

## The Road Inventory of Canyonlands National Park CANY – 1340 Cycle 4



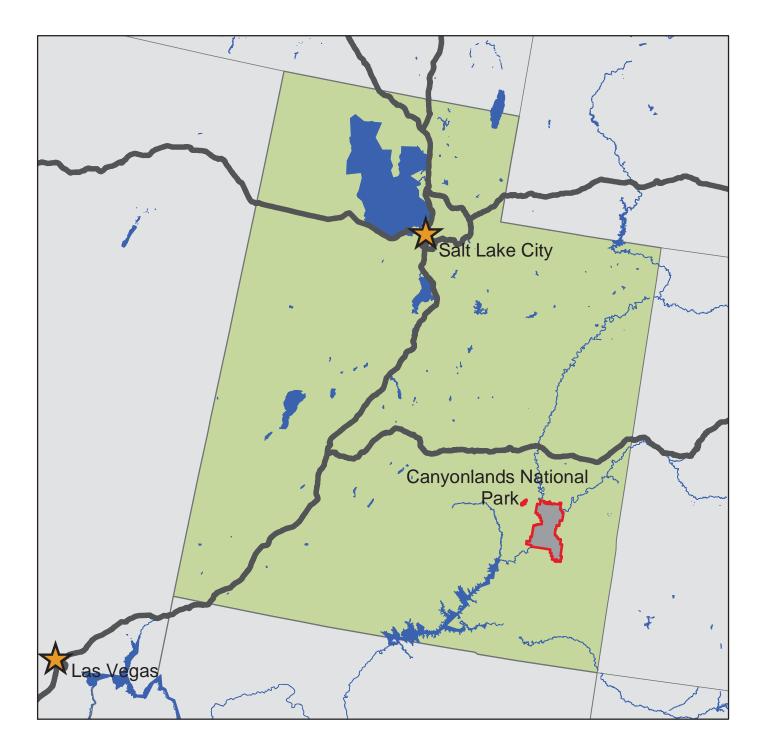






Prepared By: Federal Highway Administration Road Inventory Program Cycle 4

## Canyonlands National Park in Utah





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Canyonlands National 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 21<sup>st</sup> 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 Canyonlands National Park



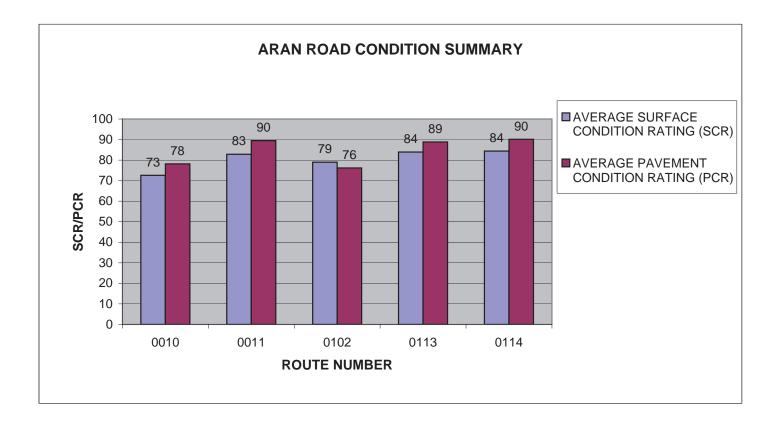
## Section 2 Park Summary Information

## CANY: PAVED ROUTE MILES AND PERCENTAGES BY FUNCTIONAL CLASS AND PCR

		P	avement C	Condition R	ating (PCF	र)			
	Poor (<	<=60)	Fair (6	1-84)	Good	(85-94)	Excellent	(95-100)	TOTAL
F.C.	MILES	%	MILES	%	MILES	%	MILES	%	MILES
1	0.74	1.41%	17.75	33.82%	20.59	39.23%	1.67	3.18%	40.75
2	0.06	0.11%	2.28	4.34%	5.09	9.70%	0.64	1.22%	8.07
3	0.50	0.95%	2.10	4.00%	0.14	0.27%	0.02	0.04%	2.76
4									
5	0.02	0.04%	0.38	0.72%	0.29	0.55%	0.21	0.40%	0.90
6									
7									
8									
Totals	1.32	2.51%	22.51	42.89%	26.11	49.75%	2.54	4.84%	52.48

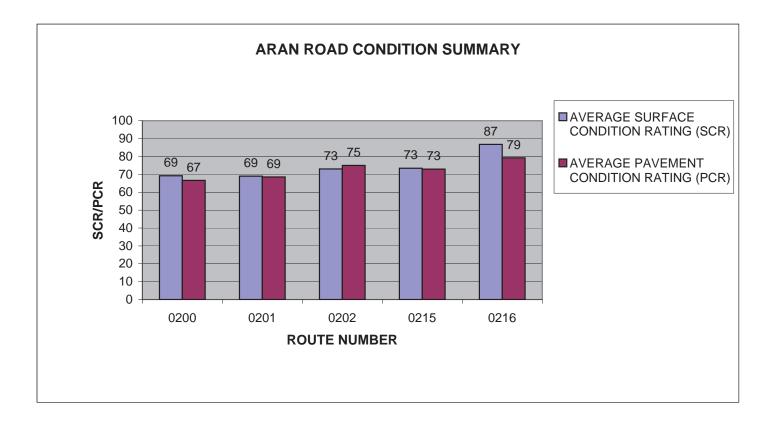
### **CANY: ARAN ROAD CONDITION SUMMARY**

ROUTE NUMBER	ROUTE NAME		ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0010	NEEDLES ACCESS ROAD	1	21.85	ASPHALT	73	78
0011	ISLAND IN THE SKY ROAD	1	18.90	ASPHALT	83	90
0102	WOODEN SHOE LOOP	2	1.94	ASPHALT	79	76
0113	GREEN RIVER OVERLOOK ROAD	2	1.35	ASPHALT	84	89
0114	UPHEAVAL DOME ROAD	2	4.78	ASPHALT	84	90



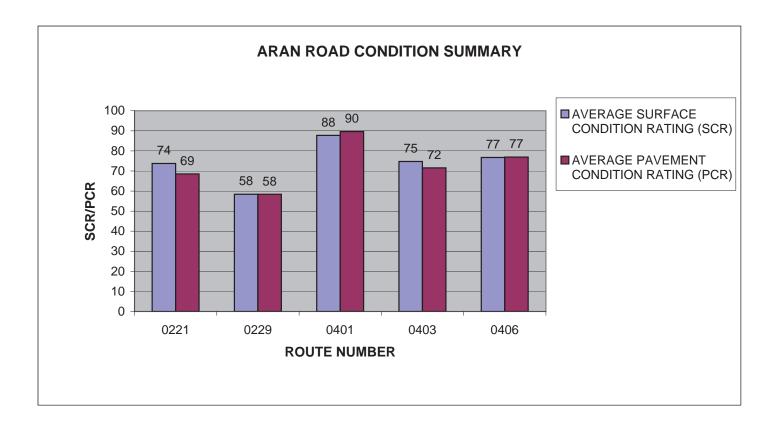
### **CANY: ARAN ROAD CONDITION SUMMARY**

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0200	SQUAW FLAT CAMPGROUND ROAD (LOOP A)	3	1.13	ASPHALT	69	67
0201	SQUAW FLAT CAMPGROUND ROAD (LOOP B)	3	0.52	ASPHALT	69	69
0202	NEEDLES OUTPOST ROAD	3	0.36	ASPHALT	73	75
0215	WHITE RIM OVERLOOK PICNIC AREA	3	0.28	ASPHALT	73	73
0216	WILLOW FLATS CAMPGROUND	3	0.21	ASPHALT	87	79



### **CANY: ARAN ROAD CONDITION SUMMARY**

ROUTE NUMBER	ROUTE NAME	FUNCT CLASS	ROUTE LENGTH		AVERAGE SURFACE CONDITION RATING (SCR)	AVERAGE PAVEMENT CONDITION RATING (PCR)
0221	NEEDLES VISITOR CONTACT STATION ACCESS ROAD	3	0.16	ASPHALT	74	69
0229	SQUAW FLAT CAMPGROUND LOOP B	3	0.1	ASPHALT	58	58
0401	NEEDLES RESIDENCE ROAD	5	0.57	ASPHALT	88	90
0403	NEEDLES MAINTENANCE AREA LOOP	5	0.22	ASPHALT	75	72
0406	I-SKY RESIDENCE ROAD	5	0.35	ASPHALT	77	77

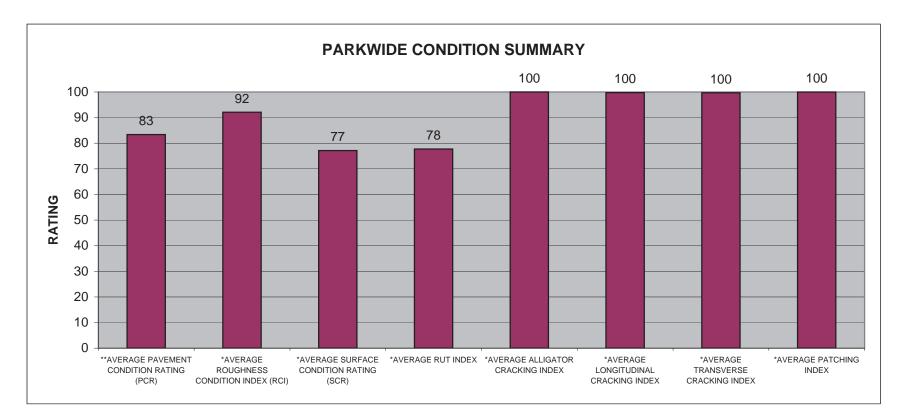


## **CANY: PARKWIDE CONDITION SUMMARY**

**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
83	92	77	78	100	100	100	100

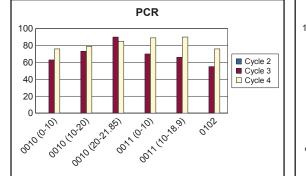
\*\* PCR Index is based on all ARAN-driven roads, parking areas, and manually rated routes.

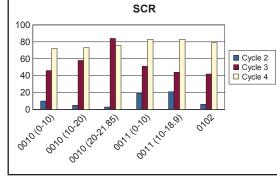
\* Index values are based on ARAN-driven roads only.

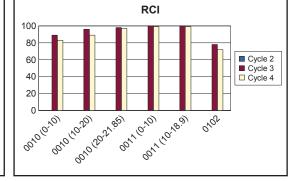


CANY	CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS
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					EMENT RATIN		DITION CR)			ACE CC ATING	NDITION (SCR)				S CONDITION X (RCI)	N
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0010	10.00	0.00	10.00	N/A	63	76	+21%	10	46	72	+57%	N/A	89	83	-7%	
0010	10.00	10.00	20.00	N/A	73	79	+8%	5	58	73	+26%	N/A	96	89	-7%	
0010	1.85	20.00	21.85	N/A	90	85	-6%	3	84	76	-10%	N/A	98	97	-1%	
0011	10.00	0.00	10.00	N/A	70	89	+27%	19	51	83	+63%	N/A	100	99	-1%	
0011	8.90	10.00	18.90	N/A	66	90	+36%	21	44	83	+89%	N/A	100	99	-1%	
0102	1.94	0.00	1.94	N/A	55	76	+38%	6	42	79	+88%	N/A	78	72	-8%	

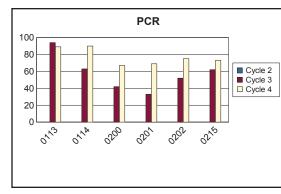


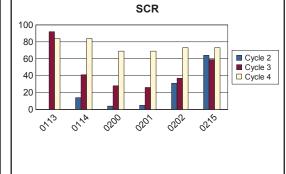


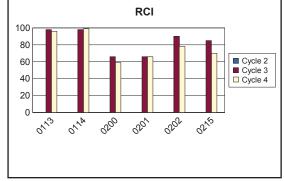


Cycle 4 Data Collected 10/29/2009 - 10/30/2009

					EMENT RATIN		DITION CR)	S		ACE CC ATING	)NDITION (SCR)		ROUG		S CONDITION X (RCI)	
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
0113	1.36	0.00	1.36	N/A	94	89	-5%	N/A	92	84	-9%	N/A	98	96	-2%	
0114	4.78	0.00	4.78	N/A	63	90	+43%	14	41	84	+105%	N/A	98	99	+1%	
0200	1.13	0.00	1.13	N/A	42	67	+60%	4	28	69	+146%	N/A	66	59	-11%	
0201	0.52	0.00	0.52	N/A	33	69	+109%	5	26	69	+165%	N/A	66	66	0%	
0202	0.36	0.00	0.36	N/A	52	75	+44%	31	37	73	+97%	N/A	90	78	-13%	
0215	0.28	0.00	0.28	N/A	62	73	+18%	64	59	73	+24%	N/A	85	70	-18%	





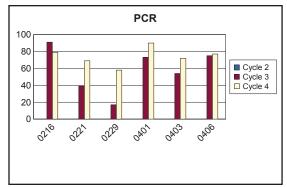


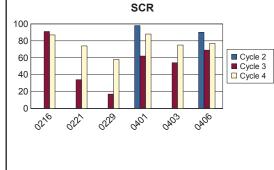
Cycle 4 Data Collected 10/29/2009 - 10/30/2009

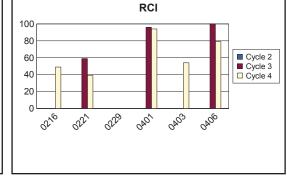
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					EMENT RATIN		DITION CR)	S		ACE CO ATING	ONDITION (SCR)				S CONDITI X (RCI)	ON
ROUTE NUMBER	PAVED MILES	FROM MILEPOST	TO MILEPOST	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	CYCLE 2	CYCLE 3	CYCLE 4	PERCENT CHANGE	COMMENT
0216	0.21	0.00	0.21	N/A	91	79	-13%	N/A	91	87	-4%	N/A	N/A	49	N/A	No RCI collected in Cycle 3.
0221	0.16	0.00	0.16	N/A	39	69	+77%	0	34	74	+118%	N/A	59	39	-34%	
0229	0.10	0.00	0.10	N/A	17	58	+241%	N/A	17	58	+241%	N/A	N/A	N/A	N/A	No RCI collected in Cycle 3 or 4.
0401	0.57	0.00	0.57	N/A	73	90	+23%	98	62	88	+42%	N/A	96	94	-2%	
0403	0.22	0.00	0.22	N/A	54	72	+33%	0	54	75	+39%	N/A	N/A	54	N/A	No RCI collected in Cycle 3.
0406	0.11	0.00	0.11	N/A	75	77	+3%	90	69	77	+12%	N/A	100	79	-21%	

#### CANY CYCLE 2 vs CYCLE 3 vs CYCLE 4 CONDITION COMPARISONS







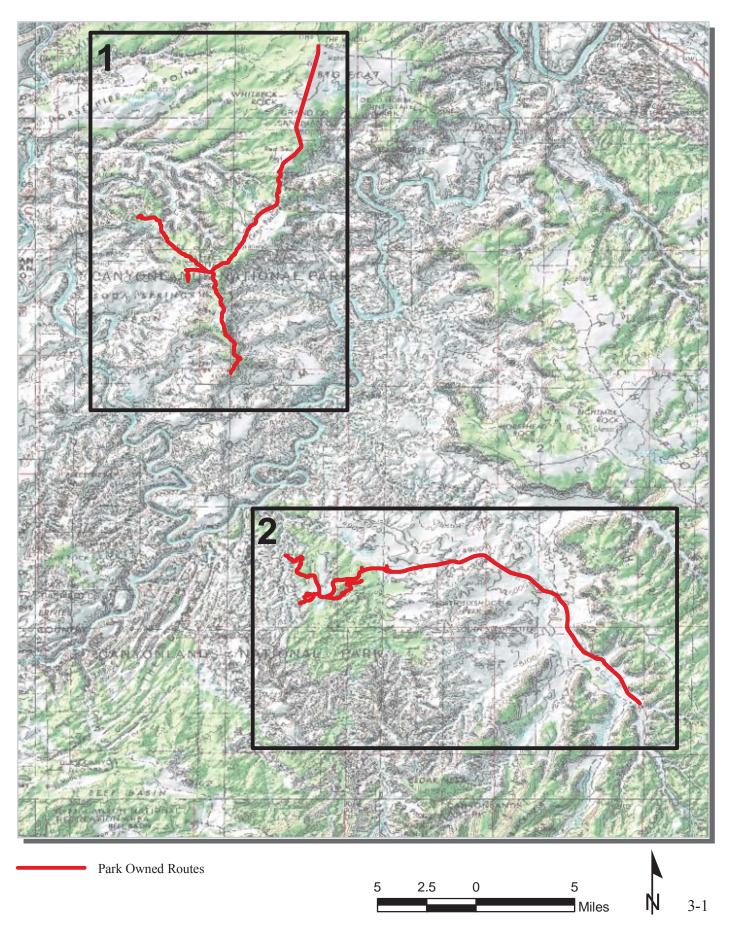
Cycle 4 Data Collected 10/29/2009 - 10/30/2009

Canyonlands National Park

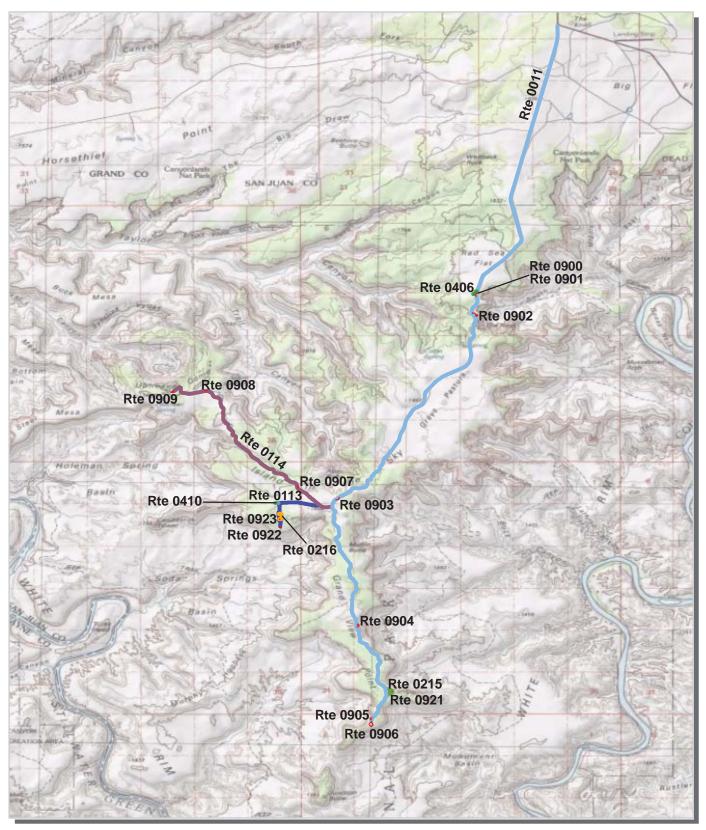


## Section 3 Park Route Location / Condition Maps

#### Canyonlands National Park Route Location Map Key Map



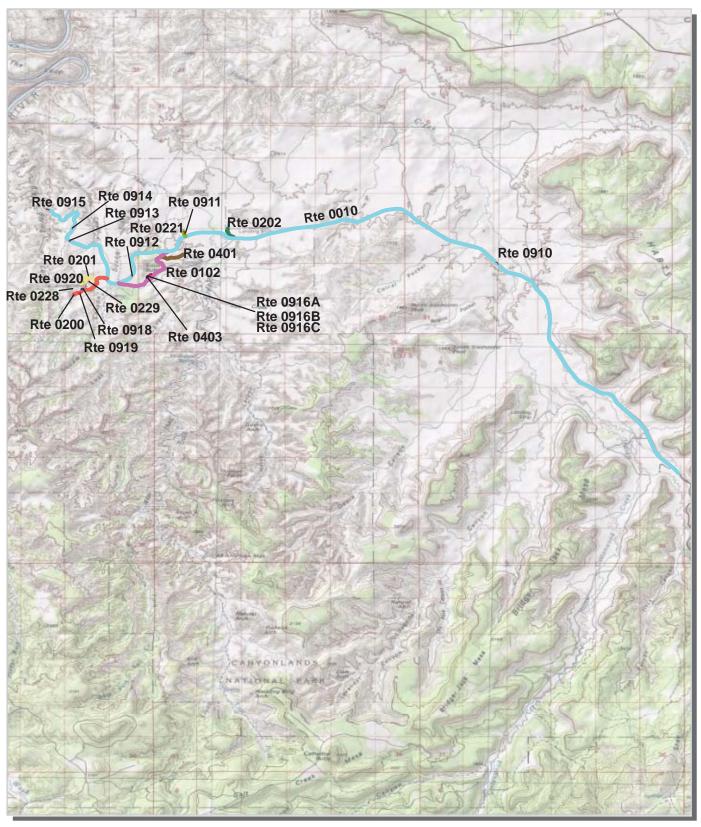
#### Canyonlands National Park Route Location Map Area 1



Unique colors used to differentiate routes



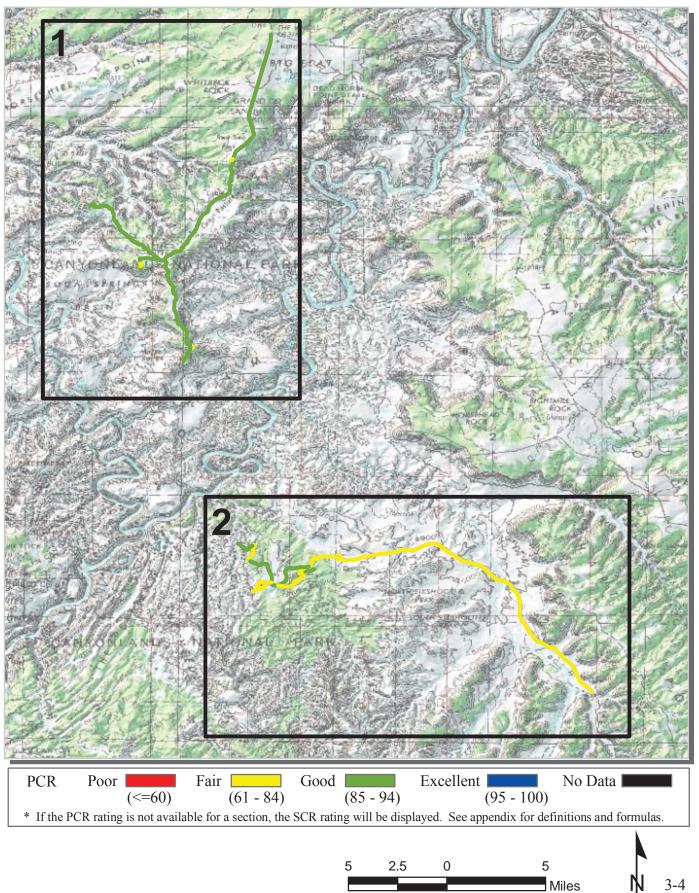
#### Canyonlands National Park Route Location Map Area 2



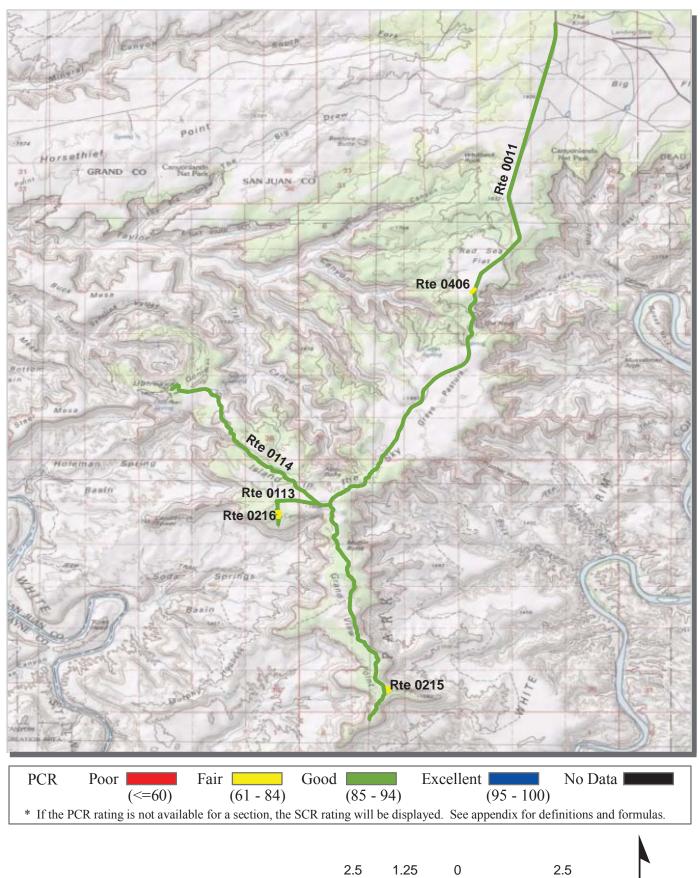
Unique colors used to differentiate routes



