Newtok Traditional Council

Long Range Transportation Plan

Prepared for:

The Newtok Traditional Council

Prepared by:

WHPacific

August 2011

Newtok Traditional Council
Long-Range Transportation Plan

Prepared for

Newtok Traditional Council
P.O. Box 5545
Newtok, Alaska 99559

Prepared by

WHPacific, Incorporated
300 West 31st Avenue
Anchorage, Alaska 99503

August 2011

Contents

Acronyms

ANCSA	Alaska Native Claims Settlement Act
BIA-DOT	Bureau of Indian Affairs Division of Transportation
CRC	Commercial Recreational Conservation (district)
GC	General Conservation (district)
GIS	Geographic Information System
HTF	Highway Trust Fund
IRA	Indian Reorganization Act
IRR	Indian Reservation Roads
LRTP	Long Range Transportation Plan
MOA	Memorandum of Agreement
NAHASDA	Native American Housing Assistance Self Determination Act
NHS	National Highway System
RD	Resource Development (district)
SAFTEA-LU	Safe, Affordable, Flexible, Efficient Transportation Equity Act: A Legacy for Users
SC	Subsistence Conservation (district)
SR	Sufficiency Rating
TC	Transportation Corridor (district)
ISTEA	Intermodal Surface Transportation Equity Act of 1999
TEA-21	Transportation Equity Act for the Twenty-first Century
FLHP	Federal Lands Highways Program
DMV	(State of Alaska) Division of Motor Vehicles
STIP	Statewide Transportation Improvements Program
ISDEAA	Indian Self-Determination and Education Assistance Act
BIA	Bureau of Indian Affairs
DOI	(US) Department of the Interior
DOT	(US) Department of Transportation
FHWA	Federal Highways Administration
FLH	Federal Lands Highways
TTAM	Tribal Transportation Allocation Methodology
ADOT&PF	Alaska Department of Transportation and Public Facilities
FTA	Federal Transit Administration
HAS	Highway Analysis System
HSIP	Highway Safety Improvement Program
FARS	Fatal Accident Reporting System
HPP	High Priority Projects
AADT	Average Annual Daily Traffic
ADT	Average Daily Traffic
VPD	Vehicles per day
RNDF	Relative Need Distribution Factor

1. Introduction

Newtok is experiencing severe erosion along the banks of the Ninglick River at an average annual erosion rate of 85 feet per year. This progressive erosion, in combination with permafrost degradation and flooding of the village during seasonal storms has created a serious threat to the existence of the village. The Newtok Traditional Council has initiated a village relocation planning process in order to prepare for the imminent encroachment of river bank erosion on its residences and facilities. The construction of new community roads at the proposed village relocation site is the top priority of Newtok residents and this plan. The road system will provide a foundation for developing a viable community, safe from the threat of erosion, at the new site, called Mertarvik.

This Long Range Transportation Plan (LRTP) was developed in accordance with 25 C.F.R. Part 170 for the Newtok Traditional Council. To complete the plan, the Newtok Traditional Council hired WHPacific with funding from the Bureau of Indian Affairs annual Tribal Share allocation under the Indian Reservation Roads (IRR) program. The IRR program provides funds to federally recognized Tribes to improve public transportation to and within Indian and Alaskan Native Communities.

The plan contains information on existing conditions, transportation funding sources, transportation priorities, and implementation strategies, which will serve as a guide for programming and budgeting future transportation improvements. This LRTP identifies the Tribe's transportation infrastructure projects in the short range (1-5 years), medium range (5-10 years) and long range (beyond ten years) planning horizons. The plan should be considered flexible to the changing needs and conditions in the community. To keep the plan current, the Tribe should review it annually, modifying the priority list as needed, and update it every five to seven years, or when major changes in land use occur.

1.1. Purpose and Scope

The objective of this LRTP is to produce a plan for providing transportation facilities for vehicular and pedestrian traffic that will enable tribal leaders to take advantage of desirable development opportunities, protect community resources and traditions, and enhance the use of the tribe's land by its residents. Specifically, the purpose of this plan is to:

- Identify, evaluate and determine present and future public transportation needs.
- Provide a 20-year transportation plan, which defines those needs and is responsive to short and long range development projections.
- Develop a prioritized listing of recommended road improvement/construction projects for use by the tribe and BIA in implementing a construction program to meet current and projected (20-year) transportation needs.
- Satisfy BIA inventory and LRTP requirements.

This transportation plan presents a strategy that is fiscally and developmentally sound and addresses the funding issues and eligibility restrictions associated with Highway Trust Fund (HTF) monies. Alaska's Tribes are politically and geographically diverse, and each has its own goals and objectives for its transportation system. However, several transportation goals are common to all Tribes. These include:

- To provide safe and convenient public access.
- To provide access to new and old development.
- To complement surrounding public transportation facilities as part of the area-wide public transportation system.
- To assist in the economic development of the Tribe.
- To develop a transportation system that is respectful of traditional heritage.
- To produce a plan for providing transportation facilities.

1.2. Public Involvement

In accordance with *Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations,* (codified at 25 Code of Federal Regulations (CFR) Part 170), §170.413, BIA or the tribe must solicit public involvement. Public involvement begins at the same time long-range transportation planning begins. Appendix A contains supporting information regarding the public participation process.

The Tribe solicited broad public involvement in the development of this plan. Strategies included:

- Stakeholder coordination – Interviews and discussions were held with council members, Alaska Department of Transportation and Public Facilities (ADOT&PF) and other interested parties.
- Newtok Traditional Council – The Newtok Traditional Council was kept informed and provided input during their regularly scheduled meetings, the BIA Service Providers' Conference, and at other times.
- Public Meetings – A public meeting was advertised and held January 22, 2011. Appendix A contains a summary of the meeting.

LRTP Public Meeting, January 25, 2011, Newtok, AK

At the meeting, planners and stakeholders discussed the scope of the project, the Transportation Plan, transportation priorities, funding, inventory updates, and transportation issues in the community. Issues identified included:

- Funding;
- Village relocation efforts; and
- Program management.

During the course of this planning effort, WHPacific staff met with tribal officials, tribal staff and contacted other local, borough, and state agencies to obtain the most current information on socioeconomic conditions, tribal needs, development trends, and traffic data. The Council identified

transportation projects to be initiated over the next 20 years and projects were ranked in order of priority to the Tribe.

The final plan was submitted to the Newtok Traditional Council after comments were addressed. The Newtok Traditional Council adopted the plan through resolution. A copy of the Tribal Resolution approving the plan is contained in Appendix B.

After the completion of the plan, the Tribe intends to meet annually to discuss new priorities and plan updates.

1.3. Organization of Plan

This LRTP contains four chapters:

- Chapter 1: Introduction – describes the purpose of the LRTP, identifies issues to be addressed, and the methods used to obtain information and keep stakeholders informed and involved.
- Chapter 2: Existing Conditions – provides an overview of the village's location, culture, history, government, demographics, physical environment, and infrastructure. This chapter also addresses existing transportation regulations and funding sources.
- Chapter 3: Transportation Analysis – presents the major analytical work of the development of transportation system alternatives by evaluating the existing transportation system in Newtok.
- Chapter 4: Transportation Implementation Strategy – lists the priority road construction projects, goals and objectives, plan implementation and updating strategies, and the procedures for the development of roads.

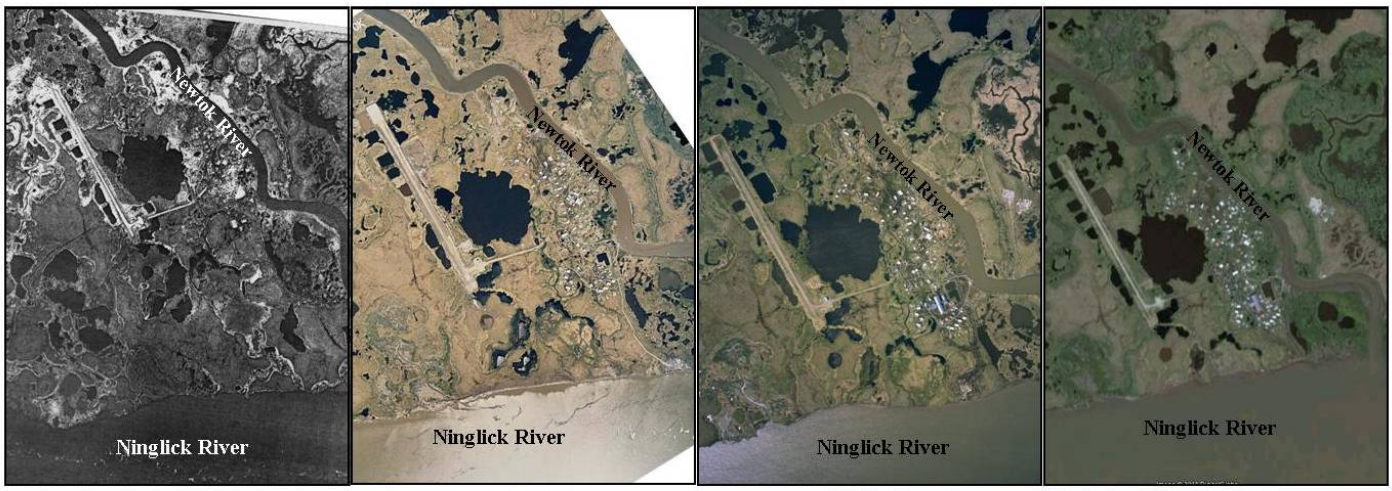
This page was intentionally left blank

2. Existing Conditions

2.1. Background Data

2.1.1. Regional Context

Newtok is located on the Ninglick River north of Nelson Island in the Yukon-Kuskokwim Delta Region. It is 94 miles northwest of Bethel, and lies at approximately 60.942780 North Latitude and 164.629440 West Longitude (Sec. 24, T010N, R087W, Seward Meridian). Mertarvik, the new village site, is located approximately nine miles southeast of Newtok on the north side of Nelson Island. Exhibit 1 and Exhibit 2 provide regional images of the location of Newtok and Mertarvik, the Bethel Census Area and their relationship to the state as a whole.



Erosion of the Ninglick River. Source for 2007 photo: Google Earth

Exhibit 1: Regional Map

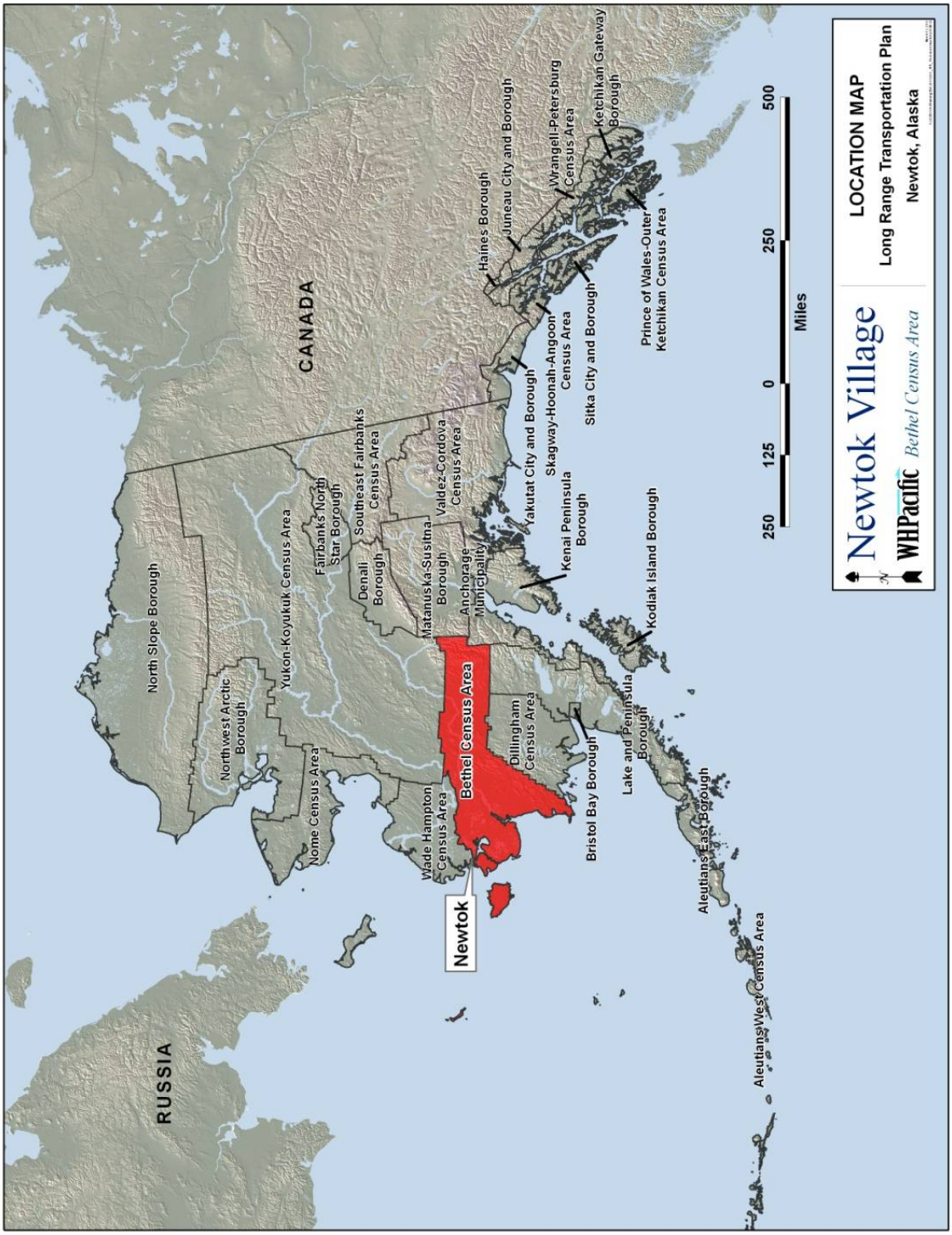
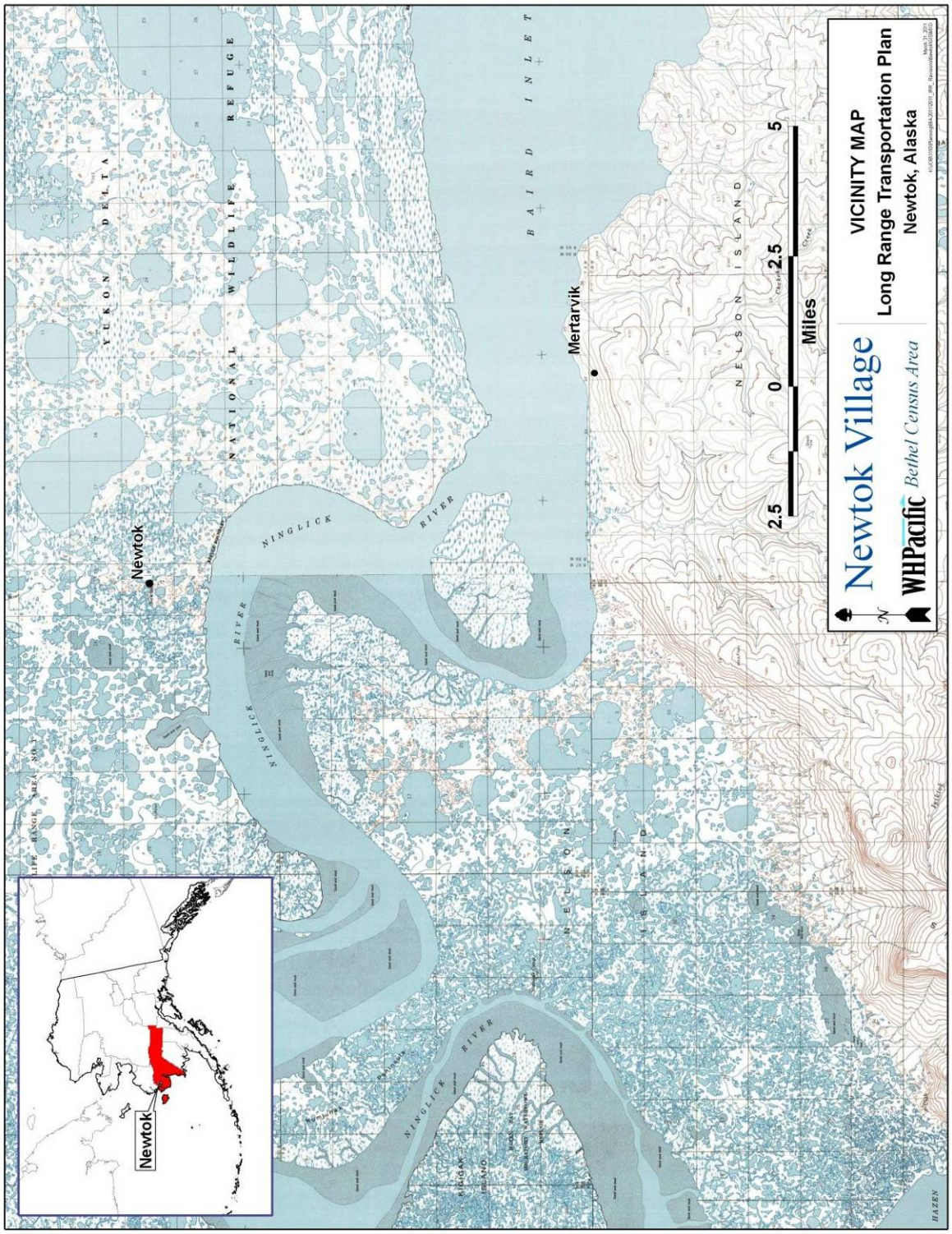


Exhibit 2: Vicinity Map



2.1.2. Culture and History

Newtok is a traditional Yup'ik Eskimo village, with an active subsistence lifestyle. Relative isolation from outside influences has enabled the area to retain its traditions and customs, more so than other parts of Alaska. The region's closest substantial population center is Bethel approximately 93 miles to the east of Newtok. The sale and importation of alcohol is banned in the village.

The people of Newtok share a heritage with Nelson Island communities; their ancestors have lived on the Bering Sea coast for at least 2,000 years. The people from the five villages are known as Qaluayaamiut or "dip net people." Only intermittent outside contact occurred until the 1920s and 1950s, the Territorial Guard found volunteers from Newtok while they were traveling to Bethel. Tuberculosis was a major health problem during this period. In the late 1950s, the village was relocated from Old Kealavik, ten miles away, to its present location to escape flooding. In November 2003, the 108th Congress passed S. 924, allowing the village to relocate to Nelson Island. The legislation authorized an exchange of lands between the U.S. Fish and Wildlife Service and the Newtok Corporation to allow community members to relocate.

2.1.3. Government

Newtok is located in the Bethel Recording District and was incorporated as a second class city within an unorganized borough in 1976. In 1997, the city government was dissolved. The BIA-recognized Newtok Traditional Council conducts local government affairs. The Newtok Corporation also serves the village. Contact information follows.

