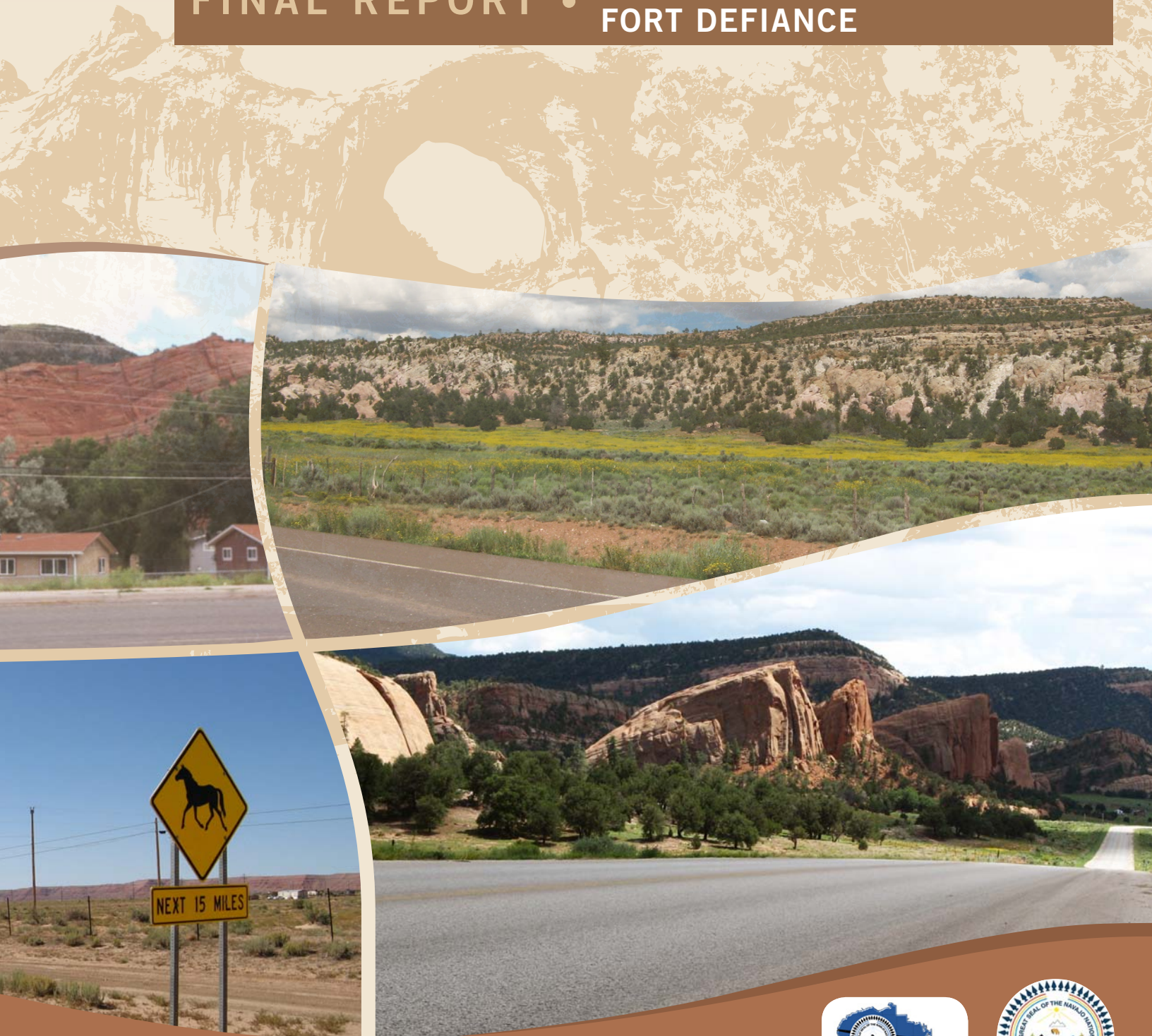


# *Chinle–Many Farms and* ST. MICHAELS–WINDOW ROCK–FORT DEFIANCE

MULTIMODAL LONG RANGE TRANSPORTATION STUDY

**FINAL REPORT • ST. MICHAELS–WINDOW ROCK–  
FORT DEFIANCE**



Prepared by:



Kimley-Horn  
and Associates, Inc.



Prepared for: Navajo Division of Transportation | JUNE 2012



# Chinle-Many Farms and St. Michaels-Window Rock-Fort Defiance Multimodal Long Range Transportation Study

ADOT MPD Task Assignment 23-11



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## St. Michaels – Window Rock – Fort Defiance Study Area Corridor Final Report

*Prepared by:*



Kimley-Horn  
and Associates, Inc.

*Prepared for:*

NAVAJO NATION  
NAVAJO DIVISION OF TRANSPORTATION

June 2012

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## ACRONYMS

AASHTO	American Association of State and Highway Transportation Officials
ADOT	Arizona Department of Transportation
ALISS	Accident Location Information Surveillance System
APTNA	Arkansas Public Transportation Needs Assessment
BIA	Bureau of Indian Affairs
BIADOT	Bureau of Indian Affairs Division of Transportation
BIA - NRO	Bureau of Indian Affairs - Navajo Regional Office
CIP	Capital Improvement Program
CDP	Census Designated Place
EMT	Emergency Medical Transport
FET	Fuel Excise Tax
FHWA	Federal Highway Administration
FY	Fiscal Year
HAWK	High-Intensity Activated Crosswalk
HPMS	Highway Performance Monitoring System
IHS	Indian Health Service
IRR	Indian Reservation Road Program
LOS	Level of Service
MPD	Multimodal Planning Division
MVC	Motor Vehicle Crash
NACOG	Northern Arizona Council of Governments
NHA	Navajo Housing Authority
NPAIS	National Plan of Integrated Airport Systems
NPS	National Park Service
NTUA	Navajo Tribal Utility Authority
NWNMRPO	Northwest New Mexico Regional Planning Organization
NTS	Navajo Transit System
PAF	Population Adjustment Factor
PARA	Planning Assistance for Rural Areas
PLHD	Public Lands Highway Discretionary Program
PMT	Project Management Team
RIFDS	Road Inventory Field Data System
RNDF	Relative Need Distribution Factor
ROW	Right-of-Way
STIP	State Transportation Improvement Plan
STP	Surface Transportation Program
TAC	Technical Advisory Committee
TTIP	Tribal Transportation Improvement Program
TWLTL	Two Way Left Turn Lane
UDOT	Utah Department of Transportation

# 1 INTRODUCTION

## 1.1 Study Purpose

The Chinle-Many Farms and St. Michaels-Window Rock-Fort Defiance Multimodal Long Range Transportation Study was funded by the Arizona Department of Transportation (ADOT) Multimodal Planning Division's (MPD) Planning Assistance for Rural Areas (PARA) program. The PARA program receives funding support through the Federal Highway Administration's (FHWA) State Planning and Research program. PARA study projects assist non-metropolitan communities for the purpose of conducting transportation planning studies. PARA funds may be applied to address a broad range of planning issues related to road and non-motorized transportation modes.

This study includes two multimodal long range transportation plans, one for the St. Michaels-Window Rock-Fort Defiance study area corridor, and one for the Chinle-Many Farms study area corridor. "Multimodal" means multiple modes of transportation, including roads, intersections, bicycle, pedestrian and equestrian transportation. Access to airports is also addressed. The plans recommend transportation improvements for five-, 10-, and 20-year planning horizons.

This Final Report is focused on transportation recommendations in the St. Michaels – Window Rock and Fort Defiance study area corridor. A separate Final Report has also been prepared for the Chinle-Many Farms study area corridor.

## 1.2 Study Objectives

Key study objectives are:

- Promote travel safety and mobility, enhance economic vitality, and improve community livability.
- Support communities' current and future planning for economic and community development.
- Address multimodal transportation needs for vehicular, pedestrian, bicycle, and equestrian transportation.
- Address intermodal connections between vehicular, airport and transit systems for commuter and emergency needs.

## 1.3 Study Area

The St. Michaels – Window Rock – Fort Defiance study area corridor is shown in its Arizona statewide context in **Figure 1**. It is located in the north-east corner of the state. The study area corridor is shown in **Figure 2**. The east - west boundaries for the St. Michaels – Window Rock – Fort Defiance study areas run parallel to SR 264 approximately from Milepost 472 to AZ State Line approximately at milepost 476.1. The eastern boundary extends approximately one-quarter mile into New Mexico. To the north the study area boundaries extend approximately one-half mile north of N7. To the south, the study area boundaries extend approximately one-half mile south of SR 264.

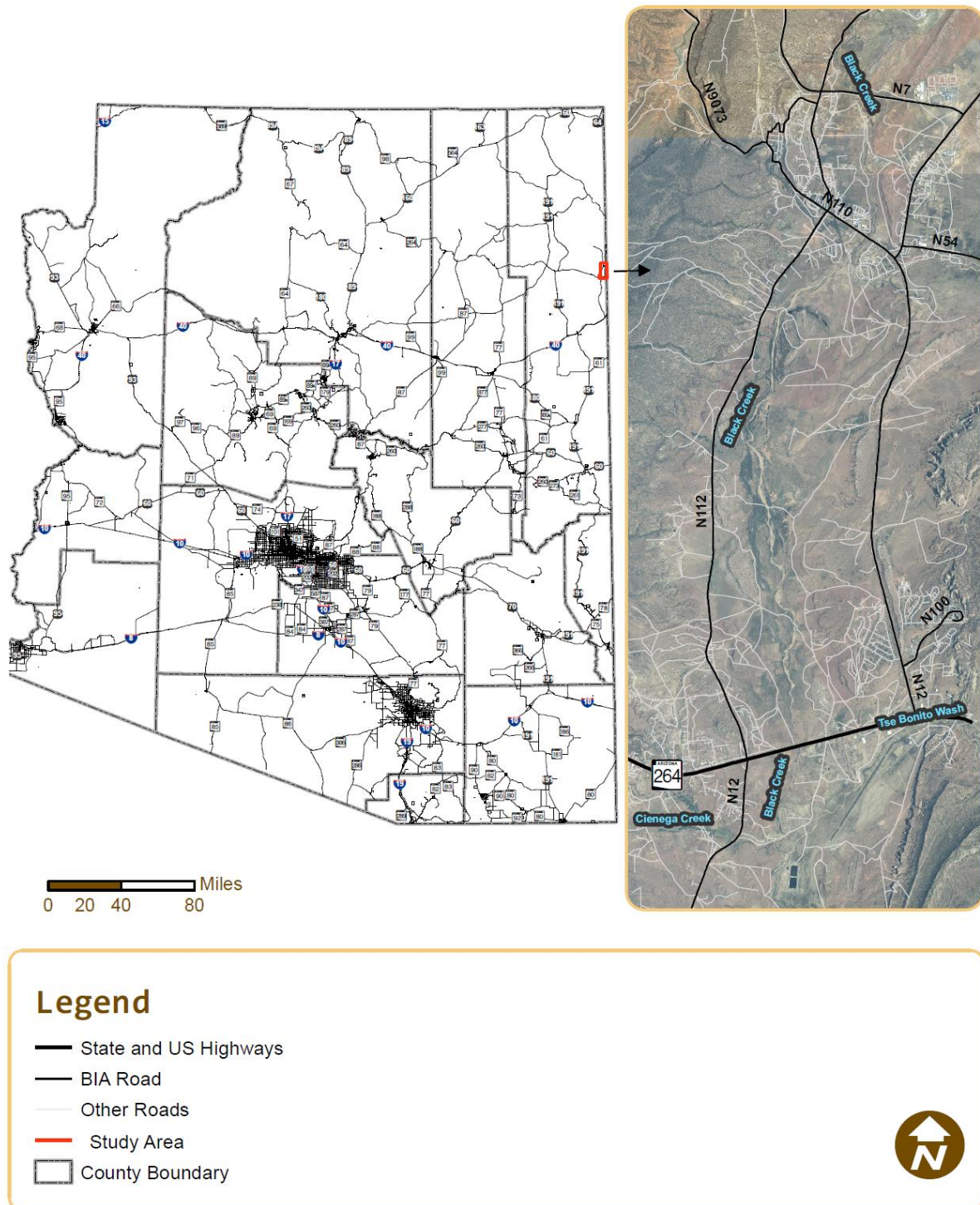
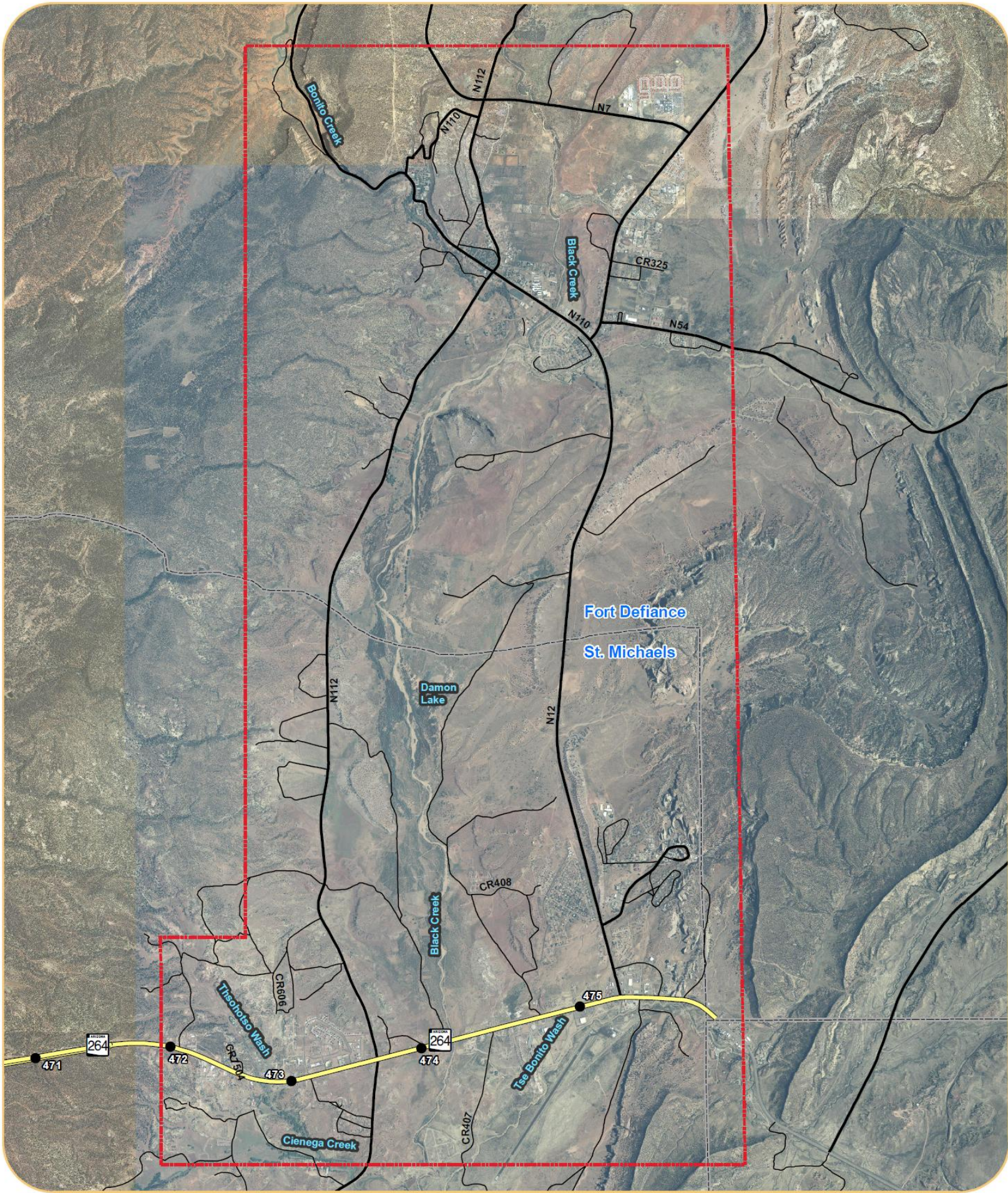


Figure 1 – Vicinity Map



Legend

- US and State Highways
- BIA Roads
- Tribal/County Roads
- Study Area
- Chapter Boundary
- Mileposts

Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Figure 2 - Study Area Map

## 1.4 Project Management Team and Technical Advisory Committee

A core Project Management Team (PMT) provided project direction and input to the study to its completion. The PMT included representatives of the Navajo Nation Division of Transportation, the Navajo Transit System, ADOT, Kimley-Horn and Associates, and Intrinsic Consulting. Meetings were held approximately monthly via teleconference.

In addition to the PMT, a broader-based Technical Advisory Committee (TAC) was established. The Committee held four meetings during the study time line. Generally the role of the TAC was to provide input on technical issues related to the study and to review and comment on study deliverables. Members of the TAC represent the following agencies:

- Navajo Division of Transportation
- Chinle Chapter
- Fort Defiance Chapter
- Many Farms Chapter
- Saint Michaels Chapter
- Navajo Transit System
- BIA Navajo Region
- BIA Western Navajo Agency
- Apache County
- Northern Arizona Council of Governments
- ADOT Multimodal Planning Division
- ADOT Holbrook District
- ADOT Communication and Community Partnerships
- ADOT Environmental Planning Group

## 1.5 Stakeholders

Stakeholders were identified and interviewed during the course of the study. They included representatives from the police and fire departments, school district transportation staff, Chapter representatives, and others. The stakeholders, because of their knowledge of transportation needs and the road system, provided a unique knowledge of transportation needs. Further information on these interviews is provided in **Section 3.2**.

## 2 PROJECT AREA DESCRIPTION

This chapter provides information on the land use, demographic, and economic development of the St. Michaels, Window Rock and Fort Defiance areas.

### 2.1 St. Michaels Chapter

The Navajo name for St. Michaels is Ch'íhootsooí, which means "Green meadow spreading." St. Michaels is located above a verdant meadow on the western slopes of Black Creek Valley. The green meadows that exist within the Chapter have historically provided food for grazing animals. St. Michaels was named after a Catholic Saint (Saint Michael) from the convent name (St. Michaels Convent) that exists in the area. Although many of the Chapter members continue to tend cattle, horses, sheep, and goats, the economy now is centered on the Navajo Nation government, as described below. The government employs many St. Michaels Chapter residents and commuters from the surrounding area.

### 2.2 Window Rock

Window Rock, the Navajo Nation capital is a commercial and administrative growth area situated within the Saint Michaels Chapter boundary. The Navajo Name for Window Rock is tségháhoodzání which means "Window Rock" and refers to the landmark shown in the photo below.



Window Rock is the seat of government for the Navajo Nation. Government offices in Window Rock include the Navajo Nation Council Chambers, Judicial Branch, Dept. of Justice, Legislative Offices, and other government offices shown in **Figure 3**.

*Window Rock Veteran's Memorial Park*

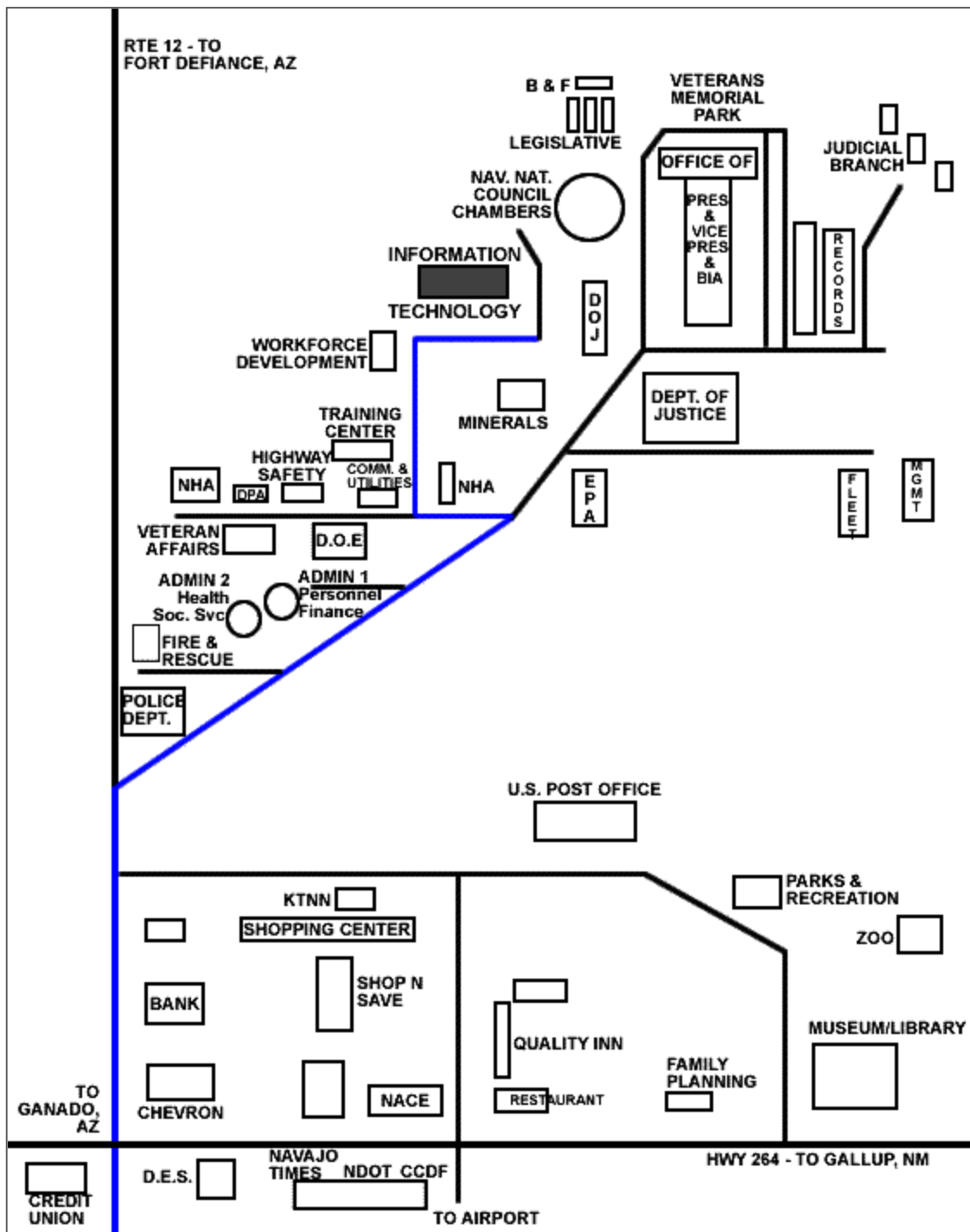


Figure 3 - Government Offices in Window Rock

Other commercial development in the area includes the Chi'hootso Shopping Center and Navajo radio station KTNN broadcasting studios.

## 2.3 Fort Defiance Chapter

The Navajo Name for Fort Defiance is Tsé hootsooí which means yellowish columns of rock. According to information on the Fort Defiance Chapter website, <http://ftdefiance.nndes.org>, Fort Defiance was designated by the United States War Department in the late 1860s to control the Navajo people upon their return from Ft. Sumner, New Mexico Territory. The fort overlooked and served as headquarters of the original Navajo Reservation outlined in the 1868 Treaty. It also served as a center for Navajos to get help with restoring their lives, a place for food rationing, etc. The community continued to serve as a center to distribute various types of services over the years, especially when the Bureau of Indian Affairs was established.

Now the community of Fort Defiance serves as a major center for education, health, and governmental operations. Although most of the chapter is situated in the Arizona portion of the Navajo Nation, it extends into New Mexico.

As in other parts of the Navajo Nation, many families still rely on livestock raising to supplement their income or for mere basic subsistence.



Fort Defiance Indian Hospital is a state of the art rural hospital that opened in August 2002. Currently the facility employs over 850 staff members. Adjacent to the hospital is a 193-unit government housing area.

*Fort Defiance Indian Hospital*

## 2.4 Land Use

An understanding of land uses is important because land uses influences travel patterns.

### 2.4.1 Current Land Use and Activity Centers

Land use is integrated with transportation since land use decisions affect the transportation system and can increase viable options for people to access opportunities, goods, services, and other resources to improve the quality of their lives. In turn, multi-modal transportation decisions may have effects on existing and future land use

Economic development  
can be enhanced by a  
good transportation  
system

demand, choices, and patterns. Coordinating land use and transportation planning and development is imperative to "smart growth" and sustainable development of communities. This section provides an overview of existing and planned land use within the study planning area. **Figure 4** shows the main types of land uses in the study area corridor, it also includes enlargement insets of the Chapter growth areas.

#### Commercial

The Fort Defiance commercial development is primarily located at the intersection of N12 and N110.

Within the St. Michaels Chapter there are scattered retail areas on the north side of SR 264 west of the intersection with N112. On the south side of SR 264 there is Basha's just east of the fairgrounds and the Window Rock Shopping Center at the N12 intersection in Window Rock.

#### Residential

The Karigan Estates subdivision is located near the intersection of SR 264 and N112. There is residential land use located in the Window Rock administrative area, and scattered residential development located along both sides of SR 264 and a Navajo Housing Authority (NHA) subdivision on the east side of N12 near the Navajo Nation headquarters.

There is residential development at the entryway to Fort Defiance on N110, north of the high school on N12, and east of N112. There is scattered residential development straddling both N12 and N112.

## Education

In addition to the tribal education programs, there are the Tse Ho Tsoi Middle School and High School located in Fort Defiance. The middle school is located along N110 and the high school is located along N12. These schools serve both the Fort Defiance and St. Michaels Chapters.



*Window Rock High School*

In Window Rock, Window Rock Elementary School is located near NHA housing northwest of the Navajo Nation's capital, and St. Michaels Catholic High School is located south of SR 264 on N12 at MP 22.4.

## Health

There is a regional hospital located near the N12/N7 intersection in Fort Defiance. The old hospital on N110, still standing, was built during the 1930s. The hospital also includes housing quarters for the medical personnel and staff.

## Public Facilities

A new Ft. Defiance Chapter House was built in the 1990s. The new meeting hall replaced an old Chapter House. It is located at the junction of old Black Rock Road and the new Navajo Route 112. In addition to the Chapter House, there is a Senior Citizen Center, Community Center, Child Day Care Center, Warehouse, and a fitness center. There are government buildings and structures west of N112 and east of N12. The tribal governance center and the capitol of the Navajo Nation is located east of N12 north of SR 264. There are also tribal administrative offices north of SR 264 near the commercial center, and another tribal administrative office building near Karigan Estates subdivision along SR 264.

## Grazing

As in other parts of the Navajo Nation, many families still rely on livestock raising to supplement their income or for mere basic subsistence. Within the Fort Defiance

Chapter area, there are 245 livestock grazing permits issued. The permits allow for a total of 8,345 units of sheep and 391 units of horses (additionally, horse unit is considered same as a cow unit).

## **Agriculture**

There is agriculture along Black Creek Wash in Ft. Defiance.

## **Recreation**

There are baseball field(s), basketball courts, and a rodeo arena in Ft. Defiance. The schools have recreational programs for students in Ft. Defiance and St. Michaels.

The Navajo Nation Fairgrounds are located south of SR 264 near MP475.

### **2.4.2 Future Land Use**

Goals for future transportation and development are summarized from the *Community Land Use Plan for the St. Michaels Chapter (December 2004)*. Future development sites within the study area corridor are:

- Window Rock area north of the Post Office - mixed residential and commercial area
- Navajo Nation fairgrounds east – commercial development
- Dine College and St. Michaels Housing, west – residential and limited commercial development
- Black Creek site – commercial development
- St. Michaels Chapter Complex - commercial offices and elderly housing proposed within the chapter house

The Plan stated that the Community Land Use Plan Committee considered road access as it selected possible development sites. All of the sites are within one-quarter mile of one of the major highways (SR 264, N12, or N112). The Plan did not anticipate the need to modify the roads to accommodate development, however, signage and entrance drive design was noted as a need.

In the *Fort Defiance Community Facilities Plan* (October 2004), the Plan recommended that a strip of approximately 100 feet adjacent to the main roads throughout the Chapter be reserved for future commercial development. With respect to residential development, it was recommended that subdivisions be built with a minimum density of one-house per half acre, and that a minimum of 25 units are constructed in each residential development project. Eighteen potential sites for development were evaluated within six subareas.

Infrastructure recommendations with respect to transportation noted that a local shuttle service should be established to provide transportation service to individuals without transportation.

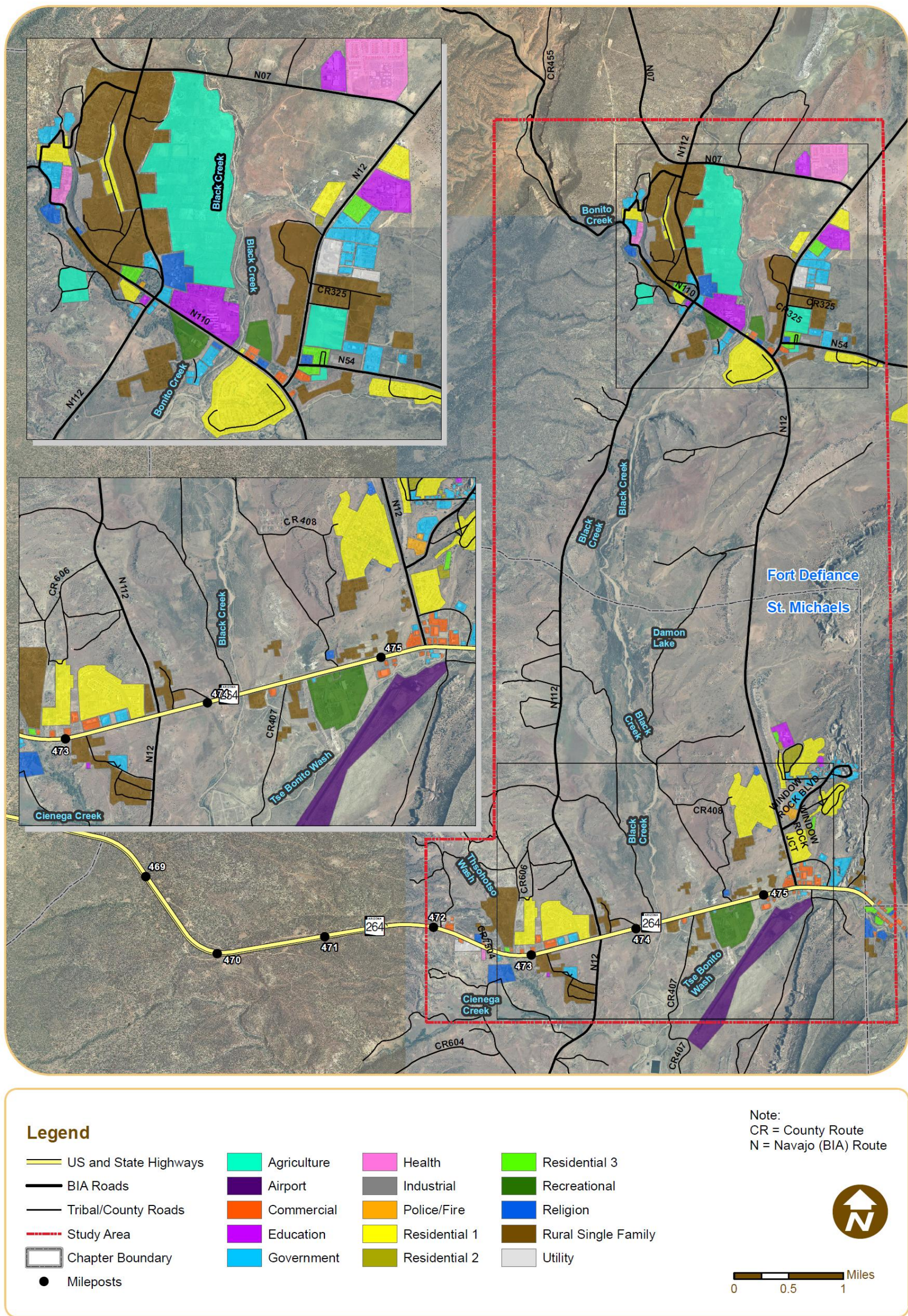
Chapter capital improvement projects were obtained from the Navajo Division of Community Development and are summarized in **Table 1**. In Fort Defiance, these include planning and design for a new Head Start center, a solid waste transfer facility, and construction of a multi-purpose building. In the St. Michaels Chapter area, projects include construction of a new Chapter House and a cemetery expansion.

**Table 1 - Chapter Capital Improvement Projects**

Const Year	Chapter	Project Title	Category	Funding Sources	2012 (\$000)	2013 (\$000)	2014 (\$000)	2015 (\$000)	2016 (\$000)	2017 (\$000)	Total	Project Location	Route Number
2015	Ft. Defiance	Planning, Design, Coalmine Head Start	Building-Education	Legislative Grants	70	150	700	200	0	0	1,120	3 miles north of SR264 - Coalmine area	SR 264
2012	Ft. Defiance	Fort Defiance Transfer Station	Utilities--Solid Waste	N/A	750	0	0	0	0	0	750	2 miles east of the 7-2-11 store	N54
2014	Ft. Defiance	Planning, Design, Construct, Equip Multi-Purpose Building	Building-Community	Legislative Grants	220	150	800	0	0	0	1,170	Unknown	--
N/A	St. Michaels	St. Michaels Chapter Cemetery Expansion	Comprehensive Studies	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0	Expansion to the current cemetery. Top of hill of the mission school.	Route 12
2013	St. Michaels	New Chapter House	Building-Community	NN CIP General Funds Chapter Sales Tax Funds	2,050	800	0	0	0	0	2,850	Existing chapter tract	SR 264

N/A = Not available

Source: Source: Navajo Division of Community Development, WIND System, Project Authorizations for Fort Defiance and St. Michaels Chapter, <http://wind.enavajo.org/PublicRecords.aspx>, accessed 7/26/2011



Source: Navajo Division of Transportation

Figure 4 - Existing Land Use

## 2.5 Demographics and Socioeconomics

An analysis of population and economic data for both the St. Michaels and Fort Defiance Chapters was conducted and is summarized below.

### 2.5.1 Population and Employment

The population data was obtained from the 2000 and 2010 United States Census. The population estimates are summarized in **Table 2**.

**Table 2 – Current Study Area Population**

Portion of Study Area	2000 Population	2010 Population
St. Michaels	1,277	1,443 (1% annual growth rate)
Window Rock	3,041	2,712 (-1% annual growth rate)
Fort Defiance	4,037	3,624 (-1% annual growth rate)
<b>Total</b>	<b>8,355</b>	<b>7,779</b> (-1% annual growth rate)

Sources: 2000 Census: Profile of General Demographic Characteristics (SF4), 2010 Census: Profile of General Population and Housing Characteristics (2010 Demographic Profile Data)

Note: Compound annual growth rates are rounded to the nearest one percent.

As shown in **Table 2**, there is a 1% rate of decline in population between 2000 and 2010, with a total population of 8,355 in 2000 and 7,779 in 2010.

### 2.5.2 Major Employers

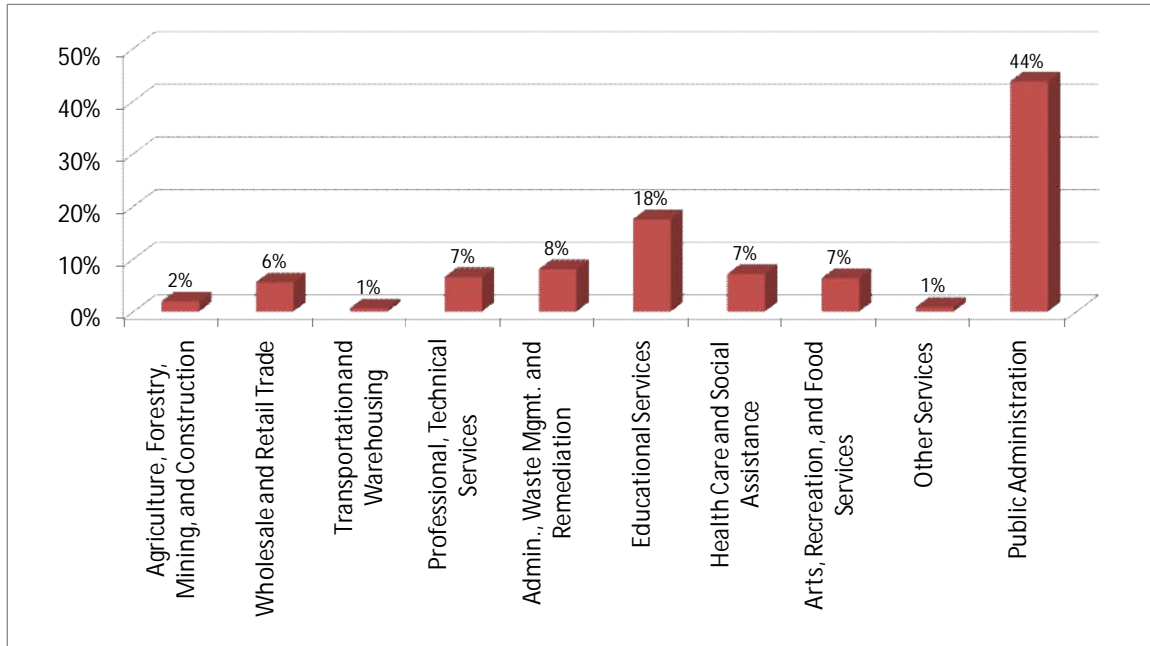
Employment data was obtained from the 2010 United States Census Longitudinal Employer-Household Dynamics (<http://lehdmapp.did.census.gov/>). **Figure 5** provides a breakdown of the different types of employment within the St. Michael's-Window Rock-Fort Defiance study area. **Table 3** provides the names of major employers in the area and number of employees, where available.

**Table 3 – Employers**

St. Michaels		Window Rock		Fort Defiance	
Public Employers	Number of Employees	Public Employers	Number of Employees	Public Employers	Number of Employees
St. Michaels Chapter House	N/A	Public Education	N/A	Public Education	N/A
Indian Health Service	3,352 (all 8 service units)	Dine College	N/A	Bureau of Indian Affairs (BIA)	130
Division of Economic Development	N/A	Window Rock Airport	N/A	Fort Defiance Chapter House	20
USDA	N/A	Window Rock Zoo	N/A	Housing and Social Services	N/A
		Dine Power Authority	N/A	Forestry	N/A
		Various Government Offices	N/A	County and State Probation Office	N/A
		Police and Fire Station	N/A	Navajo Tribal Utility Authority (NTUA)	400
				NHA Complex	96
				Fire Station	
				Fort Defiance Indian Hospital	850
Private Employers		Private Employers		Private Employers	
Healthcare	N/A	Water Heating Plant	N/A	Healthcare	N/A
Frontier Communication	N/A			Various Commercial Businesses	N/A
Various Commercial Businesses	N/A				

Source: 2010 United States Census Longitudinal Employer-Household Dynamics (<http://lehdmap.did.census.gov/>) and ArcGIS land use shapefile data.

Employment Data obtained from Chapter House Profiles



Sources: 2010 United States Census Longitudinal Employer-Household Dynamics (<http://lehdmap.did.census.gov/>)

**Figure 5 - Study Area Employment Sectors**

### 2.5.3 Tourism and the Navajo Nation Fair

As the capitol of the largest Native American Nation in the country the Window Rock area attracts tourists throughout the year. The area offers attractions such as the Window Rock landmark and Navajo Veteran's Park, the Navajo Nation Museum, the Navajo Nation Zoo and Botanical Park, the Navajo Nation Fair, and scenic views along N12 which is designated as the Dine Biitah Scenic Road.



*The Navajo Nation Fair parade attracts thousands of spectators and participants*

The Navajo Nation Fair attracts thousands of visitors in September each year and the effect on the road system is a consideration for this study. Many events are held during the Fair including concerts, a rodeo, a parade that is held on SR 264, and a carnival, as well as artisan competitions and other events, see **Figure 6**. The fairgrounds are located in Window Rock, southeast of the SR 264 and N12 intersection. One item of

concern regarding the Fair parade is that it requires the closure of SR 264 for one morning between N54 in New Mexico and the N12/N112 intersection. Also in advance of the parade visitors park and set up camping tents for miles within the SR 264 right-of-way causing traffic congestion and pedestrian safety issues.

In 2011 a shuttle service was operated by the Navajo Transit System (NTS) to help alleviate traffic issues. The shuttle service ran hourly for a two day period, making stops at the Ft. Defiance Field House, Navajo Nation Museum, and the Window Rock Administration Building 1. Cost of the shuttle was \$1.00 and riders were eligible for a number of fair and concert discounts. The service was advertised on the Navajo Transit System website, on the Navajo Nation Fair website, and on the main fair electronic sign. It was also advertised in the Navajo Times, and in a press release. It was noted that a link from the Navajo Nation Fair website to the Navajo Transit System website, where the shuttle schedule was posted, would be useful in the future.

Another traffic concern is the lack of alternate traffic routes during the fair, particularly when the parade requires a temporary closure of SR 264.

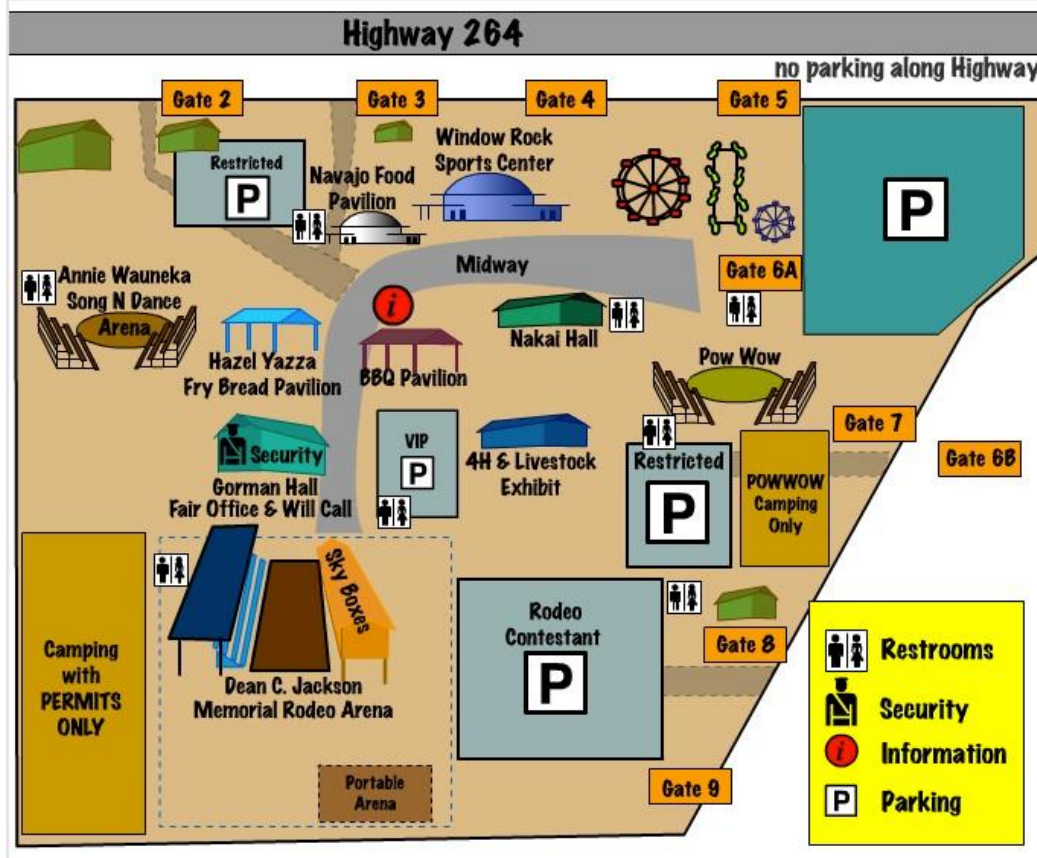
Study team observations on traffic control and other transportation issues during the fair were:

- There was not any advance notice of the detour on SR 264 to N54. A portable variable message sign in advance of the detours and road closure is needed.
- The parade route is from east to west and ends at the N112/N12 south intersection with SR 264. The parade floats then turn north on N112 to Fort Defiance. An alternate route from N112 to provide access to north / south traffic on N112 and N12 south would be useful. Options might be Drexel Road (discontinuous currently) or Crest Road.
- On the south side of the SR 264, an alternate route is a back road that accesses the Window Rock fairground from the N12 / SR 264 intersection. It connects to County Road 407 and then SR 264. If paved or graveled it will help with the fair traffic circulation. There are 20 homes on this route.
- The sidewalk area on SR 264 is used by campers and parade viewers. On the north side of SR 264, there is a dirt path that could be formalized into a paved wide multiuse path.
- Although emergency vehicles had access on N12 north during the closure, the same was not true on the road adjacent to the Navajo Museum. Vehicles were parked in the roadway, blocking access.
- A long term need is to relocate the Fair to an area that is not directly adjacent to SR 264, with more parking and accommodations for the many campers during this time.



*Dirt path on the north side of SR 264*

Figure 6 shows a schematic of the Navajo Nation Fairgrounds.



Source: <http://www.navajonationfair.com/nnf11/info.html#maps>

Figure 6 - Schematic of the Navajo Nation Fairgrounds

### 2.5.4 Transportation Modes

Data on types of transportation that workers are using in the St. Michaels, Window Rock and Fort Defiance areas were obtained from the 2000 Census Journey to Work Data. This data reflects how workers 16 years of age and older are traveling to work. **Table 5** summarizes this information and shows how the modes of travel compare to the state as a whole. The data shows that there are a higher percentage of walkers in the St. Michaels, Window Rock and Fort Defiance area compared to the state of Arizona as a whole. There is also a lower percentage of bicycle and transit usage compared to the state of Arizona as a whole.

**Table 4 - Transportation Modes**

Mode of Transportation	Arizona	St. Michaels	Window Rock	Fort Defiance
	Percent of Workers 16 and over			
Autos	89.5	90.2	88.5	82.6
Public Transportation	1.9	0	0	0
Bicycle	1.0	0	0	0.5
Walk	2.6	9.8	6.0	13.5

Source: 2000 Census, QT-P23: Journey to Work Data

### 2.5.5 Title VI Populations and Environmental Justice

Transportation projects that utilize United States federal aid are required to certify non-discrimination under the requirements of Title VI of the Civil Rights Act of 1964. Also, in 1997, the U.S. Department of Transportation issued DOT Order to Address Environmental Justice in Minority Populations and Low-Income Populations to summarize and expand upon the requirements of Executive Order 12898 on Environmental Justice. In accordance with the intent of these federal requirements, analysis was completed to identify impacted populations within the study area.

Looking at the effects of new projects on minority populations will assure that no discrimination occurs

According to the 2010 U.S. Census, the racial composition of the St. Michaels, Window Rock, and Fort Defiance areas is predominantly Native American as shown in **Table 5**.

**Table 5 – Racial Demographic Percentages**

Area	White Not Hispanic	African American	Native American	Asian	Native Hawaiian	Other	Two or More Races	Hispanic or Latino
St. Michaels	7%	0%	87%	0%	0%	0%	3%	4%
Window Rock	2%	0%	93%	1%	0%	0%	2%	2%
Ft. Defiance	2%	0%	92%	1%	0%	0%	2%	2%

Source: 2010 Census DP-1

The Executive Order also requires the consideration of persons older than 60 years of age. According to the 2010 U.S. Census, between 12.8 and 16.2 percent of the population in St. Michaels, Window Rock and Fort Defiance is 60 years or older. Title VI population data for the year 2010 for the St. Michaels, Window Rock, and Fort Defiance areas is shown in **Table 6**.

**Table 6 – 2010 Title VI Population Percentages**

Population Category	St. Michaels	Window Rock	Ft. Defiance	Average
Females	49.5%	51.7%	51.2%	50.8%
Males	50.5%	48.3%	48.8%	49.2%
Minority Races	93.4%	97.8%	97.9%	96.4%
Persons over age 60	16.2%	13.6%	12.8%	14.2%

Source: 2010 Census DP-1

### 2.5.5.1 Study Recommendation Implications

Since the study area is entirely situated within Navajo lands, all areas have high percentages of impacted populations. Therefore, the transportation improvement projects recommended through this study may differentially affect community members of the Navajo Nation.

**Appendix A**, *Title VI and Environmental Justice: Preliminary Assessment*, identifies the study recommended projects and provides an initial assessment of the potential effects, both positive and negative, that these projects may have on the community members. As the recommended projects are implemented, additional efforts will be conducted in order to identify activities that can avoid, minimize, or mitigate the impacts.

For this study, consideration was given to the Title VI and Environmental Justice factors to ensure that impacted populations were included in the study public participation process. Efforts were made to reach minority and low-income populations when advertising this study's public involvement meetings, which included two public meetings, one in the St. Michaels and one in Ft. Defiance. Public outreach efforts are summarized in **Appendix B**, *Public Involvement Summary Report 1* and **Appendix C**, *Public Involvement Summary Report 2*.

### 3 TRAFFIC AND ROADWAY ASSESSMENT

This chapter presents data on current and future transportation conditions to identify needs and deficiencies of the transportation system.

#### 3.1 Summary of Completed Plans and Studies

Several plans and studies that addressed transportation were reviewed in the preparation of this study. The documents are listed in **Table 7**.

**Table 7 – Plans and Studies Reviewed for this Project**

##### **ADOT Studies and Plans**

Arizona Bicycle Safety Plan  
Arizona Pedestrian Safety Plan  
Arizona Bicycle and Pedestrian Plan  
Arizona Rural Transit Needs Study  
Navajo Transit System Five Year Plan  
SR 264 Corridor Profile Study  
State Transportation Improvement Plan  
Diné Tah “Among the People” Scenic Road Corridor Management Plan

##### **Area Transportation Plans and Studies**

N-12 (Navajo Nation) Road Safety Audit  
2009 Navajo Nation Long Range Transportation Plan  
Navajo Transit System Long Range Plan

##### **Land Use and Economic Development Plans**

2009-2010 Comprehensive Economic Development Strategy- the Navajo Nation  
Fort Defiance Chapter Community Facilities Plan  
St. Michaels Chapter Community Land Use Plan

### 3.2 Summary of Road User Interviews

Interviews with stakeholders were held to obtain information on transportation needs.

Stakeholders are defined as persons whose jobs involve the transportation system. These persons have knowledge of the transportation system gained from on the job experience, knowledge, and expertise. Input from these stakeholders carries more weight for this reason.

A summary of comments appears in **Table 8**. Interviews were completed with representatives of:

- Saint Michaels Chapter House staff
- Fort Defiance Chapter House staff
- Navajo Nation Police and Arizona Department of Public Safety
- Navajo Nation Department of Fire and Rescue Services – representatives from
  - Window Rock (Fire Station 10)
  - Fort Defiance (Fire Station 12)
- Window Rock Unified School District
- Navajo Division of Transportation Road Maintenance representatives
- Navajo Transit System
- Navajo Nation Fair Committee Representative
- Arizona Department of Transportation staff
- Navajo Division of Economic Development

**Table 8 – Comments Received from Stakeholder Interviews**

Comment Category	Comment Summary			
	St. Michaels	Window Rock	Fort Defiance	Study Area Corridor
<b>Emergency Management</b>		<ul style="list-style-type: none"> <li>Emergency service providers need an alternate route to reach N12. Current access is from Window Rock Blvd. During peak periods, it is hard to exit their respective driveways and reach N12.</li> </ul>	<ul style="list-style-type: none"> <li>The Fort Defiance Fire Station needs improved traffic control and advance signing to exit.</li> </ul>	<ul style="list-style-type: none"> <li>Paving is needed on a number of roads to improve response time.</li> </ul>
	<ul style="list-style-type: none"> <li>Rural addressing is needed. This could improve response time.</li> </ul>			
	<ul style="list-style-type: none"> <li>Signal preempt systems at all signalized intersections is needed to improve emergency response.</li> </ul>			
<b>Paving</b>		<ul style="list-style-type: none"> <li>Window Rock – repave street in residential area west of Window Rock Blvd.</li> </ul>	<ul style="list-style-type: none"> <li>Fort Defiance – paving requests for Slick Rock Road, Old N-112, Old Red Lake Road, N7, and Blue Canyon Road. A number of unnamed roads were also requested to be paved.</li> </ul>	

**Table 8 – Comments Received from Stakeholder Interviews, Continued**

Comment Category	Comment Summary			
	St. Michaels	Window Rock	Fort Defiance	Study Area Corridor
	Window Rock / St. Michaels - Lagoon Road – Stakeholders have indicated this road needs paving. North of SR 264, this road serves a water well that is highly used (according to stakeholder comments). South of SR 264, this road goes to a sewage plant and also serves chapter residences.			
	<ul style="list-style-type: none"> <li>Window Rock / St. Michaels - N112 - Stakeholders indicated that this road needs repaving.</li> </ul>			
	<ul style="list-style-type: none"> <li>Window Rock / St. Michaels - Two Story Loop Road - Stakeholders have indicated that this road needs better grading.</li> </ul>			
	<ul style="list-style-type: none"> <li>Window Rock / St. Michaels - Navajo Communication Road - This road was noted as being very rugged and tough for fire trucks to negotiate.</li> </ul>			
	<ul style="list-style-type: none"> <li>Window Rock / St. Michaels – a number of unnamed roads were requested for paving.</li> </ul>			
<b>Signage</b>	<ul style="list-style-type: none"> <li>Advance warning signs are needed for the traffic signal at SR 264 / N12 / N112.</li> </ul>	<ul style="list-style-type: none"> <li>Destination signage to the Window Rock Airport was requested.</li> </ul>		<ul style="list-style-type: none"> <li>A replacement program for signs, because graffiti is a problem.</li> </ul>
<b>Signalization Needs</b>		<ul style="list-style-type: none"> <li>Window Rock - A warning signal light at the intersection of SR 264 and the airport access may be needed.</li> </ul>	<ul style="list-style-type: none"> <li>Fort Defiance - N110/N112 - request for a traffic signal at this location.</li> </ul>	

**Table 8 – Comments Received from Stakeholder Interviews, Continued**

Comment Category	Comment Summary			
	St. Michaels	Window Rock	Fort Defiance	Study Area Corridor
<b>Safety</b>	<ul style="list-style-type: none"> <li>Fencing to reduce animal/vehicle conflicts on N12.</li> <li>Improve safety for pedestrians crossing SR 264.</li> </ul>			
<b>Intersection Needs</b>		<ul style="list-style-type: none"> <li>Window Rock Blvd/Morgan Drive – congestion occurs during peak periods at this skewed T-intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Fort Defiance - at the BIA 12/Window Rock High School Entrance, turn lanes are needed. A separate entry for buses was also recommended.</li> </ul>	
	<ul style="list-style-type: none"> <li>Window Rock/St. Michaels – Provide a turn lane at the intersection of SR 264 and the local road located at approximately milepost 475.9.</li> </ul>		<ul style="list-style-type: none"> <li>Fort Defiance - Fire Department staff requested that turn lanes be added at the intersection of N12 and the access to the Fire Station and Navajo Transit System Office. A signal beacon is also requested at this location.</li> </ul>	
		<ul style="list-style-type: none"> <li>Window Rock – At the intersection of SR 264 and Beacon Street, provided improved paving.</li> </ul>	<ul style="list-style-type: none"> <li>Fort Defiance – N12/N54 - it is hard to see the signal indication. Also upgrades the signal with preempt equipment.</li> </ul>	
		<ul style="list-style-type: none"> <li>Window Rock / N12 Intersection – Provide improvements to reduce congestion.</li> </ul>		

**Table 8 – Comments Received from Stakeholder Interviews, Continued**

Comment Category	Comment Summary			
	St. Michaels	Window Rock	Fort Defiance	Study Area Corridor
<b>Striping / Marking Needs</b>		<ul style="list-style-type: none"> <li>It is hard to see the median section on N12, north of SR 264.</li> </ul>		
<b>Pedestrian Issues</b>	<ul style="list-style-type: none"> <li>Window Rock and St. Michaels - Need pedestrian crossings across SR 264. Potential crossing locations are the Wellness Center and Bashas.</li> </ul>	<ul style="list-style-type: none"> <li>Window Rock - The pedestrian pushbutton does not work at the N12/N110 traffic signal. Better pedestrian signing and striping is needed at the intersection.</li> </ul>	<ul style="list-style-type: none"> <li>Fort Defiance – Provide sidewalks in sections of N12, N112, and N110.</li> <li>Sidewalks along N12 need to be constructed further away from the roadway to provide a safety buffer for pedestrians, particularly school children.</li> </ul>	
<b>Bicycle Issues</b>	<ul style="list-style-type: none"> <li>No dedicated bike lanes.</li> </ul>			
<b>School Transportation issues</b>	<ul style="list-style-type: none"> <li>School District representative requested paving on:</li> <li>Blue Canyon Road (all 13 miles).</li> <li>Red Lake Road- Route 7 north to Route 12.</li> <li>Aspen Road (in Oak Springs).</li> </ul>		<ul style="list-style-type: none"> <li>At Window Rock High School, provide warning lights, crossing guards, and turn lanes.</li> </ul>	
	<ul style="list-style-type: none"> <li>Need signing to alert people that it is illegal to pass a stopped school bus.</li> </ul>			
	Bus pullouts are needed on SR 264 – the school district and Navajo Transit System are working with ADOT to address this issue.			

**Table 8 – Comments Received from Stakeholder Interviews, Continued**

Comment Category	Comment Summary			
	St. Michaels	Window Rock	Fort Defiance	Study Area Corridor
<b>Airport Access Issues</b>		<ul style="list-style-type: none"> <li>• Repaving and restriping airport access road.</li> <li>• Destination signage.</li> <li>• Speed limit signs.</li> <li>• A warning signal light at the intersection of SR 264 and the airport access if warranted.</li> <li>• Perimeter fencing along the road and around the airport.</li> <li>• Sidewalks and possibly a Safe Routes to School program, since there are residences nearby the airport access road.</li> <li>• There is a bridge that needs replacement or possibly repairs.</li> </ul>		
<b>Traffic Control During the Navajo Nation Fair</b>	<ul style="list-style-type: none"> <li>• Need for alternative routes during the Navajo Nation Fair.</li> </ul>			
	<ul style="list-style-type: none"> <li>• When people park on SR 264 during the fair, it is difficult to see people crossing the street.</li> </ul>			
<b>Lighting</b>	<ul style="list-style-type: none"> <li>• Provide lighting on segments of N112.</li> </ul>		<ul style="list-style-type: none"> <li>• Fort Defiance – Provide lighting on segments of N7, N12, and N110.</li> </ul>	

### 3.3 Street Inventory – Indian Reservation Road Program

The Indian Reservation Road (IRR) Program Road Inventory is a basic requirement for transportation funding through the Bureau of Indian Affairs (BIA) IRR Program. The BIA IRR Inventory is vital since it is used in determining each BIA area's road funding.

The Navajo Division of Transportation maintains a comprehensive database of all transportation facilities eligible for IRR funding. The inventory is approved by both the BIA and the tribe.

The BIA IRR Inventory or Road Inventory Field Data System (RIFDS) includes information such as route number, location length, width, surface type and needs, pavement ratings, and class of road, adequacy of design standard, construction needs, and maintenance needs.

The following sections provide a brief overview of the BIA IRR Inventory data, including information about characteristics and needs of the roadway system in the study area corridor. Roads in the Inventory are divided into numbered sections, which are also shown graphically in **Appendix A**.

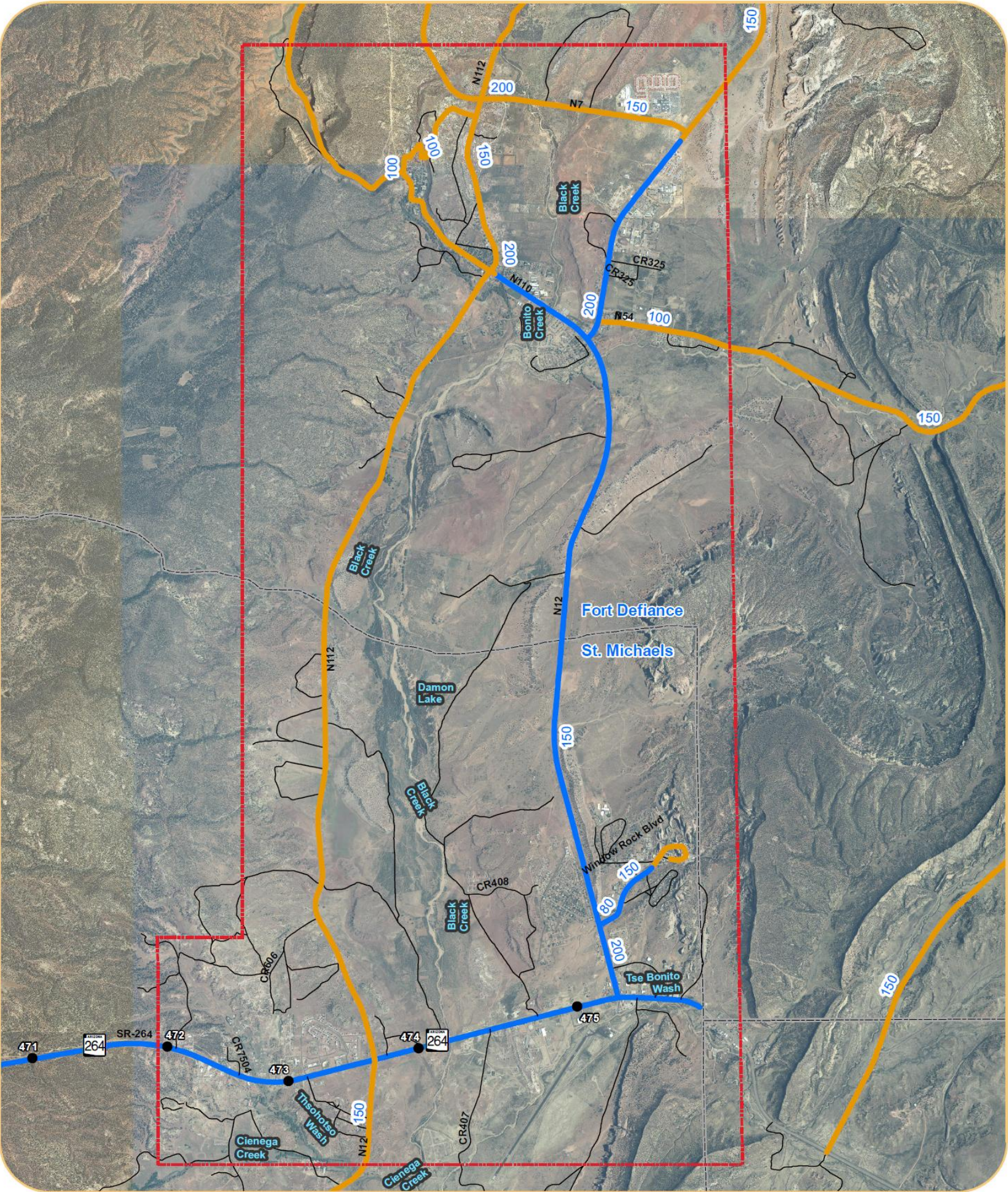
#### 3.3.1 Laneage and Right of Way

Laneage and right-of-way widths (where available) are shown on **Figure 7**. SR264, N12, and sections of N100 and N110 are four lane roadways. Other roads within the study area are two-lane roadways.

FORT DEFIANCE

ST. MICHAELS-WINDOW ROCK

Laneage and Right-of-Way Width



Legend

Tribal/County Roads

Study Area

Chapter Boundary

Mileposts

BIA Road and State Highway Laneage

2 Lanes

4 Lanes

Right-of-Way Width (Feet)

Note:

CR = County Route

N = Navajo (BIA) Route

0

0.5

1

Miles

Source: BIA IRR Inventory 2010

Figure 7 - Laneage and Right-of-Way

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### 3.3.2 Roadway Surface Type

The BIA IRR Inventory categorizes roads in the study area corridor as one of three types:

- Bituminous Material (<2" thick)
- Bituminous Material ( $\geq$ 2" thick)
- Earth Road

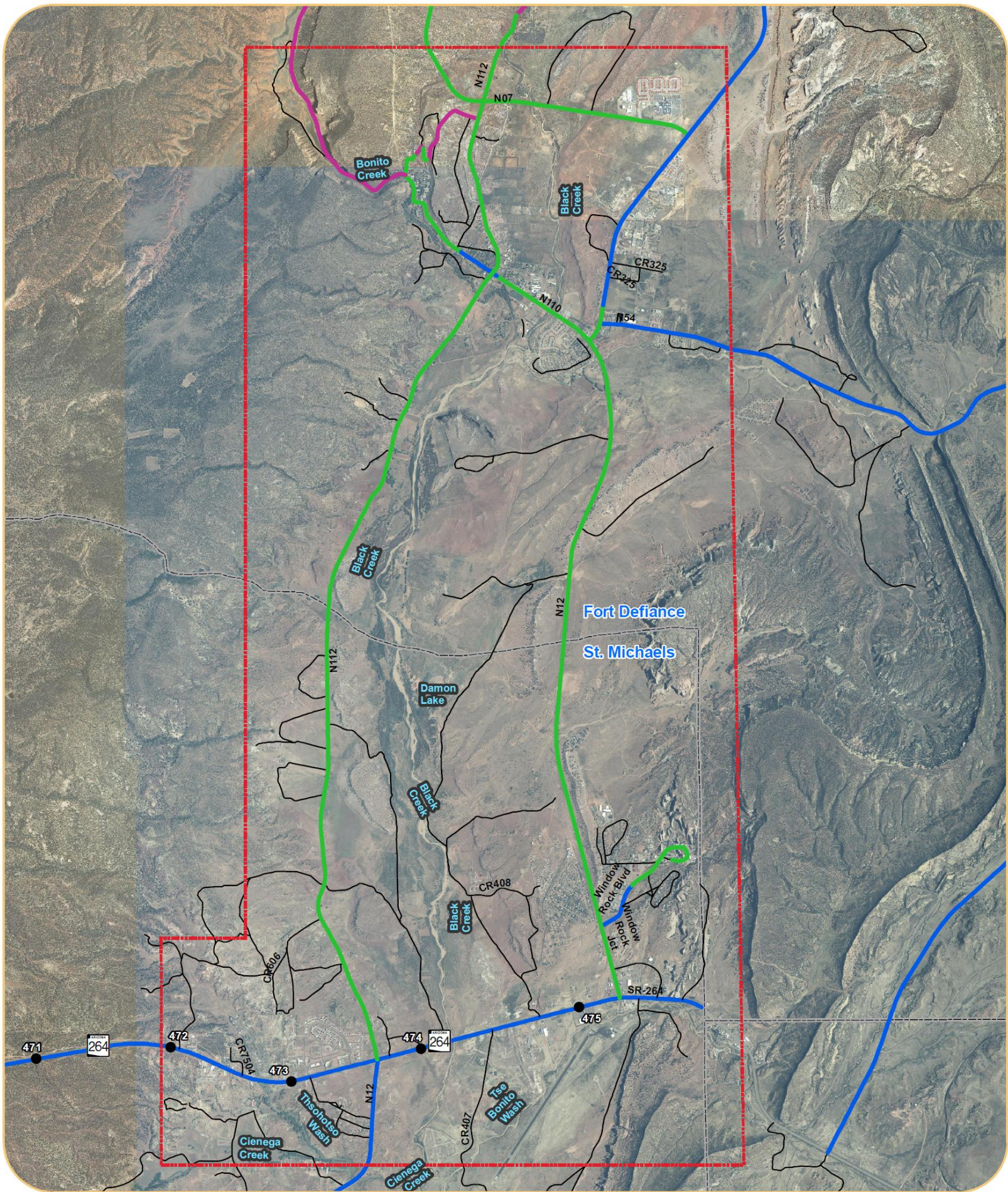
**Figure 8** shows the pavement surface for roads in the BIA IRR Inventory in the study area corridor. A number of the study area corridor roads are paved, including N12, N112, N54, and SR 264, and segments of N110. However, many connecting tribal and county roads are not paved.

### 3.3.3 Shoulder Condition

Shoulder conditions are shown in **Figure 9**. Shoulder conditions include whether the roads have no shoulders, paved shoulders, or curb. Paved shoulders are provided on SR 264, N12, N112, N7 and small segments of N100 within the study area.



*Paved shoulder on N12, south of N7 in Fort Defiance*



Legend

- Tribal/County Roads
- Study Area
- Chapter Boundary
- Mileposts

BIA Road and State Highway Surface Type

- Earth Road
- Bituminous Material (<2" Thick)
- Bituminous Material (>=2" Thick)

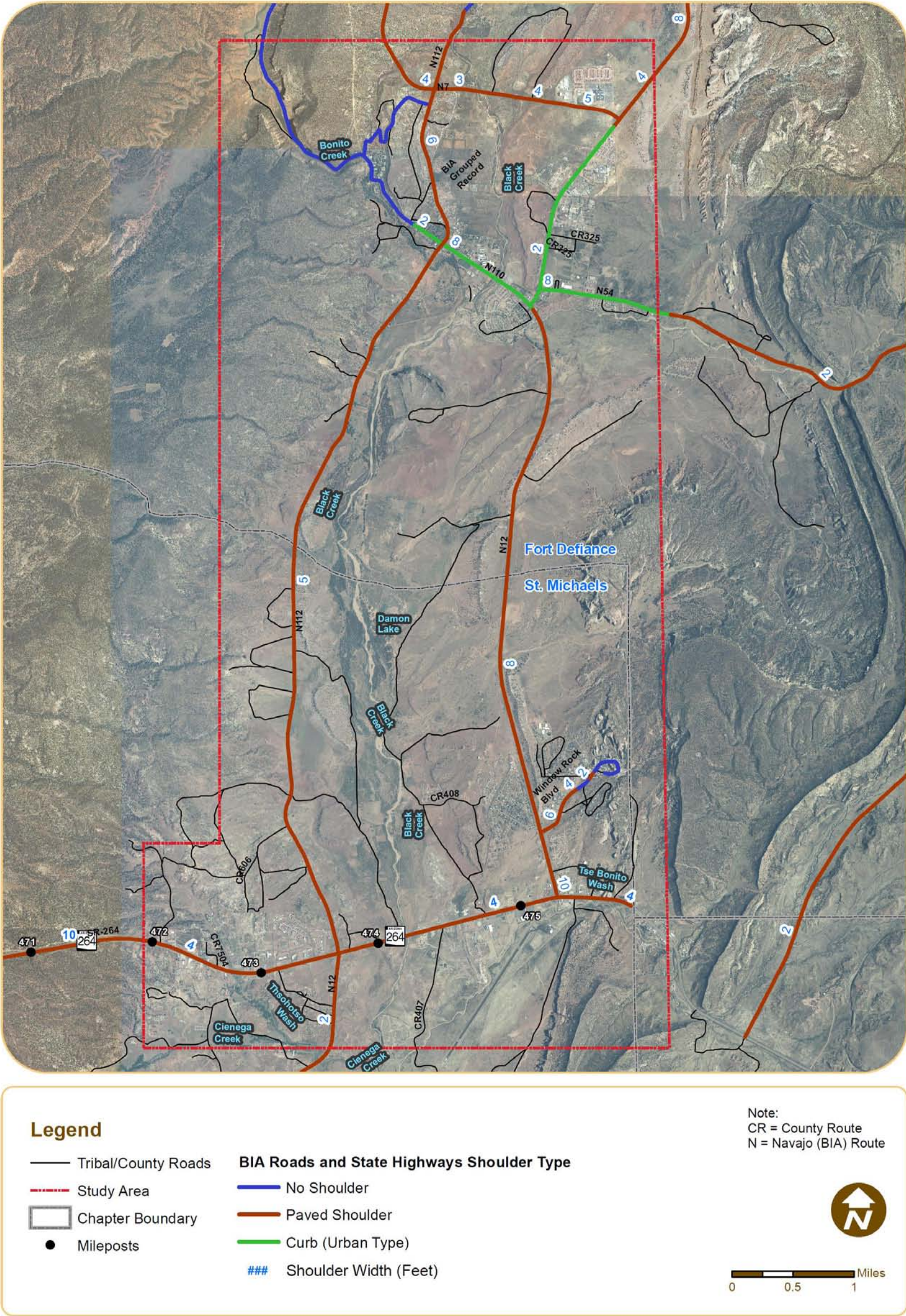
Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Source: BIA IRR Inventory, 2010

Figure 8 – Pavement Surface



Source: BIA IRR Inventory, 2010

Figure 9 - Shoulder Type

### 3.4 Roadway Deficiency Information in the BIA IRR Inventory

The BIA IRR Inventory has a number of categories that provide information on roadway deficiencies. These categories are:

**Passing Sight Deficiencies** – This category represents the percent (by length) of the section being inventoried that meets the passing sight distance requirements set out in the assigned BIA design standard. Each roadway section is categorized by a percentage range that meets or exceeds requirements.

In this study, roads with a small percent (lower than 50%) that met passing sight distance was reviewed with respect to crash history to determine if a passing section was justified. This involved determining if there was a history of head on collisions. Four BIA roads were examined, as summarized in **Table 9**. These road segments are shown in **Figure 10**. The results of the crash data review showed that there was one head-on collision within the N110 sections over a 10 year period.

**Table 9 - Road Sections with Passing Sight Deficiencies and Associated Head-on Collisions**

Route	Section(s)	Percent Meeting Passing Sight Distance Requirements	Number of Head – on Collisions, 1997-2009
N110	60	30-49%	1 (specific location to be determined)
N110	80	30-49%	
N9073	10	30	0
N9073	15	30	0

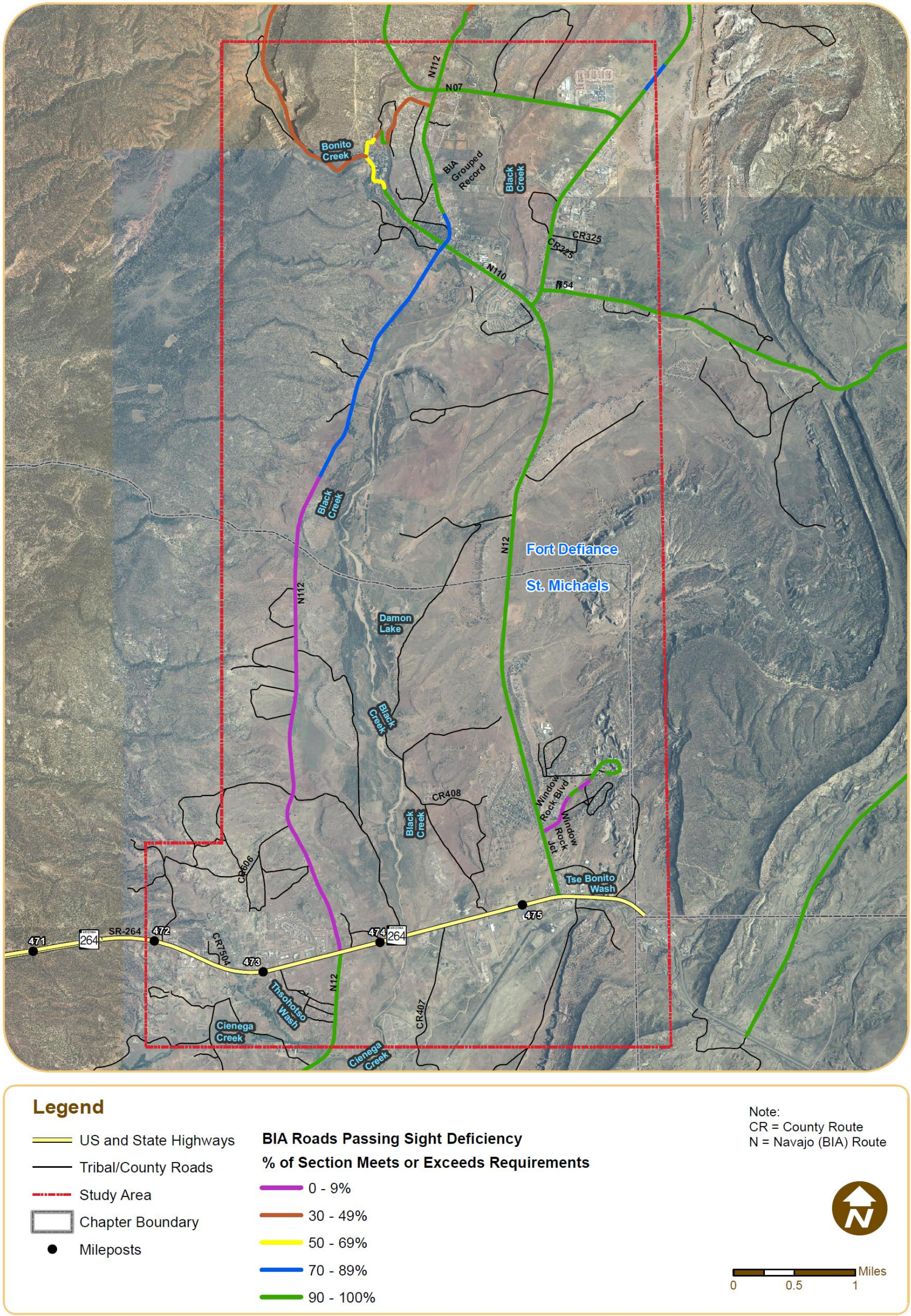
Source: IRR Inventory, 2010

**Number of deficient curves** – These data shows the number of curves with a degree of curvature that is sharper than allowed by BIA design standards.

There were two locations in the study area which had deficient curves:

- N110 – 8 deficient curves
- N9073 – 5 deficient curves

These areas are shown in **Figure 11**. In areas with curves sharper than allowable, it may be desirable to sign the curve at a lower speed, or place warning signs at the curves.

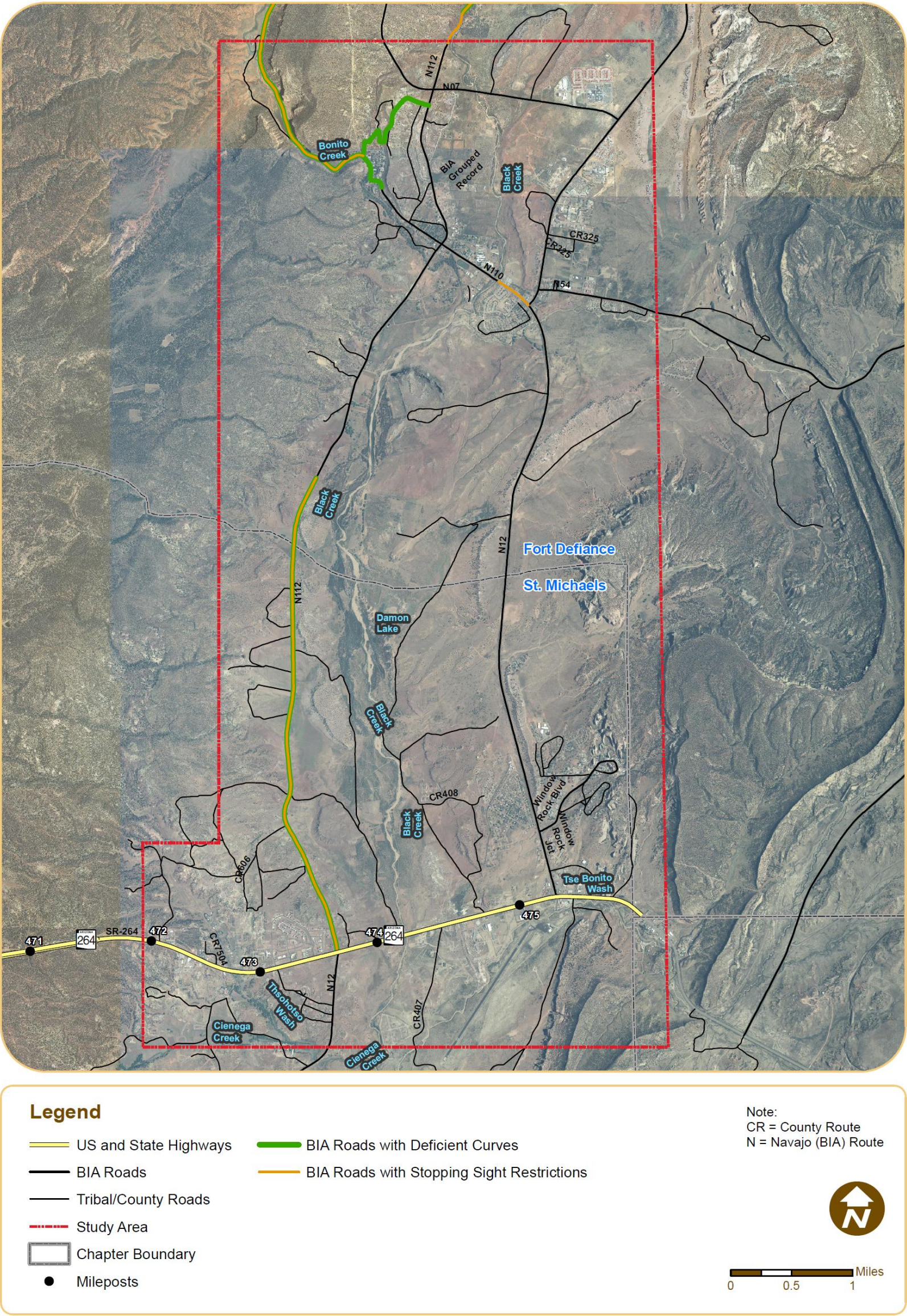


Source: BIA IRR Inventory 2010

Figure 10 - Percent of Road Section Meeting Passing Sight Deficiencies

FORT DEFIANCE  
ST. MICHAELS-WINDOW ROCK

Roads with Deficient Curves  
and Stopping Restrictions



Source: BIA IRR Inventory 2010

Figure 11 - Roads with Deficient Curves and Stopping Sight Restrictions

**Number of stopping restrictions** – These data are the actual number of instances where stopping sight distances, in the area being inventoried, are less than the minimums allowed under the BIA design standard. There were three locations which were inventoried as having less than minimum stopping sight distance:

- N110 – Section 10 – 5 locations
- N112 – Section 70 – 2 locations
- N9073 – Sections 10 and 15 – 10 locations

These segments are shown in **Figure 11**, which also shows areas with deficient curves.

**Roadbed condition** – These data describes the roadbed condition for the section of road being inventoried. Roads that were characterized as “bladed, unimproved road, poor drainage, poor alignment” included sections of N9073, BIA 110, and BIA 112 (north of N7). These areas are shown in blue in **Figure 12**.

**Highway Geometric Design Deficiencies** - To meet the Navajo IRR program objectives, construction of roads, bridges, and other transportation facilities must be done to current acceptable BIA engineering standards for anticipated 20-year traffic volume. **Table 10** summarizes these standards.

A review of the BIA IRR Inventory data and projected traffic volumes indicates the geometric design deficiencies, as shown in **Table 11**. Many of the study area roads, including N7, N12, N100, N110, N112, and N9073 are in need of improvement in the areas of surface upgrades, shoulder widening or upgrades, or roadway widening to meet BIA design standards.

**Table 10 - BIA Geometric Design Standards**

Adequate Design Standard Number	Future ADT	Functional Classification	Needs Surface Upgrade	Needs Shoulder Widening	Needs Roadway Widening	Needs Shoulder Type Upgrade
1,2,3	N/A	1-Major Arterial	Surface Type<5	Shoulder Width<6 ft	Roadway Width<66 ft	Shoulder Type<3
4,5,6	>=400	2-Rural Minor Arterial	Surface Type<5	Shoulder Width<6 ft	Roadway Width<36 ft	Shoulder Type<3
7,8,9	<400	2-Rural Minor Arterial	Surface Type<4	Shoulder Width<4 ft	Roadway Width<32 ft	Shoulder Type<3
10,11,12	>=400 >250<400	4-Rural Major Collector	Surface Type<5 Surface Type<4	Shoulder Width<4 ft	Roadway Width<32 ft	Shoulder Type <3 for ADS10; <2 for ADS1 1; <1 for ADS1 2
	50-250	4-Rural Major Collector	Surface Type<3	Shoulder Width<4 ft	Roadway Width<32 ft	Shoulder Type <3 for ADS1 0; <2 for ADS1 1; <1 for ADS1 2
	<50	4-Rural Major Collector	Surface Type <1	Shoulder Width<4 ft	Roadway Width<32 ft	Shoulder Type <3 for ADS1 0; <2 for ADS1 1; <1 for ADS1 2
13,14,15	>400	5-Rural Local	Surface Type <4	Shoulder Width<2 ft	Roadway Width<28 ft	Shoulder Type <3 for ADS1 3; <2 for ADS1 4; <1 for ADS1 5;
	50-400	5-Rural Local	Surface Type <3	Shoulder Width<2 ft	Roadway Width<28 ft	Shoulder Type <3 for ADS1 3; <2 for ADS1 4; <1 for ADS1 5

**Table 10 - BIA Geometric Design Standards (continued)**

Adequate Design Standard Number	Future ADT	Functional Classification	Needs Surface Upgrade	Needs Shoulder Widening	Needs Roadway Widening	Needs Shoulder Type Upgrade
	<50	5-Rural Local	Surface Type <1	Shoulder Width<2 ft	Roadway Width<28 ft	Shoulder Type <3 for ADS1 3; <2 for ADS1 4; <1 for ADS1 5
16,17,18	>=400 >250<400	6-City Minor 7-City Collector 3-City Local	Surface Type <5 Surface Type <4	N/A	Roadway Width <50 for ADS 16, <(21-38) for ADS 17 or 18	N/A
	50-250	6-City Minor 7-City Collector 3-City Local	Surface Type <3	N/A	Roadway Width <50 for ADS 16, <(21-38) for ADS 17 or 18	N/A
	Under 50	6-City Minor 7-City Collector 3-City Local	Surface Type <1	N/A	Roadway Width <50 for ADS 16, <(21-38) for ADS 17 or 18	N/A

Source: 25 CFR Part 170, Table 1 – Adequate Standard Characteristics, 7/19/2004, page 43123.