Canyonlands National Park Route Condition Map PCR - Mile by Mile Key Map

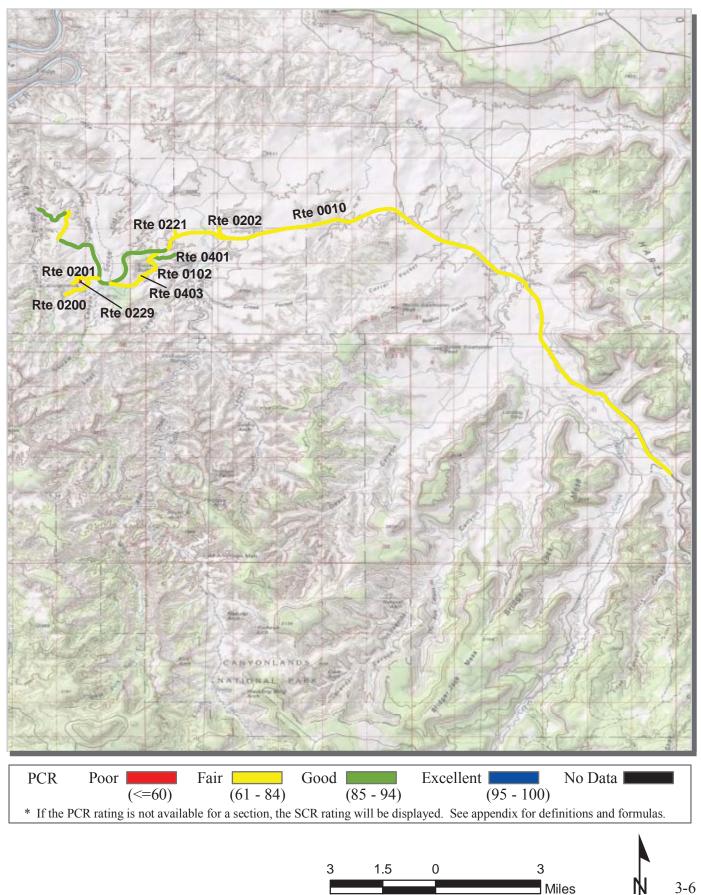


#### Canyonlands National Park Route Condition Map PCR - Mile by Mile Area 1



Miles

#### Canyonlands National Park Route Condition Map PCR - Mile by Mile Area 2



Canyonlands National Park



## Section 4 Park Route Inventory

Road Inventory Program 08/05/2010

CANY

(Numerical By Route #)

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Shading Color Key:       White = Paved Routes, ARAN Driven       Yellow = Unpaved Routes, ARAN not Driven       Blue = All Paved Parking Areas       Green = All Unpaved Parking Areas         Red text denotes approx. mileage       Grey = Paved Routes, ARAN not Driven       Black = Paved State, Local or Private non-NPS Routes, ARAN Driven       = Concession Route Flag ON	Shading Color K	o) <i>/</i> :	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Ar	000	Green = All Unpaved Parking Areas
Grev = Paved Routes ARAN not Driven Black = Paved State Local or Private non-NPS Routes ARAN Driven	•	-	Willie – Faveu Roules, ARAN Dilven	Tellow - Olipaved Roules, ARAN hot Driven	Blue – All Faveu Farking Al	eas	Green – All Ohpaved Parking Areas
			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. No.	FMSS No.	Concess Route	Route Name	Route De From	scription	Maint. District	Paved Miles	Un- Paved	Total Route	Func. Class	Rte. Lanes	Manual Rated	Surf. Type	Area Maps
		<sup>©</sup> ۳			10			Miles	Length	0.000		SQ/FT	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
0010	45621		NEEDLES ACCESS ROAD	FROM DUGOUT RANCH CATTLEGUARD ON STATE ROUTE 211	TO ROUTE 0915 (BIG SPRINGS PARKING)	NEEDLES	21.850	0.000	21.850	1		0	AS	2
0011	62479		ISLAND IN THE SKY ROAD	FROM "THE KNOLL" (INTERSECTION TO DEADHORSE STATE PARK)	TO ROUTE 0906 (GRAND VIEW POINT PARKING AREA)	I-SKY	18.900	0.000	18.900	1		0	AS	1
0100	67878		CAVE SPRING ROAD	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 1.27 ON RIGHT	TO TRAILHEAD	NEEDLES	0.000	1.060	1.060	2		0	GR	
0101	67886		LAVENDER CANYON ROAD	FROM EAST PARK BOUNDARY	TO END AT CLEFT ARCH	NEEDLES	0.000	4.160	4.160	4		0	GR	
0102	45624		WOODEN SHOE LOOP	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 17.93 ON LEFT	TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 16.15 ON LEFT	NEEDLES	1.940	0.000	1.940	2		0	AS	2
0103	67887		HORSE CANYON ROAD	FROM ROUTE 0104 (SALT CREEK ROAD (INCLUDES OLD "ANGEL ARCH RD"))	TO END AT FORTRESS ARCH	NEEDLES	0.000	6.050	6.050	4		0	GR	
0104	67885		SALT CREEK ROAD (INCLUDES OLD "ANGEL ARCH RD")	FROM ROUTE 0100 (CAVE SPRING ROAD)	TO END AT ANGEL ARCH	NEEDLES	0.000	12.400	12.400	4		0	GR	
0105	45702		COLORADO RIVER OVERLOOK	FROM END OF ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD)	TO OVERLOOK	NEEDLES	0.000	7.220	7.220	4		0	GR	
0106	47657		ELEPHANT HILL ACCESS ROAD	FROM ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B)) AT MP 0.25 ON RIGHT	TO EAST BASE OF ELEPHANT HILL (BEGIN JEEP ONLY TRAIL)	NEEDLES	0.000	2.760	2.760	3		0	GR	
0107	47952		DEVILS LANE	FROM SOUTH PARK BOUNDARY	TO CONFLUENCE TRAILHEAD OVERLOOK	NEEDLES	0.000	11.910	11.910	4		0	GR	
0108	67570		STANDING ROCKS ROAD	FROM WEST PARK BOUNDARY	TO SOUTHERNMOST CAMPSITE (#3)	MAZE	0.000	9.770	9.770	4		0	GR	
0109	47915		ELEPHANT HILL 4X4 ROAD	FROM ROUTE 0106 (ELEPHANT HILL ACCESS ROAD)	TO ROUTE 0107 (DEVILS LANE)(BEGINS AT WEST BASE NOT INCLUDING ELEPHANT HILL)	NEEDLES	0.000	3.240	3.240	4		0	GR	
0110	66843		ELEPHANT HILL RETURN ROAD	FROM ROUTE 0107 (DEVILS LANE)	TO ROUTE 0109 (ELEPHANT HILL 4X4 ROAD)	NEEDLES	0.000	2.090	2.090	4		0	GR	
0111	45709		WHITE RIM ROAD	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 5.85 ON LEFT	TO NORTH PARK BOUNDARY	I-SKY	0.000	79.590	79.590	4		0	GR	

Road Inventory Program 08/05/2010

CANY

(Numerical By Route #)

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Shading Color Key:       White = Paved Routes, ARAN Driven       Yellow = Unpaved Routes, ARAN not Driven       Blue = All Paved Parking Areas       Green = All Unpaved Parking Areas         Red text denotes approx. mileage       Grey = Paved Routes, ARAN not Driven       Black = Paved State, Local or Private non-NPS Routes, ARAN Driven       = Concession Route Flag ON						
Grev = Paved Routes, ARAN not Driven Black = Paved State, Local or Private non-NPS Routes, ARAN Driven	Shading Color Key:	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Are	as	Green = All Unpaved Parking Areas
approx. mileage Grey = Paved Routes, ARAN not Driven Black = Paved State, Local or Private non-NPS Routes, ARAN Driven = Concession Route Flag ON	Red text denotes				_	
	approx. mileage	Grey = Paved Routes, ARAN not Driven	Black = Paved State, Local or Private non-NPS Rou	= Conces	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	escription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Rte. Lanes	Manual Rated SQ/FT	Surf. Type	Area Maps
0112	62499		POTASH SPUR ROAD	FROM ROUTE 0111 (WHITE RIM ROAD)	TO EAST PARK BOUNDARY	I-SKY	0.000	1.790	1.790	4		0	GR	
0113	62552		GREEN RIVER OVERLOOK ROAD	FROM ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 0.27 ON LEFT	TO ROUTE 0922 (GREEN RIVER OVERLOOK PARKING)	I-SKY	1.350	0.000	1.350	2		0	AS	1
0114	62548		UPHEAVAL DOME ROAD	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 13.14 ON RIGHT	TO ROUTE 0909 (UPHEAVAL DOME PICNIC PARKING)	I-SKY	4.780	0.000	4.780	2		0	AS	1
0200	47991		SQUAW FLAT CAMPGROUND ROAD (LOOP A)	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 18.27 ON LEFT	TO END OF LOOP	NEEDLES	1.130	0.000	1.130	3		0	AS	2
0201	67847		SQUAW FLAT CAMPGROUND ROAD (LOOP B)	FROM ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.26 ON RIGHT	TO END OF LOOP	NEEDLES	0.520	0.000	0.520	3		0	AS	2
0202	67876		NEEDLES OUTPOST ROAD	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 14.33 ON RIGHT	TO NORTH PARK BOUNDARY (CATTLEGUARD)	NEEDLES	0.360	0.000	0.360	3		0	AS	2
0203	47911		LAVENDER CANYON RIGHT BRANCH	FROM ROUTE 0101 (LAVENDER CANYON ROAD)	TO END	NEEDLES	0.000	2.470	2.470	4		0	GR	
0204	67884		LOCKHART RIVER SPUR	FROM EAST PARK BOUNDARY	TO END AT COLORADO RIVER	NEEDLES	0.000	0.300	0.300	4		0	GR	
0205	67882		TOWER RUIN ROAD	FROM ROUTE 0103 (HORSE CANYON ROAD)	TO TRAILHEAD	NEEDLES	0.000	0.710	0.710	4		0	GR	
0207	47948		JOINT TRAIL ROAD	FROM ROUTE 0107 (DEVILS LANE)	TO END OF LOOP	NEEDLES	0.000	0.520	0.520	4		0	GR	
0209	67881		DEVIL KITCHEN CAMPGROUND ACCESS	FROM ROUTE 0109 (ELEPHANT HILL 4X4 ROAD)	TO CAMPGROUND	NEEDLES	0.000	0.140	0.140	4		0	GR	
0210	67856		SPLIT TOP GROUP CAMPSITE	FROM ROUTE 0100 (CAVE SPRING ROAD)	TO CAMPSITE	NEEDLES	0.000	0.010	0.010	3		0	GR	
0211	67869		WOODEN SHOE ROAD	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 0.17 ON LEFT	TO CAMPSITE	NEEDLES	0.000	0.100	0.100	3		0	GR	
0212	67569		MAZE OVERLOOK ROAD	FROM WEST PARK BOUNDARY	TO OVERLOOK AND CAMPSITE	MAZE	0.000	5.120	5.120	4		0	GR	
0214	62549		MURPHY POINT ROAD	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 15.59 ON RIGHT	TO TRAILHEAD	I-SKY	0.000	0.470	0.470	3		0	GR	
0215	65197		WHITE RIM OVERLOOK PICNIC AREA	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.16 ON LEFT	TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.03 ON LEFT	I-SKY	0.280	0.000	0.280	3		0	AS	1

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(Numerical By Route #)

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0 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	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	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.	FMSS No.	Concess Route	Route Name	Route De	scription	Maint. District	Paved	Un- Paved	Total Route	Func.	Rte.	Manual Rated	Surf.	Area
No.		Con Ro		From	То	District	Miles	Miles	Length	Class	Lanes	SQ/FT	Туре	Maps
0216	62550		WILLOW FLATS CAMPGROUND	FROM ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) AT MP 1.17 ON LEFT	TO ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) AT MP 1.05 ON LEFT	I-SKY	0.210	0.000	0.210	3		0	AS	1
0217	62502		WALKING ROCKS SPUR	FROM ROUTE 0111 (WHITE RIM ROAD)	TO OVERLOOK	I-SKY	0.000	0.170	0.170	4		0	GR	
0218	62503		MUSSELMAN ARCH ROAD	FROM ROUTE 0111 (WHITE RIM ROAD)	TO END	I-SKY	0.000	0.170	0.170	4		0	GR	
0219	62505		LATHROP CANYON ROAD	FROM ROUTE 0111 (WHITE RIM ROAD)	TO END AT RIVER	I-SKY	0.000	3.660	3.660	4		0	GR	
0220	62506		WHITE CRACK CAMPGROUND ACCESS ROAD	FROM ROUTE 0111 (WHITE RIM ROAD)	TO CAMPGROUND	I-SKY	0.000	1.360	1.360	4		0	GR	
0221	45704		NEEDLES VISITOR CONTACT STATION ACCESS ROAD	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 15.50 ON RIGHT	TO END OF PAVEMENT/BEGIN ROUTE 0105	NEEDLES	0.160	0.000	0.160	3		0	AS	2
0223	62508		HARDSCRABBLE CAMPGROUND ACCESS ROAD	FROM ROUTE 0111 (WHITE RIM ROAD)	TO PRIMITIVE CAMPGROUND	I-SKY	0.000	0.360	0.360	4		0	GR	
0224	62509		TAYLOR CANYON ROAD	FROM ROUTE 0111 (WHITE RIM ROAD)	TO CAMPGROUND	I-SKY	0.000	5.250	5.250	4		0	GR	
0226	47660		BOBBY JOE CAMP ROAD	FROM ROUTE 0107 (DEVILS LANE)	TO CAMPSITE	NEEDLES	0.000	0.100	0.100	4		0	GR	
0227	67883		HORSE HOOF CAMP ROAD	FROM ROUTE 0107 (DEVILS LANE)	TO CAMPSITE	NEEDLES	0.000	0.300	0.300	4		0	GR	
0228	102648		SQUAW FLAT HOST LOOP A	FROM ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.79 ON RIGHT	TO ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.81 ON RIGHT	NEEDLES	0.060	0.000	0.060	3		6,931	AS	2
0229	102669		SQUAW FLAT CAMPGROUND LOOP B	FROM ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B)) AT MP 0.36 ON LEFT	TO END OF LOOP	NEEDLES	0.100	0.000	0.100	3		0	AS	2
0401	47844		NEEDLES RESIDENCE ROAD	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 1.71 ON RIGHT	TO DEAD END	NEEDLES	0.570	0.000	0.570	5		0	AS	2
0402	45728		GENERATOR BUILDING ROAD	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 1.03 ON RIGHT	TO END OF LOOP	NEEDLES	0.000	0.140	0.140	5		0	GR	
0403	47596		NEEDLES MAINTENANCE AREA LOOP	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 0.92 ON LEFT	TO ROUTE 0102 (WOODEN SHOE LOOP) AT MP 0.77 ON LEFT	NEEDLES	0.220	0.000	0.220	5		0	AS	2

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8 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	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	tes, ARAN Driven	= Conces	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 De From	scription To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Rte. Lanes	Manual Rated SQ/FT	Surf. Type	Area Maps
0404	67879		FIRING RANGE ROAD	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 14.38 ON LEFT	TO WELL HOUSE (JUST ACROSS CREEK)	NEEDLES	0.000	0.480	0.480	6		0	GR	
0405	67874		NEEDLES BONEYARD ROAD	FROM ROUTE 0104 (SALT CREEK ROAD (INCLUDES OLD "ANGEL ARCH RD"))	TO FENCED BONEYARD	NEEDLES	0.000	0.140	0.140	6		0	GR	
0406	62540		I-SKY RESIDENCE ROAD	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 6.74 ON RIGHT	TO END OF LOOP	I-SKY	0.110	0.240	0.350	5		0	AS	1
0407	62543		I-SKY MAINTENANCE ROAD	FROM ROUTE 0406 (I-SKY RESIDENCE ROAD)	TO MAINTENANCE YARD	I-SKY	0.000	0.160	0.160	6		0	GR	
0408	62545		RADIO REPEATER STATION ROAD	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD)	TO REPEATER	I-SKY	0.000	0.170	0.170	6		0	GR	
0409	62547		I-SKY RESIDENCE SPUR	FROM ROUTE 0406 (I-SKY RESIDENCE ROAD)	TO END OF LOOP	I-SKY	0.000	0.080	0.080	5		0	GR	
0410	62551		WILLOW FLATS SERVICE ROAD	FROM ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) AT MP 0.78 ON RIGHT	TO END	I-SKY	0.070	0.100	0.170	6		4,250	AS	1
0450	66237		I-SKY AIR QUALITY COMPLEX LOOP	FROM ROUTE 0407 (I-SKY MAINTENANCE ROAD)	TO END OF LOOP	I-SKY	0.000	0.170	0.170	6		0	GR	
0451	66243		I-SKY HELIBASE ROAD	FROM ROUTE 0406 (I-SKY RESIDENCE ROAD)	TO HELIBASE	I-SKY	0.000	0.170	0.170	6		0	GR	
0900	90336		ISLAND IN THE SKY VISITOR CENTER PARKING	ADJACENT TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 6.81 ON RIGHT		I-SKY	0.000	0.000	0.000			24,012	AS	1
0901	61946		SKY VISITOR CENTER EMPLOYEE PARKING	FROM ROUTE 0406 (I-SKY RESIDENCE ROAD) AT MP 0.09 ON LEFT	TO PARKING	I-SKY	0.000	0.000	0.000			3,712	AS	1
0902	66233		NECK SPRINGS TRAILHEAD PARKING	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 7.30 ON LEFT	TO PARKING	I-SKY	0.000	0.000	0.000			40,888	AS	1
0903	66232		MESA ARCH PARKING	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 12.87 ON LEFT	TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 12.95 ON LEFT	I-SKY	0.000	0.000	0.000			23,511	AS	1
0904	66235		BUCK CANYON OVERLOOK PARKING	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 16.28 ON LEFT	TO PARKING	I-SKY	0.000	0.000	0.000			21,771	AS	1
0905	66236		ORANGE CLIFFS OVERLOOK PARKING	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.81 ON RIGHT	TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.86 ON RIGHT	I-SKY	0.000	0.000	0.000			12,799	AS	1

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0 ,	White = Paved Routes, ARAN Driven	Yellow = Unpaved Routes, ARAN not Driven	Blue = All Paved Parking Ar	eas	Green = All Unpaved Parking Areas
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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
0906	66234		GRAND VIEW POINT PARKING AREA	FROM END OF ROUTE 0011 (ISLAND IN THE SKY ROAD)	TO PARKING	I-SKY	0.000	0.000	0.000			38,686	AS	1
0907	66229		AZTEC BUTTE TRAILHEAD PARKING	FROM ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 0.83 ON RIGHT	TO ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 0.88 ON RIGHT	I-SKY	0.000	0.000	0.000			12,900	AS	1
0908	66230		WHALE ROCK TRAILHEAD PARKING	FROM ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 4.00 ON RIGHT	TO ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 4.04 ON RIGHT	I-SKY	0.000	0.000	0.000			11,413	AS	1
0909	66231		UPHEAVAL DOME PICNIC PARKING	FROM END OF ROUTE 0114 (UPHEAVAL DOME ROAD)	TO PARKING	I-SKY	0.000	0.000	0.000			20,767	AS	1
0910	67880		INDIAN CREEK PARKING	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 7.63 ON RIGHT	TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 7.72 ON RIGHT	NEEDLES	0.000	0.000	0.000			9,310	AS	2
0911	45708		NEEDLES VISITOR CENTER PARKING	FROM ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD) AT MP 0.08 ON RIGHT	TO ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD) AT MP 0.15 ON RIGHT	NEEDLES	0.000	0.000	0.000			40,547	AS	2
0912	67873		WOODEN SHOE PARKING	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 17.55 ON LEFT	TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 17.58 ON LEFT	NEEDLES	0.000	0.000	0.000			7,483	AS	2
0913	67865		THE PICNIC AREA (NEEDLES)	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 19.97 ON LEFT	TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 20.00 ON LEFT	NEEDLES	0.000	0.000	0.000			7,753	AS	2
0914	47627		POTHOLE HILL TRAILHEAD PARKING	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 20.39 ON LEFT	TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 20.42 ON LEFT	NEEDLES	0.000	0.000	0.000			8,226	AS	2
0915	67877		BIG SPRINGS PARKING	FROM END OF ROUTE 0010 (NEEDLES ACCESS ROAD)	TO PARKING	NEEDLES	0.000	0.000	0.000			17,885	AS	2
0916A	67875		NEEDLES MAINTENANCE YARD COMPLEX AREA A	FROM ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.04 ON RIGHT	TO ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.09 ON RIGHT	NEEDLES	0.000	0.000	0.000			28,445	AS	2
0916B	102708		NEEDLES MAINTENANCE YARD COMPLEX AREA B	ADJACENT TO ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.07 ON RIGHT		NEEDLES	0.000	0.000	0.000			1,071	AS	2
0916C	102710		NEEDLES MAINTENANCE YARD COMPLEX AREA C	ADJACENT TO ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.14 ON RIGHT		NEEDLES	0.000	0.000	0.000			1,761	AS	2
0917	47904		PAUL BUNYANS POTTY PARKING	FROM ROUTE 0103 (HORSE CANYON ROAD)	TO RESTROOM	NEEDLES	0.000	0.000	0.000			0	GR	

 Road Inventory Program
 08/05/2010
 (Numerical By Route #)

 Shading Color Key:
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 Yellow = Unpaved Routes, ARAN not Driven
 Blue = All Paved Parking Areas

Green = All Unpaved Parking Areas

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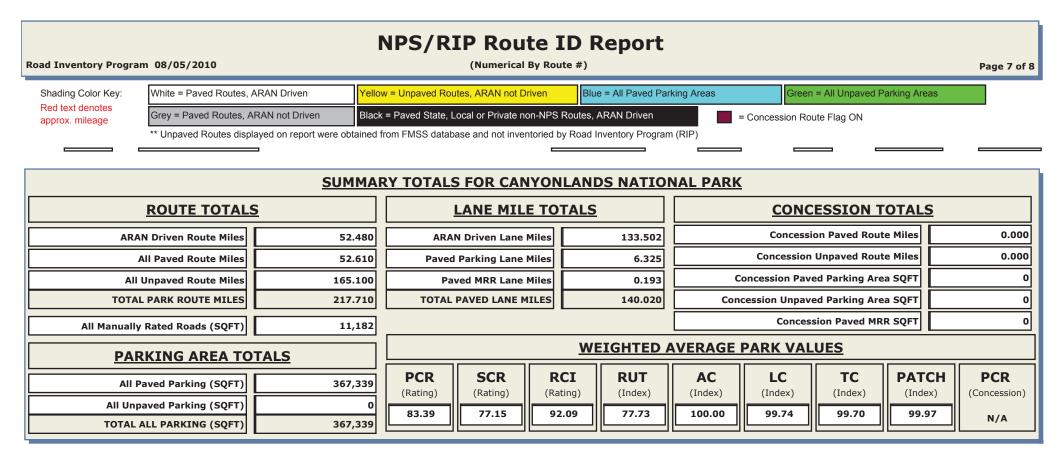
Red text denotes approx. mileage

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Rte. No.	FMSS No.	Concess Route	Route Name	Route Description From To	Maint. District	Paved Miles	Un- Paved Miles	Total Route Length	Func. Class	Rte. Lanes	Manual Rated SQ/FT	Surf. Type	Area Maps
0918	102711		SQUAW FLAT RESTROOM A PARKING	ADJACENT TO ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.77 ON RIGHT	NEEDLES	0.000	0.000	0.000			1,050	AS	2
0919	102712		SQUAW FLAT TRAILHEAD PARKING	ADJACENT TO ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.91 ON LEFT	NEEDLES	0.000	0.000	0.000			10,535	AS	2
0920	102715		SQUAW FLAT RESTROOM B PARKING	ADJACENT TO ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B)) AT MP 0.42 ON LEFT	NEEDLES	0.000	0.000	0.000			560	AS	2
0921	102716		WHITE RIM OVERLOOK PARKING	ADJACENT TO ROUTE 0215 (WHITE RIM OVERLOOK PICNIC AREA) AT MP 0.14 ON RIGHT	I-SKY	0.000	0.000	0.000			1,062	AS	1
0922	90764		GREEN RIVER OVERLOOK PARKING	FROM END OF ROUTE 0113 TO PARKING (GREEN RIVER OVERLOOK ROAD)	I-SKY	0.000	0.000	0.000			19,117	AS	1
0923	102755		WILLOW FLAT CAMPGROUND PARKING	ADJACENT TO ROUTE 0216 (WILLOW FLATS CAMPGROUND) AT MP 0.01 ON RIGHT	I-SKY	0.000	0.000	0.000			2,074	AS	1
													L