Newtok Traditional Council
P.O. Box 5545
Newtok, AK 99559
P: 907-237-2314; F: 907-237-2428

Newtok Corporation
P.O. Box 5528
Newtok, AK 99559
P: 907-237-2177; F: 907-237-2227

Newtok Traditional Council Tribal Office, Newtok, AK

2.1.4. Prior and Future Long Range Planning

Table 1 lists prior planning efforts related to Newtok or Mertarvik, when they were completed, and when they are slated for review. The transportation plan will be coordinated with existing and future planning efforts.

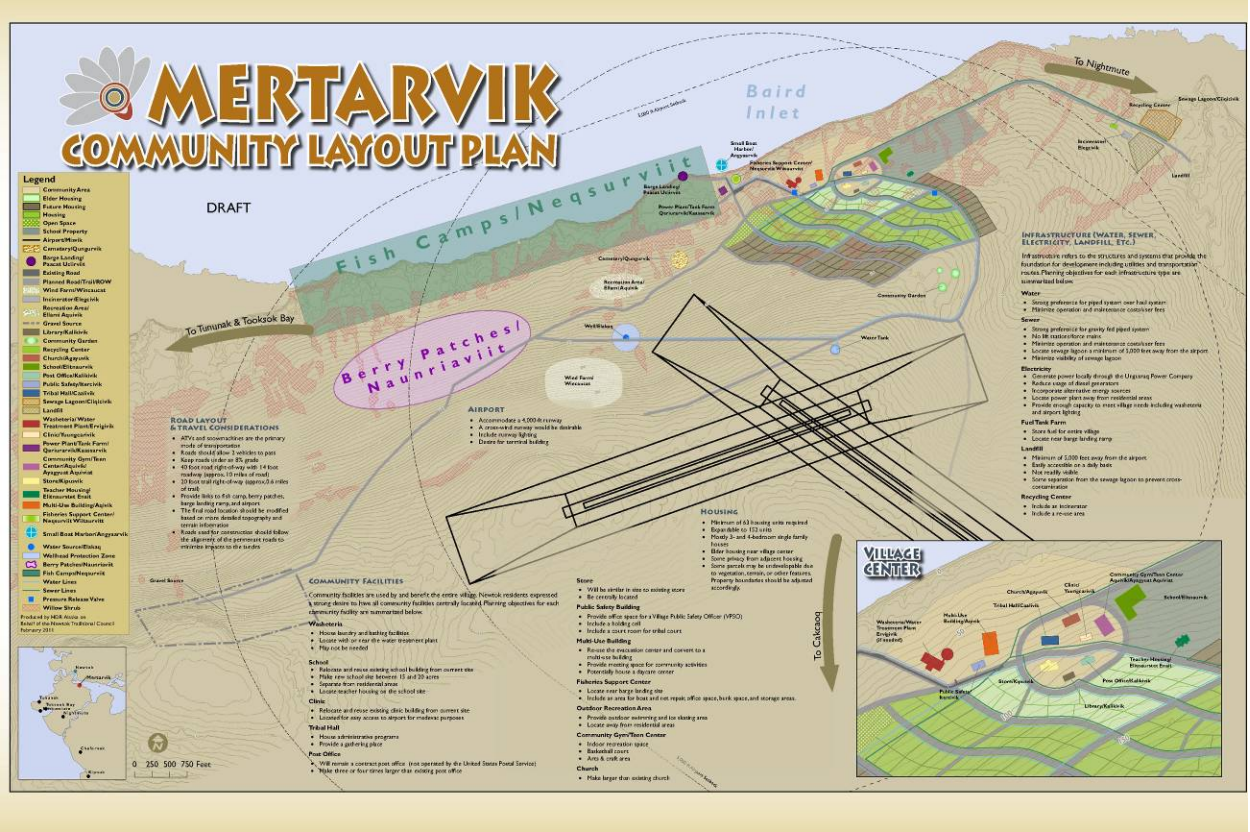
Table 1: Newtok/Mertarvik Community Plans

Document	Completion Date	Next Review
Mertarvik Community Layout Plan	2010	n/a
Local Hazards Mitigation Plan	March 12, 2008	2013 or as needed
Newtok Airport Relocation Reconnaissance Study	March 2008	n/a
Geotechnical Report, Mertarvik Town site	February 2008	n/a
Newtok Long Range Transportation Plan	2007	2011
Ceñaliuriit (Yukon-Kuskokwim) CRSA* Coastal Management Plan	2006	n/a
Background for Relocation Report	January 2004	n/a

Source: Division of Community and Regional Affairs, State of Alaska.
http://www.dced.state.ak.us/dcra/planning/npg/Newtok_Planning_Group.htm

The Mertarvik Community Layout Plan provided a map of the new village site shown below in Exhibit 3.

Exhibit 3: Mertarvik Community Layout Plan



Source: HDR, Inc., February 2011.

Currently, a Strategic Management Plan for the relocation efforts to Mertarvik is being created and is expected to be completed February 2012. This plan will provide some construction window time frames

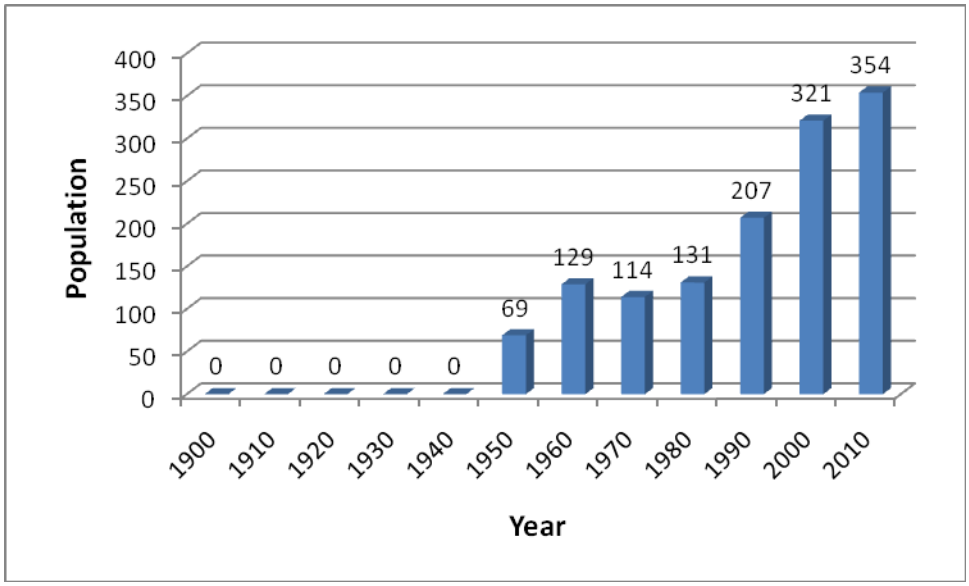
for the development of Mertarvik. The Division of Homeland Security and Emergency Management is developing an emergency operations plan and a community evacuation plan. Also, studies are underway for water/sewer and alternative energy infrastructure, housing, and quarry development.

The Airport Master Plan for the Mertarvik Airport is in its final stages and once a preferred alternative site is selected the plan will be taken to the Aviation Project Evaluation Board sometime next year for approval. Once funding for the design of the airport is received, the environmental permitting will likely take about two and a half years. An airport access road could be included in the development of a new airport at Mertarvik. This road would likely extend from the Evacuation Center to the new airport site.

2.1.5. Population and Demographics

According to the DCRA Community Database, the population of Newtok in 2010 was 354. This is a 9.3 percent increase from 2000 when the population was 321. Over the past 20 years, Newtok has experienced a 3.6 percent average annual growth rate. Exhibit 4 shows the population for Newtok from 1900-2010.

Exhibit 4: Newtok Population History, 1900-2010



Source: Division of Community and Regional Affairs, State of Alaska.
http://www.dced.state.ak.us/dca/commdb/CF_BLOCK.htm

The following data represents demographic information for Alaska (Table 2), Bethel Census Area (Table 3) and Newtok (Table 4).

Table 2: Alaska Population

Geographic Area	Census 2000	Census 2010	Projections July 1, 2015	Projections July 1, 2020	Projections July 1, 2025	Projections July 1, 2030
Alaska	626,932	710,231	732,544	774,421	820,881	867,674

Source: US Census Bureau. http://www.census.gov/.

Table 3: Bethel Census Area Population

Census Area	Population 1990	Population 2000	Population 2010	Change 1990-2000	Change 2000- 2010
Bethel	13,656	16,006	17,013	15%	6%

Source: US Census Bureau. http://www.census.gov/.

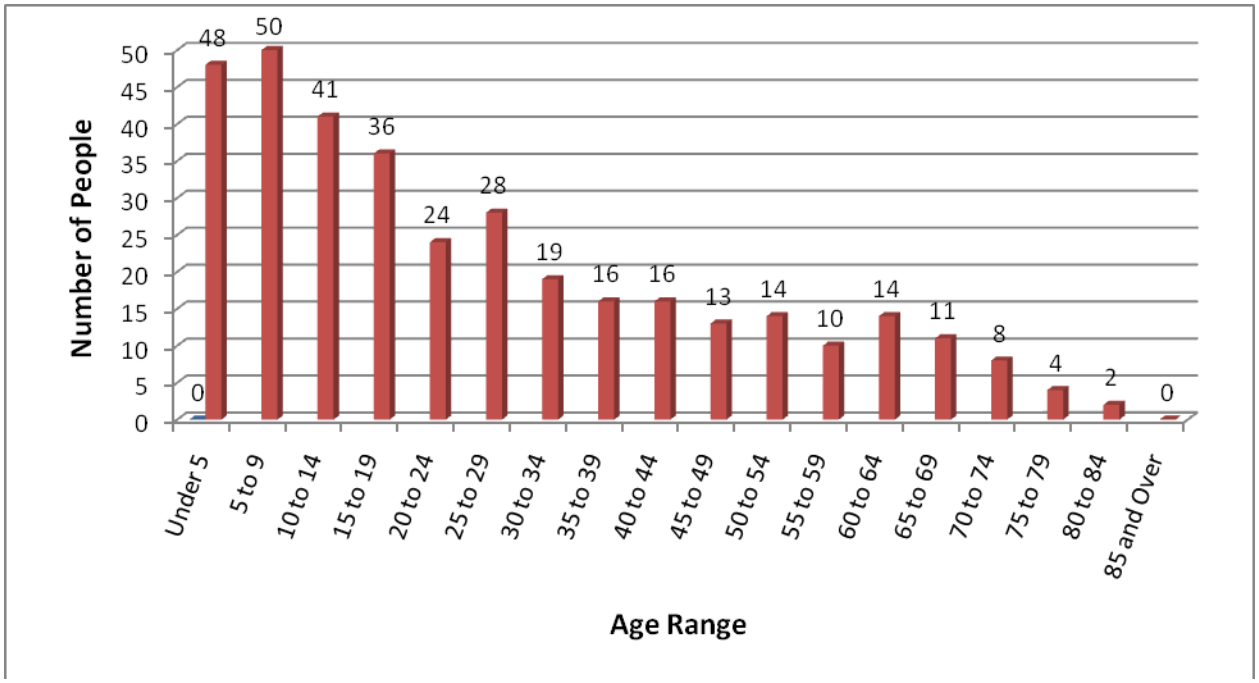
The population in Newtok consists of 96% American Indian and Alaska Native people. Table 4 illustrates the gender distribution, while Exhibit 5 shows the age distribution of Newtok residents.

Table 4: 2010 Population Gender Distributions, Newtok Traditional Council

Gender	Number
Male	197
Female	157

Source: 2010 US Census, US Census Bureau. *Profile of General Population and Housing Characteristics*, http://2010.census.gov/2010census/data/.

Exhibit 5: Age Distribution, Newtok Traditional Council, 2010



Source: 2010 US Census, US Census Bureau. *Profile of General Population and Housing Characteristics*, http://2010.census.gov/2010census/data/.

Table 5 and Table 6 provide Tribal enrollment information derived from Native American Housing Assistance Self-Determination Act (NAHASDA) and Tribal membership information.

Table 5: Newtok Traditional Council Population Comparison

Provider	Population
NAHASDA	377*
Tribal Enrollment (BIA 2005 Labor Report)	429**

Sources: Native American Housing Assistance and Self Determination Act (NAHASDA). 2011 Estimate Allocation Report.
**Bureau of Indian Affairs, *2005 Local Estimate of the Indian Service Population and Labor Market Information*, http://www.bia.gov/idc/groups/public/documents/text/idc-001719.pdf.

Table 6: Newtok Tribal Members Eligible for Services Breakdown, 2005

Age Under 16	Age 16-64	Age 65 and Over	Total
164	237	20	421

Source: Bureau of Indian Affairs, *2005 Local Estimate of the Indian Service Population and Labor Market Information*, http://www.bia.gov/idc/groups/public/documents/text/idc-001719.pdf.

2.1.6. Employment

The school, clinic, village services and commercial fishing provide employment. Subsistence activities and trapping supplement income. In 2009, 17 residents held commercial fishing permits. Table 7 and Table 8 list employment characteristics for Newtok.

Table 7: Newtok Profile of Selected Economic Characteristics

	Number	Percent
Population 16 years and over	211	100%
In labor force	134	63.5%
Civilian Labor force	134	63.5%
Employed	101	47.9%
Unemployed	33	15.6%
Armed Forces	0	0%
Not in Labor Force	77	36.5%

Source: U.S. Census Bureau, *2000 US Census - Profile of Selected Economic Characteristics.* . http://www.census.gov/.

Table 8: Employed Civilian Population 16 Years and Over

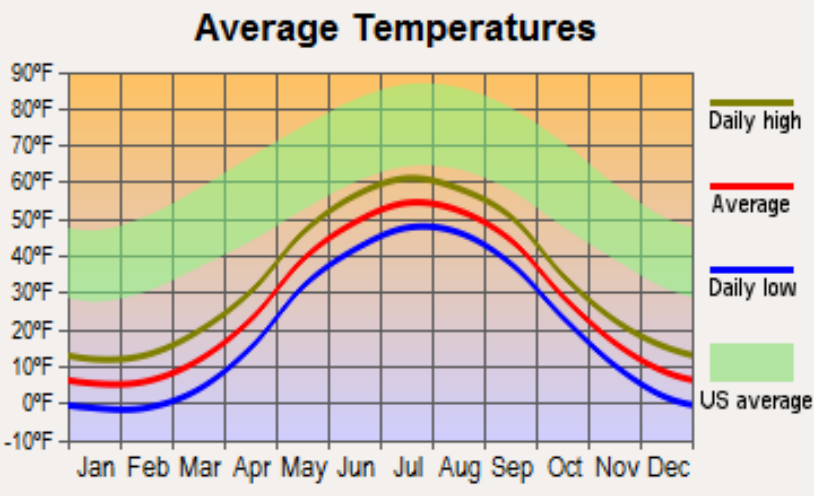
	Number	Percent
Management, professional, and related occupations	33	32.7%
Service occupations	17	16.8%
Sales and office occupations	39	38.6%
Farming, fishing, and forestry occupations	0	0.0%
Construction, extraction, and maintenance occupations	10	9.9%
Production, transportation, and material moving occupations	2	2.0%

Source: U.S. Census Bureau, *2000 US Census - Profile of Selected Economic Characteristics.* . http://www.census.gov/.

2.1.7. Climate

Newtok lies in a marine climate. Average annual precipitation is 17 inches, with 22 inches of snowfall. Summer temperatures range from 42° Fahrenheit (F) to 59°F, and winter temperatures average 2°F to 19°F. Exhibit 6 shows the annual temperature profile for Newtok.

Exhibit 6: Newtok Annual Temperature Profile



Source: http://www.city-data.com/city/Newtok-Alaska.html.

2.1.8. Soils and Topography

Newtok is a coastal community situated on the west bank of the Newtok River, a slow moving river draining the flat Yukon-Kuskokwim delta. Approximately 800 feet to the south is the encroaching Ninglick River, eroding towards the village at an average rate of 85 feet per year. The surrounding land is flat, low-lying, marshy tundra dotted with thousands of thaw lakes and sloughs. Vegetation in this low area is primarily the mosses, lichens, hair grass, sedges, and berries typical of tundra.

The bedrock in the area is comprised of non-marine sandstone and siltstone overlaid by volcanic flows and capped with a deep, wind deposited silt. A typical soil profile has deep, frozen silt layered with peat at the surface. Permafrost continuously underlies a two-foot active layer (sometimes thicker when a greater layer of peat is present).

The shallow active layer combines with the continuous presence of permafrost and nearly flat surface slopes to yield extremely poor drainage conditions around Newtok. The permafrost is ice rich and, in thaw periods, the active layer is almost completely saturated and has virtually no bearing capacity.

Flooding and erosion raise additional concerns for Newtok. The shoreline is highly vulnerable to flooding, especially during spring ice jams in the river or in severe westerly windstorms on the Bering Sea. Thermal degradation of the riverbanks is causing shoreline sloughing. To this date, the landfill and transport container storage area have been overrun by riverbank erosion.

Mertarvik: Nelson Island was formed from volcanic lava flows. The proposed village relocation site at the north end of the island is an area of rugged treeless tundra with gradual slopes that reach a summit

of several hundred feet. Mosses, lichens, hairgrass, sedges, and berries are present. There are a couple of streams, some small and intermittent areas of marshy tundra and no lakes. The bluffs along the Baird Inlet range between five and 30 feet high, and are separated in areas by intermittent gravel beaches.

2.1.9. Environmental Considerations

It is important to consider the environmental impacts when developing any transportation system. The following information is intended to assist in the analysis of priority transportation projects.

Flood and Wetland Information – The new village site at the north end of Nelson Island is situated on five to thirty foot bluffs, with intermittent gravel beaches, gradually sloping upwards to a summit of several hundred feet. Historically, there is no known flooding. Wetland impact would be minimal.

Wildlife – Fish and wildlife are abundant around the Newtok area. The area is a prime habitat of mink, land otter, and beaver. There are occasional brown bear, moose, and caribou. Salmon found in local waters include Coho, Pink, Chum, Sockeye and Chinook. In addition, area waters host black fish, needle fish, white fish, smelt, pike, lush fish, and seal. Birds include swans, cranes, swallows, sandpipers, raven, crow, seagulls, and a variety of geese. There is concern by the U.S. Fish and Wildlife Service that the proposed village site may be too close to brandt geese breeding grounds located on an island approximately two miles northwest of the site in Baird Inlet.

Vegetation – There is an array of tundra vegetation common to the region which provides the ground cover of the site, starting from the flat area along the river bank and gradually sloping upward to the summit, several hundred feet above. A detailed study of vegetation will be performed as a part of future studies.

Historic Preservation – The State Historic Preservation Office (SHPO) has a record of a historic site near a potential water source (river) on the end of Nelson Island. Coordination with the SHPO will be necessary during project development.

Wild and Scenic River Status - There are no designated Wild and Scenic Rivers near the community according to officials from the State Department of Natural Resources and the Bureau of Land Management.

Coastal Zone Management – Newtok is included in the Ceñaliuriit Coastal Resource Service Area. A coastal management plan for this service area was developed in 2006.