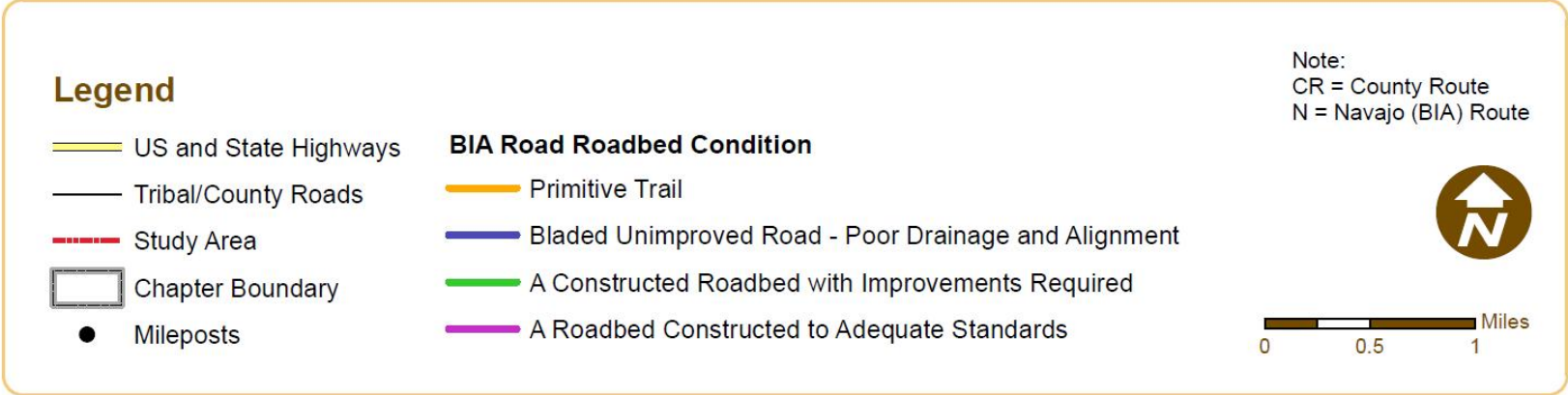
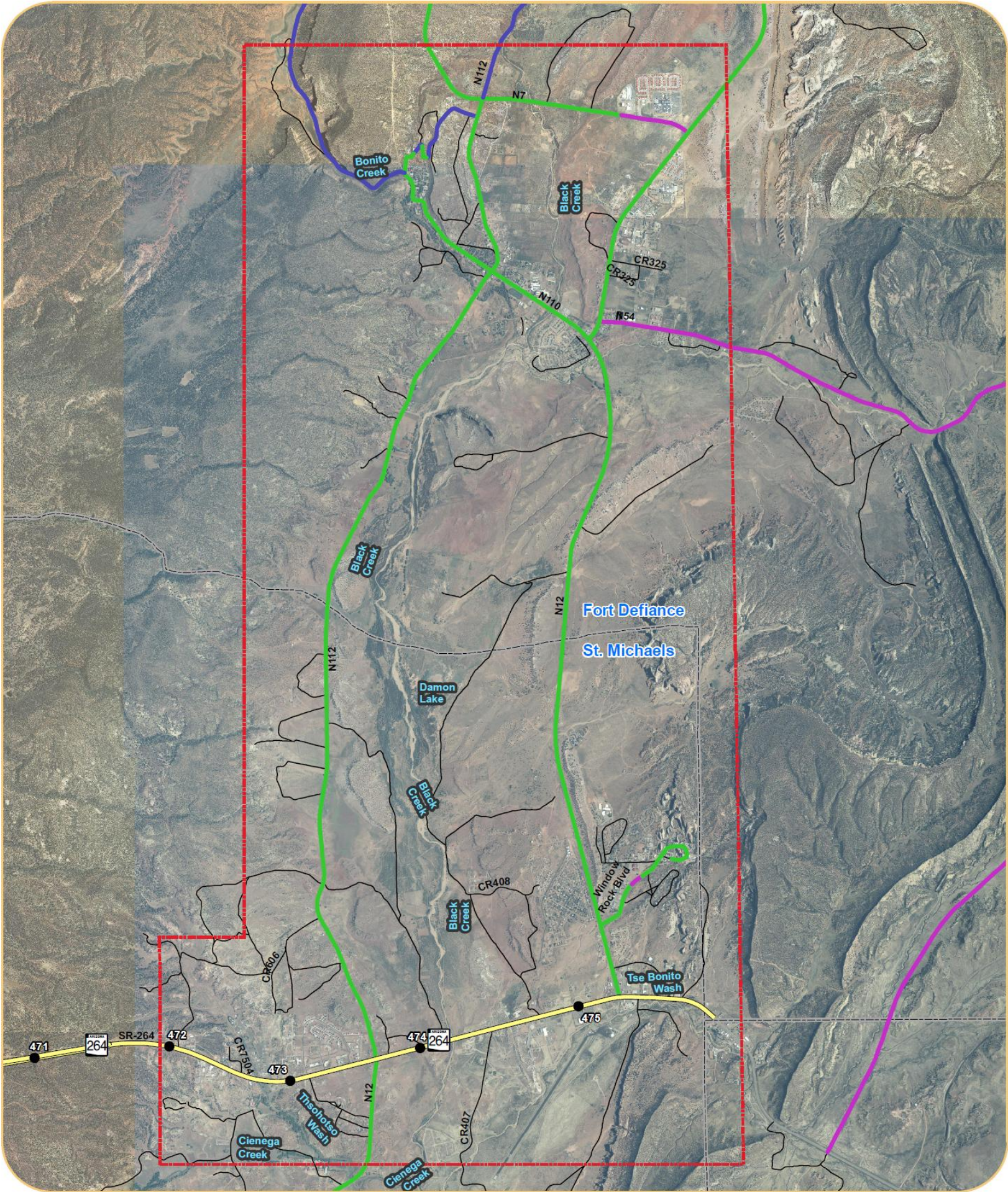
Notes: Surface Type Codes: 6, 5, 4=Paved; 3=Gravel; 1=Earth;

Shoulder Type Codes: 4=Curb; 3=Paved; 2=Gravel; 1=Earth.

**Table 11 - Geometric Design Deficiencies**

<b>Route Number</b>	<b>Needs Surface Upgrade</b>	<b>Needs Shoulder Widening</b>	<b>Needs Roadway Widening</b>	<b>Needs Shoulder Upgrade</b>
	<b>Section Number</b>	<b>Section Number</b>	<b>Section Number</b>	<b>Section Number</b>
<b>7</b>	115,120,140,146,150	115,120,140,146,150	120,140,150	---
<b>12</b>	100,105,110,115,130,150	80,85,160,165,170,180,185	80,85	---
<b>100</b>	15,25,50	15,25	25	---
<b>110</b>	10,30,35,50,55,60,70,80	40,43,46,50,55,60,70,80	50,55,60,70,80	50,55,60,70,80
<b>112</b>	30,35,50,60,63,66,70,	30,35,50	30,35,50,60,63,66	----
<b>9073</b>	10,15	10,15	10,15	10,15

Source: BIA IRR Inventory 2010, analysis by Kimley-Horn and Associates



### 3.5 Traffic Control

In the Saint Michaels/Window Rock area, traffic signals are located at the intersections of:

- SR 264 / N12 / N112
- SR 264 / N12
- N12 / N100 (Window Rock Blvd)

In Fort Defiance, traffic signals are located at the intersections of:

- N12 / N110
- N12 / N54
- N12 / N7

Other intersections are stop sign controlled.



*N12/SR 264/ N112 intersection, looking north*




### 3.6 Functional Classification

Roadway functional classification groups roads that have similar design and traffic characteristics. One functional class differs from another according to the degree of access and mobility. Collector and local streets provide land access and carry local traffic to the neighborhoods and distribute traffic to the arterials. Arterial streets provide mobility over long distances with minimal access to adjoining properties.

Functional classification is used in planning, design, and to allocate federal funding.

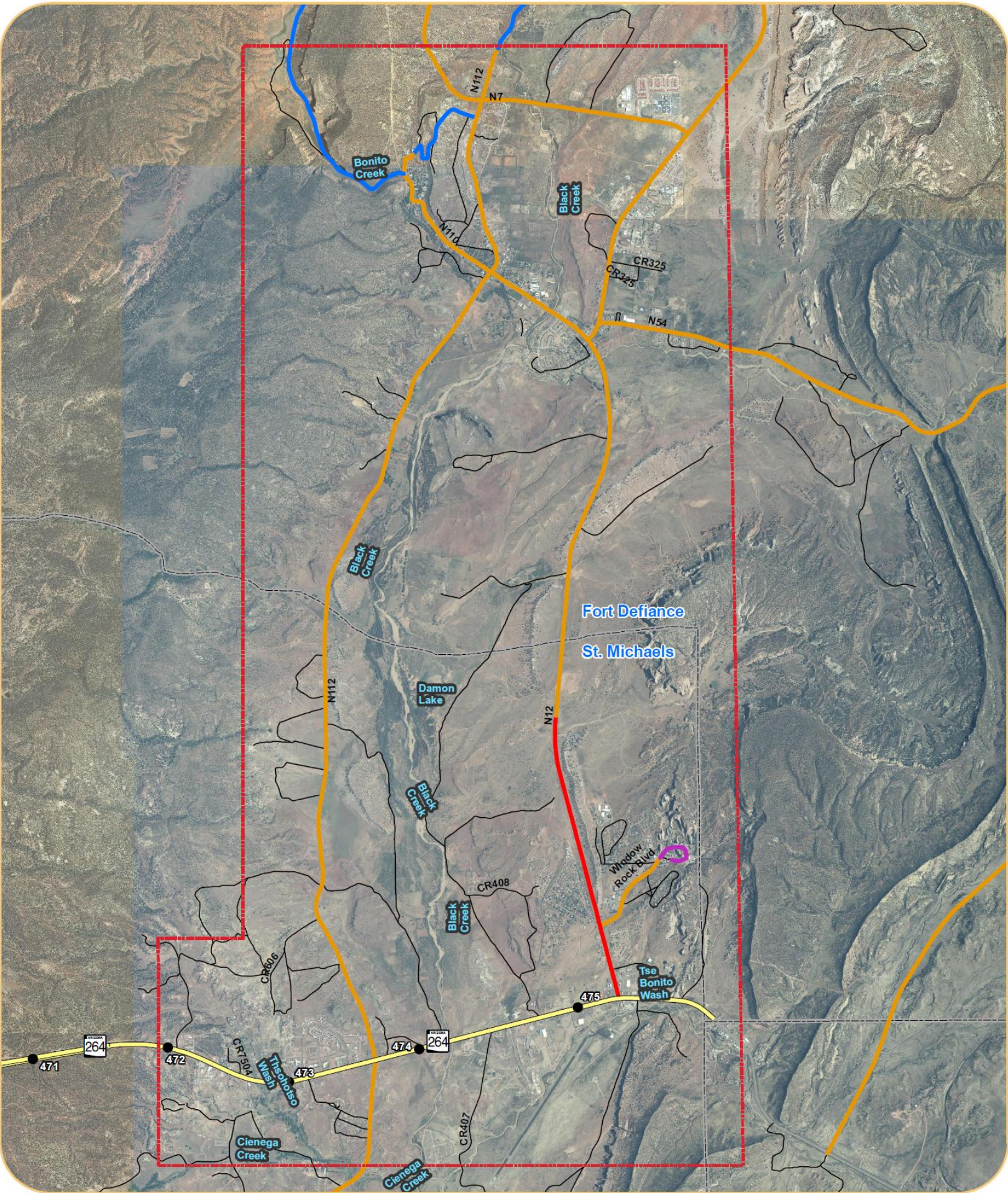
However, the basic idea is the same regardless of the method of measurement: more important roads or more critical needs deserve the most attention. In the context of roads, that usually means more funding. The functional classification definitions are summarized in **Table 12**. It should be noted that the BIA IRR Program provides guidelines for the functional classification of BIA and Navajo Nation owned and maintained roads. Also SR 264 is designated as an Arizona rural minor arterial under the FHWA Functional Classification System. Additionally, under the FHWA System N12 is classified as a rural minor collector and N7 is a rural major collector.

**Table 12 - Indian Reservation Roads- Functional Classification Definition**

Name / Class	Description	Example
Major arterial / Class 1	Major arterial roads providing an integrated network with characteristics for serving traffic between large population centers, and having average daily traffic volumes of 10,000 vehicles per day or more with more than two lanes of traffic.	 <p><b>N12, north of N100</b></p>
Rural Minor arterial / Class 2	Rural minor arterial roads serving traffic between large population centers. 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.	 <p><b>N7, west of N12</b></p>
Rural Major collector / Class 4	Rural major collector road is collector to rural local roads.	 <p><b>N9073</b></p>

Source: Indian Reservation Roads Coding Gide and Instructions for the IRR Inventory (2007)

**Figure 13** summarizes the IRR functional class of each roadway that is functionally classified in the study area corridor.



Legend

US and State Highways

Tribal/County Roads

Study Area

Lakes

Mileposts

BIA Roads Functional Classification

Major Arterial

Rural Minor Arterial

Rural Major Collector

Rural Local Road

Residential Street

Note:

CR = County Route

N = Navajo (BIA) Route

0

0.5

1

Miles

Source: BIA IRR Inventory, 2010

Figure 13 – BIA Functional Classifications

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### 3.7 Crash Analysis

Motor vehicle crash (MVC) data were available from the Navajo Police Department and the ADOT Accident Location Information Surveillance System (ALISS). Data were available for 854 MVCs in the St. Michaels/Window Rock/Ft. Defiance study area during the thirteen year period from 1997 through 2009. Data for 482 of the St. Michaels/Window Rock/Ft. Defiance crashes were extracted from the Navajo Police database and 372 of the crashes from the ALISS database.

**Table 13** provides an overview of the number of MVCs and associated injuries and fatalities by road for each of the study areas. 77 percent of all crashes and 80 percent of all crash-caused injuries occurred on N12 and SR 264. All crash fatalities occurred on N12, N112 or SR 264, with more fatalities occurring on N112 than any other road. **Figure 14** shows the location of crashes between 1999 and 2009, based on the Navajo Police Department database.

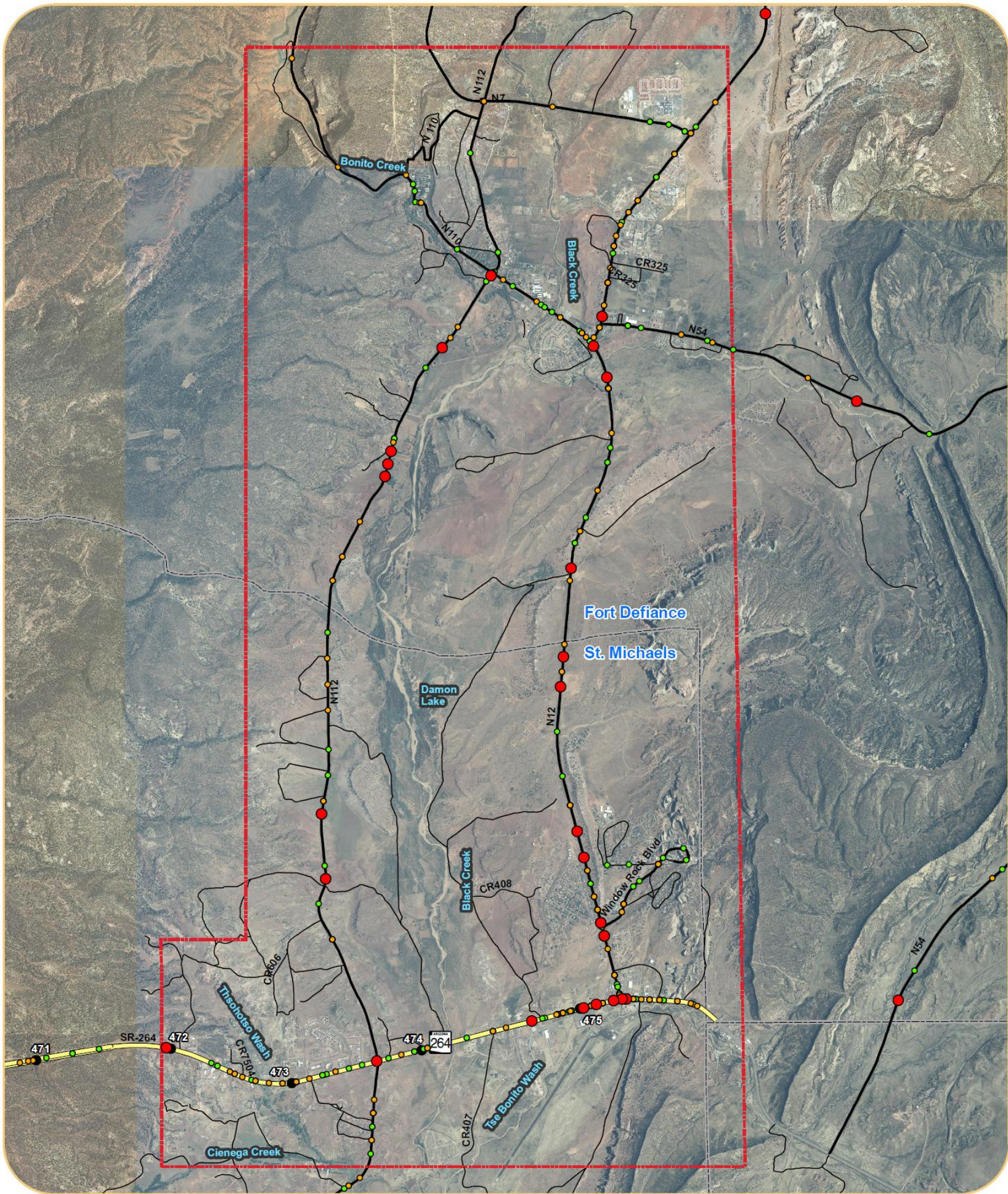
**Table 13 - Number of Motor Vehicle Crashes, Injuries and Fatalities by Road for the St. Michaels/Window Rock and Fort Defiance Study Area Corridor**

Road	# of MVCs	% of All MVCs	# of Injuries	% of All Injuries	# of Fatalities	% of All Fatalities
N7	23	2.7	15	2.4	0	0.0
N12	323	37.8	244	38.7	14	29.8
N54	12	1.4	13	2.1	0	0.0
N100	13	1.5	0	0.0	0	0.0
N110	65	7.6	53	8.4	0	0.0
N112	76	8.9	42	6.7	18	38.3
SR 264	337	39.5	260	41.2	15	31.9
N9073	2	0.2	3	0.5	0	0.0
Morgan Drive	1	0.1	0	0.0	0	0.0
St Michaels Chapter Rd	1	0.1	0	0.0	0	0.0
St Michaels Mission Rd	1	0.1	1	0.2	0	0.0
<b>Totals</b>	854	100.0	631	100.0	47	100.0

Note: Shaded areas indicate roads with high motor vehicle crashes and fatalities.

Source: ALISS and Navajo Police Department, analysis by Kimley-Horn and Associates

This study reviewed characteristics of the crashes based on data in the accident reports for each accident, summarized as follows.



Legend

- US and State Highways
- BIA Roads
- Tribal/County Roads
- Study Area
- Chapter Boundary

- Mileposts
- Crashes (1999-2009)
  - Property Damage
  - Injuries
  - Fatalities

Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Source: Navajo Police Department

Figure 14 – Crash Locations, 1999-2009

**Driver State of Origin** - The study area is a major tourist destination, which leads to the question of whether a large percentage of the crashes involve drivers from outside the study area. The ALISS data base provides the driver's license state of origin for many crashes. 123 of 544 (22.6%) drivers whose license state of origin was reported were from outside Arizona. However, of the 123 drivers from outside Arizona, 109 were from New Mexico. Many of the drivers from New Mexico might be local. Although the residence locations of drivers from Arizona and New Mexico are not identified in the database, it would appear that a high percentage of the drivers involved in study area crashes are local.

**Pedestrians and Pedacyclists** - There were 21 crashes involving 22 pedestrians. Thirteen of the pedestrians were fatally injured and the remaining nine suffered some injury. Twelve of the pedestrian crashes occurred on SR 264; four on N12; one on N54; and four on N112. The physical condition was not reported for most of the pedestrians involved in MVCs. Of those whose physical condition was reported, five had been drinking. Two of these five were fatally injured. There were no pedacylist crashes.

**Weather and Road Conditions** - Adverse weather and road conditions can be causal factors for motor vehicle crashes. Weather was clear, with no other conditions shown for 84% of the crashes, and the road was dry, with no other factors listed, for 74% of the crashes. Weather might have been a factor for 16% of the crashes, and road condition might have been a factor for 26% of the crashes. Winter weather and road conditions might be significant factors in causing crashes during winter months.

**Light Conditions for Motor Vehicle Crashes** - Light conditions can be an important factor in motor vehicle crashes. Typically it is more difficult to see factors impacting the safety of the road at night and during dawn/dusk conditions. Crashes archived in the ALISS database provide information about light conditions. These data are shown in **Table 14**.

About 40 percent of the crashes on SR 264 between Black Creek bridge and N12 occurred at night or during dawn/dusk. 56 percent of the MVCs on N7 west of N12 occurred at night. 43 percent of the crashes on N12 happened at night or during dawn/dusk. The rural section of N12 between Window Rock and Ft. Defiance experienced 57 percent of the crashes during non-daylight hours. Nearly 50 percent of the crashes on BIA 112 between SR 264 and N110 occurred at night on this road that has the highest number of MVC fatalities of any road in the study area. No data were available from the Navajo Police database for light conditions.

**Table 14 - Light Conditions for Crashes on Selected Roads in St. Michaels, Window Rock and Fort Defiance, 1997-2008**

Road/Location	Total MVCs	Daylight MVCs	Dawn/Dusk MVCs	Darkness MVCs
<b>SR 264</b>	158	121	9	28
At N12S	47	41	2	4
N12S-MP474.4	23	17	1	5
<b>MP 474.4-475.4</b>	<b>43</b>	<b>25</b>	<b>4</b>	<b>13</b>
At N12N	29	27	1	1
MP 475.6-476.1	18	11	1	5
<b>N7</b>	14	8	1	5
At N12	5	4	1	0
N12 - N112	6	3	0	3
At N112	3	1	0	2
<b>N12</b>	114	65	5	44
MP 22.1- SR 264W	14	7	2	5
At SR 264W	9	5	0	4
At SR 264E	4	3	0	1
<b>SR 264E-MP 24.2</b>	<b>24</b>	<b>16</b>	<b>0</b>	<b>8</b>
<b>MP 24.2-MP 28.3</b>	<b>28</b>	<b>12</b>	<b>2</b>	<b>14</b>
At N110	10	8	1	1
<b>At N54</b>	<b>11</b>	<b>4</b>	<b>0</b>	<b>7</b>
N54 - N7	6	4	0	2
At N7	8	6	0	2
<b>N54</b>	3	2	0	1
<b>N100 at BIA 12</b>	11	11	0	0
<b>N110</b>	255	20	2	3
At N12	7	5	0	2
N 12 - N112	5	5	0	0
At N112	9	7	2	0
N 112 - N7	4	3	0	1
<b>N112</b>	35	21	0	14
<b>SR 264 - N110</b>	<b>21</b>	<b>11</b>	<b>0</b>	<b>10</b>
At N110	7	6	0	1
N110 - N7	6	3	0	3
At N7	1	1	0	0

Note: highlighted area indicate high percent of crashes at night time

Source: ADOT and Navajo Police Department

**Crash Location by Road** - information regarding crash locations will be important in the development of road improvement needs. **Table 15** provides data for number of crashes, vehicles involved, injuries, and fatalities for several sections of road within the study area as well as other crash characteristics, including collisions with animals and pedestrians. Crashes at intersections can be reported as being on any of the roads at the intersection, depending on which road the reporting officer thinks most involved. For example, crashes at the N12/N112/SR 264 intersection are reported on each of the roads, but none of the crashes are reported on more than one of the roads.

The highest volumes of crashes occur on SR 264 throughout the study area and north along N12 to its intersections with N110. These are also high injury and fatality areas.

**Fatalities** - There were 32 fatal crashes on Navajo routes and SR 264, see **Table 15**. High fatalities occurred on N12 at Shonto intersection and between Window Rock and Fort Defiance and N112 between SR 264 and Fort Defiance and especially at the N110 intersection. On SR 264, high fatalities occurred east of MP 473.5 and N12 North in Window Rock and 10 fatal crashes between MP 474.4 - MP 475.6 with nine were collisions with pedestrians.

Table 15 - Crash Locations, Severity and Type

Road	MP Location	Number of MVCs	Number of Vehicles	Number of Injuries	Number of Fatalities	Number of Intersection/ Driveway MVCs	Number of Run Off Road MVCs*	Single Vehicle	Collision with Animal	Collision with Pedestrians	Comment
N7	0.0 - 0.1 N12 Intersection	7	14	1	0	6	1	0	1	0	A mix of crash types – no predominant trend.
	0.1 - 1.4 Commerce & School	8	11	2	0	3	3	4	1	0	50% of the crashes were single vehicle crashes.
	1.4 - 1.6 N112 Intersection	6	11	11	0	5	2	2	0	0	No clear crash trends.
	1.6 - 4.6	1	1	1	0	0	1	0	0	0	No crash trends.
N12	22.1 - 23.3	30	42	10	0	0	5	13	12	0	Ran off the road issue. 43% single vehicle crashes.
	23.3 - 23.5 SR 264 Intersection S	10	17	9	0	8	1	4	2	0	Primarily rear end and single vehicle crashes.
	23.5 - 23.65 SR 264 Intersection N	23	47	11	0	22	0	1	2	1	Access management issue. Main accident types were sideswipe and angle.
	23.65 - 23.9 Window Rock Loop Intersection	16	30	14	1	13	2	2	2	0	Access management issue. A mix of crash types – no predominant trend
	23.9 - 24.2 N100/Shonto Intersections	73	148	34	3	52	1	2	3	0	19% of the crashes were rear end collisions, typical at signalized intersections.
	24.2 - 28.3	69	115	61	6	8	9	12	13	2	Most common crash type reported was single vehicle.
	28.3 - 28.55 N110 Intersection	32	67	31	1	27	1	2	0	1	Access management issue. Most common crash type reported was rear end.
	28.55 - 28.8 N54 Intersection	25	45	27	1	18	1	4	1	0	Access management issue. Most common crash types reported were angle and single vehicle.
	28.8 - 29.2	6	11	3	0	4	0	0	2	0	67% of the crashes were at driveways or intersections.
	29.2 - 29.3 NTUA Turnoff	6	10	13	0	4	0	0	1	0	No crash trends.
	29.3 - 30.1	12	23	1	0	6	0	1	2	0	Half of the crashes were at driveways.
	30.1 - 30.3 N7 Intersection	14	29	23	1	9	0	1	2	0	Intersection issue - Most common crash types reported were angle and rear end.

Table 15 - Crash Locations, Severity and Type, Continued

Road	MP Location	Number of MVCs	Number of Vehicles	Number of Injuries	Number of Fatalities	Number of Intersection/ Driveway MVCs	Number of Run Off Road MVCs*	Single Vehicle	Collision with Animal	Collision with Pedestrians	Comment
N12	30.3 31.1	2	3	2	1	0	1	0	0	0	No crash trends.
N54	10.0 - 11.6	10	20	11	0	5	1	2	1	0	50% of the crashes were at driveways or intersections.
	11.6 - 11.7 N12 Intersection	2	3	2	0	1	1	0	0	1	Two rear end crashes.
N100	0 - 0.2 N12 Intersection	12	24	0	0	8	0	1	0	0	58% rear end crashes.
	0.2 - 1.0	1	2	1	0	1	0	0	0	0	No crash trends.
N110	0 - 0.1 N12 Intersection	19	38	13	0	16	1	0	0	0	Intersection design issue Angle and rear end crashes.
	0.1 - 0.75 Commercial & School	13	26	4	0	8	0	0	0	0	62% of crashes at driveway sand intersections.
	0.75 - 0.9 N112 Intersection	22	45	28	0	19	0	0	1	0	Intersection design issue. Angle crashes.
	0.9 - 2.0	11	20	8	0	6	2	0	0	0	55% of crashes were at driveways or intersections.
N112	0 - 0.1 SR 264 Intersection	6	10	8	0	6	0	0	0	0	No crash trends.
	0.1 - 6.35	43	60	25	7	0	10	15	8	2	High fatalities. 35% of the crashes were single vehicle crashes. Four crashes involved animals.
	6.35 - 6.5 N110 Intersection	15	28	6	10	12	1	1	0	2	High fatalities and intersection design issue. Angle crashes.
	6.5 - 7.8	9	12	2	1	1	3	5	0	0	56% of the crashes were single vehicle crashes.
	7.8 - 7.9 N7 Intersection	3	5	1	0	3	0	1	0	0	No crash trends.
N9073	0 - 0.6	2	2	3	0	0	0	0	0	0	No crash trends.

Table 15 - Crash Locations, Severity and Type, Continued

Road	MP Location	Number of MVCs	Number of Vehicles	Number of Injuries	Number of Fatalities	Number of Intersection/ Driveway MVCs	Number of Run Off Road MVCs*	Single Vehicle	Collision with Animal	Collision with Pedestrians	Comment
SR 264	472 - 473.5	43	67	32	1	14	2	2	9	1	33% of crashes were at driveways or intersections.
	473.5 - 473.8 BIA 12S Intersection	84	168	76	2	72	0	1	1	1	High fatalities and access management issue. The most frequent crash types were angle, left turn and rear end crashes.
	473.8 - 474.4	28	47	31	2	8	2	8	3	1	High fatalities and access management issue. The highest crash type is single vehicle crashes.
	474.4 - 475.4 Commercial & Fair	74	148	57	9	52	4	13	3	7	High fatalities and access management issue. 70% of the crashes are intersection or driveway related. The most frequent crash types are angle and rear end crashes.
	475.4 - 475.6 BIA 12N Intersection	72	143	37	1	56	0	2	0	2	Access management issue. Most frequent crash type is rear end, followed by angle and left turn.
	475.6 - 476.1 BIA 12N - NM Line	35	69	27	0	23	1	5	4	0	Access management issue. 66% of the crashes are intersection or driveway related. The most frequent crash type is angle accidents.

Source: Navajo Police Department and ADOT  
\*No data in this field from Navajo Police Data Base

**Types of Crashes** - The type of crash (Collision Manner) is described as a single vehicle or if involving multiple vehicles, how the interaction among the vehicles can be described, e.g. head-on, backing, angle. Typically single vehicle crashes involve running off the roadway or hitting some object on the roadway, such as animals. Rear-end crashes account for more crashes than any of the other crash type. This is likely due to the high volume intersections in the study area. Rear end crashes frequently involve following too close and driver inattention. Rear end crashes often occur at intersections. Single vehicle and angle collisions were nearly as important. **Table 15** provides information on types of crashes by location, for selected crash types.

**Crash Causes** - There are many causal factors, including drivers' actions that lead to MVCs. Driver inattention, speed, and failure to yield R/W were the most significant factors leading to MVCs in the study area, although the other reported factors were also important. Driving under the influence is an important factor in MVCs, particularly with alcohol.

Often the crash cause is not the fault of the driver. Weather, road and light conditions that could be causal factors as well as objects on the road and animals on the road. There were at least 60 animals involved in crashes on roads in the planning area.

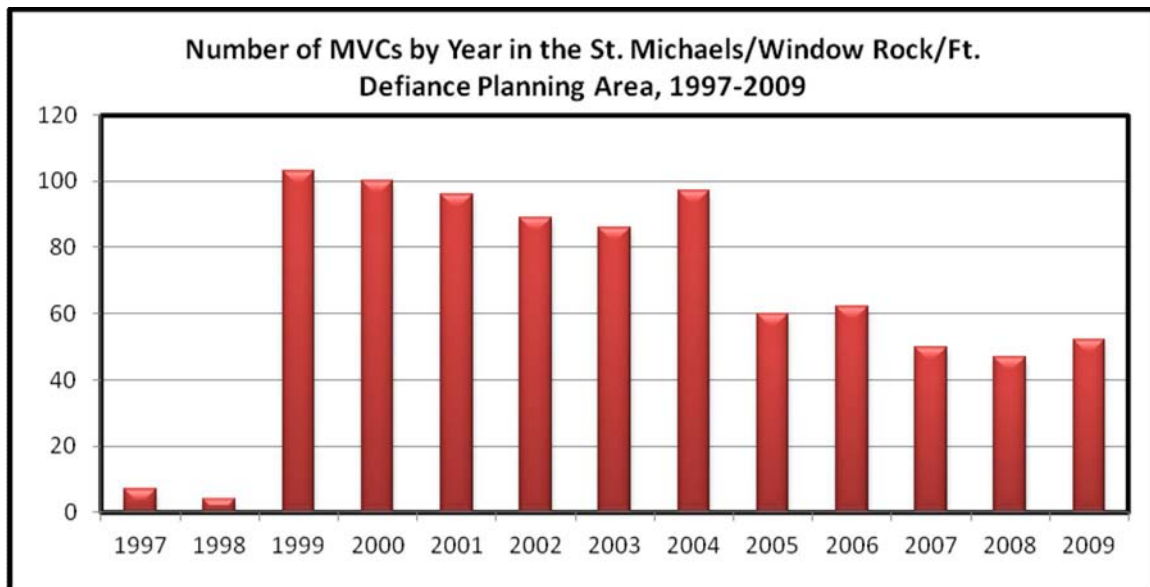
**Harmful Crash Events** - Harmful crash events are the aspect of a MVC that results in physical harm or property damage. Collisions with fixed objects in the R/W would include objects associated with the road, such as light poles, fence, bridges, curb, signs and guard rail. Animal livestock was by far the most common animal involved in a MVC.

Collisions with other vehicles account for 77 percent of the first harmful events. Collisions with animals account for about nine percent of the first harmful events, with vehicle overturning resulting in about six percent of the first harmful events. Note that only about 485 first harmful events have been identified for the 854 crashes in the database.

**Motor Vehicle Crash Time Data** - Understanding when MVCs occur can provide valuable insight as to why they occur. Crash peaks at the beginning and end of the work day can mean there is a relationship between work traffic and the number of MVCs. Weekend peaks might be associated with recreational travel. A reduction in yearly trends might mean safety improvements have been effective or crash reporting has procedures have changed. The following four charts provide time data by year, month, day-of-week and hour of day for the crashes in the St. Michaels/Window Rock/Ft. Defiance Study area database.

Very few crashes were reported in 1997 and 1998. Beginning with the peak in 1999, the number of crashes trended down through 2009, with a sharp drop occurring in 2005. A

more detailed review would be required to determine the reasons for the decline. These data are shown in **Figure 15**.



Source: Navajo Police Department and ADOT

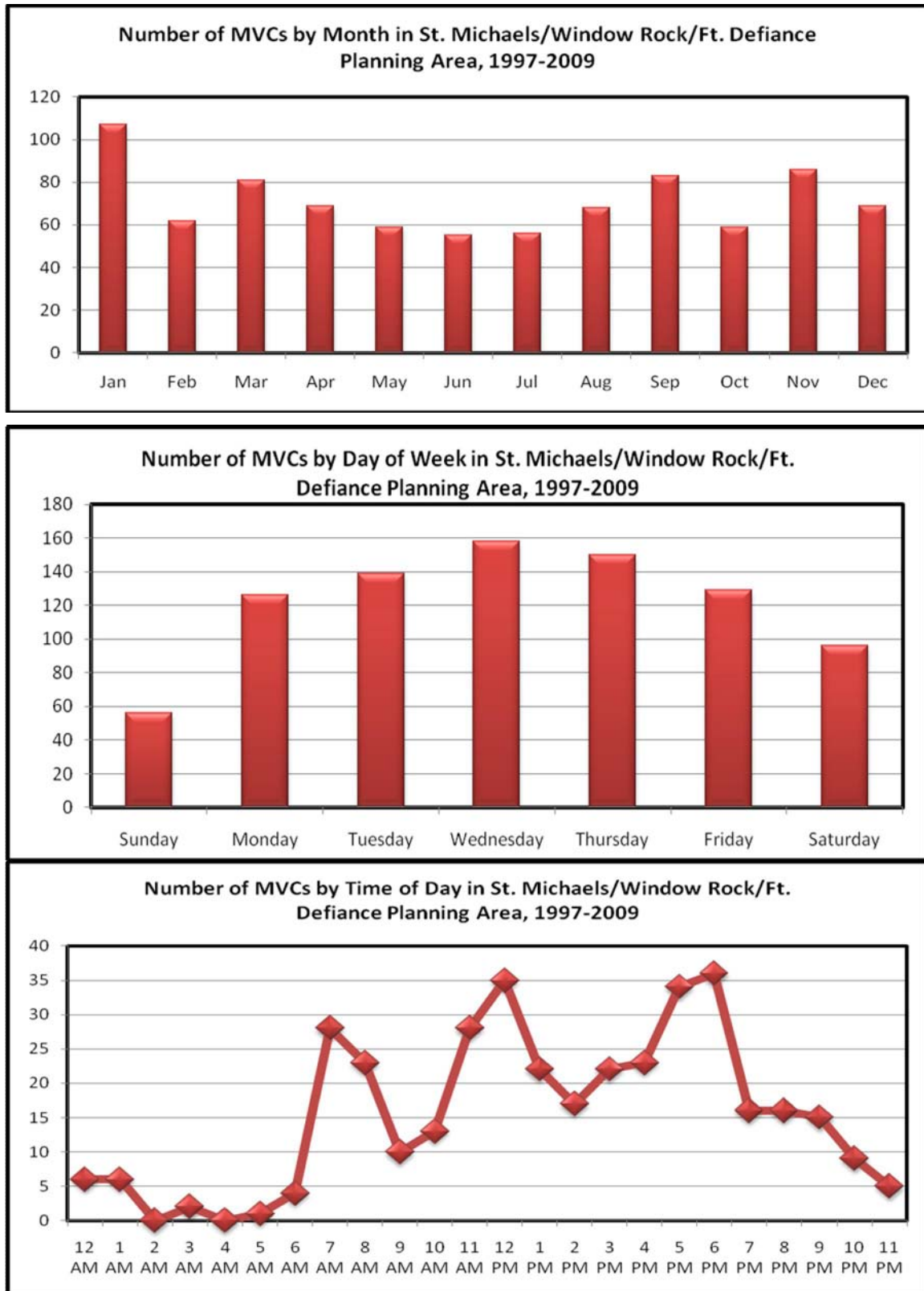
**Figure 15 - Number of Motor Vehicle Crashes by Year, 1997-2009**

Other crash findings, depicted in **Figure 16**, were:

**Monthly crashes** - There is a significant month maximum point for MVCs in January, which might be weather related since November, December and March (February is a short month) also show a relatively high number of crashes. The Navajo Fair takes place in September and could be the reason for the minor crash peak in that month.

**Day of Week crashes** - Day-of-week MVCs peaks appear to be aligned more with work week travel than weekend recreational travel.

**Time of Day for crashes** - There is clear peaking of time of day MVCs during the hours that would be associated with travel to and from work and lunch hour travel. There is a general upward trend in MVCs starting in the 6 am hour and ending in the 6 pm hour, with spikes during the 7 am, noon and 6 pm hours.



Source: Navajo Police Department and ADOT

**Figure 16 - Crash Trends by Month, Day of Week and Time of Day**

### 3.8 Existing Traffic

Traffic volume data is important because it shows how busy a road is and it can help justify transportation project needs.

Daily traffic volumes for the study area corridor were collected from two sources: the BIA Indian Reservation Road (IRR) Program database and the ADOT Highway Performance Monitoring System (HPMS) database. These data are shown in **Tables 16** and **17**. Data from the BIA IRR Inventory is shown graphically in **Figure 17**.

Traffic Volume data can show congested area and help to justify improvements

**Table 16 – Annual Average Daily Traffic Volumes – BIA Roads**

Road Name	Section Number	ADT Year	ADT Count	2011 ADT
N7	115	2004	1,104	1,268
N7	120	2004	1,700	1,953
N7	140	2003	1,666	1,952
N7	146	1999	1,036	1,314
N7	150	2003	2,167	2,539
N12	80	2001	4,942	6,024
N12	85	2010	3,009	3,069
N12	100	2000	9,999	12,432
N12	105	2000	9,999	12,432
N12	110	1997	9,999	13,193
N12	115	1997	9,999	13,193
N12	130	2005	14,062	15,836
N12	150	1997	9,999	13,193
N12	160	1997	9,999	13,193
N12	165	1997	9,999	13,193
N12	170	1993	5,359	7,654
N12	180	1993	5,359	7,654
N12	185	1997	5,631	7,430
N12	190	1997	5,631	7,430
N54	80	2000	2,543	3,162
N54	90	2003	3,169	3,713
N100	10	2011	6887	6,887
N100	15	2011	5,222	5,222
N100	20	0	0	0

**Table 16 – Annual Average Daily Traffic Volumes – BIA Roads, Continued**

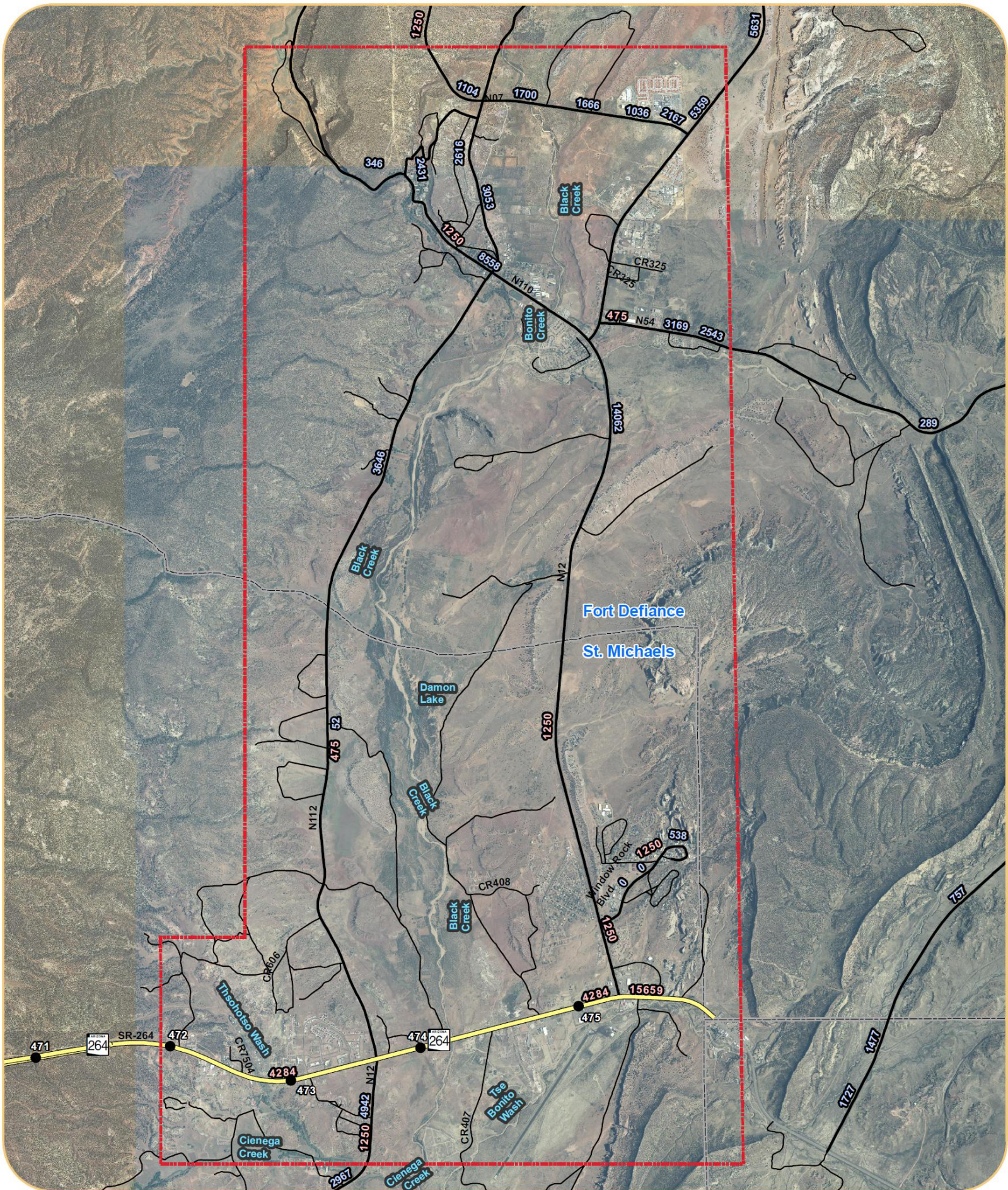
Road Name	Section Number	ADT Year	ADT Count	2011 ADT
N100	25	2001	9,999	12,189
N100	40	2010	3156	3219
N100	50	2001	538	656
N100	60	2011	435	435
N110	10	2010	7,623	7775
N110	30	1996	9,999	13,457
N110	35	2010	5393	5501
N110	40	1999	8,558	10,854
N110	43	1993	5,725	8,177
N110	46	1993	5,725	8,177
N110	50	2010	1,709	1743
N110	55	1997	2,431	3,208
N110	60	1997	2,431	3,208
N110	70	1997	2,431	3,208
N110	80	1997	2,431	3,208
N112	30	2000	3,646	4,533
N112	35	2000	3,646	4,533
N112	50	2010	632	645
N112	60	2010	2728	2783
N112	63	1999	2,616	3,318
N112	66	2010	1,939	1978
N112	70	2010	220	224
N9073	10	2001	346	422
N9073	15	2001	346	422

Source: BIA IRR Inventory, 2010

**Table 17 – Annual Average Daily Traffic Volumes – State Highways**

Road Name	Section	ADT Year	ADT Count	2011 ADT
SR 264	MP 472 to N12	2008	4,284	4,546
SR 264	N12 to AZ/NM Border	2008	15,659	16,617

Source: ADOT Highway Performance Management System



Legend

- US and State Highways
- BIA Roads
- Tribal/County Roads
- Study Area
- Chapter Boundary

- Mileposts
- BIA Average Daily Traffic (years vary)
- ADOT Annual Average Daily Traffic (2008)

Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Source: BIA IRR Inventory, 2010




Figure 17 - Traffic Counts from BIA IRR Inventory

### 3.8.1 Roadway Level of Service

Roadway traffic operations are defined and categorized by the delay experienced by an average driver. The operations are categorized by a grading system called level of service (LOS) which is a letter designation ranging from A (no delay) to F (severe congestion). These are illustrated in **Table 18**.

LOS were computed for estimated 2011 traffic and are summarized in **Table 19**. All road segments are operating satisfactorily under current volumes.

**Table 18 - Examples of Level of Service**

Level of Service	Examples of Road Conditions
<b>A-B</b>	 SR 264 looking east from N12 south
<b>C-D</b>	 SR 264 looking east, approaching N12 north intersection in the vicinity of Bhasas
<b>E-F</b>	 Traffic during Thursday afternoon rush hour at N12 north/SR 264 intersection

**Table 19 - Existing Levels of Service**

Road Name	2011 LOS Range
N7	B
N12	B-C
N54	B
N100	B-C
N110	B-C
N112	B-C
N9073	B
SR 264, MP 472 to N12	A
SR 264, N12 to AZ/NM Border	C

Source: Kimley- Horn and Associates

### 3.9 Access Management

Access management is a set of techniques that state and local governments can use to control access to highways, major arterials, and other roadways. Access management can increase the capacity of these roads, manage congestion, and reduce crashes. Techniques include:

- Increasing spacing between signals and interchanges;
- Driveway location, spacing, and design;
- Use of exclusive turning lanes;
- Median treatments, including two-way left turn lanes (TWLTL) that allow turn movements in multiple directions from a center lane and raised medians that prevent movements across a roadway;
- Use of service and frontage roads; and
- Land use policies that limit right-of-way access to highways.

Access management can increase safety and reduce congestion

#### Navajo Nation Access Management

The Navajo Nation currently does not have an access management policy or program in place. The Navajo Division of Transportation (Navajo DOT) and the Bureau of Indian Affairs - Navajo Regional Office (BIA-NRO) agree that access management is an important transportation planning issue. Currently the Navajo DOT and BIA work with the State DOT district engineers to comply with the state highway access permitting policies and requirements. Access permitting agreements are negotiated between the State DOTs and Navajo Nation departments; and the BIA is required to be included in the communication with both parties.

### **BIA Access Management**

The BIA NRDOT's access management includes control of over size and overweight vehicles as well as utility crossing and roadway access permitting.

### **Arizona Access Management**

Access permitting is currently carried out pursuant to Arizona Revised Statute 28-7053, (<http://www.azleg.gov/FormatDocument.asp?inDoc=/ars/28/07053.htm&Title=28&DocType=ARS>) which prohibits unauthorized encroachments in state highways. For an encroachment to be lawful, it must be authorized by the State DOT Director. The Director has adopted administrative rules (regulations) governing encroachments.

These rules are published as Arizona Administrative Code, R17-3-501 Highway Encroachments and Permits, ([http://www.azsos.gov/public\\_services/Title\\_17/17-03.pdf](http://www.azsos.gov/public_services/Title_17/17-03.pdf)) which includes access connections to state highways. The rule states that each encroachment requires a permit. Permits for driveways (encroachments) onto a state highway may be granted by ADOT's Engineering Districts, a delegation from the Director.

Currently the number of driveways between mileposts on SR 264 can be summarized in **Table 20** as follows:

**Table 20 - Number of SR 264 Access Points, By Milepost**

<b>SR 264 Milepost Range</b>	<b>Driveways on North side of Road</b>	<b>Driveways on South side of Road</b>
472 - 473	10	6
473 - 474	8	2
474 - 475	6	10
475 - end	21	16

Source: Kimley-Horn and Associates

As discussed in the crash analysis, access management concerns are indicated, particularly in the commercial areas, by the number of rear end and angle crashes.

### **3.10 Scenic Roads**

Navajo Route 12 from Lupton, Arizona to Tsaile, Arizona and west on Navajo Route 64 to Chinle is designated as the Dine Biitah (Among the People) Scenic Road. A map of this road is provided in **Figure 18**. The corridor is approximately 100 miles of non-interstate road, including both Navajo Route 12 and Navajo Route 64. In some documents the scenic road is also referred to as the Dine Tah Scenic Road. A scenic road *Corridor Management Plan* was developed in 2008 and some of the transportation-related recommendations from that plan are:

#### **Infrastructure Improvements**

- Right-of-way fencing in areas with high number of traffic accidents with animals.
- Cattle guards and wildlife crossings in areas with high-number of vehicular/animal traffic accidents.
- Roadway improvements, such as the addition of right-turn deceleration lanes, should be considered in urbanized areas.
- Allowing locals to help monitor the roadway and facilities for trash, vandalism, etc., will help increase community involvement.

#### **Accommodating Pedestrians and Bicycle Users**

- The addition of pedestrian crossings in areas of high accident rates, possibly at signalized intersections.
- Additional sidewalks and bicycle paths in the urbanized areas in the corridor.
- If bike lanes cannot be provided in the roadway, consider multiuse paths

#### **Lighting**

- Additional street lights where accident rates are high

#### **Signage**

- Consider developing design guidelines for commercial signage in the corridor.

#### **Traffic Control Devices**

- Consider adopting a theme or visual identifier for signage throughout the corridor.
- Minimize the number of commercial and/or regulatory signs in a given area by placing multiple panels per post if possible.

#### **Improved access to planned interpretive kiosks locations**

- Kiosks are planned at the entrances to Canyon de Chelly National Park, the Cottonwood Campground within the Park, and at the Lupton Interpretive Center adjacent to I-40. This will provide improved access to interpretive information at the National Park Service Visitor Center, campground facilities, and elsewhere along the corridor.



Source: Diné Tah “Among the People” Scenic Road  
Corridor Management Plan, 2008

**Figure 18 - Dine Biitah “Among the People” Scenic Road**

An extension of this scenic route to connect to the Tse'nikani Scenic Road on US 191 will provide a continuous scenic road corridor could potentially provide greater impetus for tourists to visit the Nation. This scenic road, as well as the entire scenic road system, is shown in **Figure 19**. The Navajo Scenic Roads Program intends to eventually seek national designation for a Trail of the Ancients Scenic Road, which would automatically combine the Dine Biitah and Tse'nikani routes (among others). The national designation would potentially increase tourist traffic in the study area.

# NAVAJO NATION SCENIC BYWAYS



Source: [www.Navajoscenicroads.com](http://www.Navajoscenicroads.com)

Figure 19 - Navajo Nation Scenic Roads

### 3.11 Planned and Programmed Transportation Projects

Planned and programmed IRR projects were obtained from the *2012 Navajo Nation Transportation Improvement Program (TTIP)*. No projects were listed for SR 264 within the study area boundaries in the *2012 – 2016 ADOT Five-Year Transportation Facilities Construction Program*.

IRR projects are shown in **Table 21** and graphically in **Figure 20**. **Figure 20** also shows numbered 2010 Chapter Capital Improvement Program (CIP) projects (shown as numbered green dots on the map), some of which include transportation elements, which are summarized as follows:

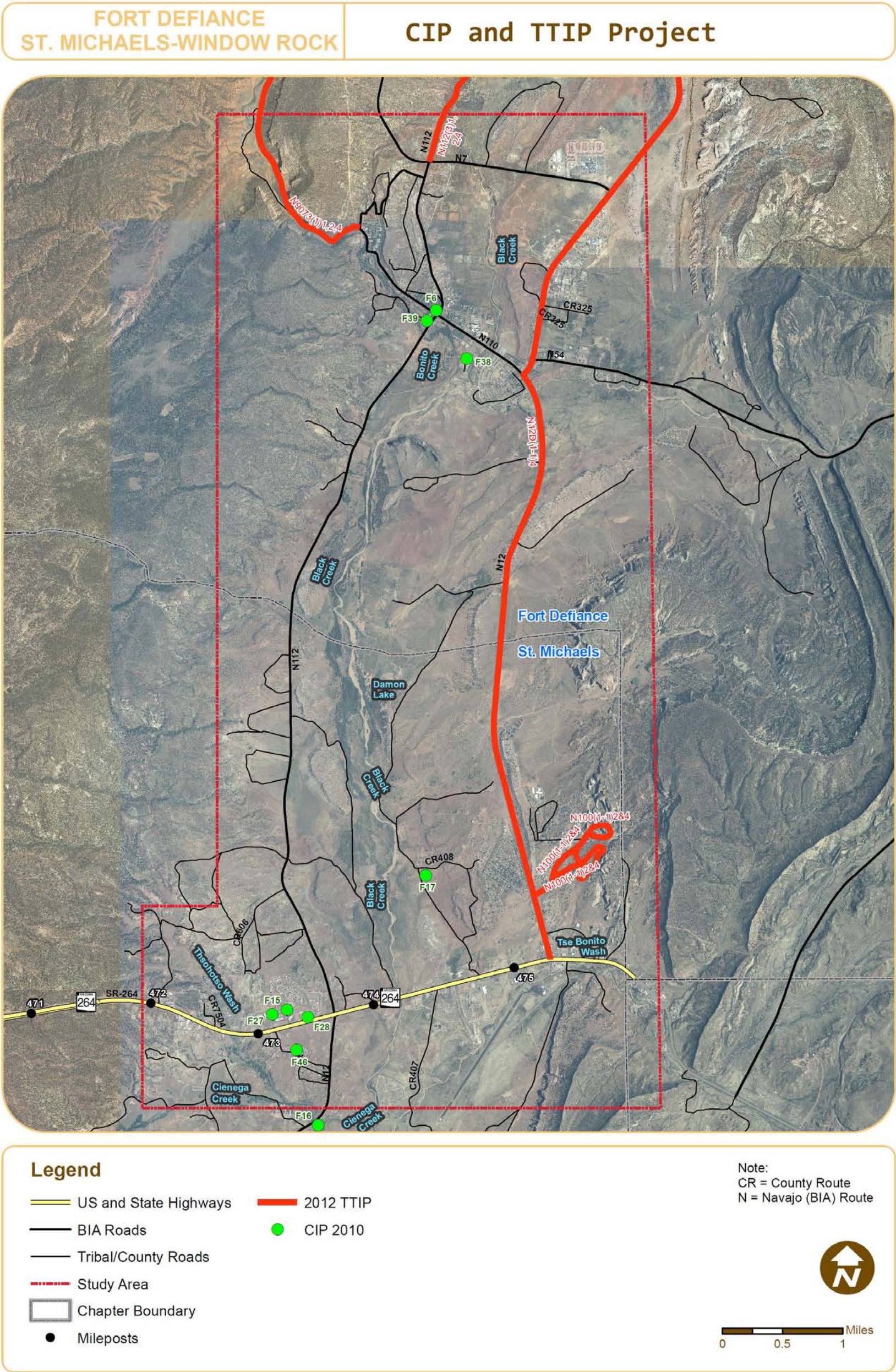
<u>Number</u>	<u>Estimated Opening</u>	<u>Project Name</u>	<u>Route</u>	<u>Transportation Element</u>
F6	2010	Housing Development	N110	Pave Street
F17	2009	Housing Development	CR408	Pave Street
F15	2009	Karigan Housing	Tribal Rd	Pave street
F16	2010	Golf Course Development	N12	Pave access from N12 to St. Michaels School
F27	N/A	Karigan Estates Apartment Complex	Tribal Rd	Pave street
F28	N/A	Karigan Restaurant	AZ264	None
F38	2012	Fort Defiance Transfer Station	N110	N/A
F39	2014	Fort Defiance Multi-Purpose Bldg.	N112	N/A
F46	2013	New Chapter House - St. Michaels	Tribal Rd	N/A

Note: N/A=Not Available

**Table 21 - 2012 Navajo Nation Transportation Improvement Program (TTIP) Projects**

Area	FY	Route No.	Project No.	Project Name/Description	Comment	Length
Fort Defiance	2015	N9073	N9073(1)1,2,4	Blue Canyon Road w/ bridge N606	A- ROW Needed B- Environmental Assessment Needed C- Archeological Clearance Needed D- Surveying Data Needed U –Utility Relocation Needed Q- Archeological Clearance is questionable	6.5
	2016	N9073	N9073(2)1,2,4	Blue Canyon Road w/ bridge N606	A- ROW Needed B- Environmental Assessment Needed C- Archeological Clearance Needed D- Surveying Data Needed U –Utility Relocation Needed Q- Archeological Clearance is questionable	6.6
	2037	N112	N112(3)1,2,4	N7 to Navajo N12	A- ROW Needed B- Environmental Assessment Needed C- Archeological Clearance Needed D- Surveying Data Needed U- Utility Relocation Needed	7.3
	2038	N112	N112(4)1,2,4	N7 to Navajo N12	A- ROW Needed B- Environmental Assessment Needed C- Archeological Clearance Needed D- Surveying Data Needed U- Utility Relocation Needed	4.6
Window Rock / St. Michaels	2028	N100	N100(1-1)2&4	N100	C- Archeological Clearance Needed D- Surveying Data Needed U- Utility Relocation Needed W-Within Existing Right-of-Way	3.0

\*= numbers in parentheses indicate the project phase, numbers to the right of the parentheses indicate the type of work, e.g., 1=bridge, 2=grade and drain, 3=gravel, 4=paving  
Source: 2012 Navajo Nation Transportation Improvement Program



Source: Navajo Division of Transportation

Figure 20 – Navajo Nation CIP and TTIP Projects

### 3.12 Future Traffic Data

#### 3.12.1 Growth Rates

A number of sources use a 2% annual growth rate in estimating future traffic for all Navajo-BIA roads. These include the *Navajo Nation Long Range Transportation Plan*, and the *2010 Navajo Region Road Inventory Field Data Module (RIFDS)*. Similarly the Arizona Department of Transportation (ADOT) also estimates and uses a 2% annual traffic growth rate for all state routes on the Navajo and Hopi reservations.

**Table 22** summarizes the future traffic volumes assuming a 2% compound annual growth rate. Future levels of service were estimated using the planning method from the Highway Capacity Manual, a standard traffic engineering reference.

**Table 22 - Forecast Traffic Volumes – BIA Roads**

Road Name	Section Number	ADT Year	ADT Count	2011 ADT	2015 ADT	2020 ADT	2030 ADT	2015 LOS	2020 LOS	2030 LOS
N 7	115	2004	1,104	1,268	1,373	1,516	1,847	B	B	B
N 7	120	2004	1,700	1,953	2,114	2,334	2,845	B	B	B
N 7	140	2003	1,666	1,952	2,113	2,333	2,844	B	B	B
N 7	146	1999	1,036	1,314	1,422	1,570	1,914	B	B	B
N 7	150	2003	2,167	2,539	2,748	3,034	3,699	B	B	B
N 12	80	2001	4,942	6,024	6,521	7,200	8,776	C	C	C
N 12	85	2001	4,942	6,024	6,521	7,200	8,776	C	C	C
N 12	100	2000	9,999	12,432	13,457	14,858	18,112	B	B	C
N 12	105	2000	9,999	12,432	13,457	14,858	18,112	B	B	C
N 12	110	1997	9,999	13,193	14,281	15,767	19,220	B	B	C
N 12	115	1997	9,999	13,193	14,281	15,767	19,220	B	B	C
N 12	130	2005	14,062	15,836	17,141	18,926	23,070	B	C	C
N 12	150	1997	9,999	13,193	14,281	15,767	19,220	B	B	C
N 12	160	1997	9,999	13,193	14,281	15,767	19,220	B	B	C
N 12	165	1997	9,999	13,193	14,281	15,767	19,220	B	B	C
N 12	170	1993	5,359	7,654	8,285	9,147	11,150	C	C	C
N 12	180	1993	5,359	7,654	8,285	9,147	11,150	C	C	C
N 12	185	1997	5,631	7,430	8,042	8,880	10,824	C	C	C
N 12	190	1997	5,631	7,430	8,042	8,880	10,824	C	C	C
N 54	80	2000	2,543	3,162	3,423	3,779	4,606	B	B	C
N 54	90	2003	3,169	3,713	4,019	4,437	5,409	C	C	C
N 100	10	0	0	0	0	0	0	A	A	A

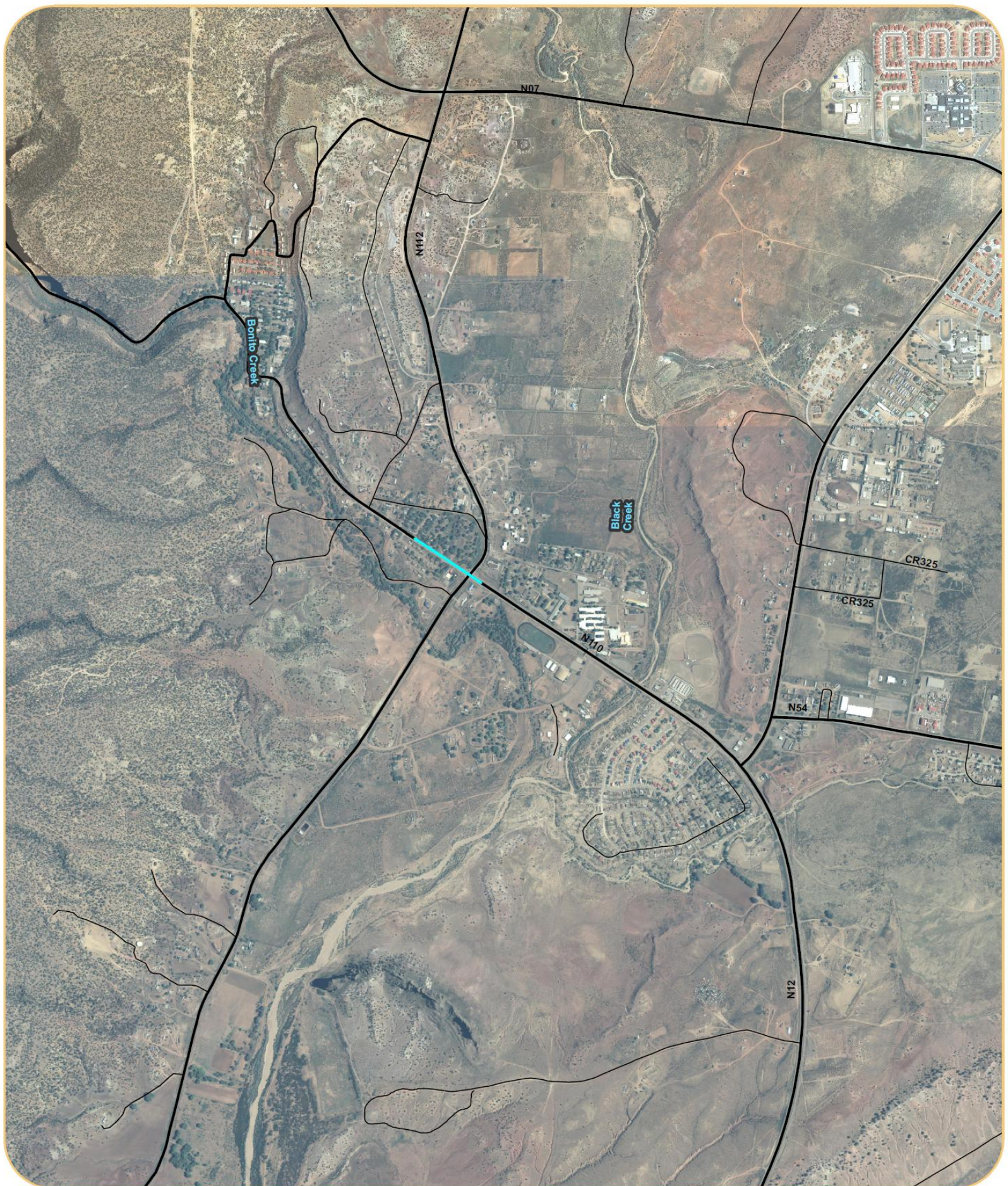
**Table 22 - Forecast Traffic Volumes – BIA Roads, Continued**

Road Name	Section Number	ADT Year	ADT Count	2011 ADT	2015 ADT	2020 ADT	2030 ADT	2015 LOS	2020 LOS	2030 LOS
N 100	15	2001	9,999	12,189	13,193	14,567	17,757	B	B	C
N 100	20	0	0	0	0	0	0	A	A	A
N 100	50	2001	538	656	710	784	955	B	B	B
N 110	10	1996	9,999	13,457	14,567	16,083	19,605	B	B	C
N 110	30	1996	9,999	13,457	14,567	16,083	19,605	B	B	C
N 110	35	1996	9,999	13,457	14,567	16,083	19,605	B	B	C
N 110	40	1999	8,558	10,854	11,748	12,971	15,812	D	D	E
N 110	43	1993	5,725	8,177	8,851	9,772	11,912	C	C	D
N 110	46	1993	5,725	8,177	8,851	9,772	11,912	C	C	D
N 110	50	1997	2,431	3,208	3,472	3,833	4,673	B	B	C
N 110	55	1997	2,431	3,208	3,472	3,833	4,673	B	B	C
N 110	60	1997	2,431	3,208	3,472	3,833	4,673	B	B	C
N 110	70	1997	2,431	3,208	3,472	3,833	4,673	B	B	C
N 110	80	1997	2,431	3,208	3,472	3,833	4,673	B	B	C
N 112	30	2000	3,646	4,533	4,907	5,418	6,604	B	B	B
N 112	35	2000	3,646	4,533	4,907	5,418	6,604	C	C	C
N 112	50	2000	3,646	4,533	4,907	5,418	6,604	C	C	C
N 112	60	2005	3,053	3,438	3,722	4,109	5,009	B	C	C
N 112	63	1999	2,616	3,318	3,591	3,965	4,833	B	B	C
N 112	66	1999	2,616	3,318	3,591	3,965	4,833	B	B	C
N 112	70	1999	2,616	3,318	3,591	3,965	4,833	B	B	C
N 9073	10	2001	346	422	457	504	614	B	B	B
N 9073	15	2001	346	422	457	504	614	B	B	B

**Table 23 - Forecast Traffic Volumes – State Highways**

Road Name	Section	ADT Year	ADT Count	2011 ADT	2015 ADT	2020 ADT	2030 ADT	2015 LOS	2020 LOS	2030 LOS
SR 264	MP 472 to N12	2008	4,284	4,546	4,921	5,433	6,623	A	A	A
SR 264	N12 to AZ/NM Border	2008	15,659	16,617	17,987	19,859	24,208	C	C	C

The analysis of the data indicated that N110 would be congested in the future. **Figure 21** indicates the area that is estimated to be congested. It is in the area west of N112.



**Legend**

- BIA Roads
- Tribal/County Roads
- Congested Road Segment

Note:  
CR = County Route  
N = Navajo (BIA) Route



Source: Kimley-Horn and Associates

**Figure 21 - Congested Road Areas in 2030**

### **3.13 Transit**

The Navajo Transit System (NTS) serves the Navajo Nation. The system is set up to operate much like an inter-city bus service on fixed routes that link Navajo Nation growth centers.

#### **3.13.1 Navajo Transit System Current Routes and Stops**

There are 13 transit routes, of which 10 routes serve the Saint Michaels, Window Rock or Fort Defiance areas. A brief description of these routes and the bus stops within the study area corridor is provided as follows:

##### **Route 1- Tuba City /Fort Defiance**

This route has two runs per day between Tuba City, Coalmine, Keams Canyon, Jeddito, Burnside, Ganado, St. Michaels, Window Rock and Fort Defiance. Stops in the study area corridor include:

- 
- St. Michaels - Days Inn
- St. Michaels - Post Office
- St. Michaels - Karigan Complex
- Window Rock - Bashas
- Fort Defiance - NTS Shop

##### **Route 2 - Steamboat / Fort Defiance**

This route has two runs per day between Steamboat, Burnside, Ganado, St. Michaels, Window Rock and Fort Defiance. Stops in the study area corridor include:

- |                                    |                                    |
|------------------------------------|------------------------------------|
| ▪ St. Michaels - Post Office       | ▪ Window Rock - Education Building |
| ▪ St. Michaels - Karigan Complex   | ▪ Window Rock - Admin. Bldg. #1    |
| ▪ Window Rock - Bashas Parking Lot | ▪ Window Rock - Admin. Bldg. #2    |
| ▪ Window Rock - Dept. of Justice   | ▪ Window Rock - Police Dept.       |
| ▪ Window Rock - Fleet Management   | ▪ Fort Defiance - NTS Shop         |
| ▪ Window Rock - Census Offices     |                                    |

##### **Route 3 – Kayenta / Tsaile / Fort Defiance**

This route has two runs per day between Kayenta, Chinle, Many Farms, Tsaile, Crystal, Window Rock and Fort Defiance. Stops in the study area corridor include:  
Stops in the study area corridor are:

- Ft. Defiance - New Hospital
- Ft. Defiance 7-11 Store
- Window Rock Bashas
- Ft. Defiance NTS Shop

#### **Route 4 – Crownpoint / Fort Defiance**

This route has two runs per day between Crownpoint, Window Rock and Fort Defiance. Stops in the study area corridor include:

- Window Rock - Bashas Parking Lot
- Fort Defiance - 7-11 Store
- Fort Defiance - NTUA
- Fort Defiance - Water Development
- Fort Defiance - Facilities Maintenance
- Fort Defiance - IHS Hospital
- Fort Defiance - NTS Shop

#### **Route 5 – Gallup / Fort Defiance**

This route has four runs per day between the St. Michaels, Window Rock and Fort Defiance area and Gallup, New Mexico. Stops in the study area corridor include:

- Fort Defiance - NTS Shop
- Fort Defiance - 7-11 Store
- Fort Defiance - Old PHS
- Fort Defiance – High School Fieldhouse
- Fort Defiance - IHS Hospital
- St. Michaels - Karigan Complex
- Window Rock - Bashas Parking Lot

#### **Route 6 – Crystal/Gallup**

This route has two runs per day between the Crystal Chapter House and Gallup New Mexico and makes stops in Fort Defiance and Window Rock. Stops in the study area corridor are:

- Ft. Defiance – Indian Health Service
- Ft. Defiance - 7 to 11
- Ft. Defiance - Post Office
- Ft. Defiance - Fieldhouse
- Ft. Defiance - Conoco
- Window Rock - St. Michaels Housing
- Window Rock - Census Office
- Window Rock - Education Center
- Window Rock - Admin. Bldg. #1
- Window Rock - DNA Road Stop
- Window Rock - Bashas

### **Route 7 – Shiprock**

This route has one bus run in the morning and one bus run in the afternoon between Shiprock and Window Rock and Fort Defiance. Stops in the study area corridor are:

- Window Rock - Bashas
- Fort Defiance –NTS Shop
- Fort Defiance – 7-11 Store

### **Route 9 – Dilkon**

This route provides one bus run in the morning and one bus run in the afternoon between the Birdsprings Chapter House, Dilkon and Ganado, and serves St. Michaels, Window Rock, and Fort Defiance. Stops in the study area corridor are:

- |  |  |
|--|--|
| ▪ St. Michaels - Days Inn                              | ▪ Window Rock – Museum / Parks and Recreation Department |
| ▪ St. Michaels - Karigan Complex                       | ▪ Window Rock - Quality Inn                              |
| ▪ Window Rock - Bashas Parking Lot                     | ▪ Fort Defiance - NHA                                    |
| ▪ Window Rock – Department of Economic Security Office | ▪ Fort Defiance - NTS Shop                               |
| ▪ Window Rock – Motor Vehicle Division Office          |  |

### **Route 13 – Fort Defiance / Crownpoint / Gallup**

This route provides one bus run in the morning and one bus run in the afternoon between Fort Defiance, Window Rock, and Crownpoint and Gallup, New Mexico. Stops in the study area corridor are:

- Ft. Defiance - NTS Shop
- Ft. Defiance - 7-11 Store
- Window Rock - Bashas

### **Route 14 – Shiprock /Fort Defiance**

This route provides one bus run in the morning and one bus run in the afternoon between Shiprock, Fort Defiance, and Window Rock. Stops in the study area corridor are:

Window Rock - Bashas  
Fort Defiance - IHS Hospital  
Fort Defiance - NTS Shop

### 3.13.2 Ridership

Ridership data was obtained from the *Arizona Rural Transit Needs Study*, from the NTS website, and from the NTS Five Year Plan. In 2006, ridership on the system was 35,700 passengers. In 2008, system ridership was 56,103 passengers. In 2010, ridership grew to over 88,000 passenger trips. The data on 2006 and 2008 ridership does not include ridership from new routes added in late 2008 and early 2009.

An NTS Bus Maintenance and Administration Center was completed in March 2012. The NTS Transportation Center will serve as a central hub for the Nation's growing bus fleet. The facility includes areas for administration, office and clerical, vehicle repair, storage and a fueling island.



*Navajo Transit Bus Maintenance and Administration Center, which opened March 2012*

### 3.13.3 Future Plans

An electric bus will be operating from Fort Defiance to Gallup (including stops at Window Rock). The service will be operating by March 2013. This will be a demonstration grant project funded by a \$2 million TIGER grant.

### 3.13.4 Transit Needs

For many trips in the study area corridor, there are few alternatives to the automobile. Segregation of land uses and nearly universal automobile availability has resulted in dispersed land uses that are difficult to reach without an automobile, as well as little or no alternate modes of travel. Not only is there little public transportation service available, the distances between origin and destination and lack of facilities for pedestrians and bicyclists makes walking or riding a bicycle impractical and/or unsafe. In most cases, about the only viable alternative to driving somewhere is riding there with someone else.

### 3.13.5 Transit Demand for Transit Dependent Population

A transit demand forecast based on projected population growth within the study area is shown in **Table 24**. The 2010 census data were used to calculate the 2010 population of elderly, disabled, and living below the poverty level within the study area corridor. The Arkansas Public Transportation Needs Assessment (APTNA) model was used to estimate the 2010 transit demand based on the 2010 population. The APTNA method, which is used in ADOT's Rural Transit Needs Study (May 2008) to project transit demand, uses the following trip rates:

- An elderly person age 60 and over would make about 6.79 one-way passenger trips annually;
- A person with disabilities under age 60 would make about 4.49 one-way passenger trips annually (census data reported this for under age 64); and
- A person living in poverty under age 60 would make about 20.50 one-way passenger trips annually (census data reported this for under age 64).

Using these trip rates, it was determined that the 2010 transit demand estimate for the study area corridor is 47,644 passenger trips annually.

**Figure 22** shows location of planned bus pullouts with shelters in the study area corridor, based on input from the NTS. The planned bus stops would include bus shelters, where feasible. The NTS has bus shelters in storage that can be placed at the bus stops. They are designed with mesh wires that should help to reduce the incidence of graffiti. In remote areas, the stops are marked with bus stop signs only.

**Table 24 Transit Demand Forecast**

	Area	2010	2010 Transit Demand, one – way passenger trips annually
Persons over Age 60*	St. Michaels	233	1582
	Window Rock	369	2505
	Ft. Defiance	464	3150
	<b>Sub-Total</b>	<b>1066</b>	<b>7,237</b>
Persons with a disability under age 64 **	St. Michaels	76	341
	Window Rock	332	1491
	Ft. Defiance	528	2371
	<b>Sub-Total</b>		<b>4,203</b>
Persons Living below the poverty level under age 64 **	St. Michaels	223	4,572
	Window Rock	568	11,644
	Ft. Defiance	975	19,988
	<b>Sub-Total</b>		<b>36,204</b>
<b>Total</b>			<b>47,644</b>

\*Source: 2010 Census, analysis by Kimley-Horn

\*\*Source: 2000 Census, analysis by Kimley-Horn

### **3.13.6 Recommendations from Navajo Transit System Five-Year Plan (2009)**

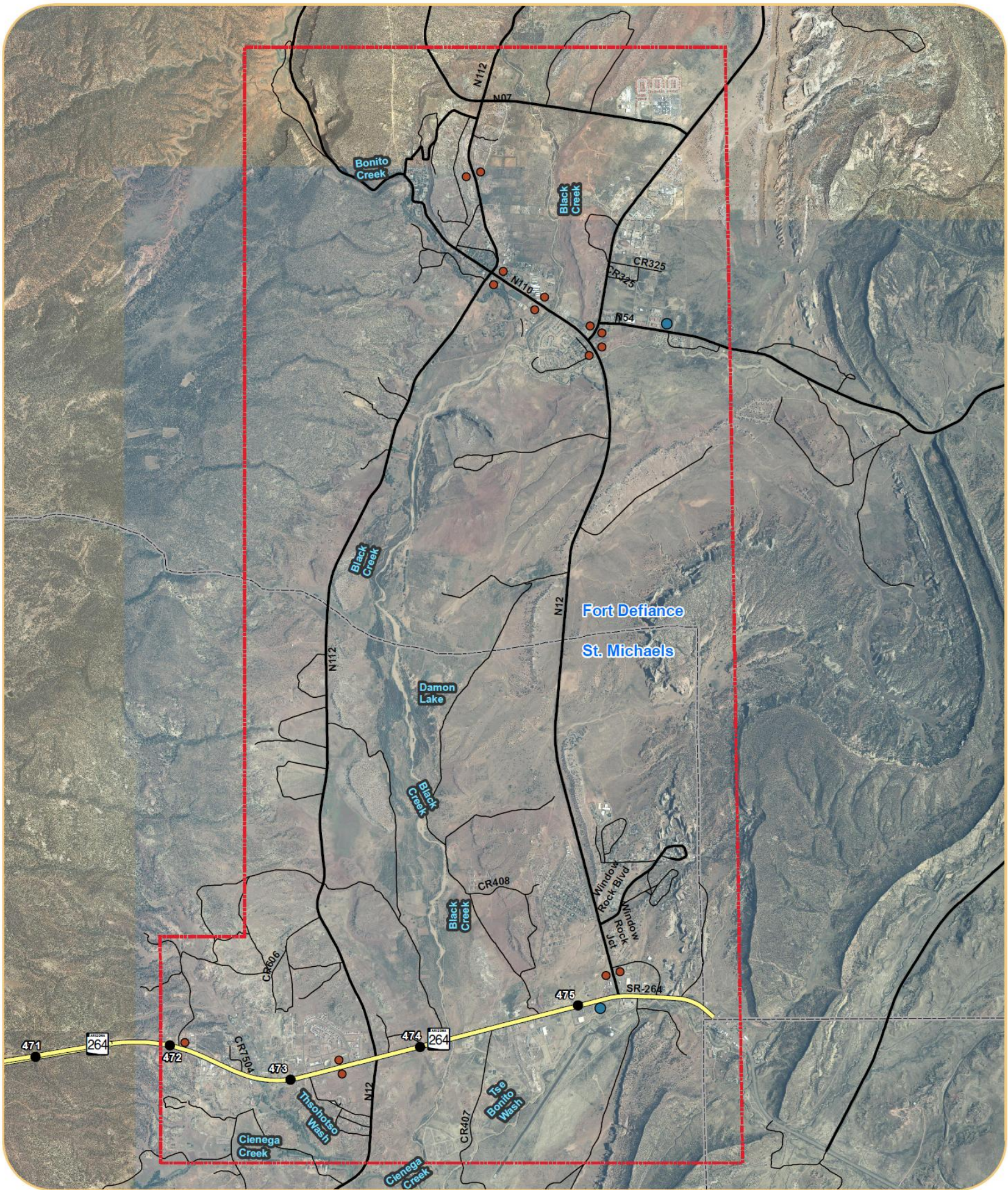
The NTS Five-Year Implementation Plan provides a roadmap for transit services on the Navajo Nation. The study recommends consideration of a local circulator service in the Window Rock and Fort Defiance area, which would operate throughout the day. The NTS website mentions this as a future Navajo Transit Route (Route 18) at:

<http://www.navajotransit.com/component/content/article/1-latest-news/1-welcome-to-navajo-transit-system.html>

### **3.13.7 School Bus Transportation**

Discussion with stakeholders indicated the following needs to support school bus travel:

- Paving on key bus routes including:
  - Blue Canyon Road (all 13 miles)
  - Red Lake Road - Route 7 north to Route 12
  - Aspen Road (in Oak Springs)
- Bus pullouts on SR 264 – the school district is working with ADOT
- Signing to alert people that it is illegal to pass a stopped school bus
- At Window Rock High School entrance, provide warning lights, crossing guards, and turn lanes. It would be desirable to determine if the area meets warrants for a HAWK pedestrian beacon signal.



**Legend**

- |                       |                                   |
|-----------------------|-----------------------------------|
| US and State Highways | Mileposts                         |
| BIA Roads             | Proposed Bus Pullout with Shelter |
| Tribal/County Roads   | Proposed Transit Center           |
| Study Area            |                                   |
| Chapter Boundary      |                                   |

Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Source: Navajo Transit System

Figure 22 - Bus Pullout Locations

### 3.14 Bicycle Facilities

There are no signed bike routes in the St. Michaels - Window Rock and Fort Defiance area.

The project team reviewed the BIA IRR data to determine roads that might be suitable to be signed as bike lanes.

As described in the American Association of State Highway Transportation Officials (AASHTO) Guide for the Development of Bicycle Facilities (1999), bicycle lanes are incorporated into a street network when it is desirable to delineate road space for preferential use by bicyclists and motorists and to provide more predictable movements by each. Bicycle lane markings can increase a bicyclist's confidence in motorists not straying into their path of travel; likewise, passing motorists are less likely to swerve to the left out of their travel lane to avoid bicyclists on their right (AASHTO Guide, page 22).

Generally, bicycle lanes are preferable on streets with posted speed limits of 30 mph or greater, on roads with traffic volumes greater than 1,000 to 2,000 vehicles per day.

The AASHTO Guide gives the following guidelines for bike lane widths:

- For roadways with no curb and gutter – minimum width should be four feet.
- The recommended width of a bike lane is 5 feet from the face of the curb or guardrail to the bike lane stripe.

The Guide states that additional widths are desirable where substantial truck traffic is present, or where motor vehicle speeds exceed 50 mph.

Shoulder conditions are shown in **Figure 9** (earlier in the report). Paved shoulders that are at least 5 feet wide that may be suitable to provide bike lane markings are:

- N12 - between SR 264 and N110
- N112 - between SR 264 and N7
- N54 - between N12 and the New Mexico border
- N110 - between N12 and N112
- N7 - between N12 and the Fort Defiance Indian Hospital
- N100 - between N12 and to the east end of the four lane section

It should be noted that visual inspection indicated that in many cases, there was gravel or debris on the shoulder that can impede a bicyclist.

Review of the BIA IRR Inventory data indicated that shoulder widening was needed on sections of N7, N12, N100, N110, N112, and N9073. Shoulder upgrades were indicated on sections of N110 and N9073.