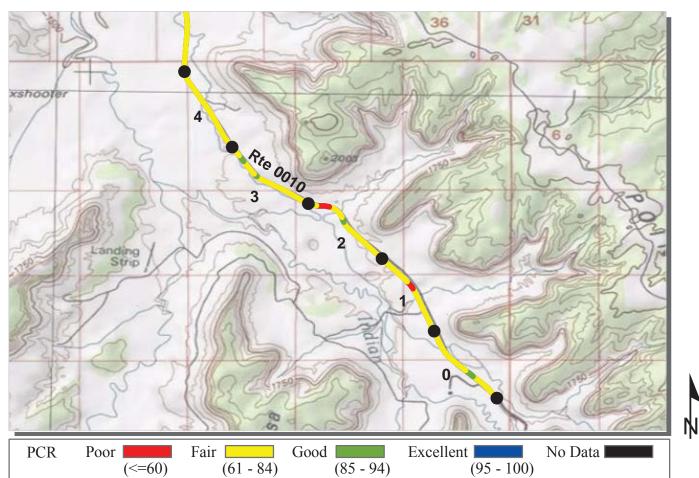
ad Inventory P	rogram 08/05/2010	NPS/RIP Route I (Numerical By Rout	-	Pag
Shading Color Ko Red text denotes approx. mileage	Grey = Paved Routes, ARAN not Driven	Yellow = Unpaved Routes, ARAN not Driven           Black = Paved State, Local or Private non-NPS F           btained from FMSS database and not inventoried by		Green = All Unpaved Parking Areas
Route	General Park Road al Park Road/Rural Parkway (Public Roads) Roads which constitute to Numbers 1 - 99. Note: Rural parkways (e.g. Natchez Trace) are nur ctor Park Road (Public Roads) - Roads which provide access within a p	nbered 1 - 9. State Routes Inventoried for	or Park. Route Numbers 5000-5999	Surface Type Abbreviations AS - Asphaltic Concrete Pavement CO - Portland Cement Concrete Pavement
Class 3 Specia conces Class 4 Primiti	rounds, etc. Route Numbers 100-199. I Purpose Park Road (Public Roads) - Roads which provide circulation sionaire facilities, etc. These roads generally serve low-speed traffic a ve Park Roads (Public Roads) - Roads which provide circulation throu requently have no minimum design standards and their use may be	and are often designed for one-way circulation. Route Numbers 2 gh remote areas and/or access to primitive campgrounds and und limited to specially equipped vehicles. Route Numbers 200-299.	00-299.	BR - Brick or Pavers Road Bed CB - Cobble Stone Road Bed GR - Gravel Road Bed SA - Sand Road Bed
quarte	Note: Functional Classes 3 and 4 have the same route numbers beca strative Access Road (Administrative Roads) - All public roads intend rs, or utility areas. Route Numbers 400-499. ted Road (Administrative Roads) - All roads normally closed to the p	ed for access to administrative developments or structures such a		NV - Native or Dirt Material Road Bed OT - Other Materials Road Bed
an urb	Note: Functional Classes 5 and 6 have the same route numbers be these routes. For example, because utility areas and employee hous than FC 5. Parkway (Urban Parkways and City Streets) - These facilities serve hi an area. This category of roads primarily encompasses the major par f, however, may be included in this category. Route Numbers 1-9.	ing are often closed to the public, this restriction would result in c	lassification of FC 6 rather , limited-access facilities in	
Class 8 City S Servic	reets (Urban Parkways and City Streets) - City streets are usually ext e. The construction and/or reconstruction should conform with accept	oted local engineering practice and local conditions. Route Number	ers 600-699.	
A park road syste agencies. The assign The historic route nationwide which are one-way routes are n	m contains those roads within or giving access to a park or other unit ment of a functional classification (FC) to a park road is not based on numbering system also included a 300 number series for interpretive designated by the 300 and 500 series. The numbers for these roads ot as clearly tied to a specific functional class, the 300 and 500 series mbers are assigned to Non-NPS Routes that are State, County or City	of the NPS which are administered by the NPS, or by the Service traffic volumes or design speed, but on the intended use or funct roads, and a 500 series for one-way roads. There are approxima will be maintained for reporting consistency. However, since the will be discontinued for future use.	in cooperation with other ion of that road or route. ately 250 roads se interpretive and	

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

Canyonlands National Park



## Section 5 Paved Route Condition Rating Sheets (CRS)



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

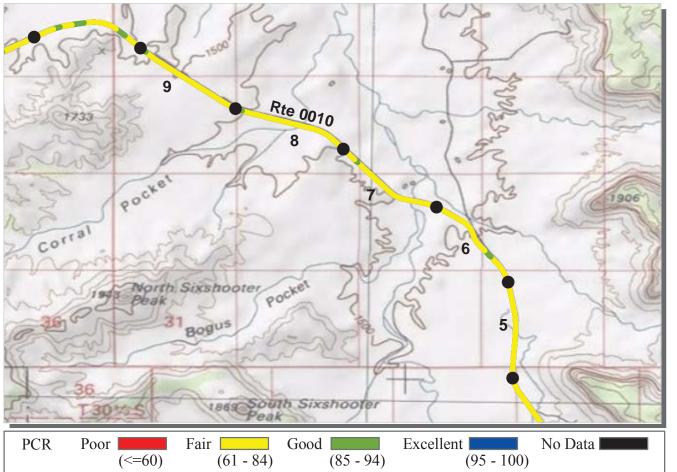
#### **ROUTE: 0010 NEEDLES ACCESS ROAD CANY: CANYONLANDS NATIONAL PARK**

INTERMOUNTAIN REGION			ТОТ	AL LENGTH:	21.85 Miles
Section Number	0	1	2	3	4
Section Length (mi)	1.00	1.00	1.00	1.00	1.00
<i>Traffic</i> AADT SADT ADT Date	Click on PR	may be found a COGRAMS / NF all parks have tr	PS Traffic Data	0	
Cross Section Information					
Number of Lanes	2	2	2	2	2
Paved Width (ft)	29	30	29	29	29
Lane Width (ft)	10	11	11	11	11
Shoulder Width Right (ft)	NC	NC	NC	NC	NC
Shoulder Width Left (ft)	NC	NC	NC	NC	NC
Roadway Condition Information					
SCR (Surface Condition Rating)	72	69	71	76	70
PCR (Pavement Condition Rating)	77	73	72	78	74
Distress Index Values					
Alligator Cracking Index	100	100	100	100	100
Longitudinal Cracking Index	98	99	100	99	100
Tranverse Cracking Index	97	99	100	99	99
Patching Index	100	100	100	100	100
Rutting Index	76	71	71	78	71
Roughness Condition Index (RCI)	87	80	75	81	81

**ROUTE: 0010 NEEDLES ACCESS ROAD** 

COLLECTED: 10/30/2009

NC - Not Collected



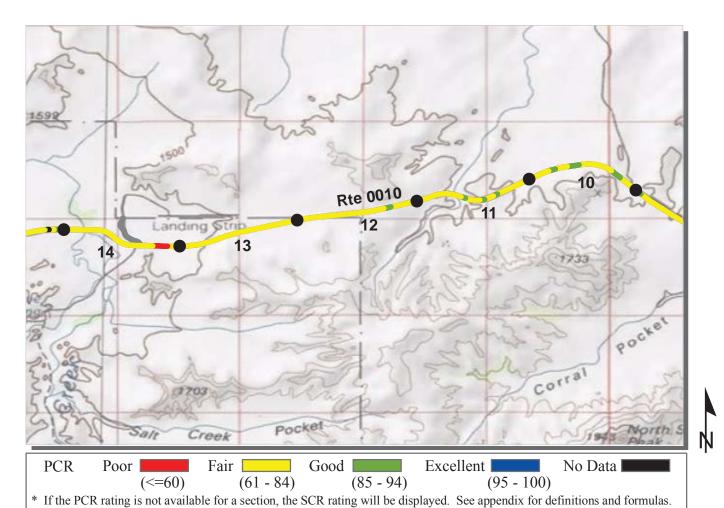
\* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

#### **ROUTE: 0010 NEEDLES ACCESS ROAD** CANY: CANYONLANDS NATIONAL PARK

			CO	LLECTED:	10/30/2009	
INTERMOUNTAIN REGION			TOTAL	LENGTH:	21.85 Miles	
Section Number	5	6	7	8	9	
Section Length (mi)	1.00	1.00	1.00	1.00	1.00	
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2	2	2	2	
Paved Width (ft)	30	30	30	30	30	
Lane Width (ft)	12	12	11	12	11	
Shoulder Width Right (ft)	NC	NC	NC	NC	NC	
Shoulder Width Left (ft)	NC	NC	NC	NC	NC	
Roadway Condition Information					[	
SCR (Surface Condition Rating)	70	74	70	72	72	
PCR (Pavement Condition Rating)	73	80	74	78	80	
Distress Index Values						
Alligator Cracking Index	100	100	100	100	100	
Longitudinal Cracking Index	100	100	100	100	100	
Tranverse Cracking Index	100	100	100	100	100	
Patching Index	100	100	100	100	100	
Rutting Index	71	74	71	73	73	
Roughness Condition Index (RCI)	77	88	80	86	92	

**ROUTE: 0010 NEEDLES ACCESS ROAD** 

NC - Not Collected

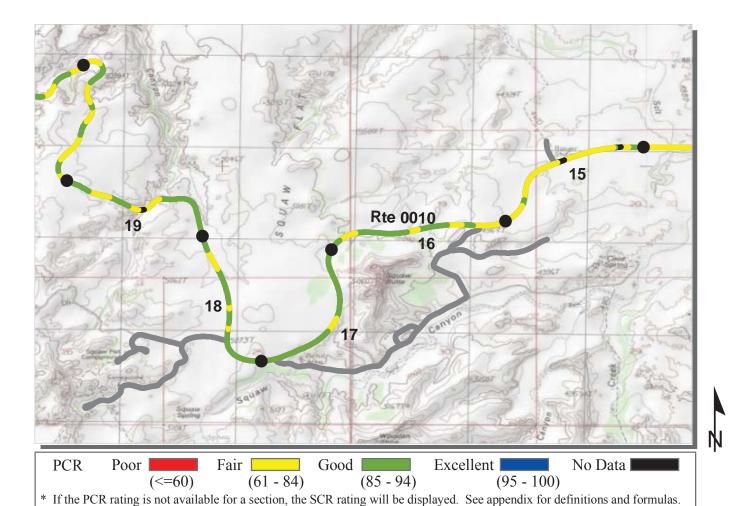


The FCK fatting is not available for a section, the SCK fatting will be displayed. See appendix for definition

#### **ROUTE: 0010 NEEDLES ACCESS ROAD** CANY: CANYONLANDS NATIONAL PARK

				LLECTED:	10/30/2009	
INTERMOUNTAIN REGION			TOTAL	LENGTH:	21.85 Miles	
Section Number	10	11	12	13	14	
Section Length (mi)	1.00	1.00	1.00	1.00	1.00	
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
<b>Cross Section Information</b>						
Number of Lanes	2	2	2	2	2	
Paved Width (ft)	29	31	31	30	30	
Lane Width (ft)	11	11	12	11	11	
Shoulder Width Right (ft)	NC	NC	NC	NC	NC	
Shoulder Width Left (ft)	NC	NC	NC	NC	NC	
Roadway Condition Information						
SCR (Surface Condition Rating)	75	73	71	65	57	
PCR (Pavement Condition Rating)	79	79	76	71	67	
Distress Index Values						
Alligator Cracking Index	100	100	100	100	100	
Longitudinal Cracking Index	100	100	100	100	95	
Tranverse Cracking Index	100	100	100	100	97	
Patching Index	100	100	100	100	100	
Rutting Index	76	74	72	65	66	
Roughness Condition Index (RCI)	85	86	82	80	82	

**ROUTE: 0010 NEEDLES ACCESS ROAD** 

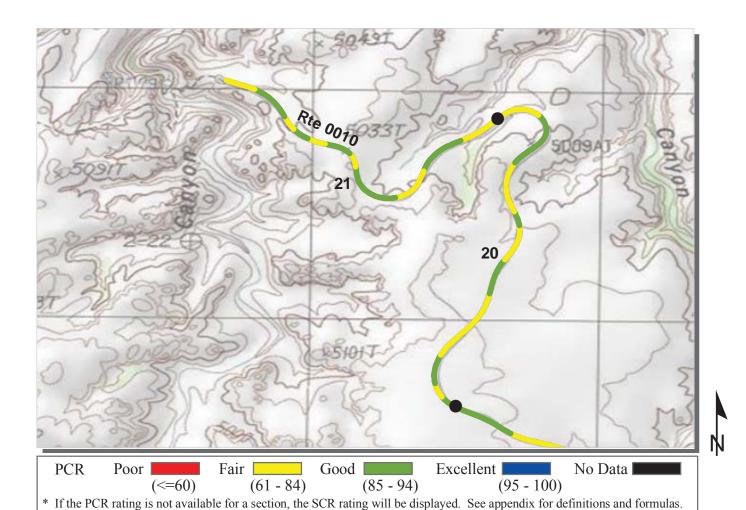


ROUTE: 0010 NEEDLES ACCESS ROAD CANY : CANYONLANDS NATIONAL PARK

				<b>COLLECTED:</b>	10/30/2009	
INTERMOUNTAIN REGION				TAL LENGTH:	21.85 Mile	
Section Number	15	16	17	18	19	
Section Length (mi)	1.00	1.00	1.00	1.00	1.00	
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2	2	2	2	
Paved Width (ft)	30	30	29	29	28	
Lane Width (ft)	11	11	11	11	10	
Shoulder Width Right (ft)	NC	NC	NC	NC	NC	
Shoulder Width Left (ft)	NC	NC	NC	NC	NC	
Roadway Condition Information						
SCR (Surface Condition Rating)	71	78	79	80	78	
PCR (Pavement Condition Rating)	76	86	87	86	85	
Distress Index Values						
Alligator Cracking Index	100	100	100	100	100	
Longitudinal Cracking Index	99	100	100	100	100	
Tranverse Cracking Index	99	100	100	100	100	
Patching Index	100	100	100	100	100	
Rutting Index	73	78	79	80	78	
Roughness Condition Index (RCI)	85	98	99	95	94	

**ROUTE: 0010 NEEDLES ACCESS ROAD** 

NC - Not Collected



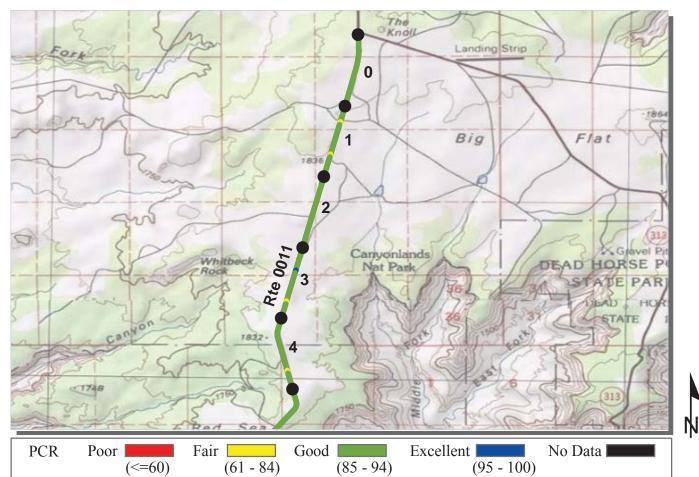
ROUTE: 0010 NEEDLES ACCESS ROAD CANY : CANYONLANDS NATIONAL PARK

INTERN	AOUNT	AIN PF	CION

INTERMOUNTAIN REGION			TOTAL	LENGTH:	21.85 Miles		
Section Number	20	21					
Section Length (mi)	1.00	0.85					
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
<b>Cross Section Information</b>							
Number of Lanes	2	2					
Paved Width (ft)	28	28					
Lane Width (ft)	11	11					
Shoulder Width Right (ft)	NC	NC					
Shoulder Width Left (ft)	NC	NC					
Roadway Condition Information							
SCR (Surface Condition Rating)	75	78					
PCR (Pavement Condition Rating)	84	85					
Distress Index Values							
Alligator Cracking Index	100	100					
Longitudinal Cracking Index	100	100					
Tranverse Cracking Index	100	100					
Patching Index	100	100					
Rutting Index	75	78					
Roughness Condition Index (RCI)	97	96					

**ROUTE: 0010 NEEDLES ACCESS ROAD** 

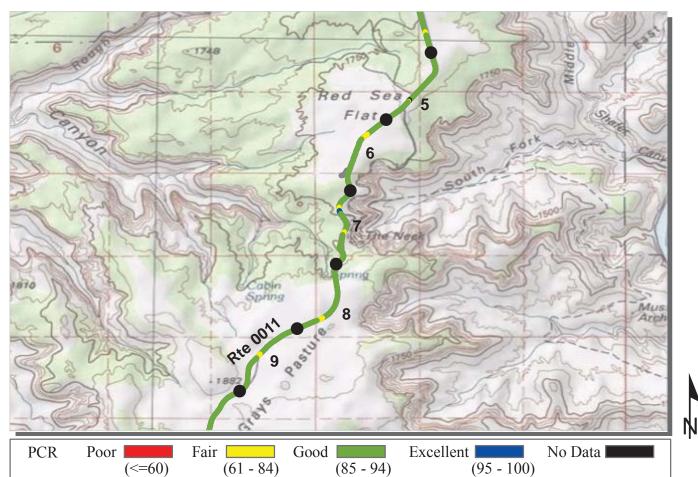
COLLECTED: 10/30/2009



#### **ROUTE: 0011 ISLAND IN THE SKY ROAD CANY : CANYONLANDS NATIONAL PARK**

INTERMOUNTAIN REGION				LLECTED: LENGTH:	10/29/2009 18.90 Miles		
Section Number	0	1	2	3	4		
Section Length (mi)	1.00	1.00	1.00	1.00	1.00		
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	33	32	33	34	30		
Lane Width (ft)	11	11	11	11	11		
Shoulder Width Right (ft)	NC	NC	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC	NC	NC		
Roadway Condition Information							
SCR (Surface Condition Rating)	84	80	83	84	82		
PCR (Pavement Condition Rating)	90	88	90	90	88		
Distress Index Values							
Alligator Cracking Index	100	100	100	100	100		
Longitudinal Cracking Index	100	100	100	100	100		
Tranverse Cracking Index	100	100	100	100	100		
Patching Index	100	100	100	100	100		
Rutting Index	84	80	83	84	82		
Roughness Condition Index (RCI)	99	100	100	100	99		

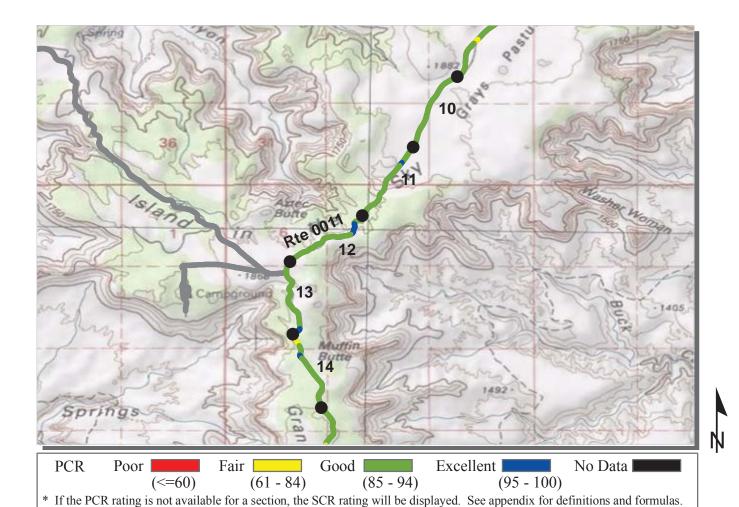
**ROUTE: 0011 ISLAND IN THE SKY ROAD** 



#### **ROUTE: 0011 ISLAND IN THE SKY ROAD CANY : CANYONLANDS NATIONAL PARK**

INTERMOUNTAIN REGION				LLECTED: LENGTH:	10/29/2009 18.90 Miles		
Section Number	5	6	7	8	9		
Section Length (mi)	1.00	1.00	1.00	1.00	1.00		
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	30	28	33	28	26		
Lane Width (ft)	11	11	11	11	11		
Shoulder Width Right (ft)	NC	NC	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC	NC	NC		
Roadway Condition Information							
SCR (Surface Condition Rating)	84	82	84	82	80		
PCR (Pavement Condition Rating)	90	89	90	89	88		
Distress Index Values							
Alligator Cracking Index	100	100	100	100	100		
Longitudinal Cracking Index	100	100	100	100	100		
Tranverse Cracking Index	100	100	100	100	100		
Patching Index	100	100	100	100	100		
Rutting Index	84	82	84	82	80		
Roughness Condition Index (RCI)	99	99	99	100	100		

**ROUTE: 0011 ISLAND IN THE SKY ROAD** 



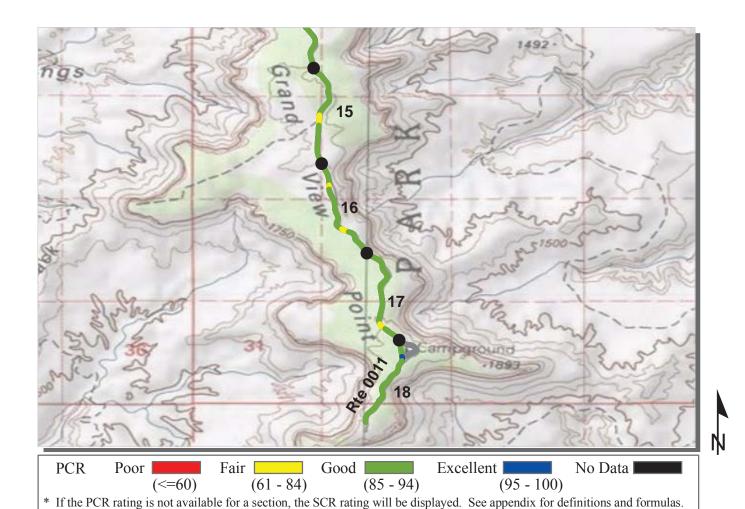
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ROUTE: 0011 ISLAND IN THE SKY ROAD CANY : CANYONLANDS NATIONAL PARK

				LLECTED:	10/29/2009	
INTERMOUNTAIN REGION Section Number	10	11	101AI	LENGTH:	18.90 Miles	
Section Length (mi)	1.00	1.00	1.00	1.00	1.00	
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2	2	2	2	
Paved Width (ft)	27	26	28	30	26	
Lane Width (ft)	11	11	11	11	10	
Shoulder Width Right (ft)	NC	NC	NC	NC	NC	
Shoulder Width Left (ft)	NC	NC	NC	NC	NC	
Roadway Condition Information					1	
SCR (Surface Condition Rating)	84	85	86	85	83	
PCR (Pavement Condition Rating)	90	91	92	90	90	
Distress Index Values						
Alligator Cracking Index	100	100	100	100	100	
Longitudinal Cracking Index	100	100	100	100	100	
Tranverse Cracking Index	100	100	100	100	100	
Patching Index	100	100	100	100	100	
Rutting Index	84	85	86	85	83	
Roughness Condition Index (RCI)	100	99	99	98	100	

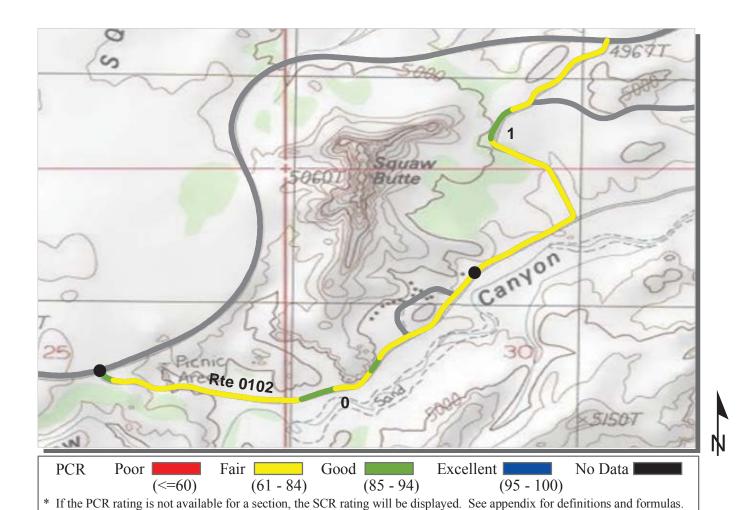
ROUTE: 0011 ISLAND IN THE SKY ROAD



ROUTE: 0011 ISLAND IN THE SKY ROAD CANY: CANYONLANDS NATIONAL PARK

				LLECTED:	10/29/2009	
INTERMOUNTAIN REGION Section Number	15	16	101AL	18	18.90 Miles	
Section Length (mi)	1.00	1.00	1.00	0.90		
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2	2	2		
Paved Width (ft)	28	27	26	26		
Lane Width (ft)	10	10	10	10		
Shoulder Width Right (ft)	NC	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC	NC		
Roadway Condition Information						
SCR (Surface Condition Rating)	82	81	80	82		
PCR (Pavement Condition Rating)	89	89	88	89		
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	82	81	80	82		
Roughness Condition Index (RCI)	100	100	100	99		

ROUTE: 0011 ISLAND IN THE SKY ROAD



**ROUTE: 0102 WOODEN SHOE LOOP CANY: CANYONLANDS NATIONAL PARK** 

INTERMOUNTAIN REGION				LLECTED: LENGTH:	10/30/2009 1.94 Miles	
Section Number	0	1				
Section Length (mi)	1.00	0.94				
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2				
Paved Width (ft)	23	24				
Lane Width (ft)	9	9				
Shoulder Width Right (ft)	NC	NC				
Shoulder Width Left (ft)	NC	NC				
Roadway Condition Information						
SCR (Surface Condition Rating)	79	78				
PCR (Pavement Condition Rating)	77	76				
Distress Index Values						
Alligator Cracking Index	100	100				
Longitudinal Cracking Index	100	100				
Tranverse Cracking Index	100	100				
Patching Index	100	100				
Rutting Index	80	79				
Roughness Condition Index (RCI)	72	72				

**ROUTE: 0102 WOODEN SHOE LOOP** 



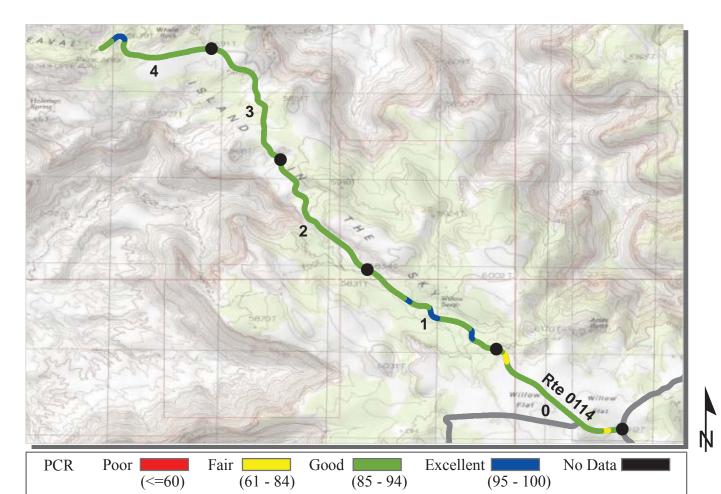
 PCR
 Poor
 Fair
 Good
 Excellent
 No Data