Wilderness – The relocation site is located on the north end of Nelson Island, in the Yukon Delta National Wildlife Refuge. A land swap was completed between the Newtok Corporation and the U.S. Fish and Wildlife Service to obtain the land for Mertarvik.

Safe Drinking Water – Drinking water is pumped from a nearby lake into a water treatment plant and transferred to the village water tank. However, village residents complain the water has become saline due to the encroaching Ninglick River contaminating the water supply. Residents supplement their water supply by collecting rainwater and by melting ice in the winter.

In 2007, Village Safe Water conducted geotechnical and groundwater studies and test well drilling at Mertarvik. Groundwater investigations were carried out and three test well locations were recommended. One of the three locations was selected to be the first test well and a pump test was conducted.

Land Transfer Documentation, Source: DCRA, State of Alaska

2.1.10. Land Ownership

The Alaska Native Claims Settlement Act of 1971 (ANCSA) resolved Alaska Native claims to land by transferring titles to thirteen Alaska Native regional corporations. As shown in Table 9, the local village corporation, Newtok Corporation, received 92,160 acres from the federal government through ANCSA. Calista Corporation has not reallocated any land to the Newtok Corporation. Newtok Corporation has not completed the 14(c)3 land exchange, but is planning to transfer land to the Newtok Traditional Council for the new site.

Table 9: Alaska Native Claims Settlement Act – Land Status

ANCSA Land Entitlement	
Village Corporation	Newtok Corporation
12(a) Land Entitlement*	92,160 acres (see note 1)
12(b) Land Entitlement**	0 acres (see note 2)
14(c)(3) Land Status	
14(c)(3) Status***	No Activity (see note 3)
14(c)(3) Comments	City dissolved January 27, 1993. Working on relocation.
14(c)(3) Agreement Signed	No
Map of Boundaries done	No
Date Plat Filed	
Recording District	
Municipal Land Trust	Yes
Authorized Village Entity Type	None (see note 4)

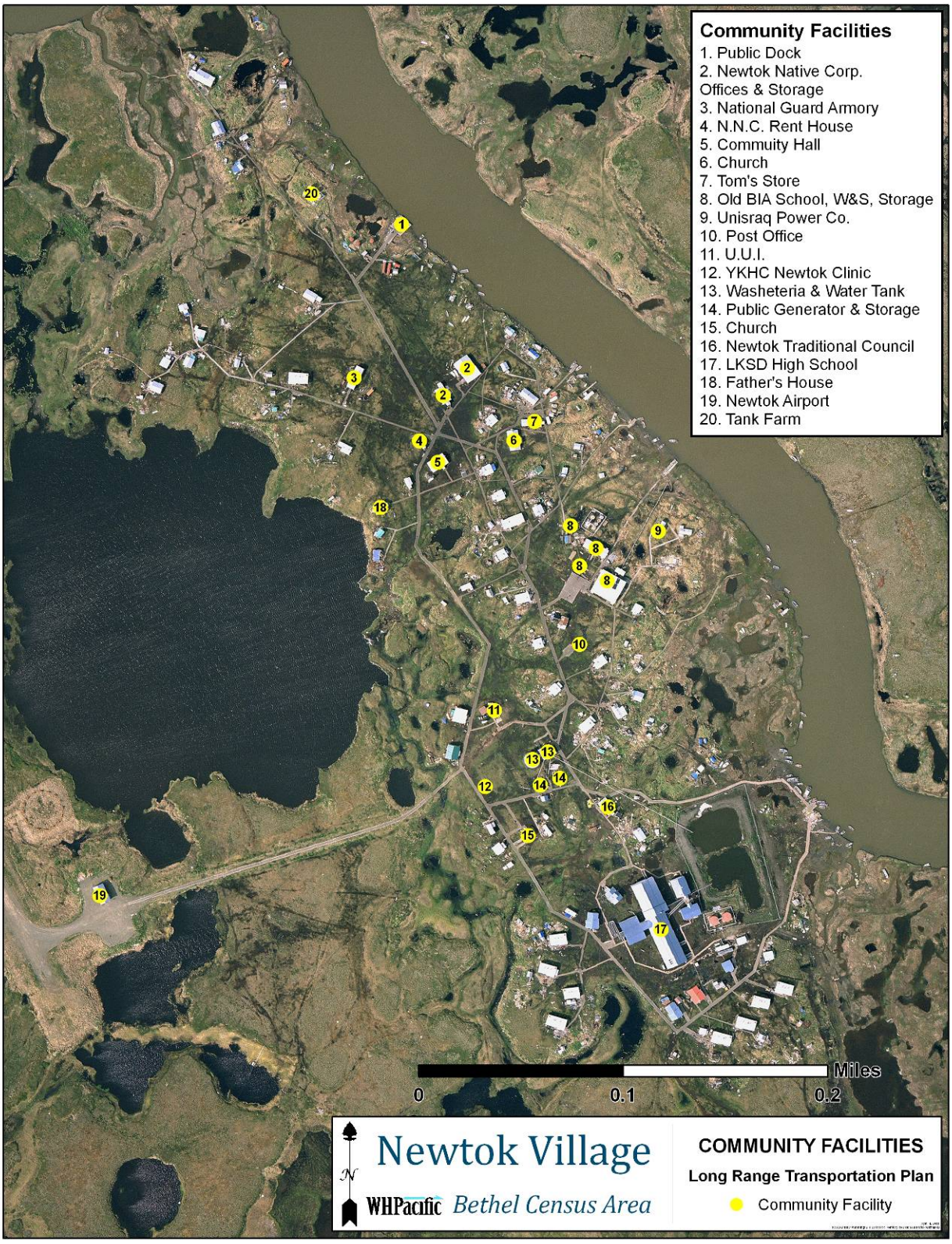
Source: Division of Community and Regional Affairs, State of Alaska. Retrieved August 8, 2011. http://www.dced.state.ak.us/dca/commdb/CF_BLOCK.htm

1. ANCSA 12(a) land entitlement to Village Corporation from federal government.
2. ANCSA 12 (b) land reallocated to Village Corporation from Regional Native Corporation.
3. Under ANCSA 14(c)(3), village corporations must re-convey surface estates to the local city government or the state in trust to provide for community use and expansion.
4. Recognized village group which represents the views of residents on municipal trust land acquisition and management in accordance with AS 44.33.755(b) and 3 AAC 190. 110-150.

2.1.11. Existing Infrastructure

Exhibit 7 shows community facility locations in Newtok such as the school, Church and Community Hall.

Exhibit 7: Community Facilities Map



Electricity: The Ungusrag Power Company, operated by the village council, provides electric utility service to Newtok. Diesel is used to generate power, and in 2010 the Ungusrag Power Company generated 402,480 kWh. Newtok residents receive the Power Cost Equalization Subsidy, so the average effective residential rate is 35.69 cents/kWh.

Fuel: Several bulk fuel tanks are owned by various businesses including Newtok Corporation Store (52,500 gals.); Lower Kuskokwim Schools (121,070 gals.); Newtok Corporation Electirc (55,955 gals.); Tom's Store (4,125 gals.); Agayuvik Holy Family Church (3,000 gals.); and the Army National Guard (2,500 gals.).

Sanitation: Water is pumped from a lake into a water treatment plant, then hauled from a storage tank. In winter, melted ice is used when water in the storage tank runs dry or freezes. Households are not plumbed, and honey buckets are used. A washeteria is available. The health clinic uses flush/haul tanks, and the schools have individual wells. Refuse collection is provided, and a landfill is available, but DOT has determined that it is too close to the airport.

In State Fiscal Year 2009, Village Safe Water received funding for sanitation facilities master planning at Mertarvik. After a sanitation facilities master plan is complete, Newtok will be eligible to apply for capital improvement project construction funding.

Telecommunications: United Utilities, Inc. provides local phone service, and United Utilities, Inc. and AT&T Alascom provide long distance phone service. Internet services are available through United Utiliites, Inc. ARCS is the local TV station, KYUK-AM is the local radio station, and there are no local cable providers. Alaska Teleconferencing Network is the local teleconferencing provider.

Tourism and Recreation: Arctic Circle Air Service, Era Aviation, Hageland Aviation, Inland Aviation Services, Inc., and Yute Air provide air transportation to and from the village.

Education: A modular school was completed in 2001 and has its own sewage lagoon. This school is a part of the Lower Kuskokwim Schools and is operated by REAA. The school provides education for grades P thru 12, serves 128 students, and has 11 teachers.

Public Safety: There are no police officers in the village and there is a volunteer fire department.

Newtok School, Newtok, AK

Church: The local church provides church services for the village.

Services and Retail: Tom's Store sells groceries and retail goods.

Housing: The following table represents the distribution of the housing available in the community.

Table 10: Housing Characteristics

Total Housing Units	72	Pop. Living in Households	354
Occupied Housing (Households)	70	Total Households	70
Vacant Housing	2	Family Households	57
Vacant Due to Seasonal Use	1	Non-Family Households	13
Owner – Occupied Housing	59	Avg. Household Size	5.06
Renter – Occupied Housing	11	Avg. Family Household Size	5.93

Source: US Census Bureau, *2010 U.S. Census, Profile of General Population and Housing Characteristics*, http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=DEC_10_DP_DPDP1&prodType=table

Health Care: The Manguan Health Clinic (P: 907-237-2111), operated by the Yukon Kuskokwim Health Corporation (YKHC) and owned by the Village Council, provides health care to Newtok. The clinic is a Community Health Aid Program (CHAP) site, and emergency service is provided by a health aide. The clinic is overcrowded; however, the YKHC has deferred the construction of a new and bigger health clinic due to the threat of erosion to the village. Emergency Services have coastal and air access and can transport patients to Anchorage for medical care.

Mertarvik Existing Infrastructure: In 2006, three Bureau of Indian Affairs Housing Improvement Program homes were awarded to the Newtok Traditional Council. The homes were delivered to Mertarvik and constructed in 2006. The new village site also currently has a barge landing, a road to the evacuation shelter and the foundation for an evacuation shelter. The evacuation shelter will provide a safe place for the Newtok community to seek refuge in the event of severe flooding. The shelter will also support for construction activities while the new village is being developed. Once Mertarvik is fully developed, the shelter will serve as a community center. The Newtok Traditional Council received a planning grant through the Alaska Climate Change Impact Mitigation Program for the design of the shelter. In 2011, the Alaska legislature awarded the Newtok Traditional Council four-million dollars for the construction of the shelter, which is to begin this summer.

Evacuation Shelter Design. Source: DCRA, State of Alaska

Source: DCRA, State of Alaska. http://www.dced.state.ak.us/dcra/planning/npg/Newtok_Planning_Group.htm

2.2. Tribal Transportation Regulations

2.2.1. Tribal Transportation Provisions – Transfer of Highway and Transit Funds

The Transfer of Highways and Transit Funds program allows a State to transfer apportioned Highways Trust Funds to another Federal agency. The project can be administered by the Federal agency under its procedures. This would make it possible for States to transfer funds to the BIA. The BIA could then administer projects under their procedures including contracting with an Indian tribe under ISDEAA.

2.2.2. 25 C.F.R. Part 170 Final Rule

On July 19, 2004, the United States Department of Interior published the Final Rule for the Indian Reservation Roads Program.[1] The Final Rule establishes policies and procedures governing the IRR Program.[2] The IRR Program is a part of the Federal Lands Highway Program established to address transportation needs of tribes. The program is jointly administered by the BIA and the Federal Highway Administration's (FHWA) Federal Lands Highway (FLH) Office.

The Final Rule establishes a funding distribution methodology called the Tribal Transportation Allocation Methodology (TTAM). The TTAM includes a factor for allocating IRR Program funds based on the relative needs of tribes and reservations or tribal communities for transportation assistance. The TTAM provides funding for IRR High Priority Projects (HPP) that would not otherwise have sufficient funding; and makes available a minimum allocation to tribes if funding levels are sufficient. The final rule became effective November 15, 2004.

The Relative Need Distribution Factor (RNDF) is a mathematical formula used for distributing the IRR Program construction funds. The RNDF is derived from a combination of the cost to construct, vehicle miles traveled, and population.

2.2.3. Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users

The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) authorizes transportation funding. Funding for highways, highway safety, and public transportation totaled $244.1 billion. SAFETEA-LU represents the largest surface transportation investment in the Nation's history.

SAFTEA-LU changed the IRR program. IRR funding may be provided via a funding agreement in accordance with the Indian Self-Determination and Education Assistance Act (ISDEAA). These funds can be released to a requesting Indian tribal government that has satisfactorily demonstrated financial stability and financial management. IRR funds shall only be expended on projects identified in a

1 Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations: Codified at 25 Code of Federal Regulations ("CFR") Part 170

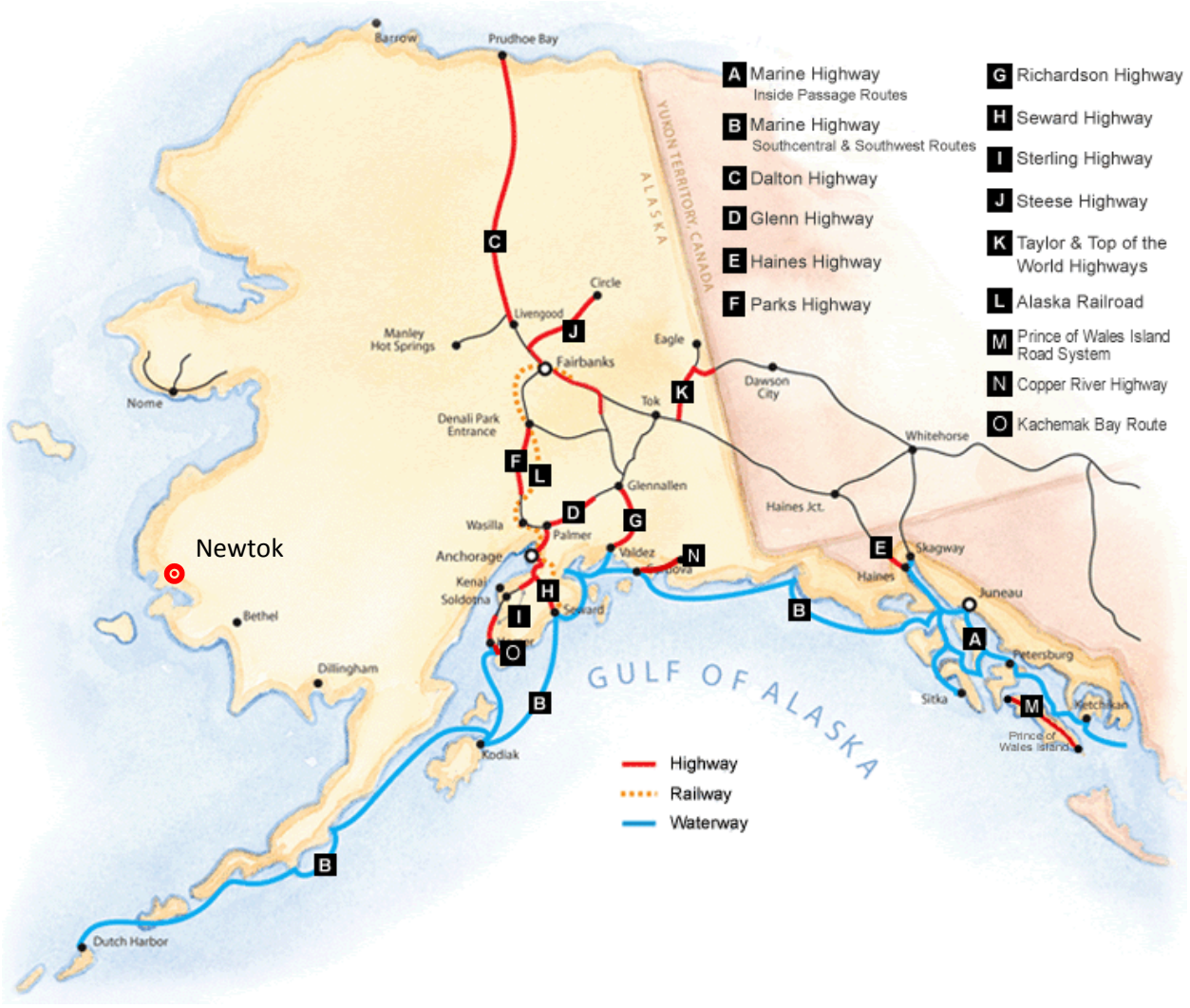
2 The Final Rule is not totally final, as amendments are needed to bring it into compliance with, and implement the "Safe, Accountable, Flexible, Efficient, Transportation Equity Act: A Legacy for Users" ("SAFETEA-LU" Act) of 2005 (109 P.L. 59, 119 STAT.1144 (H.R. 3, 109th Congress)).

transportation improvement program approved by the Secretary of the Interior. The Deputy Assistant Secretary of Transportation for Tribal Government Affairs, in cooperation with the Secretary of the Interior, was required to complete a comprehensive national inventory of transportation facilities that are eligible for assistance under the IRR program within two years of enactment of SAFETEA-LU. Up to 25% of a tribe's IRR program funds may now be used for the purpose of IRR system maintenance as defined in 25CFR Part 170, although the Bureau of Indian Affairs (BIA) will retain primary responsibility for IRR maintenance programs through the Department of Interior (DOI) appropriations. Funding for the BIA's program management and oversight expenses is provided, although this amount now includes BIA project-related administrative expenses. An Indian tribe may enter into a road maintenance agreement with a State to assume the responsibilities of the State for roads in and providing access to Indian reservations.

2.2.4. Scenic Byways

SAFETEA-LU authorized a total of $175 million through 2009 for technical assistance and grants to States and Indian tribes to develop and implement scenic byways programs. Highways of outstanding scenic, historic, cultural, natural, recreational, and archaeological qualities may be designated as National Scenic Byways, All-American Roads, America's Byways, State Scenic or Indian Tribe Scenic Byways. Additional authorization totaling $13.5 million was provided to fund technical support and educational activities provided by the America's Byways Resource Center. In Alaska, designated Scenic Byways are currently limited to selected state and National highways primarily in the interior and south central part of the state. As shown in Exhibit 8, there are currently no Scenic Byways in Newtok or plans to apply for a Scenic Byway.

Exhibit 8: Alaska's Scenic Byways



Source: Department of Transportation, State of Alaska, http://dot.alaska.gov/stwdplng/scenic/index.shtml.

2.3. Transportation Funding

2.3.1. BIA IRR Funding

In accordance with the Final Rule (25 CFR Part 170)[3], the Tribal Transportation Allocation Methodology (TTAM) that BIA uses to allocate IRR Program funds, after appropriate statutory and regulatory set-asides, as well as other takedowns, is as follows:

3 Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations-Indian Reservation Roads Program; Final Rule, pp. 43090-43141.