#### **3.14.1      Shoulder Conditions on SR 264**

All ADOT highways not designated as “bicycles prohibited” are open to bicycle use. **Figure 23** shows that SR 264 has an effective shoulder width of 4 feet or greater within the study area corridor. Text on the map indicates that facilities conditions as shown on this map often vary from one side of the road to the other. Bicyclists should use extreme caution while riding on Arizona highways. Discussion with the ADOT State Bicycle Coordinator indicated that although typically the ADOT policy is not to install bicycle route signs, there are locations where a jurisdiction has entered into an agreement with ADOT and paid for bicycle route sign installation and maintenance. Bicycle route signs can also include destination information.



### Route Characteristics

- Effective Shoulder Width = 4 ft or greater
- Effective Shoulder Width < 4 ft
- Rumble Strip with Effective Shoulder Width < 4 ft
- ◆ Bridge with Effective Shoulder Width < 4 ft
- Low Traffic Volumes
- Medium Traffic Volumes
- High Traffic Volumes
- - - - Bicycles Prohibited
- - - - Dirt Roads
- Interstate Frontage Roads
- Other Roads
- Regionally Significant Routes (Non-ADOT)
- » Extreme Grade
- » Moderate Grade
- « Varied Grade

Facilities conditions as shown on this map often vary from one side of the road to the other. Bicyclists should use extreme caution while riding on Arizona highways.

Source: Bicycle User Map, referenced on 7/26/2011 from <http://www.azbikeped.org/maps.htm>

**Figure 23 - Shoulder Conditions on SR 264 within the Study Area Corridor**

### 3.15 Pedestrian Sidewalks, Crossings, and Paths

A connected sidewalk and pathway system will encourage walking and provide links to destinations in the St. Michaels-Window Rock-Fort Defiance areas. Sidewalk locations are shown in **Figure 24**. Sidewalks are located on SR 264 and sections of N54, N100, N110 and N12.

#### 3.15.1 Pedestrian Access to Schools

Providing safe access to schools is a key pedestrian consideration for all the communities in the study area corridor. Some key needs include:

- Providing a sidewalk system north of Window Rock High School – N12 north of the High school does not have sidewalks and serves a residential area.
- Improved school crossings are needed at the Window Rock High School.
- Provision of sidewalks and crossings to access the Window Rock Elementary School. Sidewalks on Morgan Drive and Chee Dodge Drive as well as better paving in these areas will provide better access to elementary school.

#### 3.15.2 Pedestrian Safety Needs from the ADOT Pedestrian Safety Action Plan, 2009

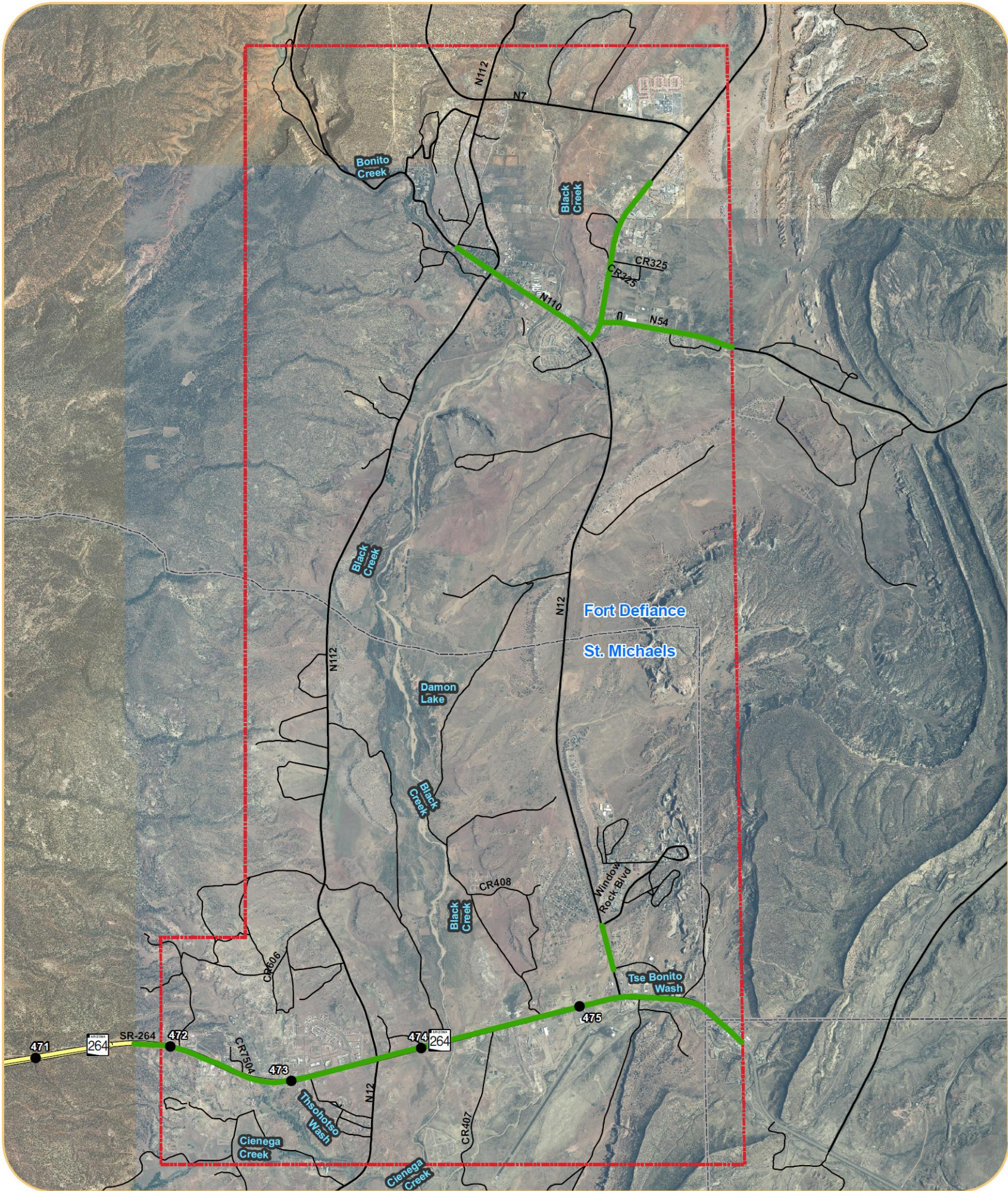
The ADOT Pedestrian Safety Action Plan analyzed segments of state highways with relatively high levels of pedestrian crashes. Within the study area corridor, one road segment was identified as having a high level of pedestrian crashes—SR 264 between MP 474.7 to MP 475.8. At this location, the highway video log showed that sidewalks are present. In this area, there are very few opportunities for pedestrians to cross the 5-lane roadway. The study recommended evaluation of the following potential countermeasures:

- Crossing opportunities should be evaluated to determine if signalized crossings should be installed.
- Evaluate the need for a continuous raised median to provide a refuge for pedestrians and improve overall safety and access management.

Reduced speeds through the areas may also increase safety.

### **3.15.3 Trails and Equestrian Paths**

Currently there is no formalized system of equestrian trails in the study area corridor. Discussions with stakeholders and NDOT staff have indicated that an equestrian trail along the Black Creek would provide a benefit to equestrians. The trail could extend between the St. Michaels/Window Rock area to Fort Defiance. Connections to N112 and SR 264 are also desirable.



Legend

- US and State Highways
- BIA Roads
- Tribal/County Roads
- Study Area
- Chapter Boundary
- Mileposts
- Sidewalk

Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Source: BIA IRR Inventory, 2010

Figure 24 - Sidewalk Locations

### 3.16 Airports and Airport Access

Window Rock Airport is located one mile south of the central business district of Window Rock. Window Rock Airport covers an area of 88 acres and has one runway. It is a general aviation airport. According to ADOT the airport had 7,000 annual operations in 2010 (landings and takeoffs). There are 7 aircraft based at the airport (parked at the airport by owners). This airport serves both Navajo Nation's and private air services.



*Window Rock Airport*

A discussion with the Navajo Nation Aviation Planner and information from Navajo DOT Aviation indicated that key needs and deficiencies with respect to the Window Rock Airport and surrounding area are:

- Repaving and restriping access road into the airport. In particular, potholes need to be patched, sections of pavement need to be slurry-sealed or chip sealed and then restriped (area that runs along the east side towards the terminal). The pavement has completely broken down approaching the terminal. The parking lot, including where the access road loops back towards the bridge, needs to be ripped up and repaved then restriped.
- Bridge improvements are needed, including guardrail improvements, signing replacement and improvements to the ends of the bridge where the concrete meets the pavement.
- Destination and speed limit signage. A replacement program is needed for signage, because graffiti and bullets holes through the signs are a big problem.
- A warning signal light at the intersection of SR 264 and the airport access may be needed, if warranted.

- Perimeter fencing along the road and around the airport. Animal crossings can be a problem.
- Sidewalks and possibly a Safe Routes to School program project should be considered, since there are residences near the airport access road.
- There is a bridge that needs replacement or possibly repairs.

The Navajo Nation has requested funding for an update of the Airport Master Plans for the Window Rock and Chinle Airports. Both airports are part of the National Plan of Integrated Airport Systems (NPIAS). NPIAS includes airports that are significant to national air transportation and are eligible to receive federal funding under the Airport Improvement Program, see <http://www.faa.gov/airports/aip/> .

## 4 NEEDS AND DEFICIENCIES

This chapter provides an overview of needs for each of the modes of transportation as well as general needs. This includes motorized needs, pedestrian needs, bicycle needs, equestrian needs, transit needs and airport access needs.

The needs analysis was developed through a process which considered:

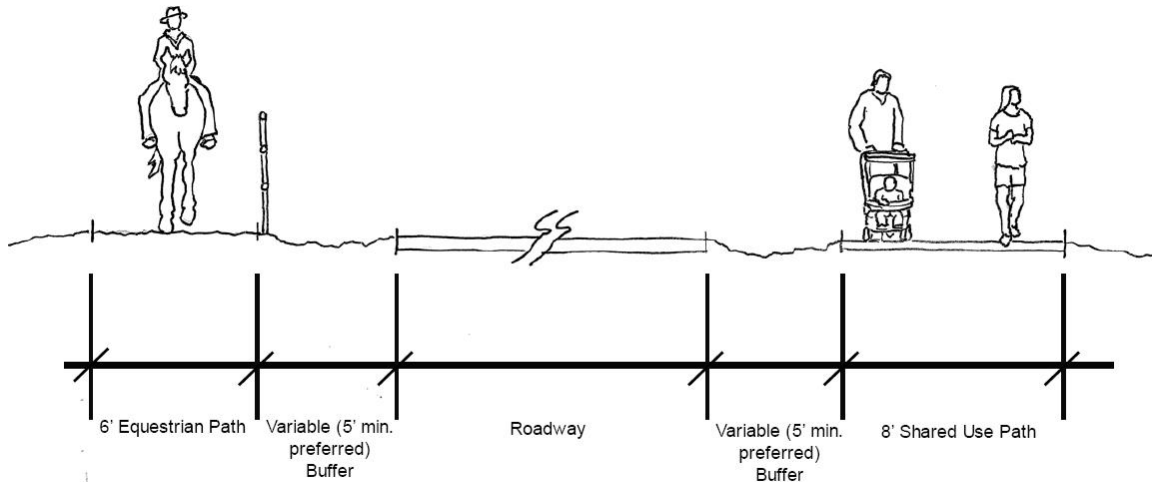
- Stakeholder / TAC / PMT input
- Traffic analysis
- Crash data analysis
- Project team observations

### 4.1 General Needs and Deficiencies

General needs and deficiencies in the study area corridor are:

1. Need for a safe, well designed transportation system that promotes a sense of community through transportation that recognizes the safety needs of motorists, transit users, bicyclists, and pedestrians of all ages and abilities. At the national level, there is emphasis on providing more bicycle and pedestrian facilities along roadways to create “complete streets”. Complete streets are designed to function for all users to safely and effectively move along and across a street (see [www.completestreets.org](http://www.completestreets.org) ). An example of a complete street is shown in **Figure 25**.
2. Need to provide transportation improvements that will enhance economic development and tourism.
3. Need to implement a rural addressing system – police and fire department representatives both expressed needs for better street addresses and street names signs. Better rural addressing would allow for better emergency response time.
4. Need to improve emergency access routes for Fire and Police Department staff through provision of secondary routes.
5. Need to provide traffic signal preempt equipment at all signalized intersections and on fire trucks to allow quicker response time.
6. Need to provide speed control measures on N112 and N12.
7. Need to provide measures to reduce incidence of animal / vehicle crashes, while still being respectful of Chapter policies. Examples are provision of signage to alert drivers to the presence of animals, fencing, or cattle guards.
8. Need to link the Tse’nikani Scenic Road to the Dine Biitah Scenic Road to provide a more continuous scenic road system to encourage visitor travel.
9. Need to implement technologies to make signs graffiti resistant and discourage graffiti.

10. Need to provide access management improvements, turn lanes, bus pullouts, and pedestrian crossings on SR 264 within the project area.
11. Need to conduct a Road Safety Assessment on BIA 112 between SR 264 and BIA 110 (including the intersections at both termini) to identify specific safety improvements.
12. Need to determine an alternative location for the Navajo Nation Fair.



Source: Kimley-Horn

**Figure 25 - Example of a "Complete Street"**

## 4.2 Roadway, Street Lighting and Traffic Control Needs

Roadway needs are summarized in **Figure 26**. A brief overview of the needs is summarized as follows:

### 4.2.1 Street Improvements – Paving and Repaving Needs

Poor road conditions can lead to wear and tear on vehicles and can damage tires, suspension systems, and wheel alignment. Braking or maneuvering to avoid potholes and washboarded pavements conditions can also result in accidents.

Key needs included:

- Resurfacing roads which included sections of BIA routes N7, N12, N100, N110, N112, and N9073. Shoulder upgrades were also indicated on sections of N110 and N9073 (Source: BIA IRR Inventory).
- Upgrading surface condition on roads serving as bus routes. On lower volume dirt roads routes, providing a gravel surface is recommended as a first step towards paving. Key bus routes mentioned by school staff include Blue Canyon Road (N9073), Red Lake Road (N112), and Aspen Road (N124). It was observed that Chee Dodge Drive and Morgan Drive need repaving, which provide access to the Window Rock Elementary School.
- Paving or providing gravel surfacing on routes that can serve as emergency access routes. Needs include a number of road connections that link SR 264 to N112, including Drexel Road, Mustang Road, Crest Road, and a number of unnamed roads. Beacon Road and the loop road serving the Window Rock Airport need repaving. In addition to the airport, these roads also serve a number of residences.
- Provide gravel or paving on roads that provide access to community resources. In particular, roads serving the government area (N100 and intersecting roads) are in need of resurfacing. In the Fort Defiance area, there are two roads intersecting N12 which are in need of paving; TR 1456 and TR 1457 providing access to the Fort Defiance Fire Station and Navajo Tribal Utility Authority (NTUA).
- A number of residential streets need repaving as indicated in **Figure 26**.

#### 4.2.2 Street Improvements – Road Widening

There were a number of comments from stakeholders indicating the need for improvements to SR 264 in the areas of pedestrian crossings, access control, and bus pullouts.

Recommendations from previous planning studies that involve SR 264 are:

The *2009 Navajo Nation Long Range Plan* recommended:

##### Short Term Plans

Window Rock: Raised medians and limited access/turnoffs between MP 474.5 to MP 476.5.

##### Long Term Plans

None listed within the study area corridor.

The *2003 SR 264 Corridor Profile Study* recommended:

SR 264 was recommended to have a five-lane cross section from the New Mexico state line to approximately milepost 472. The study recommendations reflected an overlay, widening and lighting project on SR 264 between Milepost 472.5 and milepost 476, which has been completed. An intersection improvement project was recommended at the intersection of SR 264 and N12 (MP 473.6).

Other improvements recommended included:

- Intersections with State Routes and BIA paved routes will be improved with left-turn lanes and acceleration/deceleration lanes intersections where warranted.
- In addition, access roads to Navajo Chapter Houses are proposed to be improved. Spot commercial areas and housing development access will be addressed.
- Pedestrian improvements along SR 264 will be incorporated at access roads to Navajo Chapters as well as other key areas.
- Frequency of transit service should be improved and routes along SR 264 should be coordinated with other services on the reservations.
- Signing along SR 264 should be improved in order to provide information on regulation and directions.
- The study recommended a variable message sign and Road Weather Information System on SR 264 in the Window Rock area.

The *2012-2016 Five-Year Transportation Facilities Construction Program* does not include any projects on SR 264 within the study area corridor.

Review of the IRR BIA inventory indicated that many routes needed roadbed widening to meet BIA design standards. These routes included sections of BIA routes N7, N12, N100, N110, N112, and N9073. Sections of these routes also need shoulder widening.

Traffic analysis indicated that N110 will need four through lanes west of N112 in the future if growth occurs as anticipated.

#### 4.2.3 New Road Connections

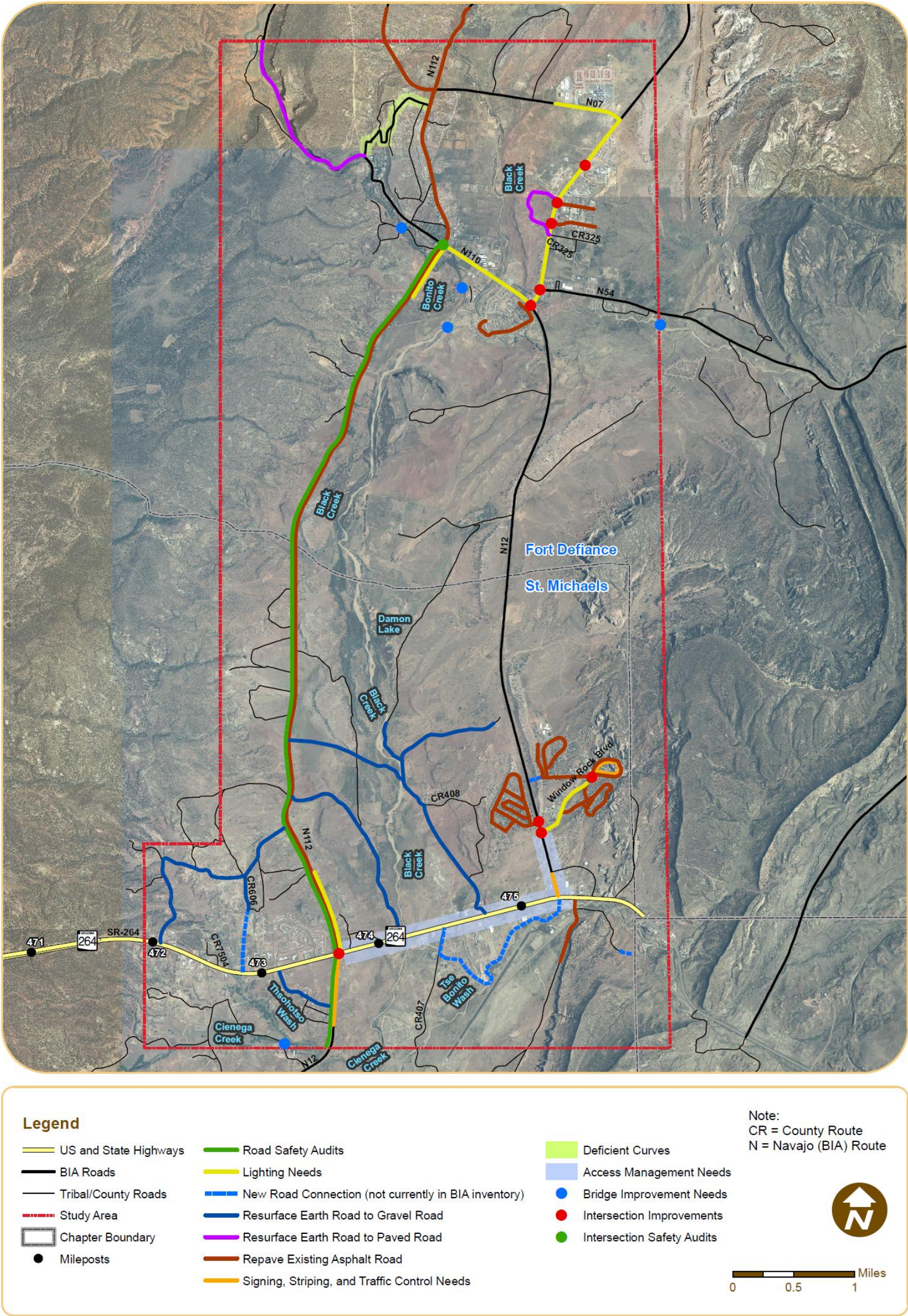
**Alternate access to N12 from the government area** – There is a need for an alternate road connection for emergency service providers and Navajo Nation employees. Currently both the Police and Fire Department staff in Window Rock use N100 as their only access. Suggestions have included extending Morgan Drive or Chee Dodge Drive to connect with N12. **Alternatives are shown in Chapter 5.**

**Alternate access to SR 264 in the area of the Fairgrounds** – There is a need to provide alternate access to SR 264 both during the Navajo Nation Fair and in general to provide better access to area residents. A number of locations that will provide alternate access, if paved, were identified on **Figure 26**. In addition, new road

connections on the Drexel Road alignment and near County Route 407 south of the Fairgrounds will provide more access.



*Illustration of access road south of the Fairgrounds and SR 264*



Source: Local, Community, Stakeholder, and Project Team Input

Figure 26 - Roadway Needs and Deficiencies

#### 4.2.4 Street Lighting

Street lighting needs were identified through stakeholder input and a review of crash data. Key areas with lighting needs were identified as:

- N7, near the Fort Defiance Hospital
- N12, between N7 and N110
- N110, between N112 and N12
- N112, near SR 264 and N110
- N100, N12 to Morgan Drive

#### 4.2.5 Intersection Improvement Needs

Intersection needs, including provision of turn lanes, improved signalization, or other needs, were identified in a number of locations:

- N100 (Window Rock Blvd) / Morgan Drive - This skewed T - intersection experiences congestion during peak periods. Options could include a redesign of the intersection to reduce the skew, construction of a roundabout, or other alternatives.
- N12 / Window Rock Blvd – Intersection is congested during peak periods. There is a need for turn lane improvements and possible signal timing changes.
- N12 / N110 – There is a need to upgrade the traffic signal at this intersection. Fort Defiance Fire Department personnel indicated that adding traffic signal preempt equipment to this intersection would help to improve emergency response time.
- N12 / N54 – There is a need to upgrade the traffic signal at this intersection. Stakeholders commented that it is hard to see the signal indication. Fire department staff would like to see signal preempt equipment installed.
- N110 / N112 – The unsignalized intersection of N112 / N110 in Fort Defiance has a relatively high incidence of crashes. This intersection could be a good candidate for a Road Safety Assessment to identify safety needs and a signal warrant study to determine if the intersection meets criteria to install a traffic signal.
- N12/TR 1456 NTUA Access Road / Fire Station – Stakeholders requested turn lanes into this area. There was a need expressed for a traffic signal or beacon signal to provide quicker access for the Fire Department.

- N12 / TR1457 - Provide turn lanes to reduce congestion.
- N12 / Window Rock High School Entrance - Window Rock School district staff has requested warning lights, crossing guards, as well as the turn lanes.
- SR 264 / N12 / N112 intersection – Additional advance warning signage for the traffic signal was requested by stakeholders.

#### 4.2.6 Bridge Repair Needs

Based on discussions with Fire Department and Police staff, the following bridges were identified as needing replacement or repairs and bridge crossings that fire trucks had a difficulty negotiating. A summary of these needs are:

- Bridge crossing over Bonito Creek
- Bridge crossing over Black Creek at Old N-112
- Bridge crossing over Black Creek
- Bridge crossing over unnamed creek south of N54.
- Bridge crossing over Tsohotso Wash – stakeholders indicated that the weight limit is too low for fire truck and it needs to be widened

#### 4.2.7 Transit Needs

Bus pullouts and advance signing for pullouts are needed to reduce delays and reduce the potential for rear-end collisions. Currently Navajo Transit System staff is working with ADOT to develop a system of bus pullouts on SR 264. Bus pullouts were also identified on BIA routes through discussions with Navajo Transit System staff.

A transit center is also planned in the Window Rock area, on SR 264. The goal of the transit center, according to the *Navajo Transit System Five-Year Plan (2009)*, is to serve as a meeting place for riders as well as an office/operating location for drivers to begin and end the route. The facility would consist of a modest modular office. In addition to a meeting point for riders, the office would also be equipped with some maintenance parts/materials that would allow the driver to do minor maintenance and paperwork.

Future plans also include a circulator bus route between St. Michaels / Window Rock and Fort Defiance.

With respect to school bus transit, school district staff indicated that delays and potential hazards occur when buses have to stop on the streets, rather than in bus pullouts. Signing is needed to alert drivers to the need to stop when a bus has its red flashing lights on. Transit needs are shown in **Figure 27**.

#### **4.2.8 Aviation Access Needs**

Based on information from the Navajo DOT Airport Section, and field reviews, the following improvements are needed for access to the Window Rock Airport:

##### **Access Road to Airport**

1. Potholes need to be patched.
2. Pavement has some areas of aggregate separation. It can be slurry sealed or chip sealed then restriped. This is the road section that runs along the east side towards the airport terminal.
3. Pavement has completely broken down on the access road approaching the airport terminal. The parking lot, including where the access road loops back towards the bridge, needs to be removed, repaved, and restriped.

##### **Bridge**

1. There is a gap that needs to be filled in at the bridge ends where the concrete meets the pavement.
2. Guardrail support barriers bolts are sticking out and nuts are missing.
3. Signs need to be replaced.
4. Guardrail reflector tape at ends needs to be replaced.
5. Guardrails and the bridge itself needs to be painted.

Additional destination signing should be provided on SR 264 and N12 to the airport.

#### **4.2.9 Other Navajo Nation Fair Traffic Control Needs**

The Navajo Nation Fair attracts visitors from all over Arizona and New Mexico, as well as other areas. Traffic control needs that were observed were:

- Portable variable message signing is needed in advance of detours and road closures.
- An alternate route to provide access to north / south traffic on N112 and N12 south would be useful. Options might be Drexel Road (discontinuous currently) or Crest Road.
- As previously mentioned, on the south side of the SR 264, an alternate route is a back road that accesses the Window Rock fairground from the N12 / SR 264 intersection
- The sidewalk area on SR 264 is used by campers and parade viewers. On the north side of SR 264, there is a dirt path that could be formalized into a paved shared use path.

- Although emergency vehicles had access N12 north during the closure, the same was not true on the road adjacent to the Navajo Museum. Vehicles were parked in the roadway, blocking access. A need is to ensure that no roads are blocked by parked cars during the parade.
- A long term need is to find a new location for the Navajo Nation Fair that does not directly access SR 264, and provides expanded parking and camping areas.

### 4.3 Non-Motorized Transportation Needs

As emphasized by Navajo DOT at the start of this study effort, conveniently and safely designed walkways are limited for pedestrians to shop, visit, or exercise to improve health in the study area corridor. Non-motorized transportation needs include pedestrian, bicycle, and equestrian needs. These needs are summarized in **Figure 27**.

#### 4.3.1 Pedestrian Needs

There are many pedestrians in the St. Michaels-Window Rock- Fort Defiance corridor study areas. A key consideration is to provide a more connected system that provides adequate crossing opportunities and a comfortable walking experience. In general, sidewalks that are provided in the study area corridor tend to be narrow and are located adjacent to the roadway, providing little buffer between the pedestrian and vehicles.

A key emphasis area is providing more sidewalks in the government area. The sidewalks on N100 terminate where the road transitions from a four-lane roadway to a two-lane roadway. Providing sidewalks the entire length of N100 and on Morgan Drive and Chee Dodge Drive will link residents, employment areas and the Window Rock Elementary School.



*Segment of N100, showing sidewalk and shoulder needs*



In the Fort Defiance area, it is desirable to provide a complete sidewalk system around the perimeter of Fort Defiance bounded by N110, N112, N7 and N12. There are missing links of the sidewalk system on N7, N112, and N12.

*N12, north of Window Rock High School, lacks sidewalks for residents to walk to school or the hospital*

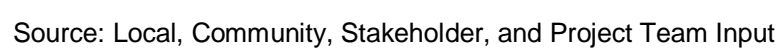
Between St. Michaels, Window Rock and Fort Defiance, there are needs for a path system on N12 and N112. Pedestrian now typically walk on the shoulder of the road.

Observations during the Navajo Nation Fair indicated the need for a path system along SR 264. Currently sidewalks are provided adjacent to the road, and do not provide a comfortable walking experience.

In general, as roads are improved, sidewalks or paths and wide shoulders to accommodate bicycle lanes should be part of the project. Paths are shown in areas with new road connections on **Figure 27**.

Paved shared use paths are designed to accommodate pedestrians, slow-speed bicyclists (e.g. children riding to and from school), and wheeled devices such as strollers.

## Transit and Non-Motorized Needs and Deficiencies



### Figure 27 - Transit and Non - Motorized Needs

Paved shared use paths are not conducive to equestrians, as they can be slippery to horses. Soft surface paths are preferred.

A typical section of a paved shared use path with an accompanying equestrian path, on the opposite side of the road, is shown in **Figure 25**, earlier in the chapter.

#### 4.3.2 Need for Pedestrian Crossings and School Crossings

Key needs that were identified are provision of more pedestrian crossings on SR 264 as well as enhanced school crossings at the Window Rock High School. There is a need to see if these areas meet warrants for HAWK beacon signal crossings. Other options include high visibility crosswalks, overpasses, and additional signage, possibly with flashers. Specific locations and needs are:

- N12 / Window Rock High School – enhanced school crosswalks, and possibly a pedestrian crossing signal
- SR 264 – pedestrian crossing to reach the Wellness Center, and the fairgrounds area.
- SR 264 – pedestrian crossing to reach the Bashas Shopping Center.
- N100 (Window Rock Blvd.) / BIA 12 – The pedestrian pushbutton does not work and pedestrian crosswalk striping.
- Chee Dodge Drive / Window Rock Elementary School – high visibility crosswalks and new signage.



*Pedestrians crossing SR 264 to enter the Fairgrounds*

### 4.3.3 Equestrian Paths

The St. Michaels-Window Rock-Fort Defiance area does not have a system of equestrian paths. However, the Black Creek could provide a starting point to provide a continuous trail or path system. A trail system along the creek would also have the advantage of not being close to bicyclists or vehicle traffic, providing a more peaceful riding experience for equestrians. Possible equestrian path routes are shown in **Figure 27**.

The soft surface path design requires attention to the physical and behavioral characteristics of horses; a cross section for a soft-surface path is typically 6 feet wide.

### 4.3.4 Bicycle Needs

Bicycle usage is generally low in the study area corridor and a well - connected, marked system of bicycle routes will encourage greater use of bicycles.

It is desirable to provide marked bicycle routes on major roads in the St. Michaels, Window Rock, and Fort Defiance areas that have adequate paved shoulders for bike lanes.

Paved shoulders that are at least 5 feet wide that may be suitable to provide bike route signage and lane markings are:

- N12 - between SR 264 and N110
- N112 - between SR 264 and N7
- N54 - between N12 and the New Mexico border
- N110 - between N12 and N112
- N7 - between N12 and the Fort Defiance Indian Hospital
- N100 - between N12 and the east end of the four lane section

Review of the BIA IRR Inventory data indicated that shoulder widening was needed on sections of N7, N12, N100, N110, N112, and N9073. Shoulder upgrades were indicated on sections of N110 and N9073. As shoulders are improved, wider shoulders for bike lanes should be included in the design.

## 5 ST. MICHAELS CHAPTER RECOMMENDED TRANSPORTATION PROJECTS

### 5.1 Tribal Roads Projects

Key objectives of the projects proposed are:

1. Improving accessibility and the condition of the street system through paving and repaving projects. This will reduce maintenance costs for the traveling public due to less wear and tear on vehicles, and provides a safer traveling environment.
2. Reducing congestion and improving traffic flow through the Navajo Nation government area near N100 and Morgan Drive. This can be accomplished by providing intersection improvements and an alternate route to N100. An alternate route to N100 will help emergency service providers to respond more quickly, especially during peak travel periods.
3. Improving safety within the communities through the provision of street lighting, improved intersection traffic control, signing, striping and speed control.
4. Providing alternate routes to SR 264 especially during the Navajo Nation Fair, held in September of each year. During the annual parade, SR 264 is closed for a morning and it is particularly congested during the Fair. Alternate travel routes will improve safety and access both during the Fair period and during other congested periods. A long term objective would be to relocate the Fair.

The projects were developed through a study planning process that included stakeholder interviews, public input through public meetings, and traffic analysis, including an analysis of crash data.

It is recommended that all new road projects be designed as “Complete Streets” whenever possible. According to the National Complete Streets Coalition, Complete Streets are designed and operated to enable safe access for all users. Pedestrians, bicyclists, motorists and transit riders of all ages and abilities must be able to safely move along and across a Complete Street. **Section 5.2** will show how bicycle, pedestrian and equestrian improvements will be integrated into the roadway system, and are coordinated with the roadway projects presented in this section.



*This street in Sierra Vista, Arizona, has a bike lane as well as a multiuse path to accommodate pedestrians and bicyclists of varying abilities*

The St. Michaels Chapter encompasses Window Rock, the seat of government for the Navajo Nation. Proposed projects to meet these roadway needs in the St. Michaels Chapter area are summarized in **Table 25** and shown graphically in **Figure 28**.

Each of these projects is described in greater detail in Project Information Sheets that follow **Table 25**. The Project Information Sheets include a brief description, project justification, planning level construction cost estimate, potential funding sources, map showing the location of the project, and comments (primarily relating to whether the project is currently programmed or potential design constraints). Costs for programmed projects were taken from the *FY 2012 Tribal Transportation Improvement Plan*. Planning level cost estimates for projects that are not currently programmed were developed for each project type.



**Table 25 - Tribal Roadway and Intersection Projects – St. Michaels Chapter**

Route Number or Name	Project Number*	Project Limits	Project Description	Comment^	Length (miles)	Estimated Cost (millions)	Additional Information
<b>Roadway Projects</b>							
Beacon Road	None	SR 264	Grade, drain and surfacing (pavement) construction and bridge and guardrail improvements.	B, C, D, W	0.62	\$0.96	Not programmed
Community streets – Morgan Drive area	None	Morgan Drive, Chee Dodge Drive, Town House Circle, Manuelito Drive, Tribal Hill Drive, Roswell Drive	Grade, drain, and surfacing (pavement) construction.	B, C, D, W	3.0	\$4.67	Not programmed
Community streets – Shonto Blvd Area	None	Shonto Blvd., Jeddito Drive, Toquema Blvd, Tolani Blvd, Kaibeto Dr., Oljato Blvd, Tocito Blvd, Tse Bonito, Telecon Blvd	Grade, drain, and surfacing (pavement) construction.	B, C, D, W	2.7	\$4.20	Not programmed
Crest Road	None	SR 264 to N12 south	Grade, drain, and surfacing (pavement) construction.	B, C, D, W	0.60	\$0.93	Not programmed
Drexel Rd (CR606) / Two Story Loop Rd	None	N112 to SR 264	Grade, drain and gravel construction.	A, B, C, D	2.12	\$1.96	Not programmed
CR408 & Mustang Road	None	St. Michael Housing-Special Education school	Grade, drain and gravel on Mustang; with paving on CR 408.	A, B, C, D	0.6 asphalt 1.0 gravel	\$1.86	Not programmed
N12	N12D(1-1)4	SR 264 north 11.73 miles	Chip Sealing	D,W	11.73	\$2.00	Scheduled in 2015
N100	N100 (1-1)2&4	Window Rock Streets	Grade, drain, and surfacing (pavement) construction.	C, D, U, W	3.0	\$6.09	Scheduled in 2028

**Table 25 – Tribal Roadway and Intersection Projects – St. Michaels Chapter (Continued)**

Route Number or Name	Project Number*	Project Limits	Project Description	Comment^	Length (miles)	Estimated Cost (millions)	Additional Information
N100	None	N12 to Morgan Drive	Street lighting	A, B, C, D	0.65	\$0.26	Not programmed
N112	None	SR 264 to N110	Chip sealing	D,W	6.25	\$0.33	Not programmed
N112	None	North and south of SR 264	Street lighting	A, B, C, D	0.10	\$0.04	Not programmed
N112 and N12	None	N/A	Install solar speed monitors	C, D	N/A	\$0.01	Not programmed
<b>Intersection Projects</b>							
Morgan Drive / N100	None	N/A	Intersection improvement	A, B, C, D	N/A	\$0.19	Not programmed
N112 / N12 / SR 264	None	N/A	Improve advance warning signage on north and south approaches.	D, W	N/A	\$0.01	Not programmed
N12 / N100	None	N/A	Upgrade traffic signal, signal timing, and striping.	D, W	N/A	\$0.08	Not programmed
N12 / N100	None	N/A	Extend southbound left turn lanes.	A, B, C, D	N/A	\$0.18	Should be done in coordination with Shonto Neighborhood Access Project.
Shonto Neighborhood Access	None	N/A	Construct new access to N12 and restrict N12 access to Shonto Blvd to right turn in-right turn out (assume traffic signal at new entrance).	A, B, C, D	N/A	\$0.65	Not programmed

**Table 25 – Tribal Roadway and Intersection Projects – St. Michaels Chapter (Continued)**

Route Number or Name	Project Number*	Project Limits	Project Description	Comment^	Length (miles)	Estimated Cost (millions)	Additional Information
<b>New Roads</b>							
New Road Connection- alternate access at Jeddito Dr. / N12	None	To be determined	Road Design	A, B, C, D	To be determined	\$0.10	Not programmed
New Road Connection- alternate route to N100	None	To be determined	Feasibility Study and Road Design	A, B, C, D	To be determined	\$0.10	Not programmed
New paved road connection south of fairgrounds	None	N12 to SR 264	Grade, drain, and surfacing (pavement) construction.	A, B, C, D	1.70	\$2.65	Not programmed
Gravel road connection via Drexel Road(CR606)	None	Drexel Road(CR606) to SR 264	Grade, drain and gravel construction.	A, B, C, D	0.80	\$0.74	Not programmed
Gravel road connection and gravel paving	None	Beacon Road to Alma Drive	Grade, drain and gravel construction.	A, B, C, D	0.81	\$0.75	Alma Drive is in New Mexico

\*Referenced to Tribal Transportation Improvement Program

^ A = ROW Needed; B = Environmental Assessment Needed; C = Archaeological Clearance Needed; D = Surveying Data Needed; U – Utility Relocation Needed; W = Within Existing ROW

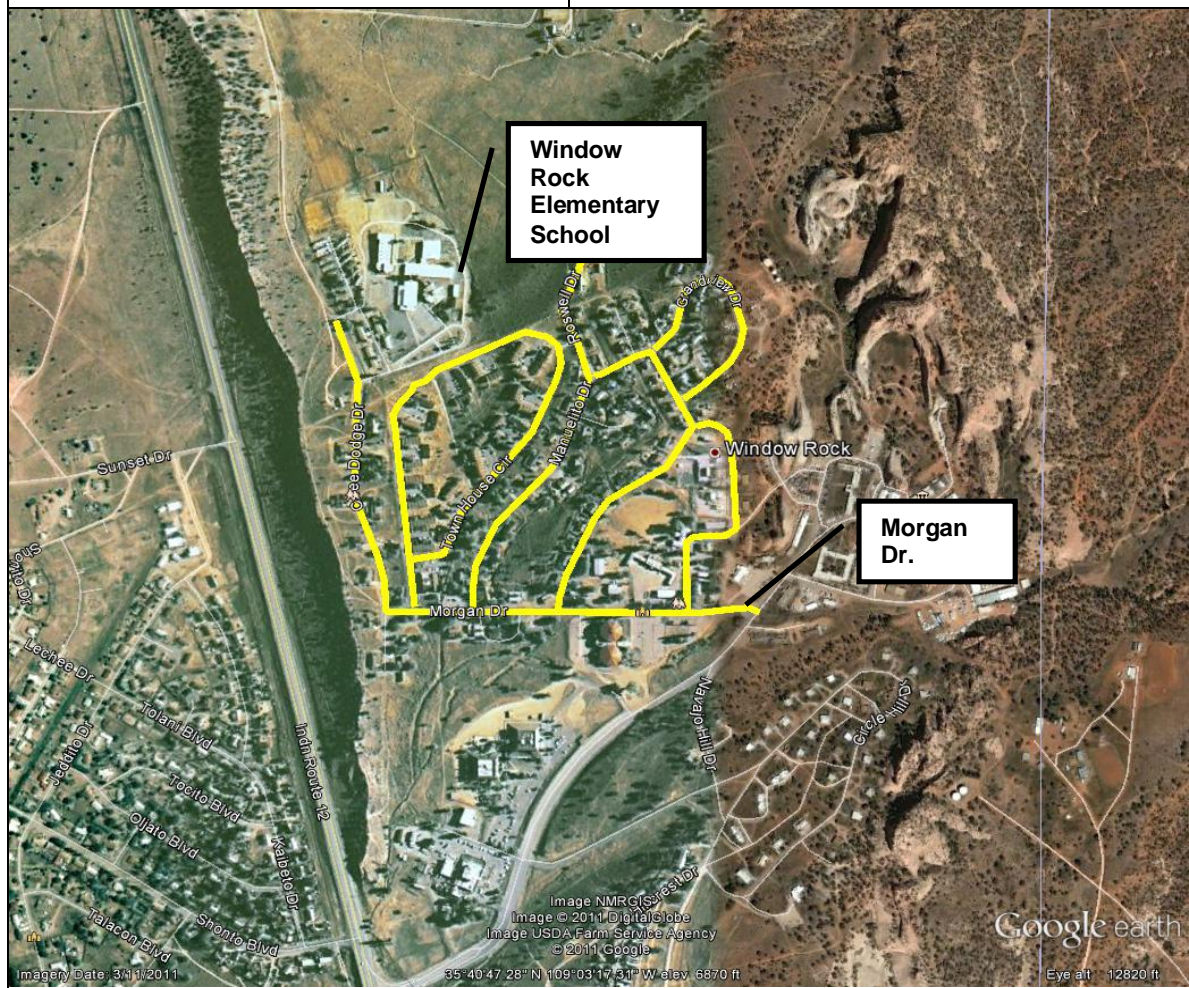
## St. Michaels Chapter Project Information Sheet – Beacon Road Paving and Bridge Repair

<b>Route</b>	Beacon Road
<b>Project Location</b>	Beacon Road, south of SR 264, 0.62 miles
<b>Project Description</b>	Repave road and provide bridge and guardrail improvements
<b>Project Justification</b>	This project is needed to provide improved access to the Window Rock Airport. Airport access is important because patients must be flown out of the airport for emergency medical treatment.
<b>2011 Cost Estimate</b>	\$0.96M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	This project is not programmed.



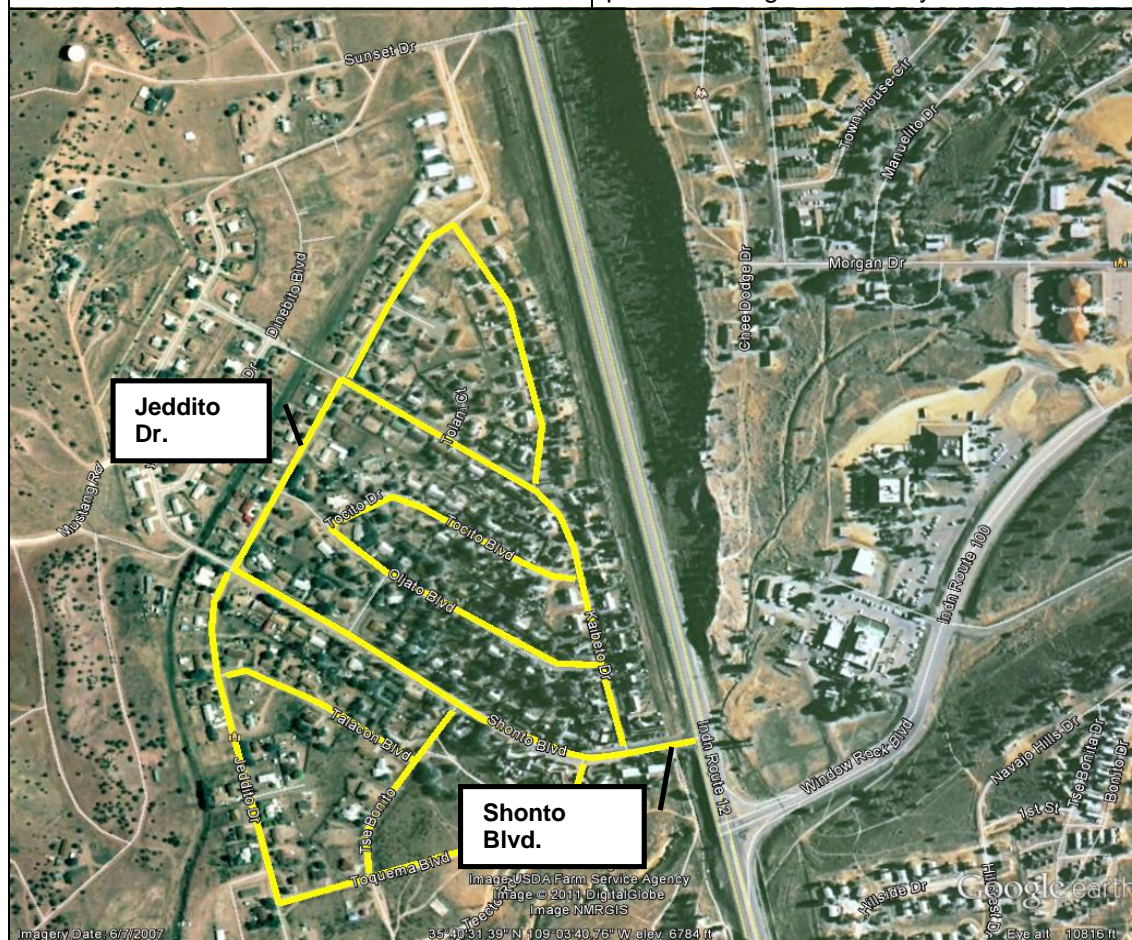
## St. Michaels Chapter Project Information Sheet – Community Street Repaving, Morgan Drive Area

<b>Route</b>	Community Streets, Morgan Drive area
<b>Project Location</b>	Morgan Drive, Chee Dodge Drive, Town House Circle, Manuelito Drive, Tribal Hill Drive, Roswell Drive
<b>Project Description</b>	Grade, drain, and surfacing (pavement) construction, 3 miles
<b>Project Justification</b>	The roads are in poor condition. Improvements to these roads will provide better access for residents and to the Window Rock Elementary School.
<b>2011 Cost Estimate</b>	\$4.67M
<b>Potential Funding Sources</b>	Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Safe Routes to School
<b>Comments</b>	This project is not programmed.



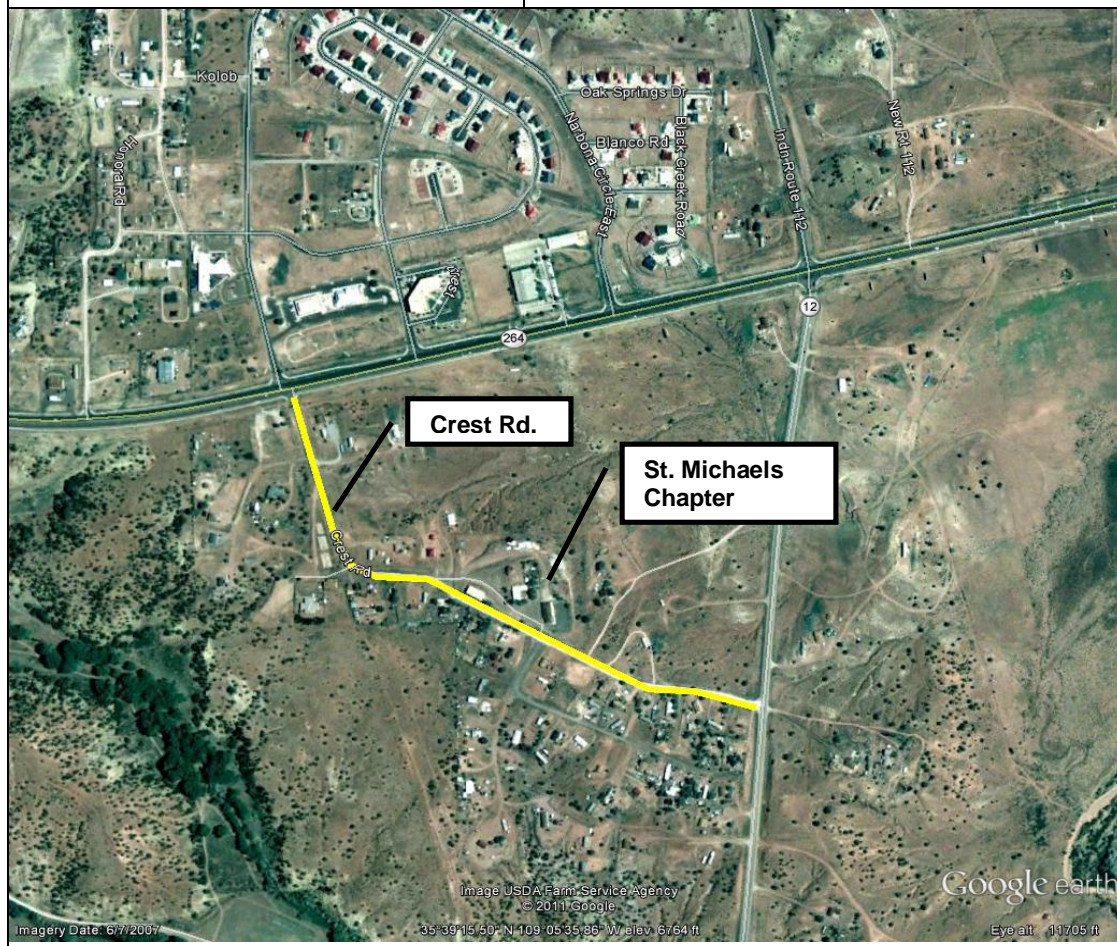
## St. Michaels Chapter Project Information Sheet - Community Street Repaving, Shonto Blvd Area

<b>Route</b>	Community streets, Shonto Blvd. area
<b>Project Location</b>	Shonto Blvd, Shonto Blvd, Jeddito Dr, Toquema Blvd, Tolani Blvd, Kaibeto Dr, Oljato Blvd, Tocito Blvd, Tse Bonito, Talacon Blvd
<b>Project Description</b>	Grade, drain, and surfacing (pavement) construction, 2.7 miles
<b>Project Justification</b>	These roads serve a large residential area, and improvements will provide better access.
<b>2011 Cost Estimate</b>	\$4.20M
<b>Funding Source</b>	Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Community Development Block Grant Program
<b>Comments</b>	This was a key need expressed at the public meeting for the study.



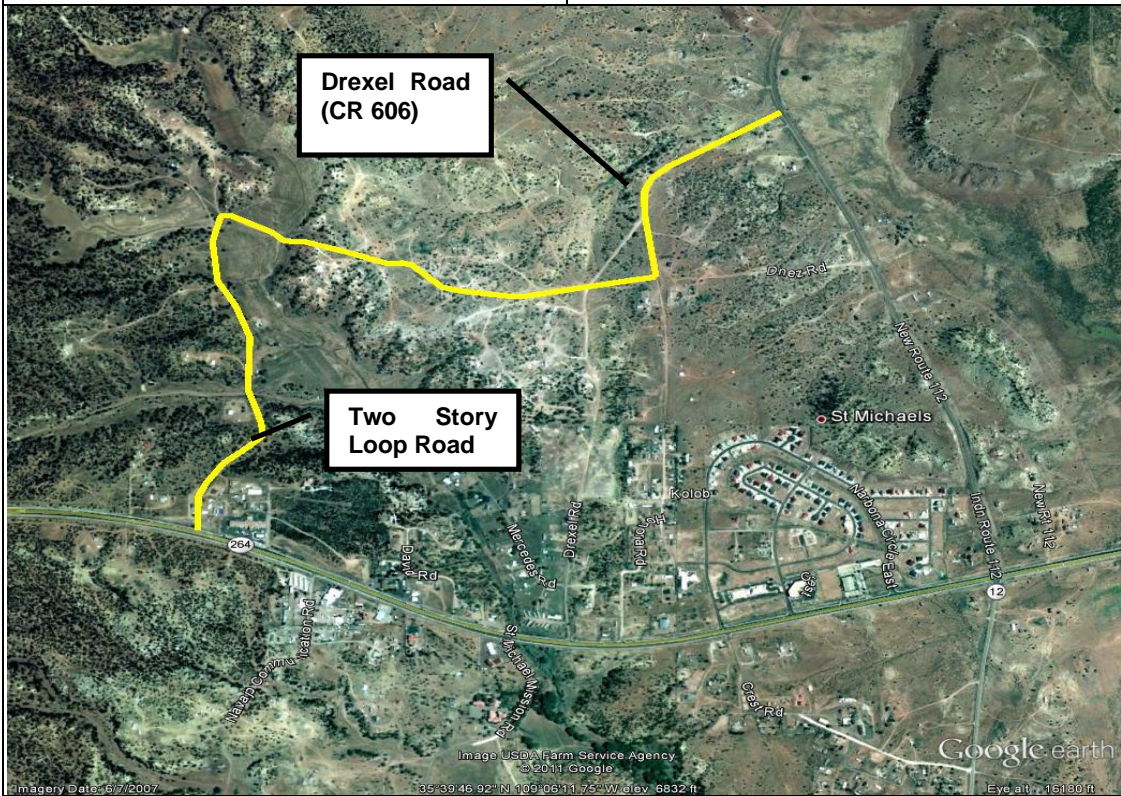
## St. Michaels Chapter Project Information Sheet – Crest Road Paving

<b>Route</b>	Crest Road
<b>Project Location</b>	SR264 to N12 south, 0.60 miles
<b>Project Description</b>	Grade, drain, and surfacing (pavement) construction
<b>Project Justification</b>	Improved paving will provide better emergency access between SR264 and N12, serve the St. Michaels Chapter House, and provides a detour during the Navajo Nation Fair.
<b>2011 Cost Estimate</b>	\$0.93M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Community Development Block Grant Program
<b>Comments</b>	This road is partially paved near SR 264.



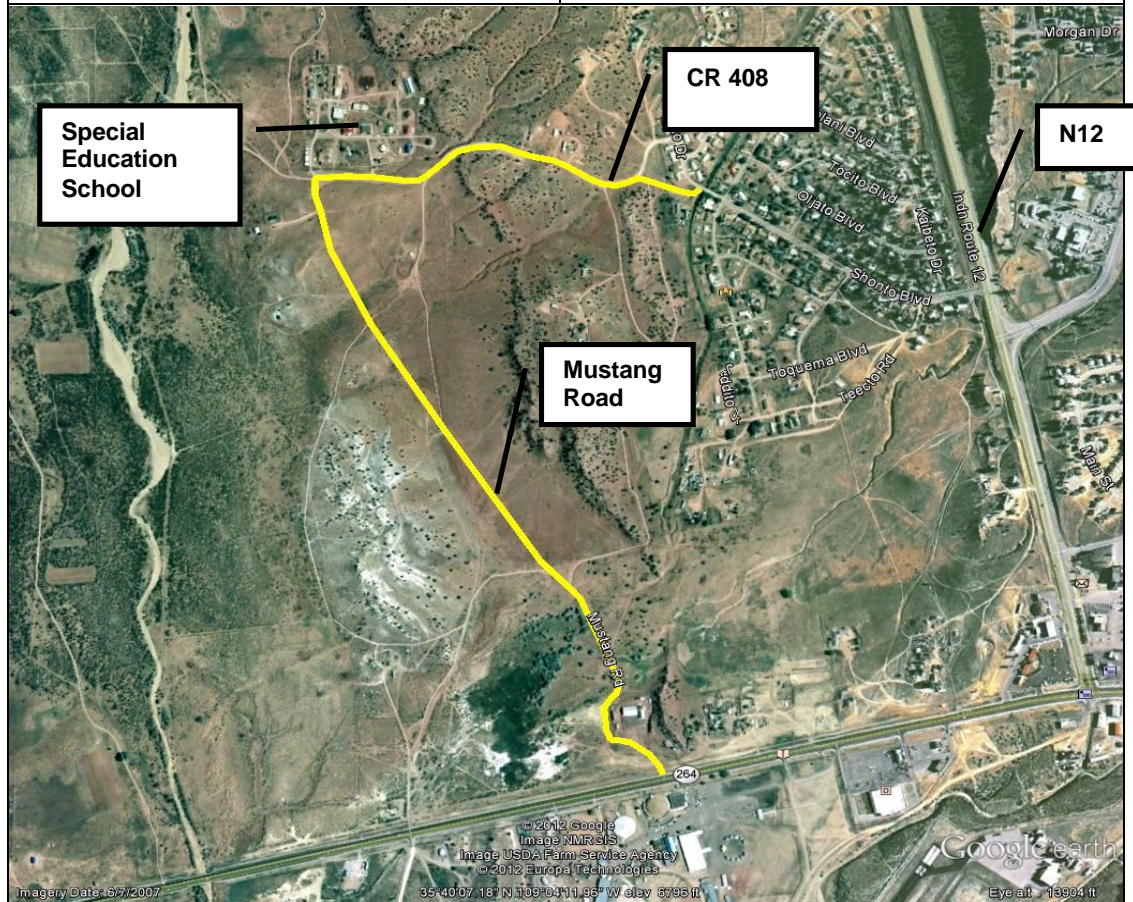
## St. Michaels Chapter Project Information Sheet – Drexel Rd (CR606) / Two Story Loop Rd Road Gravel Paving

<b>Route</b>	Drexel Road (CR606) / Two Story Loop Road
<b>Project Location</b>	Drexel Road (CR606) / Two Story Loop Road, SR 264 to N112, 2.12 miles
<b>Project Description</b>	Grade, drain and gravel construction
<b>Project Justification</b>	Gravel paving on this road will improve emergency access and provide better access for residents and provide a detour route during the Navajo Nation Fair.
<b>2011 Cost Estimate</b>	\$1.96M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	Not currently programmed.



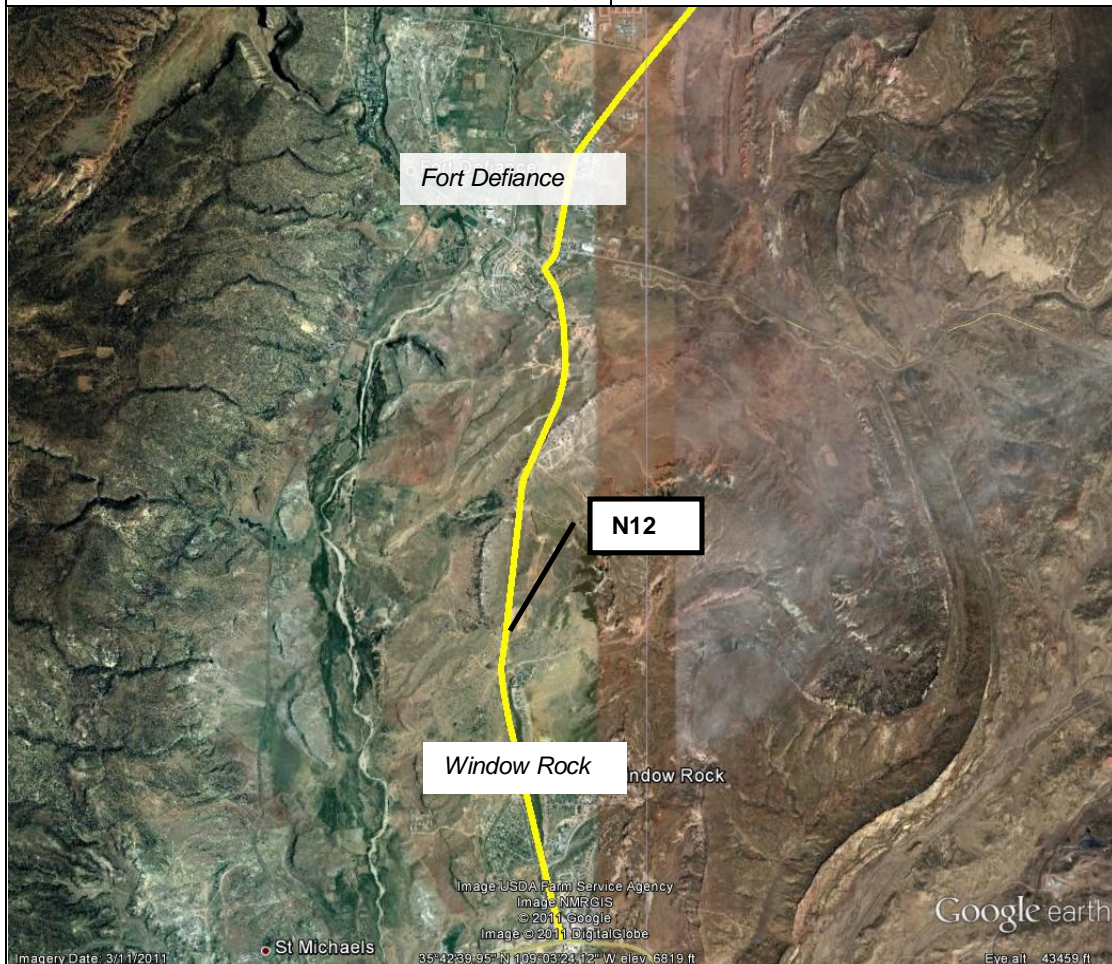
## St. Michaels Chapter Project Information Sheet – CR408 and Mustang Road Gravel and Paving

<b>Route</b>	CR408 and Mustang Road
<b>Project Location</b>	CR408 — 0.6 miles from St. Michaels Housing to Special Education School Mustang Road – CR 408 to SR264
<b>Project Description</b>	Mustang Rd - Grade, drain and gravel construction, 1 mile CR408 - Grade, drain and asphalt paving, 0.6 miles
<b>Project Justification</b>	This road will provide better emergency access and access to the Special Education School.
<b>2011 Cost Estimate</b>	\$1.86M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	



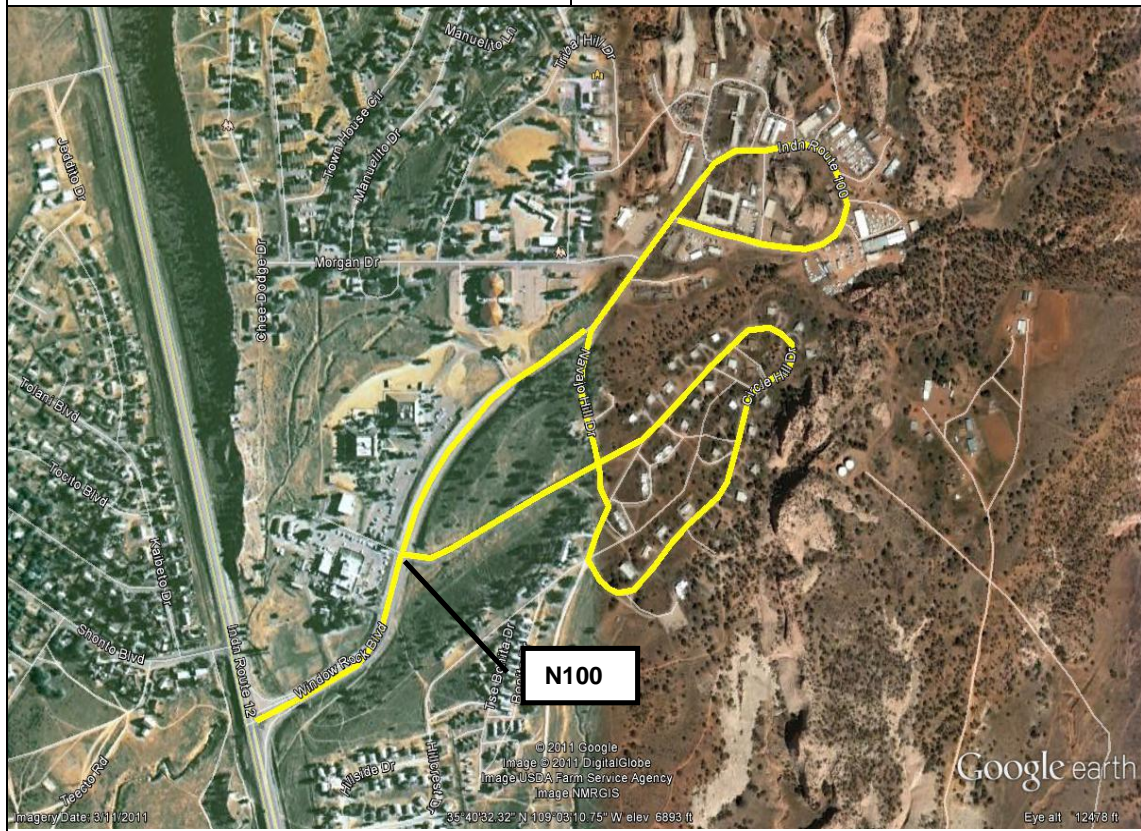
## St. Michaels Chapter Project Information Sheet – N12 Chip Sealing

<b>Route</b>	N12
<b>Project Location</b>	N12, SR 264 north 11.73 miles
<b>Project Description</b>	Chip sealing, 11.73 miles
<b>Project Justification</b>	This road is a major arterial connecting Window Rock, St. Michaels and Fort Defiance areas.
<b>2011 Cost Estimate</b>	\$ 2.0M
<b>Funding Sources</b>	IRR Construction Funds
<b>Comments</b>	Programmed – Project Number N12D(1-1)2&4 Scheduled in 2015



## St. Michaels Chapter Project Information Sheet – N100 Asphalt Repaving

<b>Route</b>	N100
<b>Project Location</b>	N100
<b>Project Description</b>	Grade, drain and surfacing (pavement) construction
<b>Project Justification</b>	These roads serve a major employment center, the Nation's Government center. Access to offices and residential streets are severely deteriorating.
<b>2011 Cost Estimate</b>	\$6.09M
<b>Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax TIGER Grant Public Lands Highway Discretionary Program
<b>Comments</b>	Programmed – Project Number N100(1-1)2&4 Scheduled in 2028



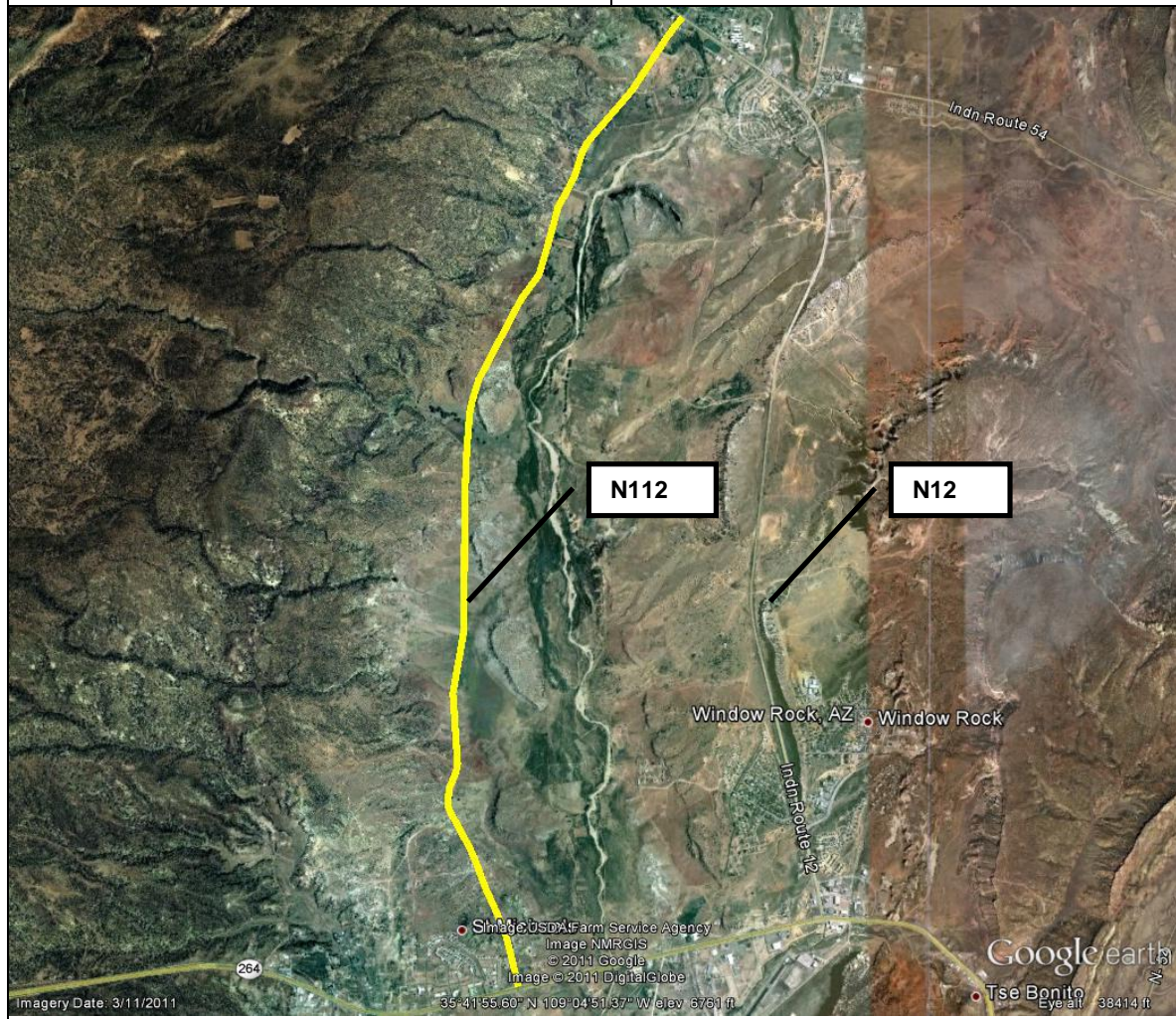
## St. Michaels Chapter Project Information Sheet – N100 Street Lighting

<b>Route</b>	N100
<b>Project Location</b>	N100, N12 to Morgan Drive
<b>Project Description</b>	Construct street lighting, 0.65 miles
<b>Project Justification</b>	This well-travelled street is a major access to Navajo Nation Government center, school, and residential area. Street lighting will increase safety at night.
<b>2011 Cost Estimate</b>	\$ 0.26M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	This project could be constructed as part of project N100(1-1) 2&4, scheduled in 2028.



## St. Michaels Chapter Project Information Sheet – N112 Chip Seal

<b>Route</b>	N112
<b>Project Location</b>	N112, SR 264 to N110
<b>Project Description</b>	Chip seal road, 6.25 miles
<b>Project Justification</b>	Periodic chip sealing is needed to maintain this road which links Window Rock / St. Michaels with Fort Defiance.
<b>2011 Cost Estimate</b>	\$0.33M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	Not programmed



## St. Michaels Chapter Project Information Sheet – N112 Street Lighting

<b>Route</b>	N112
<b>Project Location</b>	N112, 0.05 miles north and south of SR 264
<b>Project Description</b>	Construct street lighting, 0.10 miles, from 0.05 miles north to 0.05 miles south of SR 264.
<b>Project Justification</b>	Street lighting in this area will improve safety at night.
<b>2011 Cost Estimate</b>	\$0.04M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	Not programmed



## St. Michaels Chapter Project Information Sheet – N112 and N12 Solar Speed Monitors

<b>Route</b>	N112 and N12
<b>Project Location</b>	N112 and N12, SR 264 to N110
<b>Project Description</b>	Install Solar Speed Monitors, 2 locations.
<b>Project Justification</b>	Solar speed monitors may decrease the incidence of speeding on this route
<b>2011 Cost Estimate</b>	\$0.01M
<b>Potential Funding Sources</b>	Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	Speeding was a cause of crashes on these routes. Location to be determined, but can be located prior to intersecting streets in both directions.

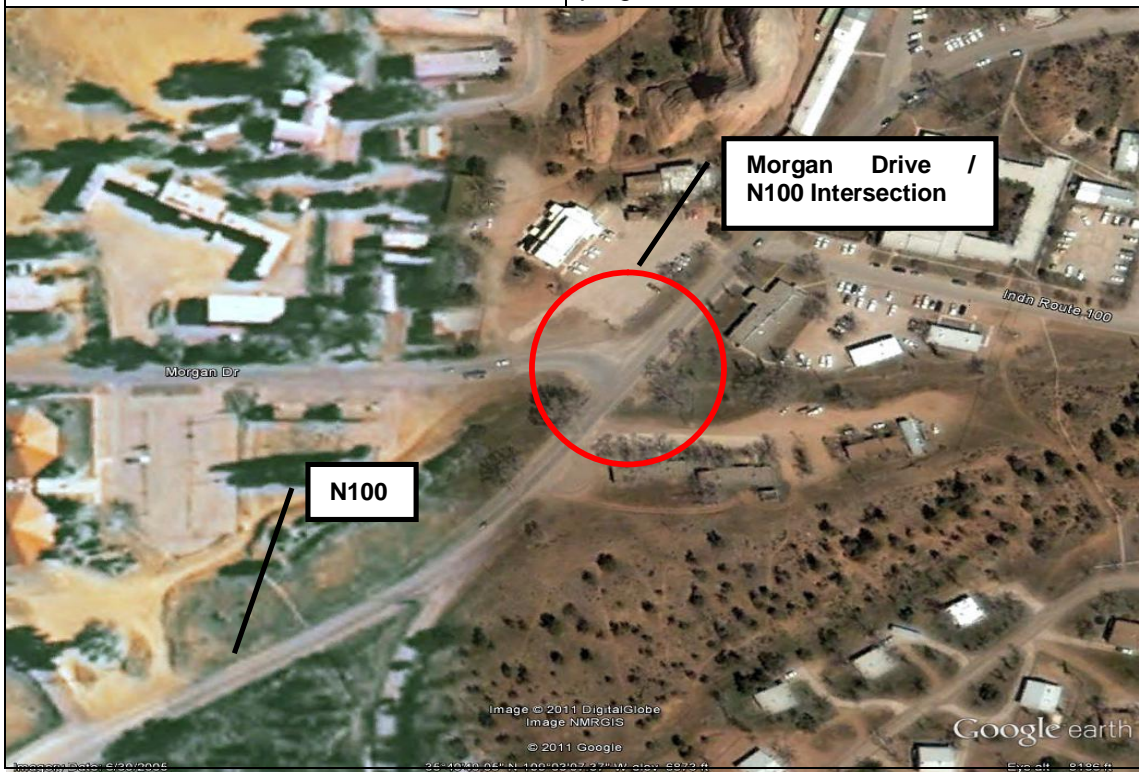


*Example of solar speed monitor in Tucson, AZ.*

*The speed indication flashes red when a vehicle is exceeding the speed limit.*

## St. Michaels Chapter Project Information Sheet – Morgan Drive / N100 Intersection Improvement

<b>Route</b>	Morgan Drive / N100 Intersection
<b>Project Location</b>	Morgan Drive / N100 Intersection Reconstruction
<b>Project Description</b>	Intersection improvement construction
<b>Project Justification</b>	This skewed intersection gets congested during peak periods. Traffic on Morgan Drive is stop-sign controlled, and traffic can back up as traffic exits on N100. A free right turn lane on Morgan Drive will reduce the need for right turning traffic to stop during the p.m. peak period. The free right turn lane should be extended to where the four lane section begins on N100.
<b>2011 Cost Estimate</b>	\$0.19M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	Other option is a roundabout, however, this option is more costly (\$0.85M). Not programmed.



## St. Michaels Chapter Project Information Sheet – N112 / N12 / SR264 Signage

<b>Route</b>	N112 / N12 / SR 264 Intersection
<b>Project Location</b>	N112 / N12 / SR 264 Intersection
<b>Project Description</b>	Install advance warning signage on north and south approaches to the intersection.
<b>Project Justification</b>	Stakeholder comments indicated this was a need.
<b>2011 Cost Estimate</b>	\$0.01M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program
<b>Comments</b>	Not programmed



## St. Michaels Chapter Project Information Sheet – N12 / N100 Intersection Improvement

<b>Route</b>	N12 / N100 Intersection
<b>Project Location</b>	N12 / N100 Intersection Improvements – Short / Medium Term
<b>Project Description</b>	Upgrade traffic signal timing, improve striping, drainage, pavement, including pedestrian crosswalk striping, install signal preempt equipment for emergency service vehicles.
<b>Project Justification</b>	Congestion during peak periods
<b>2011 Cost Estimate</b>	\$0.08M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program
<b>Comments</b>	<i>2009 Road Safety Assessment</i> recommended signal timing improvements, relocating the signal controller box and clarifying laning requirements on the eastbound exit leg. It also recommended staggered work hours, reconfiguring the intersection to 4 legs (difficult because of drainage constraints) and extending the left turn lanes (need to relocate or revise Shonto Blvd to do this). Longer term improvements described on following 2 pages.



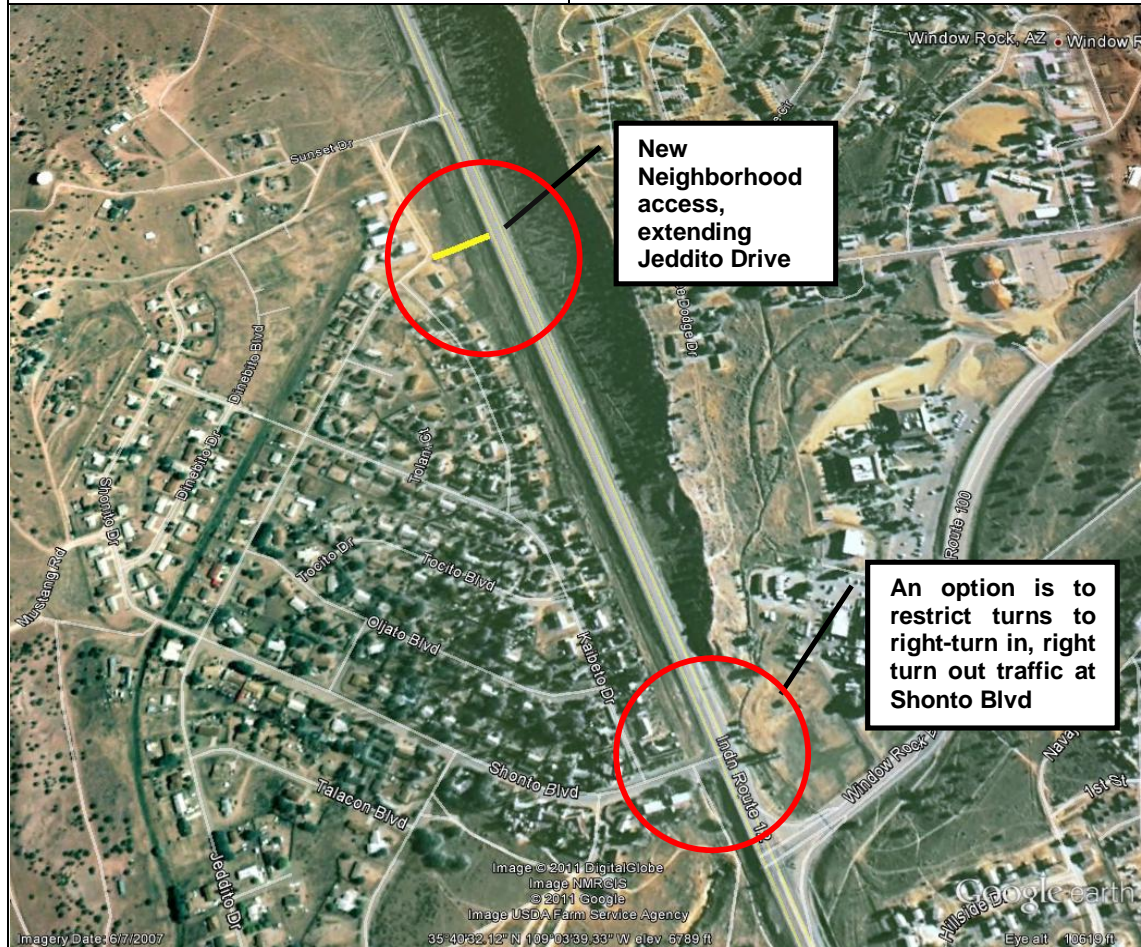
## St. Michaels Chapter Project Information Sheet – N12 / N100 Intersection

<b>Route</b>	N12 / N100 Intersection
<b>Project Location</b>	N12 / N100 Intersection Long Term Improvements
<b>Project Description</b>	Extend turn lanes, convert Shonto Blvd to right turn in, right turn out only access and provide new neighborhood access further north (see next project).
<b>Project Justification</b>	Congestion during peak periods
<b>2011 Cost Estimate</b>	\$0.18M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	This is a long range improvement.



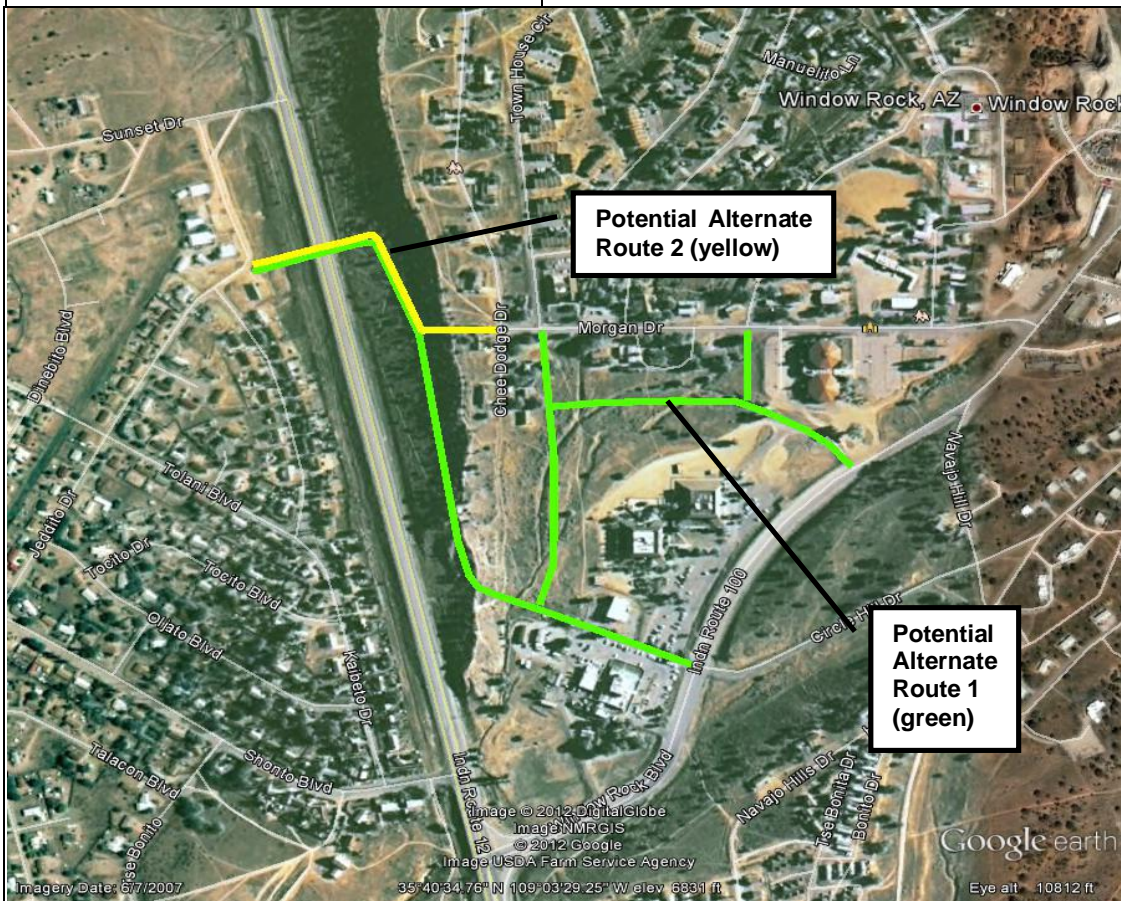
## St. Michaels Chapter Project Information Sheet – Shonto Blvd Neighborhood Access

<b>Route</b>	N12 / Jeddito Drive and N12 / Shonto Blvd. Intersection Construction- Road
<b>Project Location</b>	N12 / Jeddito Drive and N12 / Shonto Blvd.
<b>Project Description</b>	Extend Jeddito Drive to N12 to provide new access to neighborhood, 0.10 miles and restrict turns from N12 at Shonto Blvd to right turn in, right turn out turns.
<b>Project Justification</b>	Moving the main neighborhood access further north would reduce congestion that occurs between N12/Shonto Blvd and N12/N100.
<b>2011 Cost Estimate</b>	\$0.65M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	Costs assume a new traffic signal at new access with N12. Another option is to move the access to Sunset Drive.