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

### **ROUTE: 0113 GREEN RIVER OVERLOOK ROAD** CANY: CANYONLANDS NATIONAL PARK

INTERMOUNTAIN REGION				LLECTED: LENGTH:	10/29/2009 1.35 Miles		
Section Number	0	1	IUIAL		1.55 WIIIes		
Section Length (mi)	1.00	0.35					
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2					
Paved Width (ft)	22	23					
Lane Width (ft)	10	10					
Shoulder Width Right (ft)	NC	NC					
Shoulder Width Left (ft)	NC	NC					
Roadway Condition Information							
SCR (Surface Condition Rating)	84	83					
PCR (Pavement Condition Rating)	90	86					
Distress Index Values							
Alligator Cracking Index	100	100					
Longitudinal Cracking Index	100	100					
Tranverse Cracking Index	100	100					
Patching Index	100	100					
Rutting Index	84	83					
Roughness Condition Index (RCI)	99	91					

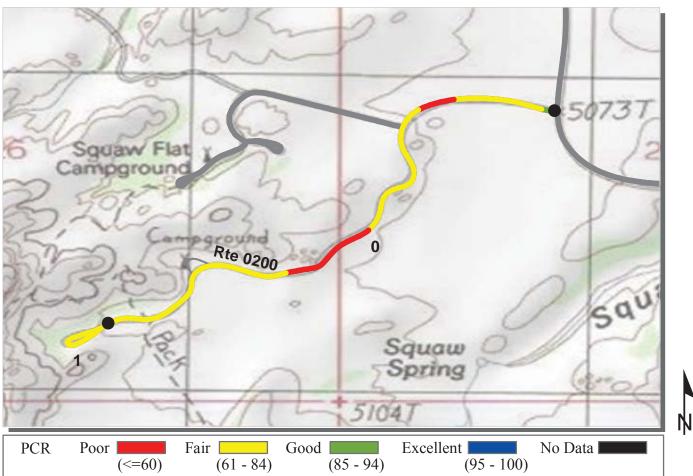
ROUTE: 0113 GREEN RIVER OVERLOOK ROAD



#### **ROUTE: 0114 UPHEAVAL DOME ROAD CANY : CANYONLANDS NATIONAL PARK**

INTERMOUNTAIN REGION			•••	LLECTED: LENGTH:	10/29/2009 4.78 Miles		
Section Number	0	1	2	3	4		
Section Length (mi)	1.00	1.00	1.00	1.00	0.78		
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)						
Cross Section Information							
Number of Lanes	2	2	2	2	2		
Paved Width (ft)	26	27	26	27	27		
Lane Width (ft)	11	10	10	10	10		
Shoulder Width Right (ft)	NC	NC	NC	NC	NC		
Shoulder Width Left (ft)	NC	NC	NC	NC	NC		
Roadway Condition Information							
SCR (Surface Condition Rating)	84	87	81	84	86		
PCR (Pavement Condition Rating)	90	92	88	90	91		
Distress Index Values							
Alligator Cracking Index	100	100	100	100	100		
Longitudinal Cracking Index	100	100	100	100	100		
Tranverse Cracking Index	100	100	100	100	100		
Patching Index	100	100	100	100	100		
Rutting Index	85	87	81	84	86		
Roughness Condition Index (RCI)	98	99	98	99	99		

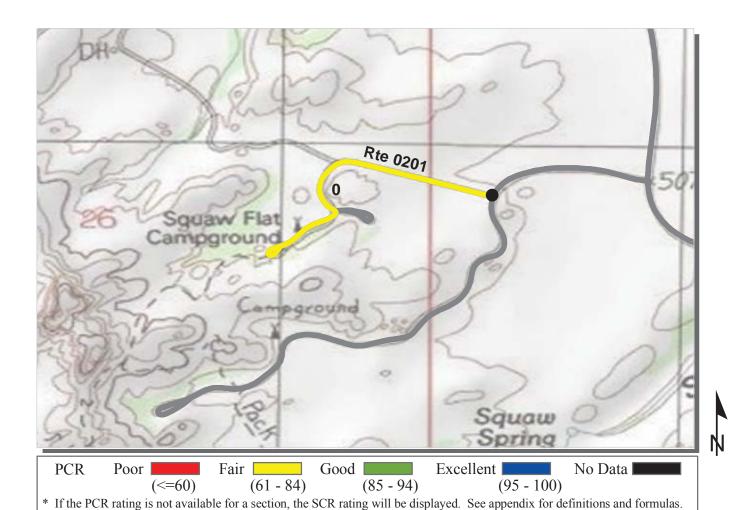
**ROUTE: 0114 UPHEAVAL DOME ROAD** 



## ROUTE: 0200 SQUAW FLAT CAMPGROUND ROAD (LOOP A) **CANY: CANYONLANDS NATIONAL PARK**

			CO	LLECTED:	10/30/2009	
INTERMOUNTAIN REGION			TOTAL	LENGTH:	1.13 Miles	
Section Number	0	1				
Section Length (mi)	1.00	0.13				
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2	2				
Paved Width (ft)	23	15				
Lane Width (ft)	9	11				
Shoulder Width Right (ft)	NC	NC				
Shoulder Width Left (ft)	NC	NC				
Roadway Condition Information						
SCR (Surface Condition Rating)	70	66				
PCR (Pavement Condition Rating)	67	66				
Distress Index Values						
Alligator Cracking Index	100	100				
Longitudinal Cracking Index	97	92				
Tranverse Cracking Index	96	93				
Patching Index	100	100				
Rutting Index	77	81				
Roughness Condition Index (RCI)	59	75				

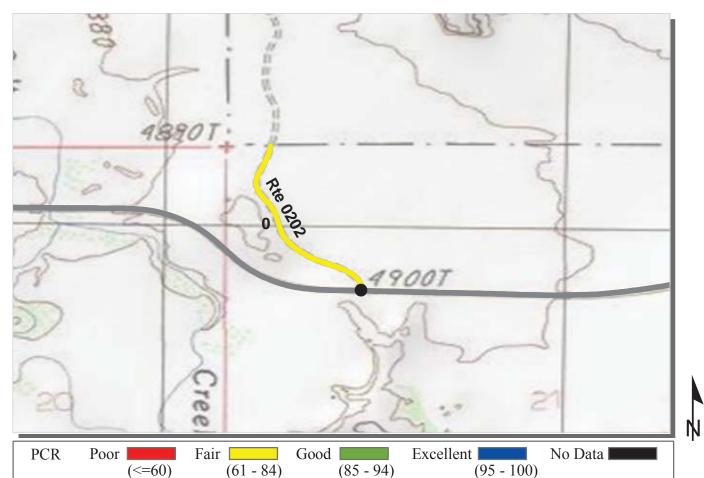
ROUTE: 0200 SQUAW FLAT CAMPGROUND ROAD (LOOP A)



ROUTE: 0201 SQUAW FLAT CAMPGROUND ROAD (LOOP B) CANY : CANYONLANDS NATIONAL PARK

			CO	10/30/2009		
INTERMOUNTAIN REGION			TOTAL LENGTH:			
Section Number	0					
Section Length (mi)	0.52					
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	20					
Lane Width (ft)	9					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	69					
PCR (Pavement Condition Rating)	69					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	99					
Tranverse Cracking Index	97					
Patching Index	100					
Rutting Index	73					
Roughness Condition Index (RCI)	66					

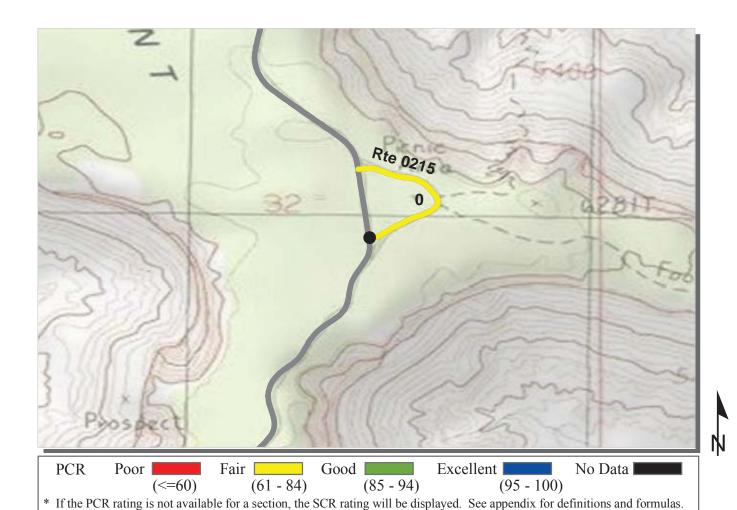
ROUTE: 0201 SQUAW FLAT CAMPGROUND ROAD (LOOP B)



#### **ROUTE: 0202 NEEDLES OUTPOST ROAD** CANY: CANYONLANDS NATIONAL PARK

INTERMOUNTAIN REGION				LLECTED: LENGTH:	10/30/2009 0.36 Miles	
Section Number	0		IUIAL		0.50 1411105	
Section Length (mi)	0.36					
Traffic AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)					
Cross Section Information						
Number of Lanes	2					
Paved Width (ft)	18					
Lane Width (ft)	8					
Shoulder Width Right (ft)	NC					
Shoulder Width Left (ft)	NC					
Roadway Condition Information						
SCR (Surface Condition Rating)	73					
PCR (Pavement Condition Rating)	75					
Distress Index Values						
Alligator Cracking Index	100					
Longitudinal Cracking Index	99					
Tranverse Cracking Index	95					
Patching Index	100					
Rutting Index	79					
Roughness Condition Index (RCI)	78					

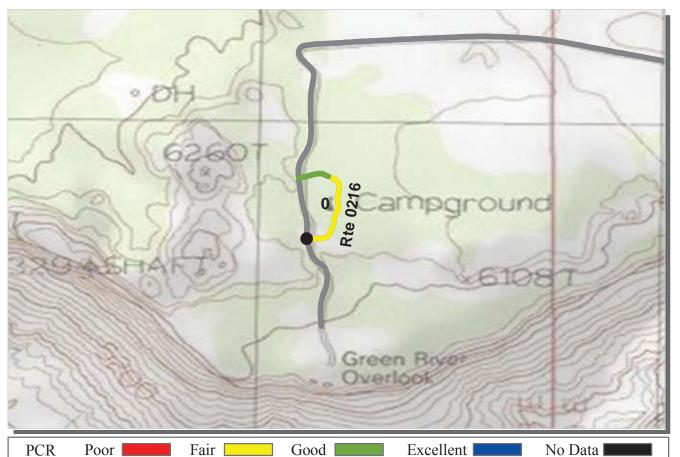
**ROUTE: 0202 NEEDLES OUTPOST ROAD** 



ROUTE: 0215 WHITE RIM OVERLOOK PICNIC AREA CANY : CANYONLANDS NATIONAL PARK

			CO	LLECTED:	10/29/2009
INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.28 Miles
Section Number	0				
Section Length (mi)	0.28				
<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)	14				
Lane Width (ft)	14				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	73				
PCR (Pavement Condition Rating)	73				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	97				
Patching Index	100				
Rutting Index	77				
Roughness Condition Index (RCI)	70				

**ROUTE: 0215 WHITE RIM OVERLOOK PICNIC AREA** 

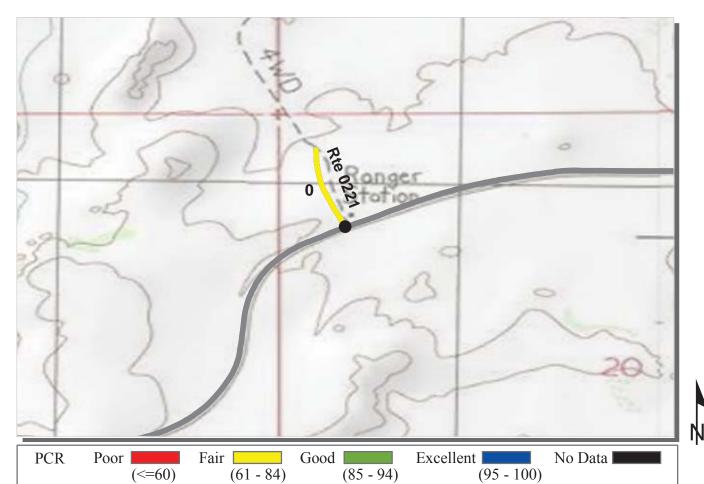


(<=60) (61 - 84) (85 - 94) (95 - 100) \* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

### **ROUTE: 0216 WILLOW FLATS CAMPGROUND CANY : CANYONLANDS NATIONAL PARK**

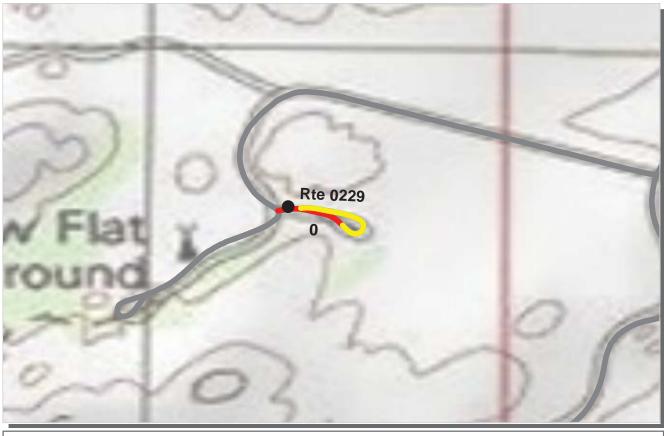
			CO	LLECTED:	10/29/2009
INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.21 Miles
Section Number	0				
Section Length (mi)	0.21				
<i>Traffic</i> AADT SADT ADT Date	Traffic data may be found at www.efl.fhwa.dot.gov Click on PROGRAMS / NPS Traffic Data (Note: Not all parks have traffic data)				
Cross Section Information					
Number of Lanes	1				
Paved Width (ft)	13				
Lane Width (ft)	13				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	87				
PCR (Pavement Condition Rating)	79				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	99				
Patching Index	100				
Rutting Index	88				
Roughness Condition Index (RCI)	49				

**ROUTE: 0216 WILLOW FLATS CAMPGROUND** 



## **ROUTE: 0221 NEEDLES VISITOR CONTACT STATION ACCESS ROAD CANY: CANYONLANDS NATIONAL PARK**

CANY : CANYONLANDS NATIO				LLECTED:	10/30/2009
INTERMOUNTAIN REGION Section Number	0	1		LENGTH:	0.16 Miles
Section Length (mi)	0.16				
Traffic	0.10				
AADT	Traffic data r	nay be found at v	www.efl.fhwa.do	ot.gov	
SADT		OGRAMS / NPS			
ADT Date	(Note: Not al	l parks have traf	fic data)		
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	25				
Lane Width (ft)	12				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	74				
PCR (Pavement Condition Rating)	69				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	99				
Tranverse Cracking Index	97				
Patching Index	100				
Rutting Index	78				
Roughness Condition Index (RCI)	39				

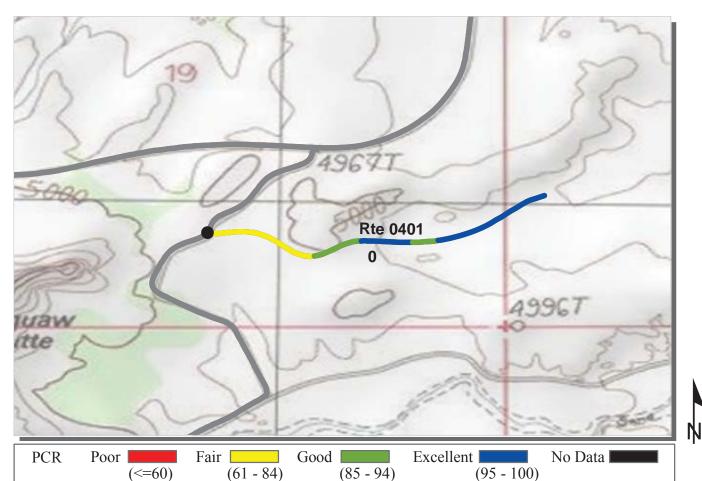


Fair Good Excellent No Data PCR Poor (61 - 84) (85 - 94) (95 - 100) (<=60) \* If the PCR rating is not available for a section, the SCR rating will be displayed. See appendix for definitions and formulas.

## ROUTE: 0229 SQUAW FLAT CAMPGROUND LOOP B **CANY: CANYONLANDS NATIONAL PARK**

			CO	LLECTED:	10/30/2009
INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.10 Miles
Section Number	0				
Section Length (mi)	0.10				
<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)	16				
Lane Width (ft)	11				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	58				
PCR (Pavement Condition Rating)	58				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	90				
Tranverse Cracking Index	82				
Patching Index	100				
Rutting Index	86				
Roughness Condition Index (RCI)	NC				

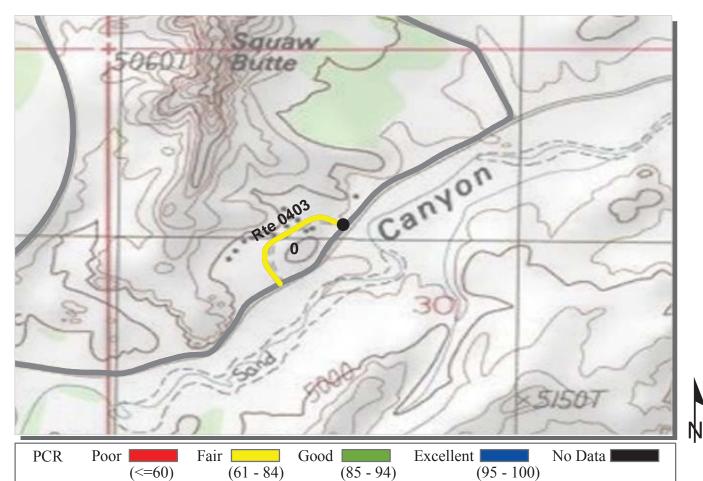
**ROUTE: 0229 SQUAW FLAT CAMPGROUND LOOP B** 



#### **ROUTE: 0401 NEEDLES RESIDENCE ROAD** CANY: CANYONLANDS NATIONAL PARK

			CO	LLECTED:	10/30/2009
INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.57 Miles
Section Number	0				
Section Length (mi)	0.57				
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v OGRAMS / NPS l parks have traf	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	20				
Lane Width (ft)	10				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	88				
PCR (Pavement Condition Rating)	90				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	97				
Patching Index	100				
Rutting Index	91				
Roughness Condition Index (RCI)	94				

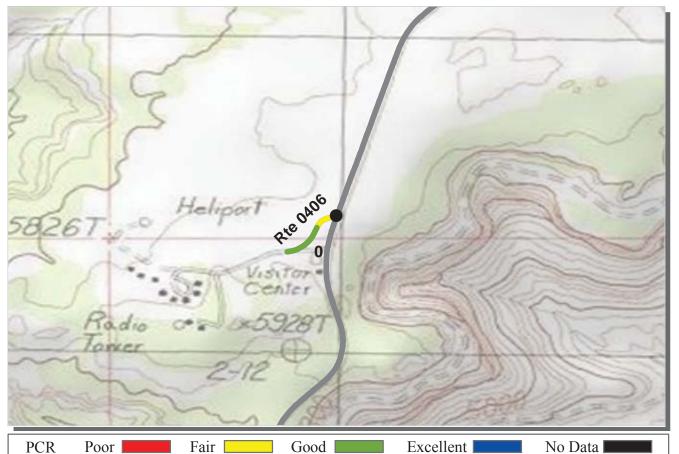
**ROUTE: 0401 NEEDLES RESIDENCE ROAD** 



## ROUTE: 0403 NEEDLES MAINTENANCE AREA LOOP CANY : CANYONLANDS NATIONAL PARK

			CO	LLECTED:	10/30/2009
INTERMOUNTAIN REGION			TOTAL	LENGTH:	0.22 Miles
Section Number	0				
Section Length (mi)	0.22				
<i>Traffic</i> AADT SADT ADT Date	Click on PRO	nay be found at v )GRAMS / NPS l parks have traff	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	9				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information					
SCR (Surface Condition Rating)	75				
PCR (Pavement Condition Rating)	72				
Distress Index Values					
Alligator Cracking Index	100				
Longitudinal Cracking Index	100				
Tranverse Cracking Index	99				
Patching Index	100				
Rutting Index	75				
Roughness Condition Index (RCI)	54				

**ROUTE: 0403 NEEDLES MAINTENANCE AREA LOOP** 



#### **ROUTE: 0406 I-SKY RESIDENCE ROAD CANY : CANYONLANDS NATIONAL PARK**

INTERMOUNTAIN REGION				LLECTED: LENGTH:	10/29/2009 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 traf	Traffic Data	t.gov	
Cross Section Information					
Number of Lanes	2				
Paved Width (ft)	18				
Lane Width (ft)	9				
Shoulder Width Right (ft)	NC				
Shoulder Width Left (ft)	NC				
Roadway Condition Information		1			
SCR (Surface Condition Rating)	78				
PCR (Pavement Condition Rating)	78				
Distress Index Values					
Alligator Cracking Index	99				
Longitudinal Cracking Index	93				
Tranverse Cracking Index	92				
Patching Index	100				
Rutting Index	93				
Roughness Condition Index (RCI)	83				

**ROUTE: 0406 I-SKY RESIDENCE ROAD** 

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Canyonlands National Park



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

SQUAW FLAT HOST LOOP A

FROM ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.79 ON RIGHT TO ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.81 ON RIGHT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0228	PUBLIC	8/2	6/2009	6,931	0.12	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	2	0	GUTTER	NO CURB	POOR/45







WILLOW FLATS SERVICE ROAD

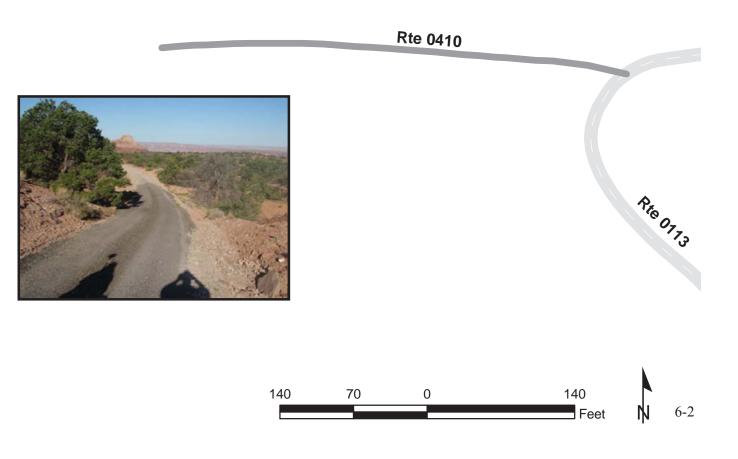
FROM ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) AT MP 0.78 ON RIGHT

TO END

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0410	NONPUBLIC	8/2	7/2009	4,250	0.07	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	1	0	GUTTER	NO CURB	POOR/45







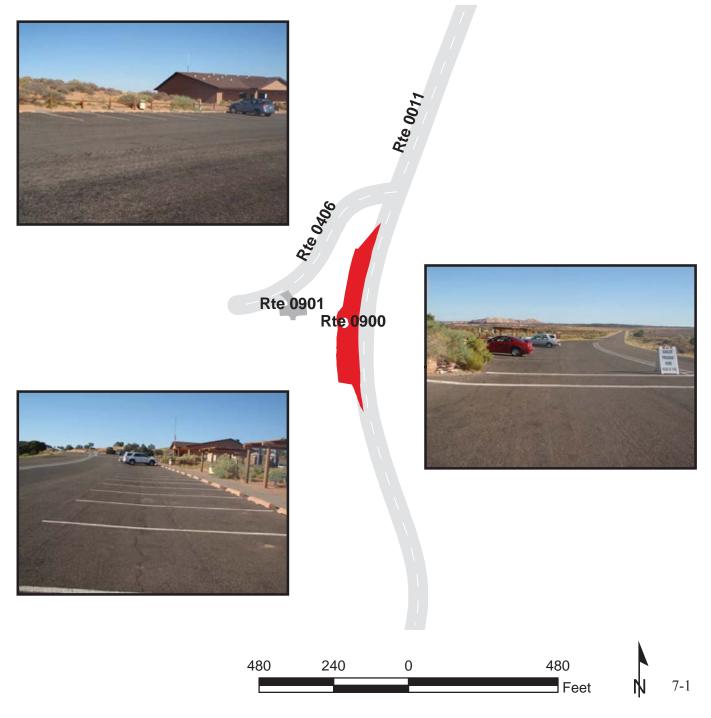
Canyonlands National Park



# Section 7 Parking Area Condition Rating Sheets

## ISLAND IN THE SKY VISITOR CENTER PARKING ADJACENT TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 6.81 ON RIGHT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0900	PUBLIC	8/2	7/2009	24,012	0.41	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	1	0	0	GUTTER	NO CURB	GOOD/90



