

The Road Inventory of Inks Dam National Fish Hatchery Burnet, TX



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Federal Highway Administration
Central Federal Lands Highway Division
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INTRODUCTION

The Transportation Equity Act for the 21st Century (Public Law 105-178) created the Refuge Roads Program. Refuge roads are those public roads that provide access to or within a unit of the National Wildlife Refuge System and for which title and maintenance responsibility is vested in the United States Government. Funds from the Highway Trust Fund are available for refuge roads and can be used by the station to pay the cost of:

- (a) Maintenance and improvements of refuge roads.
- (b) Maintenance and improvements of:
 - (1) Adjacent vehicle parking areas
 - (2) Provision for pedestrians and bicycles and
 - (3) Construction and reconstruction of roadside rest areas that are located in or adjacent to wildlife refuges
- (c) Administrative costs associated with such maintenance and improvements.

The funds available for refuge roads are to be disbursed based on the relative needs of the various refuges in the National Wildlife Refuge System, and taking into consideration:

- (a) The comprehensive conservation plan for each refuge;
- (b) The need for access as identified through land use planning; and
- (c) The impact of land use planning on existing transportation facilities.

To determine the relative needs of the U.S. Fish and Wildlife Service, the Federal Highway Administration (FHWA) was asked to inventory all public access roads and parking lots and provide a condition assessment of each. In 2008 the inventory was expanded to include administrative (service use only) roads and parking lots. An FHWA representative meets with refuge personnel to identify route segments and assign route numbers and functional classifications (See Appendix) for each route. All roads and parking lots are mapped using Trimble GPS units and visually assessed for condition using the RSL method of evaluation developed at Utah State University (See Appendix). Culverts, Gates, Guardrails and Low Water Crossings are also mapped and inspected for any obvious defects.

An estimate is provided, in year 2008 dollars, based on the condition determined by the rating system. Estimates are based upon data and location factors from the 2008 RS Means Heavy Construction Cost Data 22nd Annual Edition. Cost estimates should be evaluated on a case-by-case basis when being used for programming purposes.

Native Surfaced roads and parking lots already inventoried will not be re-inventoried and will not appear individually in report chapters 5, 6 and 8. Mileages and areas of native surfaced roads and parking lots will still appear in all summaries in the report and will remain in the road inventory database. In addition to this report, the FHWA will furnish the condition ratings of each route and segment to the Fish and Wildlife Service in a Microsoft Access database so the data can be included in their Real Property Inventory.

Inks Dam

Summaries

Route Miles and Percentages by Functional Class and Condition Condition Rating (Based on RSL)*

F.C.	Excellent		Good		Fair		Poor		Failed		Total
	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles
I	0.00	0.0%	0.00	0.0%	0.80	100.0%	0.00	0.0%	0.00	0.0%	0.80
II	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
III	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
IV	1.85	41.6%	2.18	48.9%	0.42	9.5%	0.00	0.0%	0.00	0.0%	4.45
V	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
Total	1.85	35.3%	2.18	41.5%	1.22	23.2%	0.00	0.0%	0.00	0.0%	5.25

*For a description of condition ratings for the various surface types see the Appendix.

Route Miles and Percentages by Surface Type and Condition Paved Condition Rating [Condition(RSL)]

Surface Type	Excellent		Good		Fair		Poor		Failed		Total
	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles
AS	0.00	0.0%	0.00	0.0%	0.89	100.0%	0.00	0.0%	0.00	0.0%	0.89
CO	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00
Total	0.00	0.0%	0.00	0.0%	0.89	100.0%	0.00	0.0%	0.00	0.0%	0.89

Unpaved Condition Rating [Condition(RSL)]

Surface Type	Excellent		Good		Fair		Poor		Failed		Total
	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles
GR	1.51	47.8%	1.64	52.2%	0.00	0.0%	0.00	0.0%	0.00	0.0%	3.15
NA	0.35	30.6%	0.45	39.9%	0.33	29.5%	0.00	0.0%	0.00	0.0%	1.13
PR	0.00	0.0%	0.08	100.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.08
Total	1.85	42.5%	2.18	49.9%	0.33	7.6%	0.00	0.0%	0.00	0.0%	4.36

Square Footage (Parking Areas) Condition Rating

Surface Type	Excellent		Good		Fair		Poor		Failed		Total
	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft
AS	0	0.0%	2,406	63.4%	1,390	36.6%	0	0.0%	0	0.0%	3,796
CO	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
GR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
NA	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
PR	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0	0.0%	0
Total	0	0.0%	2,406	63.0%	1,390	37.0%	0	0.0%	0	0.0%	3,796

Inks Dam Summaries

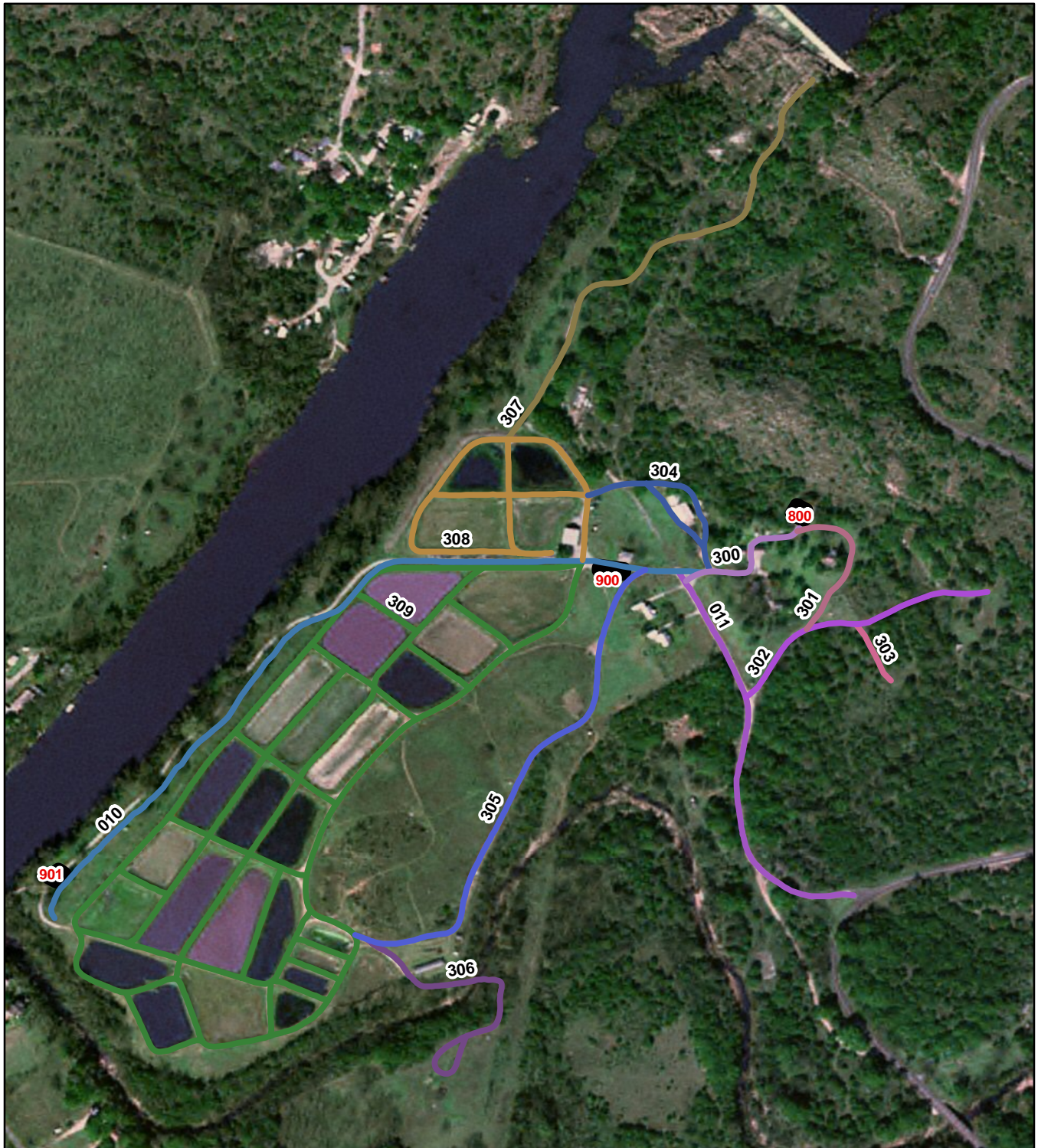
Route Miles and Percentages by Use Type and Condition
Road Condition Rating: Public/Administrative Use

Use Type	Excellent		Good		Fair		Poor		Failed		Total
	Miles	%	Miles	%	Miles	%	Miles	%	Miles	%	Miles
Admin	1.85	41.6%	2.18	48.9%	0.42	9.5%	0.00	0.0%	0.00	0.0%	4.45
Public	0.00	0.0%	0.00	0.0%	0.80	100.0%	0.00	0.0%	0.00	0.0%	0.80
Total	1.85	35.3%	2.18	41.5%	1.22	23.2%	0.00	0.0%	0.00	0.0%	5.20

Parking Condition Rating: Public/Administrative Use

Use Type	Excellent		Good		Fair		Poor		Failed		Total
	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft	%	Sq Ft
Admin	0	0.0%	0	0.0%	1,390	100.0%	0	0.0%	0	0.0%	1,390
Public	0	0.0%	2,406	100.0%	0	0.0%	0	0.0%	0	0.0%	2,406
Total	0	0.0%	2,406	63.4%	1,390	36.6%	0	0.0%	0	0.0%	3,796