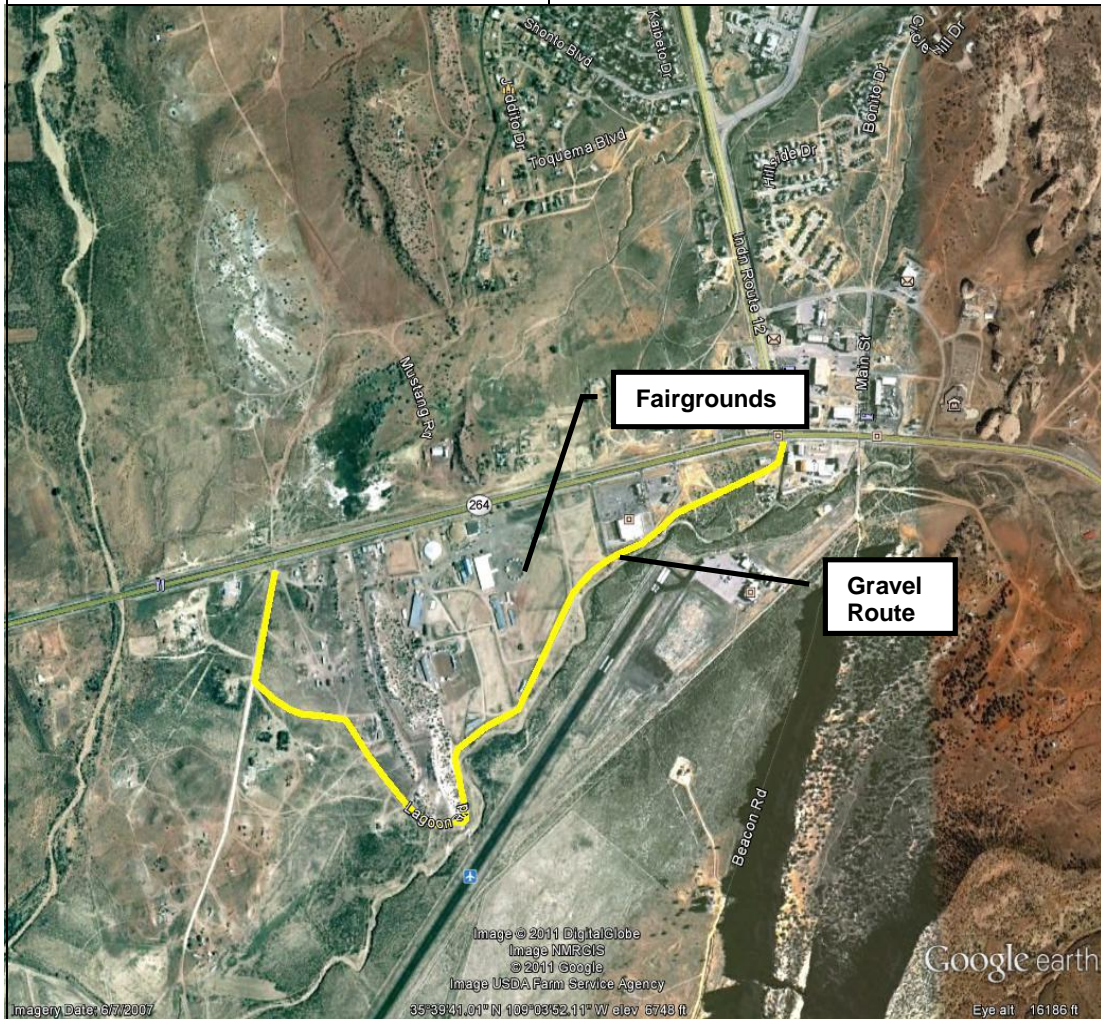
## St. Michaels Chapter Project Information Sheet – Alternate Route to Government Area

<b>Route</b>	New road connection - alternate route to N100
<b>Project Location</b>	Alternative 1 or 2 to be determined by cost and feasibility.
<b>Project Description</b>	Provide alternate route for emergency service providers, and for the government area.
<b>Project Justification</b>	Emergency service providers need an alternate route, particularly during peak periods, when N100 is congested. An alternate route will also reduce peak period congestion.
<b>2011 Cost Estimate</b>	To be determined, depending on specific location. A Feasibility Study is required initially to determine pro's and con's and design. Study cost approximately \$0.10M.
<b>Potential funding sources</b>	Road Design Construction - IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	Topographic constraints and ROW issues.



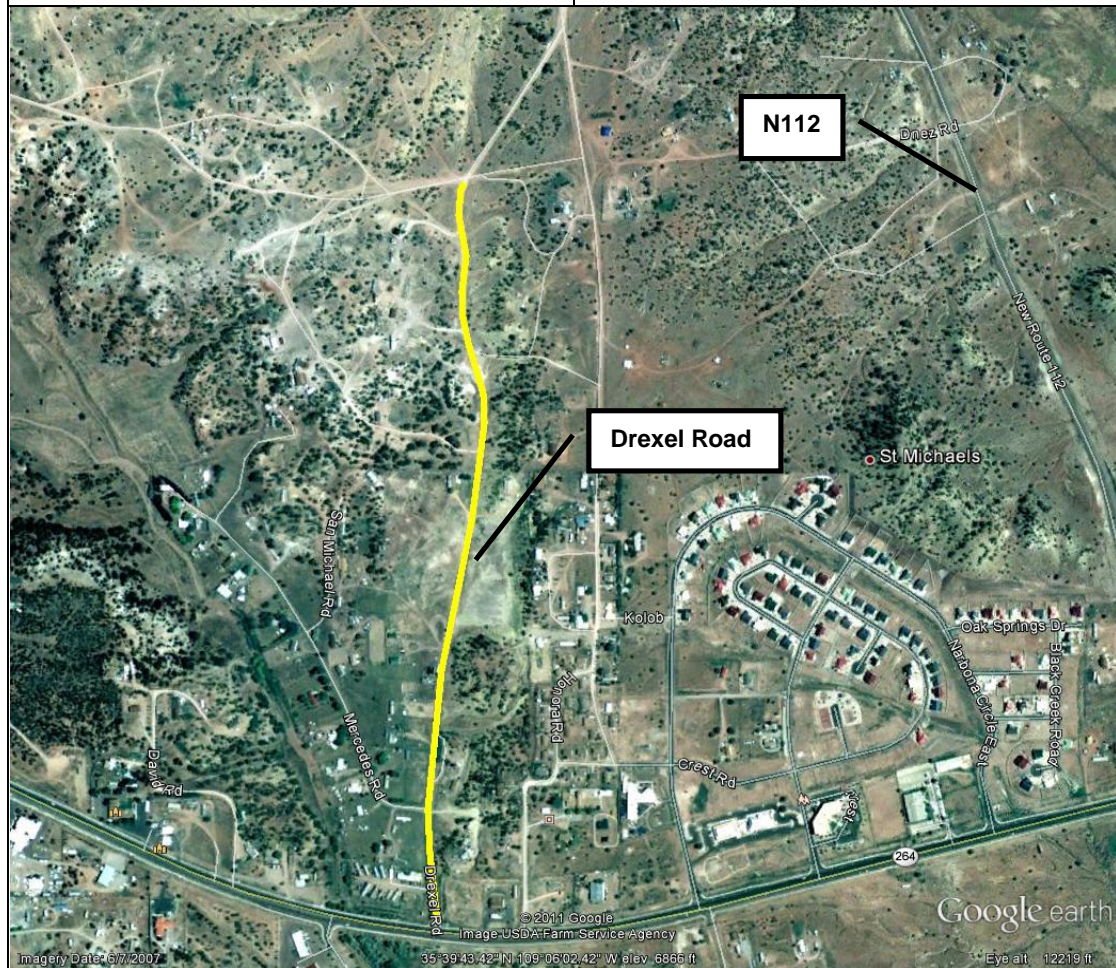
## St. Michaels Chapter Project Information Sheet – Pave Fairgrounds Access Road

<b>Route</b>	Gravel road south of Fairgrounds
<b>Project Location</b>	A 1.7 miles gravel road between N12 and SR 264
<b>Project Description</b>	Construct paved road connection, 1.7 miles.
<b>Project Justification</b>	A paved road connection will provide better access to the fairground and residential areas and provide emergency access during the Navajo Nation Fair.
<b>2011 Cost Estimate</b>	\$2.65M
<b>Funding Sources</b>	Construction- IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program
<b>Comments</b>	Not Programmed



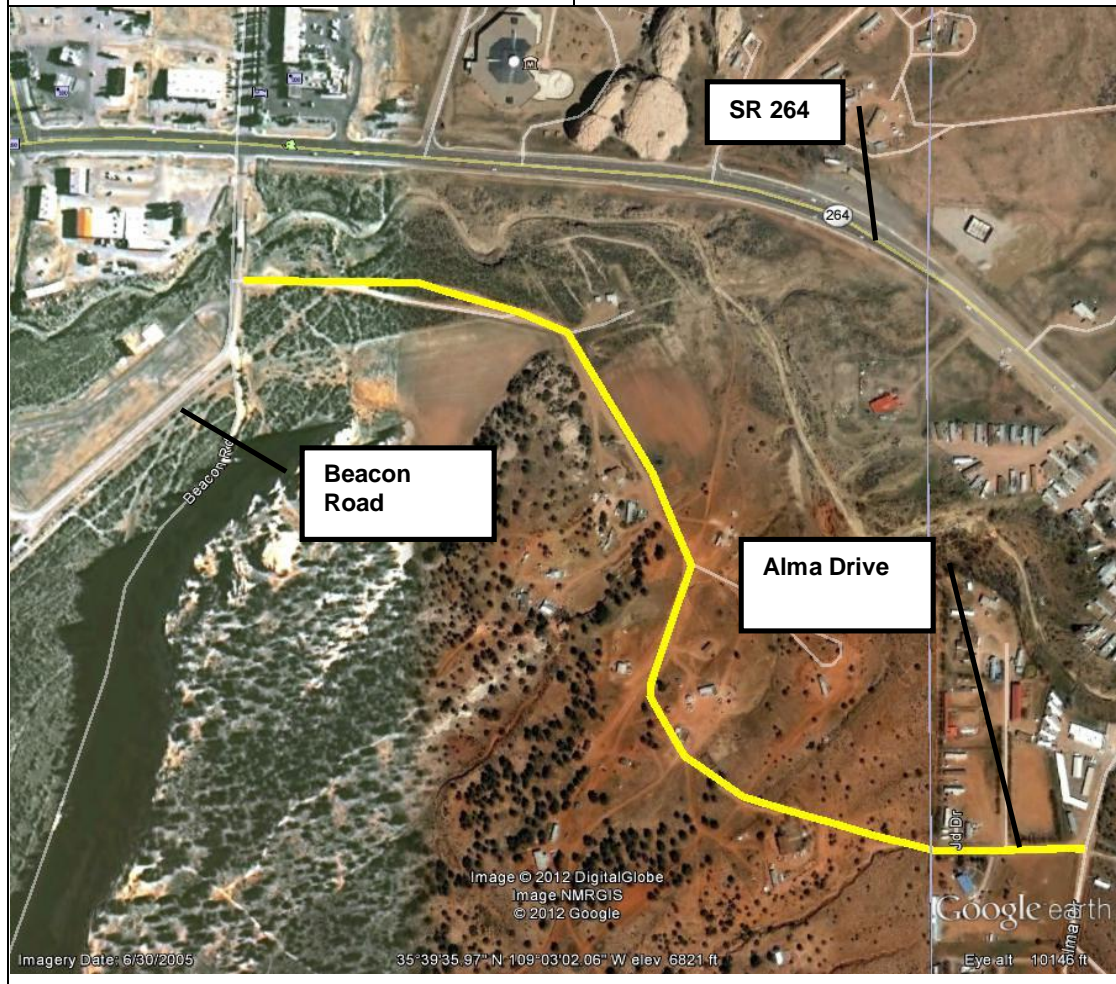
## St. Michaels Chapter Project Information Sheet – Drexel Road Gravel Paving / Connection

<b>Route</b>	New gravel road connection and gravel paving of Drexel Road
<b>Project Description</b>	Grade, drain and provide gravel paving, 0.80 miles
<b>Project Justification</b>	A continuous and upgraded Drexel Road will provide north-south access and provide better emergency access and detour during the Navajo Nation Fair.
<b>2011 Cost Estimate</b>	\$0.74M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	A section of Drexel Rd. is currently blocked off.



## St. Michaels Chapter Project Information Sheet – Unnamed Road Gravel Paving / Connection

<b>Route</b>	New gravel road connection and gravel paving of unnamed road connection between Beacon Road and Alma Drive
<b>Project Description</b>	Grade, drain and provide gravel paving, 0.81 miles.
<b>Project Justification</b>	This road connection will provide better emergency access and detour during the Navajo Nation Fair.
<b>2011 Cost Estimate</b>	\$0.75M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	Alma Drive is in New Mexico.

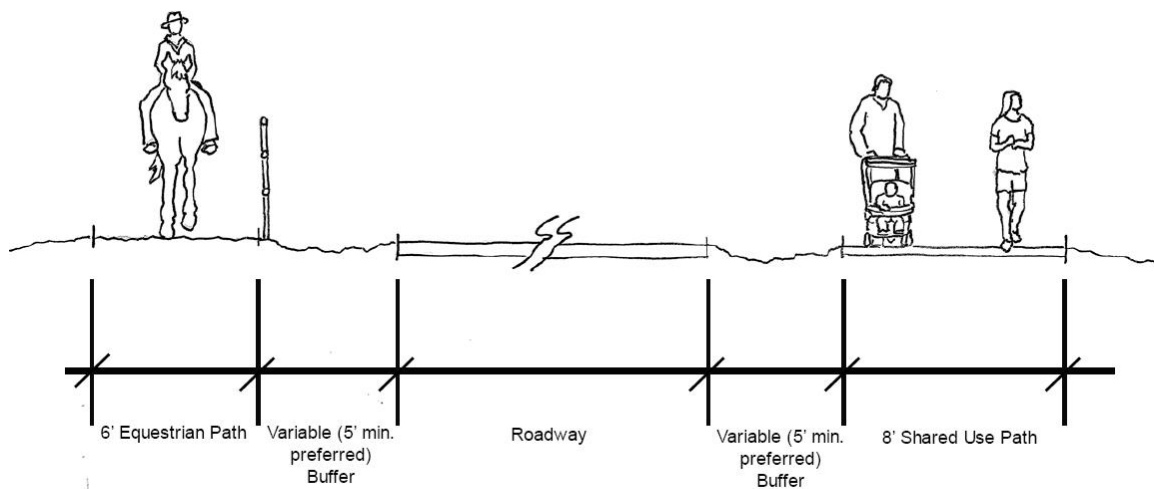


## 5.2 Pedestrian, Bicycle and Trail Projects

Projects in the St. Michaels and Window Rock area were developed to address the need for sidewalks, trails, and bicycle facilities. Providing more options to travel without using a motor vehicle will reduce household costs, improve health, and reduce air pollution. Proposed projects are summarized in **Table 26** and shown graphically in **Figure 29**.

Brief overviews of the types of projects proposed are discussed below.

Shared Use Path – Paved shared-use paths are designed to accommodate pedestrians, slow-speed bicyclists (e.g., children riding to and from school), and wheeled devices such as strollers. Bicyclists travelling at higher speeds (e.g., in excess of 10 to 15 mph) should not utilize the paved shared-use path, but should utilize the adjacent roadway and paved shoulder or bike lane. Signage or pavement markings on the shared-use paths may be considered, such as speed limit signs or pavement markings that encourage bicycles to maintain low speeds. An 8-foot wide shared use path is recommended to accommodate multiple types of users.



*Example of Shared Use Path in Doney Park, Arizona*

Equestrian Trails –To address the needs of the equestrian community, a network of soft surface paths are proposed near Black Creek and the Tse Bonito Wash. The soft surface paths are proposed to consist of surface materials suitable for horses. Paved asphalt pathways are not suitable for equestrian use, since they provide little traction for horseshoes causing horses to slip. Allowing other users to utilize the equestrian paths is undesirable, particularly the mixing of bicyclists and equestrians. The AASHTO Bicycle Guide states that a common problem is that bicyclists are often not aware of the need for additional operating space and slower speeds near horses. In addition, horses track mud and debris across the path, and may leave deposits that are unpleasant for bicyclists and pedestrians. A eight-foot wide equestrian path is recommended to accommodate equestrian users.

Sidewalks - Sidewalks are proposed in areas with existing curb and gutter, or in areas where physical features, constrained right-of-way, or access considerations prohibit construction of a shared-use path separated from the roadway. ADOT standard (C-05.20) “typical” sidewalk is five feet wide, which is what is recommended for sidewalk projects on the study area corridors.

Bike Lanes - Bike lanes are proposed on N12 and N112, which are major streets with higher traffic volumes and a speed limit of 25 mph or greater. On these roads, existing shoulders can be marked and signed as bike lanes. Recommended bicycle lane width per the AASHTO Guide is as follows:

- 4 feet (1.2m): minimum width of bike lane on roadways with no curb and gutter
- 5 feet (1.5m): minimum width of bike lane when adjacent to parking, from the face of the curb or guardrail

Both N12 and N112, between SR 264 and N110, have shoulder widths between 5 and 8 feet, according to the IRR Inventory data. Bike lanes should be signed. Bike Lanes Sign (R3-17) and Manual of Uniform Traffic Control Device (MUTCD) (<http://mutcd.fhwa.dot.gov/>) guidance is illustrated as follows.

Per the 2009 MUTCD, Bike Lane signs are not mandatory, but are recommended. Figure 7 is an example of a bike lane signage from the MUTCD.



R3-17

**Figure 29 – MUTCD Bike Lane Sign**

Source: MUTCD Figure 9B-2

**Section 9B.04 Bike Lane Signs and Plaques (R3-17, R3-17aP, R3-17bP)**

**Standard:**

- 01 **The BIKE LANE (R3-17) sign and the R3-17aP and R3-17bP plaques (see Figure 9B-2) shall be used only in conjunction with marked bicycle lanes as described in Section 9C.04.**

**Guidance:**

- 02 *If used, Bike Lane signs and plaques should be used in advance of the upstream end of the bicycle lane, at the downstream end of the bicycle lane, and at periodic intervals along the bicycle lane as determined by engineering judgment based on prevailing speed of bicycle and other traffic, block length, distances from adjacent intersections, and other considerations.*

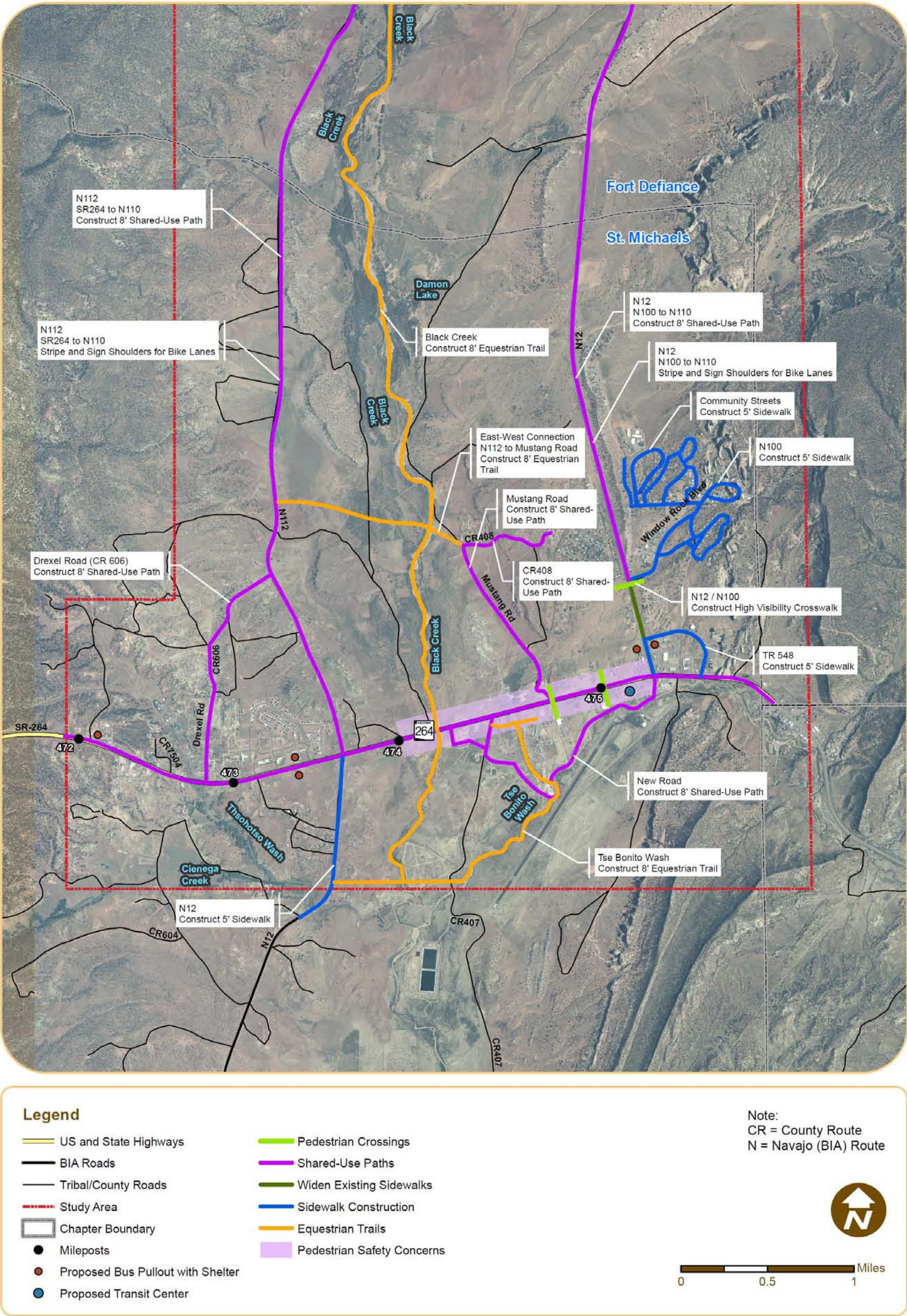


Figure 30 - St. Michaels Chapter Recommended Non-Motorized Projects

**Table 26 – St. Michaels Chapter Pedestrian, Bicycle, and Trail Projects**

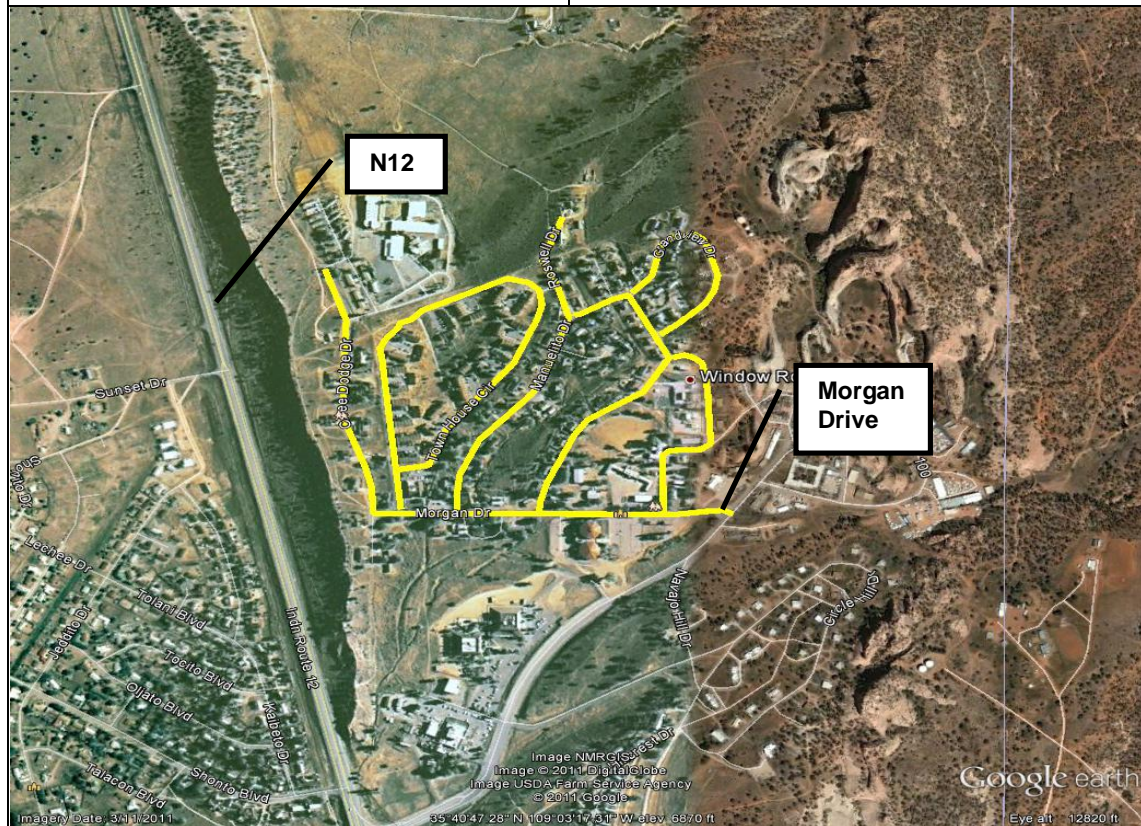
Route Number or Name	Project Name / Description	Length	Construction Type	Estimated Cost (millions)	Additional Information
<b>Sidewalk Construction</b>					
Chee Dodge Drive, Morgan Drive, Town House Circle	Community sidewalk Construction	3.00	5-foot sidewalks	\$0.86	This project could be constructed as part of the proposed repaving project.
N12 South	N12 sidewalk construction, SR264 to St. Michaels School	1.00	5-foot sidewalks	\$0.29	
N100	N100 sidewalk construction	2.26	5-foot sidewalks	\$0.65	This project could be constructed as part of the proposed repaving project .
TR548	Sidewalk construction, TR548 serving Post Office, Navajo Nation Museum	0.54	5-foot sidewalks	\$0.16	
<b>Pedestrian Crossings</b>					
N12/ N100	N12/ N100 pedestrian crosswalk at traffic signal	N/A	Striping and signage – high visibility crosswalk	\$0.002	Phase in coordination with traffic signal, signal timing, and striping upgrade.
<b>Shared Use Paths</b>					
N12	N12 Shared use path construction, N100 to N110	4.40	8'-shared use path	\$3.03	Construct as part of roadway paving project.
N112	N112 Shared use path construction, SR 264 to N110	4.43	8'-shared use path	\$3.05	Construct as part of roadway paving project.
Drexel Road (CR606)	Shared use path construction, SR 264 to Drexel Rd (CR606)	0.80	8'-shared use path	\$0.28	Construct as part of roadway paving project.
Mustang Road / CR408	Shared use path construction, N12 to SR 264	1.60	8'-shared use path	\$0.55	Construct as part of roadway paving project.
New road south of Fairgrounds	Shared use path construction, south of fairgrounds	1.70	8'-shared use path	\$0.59	Construct as part of paving project.

**Table 26 - St. Michaels Chapter Pedestrian, Bicycle, and Trail Projects  
(Continued)**

Route Number or Name	Project Name / Description	Length	Construction Type	Estimated Cost (millions)	Additional Information
<b>Equestrian Trails</b>					
Black Creek Wash Equestrian Path	Construction of a soft path	12.20	8-foot soft path	\$1.81	
Tse Bonito Wash Equestrian Path	Construction of a soft path	2.41	8-foot soft path	\$0.36	
East-west equestrian path connection	Construction of a soft path, Mustang Road to N112	1.28	8-foot soft path	\$0.18	
<b>Bike Lanes</b>					
N12	SR 264 to N110	5.00	Stripe and sign bike lane	\$0.04	
N112	SR 264 to N110	6.25	Stripe and sign bike lane	\$0.05	

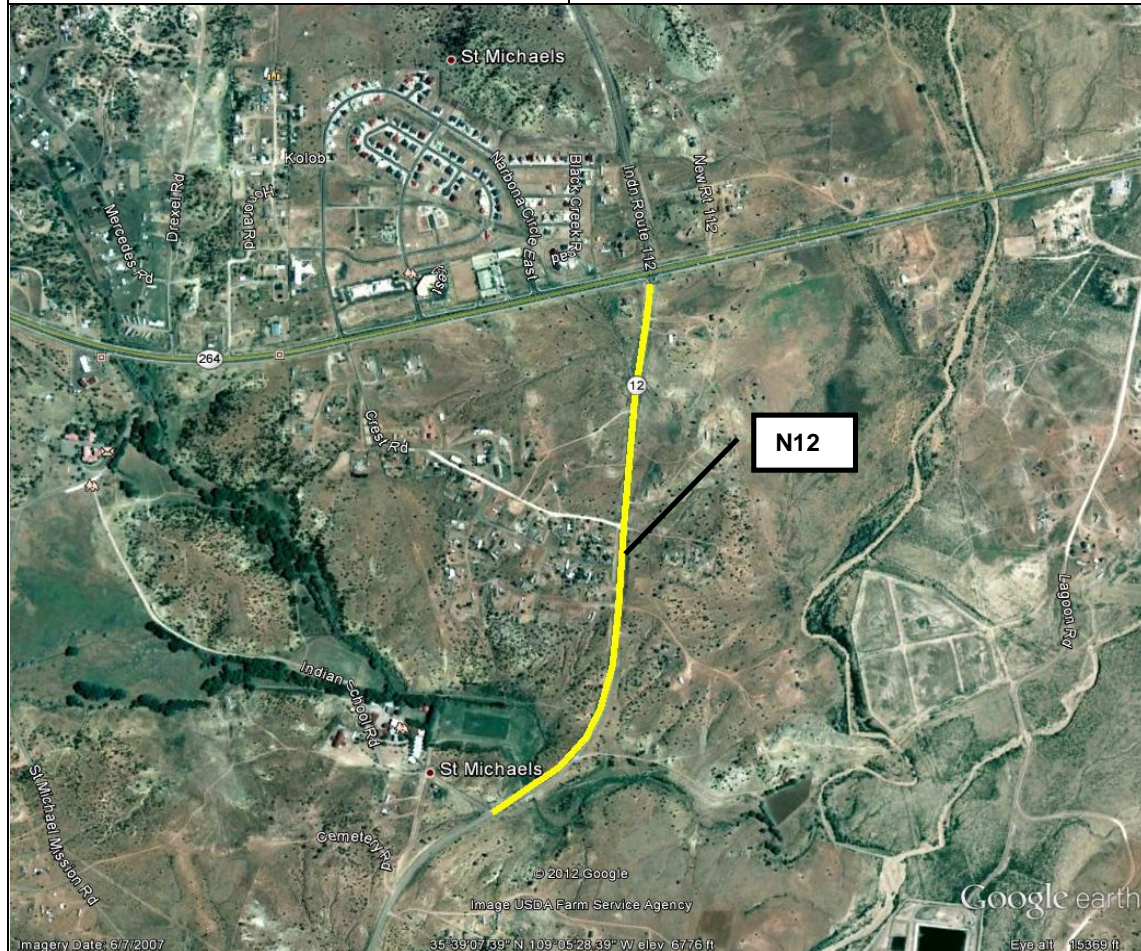
## St. Michaels Chapter Project Information Sheet – Morgan Drive Area Sidewalk Construction

<b>Route</b>	Morgan Drive, Chee Dodge Drive, Town House Circle, Manuelito Drive, Tribal Hill Drive, Roswell Drive
<b>Project Location</b>	See above
<b>Project Description</b>	Construct 5-foot sidewalks on both sides of streets, 3.0 miles
<b>Project Justification</b>	These roads serve residences, offices, and the Window Rock Elementary School.
<b>2011 Cost Estimate</b>	\$0.86M
<b>Potential Funding Sources</b>	Safe Routes to School Transportation Enhancement Grant Indian Highway Safety Program
<b>Comments</b>	This project is not programmed.



## St. Michaels Chapter Project Information Sheet – N12 Sidewalk Construction

<b>Route</b>	N12
<b>Project Location</b>	N12, SR 264 south 1.0 mile (to St. Michaels School)
<b>Project Description</b>	Construct 5-foot sidewalks on both sides of streets, 1.0 mile.
<b>Project Justification</b>	These roads serve the community and St. Michaels Chapter House - there are limited shoulders and areas for walking in this area.
<b>2011 Cost Estimate</b>	\$0.29M
<b>Potential Funding Sources</b>	Transportation Enhancements Program Indian Highway Safety Program Safe Routes to School
<b>Comments</b>	This project is not programmed.



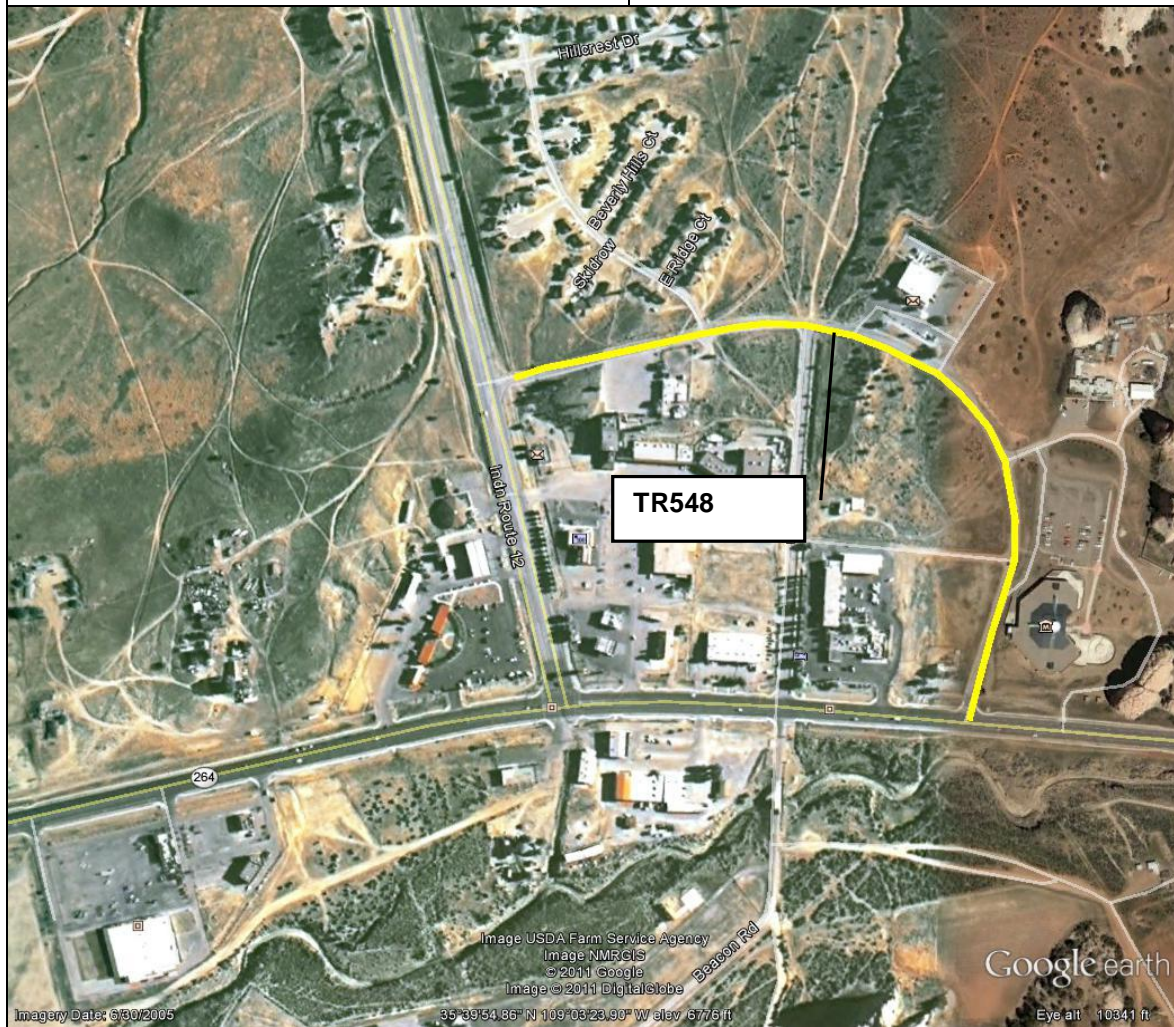
## St. Michaels Chapter Project Information Sheet – N100 Sidewalk Construction

<b>Route</b>	N100
<b>Project Location</b>	N100, Circle Hill Drive, Navajo Drive
<b>Project Description</b>	Construct sidewalks throughout this area of Navajo government offices, 2.26 miles (assumes sidewalks both sides).
<b>Project Justification</b>	This area is a major employment center in Window Rock/St. Michaels area and many persons walk between buildings and from residential areas to work.
<b>2011 Cost Estimate</b>	\$0.65M
<b>Funding Sources</b>	Transportation Enhancement Grant Job Access / Reverse Commute Program Indian Highway Safety Program
<b>Comments</b>	



## St. Michaels Chapter Project Information Sheet – TR548 Sidewalk Construction

<b>Route</b>	TR548
<b>Project Location</b>	TR548 between SR 264 and N12 north, 0.54 miles
<b>Project Description</b>	Construct sidewalks on both sides of streets, 0.54 miles.
<b>Project Justification</b>	Sidewalks in this area will serve persons walking to the Post Office and Navajo Nation Museum.
<b>2011 Cost Estimate</b>	\$0.16M
<b>Funding Sources</b>	Transportation Enhancement Grant Indian Highway Safety Program
<b>Comments</b>	



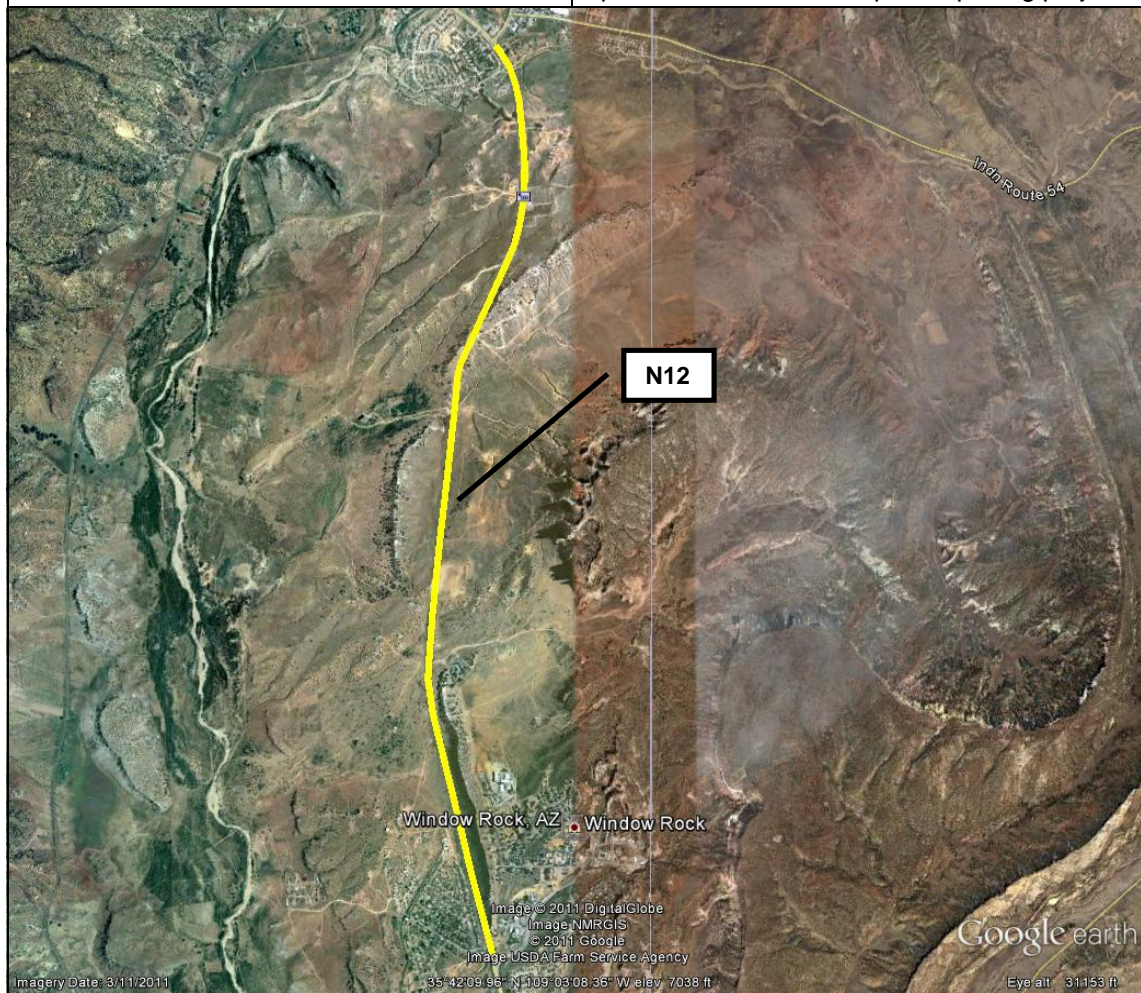
## St. Michaels Chapter Project Information Sheet – N12/ N100 High Visibility Pedestrian Crossing

<b>Route</b>	N12
<b>Project Location</b>	N12/N100 Intersection
<b>Project Description</b>	Construct high visibility pedestrian crosswalk
<b>Project Justification</b>	A high visibility pedestrian crosswalk will provide a safer crossing at this busy intersection.
<b>2011 Cost Estimate</b>	\$0.002M
<b>Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program
<b>Comments</b>	This project can be constructed in conjunction with intersection improvements.



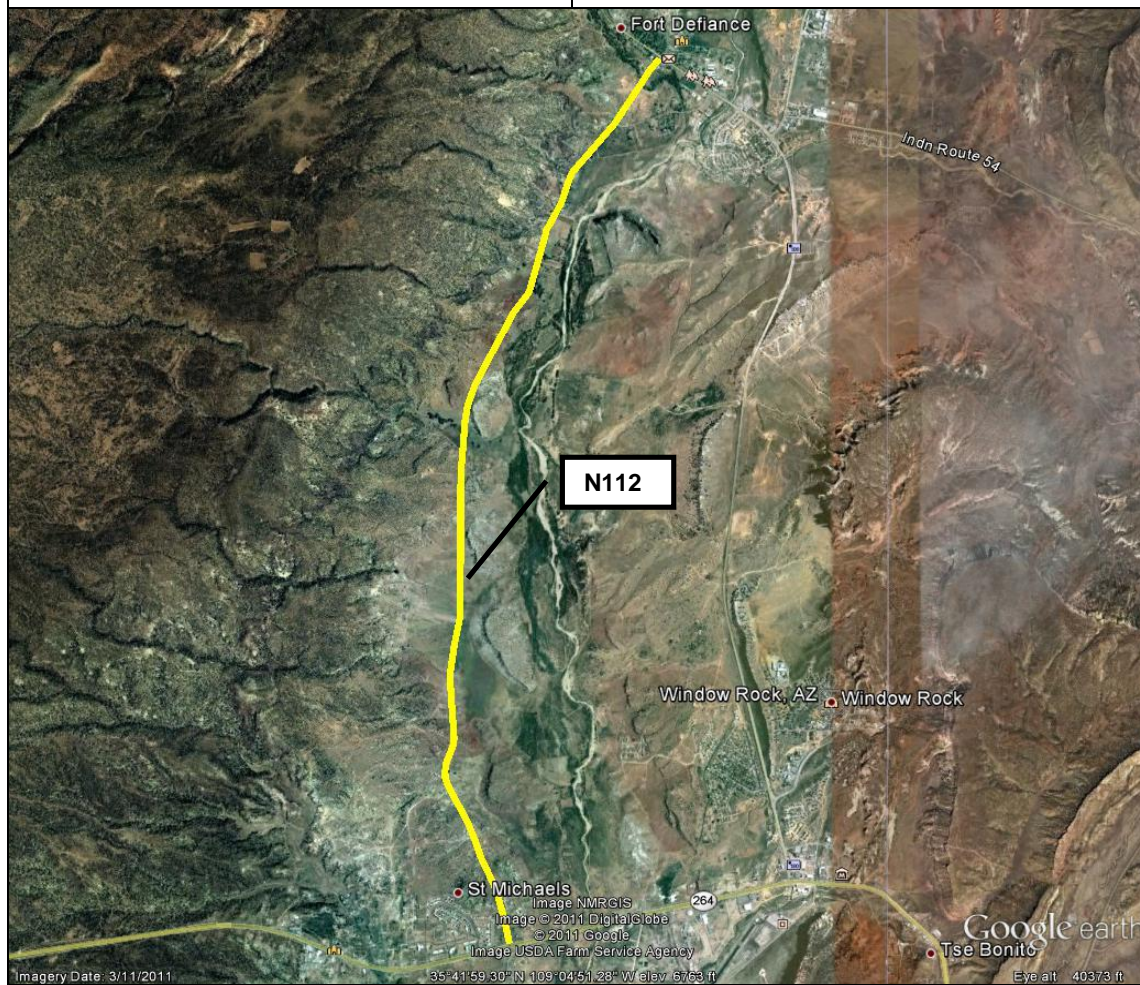
## St. Michaels Chapter Project Information Sheet – N12 Shared Use Path

<b>Route</b>	N12
<b>Project Location</b>	N100 to N110, 4.4 miles
<b>Project Description</b>	Construct 8 foot shared use path on both sides of street.
<b>Project Justification</b>	A shared use path in this area will provide a wider walking and bicycle riding area that connects Window Rock and Fort Defiance.
<b>2011 Cost Estimate</b>	\$3.03M
<b>Potential Funding Sources</b>	National Scenic Byway Program Transportation Enhancement Program Indian Highway Safety Program State and Community Highway Safety Grant Program
<b>Comments</b>	N12 is part of the Dine Tah Scenic Byway. An option is to construct as part of paving project.



## St. Michaels Chapter Project Information Sheet – N112 Shared Use Path

<b>Route</b>	N112
<b>Project Location</b>	N112, SR 264 to N110, 4.43 miles
<b>Project Description</b>	Construct 8' wide shared use path on both sides of street
<b>Project Justification</b>	A shared use path in this area will provide a safe walking and riding area that connects Window Rock and Fort Defiance.
<b>2011 Cost Estimate</b>	\$3.05M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant Indian Highway Safety Program State and Community Highway Safety Grant Program
<b>Comments</b>	



## St. Michaels Chapter Project Information Sheet – Drexel Road (CR606) Shared Use Path

<b>Route</b>	Drexel Road (CR606)
<b>Project Location</b>	Drexel Road(CR606), SR 264 to Dnez Road, 0.80 miles
<b>Project Description</b>	Construct 8' wide shared use path
<b>Project Justification</b>	Provide a north-south path linking residences to businesses on SR 264.
<b>2011 Cost Estimate</b>	\$0.28M
<b>Funding Sources</b>	Community Development Block Grant Indian Highway Safety Program State and Community Highway Safety Grant Program
<b>Comments</b>	Could be phased with gravel paving project.



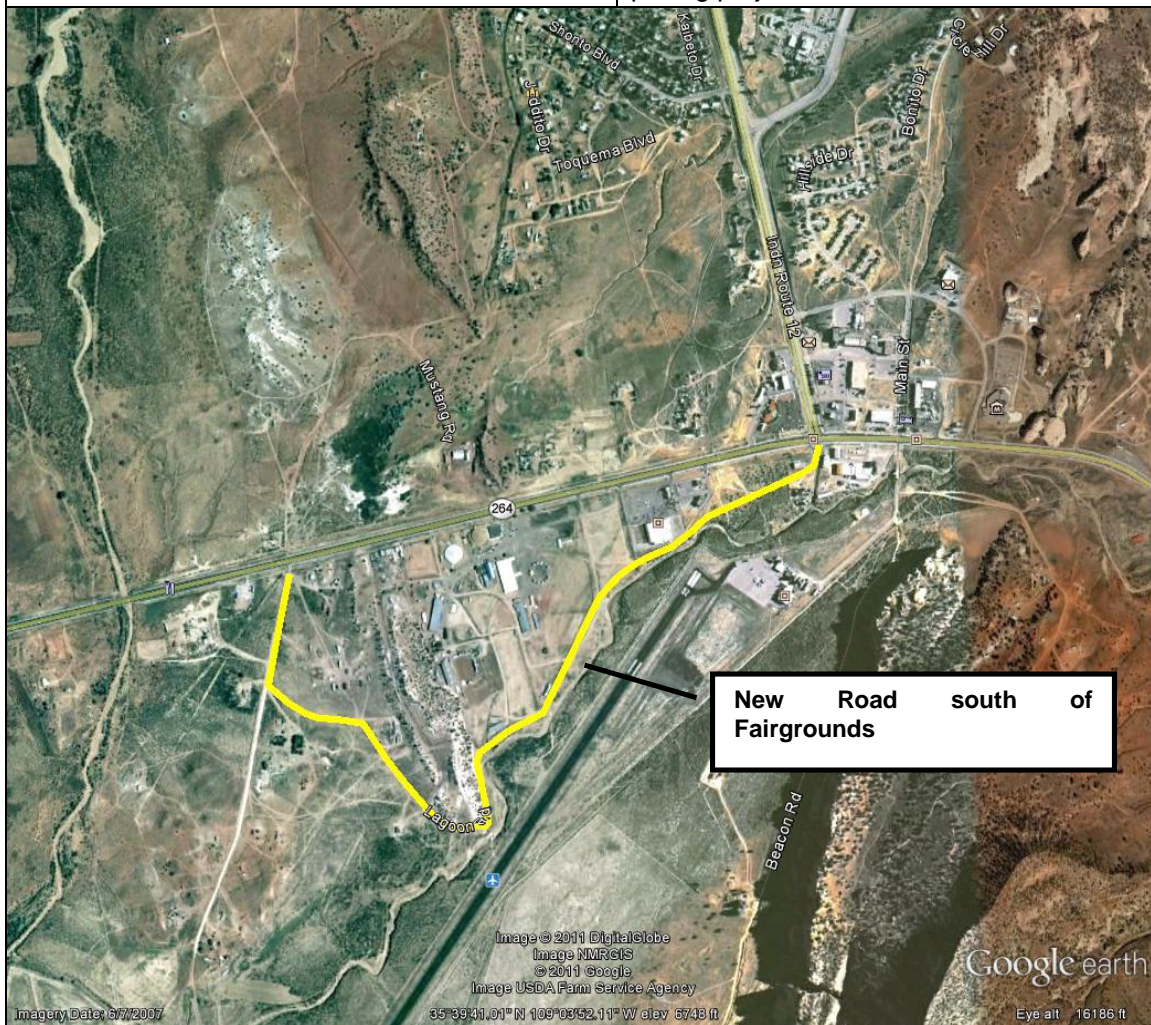
## St. Michaels Chapter Project Information Sheet – Mustang Road / CR 408 Shared Use Path

<b>Route</b>	Mustang Road / CR 408
<b>Project Location</b>	N12 to SR 264, 1.6 miles
<b>Project Description</b>	Construct 8'-wide shared use path
<b>Project Justification</b>	A shared use path will link residences and businesses on SR 264.
<b>2011 Cost Estimate</b>	\$0.55M
<b>Potential Funding Sources</b>	Indian Highway Safety Program State and Community Highway Safety Grant Program
<b>Comments</b>	Can be phased with proposed road improvement project.



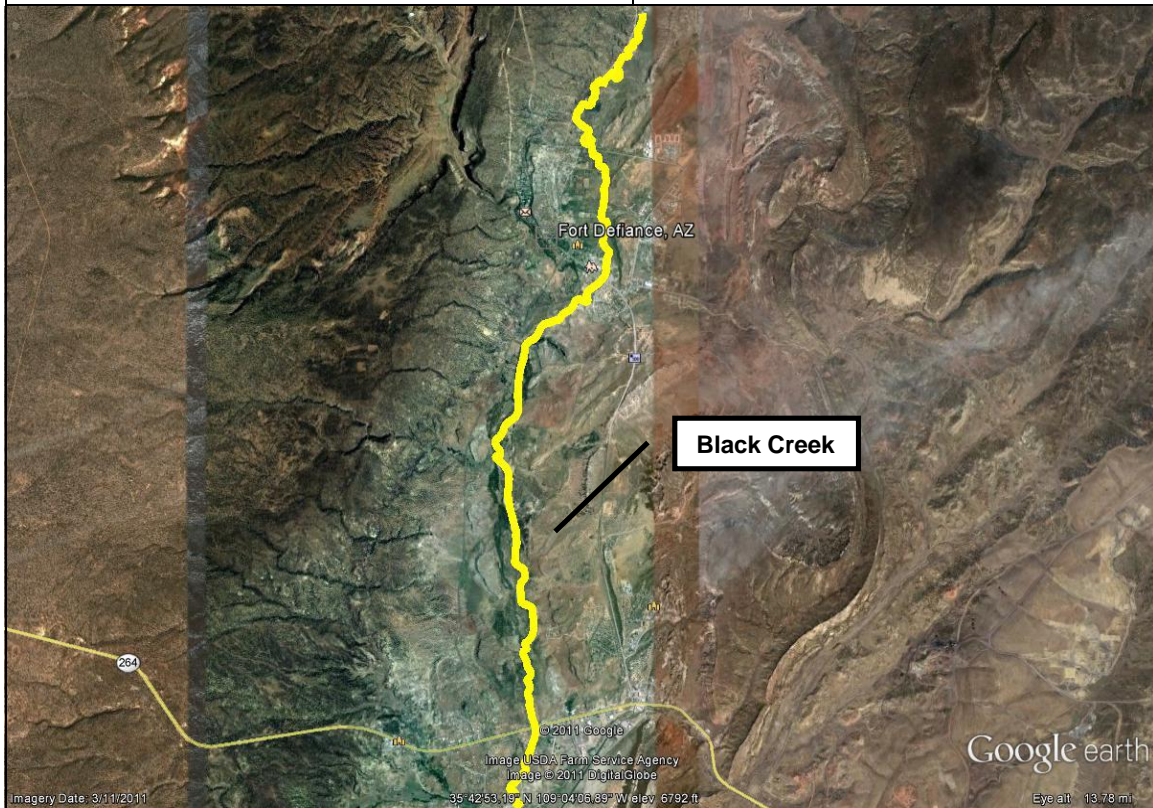
## St. Michaels Chapter Project Information Sheet – South Fairgrounds Road Shared Use Path

<b>Route</b>	New road connection south of fairgrounds
<b>Project Location</b>	New road connection between N12 and SR 264
<b>Project Description</b>	Construct 8' wide shared use path
<b>Project Justification</b>	A shared use path will encourage walking and bicycling.
<b>2011 Cost Estimate</b>	\$0.59M
<b>Funding Sources</b>	Indian Highway Safety Program State and Community Highway Safety Grant Program
<b>Comments</b>	Can be constructed in coordination with paving project.



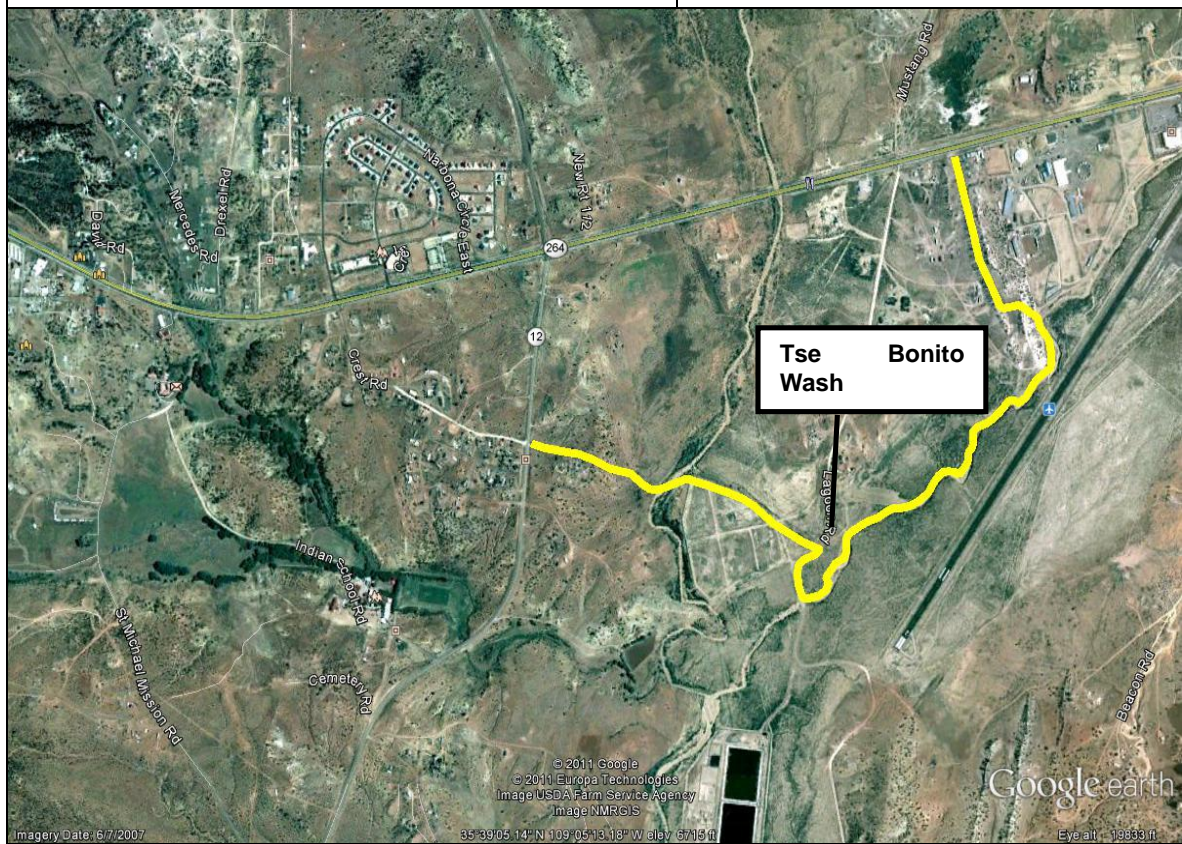
## St. Michaels Chapter Project Information Sheet – Black Creek Wash Equestrian Path

<b>Route</b>	Black Creek
<b>Project Location</b>	Black Creek
<b>Project Description</b>	8-foot earth path on one side of wash, 12.2 miles.
<b>Project Justification</b>	A path along the Black Creek will create more alternatives to travel between Window Rock and Fort Defiance.
<b>2011 Cost Estimate</b>	\$1.81M
<b>Funding Sources</b>	Transportation Enhancement Grant National Recreational Trails Program Southwest Conservation Corps (resource for labor to construct path)
<b>Comments</b>	Not programmed



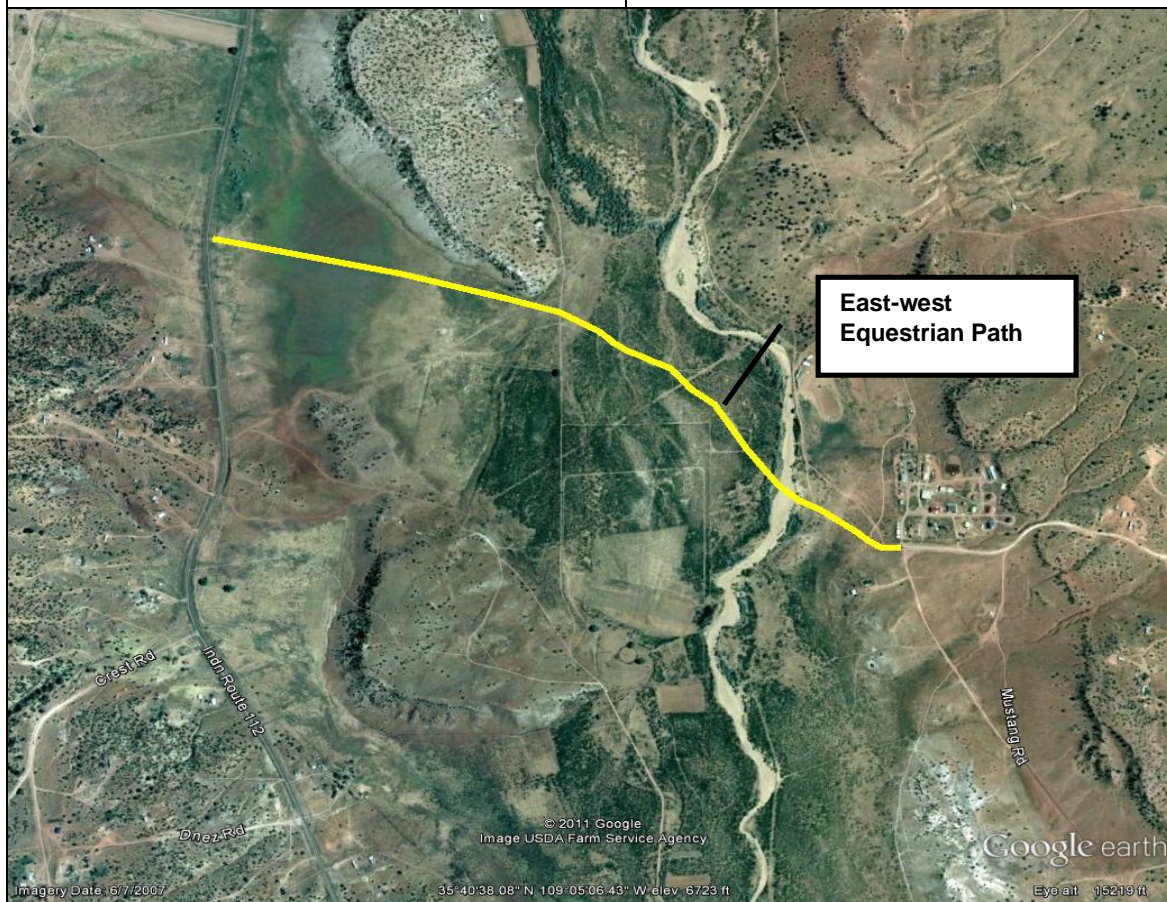
## St. Michaels Chapter Project Information Sheet – Tse Bonito Wash Equestrian Path

<b>Route</b>	Tse Bonito Wash
<b>Project Location</b>	Tse Bonito Wash
<b>Project Description</b>	8-foot equestrian path on one side of wash, with connection to N12 (south) 2.41-miles.
<b>Project Justification</b>	This equestrian path will provide a safer way for horse riders (and pedestrians) to travel between SR 264 and N12 south.
<b>2011 Cost Estimate</b>	\$0.36M
<b>Funding Sources</b>	Transportation Enhancement Grant National Recreational Trails Program Southwest Conservation Corps (resource for labor to construct path)
<b>Comments</b>	This equestrian path would intersect a planned equestrian path along the Black Wash.



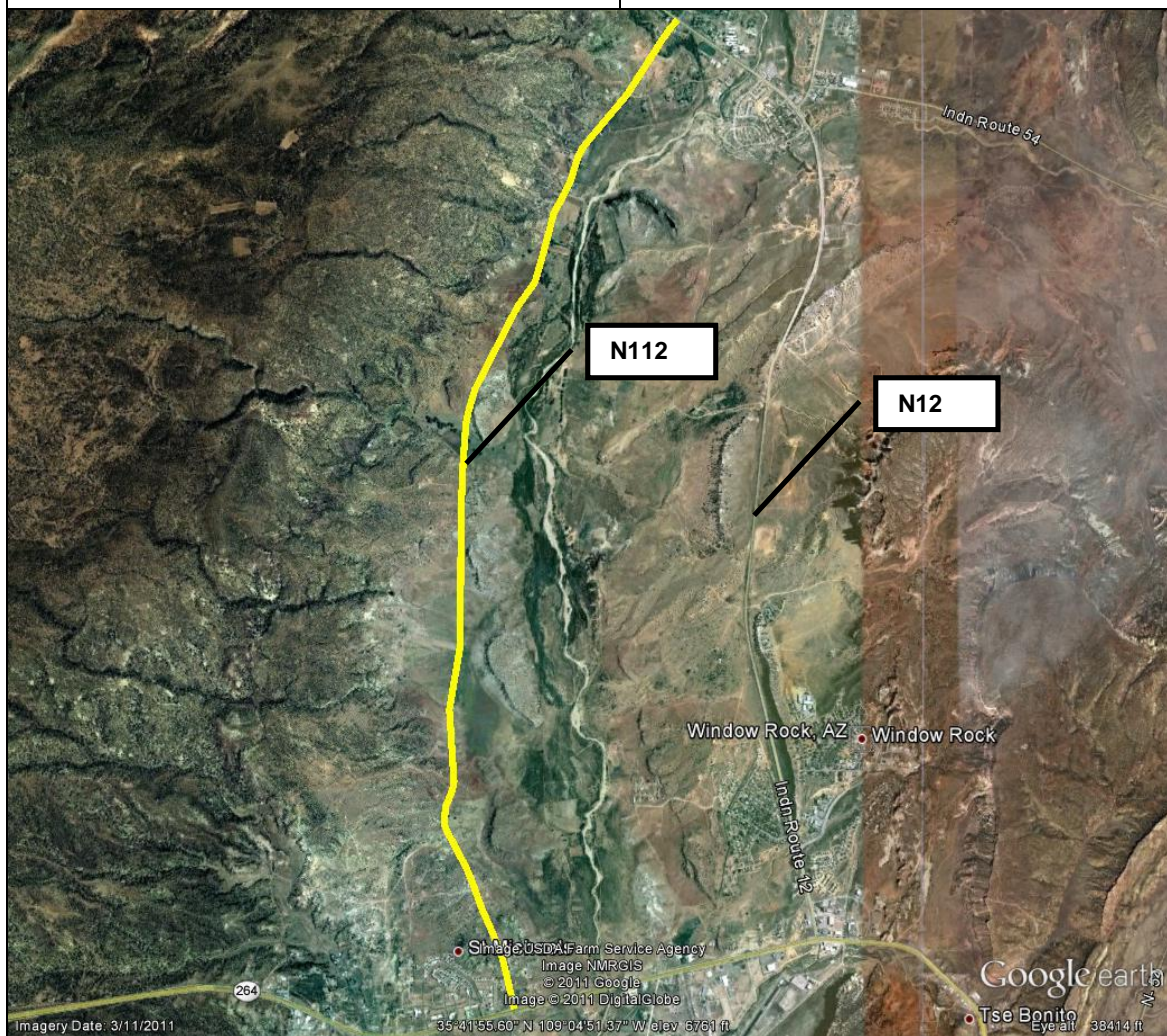
## St. Michaels Chapter Project Information Sheet – East-West Equestrian Path

<b>Route</b>	East-west equestrian path
<b>Project Location</b>	Mustang Road to N112, 1.28 miles
<b>Project Description</b>	8-foot equestrian path
<b>Project Justification</b>	This equestrian path will provide a safer way for horse riders (and pedestrians) to travel between SR 264 and N12 south.
<b>2011 Cost Estimate</b>	\$0.18M
<b>Funding Sources</b>	Transportation Enhancement Grant National Recreational Trails Program Southwest Conservation Corps (resource for labor to construct path)
<b>Comments</b>	This equestrian path would intersect a planned equestrian path along the Black Creek.



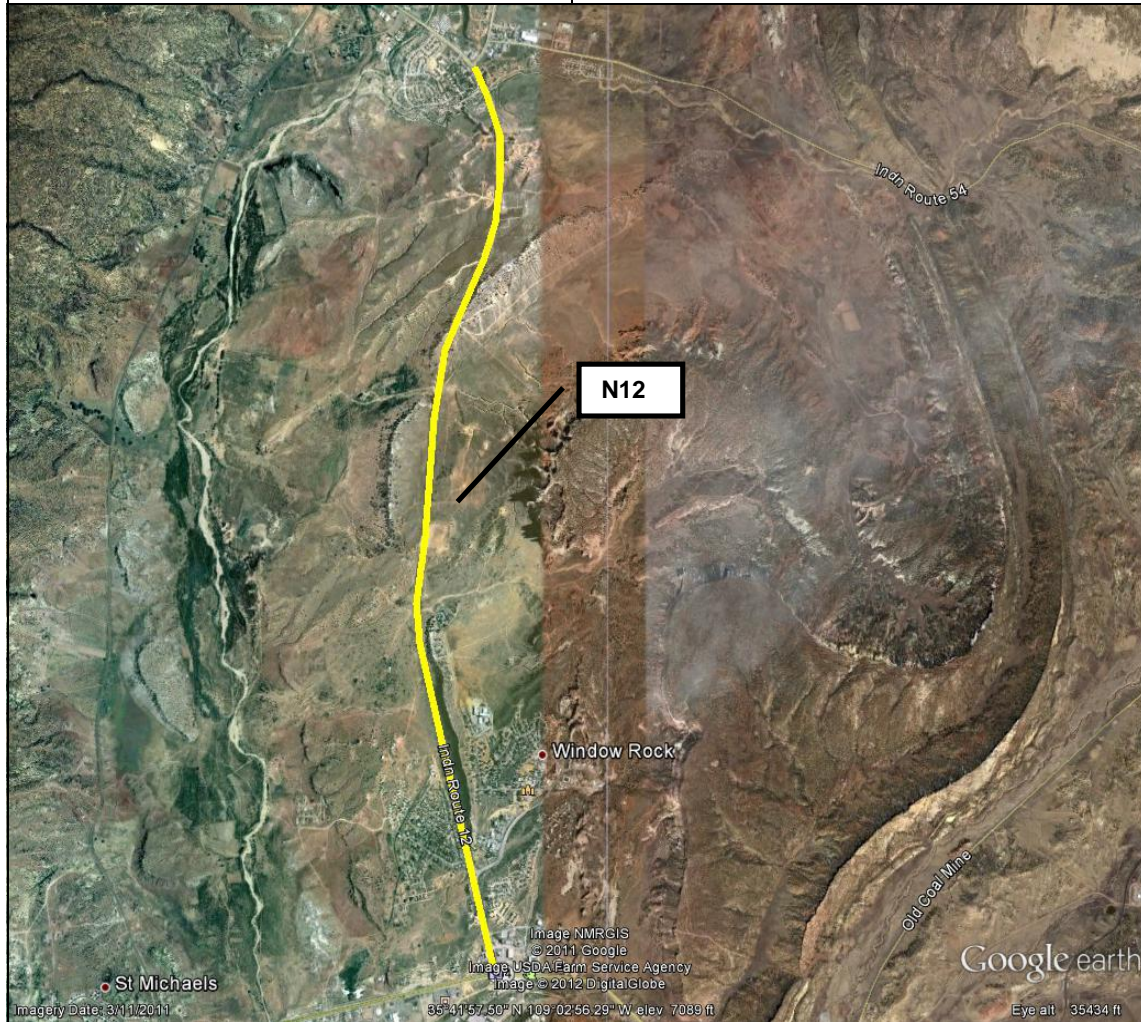
## St. Michaels Chapter Project Information Sheet – N112 Bike Lane

Route	N112
Project Location	N112, SR 264 to N110
Project Description	Stripe and sign bike lane, 6.25 miles.
Project Justification	A bike lane on this road will provide the backbone of a bike route system.
2011 Cost Estimate	\$0.05M
Potential Funding Sources	Transportation Enhancement Grant
Comments	



## St. Michaels Chapter Project Information Sheet – N12 Bike Lane

<b>Route</b>	N12
<b>Project Location</b>	N12, SR 264 to N110
<b>Project Description</b>	Stripe and sign bike lane, 5 miles.
<b>Project Justification</b>	A bike lane on this road will provide the backbone of a bike route system.
<b>2011 Cost Estimate</b>	\$0.04M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	Existing shoulder width will be sufficient for striping bike lanes.

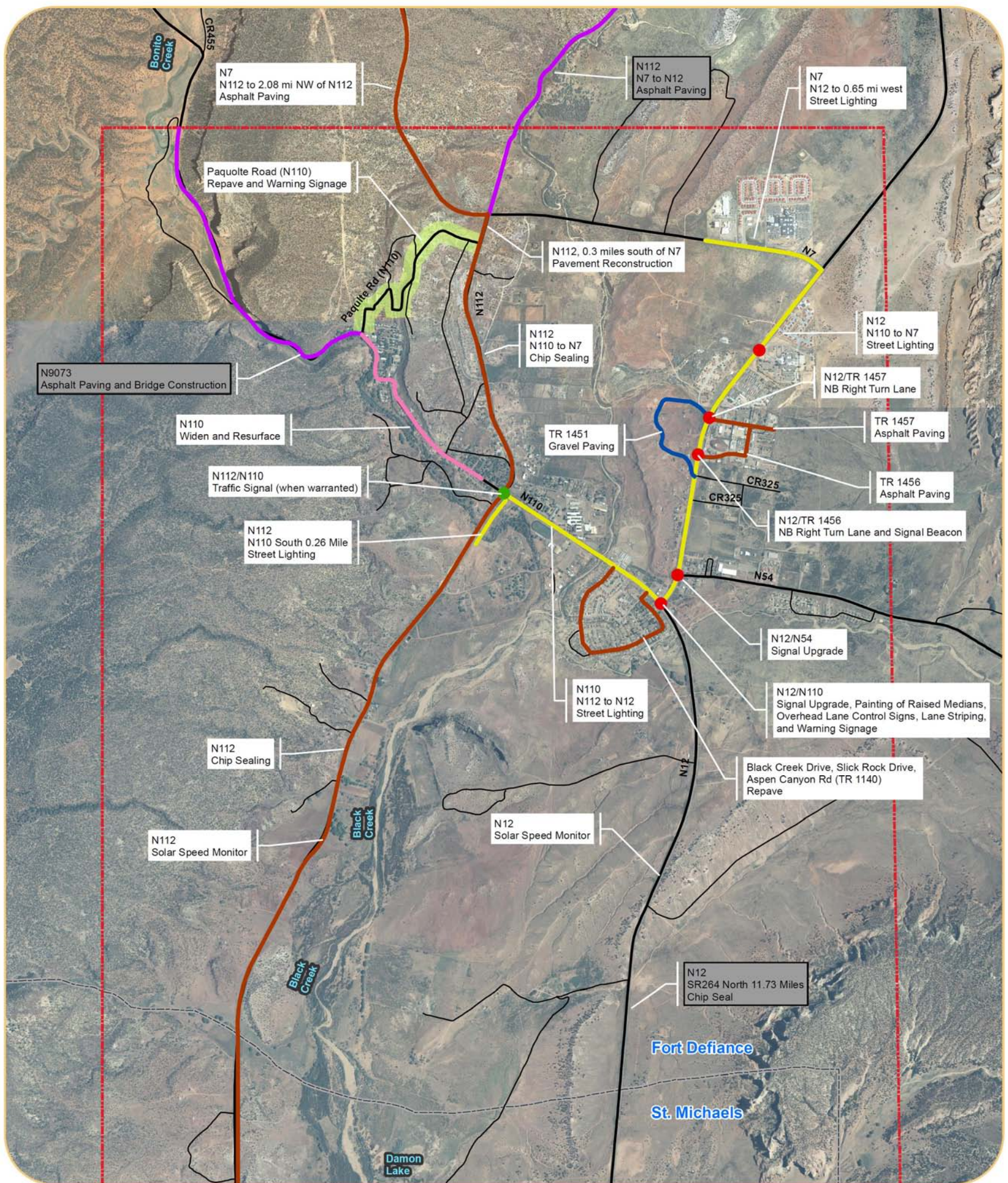


## 6 FORT DEFIANCE CHAPTER RECOMMENDED TRANSPORTATION PROJECTS

### 6.1 Roadway Projects

The community of Fort Defiance serves as a major center for education, health, and governmental operations. The Fort Defiance Indian Hospital is a state of the art rural hospital that opened in August 2002. Currently the facility employs over 850 staff members. Adjacent to the hospital is a 193-unit government housing area. Although most of the Fort Defiance Chapter is situated in the Arizona side of the Navajo Nation, a portion does extend into New Mexico. The recommended projects focus on the area within Arizona.

Recommended roadway projects for the Fort Defiance Chapter area are summarized in **Table 27** and shown graphically in **Figure 31**. The project sheets that follow provide additional information on the location of each project, costs, and potential funding sources.