SKY VISITOR CENTER EMPLOYEE PARKING FROM ROUTE 0406 (I-SKY RESIDENCE ROAD) AT MP 0.09 ON LEFT TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0901	NONPUBLIC	8/2	7/2009	3,712	0.06	AS
			Fire			
Culverts	Drop Inlets	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	FAIR/73



NECK SPRINGS TRAILHEAD PARKING

FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 7.30 ON LEFT

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0902	PUBLIC	8/2	7/2009	40,888	0.70	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
0	1	0	0	GUTTER	CURB	FAIR/73







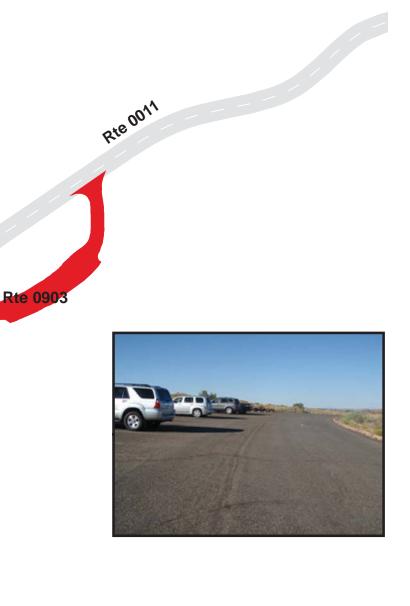




## MESA ARCH PARKING FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 12.87 ON LEFT TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 12.95 ON LEFT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0903	PUBLIC	8/2	7/2009	23,511	0.41	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	FAIR/73





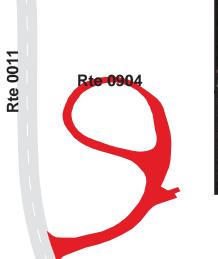


BUCK CANYON OVERLOOK PARKING

FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 16.28 ON LEFT

TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0904	PUBLIC	8/27/2009		21,771	0.38	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90











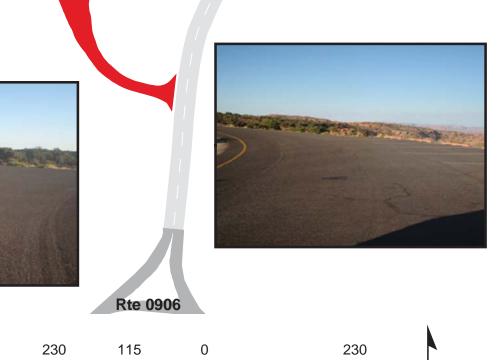
ORANGE CLIFFS OVERLOOK PARKING FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.81 ON RIGHT TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.86 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0905	PUBLIC	8/2	7/2009	12,799	0.22	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	FAIR/73

Rte 0905

\* Lane miles are based on 11' lane widths



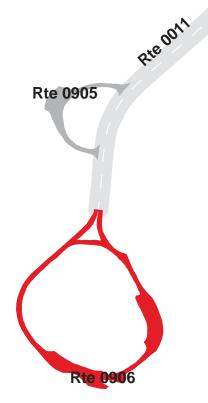


Rte 0011

Feet

GRAND VIEW POINT PARKING AREA FROM END OF ROUTE 0011 (ISLAND IN THE SKY ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0906	PUBLIC	8/2	7/2009	38,686	0.67	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	1	0	0	AND GUTTER	NO CURB	GOOD/90











AZTEC BUTTE TRAILHEAD PARKING FROM ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 0.83 ON RIGHT TO ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 0.88 ON RIGHT

R	Route	Public /					
Nı	umber	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
(	0907	PUBLIC	8/27/2009		12,900	0.22	AS
				Fire			
Cu	llverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
					CONCRETE CURB		
	0	0	0	0	AND GUTTER	NO CURB	GOOD/90

Rte 0907

\* Lane miles are based on 11' lane widths



Rte 0114





WHALE ROCK TRAILHEAD PARKING FROM ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 4.00 ON RIGHT TO ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 4.04 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0908	PUBLIC	8/2	7/2009	11,413	0.20	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90









UPHEAVAL DOME PICNIC PARKING FROM END OF ROUTE 0114 (UPHEAVAL DOME ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0909	PUBLIC	8/2	7/2009	20,767	0.36	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
2	0	0	0	GUTTER	CURB	GOOD/90

\* Lane miles are based on 11' lane widths









Rte 0114



INDIAN CREEK PARKING

FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 7.63 ON RIGHT TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 7.72 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0910	PUBLIC	8/26/2009		9,310	0.16	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	ASPHALT	
1	0	0	0	GUTTER	CURB	GOOD/90

\* Lane miles are based on 11' lane widths

Rte 0070



Rte 0910





NEEDLES VISITOR CENTER PARKING

FROM ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD) AT MP 0.08 ON RIGHT TO ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD) AT MP 0.15 ON RIGHT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0911	PUBLIC	8/2	6/2009	40,547	0.70	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	1	AND GUTTER	NO CURB	GOOD/90

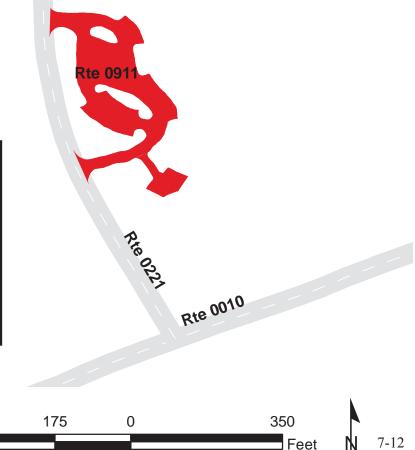
\* Lane miles are based on 11' lane widths







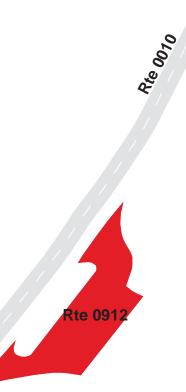
350



WOODEN SHOE PARKING FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 17.55 ON LEFT TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 17.58 ON LEFT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0912	PUBLIC	8/26/2009		7,483	0.13	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90









THE PICNIC AREA (NEEDLES) FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 19.97 ON LEFT TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 20.00 ON LEFT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0913	PUBLIC	8/2	6/2009	7,753	0.13	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

\* Lane miles are based on 11' lane widths



Rte 0010

Rte 0913

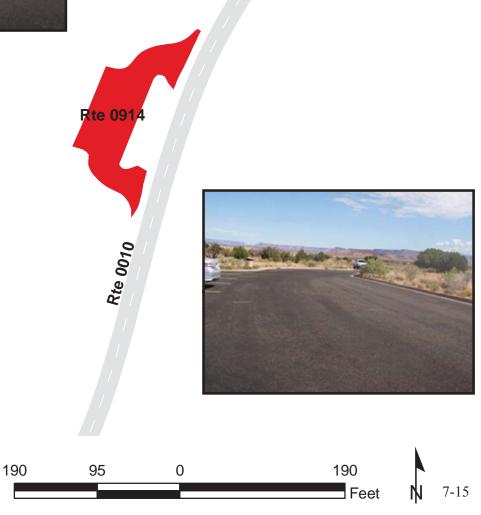




POTHOLE HILL TRAILHEAD PARKING FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 20.39 ON LEFT TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 20.42 ON LEFT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0914	PUBLIC	8/2	6/2009	8,226	0.14	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90





**BIG SPRINGS PARKING** 

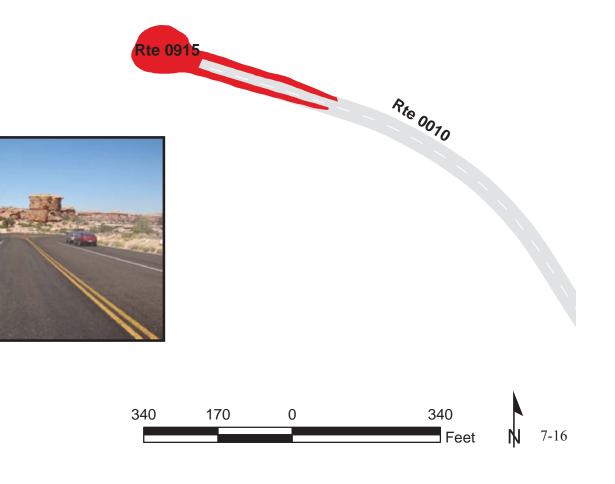
FROM END OF ROUTE 0010 (NEEDLES ACCESS ROAD)

TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0915	PUBLIC	8/2	6/2009	17,885	0.31	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90







#### NEEDLES MAINTENANCE YARD COMPLEX AREA A FROM ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.04 ON RIGHT TO ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.09 ON RIGHT

	Route	Public /					
	Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
	0916A	NONPUBLIC	8/2	6/2009	28,445	0.49	AS
				Fire			
	Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
ſ					NO CURB AND		
	2	0	0	1	GUTTER	NO CURB	GOOD/90

\* Lane miles are based on 11' lane widths





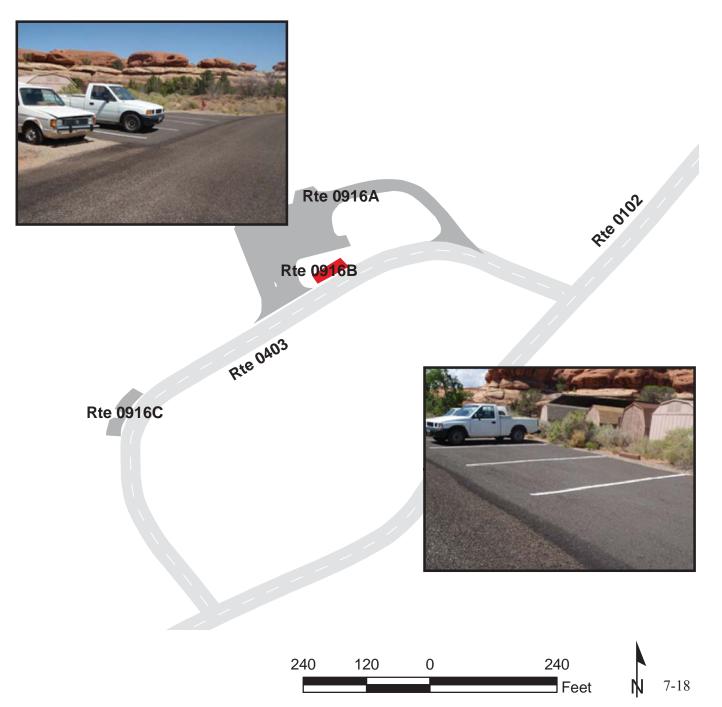




Feet

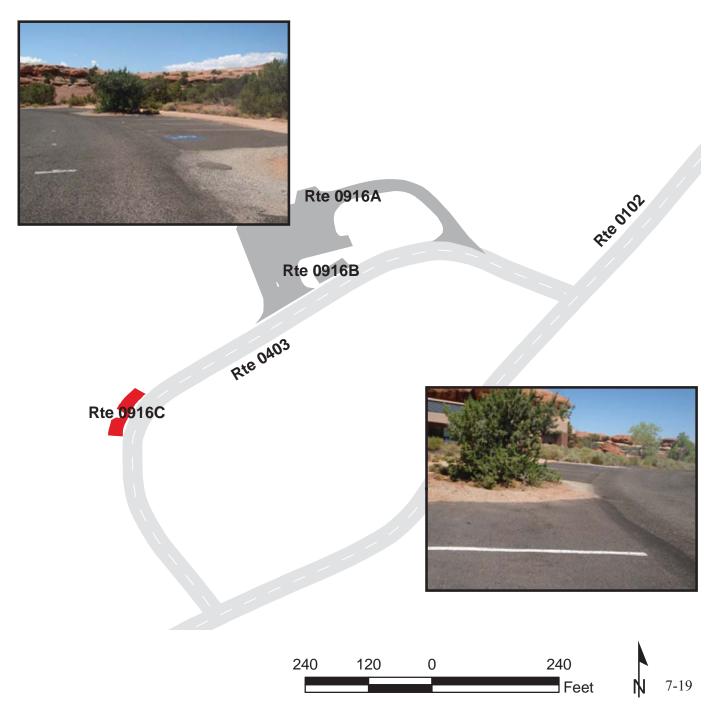
#### NEEDLES MAINTENANCE YARD COMPLEX AREA B ADJACENT TO ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.07 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0916B	NONPUBLIC	8/2	6/2009	1,071	0.02	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	1	GUTTER	NO CURB	GOOD/90



#### NEEDLES MAINTENANCE YARD COMPLEX AREA C ADJACENT TO ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP) AT MP 0.14 ON RIGHT

Route	Public /					
Number	NonPublic	Date Visited		Area (sq ft)	Lane Miles *	Surface Type
0916C	NONPUBLIC	8/2	6/2009	1,761	0.03	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	0	0	0	GUTTER	CURB	FAIR/73



SQUAW FLAT RESTROOM A PARKING

ADJACENT TO ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.77 ON RIGHT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0918	PUBLIC	8/2	6/2009	1,050	0.02	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND	CONCRETE	
0	0	0	0	GUTTER	CURB	GOOD/90









SQUAW FLAT TRAILHEAD PARKING

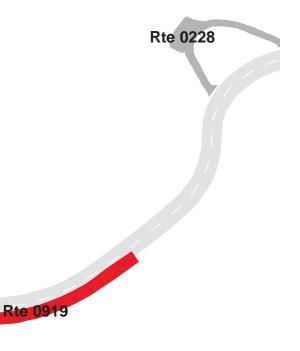
ADJACENT TO ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A)) AT MP 0.91 ON LEFT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0919	PUBLIC	8/2	6/2009	10,535	0.18	AS
			Fire			
Culverts	<b>Drop Inlets</b>	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 0200







#### SQUAW FLAT RESTROOM B PARKING

ADJACENT TO ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B)) AT MP 0.42 ON LEFT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0920	PUBLIC	8/2	6/2009	560	0.01	AS
			Fire			
Culverts	<b>Drop Inlets</b>	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 0201

Rte 0920





WHITE RIM OVERLOOK PARKING

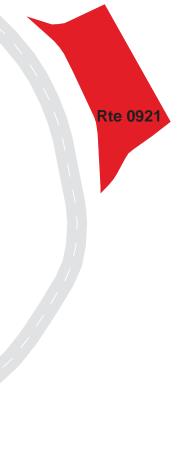
ADJACENT TO ROUTE 0215 (WHITE RIM OVERLOOK PICNIC AREA) AT MP 0.14 ON RIGHT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0921	PUBLIC	8/2	7/2009	1,062	0.02	AS
			Fire			
Culverts	<b>Drop Inlets</b>	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

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GREEN RIVER OVERLOOK PARKING FROM END OF ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) TO PARKING

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0922	PUBLIC	8/2	7/2009	19,117	0.33	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				CONCRETE CURB		
0	0	0	0	AND GUTTER	NO CURB	GOOD/90

Rte 0113





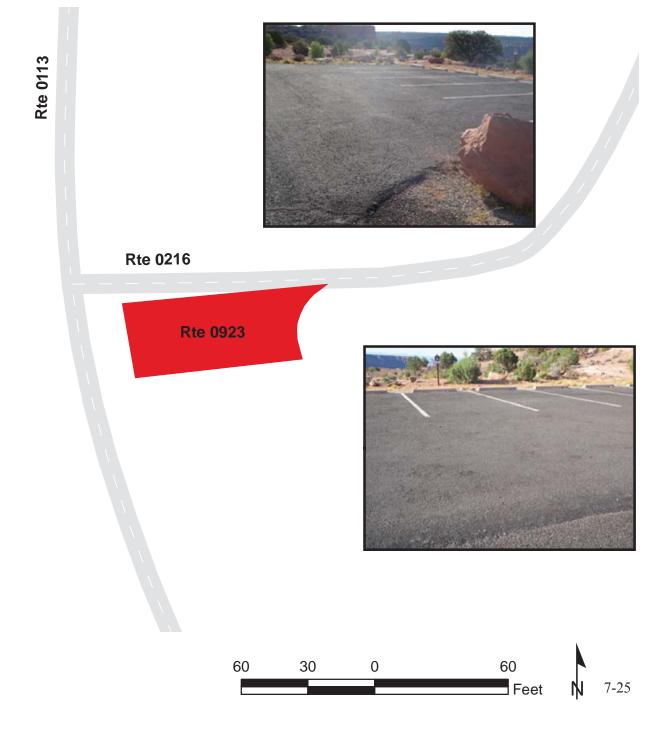






#### WILLOW FLAT CAMPGROUND PARKING ADJACENT TO ROUTE 0216 (WILLOW FLATS CAMPGROUND) AT MP 0.01 ON RIGHT

Route	Public /					
Number	NonPublic	Date	Visited	Area (sq ft)	Lane Miles *	Surface Type
0923	PUBLIC	8/2	7/2009	2,074	0.04	AS
			Fire			
Culverts	<b>Drop Inlets</b>	Gates	Hydrants	Curb & Gutter	Curb	PCR
				NO CURB AND		
0	0	0	0	GUTTER	NO CURB	GOOD/90



Canyonlands National Park



Section 8 Parkwide / Route Maintenance Features Summaries

# **CANY: PARKWIDE MAINTENANCE FEATURES SUMMARY**

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

FEATURE	LINEAR FEET	COUNT
BARRIER	9,340	
BOLLARD	63	
BRIDGE		3
CABLE	0	
CATTLE GUARD		5
CULVERT		5
CURB	44,368	
DROP INLET		3
FIRE HYDRANT		6
GATE		8
GUARD/GUIDE RAIL	9,097	
GUARD/GUIDE WALL	243	
INTERSECTION		147
LOW WATER CROSSING	0	0
MILE MARKER		75
OVERPASS		0
OVERHEAD SIGN		0
PARK BOUNDARY		3
PAVED DITCH	8,913	
PULLOUT		26
RAILROAD CROSSING		0
RETAINING WALL	0	0
SIGN		371
STATE BOUNDARY		0
TEMPORARY BARRIER	0	
TRAFFIC LIGHT		3
TUNNEL	0	0
TURNOUT	0	

# **CANY: ROUTE MAINTENANCE FEATURES SUMMARY**

FEATURE	ROUTE 0010 NEEDLES ACCESS ROAD	ROUTE 0011 ISLAND IN THE SKY ROAD	ROUTE 0102 WOODEN SHOE LOOP	ROUTE 0113 GREEN RIVER OVERLOOK ROAD	ROUTE 0114 UPHEAVAL DOME ROAD	ROUTE 0200 SQUAW FLAT CAMPGROUND ROAD (LOOP A)	UNIT
BARRIER	4,668	2,117	0	185	2,307	16	LINEAR FEET
BOLLARD	0	0	0	0	0	16	LINEAR FEET
BRIDGE	3	0	0	0	0	0	EACH
CABLE	0	0	0	0	0	0	LINEAR FEET
CATTLE GUARD	3	1	0	0	0	0	EACH
CULVERT	0	0	0	0	0	0	EACH
CURB	15,713	20,185	243	206	7,566	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
FIRE HYDRANT	0	0	0	0	0	0	EACH
GATE	0	1	0	0	0	0	EACH
GUARD/GUIDE RAIL	4,488	2,117	0	185	2,307	0	LINEAR FEET
GUARD/GUIDE WALL	180	0	0	0	0	16	LINEAR FEET
INTERSECTION	41	25	10	6	8	10	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	38	32	0	0	5	0	EACH
OVERHEAD SIGN	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	1	1	0	0	0	0	EACH
PAVED DITCH	4,699	0	4,182	0	0	0	LINEAR FEET
PULLOUT	13	10	0	0	3	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	118	127	10	15	33	19	EACH
STATE BOUNDARY	0	0	0	0	0	0	EACH
TEMPORARY BARRIER	0	0	0	0	0	0	LINEAR FEET
TRAFFIC LIGHT	3	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

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts and Drop Inlets that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

# **CANY: ROUTE MAINTENANCE FEATURES SUMMARY**

FEATURE	ROUTE 0201 SQUAW FLAT CAMPGROUND ROAD (LOOP B)	ROUTE 0202 NEEDLES OUTPOST ROAD	ROUTE 0215 WHITE RIM OVERLOOK PICNIC AREA	ROUTE 0216 WILLOW FLATS CAMPGROUND	ROUTE 0221 NEEDLES VISITOR CONTACT STATION ACCESS ROAD	ROUTE 0229 Squaw flat campground Loop B	UNIT
BARRIER	48	0	0	0	0	0	LINEAR FEET
BOLLARD	48	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	1	0	0	0	0	EACH
CULVERT	0	0	0	0	0	0	EACH
CURB	37	0	0	0	0	0	LINEAR FEET
DROP INLET	0	0	0	0	0	0	EACH
FIRE HYDRANT	0	0	0	0	0	0	EACH
GATE	1	2	0	0	1	0	EACH
GUARD/GUIDE RAIL	0	0	0	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	48	0	0	0	0	0	LINEAR FEET
INTERSECTION	8	3	5	5	6	5	EACH
LOW WATER CROSSING	0	0	0	0	0	0	EACH
LOW WATER CROSSING	0	0	0	0	0	0	LINEAR FEET
MILE MARKER	0	0	0	0	0	0	EACH
OVERHEAD SIGN	0	0	0	0	0	0	EACH
OVERPASS	0	0	0	0	0	0	EACH
PARK BOUNDARY	0	1	0	0	0	0	EACH
PAVED DITCH	32	0	0	0	0	0	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	14	9	3	2	9	2	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

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# **CANY: ROUTE MAINTENANCE FEATURES SUMMARY**

FEATURE	ROUTE 0401 NEEDLES RESIDENCE ROAD	ROUTE 0403 NEEDLES MAINTENANCE AREA LOOP	ROUTE 0406 I-SKY RESIDENCE ROAD	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	417	0	0	LINEAR FEET
DROP INLET	0	0	0	EACH
FIRE HYDRANT	1	2	0	EACH
GATE	0	0	0	EACH
GUARD/GUIDE RAIL	0	0	0	LINEAR FEET
GUARD/GUIDE WALL	0	0	0	LINEAR FEET
INTERSECTION	3	8	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	0	0	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	3	5	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

Notice: Drop Inlets along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that lack a BIP assigned Structure Number along ARAN-driven routes were NOT marked by NPS nor were they inventoried by RIP. Culverts that have a BIP assigned Structure Number along ARAN-driven routes were inventoried by RIP. Culverts and Drop Inlets that are associated with Manually Rated Routes and Paved Parking Areas are included in the Cycle 4 counts. To view the Cycle 3 culvert and drop inlet inventory, please refer to the Cycle 3 RIP Report.