Inks Dam ROUTE LOCATION MAP



0 0.035 0.07 0.14 0.21 0.28 Miles

Inks Dam - 21220 - ROUTE IDENTIFICATION LIST (NUMERIC)

Shading Color Key:

White = Paved Routes

Yellow = Unpaved Routes

RTE #	Asset Number	ROUTE NAME	RTE MI	ROUTE DESCRIPTION	PAVED MI	UN-PAVED MI	LANES	FC
010	10040303	Visitor Center Drive	0.51	From Refuge Entrance Road (Route 010) to Fishing Pier Parking Area (Route 901)	0.51	0.00	1	1
011	10059576	Refuge Entrance Road	0.28	From CR 117 to intersection with Visitor Center Drive (Route 010) and Office and Crew Meeting Room Access Road (Route 300)	0.28	0.00	2	1
300	10040325	Office and Crew Meeting Room Access Road	0.09	From Refuge Entrance Road (Route 011) to end of route at storage unit 6	0.09	0.00	2	4
301		Amphitheatre Access Road	0.11	From Office and Crew Meeting Room Access Road (Route 300) to end of route at LCRA Camp Road 1 (Route 302)	0.00	0.11	1	4
302	10040327	LCRA Camp Road 1	0.17	From Refuge Entrance Road (Route 011) to end of distinguishable route	0.00	0.17	1	4
303		LCRA Camp Road 2	0.04	From LCRA Camp Road 1 (Route 302) to end of distinguishable route	0.00	0.04	1	4
304	10040326	BDU Road	0.17	From Office and Crew Meeting Room Access Road (Route 300) to end of route at North Pond Unit Road (Route 308)	0.00	0.17	1	4
305	10045629	Butler Storage Unit Road	0.35	From Visitor Center Drive (Route 010) to end of route at Main Pond Unit Road (Route 309)	0.00	0.35	1	4
306	10040329	Well #P1 Access Road	0.21	From Butler Storage Unit Road (Route 305) to end of loop	0.00	0.21	1	4
307	10040328	Dam Service Road	0.33	From North Pond Unit Road (Route 308) to end of route at dam	0.00	0.33	1	4
308	10040330	North Pond Unit Road	0.47	From Visitor Center Drive (Route 010) to fish hatchery ponds	0.00	0.47	1	4
309	10040330	Main Pond Unit Road	2.50	From Visitor Center Drive (Route 010) to fish hatchery ponds	0.00	2.50	1	4

Inks Dam - 21220 - ROUTE IDENTIFICATION LIST (PARKING)

Shading Color Key:

White = Paved Parking Lots

Green = Unpaved Parking Lots

RTE #	Asset Number	ROUTE NAME	RTE SQFT	ROUTE DESCRIPTION	PAVED SQFT	UNPAVED SQFT
800		Storage Parking	1,390		1,390.00	0
900	10040305	Visitor Center Parking Area	1,425		1,425.00	0
901	10040306	Fishing Pier Parking Area	981		981.00	0

CHANGES TO THE FISH AND WILDLIFE SERVICE ROAD INVENTORY REPORT

Inks Dam

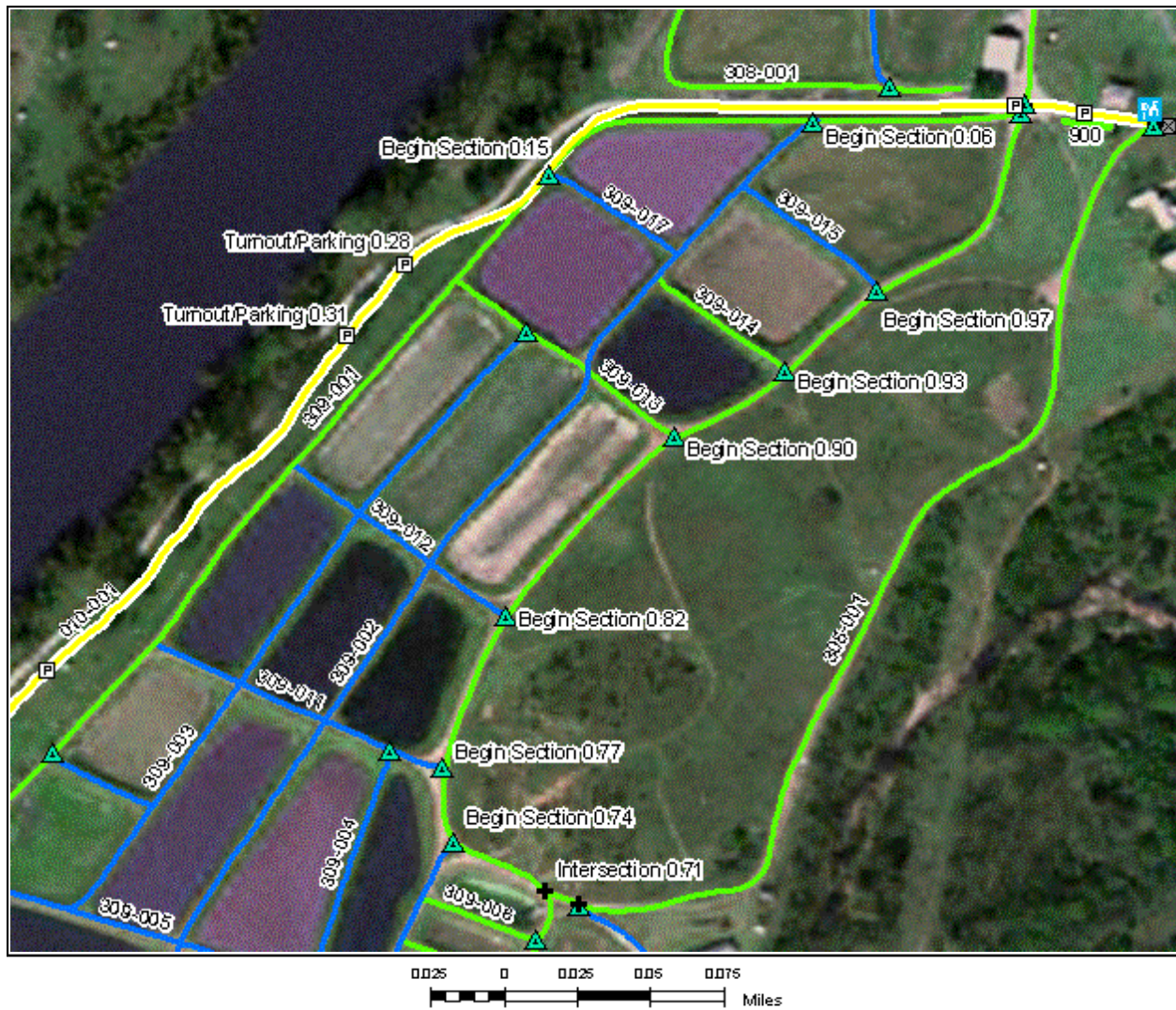
Routes added to previous inventory*:		
Rte #	Rte Name	Reason for Addition
011	Refuge Entrance Road	New public route
300	Office and Crew Meeting Room Access Road	Administrative
301	Amphitheatre Access Road	Administrative
302	LCRA Camp Road 1	Administrative
303	LRCA Camp Road 2	Administrative
304	BDU Road	Administrative
305	Butler Storage Unit Road	Administrative
306	Well #P1 Access Road	Administrative
307	Dam Service Road	Administrative
308	North Pond Unit Road	Administrative
309	Main Pond Unit Road	Administrative
800	Storage Parking	Administrative

Routes removed from previous inventory:		
Rte #	Rte Name	Reason for Removal
100	Fishing Pier Access Road	Closed/Decommissioned
902	Fishing Pier Handicap Parking	Closed/Decommissioned

Routes modified from previous inventory:			
Rte #	Rte Name	Type of Modification	Description of Modification

Comments:

Route 011 was recently given to refuge from state park



Route: 010 Visitor Center Drive

Total Route Length: **0.51 Miles**

Route Description: From Refuge Entrance Road (Route 010) to Fishing Pier Parking Area (Route 901)

Asset Number	10040303
Section Number	001
Section Length (miles)	0.51
Inspection Date	04/06/2009
Section Information	
Surface Type	Asphalt
Number of Lanes	1
Roadway Width (feet)	14.00
Roadway Condition Information	
Condition	Fair
Remaining Service Life (years)	8
Cost Estimate	50,400
CRV	557,700.00



Route: 011 Refuge Entrance Road

Total Route Length: **0.28 Miles**

Route Description: From CR 117 to intersection with Visitor Center Drive (Route 010) and Office and Crew Meeting Room Access Road (Route 300)

Asset Number	10059576
Section Number	001
Section Length (miles)	0.28
Inspection Date	04/06/2009
Section Information	
Surface Type	Asphalt
Number of Lanes	2
Roadway Width (feet)	16.00
Roadway Condition Information	
Condition	Fair
Remaining Service Life (years)	8
Cost Estimate	27,600
CRV	305,100.00



Route: 300 Office and Crew Meeting Room Access Road

Total Route Length: **0.09 Miles**

Route Description: From Refuge Entrance Road (Route 011) to end of route at storage unit 6