**Legend**

- |   |                                       |                              |
|---|---------------------------------------|------------------------------|
| — US and State Highways                                 | — Construct Street Lighting           | — Reconstruct Curves         |
| — BIA Roads   | — Resurface Earth Road to Gravel Road | ● Intersection Improvements  |
| — Tribal/County Roads                                   | — Resurface Earth Road to Paved Road  | ● Intersection Safety Audits |
| --- Study Area  | — Repave Existing Asphalt Road        |                              |
| □ Chapter Boundary                                      | — Widen from 2 to 3 Lanes             |                              |
| ● Mileposts   |                                       |                              |
| Programmed in Tribal Transportation Improvement Program |                                       |                              |

Note:  
CR = County Route  
N = Navajo (BIA) Route



0 0.5 1 Miles

Figure 31 - Fort Defiance Chapter Recommended Roadway Projects

**Table 27 - Tribal Roadway and Intersection Projects - Fort Defiance Chapter**

Route Number or Name	Project Number*	Project Limits	Project Description	Comment^	Length (miles)	Estimated Cost (millions)	Additional Information
<b>Roadway Projects</b>							
N7	None	N12 to 0.65 miles west	Street lighting	A, B, C, D	0.65	\$0.26	Not programmed
N7	None	N112 to 2.08 miles NW of N112 junction	Grade, drain, surfacing (pavement) construction.	A, B, C, D	2.08	\$3.24	Not programmed
N12	N12D(1-1)4	SR 264 north 11.73 miles	Chip seal	A, B, C, D	11.73	\$2.00	Scheduled in 2015
N12	None	N110 to N7	Street lighting	A, B, C, D	1.73	\$0.69	Not programmed
N110	None	N112 to N12	Street lighting	A, B, C, D	0.86	\$0.36	Not programmed
N110	None	N9073 to end of 3-lane section north of N112 junction	Widening and resurfacing	A, B, C, D	1.00	\$1.40	Not programmed
Paquotte Rd(N110)	None	N9073 to N112	Grade, drain, surfacing (pavement) construction and advance warning signage.	A, B, C, D	1.00	\$1.56	Not programmed
N112	N12(3)1,2,4	N7 to N12	Grade, drain surfacing (pavement) and bridge construction.	A, B, C, D, U	7.30	\$12.50	Scheduled in 2037
N112	None	N110 south 0.26 miles	Street lighting	A, B, C, D	0.26	\$0.10	Not programmed
N112	None	South of N7	Pavement reconstruction	D, W	0.30	\$0.47	Not programmed
N112 and N12	None	N/A	Install solar speed monitors	C, D	N/A	\$0.01	Not programmed
N9073	N9073(1)1, 2,4	Blue Canyon Road and Bridge N606	Grade, drain and asphalt paving and bridge construction.	A, B, C, D, U	6.50	\$15.72	Scheduled in 2015
Black Creek Drive, Aspen Canyon Road (TR1140)	None	Black Creek Drive, Aspen Canyon Road	Pavement Reconstruction	D, W	1.00	\$1.56	Not programmed

**Table 27 - Tribal Roadway and Intersection Projects - Fort Defiance Chapter (Continued)**

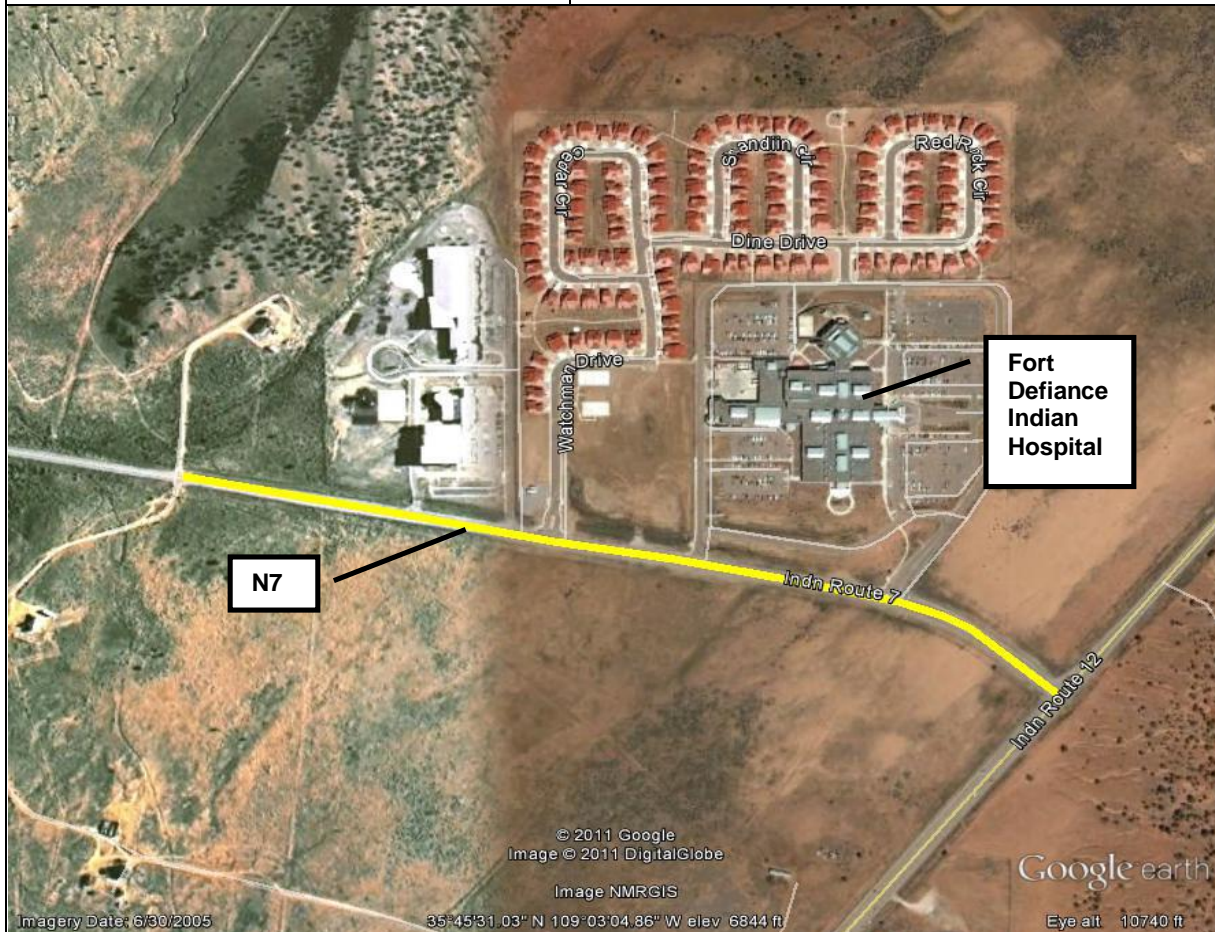
Route Number or Name	Project Number*	Project Limits	Project Description	Comment^	Length (miles)	Estimated Cost (millions)	Additional Information
TR1456	None	N12 east 0.35 miles	Grade, drain, surfacing (pavement) construction.	A, B, C, D	0.35	\$0.54	Not programmed
TR1457	None	N12 east 0.29 miles	Grade, drain, surfacing (pavement) construction.	A, B, C, D	0.29	\$0.45	Not programmed
TR1451	None	N12 west	Grade, drain, gravel(pavement) construction.	A, B, C, D	0.7 miles	\$0.65	Not programmed
<b>Intersection Improvements</b>							
N12 / N110	None	N/A	Improve signing and pavement markings, upgrade signal display, provide a marked crosswalk and pedestrian signal heads over N12.	D	N/A	\$0.08	Not programmed
N12 / Window Rock High School Entrance	None	N/A	Construct northbound right turn lane.	A, B, C, D	N/A	\$0.09	Not programmed
N12 / TR1456	None	N/A	Construct northbound right turn lane and emergency beacon signal for fire dept.	A, B, C, D	N/A	\$0.26	Not programmed
N12 / TR1457	None	N/A	Construct northbound right turn lane.	A, B, C, D	N/A	\$0.07	Not programmed
N112 / N110	None	N/A	Install traffic signal (when warranted) and advance intersection signs.	D	N/A	\$0.53	Not programmed

\*Referenced to Tribal Transportation Improvement Program

^ A = ROW Needed; B = Environmental Assessment Needed; C = Archaeological Clearance Needed; D = Surveying Data Needed; U – Utility Relocation Needed; W = Within Existing ROW

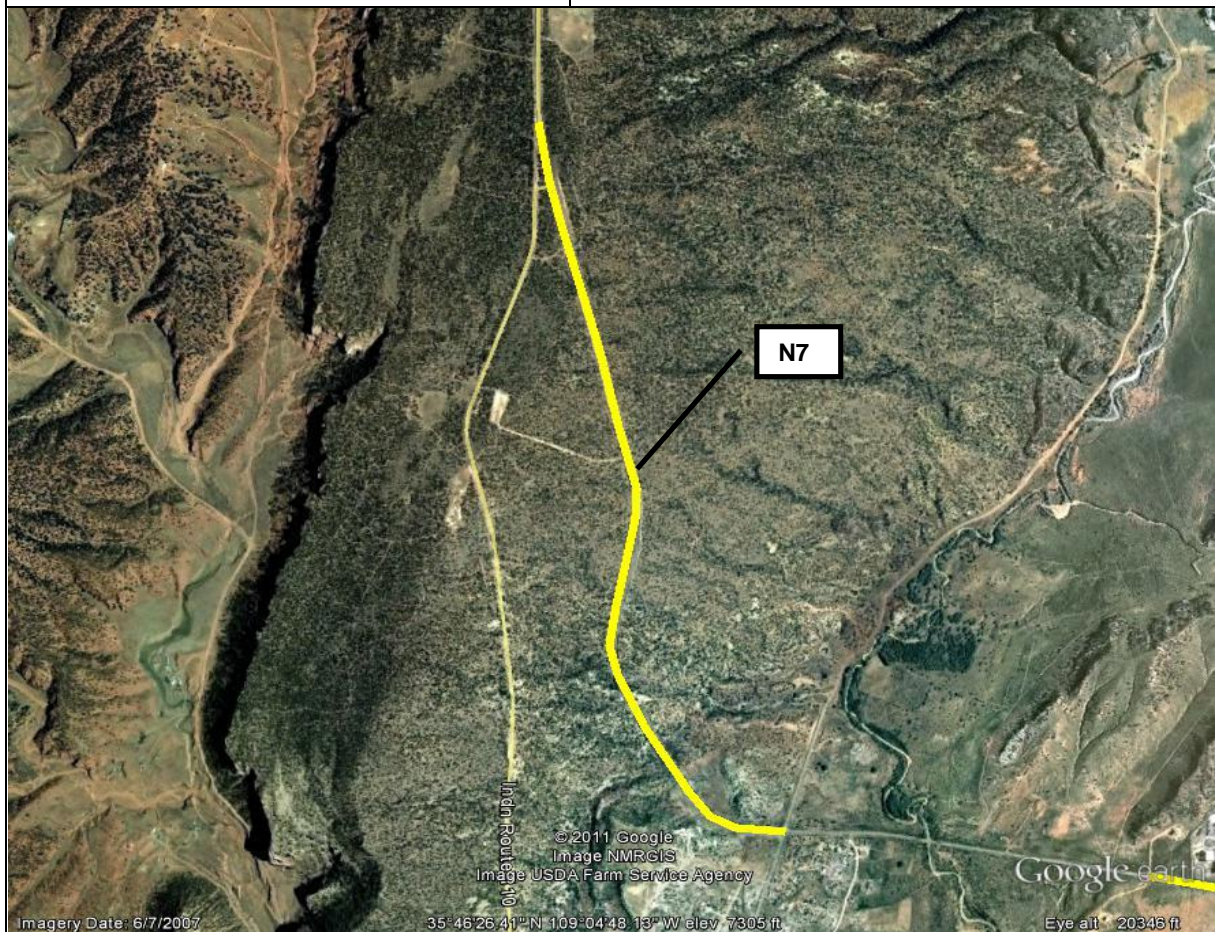
## Fort Defiance Chapter Project Information Sheet – N7 Street Lighting

<b>Route</b>	N7
<b>Project Location</b>	N7, N12 to 0.65 miles west
<b>Project Description</b>	Construct street lighting, 0.65 miles.
<b>Project Justification</b>	Street lighting will improve safety in the area of the Fort Defiance Indian Hospital and residential area.
<b>2011 Cost Estimate</b>	\$0.26M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	



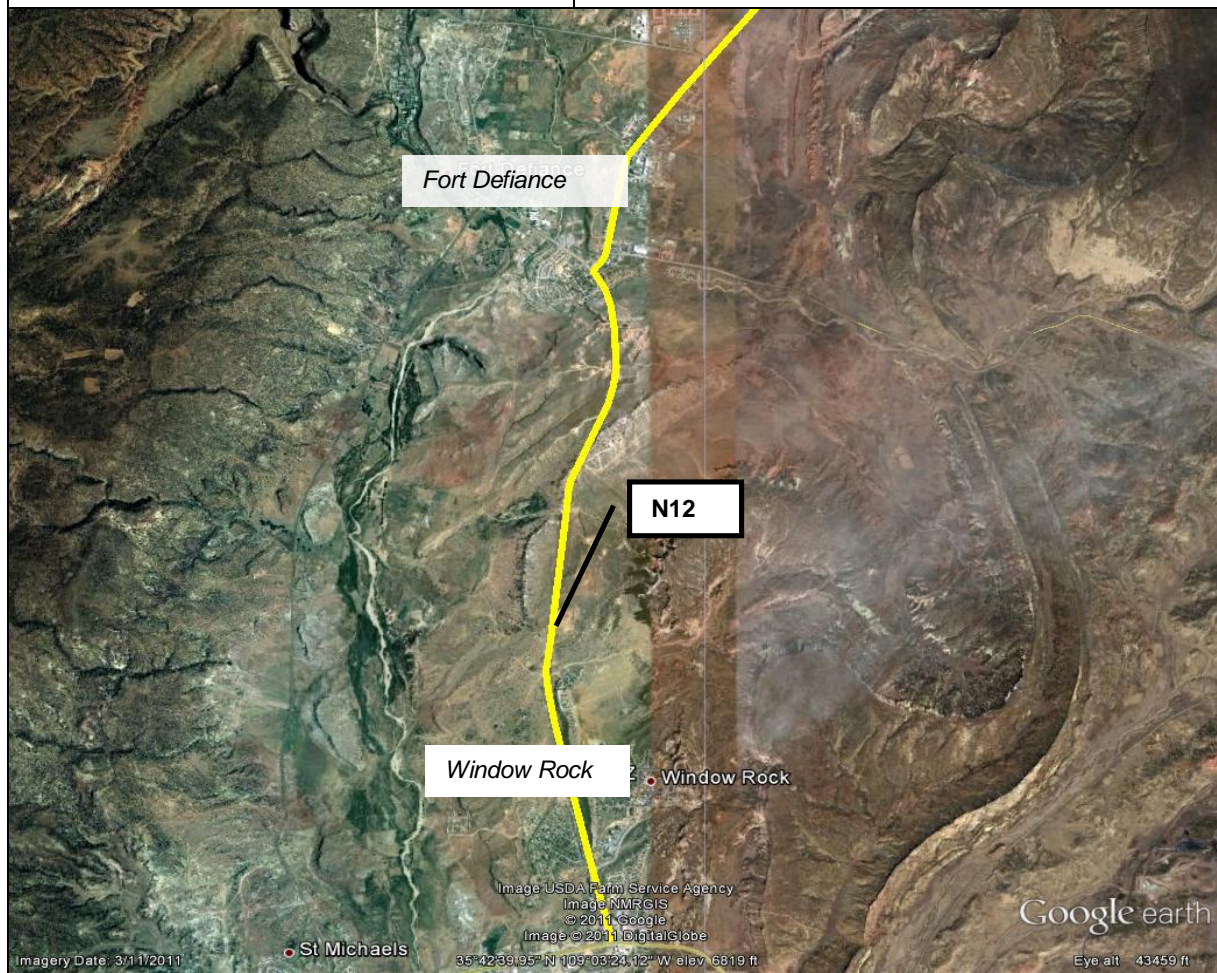
## Fort Defiance Chapter Project Information Sheet – N7 Asphalt Paving

<b>Route</b>	N7
<b>Project Location</b>	N7, N112 to 2.08 miles northwest of N112 junction
<b>Project Description</b>	Grade, drain, surfacing (pavement) construction.
<b>Project Justification</b>	Paving will remedy cracks / potholes and fix heaving problems and will provide improved access to Fort Defiance.
<b>2011 Cost Estimate</b>	\$3.24M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	Not programmed



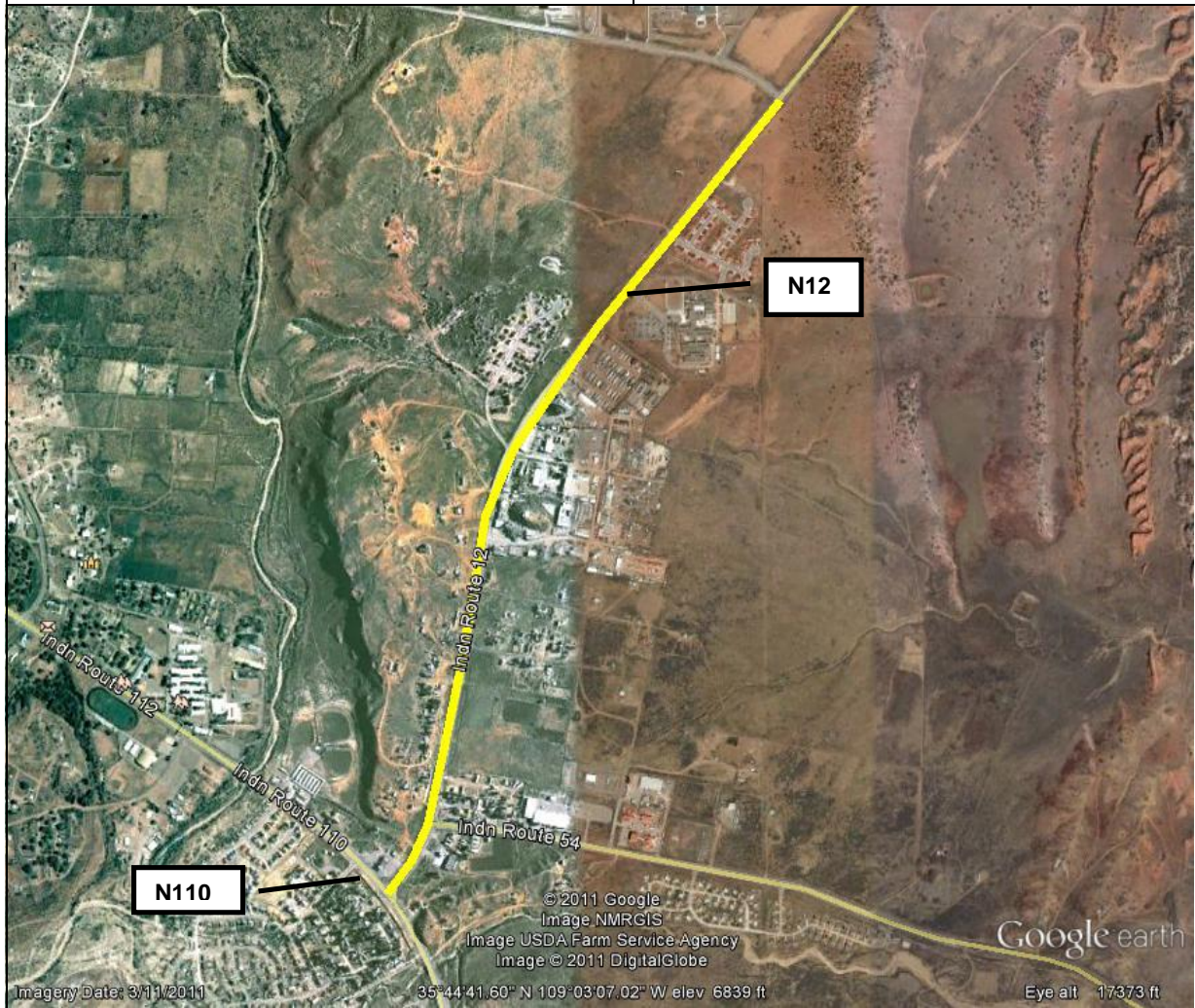
## Fort Defiance Chapter Project Information Sheet – N12 Chip Sealing

<b>Route</b>	N12
<b>Project Location</b>	N12, SR 264 north 11.73 miles
<b>Project Description</b>	Chip sealing, 11.73 miles
<b>Project Justification</b>	This road is a major arterial connecting St. Michaels and Fort Defiance areas. Chip sealing will extend the pavement life.
<b>2011 Cost Estimate</b>	\$ 2.0M
<b>Funding source</b>	IRR Construction Funds
<b>Comments</b>	Programmed – Project Number N12D(1-1)2&4 Scheduled in 2015



## Fort Defiance Chapter Project Information Sheet – N12 Street Lighting

<b>Route</b>	N12
<b>Project Location</b>	N12, N110 to N7
<b>Project Description</b>	Construct street lighting, 1.73 miles.
<b>Project Justification</b>	Street lighting will improve safety for community residents and school children.
<b>2011 Cost Estimate</b>	\$ 0.69M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	



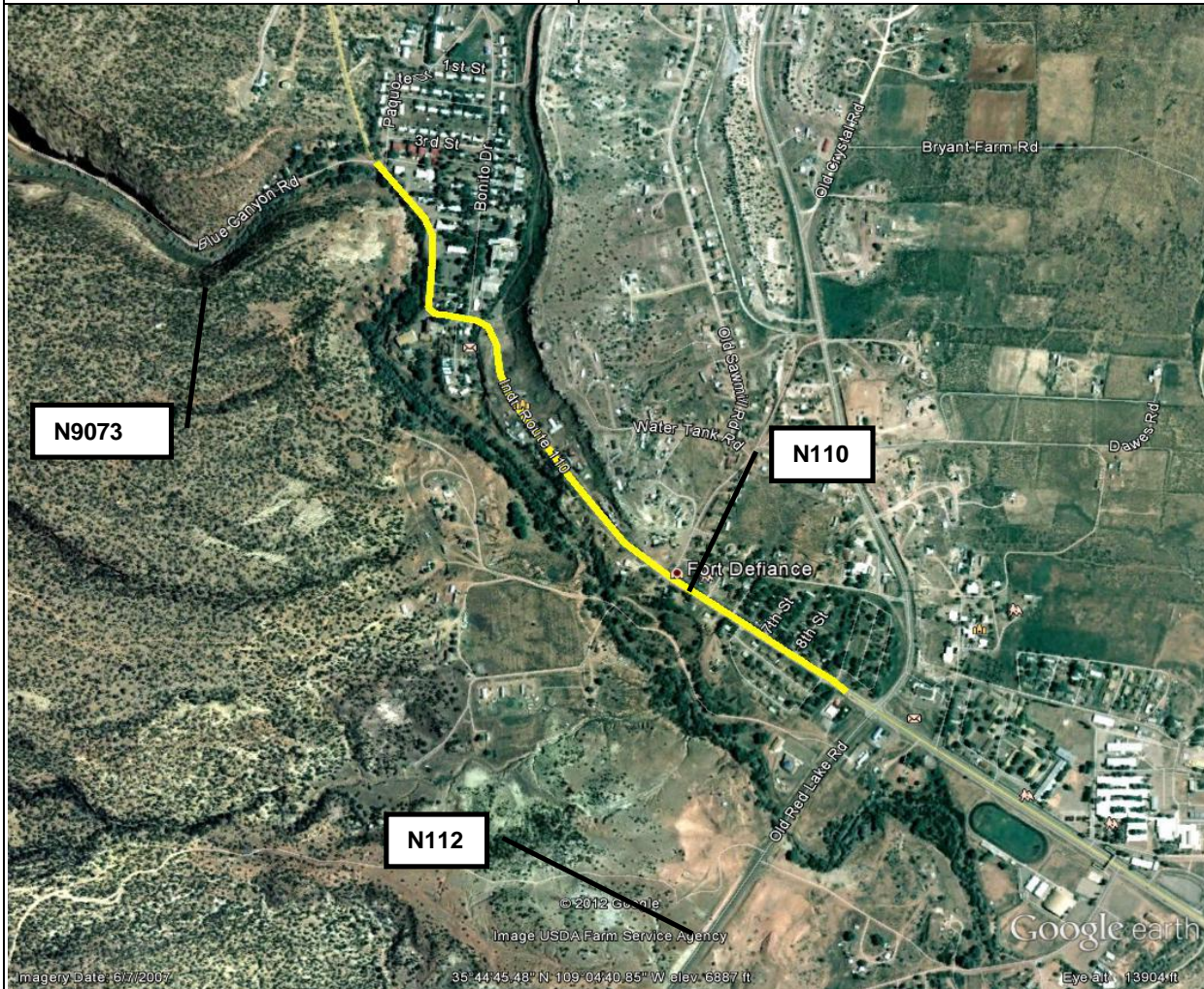
## Fort Defiance Chapter Project Information Sheet – N110 Street Lighting

<b>Route</b>	N110
<b>Project Location</b>	N110, N112 to N12
<b>Project Description</b>	Construct street lighting, 0.86 miles.
<b>Project Justification</b>	Provide street lighting near schools and residential areas.
<b>2011 Cost Estimate</b>	\$0.36M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	



## Fort Defiance Chapter Project Information Sheet – N110 Widening and Resurfacing

<b>Route</b>	N110
<b>Project Location</b>	N110, N9073 to end of 3-lane north of N112 junction
<b>Project Description</b>	Widen to 3-lane section and resurface, 1.0 mile.
<b>Project Justification</b>	Improve access to residential areas
<b>2011 Cost Estimate</b>	\$1.40M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	Not programmed



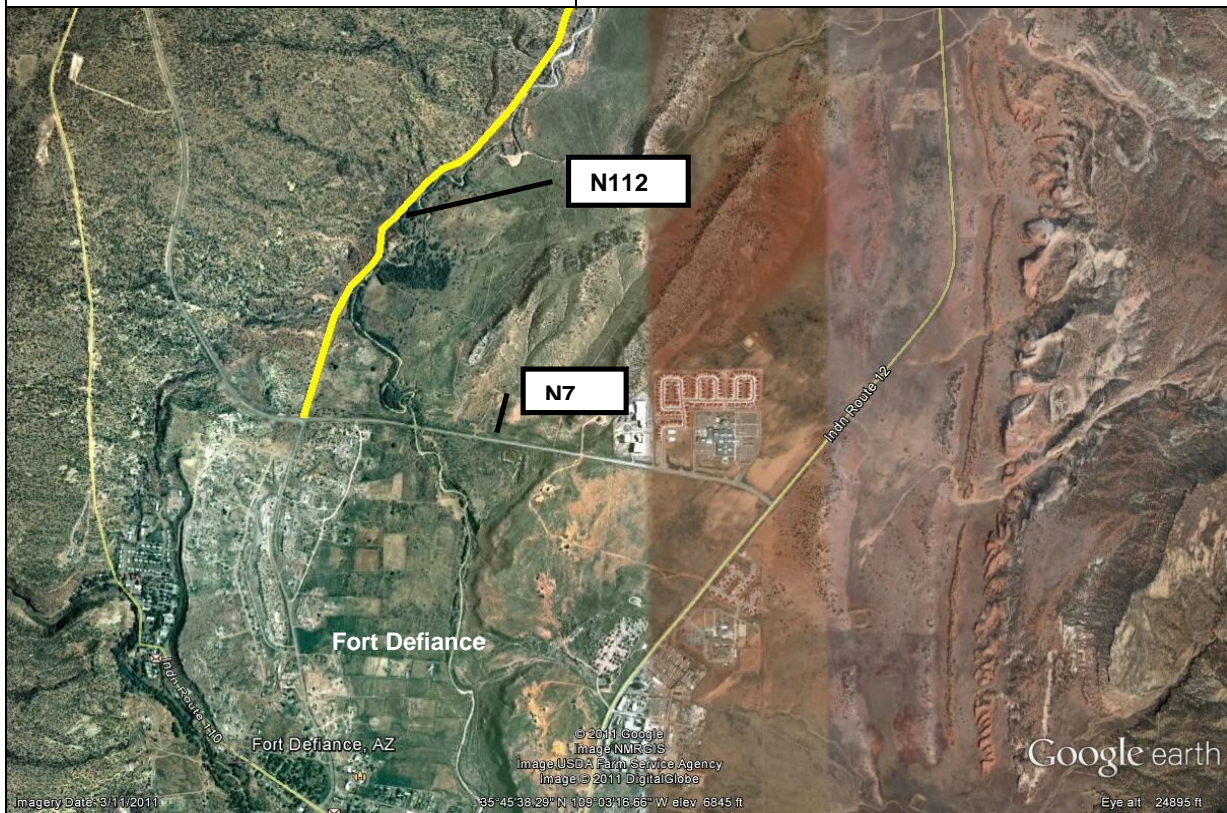
## Fort Defiance Chapter Project Information Sheet – Paquolte Road (N110) Paving

<b>Route</b>	Paquolte Rd (N110)
<b>Project Location</b>	Paquolte Rd, N9073 to N112, 1 mile
<b>Project Description</b>	Grade, drain, surfacing (pavement) construction and warning signage.
<b>Project Justification</b>	Provide better access for residents and improved safety.
<b>2011 Cost Estimate</b>	\$1.56M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	More advance warning signage needed in curve areas.



## Fort Defiance Chapter Project Information Sheet - N112 Asphalt Paving

<b>Route</b>	N112
<b>Project Location</b>	N112, N7 to N12
<b>Project Description</b>	Grade, drain, surfacing (pavement) and bridge construction, 7.3 miles.
<b>Project Justification</b>	Improved access between communities and provide access to schools and hospital.
<b>2011 Cost Estimate</b>	\$12.5M
<b>Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	TTIP Number N112(3) 1,2,4 Scheduled in 2037



**Note - Northern half of project is not shown on this map**

## Fort Defiance Chapter Project Information Sheet – N112 Street Lighting

<b>Route</b>	N112
<b>Project Location</b>	N112, N110 south 0.26 miles
<b>Project Description</b>	Construct street lighting, 0.26 miles.
<b>Project Justification</b>	Street lighting will improve safety in this area.
<b>2011 Cost Estimate</b>	\$0.10M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program Indian Highway Safety Program
<b>Comments</b>	



## Fort Defiance Chapter Project Information Sheet – N112 Pavement Reconstruction

<b>Route</b>	N112
<b>Project Location</b>	N112, south of N7
<b>Project Description</b>	Pavement reconstruction, 0.3 miles.
<b>Project Justification</b>	Pavement reconstruction is required to remedy heaving problems. This road serves a large residential area in Fort Defiance and access to schools and the hospital.
<b>2011 Cost Estimate</b>	\$0.47 M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Indian Community Development Block Grant Program Public Lands Highway Discretionary Program
<b>Comments</b>	Not Programmed



## Fort Defiance Chapter Project Information Sheet – N112 and N12 Solar Speed Monitors

<b>Route</b>	N112 and N12
<b>Project Location</b>	N112 and N12, SR 264 to N110
<b>Project Description</b>	Install Solar Speed Monitors, 2 locations.
<b>Project Justification</b>	Solar speed monitors may decrease the incidence of speeding on this route.
<b>2011 Cost Estimate</b>	\$0.01M
<b>Potential Funding Sources</b>	Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	Speeding was a cause of crashes on these routes. Location to be determined, but monitors can be located prior to intersecting streets in both directions.

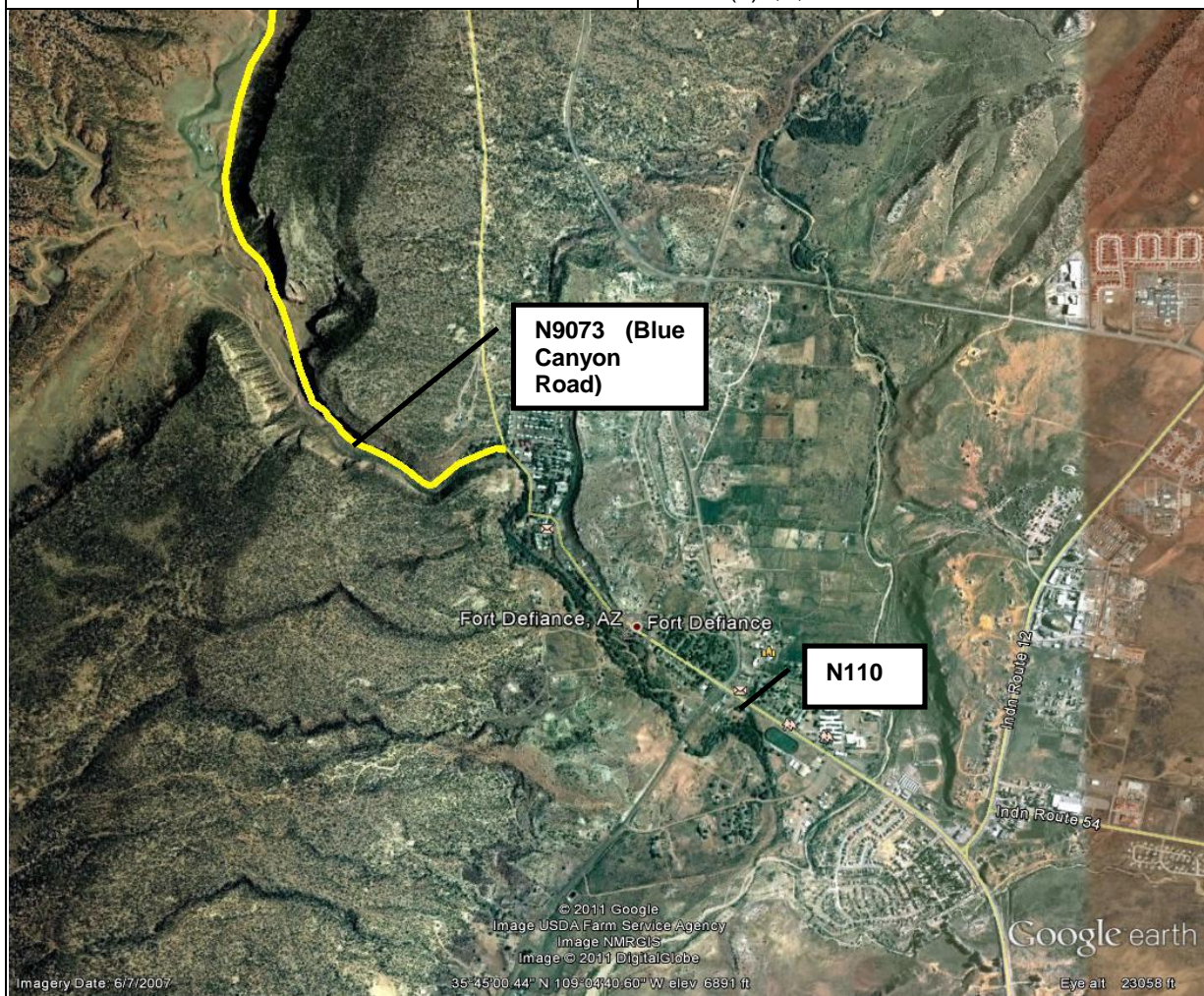


*Example of solar speed monitor in Tucson, AZ.*

*The speed indication flashes red when a vehicle is exceeding the speed limit.*

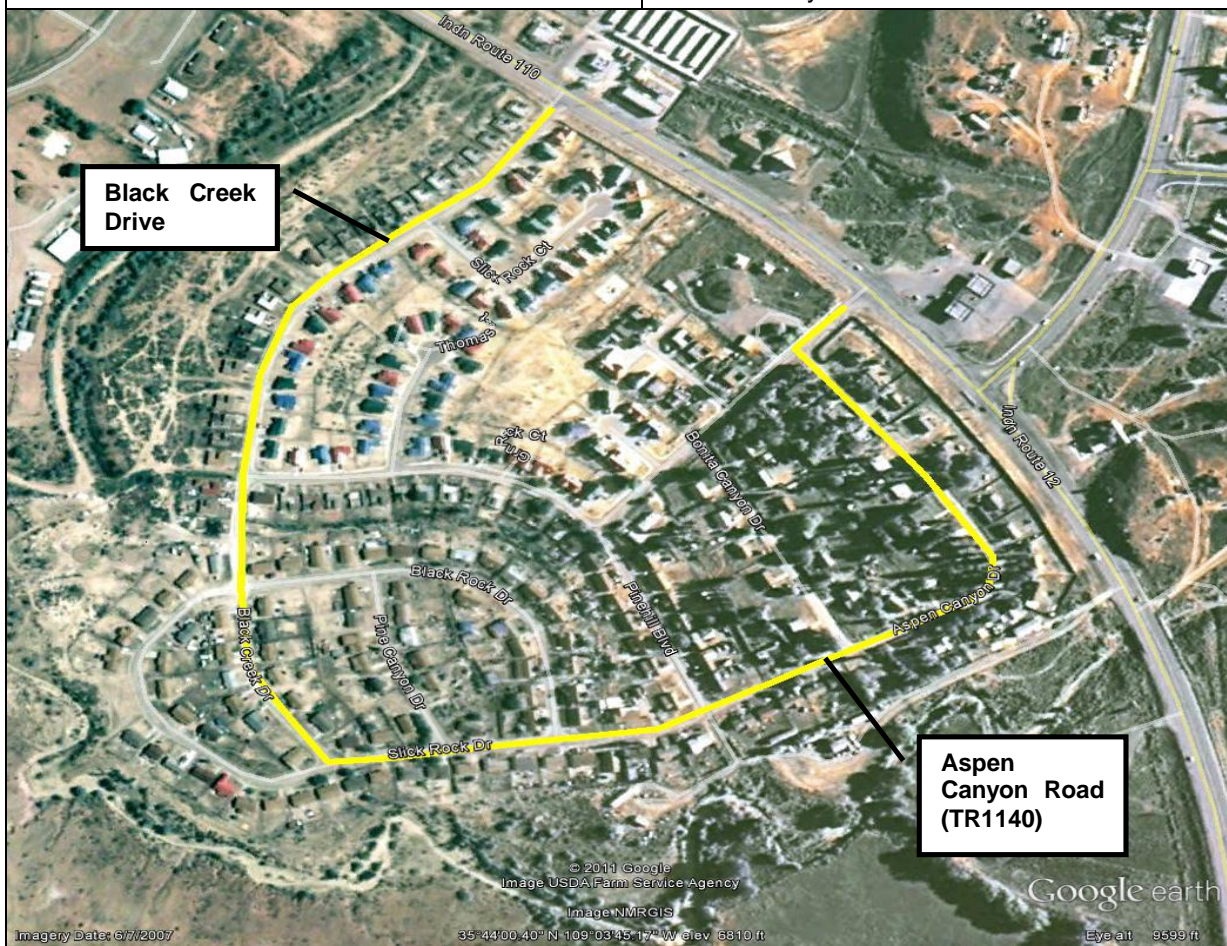
## Fort Defiance Chapter Project Information Sheet – N9073 Asphalt Paving

<b>Route</b>	N9073
<b>Project Location</b>	Blue Canyon Road and Bridge N606
<b>Project Description</b>	Grade, drain and asphalt paving and bridge construction, 6.5 miles.
<b>Project Justification</b>	Paving and bridge improvements are needed on this route which is a school bus route.
<b>2011 Cost Estimate</b>	\$15.72M
<b>Funding Sources</b>	IRR Construction Funds
<b>Comments</b>	Scheduled in 2015. Project Number N9073(1)1,2,4



## Fort Defiance Chapter Project Information Sheet – Black Creek Drive, Aspen Canyon Road (TR1140) Pavement Reconstruction

<b>Route</b>	Black Creek Drive, Aspen Canyon Road (TR1140)
<b>Project Location</b>	Black Creek Drive, Aspen Canyon Road (TR1140)
<b>Project Description</b>	Reconstruct neighborhood streets, 1 mile.
<b>Project Justification</b>	Improve driving conditions for community members. Pavement is full of large potholes.
<b>2011 Cost Estimate</b>	\$1.56M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Community Development Block Grant Program
<b>Comments</b>	Black Creek Drive needs to be added to the IRR Inventory.



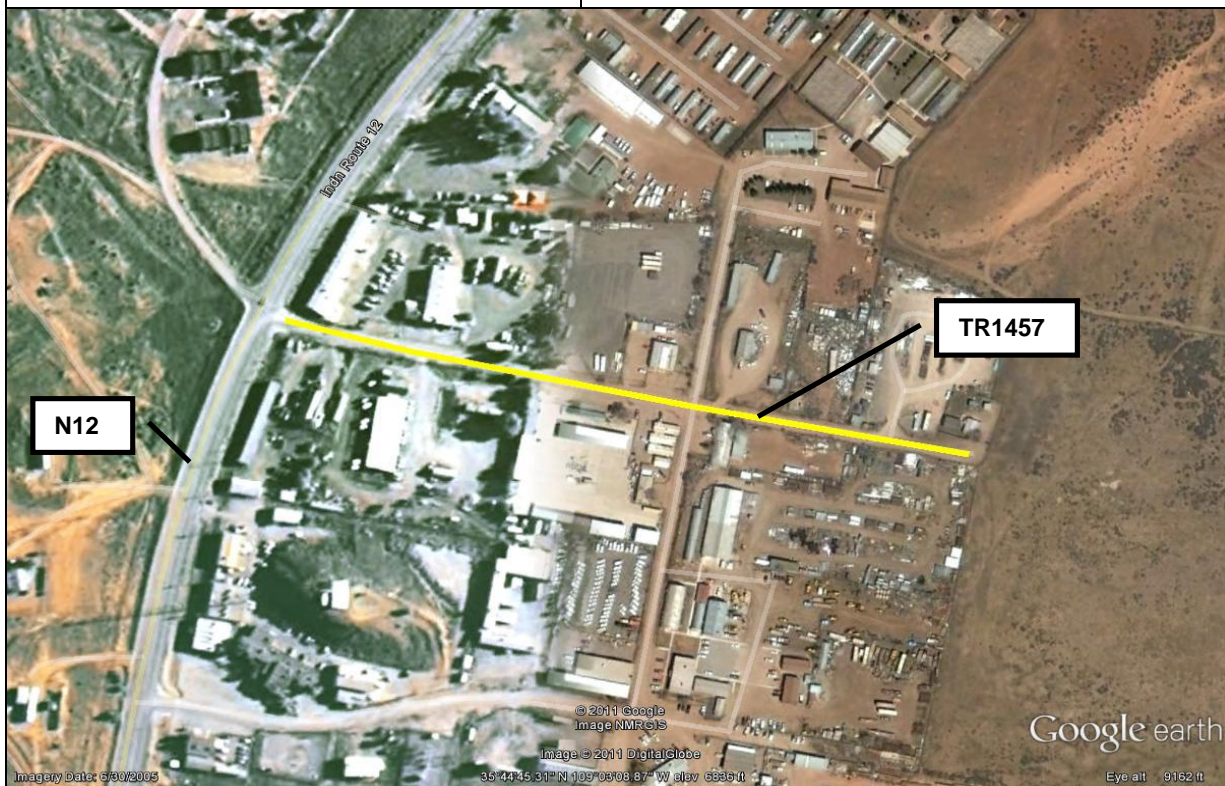
## Fort Defiance Chapter Project Information Sheet – TR1456, Asphalt Paving

<b>Route</b>	TR1456
<b>Project Location</b>	TR1456, N12 to 0.35 miles east
<b>Project Description</b>	Grade, drain, surfacing (pavement), 0.35 miles east of N12.
<b>Project Justification</b>	This road, currently mostly gravel/dirt, serves Fort Defiance Fire Station, NTUA, NTS, and Navajo Nation program offices.
<b>2011 Cost Estimate</b>	\$0.54M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Community Development Block Grant Program
<b>Comments</b>	Street needs to be added to the IRR Inventory.



## Fort Defiance Chapter Project Information Sheet – TR1457, Asphalt Paving

<b>Route</b>	TR1457
<b>Project Location</b>	TR1457, N12 to 0.29 miles east
<b>Project Description</b>	Grade, drain, surfacing (pavement), 0.29 miles.
<b>Project Justification</b>	This road, currently gravel, will provide better access to NTUA, BIA Forestry, and tribal offices if improved.
<b>2010 Cost Estimate</b>	\$0.45M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Community Development Block Grant Program
<b>Comments</b>	Street needs to be added to the IRR Inventory.



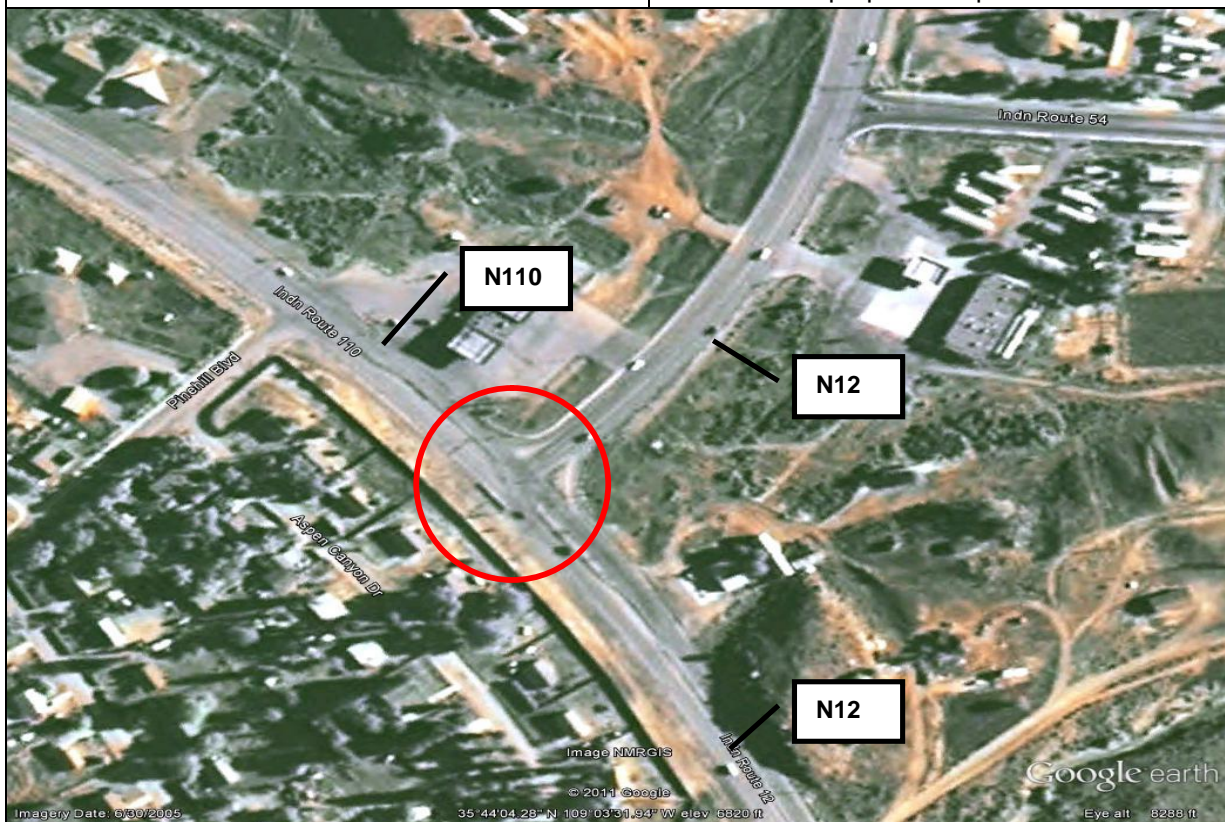
## Fort Defiance Chapter Project Information Sheet – TR1451, Gravel Paving

<b>Route</b>	N12 / TR1451
<b>Project Location</b>	West of N12, between N110 and N7.
<b>Project Description</b>	Grade, drain, and gravel paving, 0.7 miles
<b>Project Justification</b>	To improve traveling and access for residents of 15 homes in this area.
<b>2011 Cost Estimate</b>	\$0.65M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Public Lands Highway Discretionary Program Indian Community Development Block Grant Program
<b>Comments</b>	Not Programmed



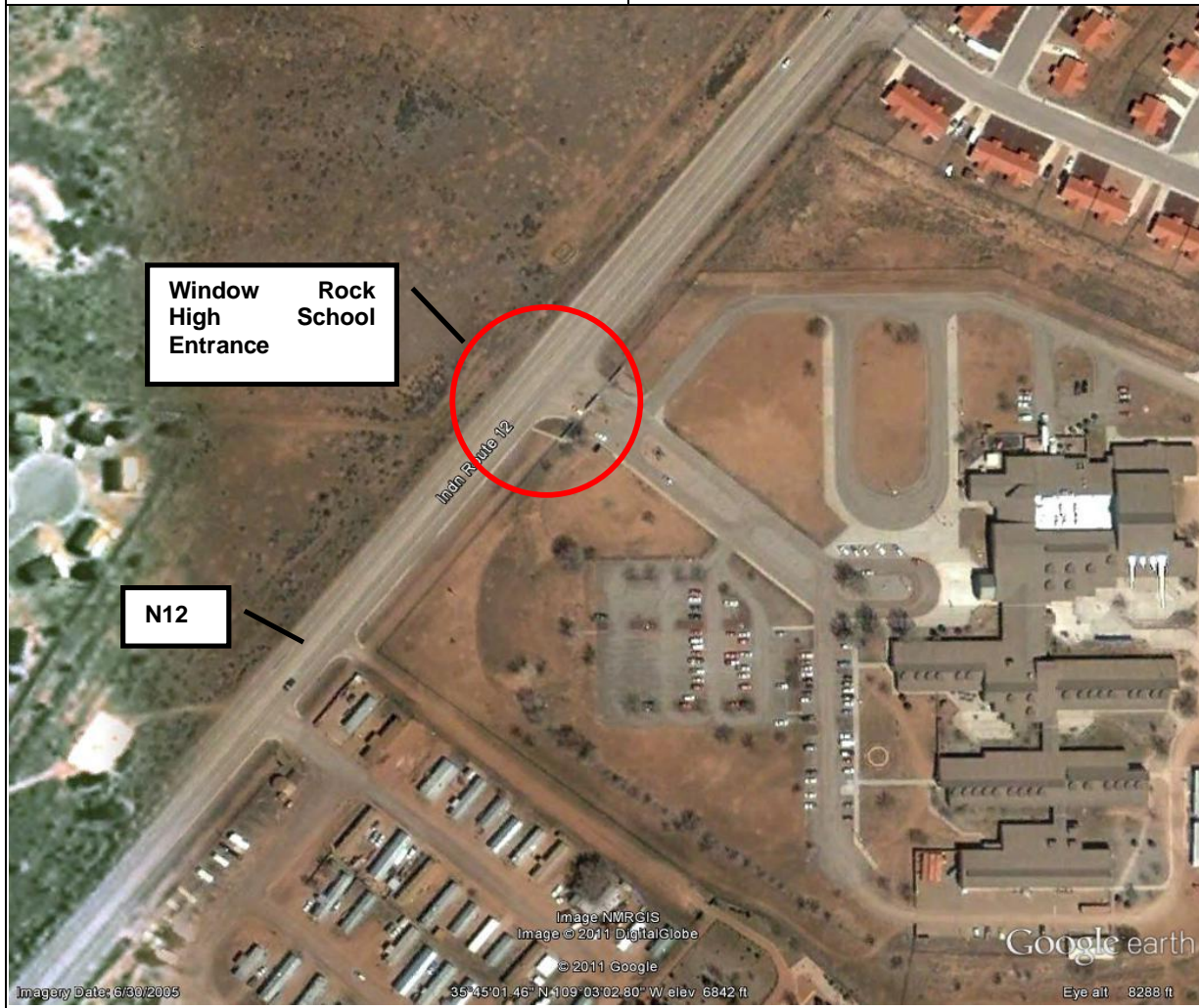
## Fort Defiance Chapter Project Information Sheet – N12 / N110 Intersection Improvements and Signalization

<b>Route</b>	N12 / N110
<b>Project Location</b>	N12 / N110 Intersection
<b>Project Description</b>	Improve signing and pavement markings, upgrade signal display, provide a marked crosswalk and pedestrian signal heads over N12.
<b>Project Justification</b>	These improvements were recommended based on results of a Road Safety Assessment conducted in 2007.
<b>2011 Cost Estimate</b>	\$0.08M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program
<b>Comments</b>	<i>The N12 Road Safety Audit provides more details on the proposed improvements.</i>



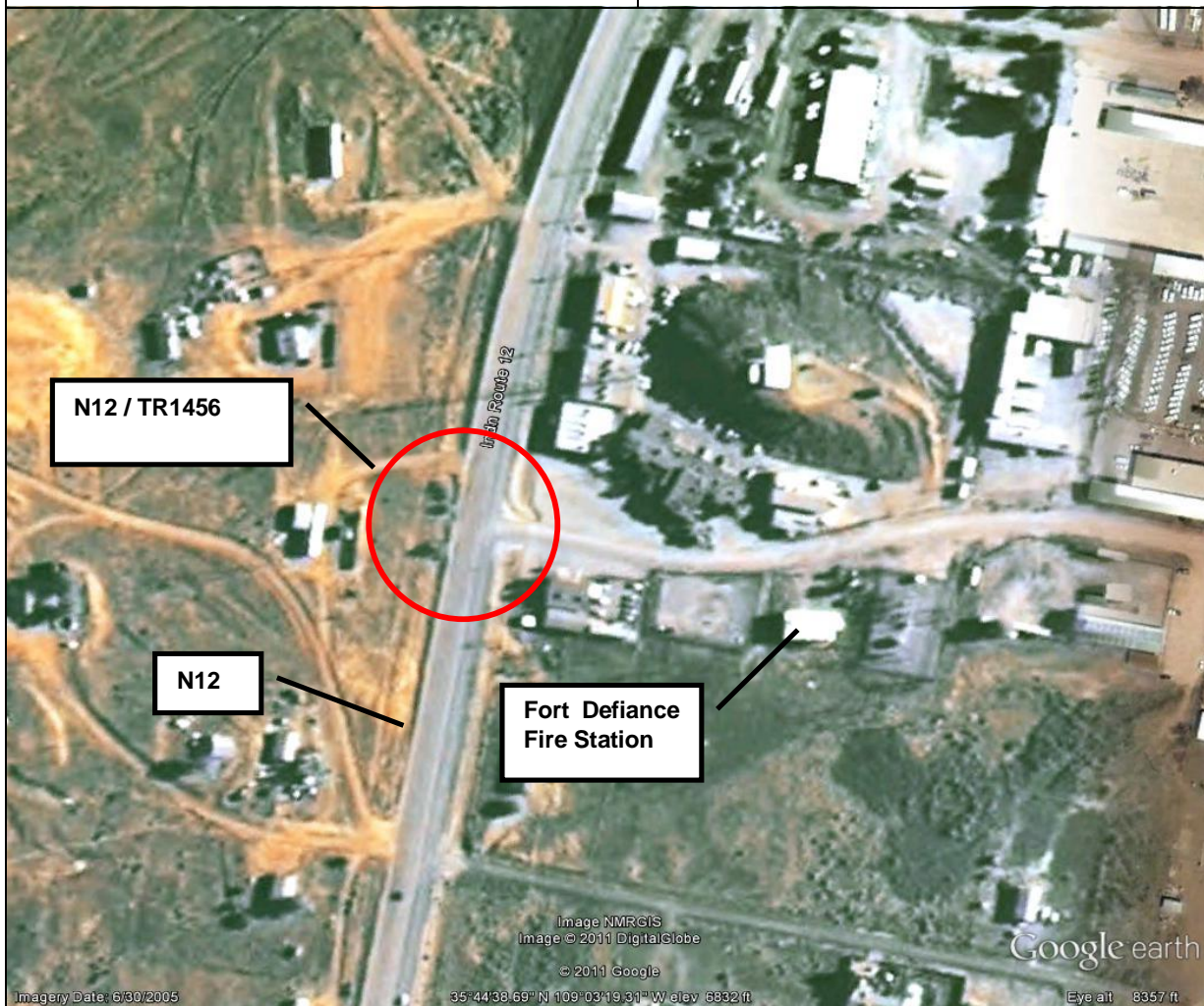
## Fort Defiance Chapter Project Information Sheet – N12 / Window Rock HS - Construct Right Turn Lane

<b>Route</b>	N12
<b>Project Location</b>	N12/Window Rock High School Entrance
<b>Project Description</b>	Provide right turn lane into school.
<b>Project Justification</b>	Improved access and safety into the high school.
<b>2011 Cost Estimate</b>	\$0.09M
<b>Potential Funding Sources</b>	IRR Construction Funds Navajo Fuel Excise Tax Highway Safety Improvement Program Indian Highway Safety Program
<b>Comments</b>	Pedestrian crossing improvements and potential beacon signal recommended in separate project description.



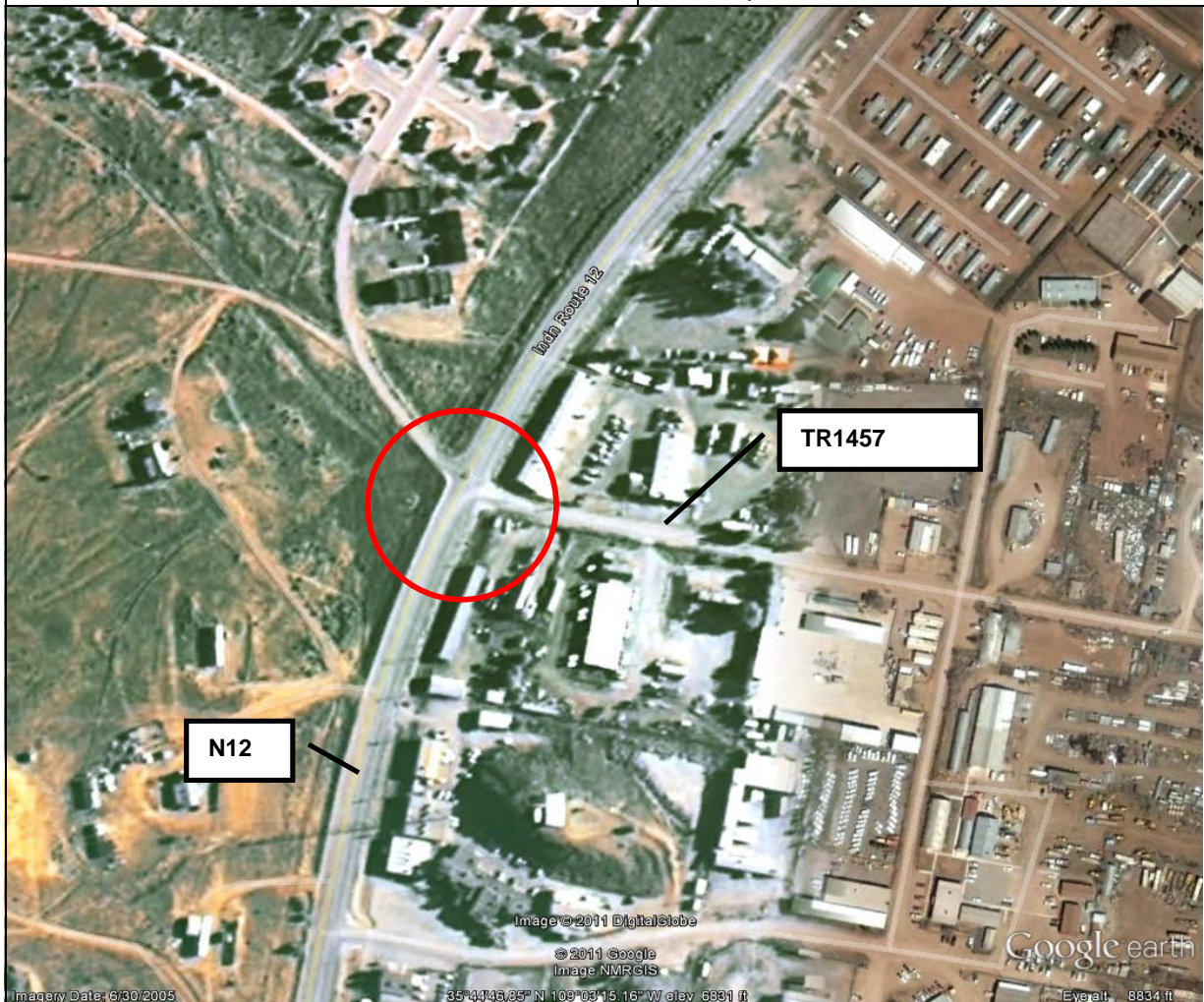
## Fort Defiance Chapter Project Information Sheet – N12 / TR1456 - Emergency Beacon Signal and Turn Lane Improvements

<b>Route</b>	N12
<b>Project Location</b>	N12 / TR1456
<b>Project Description</b>	Provide beacon signal for fire station, and northbound right turn lane.
<b>Project Justification</b>	Better emergency access and response.
<b>2011 Cost Estimate</b>	\$0.26
<b>Potential Funding Sources</b>	IRR Construction Funds Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	



## Fort Defiance Chapter Project Information Sheet – N12 / TR1457 – Construct Right Turn Lane

<b>Route</b>	N12 / TR1457
<b>Project Location</b>	N12 / TR1457 Intersection
<b>Project Description</b>	Provide northbound right turn lane at intersection.
<b>Project Justification</b>	Improved access and reduced congestion at this intersection.
<b>2011 Cost Estimate</b>	\$0.07M
<b>Potential Funding Sources</b>	IRR Construction Funds Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	This road needs to be added to the IRR Inventory.



## Fort Defiance Chapter Project Information Sheet – N112 / N110 – Construct Traffic Signal and Safety Improvements

<b>Route</b>	N112/N110
<b>Project Location</b>	N112/N110 Intersection
<b>Project Description</b>	Install traffic signal (when warranted) and advance intersection warning signs.
<b>Project Justification</b>	This intersection has had a number of fatalities.
<b>2011 Cost Estimate</b>	\$0.53M
<b>Potential Funding Sources</b>	IRR Construction Funds Highway Safety Improvement Program High Risk Rural Roads Program Indian Highway Safety Program State and Community Safety Grant Program IHS Injury Prevention Program
<b>Comments</b>	This is a high crash location.

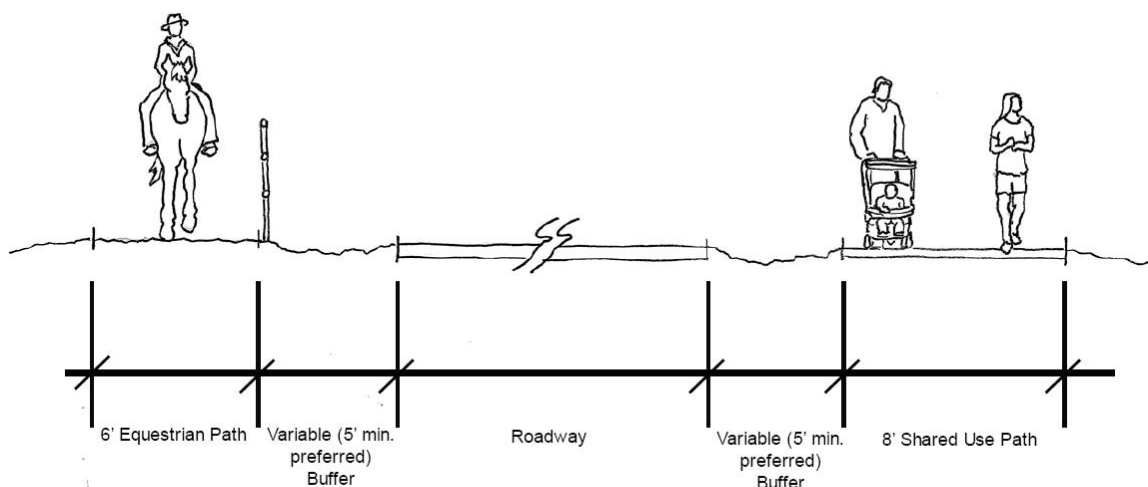


## 6.2 Pedestrian, Bicycle, and Trail Projects

A focus in developing pedestrian, bicycle and trail projects for the Fort Defiance Chapter was to provide a connected system that encircles the main area of Fort Defiance that is bounded by N110, N12, N112 and N7.

Recommended projects are summarized in **Table 28** and in **Figure 33**. Individual project sheets which follow provide more detail about each recommended project. Brief overviews of the types of projects proposed are discussed below.

**Shared Use Path** – Paved shared-use paths are designed to accommodate pedestrians, slow-speed bicyclists (e.g., children riding to and from school), and wheeled devices such as strollers. Bicyclists travelling at higher speeds (e.g., in excess of 10 to 15 mph) should not utilize the paved shared-use path, but should utilize the adjacent roadway and paved shoulder or bike lane. Signage or pavement markings on the shared-use paths may be considered, such as speed limit signs or pavement markings that encourage bicycles to maintain low speeds. An 8-foot wide shared use path is recommended to accommodate multiple types of users.



*Example of Shared Use Path in Doney Park, Arizona*

Equestrian Trails –To address the needs of the equestrian community, a network of soft surface paths are proposed near the Black Creek Wash. The soft surface paths are proposed to consist of surface materials suitable for horses. Paved asphalt pathways are not suitable for equestrian use, since they provide little traction for horseshoes causing horses to slip. Allowing other users to utilize the equestrian paths is undesirable, particularly the mixing of bicyclists and equestrians. The AASHTO Bicycle Guide states that a common problem is that bicyclists are often not aware of the need for additional operating space and slower speeds near horses. In addition, horses track mud and debris across the path, and may leave deposits that are unpleasant for bicyclists and pedestrians. An eight-foot wide equestrian path is recommended to accommodate equestrian users.

Sidewalks - Sidewalks are proposed in areas with existing curb and gutter, or in areas where physical features, constrained right-of-way, or access considerations prohibit construction of a shared-use path separated from the roadway. ADOT standard (C-05.20) “typical” sidewalk is five feet wide, which is what is recommended for sidewalk projects on the study area corridors.

Bike Lanes - Bike lanes are proposed on N12 and N112, which are major streets with higher traffic volumes and a speed limit of 25 mph or greater. On these roads, existing shoulders can be marked and signed as bike lanes. Recommended bicycle lane width per the AASHTO Guide is as follows:

- 4 feet (1.2m): minimum width of bike lane on roadways with no curb and gutter
- 5 feet (1.5m): minimum width of bike lane when adjacent to parking, from the face of the curb or guardrail

Both N12 and N112, between SR 264 and N110, have shoulder widths between 5 and 8 feet, according to the IRR Inventory data. Bike lanes should be signed. Bike Lanes Sign (R3-17) and Manual of Uniform Traffic Control Device (MUTCD) (<http://mutcd.fhwa.dot.gov/>) guidance is illustrated as follows.

Per the 2009 MUTCD, Bike Lane signs are not mandatory, but are recommended. Figure 7 is an example of a bike lane signage from the MUTCD.



R3-17

**Figure 32 – MUTCD Bike Lane Sign**

Source: MUTCD Figure 9B-2

**Section 9B.04 Bike Lane Signs and Plaques (R3-17, R3-17aP, R3-17bP)**

**Standard:**

- 01 The BIKE LANE (R3-17) sign and the R3-17aP and R3-17bP plaques (see Figure 9B-2) shall be used only in conjunction with marked bicycle lanes as described in Section 9C.04.

**Guidance:**

- 02 If used, Bike Lane signs and plaques should be used in advance of the upstream end of the bicycle lane, at the downstream end of the bicycle lane, and at periodic intervals along the bicycle lane as determined by engineering judgment based on prevailing speed of bicycle and other traffic, block length, distances from adjacent intersections, and other considerations.

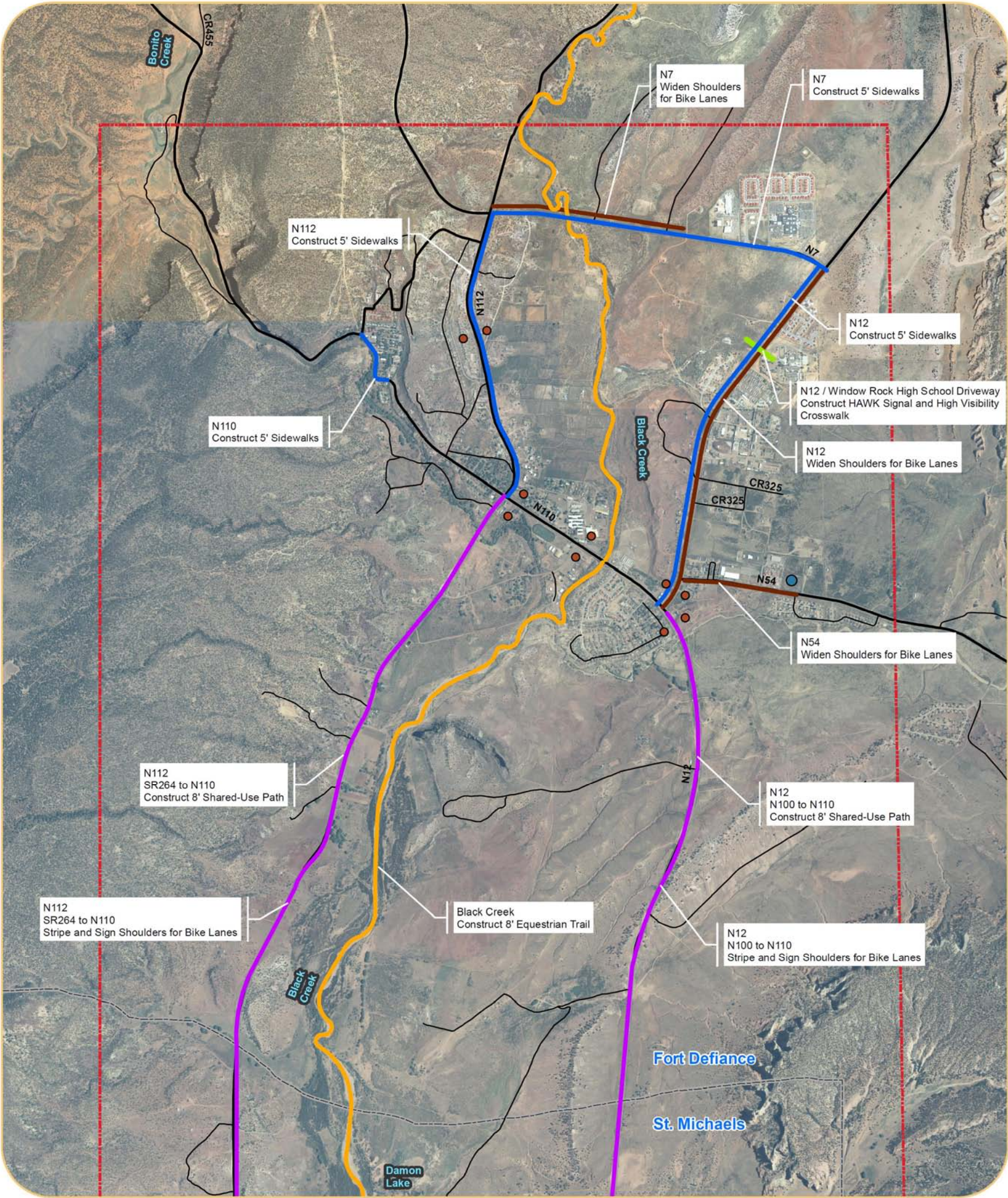


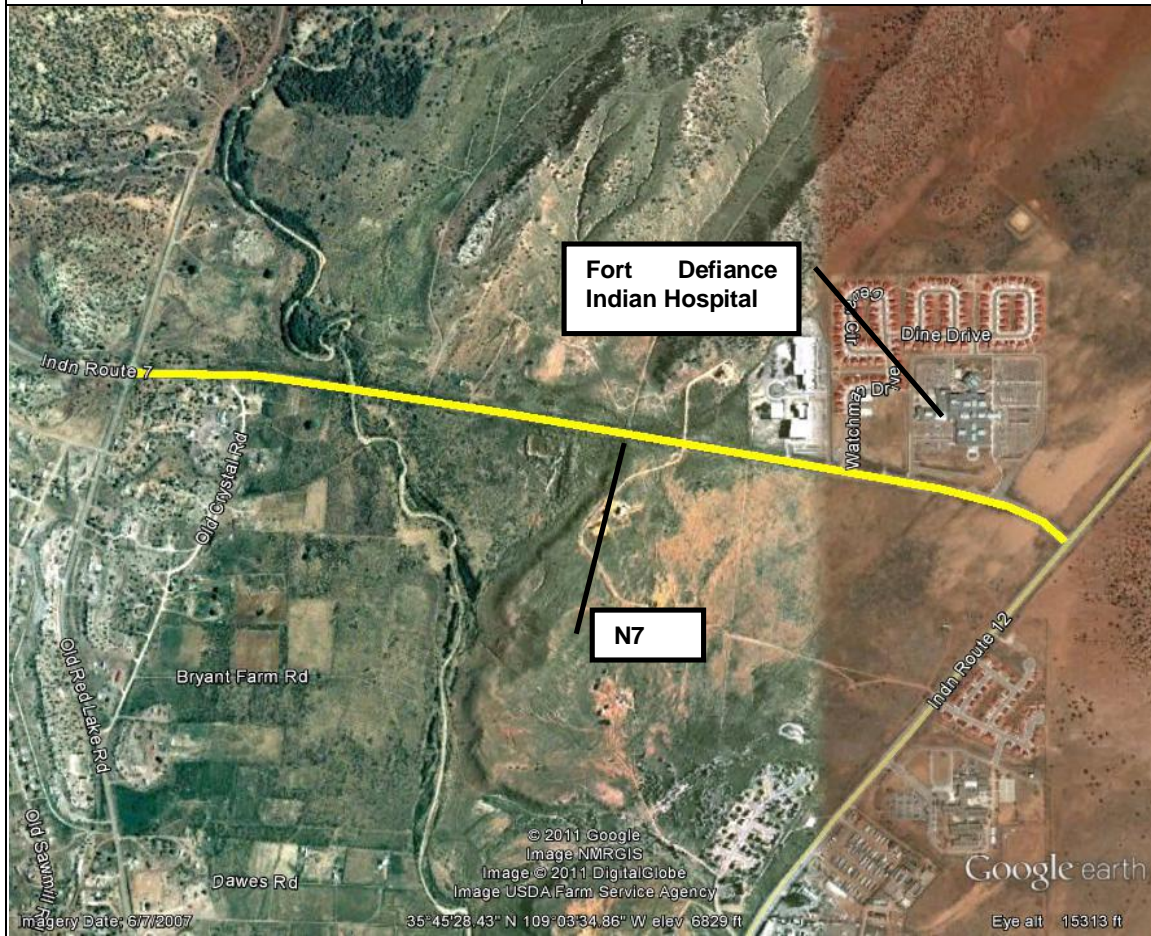
Figure 33 - Fort Defiance Chapter Recommended Non-Motorized Projects

**Table 28 - Fort Defiance Chapter Pedestrian, Bicycle, and Trail Projects**

Route Number or Name	Project Name / Description	Length (miles)	Construction Type	Estimated Cost (millions)	Additional Information
<b>Sidewalk Projects</b>					
N7	Sidewalk construction, N12 to N112	1.53	5-foot sidewalks	\$0.44	Assumes sidewalks on both sides of street.
N12	Sidewalk construction, N110 to N7	2.72	5-foot sidewalks	\$0.50	Assumes sidewalks on both sides of street. Assumes that 1.27 miles of existing sidewalk will be removed and replaced with a sidewalk that is further away from the road. North of this area, 0.45 miles of new sidewalk will be constructed. (Sidewalks on both sides of street).
N110	Sidewalk construction	0.30	5-foot sidewalks	\$0.09	Assumes sidewalks on both sides of street.
N112	Sidewalk construction, N110 to N7	1.33	5-foot sidewalks	\$0.38	Assumes sidewalks on both sides of street.
<b>Pedestrian Crossing</b>					
N12	Window Rock High School HAWK Pedestrian Beacon Signal / High Visibility Crosswalk	N/A	Signing, striping, pedestrian beacon signal construction.	\$0.17	
<b>Shared Use Paths</b>					
N12	N12 Shared use path construction	4.40	8'-shared use path	\$3.03	Option may be to construct as part of roadway paving project. Cost assumes path on both sides.
N112	N112 Shared use path construction	4.43	8'-shared use path	\$3.05	Option may be to construct as part of roadway paving project. Cost assumes path on both sides.
<b>Equestrian Paths</b>					
Black Creek Wash Equestrian Path	Construction of a soft path	12.20	8-foot soft path	\$1.81	This project also extends to the St. Michaels Chapter area.
<b>Bicycle Lanes</b>					
N12	Widen shoulders for bike lanes, N110 to N7	1.72	Shoulder widening	\$0.28	
N54	Widen shoulders for bike lanes, N12 to 0.9 miles east	0.90	Shoulder widening	\$0.15	
N12	SR 264 to N110	5.00	Stripe and sign bike lane	\$0.04	This project also extends to the St. Michaels Chapter area.
N112	SR 264 to N110	6.25	Stripe and sign bike lane	\$0.05	This project also extends to the St. Michaels Chapter area.

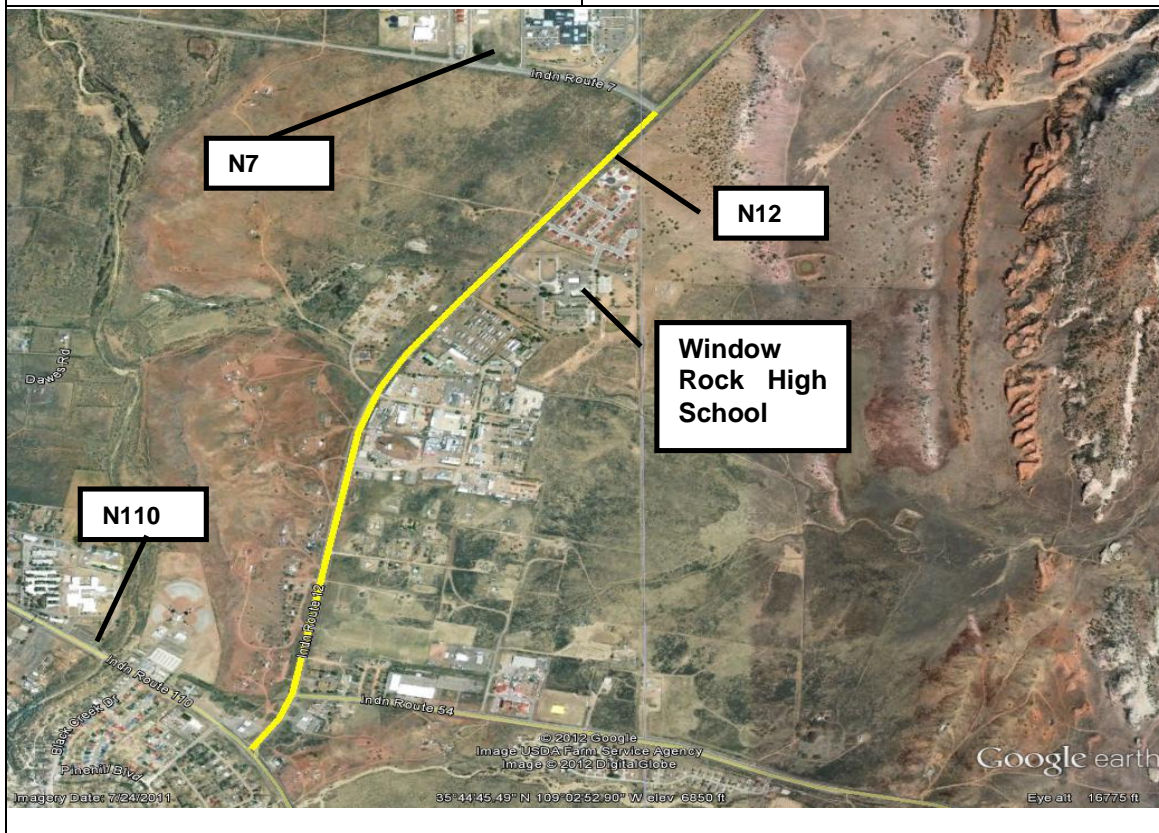
## Fort Defiance Chapter Project Information Sheet – N7 Sidewalks

<b>Route</b>	N7
<b>Project Location</b>	N7, between N12 and N112.
<b>Project Description</b>	Construct 5-foot wide sidewalks, 1.53 miles.
<b>Project Justification</b>	Sidewalks will provide better access for travelers to the Fort Defiance Indian Hospital and to the residential areas near N7/ N112.
<b>2011 Cost Estimate</b>	\$0.44M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	



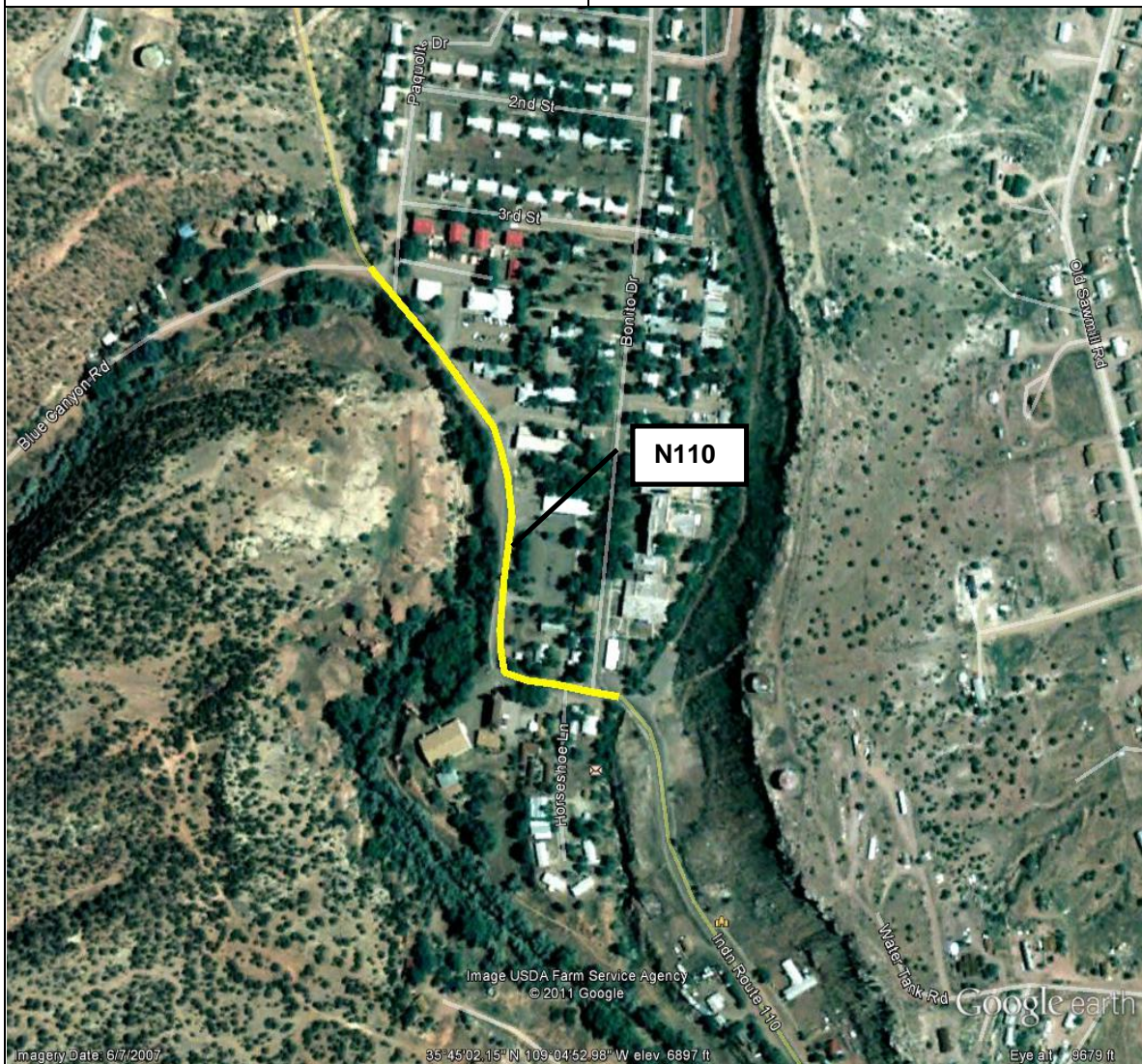
## Fort Defiance Chapter Project Information Sheet – N12 Sidewalks

<b>Route</b>	N12
<b>Project Location</b>	N12, between N110 and N7 (1.72 miles).
<b>Project Description</b>	<p>This sidewalk project involves two components:</p> <ul style="list-style-type: none"> <li>Remove and reconstruct sidewalks between N110 and Window Rock High School (1.27 miles). This part of the project will provide a bigger buffer area between the road and sidewalk for schoolchildren.</li> <li>Construct new 5-foot wide sidewalks between Window Rock High School and N7, 0.45 miles. Currently there are no sidewalks in this area.</li> </ul>
<b>Project Justification</b>	This will improve the sidewalk system and complete a gap in the sidewalk system on N12 in Fort Defiance.
<b>2011 Cost Estimate</b>	\$0.50M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	



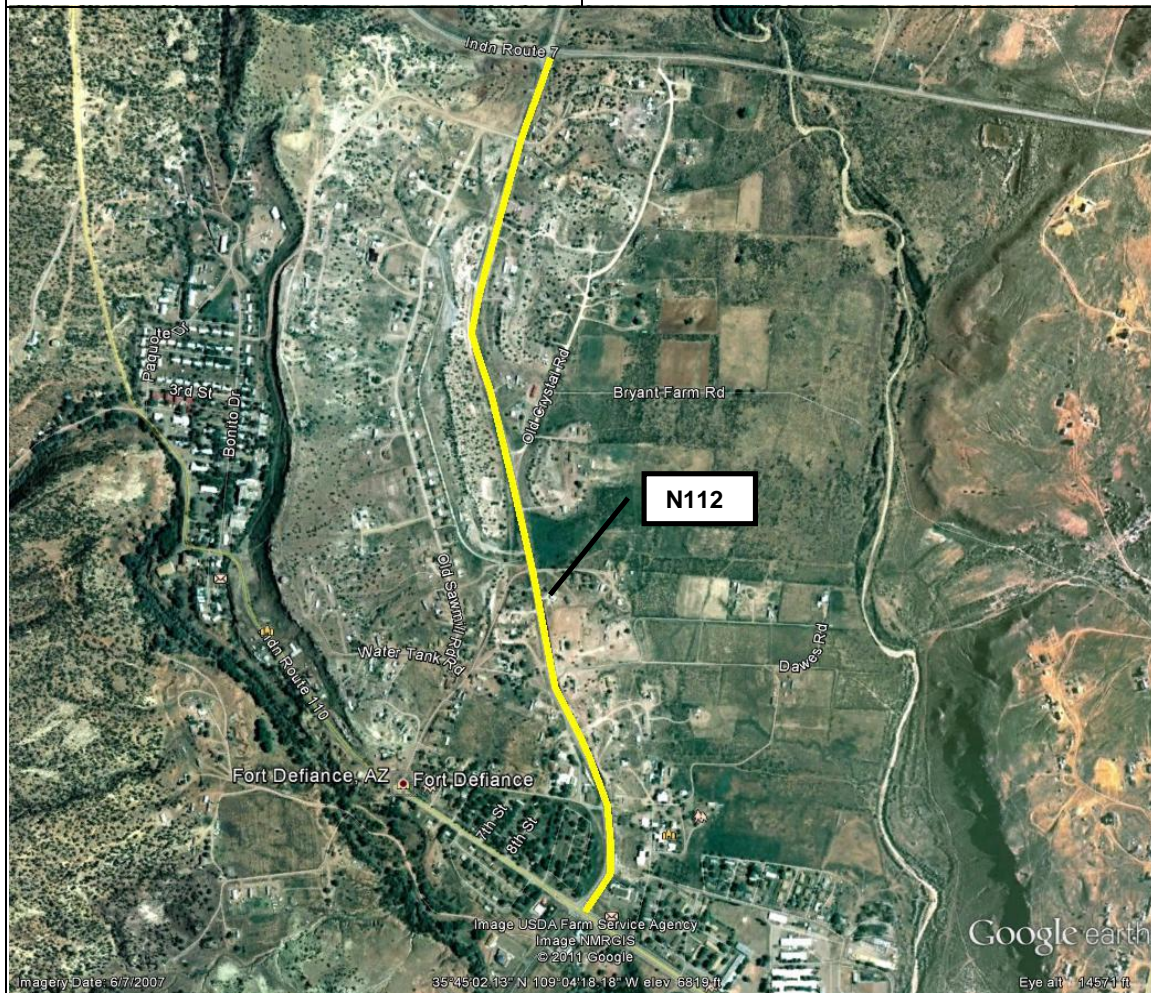
## Fort Defiance Chapter Project Information Sheet – N110 Sidewalks

<b>Route</b>	N110
<b>Project Location</b>	0.30 miles south of Blue Canyon Road to Blue Canyon Road.
<b>Project Description</b>	Construct 5-foot wide sidewalks, 0.30 miles.
<b>Project Justification</b>	Completes missing link in sidewalk system.
<b>2011 Cost Estimate</b>	\$.09M
<b>Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	



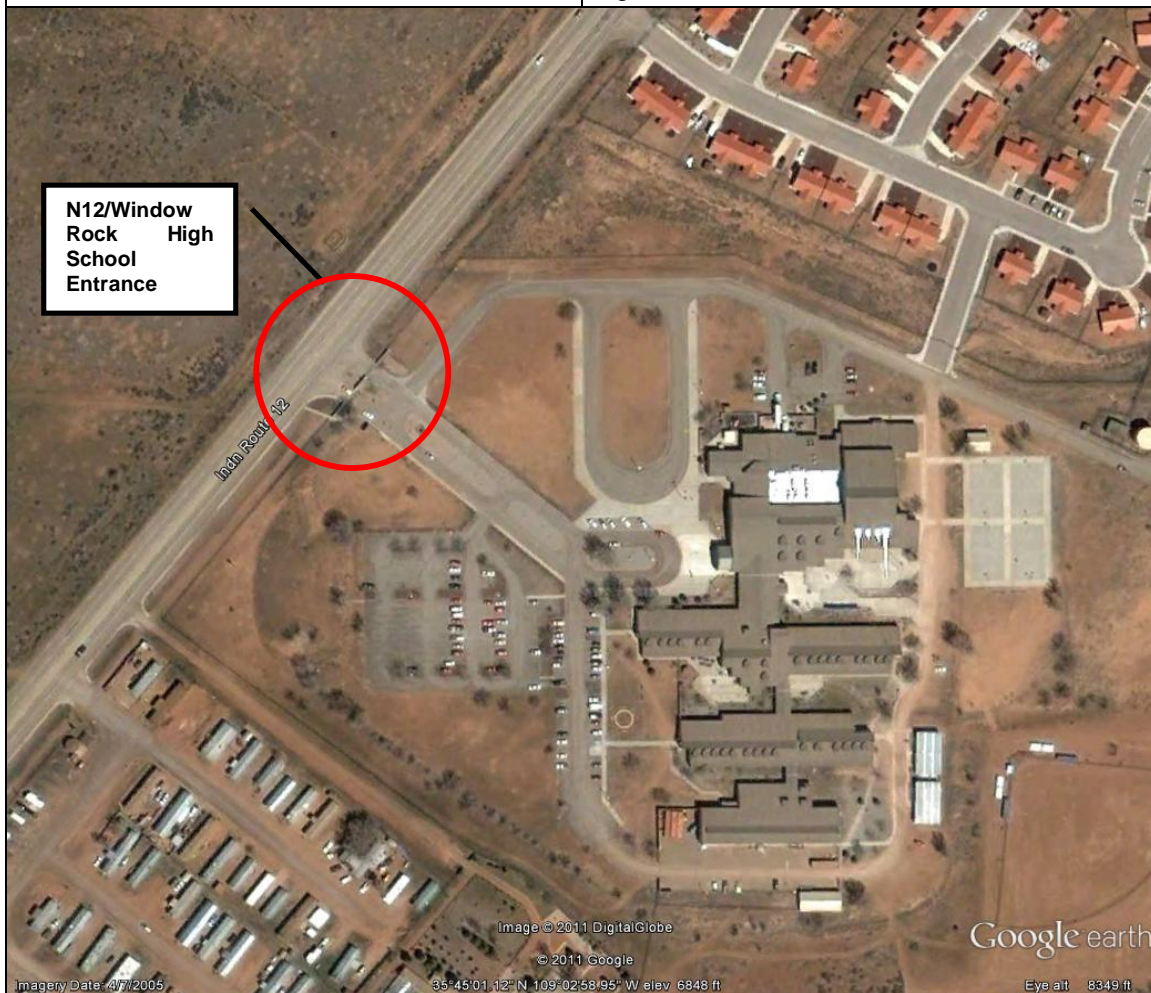
## Fort Defiance Chapter Project Information Sheet – N112 Sidewalks

<b>Route</b>	N112
<b>Project Location</b>	N12, N110 to N7
<b>Project Description</b>	Construct 5-foot wide sidewalks, 1.33 miles.
<b>Project Justification</b>	This will help complete a sidewalk system on the main streets in Fort Defiance.
<b>2011 Cost Estimate</b>	\$0.38M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	



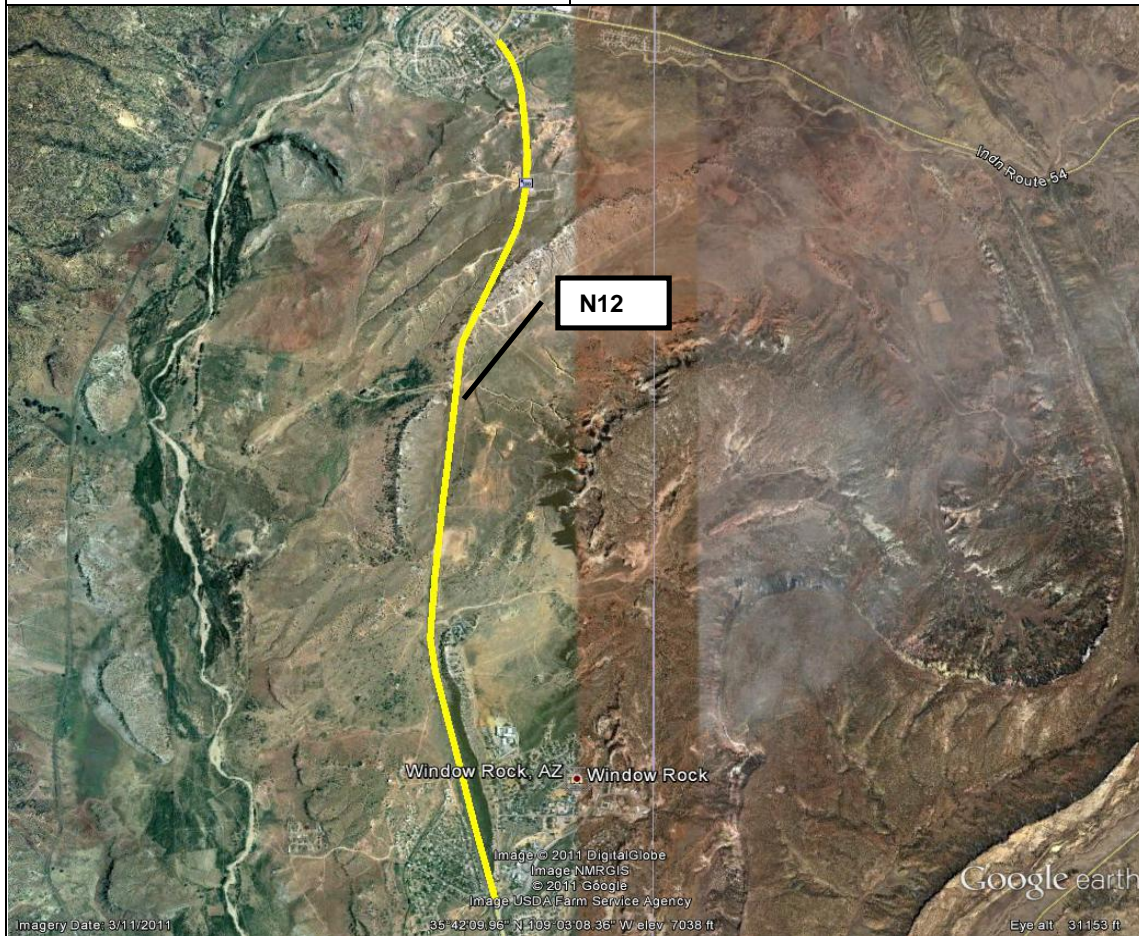
## Fort Defiance Chapter Project Information Sheet – N12 / Window Rock High School Pedestrian Improvements

<b>Route</b>	N12 / Window Rock High School
<b>Project Location</b>	N12 / Window Rock High School Intersection
<b>Project Description</b>	Construct high visibility pedestrian crosswalks at intersection, and HAWK Pedestrian Signal Beacon if warranted.
<b>Project Justification</b>	These pedestrian upgrades will provide a safer crossing environment for students.
<b>2011 Cost Estimate</b>	\$0.17M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	Cost estimate assumes a HAWK pedestrian signal beacon.