# **CANY: STRUCTURE LIST**

ROUTE	FUNCTIONAL	MILEPOST	MILEPOST		STRUCTURE
NUMBER	CLASS	START	END	FEATURE	NUMBER
0010	1	7.24	7.256	BRIDGE	1340-001
0010	1	14.841	14.857	BRIDGE	1340-003
0010	1	19.529	19.562	BRIDGE	1340-002

Canyonlands National Park



# Section 9 Park Route Maintenance Features Road Logs

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM DUGOUT RANCH CATTLEGUARD ON STATE ROUTE 21
0.000	0.000	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (UTAH STATE ROUTE 211 / NON NPS)
0.002	0.002	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.029	0.029	SIGN	RIGHT	REGULATORY, SPEED LIMIT 55
0.075	0.075	SIGN	RIGHT	WARNING, ROAD NARROWS
0.112	0.112	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
0.425	0.425	INTERSECTION	LEFT	UNPAVED ROUTE
0.708	0.871	GUARD/GUIDE RAIL	RIGHT	
0.763	0.848	GUARD/GUIDE RAIL	LEFT	
0.915	0.915	INTERSECTION	RIGHT	UNPAVED ROUTE (GATED)
1.015	1.015	MILE MARKER	RIGHT	
1.015	1.015	MILE MARKER	LEFT	
1.191	1.191	SIGN	RIGHT	GUIDE, BACKCOUNTRY PERMIT REQUIRED FOR OVERNIGHT USE WITHIN CANYONLANDS NATIONAL PARK OBTAIN AT NEEDLES VIS
1.231	1.231	INTERSECTION	LEFT	UNPAVED ROUTE (BEEF BASIN / COUNTY ROAD 107)
1.248	1.248	INTERSECTION	RIGHT	UNPAVED ROUTE
1.414	1.550	CURB	LEFT	
1.649	1.649	SIGN	RIGHT	WARNING, ROUGH ROAD
1.680	1.680	INTERSECTION	RIGHT	UNPAVED ROUTE (GATED)
1.683	1.683	INTERSECTION	LEFT	UNPAVED ROUTE
2.093	2.093	INTERSECTION	RIGHT	UNPAVED ROUTE (GATED)
2.129	2.166	PULLOUT	RIGHT	
2.130	2.166	CURB	RIGHT	
2.389	2.389	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.716	2.808	CURB	LEFT	
2.820	2.820	INTERSECTION	RIGHT	UNPAVED ROUTE (GATED)
2.941	2.941	INTERSECTION	LEFT	UNPAVED ROUTE
2.989	2.989	MILE MARKER	LEFT	
2.989	2.989	MILE MARKER	RIGHT	

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
3.071	3.071	SIGN	RIGHT	WARNING, ROUGH ROAD
3.129	3.129	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
3.442	3.442	INTERSECTION	LEFT	UNPAVED ROUTE
3.458	3.490	PULLOUT	RIGHT	
3.459	3.488	CURB	RIGHT	
3.541	3.577	PULLOUT	LEFT	
3.542	3.577	CURB	LEFT	
3.636	3.636	INTERSECTION	LEFT	UNPAVED ROUTE
3.916	4.017	CURB	RIGHT	
3.921	4.022	CURB	LEFT	
3.976	3.976	MILE MARKER	LEFT	
3.976	3.976	MILE MARKER	RIGHT	
4.031	4.031	INTERSECTION	LEFT	UNPAVED ROUTE (GATED)
4.533	4.533	INTERSECTION	LEFT	UNPAVED ROUTE
4.553	4.580	PULLOUT	RIGHT	
4.555	4.578	CURB	RIGHT	
4.886	4.975	PULLOUT	RIGHT	
4.929	4.975	PAVED DITCH	RIGHT	
4.976	4.976	MILE MARKER	LEFT	
4.976	4.976	MILE MARKER	RIGHT	
5.007	5.007	INTERSECTION	LEFT	UNPAVED ROUTE
5.127	5.127	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
5.127	5.127	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
5.127	5.127	CATTLE GUARD	N/A	
5.540	5.540	INTERSECTION	RIGHT	UNPAVED ROUTE (GATED)
5.914	5.914	INTERSECTION	LEFT	UNPAVED ROUTE
5.888	6.888	INTERSECTION	LEFT	UNPAVED ROUTE (GATED)
5.888	6.888	INTERSECTION	RIGHT	UNPAVED ROUTE (GATED)
5.948	7.011	PULLOUT	RIGHT	
5.949	6.949	MILE MARKER	LEFT	

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
6.949	6.949	MILE MARKER	RIGHT	
6.950	7.009	CURB	RIGHT	
7.065	7.119	PULLOUT	LEFT	
7.066	7.118	CURB	LEFT	
7.123	7.123	SIGN	RIGHT	GUIDE, DAVIS CANYON 9MI LAVENDER CANYON 15MI
7.153	7.238	CURB	RIGHT	
7.162	7.233	CURB	LEFT	
7.164	7.164	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.236	7.238	CURB	LEFT	
7.239	7.239	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
7.239	7.239	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.239	7.256	GUARD/GUIDE WALL	RIGHT	
7.240	7.256	BRIDGE	N/A	1340-001 (INDIAN CREEK BRIDGE)
7.240	7.257	GUARD/GUIDE WALL	LEFT	
7.257	7.257	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
7.257	7.257	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.295	7.295	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
7.295	7.295	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.296	7.296	CATTLE GUARD	N/A	
7.298	7.298	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.298	7.298	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
7.383	7.383	INTERSECTION	LEFT	UNPAVED ROUTE (LAVENDER CANYON AND DAVIS CANYON ACCESS)
7.441	7.441	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.475	7.475	SIGN	RIGHT	GUIDE, DAVIS CANYON 9MI LAVENDER CANYON 15MI
7.507	7.507	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.633	7.633	INTERSECTION	RIGHT	ROUTE 0910 (INDIAN CREEK PARKING)
7.717	7.717	INTERSECTION	RIGHT	ROUTE 0910 (INDIAN CREEK PARKING)
7.904	7.904	MILE MARKER	LEFT	
7.904	7.904	MILE MARKER	RIGHT	

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
8.179	8.179	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
8.179	8.179	SIGN	RIGHT	GUIDE, CREEK PASTURE
8.190	8.190	INTERSECTION	RIGHT	UNPAVED ROUTE (CREEK PASTURE / BLM)
8.233	8.233	SIGN	RIGHT	WARNING, FLOOD AREA
8.366	8.366	TRAFFIC LIGHT	RIGHT	
8.366	8.366	SIGN	RIGHT	WARNING, DO NOT ENTER WHEN FLOODING
8.576	8.576	SIGN	RIGHT	WARNING, DO NOT ENTER WHEN FLOODING
8.576	8.576	TRAFFIC LIGHT	LEFT	
8.687	8.687	SIGN	RIGHT	WARNING, FLOOD AREA
8.914	8.914	MILE MARKER	LEFT	
8.914	8.914	MILE MARKER	RIGHT	
9.204	9.204	INTERSECTION	LEFT	UNPAVED ROUTE (GATED)
9.332	9.406	PULLOUT	RIGHT	
9.903	9.903	MILE MARKER	LEFT	
9.903	9.903	MILE MARKER	RIGHT	
10.009	10.009	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
10.097	10.097	INTERSECTION	RIGHT	UNPAVED ROUTE (LOCK HART ROAD)
10.187	10.187	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
10.378	10.378	INTERSECTION	RIGHT	UNPAVED ROUTE
10.900	10.909	PAVED DITCH	RIGHT	
10.907	10.907	MILE MARKER	LEFT	
10.907	10.907	MILE MARKER	RIGHT	
11.318	11.318	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
11.531	11.542	PAVED DITCH	RIGHT	
11.541	11.683	CURB	RIGHT	
11.563	11.585	PAVED DITCH	LEFT	
11.585	11.834	CURB	LEFT	
11.834	11.968	PAVED DITCH	LEFT	
11.843	11.974	PAVED DITCH	RIGHT	
11.975	11.975	MILE MARKER	LEFT	

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
11.975	11.975	MILE MARKER	RIGHT	
12.038	12.038	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
12.360	12.416	PULLOUT	LEFT	
12.361	12.414	CURB	LEFT	
12.387	12.461	PULLOUT	RIGHT	
12.388	12.457	CURB	RIGHT	
12.468	12.468	SIGN	RIGHT	GUIDE, INDIAN CREEK RECREATION AREA
12.744	12.744	SIGN	RIGHT	REGULATORY, SPEED LIMIT 55
12.745	12.745	INTERSECTION	RIGHT	UNPAVED ROUTE
12.869	12.869	MILE MARKER	LEFT	
12.869	12.869	MILE MARKER	RIGHT	
12.874	12.874	PARK BOUNDARY	N/A	
12.874	12.874	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
12.874	12.874	SIGN	RIGHT	GUIDE, U.S. FEE AREA
12.874	12.874	SIGN	RIGHT	GUIDE, PARK BOUNDARY
12.874	12.874	CATTLE GUARD	N/A	
12.874	12.874	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
12.875	12.875	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
12.875	12.875	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
12.876	12.876	SIGN	RIGHT	GUIDE, LEAVING CANYONLANDS NATIONAL PARK
12.897	12.897	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
12.982	12.982	SIGN	RIGHT	GUIDE, ATVS NOT PERMITTED ALL MOTOR VEHICLES AND OPERATORS MUST BE LICENSED
13.424	13.449	PULLOUT	RIGHT	
13.425	13.449	CURB	RIGHT	
13.477	13.477	SIGN	RIGHT	GUIDE, CANYONLANDS NATIONAL PARK UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE
13.868	13.868	MILE MARKER	LEFT	
13.868	13.868	MILE MARKER	RIGHT	
14.215	14.215	SIGN	RIGHT	GUIDE, NEEDLES OUTPOST
14.325	14.325	INTERSECTION	RIGHT	ROUTE 0202 (NEEDLES OUTPOST ROAD)

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
14.337	14.337	SIGN	RIGHT	GUIDE, VISITOR CENTER 1.5MI.
14.377	14.377	INTERSECTION	LEFT	ROUTE 0404 (FIRING RANGE ROAD)
14.394	14.394	SIGN	RIGHT	GUIDE, NEEDLES OUTPOST
14.468	14.468	SIGN	RIGHT	GUIDE, BACKCOUNTRY PERMIT REQUIRED FOR OVERNIGHT USE PLEASE OBTAIN AT VISITOR CENTER
14.567	14.567	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
14.580	14.580	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
14.767	14.807	CURB-AND-GUTTER	LEFT	
14.767	14.807	CURB-AND-GUTTER	RIGHT	
14.817	14.881	GUARD/GUIDE RAIL	RIGHT	
14.817	14.881	GUARD/GUIDE RAIL	LEFT	
14.841	14.857	BRIDGE	N/A	1340-003 (SALT CREEK BRIDGE)
14.863	15.004	PAVED DITCH	LEFT	
14.863	15.004	PAVED DITCH	RIGHT	
14.884	14.884	MILE MARKER	LEFT	
14.884	14.884	MILE MARKER	RIGHT	
14.893	14.893	SIGN	RIGHT	GUIDE, ENTRANCE STATION AHEAD PREPARE TO STOP
15.003	15.003	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
15.009	15.009	SIGN	RIGHT	WARNING, ENTRANCE STATION AHEAD
15.041	15.041	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
15.118	15.143	CURB-AND-GUTTER	LEFT	
15.129	15.129	SIGN	RIGHT	WARNING, SLOW
15.130	15.130	TRAFFIC LIGHT	LEFT	
15.131	15.131	SIGN	RIGHT	REGULATORY, STOP
15.133	15.133	SIGN	RIGHT	GUIDE, ENTRANCE FEES
15.138	15.138	SIGN	RIGHT	GUIDE, FEE REQUIRED
15.138	15.138	SIGN	RIGHT	GUIDE, CAMPGROUND OPEN
15.139	15.139	SIGN	LEFT	GUIDE, ENTRANCE FEE REQUIRED
15.139	15.139	SIGN	LEFT	GUIDE, PLEASE PAY HERE
15.207	15.207	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
15.207	15.207	SIGN	RIGHT	WARNING, STOP AHEAD
15.224	15.224	SIGN	RIGHT	WARNING, 3+ FEET
15.224	15.224	SIGN	RIGHT	WARNING, SHARE THE ROAD
15.259	15.259	SIGN	RIGHT	GUIDE, BACKCOUNTRY PERMIT REQUIRED FOR ALL OVERNIGHT USE OBTAIN AT VISITOR CENTER
15.262	15.262	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
15.411	15.411	SIGN	RIGHT	GUIDE, VISITOR CENTER
15.442	15.476	LANE DEVIATION	N/A	
15.457	15.457	INTERSECTION	RIGHT	ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD) SPUR
15.497	15.497	INTERSECTION	RIGHT	ROUTE 0221 (NEEDLES VISITOR CONTACT STATION ACCESS ROAD)
15.552	15.552	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
15.560	15.560	SIGN	RIGHT	GUIDE, VISITOR CENTER
15.770	15.770	SIGN	RIGHT	GUIDE, ROADSIDE RUIN
15.822	15.856	CURB	LEFT	
15.822	15.858	PULLOUT	LEFT	
15.927	15.927	SIGN	RIGHT	GUIDE, ROADSIDE RUIN
15.997	15.997	SIGN	RIGHT	GUIDE, CAMPING PERMITTED ONLY IN CAMPGROUNDS
16.061	16.061	SIGN	RIGHT	GUIDE, CAMPGROUND ELEPHANT HILL RANGER RESIDENCE SALT CREEK
16.061	16.061	SIGN	RIGHT	GUIDE, CAVE SPRING
16.101	16.101	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
16.147	16.147	INTERSECTION	LEFT	ROUTE 0102 (WOODEN SHOE LOOP)
16.152	16.155	PAVED DITCH	LEFT	
16.335	16.335	SIGN	RIGHT	GUIDE, VISITOR CENTER U.S. 191 SALT CREEK
16.335	16.335	SIGN	RIGHT	GUIDE, CAVE SPRING
16.476	16.652	CURB	RIGHT	
16.653	16.657	PAVED DITCH	LEFT	
16.714	16.764	CURB	LEFT	
16.805	16.861	CURB	LEFT	
16.845	16.845	MILE MARKER	LEFT	

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
16.845	16.845	MILE MARKER	RIGHT	
17.033	17.172	CURB	LEFT	
17.334	17.375	PAVED DITCH	LEFT	
17.438	17.438	SIGN	RIGHT	GUIDE, WOODEN SHOE ARCH
17.451	17.457	PAVED DITCH	RIGHT	
17.547	17.547	INTERSECTION	LEFT	ROUTE 0912 (WOODEN SHOE PARKING)
17.547	17.568	CURB-AND-GUTTER	LEFT	
17.575	17.575	INTERSECTION	LEFT	ROUTE 0912 (WOODEN SHOE PARKING)
17.653	17.653	SIGN	RIGHT	GUIDE, WOODEN SHOE ARCH
17.748	17.812	GUARD/GUIDE RAIL	LEFT	
17.840	17.840	MILE MARKER	LEFT	
17.840	17.840	MILE MARKER	RIGHT	
17.869	17.869	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
17.880	18.005	CURB	RIGHT	
17.890	17.890	SIGN	RIGHT	GUIDE, CAMPGROUND ELEPHANT HILL RANGER RESIDENCE SALT CREEK
17.925	17.925	INTERSECTION	LEFT	ROUTE 0102 (WOODEN SHOE LOOP)
17.995	17.995	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
18.186	18.186	SIGN	RIGHT	GUIDE, SCENIC DRIVE CAMPGROUND ELEPHANT HILL
18.192	18.192	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
18.266	18.266	INTERSECTION	LEFT	ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A))
18.378	18.378	SIGN	RIGHT	GUIDE, VISITOR CENTER CAMPGROUND ELEPHANT HILL
18.408	18.408	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
18.814	18.814	MILE MARKER	LEFT	
18.814	18.814	MILE MARKER	RIGHT	
19.134	19.134	SIGN	RIGHT	WARNING, 35 M.P.H.
19.134	19.134	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
19.203	19.261	CURB	LEFT	
19.291	19.291	SIGN	RIGHT	WARNING, 30 M.P.H.
19.291	19.291	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
19.373	19.373	SIGN	RIGHT	WARNING, 30 M.P.H.
19.373	19.373	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
19.379	19.379	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
19.424	19.577	GUARD/GUIDE RAIL	RIGHT	
19.428	19.467	CURB	LEFT	
19.516	19.577	GUARD/GUIDE RAIL	LEFT	
19.529	19.562	BRIDGE	N/A	1340-002 (LITTLE SPRING CREEK BRIDGE)
19.562	19.570	PAVED DITCH	RIGHT	
19.650	19.650	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
19.670	19.670	SIGN	RIGHT	WARNING, 25 M.P.H.
19.670	19.670	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
19.699	19.726	CURB	LEFT	
19.773	19.798	CURB	RIGHT	
19.803	19.803	MILE MARKER	LEFT	
19.803	19.803	MILE MARKER	RIGHT	
19.811	19.813	PAVED DITCH	RIGHT	
19.837	19.876	CURB	RIGHT	
19.967	19.967	INTERSECTION	LEFT	ROUTE 0913 (THE PICNIC AREA (NEEDLES))
19.974	19.994	CURB-AND-GUTTER	LEFT	
19.984	19.984	SIGN	LEFT	GUIDE, PICNIC AREA
19.984	19.984	SIGN	RIGHT	GUIDE, PICNIC AREA
19.997	19.997	INTERSECTION	LEFT	ROUTE 0913 (THE PICNIC AREA (NEEDLES))
19.997	20.065	CURB	RIGHT	
20.325	20.364	CURB	LEFT	
20.336	20.336	SIGN	RIGHT	GUIDE, POTHOLE POINT
20.389	20.389	INTERSECTION	LEFT	ROUTE 0914 (POTHOLE HILL TRAILHEAD PARKING)
20.391	20.412	CURB-AND-GUTTER	LEFT	
20.417	20.417	INTERSECTION	LEFT	ROUTE 0914 (POTHOLE HILL TRAILHEAD PARKING)
20.460	20.460	SIGN	RIGHT	GUIDE, POTHOLE POINT
20.487	20.576	CURB	LEFT	

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
20.596	20.600	PAVED DITCH	RIGHT	
20.597	20.677	GUARD/GUIDE RAIL	RIGHT	
20.604	20.709	CURB	RIGHT	
20.750	20.750	SIGN	RIGHT	WARNING, 30 M.P.H.
20.750	20.750	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
20.796	20.796	MILE MARKER	LEFT	
20.796	20.796	MILE MARKER	RIGHT	
20.861	20.977	GUARD/GUIDE RAIL	RIGHT	
20.882	20.950	CURB	LEFT	
21.028	21.072	CURB	RIGHT	
21.053	21.053	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
21.053	21.053	SIGN	RIGHT	WARNING, 25 M.P.H.
21.066	21.069	PAVED DITCH	RIGHT	
21.197	21.197	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
21.197	21.197	SIGN	RIGHT	WARNING, 30 M.P.H.
21.265	21.298	CURB	RIGHT	
21.302	21.342	PAVED DITCH	RIGHT	
21.342	21.451	CURB	RIGHT	
21.469	21.517	CURB	LEFT	
21.485	21.485	SIGN	RIGHT	WARNING, 30 M.P.H.
21.485	21.485	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
21.556	21.556	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
21.556	21.601	PAVED DITCH	LEFT	
21.557	21.557	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
21.608	21.608	SIGN	RIGHT	WARNING, CAUTION ROAD ENDS 1000 FT
21.648	21.648	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
21.659	21.659	SIGN	RIGHT	GUIDE, SLICKROCK FOOT TRAIL
21.681	21.760	CURB	RIGHT	
21.681	21.760	PULLOUT	RIGHT	
21.690	21.789	PAVED DITCH	LEFT	
·				

#### **ROUTE 0010: NEEDLES ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
21.788	21.788	MILE MARKER	LEFT	
21.788	21.788	MILE MARKER	RIGHT	
21.789	21.789	SIGN	RIGHT	WARNING, CAUTION ROAD ENDS 500 FT
21.850	21.850	INTERSECTION	N/A	ROUTE 0915 (BIG SPRINGS PARKING)
21.850	21.850	ROUTE END	N/A	TO ROUTE 0915 (BIG SPRINGS PARKING)

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM "THE KNOLL" (INTERSECTION TO DEADHORSE STATE PARK)
0.000	0.000	INTERSECTION	LEFT	PAVED ROUTE (UTAH STATE ROUTE 313 / NON NPS)
0.000	0.000	INTERSECTION	N/A	PAVED ROUTE (UTAH STATE ROUTE 313 / NON NPS)
0.035	0.035	SIGN	RIGHT	REGULATORY, 313
0.035	0.035	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
0.055	0.055	SIGN	RIGHT	GUIDE, NO FOOD GAS WATER AT LODGING AVAILABLE
0.083	0.083	SIGN	RIGHT	GUIDE, HIGHWAY 191 14 MI DEAD HORSE POINT STATE PARK 4 MI
0.125	0.125	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.159	0.159	SIGN	RIGHT	GUIDE, CANYONLANDS NATIONAL PARK 4 MI
0.168	0.204	PULLOUT	RIGHT	
0.169	0.202	PULLOUT	LEFT	
0.209	0.209	SIGN	RIGHT	REGULATORY, SPEED LIMIT 50
0.435	0.435	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.435	0.435	SIGN	RIGHT	WARNING, SHARE THE ROAD
0.902	0.902	INTERSECTION	RIGHT	UNPAVED ROUTE
0.971	0.971	MILE MARKER	RIGHT	
0.971	0.971	MILE MARKER	LEFT	
1.153	1.153	INTERSECTION	RIGHT	UNPAVED ROUTE
1.153	1.153	INTERSECTION	LEFT	UNPAVED ROUTE
1.734	1.734	INTERSECTION	LEFT	UNPAVED ROUTE
2.531	2.531	INTERSECTION	LEFT	UNPAVED ROUTE
2.539	2.539	INTERSECTION	RIGHT	UNPAVED ROUTE
2.700	2.838	CURB	RIGHT	
2.737	2.878	CURB	LEFT	
3.446	3.539	CURB	RIGHT	
3.455	3.455	INTERSECTION	LEFT	UNPAVED ROUTE
3.706	3.706	SIGN	RIGHT	GUIDE, SAN JUAN COUNTY
3.707	3.707	SIGN	RIGHT	GUIDE, GRAND COUNTY
3.890	3.890	MILE MARKER	RIGHT	

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM MILEPOST	TO MILEPOST	FE A TUDE	SIDE	COMMENT
3.890	3.890	MILE MARKER	LEFT	COMMENT
4.100	4.100	INTERSECTION	RIGHT	UNPAVED ROUTE
4.122	4.122	SIGN	RIGHT	GUIDE, CAMPING IN DESIGNATED SITES ONLY
4.132	4.239	CURB	LEFT	
4.251	4.251	SIGN	RIGHT	GUIDE, ALL VEHICLES AND MT. BIKES RESTRICTED TO DESIGNATED ROAD AND TRAILS
4.368	4.368	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
4.386	4.386	CATTLE GUARD	N/A	
4.386	4.386	PARK BOUNDARY	N/A	
4.489	4.489	SIGN	RIGHT	GUIDE, U.S. FEE AREA
4.512	4.549	PULLOUT	RIGHT	
4.553	4.553	SIGN	RIGHT	GUIDE, CANYONLANDS NATIONAL PARK UNITED STATES DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE
4.837	4.837	MILE MARKER	LEFT	
4.837	4.837	MILE MARKER	RIGHT	
4.868	4.868	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
5.024	5.024	SIGN	RIGHT	GUIDE, ENTRANCE STATION AHEAD PREPARE TO STOP
5.109	5.109	SIGN	RIGHT	REGULATORY, SPEED LIMIT 30
5.110	5.110	SIGN	RIGHT	REGULATORY, SPEED LIMIT 50
5.539	5.539	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
5.653	5.653	INTERSECTION	LEFT	UNPAVED PARKING (ENTRANCE STATION / RESTROOM)
5.665	5.689	CURB-AND-GUTTER	LEFT	
5.670	5.670	SIGN	LEFT	GUIDE, CANYONLANDS NATIONAL PARK ENTRANCE FEES PRIVATE VEHICLE \$ 10.00 WALK-IN/BICYCLE/MOTORCYCLE 5.00 (PER
5.674	5.674	SIGN	RIGHT	REGULATORY, STOP
5.681	5.681	SIGN	RIGHT	REGULATORY, STOP
5.682	5.682	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
5.729	5.729	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
5.730	5.730	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
5.777	5.777	SIGN	RIGHT	GUIDE, VISITOR CENTER 1MI SHAFER TRAIL ROAD WHITE R 4 MI.

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
5.783	5.783	MILE MARKER	RIGHT	
5.784	5.819	PULLOUT	RIGHT	
5.784	5.784	MILE MARKER	LEFT	
5.821	6.037	CURB	RIGHT	
5.846	5.846	INTERSECTION	LEFT	ROUTE 0111 (WHITE RIM ROAD)
5.890	5.890	SIGN	RIGHT	GUIDE, HIGHWAY 191 SHAFER TRAIL ROAD WHITE RIM TRAII 4 MI
5.911	6.038	CURB	LEFT	
5.937	5.937	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
5.938	5.938	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
6.438	6.438	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
6.682	6.682	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
6.683	6.683	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
6.730	6.730	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
6.741	6.741	INTERSECTION	RIGHT	ROUTE 0406 (I-SKY RESIDENCE ROAD)
6.751	6.751	MILE MARKER	RIGHT	
6.752	6.752	MILE MARKER	LEFT	
6.808	6.808	INTERSECTION	RIGHT	ROUTE 0900 (ISLAND IN THE SKY VISITOR CENTER PARKING)
6.856	6.856	SIGN	LEFT	GUIDE, GRAPHIC SIGN, NO TEXT
6.856	6.856	SIGN	LEFT	REGULATORY, GRAPHIC SIGN, NO TEXT
6.856	6.856	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
6.856	6.856	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
6.869	6.869	SIGN	RIGHT	GUIDE, GRANDVIEW POINT 12MI UPHEAVAL DOME 11.3MI CAMPGROUND 7.4MI GREEN RIVER OVERLOOK 7.5MI
6.870	6.870	SIGN	LEFT	GUIDE, CAMPGROUND FULL
6.876	6.876	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
6.886	6.886	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
6.886	6.886	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
6.886	6.886	SIGN	N/A	REGULATORY, ROAD CLOSED
6.886	6.886	SIGN	N/A	REGULATORY, GRAPHIC SIGN, NO TEXT
6.886	6.886	SIGN	N/A	REGULATORY, GRAPHIC SIGN, NO TEXT

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
6.886	6.886	SIGN	N/A	REGULATORY, GRAPHIC SIGN, NO TEXT
6.886	6.886	GATE	N/A	
6.886	6.886	SIGN	N/A	REGULATORY, GRAPHIC SIGN, NO TEXT
6.890	6.890	SIGN	LEFT	WARNING, GRAPHIC SIGN, NO TEXT
5.891	6.891	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
6.970	6.970	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
5.970	6.970	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
7.059	7.059	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
7.063	7.179	CURB	RIGHT	
7.186	7.212	CURB	LEFT	
7.194	7.194	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.216	7.302	CURB	LEFT	
7.235	7.235	SIGN	RIGHT	GUIDE, SHAFER CANYON VIEWPOINT NECK SPRING TRAIL
7.290	7.290	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.290	7.290	SIGN	RIGHT	WARNING, SHARE THE ROAD
7.301	7.301	INTERSECTION	LEFT	ROUTE 0902 (NECK SPRINGS TRAILHEAD PARKING)
7.341	7.341	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.349	7.349	SIGN	RIGHT	GUIDE, SHAFER CANYON VIEWPOINT NECK SPRING TRAIL
7.434	7.476	PULLOUT	LEFT	
7.477	7.477	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
7.497	7.497	SIGN	RIGHT	GUIDE, THE NECK ELEV 5800
7.499	7.526	GUARD/GUIDE RAIL	LEFT	
7.500	7.539	GUARD/GUIDE RAIL	RIGHT	
7.531	7.548	CURB	LEFT	
7.545	7.545	SIGN	RIGHT	GUIDE, THE NECK ELEV 5800
7.623	7.655	CURB	LEFT	
7.634	7.634	SIGN	RIGHT	GUIDE, SHAFER TRAIL VIEWPOINT
7.646	7.680	GUARD/GUIDE RAIL	LEFT	
7.647	7.766	GUARD/GUIDE RAIL	RIGHT	
7.662	7.662	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
7.667	7.726	CURB	RIGHT	
7.678	7.716	PULLOUT	LEFT	
7.725	7.725	SIGN	RIGHT	GUIDE, SHAFER TRAIL VIEWPOINT
7.735	7.735	MILE MARKER	LEFT	
7.735	7.735	MILE MARKER	RIGHT	
7.858	7.927	CURB	RIGHT	
7.859	8.010	GUARD/GUIDE RAIL	RIGHT	
8.075	8.075	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
8.077	8.113	PULLOUT	RIGHT	
8.112	8.134	CURB	LEFT	
8.135	8.135	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
8.172	8.172	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
8.217	8.217	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
8.284	8.284	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
8.370	8.370	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD
8.378	8.378	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
8.480	8.560	CURB	RIGHT	
8.570	8.627	CURB	RIGHT	
8.647	8.647	MILE MARKER	RIGHT	
8.647	8.647	MILE MARKER	LEFT	
8.673	8.703	PULLOUT	LEFT	
8.777	8.777	SIGN	RIGHT	GUIDE, LATHROP TRAILHEAD
8.813	8.867	PULLOUT	LEFT	
8.842	8.842	SIGN	LEFT	GUIDE, LATHROP TRAILHEAD
8.912	8.912	SIGN	RIGHT	GUIDE, LATHROP TRAILHEAD
9.250	9.250	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45
9.598	9.598	MILE MARKER	RIGHT	
9.599	9.599	MILE MARKER	LEFT	
9.915	10.078	CURB	RIGHT	
10.165	10.279	CURB	LEFT	