Asset Number	10040325	10040325
Section Number	001	002
Section Length (miles)	0.06	0.03
Inspection Date	04/06/2009	04/06/2009
Section Information		
Surface Type	Asphalt	Asphalt
Number of Lanes	2	1
Roadway Width (feet)	20.00	10.00
Roadway Condition Information		
Condition	Fair	Fair
Remaining Service Life (years)	10	8
Cost Estimate	5,700	3,300
CRV	62,700.00	36,000.00

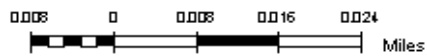


Route: 301 Amphitheatre Access Road

Total Route Length: **0.11 Miles**

Route Description: From Office and Crew Meeting Room Access Road (Route 300) to end of route at LCRA Camp Road 1 (Route 302)

Asset Number	
Section Number	001
Section Length (miles)	0.11
Inspection Date	04/06/2009
Section Information	
Surface Type	Native
Number of Lanes	1
Roadway Width (feet)	8.00
Roadway Condition Information	
Condition	Good
Remaining Service Life (years)	5
Cost Estimate	200
CRV	34,000.00

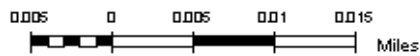


Route: 302 LCRA Camp Road 1

Total Route Length: **0.17 Miles**

Route Description: From Refuge Entrance Road (Route 011) to end of distinguishable route

Asset Number	10040327	10040327
Section Number	001	002
Section Length (miles)	0.09	0.08
Inspection Date	04/06/2009	04/06/2009
Section Information		
Surface Type	Native	Primitive
Number of Lanes	1	1
Roadway Width (feet)	12.00	8.00
Roadway Condition Information		
Condition	Excellent	Good
Remaining Service Life (years)	8	5
Cost Estimate	0	0
CRV	29,700.00	0.00



Route: 303 LRCA Camp Road 2

Total Route Length: **0.04 Miles**

Route Description: From LCRA Camp Road 1 (Route 302) to end of distinguishable route

Asset Number	
Section Number	001
Section Length (miles)	0.04
Inspection Date	04/06/2009
Section Information	
Surface Type	Native
Number of Lanes	1
Roadway Width (feet)	10.00
Roadway Condition Information	
Condition	Excellent
Remaining Service Life (years)	10
Cost Estimate	0
CRV	14,200.00



Route: 304 BDU Road

Total Route Length: **0.17 Miles**

Route Description: From Office and Crew Meeting Room Access Road (Route 300) to end of route at North Pond Unit Road (Route 308)

Asset Number	10040326	10040326
Section Number	001	002
Section Length (miles)	0.12	0.05
Inspection Date	04/06/2009	04/06/2009
Section Information		
Surface Type	Gravel	Gravel
Number of Lanes	1	1
Roadway Width (feet)	10.00	10.00
Roadway Condition Information		
Condition	Excellent	Excellent
Remaining Service Life (years)	9	8
Cost Estimate	0	0
CRV	75,800.00	31,000.00

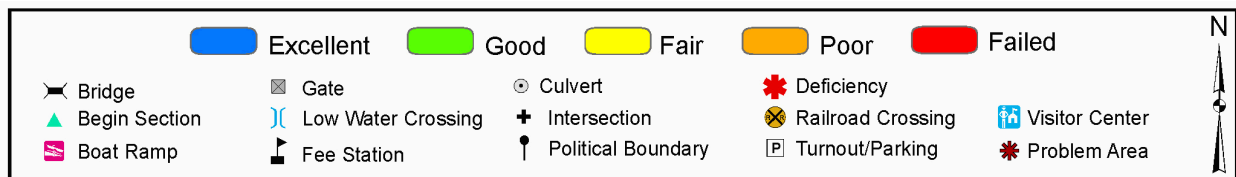
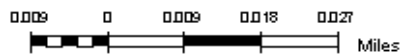
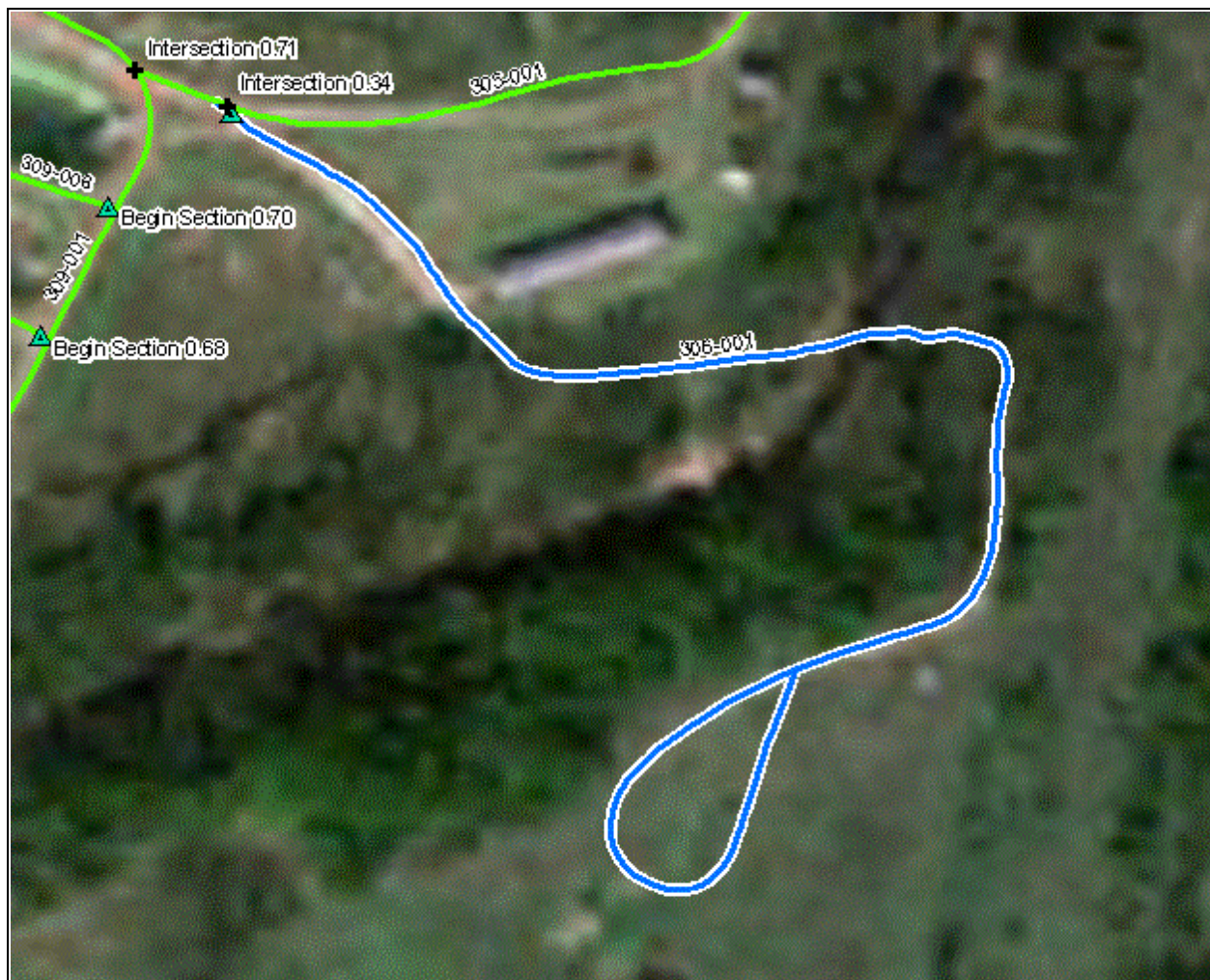


Route: 305 Butler Storage Unit Road

Total Route Length: **0.35 Miles**

Route Description: From Visitor Center Drive (Route 010) to end of route at Main Pond Unit Road (Route 309)

Asset Number	10045629
Section Number	001
Section Length (miles)	0.35
Inspection Date	04/06/2009
Section Information	
Surface Type	Native
Number of Lanes	1
Roadway Width (feet)	12.00
Roadway Condition Information	
Condition	Good
Remaining Service Life (years)	7
Cost Estimate	500
CRV	111,900.00



Route: 306 Well #P1 Access Road

Total Route Length: **0.21 Miles**

Route Description: From Butler Storage Unit Road (Route 305) to end of loop

Asset Number	10040329
Section Number	001
Section Length (miles)	0.21
Inspection Date	04/06/2009
Section Information	
Surface Type	Native
Number of Lanes	1
Roadway Width (feet)	10.00
Roadway Condition Information	
Condition	Excellent
Remaining Service Life (years)	8
Cost Estimate	0
CRV	68,000.00