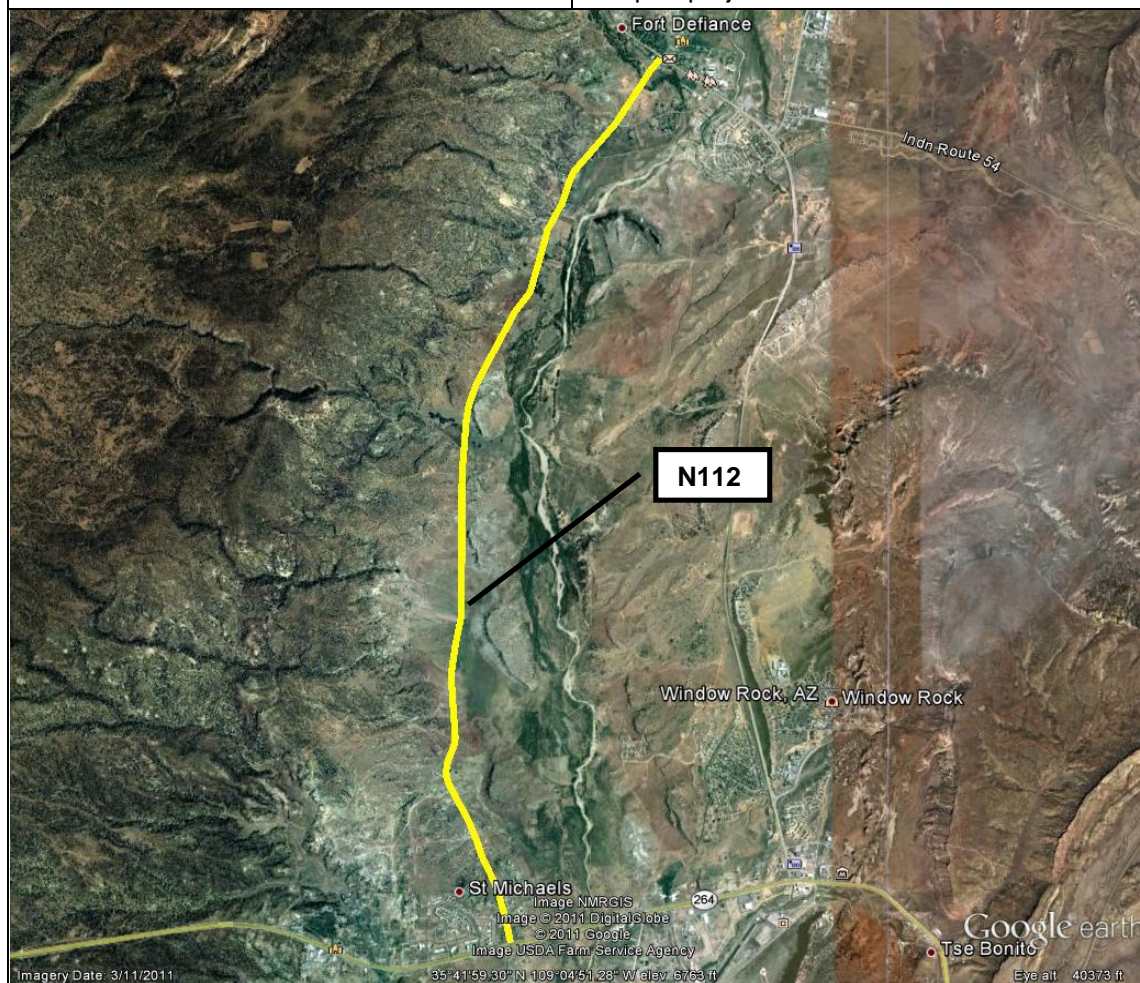
## Fort Defiance Chapter Project Information Sheet – N12 Shared Use Path

<b>Route</b>	N12
<b>Project Location</b>	N100 to N110, 4.4 miles
<b>Project Description</b>	Construct 8' wide shared use path on both sides of street.
<b>Project Justification</b>	A shared use path in this area will provide a safe walking and riding area that connects Window Rock and Fort Defiance.
<b>2011 Cost Estimate</b>	\$3.03M
<b>Potential Funding Sources</b>	National Scenic Byway Program Transportation Enhancement Program Indian Highway Safety Program State and Community Highway Safety Grant Program.
<b>Comments</b>	N12 is part of the Dine Biitah Scenic Byway An option is to construct as part of paving project.



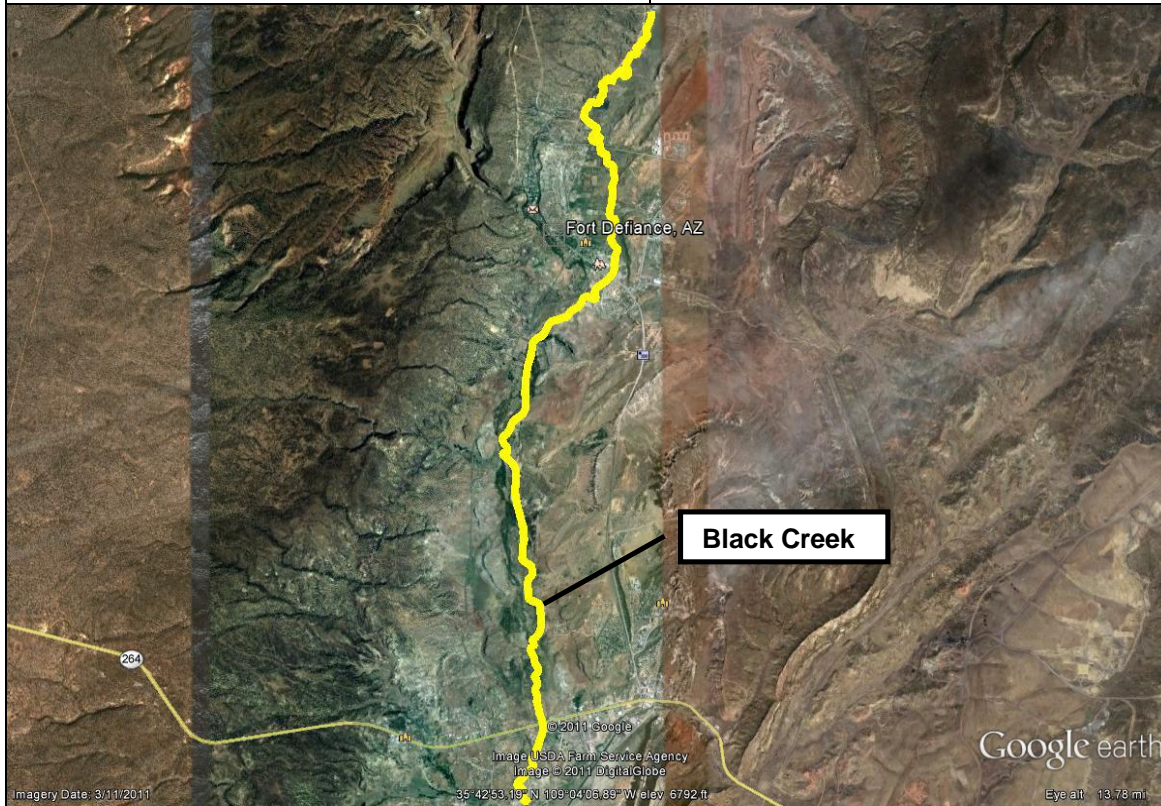
## Fort Defiance Chapter Project Information Sheet – N112 Shared Use Path

<b>Route</b>	N112
<b>Project Location</b>	N112, SR 264 to N110, 4.43 miles
<b>Project Description</b>	Construct 8- foot wide shared use path on both sides of street.
<b>Project Justification</b>	A shared use path in this area will provide a safe walking and riding area that connects Window Rock and Fort Defiance.
<b>2011 Cost Estimate</b>	\$3.05M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant Indian Highway Safety Program State and Community Highway Safety Grant Program.
<b>Comments</b>	Construct as part of paving project. This project is also listed under the St. Michaels Chapter projects.



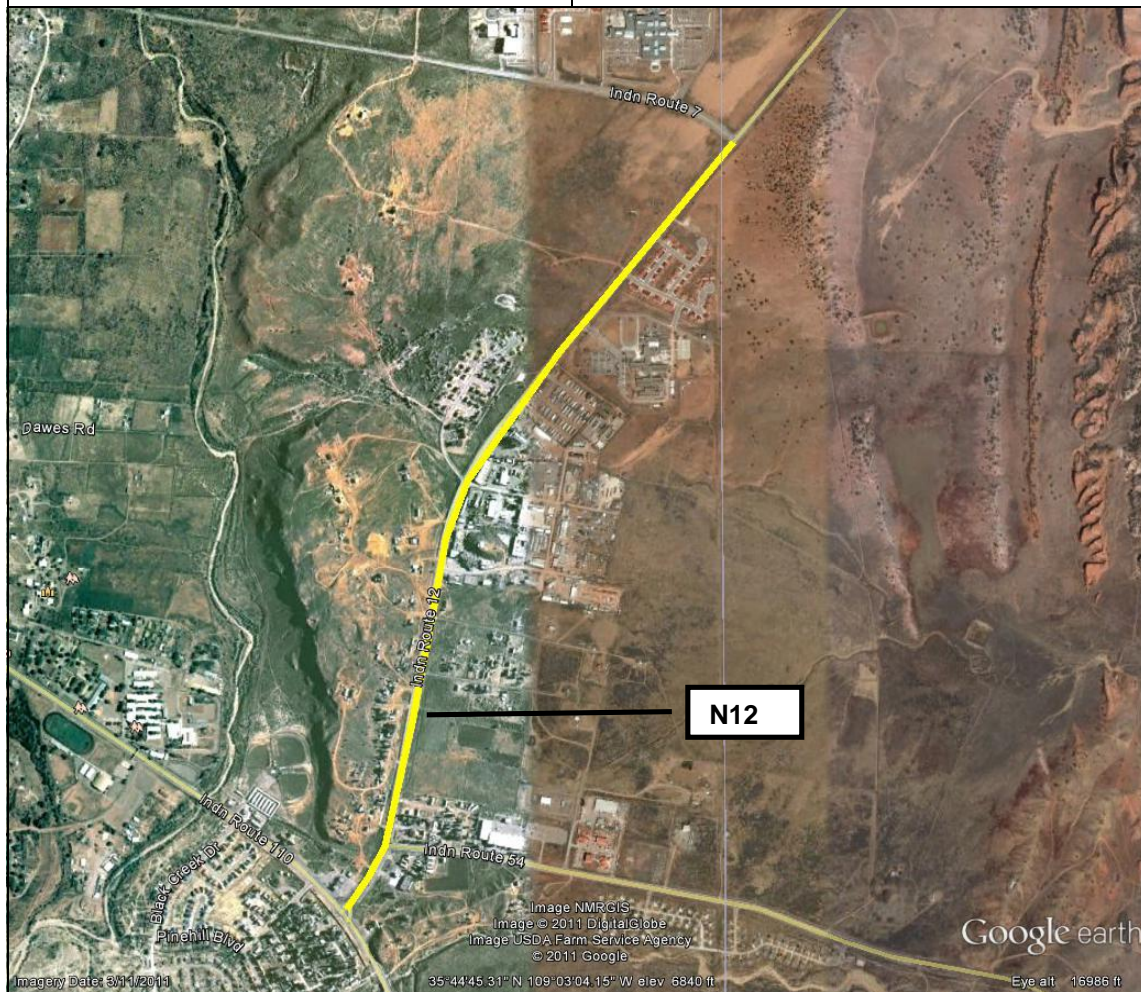
## Fort Defiance Chapter Project Information Sheet – Black Creek Equestrian Path

<b>Route</b>	Black Creek
<b>Project Location</b>	Black Creek, St. Michaels to Fort Defiance.
<b>Project Description</b>	Construct 8-foot wide equestrian path on one side of creek, 12.2 miles.
<b>Project Justification</b>	An equestrian path will provide a safe walking and riding area that connects Window Rock and Fort Defiance.
<b>2011 Cost Estimate</b>	\$1.81M
<b>Funding Sources</b>	Transportation Enhancement Grant National Recreational Trails Program Southwest Conservation Corps (resource for labor to construct path).
<b>Comments</b>	



## Fort Defiance Chapter Project Information Sheet – N12 Bicycle Lanes

<b>Route</b>	N12
<b>Project Location</b>	N110 to N7
<b>Project Description</b>	Widen shoulders, 1.72 miles.
<b>Project Justification</b>	Bike lanes are needed in this area, which serves Window Rock High School.
<b>2011 Cost Estimate</b>	\$0.28M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	



## Fort Defiance Chapter Project Information Sheet – N54 Bicycle Lanes

<b>Route</b>	N54
<b>Project Location</b>	N12 to 0.9 miles east of N12
<b>Project Description</b>	Widen shoulders, 0.90 miles.
<b>Project Justification</b>	Wider shoulders, that can serve bike riders, will provide better access to neighborhoods, and the new Navajo Transit System maintenance and storage facility.
<b>2011 Cost Estimate</b>	\$0.15M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant.
<b>Comments</b>	



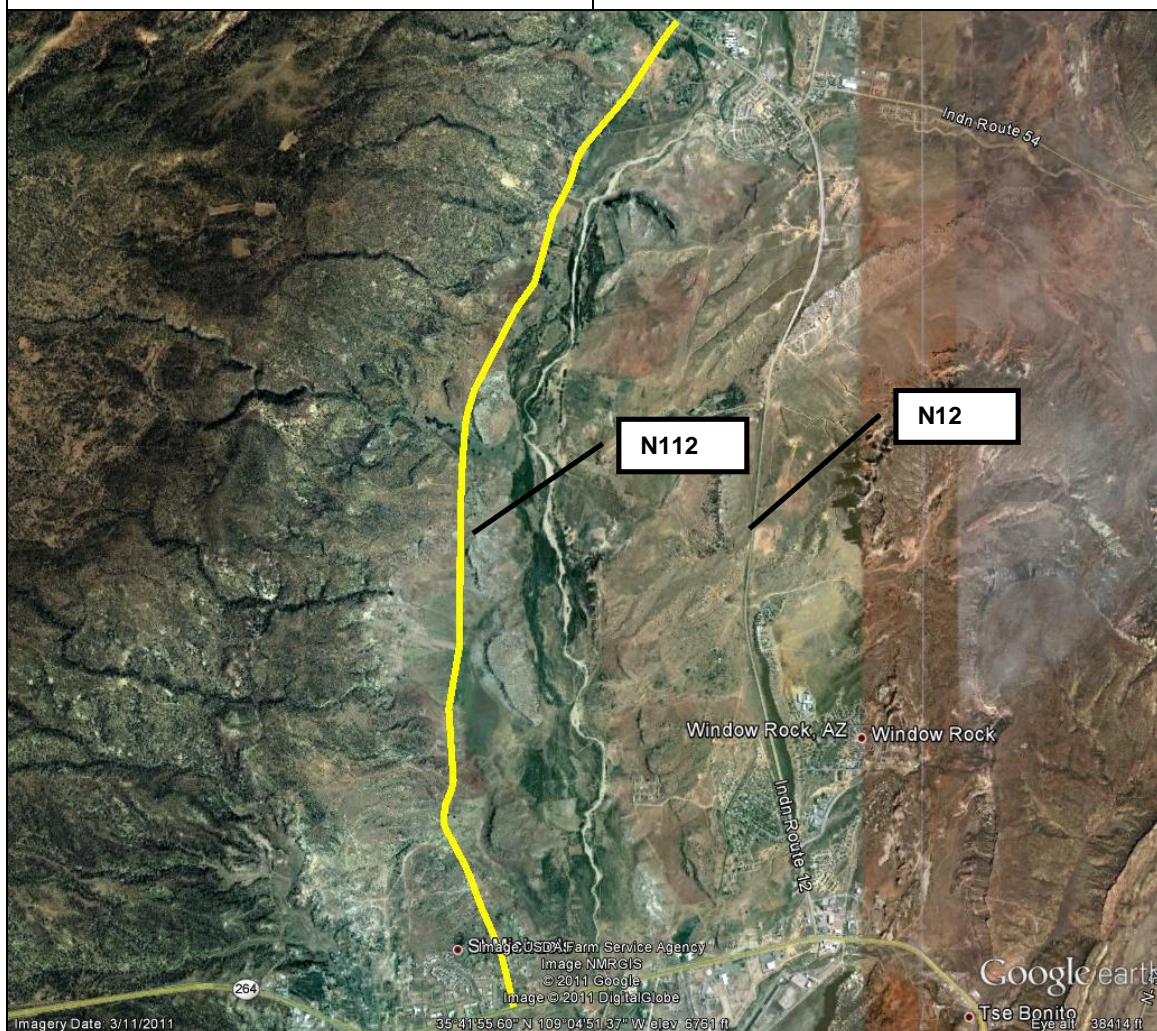
## Fort Defiance Chapter Project Information Sheet – N12 Bicycle Lanes

<b>Route</b>	N12
<b>Project Location</b>	N12, SR 264 to N110
<b>Project Description</b>	Stripe and sign bike lane, 5 miles.
<b>Project Justification</b>	A bike lane on this road will provide the backbone of a bike route system.
<b>2011 Cost Estimate</b>	\$0.04M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	Existing shoulder width will be sufficient for striping bike lanes.



## Fort Defiance Chapter Project Information Sheet – N112 Bike Lane

<b>Route</b>	N112
<b>Project Location</b>	N112, SR 264 to N110
<b>Project Description</b>	Stripe and sign bike lane, 6.25 miles.
<b>Project Justification</b>	A bike lane on this road will provide the backbone of a bike route system.
<b>2011 Cost Estimate</b>	\$0.05M
<b>Potential Funding Sources</b>	Transportation Enhancement Grant
<b>Comments</b>	



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## 7 SR 264 ROADWAY PROJECTS

Although this study is focused on tribal roads, there were a number of comments from stakeholders regarding needs along SR 264 since SR 264 serves both local and through trips within the St. Michaels, Window Rock and Fort Defiance areas. Stakeholders expressed concerns that drivers are speeding on SR 264, making it difficult to safely turn into and out of driveways. Locations that were mentioned include the Church of Jesus Christ of Latter-Day Saints on SR 264, the Denny's Restaurant at 392 West Highway 264, and the Navajoland Inn and Suites. Construction of deceleration lanes near the Church has been requested. Other areas with recent crashes were Chevron / Taco Bell's access to the Quality Inn.

- More pedestrian crossing opportunities on SR 264 are needed, particularly across from key activity centers such as the Basha's shopping Plaza and the Navajo Fairgrounds.
- Better access control is needed through the developed areas of St. Michaels and Window Rock. A raised median will help control vehicle access and provide a refuge for pedestrians.
- Bus pullouts are needed on SR 264 to allow school buses and Navajo Transit System buses to stop and load and unload passengers without causing undue delays. ADOT is currently working with Navajo Transit System and the school district to locate bus pullouts.
- Sidewalks are narrow along SR 264. Wider shared use paths are needed, especially near the fairgrounds.

In the *2009 Navajo Nation Long Range Plan*, a short term recommendation was to implement raised medians and limited access/turnoffs between MP 474.5 and MP 476.5.

The *2003 SR 264 Corridor Profile Study* recommended to have a five lanes cross section for SR 264 from the New Mexico State Line to approximately MP 472. The study recommendations reflected an overlay, widening and lighting project on SR 264 between MP 472.5 and MP 476, which has been completed. An intersection improvement project was recommended at the intersection of SR 264 and N112 (MP 473.6).

Other improvements recommended included:

- Intersections with State Routes and BIA paved routes will be improved with left-turn lanes and acceleration/deceleration lanes intersections where warranted.

- In addition, access roads to Navajo Chapter Houses are proposed to be improved. Commercial areas and housing development access will be addressed.
- Pedestrian improvements along SR 264 will be incorporated at access roads to Navajo Chapters as well as other key areas.
- Frequency of transit service should be improved and routes along SR 264 should be coordinated with other services on the reservations.
- Signing along SR 264 should be improved in order to provide information on regulation and directions.
- The SR 264 Corridor Study recommended a variable message sign and Road Weather Information System on SR 264 in the Window Rock area, which has been installed.

Proposed projects based on this information are summarized in **Table 29**.

**Table 29 – Recommended ADOT Projects**

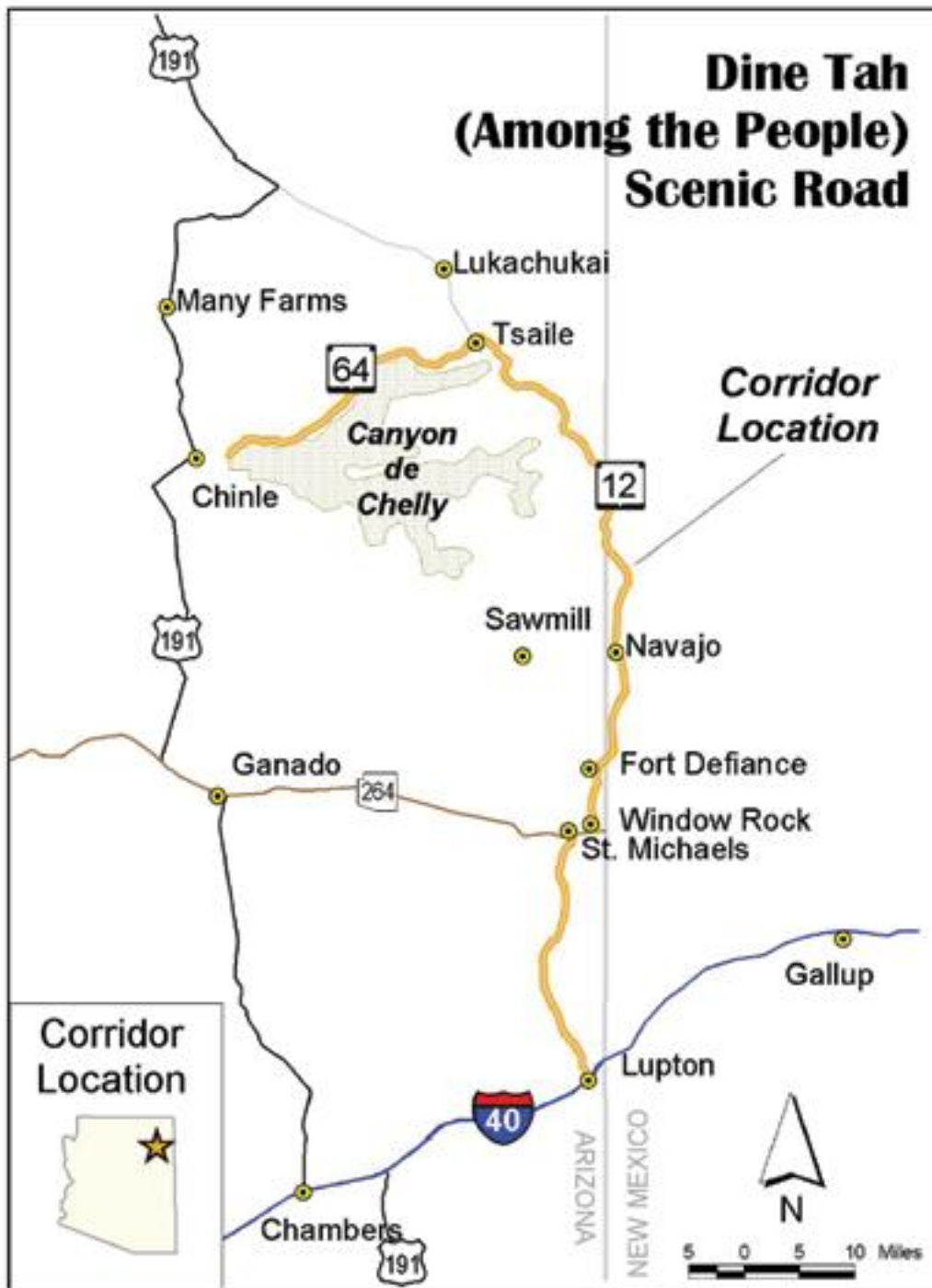
Route Number or Name	Project	Project Location	Description	Length (miles)	Additional Information
SR 264	Pedestrian Crossing Study	MP 472-476	Determine specific location and traffic control device for pedestrian crossings.	4	
SR 264	Pedestrian crossing – HAWK Signal	To be determined	Pedestrian crossing signal(s).	N/A	Coordinate with bus pullout locations.
SR 264	Bus Stop Pullouts	To be determined	Construct bus pullouts per on-going study findings.	N/A	Construct bus pullouts that are currently being planned.
SR 264	Solar speed monitor construction	To be determined	Construct two solar speed monitors in developed areas.		
SR 264	Access Management Study	MP 473.4 to 475.9	Study from proposed Fairground access to Navajo Nation Museum Road.	2.5	
SR 264	Shared use path	MP 472-476	Construct shared use path.	4	
SR 264	Turn lane study	MP 472-474	Turn lane, deceleration lane study.	2	
SR 264	Speed limit study	MP 472-476	Study to determine speeds through developed areas along SR 264 near St. Michaels and Window Rock.	4	Response to concerns about speeding and development in the area.

## 8 SCENIC ROAD PROJECTS

Proposed Scenic Road projects are based on input from the Navajo Nation Scenic Byway Coordinator and from information contained in the *Diné Tah (Among the People) Scenic Road Corridor Management Plan*. Many of the projects are described as part of the roadway or non-motorized project recommendations.

Within the corridor study area, Navajo Route 12 from Lupton, Arizona to Tsaile, Arizona and west on Navajo Route 64 to Chinle is designated as the Diné Tah (Among the People) Scenic Road. A map of this road is provided in **Figure 34**. The corridor is approximately 100 miles of non-interstate road, including both Navajo Route 12 and Navajo Route 64. **Table 30** presents a summary of recommendations from the *Diné Tah (Among the People) Scenic Road Corridor Management Plan* and whether projects proposed in this study addresses these recommendations.

An extension of Diné Tah (Among the People) Scenic Road to connect to the Tse'nikani Scenic Road on US 191 will provide a continuous scenic road corridor which could potentially provide greater impetus for tourists to visit the Nation.



Source: Diné Tah "Among the People" Scenic Road Corridor Management Plan, 2008

**Figure 34 - Dine Tah (Among the People) Scenic Road**

**Table 30 – Coordination of Projects with Scenic Byway CMP Recommendations**

<b>Recommendation</b>	<b>Addressed in this study?</b>	<b>How Addressed on N12 (Scenic Byway)</b>
Right-of-way fencing in areas with high number of traffic accidents with animals.	No	Not addressed because of open range practice on the Navajo Nation.
Cattle guards and wildlife crossings in areas with high-number of vehicular/animal traffic accidents.	No	Not addressed because of open range traditions within Chapters.
Roadway improvements, such as the addition of right-turn deceleration lanes, should be considered in urbanized areas.	Yes	Right turn lanes are proposed on N12 in a number of locations, particularly in Fort Defiance.
Allowing locals to help monitor the roadway and facilities for trash, vandalism, etc., will help increase community involvement.	N/A	N/A
The addition of pedestrian crossings in areas of high accident rates, possibly at signalized intersections.	Yes	Improved pedestrian crossings recommended on N12 at N100 and Window Rock High School.
Additional sidewalks and bicycle paths in the urbanized areas in the corridor. If bike lanes cannot be provided in the roadway, consider multiuse paths.	Yes	Shared use paths and bike lanes are recommended on N12.
Additional street lights where accident rates are high	Yes	Street lighting recommended on section of N12 south of SR 264.
Consider developing guidelines for commercial signage in the corridor.	N/A	N/A
Consider adopting a theme or visual identifier for signage throughout the corridor.	N/A	N/A
Minimize the number of commercial and/or regulatory signs in a given area by placing multiple panels per post if possible.	N/A	N/A
Kiosks are planned at the entrances to Canyon de Chelly National Park, the Cottonwood Campground within the Park, and at the Lupton Interpretive Center adjacent to I-40. This will provide improved access to interpretive information at the National Park Service Visitor Center, campground facilities, and elsewhere along the corridor.	N/A	N/A - Outside of this study area corridor.

## 9 Transit Projects

Transit projects were based on input from Navajo Transit System staff and a review of the *Navajo Transit System Five-Year Plan (2009)*. Proposed transit projects are summarized in **Table 31**.

A major project, Navajo Transit Bus Maintenance and Administration Center, was completed in May 2012. The Navajo Transit System's Transportation Center will serve as a central hub for the Nation's growing bus fleet. This will include areas for administration, offices and clerical work, vehicle repair and storage, and a fueling island.

Bus pullouts and advance signing for pullouts are needed to reduce delays and reduce the potential for rear-end collisions. Currently Navajo Transit system staff is working with ADOT to develop a system of bus pullouts on SR 264. Bus pullouts were also identified on BIA routes through discussions with Navajo Transit System staff.

A transit center is also planned in the Window Rock area on SR 264. The goal of the transit center, according to the *Navajo Transit System Five-Year Plan (2009)*, is to serve as a meeting place for riders as well as an office/operating location for drivers to begin and end their routes. The facility would consist of a modest modular office. In addition to a meeting point for drivers, the office would also be equipped with some maintenance parts/materials that would allow the driver to do minor maintenance and paperwork.

Future plans also include a circulator bus route between St. Michaels / Window Rock and Fort Defiance.

With respect to school bus transit, school district staff indicated that delays and potential hazards occur when buses have to stop on the streets, rather than in bus pullouts. Signing is needed to alert drivers to the need to stop when a bus has its red flashing lights on.

**Table 31 – Proposed Transit Projects – St. Michaels, Window Rock and Fort Defiance Area**

Project Name	Project Limits / Scope of Work	Estimated Cost	Comment
Install Transit Shelters	Transit Shelters on SR 264	\$0.02M	New transit pullouts are being planned on SR 264.
Construct Transit Center	Construct Window Rock / St. Michaels Transit Center	\$0.05M	This is a separate facility from the Navajo Transit maintenance Facility.
Vehicle Replacement / Expansion Plan	Replacement/expansion plan per Navajo Transit 5-year Plan	Varies	Costs vary depending on the number of buses to be replaced each year. In the 5-year transit plan, costs varied from approximately \$670k to \$ 370k per year.
Circulator Bus Route	Circulator Bus Route between St. Michaels, Window Rock and Fort Defiance	To be determined	Per <i>Navajo Transit System Five Year Implementation Plan</i> .

Source: *Navajo Transit System Five Year Implementation Plan*

## 10 EVALUATION CRITERIA AND PROJECT PRIORITIZATION

### 10.1 Criteria for Prioritizing Roadway Improvements

The roadway improvement projects that were identified in the previous chapters will address critical transportation needs through 2030 and beyond. These projects were further prioritized into the following categories:

**Short-term, lower cost projects** – In general, short-term projects are those needed to address current needs and deficiencies, for which funding can reasonably be identified. Short term projects also include currently programmed projects in the 2012 Tribal Transportation Improvement Plan (TTIP).

**Mid-term projects** – These are higher cost projects that have higher priorities due to safety or connectivity. Mid-term projects also include projects that can be linked to projects currently programmed in the mid-term time frame.

**Long-term projects** – These are higher cost projects that may need additional lead time to obtain funding, or can be linked to long-range projects currently planned. These projects also include currently programmed long-term projects.

To guide this implementation, project phasing was accomplished through a process which involved organizing projects into three planning horizons:

1. Short-term – 2012 to 2015
2. Mid-term – 2016 to 2020
3. Long-term – 2021 to 2030 and beyond

The following sections provide more details for each prioritization category as well as tables summarizing the projects within each category.

### 10.2 Project Prioritization – Short-Term Projects

Short term projects are those identified for implementation within the next three years (by 2015). Some of these projects are already included in the *2012 Tribal Transportation Improvement Plan* (TTIP). Others could reasonably be funded through existing sources or would need committed funds in order to be built. Implementation of these short term projects would greatly improve connectivity and multimodal options for residents and visitors.

**Table 32** summarizes the short term projects.

**Table 32 – Short-Term (2012-2015) Projects**

Chapter	Route Number or Name	Project Number*	Project Limits	Project Description	Length (miles)	Estimated Cost (millions)	Comments
<b>Roadway / Intersection Projects</b>							
St. Michaels and Fort Defiance	N12	N12D(1-1)4	SR 264 north 11.73 miles	Chip Sealing	11.73	\$2.00	Scheduled in 2015
Fort Defiance	N9073	N9073(1)1, 2,4	Blue Canyon Road and Bridge N606	Grade, drain and asphalt paving and bridge construction.	6.5	\$15.72	Scheduled in 2015
St. Michaels	N112/N12/SR 264	None	N/A	Advance warning signs.	N/A	\$0.01	
St. Michaels	N12/N100	None	N/A	Signal timing upgrade, signing and striping improvements.	N/A	\$0.08	
St. Michaels and Fort Defiance	N12 and N112	None	To be determined	Install solar speed monitors.	N/A	\$0.02	4 locations
<b>Bike Lanes</b>							
St. Michaels and Fort Defiance	N12	None	SR 264 to N110	Stripe and sign bicycle lanes.	5.00	\$0.04	
St. Michaels and Fort Defiance	N112	None	SR 264 to N110	Stripe and sign bicycle lanes.	6.25	\$0.05	
<b>Pedestrian Crossings</b>							
St. Michaels	N12 / N100	None	N/A	High visibility pedestrian crosswalk.	N/A	\$0.002	Phase in coordination with traffic signal and striping upgrade.
Fort Defiance	N12/ Window Rock High School	None	N/A	Signing, striping, pedestrian signal.	N/A	\$0.17	
<b>Transit Projects</b>							
St. Michaels and Fort Defiance	Transit Shelters	None	To be determined	Transit Shelters on SR 264.	N/A	\$0.02	
St. Michaels	Transit center	None	To be determined	Construct Window Rock / St. Michaels Transit Center.	N/A	\$0.05	
Vehicle Replacement / Expansion Plan	Bus Replacement	Varies	N/A	Replacement/expansion plan per Navajo Transit 5-year Plan.	N/A	\$670k to \$370k per year.	Costs vary depending on the number of buses to be replaced.
Circulator Bus Route	Circulator Bus Route	To be determined	St. Michaels, Window Rock and Fort Defiance	Circulator Bus Route between St. Michaels, Window Rock and Fort Defiance.	N/A	To be determined- depending on route.	

\*Referenced to Tribal Transportation Improvement Program

### 10.3 Project Phasing – Mid-Term Projects

Mid-term projects are summarized in **Table 33**. Mid-term projects are those that may be implemented within the next ten years, but may not be within the current TTIP. These projects have a reasonable expectation of funding through 2020, and address safety, paving concerns, need for alternate routes, and multimodal improvements. These projects would need committed funds in order to be built.

**Table 33 – Mid-Term (2016-2020) Projects**

Chapter	Route Number or Name	Project Number*	Project Limits	Project Description	Length (miles)	Estimated Cost (millions)	Comments
<b>Roadway Projects</b>							
St. Michaels	Beacon Road	None	SR 264	Grade, drain and surfacing (pavement) construction and bridge improvements.	0.62	\$0.96	
St. Michaels	Community streets – Morgan Drive area	None	Community streets	Grade, drain, and surfacing (pavement) construction.	3.0	\$4.67	
St. Michaels	Community streets-Shonto Blvd Area	None	Community streets	Grade, drain, and surfacing (pavement) construction.	2.70	\$4.20	
St. Michaels	Crest Road	None	SR 264 to N12 south	Grade, drain, and surfacing (pavement) construction.	0.60	\$0.93	
Fort Defiance	N110	None	N112 to N12	Street lighting	0.86	\$0.36	
St. Michaels	N112	None	North and south of SR 264	Street lighting	0.10	\$0.04	
Fort Defiance	N7	None	N12 to 0.65 miles west	Street lighting	0.65	\$0.26	
Fort Defiance	N12	None	N110 to N7	Street lighting	1.73	\$0.69	
Fort Defiance	Pasquotte Rd (N110)	None	N9073 to N112	Grade, drain, and surfacing (pavement) construction and signage.	1.00	\$1.56	
Fort Defiance	N112	None	N110 south 0.26 miles	Street lighting	0.26	\$0.10	

**Table 33 – Mid-Term (2016-2020) Projects (Continued)**

Chapter	Route Number or Name	Project Number*	Project Limits	Project Description	Length (miles)	Estimated Cost (millions)	Comments
Fort Defiance	N112	None	South of N7	Pavement reconstruction	0.30	\$0.47	
Fort Defiance	TR1456	None	N12 east 0.35 miles	Grade, drain, and surfacing (pavement).	0.35	\$0.54	
Fort Defiance	TR1457	None	N12 east 0.29 miles	Grade, drain, and surfacing (pavement).	0.29	\$0.45	
Fort Defiance	TR1451	None	N12 west 0.7 miles	Grade, drain, and surfacing (pavement).	0.7	\$0.65	
<b>Intersection Projects</b>							
St. Michaels	Morgan Drive / N100	None	N/A	Intersection improvement	N/A	\$0.19	
Fort Defiance	N12 / N110	None	N/A	Improve signing and pavement markings, upgrade signal display, provide a marked crosswalk.	N/A	\$0.08	
Fort Defiance	N12 / Window Rock High School Entrance	None	N/A	Turn lane and high visibility school crossing, pedestrian beacon signal.	N/A	\$0.09	
Fort Defiance	N12 / TR1456	None	N/A	Turn lane and emergency beacon signal for fire dept.	N/A	\$0.26	
Fort Defiance	N12 / TR1457	None	N/A	Turn lane	N/A	\$0.07	
Fort Defiance	N112 / N110	None	N/A	Install traffic signal when warranted.	N/A	\$0.53	
<b>New Roads</b>							
St. Michaels	New Road Connection-alternate route to N100	None	To be determined	Feasibility Study and Road Design.	N/A	\$0.10	
St. Michaels	New paved road connection south of fairgrounds	None	N12 to SR 264	Grade, drain and paving construction.	1.7	\$2.65	

**Table 33 – Mid-Term (2016-2020) Projects (Continued)**

Chapter	Route Number or Name	Project Number*	Project Limits	Project Description	Length (miles)	Estimated Cost (millions)	Comments
<b>Sidewalk Construction</b>							
St. Michaels	Chee Dodge Dr, Morgan Drive, Town House Circle	None	Community streets	Community Sidewalk Construction	3.00	\$0.86	
St. Michaels	N12 South	None	SR 264 to St. Michaels School	Sidewalk Construction	1.00	\$0.29	
St. Michaels	TR548	None	N12 to SR 264	Sidewalk Construction	0.54	\$0.16	
Fort Defiance	N7	None	N12 to N112	Sidewalk Construction	1.53	\$0.44	
Fort Defiance	N12	None	N110 to N7	Sidewalk Construction and sidewalk reconstruction	1.72	\$0.50	
Fort Defiance	N110	None	0.3 mile segment	Sidewalk Construction	0.30	\$0.09	
Fort Defiance	N112	None	N110 to N7	Sidewalk Construction	1.33	\$0.38	
<b>Shared Use Paths</b>							
St. Michaels	New road south of fairgrounds	None	SR 264, south of Fairgrounds	Shared use path construction	1.7	\$0.59	Construct as part of the asphalt paving project.
<b>Equestrian trails</b>							
St. Michaels and Fort Defiance	Black Creek Equestrian Trail	None	Black Creek	Soft path construction	12.2	\$1.81	
St. Michaels	Tse Bonito Equestrian Trail	None	Tse Bonito Wash	Soft path construction	2.41	\$0.36	

**Table 33 – Mid-Term (2016-2020) Projects (Continued)**

Chapter	Route Number or Name	Project Number*	Project Limits	Project Description	Length (miles)	Estimated Cost (millions)	Comments
St. Michaels	East-west Equestrian Trail	None	Mustang Road to N112	Soft path construction	1.28	\$0.18	
<b>Bicycle Lanes</b>							
Fort Defiance	N12	None	N110 to N7	Widen shoulders for bike lanes	1.72	\$0.28	
Fort Defiance	N54	None	N12 to 0.9 miles east of N12	Widen shoulders for bike lanes	0.90	\$0.15	

\*Referenced to Tribal Transportation Improvement Program

## 10.4 Project Phasing – Long-Term Projects

Long-term projects are those that are recommended for implementation in the period from 2021 to 2030 and beyond. Some of these projects are scheduled to correspond with projects already programmed. Other projects are more costly and will require a longer lead time to obtain funding. These projects are summarized in **Table 34**.

**Table 34 - Long-Term (2021-2030) Projects**

Chapter	Route Number or Name	Project Number*	Project Limit	Project Description	Length (miles)	Estimated Cost (millions)	Comments
<b>Roadway Projects</b>							
St. Michaels	Drexel Road (CR 606)/ Two Story Loop Road	None	N112 to SR 264	Grade, drain and gravel construction.	2.12	\$1.96	
St. Michaels	CR408 and Mustang Road	None	N112 to SR 264	Grade, drain and gravel construction.	1.60	\$1.86	
St. Michaels	N100	N100(1-1)2&4	Window Rock Streets	Grade, drain and surfacing (pavement) construction.	3.00	\$6.09	Scheduled in 2028
St. Michaels	N100	None	N12 to Morgan Drive	Street lighting	0.65	\$0.26	
St. Michaels	N112	None	SR 264 to N110	Chip sealing	6.25	\$0.33	
Fort Defiance	N7	None	N112 to N110	Grade, drain and surfacing (pavement) construction.	2.08	\$3.24	
Fort Defiance	Black Creek and Aspen Canyon Road (TR1140)	None	N/A	Grade, drain and surfacing (pavement) construction.	1.00	\$1.56	
Fort Defiance	N112	N12(3)1,2,4	N7 to N12	Grade, drain surfacing (pavement) and bridge construction.	7.3	\$12.50	Scheduled in 2037
Fort Defiance	N110	None	N9073 to end of 3-lane section	Widen and resurface.	1.0	\$1.40	
<b>Intersection Projects</b>							
St. Michaels	Shonto Blvd Neighborhood Access Projects	None	N/A	Construct new access to N12 and provide right turn in, right turn out access to Shonto Blvd.	N/A	\$0.65	
St. Michaels	N12/N100 Intersection	None	N/A	Extend southbound left turn lane.	N/A	\$0.18	Coordinate with Shonto Blvd improvements.
<b>New Roads</b>							
St. Michaels	New gravel road connection to Drexel Road (CR606)	None	Drexel Road(CR606) to SR 264	Grade, drain and gravel construction.	0.8	\$0.74	

**Table 34 - Long-Term (2021-2030) Projects (Continued)**

Chapter	Route Number or Name	Project Number*	Project Limit	Project Description	Length (miles)	Estimated Cost (millions)	Comments
St. Michaels	New Road Connection-alternate route to N100	None	To be determined	Grade, drain and surfacing (pavement) construction.	To be determined, based on feasibility study	\$1-2M range	
St. Michaels	New road connection and gravel paving between Beacon Road and Alma Drive	None	Beacon Road to Alma Drive	Grade, drain and gravel construction.	0.81	\$0.75	Alma Drive is in New Mexico.
<b>Sidewalks</b>							
St. Michaels	N100	None	Corresponds to Project N100(1-1) 2&4	Construct sidewalks	2.26	\$0.65	Option may be to construct as part of paving project.
<b>Shared Use Paths</b>							
St. Michaels and Fort Defiance	N12	N12 Shared use path		8'-shared use path	4.4	\$3.03	Option to construct as part of paving project.
St. Michaels and Fort Defiance	N112	N112 Shared use path		8'-shared use path	4.43	\$1.52	Option to construct as part of roadway paving project.
St. Michaels	Drexel Road(CR606)	None	SR 264 to Drexel Road	8'-shared use path	0.80	\$0.28	Option to construct as part of roadway paving project.
St. Michaels	Mustang Road and CR 408	None	N12 to SR 264	8'-shared use path	1.6	\$0.55	Option to construct as part of roadway paving project.

\*Referenced to Tribal Transportation Improvement Program

## 11 FUNDING SOURCES

This chapter describes funding resources available to provide funding for the types of projects identified in the previous chapters. Financing a transportation program is complicated. It involves the potential for using many funding sources and multiple strategies. The funding sources are described for the following types of projects:

- Roadway (**Table 35**)
- Safety (**Table 36**)
- Scenic Byway (**Table 37**)
- Bicycle, Pedestrian and Equestrian (**Table 38**)
- Transit (**Table 39**)

A key funding source for roadway projects is the Indian Reservation Roads (IRR) Program. The IRR Program was established to provide for construction of public roads and bridges under Bureau of Indian Affairs (BIA) administration. The purpose of the IRR program is to provide safe and adequate transportation facilities including public road access to and within Indian reservations, Indian trust land, or Native American communities. IRR by definition include BIA, state, county, and other local government public roads located within or providing access to an Indian reservation.

Funds for the IRR Program come from the Federal Highway Trust Fund administered by the Federal Highway Administration (FHWA). IRR funds are provided to the BIA Division of Transportation (BIADOT), which allocates the funds to the Regional Offices based on Tribal shares determined by a formula. The BIA Navajo Regional Office receives IRR funds for projects once the FHWA approves the Navajo Nation's Tribal Transportation Improvement Program (TIP). An important feature of IRR funds is that they can be used to meet the match requirements of other federal programs.

State constitutional provisions restrict making state tax revenues, e.g. state gas, motor vehicle registration and vehicle license taxes, directly available to Tribes. However, most federally funded transportation programs are administered by the states, and Tribes are eligible for those funds. Certain federal funding processes are also coordinated through the regional Council of Government and for the Arizona portion for the Navajo Nation this is the Northern Arizona Council of Governments (NACOG). Compensation from most federally-funded transportation programs is on a reimbursement basis.

There is a wide range of activities required to satisfy the transportation needs of the Navajo Nation. Funding for these activities is potentially available from multiple sources. The purpose of this section is to provide a brief description of some of the major funding sources and financing options and also to identify some of the principal contacts to learn more detail about the funding sources and requirements for acquiring the funds.

It should be noted that a number of the existing federal transportation funding programs available are subject to the 2012 reauthorization of the federal highway bill. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) highway authorization bill expired on June 30, 2012. The new reauthorization bill titled Moving Ahead for Progress in the 21st Century (MAP-21) will extend the surface transportation programs through 2014. Also under this legislation the "Indian Reservation Roads Program" will be re-titled as the "Tribal Transportation Program". It is therefore recommended that the NDOT personnel keep advised on the status of this national legislative effort by making contact with the state program contacts listed for each program.

**Table 35 – Road Project Funding Sources**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Navajo Fuel Excise Tax	Navajo Nation	This fund is used for both construction and maintenance activities on Nation roadways and other transportation infrastructure.	Based on the amount of taxes paid on fuel sold on the Reservation.	The fuel excise tax is a result of a compact the Nation has entered into with New Mexico, Utah and Arizona. Tribes collect fuel taxes paid by distributors based on fuel sold on Tribal lands. The NN is obligated to return partial of FET revenue to Arizona.	November of each year. Application is currently on hold	Darryl Bradley, Engineer Navajo DOT
IRR Construction	BIA-DOT Navajo Regional Office	Tribal transportation construction, safety programs or public transit capital projects. Can be used for transportation planning. Up to 25% of the funds can be used for roadway maintenance.	Varies	Funds are allocated to BIA Regional Office on a formula basis (RNDF and PAF).	TTIP has to be submitted to FHWA by August	Harold Riley, Acting Division Manager Division of Transportation BIA Navajo Region P.O. Box 1060 Gallup, NM 87305 P: (505) 863-8281 F: 505.863.8355 E: <a href="mailto:Irvin.bekis@bia.gov">Irvin.bekis@bia.gov</a>
IRR Flexible Financing Provisions	BIA-DOT Navajo Regional Office	Same as IRR Construction Program	Controlled by Tribe's IRR allocations	Tribal use of bonds, other debt financing instruments (e.g. bank loans & state infrastructure banks).	July annually	Harold Riley, Acting, Division Manager Division of Transportation BIA Navajo Region P.O. Box 1060 Gallup, NM 87305 P: (505) 863-8281 F: 505.863.8355 E: <a href="mailto:Irvin.bekis@bia.gov">Irvin.bekis@bia.gov</a>

**Table 35 - Road Project Funding Sources (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
IRR Transportation Planning	BIA-DOT	Tribal transportation planning.	2% of construction funding	Funds are allocated directly to Tribe based on a formula, and distributed on a project by project basis.	N/A	Harold Riley, Acting Division Manager Division of Transportation BIA Navajo Region P.O. Box 1060 Gallup, NM 87305 P: (505) 863-8281 F: 505.863.8355 E: <a href="mailto:Irvin.bekis@bia.gov">Irvin.bekis@bia.gov</a>
Surface Transportation Program (STP)	ADOT, NMDOT, UDOT, NWNMRPO and NACOG	Construction, transit, safety, Intelligent transportation systems, management systems, environmental, transportation planning and enhancement on roads with functional classifications of urban collector, major rural collector or higher.	Varies by year	Project is scoped and request for funding submitted to NACOG, NWNMRPO, and UDOT. Project is funded if it is added to RTIP and STIP.		Chris Fetzer, NACOG 928.774.1895, ext. 1142 <a href="mailto:cfetzer@nacog.org">cfetzer@nacog.org</a> Robert Kuipers <a href="mailto:rkuipers@nwnmcog.com">rkuipers@nwnmcog.com</a> P:(505) 722-4327
TIGER Grant Program	US DOT	Highway or bridge projects eligible under title 23, United States Code.  Public transportation projects eligible under chapter 53 of title 49, United States Code.	Varies by Year	Discretionary Grant Program that funds large projects with significant impact to the Nation or region.	A pre-application is typically required by early October.	<a href="http://www.dot.gov/tiger/">http://www.dot.gov/tiger/</a>

**Table 35 - Road Project Funding Sources (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Indian Community Development Block Grant Program	US Dept. of Housing and Urban Development	Infrastructure construction, e.g., roads, water and sewer facilities; and, single or multipurpose community buildings. Also for housing and economic development projects. There are also Imminent Threat Grants to provide solutions to a problem of an urgent nature.	Nationally , single purpose grants were \$60M, Imminent threat grants up to \$3.9M.	Single-purpose grants are competitively awarded- must primarily benefit low or moderate income persons.	Mid-June annually	Southwest Office of Native American Programs Phoenix Office One North Central Avenue, Suite 600 Phoenix, AZ, 85004-2361 Telephone: (602) 379-7200 FAX: (602) 379-3101
Public Lands Highway Discretionary Program	FHWA	PLHD funds are available for any kind of transportation project eligible for assistance under Title 23, United States Code, which is within, adjacent to, or provides access to Federal lands or facilities.  PLHD funds are available for transportation planning, research, engineering, and construction of the highways, roads, and parkways, and of transit facilities within the Federal public lands. Priority given to requests that increase livability, e.g. increase transportation choices	\$45M nationally	Apply through ADOT.	Early January	Cindi Ptak Office of Federal Lands Highway 202-366-1586 <a href="mailto:cindi.ptak@dot.gov">cindi.ptak@dot.gov</a>
Transportation, Community, and System Preservation Program	FHWA	The program provides funding for planning grants, implementation grants, and research to investigate and address the relationships among transportation, community, and system preservation plans and practices and identify private sector-based initiatives to improve those relationships.	\$29M nationally	The project must be on a federal aid highway.	Early January	Wesley Blount Office of Human Environment 202-366-0799 <a href="mailto:wesley.blount@dot.gov">wesley.blount@dot.gov</a>

**Table 35 - Road Project Funding Sources (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
<b>Funding for Planning Studies</b>						
Planning Assistance for Rural Areas (PARA) Program (formerly Small Area Transportation Study Program)	ADOT	Small Area Transportation Studies to develop short, medium and long range transportation plans.	Up to \$250,000 per study depending on the project area and scope of work.	Competitive applications for planning projects are submitted to ADOT on an annual basis.	Applications for planning projects are submitted to ADOT on an annual basis in early summer.	<a href="http://mpd.azdot.gov/mpd/systems_planning/PDF/PARA/PARAs.asp">http://mpd.azdot.gov/mpd/systems_planning/PDF/PARA/PARAs.asp</a>  Justin Feek, Senior Transportation Planner PARA Program Manager Phone: 602.712.6196 <a href="mailto:jfeek@azdot.gov">jfeek@azdot.gov</a>
PDAF – Project Development Activity Funds	ADOT	PDAF Project Development Activity Funds (subcategory of 12.6%) are intended to assist in project development. Eligible development activities include: Major investment or corridor studies Design concept reports Engineering and design studies Right-of-way acquisition Non-traditional studies  These funds are limited to arterial projects.	Funding is limited to \$50,000 per applicant.	Application submitted to NACOG by April 1.	Early April	NACOG Transportation/Transit Planning Attn: Chris Fetzter 119 East Aspen Avenue Flagstaff, AZ 86001 (928) 774-1895 <a href="mailto:cfetzter@nacog.org">cfetzter@nacog.org</a>

**Table 36 - Funding for Safety Projects**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Alcohol Impaired Driving	NHTSA & GOHS	Costs for high visibility enforcement; Costs of training and equipment for law enforcement, Costs of advertising and educational campaigns that publicize checkpoints, increase law enforcement efforts and target impaired drivers under 34 years of age, Costs of vehicle or license plate impoundment.	\$129 million per year nationally	GOHS submits application for funding. Tribe should work with GOHS for use of funds.		
Highway Safety Improvement Program (HSIP)	ADOT and PAG	Elimination of safety hazards on any public road, public surface transportation facility; any publicly owned bicycle or pedestrian pathway or trail; or any traffic calming measure.	Set aside of \$600,000 for NACOG region (2010)	Project is scoped and request for funding submitted to NACOG. HSIP Local Government Coordinator provides assistance to local agencies throughout the process of identifying and developing the projects.	May 1st	<a href="http://www.azdot.gov/highways/traffic/TSS/HSIP/AzHSIP2010.pdf">http://www.azdot.gov/highways/traffic/TSS/HSIP/AzHSIP2010.pdf</a> Mark Poppe, State Safety Engineer ADOT Traffic Safety Section E: <a href="mailto:mpoppe@azdot.gov">mpoppe@azdot.gov</a> P: (602) 712-8496
High Risk Rural Roads Program (HRRRP)	ADOT	A list of eligible projects examples include: <ul style="list-style-type: none"> <li>• Intersection safety improvements</li> <li>• Pavement and shoulder widening</li> <li>• Installation of rumble strips</li> <li>• Railway-highway safety crossing improvements</li> </ul>		Construction and operational safety improvements are funded on rural major or minor collector or a rural local road that has fatal and incapacitating injury crash rates higher than the statewide average.	May 1st	<a href="http://www.azdot.gov/highways/traffic/TSS/HSIP/AzHSIP2010.pdf">http://www.azdot.gov/highways/traffic/TSS/HSIP/AzHSIP2010.pdf</a> Mark Poppe, State Safety Engineer ADOT Traffic Safety Section E: <a href="mailto:mpoppe@azdot.gov">mpoppe@azdot.gov</a> P: (602) 712-8496

**Table 36 - Funding for Safety Projects (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Indian Highway Safety Program	BIA Highway Safety Office	Safe communities, Alcohol countermeasures, Occupant protection, Police traffic services (primarily enforcement), Emergency medical services, Traffic records, Motorcycle safety, Pedestrian and bicycle safety, Roadway safety, speed control.	Approx. \$4 million/year nationally	Competitive applications	Proposals submitted in the April time frame for following FY funding.	Paul Holley, Administrator Patricia Abeyta, Program Coordinator Phone- 505-563-5371
State & Community Highway Safety Grant Program	NHTSA & GOHS	Alcohol countermeasures, Occupant protection, Police traffic services (primarily enforcement), Emergency medical services, Traffic records, Motorcycle safety, Pedestrian and bicycle safety, Roadway safety, Speed control, school bus safety, training, and accident reconstruction.	Approx. \$2.5 million/year for Arizona	Competitive proposals submitted to the GOHS.	Competitive proposals submitted to the GOHS during April and May.	
Injury Prevention Program	IHS	Build Tribal capacity for preventing any type of identified injury problem facing a tribal government. Develop, implement, and evaluate proven or promising injury prevention intervention programs. Projects include, but are not limited to, programs designed to reduce alcohol-related injuries, e.g. supporting initiatives to reduce drinking and driving. Other projects include seat belt promotion campaigns, pedestrian safety, child passenger safety.	\$75,000 maximum per project	Work with IHS Office to obtain project funding.	N/A	Siona Willie Area Injury Prevention Specialist Navajo Area Indian Health Service P.O. Box 9020 Window Rock, AZ 86515 Email: <a href="mailto:siona.willie@ihs.gov">siona.willie@ihs.gov</a> Phone: 928-871-1335

**Table 36 - Funding for Safety Projects (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Road Safety Assessment	ADOT Traffic Safety Section	The RSA program will conduct assessments on state, local and tribal road facilities. An RSA is defined as a formal examination of user safety of a future or existing roadway by an independent multidisciplinary audit team, which includes qualified experienced members.	Not available	Submit application	On-going	Mike Blankenship, P.E. Phone: 602-712-7601 Road Safety Assessment Program Manager Fax: 602-712-3243 1615 West Jackson St., Mail Drop 065R Email: <a href="mailto:mblankenship@azdot.gov">mblankenship@azdot.gov</a> Phoenix, AZ 85007-3217

Another reference source for funding programs that address tribal traffic safety issues is the Tribal Traffic Safety Funding Guide which was developed through the Arizona Transportation Research Center - Research Program. The guide summarizes the various transportation safety programs and can be obtained through the ATRC website at [http://www.azdot.gov/TPD/ATRC/publications/project\\_reports/PDF/AZ592s.pdf](http://www.azdot.gov/TPD/ATRC/publications/project_reports/PDF/AZ592s.pdf)

**Table 37- Funding Programs for Scenic Byway Projects**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
National Scenic Byway Program	Federal Highway Administration	<p>There are 8 categories:</p> <ul style="list-style-type: none"> <li>• State and Tribal Programs</li> <li>• Corridor Management Plan</li> <li>• Safety Improvements</li> <li>• Byway Facilities – includes construction of facility for pedestrians and bicyclists, rest area, turnout, shoulder, overlook, or interpretive facility</li> <li>• Access to Recreation</li> <li>• Resource Protection</li> <li>• Interpretive Information</li> <li>• Marketing Program</li> </ul> <p>This Program provides discretionary funds for projects along highways designated as National Scenic Byways, All-American Roads, State scenic byways or Indian Tribe scenic byways. This Program can fund bicycle facilities along highways.</p> <p>New this year, priority is given to projects that create new jobs.</p>	Varies by year	Competitive grant application	January	<p><a href="http://www.bywaysonline.org/grants/">http://www.bywaysonline.org/grants/</a></p> <p>Navajo Nation Scenic Byway Coordinator Geri Arviso Navajo Tourism PO Box 663 Window Rock, AZ 86515 928-871-6436 <a href="mailto:gabinettneekirk@yahoo.com">gabinettneekirk@yahoo.com</a></p> <p>Gary Jensen, Team Leader FHWA Headquarters P: (202) 366-2048 E: <a href="mailto:gary.jensen@dot.gov">gary.jensen@dot.gov</a></p> <p>Meesa Otani, Environmental Coordinator FHWA AZ Division P: 602-382-8976 E: <a href="mailto:meesa.otani@dot.gov">meesa.otani@dot.gov</a></p>

**Table 38 - Funding for Pedestrian, Bicycle, and Equestrian Projects**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Transportation Enhancement	ADOT and NACOG	<p>Facilities, safety and educational activities for pedestrians and bicycles.</p> <p>Scenic and historic highway programs including tourist and welcome center facilities.</p> <p>Landscaping and other scenic beautification.</p> <p>Historic preservation.</p> <p>Rehabilitation of historic transportation buildings, structures, or facilities.</p> <p>Control and removal of outdoor advertising.</p> <p>Archeological planning and research.</p> <p>Environmental mitigation related to highway runoff or reduction of wildlife mortality due to motor vehicle collisions.</p> <p>Establishment of transportation museums.</p>	\$15+ million per year for Arizona	<p>Applications and estimates are submitted to NACOG.</p> <p>The Nation and NACOG work together to refine the proposal, which must be submitted to ADOT in September.</p> <p>ADOT uses a selection committee to select the projects to be approved for funding.</p>	September of each year	<p>Tammy Flaitz, ADOT  <a href="http://www.azdot.gov/highways/SWProjMgmt/enhancement_scenic/enhancement_index.asp">http://www.azdot.gov/highways/SWProjMgmt/enhancement_scenic/enhancement_index.asp</a></p> <p>and</p> <p>Chris Fetzer, NACOG  928.774.1895, ext. 1142  <a href="mailto:cfetzer@nacog.org">cfetzer@nacog.org</a></p>
Safe Routes to School Program		<p>The program accomplishes this by providing funds for schools and communities to implement infrastructure projects (such as sidewalk improvements, trails, and traffic calming) and non-infrastructure programs (such as education campaigns, law enforcement efforts, and prize giveaways).</p> <p>This program provides reimbursable funds for elementary/middle schools to implement projects to encourage children to walk and bicycle to school.</p>	Varies	Competitive application. Grant writing seminars are provided periodically.	Generally first half of school year.	<p>Brian Fellows, SRTS Program Coordinator  telephone: 602.712.8010  fax: 602.712.3347  <a href="mailto:bfellows@azdot.gov">bfellows@azdot.gov</a></p>

**Table 38 - Funding for Pedestrian, Bicycle, and Equestrian Projects (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Southwest Conservation Corps	Southwest Conservation Corps	Although not a funding source, this non-profit organization engages and trains youth and completes conservation projects for the public benefit.	N/A	Contact Southwest Conservation Corps to partner on a project.	N/A	Ancestral Lands Acoma, NM (505) 552-4074 Four Corners 701 Camino del Rio Suite 101 Durango, CO 81301 (970) 259-8607

**Table 39 - Transit Funding Programs**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Section 5310, Elderly/Disabled Transit Program	ADOT	<p>Private non-profit, Tribes and public agencies that provide transportation to the elderly and disabled. 90% federal funds and 10% local match funds are used annually for the purchase of van type vehicles statewide.</p> <p>In addition, a new federal class of grant called "mobility management" is available to assist agencies and communities with their coordination efforts.</p>	Approximately \$3.9 million statewide annually.	Application-based process initially screened through NACOG.	<p>Regional application workshops –</p> <p>Co-hosted by ADOT and NACOG usually in January (by webinar).</p> <p>Applications due Feb/March (schedule set by NACOG)</p>	<p><a href="http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5310.asp">http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5310.asp</a></p> <p>Dan Harrigan, ADOT Coordinated Mobility Program Manager at <a href="mailto:DHarrigan@azdot.gov">DHarrigan@azdot.gov</a> or (602) 712-8232</p> <p>Jason Kelly, NACOG Mobility Management Planner at <a href="mailto:jkelly@nacog.org">jkelly@nacog.org</a> or (928) 830-0127.</p>
Section 5311, Rural Public Transportation Program	ADOT	Funds may be used for public transit services operating: a) within small urban and rural communities, b) among small urban and rural communities, and c) between small urban and rural communities and Urbanized Areas (cities of 50,000 or more). The Navajo Transit System uses this funding program. Requests for services should be coordinated through the NTS.	Approximately \$9.1 million in FY2010 statewide	<p>Application based program, must :</p> <ul style="list-style-type: none"> <li>• Attend an application workshop</li> <li>• Submit application</li> <li>• Participate in a panel interview with ADOT and transit experts</li> <li>• Meet budget levels recommended by ADOT</li> </ul>	December, 2011	<p><a href="http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5311.asp">http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5311.asp</a></p> <p>Tracy Young , ADOT 5311 Program Manager - Northern Arizona Region <a href="mailto:TYoung@azdot.gov">TYoung@azdot.gov</a> 602-712-7106</p> <p>NACOG Transportation/Transit Planning Attn: Chris Fetzer 119 East Aspen Avenue Flagstaff, AZ 86001 (928) 774-1895 <a href="mailto:cfetzer@nacog.org">cfetzer@nacog.org</a></p>

**Table 39 - Transit Funding Programs (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Section 5311(c) – Rural Public Transportation on Indian Reservation Program	Federal Transit Administration	This program provides operating assistance for local governments and Indian Tribes to provide transit for the general public. Capital assistance may also be provided under this program. NACOG annually reviews applications for consistency with the Regional Transit Development  A Tribe can apply for multiple years of funding, up to four years.	\$25,000 maximum per planning grant.	Application-based program, submitted to Federal Transit Administration.	December	<a href="http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5311.asp">http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5311.asp</a>  Tracy Young , ADOT 5311 Program Manager - Northern Arizona Region <a href="mailto:TYoung@azdot.gov">TYoung@azdot.gov</a> 602-712-7106  NACOG Transportation/Transit Planning Attn: Chris Fetzer 119 East Aspen Avenue Flagstaff, AZ 86001 (928) 774-1895 <a href="mailto:cfetzer@nacog.org">cfetzer@nacog.org</a>
Section 5316, Job Access/Reverse Commute Program	ADOT	JARC grant program is to assist in developing new or expanded transportation services that connect welfare recipients and other low income persons to jobs and other employment related services.	Approximately \$630,000 in FY 2011 for rural areas and \$350,000 for small urbanized areas.	Application based program through ADOT.	Regional application workshops –  Co-hosted by ADOT and NACOG(by webinar)  Applications due Feb/March (schedule set by NACOG)	<a href="http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5316.asp">http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5316.asp</a>  Dan Harrigan, ADOT <a href="mailto:dharrigan@azdot.gov">dharrigan@azdot.gov</a>  Jason Kelly, NACOG Mobility Management Planner at <a href="mailto:jkelly@nacog.org">jkelly@nacog.org</a> or (928) 830-0127.

**Table 39 - Transit Funding Programs (Continued)**

Program	Administering Agency	Uses of Funds	Funding Level	Program Details	Application Deadline	Contact
Section 5317- New Freedom Transit Program	ADOT	Funds are available to support the capital and operating costs of new public transportation services targeted toward people with disabilities or public transportation alternatives that go beyond those required by the ADA.	Projections for FY 2011 statewide funding for rural areas are expected to exceed \$285,000, and \$170,000 for small urbanized areas.		Regional application workshops –  Co-hosted by ADOT and NACOG in January  Applications due Feb/March 2012 (schedule set by NACOG).	<a href="http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5317.asp">http://www.azdot.gov/MPD/Transit_Programs_Grants/Section5317.asp</a>  Dan Harrigan, ADOT <a href="mailto:dharrigan@azdot.gov">dharrigan@azdot.gov</a>  Jason Kelly, NACOG Mobility Management Planner at <a href="mailto:jkelly@nacog.org">jkelly@nacog.org</a> or (928) 830-0127.
Rural Transit Assistance Program	ADOT	This is a free training, technical assistance, and outreach program funded by the Federal Transit Administration.	Not available	Each Section 5311 grantee agency (Navajo Transit is one) has an ongoing training program. Regularly offered training may include Passenger Service & Safety, CPR, Basic First Aid, Defensive Driving.	Year round program	<a href="http://www.nationalrtap.org/azdot/Home.aspx">http://www.nationalrtap.org/azdot/Home.aspx</a> Sara Allred Rural Transit Assistance Program ADOT Multimodal Planning Division 206 S 17th Ave MD 340B Phoenix, AZ 85007 602-712-4498 602-712-3046 FAX <a href="mailto:sallred@azdot.gov">sallred@azdot.gov</a>
<b>Transit Planning Funding Resources</b>						
Section 5304 – Statewide Transportation Planning Program	ADOT	Section 5304 funds are apportioned to the states for use in rural transit planning and research. Other eligible uses, at the state's discretion, include statewide planning and technical assistance activities.	Not available	Application-based program. Applicants must provide a minimum 20% match. A limit of \$30,000 is available per project.	Year round program	Mike Normand ADOT Multimodal Planning Division 206 S. 17 <sup>th</sup> Ave MD340B Phoenix, AZ 85007 602-712-8243 <a href="mailto:mnormand@azdot.gov">mnormand@azdot.gov</a>

## **APPENDIX A - TITLE VI AND ENVIRONMENTAL JUSTICE – PRELIMINARY ASSESSMENT**

**Table A1 – Title VI and Environmental Justice – Preliminary Assessment**

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
<b>SHORT TERM PROJECTS</b>							
<b>Roadway / Intersection Projects</b>							
St. Michaels and Fort Defiance	N12	N12D(1-1)4	SR 264 north 11.73 miles	Chip Sealing	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	N9073	N9073(1)1, 2,4	Blue Canyon Road and Bridge N606	Grade, drain and gravel paving and bridge construction.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	N112/N12/S R 264	None	N/A	Advance warning signs	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
St. Michaels	N12/N100	None	N/A	Signal timing upgrade, signing and striping improvements	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
St. Michaels and Fort Defiance	N12 and N112	None	To be determined	Install solar speed monitors	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
<b>Bike Lanes</b>							
St. Michaels and Fort Defiance	N12	None	SR 264 to N110	Stripe and sign bicycle lanes	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
St. Michaels and Fort Defiance	N112	None	SR 264 to N110	Stripe and sign bicycle lanes	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
<b>Pedestrian Crossings</b>							
St. Michaels	N12 / N100	None	N/A	High visibility pedestrian crosswalk	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
Fort Defiance	N12/ Window Rock High School	None	N/A	Signing, striping, pedestrian signal.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
<b>Transit Projects</b>							
St. Michaels and Fort Defiance	Transit Shelters	None	To be determined	Transit Shelters on SR 264	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to bus stop location during construction.	Provide shade and shelter for transit riders.
St. Michaels	Transit center	None	To be determined	Construct Window Rock / St. Michaels Transit Center	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to transit center location during construction.	This center would be used for minor maintenance, driver layovers, and likely a bus stop.
Vehicle Replacement / Expansion Plan	Bus Replacement	Varies	N/A	Replacement / expansion plan per Navajo Transit 5-year Plan	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	None	Allow for reduced bus maintenance costs and expansion of transit system.
Circulator Bus Route	Circulator Bus Route	To be determined	St. Michaels, Window Rock and Fort Defiance	Circulator Bus Route between St. Michaels, Window Rock and Fort Defiance	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	None	Provides more travel options for residents.

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
<b>Mid Term Projects</b>							
<b>Roadway Projects</b>							
St. Michaels	Beacon Road	None	SR 264	Grade, drain and surfacing (pavement) construction and bridge improvements.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	Community streets – Morgan Drive area	None	Community streets	Grade, drain, and surfacing (pavement) construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	Community streets-Shonto Blvd Area	None	Community streets	Grade, drain, and surfacing (pavement) construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	Crest Road	None	SR 264 to N12 south	Grade, drain, and surfacing (pavement) construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	N110	None	N112 to N12	Street lighting	Fort Defiance residents	Temporary constraint to street accessibility during construction.	Improved safety
St. Michaels	N112	None	North and south of SR 264	Street lighting	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
Fort Defiance	N7	None	N12 to 0.65 miles west	Street lighting	Fort Defiance residents	Temporary constraint to street accessibility during construction.	Improved safety
Fort Defiance	N12	None	N110 to N7	Street lighting	Fort Defiance residents	Temporary constraint to street accessibility during construction.	Improved safety

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
Fort Defiance	Pasquotte Rd (N110)	None	N9073 to N112	Grade, drain, and surfacing (pavement) construction and signage.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	N112	None	N110 south 0.26 miles	Street lighting	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
Fort Defiance	N112	None	South of N7	Pavement reconstruction	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	TR1456	None	N12 east 0.35 miles	Grade, drain, and surfacing (pavement).	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	TR1457	None	N12 east 0.29 miles	Grade, drain, and surfacing (pavement).	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	TR1451	None	N12 west 0.7 miles	Grade, drain, and surfacing (pavement).	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
<b>Intersection Projects</b>							
St. Michaels	Morgan Drive / N100	None	N/A	Intersection improvement	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to intersection accessibility during construction.	Improved safety

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
Fort Defiance	N12 / N110	None	N/A	Improve signing and pavement markings, upgrade signal display, provide crosswalk.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to intersection accessibility during construction.	Improved safety
Fort Defiance	N12 / Window Rock High School Entrance	None	N/A	Turn lane and high visibility school crossing, pedestrian beacon signal.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to intersection accessibility during construction.	Improved safety
Fort Defiance	N12 / TR1456	None	N/A	Turn lane/ emergency beacon signal.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to intersection accessibility during construction.	Improved safety and emergency access
Fort Defiance	N12 / TR1457	None	N/A	Turn lane	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to intersection accessibility during construction.	Improved safety
Fort Defiance	N112 / N110	None	N/A	Install traffic signal when warranted.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to intersection accessibility during construction.	Improved safety
<b>New Roads</b>							
St. Michaels	New Road Connection - alternate route to N100	None	To be determined	Feasibility Study and Road Design	St. Michaels and Window Rock residents	Temporary constraint to street accessibility during construction.	Improved emergency access, and travel options.
St. Michaels	New paved road connection south of fairgrounds	None	N12 to SR 264	Grade, drain and paving construction.	St. Michaels and Window Rock residents	Temporary constraint to street accessibility during construction.	Improved emergency access, and travel options.

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
<b>Sidewalk Construction</b>							
St. Michaels	Chee Dodge Dr, Morgan Drive, Town House Circle	None	Community streets	Community Sidewalk Construction	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
St. Michaels	N12 South	None	SR 264 to St. Michaels School	Sidewalk Construction	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
St. Michaels	TR548	None	N12 to SR 264	Sidewalk Construction	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
Fort Defiance	N7	None	N12 to N112	Sidewalk Construction	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
Fort Defiance	N12	None	Window Rock High School entrance to N7	Sidewalk Construction	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
Fort Defiance	N110	None	0.3 mile segment	Sidewalk Construction	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
Fort Defiance	N112	None	N110 to N7	Sidewalk reconstruction and construction of new sidewalk segment.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
<b>Shared Use Paths</b>							
St. Michaels	New road south of fairgrounds	None	SR 264, south of Fairgrounds	Shared use path construction	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to area accessibility during construction.	Improved safety for pedestrians and bicyclists.
<b>Equestrian Trails</b>							
St. Michaels and Fort Defiance	Black Creek Equestrian Trail	None	Black Creek	Soft path construction	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to area accessibility during construction.	Improved safety and access for equestrians.
St. Michaels	Tse Bonito Equestrian Trail	None	Tse Bonito Wash	Soft path construction	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to area accessibility during construction.	Improved safety and access for equestrians.
St. Michaels	East-west Equestrian Trail	None	Mustang Road to N112	Soft path construction	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to area accessibility during construction.	Improved safety and access for equestrians.
<b>Bicycle Lanes</b>							
Fort Defiance	N12	None	N110 to N7	Widen shoulders for bike lanes	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety for bicyclists.
Fort Defiance	N54	None	N12 to 0.9 miles east of N12	Widen shoulders for bike lanes	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety for bicyclists.

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
<b>LONG TERM PROJECTS</b>							
<b>Roadway Projects</b>							
St. Michaels	Drexel Road (CR 606)/ Two Story Loop Road	None	N112 to SR 264	Grade, drain and gravel construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	CR408 and Mustang Road	None	N112 to SR 264	Grade, drain and gravel construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	N100	N100(1-1)2&4	Window Rock Streets	Grade, drain and surfacing (pavement) construction.	St. Michaels and Window Rock residents	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	N100	None	N12 to Morgan Drive	Street lighting	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Improved safety
St. Michaels	N112	None	SR 264 to N110	Chip sealing	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	N7	None	N112 to N110	Grade, drain and surfacing (pavement) construction.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	Black Creek and Aspen Canyon Road (TR1140)	None	N/A	Grade, drain and surfacing (pavement) construction.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
Fort Defiance	N112	N12(3)1, 2,4	N7 to N12	Grade, drain surfacing(pavement) and bridge construction.	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
Fort Defiance	N110	None	N9073 to end of 3-lane section	Widen and resurface	Minority and low-income populations including: Fort Defiance residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved capacity and reduced vehicle maintenance costs.
<b>Intersection Projects</b>							
St. Michaels	Shonto Blvd Neighborhood Access Projects	None	N/A	Construct new access to N12 and provide right turn in / out access to Shonto Blvd.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and access
St. Michaels	N12/N100 Intersection	None	N/A	Extend southbound left turn lane	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved capacity, and decreased delays.
<b>New Roads</b>							
St. Michaels	New gravel road connection to Drexel Road (CR606)	None	Drexel Road(CR606) to SR 264	Grade, drain and gravel construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
St. Michaels	New Road Connection-alternate route to N100	None	To be determined	Grade, drain and surfacing (pavement) construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.

Chapter	Route Number or Name	Project Number	Project Limits	Project Description	Impacted Population	Potential Disproportionate and/or adverse impact(s)	Considerations that dictated this recommendation over alternative action
St. Michaels	New road connection and gravel paving between Beacon Road and Alma Drive	None	Beacon Road to Alma Drive	Grade, drain and gravel construction.	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to street accessibility during construction.	Provide improved safety and reduced vehicle maintenance costs.
<b>Sidewalks</b>							
St. Michaels	N100	None	Corresponds to Project N100(1-1) 2&4	Construct sidewalks	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to sidewalk area during construction.	Improved safety for pedestrians
<b>Shared Use Paths</b>							
St. Michaels and Fort Defiance	N12	N12 Shared use path	N100 to N110	8'-shared use path	Minority and low-income populations including: St. Michaels, Window Rock and Fort Defiance residents and area visitors.	Temporary constraint to path area during construction.	Improved safety for pedestrians
St. Michaels and Fort Defiance	N112	N112 Shared use path	SR 264 to N110	8'-shared use path	Minority and low-income populations including: St. Michaels, Window Rock, and Fort Defiance residents and area visitors.	Temporary constraint to path area during construction.	Improved safety for pedestrians
St. Michaels	Drexel Road (CR606)	None	SR 264 to Drexel Road	8'-shared use path	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to path area during construction.	Improved safety for pedestrians
St. Michaels	Mustang Road and CR 408	None	N12 to SR 264	8'-shared use path	Minority and low-income populations including: St. Michaels and Window Rock residents and area visitors.	Temporary constraint to path area during construction.	Improved safety for pedestrians

## **APPENDIX B - PUBLIC INVOLVEMENT SUMMARY REPORT 1**

Note: Appendices B (Stakeholder Database), D1 (Meeting Materials – Many Farms Meeting) and D2 (Meeting Materials – St. Michaels Meeting) are not included in this report.



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# **Public Involvement Summary Report**

## **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***First Phase Public Involvement – November 2011***

**ADOT MPD Task Assignment 23-11      ADOT Project No. PG TD0728**

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public involvement



citizen outreach



stakeholder facilitation



conflict resolution

## **INTRODUCTION**

As the Navajo Nation continues to grow, comprehensive transportation planning is necessary for sustainable development and to meet the needs of area residents, businesses and visitors. The Navajo Division of Transportation (Navajo DOT), the Arizona Department of Transportation (ADOT) and Navajo Chapters have initiated a multimodal transportation study to identify long-term improvements in two areas: Chinle to Many Farms Corridor Study Area; and St. Michaels to Window Rock to Fort Defiance Corridor Study Area.

The study will analyze and identify improvements for all modes of transportation within the corridor areas, including vehicular, pedestrian, bicycle, and equestrian, as well as connections between vehicular, airport and transit systems for commuter and emergency needs. Particular attention will be paid to safety, mobility, livability, and economic and community development.

The study, funded through the ADOT Planning Assistance for Rural Areas (PARA) Program, is being conducted in two phases. The first phase will document current and future conditions and needs, which is the focus of this Public Involvement Summary Report. The second phase will focus on evaluation criteria and specific plans for improvements.

The project team will take public comments and concerns into consideration when developing evaluation criteria and specific plans for improvements. The plans will be presented at a second round of public meetings in January or February 2012. Ultimately, the long-range studies will recommend transportation improvements to be implemented in five, 10 and 20-year timeframes.

This Public Involvement Summary Report provides a recap of planning efforts and public involvement activities and includes information provided and comments received during the first phase of public involvement, including comments heard during an in-person reconnaissance/flier delivery trip, comments received via email, spoken comments from public meeting participants and written comments.

## PLANNING EFFORTS

### Public Involvement Plan

Prior to planning the public meetings, the project team developed a Public Involvement Plan (PIP) to map out the team's approach and define the roles of project team members. The PIP defined public involvement objectives and outlined public involvement program elements. The PIP also identified public outreach mechanisms, public meeting formats and public involvement program evaluation criteria. The PIP is considered a living document and should be revised and/or updated as is necessary and appropriate as the project progresses.

*See Appendix A for the Public Involvement Plan.*

### Stakeholder Database

A stakeholder database was developed through internet and phone research, review of existing databases and face-to-face contact with individuals throughout the two corridor study areas. The database is used to distribute public meeting announcements and project updates via email, fax and mail. The database currently includes 325 contacts and will continue to be updated as the project progresses.

*See Appendix B for a list of stakeholders by name and entity represented.*

### PMT and TAC Meetings

Public involvement team members attended Project Management Team (PMT) and Technical Advisory Committee (TAC) meetings in an effort to remain updated on project activities and also to work with the groups to plan public involvement program elements, public outreach efforts and public meeting materials, formats and logistics. Early in the process the project team decided to conduct two rounds of public meetings during the course of the two studies. Each round includes two meetings, one on each of the two corridor study areas.

## PUBLIC OUTREACH EFFORTS

As identified in the Public Involvement Plan, the following outreach mechanisms were used to notify the public of the project and the first round of public meetings.

*Table 1: Public Outreach*

Outreach Mechanism	Location/Media	Date
In-person Announcements provided by Navajo DOT staff	Chinle Chapter Meeting	Sept. 23, 2011
	Many Farms Chapter Meeting	Oct. 10, 2011
	St. Michaels Chapter Meeting	Oct. 16, 2011
Announcement Requests (Navajo DOT staff were scheduled to attend and make the announcement in-person, but were unable to due to Chapter meeting schedule changes)	Fort Defiance Chapter Meeting	Oct. 13, 2011
News Release	Distributed by email and fax to area media by ADOT CCP, and to all stakeholders by Intrinsic staff	Oct. 4 & 25, 2011
Flier	Delivered in-person throughout the project area	Oct. 10 & 11, 2011
Newspaper Ads	<i>Gallup Independent</i>	Oct. 1, 2011
	<i>Navajo Nation Messenger</i>	Oct. 18, 2011
	<i>Navajo Times</i>	Oct. 27, 2011
Public Service Announcement	Distributed to area radio stations by ADOT CCP	Oct. 4, 2011
Comment Period Reminder Email	Distributed to all stakeholders by email and fax by Intrinsic staff	Nov. 16 & Dec. 8, 2011

*See Appendix C for copies of outreach materials and a flier delivery report.*

## PUBLIC MEETINGS & COMMENTS

The public meetings were held on Wednesday, November 2, 2011, from 6 to 8 p.m. at the Many Farms Chapter House, and on Thursday, November 3, 2011, from 6 to 8 p.m. at the St. Michaels Chapter House. Forty-two people signed in at the Many Farms meeting, and 10 people signed in at the St. Michaels meeting. Mary Rodin provided the presentation at both meetings. Marco Sells provided Navajo interpretation at the Many Farms meeting, and Nona Baheshone provided Navajo interpretation at the St. Michaels meeting.