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM	то	reatures summary (section 6).				
MILEPOST	MILEPOST	FEATURE	SIDE	COMMENT		
10.555	10.555	MILE MARKER	LEFT			
10.555	10.555	MILE MARKER	RIGHT			
11.281	11.281	SIGN	RIGHT	REGULATORY, SPEED LIMIT 45		
11.331	11.331	SIGN	RIGHT	REGULATORY, REDUCED SPEED AHEAD		
11.454	11.454	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35		
11.508	11.508	MILE MARKER	RIGHT			
1.509	11.509	MILE MARKER	LEFT			
1.850	11.900	CURB	LEFT			
1.863	11.863	SIGN	RIGHT	WARNING, 20 M.P.H.		
1.863	11.863	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT		
11.863	11.863	SIGN	RIGHT	WARNING, NEXT 1.5 MILES		
1.924	11.957	CURB	RIGHT			
2.023	12.082	CURB	RIGHT			
2.152	12.196	CURB	RIGHT			
2.199	12.278	CURB	RIGHT			
2.466	12.466	MILE MARKER	LEFT			
2.466	12.466	MILE MARKER	RIGHT			
2.763	12.810	CURB	RIGHT			
2.842	12.842	SIGN	RIGHT	GUIDE, MESA ARCH TRAILHEAD		
2.872	12.872	INTERSECTION	LEFT	ROUTE 0903 (MESA ARCH PARKING)		
2.903	12.903	SIGN	RIGHT	WARNING, 20 M.P.H.		
2.903	12.903	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT		
2.903	12.903	SIGN	RIGHT	WARNING, NEXT 1.5 MILES		
12.954	12.954	INTERSECTION	LEFT	ROUTE 0903 (MESA ARCH PARKING)		
3.008	13.008	SIGN	RIGHT	GUIDE, MESA ARCH TRAILHEAD		
3.009	13.192	CURB	LEFT			
3.060	13.060	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35		
13.107	13.107	SIGN	RIGHT	GUIDE, GRAND VIEW PT. 6 MI MURPHY PT. 4 MI CAMPGROUND 1.4 MI GREEN RIVER OVERLOOK 1.5 MI UPHEAVAL DOME 5.3		
13.140	13.140	INTERSECTION	RIGHT	ROUTE 0114 (UPHEAVAL DOME ROAD)		

#### **ROUTE 0011: ISLAND IN THE SKY ROAD**

13.161	13.161 13.161	SIGN	RIGHT	
13 161	13.161		100111	WARNING, SHARE THE ROAD
15.101		SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
13.179	13.179	SIGN	RIGHT	WARNING, 25 M.P.H.
13.179	13.179	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
13.189	13.189	SIGN	RIGHT	GUIDE, VISITOR CENTER 6 MI WILLOW FLAT CAMPGROUND 1.4 MI GREEN RIVER OVERLOOK 1.5 MI UPHEAVAL DOME 6 MI
13.241	13.247	CURB	RIGHT	
13.262	13.321	CURB	RIGHT	
13.302	13.392	CURB	LEFT	
13.408	13.438	CURB	RIGHT	
13.451	13.553	CURB	LEFT	
13.789	13.789	SIGN	RIGHT	WARNING, 25 M.P.H.
13.789	13.789	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
13.835	13.835	SIGN	RIGHT	WARNING, 25 M.P.H.
13.835	13.835	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
14.069	14.114	PULLOUT	RIGHT	
14.359	14.359	SIGN	RIGHT	WARNING, 25 M.P.H.
14.359	14.359	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
14.370	14.370	MILE MARKER	LEFT	
14.370	14.370	MILE MARKER	RIGHT	
14.624	14.825	CURB	RIGHT	
14.955	14.955	SIGN	RIGHT	WARNING, 25 M.P.H.
14.955	14.955	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
15.006	15.059	CURB	LEFT	
15.065	15.138	CURB	RIGHT	
15.162	15.207	CURB	RIGHT	
15.326	15.326	MILE MARKER	LEFT	
15.326	15.326	MILE MARKER	RIGHT	
15.427	15.427	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
15.427	15.427	SIGN	RIGHT	WARNING, 25 M.P.H.

## **ROUTE 0011: ISLAND IN THE SKY ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
15.520	15.520	SIGN	RIGHT	GUIDE, MURPHY TRAILHEAD
15.585	15.585	INTERSECTION	RIGHT	ROUTE 0214 (MURPHY POINT ROAD)
15.639	15.639	SIGN	RIGHT	GUIDE, MURPHY TRAILHEAD
15.639	15.639	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
15.782	16.014	CURB	LEFT	
5.788	16.012	CURB	RIGHT	
6.028	16.195	CURB	LEFT	
6.107	16.179	CURB	RIGHT	
16.190	16.190	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
16.248	16.248	SIGN	RIGHT	GUIDE, BUCK CANYON OVERLOOK
16.283	16.283	MILE MARKER	RIGHT	
16.283	16.283	INTERSECTION	LEFT	ROUTE 0904 (BUCK CANYON OVERLOOK PARKING)
16.283	16.283	MILE MARKER	LEFT	
16.331	16.331	SIGN	RIGHT	GUIDE, BUCK CANYON OVERLOOK
16.483	16.483	SIGN	RIGHT	WARNING, 25 M.P.H.
16.483	16.483	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
6.910	16.941	GUARD/GUIDE RAIL	LEFT	
17.236	17.236	MILE MARKER	LEFT	
17.236	17.236	MILE MARKER	RIGHT	
7.476	17.476	SIGN	RIGHT	WARNING, 25 M.P.H.
17.476	17.476	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
17.829	17.971	CURB	RIGHT	
17.831	17.976	CURB	LEFT	
18.018	18.018	SIGN	RIGHT	REGULATORY, GRAPHIC SIGN, NO TEXT
18.027	18.027	INTERSECTION	LEFT	ROUTE 0215 (WHITE RIM OVERLOOK PICNIC AREA)
18.032	18.032	SIGN	LEFT	REGULATORY, DO NOT ENTER
18.144	18.144	SIGN	RIGHT	GUIDE, GRAND VIEW POINT 1MI
18.164	18.164	INTERSECTION	LEFT	ROUTE 0215 (WHITE RIM OVERLOOK PICNIC AREA)
18.188	18.188	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
18.196	18.196	MILE MARKER	LEFT	

## **ROUTE 0011: ISLAND IN THE SKY ROAD**

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FROM MILEPOST	IU MILEPOST	FEATURE	SIDE	COMMENT
18.196	18.196	MILE MARKER	RIGHT	
18.642	18.642	SIGN	RIGHT	WARNING, SLOW CONGESTED AREA
18.711	18.711	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
18.717	18.717	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
18.774	18.774	SIGN	RIGHT	GUIDE, OVERLOOK GRAND VIEW POINT .2 MI
18.806	18.806	INTERSECTION	RIGHT	ROUTE 0905 (ORANGE CLIFFS OVERLOOK PARKING)
18.832	18.832	SIGN	RIGHT	GUIDE, OVERLOOK
18.850	18.850	SIGN	RIGHT	REGULATORY, DO NOT ENTER
18.855	18.855	INTERSECTION	RIGHT	ROUTE 0905 (ORANGE CLIFFS OVERLOOK PARKING)
18.897	18.897	SIGN	LEFT	REGULATORY, DO NOT ENTER
18.900	18.900	INTERSECTION	N/A	ROUTE 0906 (GRAND VIEW POINT PARKING AREA)
18.900	18.900	SIGN	RIGHT	REGULATORY, KEEP RIGHT
18.900	18.900	ROUTE END	N/A	TO ROUTE 0906 (GRAND VIEW POINT PARKING AREA)

## **ROUTE 0102: WOODEN SHOE LOOP**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 17.93 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.006	0.006	SIGN	RIGHT	REGULATORY, STOP
0.010	0.056	CURB	LEFT	
0.061	0.061	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.170	0.170	INTERSECTION	LEFT	ROUTE 0211 (WOODEN SHOE ROAD)
0.433	0.447	PAVED DITCH	LEFT	
0.591	0.614	PAVED DITCH	LEFT	
0.768	0.768	INTERSECTION	LEFT	ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP)
0.787	0.852	PAVED DITCH	LEFT	
0.922	0.922	INTERSECTION	LEFT	ROUTE 0403 (NEEDLES MAINTENANCE AREA LOOP)
1.031	1.031	INTERSECTION	LEFT	ROUTE 0402 (GENERATOR BUILDING ROAD)
1.263	1.263	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
1.265	1.265	INTERSECTION	RIGHT	ROUTE 0100 (CAVE SPRING ROAD)
1.299	1.408	PAVED DITCH	LEFT	
1.434	1.463	PAVED DITCH	RIGHT	
1.447	1.508	PAVED DITCH	LEFT	
1.638	1.939	PAVED DITCH	LEFT	
1.659	1.659	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.670	1.670	SIGN	RIGHT	GUIDE, RANGER RESIDENCE
1.705	1.705	INTERSECTION	RIGHT	ROUTE 0401 (NEEDLES RESIDENCE ROAD)
1.714	1.903	PAVED DITCH	RIGHT	
1.755	1.755	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.771	1.771	SIGN	RIGHT	GUIDE, RANGER RESIDENCE
1.877	1.877	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
1.939	1.940	PAVED DITCH	LEFT	
1.940	1.940	INTERSECTION	LEFT	ROUTE 0010 (NEEDLES ACCESS ROAD)
1.940	1.940	INTERSECTION	RIGHT	ROUTE 0010 (NEEDLES ACCESS ROAD)
1.940 1.940				

## **ROUTE 0102: WOODEN SHOE LOOP**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.940	1.940	SIGN	N/A	GUIDE, CAMPGROUND VISITOR CENTER
1.940	1.940	SIGN	RIGHT	REGULATORY, STOP
1.940	1.940	ROUTE END	N/A	TO ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 16.15 ON LEFT

## **ROUTE 0113: GREEN RIVER OVERLOOK ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0114 (UPHEAVAL DOME ROAD) AT MP 0.27 ON LEFT
0.000	0.000	SIGN	N/A	GUIDE, GRAND VIEW POINT 6.3 MI
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0114 (UPHEAVAL DOME ROAD)
0.000	0.000	INTERSECTION	LEFT	ROUTE 0114 (UPHEAVAL DOME ROAD)
0.006	0.006	SIGN	RIGHT	REGULATORY, STOP
0.093	0.093	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.700	0.700	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.737	0.737	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.738	0.738	SIGN	RIGHT	WARNING, 10 M.P.H.
0.738	0.738	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.767	0.767	SIGN	RIGHT	GUIDE, OVERLOOK CAMPGROUND
0.779	0.779	INTERSECTION	RIGHT	ROUTE 0410 (WILLOW FLATS SERVICE ROAD)
0.835	0.835	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.835	0.835	SIGN	RIGHT	WARNING, 10 M.P.H.
1.044	1.044	SIGN	LEFT	REGULATORY, DO NOT ENTER
1.047	1.047	INTERSECTION	LEFT	ROUTE 0216 (WILLOW FLATS CAMPGROUND)
1.167	1.167	SIGN	RIGHT	GUIDE, GREEN RIVER OVERLOOK WILLOW FLAT CAMPGROUND
1.167	1.167	SIGN	RIGHT	REGULATORY, ONE WAY
1.171	1.171	INTERSECTION	LEFT	ROUTE 0216 (WILLOW FLATS CAMPGROUND)
1.211	1.250	CURB	RIGHT	
1.216	1.251	GUARD/GUIDE RAIL	LEFT	
1.324	1.324	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
1.348	1.348	SIGN	RIGHT	GUIDE, NO CAMPING
1.350	1.350	INTERSECTION	N/A	ROUTE 0922 (GREEN RIVER OVERLOOK PARKING)
1.350	1.350	ROUTE END	N/A	TO ROUTE 0922 (GREEN RIVER OVERLOOK PARKING)

## **ROUTE 0114: UPHEAVAL DOME ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 13.14 ON RIGHT
0.000	0.000	SIGN	N/A	GUIDE, VISITOR CENTER 6 MI GRAND VIEW PT. 6 MI
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.008	0.008	SIGN	RIGHT	REGULATORY, STOP
0.044	0.044	SIGN	RIGHT	GUIDE, VISITOR CENTER 6 MI GRANDVIEW PT. 6 MI MURPHY PT. 4 MI
0.228	0.228	SIGN	RIGHT	GUIDE, UPHEAVAL DOME 5MI GREEN RIVER OVERLOOK 1.2M CAMPGROUND 1.1MI
0.267	0.267	INTERSECTION	LEFT	ROUTE 0113 (GREEN RIVER OVERLOOK ROAD)
0.314	0.314	SIGN	RIGHT	GUIDE, GREEN RIVER OVERLOOK 1.2MI CAMPGROUND 1.1MI
0.318	0.318	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
0.794	0.794	SIGN	RIGHT	GUIDE, AZTEC BUTTE TRAIL
0.832	0.832	INTERSECTION	RIGHT	ROUTE 0907 (AZTEC BUTTE TRAILHEAD PARKING)
0.884	0.884	INTERSECTION	RIGHT	ROUTE 0907 (AZTEC BUTTE TRAILHEAD PARKING)
0.903	0.903	SIGN	RIGHT	GUIDE, AZTEC BUTTE TRAIL
0.907	1.070	CURB	LEFT	
0.944	0.944	SIGN	RIGHT	WARNING, 20 M.P.H.
0.944	0.944	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
0.959	0.959	MILE MARKER	RIGHT	
1.134	1.218	CURB	RIGHT	
1.190	1.230	CURB	LEFT	
1.259	1.420	CURB	LEFT	
1.406	1.406	SIGN	RIGHT	WARNING, 20 M.P.H.
1.406	1.406	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.599	1.599	SIGN	RIGHT	WARNING, 20 M.P.H.
1.599	1.599	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
1.921	1.921	MILE MARKER	RIGHT	
2.015	2.015	SIGN	RIGHT	GUIDE, WILHITE TRAIL
2.058	2.111	PULLOUT	LEFT	

## **ROUTE 0114: UPHEAVAL DOME ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
2.097	2.097	SIGN	LEFT	GUIDE, UNABLE TO READ FROM VIDEO
2.165	2.165	SIGN	RIGHT	GUIDE, WILHITE TRAIL
2.242	2.280	GUARD/GUIDE RAIL	LEFT	
2.331	2.479	GUARD/GUIDE RAIL	LEFT	
2.334	2.474	CURB	LEFT	
2.374	2.374	SIGN	RIGHT	WARNING, 20 M.P.H.
2.374	2.374	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
2.648	2.710	CURB	LEFT	
2.648	2.720	GUARD/GUIDE RAIL	LEFT	
2.749	2.787	PULLOUT	LEFT	
2.880	2.880	MILE MARKER	RIGHT	
2.967	3.016	GUARD/GUIDE RAIL	LEFT	
2.976	3.044	CURB	LEFT	
2.976	3.012	GUARD/GUIDE RAIL	RIGHT	
3.059	3.118	CURB	RIGHT	
3.237	3.391	CURB	RIGHT	
3.245	3.331	CURB	LEFT	
3.347	3.438	CURB	LEFT	
3.579	3.579	SIGN	RIGHT	GUIDE, ALCOVE SPRING TRAIL
3.606	3.655	PULLOUT	RIGHT	
3.624	3.624	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
3.679	3.679	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
3.703	3.703	SIGN	RIGHT	GUIDE, ALCOVE SPRING TRAIL
3.736	3.783	GUARD/GUIDE RAIL	LEFT	
3.839	3.839	MILE MARKER	RIGHT	
3.967	3.967	SIGN	RIGHT	GUIDE, WHALE ROCK
4.000	4.000	INTERSECTION	RIGHT	ROUTE 0908 (WHALE ROCK TRAILHEAD PARKING)
4.044	4.044	INTERSECTION	RIGHT	ROUTE 0908 (WHALE ROCK TRAILHEAD PARKING)
4.078	4.078	SIGN	RIGHT	GUIDE, WHALE ROCK
4.303	4.303	SIGN	RIGHT	WARNING, 20 M.P.H.

## **ROUTE 0114: UPHEAVAL DOME ROAD**

FROM MILEPOST	TO MU EDOST		SIDE	COMMENT
	MILEPOST	FEATURE	SIDE	COMMENT
4.303	4.303	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
4.306	4.391	CURB	LEFT	
4.327	4.390	CURB	RIGHT	
4.459	4.506	GUARD/GUIDE RAIL	RIGHT	
4.464	4.510	CURB	RIGHT	
4.499	4.521	CURB	LEFT	
4.557	4.557	SIGN	RIGHT	REGULATORY, SPEED LIMIT 35
4.676	4.760	CURB	LEFT	
4.677	4.677	SIGN	RIGHT	WARNING, GRAPHIC SIGN, NO TEXT
4.677	4.677	SIGN	RIGHT	WARNING, 20 M.P.H.
4.739	4.739	SIGN	RIGHT	GUIDE, UPHEAVAL DOME PICNIC AREA NO CAMPING
4.752	4.777	CURB	RIGHT	
4.775	4.775	SIGN	RIGHT	REGULATORY, KEEP RIGHT
4.778	4.778	MILE MARKER	RIGHT	
4.780	4.780	INTERSECTION	N/A	ROUTE 0909 (UPHEAVAL DOME PICNIC PARKING)
4.780	4.780	SIGN	LEFT	REGULATORY, DO NOT ENTER
4.780	4.780	ROUTE END	N/A	TO ROUTE 0909 (UPHEAVAL DOME PICNIC PARKING)

## ROUTE 0200: SQUAW FLAT CAMPGROUND ROAD (LOOP A)

FROM <u>MILEPOST</u>	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 18.27 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.000	0.000	SIGN	N/A	GUIDE, VISITOR CENTER US 191
0.006	0.006	SIGN	RIGHT	REGULATORY, YIELD
0.025	0.025	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.240	0.240	SIGN	RIGHT	GUIDE, FEE REQUIRED
0.240	0.240	SIGN	RIGHT	GUIDE, CAMPGROUND OPEN
0.248	0.248	SIGN	RIGHT	GUIDE, CAMPGROUND A CAMPGROUND B ELEPHANT HILL
0.262	0.262	INTERSECTION	RIGHT	ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B))
0.262	0.262	SIGN	RIGHT	GUIDE, VISITOR CENTER CAMPGROUND 'B'
0.283	0.283	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.283	0.283	SIGN	RIGHT	WARNING, SLOW 15 MPH
0.293	0.293	SIGN	RIGHT	GUIDE, CAMPING LIMIT 10 PEOPLE PER SITE PARK ONLY ON PAVEMENT
0.293	0.293	SIGN	RIGHT	GUIDE, WOOD GATHERING PROHIBITED FIRES IN GRATES ONLY
0.295	0.295	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.300	0.300	SIGN	RIGHT	WARNING, SPEED BUMP AHEAD
0.422	0.422	SIGN	RIGHT	GUIDE, FIREWOOD COTTON AND COLLECTION IS PROHIBITED
0.570	0.570	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.773	0.773	INTERSECTION	RIGHT	ROUTE 0918 (SQUAW FLAT RESTROOM A PARKING)
0.779	0.782	GUARD/GUIDE WALL	RIGHT	
0.786	0.786	INTERSECTION	RIGHT	ROUTE 0228 (SQUAW FLAT HOST LOOP A)
0.814	0.814	INTERSECTION	RIGHT	ROUTE 0228 (SQUAW FLAT HOST LOOP A)
0.911	0.911	INTERSECTION	LEFT	ROUTE 0919 (SQUAW FLAT TRAILHEAD PARKING)
0.940	0.940	SIGN	RIGHT	GUIDE, NO PETS
0.940	0.940	SIGN	RIGHT	GUIDE, SQUAW FLAT TRAILHEAD
0.988	0.988	SIGN	RIGHT	WARNING, SPEED BUMP AHEAD
1.017	1.017	INTERSECTION	LEFT	ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A))

## ROUTE 0200: SQUAW FLAT CAMPGROUND ROAD (LOOP A)

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
1.017	1.130	ONE-WAY	N/A	
1.026	1.026	SIGN	LEFT	REGULATORY, KEEP RIGHT
1.130	1.130	INTERSECTION	N/A	ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A))
1.130	1.130	INTERSECTION	LEFT	ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A))
1.130	1.130	ROUTE END	N/A	TO END OF LOOP

## ROUTE 0201: SQUAW FLAT CAMPGROUND ROAD (LOOP B)

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOODA)) AT MP 0.26 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A))
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0200 (SQUAW FLAT CAMPGROUND ROAD (LOOP A))
0.000	0.000	SIGN	N/A	GUIDE, VISITOR CENTER
0.009	0.009	SIGN	RIGHT	REGULATORY, STOP
0.220	0.220	SIGN	RIGHT	REGULATORY, SPEED LIMIT 25
0.232	0.232	SIGN	RIGHT	WARNING, SPEED BUMP AHEAD
0.244	0.244	SIGN	RIGHT	GUIDE, ELEPHANT HILL CAMPGROUND B
0.247	0.247	INTERSECTION	RIGHT	ROUTE 0106 (ELEPHANT HILL ACCESS ROAD)
0.256	0.256	GATE	N/A	
0.256	0.256	SIGN	N/A	REGULATORY, STOP
0.264	0.264	SIGN	RIGHT	REGULATORY, SPEED LIMIT 15
0.264	0.264	SIGN	RIGHT	WARNING, SLOW 15 MPH
0.272	0.272	SIGN	RIGHT	GUIDE, WOOD GATHERING PROHIBITED FIRES IN GRATES ONLY
0.272	0.272	SIGN	RIGHT	GUIDE, CAMPING LIMIT 10 PEOPLE PER SITE PARK ONLY ON PAVEMENT
0.345	0.345	SIGN	RIGHT	GUIDE, UNABLE TO READ FROM VIDEO
0.363	0.363	INTERSECTION	LEFT	ROUTE 0229 (SQUAW FLAT CAMPGROUND LOOP B)
0.363	0.369	PAVED DITCH	LEFT	
0.423	0.423	INTERSECTION	LEFT	ROUTE 0920 (SQUAW FLAT RESTROOM B PARKING)
0.428	0.435	CURB-AND-GUTTER	LEFT	
0.434	0.434	SIGN	RIGHT	GUIDE, WATER
0.477	0.477	INTERSECTION	LEFT	ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B))
0.477	0.520	ONE-WAY	N/A	
0.484	0.484	SIGN	LEFT	REGULATORY, KEEP RIGHT
0.509	0.518	GUARD/GUIDE WALL	RIGHT	
0.509	0.509	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.520	0.520	INTERSECTION	LEFT	ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B))
0.520	0.520	INTERSECTION	N/A	ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B))

## ROUTE 0201: SQUAW FLAT CAMPGROUND ROAD (LOOP B)

FROM TO		
MILEPOST MILEPOST FEATURE	SIDE	COMMENT
0.520 0.520 ROUTE END	N/A	TO END OF LOOP

## **ROUTE 0202: NEEDLES OUTPOST ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 14.33 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.010	0.010	SIGN	RIGHT	REGULATORY, STOP
0.020	0.020	GATE	N/A	
0.046	0.046	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
0.345	0.345	SIGN	RIGHT	GUIDE, GRAPHIC SIGN, NO TEXT
0.346	0.346	SIGN	RIGHT	GUIDE, PARK BOUNDARY
0.349	0.349	SIGN	RIGHT	GUIDE, ENTERING CANYONLANDS NATIONAL PARK
0.358	0.358	GATE	N/A	
0.360	0.360	SIGN	RIGHT	GUIDE, CAMPING
0.360	0.360	SIGN	RIGHT	GUIDE, NEEDLES OUTPOST
0.360	0.360	SIGN	RIGHT	GUIDE, ICE - GROCERIES - GAS
0.360	0.360	SIGN	RIGHT	GUIDE, FIREWOOD PROPANE BOOK B
0.360	0.360	PARK BOUNDARY	N/A	
0.360	0.360	CATTLE GUARD	N/A	
0.360	0.360	INTERSECTION	N/A	UNPAVED ROUTE (NEEDLES OUTPOST ACCESS ROAD / NON NPS)
0.360	0.360	ROUTE END	N/A	TO NORTH PARK BOUNDARY (CATTLEGUARD)