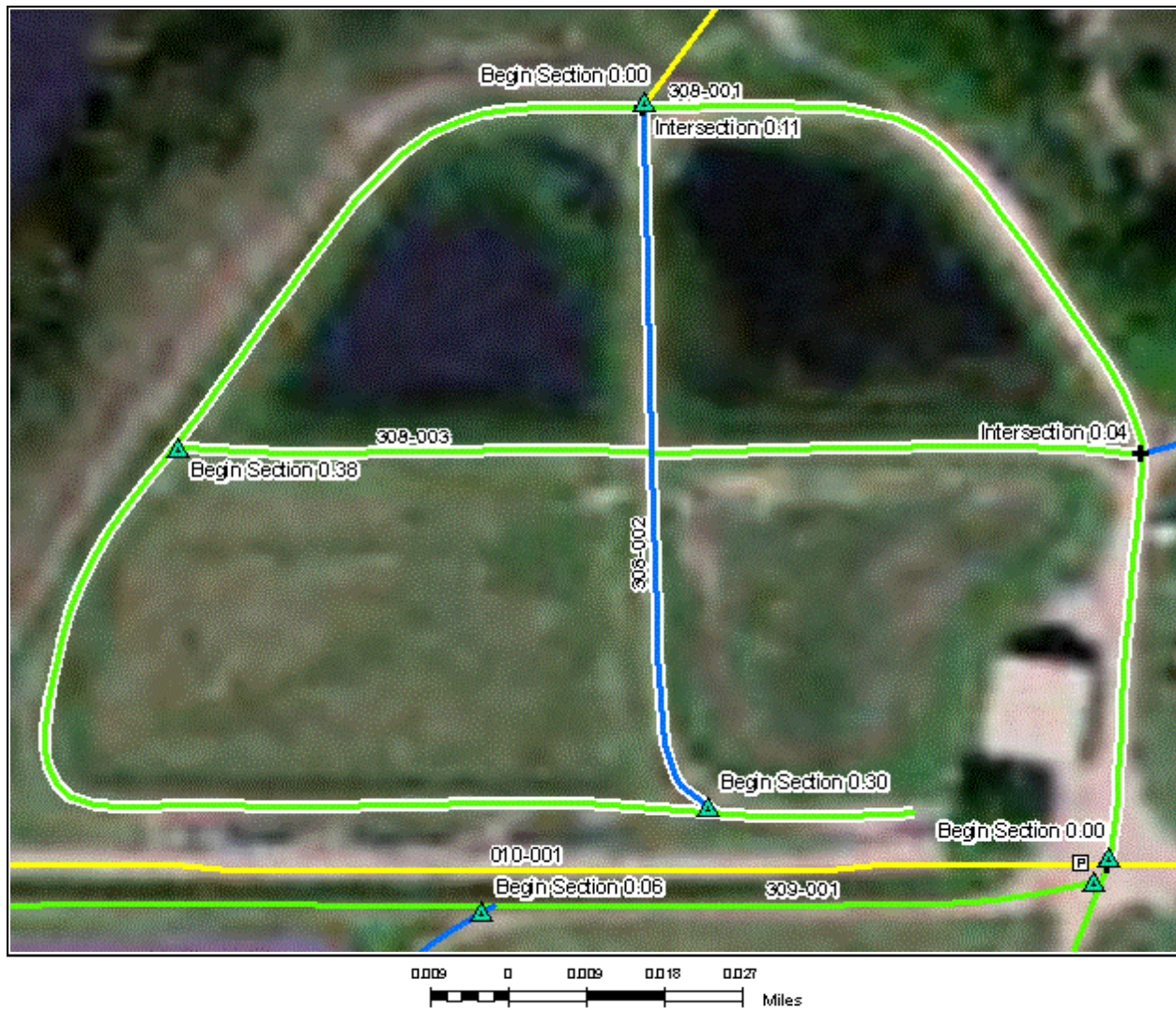


Route: 307 Dam Service Road

Total Route Length: **0.33 Miles**

Route Description: From North Pond Unit Road (Route 308) to end of route at dam

Asset Number	10040328
Section Number	001
Section Length (miles)	0.33
Inspection Date	04/06/2009
Section Information	
Surface Type	Native
Number of Lanes	1
Roadway Width (feet)	10.00
Roadway Condition Information	
Condition	Fair
Remaining Service Life (years)	4
Cost Estimate	700
CRV	107,700.00

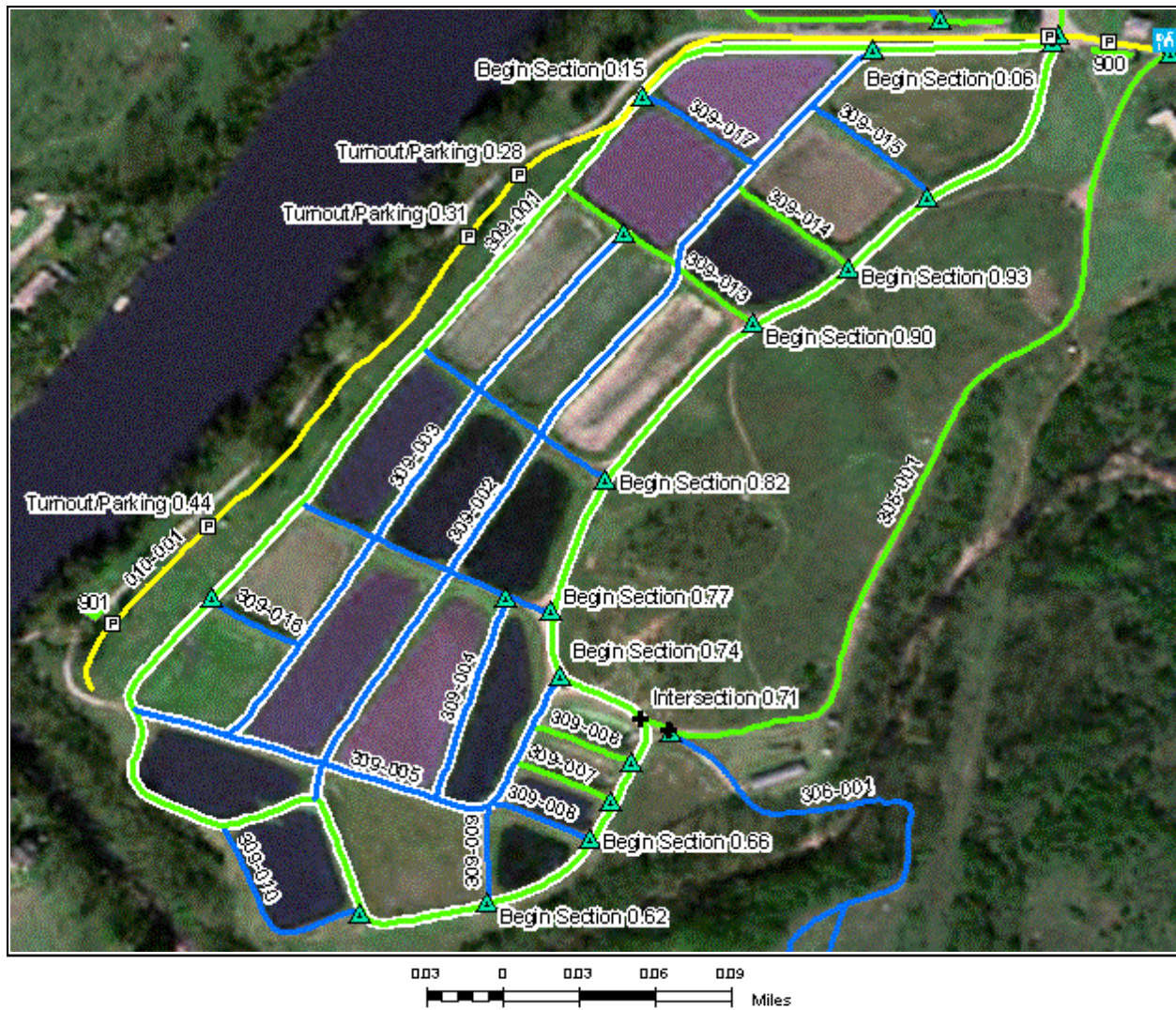


Route: 308 North Pond Unit Road

Total Route Length: **0.47 Miles**

Route Description: From Visitor Center Drive (Route 010) to fish hatchery ponds

Asset Number	10040330	10040330	10040330
Section Number	001	002	003
Section Length (miles)	0.30	0.08	0.09
Inspection Date	04/06/2009	04/06/2009	04/06/2009
Section Information			
Surface Type	Gravel	Gravel	Gravel
Number of Lanes	1	1	1
Roadway Width (feet)	12.00	12.00	12.00
Roadway Condition Information			
Condition	Good	Excellent	Good
Remaining Service Life (years)	7	9	7
Cost Estimate	400	0	100
CRV	189,300.00	49,500.00	57,900.00