*See Appendix D for the meeting handouts, comment forms, exhibits and presentations.*

*See sign-in sheets for the participants, included with public meeting notes in Appendix E.*

## Public Comments

In addition to taking spoken comments and questions during the public meetings, written comments and suggestions were encouraged with a deadline of December 2, 2011. Following the public meetings, the project team extended the written comments deadline to December 15, 2011. Stakeholders returned 17 comment forms for the Chinle/Many Farms study, and three comment forms for the St. Michaels/Fort Defiance study. Additionally, one stakeholder provided spoken comments via telephone, two emails were received during the comment period following the public meetings, and a few comments were received in-person during the flier delivery trip prior to the public meetings.

*Table 2: Public Comments – Chinle/Many Farms Study*

Comment Category	Chinle Area	Many Farms Area	Study Corridor Area	Comment Received
Animals on Roads	Livestock concerns at the US 191/N7 intersection.		Upgrade cattle guards – cattle still cross them.	Meeting
			Need to keep animals out of the road.	Meeting
			Animals in the road (US 191).	Meeting
			A livestock under crossing is needed.	Meeting
		Sheep/cattle pass near MP 461.	Need livestock under-crossings; cattle guards don't work (horses fall into them)	Form
			Provide and install improved design cattle-guards that deter livestock.	Form

**Table 2: Public Comments – Chinle/Many Farms Study (continued)**

<b>Comment Category</b>	<b>Chinle Area</b>	<b>Many Farms Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>New Pedestrian, Bicycle and Equestrian Trails</b>			We need about three fence-overpasses [Cattle Passes] or box culverts for equestrians from Many Farms to Chinle.	Meeting
			Provide a bike path.	Meeting
			Bicycle and pedestrian lanes/shoulders.	Form
<b>Drainage &amp; Flooding Issues</b>	There are several areas that flood right at the hospital turnoff, the airport turnoff, church north of Chinle, and at Bashas’.			Meeting
	There is flooding at approximately MP 451.3, between MP 448 and 449, and between MP 446 and 447.			Meeting
			Corridor area needs to be studies for flooding problems - have better drainage.	Form
			Design and size drainage pipe properly to prevent flooding of roads, businesses and access roads.	Form
			Flood control, surface runoff from the mesa floods these roads.	Form
<b>Frontage Roads</b>	Need frontage roads from M452 to 455.		Consider a frontage road.	Meeting
			Consider a bypass road for the semi trucks.	Meeting
			There is a need for frontage roads.	Meeting
			Too many turnouts now; frontage road for better access.	Form

**Table 2: Public Comments – Chinle/Many Farms Study (continued)**

<b>Comment Category</b>	<b>Chinle Area</b>	<b>Many Farms Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Intersection Needs</b>	Provide roundabout at N102/US 191 intersection.	A traffic signal or roundabout is needed at the intersection of US 191 and N59.	Add turning lanes for turns off of 191.	Meeting
	Traffic congestion concerns at the US 191/N7 intersection.		Construct turning lanes at major intersections (BIA & County Roads) between Chinle and Many Farms.	Meeting
	Near the US 191/N7 intersection, the Shell store needs their access closest to the intersection closed off. There are too many accesses to the store.			Meeting
	We need an intersection at the turnoff to Chinle hospital road.			Form
	The entrance to Shell station in Chinle (at intersection) needs to be closed off - accidents happen there when people turn there at a quick stop and the person behind them thinks they are going to drive up to the intersection.			Form
<b>Street Lighting</b>		Street lighting is needed on US 191 through Many Farms.	The community would like to have streetlights.	Meeting
		Lighting needs at 191/ N59.		Meeting
		More traffic lighting in Many Farms area.	There is no visibility at night.	Form
<b>Maintenance Issues</b>		N8082 is not maintained.	Bus routes are not maintained.	Meeting
		N8084 is wash-boarded and not maintained.	People cut fences.	Meeting

Table 2: Public Comments – Chinle/Many Farms Study (continued)

Comment Category	Chinle Area	Many Farms Area	Study Corridor Area	Comment Received
<b>Maintenance Issues (continued)</b>			Roads between homes need grading; people do it themselves.	Flier delivery
			Rural roads are not being maintained.	Flier delivery
			ROW cleaning/clearing; maintain ROW fence; maintain cattle-guards.	Form
<b>New Road Connections</b>		A new access has been established on US 191, just north of MP 464- make sure it remains open.		Meeting
	In Chinle need bypass route on north side between Chinle and Valley Store, and south side between Chinle and Nazlini.			Form
<b>Paving</b>		Paving is needed on N8084.		Meeting
		N8082 is not paved.		Meeting
		Pave N8086 – it is a school bus route.		Meeting
	Pave dirt road below hospital, road leading to hospital road.		Muddy, poor dirt roads – need upgrade to gravel or paving.	Form
	BIA roads need to be paved with additional routes in Chinle.		Pave or gravel top all heavily used roads, like N-18.	Form
			Pave or gravel top bus routes.	Form
<b>Pedestrian Issues</b>	A crosswalk is needed to the Tsegi Shopping Center.	School crossing is needed on US 191 approx. MP 461.5.	Bus stop signs for children crossing.	Meeting
	Near the US 191/N7 intersection, a pedestrian crosswalk, overpass, or HAWK [High-intensity Activated crosswalk, or a pedestrian hybrid beacon signal] signal is needed.	Crosswalk needs at 191/N59.	Need crosswalks for pedestrian safety.	Meeting

**Table 2: Public Comments – Chinle/Many Farms Study (continued)**

<b>Comment Category</b>	<b>Chinle Area</b>	<b>Many Farms Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Pedestrian Issues (continued)</b>		Provide a crosswalk at the end of Lake Drive.	Need overpasses for pedestrian safety.	Meeting
			Provisions for safe crossing for students and elders across US 191.	Phone
			New sidewalks/landscaping.	Form
			Need bridge crossing at all school crossings Many Farms, Elementary and Chinle Junior High and High Schools (like one in Ganado).	Form
<b>Road Widening</b>	Widen the shoulders at curves, MP 451 to 455 and MP 460 to 460.5.	Bridge over 191 at Black Mtn. Wash needs widening.	Consider a 4-lane highway between Chinle and Many Farms.	Meeting
	Provide passing lanes between MP 455.5 and MP 458.5.		Consider economic impacts of any right of way widening.	Meeting
	A passing lane is needed between MP 449 and 452.			Meeting
	Need turn lanes from M452 to 455.			Meeting
	Provide turnout lanes at the curve area (approx. MP 454.5).			Meeting
			Need to widen US 191 to 4 lanes between Chinle and Many Farms.	Phone
			Divided roads for future needs.	Form
			Need passing lanes to relieve congestion during rush hours.	Form

**Table 2: Public Comments – Chinle/Many Farms Study (continued)**

<b>Comment Category</b>	<b>Chinle Area</b>	<b>Many Farms Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Safety</b>	Dangerous curves around MP 452.	Trucks are speeding on US 191 in the Many Farms area (approximately MP 460-463).	Lower speed limit on 191.	Meeting
			Consider a weight limit or POE type booth to reduce the amount of big trucks.	Meeting
		Safety on US 191 and particularly near the curve area by the Valley Store.	Effect of semi-trucks on the roads- there seems to be a big increase in the number of trucks driving through Chinle on US 191.	Phone
		Bridge on 191 MP 460.	Add shoulders and fix sharp curves.	Form
			Truck route bypass Ganado, Chinle and Many Farms.	Form
			Rumble strips needed to alert motorists.	Form
			MVC's are the number one cause of injuries in the Chinle service unit; people are killed or severely injured when they hit animals, pedestrians or involved in single motor vehicle rollovers.	Form
<b>School Transportation Issues</b>	Congestion at Wildcat Gym after games.	Bus pullout on 191 by Black Mtn. Wash.	Bus turnouts to ease congestion.	Meeting
			School bus turnouts are needed on US 191.	Meeting
			Turnouts [bus/safety] are needed on US 191 every mile – charge a toll.	Meeting
<b>Signage</b>			Need more bus stop signs.	Form

**Table 2: Public Comments – Chinle/Many Farms Study (continued)**

<b>Comment Category</b>	<b>Chinle Area</b>	<b>Many Farms Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Traffic Signal Installation</b>	There is a need for another signalized intersection.	A traffic signal or roundabout is needed at US 191/N59.	Traffic signals are needed on US 191.	Meeting
	Relieve traffic congestion at the Tsegi Shopping Plaza.			Meeting
	A traffic signal is needed at the N102/US 191 intersection.			Meeting
			Build roundabouts instead of traffic signals.	Form
<b>Transit</b>	There is a transit stop just north of MP 452, but no pullout.	A bus pull off is needed on the east side of 191, approx. MP 460.3.	We need transit.	Meeting
<b>Other Comments</b>			The main concern should be 191.	Meeting
			Focus on improvements; we're paying taxes but not seeing improvements.	Flier delivery
			Study area needs to include north Many Farms Valley up to MP 470 Chinle Wash; improve N18 going up to Carson Mesa.	Form
			Using Navajo police and/or Arizona police, a coordination of enforcements and hefty fines to eliminate crossing of horses, cows and livestock on 191, especially at night.	Form
			Well-populated Many Farms Valley was not included in the study; emergency vehicles and school buses have difficulty commuting on these dirt roads.	Form

**Table 3: Public Comments – St. Michaels/Fort Defiance Study**

<b>Comment Category</b>	<b>St. Michaels Area</b>	<b>Window Rock Area</b>	<b>Fort Defiance Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Animals on Roads</b>				Safety, keep animals out of right of way.	Form
				New fence/cattle-guards.	Form
<b>Paving</b>	There are paving needs for the streets in the residential area on the west side of N12 (Shonto Blvd, Jeddito Drive and the intersecting streets).	There are paving needs on Window Rock Blvd/N100 and the other surrounding streets serving the government offices.			Meeting
		There are paving needs on Chee Dodge Drive, Manuelito Drive, Morgan Blvd, and other residential streets in that area.			Meeting
		These areas also need road improvements: Manuelito Drive, Tribal Hill Drive, Roswell Drive, Navajo Hill Drive, Bonito Apartment area.			Email
<b>Intersection Needs</b>				Build roundabouts at intersections.	Form

**Table 3: Public Comments – St. Michaels/Fort Defiance Study (continued)**

<b>Comment Category</b>	<b>St. Michaels Area</b>	<b>Window Rock Area</b>	<b>Fort Defiance Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Pedestrian Issues</b>				Pedestrian crossing starting at St. Michaels on the whole corridor.	Form
				Overcrossing in school areas, sidewalks, crossing markers on highway.	Form
<b>Road Widening</b>	4-lane route from Sawmill Junction to Ganado - Route 264.			Widen Road	Form
				Better safety turnouts.	Form
	We don't have any turn out lanes at this church and at Giant Service Station on 264 in St. Michaels.				Email
<b>Safety</b>	Address how to slow traffic on 264 in St. Michaels.				Email
<b>Traffic Signal Installation</b>	Consider a couple stop lights in order to slow down the traffic on 264 in St. Michaels.				Email
<b>Traffic Control During Navajo Nation Fair</b>		Better planning for the annual Navajo Nation Fair activities.			Form

**Table 3: Public Comments – St. Michaels/Fort Defiance Study (continued)**

<b>Comment Category</b>	<b>St. Michaels Area</b>	<b>Window Rock Area</b>	<b>Fort Defiance Area</b>	<b>Study Corridor Area</b>	<b>Comment Received</b>
<b>Maintenance Issues</b>		Repair roads in residential and business areas.			Meeting
		We've hauled in sand and gravel ourselves for the potholes.			Meeting
		Repair potholes in residential areas and Navajo Nation government offices.			Form
<b>Frontage Road</b>				Frontage road	Form
<b>Other Comments</b>	Address air brakes noise on 264 in St. Michaels.	Consider the housing areas for Employee Housing.			Email
<b>New Road Connections</b>	<b>Window Rock Area</b>				
	Alternate routes into Window Rock government offices.				Form
	Regarding another entry into the government area, the Employee Housing Program has a housing unit that is at the intersection of Chee Dodge and Morgan Blvd. What are the intentions of ADOT regarding the housing unit that is located there?				Email
	Regarding another entry into the government area, we have done studies regarding this second exit, but each time our office has tried to work in this additional exit, we were stopped by area residences citing "grazing land" Has ADOT looked into this yet?				Email

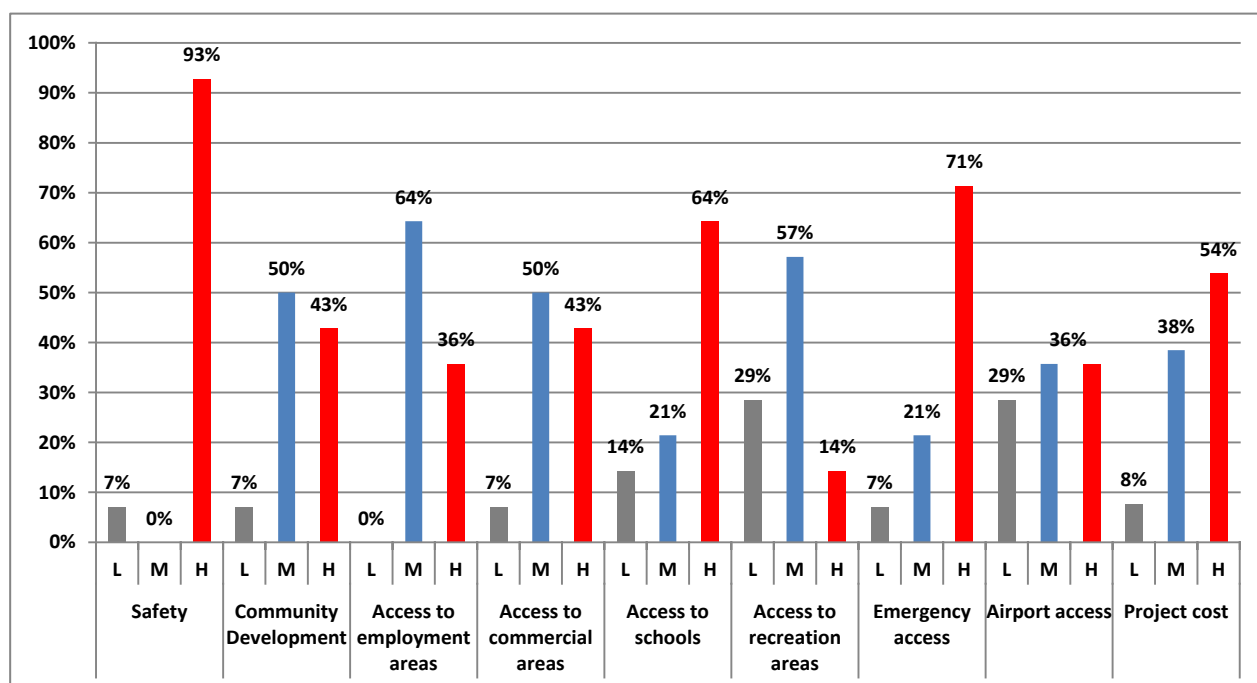
*See Appendix E for public meeting notes.*

## Comment Forms

Comment forms were provided to public meeting attendees, and were available for download from the project web page. Emailed comment reminders to the project database included a link to the project web page and encouraged stakeholders to complete the forms. As stated above, stakeholders returned 17 comment forms for the Chinle/Many Farms study, and three comment forms for the St. Michaels/Fort Defiance study. Public comments included on the prepared forms related to needs and deficiencies have been included in the above tables.

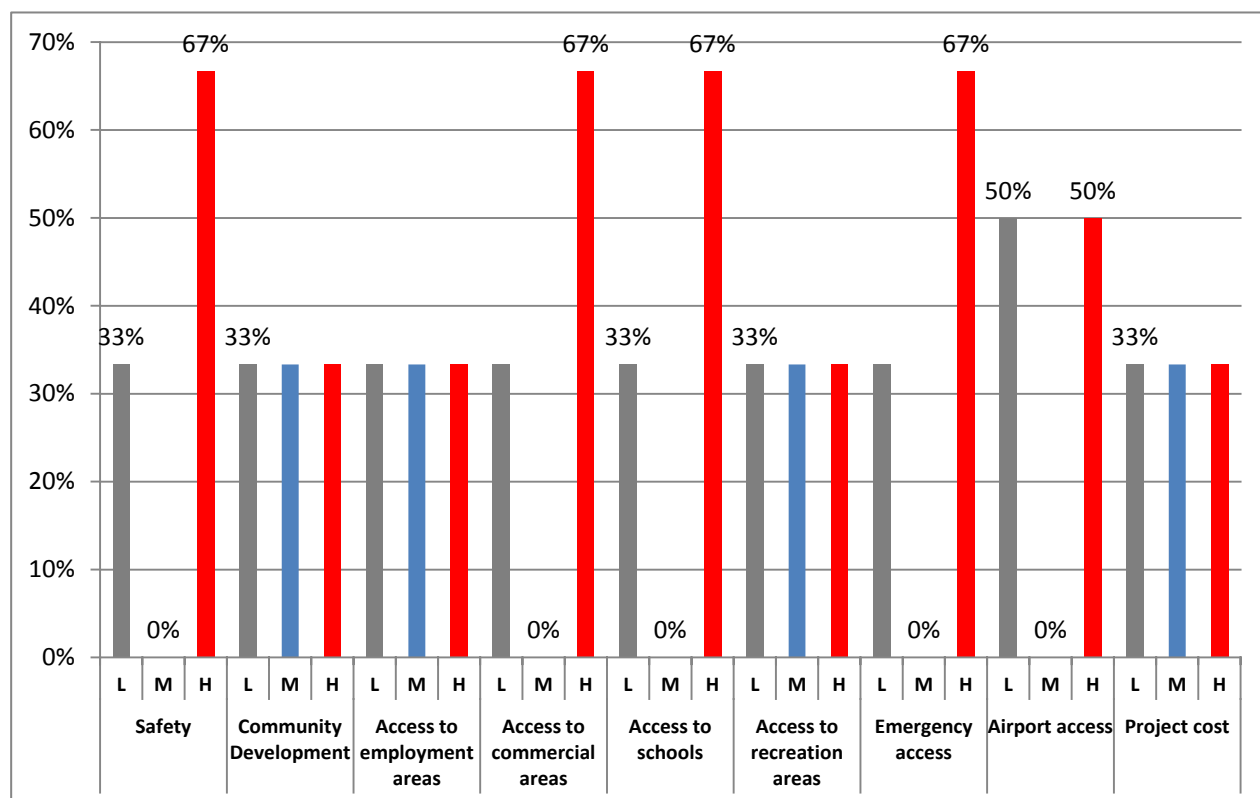
The comment forms provided a series of ranking questions related to project criteria and transportation related needs. The forms also asked participants to list the three most important transportation needs for each corridor area. Stakeholders' responses are summarized in the following tables.

*Table 4: Project Criteria Rankings – Chinle/Many Farms Study*



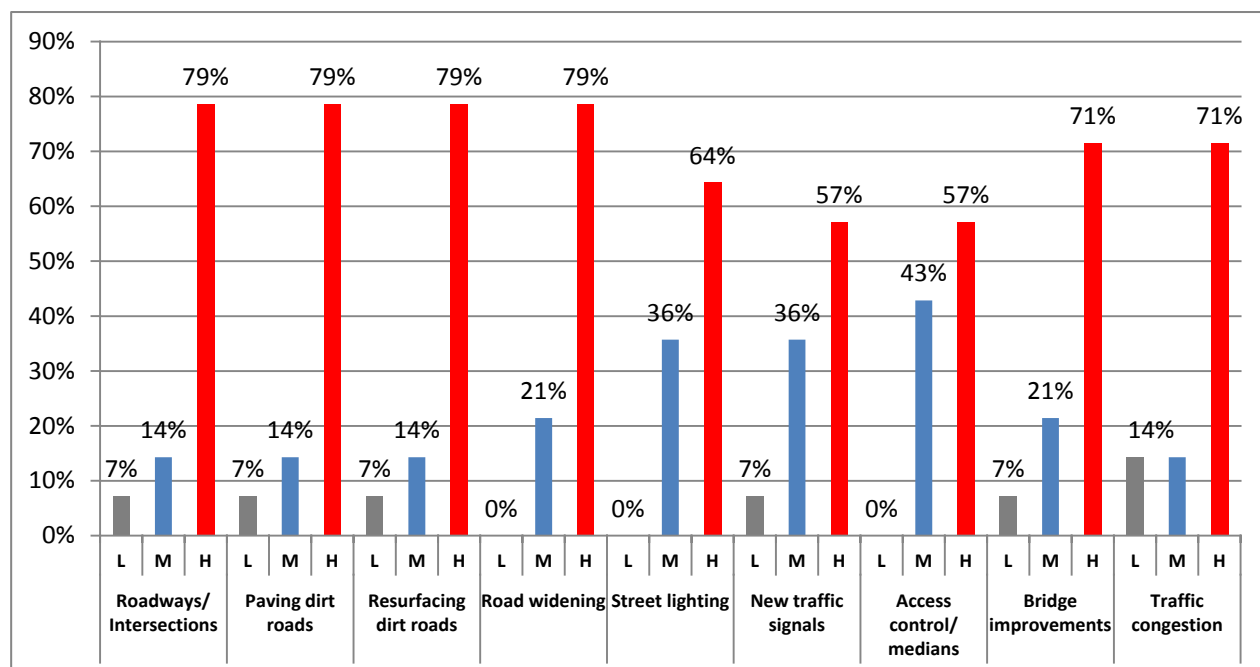
*L=low priority; M=medium priority; H=high priority*

**Table 5: Project Criteria Rankings – St. Michaels/Fort Defiance Study**



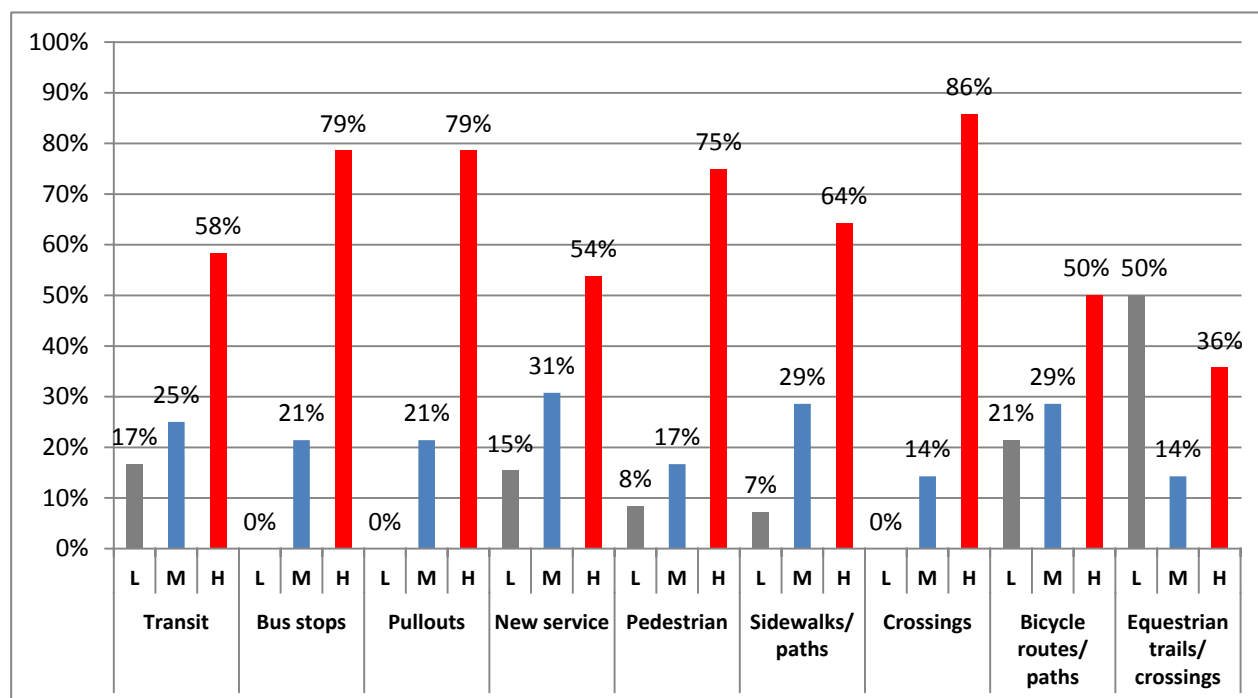
L=low priority; M=medium priority; H=high priority

**Table 6a: Transportation Needs Rankings – Chinle/Many Farms Study**



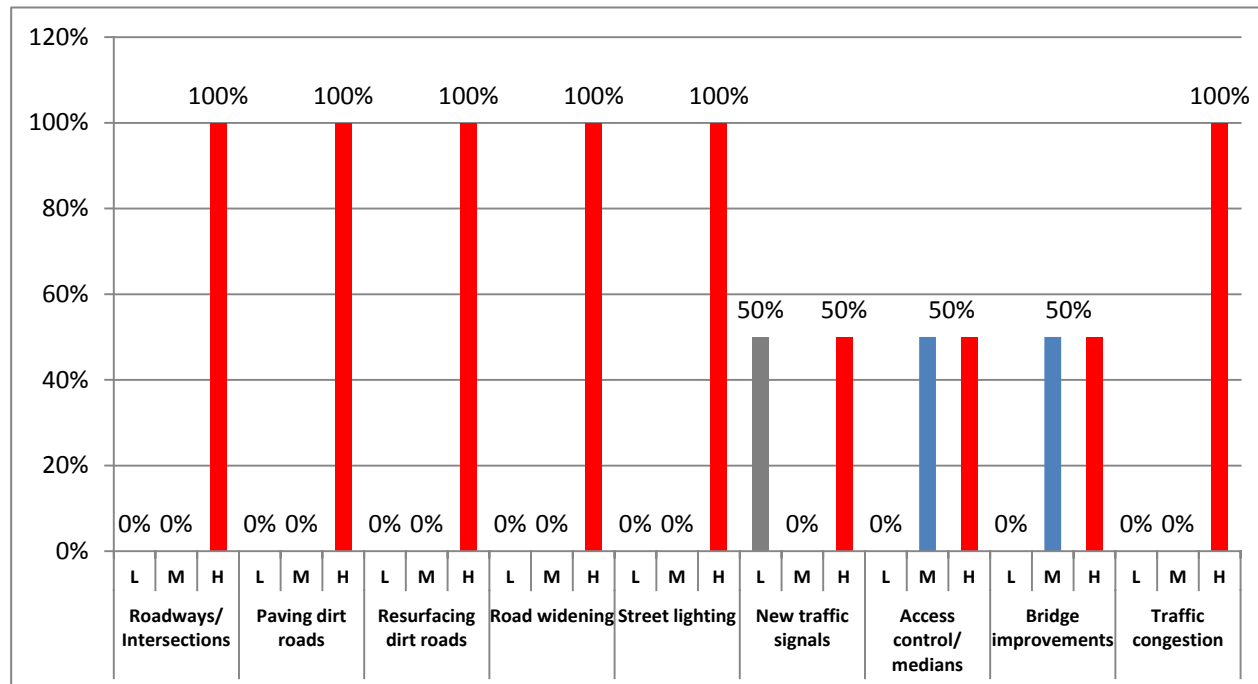
L=low priority; M=medium priority; H=high priority

**Table 6b: Transportation Needs Rankings – Chinle/Many Farms Study**



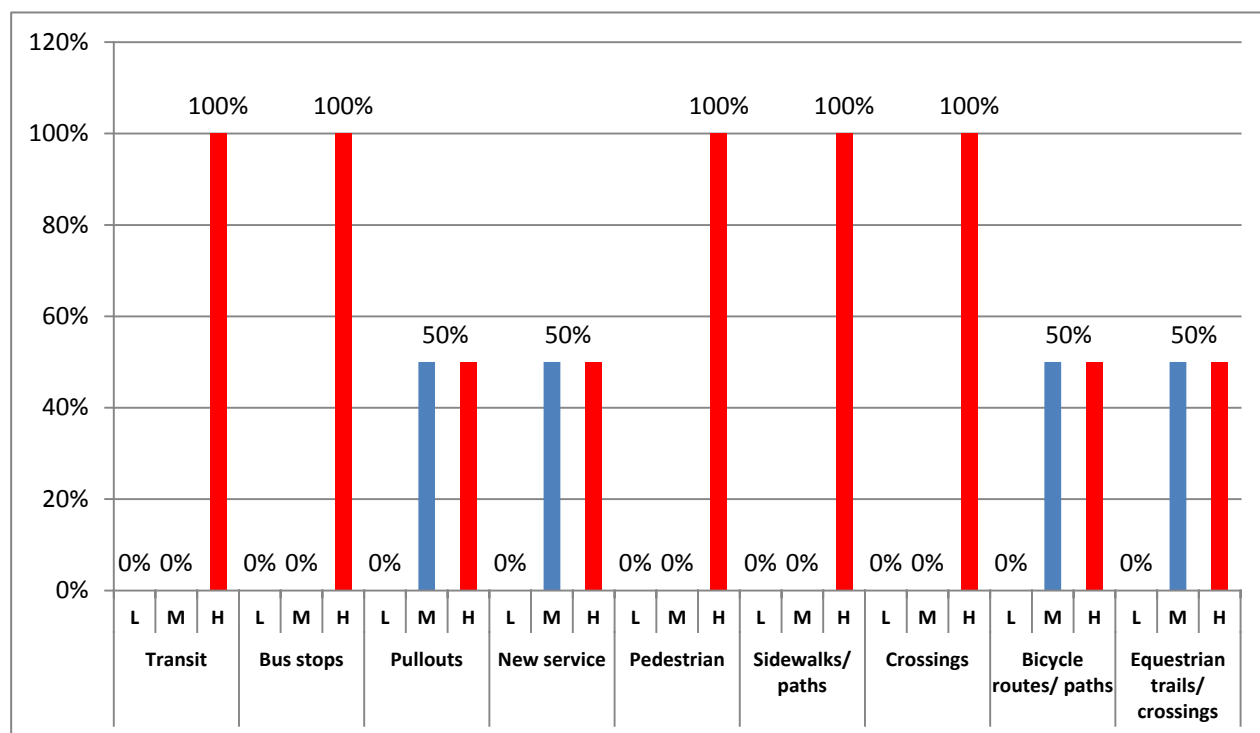
L=low priority; M=medium priority; H=high priority

**Table 7a: Transportation Needs Rankings – St. Michaels/Fort Defiance Study**



L=low priority; M=medium priority; H=high priority

**Table 7b: Transportation Needs Rankings – St. Michaels/Fort Defiance Study**



*L=low priority; M=medium priority; H=high priority*

**Table 8: Three Most Important Needs – Chinle/Many Farms Study**

<b><u>#1 Importance</u></b>	<b><u>#2 Importance</u></b>	<b><u>#3 Importance</u></b>
Public safety	Divided roads for future needs	Too many turnouts now; frontage road for better access
No passing lanes; congestion during rush hours	No livestock undercrossing, cattle guards not working (horses fall into these)	More traffic lighting in Many Farms area
Roadway design - no shoulders, sharp curves, no visibility at night	No 4-lane highway at high traffic areas, no safe turnout lanes	Muddy, poor dirt roads - need upgrade to gravel or paving
Pedestrian paths, crossings, graffiti, walkways, beautification	Livestock removal	Drunk driving
School bus pullout	Widening 191	Turning lanes and access onto 191
Very congested area; seems like there is a crash every day	Hit and runs	
Frontage road	School bus turnout	
Bus transport	Taxi cars	Buses
Increase of trucks on the road. They speed through and it is unsafe	livestock on the road causing damage and loss of lives	Maintaining all the roads, especially Indian Routes and BIA roads
Two-lane road/highway	Bicycle and pedestrian lanes/shoulders	Eliminate presence of horses, sheep and cows inside of right of way and on roads
Four lanes from Ganado, Chinle and Many Farms	Truck route bypass Ganado, Chinle and Many Farms	In Chinle need bypass route on north side between Chinle and Valley Store, and south side between Chinle and Nazlini
Pave or gravel top all heavily used roads, like N-18	Bus route	
Bus pullout on 191	Pave or gravel top bus routes	Pave dirt road below the hospital, the one leading to the hospital road
Freeway	Keep animals outside the fence	

**Table 9: Three Most Important Needs – St. Michaels/Fort Defiance Study**

<b><u>#1 Importance</u></b>	<b><u>#2 Importance</u></b>	<b><u>#3 Importance</u></b>
Safety, keep animals out of right of way	New fence/cattle-guards	Frontage road
Repair potholes in residential areas and Navajo Nation government offices	Alternate routes into Window Rock government offices	4-lane route from Sawmill Junction to Ganado - Route 264
Widen road	Better safety turnouts	Overcrossing in school areas, sidewalks, crossing markers on highway

**See Appendix F for copies of completed comment forms.**

## **APPENDICES**

- A. Public Involvement Plan
- B. Stakeholder database
- C. Outreach materials
- D. Meeting materials
  - 1. Many Farms public meeting
  - 2. St. Michaels public meeting
- E. Public meeting notes
  - 1. Many Farms public meeting
  - 2. St. Michaels public meeting
- F. Written comments
  - 1. Chinle/Many Farms comments
  - 2. St. Michaels/Fort Defiance comments



**Arizona Office:**

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**F: (928) 522-6016**

**Texas Office:**

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**F: (512) 847-7745**

**[www.intrinsicinfo.com](http://www.intrinsicinfo.com)**

## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***First Phase Public Involvement – November 2011***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix A**

# **Public Involvement Plan**

**Arizona Address: PO Box 336, Flagstaff, AZ 86002**

**Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676**



**public involvement**



**citizen outreach**



**stakeholder facilitation**



**conflict resolution**



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# **Public Involvement Plan**

## **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

ADOT Task Assignment MPD 23-11

ADOT, Kimley-Horn and Associates, Bahozhoni Development, Navajo DOT

Submitted by Intrinsic Consulting, LLC  
May 18, 2011

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### **INTRODUCTION**

Public involvement efforts are crucial to the success of the transportation study. Actively engaging the public is an important aspect of assuring the project's final improvements are locally acceptable and successful, as well as building local support for funding transportation improvements. The public involvement plan maps the team's approach and defines the roles of each participant.

### **Public Involvement Objectives**

In support of the project goals, the Project Management Team strives to:

- Obtain valuable feedback from the community regarding issues and concerns that can be addressed in the study
- Engage key stakeholders in the process
- Stimulate attendance at public meetings through newspaper, radio and flier announcements, and by meeting with stakeholders one-on-one
- Provide information to the public regarding project progress
- Provide feedback on how public input influenced the final report
- Achieve public acceptance of the final report

### **Public Involvement Team**

ADOT has contracted with Intrinsic Consulting, LLC, to facilitate public involvement on the project. The Intrinsic team assigned to the project includes:

Dexter Albert, Project Manager

- Office: 928-522-6015
- Cell: 928-814-8221
- Fax: 928-522-6016
- Email: [dexter@intrinsicinfo.com](mailto:dexter@intrinsicinfo.com)

Jason Hurd, Public Involvement  
Manager/Project Coordinator

- Cell: 928-607-7156
- Fax: 888-278-0050
- Email: [jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com)

Arizona Address: PO Box 336, Flagstaff, AZ 86002

Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676



public involvement



citizen outreach



stakeholder facilitation



conflict resolution

## **PUBLIC INVOLVEMENT PROGRAM ELEMENTS**

The Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study encompasses a 12-month period. Overall public involvement efforts support the project as follows.

### **Public Involvement Plan**

The public involvement plan documents the anticipated public involvement process. The plan identifies major public involvement elements, assigns timeframes, and guides the public involvement process throughout the project. The plan should be revised and updated as necessary to respond to any significant changes or challenges as the overall project progresses.

### **Team Interaction**

Intrinsic staff will attend monthly Project Management Team meetings to keep abreast of project developments and provide counsel and advice to the project team with regard to public involvement opportunities and cultural/context-sensitivity. Intrinsic will attend periodic TAC meetings: at a minimum two TAC meetings will be attended, one each prior to each round of public meetings.

### **Stakeholder Database**

The public involvement program includes research to identify key stakeholders. Methods consist of internet and phone research, review of existing databases and face-to-face contact with individuals along the two study corridors. The database will be used to distribute public meeting announcements and project updates via email, fax and mail.

### **Project Reconnaissance**

Personal interaction in tribal communities is key to the success of the public involvement efforts. Intrinsic will conduct a thorough reconnaissance trip throughout the project areas while distributing fliers for the first round of public meetings. During this trip, Intrinsic will develop community contacts to add to the database and, whenever possible, discuss the project with stakeholders. For the second round, Navajo DOT staff will be requested to distribute public meeting fliers.

### **Public Information**

The public involvement process will include outreach tailored to the project areas and the general region. Informative tools are designed to distribute the public notices and community invitations to the public meetings. However, these communication tactics also can be employed at any point in the project, as needed, to share information from the project team with members of the public, and they can be as broad or as selective as necessary. Additionally, Intrinsic staff will monitor local media sources for project related publicity.

The following communication tools can be used to share information with the public, including public meeting notices and general project updates:

- In-person announcements at Chapter meetings
- Requests for additional nearby Chapters to make announcements
- News releases distributed to area media and all stakeholders by email and fax
- Fliers delivered in-person to area stakeholders and mailed to outlying areas
- Paid advertising, including the *Gallup Independent*, *Navajo Messenger* and *Navajo Times*; and PSAs and Navajo DOT radio show on KTNN

- Updates provided to Planning Committees, Agency Roads Committees and Agency Councils

### **Point of Contact**

Intrinsic will act as the primary public involvement point of contact for the public throughout the project's duration. Intrinsic's contact information will be included in all public meeting outreach materials, and Intrinsic staff will coordinate with the Project Management Team to appropriately respond to public inquiries.

### **Public Meetings**

Intrinsic will work with the Project Management Team to plan, prepare and conduct public meetings. The project is expected to include two rounds of public meetings; the first to present results of working paper #1 (current and future conditions); and the second to present results of working paper #2 (evaluation criteria and plan for improvements). Each round will include two separate meetings, one for each of the two combined studies. It is anticipated that the first round will include meetings in Many Farms and St. Michaels, and the second round will include meetings in Chinle and Fort Defiance. Meetings may be held at Chapter Houses or other local venues, such as schools. Prior to scheduling public meetings, Intrinsic will conduct research into local events to avoid conflicts. Research will include consultation with Chapter Coordinators, online research and other efforts as necessary. Once the date of public meetings is established, Intrinsic will prepare detailed outreach schedules, including dates for team reviews of outreach materials.

Outreach will include a news release distributed to the full stakeholder database, a flier posted throughout the communities and mailed to outlying areas, paid newspaper advertisements and announcements on KTNN. Intrinsic will conduct flier delivery for the first round only and requests that Navajo DOT staff assist with flier delivery for the second round. Additionally, it is recommended that Navajo DOT staff provide announcements at the regular monthly meetings of the affected Chapters. Nearby Chapters will be requested to do the same. Intrinsic recommends beginning outreach efforts approximately 30 days in advance of the public meetings. ADOT CCP will distribute news releases at least 30 days prior to the public meetings.

The format of the meetings will be an open house for the first 30 minutes, where agency representatives and the public have the opportunity to mingle with the project team. A Chapter Official will be requested to offer a welcome address. Navajo DOT and ADOT MPD will offer a project introduction, and Kimley-Horn will give a brief presentation on the project. Bahozhoni Development will provide Navajo translation at the public meetings, as needed. Group discussion/Q&A will follow the presentation to discuss needs, concerns, questions, etc. Kimley-Horn will develop electronic files of the needed technical exhibit and technical handout material content. Intrinsic will print the meeting exhibit display boards.

Intrinsic will prepare, with assistance from the project team, a meeting handout/agenda, sign-in sheets, name tags for team members, and comment sheets. Kimley-Horn will supply Adobe design files of headers/footers to use on outreach materials and handouts/agendas for the public meetings to ensure a consistent look and feel for graphics, boards, and handouts for each corridor study area. Members of the general public and stakeholder representatives can submit written comments at the meeting and will also have 30 days from the date of the meeting to submit written comments by mail, fax or email – spoken comments will also be accepted by telephone or in-person. One staff members from Intrinsic will attend the public meeting to act as the greeter and note-taker.

### **Public Involvement Summary Reports**

Intrinsic will prepare Public Involvement Summary Reports after the 30-day comment period following each public meeting. The reports will include the following:

- A summary of outreach methods
- Copies and timing of all outreach materials
- Reconnaissance and flier-delivery reports showing the locations of posted fliers and recording any comments or questions received during the in-person field visits (for first round only)
- Phone log of comments and questions received at the Intrinsic office telephone line
- Copies of emails or other written communications received by Intrinsic from the public
- Copies of any publicity tracked by Intrinsic staff
- Public meeting comments
- A list by name and agency/business/organization of all project stakeholders included in the stakeholder database (the full, detailed database will be available separately upon request)
- Kimley-Horn will supply covers for the summary reports to provide a consistent look and feel for each corridor study area.

### **Public Involvement Program Evaluation**

The public involvement team will measure and evaluate performance with regard to public involvement goals and objectives. Qualitative evaluation methods include:

- Comment sheets collected after each public meeting
- Remarks obtained via telephone and email
- Feedback obtained during informal meetings with community contacts
- Opinions gauged by project publicity, including news stories and editorial/opinion pieces in the media

Quantitative evaluation methods include:

- The scale of distribution lists
- The reach and frequency of project communications
- Attendance counts at public meetings
- Number of incoming calls and emails regarding the project

Additionally, the public involvement team will continually work hand-in-hand with the project team to advise on public involvement opportunities. The public involvement team also may recommend changes or adjustments to the public involvement plan or overall project approach as necessary and welcomes any such suggestions from the project team.

### **Quality Control**

Quality control measures are built into the process by which the public involvement team conducts business. Quality control is assured by the following three-step process:

1. Any document originating from the public involvement team always goes through an internal review process. During this process, approval is obtained from a senior Intrinsic staff member before Step Two.
2. After internal approval is obtained, the document is sent to the Project Management Team for review and approval. Input and feedback, including suggested changes and clarifications, are welcome from the project team at this step. Special attention to technical information is recommended. Final approvals will be sought from Don Sneed and Rod Wigman (ADOT), Mary Rodin (Kimley-Horn), and Salisa Norstog (Navajo DOT). Intrinsic will aim for five-day team review periods on all materials.

3. Upon project team approval, the public involvement document is dispensed, released or otherwise distributed as planned. ADOT CCP will be responsible for distributing notices to media outlets, and Intrinsic will be responsible for distributing notices to all other stakeholders. Project Management Team members are encouraged to distribute notices to their contacts as well.



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## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***First Phase Public Involvement – November 2011***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix C**

# **Outreach Materials**

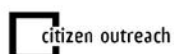
**News Release**

**Flier**

**Newspaper Ads**

**Arizona Address: PO Box 336, Flagstaff, AZ 86002**

**Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676**





For Immediate Release: October 3, 2011

Contact: ADOT Media Relations

[news@azdot.gov](mailto:news@azdot.gov) or 1-800-949-8057

## Long-range transportation studies planned for Chinle to Many Farms & St. Michaels to Fort Defiance

WINDOW ROCK – The Navajo Division of Transportation, Arizona Department of Transportation and Navajo Chapters invite the public to attend public meetings regarding two long-range transportation studies:

- Chinle to Many Farms Transportation Corridor Study: Wednesday, November 2, 2011, from 6 to 8 p.m., Daylight Savings Time (MDT), at the Many Farms Chapter House (presentation starts at 6:30 p.m.)
- St. Michaels to Window Rock to Fort Defiance Transportation Corridor Study: Thursday, November 3, 2011, from 6 to 8 p.m. (MDT), at the St. Michaels Chapter House (presentation starts at 6:30 p.m.)

The Navajo DOT, Chapter Communities and ADOT are conducting the two studies concurrently. Interested community members and stakeholders are welcome to attend both public meetings considering ***the two meetings will not cover the same information***. At each public meeting, the project team will offer materials and presentations regarding each respective corridor study area, answer questions and seek public comments. Navajo interpretation will be available and light refreshments will be served.

As the Navajo Nation continues to grow, comprehensive transportation planning is necessary for sustainable development and to meet the needs of area residents, businesses and visitors. The two studies will analyze and identify improvements for all modes of transportation within the corridor areas, including vehicular, pedestrian, bicycle, and equestrian, as well as connections between vehicular, airport and transit systems for commuter and emergency needs. Particular attention will be paid to safety, mobility, livability, and economic and community development. Ultimately, the long-range studies will recommend transportation improvements to be implemented in five, 10 and 20-year timeframes.

The studies will be conducted in two phases. The first phase will document current and future conditions and needs, which will be the focus of this first round of public meetings. The second round of public meetings will be held in early 2012 during the second phase of the studies, which will focus on evaluation criteria and specific plans for improvements.

The two studies are funded through the ADOT Planning Assistance for Rural Areas (PARA) Program. For more information or to submit comments, please contact the ADOT Outreach Team, Attention "Navajo PARA Studies," care of Jason Hurd at Intrinsic: by phone, 928-522-6015 (Navajo speaker available); by fax, 928-522-6016; by email, [jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com); or by mail, PO Box 336, Flagstaff, AZ 86002. Comments received by December 2, 2011, will be included in a Public Involvement Summary Report. More information, including detailed study area maps, can be found at: [http://www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp).

###

# Wóshdę́é' ~ You're Invited

## Navajo DOT invites you to attend public meetings



The Navajo Division of Transportation (Navajo DOT) and Arizona Department of Transportation (ADOT) have initiated two multimodal transportation studies to identify long-term improvements and meet the needs of the growing Navajo Nation.

### Both studies will analyze needs for:

- Navajo/BIA roadways
- Drivers & commuters
- Pedestrians & bicyclists
- Trails & equestrians
- Transit systems
- Airport access
- Emergency access



### Many Farms to Chinle Study

**Many Farms Chapter House  
Wednesday, Nov. 2, 2011**

Navajo interpretation and light refreshments will be offered at both meetings.

**Both meetings  
6 to 8 p.m.**

(Daylight Savings Time)  
presentations start at 6:30 p.m.

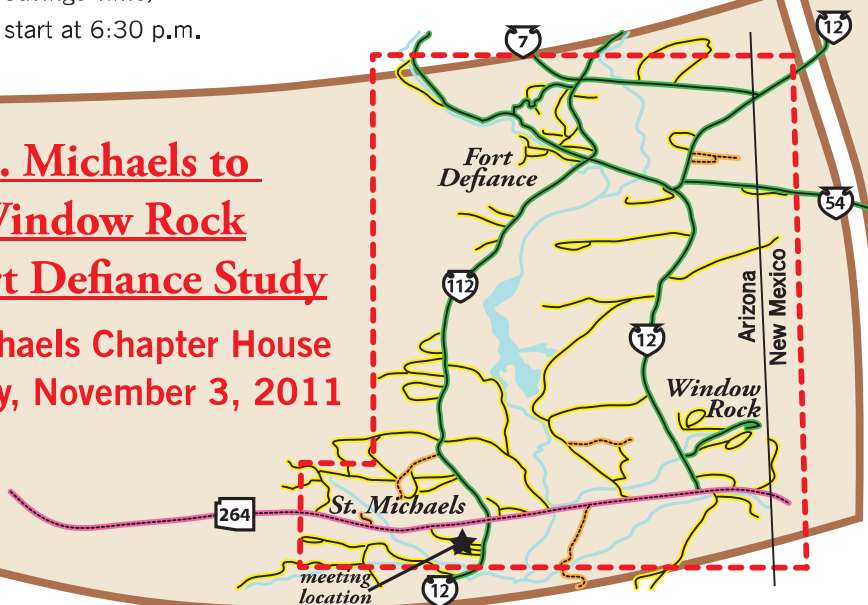
- BIA roads
- local roads
- major washes



- county roads
- US/state roads
- study areas

### St. Michaels to Window Rock to Fort Defiance Study

**St. Michaels Chapter House  
Thursday, November 3, 2011**



### Both studies will focus on:

- Safety, mobility & livability
- Economic vitality
- Community development

Ultimately, the long-range studies will recommend multimodal transportation improvements to be implemented in five, 10 and 20-year timeframes.

*Please note:  
The two meetings  
will not cover the  
same information.*



For more information or to submit comments, please contact the ADOT Outreach Team, Attention "Navajo PARA Studies," care of Jason Hurd at Intrinsic: by phone, **928-522-6015** (Navajo speaker available); by fax, **928-522-6016**; by email, [jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com); or by mail, **PO Box 336, Flagstaff, AZ 86002**.



More information, including detailed study area maps, can be found at:  
[http://www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp)



Arizona Office:      Texas Office:  
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F: (928) 522-6016      F: (512) 847-7745  
[www.intrinsicinfo.com](http://www.intrinsicinfo.com)

## Flier Delivery Report

**Date:** October 10 & 11, 2011  
**Location:** Project areas  
**Subject:** Public Meetings scheduled for Nov. 2 & 3, 2011  
**Attendees:** Jason Hurd, Intrinsic Consulting

On Monday and Tuesday, Nov. 2 & 3, 2011, Intrinsic staff visited with agencies, businesses and residents throughout the project areas. The purpose of the trip was to deliver public meeting fliers, discuss the project with stakeholders, and invite community members to attend the public meetings. Overall, people were generally appreciative to receive the information.

The following is a list of all locations visited by Intrinsic staff. In most cases, staff members spoke with the owner or manager of the business or office but in some cases an owner or manager was not available. Nearly all the businesses that were visited agreed to post the flier. The recipients are listed below, as well as comments received.

### Many Farms

- Many Farms High School
- Conoco/Laundromat
- Boarding School
- Chapter House
  - Will deliver to Post Office when open
- Senior Center
- Wellness Center
- Head Start
- 7-2-11
- Water Resources

### Chinle

- Best Western
- Shell
- Navajo Tribal Utility Authority, Chinle
- Laundromat by Bashas'
- NAU Distance Learning
- Bashas'
- Dine College
- Burger King
- Pic-N-Run
- Conoco
- Church's Chicken
- Chapter House
- Veteran's Affairs
- Navajo Land Department
- Navajo Labor Office
- Navajo Elections Office
- DNA Legal Services
- Local Governance Support Center
- Chinle Unified School District
  - Will deliver to all CUSD schools
- Canyon de Chelly Visitor Center
- Thunderbird Lodge
- Holiday Inn
- District Court
- Workforce Development
- Navajo Technical College
- Silver Coin Laundromat and Video
- Navajo Arts and Crafts Enterprises
- A&W
- Navajo Fire Department, Station 50
- ADOT MVD (closed)
- Giant

Arizona Address: PO Box 336, Flagstaff, AZ 86002

Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676



public involvement



citizen outreach



stakeholder facilitation



conflict resolution

### St. Michaels

- Navajoland Inn
- Denny's
- Giant
- Medical Clinic
- NAPCO gas/Laundromat
- Karigan Professional Building
- Head Start
- St. Michaels Indian School
- Post Office
- Chapter House

### Window Rock

- Wellness Center
- Bashas'
- McDonalds
- Church's Chicken
- Texaco
- Navajo Parks & Recreation Dept.
- Navajo Nation Museum
- Navajo Arts and Crafts Enterprises
- Taco Bell/Pizza Hut
- Chevron
- DNA Legal Services
- FINA
- Post Office
- Navajo Police Dept.
- District Court
- Emergency Dispatch
- Navajo Dept. of Highway Safety
- Navajo Fire Department
- Navajo Division of Health
- Navajo Division of Community Services
- Navajo Division of Social Services
- Navajo Environmental Protection Agency
- Navajo Dept. of Justice
- Navajo Office of the Speaker
- Navajo Office of Broadcast Services
- Navajo Office of Council Delegates
- Navajo Office of Legislative Counsel
- Navajo Office of Legislative Services
- Navajo Office of Budget and Finance
- Navajo Executive Office
- Navajo Housing Authority
- Education Center
- Shop & Save
- Navajo Westerner/ACE Hardware
- Laundromat
- It's A Dollar
- Cocina de Dominguez
- Eight storefronts in plaza

### Fort Defiance

- That's a Burger
- Post Office
- Chapter House
- Window Rock Unified School District
  - Will deliver to all WRUSD schools
- 7-2-11
- Laundromat
- Navajo Housing Authority (NHA)
- NHA Housing Management Division
- NHA Fleet Services
- Fort Defiance Indian Hospital
- Navajo Tribal Utility Authority (NTUA) HQ
- NTUA Fort Defiance District

### Ganado

- Chevron
- Mustang
- Conoco
- Apache County office (closed)

### Comments

- Roads between homes need grading; people are doing it themselves
- Focus on improvements; we're paying taxes but not seeing any improvements
- Rural roads are not being maintained
- Issues have been brought to chapters and county, but nothing happens



# Arizona Department of Transportation



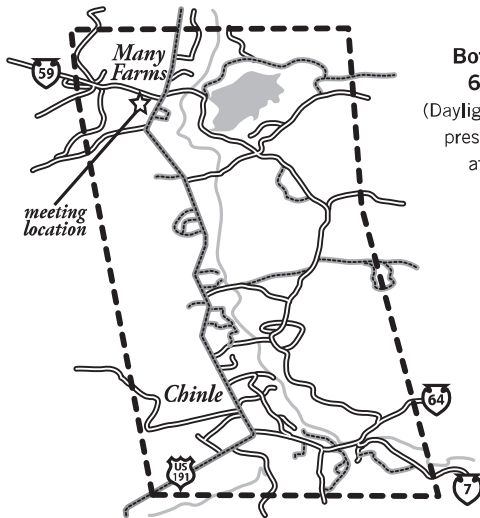
## PUBLIC MEETINGS



Regarding two transportation studies to identify improvements to meet the needs of the growing Navajo Nation. The long-range studies will recommend multimodal transportation improvements to be implemented in 5, 10 and 20-year timeframes within each study area.

### Many Farms to Chinle Study

Many Farms Chapter House  
Wednesday, Nov. 2, 2011



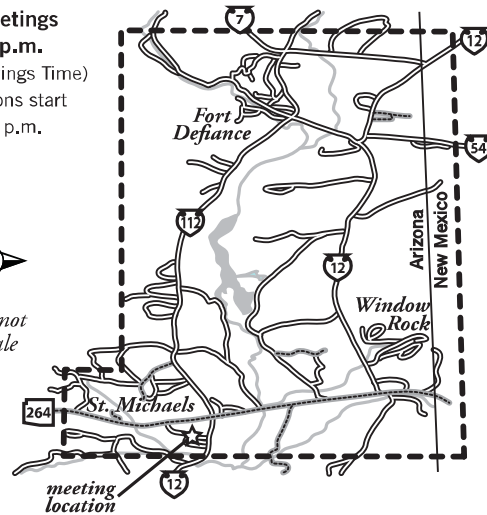
Both meetings  
6 to 8 p.m.  
(Daylight Savings Time)  
presentations start  
at 6:30 p.m.



maps not  
to scale

### St. Michaels to Window Rock to Fort Defiance Study

St. Michaels Chapter House  
Thursday, November 3, 2011



—— BIA & local roads    ——— US/state & county roads    ——— major washes    - - - study areas

**Please note: The two meetings will cover different information.**

**Navajo interpretation and light refreshments will be offered at both meetings.**

Both studies will analyze needs for Navajo/BIA roadways, drivers & commuters, pedestrians & bicyclists, trails & equestrians, transit systems, and airport and emergency access. Both studies will focus on safety, mobility & livability, economic vitality and community development.

For more information or to submit comments, please contact the ADOT Outreach Team, Attention "Navajo PARA Studies," care of Jason Hurd at Intrinsic:  
by phone, **928-522-6015** (Navajo speaker available); by fax, **928-522-6016**;  
by email, **[jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com)**; or by mail, **PO Box 336, Flagstaff, AZ 86002**.

More information, including detailed study area maps, can be found at:  
**[http://www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp)**

**Americans with Disabilities Act (ADA):** This notice may be available in alternative format and persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Hurd at (928) 522-6015. Requests should be made as early as possible to allow time to arrange the accommodation. This newspaper notice is available at **[www.azdotenvironmental.com](http://www.azdotenvironmental.com)**.

Lynn Johnson – Holbrook District Engineer  
Jennifer Toth – ADOT State Engineer



Don Sneed – ADOT Project Manager  
ADOT Project No. PG TD0728



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## **PUBLIC SERVICE ANNOUNCEMENT**

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**THE NAVAJO DIVISION OF TRANSPORTATION INVITES YOU TO ATTEND PUBLIC MEETINGS REGARDING TWO SEPARATE MULTIMODAL LONG-RANGE TRANSPORTATION STUDIES:**

- **THE FIRST PUBLIC MEETING IS FOR THE “CHINLE TO MANY FARMS CORRIDOR AREA STUDY,” ON WEDNESDAY, NOVEMBER 2, AT THE MANY FARMS CHAPTER HOUSE;**
- **AND THE SECOND MEETING, FOR THE “ST. MICHAELS TO WINDOW ROCK TO FORT DEFIANCE CORRIDOR AREA STUDY,” IS ON THURSDAY, NOVEMBER 3, AT THE ST. MICHAELS CHAPTER HOUSE.**

**THE TWO MEETINGS, BOTH HELD FROM 6 TO 8 PM, DAYLIGHT SAVINGS TIME, WILL COVER DIFFERENT INFORMATION. FOR DETAILS, CALL 928-522-6015. THAT’S 928-522-6015. NAVAJO INTERPRETATION IS AVAILABLE.**

###

***For more information, please contact:***

- ♦ Public Involvement Manager, Jason Hurd at Intrinsic – (928) 607-7156 or [jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com)



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## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***First Phase Public Involvement – November 2011***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix E1**

## **Public Meeting Notes Many Farms Meeting**

**Arizona Address: PO Box 336, Flagstaff, AZ 86002**

**Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676**



**public involvement**



**citizen outreach**



**stakeholder facilitation**



**conflict resolution**



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## **Meeting Notes**

### **Chinle-Many Farms Multimodal Long Range Transportation Study**

#### **November 2, 2011**

ADOT MPD Task Assignment 23-11

ADOT Project No. PG TD0728

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The Navajo Division of Transportation (Navajo DOT), the Arizona Department of Transportation (ADOT) and Navajo Chapters have initiated two multimodal transportation studies to identify long-term improvements: Chinle to Many Farms Corridor Study Area; and St. Michaels to Window Rock to Fort Defiance Corridor Study Area. The two studies will analyze and identify improvements for all modes of transportation within the corridor areas, including vehicular, pedestrian, bicycle, and equestrian, as well as connections between vehicular, airport and transit systems for commuter and emergency needs. Particular attention will be paid to safety, mobility, livability, and economic and community development.

On Wednesday, November 2, 2011, Navajo DOT and ADOT held a public meeting at the Many Farms Chapter House to present the results of Working Paper #1, Current and Future Transportation Conditions, to the community and seek public input. Forty-two people signed in at the Many Farms meeting. See attached sign-in sheet for a list of those in attendance.

Following are questions and comments offered by the public at the meeting, as well as answers provided by the project team. Additionally, meeting participants marked up study area maps with comments, which are included below following the spoken comments.

#### **SPOKEN COMMENTS/QUESTIONS**

Q: Are we only talking about US 191?

A: We are looking at the area shown in the study including all roads, existing, planned, or future.

Q: Do we have money to do these projects?

A: This is a planning study, but part of the next phase will be to develop projects and phase them, and to identify funding opportunities. Also, one of the elements included in this study is a list of funding programs available to tribal governments. Depending on the issue to be addressed, different programs can be targeted. Navajo DOT or Chapters can seek that funding. Public input is important to the funding agencies, so please share your comments.



Q: You didn't mention a frontage road. Can that be considered?

A: Yes, we're aware of that need, particularly in the Many Farms areas.

C: Thank you to ADOT and NDOT for this meeting. Chinle agency is always the last to get this kind of planning and funding. We have to start speaking up for ourselves to plan for the future. We need to do some planning. The Chinle and Many Farms studies should be a priority. If you're using state funds, 191 will be the priority. We're planning the future for our children and grandkids. We might not see these things happen. This is the first time we have this opportunity. We need transit. We might even need a high speed train. We need developments. Maybe we'll even have a casino here some day. I even recommended one time that we have a Native American on the State Transportation Board, but they did not want that.

C: 191 across Black Mountain Wash bridge needs widening. People talk about widening 191, but the bridge needs to be wider too.

C: Last week people came and I made a comment on making bus stop signs for children crossing. From Cornfields all the way up to I-40 there are bus stop signs, but there are not any up here. Where my daughter gets on by Black Mountain Wash, they should have a bus pullout in that area. In the morning we hold traffic up when they get on the bus and in the evening too. The bus has to get off the road and it needs more room.

Q: Who sets the speed limit for 191? As the population grows, it should be slower. When people turn off, cars line up behind them.

A: ADOT sets the 191 speed limit. We'll make sure that gets into the recommendations.

C: They are putting cattle guards in. I've seen cattle cross the road even with the cattle guards. Is there a measurement [spacing between the bars] that needs to be followed there?

Q: At the "first curve" south of Chinle on 191, when people are rushing to get home at 5 p.m., a car will be parked to make a turn, and other vehicles will go around it and cause accidents. We need to expand the road [add turning lanes] a little so people can go around.

A: Please identify that location on the maps.

C: The project team should consider adding recommendations to widen the shoulders at curves, MP 451 to 455 and MP 460 to 460.5, and construct turning lanes at major intersections (BIA & County Roads) between Chinle and Many Farms.

C: [Charlotte Begaye, Many Farms Chapter Vice President] Many Farms Chapter initiated this project five years ago. Then the project was expanded to Chinle and St Michaels/Window Rock areas/Fort Defiance areas. This meeting is for your information and benefit. We need to hear your concerns.

C: Our population is increasing. N59 and 88 might become state roads and then we'll have economic development here. Consider a 4-lane highway between Chinle and Many Farms.

**Q:** What is the main reason for this study? Phoenix is getting all those overhead passes while reservation roads don't get improved. I work with the Chinle Regional Business Development Office. Economic development is going to affect us because of the road planning. Right of way widening will affect businesses along the road. Is that in the plan? We have businesses trying to develop in Nazlini and Fort Defiance, which will create traffic. Does the study include the road between Chinle and Fort Defiance? I have a couple concerns: ROW, trails on the plans, sand dunes, pedestrians – in Chinle I've seen somebody almost get hit crossing the road several times – are there plans to put crosswalks there? How much can painting the road [pavement markings] cost? Especially school crossing – they are not all marked. It's time we voice our concerns to ADOT.

**A:** The main reason Phoenix and Tucson get more improvements is because they voted for a \$0.01 sales tax to pay for those improvements. The rest of the state pays taxes at gas pumps for statewide improvements, so rural areas get some of that. But there is a lot of competition for that money. This particular study was requested by Navajo DOT working with the Chapter officials. The study does not look at the entire 191 corridor, just the areas the Chapters wanted us to focus on. There was a corridor study done in 2001, but it did not identify the need to convert 191 into a four lane highway. [The study was a Feasibility Study that evaluated pedestrian traffic, cross walks and pedestrian overpasses, and it did recommend a 4-lane divided highway.] But when populations start growing, we identify those needs as they occur. We are just a little half way through this study. When we are done, we'll see where all your comments and concerns come into it. One recommendation might be to put in a 4-lane highway if there are high traffic capacity areas that need it. The study should be final in April or May 2012. The studies will be forwarded to ADOT District office so they will be aware of the needs also. In regards to safety, one of the things we do at ADOT is conduct road safety assessments to look at those specific types of safety needs, such as pedestrian concerns at specific locations. We do also need to focus on the Navajo routes' needs.

**C:** Thank you for this opportunity for community input. I have concerns on the route from here [Many Farms] to Chinle. Instead of crosswalks for children and pedestrians, my suggestion would be overpasses right in the Chinle area. That might be a better thing to consider in school zones as well as shopping areas. In terms of driving 191, there are a lot of semi trucks. That is very dangerous. Elders drive less than 55 mph. What about a bypass road for the semi trucks? We don't know what kind of chemicals they carry. Bus turnouts, we all follow the busses on our way to work and we have to wait for them every time they pick up students. If they have turnouts it would ease congestion and be safer. In the Chinle area, there is a lot of congestion when it comes to banking, the post office, eating; there is a need for another signalized intersection. A lot of livestock gets hit. Who is in charge of cleaning that up? It is really sad. We need to figure out how to keep animals out of the road. Do you have these charts on the web site? [She pointed to display charts.] That would be good for people who cannot make it to these meetings.

**A:** We can post them on the web site.

**C:** The main concern should be 191. Big trucks are a concern. There should be a weight limit or a Navajo boundary booth [Port-of-Entry type]. Population is growing along 191 and the increasing traffic congestion needs to be addressed.

C: We need about three fence-overpasses [Cattle Passes] from Many Farms to Chinle where they cut the fences. At ceremonies during summer, they travel by horse. To cross 191 they cut the fence. They need a way to get through the fences without cutting them, such as box culverts.

C: The fuel excise tax brought in \$21-million. We give the state \$4-million off the top. That is not cool with me. We give ADOT 33% of what we manage to get off the reservation. We really need it. We have needs across the reservation: paving, gravel, etc. They say when you enter the reservation you can see it in the change in the width of the highway. We almost have to beg on our knees to get anything done on the reservation. There was a public hearing several years ago at the Chinle community center. [A public hearing was held for project: US 191 H640101L Jct N4 – Many Farms, Feasibility Study, in November 2006.] I don't know what happened to that. How will that be incorporated into this study? From the Wildcat Stadium stand in Chinle and beyond about 1000 feet to the hospital turnoff, they were planning to put in 5-lanes. [Referring to project: US 191 446.4 to 447.5 H543801C Chinle South. This project is at 60% design stage. Construction is anticipated to start May 2012.] They were also planning streetlights, but it never comes. [There is a traffic signal project: US 191 446.7 HX12001C Jct N102-3 & US 191; bids were received on November 4, 2011.] We've had public hearings already. This is supposed to be 5, 10, and 20 years, but it will probably all be 20 years. I am on the Resource and Development Committee for the Navajo Nation; my name is Leonard Pete. Dirt roads, local roads, we have oversight on them, but we haven't met with ADOT yet. When we get together to discuss IRR funding, there are twelve tribes in the region we have to compete with. 191 used to be local road. They didn't foresee the amount of traffic, especially 18-wheelers. Studies are not interested in the types of vehicles on 191; they just do ADT, not the type of vehicles. [Percent of trucks on ADOT highways are included in all studies and project assessments for each project.] The weight is not being controlled. This route is a shortcut to four corners and Colorado. Speed has been brought up, especially between Chinle and Many Farms. Bus stops. Frontage roads have been brought up. That was brought up at the past public hearing too. There are several areas that flood right at the hospital turnoff and the airport turnoff and this side of Chinle at that church, at Bashas' too. We can't push economic development when we have that flooding problem. There are right of way issues with the flooding too. [ADOT says any water that comes from outside ADOT right-of-way is not responsibility of ADOT to take care of.] We need to have better maps to look at the drainage problem. The community would like to have streetlights. [The Chinle South project referenced above includes new street lights.] I would like to have a response on the past hearing and study. Are we going to be able to expect anything in less than 10 years? [Yes, Fence and Cattle Guard project is underway; Chip Seal project coming this summer between Chinle and Many Farms; Traffic Signal project coming about March 2012; Chinle South coming in 2013; and Pavement Preservation project coming in 2015 between Chinle and Many Farms.]. Is this just a mirage? The Secretary of Interior came to Window Rock with the Director of Bureau of Indian Affairs and Bureau of Indian Education, Mr. Echo Hawk. I told him I don't have the title to the land, so how do you push economic development, how do you plan roads? Just to dig a hole, you have to get permission. We're going to do what we can for the younger generation.

C: [Charlotte Begaye, Many Farms Chapter Vice President] Thank you all for being here. We need to go through the whole process. We're here to hear your concerns and issues. We all know funding is limited. We have to be consistent and persistent and make things happen. This will take time. As a community we need to be positive, stick together and support each other. Chapter officials, Navajo DOT, ADOT, residents, legislators, all need to work together. This is long range planning. It's not just for a few, but the majority – we all have to come together for the benefit of community safety and well-being. We can't afford to be negative.

C: Thanks to the people for being here. I want to reiterate that input is needed. It's important for this study.

### **COMMENTS WRITTEN ON MAPS**

#### **Roadway Needs and Deficiencies Map:**

- Provide roundabout at N102/US 191 intersection. [Traffic Signal project this summer and Chinle South project which includes widening US 191 to 5-lanes, sidewalks, and street lights in FY 13, so a Roundabout will probably not happen within the next 25 years or more.]
- traffic congestion at the Tsegi Shopping Plaza
- Traffic congestion and livestock concerns at the US 191 / N7 intersection
- A passing lane is needed between MP 449 and 452. [What this means is a 5-lane section to allow left and right turns with one through lane in each direction.]
- There can be congestion from traffic leaving Wildcat Gym after a game
- There is a transit stop just north of MP 452, but no pullout
- There are dangerous curves around MP 452
- Street lighting is need on US 191 between Chinle and Many Farms. [Street lights are usually not installed on rural roads. It will probably not meet warrants. I am thinking this comment was made due to poor visibility along the roadway? Installing recessed pavement markings at edge and center lines might be a better plan.]
- Provide passing lanes between MP 455.5 and MP 458.5
- There a reseeding area planned on the west side of US 191 between MP 457 and MP 460.5. [This reseeding plan is on Navajo Nation land outside off US 191 Right-of-Way. This information was probably provided for information only.]
- There are sand piles on the road approximately at MP 459.5. [The sand piles are due to work in progress. The sand will eventually be used somewhere possible as shoulder build-up or filling eroded areas.]
- A bus pull off is needed on the east side of US 191, approximately MP 460.3
- Comment that the curve area was dangerous for school buses approximately MP 460.5
- School crossing is needed on US 191 approximately MP 461.5
- A traffic signal or roundabout is needed at the intersection of US 191 and N59
- Street lighting is needed on US 191 through Many Farms
- A new access has been established on US 191, just north of MP 464-make sure it remains open
- Trucks are speeding on US 191 in the Many Farms area (approximately MP 460-463)
- Paving is needed on N8084

- School bus turnouts and traffic signals are needed on US 191. [In order to install traffic signals the intersection has to meet warrants. But, traffic signals can be installed if it improves traffic operations and other sources of funding are used. With all traffic signals the Navajo Nation has to agree to pay the electric bills under an IGA before ADOT will install traffic signals.]
- Widen major turnouts to US 191 on BIA and County roads. [This would also mean widen the Cattle Guards. This would require joint project with BIA and ADOT.]
- Turnouts [bus/safety] are needed on US 191 every mile – charge a toll. [FHWA will probably not approve of toll road.]
- Animals in the road (US 191)

**Transit and Non-Motorized Needs Map:**

- N8082 is not maintained or paved
- US 191 / N59- there are crosswalk needs and lighting needs
- Pave N8086 – it is a school bus route
- Provide a crosswalk at the end of Lake Drive
- N8084 is washboarded and not maintained. It is a bus route
- A livestock under crossing is needed
- Bus routes are not maintained
- Need turn lanes and frontage roads from M452 to 455
- Provide turnout lanes at the curve area (approximately MP 454.5)
- Provide a bike path
- People cut fences – there is a need for frontage roads
- There is flooding at approximately MP 451.3, between MP 448 and 449, and between MP 446 and 447
- Near the US 191/N7 intersection, a pedestrian crosswalk, pedestrian overpass, or HAWK [High-intensity Activated crosswalk, or a pedestrian hybrid beacon signal] signal is needed.
- Tourist use N7 to travel to Canyon de Chelly
- A traffic signal is needed at the N102/US 191 intersection
- Near the US 191/N7 intersection, the Shell store needs their access closest to the intersection closed off. There are too many accesses to the store.
- A crosswalk is needed to the Tsegi Shopping Center.



# Welcome to the Public Meeting - Please sign in

Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study  
Many Farms Chapter House - Wednesday, Nov. 2, 2011 - 6 to 8 p.m.

Name	Representing	Address and phone	Email or fax
John Gray			
Randy Routhier	ADOT	2407 E Navajo Blvd 928 524 5402	rrouthier@azdot.gov
Harvey Towne	Community	POB 446 M/I 86538/928-797-7034	
Winnifred Yoe		Box 508 Chinle	
Edward Yoe Sr			
James Jones Jr	Community	P.O. Box 3313 Chinle AZ 86503	nrj1865032005@yahoo.com
Elia John	Manyfarms Community	P.O. Box 122 Manyfarms. Az 86538	
Paul Jombo	Manyfarms Community	P.O. Box 122 Manyfarms. Az 86538	
APR	Chinle Chapter	Chinle Chapter	
Tommy Bie	Community	Box #2207 Chinle	Tommy.Bie@hs.gov

Please note: Completion of this sign-in sheet is completely voluntary and helps the project team keep an accurate record of attendees. Under state law, any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.



**Abee'hee' - Thank you for your participation!**





# Welcome to the Public Meeting ~ Please sign in

**Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study**  
**Many Farms Chapter House – Wednesday, Nov. 2, 2011 – 6 to 8 p.m.**

Name	Representing	Address and phone 928-313-0731	Email or fax
James L. Jones concrete		P.O. Box # 2154 Chinle AZ, 86033	
		Many Farms	
Agnes To	Self	Many Farms	
BILLY BEGA		MANY FARMS	
Marlene Monroe		Many Farm AZ	
Marian Shanthan		Chinle, AZ	
Wanda M		BOX 1128 Chinle AZ 86007	
Francis M. Sr		" " "	
Rena M. Bony		Box # 2304 Chinle	
Ernest Wilson		Box 1027 MF	

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**Ahee'hee' – Thank you for your participation!**





# Welcome to the Public Meeting ~ Please sign in

## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study

### Many Farms Chapter House – Wednesday, Nov. 2, 2011 – 6 to 8 p.m.

Name	Representing	Address and phone	Email or fax
Mordern Kaw			
Kid Jim	ADOT	2407 E. Navajo Blvd., Holbrook, AZ 86025	kyg221@azdot.gov
Alfred L. Grogan	Rough Rock	RRTP-BOX DEE Chinle, AZ 86503	
Lane	Many Farms	Many Farms	
Jacey McCurtain	MANY FARMS	PO Box 694 MANY FARMS AZ 86538	jacey.mccurtain@ihs.gov
Kathryn Arth	Many Farms	Bx 1578 Chinle AZ	
Dan Tsose	Chinle AZ	BOX 3573 Chinle AZ	
Tommy Totsoni	Chinle AZ	BOX 1718 Chinle AZ	
Donna Gilbert	Many Farms	P.O. Box 694 Many Farms, AZ 86538	donna.gilbert@ihs.gov
MIKE K. ETSITTY	CHINLE R3DO	P.O. BOX 565 CHINLE, AZ 86503	mketsitty@yahoo.com



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# Welcome to the Public Meeting ~ Please sign in

Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study  
Many Farms Chapter House – Wednesday, Nov. 2, 2011 – 6 to 8 p.m.

Name	Representing	Address and phone	Email or fax
Abe Benally	MF Community	P.O. Box # 701, Chinle, AZ	
Marlyn Kewannana	MF Community	P.O. Box # 394, Many Farms, AZ	morelnisck@yahoo
Katy Jazze	ADOT, Holbrook Dist.	2407 E. Navajo Blvd., Holbrook, AZ 86025	kjazzie@azdot.gov
Don Sneed	ADOT-MPD	206 S. 17th Ave., Phoenix, AZ 85020	dsneed@azdot.gov
Marcu Sells	NDOT	Window Rock, AZ 86503	msells@navajodot.org
Charlotte Boyce	MF Chapter U. President	PO Box 185, MF, AZ, 86538	(928) 781-3608
Jason Hurd	Intrinsic/ADOT	PO Box 336 Flag, AZ 86002 928-607-7156	jason@intrinsicinfo.com
Ron Curtis	ADOT	Box 1140 Ganado AZ 86505	rcurtis@azdot.gov
Brook Burrows	MF environmental Health	P.O. Box 4055 Chinle, AZ 86503	william.burrows@ihs.gov
Alfred L. Grogg	Window Rock/Navajo	RRTP-Box DEE Chinle, AZ 86503	

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# *Welcome to the Public Meeting ~ Please sign in*

**Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study**  
**Many Farms Chapter House – Wednesday, Nov. 2, 2011 – 6 to 8 p.m.**

Name	Representing	Address and phone	Email or fax
Eugenia Clark	MF community	PO BOX 1795 Chinle AZ 86503	
Eugene Tso	Chinle commun.	PO BOX 1366 Chinle AZ 86503	



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***Ahee'hee' – Thank you for your participation!***





**Arizona Office:**  
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## **Public Involvement Summary Report**

**Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance  
Multimodal Long Range Transportation Study**

*First Phase Public Involvement – November 2011*

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix E2**

## **Public Meeting Notes St. Michaels Meeting**

*Arizona Address: PO Box 336, Flagstaff, AZ 86002*

*Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676*



public involvement



citizen outreach



stakeholder facilitation



conflict resolution



Arizona Office:      Texas Office:  
P: (928) 522-6015      P: (512) 847-7744  
F: (928) 522-6016      F: (512) 847-7745  
[www.intrinsicinfo.com](http://www.intrinsicinfo.com)

## **Meeting Notes**

### **St. Michaels-Window Rock-Fort Defiance Multimodal Long Range Transportation Study November 3, 2011**

**ADOT MPD Task Assignment 23-11      ADOT Project No. PG TD0728**

The Navajo Division of Transportation (Navajo DOT), the Arizona Department of Transportation (ADOT) and Navajo Chapters have initiated two multimodal transportation studies to identify long-term improvements: Chinle to Many Farms Corridor Study Area; and St. Michaels to Window Rock to Fort Defiance Corridor Study Area. The two studies will analyze and identify improvements for all modes of transportation within the corridor areas, including vehicular, pedestrian, bicycle, and equestrian, as well as connections between vehicular, airport and transit systems for commuter and emergency needs. Particular attention will be paid to safety, mobility, livability, and economic and community development.

On Thursday, November 3, 2011, Navajo DOT and ADOT held a public meeting at the St. Michaels Chapter House to present the results of Working Paper #1, Current and Future Transportation Conditions, to the community and seek public input. Ten people signed in at the St. Michaels meeting. See attached sign-in sheet for a list of those in attendance.

Following are comments offered by the public at the meeting. Additionally, meeting participants marked up study area maps with comments, which are included below following the spoken comments.

#### **SPOKEN COMMENTS/QUESTIONS**

C: I've been a local resident of Window Rock for 40 years. During that time, I worked for the tribe for 38 years and we lived in Window Rock – it's disappointing not to see many people here at this meeting. We have tried to get our roads repaired. I live in the St. Michaels housing area. For 30 years we have asked to get those roads repaired. We've gone to chapters, resolutions have been presented, we've gone to Navajo DOT, the county, BIA, etc. No one in transportation will support us or repair our roads in Window Rock residential areas or in Fort Defiance. Even in government office areas. I personally went before Window Rock Transportation. They got millions of dollars and are building new offices and hiring people but not fixing our roads. I wrote letters and finally got a response asking for a resolution and I sent that to them, an older resolution already passed. Nothing was done. They said they can't help. Who will help us? Nothing has ever been done to assist us. We've hauled in sand and gravel ourselves for the potholes.

Arizona Address: PO Box 336, Flagstaff, AZ 86002

Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676



public involvement



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conflict resolution

Nobody will come in with equipment to help us. I went to the Ft. Defiance Chapter meeting a couple weeks ago. Navajo DOT was on the agenda but didn't show up. We need your help. We need our roads fixed. The priority is the residential areas, the business areas. Someone needs to be responsible. We can't wait five years, ten years. We need immediate repairs.

### **COMMENTS WRITTEN ON MAPS**

#### **Roadway Needs and Deficiencies Map:**

- There are paving needs for the streets in the residential area on the west side of N12 (Shonto Blvd, Jeddito Drive and the intersecting streets).
- There are paving needs on Window Rock Blvd/N100 and the other surrounding streets serving the government offices
- There are paving needs on Chee Dodge Drive, Manuelito Drive, Morgan Blvd, and other residential streets in that area.



# Welcome to the Public Meeting ~ Please sign in

St. Michaels to Fort Defiance Corridor Multimodal, Long-Range Transportation Study  
St. Michaels Chapter House – Thursday, Nov. 3, 2011 – 6 to 8 p.m.

Name	Representing	Address and phone	Email or fax
Wallace Hanley		Window Rock 928-871-5761	w_hanley@frontiernet.net
Ron Curtis	ADOT	Box 1140 Garedo AZ 8654 <sup>928-3579</sup>	rcurtis@azdot.gov
Randy Routhier	ADOT	2407 E Navajo Blvd	rrouthier@azdot.gov
Clara Brown		St Michaels Box 187	
Brian Upshaw			
SALISA NORSTOG	NDOT	POB 4620 WINDOW ROCK, AZ 86515	snorstog@navajodot.org
Margie RS Begay	NDOT-TT-Div Agency	POB 4620 Window Rock, AZ 86515	mbegay@navajodot.org
Jason Hurd	Intrinsic/ADOT	PO Box 336 Flag AZ 86002 <sup>928-607-7156</sup>	jason@intrinsicintercom
Don Sneed	ADOT-MPD	206 S. 17th Ave. 602-712-6736 Phx, AZ 85007	dsneed@azdot.gov
Nona Baheshone	Bahozhoni Development	6503 E Rafter River St Mesa, AZ 85215 602-363-6473	nbareshone@bahozhoni.com



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**Ahee'hee' – Thank you for your participation!**





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## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***First Phase Public Involvement – November 2011***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix F1**

## **Written Comments Chinle/Many Farms**

**Arizona Address:** PO Box 336, Flagstaff, AZ 86002

**Texas Address:** 40 East Valley Spring Road, Wimberley, TX 78676



public involvement



citizen outreach



stakeholder facilitation



conflict resolution

# Your Input is Important!

## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study



Please take a moment to complete the following comment form. The project team will take your input into consideration as they refine transportation needs, and as they prepare Evaluation Criteria & Proposed Improvements to meet those needs.



### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: Corridor area needs to be studied for Flooding Problems - have better drainage

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....		✓	
e. Access to schools.....			✓
f. Access to recreation areas.....		✓	
g. Emergency access.....			✓
h. Airport access.....		✓	
i. Project cost.....			✓
j. Other (please rank and explain).....			✓

Need more staff / Maintenance personal to up keep the roads.

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. Safety for Public -

b. Divided roads for future needs

c. too many turn out now - frontage roads - for better access.

### 4. Please share any additional comments:

Build roundabouts instead of traffic signals.  
Street lights.  
New side walkers / Landscaping

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....		✓	
v. New traffic signals.....		✓	
vi. Access control/medians.....			✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			✓

your Study Purpose: for a 5 yrs plan this area needs turn lanes at major BIA routes

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....		✓	
iii. New service.....		✓	
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....		✓	
e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			

## Ahee'hee'!

Please return by Friday, Dec. 2, 2011, to the ADOT Outreach Team, Attention "Navajo PARA Studies:" by phone, **928-522-6015** (Navajo speaker available); by fax, **928-522-6016**; by email, **jason@intrinsicinfo.com**; or by mail, **PO Box 336, Flagstaff, AZ 86002**. Please note: Completion of this comment sheet is completely voluntary and helps the project team keep an accurate record of attendees' comments. Under state law, any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.



# Your Input is Important!

## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study



Please take a moment to complete the following comment form. The project team will take your input into consideration as they refine transportation needs, and as they prepare Evaluation Criteria & Proposed Improvements to meet those needs.



### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: Funding source and what ADOT plan is for 5 or 10 years to fund this road improvement.

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....			✓
c. Access to employment areas.....			✓
d. Access to commercial areas.....			✓
e. Access to schools.....			✓
f. Access to recreation areas.....		✓	
g. Emergency access.....			✓
h. Airport access.....			✓
i. Project cost.....			
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- No Passing, congestion of traffic during rush hours.
- No livestock under crossing, cattle guards not working, horse facilities.
- More traffic lighting in Many Farms Area.

### 4. Please share any additional comments:

- rumble strips on roads needed to alert motorists
- IS BIA roads needs to be paved with additional routes in chinle
- Peoples lives and property are getting damage and hurt, need to improve this road.

**Ahee'hee!**

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....		✓	
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			✓

livestock underpassing to keep animals off the road.

	low	med	high
b. Transit.....		✓	
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....			✓
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....			✓
e. Equestrian trails/crossings.....			✓
f. Other (please rank and explain).....			