(a) A statutorily determined percentage to a tribal transportation planning program (under 23 U.S.C. 204 (j)); and (b) The remainder to a pool of funds designated as "Remaining funding available for distribution." This "Remaining funding available for distribution" pool is further allocated as follows:

(1) 5 percent to a discretionary pool for IRR High Priority Projects (IRRHPP);

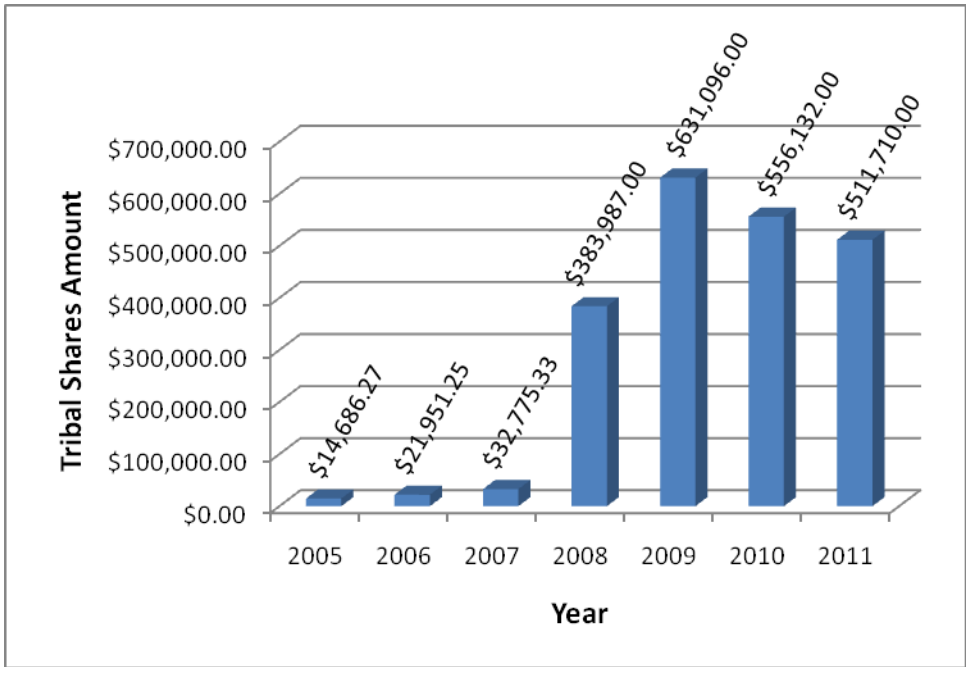
(2) 95 percent to a pool for distribution by the following Relative Need Distribution Factor (RNDF) as defined in 25 CFR §170.223: (50 percent Cost to Construct + 30 percent Vehicle Miles Traveled + 20 percent Population); and

(3) If the annual authorization is greater than $275 million, then the amount above $275 million, after appropriate statutory and regulatory set-aside as well as other takedowns are applied, will be allocated as follows: (i) 12.5 percent to the IRRHPP (§170.205); (ii) 12.5 percent to the Population Adjustment Factor (PAF) (§170.220); and (iii) 75 percent to the RNDF (§170.223).

IRR Funding History

Like all Tribes participating in the IRR program, transportation funding for Newtok fluctuates annually based on the IRR inventory system across the nation and is based on the TTAM formula outlined in 25 C.F.R. Part 170. Exhibit 9 illustrates Newtok's BIA IRR funding from FY 2005 – FY 2011. In addition to the annual allocation, Newtok received an additional $491,275 in one-time ARRA funds for the Waterfront Planning Study.

Exhibit 9: Newtok IRR Funding History 2005-2011



Source: Bureau of Indian Affairs, IRR Program Funding History 2005-2011.

2.3.2. IRR High Priority Projects (IRRHPP)

The IRRHPP is a special funding pool that can be used by a tribe whose annual allocation is insufficient to complete its highest priority project or by any tribe for an emergency/disaster on any IRR transportation facility. Eligible applicants may have only one IRRHPP application pending at any time. This includes emergency/disaster applications. The Tribe cannot use IRRHPP funds for transportation planning, research, or routine maintenance activities.

BIA will accept IRRHPP applications until December 31 each year for projects during the following year. BIA processes IRRHPP applications as shown in Table 11.

Table 11: BIA IRRHPP Schedule

By...	BIA will...
(1) December 31	Accept IRRHPP applications until this date.
(1) January 31	Notify all applicants and Regions in writing of acceptance of applications.
(2) March 31	Coordinate with FLH to rank all accepted applications in accordance with Appendix C to Subpart C, develop the FPL, and return unaccepted applications to the applicant with an explanation of the deficiencies.
(3) April 15	Notify all accepted applicants of the projects included on the FPL.
(4) May 15	Distribute funds to BIA Regions or in accordance with procedures of the Office of Self-Governance for selected IRRHPP.

IRRHPP applications are ranked and funded by the following criteria.

(a) BIA-DOT and the FLHP office will determine eligibility and fund IRRHPP applications subject to availability of funds and the following criteria:

(1) Existence of safety hazards with documented fatality and injury accidents;

(2) Number of years since the tribe's last IRR Program construction project completed;

(3) Number of years that a proposed project has been in the IRRHPP applicant pool;

(4) Percentage of project cost matched by other non-IRR Program funds (projects with a greater percentage of other matched funds rank ahead of lesser matches).

Table 12 shows the matrix used to score IRRHPP applications.

Table 12: IRRHPP Scoring Matrix

Score	10	5	3	1	0
Accident and fatality rate for candidate route[1]	Severe	N/A	Moderate	minimal	No accidents
Years since last IRR construction project completed.	Never	Last project more than 10 years ago	Last project 5-9 years ago	Last project within last 1 to 4 years	Currently has project
Readiness to Proceed to Construction or IRRBP Design Need	PS&E Complete and approved	Bridge Replacement PS&E development Project	Bridge Rehabilitation PS&E development Project	Non-bridge PS&E development Project	
Percentage of Project matched by other funds	N/A	80 percent or more by other funds	20 – 79 percent by other funds	1 – 19 percent	No other funds
Amount of funds requested[2]	N/A	250,000 or less	250,001 – 500,000	500,001-750,000	Over 750,000
Geographic isolation	No external access to community	Substandard Primary access to community	Substandard Secondary access to community	Substandard access to tribal facility	
All weather access for: **-employment** **-commerce** **-health** **-safety** **-educational resources** **-housing**	Addresses all 6 elements	Addresses 4 or 5 elements	Addresses 3 Elements	Addresses 2 elements	Addresses 1 element

[1] National Highway Traffic Safety Board standards
[2] Total funds requested, including preliminary engineering, construction, and construction engineering.

2.3.3. BIA Maintenance Funding

The BIA is obligated by 25 CFR, Part 170, to maintain the BIA Road System to a safe and satisfactory standard based on the availability of funds and the road's as-built condition. Road maintenance funds are appropriated by Congress and allocated to the BIA separately from the Federal Highway Trust Funds (HTF) used for initial construction. Road maintenance funds are used to provide an optimal level of road maintenance based on the road condition and the availability of funds. Road Maintenance activities include: the preservation and repair of the road surface, blading roadway shoulders and ditches, clearing drainage structures, snow removal and the installation/replacement of traffic control devices and street signs.

Typically, in the lower 48, the Agency Road Engineers/Managers work with the tribes in establishing a road maintenance program to determine the type and level of maintenance to be performed on BIA roads within each reservation based on Agency's road maintenance budget. Maintenance priorities are frequently determined by weather and/or road conditions which inhibit access to and from communities

to employment centers, community services and health facilities. Emergency road conditions have highest priority. Other priorities are determined based on surface type and use.

If roadways funded and constructed with HTF are not properly maintained, then future HTF road construction funds can be withheld. This situation might occur if maintenance funding is limited such that adequate repairs and upkeep of the roadway are not possible.

2.3.4. The Denali Commission

The Denali Commission serves communities in Alaska and has an annual program that went into effect on August 10, 2005, when the President signed H.R. 3, SAFETEA-LU into law. As stated previously this program known as the Denali Access System Program, provides the Denali Commission with about $15 million annually for a Community Roads Program and $10 million annually for docks, and waterfront development projects. These funds are provided annually for the life of the SAFETEA-LU legislation.

The Denali Commission is an independent federal agency based on an innovative federal-state partnership designed to provide critical utilities, infrastructure and support for economic development and training in Alaska by delivering federal services in the most cost-effective manner possible. This effort includes the program's own competitive grant process and partnerships with tribal, Federal, state and local governments involved in investment to areas of high distress. Its core mission is economic development in rural Alaska.

Program development, especially for roads, has seen a shift from maximizing financial leveraging opportunities with other transportation agencies, to fully funding, as necessary, the program’s highest priority projects. In its first year, the Denali Access program awarded $23 million in their transportation program which leveraged almost $100 million in projects. There will be an emphasis on priorities over funding partnerships in coming years. This strategy will likely reduce the overall program joint-fund total while striving to leverage funding opportunities.

This page intentionally left blank

3. Transportation Analysis

To understand how the transportation system functions in Newtok, an inventory of those elements that make up the existing system was conducted. Conducting this inventory was an important step of the planning process in order to identify areas in need of improvement over the 20-year planning period. This inventory used data compiled by the BIA, Tribe, and State; data available through Geographic Information Systems (GIS); and information gathered through supplemental field data collection efforts.

This section describes the transportation system, as it presently exists. The emphasis is on the road system, but this section also addresses the trails, air and water transportation, transit and related transportation systems.

3.1. Existing Roadway System

The existing road network in Newtok is a boardwalk system that is maintained by the Newtok Traditional Council. Newtok has approximately 2.2 miles of boardwalks within the community. There are no gravel roads. An eight –foot by 800-foot boardwalk connects the airport with the system of boardwalks in the village. The boardwalks in the village vary in width between four and eight feet and are in poor condition. The boardwalks were built of wood, with most construction reportedly occurring in 1976 and 1981. The system is approaching the end of its useful service life. Surface transportation is restricted to the boardwalk areas except during the winter when the surrounding areas become accessible to snow machines.

Boardwalk between the village and airport, Newtok, AK
Source: DCRA, State of AK

BIA Division of Transportation (BIA-DOT) *Summary Report*, dated August 2011, found in Appendix C, recorded 131.7 miles of official routes on the Indian Reservation Road system for the Newtok Traditional Council. Table 13 summarizes the surface types, ownership, and lengths (in miles) of all public roads on the IRR Inventory in the community. The BIA inventory figures presented in the table are based on the *Summary Report.* Exhibit 10 and Exhibit 11 depict the location of each road. Recommended revisions to the IRR Inventory, as outlined in Section 3.1.2, are subject to the approval of the Newtok Traditional Council and the BIA.

Table 13 Selected Characteristics of Public Roads in Newtok

Jurisdiction	Road Mileage by Surface Type						
	Paved	Gravel	Concrete	Earth	Primitive/ Trail	Proposed	Total Miles
BIA Roads *	0.0	0.0	0.0	0.0	0.0	0.0	0.0
State Highways	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Federal Road	0.0	0.0	0.0	0.0	29.5	0.0	29.5
Tribal Road	0.0	0.0	0.0	0.0	102.2	0.0	102.2
Urban Roads	0.0	0.0	0.0	0.0	0.0	0.0	0.0
"Other" Roads	0.0	0.0	0.0	0.0	0.0	14.2	14.2
TOTAL	0.0	0.0	0.0	0.0	131.7	14.2	145.9
BIA Roads as % of Total	0%	0%	0%	0%	0%	0%	0%

(*) Source: Mileage figures are based on the BIA Department of Transportation's August - 2011, *Summary Report.*

Mertarvik: In the early spring of 2008, members of the Newtok Planning Group began meeting with the Pentagon's Innovative Readiness Training (IRT) Program about the relocation effort. Sponsored by the Office of the Assistant Secretary of Defense for Reserve Affairs, IRT provides military personnel with real world training opportunities on projects that benefit civilian communities. The military personnel from the IRT Program constructed a road connecting the barge landing to the evacuation shelter in Mertarvik in 2010. The road is composed of gravel mixed with Dura-Base. This is a temporary road that is designed to be used in environmentally sensitive areas. The IRT Program personnel plan to construct an Access Road to the quarry site at Mertarvik next summer.

Barge landing road, Mertarvik, AK. Source: DCRA, State of AK

Exhibit 10: 2011 Road Inventory Routes to be Added

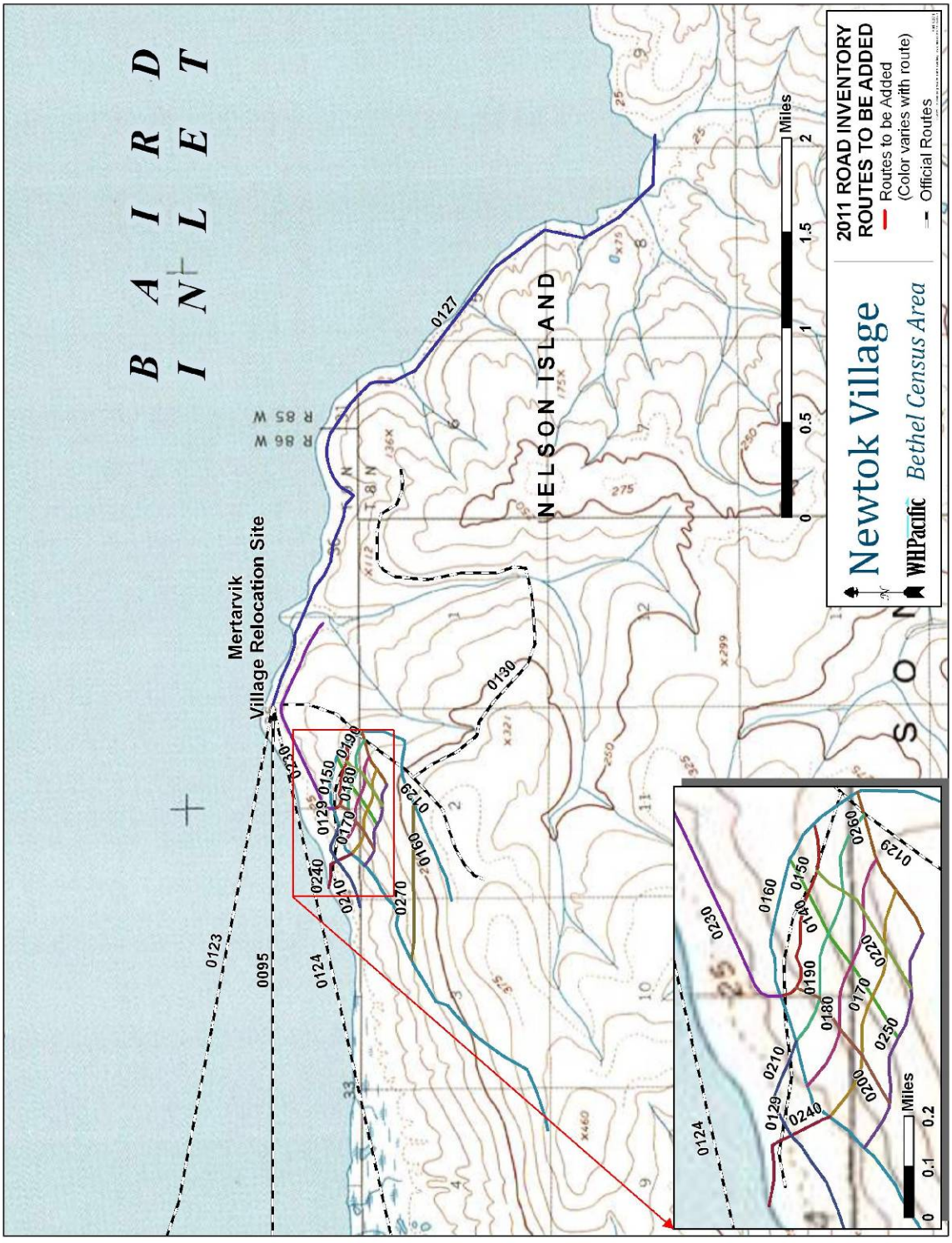
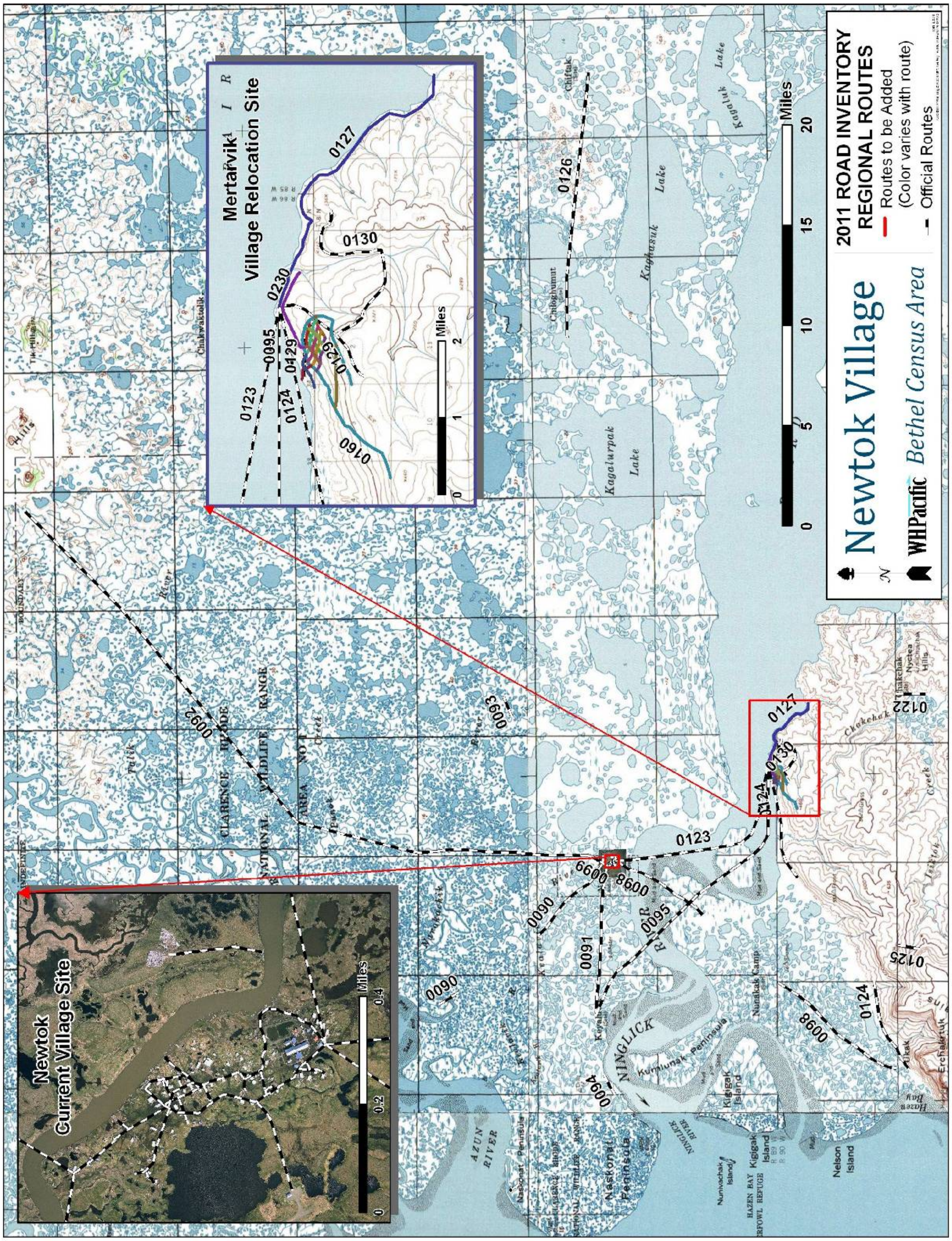


Exhibit 11: 2011 Roads Inventory Regional Routes



3.1.1. Revisions to BIA Road System

One of the objectives of this transportation plan was to identify roads that should be added or deleted from the IRR system, or renumbered to more logically reflect their relationships with intersecting roads. The following sections identify the recommended changes to the IRR Newtok Traditional Council road system.