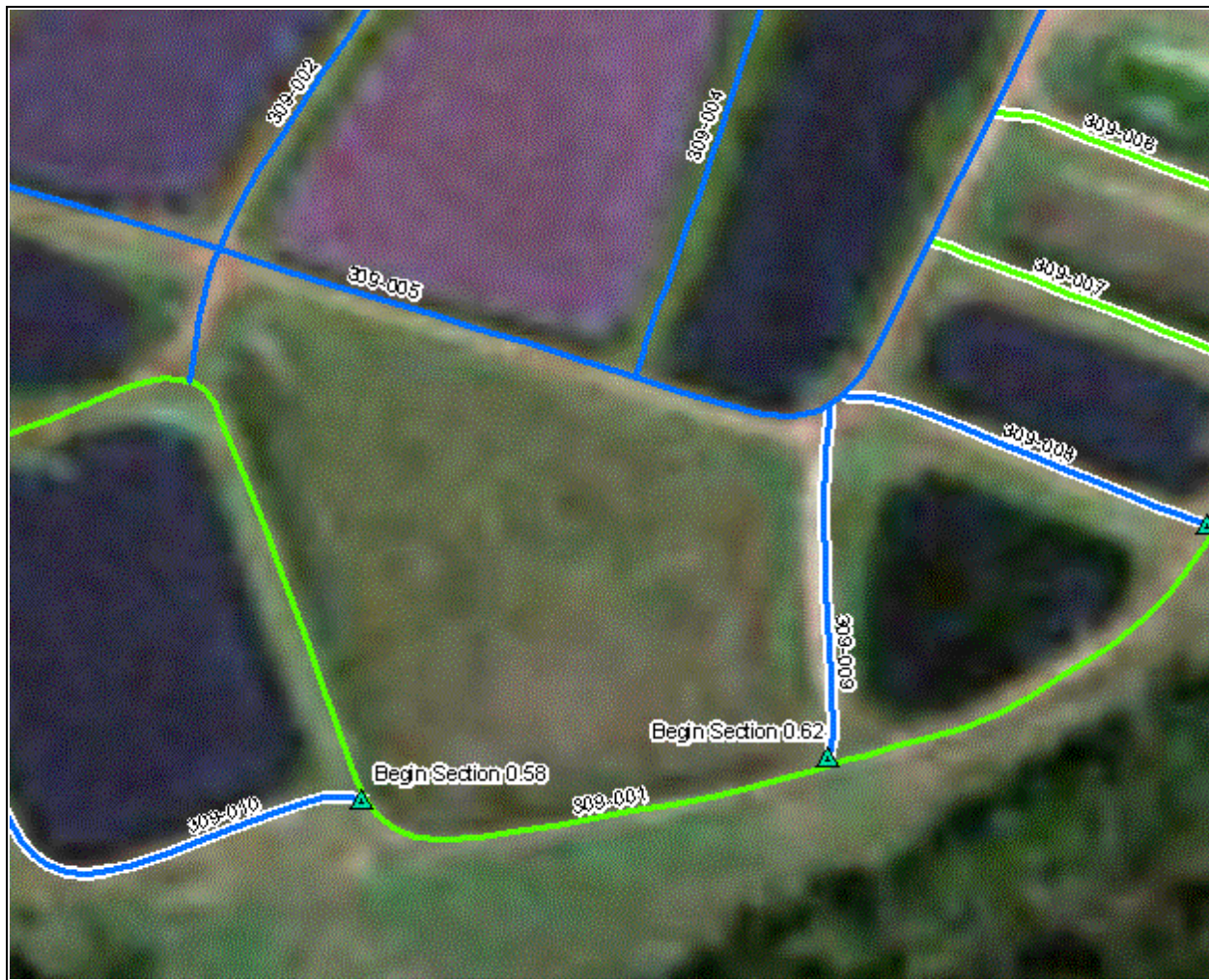


Route: 309 Main Pond Unit Road

Total Route Length: **2.50 Miles**

Route Description: From Visitor Center Drive (Route 010) to fish hatchery ponds

Asset Number	10040330	10040330	10040330	10040330	10040330
Section Number	001	002	003	004	005
Section Length (miles)	1.05	0.34	0.23	0.08	0.18
Inspection Date	04/06/2009	04/06/2009	04/06/2009	04/06/2009	04/06/2009
Section Information					
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel
Number of Lanes	1	1	1	1	1
Roadway Width (feet)	12.00	12.00	10.00	10.00	10.00
Roadway Condition Information					
Condition	Good	Excellent	Excellent	Excellent	Excellent
Remaining Service Life (years)	7	9	10	9	10
Cost Estimate	1,500	0	0	0	0
CRV	655,900.00	213,500.00	144,500.00	49,400.00	110,200.00



Route: 309 Main Pond Unit Road

Total Route Length: **2.50 Miles**

Route Description: From Visitor Center Drive (Route 010) to fish hatchery ponds

Asset Number	10040330	10040330	10040330	10040330	10040330
Section Number	006	007	008	009	010
Section Length (miles)	0.04	0.03	0.03	0.03	0.06
Inspection Date	04/06/2009	04/06/2009	04/06/2009	04/06/2009	04/06/2009
Section Information					
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel
Number of Lanes	1	1	1	1	1
Roadway Width (feet)	10.00	10.00	10.00	10.00	10.00
Roadway Condition Information					
Condition	Good	Good	Excellent	Excellent	Excellent
Remaining Service Life (years)	7	5	10	9	10
Cost Estimate	100	100	0	0	0
CRV	21,900.00	21,500.00	21,500.00	21,800.00	37,600.00

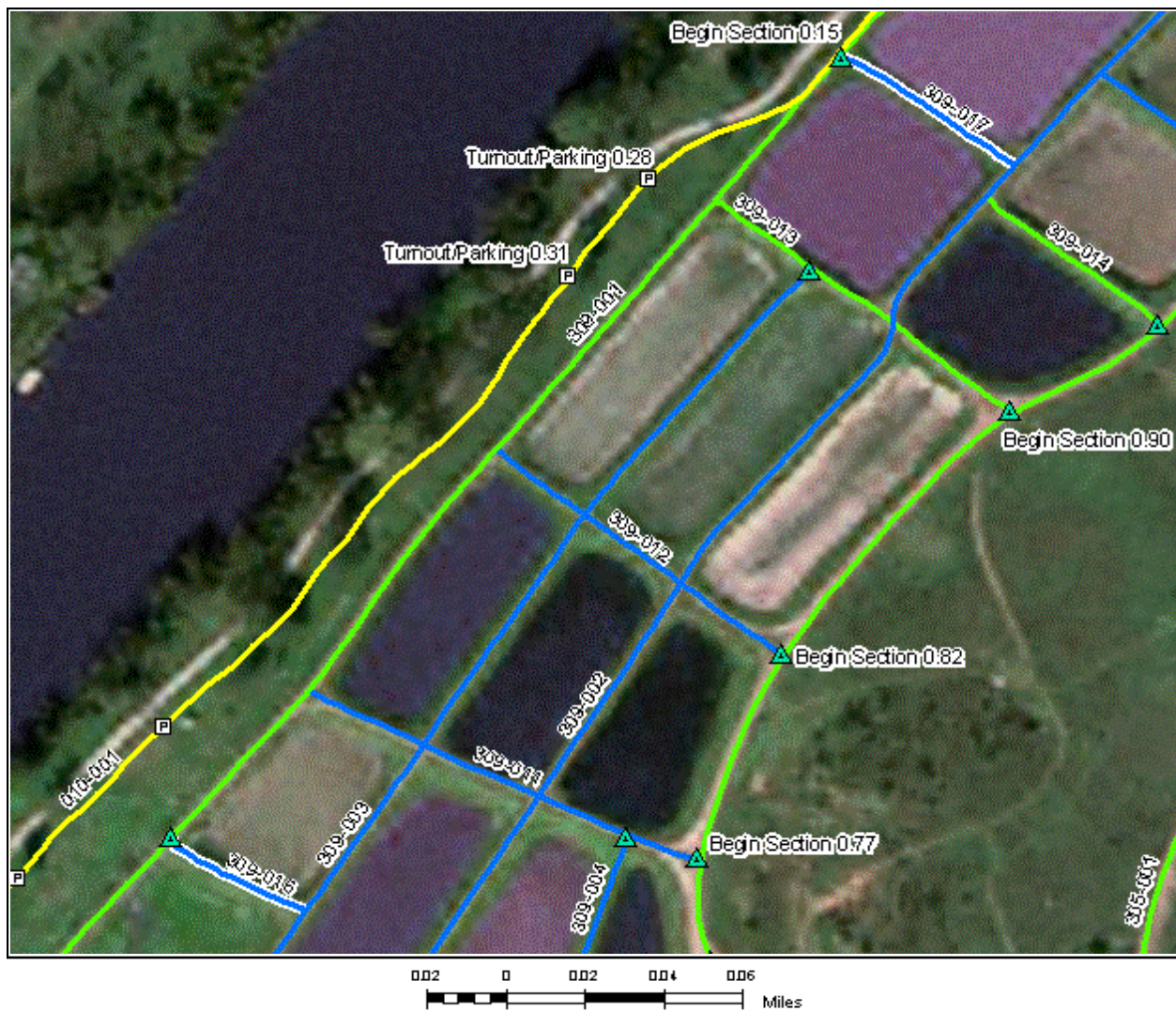


Route: 309 Main Pond Unit Road

Total Route Length: **2.50 Miles**

Route Description: From Visitor Center Drive (Route 010) to fish hatchery ponds

Asset Number	10040330	10040330	10040330	10040330	10040330
Section Number	011	012	013	014	015
Section Length (miles)	0.09	0.08	0.08	0.05	0.05
Inspection Date	04/06/2009	04/06/2009	04/06/2009	04/06/2009	04/06/2009
Section Information					
Surface Type	Gravel	Gravel	Gravel	Gravel	Gravel
Number of Lanes	1	1	1	1	1
Roadway Width (feet)	10.00	10.00	10.00	10.00	10.00
Roadway Condition Information					
Condition	Excellent	Excellent	Good	Good	Excellent
Remaining Service Life (years)	9	9	7	7	10
Cost Estimate	0	0	100	100	0
CRV	57,000.00	48,800.00	49,900.00	30,000.00	32,000.00