## **ROUTE 0215: WHITE RIM OVERLOOK PICNIC AREA**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.16 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.000	0.280	ONE-WAY	N/A	
0.012	0.012	SIGN	LEFT	REGULATORY, ONE WAY
0.019	0.019	SIGN	RIGHT	GUIDE, NO CAMPING
0.137	0.137	INTERSECTION	RIGHT	ROUTE 0921 (WHITE RIM OVERLOOK PARKING)
0.277	0.277	SIGN	RIGHT	REGULATORY, STOP
0.280	0.280	INTERSECTION	LEFT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.280	0.280	INTERSECTION	RIGHT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.280	0.280	ROUTE END	N/A	TO ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 18.03 ON LEFT

## **ROUTE 0216: WILLOW FLATS CAMPGROUND**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) AT MP 1.17 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0113 (GREEN RIVER OVERLOOK ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0113 (GREEN RIVER OVERLOOK ROAD)
0.000	0.210	ONE-WAY	N/A	
0.010	0.010	INTERSECTION	RIGHT	ROUTE 0923 (WILLOW FLAT CAMPGROUND PARKING)
0.028	0.028	SIGN	RIGHT	GUIDE, WILLOW FLAT CAMPGROUND 10 PEOPLE. 2 VEHICLES PER SITE PARK IN DESIGNATED AREAS ONLY WOOD GATHERING P
0.208	0.208	SIGN	RIGHT	REGULATORY, STOP
0.210	0.210	INTERSECTION	LEFT	ROUTE 0113 (GREEN RIVER OVERLOOK ROAD)
0.210	0.210	INTERSECTION	RIGHT	ROUTE 0113 (GREEN RIVER OVERLOOK ROAD)
0.210	0.210	ROUTE END	N/A	TO ROUTE 0113 (GREEN RIVER OVERLOOK ROAD) AT MP 1.05 ON LEFT

## **ROUTE 0221: NEEDLES VISITOR CONTACT STATION ACCESS ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0010 (NEEDLES ACCESS ROAD) AT MP 15.50 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0010 (NEEDLES ACCESS ROAD)
0.000	0.000	SIGN	N/A	GUIDE, CAMPGROUND
0.010	0.010	SIGN	RIGHT	REGULATORY, STOP
0.014	0.014	SIGN	LEFT	REGULATORY, KEEP RIGHT
0.027	0.027	INTERSECTION	RIGHT	ROUTE 0010 (NEEDLES ACCESS ROAD) SPUR
0.080	0.080	INTERSECTION	RIGHT	ROUTE 0911 (NEEDLES VISITOR CENTER PARKING)
0.146	0.146	INTERSECTION	RIGHT	ROUTE 0911 (NEEDLES VISITOR CENTER PARKING)
0.157	0.157	SIGN	LEFT	GUIDE, STAY OFF
0.157	0.157	SIGN	RIGHT	GUIDE, NO PETS
0.157	0.157	SIGN	RIGHT	GUIDE, NO CAMPING
0.157	0.157	SIGN	RIGHT	GUIDE, COLORADO RIVER OVERLOOK FOUR WHEEL DRIVE ONLY
0.160	0.160	GATE	N/A	
0.160	0.160	INTERSECTION	N/A	ROUTE 0105 (COLORADO RIVER OVERLOOK)
0.160	0.160	SIGN	N/A	GUIDE, GRAPHIC SIGN, NO TEXT
0.160	0.160	SIGN	N/A	REGULATORY, ROAD CLOSED
0.160	0.160	ROUTE END	N/A	TO END OF PAVEMENT/BEGIN ROUTE 0105

## ROUTE 0229: SQUAW FLAT CAMPGROUND LOOP B

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B)) AT MP 0.36 ON LEFT
0.000	0.000	INTERSECTION	N/A	ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B))
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0201 (SQUAW FLAT CAMPGROUND ROAD (LOOP B))
0.016	0.016	INTERSECTION	LEFT	ROUTE 0229 (SQUAW FLAT CAMPGROUND LOOP B)
0.016	0.100	ONE-WAY	N/A	
0.033	0.033	SIGN	LEFT	REGULATORY, KEEP RIGHT
0.060	0.060	SIGN	RIGHT	GUIDE, WATER
0.100	0.100	INTERSECTION	N/A	ROUTE 0229 (SQUAW FLAT CAMPGROUND LOOP B)
0.100	0.100	INTERSECTION	LEFT	ROUTE 0229 (SQUAW FLAT CAMPGROUND LOOP B)
0.100	0.100	ROUTE END	N/A	TO END OF LOOP

## **ROUTE 0401: NEEDLES RESIDENCE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 1.71 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0102 (WOODEN SHOE LOOP)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0102 (WOODEN SHOE LOOP)
0.007	0.007	SIGN	RIGHT	REGULATORY, STOP
0.023	0.023	SIGN	RIGHT	GUIDE, RESIDENCE AREA
0.052	0.052	SIGN	RIGHT	REGULATORY, SPEED LIMIT 20
0.068	0.068	FIRE HYDRANT	LEFT	
0.175	0.254	CURB-AND-GUTTER	LEFT	
0.570	0.570	INTERSECTION	N/A	DEAD END (DRIVEWAY)
0.570	0.570	ROUTE END	N/A	TO DEAD END

## **ROUTE 0403: NEEDLES MAINTENANCE AREA LOOP**

FROM

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FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0102 (WOODEN SHOE LOOP) AT MP 0.92 ON LEFT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0102 (WOODEN SHOE LOOP)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0102 (WOODEN SHOE LOOP)
0.007	0.007	SIGN	RIGHT	REGULATORY, STOP
0.013	0.013	SIGN	RIGHT	GUIDE, SERVICE ROAD DO NOT ENTER
0.013	0.013	SIGN	RIGHT	REGULATORY, SPEED LIMIT 10
0.037	0.037	INTERSECTION	RIGHT	ROUTE 0916A (NEEDLES MAINTENANCE YARD COMPLEX AREA A)
0.064	0.064	FIRE HYDRANT	RIGHT	
0.068	0.068	INTERSECTION	RIGHT	ROUTE 0916B (NEEDLES MAINTENANCE YARD COMPLEX AREA B)
0.088	0.088	INTERSECTION	RIGHT	ROUTE 0916A (NEEDLES MAINTENANCE YARD COMPLEX AREA A)
0.129	0.129	FIRE HYDRANT	RIGHT	
0.144	0.144	INTERSECTION	RIGHT	ROUTE 0916C (NEEDLES MAINTENANCE YARD COMPLEX AREA C)
0.203	0.203	SIGN	RIGHT	GUIDE, SERVICE ROAD DO NOT ENTER
0.218	0.218	SIGN	RIGHT	REGULATORY, STOP
0.220	0.220	INTERSECTION	LEFT	ROUTE 0102 (WOODEN SHOE LOOP)
0.220	0.220	INTERSECTION	RIGHT	ROUTE 0102 (WOODEN SHOE LOOP)
0.220	0.220	ROUTE END	N/A	TO ROUTE 0102 (WOODEN SHOE LOOP) AT MP 0.77 ON LEFT

## **ROUTE 0406: I-SKY RESIDENCE ROAD**

FROM MILEPOST	TO MILEPOST	FEATURE	SIDE	COMMENT
0.000	0.000	ROUTE BEGIN	N/A	FROM ROUTE 0011 (ISLAND IN THE SKY ROAD) AT MP 6.74 ON RIGHT
0.000	0.000	INTERSECTION	LEFT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.000	0.000	INTERSECTION	RIGHT	ROUTE 0011 (ISLAND IN THE SKY ROAD)
0.008	0.008	SIGN	RIGHT	GUIDE, RESIDENTIAL AREA
0.011	0.011	SIGN	RIGHT	REGULATORY, STOP
0.085	0.085	INTERSECTION	LEFT	ROUTE 0901 (SKY VISITOR CENTER EMPLOYEE PARKING)
0.110	0.110	INTERSECTION	N/A	ROUTE 0406 (I-SKY RESIDENCE ROAD) UNPAVED SECTION
0.110	0.110	ROUTE END	N/A	TO END OF LOOP

Canyonlands National Park



# Section 10 Appendix

## APPENDIX A: GLOSSARY OF TERMS AND ABBREVIATIONS

# TERM ORABBREVIATIONDESCRIPTION OR DEFINITION

ABBREVIATION	DESCRIPTION OR DEFINITION	
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  $\ge 0$  to  $\le 100$ .

%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

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  $\geq 0$  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 > 34".

#### **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  $\geq 0$ .

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  $\ge 0$  to  $\le 100$ .

%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  $\geq 0$  to  $\leq 200$ .

%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  $\ge 0.20$ " and  $\le 0.49$ ".

Medium severity ruts have an ARAN measured depth  $\geq 0.50$ " and  $\leq 0.99$ ".

High severity ruts have an ARAN measured depth  $\geq 1.00$ ".

#### **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 tells 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				
	2 125			
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
						100%, Referenced to
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	other tables
_						100%, Referenced to
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Park Input / FHWA Classification	other tables
						100%, Referenced to
-						other tables. 100
6	RTE_NAME	(Text)	Route name	Route ID Meeting	Park Input	characters fit in field
_						100%, Referenced to
7	FUNCT_CLASS	Х	Route functional classification	Route ID Meeting	Park Input / FHWA Classification	other tables
	DIDECTION	3/3/3/	Survey lane: PRI (primary) or			1000/
8	DIRECTION	XXX	OPP (opposite)	Route ID Meeting	Park Input / FHWA Determination	100%,
		000.000 ( 11 )				Estimated before data
9	BEG_MP_EST	999.999 (miles)	Estimated starting MP	Route ID Meeting	Park Input / FHWA Determination	collected
10		000.000 ( 11 )				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
						100% Referenced to
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	other tables
					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
					Park Input / FHWA	100% Referenced to
7	FUNCT_CLASS	Х	Route functional class	Route ID Meeting	Classification	other tables
			Survey lane: PRI (primary)		Park Input / FHWA	
8	DIRECTION	XXX	or OPP (opposite)	Route ID Meeting	Determination	100%
				ARAN Data		
				Collection/Contractor Post-		
9	MP	999.999 (miles)	Feature location along route	processing	Video Analysis	<=0.001 mile
			Feature Beginning location			
10	BEG_MP	999.999 (miles)	along route	Contractor Post-processing	Video Analysis	<=0.001 mile
			Feature Ending location			
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		Ŭ	Values inaccurate,
18	CONDITION	"N/A"	be populated	Contractor Post-processing	Video Analysis	defaulted to "N/A"
			Sign label, intersecting		Í	
19	COMMENT	(Text)	route, etc.	Contractor Post-processing	Database Processing	Untested
			Offset from Road Edge.		Ŭ	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&lt;#&gt;</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 Ro	adway 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	COID, UNKIN	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
	DADK NO	******				100% Referenced to other
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	tables 100% Referenced to other
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Park Input/FHWA Classification	tables
5	KIE_NO	99997777	Koute iluilibei	Koute ID Meeting	Park Input/FHWA	100% Referenced to other
6	FUNCT_CLASS	Х	Route functional class	Route ID Meeting	Classification	tables
0	Terter_ends	11	Survey lane: PRI (primary)		Park Input/FHWA	
7	DIRECTION	XXX	or OPP (opposite)	Route ID Meeting	Determination	100%
			MP at start of road interval			
			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)
10			Length of road interval as	Contractor	Detal and December 1	100%
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
1.4	D LANE WIDTH	00,000 (8)	WiseCrax (crack detection	Contractor Doct and consist	Automotic Outrout	Lintented
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)
10		DT/A	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"
20	SHLD_COND_R	N/A	N/A. Intended to be Right shoulder condition	ARAN Data Collection	Survey Crew Input	Values inaccurate, defaulted to "N/A"
20	STILD_COND_K	1N/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"
		1 1/ 2 1	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			
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	< <i>Park</i> >C04VID<#>	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
		0 1	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
		3/3/			Park Input/FHWA	
2	STATE	XX	State where route is located	Route ID Meeting	Determination	Untested
3	PARK_ALPHA	XXXX	Park alpha code	Route ID Meeting	NPS References	100% Referenced to other tables
5	TAKK_ALTIA	ΛΛΛΛ		Route ID Meeting	NI S Kelelences	100% Referenced to other
4	PARK_NO	XXXX	Park numeric code	Route ID Meeting	NPS References	tables
<u> </u>					Park Input/FHWA	100% Referenced to other
5	RTE_NO	9999XXX	Route number	Route ID Meeting	Classification	tables
					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
		00				
8	LANE_NUMBER	99	Data collection lane	Contractor Post-processing	Database Processing	Untested
9	DIRECTION	XXX	Survey lane: PRI (primary) or OPP (opposite)	Route ID Meeting	Park Input/FHWA Determination	Untested
9	DIRECTION	ΛΛΛ	OPP (opposite)	ARAN Data Collection,	Survey Crew Input/GPS	Untested
10	MP	999.999	Mile Post (at 0.01 record)	Contractor Post-processing	Processing	Untested (3)
10	1111	,,,,,,	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	ARAN Data Collection,		
15	XFALL	999.9	Location (Caution, Data not Validated)	Contractor Post-processing	Automatic Output	Untested
15	AFALL	777.7	Grade: % Slope at GPS Location	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		Contractor Post-processing	Database Processing	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))	Douto ID Monting	Survey Crew Input	100%, Reference source for all tables (1)
20	SUKF_IIFE	ΛΛ		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 or 2 digit number	Contractor Post-	ELIWA (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
	REMARKS	(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	Automotic Outout	<= 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		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Route Begin CPS Satellite Mode	ARAN Data		10070 Referenced to other tubles
54	BEG_MODE	XXX	during collection	Collection	Automatic Output	100% Referenced to other tables
			Route End GPS Latitude Co-	1	<u> </u>	
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	LIND_LON	-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	(-declinal degrees)	ARAN Data	Automatic Output	
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

		БОВМАТ		COUDCE		EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY 100% Referenced to other
1	RIP_CYCLE	99	4, for RIP data collection Cycle 4	Route ID Meeting	FHWA Determination	tables
1	KII_CTELL		4, for Kir data concetion Cycle 4		THWA Determination	100% Referenced to other
2	PARK_ALPHA	XXXX	Park Alpha Code	Route ID Meeting	FHWA Determination	tables
				Route ID Meeting		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
						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
10		000.000				100% Referenced to other
10	T_UNPAVED_MI	999.999	Total Park Unpaved Miles	RIP Post-processing	Automatic Output	tables
11	T DOUTE MILES	999.999	Total Park Route Miles	DID Dest and seeding	Automatic Output	100% Referenced to other tables
11	T_ROUTE_MILES	999.999	Total Park Route Milles	RIP Post-processing	Automatic Output	100% Referenced to other
12	T_ARAN_DRIVEN	999.999	Total Park ARAN Driven Miles	RIP Post-processing	Automatic Output	tables
12	I_ARAN_DRIVEN	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Kii Tost-processing	Automatic Output	100% Referenced to other
13	T_ARAN_LMILES	999.999	Total Park ARAN Lane Miles	RIP Post-processing	Automatic Output	tables
15		,,,,,,,,				100% Referenced to other
14	T_CONCESS_PAVED	999.999	Total Park Concession Paved Miles	RIP Post-processing	Automatic Output	tables
				<u>_</u>		100% Referenced to other
15	T_CONCESS_UNPAVED	999.999	Total Park Concession Unpaved Miles	<b>RIP</b> Post-processing	Automatic Output	tables
					· · ·	100% Referenced to other
16	T_PRK_PAVEDSQFT	999.999	Total Park Parking Paved Square Feet	<b>RIP</b> 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

						EXPECTED
	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	ACCURACY
10	T CDDV UNDAVEDGOET	000.000	Total Park Concession Parking Unpaved			100% Referenced to other
19	T_CPRK_UNPAVEDSQFT	999.999	Square Feet	RIP Post-processing	Automatic Output	tables
20	T DADKING SOFT	000 000	Total Dark Darking Courses Fast	DID Dest and seeding	Automotic Outrust	100% Referenced to other
20	T_PARKING_SQFT	999.999	Total Park Parking Square Feet	RIP Post-processing	Automatic Output	tables 100% Referenced to other
21	T DADKING I MILES	999.999	Total Park Parking Equivalent Lane Miles	DID Dest messaging	Automotic Output	tables
21	T_PARKING_LMILES	999.999	Total Park Manually Rated Road Square	RIP Post-processing	Automatic Output	100% Referenced to other
22	T MDD SOFT	999.999	Feet	RIP Post-processing	Automatia Output	tables
22	T_MRR_SQFT	777.777	Total Park Concession Manually Rated	KIF FOSI-processing	Automatic Output	100% Referenced to other
23	T_CMRR_SQFT	999.999	Road Square Feet	RIP Post-processing	Automatic Output	tables
23	I_CMIKK_SQI'I	,,,,,,	Total Park Manually Rated Road	Kii Tost-processing		100% Referenced to other
24	T_MRR_LMILES	999.999	Equivalent Lane Miles	RIP Post-processing	Automatic Output	tables
24	I_WIKK_LIVIILLS	,,,,,,	Equivalent Lane Miles	KII I Ost-processing		100% Referenced to other
25	T_LMILES	999.999	Total Park Lane Miles	RIP Post-processing	Automatic Output	tables
25		,,,,,,,		RH 10st processing		100% Referenced to other
26	T_CULVERT_CNT	999	Total Park Culvert Count	RIP Post-processing	Automatic Output	tables
20		,,,,		itil 1 ost processing		100% Referenced to other
27	T_DROP_INLET_CNT	999	Total Park Drop Inlet Count	RIP Post-processing	Automatic Output	tables
27		,,,,		itil 1 ost processing		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
						100% Referenced to other
30	T_SIGN_CNT	999	Total Park Sign Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
31	T_LWCROSS_CNT	999	Total Park Low Water Count	RIP Post-processing	Automatic Output	tables
					<u> </u>	100% Referenced to other
32	T_BRIDGE_CNT	999	Total Park Bridge Count	RIP Post-processing	Automatic Output	tables
						100% Referenced to other
33	T_TUNNEL_CNT	999	Total Park Tunnel Count	RIP Post-processing	Automatic Output	tables
						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	<b>RIP</b> Post-processing	Automatic Output	tables
						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
37		フプブ	TOTAL FAIR NR CLOSSING COUNT	KIF FUSI-PIOCESSINg	Automatic Output	100% Referenced to other

	FIELD	FORMAT	EXPECTED VALUE	SOURCE	VALIDATION	EXPECTED ACCURACY
						tables
40	T_CATTLE_CNT	999	Total Park Cattle Guard Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
41	T_OVHDSIGN_CNT	999	Total Park Overhead Sign Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
42	T_MILEMARK_CNT	999	Total Park Mile Marker Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
43	T_FHYD_CNT	999	Total Park Fire Hydrant Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
44	T_OVERPASS_CNT	999	Total Park Overpass Count	RIP Post-processing	Automatic Output	100% Referenced to other tables
45	T_CABLE_TLNG	99999.999 (ft)	Total Length Park Cable Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
46	T_GDRAIL_TLNG	9999.999 (ft)	Total Length Park Guard/Guide Rail Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
47	T_GDWALL_TLNG	9999.999 (ft)	Total Length Park Guard/Guide Wall Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
48	T_TEMP_BARR_TLNG	9999.999 (ft)	Total Length Park Temporary Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
49	T_BOLLARD_TLNG	9999.999 (ft)	Total Length Park Bollard Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
50	T_BARRIER_TLNG	9999.999 (ft)	Total Length All Park Barriers	RIP Post-processing	Automatic Output	100% Referenced to other tables
51	T_CURB_TLNG	9999.999 (ft)	Total Length Park Curbing	RIP Post-processing	Automatic Output	100% Referenced to other tables
52	T_LWCROSS_TLNG	9999.999 (ft)	Total Length Park Low Water Crossings	RIP Post-processing	Automatic Output	100% Referenced to other tables
53	T_PAVDITCH_TLNG	9999.999 (ft)	Total Length Park Paved Ditches	RIP Post-processing	Automatic Output	100% Referenced to other tables (2)
54	T_TURNOUT_TLNG	9999.999 (ft)	Total Length Park Turnouts	RIP Post-processing	Automatic Output	100% Referenced to other tables
55	PARK_PCR	99.99	Overall Park PCR Rating	RIP Post-processing	Automatic Output	100% Referenced to other tables
56	PARK_RCI	99.99	Overall Park RCI Rating	RIP Post-processing	Automatic Output	100% Referenced to other tables
57	PARK_SCR	99.99	Overall Park SCR Rating	RIP Post-processing	Automatic Output	100% Referenced to other tables
58	PARK_RUT_INDEX	99.99	Overall Park Rutting Index Rating	RIP Post-processing	Automatic Output	100% Referenced to other tables
59	PARK_AC_INDEX	99.99	Overall Park Alligator Cracking Index Rating	RIP Post-processing	Automatic Output	100% Referenced to other 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.

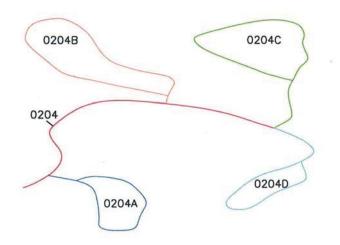
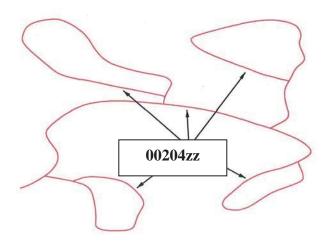
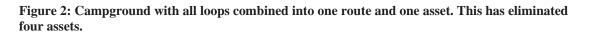


Figure 1: Campground with five routes and five assets





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.

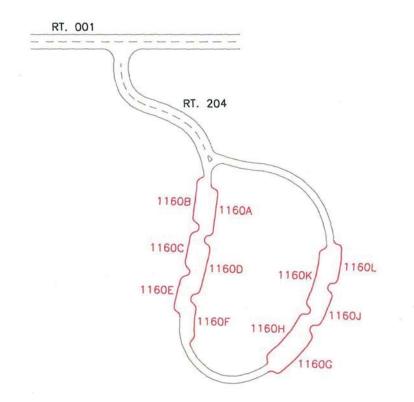


Figure 3: Parking with access route 204 and multiple parking areas (1160 A-L). Currently, this parking area is 12 routes and 12 assets ( one 1100 asset and 11 1300 assets).

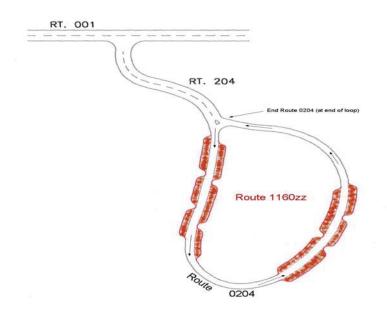


Figure 4: Parking with access route 204 and one parking area 1160zz. Route 204 is assumed longer than 0.25 miles. There are now 2 assets (one 1100 asset, one 1300 asset) instead of 12.

<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.

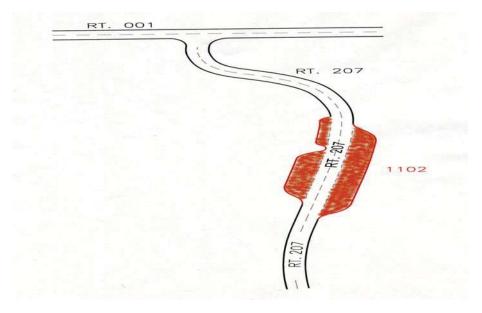


Figure 5: Parking with access route 207 running through and continuing beyond parking 1102. This access route cannot be considered a part of the parking area and two routes and two assets continue to exist.

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.

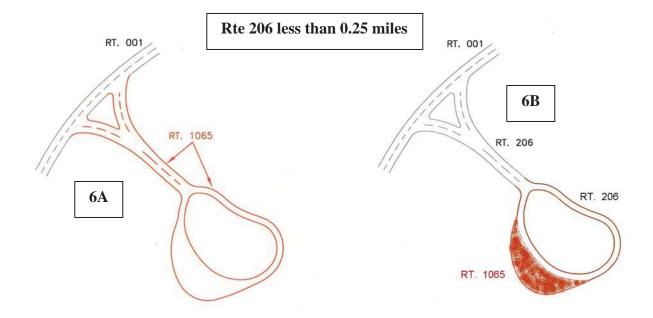
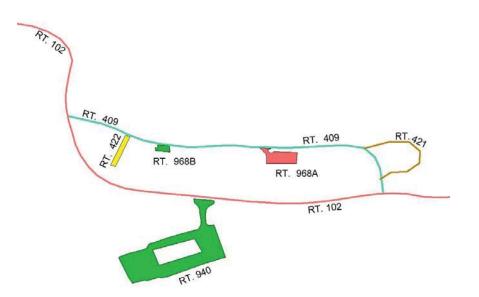


Figure 6: Since the access route is less than .25 miles in length and the only use of the access is to the parking, one route for both the access and the parking area can be established.

<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.

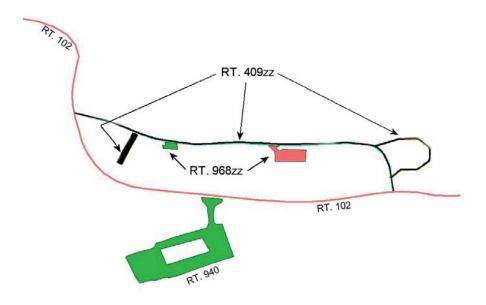


Figure 8 – Combined housing area access configuration – Parking and road assets combined to eliminate 3 assets.