Listed below are recommended Road System Guidelines, intended to assist Tribes, Regional Directors, and engineers in deciding which roads should be on the BIA Road System. These are not rules, as special circumstances may apply, but deviations from the guidelines should be accompanied by an explanation of the special circumstances.[4]

1. A road which is only for service to a single residence or land use is a private driveway, not a public road, and should not be on the BIA Road System. A road serving only three or less closely grouped residences or land uses should be considered a common private driveway.

2. Roads primarily used for a single purpose should not be on the BIA Road System such as:

    a. Logging roads for timber sale, administrative, or fire access only and which are not open to the public or used for such purposes as recreation, wood cutting, gathering, fishing, or hunting.

    b. Agricultural roads to fields, pump houses, headgate, dams, along canals and which are not open for other purposes such as fishing, boating, hunting.

    c. Administrative roads to power plants, sewage treatment plants, water towers which are not open to the public for other uses.

    d. Tribal roads to a single purpose tribal enterprise such as a fish hatchery, saw mill, manufacturing plant, cemetery, or other single use which are not open to the public.

3. The proportion of state and township road miles to BIA Road System road miles within a reservation should be at least equal to the proportion of fee land to trust land within that particular reservation. BIA should not participate in state or township road construction projects on a reservation unless the local governments meet their own road construction responsibilities.

4. Where state/township road systems are substantially under guideline #3, efforts to correct the imbalance and/or secure state/township funding for BIA road construction projects should be documented, with copies to the Regional Office and Central Office Division of Transportation. This also applies to cases where the state/township established a road system, but fails to meet construction needs on that system.

4 April 4, 1994, Memorandum from the Deputy Commissioner of the Indian Affairs, recommending BIA Road System Guideline.

5. Use Class 11 trails to separate pedestrian (especially school) traffic, and bicycle traffic from vehicular traffic.

6. The following are to be considered when evaluating what is "vital to the economic development" of Indian Tribes.

    a. Connects active center of population;
    b. Promotes development of natural resources;
    c. Contributes to industrial activity;
    d. Contributes to economic development;
    e. Provides jobs for the community;
    f. Contributes to law and order;
    g. Removes isolation;
    h. Provides access to education;
    i. Provides access to hospital facilities;
    j. Contributes to accident prevention; or
    k. Provides access for emergency services.

Revisions to BIA Road Inventory Mileage

The Attachment A to Resolution 2011-13, A Resolution to Add Routes to the BIA IRR Inventory, lists the routes to be added or updated to the IRR Inventory for the 2011 Inventory update. The Attachment A is contained in Appendix B. The significant changes are listed in Table 14.

Table 14: Summary of IRR Inventory Revisions

IRR Inventory Revisions	Miles
2010 IRR Inventory	131.7
Roads to be Added to IRR System	14.2
Other Route Mileage Corrections (Net Deletion)	0
Proposed IRR Road System	**145.9**

Roads to be Added to the System

Appendix D contains route narratives providing justification to add the 14.2 miles of routes to the IRR System. The justification can be summarized as follows:

Routes to be added to the IRR system include:

- New Cak' Caq Road 4.1 miles
- Unnamed Road 27 0.4 miles
- Unnamed Road 28 0.4 miles
- Unnamed Road 29 3.7 miles
- Unnamed Road 30 0.5 miles
- Unnamed Road 31 0.5 miles

- Unnamed Road 32 0.5 miles
- Unnamed Road 33 0.3 miles
- Unnamed Road 34 0.5 miles
- Unnamed Road 35 0.3 miles
- Unnamed Road 36 1.1 miles
- Unnamed Road 37 0.3 miles
- Unnamed Road 38 0.5 miles
- Unnamed Road 39 0.3 miles
- Unnamed Road 40 0.8 miles

These roads are important to the overall public transportation needs of the Tribe as recommended by the Tribal council. These are proposed public roads for which Newtok Corporation currently owns the land. They will be primary access routes to community facilities, and residential areas. Roadway Classifications are based on the functions roads perform with regard to the movement of traffic and access to property. Both the state and the Tribal/BIA systems utilize functional classification as the basis for classifying their roads. Routes in the IRR Inventory are classified using the BIA/Tribal road classifications.

Generalized Functional Classification Definitions

Functional Classification is the grouping of roads, streets and highways into integrated systems, each ranked by its relative importance and the function it is intended to serve, relative to mobility and land access. It also identifies the role each street or highway should play in channeling the flow of traffic through a rural and/or urban environment in a logical and efficient manner. The three general functional classification categories are Arterial, Collector and Local Roads. At one extreme, the Arterial's function is to move through-traffic at high speed over long distances with limited land access to adjacent property; cross-traffic is discouraged. Definitions of these general functional classifications, along with desirable characteristics, are given below.

Freeways and Expressways primarily serve long distance travel between major communities. Freeways provide the greatest mobility, with strictly controlled access allowed only at interchanges. No direct property access is allowed. Expressways also serve regional traffic, and access is allowed primarily at major intersections, although interchanges can be built for particularly high volume intersections. Occasionally direct property access is allowed when there is no other way to provide access.

Arterials carry relatively large volumes of traffic through the state and to major trip destinations such as employment or commercial centers. Arterials fall into two categories; principal and minor. Principal (Major) Arterials include United States and Interstate highways, and state highways that serve all urban areas with a population greater than 50,000. Minor Arterials are routes that provide interstate and inter-county service to cities and towns with populations of less than 25,000 and other traffic generators capable of attracting travel over long distances. Principal arterials usually have four traffic lanes (two lanes in each direction), provide storage for left turns at most intersections, and are separated by a median or continuous left turn lane. Minor arterials may only have two traffic lanes and should include a storage lane for left turns at major intersections. A minimum right-of-way width of 60 to 100 feet is

needed for roads with more than four lanes. However, right-of-way should be based on preferable dimensions of each roadway element.

Collectors generally serve travel of primarily intra-county and regional importance rather than statewide importance and have shorter travel distances than arterials. They also provide a balance between mobility and land access by customarily permitting access to all abutting properties. Like Arterials, there are two categories of collectors; major and minor. Major Collectors provide service to any county seat or community not served by an arterial road, and serve other traffic generators of intra-county importance such as: regional parks, consolidated schools, agricultural areas, shipping points, etc. Minor Collectors are spaced at intervals consistent with population density, collect traffic from local roads, and provide access to all developed areas within a reasonable distance of a major collector or higher classified road. A minimum right-of-way width of 80 to 100 feet is desirable for a collector.

Local Roads comprise the balance of the road network and carry low volume, low-speed traffic. The primary function of a local road is to provide access to individual parcels of property. Local roads usually serve residential areas and may also serve scattered business and industry sites that generate modest traffic. A minimum right-of-way of 60 to 80 feet is desirable for a local road.

State Highway Classification

The functional classification of roads has been used by state highway departments for many years for a variety of important highway functions such as: assigning jurisdictional responsibility, determining cost allocations, allocating funds to local units of government, and establishing appropriate design standards. Prior to the enactment of the *Intermodal Surface Transportation Efficiency Act of 1991* (ISTEA), it became apparent that the federally mandated functional classifications completed nearly 20 years ago, although routinely updated by the states, were no longer consistent among the states and needed to be reclassified before the establishment of a National Highway System (NHS). As a result, Congress included Section 1006 (c) in *ISTEA*, which required the states to reclassify roads and streets within the state, under the oversight of the FHWA, by September 20, 1996.

Functional Classifications vs. State Highway Designations

The issue of road classifications and designations is confusing because there are two different mechanisms for labeling and identifying Alaska's Public Roads. Designations serve to identify which entity is responsible for maintaining roads. Functional Classifications serve to identify the purpose of the road. Both - functional classifications and designations - apply to all public roads in Alaska. The two terms are also linked within State law - the functional classification of a road is supposed to relate directly to its designation.

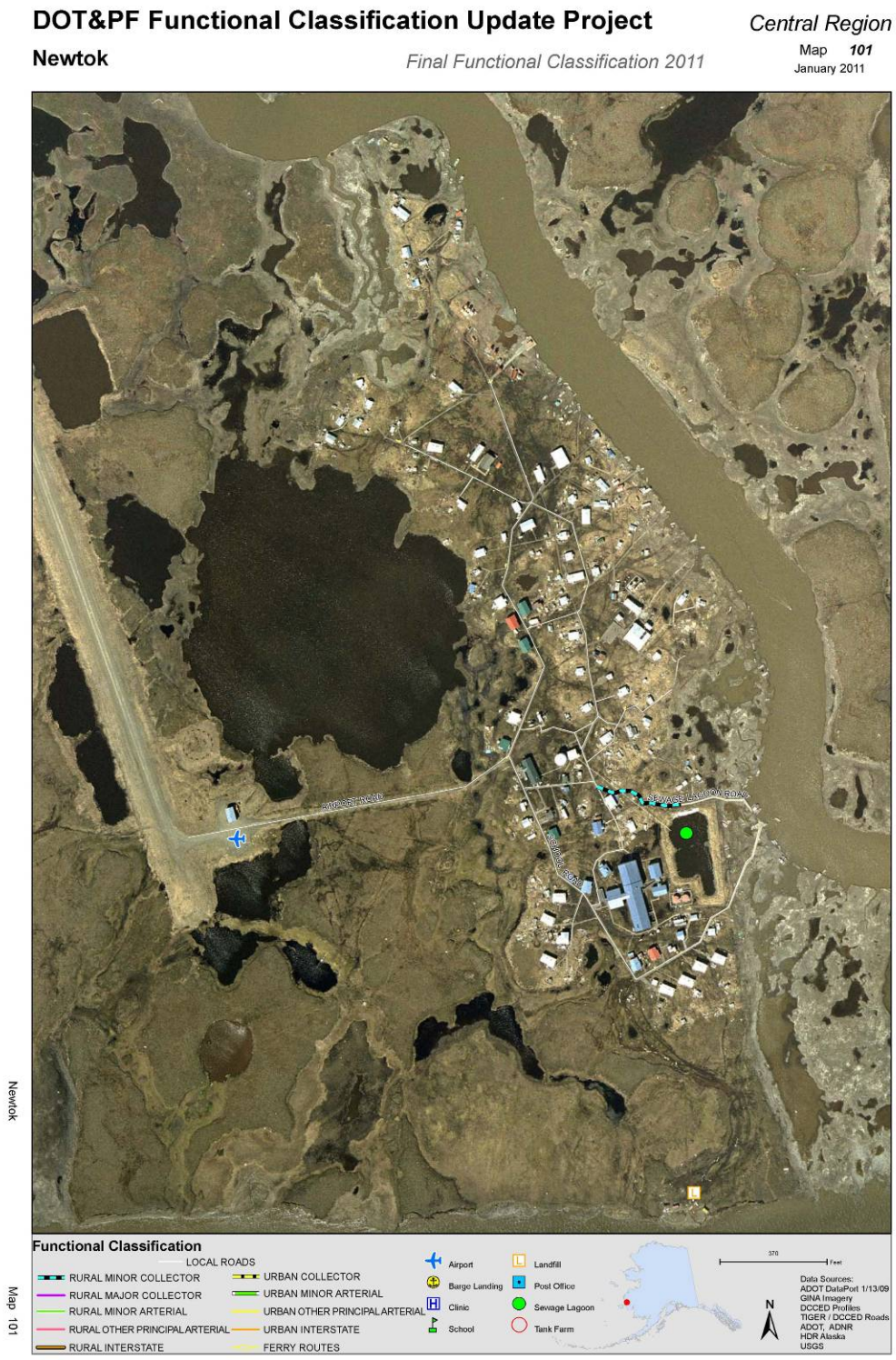
State Highways: A system of connected main highways throughout the state that primarily serve arterials or through traffic. With the exception of compact areas, the Alaska Department of Transportation and Public Facilities (ADOT&PF) maintains state highways.

State Aid Highways: A system of highways which are not included in the system of state highways, and which primarily serve as collectors and feeder routes connecting local service roads to the arterial State

Highway System. Generally, state aid roads are maintained by ADOT&PF in the summer and by towns in the winter.

Town Ways: All other highways not included in the State Highway or State Aid classifications that are maintained by municipalities or boroughs and primarily serve as local service roads providing access to adjacent land. The State of Alaska identified a portion of route 0117 as a Rural Major Collector. All other roads they identify as Local Roads as shown in Exhibit 12: DOT&PF Functional Classification.

Exhibit 12: DOT&PF Functional Classification



Source: Department of Transportation, State of Alaska. http://www.dot.state.ak.us/stwdplng/fclass/mapsdocs.shtml

BIA Road Classifications

The BIA road system has several classes of routes. Functional classification means an analysis of a specific transportation facility taking into account current and future traffic generators, and their relationship to connecting or adjacent BIA, state, county, Federal, and/or local roads and other intermodal facilities. Functional Classification is used to delineate the difference between the various road and/or intermodal transportation facility standards eligible for funding under the IRR program. As part of the IRR system management, all transportation facilities included in or added to the IRR inventory must be classified according to the following functional classification system:

Class 1. Major arterial roads providing an integrated network with characteristics for serving traffic between large population centers, generally without stub connections and having average daily traffic volumes of 10,000 vehicles per day or more with more than two lanes of traffic.

Class 2. Rural minor arterial roads providing an integrated network having the characteristics for serving traffic between large population centers, generally without stub connections. May also link smaller towns and communities to major resort areas that attract travel over long distances and generally provide for relatively high overall travel speeds with minimum interference to through traffic movement. Generally provide for at least inter-county or inter-state service and are spaced at intervals consistent with population density. This class of road will have less than 10,000 vehicles per day.

Class 3. Streets that are located within communities serving residential areas.

Class 4. Rural major collector roads are collectors to rural local roads.

Class 5. Rural local road that is either a section line and/or stub type roads, make connections within the grid of the IRR system. This class of road may serve areas around villages, into farming areas, to schools, tourist attractions, or various small enterprises. Also included are roads and motorized trails for administration of forests, grazing, mining, oil, recreation, or other use purposes.

Class 6. City minor arterial streets that are located within communities and serve as access to major arterials.

Class 7. City collector streets that are located within communities and serve as collectors to the city local streets.

Class 8. This class encompasses all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, trail bikes, snowmobiles, all terrain vehicles, or other uses to provide for the general access of non-vehicular traffic.

Class 9. This classification encompasses other transportation facilities such as public parking facilities adjacent to IRR routes and scenic byways, rest areas, and other scenic pullouts, ferry boat terminals, and transit terminals.

Class 10. This classification encompasses airstrips that are within the boundaries of the IRR system grid and are open to the public. These airstrips are included for inventory and maintenance purposes only.

Class 11. This classification indicates an overlapping or previously inventoried section or sections of a route and is used to indicate that it is not to be used for accumulating needs data. This class is used for reporting and identification purposes only.

In accordance with *Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations,* (codified at 25 Code of Federal Regulations (CFR) Part 170), the transportation plan must identify the classification for each road on the IRR Inventory.

In the fall of 2010, the BIA and FHWA announced a change in the way they approach routes in the inventory that are not owned by BIA or by the Tribe. They proposed that these routes will only generate funds at a non-federal share rate unless they are classified as local routes (class 3), or a rural local road that is either a section line and/or stub type roads that make connections within the grid of the IRR system (class 5). The BIA considers 2011 a transition year and non-BIA or Tribal class 4 roads, Major Collectors, will count at the 100% rate. Below is an illustration of the final adjustment to the funding formula based on the classification of road.

In Alaska, this change would mean the routes with functional classifications of 3 or 5 would generate tribal shares at 100% while all other non-tribal or non-BIA owned routes would only generate the Non-Federal Share (NFS), or approximately 9.03%. Table 15 shows the Question 10 final interpretation of IRR funding distribution.

Table 15: Question 10 Final Interpretation of IRR Funding Distribution

			Class										
			1	2	3	4	5	6	7	8	9	10	11
Ownership	1 & 6	BIA	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%
	2	TRIBAL	100%	100%	100%	100%	100%	100%	100%	100%	0%	0%	0%
	3	STATE	NFS	NFS	100%	NFS	100%	NFS	NFS	NFS	0%	0%	0%
	4	URBAN	NFS	NFS	100%	NFS	100%	NFS	NFS	NFS	0%	0%	0%
	5	COUNTY/ TOWNSHIP	NFS	NFS	100%	NFS	100%	NFS	NFS	NFS	0%	0%	0%
	7	OTHER FEDERAL	NFS	NFS	100%	NFS	100%	NFS	NFS	NFS	0%	0%	0%
	8	OTHER	NFS	NFS	100%	NFS	100%	NFS	NFS	NFS	0%	0%	0%

Revisions to the Functional Classification of BIA Roads

There are no changes to the functional classification of official routes on the Newtok Traditional Council IRR Inventory at this time.

3.1.2. Crash Data

The Alaska Highway Database Section is responsible for providing a database of reported motor vehicle traffic crashes that occurred on public roads. Motor vehicle crash information is first recorded on an accident report form by the Alaska State Troopers, local police officers, or the accident participants. Law enforcement agencies and participants forward the reports to Driver Services, Division of Motor Vehicles (DMV), Alaska Department of Administration. DMV forwards a copy of each accident report to ADOT&PF's Division of Program Development, Highway Database Section. No data was available for Newtok.

3.2. Existing Traffic Volume

The measurement of traffic volume is one of the most basic functions of roadway planning and management. Traffic volume counts are the most common measure of roadway use, and they are needed as input to most traffic engineering analysis. The objectives of a traffic volume study are to estimate the Annual Average Daily Traffic volumes (AADT) and peak-hour traffic on any routes affecting traffic within the reservation and other public roads within the IRR system. This data is used to update the road inventory files, determine capacity deficiencies, and identify potential roadway improvement projects.

3.2.1. Results of Traffic Study

No traffic counts were taken during this LRTP update. If ADT data is not submitted with IRR routes, then the default value is used. The default value varies by route class as shown in Table 16.

Table 16: Default ADT Values

Class	Default ADT
1	NA must exist
2	25
3	50
4	50
5	50
6	50
7	50
8	20
9	NA
10	NA
11	NA

If a Tribe conducts traffic counts and applies all of the required adjustments to get the ADT value and it is higher than the route's default ADT value, then the Tribe's funding might increase. If the Tribe submits an ADT value that is lower than the default ADT value, then the Tribe's funding will decrease.