Route: 309 Main Pond Unit Road

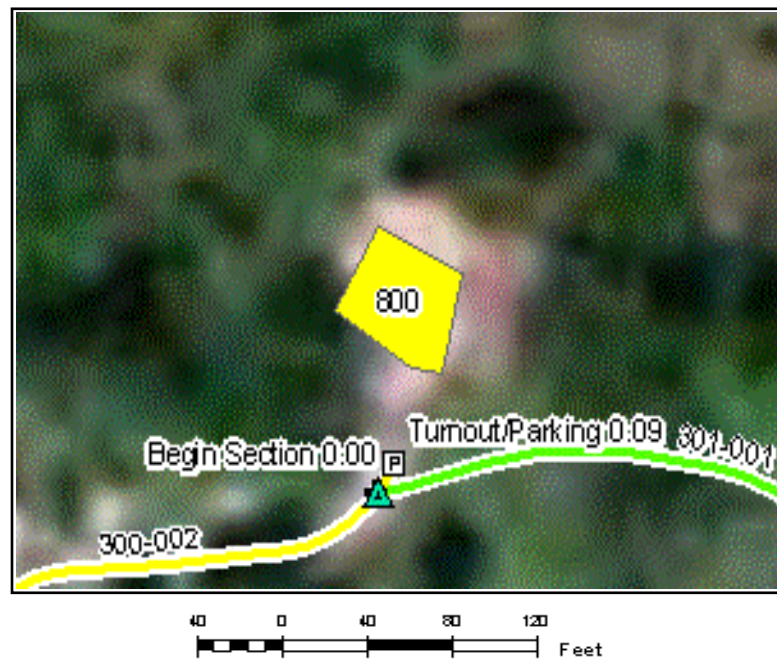
Total Route Length: **2.50 Miles**

Route Description: From Visitor Center Drive (Route 10) to fish hatchery ponds

Asset Number	10040330	10040330
Section Number	016	017
Section Length (miles)	0.03	0.04
Inspection Date	04/06/2009	04/06/2009
Section Information		
Surface Type	Gravel	Gravel
Number of Lanes	1	1
Roadway Width (feet)	10.00	10.00
Roadway Condition Information		
Condition	Excellent	Excellent
Remaining Service Life (years)	10	9
Cost Estimate	0	0
CRV	21,000.00	27,900.00

800: Storage Parking

Asset Number	Date Visited	Surface Type	Area (Sq Ft)	Condition	Cost to Improve
	04/06/2009	Asphalt	1,390	Fair	1,100



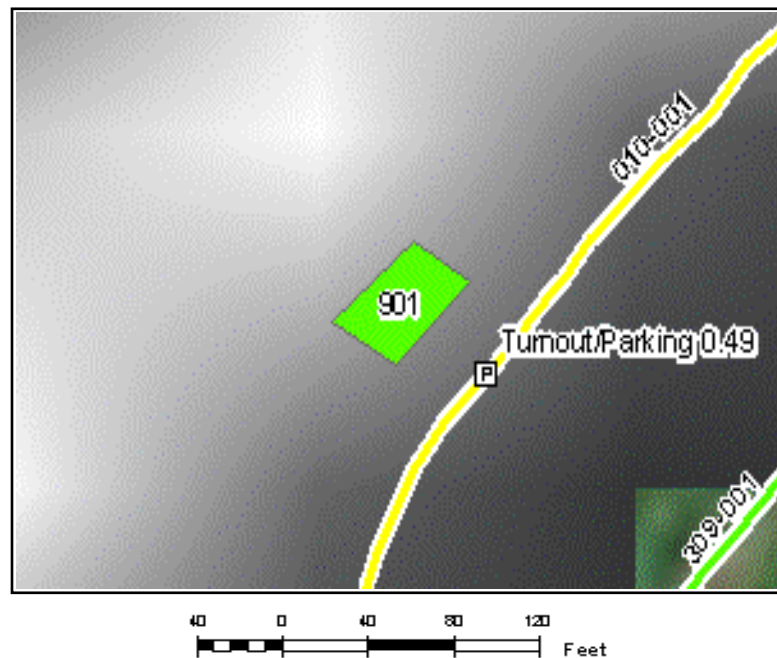
900: Visitor Center Parking Area

Asset Number	Date Visited	Surface Type	Area (Sq Ft)	Condition	Cost to Improve
10040305	04/06/2009	Asphalt	1,425	Good	200



901: Fishing Pier Parking Area

Asset Number	Date Visited	Surface Type	Area (Sq Ft)	Condition	Cost to Improve
10040306	04/06/2009	Asphalt	981	Good	200



Inks Dam Bridge Inventory					
Route #	Milepost	NBIS #	Sufficiency Rating	Functionally Obsolete	Structurally Deficient

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 010 ROUTE NAME: Visitor Center Drive



Photo # INDA_C4_0127 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 011 ROUTE NAME: Refuge Entrance Road



Photo # INDA_C4_0168 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 011 ROUTE NAME: Refuge Entrance Road



Photo # INDA_C4_0165 - MP 0.14 - B 001

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 011 ROUTE NAME: Refuge Entrance Road



Photo # INDA_C4_0163 - MP 0.18 - R 001

ROUTE NUMBER: 011 ROUTE NAME: Refuge Entrance Road



Photo # INDA_C4_0161 - MP 0.23 - B 001

ROUTE NUMBER: 300 ROUTE NAME: Office and Crew Meeting Room Access Road



Photo # INDA_C4_0110 - MP 0.00 - Begin Section 001

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 300 ROUTE NAME: Office and Crew Meeting Room Access Road



Photo # INDA_C4_0112 - MP 0.06 - Begin Section 002

ROUTE NUMBER: 300 ROUTE NAME: Office and Crew Meeting Room Access Road



Photo # INDA_C4_0113 - MP 0.09 - R 002

ROUTE NUMBER: 301 ROUTE NAME: Amphitheatre Access Road



Photo # INDA_C4_0117 - MP 0.00 - Begin Section 001

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 302 ROUTE NAME: LCRA Camp Road 1



Photo # INDA_C4_0118 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 302 ROUTE NAME: LCRA Camp Road 1



Photo # INDA_C4_0121 - MP 0.09 - Begin Section 002

ROUTE NUMBER: 302 ROUTE NAME: LCRA Camp Road 1



Photo # INDA_C4_0122 - MP 0.15 - B 002

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 303 ROUTE NAME: LRCA Camp Road 2



Photo # INDA_C4_0124 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 304 ROUTE NAME: BDU Road



Photo # INDA_C4_0125 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 304 ROUTE NAME: BDU Road



Photo # INDA_C4_0126 - MP 0.12 - Begin Section 002

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 305 ROUTE NAME: Butler Storage Unit Road



Photo # INDA_C4_0132 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 306 ROUTE NAME: Well #P1 Access Road



Photo # INDA_C4_0133 - MP 0.00 - Begin Section 001

ROUTE NUMBER: 307 ROUTE NAME: Dam Service Road



Photo # INDA_C4_0135 - MP 0.00 - Begin Section 001

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 307 ROUTE NAME: Dam Service Road



Photo # INDA_C4_0139 - MP 0.22 - R 001

ROUTE NUMBER: 307 ROUTE NAME: Dam Service Road



Photo # INDA_C4_0137 - MP 0.23 - R 001

ROUTE NUMBER: 308 ROUTE NAME: North Pond Unit Road



Photo # INDA_C4_0141 - MP 0.00 - Begin Section 001

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 308 ROUTE NAME: North Pond Unit Road



Photo # INDА_C4_0142 - MP 0.30 - Begin Section 002

ROUTE NUMBER: 308 ROUTE NAME: North Pond Unit Road



Photo # INDА_C4_0143 - MP 0.38 - Begin Section 003

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDА_C4_0144 - MP 0.00 - Begin Section 001

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0145 - MP 0.06 - Begin Section 002

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0146 - MP 0.95 - Begin Section 003

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0147 - MP 0.79 - Begin Section 004

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0148 - MP 0.74 - Begin Section 005

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0149 - MP 0.70 - Begin Section 006

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0150 - MP 0.68 - Begin Section 007

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDА_C4_0151 - MP 0.66 - Begin Section 008

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDА_C4_0152 - MP 0.62 - Begin Section 009

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDА_C4_0153 - MP 0.57 - Begin Section 010

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0154 - MP 0.77 - Begin Section 011

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0155 - MP 0.82 - Begin Section 012

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0156 - MP 0.90 - Begin Section 013

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0157 - MP 0.93 - Begin Section 014

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0158 - MP 0.97 - Begin Section 015

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0159 - MP 0.38 - Begin Section 016

FEATURES PHOTOGRAPHS

ROUTE NUMBER: 309 ROUTE NAME: Main Pond Unit Road



Photo # INDA_C4_0160 - MP 0.15 - Begin Section 017

Accident Summary

Number of Accidents Reported	Timespan of Accidents	Injuries	Fatalities
0	No Accidents to Report	0	0

APPENDIX

TABLE 1 - GENERAL FWS ROAD FUNCTIONAL CLASSIFICATION	
Class I	Principal Refuge Road (Public Roads) - Routes that constitute the main access route, main auto tour route, or thoroughfare for refuge visitors. These routes are accessible by 2WD vehicles. Routes are numbered from 10 to 99.
Class II	Connector Refuge Road (Public Roads) - Routes that provide circulation within the refuge. These routes can also provide access to areas of scenic, scientific, recreational or cultural interest, such as overlooks, campgrounds, education centers, etc. These routes are accessible by 2WD vehicles. Routes are numbered from 100 to 199.
Class III	Special Purpose Refuge Road (Public Roads) - Roads that provide circulation within special use areas such as campgrounds or public concessionaire facilities or access to remote areas of the refuge. These routes may not be 2WD accessible. Routes are numbered from 200 to 299
Class IV	Administrative Access Road (Administrative Roads) - Routes intended for access to administrative developments or structures such as maintenance offices, employee quarters, or utility areas. These routes are accessible by 2WD vehicles. These routes may restrict access to the general public. Routes are numbered from 300 to 399.
Class V	Restricted Road (Administrative Roads) - Routes normally closed to the public, such as maintenance roads, service roads, patrol roads, and fire breaks. These routes may be open to the public for a short period of time for a special use, such as hunting access. These routes may not be 2WD accessible. Routes are numbered from 400 to 499.

