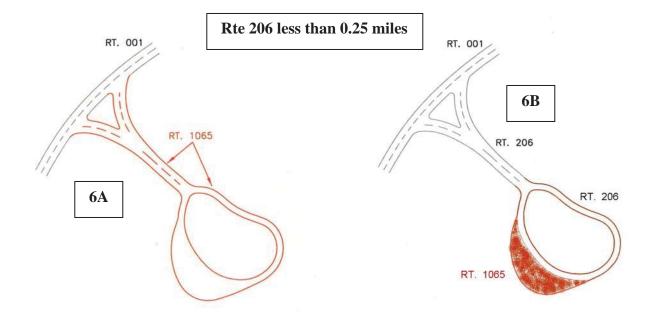


Figure 6: Since the access route is less than .25 miles in length and the only use of the access is to the parking, one route for both the access and the parking area can be established.

<u>Particularly long routes may be divided into multiple assets based on how a park manages</u> the roadway network. This should not be confused with the use of sub-components listed in 5a. Routes like the Blue Ridge Parkway or the Yellowstone Grand Loop may not lend themselves to management as a single asset by virtue of their length. Often management districts are created for sections of these routes and maintenance activities occur primarily within these districts. Parks may break routes up into separate assets during the Route ID process if the road is managed as discrete sections. This should only be done for very long roads.

The following example illustrates a complex road system and how the proposed business practice and several of the guidelines could be applied to create fewer assets that are consistent with local management.

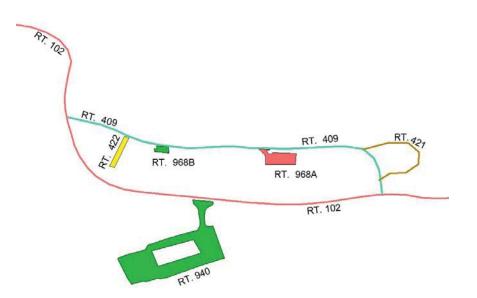


Figure 7 – Current Housing area access configuration. Route 409 is less than 0.25 miles long.

The area serviced by Routes 409, 421, 422, 968A, and 968B is all employee housing. Route 940 provides access to visitor services and not to the housing area. Routes may be combined to create assets that reflect local management. Routes 409, 421, and 422 are all the same functional class, provide access to one type of activity (housing) and are all posted as non-public. These routes may be combined. They should not be combined with any parking areas even though they are all less than 0.25 miles long. This is because their main function is not to provide access to parking. Routes 968A and B provide parking for access to the same facility (housing). Even though these discrete areas may provide parking to different housing units, it's reasonable to manage them as a single asset. They may also be combined.

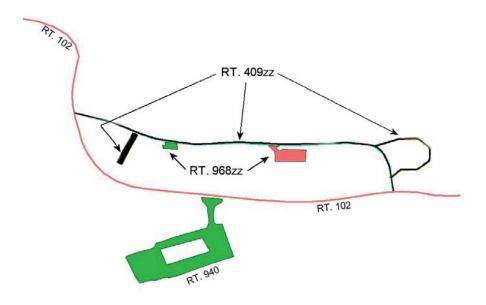


Figure 8 – Combined housing area access configuration – Parking and road assets combined to eliminate 3 assets.