3.2.2. Trip Generation

The most reliable way to estimate the traffic generated by a proposed development is to use the trip generation rates observed at an existing development of similar land use and building type. For this purpose, the accepted source document of trip generation rates (Trip Generation, Sixth Edition - Washington, D.C., Institute of Transportation Engineers, 1997) was used. Table 17 illustrates typical land use categories on Indian Reservations and corresponding ADT rates.

Table 17: Trip Generation Rates Typical Indian Reservation Land and Use Categories

Land Use	ADT Rate
Residential	10 trips/day/dwelling
Community Center	22.88 trips/day/1000 sq. ft.
Light Industrial	6.97 trips/day/1000 sq. ft
Commercial (Shopping Center)	42.92 trips/day/1000 sq. ft.
Commercial (Convenience Market)	737.99 trips/day/1000 sq. ft.
Commercial (Fast Food Rest.)	496.12 trips/day/1000 sq. ft.
Health Clinic	31.45 trips/day/1000sq. ft.
Campground/RV Park	74 trips/day/acre
Community Park	12.14 trips/day/acre
Elementary School	12.03 trips/day/1000 sq. ft.
High School	13.27 trips/day/1000 sq. ft.

Source: Trip Generation, 6th Edition, Institute of Transportation Engineers (ITE), 1997
**No trip rates are available from ITE for similar full service casinos that are often seen on Indian Reservations. Trip estimates were based on Casino of the Sun Traffic Impact Analysis, March, 2001.*

The main activity centers in Newtok are the new school, stores, community center, health clinic, boat landing areas and the airfield. Most of the building in the community lie within a 3,000-foot by 800-foot area. The airfield is one-quarter mile from the village center.

3.3. Drainage and Bridges

Even though their primary function is for the movement of traffic, roads and streets need to be designed with drainage in mind. The drainage facilities associated with a designed street network offer one of the most economical and expedient means of conveying storm water through a developed area. Continuing improvement to the tribe's street and road system will provide great benefits. It will be important for the two systems, drainage and road improvements, to evolve concurrently.

3.3.1. Drainage

Due to the tundra on Newtok lands, careful attention must be made in the design of roadways. Inadequate roads and bridges will hamper economic development, hinder tourism, and pose safety threats.

There are currently no paved roads in Newtok because of the high cost of construction and the location of the village on tundra. There are extremely poor drainage conditions in the existing village area.

3.3.2. Bridges

According to the U.S. DOT FHWA IRR Program – Transportation Planning Activity Guidelines:

IRR Bridge Inventory: This activity involves the gathering, maintaining, and distribution of all information as required for the national bridge inventory database. This includes information such as route number, bridge location and type, length, width, surface type, bridge sufficiency ratings, bridge number, etc. This database is an important tool in identifying those existing bridges that have the highest need for repair and/or replacement.

FHWA, in consultation with the States, has assigned a sufficiency rating (SR) to each bridge (greater than 20 ft.) inventoried. Formula SR rating factors are as outlined in the current "Recording and Coding Guide for Structures Inventory and Appraisal (SI&A) of the Reservation's Bridges."

Per FHWA: "A Structurally Deficient (SD) bridge is one that (1) has been restricted to light vehicles only, (2) is closed, and/or (3) requires immediate rehabilitation to remain open. A Functionally Obsolete (FO) bridge is one in which the deck geometry, load carrying capacity (comparison of the original design load to the State legal load), clearance, or approach roadway alignment no longer meets the usual criteria for the system of which it is an integral part."

According to the 2009 Bridge Inventory Report by the ADOT&PF, there are not any bridges on the state's inventory in Newtok.

3.1. School Bus and Mail Routes

Mail is delivered to the post office boxes. The post office is located along route 0111, Unnamed Route 15, near the Old BIA School, and storage facility.

No school bus service is available in the community.

Snow machines outside of Newtok School, Newtok, AK

3.2. Existing Transit System

Public transportation is not available in Newtok.

3.3. Right-of-Way Status

The definition of a BIA System Road states that it is a road "for which the BIA has, or plans to obtain legal right-of-

way." Rights-of-way over and across tribal land, individually owned land and Government land may be granted as per those requirements in *25 CFR Part 169: "Except as otherwise provided in § 1.2 of this chapter, the regulations in this Part 169 describe the procedures, terms and conditions under which rights-of-way over and across tribal land, individually owned land and Government owned land may be granted.* All present roads and trails within the town site of Newtok are owned by Newtok Traditional Council.

3.4. Traffic Control

Traffic control devices are all signs, signals, markings, and devices placed on or adjacent to a street or highway by a public body having authority to regulate, warn, or guide traffic.

The *Manual on Uniform Traffic Control Devices* is the publication that sets forth the basic principles which govern the design and usage of traffic control devices. The manual was prepared by a national committee which included state, township, and municipal representation.

Currently there are no traffic control devices in Newtok.

3.5. Safety and Health Hazards

The biggest safety and health hazard for Newtok residents is the imminent threat of erosion, flooding and storm surges, so Newtok's primary concern is to construct new roads at Mertarvik.

3.6. Existing Trail and Path System

3.6.1. Winter Trails

Winter trails are essential means of transportation in Alaska and are used as the road system in many parts of Alaska for much of the year. There are no inter-community roads, so during the winter, snow machines and sleds are a major means of travel. Trail markers and GPS coordinates are useful when weather conditions such as winds and blowing snow obscure the trail.

Newtok residents use winter trails for subsistence purposes and to connect to neighboring villages and cultural camp areas. Winter trails are marked to Chevak (50 mi.), Tununak, Toksook Bay, Nightmute, and Manaryarapiaq (33.8 mi.) The new village site, Mertarvik, can be accessed via winter trails.

3.6.2. Berry Picking Trails

Subsistence is crucial to the culture and economy of Newtok. Berry picking trails lead to areas traditionally used for subsistence harvest.

3.7. Existing Airports

As with many communities in Alaska, aviation provides Newtok's only connection to the rest of the state because there are no interconnecting roads or ferries. Air transportation services are a mixture of government and private enterprises. The Federal Aviation Administration provides for air traffic control, regulates for safety and provides funding for airports. Alaska's size, geography, and population distribution make air transportation much more important for economic, mobility and connectivity issues than in any other state. The State provides operations and ownership to 254 airports. In addition

to those operated by the State, there are 1,112 private airports, aircraft landing areas and seaplane bases throughout Alaska.

As per ADOT&PF, "airports are classified based on the surface type of the runway as either paved, unpaved, concrete or water. Of all state-owned airports, approximately 68 percent are unpaved. About 50 airports in the state are paved. Airline passengers, overnight mail, air cargo, air ambulance, remote search and rescue, the military, and the business community all depend on Alaska's airport network."

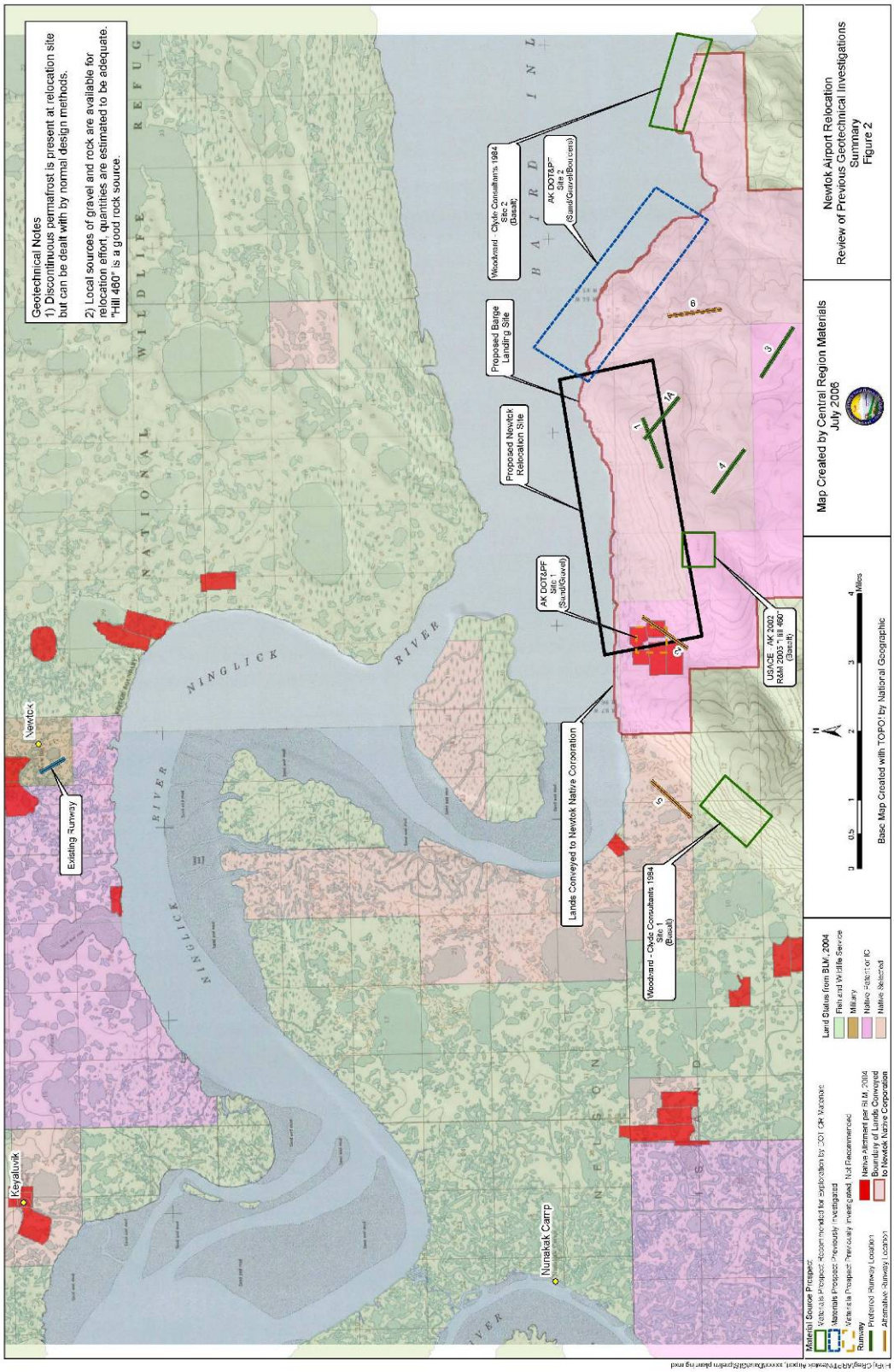
3.7.1. Newtok and Mertarvik Airports

A state-owned 2,202-foot-long by 35-foot-wide gravel runway provides chartered or private air access year-round. A seaplane base is also available. The Mertarvik Airport is in the planning stage; an Airport Master Plan is currently being completed. The alternative sites are shown in **Error! Reference source not found.**.

3.1. Existing River/Coastal Transportation

Barges deliver cargo during the summer months to Newtok. In 2006, the Alaska Department of Commerce, Community and Economic Development (DCCED) applied for and was awarded an Economic Development Administration Investment Assistance Grant for a barge landing and staging area at Mertarvik on behalf of the Newtok Traditional Council. The ADOT&PF provided the State's portion of the match for the $1 million project and also provided project management for the efforts. Finally, the Alaska State Legislature appropriated $300,000 to AKDOT&PF for surfacing material for the barge ramp and staging area. The Barge Landing and Staging Area was completed in the summer of 2009. In July of 2009 a barge arrived at the landing in Mertarvik to set up a camp and bring supplies for development of the new site.

Exhibit 13: Airport Relocation Map



4. Transportation Implementation Strategy

Goals were developed based on issues identified during community workshops, targeted interviews, review of past planning efforts, and research. Newtok's transportation goals and objectives are listed in Table 18.

Table 18: Transportation Goals and Objectives

Goals	Associated Objectives
Economic 1. Prioritize projects that support, protect or enhance community economic development and subsistence viability.	• Facilitate access to mineral resources when economically feasible and supported by the local community • Evaluate and train tribal members for work on transportation construction projects.
Health and Safety 2. Improve the overall community transportation system to promote the health and safety of residents and visitors.	• Increase trail marking on inter-village trails and roads where desired. • Provide emergency shelters along winter trails at reasonable intervals. • Promote projects that provide usable and safe access to clean water and basic sanitation. Reduce conflicts between motorized, non-motorized and pedestrian users of transportation routes. Support ADOT&PF efforts to identify solutions to aviation safety problems such as improved weather information, navigation aids and instrument approaches. • Provide access to new housing at Mertarvik to alleviate overcrowding which may cause unhealthy living conditions. • Maintain routes for year-round emergency access and livability.
Funding 3. Diversify transportation funding.	• Regularly evaluate and update IRR Inventory to maximize funding. • Consider Denali Access Program (DAP) funding for road and waterfront projects. • Maximize BIA IRR funds through HPP funding. • Seek additional funding opportunities for transportation projects such as Federal Transit Authority programs, STIP, ICDBG, State Appropriations, etc.
Preservation 4. Work to preserve existing and future transportation systems.	Work together with other entities to maintain transportation routes. • Maintain facilities to extend design life. • Implement erosion control measures to protect the existing transportation network.

Program Management 5. Provide efficient transportation system management and operation.	• Update the LRTP and tribal priority list. • Train personnel to manage the transportation program.

4.1. Recommended Transportation Priorities

The recommended 20-year transportation priorities for Newtok Traditional Council consist of an integrated set of roadway improvement/construction projects needed to meet current and projected housing and economic development goals within the community and identifies the governmental agency responsibilities for carrying out the plan.

The Newtok Traditional Council Transportation Plan calls for annual planning and inventory updates, maintenance and the design and construction of new routes at Mertarvik.

A. Maintenance Projects:

25% Construction Funds: The Newtok Traditional Council will need to exercise its right to receive 25% construction funds to be used for road maintenance upon completion of the new roads at Mertarvik. Annual Maintenance – All roads need to be properly maintained to remain free of debris. In the winter, the roads should receive proper snow removal and in the summer, road upkeep should be performed. Other maintenance items that may be needed include training for maintenance personnel, drainage improvements, and brush removal.

B. Planning Projects:

2% Transportation Funds: Newtok Traditional Council is expected to receive 2% planning dollars. Indian Reservation Roads (IRR) Transportation Planning Funds - Funding is available to Indian Tribal Governments for transportation planning on Indian lands. This is authorized by Title 23, U.S.C, Section 204(j), which states ". . . up to 2 percent of funds made available for IRR for each fiscal year shall be allocated to those Indian Tribal Governments applying for transportation planning pursuant to the provisions of the Indian Self-Determination And Education Assistance Act" (P.L. 93-638, as amended). In addition to this LRTP, the Tribe wishes to use its transportation planning funds to update its inventory and attend transportation planning training events.

C. Proposed Road Projects

Newtok Traditional Council would like to design and construct roads at the new village site, Mertarvik. These roads include:

- New Cak' Caq Road 4.1 miles
- Unnamed Road 27 0.4 miles
- Unnamed Road 28 0.4 miles

- Unnamed Road 29 3.7 miles
- Unnamed Road 30 0.5 miles
- Unnamed Road 31 0.5 miles
- Unnamed Road 32 0.5 miles
- Unnamed Road 33 0.3 miles
- Unnamed Road 34 0.5 miles
- Unnamed Road 35 0.3 miles
- Unnamed Road 36 1.1 miles
- Unnamed Road 37 0.3 miles
- Unnamed Road 38 0.5 miles
- Unnamed Road 39 0.3 miles
- Unnamed Road 40 0.8 miles

The transportation projects were prioritized in the short, medium and long range planning horizons and include project names, descriptions, purpose, and potential funding sources. Short, medium and long term transportation projects are listed in Table 19.

Table 19: Short, Medium and Long Term Transportation Projects

Project Name	Description	Purpose	Potential Funding Sources
Short Term 0-5 years			
Planning – Inventory Update	Continue to update LRTP and inventory, attend IRR training and coordinate with FHWA and BIA.	To improve IRR program delivery.	BIA IRR Program
Unnamed Road 29 Construction	Construct a temporary road to the quarry. This is 1.9 miles of Unnamed Road 29.	To assist with construction of the new village by providing access	Office of Assistant Secretary of Defense for Reserve Affairs (IRT Program)
Airport Access Road Design and Construction	Design and construct a road that connects the new community to the new airport at Mertarvik.	To provide access to air travel and to assist with construction efforts as materials are flown in.	AK DOT&PF

Project Name	Description	Purpose	Potential Funding Sources
Unnamed Roads 27, 28, 29, and 36 Design and Construction.	Design and construct 3.7 miles of main roads at Mertarvik.	To provide access to the cemetery, water tank, recycling center, incinerator, landfill, sewage lagoon, washeteria/water treatment plant, multi-use building, tribal hall, church, clinic, community gym/teen center, school, library, store, post office, teacher housing, community garden, and housing.	BIA IRR Program, Denali Commission
Medium Term 5-10 years			
Planning – Inventory Update	Continue to update LRTP and inventory, attend IRR training and coordinate with FHWA and BIA	To improve IRR program delivery.	BIA IRR Program
Unnamed Roads 30, 31, 32, 34, and 38 Design and Construction	Design and construct 2.5 miles of roads at Mertarvik.	To provide access to the power plant, tank farm, fisheries support center, washeteria, water treatment plant, and homes.	BIA IRR Program
Long Term 10-20 years			
Planning – Inventory Update	Continue to update the LRTP and inventory, attend IRR training and coordinate with FHWA and BIA	To improve IRR program delivery.	BIA IRR Program
Maintenance	Snow removal, road upkeep, maintenance personnel training and other eligible routine maintenance activities.	Increase the design life of the road system at Mertarvik.	BIA IRR Program
Unnamed Roads 33, 35, 39, and 40 Design and Construction	Design and construct 1.7 miles of road at Mertarvik.	To provide access to the well, water tank and homes.	BIA IRR Program, Denali Commission

Project Name	Description	Purpose	Potential Funding Sources
Unnamed Road 29 and 37 Design and Construction	Design and construct 2.2 miles of road to replace temporary roads.	To provide access to the barge landing and the quarry.	BIA IRR Program, Denali Commission
New Cak' Caq Road Design and Construction	Design and construct 4.1 miles of road at Mertarvik.	To provide access to subsistence activities.	BIA IRR Program

4.2. Tribal Transportation Improvement Program (TTIP)

The priority projects within the five-year time frame must be shown on a TTIP. The TTIP is a multi-year, financially constrained, list of proposed transportation projects to be implemented within or providing access to Indian country during the next three to five years. It is developed from the tribal priority list found in Appendix E. The TTIP is consistent with the tribal Long-Range Transportation Plan and must contain all IRR-funded projects. It may also contain information regarding other Federal, State, township, municipal, and tribal transportation projects initiated by or developed in cooperation with the Indian Tribal Government. Only those projects approved for funding by the sponsoring governmental entity may be included in the TTIP. It is reviewed and updated as necessary. The only entity that can change the TTIP is the Indian Tribal Government.