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

DESCRIPTION OF RATING SYSTEM

Rating Data is collected on four different surface types: Asphalt, Concrete, Gravel, and Native. The Utah LTAP Center's Remaining Service Life (RSL) system is used for all surface types. The RSL system is based on the Strategic Highway Research Program's (SHRP) Distress Identification Manual.

Asphalt Rating System

Data is collected on the following distresses and conditions:

- **Fatigue Cracking** - Interconnected cracks forming small irregular shapes.
- **Longitudinal Cracking** - Cracks running parallel with the roadway, in the direction of traffic.
- **Transverse Cracking** - Cracks perpendicular to the roadway, going across the lane or lanes.
- **Block Cracking** - Interconnected cracks forming large blocks.
- **Edge Cracking** - Cracks running along the edge of the pavement surface.
- **Patches** - Original surface repaired with new asphalt patch material.
- **Potholes** - Holes or depressions in the pavement.
- **Rutting** - surface depressions in the wheel paths.
- **Roughness** - Evenness of pavement for serviceability.
- **Drainage** - Ability of the road surface to drain water based on proper slope.

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

Fatigue, longitudinal, transverse, block, and edge cracking, along with patching and potholes are rated on a 0 - 9 scale (0 = no distress, 9 = maximum distress). The rating given is based on the extent and the severity of the distress. Rutting, roughness, and drainage are rated on a 0 - 3 scale (0 = excellent, 3 = poor). Each distress type has given Remaining Service Life (RSL) values (in years) based on the rating for that particular distress. The distress with the rating resulting in the lowest RSL value is considered to be the governing distress. That value is then assigned as the RSL of the road segment.

Concrete Rating System

Data is collected on the following distresses and conditions:

- **Spalling of Joints** - Chipping, breaking, or cracking of slab edges
- **Joint Seal Damage** - Any damage or condition that enables materials or water to infiltrate into the joint from the surface.
- **Corner Breaks** - A portion of the slab separated by a crack that intersects the adjacent transverse and longitudinal joints, forming approximately a 45° angle to the direction.
- **Broken Slabs** - Faulting and/or cracking localized to individual slabs.

- **Faulting** – Difference in elevation across a crack or joint.
- **Longitudinal Cracking** – Cracks in the pavement running parallel to road.
- **Transverse Cracking** - Cracks in the pavement running perpendicular to the direction of traffic.
- **Patch Deterioration** – Faulting, settling, or cracking of previously placed patch
- **Map Cracking** – A series of cracks that extend only into the upper surface of the Slab

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

The rating procedure for concrete pavement is the same as that for asphalt pavement described previously. Each of the distresses described above are rated on the same 0 – 9 scale. The governing distress is then determined and the RSL associated with that distress is assigned to the road segment.

Gravel and Native Rating System

Data is collected on the following distresses and conditions:

- **Cross Section (Crown)** - Roadway built so that the center is higher than the shoulder, to prevent water from pooling on roadway.
- **Roadside Drainage** - Roadside ditches and culverts to handle water flow and prevent pooling on the roadside.
- **Corrugations (Washboarding)** - Small trenches or holes developing perpendicular to the roadway.
- **Potholes** - Holes or depressions in the roadway.
- **Rutting** - Depressions running parallel with the roadway, in the wheelpaths.
- **Dust** - Amount of dust caused by traffic.
- **Loose Aggregate (Gravel Only)** - Loose gravel, typically piled up on the roadway edges or centerline.

A Condition Rating value is calculated for each homogenous pavement section, and can be up to 1 mile in length.

Rating Index Formula

The rating procedure for unpaved roads is the same as that for asphalt and concrete pavements described previously. Of the distresses described above, corrugations, potholes, rutting, and loose aggregate are rated on the same 0 – 9 scale previously mentioned. Cross section, roadside drainage, and dust are rated on the same 0 – 3 scale described for asphalt pavement. The governing distress is then determined and the RSL associated with that distress is assigned to the road segment.

Condition Descriptions by Surface Type

The following definitions are used to describe pavement condition for the various surface types. These are general guidelines for condition indications.

Asphalt

Excellent – Recently constructed or overlaid road where construction or overlay was performed correctly- No maintenance required. RSL = 19-20 years.

Good – Low extent longitudinal and transverse cracks. All cracks are 1/4" or less with little or no crack erosion. Patches are in good condition and applied correctly. Routine Maintenance recommended. RSL = 13-18 years.

Fair - Roads are in good structural condition with little or no fatigue cracking. Longitudinal, transverse, and edge cracking is at medium extent and severity. Block cracking is not extensive. Any patches are in good condition. Preventative maintenance recommended. RSL = 7-12 years.

Poor - Road beginning to show signs of structural distress. Fatigue cracking is medium to high extent and medium severity. Cracking will be severe. Surface may have severe block cracking and show. Patches are in fair to poor condition. There is moderate distortion or rutting and occasional potholes. Rehabilitation recommended. RSL = 1-6 years.

Failed - Road is severely deteriorated. Signs of structural failure appear along with severe and extensive fatigue cracking, distortion, potholes, or extensive patches in poor condition. Reconstruction recommended. RSL = 0 years.

Concrete

Excellent - New pavement. No maintenance required. RSL = 19-20 years

Good - First signs of transverse cracking, patch or repair, more extensive pop-outs, or scaling. Sealing or routine maintenance recommended. RSL = 13-18 years.

Fair – Pavement has joint or crack spalling, and/or faulting, along with cracking at corners with broken pieces. Any Patches are in fair condition and faulting is at a minimum. Preventative maintenance recommended. RSL = 7-12 years.

Poor - Joints and cracks are open 1 inch, spalled, or patched. Faulting is more severe. Rehabilitation recommended. RSL = 1-6 years.

Failed - Most slabs have failed structurally, and faulting is severe. Reconstruction recommended. RSL = 0 years.11-9

The following table shows the relationship between RSL and condition.

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE (Asphalt and Concrete Pavements)								
	FAILED	POOR		FAIR		GOOD		EXCELLENT
RSL Years	0	1-3	4-6	7-9	10-12	13-15	16-18	19-20

Gravel and Native

Note - Native surfaces do not have a gravel layer.

Excellent - Newly constructed road that has been constructed properly with proper crown, drainage and gravel layer. Little or no distress. No maintenance recommended. RSL = 8-10 years.

Good - Crown, drainage provisions, and gravel layer are in good condition. Distress limited to traffic effects such as dust, loose aggregate, and low severity corrugations (wash boarding). RSL = 5-7 years.

Fair - Adequate drainage and crown through majority of roadway. Crown repair, ditch improvement may be necessary. Road has more severe corrugations and potholes. Preventative maintenance recommended. RSL = 3-4 years.

Poor - Travel at slow speeds is necessary. Additional gravel layer needed to carry traffic. Poor crown. Ditching is inadequate and rutting is extensive and severe. Rehabilitation recommended. RSL = 1-2 years.

Failed - Travel is difficult, and road may be closed at times. Rutting and Corrugations are very severe. Total Reconstruction of road is recommended. RSL = 0 years.

The following table shows the RSL values for gravel and native roads in terms of excellent, good, fair, poor, and failed condition.

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE (Gravel and Native Surfaces)					
	FAILED	POOR	FAIR	GOOD	EXCELLENT
RSL Years	0	1-2	3-4	5-7	8-10

NATIVE PRIMITIVE/IMPROVED RATING SHEET

<u>Cross Section (Crown)*</u>			
Severity	Condition		Description
	No Defects	0	Crown 4-6" with no restriction of water flow from centerline to ditch.
	Minor Defects	1	Inadequate or inconsistent crown. Drainage to ditch may be restricted.
	Moderate Defects	2	Flat crown, drainage to ditch restricted.
	Major Defects	3	Reverse crown, bowl-shaped road, drainage on roadway

<u>Rutting</u>				
Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 6"	1	2	3
	Med 6-12"	4	5	6
	High > 12"	7	8	9

<u>Roadside Drainage*</u>			
Severity	Condition		Description
	No Defects	0	Wide, deep ditches (>4') with no restriction to water flow.
	Minor Defects	1	Adequate ditches (>2' deep), minor obstructions restrict water flow.
	Moderate Defects	2	Shallow, narrow and obstructed ditches. Minor erosion of road.
	Major Defects	3	No ditch, drainage on roadway with moderate to severe erosion.

<u>Potholes</u>				
Severity	Extent (Area)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 6"	1	2	3
	Med 6-12"	4	5	6
	High > 12"	7	8	9

<u>Dust</u>			
Severity	Condition		Description
	No Defects	0	No obstruction to sight distance.
	Minor Defects	1	Sight distance > 550'
	Moderate Defects	2	Sight distance 225'-550'
	Major Defects	3	Sight distance < 225'

<u>Corrugations</u>				
Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 3"	1	2	3
	Med 3-6"	4	5	6
	High > 6"	7	8	9

* Crown and Drainage are not rated for roads that have no constructed crown or drainage. This applies to Native and Gravel roads.