Please return by Friday, Dec. 2, 2011, to the ADOT Outreach Team, Attention "Navajo PARA Studies:"

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Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: IDENTIFY FUNDING SOURCES + DON'T JUST PROVIDE A REPORT  
KEEP THE PUBLIC INFORMED, ADDRESS PEOPLE IN NAVAJO LANGUAGE, DO AN EVALUATION

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....		✓	
e. Access to schools.....	✓		
f. Access to recreation areas.....		✓	
g. Emergency access.....			✓
h. Airport access.....		✓	
i. Project cost.....		✓	
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- a. ROADWAY DESIGN - NO SHOULDERS, SHARP CURVES, NO VISIBILITY @ NIGHT.
- b. NO 4-LANE HIGHWAY @ HIGH TRAFFIC AREAS, NO SAFE TURN OUT LANES
- c. MUDDY, POOR DIRT ROADS - NEED UPGRADE TO GRAVEL OR PAVING

### 4. Please share any additional comments:

MVC'S ARE THE #1 CAUSE OF INJURIES IN THE CHINLE SERVICE UNIT, PEOPLE ARE KILLED OR SEVERELY INJURED WHEN THEY HIT ANIMALS, PEDESTRIANS, OR INVOLVED IN SINGLE MOTOR VEHICLE ROLLOVERS.

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....			✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....		✓	
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....		✓	
ii. Crossings.....			✓
d. Bicycle routes/paths.....			✓
e. Equestrian trails/crossings.....			✓
f. Other (please rank and explain).....			

NEED BUS STOP PULL OUTS THAT ARE PAVED + LIT FOR NIGHT TIME AS STUDENTS ARE PICKED UP OR DROPPED OFF.

IDENTIFY THE AREAS WHERE MOST MVC'S OCCUR, ADDRESS REDUCING INJURIES BY ROAD IMPROVEMENTS

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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			X
b. Community development.....		X	X
c. Access to employment areas.....		X	
d. Access to commercial areas.....			X
e. Access to schools.....		X	
f. Access to recreation areas.....		X	
g. Emergency access.....		X	
h. Airport access.....		X	
i. Project cost.....	X		
j. Other (please rank and explain).....			

*Safety and aesthetics!*

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. *pedestrian paths, crossings, multi-use walkways, aesthetic beautification*

b. *livestock removal*

c. *drunk driving*

### 4. Please share any additional comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....		X	
i. Paving dirt roads.....			X
ii. Resurfacing paved roads.....		X	
iii. Road widening.....			X
iv. Street lighting.....			X
v. New traffic signals.....			X
vi. Access control/medians.....		X	
vii. Bridge improvements.....		X	
viii. Traffic congestion.....		X	
ix. Other (please rank and explain).....			

### b. Transit.....

	low	med	high
i. Bus stops.....			X
ii. Pullouts.....			X
iii. New service.....			X
iv. Other (please rank and explain).....			

*This goes w/ safety as well*

### c. Pedestrian.....

	low	med	high
i. Sidewalks/paths.....			X
ii. Crossings.....			X
d. Bicycle routes/paths.....			X
e. Equestrian trails/crossings.....			X
f. Other (please rank and explain).....			

*A recreational walk/bike path all the way down 191. Navajo culture includes walking, running, exercising, so this would be very appropriate*

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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: bridge on 191 MP 460 + sheep/cattle pass near MP461

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....			✓
c. Access to employment areas.....			✓
d. Access to commercial areas.....			✓
e. Access to schools.....			✓
f. Access to recreation areas.....		✓	
g. Emergency access.....			✓
h. Airport access.....			✓
i. Project cost.....			✓
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- a. School bus pullout
- b. widening 191
- c. turning lanes & access onto 191

### 4. Please share any additional comments:

Row cleaning/clearing  
Maintain Row fence  
Monitor cattle guards  
Have Navajo return our fuel  
for money.

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....		✓	
v. New traffic signals.....		✓	
vi. Access control/medians.....			✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

### b. Transit.....

	low	med	high
i. Bus stops.....		✓	
ii. Pullouts.....			✓
iii. New service.....			✓
iv. Other (please rank and explain).....			

### c. Pedestrian.....

	low	med	high
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....		✓	
e. Equestrian trails/crossings.....		✓	
f. Other (please rank and explain).....			

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a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....	<input checked="" type="checkbox"/>		
b. Community development.....	<input checked="" type="checkbox"/>		
c. Access to employment areas.....		<input checked="" type="checkbox"/>	
d. Access to commercial areas.....	<input checked="" type="checkbox"/>		
e. Access to schools.....	<input checked="" type="checkbox"/>		
f. Access to recreation areas.....	<input checked="" type="checkbox"/>		
g. Emergency access.....	<input checked="" type="checkbox"/>		
h. Airport access.....	<input checked="" type="checkbox"/>		
i. Project cost.....			<input checked="" type="checkbox"/>
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. Very Congested area  
Crash seems like everyday

b. Hit in runs

c. \_\_\_\_\_

### 4. Please share any additional comments:

Pull-outs  
Need more bus stops  
Bus Stop Signs

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
i. Paving dirt roads.....	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>
ii. Resurfacing paved roads.....			<input checked="" type="checkbox"/>
iii. Road widening.....			<input checked="" type="checkbox"/>
iv. Street lighting.....			<input checked="" type="checkbox"/>
v. New traffic signals.....			<input checked="" type="checkbox"/>
vi. Access control/medians.....			<input checked="" type="checkbox"/>
vii. Bridge improvements.....			<input checked="" type="checkbox"/>
viii. Traffic congestion.....			<input checked="" type="checkbox"/>
ix. Other (please rank and explain).....			

### b. Transit.....

	low	med	high
i. Bus stops.....			<input checked="" type="checkbox"/>
ii. Pullouts.....			<input checked="" type="checkbox"/>
iii. New service.....			<input checked="" type="checkbox"/>
iv. Other (please rank and explain).....			

### c. Pedestrian.....

	low	med	high
i. Sidewalks/paths.....			<input checked="" type="checkbox"/>
ii. Crossings.....			<input checked="" type="checkbox"/>

### d. Bicycle routes/paths.....

	low	med	high
i. Sidewalks/paths.....			<input checked="" type="checkbox"/>

### e. Equestrian trails/crossings.....

	low	med	high
i. Sidewalks/paths.....			<input checked="" type="checkbox"/>

### f. Other (please rank and explain).....

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a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....			✓
e. Access to schools.....			✓
f. Access to recreation areas.....	✓		
g. Emergency access.....		✓	
h. Airport access.....			✓
i. Project cost.....			✓
j. Other (please rank and explain).....			

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....		✓	
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....		✓	✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. frontage road

b. school bus turnout

c. \_\_\_\_\_

### 4. Please share any additional comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....			✓
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....		✓	
e. Equestrian trails/crossings.....		✓	
f. Other (please rank and explain).....			

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a. If yes, please explain: We brought up different issues and they answered them.

### 2. Please rank the following project criteria

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	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....			✓
d. Access to commercial areas.....			✓
e. Access to schools.....		✓	
f. Access to recreation areas.....			✓
g. Emergency access.....			✓
h. Airport access.....			✓
i. Project cost.....			✓
j. Other (please rank and explain).....			

Over pass - to schools at intersecting

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- Bus transport
- taxi cars
- Buses

### 4. Please share any additional comments:

\* We need an intersection at the turn up to Chinle Hospital road.

\* The entrance to 'Shell' station in chinle (@ intersection) need to be closed off. Accidents happens when

Ahee hee! the person turns there at a quick stop. Person behind them will think they are going to drive up to the intersection.

### 5. Please rank the following transportation needs

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	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....		✓	
vii. Bridge improvements.....			✓
viii. Traffic congestion.....		✓	
ix. Other (please rank and explain).....			

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....			
iv. Other (please rank and explain).....			

\* By minor post 452.  
Need more Pullouts for bus. And need one safety pullout for Transit, and between Chinle - MF. (two)

	low	med	high
c. Pedestrian.....			
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....			✓
e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			

In Chinle - Bicycle Routes alongside sidewalks.

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a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

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	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....		✓	
e. Access to schools.....		✓	
f. Access to recreation areas.....		✓	
g. Emergency access.....		✓	✓
h. Airport access.....	✓		
i. Project cost.....			✓
j. Other (please rank and explain).....			

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....		✓	
iv. Street lighting.....			✓
v. New traffic signals.....		✓	
vi. Access control/medians.....		✓	
vii. Bridge improvements.....		✓	
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- Increase of Trucks on the road. They speed thru & it is unsafe.
- Livestock on the road, causing damage & lives
- Maintaining the all roads esp. the Indian Routes & BIA roads.

### 4. Please share any additional comments:

	low	med	high
b. Transit.....		✓	
i. Bus stops.....		✓	
ii. Pullouts.....		✓	
iii. New service.....	✓		
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....		✓	
i. Sidewalks/paths.....		✓	
ii. Crossings.....	✓		
d. Bicycle routes/paths.....	✓		
e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			

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10. 27 years previous experience. 1946-1952 at Grand Teton National Park, Chief Ranger Nov. 1952 - Nov. 1954

**Figure 1**

மேல் காட்டிய, அங்கீகரிக்கப்பட்ட ஸ்கூல் கல்வியைக் கற்றுக்கொண்டவர்கள்:

i. Paving dirt roads.....	X		
ii. Resurfacing paved roads.....			X
iii. Road widening.....			X
iv. Street lighting.....		X	
v. New traffic signals.....		X	
vi. Access control/barriers.....		X	
vii. Bridge improvements.....			X
viii. Traffic congestion.....	X		
ix. Other (please rank and explain).....			
<u>Eliminate cattle crossings</u>			X

i. Bus stops		X
ii. Pullouts		X
iii. New controls	7	
iv. Other (please rank and explain).....		

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a. If yes, please explain:

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as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....			✓
c. Access to employment areas.....		✓	
d. Access to commercial areas.....		✓	
e. Access to schools.....			✓
f. Access to recreation areas.....		✓	
g. Emergency access.....			✓
h. Airport access.....			✓
i. Project cost.....		✓	
j. Other (please rank and explain).....			

(School) Student walk overpass

5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....		✓	
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....			✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

Bus Routine gravel Roads  
Local Res. gravel Roads

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....		✓	
iii. New service.....		✓	
iv. Other (please rank and explain).....			

Elder Transport To/From Hospital  
stores and other Business office

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....		✓	
e. Equestrian trails/crossings.....		✓	
f. Other (please rank and explain).....			

3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- How lanes from Grand Canyon
- Truck Route By pass in Grand Canyon Many Farms
- In Chinle need By pass Route on North side Between Chinle and Valley Store and South side Between Chinle and

4. Please share any additional comments:

Ahee'hee'!

Please return by Friday, Dec. 2, 2011, to the ADOT Outreach Team, Attention "Navajo PARA Studies:"

Job for funding State Road  
BIA Roads and County Roads

e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			✓

Flood Control - Surface Run off  
from the mesa floods then roads

Ahee'hee'!

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# Your Input is Important!

## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study



Please take a moment to complete the following comment form. The project team will take your input into consideration as they refine transportation needs, and as they prepare Evaluation Criteria & Proposed Improvements to meet those needs.



### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: Study Area need to include North Many Farms Valley up to Mile Post 470 Chinle Wash. Include improving BIA road N-18 going up to Canyon Mesa.

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....		✓	
e. Access to schools.....			✓
f. Access to recreation areas.....	✓		
g. Emergency access.....			✓
h. Airport access.....	✓		
i. Project cost.....		✓	
j. Other (please rank and explain).....		✓	

Provide Signage  
Restripe Roads Routinely  
Maintain Road in winter

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. Pave or gravel top all heavily used dirt road like N-18

b. Bus route

c. \_\_\_\_\_

### 4. Please share any additional comments:

Well populated Many Farms North Valley was not included in the study area. Emergency vehicle and School bus often have difficulty commuting on these dirt roads

**Ahee'hee'!**

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....		✓	
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....		✓	
iii. Road widening.....		✓	
iv. Street lighting.....		✓	
v. New traffic signals.....		✓	
vi. Access control/medians.....			✓
vii. Bridge improvements.....	✓		
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

Provide and install improved design cattle guard that deter livestock

	low	med	high
b. Transit.....	✓		
i. Bus stops.....		✓	
ii. Pullouts.....			✓
iii. New service.....		✓	
iv. Other (please rank and explain).....			

Design and size drainage pipe properly to prevent flooding of roads business and

	low	med	high
c. Pedestrian <u>Access Roads</u> .....	✓		
i. Sidewalks/paths.....	✓		
ii. Crossings.....			✓
d. Bicycle routes/paths.....	✓		
e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			

Need bridge crossing at all school crossing Many Farms Elementary and Chinle Schools Jr high & high school (like one in Navajo)

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by email, **jason@intrinsicinfo.com**; or by mail, **PO Box 336, Flagstaff, AZ 86002**. Please note: Completion of this comment sheet is completely voluntary and helps the project team keep an accurate record of attendees' comments. Under state law, any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.



# 

## 



Please take a moment to complete the following comment form. The project team will take your input into consideration as they refine transportation needs, and as they prepare Evaluation Criteria & Proposed Improvements to meet those needs.



1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: *They did not elaborate on the adjoining BIA and County roads although they are within the survey boundary.*

2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....		✓	✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....		✓	
e. Access to schools.....		✓	
f. Access to recreation areas.....	✓		
g. Emergency access.....			✓
h. Airport access.....		✓	
i. Project cost.....			✓
j. Other (please rank and explain).....			

5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....	✓		
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....	✓		
iii. Road widening.....		✓	
iv. Street lighting.....		✓	
v. New traffic signals.....	✓		
vi. Access control/medians.....			✓
vii. Bridge improvements.....		✓	
viii. Traffic congestion.....	✓		
ix. Other (please rank and explain).....			

3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- Bus Pullout on 191*
- Pave or gravel top bus routes*
- Pave dirt road below the hospital one leading to the hospital road*

4. Please share any additional comments:

*Lobby for funding State Road BIA roads and County roads*

	low	med	high
b. Transit.....	✓		
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....			✓
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....		✓	✓
i. Sidewalks/paths.....		✓	
ii. Crossings.....			✓
d. Bicycle routes/paths.....	✓		
e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			✓

*Flood Control - Surface run off from the mesa floods these roads*

Ahee'hee'!

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## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study



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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			X
b. Community development.....			
c. Access to employment areas.....			
d. Access to commercial areas.....			
e. Access to schools.....			
f. Access to recreation areas.....		X	
g. Emergency access.....			
h. Airport access.....			X
i. Project cost.....			
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

- Keep animals off the road
- Plow the roads when there is snow
- 

### 4. Please share any additional comments:

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			
i. Paving dirt roads.....			
ii. Resurfacing paved roads.....			
iii. Road widening.....			X
iv. Street lighting.....			
v. New traffic signals.....			
vi. Access control/medians.....			
vii. Bridge improvements.....			
viii. Traffic congestion.....			
ix. Other (please rank and explain).....			

Put in a bike lane

	low	med	high
b. Transit.....			
i. Bus stops.....			
ii. Pullouts.....			
iii. New service.....			
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			
i. Sidewalks/paths.....			
ii. Crossings.....			
d. Bicycle routes/paths.....			X
e. Equestrian trails/crossings.....			
f. Other (please rank and explain).....			

Ahee'hee'!

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## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study



Please take a moment to complete the following comment form.  
The project team will take your input into consideration as they refine transportation needs, and as they prepare Evaluation Criteria & Proposed Improvements to meet those needs.



**1. Tonight's presentation focused on current and future transportation needs.**

Did the project team miss anything? (circle one)    NO (they got everything)    X YES (they missed something)

a. If yes, please explain: They must've missed something. Nobody could cover everything

**2. Please rank the following project criteria as low, medium or high priorities:**

	low	med	high
a. Safety.....			X
b. Community development.....		X	
c. Access to employment areas.....	X		
d. Access to commercial areas.....	X		
e. Access to schools.....	X		
f. Access to recreation areas.....	X		
g. Emergency access.....		X	
h. Airport access.....	X		
i. Project cost.....		X	
j. Other (please rank and explain).....			

**5. Please rank the following transportation needs as low, medium or high priorities:**

	low	med	high
a. Roadways/Intersections.....			X
i. Paving dirt roads.....			X
ii. Resurfacing paved roads.....	X		
iii. Road widening.....		X	
iv. Street lighting.....		X	
v. New traffic signals.....			X
vi. Access control/medians.....	X		
vii. Bridge improvements.....	X		
viii. Traffic congestion.....		X	
ix. Other (please rank and explain).....			x

Horses, cows, sheep in the road way

**3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?**

a. Livestock in the roadway

b. People on their cell phones while driving

c. Buses and others interrupting normal flow of traffic

**4. Please share any additional comments:**

I don't think its right that the high way patrol and the Navajo cops only come out a few days to bust people then they disappear for the rest of the time. They could help chase livestock off the road.

	low	med	high
b. Transit.....		x	
i. Bus stops.....			X
ii. Pullouts.....		x	
iii. New service.....		X	
iv. Other (please rank and explain).....			x

Chinle school busses disrupt traffic for miles

	low	med	high
c. Pedestrian.....			x
i. Sidewalks/paths.....		x	
ii. Crossings.....		x	
d. Bicycle routes/paths.....		x	
e. Equestrian trails/crossings.....	x		
f. Other (please rank and explain).....			x

There are many hitch hikers on the road

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1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			X
b. Community development.....			X
c. Access to employment areas.....			X
d. Access to commercial areas.....			X
e. Access to schools.....			X
f. Access to recreation areas.....			X
g. Emergency access.....			X
h. Airport access.....			X
i. Project cost.....			X
j. Other (please rank and explain).....			

5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			X
i. Paving dirt roads.....			X
ii. Resurfacing paved roads.....			X
iii. Road widening.....			X
iv. Street lighting.....			X
v. New traffic signals.....			X
vi. Access control/medians.....			X
vii. Bridge improvements.....			X
viii. Traffic congestion.....			X
ix. Other (please rank and explain).....			X

*redo ROW Fence*

3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. *re construct Hwy 191 turn off widening the road and pave dirt road's*

c. *Control all livestock out of the road R.O.W fence*

4. Please share any additional comments:

*Make four lane road between Chinle to Many Farm Free WAY!!!*

b. Transit.....

	low	med	high
i. Bus stops.....		X	
ii. Pullouts.....		X	
iii. New service.....	X		
iv. Other (please rank and explain).....			

c. Pedestrian.....

	low	med	high
i. Sidewalks/paths.....		X	
ii. Crossings.....			X
d. Bicycle routes/paths.....		X	
e. Equestrian trails/crossings.....	X		
f. Other (please rank and explain).....			

**Ahee'hee'!**

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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria:

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....			✓
c. Access to employment areas.....			✓
d. Access to commercial areas.....		✓	
e. Access to schools.....			✓
f. Access to recreation areas.....			✓
g. Emergency access.....			✓
h. Airport access.....		✓	
i. Project cost.....		✓	
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. Free way

b. Keep animal outside the fence

c. \_\_\_\_\_

### 4. Please share any additional comments:

Thank you for improving the road.

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....			✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

	low	med	high
b. Transit.....		✓	
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....			✓
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....		✓	
i. Sidewalks/paths.....		✓	
ii. Crossings.....		✓	
d. Bicycle routes/paths.....		✓	
e. Equestrian trails/crossings.....	✓		
f. Other (please rank and explain).....			

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**Arizona Office:**  
P: (928) 522-6015  
F: (928) 522-6016

**Texas Office:**  
P: (512) 847-7744  
F: (512) 847-7745

[www.intrinsicinfo.com](http://www.intrinsicinfo.com)

## **Public Involvement Summary Report**

**Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance  
Multimodal Long Range Transportation Study**

*First Phase Public Involvement – November 2011*

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix F2**

## **Written Comments**

### **St. Michaels/Ft. Defiance**

*Arizona Address: PO Box 336, Flagstaff, AZ 86002*

*Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676*



public involvement



citizen outreach



stakeholder facilitation



conflict resolution

# Your Input is Important!

## St. Michaels to Fort Defiance Corridor Multimodal, Long-Range Transportation Study



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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....		✓	
c. Access to employment areas.....		✓	
d. Access to commercial areas.....			✓
e. Access to schools.....			✓
f. Access to recreation areas.....		✓	
g. Emergency access.....			✓
h. Airport access.....			
i. Project cost.....		✓	
j. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the ~~St. Michaels to Fort Defiance~~ study corridor area?

a. Safety - keep Animals out of Right-of-way

b. New fence / Cattle guard

c. Frontage roads

### 4. Please share any additional comments:

Build roundabouts @  
Intersections

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....	✓		
vi. Access control/medians.....		✓	
vii. Bridge improvements.....		✓	
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....		✓	
iii. New service.....		✓	
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....		✓	
e. Equestrian trails/crossings.....		✓	
f. Other (please rank and explain).....			

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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....	<input checked="" type="checkbox"/>		
b. Community development.....	<input checked="" type="checkbox"/>		
c. Access to employment areas.....	<input checked="" type="checkbox"/>		
d. Access to commercial areas.....	<input checked="" type="checkbox"/>		
e. Access to schools.....	<input checked="" type="checkbox"/>		
f. Access to recreation areas.....	<input checked="" type="checkbox"/>		
g. Emergency access.....	<input checked="" type="checkbox"/>		
h. Airport access.....	<input checked="" type="checkbox"/>		
i. Project cost.....	<input checked="" type="checkbox"/>		
j. Other (please rank and explain).....			

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			
i. Paving dirt roads.....			
ii. Resurfacing paved roads.....			
iii. Road widening.....			
iv. Street lighting.....			
v. New traffic signals.....			
vi. Access control/medians.....			
vii. Bridge improvements.....			
viii. Traffic congestion.....			
ix. Other (please rank and explain).....			

### 3. In your opinion, what are the three most important transportation-related needs in the ~~Chinle to Many Farms~~ *Window Rock* study corridor area?

- Repair potholes in residential and Navajo Nation government offices*
- Alternate route into Window Rock government offices*
- 4 lane roads for Smith junction to Ganado - Route 264*

### 4. Please share any additional comments:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- Transit.....
  - Bus stops.....
  - Pullouts.....
  - New service.....
  - Other (please rank and explain).....

	low	med	high
b. Transit.....			
i. Bus stops.....			
ii. Pullouts.....			
iii. New service.....			
iv. Other (please rank and explain).....			

- Pedestrian.....
  - Sidewalks/paths.....
  - Crossings.....
- Bicycle routes/paths.....
- Equestrian trails/crossings.....
- Other (please rank and explain).....

	low	med	high
c. Pedestrian.....			
i. Sidewalks/paths.....			
ii. Crossings.....			
d. Bicycle routes/paths.....			
e. Equestrian trails/crossings.....			
f. Other (please rank and explain).....			

### Ahee'hee'!

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## St. Michaels to Fort Defiance Corridor Multimodal, Long-Range Transportation Study



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### 1. Tonight's presentation focused on current and future transportation needs.

Did the project team miss anything? (circle one) NO (they got everything) YES (they missed something)

a. If yes, please explain: \_\_\_\_\_

### 2. Please rank the following project criteria

as low, medium or high priorities:

	low	med	high
a. Safety.....			✓
b. Community development.....			✓
c. Access to employment areas.....			✓
d. Access to commercial areas.....			✓
e. Access to schools.....			✓
f. Access to recreation areas.....			✓
g. Emergency access.....			✓
h. Airport access.....			✓
i. Project cost.....			✓
j. Other (please rank and explain).....			✓

*ped - crossing starting @ St. Michaels  
on the whole corridor.*

### 3. In your opinion, what are the three most important transportation-related needs in the Chinle to Many Farms study corridor area?

a. *Road be widen*

b. *better safety turnouts*

c. *overcrossing sch area, sidewalk  
sch. crossing marking on highway*

### 4. Please share any additional comments:

*Better planning for the  
annual Navajo Nation Fair  
activities.*

### 5. Please rank the following transportation needs

as low, medium or high priorities:

	low	med	high
a. Roadways/Intersections.....			✓
i. Paving dirt roads.....			✓
ii. Resurfacing paved roads.....			✓
iii. Road widening.....			✓
iv. Street lighting.....			✓
v. New traffic signals.....			✓
vi. Access control/medians.....			✓
vii. Bridge improvements.....			✓
viii. Traffic congestion.....			✓
ix. Other (please rank and explain).....			

	low	med	high
b. Transit.....			✓
i. Bus stops.....			✓
ii. Pullouts.....			✓
iii. New service.....			✓
iv. Other (please rank and explain).....			

	low	med	high
c. Pedestrian.....			✓
i. Sidewalks/paths.....			✓
ii. Crossings.....			✓
d. Bicycle routes/paths.....			✓
e. Equestrian trails/crossings.....			✓
f. Other (please rank and explain).....			

## Ahee'hee'!

Please return by Friday, Dec. 2, 2011, to the ADOT Outreach Team, Attention "Navajo PARA Studies:"

by phone, **928-522-6015** (Navajo speaker available); by fax, **928-522-6016**;

by email, **jason@intrinsicinfo.com**; or by mail, **PO Box 336, Flagstaff, AZ 86002**. Please note: Completion of this comment sheet is completely voluntary and helps the project team keep an accurate record of attendees' comments. Under state law, any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.



## Jason Hurd

---

**From:** Romero Brown [navajoland\_innsuites@citlink.net]  
**Sent:** Thursday, December 08, 2011 11:31 AM  
**To:** jason@intrinsicinfo.com  
**Cc:** Bryan Wright; Matt Smith; Perry M Webb; Spencer Jones; Elder Callister  
**Subject:** St. Michaels

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Jason:

My name is Romero Brown, a resident of St. Michaels. I built my motel and Denny's restaurant about 14 years ago here in St. Michaels bordering Highway 264. I am glad that we have not had any major accidents in front of our business establishment. Once this frontage road was made into four lanes a few years ago, vehicles have been going in front of our businesses over 55-65 mph. That is becoming dangerous and I am hoping that ADOT will address how to slow down the traffic. The semi trucks continues to use its air brakes and makes a lot of noise. That needs to be addressed.

In addition, I belong to the Mormon Church down the street and it is dangerous for our members to get on to this Highway 264 at the rate of speed of others. We don't have any turn out lanes at this church and at Giant Service Station. As you might know, we had some vehicle accidents within the last month with fatalities because of the high speed drivers going. Personally, I am afraid for our church members and my customers safety. For your information, there was a vehicle that crashed into the Mormon Church a few years ago. Luckily, no one was in the church building during that time. Thus, it is imperative that ADOT do a thorough study so that we may avoid any future accidents.

Perhaps, ADOT might consider a couple stop lights in order to slow down the traffic. That would be my suggestion and recommendation as a businessman and a church member. Thank you for your consideration.

Romero Brown, President/Owner  
Navajoland Inn & Suites and Denny's  
e-mail [navajoland\\_innsuites@citlink.net](mailto:navajoland_innsuites@citlink.net)  
(928) 871-5690, (928) 871-5699 (fax)  
WEBSITE: [www.navajoland-innsuites.com](http://www.navajoland-innsuites.com)

## Jason Hurd

---

**From:** Oj [ojjim2000@yahoo.com]  
**Sent:** Friday, December 09, 2011 10:11 PM  
**To:** jason@intrinsicinfo.com  
**Subject:** Navajo DOT Long-Range Transportation Studies - Comments Welcome

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Good Evening,

I reviewed your ideas and such regarding the Window Rock Area.

I do not see anything regarding the housing areas for Employee Housing.

Manuelito Drive, Tribal Hill Drive, Roswell Drive, Navajo Hill Drive, Bonito Apartment area, etc. I am sure you are aware that these areas also need road improvements.

In addition, I see that there is a slide regarding another entry into the government area. The Employee Housing Program as a housing unit that is at that intersection (Chee Dodge and Morgan Blvd.) what are the intentions of ADOT regarding the housing unit that is located there?

We have done studies and such regarding this second exit, however, all the times our office has tried to work in this additional exit, we were stopped by area residences siting "grazing land" Has ADOT looked into this yet?

I am sure that my Program Supervisor also has questions for you, therefore, please meet with our program to discuss further actions requested and what planning is occuring.

Thanks,

Orlando

## APPENDIX C - PUBLIC INVOLVEMENT SUMMARY REPORT 2



**Arizona Office:**  
P: (928) 522-6015  
F: (928) 522-6016

**Texas Office:**  
P: (512) 847-7744  
F: (512) 847-7745

[www.intrinsicinfo.com](http://www.intrinsicinfo.com)

# Public Involvement Summary Report

## Chinle–Many Farms and St. Michaels–Window Rock–Ft. Defiance Multimodal Long Range Transportation Study

*Second Phase Public Involvement – February–March 2012*

ADOT MPD Task Assignment 23–11      ADOT Project No. PG TD0728

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Table 1: Public Outreach .....2



## PUBLIC OUTREACH EFFORTS

The following outreach mechanisms were used to notify the public of the project and the second round of public meetings.

*Table 1: Public Outreach*

Outreach Mechanism	Location/Media	Date
News Release	Distributed by email and fax to area media by ADOT CCP, and to all stakeholders by Intrinsic staff	Jan. 30 & Feb. 21, 2012
Flier	Delivered in-person throughout the project area by Navajo DOT staff	Feb. 2 & 25, 2012
Comment Period Reminder Email	Distributed to all stakeholders by email and fax by Intrinsic staff	March 14, 2012

*See Appendix A for copies of outreach materials.*

## PUBLICITY

The following articles appeared in area media announcing the public meetings:

- *Navajo Times*: “Open house meeting,” Jan. 26, 2012
- *The Tribune News*: “Long-Range Transportation Studies Are Underway on Navajo Nation,” Feb. 22, 2012
- *Navajo Times*: “Open house meeting,” Feb. 23, 2012

*See Appendix B for copies of published materials.*

## PUBLIC MEETINGS & COMMENTS

The public meetings were held on Monday, February 27, 2012, from 6 to 8 p.m. at the Fort Defiance Chapter House, and on Tuesday, February 28, 2012, from 6 to 8 p.m. at the Chinle Chapter House. Twelve people signed in at the Fort Defiance meeting, and 15 people signed in at the Chinle meeting. Mary Rodin provided the presentation at both meetings.

*See Appendix C for the meeting sign-in sheets.*

### Public Comments

In addition to taking spoken comments and questions during the public meetings, written comments and suggestions were encouraged with a deadline of March 28, 2012. Stakeholders returned one comment form for the St. Michaels/Fort Defiance study and one for the Chinle/Many Farms study. Additionally, two emails were received regarding the St. Michaels/Fort Defiance study and one email was received regarding the Chinle/Many Farms study. Lastly, Arizona State Senator Jack Jackson submitted a letter of support regarding both studies. Comments spoken at the public meetings follow, and written comments are available in Appendix D.

#### February 27, 2012. Public Meeting at Fort Defiance Chapter House

Comment: I'm from Window Rock. I have lived in the St. Michael's housing area for the past 30-40 years. That area and other housing areas all have problems with roads. They were paved 40-50 years ago and have never been repaved or touched since. We have pot holes that are dangerous to our vehicles. The Window Rock housing area - I have approached the BIA, Tribe, County and State and have never received a response on who will repair it. No one will repair it. Navajo DOT said they would repair it. I hope they will. They need to be paved not in five, ten or 20 years, but immediately. The tribe has billions of dollars and is improving the buildings over there. We have been trying for 30 years. We have Chapter resolutions and nothing has been done. The main roads have been repaired, state and some BIA roads. I am mostly concerned about Window Rock residential area that needs immediate repairs.

Navajo DOT Response: Thank you. I forwarded your request. On this plan, you see that this area - the St. Michaels housing area - we are proposing for median development. We are developing the construction listing. It will go before Agency Roads Committee in March to seek approval. That project will be on the list. But it

will take time to complete environmental studies and the other necessary studies. But it is on the long range plan, and all projects need to start there.

Question: Housing areas require archaeological clearances even though they are already developed?

NDOT Response: Yes, we have to find out if all the clearances were done. These projects were developed by the Navajo Housing Authority, so we have to find out if they have those documents in place already.

Comment: I represent the LDS Church. We have a facility on SR 264 next to the Giant (gas) station and Navajoland Inn. I understand this project is targeted toward tribal roads, but I want to request that ADOT consider a deceleration lane in front of our church. A number of tribal members attend church there on Sundays. And there are a lot of pedestrians in the area also. There was a fatal accident in front of the Giant station in November. Three years ago a vehicle careened into our building. We just want a buffer zone there. We have some new facilities going in east of the existing church in five to ten years. If we could create a median all the way across there, that would protect our members.

Comment: I'm with the community here. I was a chapter official. Then I was with the School Board in the 90s. We've been talking about these bus routes since then. It is still the same. The main one that we talked about was Blue Canyon Road. Just about every entity that comes in here studies that because of the wall, endangered species, archaeological – everything. We have quite a few people living up in Blue Canyon. How can you tell us you will build by showing it to us tonight? Blue Canyon has a lot of gravel in that area. They've been coming to us for years to get that road built. I work for the County now. This is an election year. Just about every person in Blue Canyon says it is the same thing again. Our roads are still the same. How would you put it together right now? It's not just that. Each part of these roads that you showed me, Mary, there is a lot of difference between them. A lot of people speed on the road to the hospital and Black Rock Road. It's really rough all the way to Lupton. When coming from Lupton, you will see it. You hit a speed bump. Two weeks ago they put up a sign about the bump. How can a road department just put up a sign that says there is a bump? Why can't we work together? How can ADOT work with the tribe? What's the reverse part of that? There are a lot of gravel pits all over. BIA came in with a stack of books. What blocked the gravel pits was the Mexican Spotted Owl. What gives that more rights than us? Owls fly – can't they be moved? The only new road is N54 through Coal Mine and that was a long time ago too. My main concern is roads. People tear up their vehicle every day. The road to St. Michaels is really rough. We need answers. You

should come to the Chapter meeting and explain this. A lot of community people are not here tonight.

Navajo DOT Response: Blue Canyon Road is on the construction listing. Archaeological and environmental assessments are done. It should be pretty soon, within next five to ten years to improve that road. On the 9073 project, I have more information I can look up for you.

ADOT Response: Regarding this particular study, each of the recommended projects will have an info sheet that identifies the need, improvements and cost, and also we'll provide information that is available about various funding programs that Navajo DOT and/or Chapter communities can pursue. All that information will be in the final report. It may need someone who can be a champion and take the lead and push these projects. ADOT is only responsible for state and US routes. Within the planning end of ADOT, we are working with tribal communities to provide technical assistance and guidance to assist tribal community staff to get them through the funding processes. There are a number of programs ADOT administers on behalf of the USDOT-FHWA. There are traffic safety improvement programs, as an example.

Comment: I'm glad we're having this meeting. I am a business man in St. Michaels – I own the motel and Denny's there. Before the road was improved, people drove the speed limit. Once it was widened, they started going about 65 mph. I propose you incorporate into your planning putting a stop light or something there to slow down the traffic. The LDS Church is developing the area near my motel. If there was a stop light intersection there, for use of the church and Frontier Communications, that would be very good. When we have service or a funeral at the church there, it is very dangerous with people going too fast.

*-- End of Fort Defiance Chapter House Meeting Comments --*

#### February 28, 2012, Public Meeting at Chinle Chapter House

Question: Please go over the schedule more.

KHA Response: The first half of the project was regarding current and future conditions, needs and deficiencies, that we learned through public involvement and working with the Technical Advisory Committee. The next stage of the project was developing projects to meet those needs. We have developed two working papers. The first one is on existing conditions and the next one is regarding the recommended projects that we are working on now. Each project will include details such as need, prioritization and potential funding sources. We'll develop a final

report summarizing the two working papers, and that will be the final report. All of the meeting minutes and working papers and documentation are available on the project web site.

Question: Right in this area here (pointing to map), will they put in something for utilities to cross under the road? The main problem is no road crossing for utilities. Once that road is wider, it will be harder to bring water and sewer across.

KHA Response: We are recommending paving the road right there. You would have to work with ADOT District staff to work on utility crossings. This is a long range project with projects for 5, 10 and 20 years. Each recommended project on the board will have an info sheet that includes estimated cost. Once the report is completed, Navajo DOT and Chapter communities can work together with ADOT to identify potential funding sources.

Question: Does the study include Piñon junction? That is where most of the Indians come from, so you need a wider road.

KHA Response: That is outside of the study area. Also, ADOT is conducting a Road Safety Assessment (RSA). They are identifying issues on US 191. We can make a note of any issues the community may have on state roads and we can request to include them in ADOT's report.

Comment: Just north of Bashas there is a windmill where the animals drink. Once you widen the road it will take longer for the animals to cross. We need to put the windmill on the west side of the highway. That needs to be considered for the animals. Also, straighten this out from the airport all the way to the airport (pointing to tribal roads near airport road, 8094 and N27), and maybe put an off ramp here to the hospital.

Question: Will you put in culverts for animals to go under 191?

KHA Response: This study is focused on the tribal road system, but if you want to tell us where, we can forward your comments regarding 191 to ADOT.

Question: Will that second orange road (pointing to equestrian trail on map) have street lights?

KHA Response: Probably not.

Question: Do sidewalks have to be so close to the highway? It is a safety issue. Bikers go through there from NHA housing.

KHA Response: In the more rural areas we are recommending shared use paths off of the roadway.

Question: Is there an overpass for Chinle School?

KHA Response: That is something we'll pass on to ADOT, either an overpass or some type of pedestrian crossing in that area.

Question: Have you talked to the people from here to Valley Store. It would be nice if it was against the mesa, because NTUA has power lines and utilities going down there.

KHA Response: We did have some people from that area at our first open house – their main concerns were safety, speeding, truck traffic, wider shoulders, and safety improvements in general.

Question: What about the banana curve, will it be a long curve or stay the same?

KHA Response: That area is not within this project's study area but it could possibly be part of ADOT's road safety study. We will mention it to them to consider as part of the safety assessment they are doing now.

Question: Could you go over more information about funding?

KHA Response: For each project we identify, we will include some options for funding sources. Depending on the type of project, such as pedestrian, equestrian, safety, etc, funding sources may differ. This is the first step in the process.

Question: How much money is out there for this type of thing, can you say?

ADOT Response: At this point it's difficult to say how much funding is available for a particular project. We have to consider if they are on tribal, BIA or state routes – each has a different process. The state has a 5-year construction program, for example and we can provide more information on it to you. Once projects are considered in the planning process, they need to be signed off on by a number of entities. Tribe, Chapter, Navajo Nation, BIA, etc, each project needs supporters to push it. Usually safety projects are a high priority for funding. The money comes from many different sources.

Question: State projects are funded by taxes?

ADOT Response: Most state projects are federally funded. I can provide more information to you on ADOT's 5-year plan and state transportation improvement program after the meeting. There are many different programs. The project sheets we'll develop for this study will include some options to look for funding.

Navajo DOT Response: IRR program funds the BIA roads and tribal roads. We got about \$55-million a year – to pave a two-lane highway is about \$2-million per mile; gravel is a little less than \$1-million per mile. The process is to go to the Chapter to get a resolution to the Agency Roads Committee (ARC) – each agency

has an ARC that oversees road projects and prioritizes projects each year, and they provide recommendations to the Navajo Nation Resources and Development Committee (RDC).

KHA Response: For safety program, enhancement program, they usually recommend projects at about \$350,000 each for traffic lights, street lights, etc.

Question: You mentioned safety is high priority, what are other priorities?

KHA Response: ADT helps prioritize projects, special funding – leverage – can make projects easier to fund; whether project is shovel-ready also impacts, if studies are all done, etc. State projects are also prioritized for maintaining existing roads. Sometimes ADOT will turn over jurisdictions to local entities if they want to maintain their local roads.

Question: Who approved for 8091 to be paved?

Navajo DOT Response: It is just a proposal right now in our study. These will be recommended to Navajo DOT, Chapters and RDC.

Question: What about widening 191?

KHA Response: That is a recommendation from community members and representative of both the Many Farms and Chinle Chapters. It will not be in five years. Congestion and safety factors will determine when there is the need to widen it. It might not even need to be widened 20 years from now. We did have traffic counts conducted on US 191 for this study.

Question: How does it rank as far as safety, statewide, compared to other state highways?

KHA Response: We didn't do a statewide comparison. We looked at what types of crashes occur in the area. That is also something ADOT is looking at with the RSA they are doing now. At the RSA meeting, they said the 191 crash rate is about average, but fatalities are much higher than the state average. You might see passing lanes before widening it to four lanes.

Question: The fencing/ROW toward Many Farms is wide enough to make it four lanes?

KHA Response: From here to Valley Store it is very narrow and would require more ROW to widen it and utilities would have to be moved.

Comment: I would like to see the road paved from the hospital to the airport access road.

*-- End of Chinle Chapter House Meeting Comments --*

## **APPENDICES**

- A. Outreach materials
- B. Publicity
- C. Public meeting sign-in sheets
- D. Written comments



**Arizona Office:**

**P: (928) 522-6015**

**F: (928) 522-6016**

**Texas Office:**

**P: (512) 847-7744**

**F: (512) 847-7745**

**[www.intrinsicinfo.com](http://www.intrinsicinfo.com)**

## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***Second Phase Public Involvement – February-March 2012***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix A**

# **Outreach Materials**

**Arizona Address: PO Box 336, Flagstaff, AZ 86002**

**Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676**



**public involvement**



**citizen outreach**



**stakeholder facilitation**



**conflict resolution**



For Immediate Release: January 30, 2012

Contact: ADOT Media Relations

[news@azdot.gov](mailto:news@azdot.gov) or 1-800-949-8057

## **Long-range transportation studies underway for Chinle to Many Farms & St. Michaels to Fort Defiance**

WINDOW ROCK – The Navajo Division of Transportation, Arizona Department of Transportation and Navajo Chapters invite the public to attend the second round of public meetings regarding two long-range transportation studies:

- St. Michaels to Window Rock to Fort Defiance Transportation Corridor Study: Monday, February 27, 2012, from 6 to 8 p.m. at the Fort Defiance Chapter House (presentation starts at 6:30 p.m.)
- Chinle to Many Farms Transportation Corridor Study: Tuesday, February 28, 2012, from 6 to 8 p.m., at the Chinle Chapter House (presentation starts at 6:30 p.m.)

The Navajo DOT, Chapter Communities and ADOT are conducting the two studies concurrently. Interested community members and stakeholders are welcome to attend both public meetings considering ***the two meetings will not cover the same information***. At each public meeting, the project team will offer materials and presentations regarding each respective corridor study area, answer questions and seek public comments. Navajo interpretation will be available and light refreshments will be served.

As the Navajo Nation continues to grow, comprehensive transportation planning is necessary for sustainable development and to meet the needs of area residents, businesses and visitors. The two studies will analyze and identify improvements for all modes of transportation within the corridor areas, including vehicular, pedestrian, bicycle, and equestrian, as well as connections between vehicular, airport and transit systems for commuter and emergency needs. Particular attention will be paid to safety, mobility, livability, and economic and community development. Ultimately, the long-range studies will recommend transportation improvements to be implemented in five, 10 and 20-year timeframes.

The studies are being conducted in two phases. The first phase documented current and future conditions and needs identified during the public meetings held in the fall of 2011. The second phase will focus on evaluation criteria and specific plans for improvements at the public meetings in February.

The two studies are funded through the ADOT Planning Assistance for Rural Areas (PARA) Program. For more information or to submit comments please contact Don Sneed, ADOT Project Manager at [928-712-6736](tel:928-712-6736)/[dsneed@azdot.gov](mailto:dsneed@azdot.gov) or Salisa Norstog, Navajo DOT Principal Planner at [928-871-6498](tel:928-871-6498)/[snorstog@navajodot.org](mailto:snorstog@navajodot.org). Comments received by March 28, 2012, will be included in a Public Involvement Summary Report. Detailed study information and area maps can be found at: [http://www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp).

Americans with Disabilities Act (ADA): This notice may be available in alternate format and persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Hurd at 928-522-6015. Request should be made as early as possible to allow time to arrange the accommodation.

###

# Wóshdęé' ~ You're Invited

## Navajo DOT invites you to attend public meetings



The Navajo Division of Transportation (Navajo DOT) and Arizona Department of Transportation (ADOT) have initiated two multimodal transportation studies to identify long-term improvements and meet the needs of the growing Navajo Nation.

### Both studies will analyze needs for:

- Navajo/BIA roadways
- Drivers & commuters
- Pedestrians & bicyclists
- Trails & equestrians
- Transit systems
- Airport access
- Emergency access



### Many Farms to Chinle Study

**Chinle Chapter House  
Tuesday, February 28, 2012**

Navajo interpretation and light refreshments will be offered at both meetings.

**Both meetings  
6 to 8 p.m.**

presentations start at 6:30 p.m.

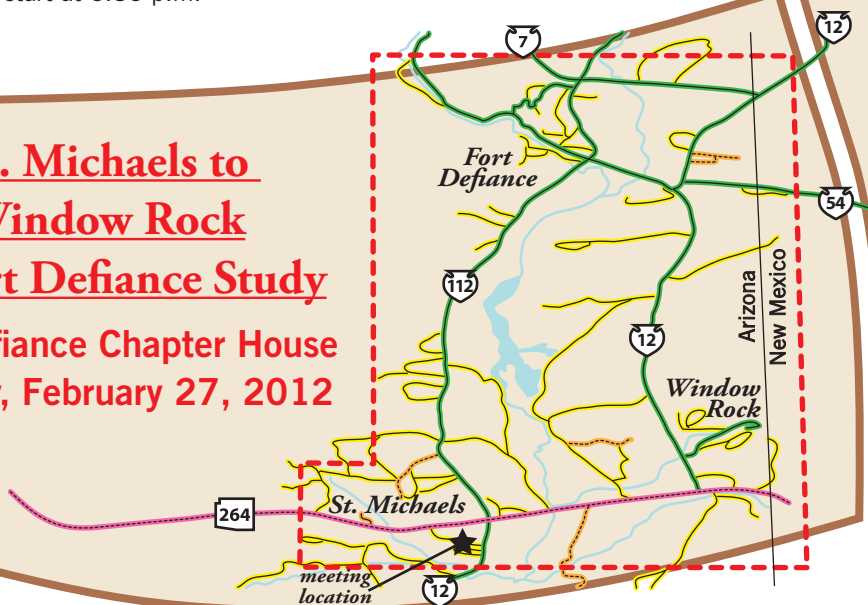
- BIA roads
- local roads
- major washes



- county roads
- US/state roads
- study areas

### St. Michaels to Window Rock to Fort Defiance Study

**Fort Defiance Chapter House  
Monday, February 27, 2012**



### Both studies will focus on:

- Safety, mobility & livability
- Economic vitality
- Community development

Ultimately, the long-range studies will recommend multimodal transportation improvements to be implemented in five, 10 and 20-year timeframes.

*Please note:  
The two meetings  
will not cover the  
same information.*



For more information or to submit comments, please contact Don Sneed, ADOT Project Manager at [928-712-6736/dsneed@azdot.gov](mailto:928-712-6736/dsneed@azdot.gov) or Salisa Norstog, Navajo DOT Principal Planner at [928-871-6498/snorstog@navajodot.org](mailto:928-871-6498/snorstog@navajodot.org).



More information, including detailed study area maps, can be found at:  
[http://www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp)



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***Second Phase Public Involvement – February-March 2012***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix B**

# **Publicity**

**Arizona Address: PO Box 336, Flagstaff, AZ 86002**

**Texas Address: 40 East Valley Spring Road, Wimberley, TX 78676**



**public involvement**



**citizen outreach**



**stakeholder facilitation**



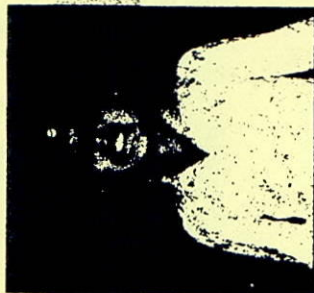
**conflict resolution**

Valley girls produce  
23-1 record

B1



Higley wrestler  
ranked No. 1 in Ariz.



G1

# NAVAJO TIMES

WINDOW ROCK, NA

THE NEWSPAPER OF THE NAVAJO PEOPLE

VOL. LI No. 04 • THURSDAY, JANUARY 26, 2012

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THURSDAY, JANUARY 26, 2012

## AROUND THE CAPITAL

### Election board meeting

The Navajo Board of Election Supervisors will conduct a regular meeting today at 9 a.m. at the Quality Inn, office complex conference room 107. Agenda includes reports on upcoming activities for the 2012 chapter elections. The public is invited. Information: 800-775-8683.

### Human Rights Commission

The Navajo Nation Human Rights Commission will meet Feb. 3 at 10 a.m. at the DNA People's Legal Services conference room (State Route 264 and Navajo Route 12). Open to the public. Information: 928-871-7436 or [www.nnhr.com](http://www.nnhr.com). [navajo-nsn.gov](http://navajo-nsn.gov).

### Open house meeting

An open house meeting on the St. Michaels-Window Rock-Fort Defiance multimodal long-range transportation study is scheduled Feb. 27 from 6-8 p.m. at Fort Defiance Chapter. The public is invited. Refreshments will be served. Information: Margie Begay or Salisa Norstog, 928-871-6498.



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## New Nav

BY BILL DONOVAN  
SPECIAL TO THE TIMES

Delegate Dillon Platero, who is considering running for tribal chairman in the upcoming election, went before the Education Committee of the Navajo Tribal Council to give an update on the Navajo Times newsletter.

The tribe started the newsletter a year ago at the request of Platero.

"I hope that this plan will include the 27 tribal colleges, two of which are here on the Navajo Nation, so we can provide training to mobilize the Navajo workforce," he said.

Shelly also said he likes Obama's statement of clean energy development while utilizing and developing our existing natural resources in the most efficient and environmentally friendly ways possible.

### College Fair 2012

NOVA Corp., an information technology company owned by the Navajo Nation, is hosting College Fair 2012 on Friday from 9 a.m. to 5 p.m. at the Navajo Nation Museum. The event is free and open to Navajo high school seniors.

The fair is designed to give students a chance to talk with recruiters and admissions officers from 18 colleges and universities.

NOVA Corp. is dedicated to providing education opportunities for Navajos seeking to earn a degree in computer science, information technology, business, communications or engineering.

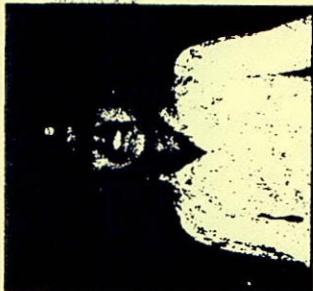
Founded in 2004, NOVA

Valley girls produce  
23-1 record

B1



Higley wrestler  
ranked No. 1 in Ariz.



C1

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VOL. 11 NO. 04 • THURSDAY, JANUARY 26, 2012

THE NEWSPAPER OF THE NAVAJO PEOPLE

WINDOW ROCK, NA

PAGE C-4

THURSDAY, JANUARY 26, 2012

## COMMUNITY CALENDAR

### ABN District 5 meeting

BIRDSPRINGS, Ariz. - The Azee Bee Nahagha of Diné Nation District 5 meeting for Birdsprings, Leupp and Tolani Lake chapters will be held Saturday, Jan. 28, at 9 a.m. at the Birdsprings Chapter House.

### 3rd annual Warriors gourd dance

BIRDSPRINGS, Ariz. - The 3rd Annual Honoring Our Warriors Gourd Dance is scheduled May 19 at 11 a.m. at Jack Curley's residence (Navajo Route 6830, two miles east of Little Singer School). Head staff includes master of ceremonies, Rick Yazzie; whipman, LyDall Yazzie; host drum, Long Walk Descendants; head gourd dancer, Rick Gray; water boy, Jason Curley; and spoon keeper, Irene M. Curtis. Free event, BYO canopies and chairs. Singers, drums, dancers and non-food vendors welcome (food vending by committee only). Information: Jason Curley, 928-587-7253 or curley.jason@hotmail.com.

### Open house meeting

CHINLE - An open house meeting on the Chinle-Many Farms multimodal long range transportation study is scheduled Feb. 28 from 6-8 p.m. at Chinle Chapter. Residents and the public are invited to this discussion. Individuals with a disability or those needing a sign language interpreter may contact Jason Hurd at 928-522-6015 to request accommodation. Refreshments will be provided. Information: Marco Sells or Salisa Norstog, 928-674-2136.

### Double Spur 4-H meeting

CROWNPOINT - The Double Spur 4-H Club will meet at the Crownpoint Local Governance Center on Jan. 29 at 4 p.m. Individuals interested in learning about 4-H is welcome to attend. Information: Claudia Willetto, 505-786-4050 (after 7 p.m.).

### Hero Twins workshop

FARMINGTON - The Hero Twins workshop for Navajo boys and young men ages 8-24 is scheduled March 3 from 9 a.m. to 4 p.m. at the San Juan College Henderson Fine Arts Center. Topics and activities include Diné math contest, hands-on science project, Diné jeopardy game, Diné health, Diné leadership and prizes. Onsite registration fee is \$10 per person (includes lunch) from 8-9 a.m. Information: www.missnavajocouncil.org.

### Food handler classes

FORT DEFIANCE - The Fort Defiance Service Unit announces 2012 food handler training classes at Ganado and Kinlichee chapters as follows: Ganado Chapter, Feb. 6, March 6, April 3, May 1, June 5, Sept. 4, Oct. 2, Nov. 5, and Dec. 4. Dates for Kinlichee Chapter are July 3 and Aug. 7. Classes begin at 10 a.m., and are conducted in English (BYO interpreter if needed). Children must be 12 or older to attend. Information: 928-871-6349.

### Women's support group

INSCRIPTION HOUSE, Ariz. - The Tohdenasshai Shelter Home offers a free women's support group talking circle at the Healing Hogan (next to Inscription House Health Center). Sessions meet from noon-3 p.m. on the second and third Tuesday of each month through March 20. Issues related to domestic violence and women will be discussed. Information: Lucinda Redhouse, 928-697-3636.

### Fort Defiance veterans meeting

JEDDITO, Ariz. - The Fort Defiance Agency Veteran Organization will meet Feb. 12 at 10 a.m. at Jeddito Chapter.

*Your News, Your Paper.*

## Long-Range Transportation Studies Are Underway On Navajo Nation

The Navajo Division of Transportation, Arizona Department of Transportation and Navajo chapters have scheduled the second round of public meetings regarding two long-range transportation studies.

The St. Michaels to Window Rock to Fort Defiance Transportation Corridor Study will be the subject of a meeting scheduled from 6 to 8 p.m. on Monday, Feb. 27, at the Fort Defiance Chapter House. The presentation will start at 6:30 p.m.

The Chinle to Many Farms Transportation Corridor Study will be the topic from 6 to 8 p.m. on Tuesday, Feb. 28, at the Chinle Chapter House. The presentation will start at 6:30 p.m.

The Navajo DOT, chapter communities and ADOT are conducting the two studies concurrently. Interested community members and stakeholders are welcome to attend both public meetings so that they have an opportunity to learn about and comment on

both studies. At each public meeting, the project team will offer materials and presentations regarding each respective corridor study area, answer questions and seek public comments. Navajo interpretation will be available and light refreshments will be served.

As the Navajo Nation continues to grow, comprehensive transportation planning is necessary for sustainable development, and to meet the needs of area residents, businesses and visitors. The two studies will analyze and identify improvements for all modes of transportation within the corridor areas, including vehicular, pedestrian, bicycle and equestrian, as well as connections between vehicular, airport and transit systems for commuter and emergency needs. Particular attention will be paid to safety, mobility, livability, and economic and community development. Ultimately, the long-range studies will recommend transportation improvements to be implemented in five, 10 and 20-year

timeframes.

The studies are being conducted in two phases. The first phase documented current and future conditions and needs identified during the public meetings held in the fall of 2011. The second phase will focus on evaluation criteria and specific plans for improvements at the public meetings in February.

The two studies are funded through the ADOT Planning Assistance for Rural Areas (PARA) Program. For more information or to submit comments, please contact Don Sneed, ADOT project manager, at (928) 712-6736 or [dsneed@azdot.gov](mailto:dsneed@azdot.gov), or Salisa Norstog, Navajo DOT principal planner, at (928) 871-6498 or [snorstog@navajodot.org](mailto:snorstog@navajodot.org). Comments received by March 28 will be included in a public involvement summary report.

Detailed study information and area maps can be found online at [http://www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp).

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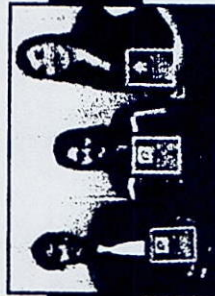
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Canyon Records  
celebrates 60 years

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Fall athletes,  
coaches of the year

Ariz. state  
basketball roundup



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# NAVAJO TIMES

WINDOW ROCK, N.A.

THE NEWSPAPER OF THE NAVAJO PEOPLE

VOL. LI No. 08 • THURSDAY, FEBRUARY 23, 2012

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THURSDAY, FEBRUARY 23, 2012

## AROUND THE CAPITAL

### Election board meeting

The Navajo Board of Election Supervisors meets today at 9 a.m. at the Quality Inn office complex, conference room 107. Agenda includes reports on planning for the 2012 chapter elections. The public is invited to attend. Information: 800-775-8683.

### Community issues training

The Gathering of Native Americans, a free community training event, will be held Monday through Thursday, Feb. 27-March 1, from 8 a.m. to 5 p.m. at the Navajo Nation Museum. Issues that negatively impact our communities such as substance abuse, domestic violence, child abuse, gang violence, bullying and suicide will be discussed. Includes daily door prizes (win a Pendleton shawl/robe, Kindle iReader, and gift cards). Sponsored by Tséhootsooí Medical Center Methamphetamine Suicide Prevention Initiative Project. Information: 928-729-3765 or 928-729-8541.

### Open house meeting

The public is invited to an open house on the St. Michaels-Window Rock-Fort Defiance multimodal long-range transportation study on Monday, Feb. 27, from 6-8 p.m. at the Fort Defiance Chapter House. Information: Margie Begay or Sallsa Norstog, 928-871-6498.

### Garden class

The University of Arizona Cooperative Extension will sponsor garden classes every Monday starting Feb. 27 from 6-8 p.m. at the Navajo Nation Department of Agriculture office. First class will be on traditional Navajo farming. Classes are free to the public. Information: 928-871-7686.

### Human Rights Commission

The Navajo Nation Human Rights Commission will meet March 2 at 10

## 50 years ago

# Border town

BY BILL DONOVAN  
SPECIAL TO THE TIMES

Much of the news this week centered on things happening in border communities outside the reservation, but each has significance to members of the Navajo Nation.

The big story was in Gallup, where the election for mayor is

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## Chinle Ace store to open Monday

TSÉYI' BUREAU

CHINLE - The long-awaited Navajo Westerners Ace Hardware in Chinle will open quietly on Monday, Feb. 27, the company's president said Wednesday.

It will be a "soft opening" without much fanfare, noted Myron Lizer.

"We want to use this opportunity to work out the kinks and to allow our new associates not to be under any great pressure," Lizer explained, adding that the store will host a real grand opening some time in April.

"I know people are chomping at the bit to not have to go to Gallup any more," Lizer said, "and we are looking forward to serving the wonderful people of Chinle and Many Farms."

The store is in the Tséyi' Shopping Center on the north end toward the post office. It is scheduled to open at 8 a.m.

## Meet your utility providers

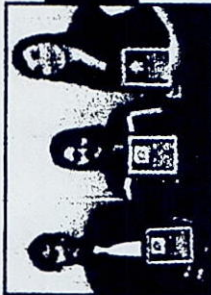
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## CAPITAL BRIEFS

Canyon Records  
celebrates 60 years

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Fall athletes,  
coaches of the year

Ariz. state  
basketball roundup



B1

# NAVAJO TIMES

THE NEWSPAPER OF THE NAVAJO PEOPLE

VOL. LI No. 08 • THURSDAY, FEBRUARY 23, 2012

WINDOW ROCK, NA

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PAGE C-8

THURSDAY, FEBRUARY 23, 2012

## COMMUNITY CALENDAR

### Warriors gourd dance

BIRDSPRINGS, Ariz. - The 3rd Annual Honoring Our Warriors Gourd Dance is set for May 19 at 11 a.m. at Jack Curley's residence (Navajo Route 6830, two miles east of Little Singer School). Head staff includes: master of ceremonies, Rick Yazzie; whipman, LyDall Yazzie; host drum, Long Walk Descendants; head gourd dancer, Rick Gray; water boy, Jason Curley; and spoon keeper, Irene M. Curtis. Free event, BYO canopies and chairs. Singers, drums, dancers and non-food vendors welcome (food vending by committee only). Information: Jason Curley, 928-587-7253 or curley.jason@hotmail.com.

### Chinle Chapter meeting

CHINLE - Chinle Chapter will hold a regular chapter meeting Sunday, Feb. 26, at 1 p.m. Information: 928-674-2052.

### Chinle police recruiting

CHINLE - The Chinle Police District will conduct a police recruiting drive today at 9 a.m. at the Chinle Police District conference room on Navajo Route 7. Applicants should be prepared for physical fitness testing. Information: Officer Loretta Redhouse, 928-674-2111.

### Open house meeting

CHINLE - An open house meeting on the Chinle-Many Farms multimodal long-range transportation study will be held

Tuesday, Feb. 28, from 6-8 p.m. at Chinle Chapter. Residents and the public are invited to this discussion. Information: Marco Sells or Salisa Norstog, 928-674-2136.

### Garden class

CHINLE - The University of Arizona Cooperative Extension will sponsor free garden classes every Tuesday starting Feb. 28 from noon to 1 p.m. at the Chinle hospital. First class topic will be traditional Navajo farming. Information: Pamela Etsitty, 928-674-7521.

### Free comedy show

CHINLE - In recognition of National Native HIV/AIDS Awareness Day, a free comedy show featuring James and Ernie, Dr. Kevin Foley, and Loren Anthony is scheduled March 20 in Chinle. Information: 928-674-5676.

### Double Spur 4-H club meeting

CROWNPOINT - The Double Spur 4-H Club will meet at Crownpoint Chapter on Sunday, Feb. 26, at 4 p.m. Anyone interested in learning about 4-H is welcome. Information: Claudia Willetto, 505-786-4050 (after 7 p.m.).

### Hero Twins workshop

FARMINGTON - The Hero Twins workshop for Navajo boys and young men ages 8-24 is scheduled March 3 from 9 a.m. to 4 p.m. at the

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**F:** (512) 847-7745

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## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***Second Phase Public Involvement – February-March 2012***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix C**

## **Public Meeting Sign-in Sheets**

**Arizona Address:** PO Box 336, Flagstaff, AZ 86002

**Texas Address:** 40 East Valley Spring Road, Wimberley, TX 78676



public involvement



citizen outreach



stakeholder facilitation



conflict resolution



# Welcome to the Public Meeting ~ Please sign in

St. Michaels to Fort Defiance Corridor Multimodal, Long-Range Transportation Study  
Fort Defiance Chapter House – Monday, Feb. 27, 2011 – 6 to 8 p.m.

Name	Representing	Address and phone	Email or fax
Dan Snude	ADOT-MP	9102 BROWN. 2065 17TH AVE. Phx, AZ 85007/602-712-6736	dsnude@azdot.gov ✓
SALISA NORSTOG	NDOT-PLNG	P.O. BOX 4620 WINDOW ROCK, AZ 86515	snorstog@navajadot.org ✓
Jason Hurd	Intrinsic / ADOT	PO Box 336 Flagstaff, AZ <del>86002</del> 86002	jason@intrinsicinfo.com ✓
Nona Baheshoni	Baheshoni Dev.	PO Box 20073, Mesa, AZ. 85227	nbaheshoni@baheshoni.com ✓
Walecia Hanley	w/Road Community	Box 42 w/Rock, AZ 86525	w_hanley@frontiernet.net ✓
MATI SMITH.	LDS CHURCH	458 N 3RD AVE HOUBROOK, AZ 86025	smithmccray@ldschurch.org ✓
Rodger Dehozy	F/D CHAPTER MEMBER	PO Box 2752 W/R. Az 928-550-2655	rdehozy@apacheco.us.com ✓
Ren Curtis	ADOT-GRANADU	Box 1140 Granado, AZ 86505	rcurtis@azdot.gov ✓
Romero Brown	LDS Church	P.O. Box 875, St. Michaels, Az	navajoland-insights@earthlink.net ✓
Pauline Nantsoie	Community Member		

Please note: Completion of this sign-in sheet is completely voluntary and helps the project team keep an accurate record of attendees. Under state law, any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.



**Abee'hee' – Thank you for your participation!**





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St. Michaels to Fort Defiance Corridor Multimodal, Long-Range Transportation Study  
Fort Defiance Chapter House – Monday, Feb. 27, 2011 – 6 to 8 p.m.

Name	Representing	Address and phone	Email or fax
Simenta FRANCISCO	Self	1916 P.O. Box <del>1916</del> , Window Rock, AZ	
Loretta FRANCISCO	Self	PO Box 514, Window Rock, Az	

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***Abee'hee' – Thank you for your participation!***





# Welcome to the Public Meeting ~ Please sign in

**Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study**  
**Chinle Chapter House – Tuesday, Feb. 28, 2012 – 6 to 8 p.m.**

Name	Representing	Address and phone	Email or fax
Marco Sells	NDOT	(928) 674-2136	msells@navajodot.org ✓
DON SNEED	ADOT-MPD	206 S. 17th Ave, Phoenix, AZ 85007 602-712-6736	dsneed@azdot.gov ✓
Jason Hurd	Intrinsic/ADOT	PO Box 336 Flagstaff, AZ 86002 928-607-7156	jason@intrinsicinfo.com ✓
Zornie Davis			
Mary Gorman	Chinle Chapter		
Juanita Gorman			
Jason Yazzie	NDOT	928 283-3148	jyazzie@navajodot.org ✓
Yolanda Marshall	Navajo DOT	928.674.2136	ymarshall@navajodot.org ✓
Ron Elstly	Community Member		
Ali S. Ali	Many Farms	PO Box 611 Phone: 928-781-3825 Many Farms, AZ 86538	ali.ali@irs.gov ✓



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***Abee'hee' – Thank you for your participation!***





# Welcome to the Public Meeting ~ Please sign in

Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study  
Chinle Chapter House – Tuesday, Feb. 28, 2012 – 6 to 8 p.m.

Q

Name	Representing	Address and phone	Email or fax
Brook Burrows	Many Farms / Environmental Health	PO Box 694 Many Farms AZ 86538	burrows1983@gmail.com ✓
Ron Curtis	ADOT-	Box 1140 Garado	rcurtis@azdot.gov ✓
Arthur Hubbard Jr	Chinle	Box 565 Chinle	ahubbard-jr@yahoo.com ✓
Joe Davis	Chinle	Box 391 Chinle, AZ	n/a
Minnie K Davis	Chinle	"	"

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**Abee'bee' – Thank you for your participation!**





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## **Public Involvement Summary Report**

### **Chinle-Many Farms and St. Michaels-Window Rock-Ft. Defiance Multimodal Long Range Transportation Study**

***Second Phase Public Involvement – February-March 2012***

**ADOT MPD Task Assignment 23-11**

**ADOT Project No. PG TD0728**

# **Appendix D**

# **Written Comments**

**Arizona Address:** PO Box 336, Flagstaff, AZ 86002

**Texas Address:** 40 East Valley Spring Road, Wimberley, TX 78676



public involvement



citizen outreach



stakeholder facilitation



conflict resolution

# Your Input is Important!

## St. Michaels to Fort Defiance Corridor Multimodal, Long-Range Transportation Study



Please take a moment to complete this comment form. The project team members will take your input into consideration as they finalize the listing of Proposed Improvements to meet the transportation needs within the study area.



1. Do you support the recommended improvement projects for each of the planning horizons of 5, 10, and 20 years? (circle one)

☒ YES

☐ NO

☐ Not Sure

Please explain your answer:

Immediate road repairs - pot holes, re-paving etc. urgently needed in Window Rock (St. Michaels Housing Area) housing area. Other housing areas are also in need of repairs Window Rock, St. Michaels & Ft. Defiance

2. Tonight's presentation focused on recommended transportation improvement projects. Did the project team miss anything? (circle one)

☒ NO (they got everything)

☐ YES (they missed something)

If yes, please explain:

Various transportation, repair, maintenance should be focused on & repairs etc.

3. Please share any additional comments.

Immediate repairs needed.

W. Foley 2-27-12

### Ahee'hee'!

Please return by Wednesday March 28, 2012, to the ADOT Outreach Team, Attention "Navajo PARA Studies:" by email, [jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com); by mail, **PO Box 336, Flagstaff, AZ 86002**; by fax, **(928) 522-6016**, toll free fax **888-278-0050**. Please visit the project website at [www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp)

Please note: Completion of this comment sheet is completely voluntary and helps the project team keep an accurate record of attendees' comments. Under state law, any identifying information provided will become part of the public record and, as such, must be released to any individual upon request.



# Your Input is Important!

## Chinle to Many Farms Corridor Multimodal, Long-Range Transportation Study



Please take a moment to complete this comment form. The project team members will take your input into consideration as they finalize the listing of Proposed Improvements to meet the transportation needs within the study area.



1. Do you support the recommended improvement projects for each of the planning horizons of 5, 10, and 20 years? (circle one)

YES

NO

Not Sure

Please explain your answer: Paramount to planning is the safety issue of vehicle-pedestrian-business access in the corridor. Secondly is the speed limits in the same sector mentioned, especially school crossings (inc. pedestrians). It is highly recommended to work with the Chinle Unified School District and businesses between MP 446-448 to secure funding for pedestrian overhead bridges/crossings. Furthermore, continuous flashing lights are recommended for school locales with "speeds" indicators to alert drivers.

2. Tonight's presentation focused on recommended transportation improvement projects. Did the project team miss anything? (circle one)

NO (they got everything)

YES ( they missed something)

If yes, please explain: Did not attend hearing, but the TIP in process is important.

3. Please share any additional comments.

- (a) Recommend posted 65mph posted past MP 447 (T/O BIA 102) be changed to 45 mph for safety turnout reasons --- T/O's to residences as well as emergency transports to the Chinle Airport. Near accidents have occurred; thus, a similar request had been made of ADOT previously, but to date no activity. T/O's in that particularly area affect 17-20 drivers, between MPs 446-448.
- (b) Cattle guards need continuous monitoring. With heavy winds and sand storms, the crossings are filled with dirt, allowing free roaming animals to get into the right-of-way boundaries.
- (c) Maintenance of fencing is critical for the same reason as (b) and ROW issues.
- (d) Flashing lights at school crossing at/around MP 447.

### Ahee'hee'!

Please return by Wednesday March 28, 2012, to the ADOT Outreach Team, Attention "Navajo PARA Studies:" by email, [jason@intrinsicinfo.com](mailto:jason@intrinsicinfo.com); by mail, **PO Box 336, Flagstaff, AZ 86002**; by fax, **(928) 522-6016**, toll free fax **888-278-0050**. Please visit the project website at [www.azdot.gov/MPD/Systems\\_Planning/NavajoChapter.asp](http://www.azdot.gov/MPD/Systems_Planning/NavajoChapter.asp)

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## Jason Hurd

---

**Subject:** FW: St.Michaels to Window Rock to Fort Defiance Transportation Corridor Study

**From:** Marty George [<mailto:mgeorge@wrschool.net>]

**Sent:** Friday, February 24, 2012 5:30 PM

**To:** Donald Sneed

**Cc:** [snorstog@navajodot.org](mailto:snorstog@navajodot.org).

**Subject:** St.Michaels to Window Rock to Fort Defiance Transportation Corridor Study

Good day! NNDOT & AZDOT,

I am a life-long resident of the St. Michaels community and would like to suggest, comment and make a grievance on this Corridor Study.

First, I want to say thank you for the work in progress and our roads are overdue to be worked on more. We need a better year-long road maintenance schedule like; the painting of the highway lines, upkeep of dilapidated road signs, cleaning of excessive mud/dirt clot curbs, overgrowth of shrubs & plants, the reduction of concrete curbs( they are to high on the road side between Window Rock & St. Michaels ), the cleaning of cattle guards, & better and/or more lighting on certain areas of the highway.

We need businesses regulations for the safety & livability in the St. Michaels community and any future businesses along Hwy 264. We have been taking advantage of by a construction company coming in and operating at all hours of the day and night making loud noises with their construction vehicles. We need to have a NOISE ORDINANCE implemented ASAP!, so any construction or destruction company doesn't impose on the community. This company insists on disregarding the residence of St. Michaels and operates 24 hours a day at times. They have been dumping waste-water illegally on to our property; where the waste water in our gully is about 3 to 4 feet high and is slowly saturating the gully wall as this is being emailed. This saturation of waste water is resulting in the water seeping towards the side of Hwy.264. In the very recent days their waste water was seen trickling down Hwy.264 from their property entrance.

We sorely need the Transportation Departments to make the highway better equipped and implement a safety procedure during our annual fair in Window Rock. Such as 2 to 3 major crosswalk systems so pedestrians can cross the highway without getting hit. There is no crosswalk painted zones and/or speed reductions zones at times. And where there is a makeshift crosswalk it usually is dark and no one's in control of stopping the on-coming traffic so people can cross. This fair attracts people from all over the country and the world. These eyesores and neglected regions need to be fixed quick or tourist are not going to come back. Our Fair and Parade is a treasure to Arizona and the Navajo Nation(the largest Native American Reservation in the USA). Families, Grandparents, celebrities, Armed Forces, and Government Officials have come as far as Washington D.C. to participate in this fair. We need to have better accommodations so no one gets injured from the lack of supervision.

And last but not least, we need to have a better response times in the winter months when snow accumulates on the for mentioned highways. This meaning snowplowing response times, so our roads don't get over loaded with deep amounts of snow & ice. Their seems to be a little to nothing done in the past few years in removing the snow, not only here but across the major Reservation and Arizona County Highways. I have also noticed some county dirt roads not being turned into paved roads just off Hwy.264, which is needed badly due to this being school bus routes.

I would like to know your answers to these suggestions, comments and grievances.

Thanks for your cooperation in these matters, Marty George

Marty George

PO. Box 733

Window Rock, Arizona 86515

(928) 871-4628

[mgeorge@wrschool.net](mailto:mgeorge@wrschool.net)

## Recommended Transportation Improvement Projects

### Mobility

The Navajo Transit System should look into a shuttle service that runs a local route allowing regular commuters and local transit ridership connection between Saint Michaels-Fort Defiance-Window Rock that use transit as an alternative to personal travel to and from their respective places of employment, especially, during early morning/late afternoon rush hours. There are several large employers in the area: Navajo Area Indian Health Service, Navajo Nation Oil and Gas, Navajo Division of Economic Development, Tséhootsooí Medical Center (former Fort Defiance Indian Hospital), Window Rock Unified School District, Navajo Tribal Utility Authority, especially, the Navajo Nation governance center, and housing in each community of Saint Michaels, Fort Defiance, and Window Rock. If a route were to be developed, pullout lanes and shelters for route stops need to be constructed at convenient locations, i.e., near residential housing, schools, and places of employment.

If everyone in the community would choose to carpool or use the bus in order to lower carbon dioxide emissions in support of climate change, and, simply change their mode of transportation, could possibly lessen the number of motor vehicle crashes, and help to protect the environment from global warming concerns.

Vehicle owners are feeling the pinch at the gas pumps when it comes to paying for gas to travel around the Navajo reservation. Hopefully, commuters can change their perspectives on limiting their vehicle usage when their only mode of transportation use is to and from their homes in order to get to their places of employment. The Navajo Nation government, state, and federal agencies need to develop an incentive to commuter travel, e.g., free ridership during maniac Monday commutes to and from work, or park-and-ride public parking areas for transit ridership.

During the Navajo Nation Fair, especially, there needs to be a study done to alleviate traffic congestion along Arizona State Highway 264 corridor between Window Rock and Saint Michaels. Non-fair goers need access to pass through on their way out and away from the traffic congestion during the Saturday/week-end parade. Not to mention the dispersal of parade participants that use vehicles in the parade procession and fair-goers in attendance during the parade. I realize that congestive traffic problems occur during this seasonal event, but, fair organizers need to develop a permanent solution in consideration of the safety of non-motorized fair goers, especially, the elders and those people that have accessibility needs thru motorized traffic.

Parking areas that are used during the Navajo Nation Fair within the fairground designated area go unused 360 days out of the year. These areas should be converted into park-n-ride public parking for commuters of the transit system. Furthermore, I would like to see a transit sub-station/commuter transfer station constructed within the fairground compound for transit bus users throughout the year. As individual motorists change their mode of transportation from automobile to public transportation reliance I believe this would alleviate some traffic congestion not only during fair time, but, also throughout the year. This could be an economic development future project in terms of commercial development adjacent to the east fairground entrance that ties in with the Basha's supermarket store access. Recreational land use improvements are needed as well to revitalize tourism. There needs to be a transportation link between fairgrounds, paved road access to Basha's parking lot, and AZ 264 (circulation route). Future traffic volume counts at strategic locations within the fairground compound, especially, the access to the Navajo Nation Special Diabetes Wellness Center and Window Rock Sports Center would generate adequate justification for transportation improvements for a transit sub-

station/commuter transfer station construction mentioned above. Bicycle facilities should be included at this transit sub-station/commuter transfer station for bicyclists and local commuters.

#### Economic and Community Development

At the 2<sup>nd</sup> Public Comment meeting held on February 27, 2012, it was mentioned by a business owner about constructing a traffic-light intersection near the Frontier communications office allowing access to the Mormon Church future development. I think that is not a good idea. This would only promote more traffic congestion and act as a “bottleneck” during heavy traffic. There is an existing yellow signage that indicates a slower speed warning, but, it is hardly noticeable. I recommend installing a caution warning light with this signage between mile markers 471 and 472 on the east-bound lanes to warn over-the-speed-limit personal motor vehicle owners to slow down to the proper speed limit when entering a populated area. I don’t think it is at the fault of speeding, rather, vehicles are trying to slow down from a decent in elevation from the “summit” along highway 264.

I often notice at the intersection in Saint Michaels (N112 & AZ 264) along the northeast corner fence line there are posted hand-made signs displaying community events information. I would suggest local government (Navajo Nation), to construct a community kiosk/electronic-billboard/public information center at the northeast corner along N112 and AZ 264 for the community to publicly display community events that is not overly distractive or unsightly.

**Jason Hurd**

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**Subject:** FW: US191 Plans

**From:** Geri BinettneeKirk [<mailto:gabinettneekirk@yahoo.com>]  
**Sent:** Wednesday, February 29, 2012 4:56 PM  
**To:** Donald Sneed; [mary.rodin@kimley-horm.com](mailto:mary.rodin@kimley-horm.com); [snorstog@navajodot.org](mailto:snorstog@navajodot.org)  
**Subject:** US191 Plans

Good afternoon all,  
I hope you all had an informational meeting last night at the Chinle Chapter. I am sorry I was unavailable to attend and participate in this discussion.

I was wondering, however, what the status of the development for US 191 would be? My understanding is that the US191 is going to be realigned closer to the Mesa. This location would be just north towards Many Farms from Chinle. An area referred to as Chinle Valley.

Please let me know what ADOT has planned for such a realignment. Thank you.

***Geri A. BinettneeKirk***, Senior Economic Development Specialist  
Tourism Department, THE BEAUTIFUL NAVAJO, Division of Economic Development  
Karigan Building, Suite 209F, Taylor Road, St. Michael's, Arizona 86511  
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DISTRICT 2



## Arizona State Senate

### COMMITTEES:

NATURAL RESOURCES &  
TRANSPORTATION  
VETERANS, MILITARY &  
GOVERNMENT AFFAIRS  
WATER, LAND USE &  
RURAL DEVELOPMENT  
FINANCE

March 21, 2012

Donald Sneed  
Arizona Department of Transportation  
Multimodal Planning Division  
206 S 17th Ave  
Phoenix, AZ 85007

Re: Navajo Chapter Corridor Area PARA Study – Public Involvement Comments

Dear Mr. Sneed:

I am submitting this letter in regard to the Chinle to Many Farms and St. Michaels to Window Rock to Ft. Defiance 2012 Multimodal Transportation Study that is currently underway. I commend the Navajo Chapters, Navajo DOT and ADOT's efforts to identify long-term improvements that are needed within the study corridor areas on the Navajo Nation.

Additionally, I support the residents of the Chapter communities by stressing the need for improved accessibility, paving and repaving of roads, new route connections, street lighting within the Chapter areas, as well as improved safety and traffic flow particularly on US 191 and SR 264. Furthermore, improved pedestrian and transit accommodations are increasingly needed for the Chapter residents.

Thank you for keeping me informed as this important stakeholder input process moves forward. It is my hope that this planning process leads to real improvements in these Navajo communities.

Sincerely,

A handwritten signature in black ink, appearing to read "Jack C. Jackson, Jr.", written over a circular stamp or seal.

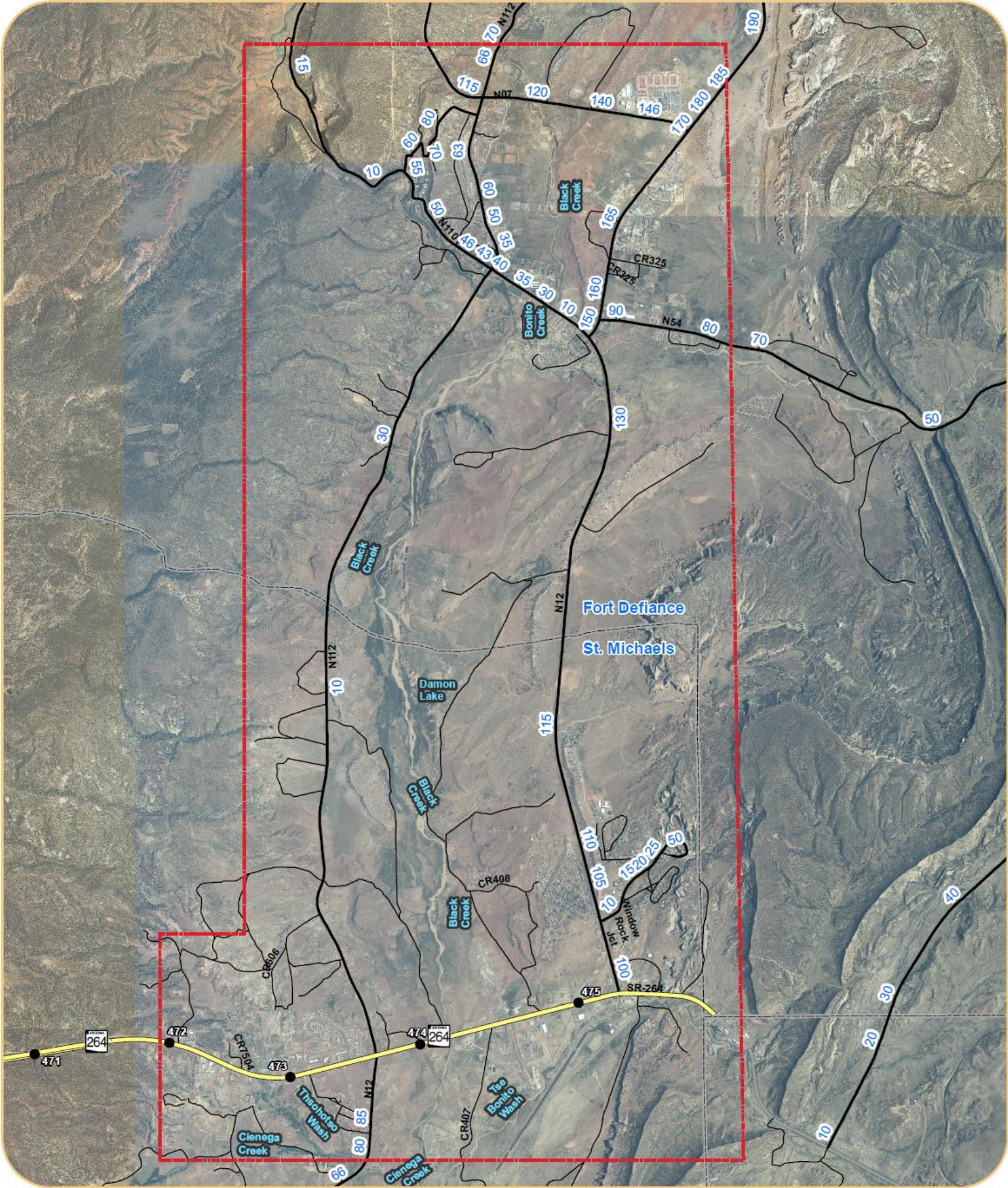
Senator Jack C. Jackson, Jr.

## **APPENDIX D - ILLUSTRATION OF BIA IRR INVENTORY SECTION NUMBER REFERENCE MAP**

FORT DEFIANCE

ST. MICHAELS-WINDOW ROCK

BIA Road Section Reference Map



Legend

US and State Highways

BIA Roads

Tribal/County Roads

Study Area

Chapter Boundary

Mileposts

### BIA Road Section #

Note:

CR = County Route

N = Navajo (BIA) Route

N

0

0.5

1

Miles

June 2012

Final Report

St. Michaels-Window Rock-Fort Defiance