Examples of transportation projects include, but are not limited to: new road construction; road reconstruction/resurfacing; road sealing; bridge construction; transit facilities; highway safety; etc.

The TTIP identifies the implementation year of each project. The development of the TTIP establishes tribal priorities for IRR and other transportation projects. It is the Indian Tribal Government's voice in selecting the year in which projects are programmed. It is also a useful tool for keeping track of transportation projects programmed by other government agencies i.e., Federal Transit Administration (FTA), Federal Highway Administration, Federal Aviation Administration, etc. and coordinating them with IRR transportation projects. By developing a TTIP, the Indian Tribal Government is taking a pro-active role in the transportation planning process and exercising its sovereignty in controlling the programming of transportation projects on tribal land.

The regional IRR TIP is prepared by the Regional BIA Office. It is a prioritized list (by year) of IRR funded projects, selected by Indian Tribal Governments through TTIPs, or other tribal actions, that are programmed for construction in the next three to five years. The IRR projects identified on the TTIP must be included in the Region's IRR TIP without further action, subject to air quality conformity determination.

The BIA Regional Office places the IRR information from TTIPs into the Regional IRR TIP unchanged.

The Regional IRR TIP is included in the Statewide Transportation Improvements Program (STIP) developed by each State Transportation Agency without further action.

The BIA Regional Office updates the IRR TIP annually for each State in its service area. The process begins by providing the projected IRR Program funding amount to each Tribe. The BIA region/agency office receives a TTIP or tribal priority list from each Indian Tribal Government.

A BIA analysis of the tribal priority list results in anticipated project costs and proposed scheduling of construction activity based on the tribe's percent share of the region's IRR budget. The BIA reviews the programming of proposed projects with the Indian Tribal Government and agreed upon adjustments are made.

The BIA Regional Office then updates the region wide control schedule for its service area, to include IRR projects from TTIPs and the selected projects from the tribal priority list. The BIA Regional Office then produces an IRR TIP for each State in its service area from the area wide control schedule for signature by the Secretaries of Interior and Transportation or their designees. The revised area wide control schedule is provided to the BIA, Division of Transportation (BIA-DOT) for review and comment.

The timeframe for the annual update of the IRR TIPs for each State in a BIA Regional Office's service area should be coordinated with the State Transportation Agencies within its service area. This will ensure that approved IRR TIP updates are included with the STIPs when they are printed and distributed.

4.2.1. Alaska Department of Transportation Projects

The ADOT&PF provides services to Alaskans and visitors by designing, constructing, operating and maintaining the state's transportation infrastructure systems, buildings and other facilities. These include more than 5,000 miles of paved and gravel highways, more than 300 aviation facilities, including 260 airports, 43 small harbors, and a ferry system covering 3,500 nautical miles serving 33 coastal communities. The department is divided into three regions, along with the Alaska Marine Highway system.

The Statewide Transportation Improvements Program (STIP) is funded by the FHWA and FTA and matching funds from the state and/or local sources. The Needs List is the foundation of the STIP and includes all the air, land and water transportation projects in Alaska, which have been formally proposed by residents, elected officials and transportation professionals every four years. The Newtok Traditional Council falls within the jurisdiction of the ADOT&PF, Central Region. There are not any projects that will directly affect Newtok or Mertarvik; however, the STIP lists a project to evaluate an inter-village road/trail system to connect the Nelson Island communities of Toksook Bay, Tununak, Nightmute and Umkumiut.

Yukon-Kuskokwim Delta Transportation Plan

The ADOT&PF developed Statewide and Area Transportation Plans for "Guiding Transportation Development for Alaska's Future". Area Transportation Plans are regional, multi-modal transportation plans developed for specific areas of the state, designed to address movement between communities in

the region, and from the region to points beyond. These plans are to incorporate economic modeling to evaluate potential projects and prioritize them to best meet the state and regional goals.

Newtok is a part of the state's Yukon-Kuskokwim Delta Transportation Plan. Its goal is to improve year-round mobility and access for residents, and to broaden and diversify the region's transportation network. The plan, "describes the region's transportation systems, outlines the data and models used to analyze transportation trends, and defines projects needed to meet projected demand for each transportation mode."[5] As a 20-year strategy for transportation infrastructure, this plan guides the department's capital development plans for the area. The current plan was adopted in March 2002.

4.3. Plan Implementation and Updating

This transportation plan presents the results of a study completed in 2011. It reflects the current requirements for transportation facilities to satisfy the Community's needs and is based upon the existing conditions and anticipated future development within the Community and Tribal Priorities. The plan should not be thought of as a static document. It should be viewed as a dynamic document capable of being modified to meet changing social and economic development demands.

It is recommended that the Newtok Traditional Council adopt this plan and use it as the basis for programming and budgeting road construction funds. The plan should be reviewed by the Tribe and BIA Regional office on an annual basis to keep up with changes in community development that may warrant a change in the project listing and/or a change in a project's priority. Changes in the project listing should be coordinated with, and accomplished within the time frames established by the funding agency so as not to hamper the implementation of the agency's road improvement program on the community. The overall community transportation plan should be reviewed and updated every five years, or when there are major changes in the tribe's land use plan.

A key component in the continuation of the transportation planning process is the annual coordination between the Tribe and the BIA Regional Office, regarding adjustments in road construction priorities and implementation schedules, road maintenance needs and priorities, and IRR program funding. Several means are available to facilitate this process. Some tribes establish a transportation committee composed of tribal members and key tribal staff. This committee usually reports and makes recommendations to either the tribal planning commission (if one exists) or directly to the community council. In other instances, the annual coordination function is assigned to the tribal planning commission, or if no such body exists, it is undertaken as a formal process directly by the community council. However the process is handled, it is recommended that: (1) it be an annual function with a formalized process, and (2) an official tribal body (as discussed above) is assigned which has the responsibility to undertake this coordination.

5 Department of Transportation, State of Alaska. *Yukon-Kuskokwim Delta Transportation Plan.* March 2002. P. 1-1. http://www.dot.state.ak.us/stwdplng/areaplans/pub/YKDelta_Plan_final.pdf.

Appendix A Public Participation

Newtok Traditional Council Transportation Planning Public Meeting

When: Tuesday, January 25, 2011, 7 p.m.

Where: Community Center

Contact person: Paula Hansen, WHPacific, Inc. toll free at 1-800-478-4153

Please join the Newtok Traditional Council and WHPacific to talk about the future of Newtok and the Long Range Transportation Plan.

Newtok

Long Range Transportation Plan

Sign In Sheet ***January 25, 2010***

Name	Address/City/Zip	Phone	e-mail
Julia Charles	P.O. 5504 Newtok Ak 99557		
Monica B. Kasayulie	P.O. Box 5543 Newtok, Ak.	(907) 237-2985	
Martha M. Kasayulie	" " " "	"	
John Charles	P.O. Box 5504, Newtok, AK	(907) 237-2711	
Paul Charles	P.O. Box 5504, Newtok,		
Louie Patrick	PO Box 5587 Newtok AK		
Elizabeth A. Tom	P O Box 5546	Newtok, AK 99559	237-2929
Sulina Tom	PO Box 5886	Newtok, AK 99559	237-2409
Priscilla Paniyak	Box 5562	Newtok, AK 99559	
Rosemary A. John	Box 5573	Newtok,	
Lisa & Jeff Charles	POBox 5571	Newtok AK 99559	237-2032

Newtok

Long Range Transportation Plan

Sign In Sheet ***January 25, 2010***

Name	Address/City/Zip	Phone	e-mail
Charlie Tommy	P.O. Box 5502 Newtok AK.	(907) - 237-2554	—
Stanley Jr	P.O. 5546 " "	237. 2929	Stanley-Jr2007@yahoo
Bessie Tom	[illegible]	237-2929	—
Simeon Charlie	Gen Del Newtok, AK 99559	(907)758-2016) Cell phone	—
Joseph John Jr	PO Box 5593 Newtok, Ak	237-6301	akimuk88@yahoo.com
Gabriel Patrick	P.O. Box 5507 Newtok	237-2555	
Tom John	P.O. Box 552 Newtok, AK 99559	237-6223	niugtaq_shr@yahoo.com
Paul Lincoln	P.O. Box 5527 Newtok, AK 99559	——	paul-colin@yahoo.com

Newtok

Long Range Transportation Plan

Sign In Sheet ***January 25, 2010***

Name	Address/City/Zip	Phone	e-mail
Bertha Queenie	Bx 5507 Newtok	237-2558	
Walter Queenie Jr	P.O. Box 5507 Newtok, AK	237-6305	
Josephine John	P.O. Box 5562 Newtok AK	237 2797	
Joseph M John Sr	" " " "	"	ø
Theresa Andy	P.O. Box 5583 Newtok AK	237 2106	
Lilly Kassaiuli	5567 Newtok 99559		l_kassaiuli@yahoo.com.
Marie Jambado	5549 Newtok 99559		
Gabriel Charlie	P.O. Box 5565 Newtok AK 99559	cell 237 6050	
Admiral Tom	PoBox 5583 Newtok Ak, 99559	237-2118	

Newtok

Long Range Transportation Plan

Sign In Sheet ***January 25, 2010***

Name	Address/City/Zip	Phone	e-mail
Andy T. Patrick Sr	P.O. Box 5507 Newtok AK 99559	907 237-2112	none
Louie Andy	Box 5526 Newtok, AK 99559	237-2462	
Joseph Tinkham	Box 5516 Newtok AK 99559	237-2147	None
George Tom	P.O. Box 5506 Newtok, Alaska 99559	cell 237-6043 907-237-2126	george_tom2006@yahoo.com
Nicholas John	Box 5593 Newtok Alaska 99559		
Walter Kassaioli	P.O. Box 5517 Newtok, Alaska 99559	907-237-2358	
Theresa Charles	P.O. Box 5572 Newtok, AK 99559		
Carolyn George	Box 5531 Newtok AK 99559		butterflies69@yahoo
Jack Tom	Box 5563	237-2118	non

Appendix B – Resolutions

Newtok Traditional Council
P.O. Box 5545
Newtok, AK 99559
Ph: (907) 237-2314 Fax: (907) 237-2428

Resolution No. 11-12

A Resolution to Adopt the LRTP Documents

WHEREAS, the Newtok Traditional Council, hereafter referred to as "TRIBE," is a federally recognized Tribe; and

WHEREAS, the Newtok Traditional Council is the governing body of the TRIBE; and

WHEREAS, the TRIBE has identified a need to update and/or add routes to the BIA IRR Inventory; and

WHEREAS, the TRIBE has identified routes listed in attachment "A" of the resolution No. 11-13 that qualify as BIA Indian Reservation Roads (IRR) and are vital to the general health and welfare of the TRIBE and its economic development; and

WHEREAS, the TRIBE is updating its Long Range Transportation Plan (LRTP) by incorporating the routes identified in Attachment "A" of Resolution No. 11-13 in the LRTP. This will help to establish the future direction for infrastructure development in our Village and ensure that transportation projects are derived in a coordinated fashion; and

NOW THEREFORE BE IT RESOLVED THAT the Newtok Traditional Council considers the routes identified in Attachment "A" of Resolution No. 11-13 as part of the LRTP, and hereby adopts the Newtok Traditional Council 2011 updated Long Range Transportation Plan (LRTP.)

CERTIFICATION

It is hereby certified that on the 8 day of March, 2011, a quorum of the Newtok Traditional Council was formed and did pass and adopt the preceding resolution by a vote of 7 in favor, -0- opposed, and -0- not voting.

Moses Carl
President, Newtok Traditional Council

March 8, 2011
Date

Secretary, Newtok Traditional Council

March 8, 2011
Date

Newtok Traditional Council E02-341 2011 Resolution to Adopt LRTP

Newtok Traditional Council
P.O. Box 5545
Newtok, AK 99559
Ph: (907) 237-2314 Fax: (907) 237-2428

Resolution No. 11-13

A Resolution to Add Routes to the BIA IRR Inventory

WHEREAS, the Newtok Traditional Council, hereafter referred to as "TRIBE," is a federally recognized Tribe; and

WHEREAS, the Newtok Traditional Council is the governing body of the TRIBE; and

WHEREAS, the TRIBE has identified a need to update and/or add routes to the BIA IRR Inventory; and

WHEREAS, the TRIBE has identified routes listed in attachment "A" of the resolution No. 11-13 that qualify as BIA Indian Reservation Roads (IRR) and are vital to the general health and welfare of the TRIBE and its economic development; and

NOW THEREFORE BE IT RESOLVED THAT the Newtok Traditional Council hereby requests the BIA to **add** these routes identified in Attachment "A" of this resolution to the FY 2011 IRR Official Inventory Database.

CERTIFICATION

It is hereby certified that on the 8 day of March, 2011, a quorum of the Newtok Traditional Council was formed and did pass and adopt the preceding resolution by a vote of 7 in favor, 0 opposed, and -0- not voting.

President, Newtok Traditional Council — Date: March 8, 2011

Secretary, Newtok Traditional Council — Date: March 8, 2011

Newtok Traditional Council
P.O. Box 5545
Newtok, AK 99559
Ph: (907) 237-2314 Fax: (907) 237-2428

ATTACHMENT A
to
RESOLUTION NO. 11-13

(A Resolution to Add Routes to the BIA IRR Inventory)

The following list identifies all existing and proposed routes to be updated and/or added to the BIA IRR Official Inventory Database.

Route Name	Route #	Section #	Length	Ownership[1]	CN Code[2]	Location
New Cak' Caq Road	0127	010	4.1	8	4	E02-341
Unnamed Road 27	0140	010	0.4	8	4	E02-341
Unnamed Road 28	0150	010	0.4	8	4	E02-341
Unnamed Road 29	0160	010	3.7	8	4	E02-341
Unnamed Road 30	0170	010	0.5	8	4	E02-341
Unnamed Road 31	0180	010	0.5	8	4	E02-341
Unnamed Road 32	0190	010	0.5	8	4	E02-341
Unnamed Road 33	0200	010	0.3	8	4	E02-341
Unnamed Road 34	0210	010	0.5	8	4	E02-341
Unnamed Road 35	0220	010	0.3	8	4	E02-341
Unnamed Road 36	0230	010	1.1	8	4	E02-341
Unnamed Road 37	0240	010	0.3	8	4	E02-341
Unnamed Road 38	0250	010	0.5	8	4	E02-341
Unnamed Road 39	0260	010	0.3	8	4	E02-341
Unnamed Road 40	0270	010	0.8	8	4	E02-341

CERTIFICATION

I, the undersigned, hereby certify that this document is Attachment "A" to Resolution No. 11-13 and it ties with said resolution.

President, Newtok Traditional Council — Date: March 8, 2011

Secretary, Newtok Traditional Council — Date: March 8, 2011

[1] *See Coding Guide and Instructions for IRR Inventory Codes for "Ownership."*
[2] *CN = Construction Need. See Coding Guide and Instructions for IRR Inventory Codes for "Construction Need."*

Appendix C – IRR Summary Report

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

Filter Criteria: E | 2011 | 02 | 341

For construction costs use the Greenbook Report

Itallicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Chevak T	Chevak T	Milgarmi	Milgarmi	Puqllani	Puqllani	Cuqfogtu	Qassak T	New Mlg	New Mlg
4-IRR Route Number	0090	0090	0091	0091	0092	0092	0093	0094	0095	0095
5-Section Number	20	40	10	30	10	20	20	20	10	20
10-Class	5	5	5	5	5	5	5	5	5	5
15-Length of Section	1.2	5.0	0.6	7.4	7.6	27.9	1.1	1.1	5.8	0.8
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	2	2	2	2	2	2	2
12-Construction Need	2	2	2	2	2	2	2	2	4	4
11-Terrain	1	1	1	1	1	1	1	1	1	1
25-Roadbed Condition	1	1	1	1	1	1	1	1		
24-Surface Condition Index	0	0	0	0	0	0	0	0		
16-Surface Width	8	8	8	8	8	8	8	8		
13-Surface Type	1	1	1	1	1	1	1	1		
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*0*	*0*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width	0	0	0	0	0	0	0	0		
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**		
TTAM Future ADT	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**
TTAM ADS Number	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**
TTAM Future Surface Type	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*		
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Sai										
51-Road Category										
52-Year of Construction Change										
Update Year	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

Filter Criteria: E | 2011 | 02 | 341

For construction costs use the Greenbook Report

Italicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	New Miig	New Miig	New Miig	New Miig	Qiisaq T	New Qiis	Tununak	Tununak	Tununak	Tununak
4-IRR Route Number	0095	0095	0095	0095	0096	0097	0098	0098	0098	0098
5-Section Number	30	40	50	60	10	10	10	20	30	50
10-Class	5	5	5	5	5	5	5	5	5	5
15-Length of Section	1.4	0.4	1.8	5.9	0.5	11.3	2.8	1.0	1.6	7.6
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	2	2	7	2	2	2	2
12-Construction Need	4	4	4	4	2	4	2	2	2	2
11-Terrain	1	1	1	1	1	1	1	1	1	1
25-Roadbed Condition					1		1	1	1	1
24-Surface Condition Index					0		0	0	0	0
16-Surface Width					8		8	8	8	8
13-Surface Type					1		1	1	1	1
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*0*	*0*	*0*	*0*	*1*	*0*	*1*	*1*	*1*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width					0		0	0	0	0
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width					**8**		**8**	**8**	**8**	**8**
TTAM Future ADT	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**
TTAM ADS Number	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**	**13**
TTAM Future Surface Type	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility					*0*		*0*	*0*	*0*	*0*
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Sai										
51-Road Category										
52-Year of Construction Change										
Update Year	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**IN-PROCESS**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

For construction costs use the Greenbook Report

Filter Criteria: E | 2011 | 02 | 341

Itallicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Kayalivi	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed
4-IRR Route Number	0099	0100	0101	0101	0102	0103	0103	0104	0105	0107
5-Section Number	10	10	10	20	10	10	20	10	10	10
10-Class	5	3	3	3	3	3	3	3	3	3
15-Length of Section	1.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	2	2	2	2	2	2	2
12-Construction Need	2	2	2	2	2	2	2	2	2	2
11-Terrain	1									
25-Roadbed Condition	1	2	2	2	2	2	2	2	2	2
24-Surface Condition Index	0	0	0	0	0	0	0	0	0	0
16-Surface Width	8	8	8	8	8	8	8	8	8	8
13-Surface Type	1	1	1	1	1	1	1	1	1	1
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width	0	0	0	0	0	0	0	0	0	0
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**	**8**
TTAM Future ADT	**74**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**
TTAM ADS Number	**13**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**
TTAM Future Surface Type	**G**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*		
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Sa										
51-Road Category										
52-Year of Construction Change										
Update Year	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