GRAVEL RATING SHEET

Cross Section (Crown)

Severity	Condition		Description
	No Defects	0	Crown 4-6" with no restriction of water flow from centerline to ditch.
	Minor Defects	1	Inadequate or inconsistent crown. Drainage to ditch may be restricted.
	Moderate Defects	2	Flat crown, drainage to ditch restricted.
	Major Defects	3	Reverse crown, bowl-shaped road, drainage on roadway

Rutting

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 1"	1	2	3
	Med 1-3"	4	5	6
	High > 3"	7	8	9

Roadside Drainage

Severity	Condition		Description
	No Defects	0	Wide, deep ditches (>4') with no restriction to water flow.
	Minor Defects	1	Adequate ditches (>2' deep), minor obstructions restrict water flow.
	Moderate Defects	2	Shallow, narrow and obstructed ditches. Minor erosion of road.
	Major Defects	3	No ditch, drainage on roadway with moderate to severe erosion.

Potholes

Severity	Extent (Area)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 1"	1	2	3
	Med 1-3"	4	5	6
	High > 3"	7	8	9

Dust

Severity	Condition		Description
	No Defects	0	No obstruction to sight distance.
	Minor Defects	1	Sight distance > 550'
	Moderate Defects	2	Sight distance 225'-550'
	Major Defects	3	Sight distance < 225'

Corrugations

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 2"	1	2	3
	Med 2-4"	4	5	6
	High > 4"	7	8	9

* Crown and Drainage are not rated for roads that have no constructed crown or drainage. This applies to Native and Gravel roads.

Loose Aggregate

Severity	Extent (Area)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low < 1"	1	2	3
	Med 1-3"	4	5	6
	High > 3"	7	8	9

ASPHALT RATING SHEET

Fatigue Cracking

Severity	Extent			
	No Defects	Low 1 crack WP	Med 2 cracks WP	High >30% length
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Edge Cracking

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	0-6" from curb	1	2	3
	6-18" from curb	4	5	6
	> 18" from curb	7	8	9

Longitudinal Cracking

Severity	Extent			
	No Defects	Low 1 crack full length	Med 2 cracks full length	High >2 cracks full length
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Block Cracking

Severity	Extent (Length)			
	No Defects	Low > 15x15' squares	Med 15-10' squares	High <10x10' squares
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Transverse Cracking

Severity	Extent (ft between cracks)			
	No Defects	Low > 200'	Med 200-50'	High < 50'
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Utility Cuts

Severity	Extent (Length)			
	No Defects	Low <10%	Med 10-30%	High >30%
	Low-Cracks < 1/4"	1	2	3
	Med-Cracks 1/4-3/4"	4	5	6
	High-Cracks > 3/4"	7	8	9

Drainage/Roughness/Rutting

Severity	Condition		Description
	No Defects	0	Wide, deep ditches with no obstructions, smooth ride, no rutting, no potholes.
	Minor Defects	1	Drainage may be obstructed, < 1" rutting, minor roughness.
	Moderate Defects	2	Poor drainage, 1-2" rutting, noticeable roughness, potholes < 6" wide.
	Major Defects	3	No drainage; > 2" rutting; potholes 6-12" wide create roughness requiring reduced speeds.

CONCRETE RATING SHEET

Spalling of Joints

Extent (% joints)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low Spalls < 3"	1	2	3
	Med Spalls 3-6"	4	5	6
	High Spalls > 6"	7	8	9

Broken Slabs

Extent (% slabs)				
No Defects	Low <5%	Med 5-15%	High >15%	
Severity	Low-no more than 3 pieces, no spalling/faulting	1	2	3
	Med-broken into >3 pieces, spalling/faulting <1/4"	4	5	6
	High-4 or more pieces, spalling/faulting >1/4"	7	8	9

Transverse Cracks

Extent (% slabs)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-Cracks < 1/8"; no spalling/faulting	1	2	3
	Med-Cracks 1/8-1/2"; spall <3", fault >1/4"	4	5	6
	High-Cracks > 1/2"; spall >3", fault >1/4"	7	8	9

Joint Seal Damage

Extent (%joints)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low <10% joint length	1	2	3
	Med 10-50% joint length	4	5	6
	High >50% joint length	7	8	9

Faulting

Extent (Length)				
No Defects	Low <10%	Med 10-30%	High >30%	
Severity	Low < 1/2"	1	2	3
	Med 1/2-1"	4	5	6
	High > 1"	7	8	9

Patch Deterioration

Extent (Area)				
No Defects	Low <10%	Med 10-30%	High >30%	
Severity	Low-no fault, no settle at perimeter	1	2	3
	Med-fault & settle <1/4" at perimeter	4	5	6
	High-fault & settle >1/4" at perimeter, cracked patch	7	8	9

Corner Breaks

Extent (% of slabs)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-corner cracks, no spalling or faulting	1	2	3
	Med-crack slightly spalled & faulted <1/4"	4	5	6
	High-crack highly spalled & faulted >1/4"	7	8	9

Longitudinal Cracks

Extent (% slabs)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-Cracks < 1/8"; no spalling/faulting	1	2	3
	Med-Cracks 1/8-1/2"; spall <3", fault >1/2"	4	5	6
	High-Cracks > 1/2"; spall >3", fault >1/2"	7	8	9

Map Cracks

Extent (Area)				
No Defects	Low <10%	Med 10-20%	High >20%	
Severity	Low-small connected cracks, no spalling	1	2	3
	Med-connected cracks, no spalling	4	5	6
	High-large connected cracks with surface spalling	7	8	9

Deficiency Ratings With Associated Remaining Service Life

Asphalt Rating Sheet

Fatigue Cracking		Edge Cracking		Transverse Cracking		Utility Cuts	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	20	0	20
1	10	1	12	1	14	1	14
2	8	2	10	2	12	2	12
3	6	3	8	3	10	3	10
4	8	4	10	4	12	4	12
5	6	5	8	5	10	5	10
6	4	6	6	6	8	6	8
7	6	7	8	7	10	7	10
8	2	8	6	8	6	8	6
9	0	9	4	9	2	9	2

Longitudinal Cracking		Block Cracking		Drainage/Roughness/Rutting	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	20
1	14	1	12	1	16
2	12	2	10	2	10
3	10	3	8	3	4
4	12	4	10		
5	10	5	8		
6	8	6	6		
7	10	7	12		
8	8	8	6		
9	6	9	2		

Concrete Rating Sheet

Spalling		Broken Slabs		Transverse Cracks	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	20
1	15	1	15	1	18
2	12	2	12	2	15
3	10	3	10	3	12
4	12	4	12	4	15
5	10	5	10	5	10
6	8	6	8	6	6
7	10	7	10	7	10
8	6	8	6	8	4
9	0	9	0	9	0

Joint Seal Damage		Faulting		Patch Deterioration	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	20	0	20	0	18
1	16	1	15	1	16
2	14	2	12	2	14
3	12	3	10	3	12
4	14	4	12	4	12
5	10	5	8	5	10
6	8	6	6	6	8
7	12	7	10	7	10
8	8	8	4	8	6
9	6	9	0	9	0

Corner Breaks		Longitudinal Cracks		Map Cracks	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	18	0	20	0	20
1	16	1	18	1	18
2	14	2	15	2	15
3	12	3	12	3	12
4	12	4	15	4	12
5	10	5	10	5	10
6	8	6	6	6	6
7	10	7	10	7	10
8	6	8	4	8	4
9	0	9	0	9	0

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE IN YEARS (Asphalt & Concrete Roads)

RSL	FAILED 0	POOR 1 - 6	FAIR 7 - 12	GOOD 13 - 18	EXCELLENT 19 - 20
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Deficiency Ratings With Associated Remaining Service Life

Native Primitive Improved Rating Sheet

Cross Section		Rutting		Roadside Drainage	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	7	1	9	1	8
2	5	2	7	2	4
3	0	3	5	3	0
		4	7		
		5	4		
		6	3		
		7	4		
		8	2		
		9	0		

Potholes		Dust		Corrugations	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	9	1	8	1	9
2	7	2	6	2	7
3	5	3	2	3	7
4	7			4	6
5	4			5	5
6	3			6	5
7	4			7	4
8	2			8	3
9	0			9	0

Gravel Rating Sheet

Cross Section		Rutting		Roadside Drainage	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	7	1	9	1	8
2	5	2	7	2	4
3	0	3	5	3	0
		4	7		
		5	4		
		6	3		
		7	4		
		8	2		
		9	0		

Potholes		Dust		Corrugations	
Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life	Distress Rating	Remaining Service Life
0	10	0	10	0	10
1	9	1	8	1	9
2	7	2	6	2	7
3	5	3	2	3	7
4	7			4	6
5	4			5	5
6	3			6	5
7	4			7	4
8	2			8	3
9	0			9	0

Loose Aggregate	
Distress Rating	Remaining Service Life
0	10
1	9
2	8
3	7
4	8
5	7
6	6
7	5
8	3
9	0

SUBJECTIVE CONDITION RATING FOR REMAINING SERVICE LIFE IN YEARS (Gravel & Native Roads)

RSL	FAILED	POOR	FAIR	GOOD	EXCELLENT
	0	1 - 2	3 - 4	5 - 7	8 - 10