For construction costs use the Greenbook Report

Filter Criteria: E | 2011 | 02 | 341

Italicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed
4-IRR Route Number	0107	0108	0108	0109	0110	0111	0112	0114	0115	0116
5-Section Number	20	10	20	10	10	10	10	10	10	10
10-Class	3	3	3	3	3	3	3	3	5	3
15-Length of Section	0.1	0.1	0.1	0.1	0.1	0.2	0.1	0.4	0.2	0.1
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	2	2	2	2	2	2	2
12-Construction Need	2	2	2	2	2	2	2	2	2	2
11-Terrain									1	
25-Roadbed Condition	2	2	2	2	2	2	2	2	2	2
24-Surface Condition Index	0	0	0	0	0	0	0	0	0	0
16-Surface Width	8	8	8	8	8	10	8	10	10	8
13-Surface Type	1	1	1	1	1	1	1	1	1	1
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width	0	0	0	0	0	0	0	0	0	0
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width	**8**	**8**	**8**	**8**	**8**	**10**	**8**	**10**	**10**	**8**
TTAM Future ADT	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**74**	**37**
TTAM ADS Number	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**13**	**18**
TTAM Future Surface Type	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**G**	**E**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility										
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Sai										
51-Road Category										
52-Year of Construction Change										
Update Year	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

For construction costs use the Greenbook Report

Filter Criteria: E | 2011 | 02 | 341

Italicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Cak' Caq	Cak' Caq	Old Newt
4-IRR Route Number	0117	0118	0118	0119	0119	0120	0121	0122	0122	0123
5-Section Number	10	10	20	10	20	10	10	10	30	10
10-Class	3	3	3	3	3	3	5	5	5	5
15-Length of Section	0.2	0.1	0.1	0.1	0.1	0.1	0.2	0.7	1.5	6.6
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	2	2	2	2	2	2	2
12-Construction Need	2	2	2	2	2	2	2	2	2	2
11-Terrain							1	3	3	1
25-Roadbed Condition	2	2	2	2	2	2	2	1	1	1
24-Surface Condition Index	0	0	0	0	0	0	0	0	0	0
16-Surface Width	10	10	8	8	8	10	8	8	8	8
13-Surface Type	1	1	1	1	1	1	1	1	1	1
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width	0	0	0	0	0	0	0	0	0	0
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width	**10**	**10**	**8**	**8**	**8**	**10**	**8**	**8**	**8**	**8**
TTAM Future ADT	**37**	**37**	**37**	**37**	**37**	**37**	**74**	**74**	**74**	**74**
TTAM ADS Number	**18**	**18**	**18**	**18**	**18**	**18**	**13**	**15**	**15**	**13**
TTAM Future Surface Type	**E**	**E**	**E**	**E**	**E**	**E**	**G**	**G**	**G**	**G**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility										
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Sai										
51-Road Category										
52-Year of Construction Change										
Update Year	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

For construction costs use the Greenbook Report

Filter Criteria: E | 2011 | 02 | 341

Italicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Old Newt	New Tunu	New Tunu	New Tunu	New Toks	Kasiluq	Kasiluq	New Cak'	New Kasi	Proposed
4-IRR Route Number	0123	0124	0124	0124	0125	0126	0126	0127	0128	0129
5-Section Number	20	10	30	40	10	10	30	10	10	10
10-Class	5	5	5	5	5	5	5	5	5	5
15-Length of Section	4.6	5.0	2.9	3.1	1.2	1.0	13.5	4.1	23.3	1.6
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	2	2	2	2	7	7	2
12-Construction Need	2	4	4	4	4	2	2	4	4	4
11-Terrain	1	3	3	3	3	1	1	2	1	2
25-Roadbed Condition	1					1	1	0		
24-Surface Condition Index	0					0	0			
16-Surface Width	8					8	8			
13-Surface Type	1					1	1	0		
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*0*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width	0					0	0			
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width	**8**					**8**	**8**			
TTAM Future ADT	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**	**74**
TTAM ADS Number	**13**	**15**	**15**	**15**	**15**	**13**	**13**	**14**	**13**	**14**
TTAM Future Surface Type	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**	**G**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility										
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Sai										
51-Road Category										
52-Year of Construction Change										
Update Year	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2007**	**2011**	**2007**	**2007**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**AT-THE-BIA/D**	**IN-PROCESS**	**OFFICIAL**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

For construction costs use the Greenbook Report

Filter Criteria: E | 2011 | 02 | 341

Itallicized fields are direct update data and bold fields are derived data.

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Barge La	New Land	Mertarvi	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed
4-IRR Route Number	0129	0130	0131	0140	0150	0160	0170	0180	0190	0200
5-Section Number	20	10	10	10	10	10	10	10	10	10
10-Class	5	5	9	3	3	5	3	3	3	3
15-Length of Section	0.8	3.3	0.1	0.4	0.4	3.7	0.5	0.5	0.5	0.3
18-Bridge Number										
19-Bridge Condition										
20-Bridge Length										
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*	*050*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AK	AK	AK	AK	AK	AK	AK	AK	AK	AK
8-Ownership	2	2	2	8	8	8	8	8	8	8
12-Construction Need	4	4	4	4	4	4	4	4	4	4
11-Terrain	2	1				2				
25-Roadbed Condition				0	0	0	0	0	0	0
24-Surface Condition Index										
16-Surface Width										
13-Surface Type				0	0	0	0	0	0	0
9-Federal Aid Category	1	1	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
29-Right of Way Width	*40*	*0*								
TTAM BIA Share	100	100		100	100	100	100	100	100	100
30-Additional Incidental Percent										
17-Shoulder Width										
14-Shoulder Type										
22-Existing ADT										
21-ADT Year										
23-Percent Trucks										
34-Owner Route Number										
Roadway Width										
TTAM Future ADT	**74**	**74**		**37**	**37**	**74**	**37**	**37**	**37**	**37**
TTAM ADS Number	**14**	**13**		**18**	**18**	**14**	**18**	**18**	**18**	**18**
TTAM Future Surface Type	**G**	**G**		**E**	**E**	**G**	**E**	**E**	**E**	**E**
35-Drainage Condition										
36-Shoulder Condition										
37/38 # RR X I NG/RR XING TYPE										
39-Right of Way Utility										
40-Right of Way Cost										
26-Level of Maintenance										
27-Snow & Ice Control										
41-Begin Latitude										
42-End Latitude										
43-Begin Longitude										
44-End Longitude										
45-Atlas Map Number [99]										
46-50 Grade/Sight/Curve/Stop / Sai										
51-Road Category										
52-Year of Construction Change										
Update Year	**2010**	**2008**	**2010**	**2011**	**2011**	**2011**	**2011**	**2011**	**2011**	**2011**
Status	**OFFICIAL**	**OFFICIAL**	**\T-THE-BIA/D**	**\T-THE-BIA/D**	**\T-THE-BIA/D**	**\T-THE-BIA/D**	**\T-THE-BIA/D**	**\T-THE-BIA/D**	**\T-THE-BIA/D**	**\T-THE-BIA/D**

08-AUG-11

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2011 Inventory

Filter Criteria: E | 2011 | 02 | 341

Italicized fields are direct update data and bold fields are derived data.

For construction costs use the Greenbook Report

Location ID	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341	E02341
Region	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska	Alaska
Agency	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel	Bethel
Reservation	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok	Newtok
Road Name	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Unnamed	Haul Out
4-IRR Route Number	0210	0220	0230	0240	0250	0260	0270		XXXX
5-Section Number	10	10	10	10	10	10	10		10
10-Class	5	3	5	5	3	3	5		9
15-Length of Section	0.5	0.3	1.1	0.3	0.5	0.3	0.8		0.1
18-Bridge Number									
19-Bridge Condition									
20-Bridge Length									
32-County	*050*	*050*	*050*	*050*	*050*	*050*	*050*		*050*
33-Congressional District	*50*	*01*	*01*	*01*	*01*	*01*	*01*		*02*
7-State	AK	AK	AK	AK	AK	AK	AK		AK
8-Ownership	8	8	8	8	8	8	8		2
12-Construction Need	4	4	4	4	4	4	4		4
11-Terrain	2		2	2			2		
25-Roadbed Condition	0	0	0	0	0	0	0		
24-Surface Condition Index									
16-Surface Width									
13-Surface Type	0	0	0	0	0	0	0		
9-Federal Aid Category	1	1	1	1	1	1	1		1
28-Right of Way Status	*0*	*0*	*0*	*0*	*0*	*0*	*0*		*1*
29-Right of Way Width									
TTAM BIA Share	100	100	100	100	100	100	100		
30-Additional Incidental Percent									
17-Shoulder Width									
14-Shoulder Type									
22-Existing ADT									
21-ADT Year									
23-Percent Trucks									
34-Owner Route Number									
Roadway Width									
TTAM Future ADT	74	37	74	74	37	37	74		
TTAM ADS Number	14	18	14	14	18	18	14		
TTAM Future Surface Type	G	E	G	G	E	E	G		
35-Drainage Condition									
36-Shoulder Condition									
37/38 # RR X I NG/RR XING TYPE									
39-Right of Way Utility									
40-Right of Way Cost									
26-Level of Maintenance									
27-Snow & Ice Control									
41-Begin Latitude									
42-End Latitude									
43-Begin Longitude									
44-End Longitude									
45-Atlas Map Number [99]									
46-50 Grade/Sight/Curve/Stop / Sa									
51-Road Category									
52-Year of Construction Change									
Update Year	2011	2011	2011	2011	2011	2011	2011		2010
Status	T-THE-BIA/D	T-THE-BIA/D	T-THE-BIA/D	T-THE-BIA/D	T-THE-BIA/D	T-THE-BIA/D	T-THE-BIA/D		IN-PROCESS

08-AUG-11

Appendix D – Route Narratives

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**New Cak' Caq Road**
Route Number:	**0127**
Section Number:	**010**
Route Length:	**4.1**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This rural local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This rural local road is 4.1 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 5 rural local road servicing areas outside the village townsite. This route is important because it will provide access to subsistence grounds.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 27**
Route Number:	**0140**
Section Number:	**010**
Route Length:	**0.4**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.4 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 28**
Route Number:	**0150**
Section Number:	**010**
Route Length:	**0.4**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.4 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 29**
Route Number:	**0160**
Section Number:	**010**
Route Length:	**3.7**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This rural local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This rural local road is 3.7 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 5 rural local road servicing areas outside the village townsite. This route is important because it will provide access to community facilities, the airport and gravel source.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 30**
Route Number:	**0170**
Section Number:	**010**
Route Length:	**0.5**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.5 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 31**
Route Number:	**0180**
Section Number:	**010**
Route Length:	**0.5**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.5 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 32**
Route Number:	**0190**
Section Number:	**010**
Route Length:	**0.5**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.5 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name: **Unnamed Road 33**
Route Number: **0200**
Section Number: **010**
Route Length: **0.3**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.3 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 34**
Route Number:	**0210**
Section Number:	**010**
Route Length:	**0.5**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This rural local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This rural local road is 0.5 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 5 rural local road servicing areas outside the village townsite. This route is important because it will provide access to community facilities, the power plant, and tank farm.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 35**
Route Number:	**0220**
Section Number:	**010**
Route Length:	**0.3**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.3 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 36**
Route Number:	**0230**
Section Number:	**010**
Route Length:	**1.1**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This rural local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This rural local road is 1.1 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 5 rural local road servicing areas outside the village townsite. This route is important because it will provide access to community facilities, the landfill, sewage lagoon, and recycling center.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name: **Unnamed Road 37**
Route Number: **0240**
Section Number: **010**
Route Length: **0.3**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This rural local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This rural local road is 0.3 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 5 rural local road servicing areas outside the village townsite. This route is important because it will provide access to the small boat harbor and the barge landing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 38**
Route Number:	**0250**
Section Number:	**010**
Route Length:	**0.5**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.5 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 39**
Route Number:	**0260**
Section Number:	**010**
Route Length:	**0.3**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This city local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This city local road is 0.3 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 3 city local road servicing areas outside the village townsite. This route is important because it will provide access to tribal member housing.

Newtok
Indian Reservation Road (IRR) Inventory
Route Narrative

Route Name:	**Unnamed Road 40**
Route Number:	**0270**
Section Number:	**010**
Route Length:	**0.8**

Action:

This route is being submitted to the BIA for inclusion into the 2011 IRR Inventory for Newtok, Reservation #E 02-341.

Location:

This rural local road is located on "other" lands outside the general townsite of Newtok at the new village site, Mertarvik.

Road Condition:

This rural local road is 0.8 miles long and has a proposed road width of 15 feet. This route travels across rolling terrain and has a construction need code of 4.

Service:

This route has been classified as a class 5 rural local road servicing areas outside the village townsite. This route is important because it will provide access to the wind farm, water tanks, and well.

Appendix E – Priority List

The following list identifies the priorities for all existing and proposed routes to be updated and/or added to the BIA IRR Official Inventory Database.

Route Name	Route #	Section #	Length	Ownership6	CN Code7	Location	Priority
Chevak Trail	0090	020	1.2	2	2	E02-341	Medium
Chevak Trail	0090	040	5.0	2	2	E02-341	Medium
Miigarmiut Trail	0091	010	0.6	2	2	E02-341	Medium
Miigarmiut Trail	0091	030	7.4	2	2	E02-341	Medium
Puqllaniruuq Trail	0092	010	7.6	2	2	E02-341	Medium
Puqllaniruuq Trail	0092	020	27.9	7	2	E02-341	Medium
Cuqfogtug Trail	0093	020	1.1	2	2	E02-341	Medium
Qassak Trail	0094	020	1.1	2	2	E02-341	Medium
New Miigarmiut Trail	0095	010	5.8	2	4	E02-341	Medium
New Miigarmiut Trail	0095	020	0.8	2	4	E02-341	Medium
New Miigarmiut Trail	0095	030	1.4	2	4	E02-341	Medium
New Miigarmiut Trail	0095	040	0.4	2	4	E02-341	Medium
New Miigarmiut Trail	0095	050	1.8	2	4	E02-341	Medium
New Miigarmiut Trail	0095	060	5.9	2	4	E02-341	Medium
Qiisaq Trail	0096	010	0.5	2	2	E02-341	Medium
Tununak & Toksook Bay Trail	0098	010	2.8	2	2	E02-341	Medium
Tununak & Toksook Bay Trail	0098	020	1.0	2	2	E02-341	Medium
Tununak & Toksook Bay Trail	0098	030	1.6	2	2	E02-341	Medium

6 See Coding Guide and Instructions for IRR Inventory Codes for "Ownership."

7 CN = Construction Need. See Coding Guide and Instructions for IRR Inventory Codes for "Construction Need."

Route Name	Route #	Section #	Length	Ownership6	CN Code7	Location	Priority
Tununak & Toksook Bay Trail	0098	050	7.6	2	2	E02-341	Medium
Kayalivik Trail	0099	010	1.1	2	2	E02-341	Medium
Unnamed Road 1	0100	010	0.1	2	2	E02-341	Medium
Unnamed Road 2	0101	010	0.1	2	2	E02-341	Medium
Unnamed Road 3	0101	020	0.1	2	2	E02-341	Medium
Unnamed Road 4	0102	010	0.1	2	2	E02-341	Medium
Unnamed Road 6	0103	010	0.1	2	2	E02-341	Medium
Unnamed Road 5	0103	020	0.1	2	2	E02-341	Medium
Unnamed Road 7	0104	010	0.1	2	2	E02-341	Medium
Unnamed Road 8	0105	010	0.1	2	2	E02-341	Medium
Unnamed Road 9	0107	010	0.1	2	2	E02-341	Medium
Unnamed Road 10	0107	020	0.1	2	2	E02-341	Medium
Unnamed Road 11	0108	010	0.1	2	2	E02-341	Medium
Unnamed Road 12	0108	020	0.1	2	2	E02-341	Medium
Unnamed Road 13	0109	010	0.1	2	2	E02-341	Medium
Unnamed Road 14	0110	010	0.1	2	2	E02-341	Medium
Unnamed Road 15	0111	010	0.2	2	2	E02-341	Medium
Unnamed Road 16	0112	010	0.1	2	2	E02-341	Medium
Unnamed Road 17	0114	010	0.4	2	2	E02-341	Medium
Unnamed Road 18	0115	010	0.2	2	2	E02-341	Medium
Unnamed Road 19	0116	010	0.1	2	2	E02-341	Medium
Unnamed Road 20	0117	010	0.2	2	2	E02-341	Medium
Unnamed Road 21	0118	010	0.1	2	2	E02-341	Medium

Route Name	Route #	Section #	Length	Ownership6	CN Code7	Location	Priority
Unnamed Road 22	0118	020	0.1	2	2	E02-341	Medium
Unnamed Road 23	0119	010	0.1	2	2	E02-341	Medium
Unnamed Road 24	0119	020	0.1	2	2	E02-341	Medium
Unnamed Road 25	0120	010	0.1	2	2	E02-341	Medium
Unnamed Road 26	0121	010	0.2	2	2	E02-341	Medium
Cak' Caq Trail	0122	010	0.7	2	2	E02-341	Medium
Cak' Caq Trail	0122	030	1.5	2	2	E02-341	Medium
Old Newtok Trail	0123	010	6.6	2	2	E02-341	Medium
Old Newtok Trail	0123	020	4.6	2	2	E02-341	Medium
New Tununak & Toksook Bay Road	0124	010	5.0	2	4	E02-341	Medium
New Tununak & Toksook Bay Road	0124	030	2.9	2	4	E02-341	Medium
New Tununak & Toksook Bay Road	0124	040	3.1	2	4	E02-341	Medium
New Toksook Bay Trail	0125	010	1.2	2	4	E02-341	Medium
Kasiluq Trail	0126	030	13.5	2	2	E02-341	Medium
Proposed Airport to Barge Road	0129	010	1.6	7	4	E02-341	High
Barge Landing Road	0129	020	0.8	2	4	E02-341	High
New Landfill Road	0130	010	3.3	2	4	E02-341	High
New Cak' Caq Road	0127	010	4.1	8	4	E02-341	High
Unnamed Road 27	0140	010	0.4	8	4	E02-341	High
Unnamed Road 28	0150	010	0.4	8	4	E02-341	High

Route Name	Route #	Section #	Length	Ownership6	CN Code7	Location	Priority
Unnamed Road 29	0160	010	3.7	8	4	E02-341	High
Unnamed Road 30	0170	010	0.5	8	4	E02-341	High
Unnamed Road 31	0180	010	0.5	8	4	E02-341	High
Unnamed Road 32	0190	010	0.5	8	4	E02-341	High
Unnamed Road 33	0200	010	0.3	8	4	E02-341	High
Unnamed Road 34	0210	010	0.5	8	4	E02-341	High
Unnamed Road 35	0220	010	0.3	8	4	E02-341	High
Unnamed Road 36	0230	010	1.1	8	4	E02-341	High
Unnamed Road 37	0240	010	0.3	8	4	E02-341	High
Unnamed Road 38	0250	010	0.5	8	4	E02-341	High
Unnamed Road 39	0260	010	0.3	8	4	E02-341	High
Unnamed Road 40	0270	010	0.8	8	4	E02-341	High