

# Southern Ute Indian Tribe Long Range Transportation Plan

May 2016

Developed for: Southern Ute Indian Tribe 116 Memorial Drive PO Box 737 Ignacio, Colorado 81137

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## Southern Ute Indian Tribe

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## Southern Ute Indian Tribe

# **CONTENTS**

1	BA	ACKGROUND INFORMATION	1
1.1		Purpose and Scope	1
1.2		Methodology	2
1.3		Regional Context	4
1.4		Transportation Plan Summary	5
	1.4.1	Funding Allocations	6
	1.4.2	Performance Management	7
:	1.4.3	Transition from Indian Reservation Roads Program to MAP-21 Funding Formula	8
2	EX	(ISTING CONDITIONS	11
2.1		Background Data	11
	2.1.1	Culture and History	
:	2.1.2	Government	12
	2.1.3	Demographics	12
	2.1.4	Economy and Employment	13
	2.1.5	Physical Characteristics and Climate	14
	2.1.6	Land Ownership	15
	2.1.7	Existing Land Use/Facilities	15
:	2.1.8	Respect for Cultural Resources	20
	2.1.9	Scenic Byways	21
:	2.1.10		
2.2		Transportation System	24
	2.2.1	Roadway System	24
	2.2.2	Roadway Inventory	25
:	2.2.3	Roadway Classifications	25
:	2.2.4	Right-of-Way Status	34
:	2.2.5	Traffic Control	35
:	2.2.6	Bridges	36
:	2.2.7	Mail Service	40
:	2.2.8	School Bus Routes	40
:	2.2.9	Public Transportation	40
:	2.2.10	0 Vehicle Accident Data and Traffic Hazards	43
:	2.2.1	1 Law Enforcement	46
:	2.2.12	2 Fire Protection Services	46



## Southern Ute Indian Tribe

2.3	Existing Traffic Volume	47
2.3.1	Short Duration Counts	47
2.3.2	Methodology	47
2.4	Trail and Path System	
2.4.1		
2.4.2		
2.4.3	S Typical Primary Multi-Purpose Off-Street Trail Cross Section	57
2.5	Airports	58
2.6	Land Use Element	59
2.6.1	Land Use Designations	60
3 TI	HE TRANSPORTATION PLAN	63
3.1	Public Involvement	63
3.1.1		
3.1.2		
3.1.2		03
3.2	Future Development Plans	66
3.2.1	Cedar Point Subdivision Road Improvements	66
3.3	Projected Travel Demand	66
3.4	Trip Generation	67
3.5	Recommended Transportation Plan	68
3.5.1	•	
3.5.2		
3.5.3	·	
3.5.4		
3.5.5	·	
3.6	Short-Term Projects	72
3.7	Mid-term Projects	75
3.8	Long Term Projects	79
3.9	BIA Roads Program	80
3.9.1	-	
3.9.2		
3.9.3		
3.9.4		
3.9.5	·	
3.9.6		



demand in annihing	L	ong Range Transportation Plan	
lacin cold.3	Sout	hern Ute Indian Tribe	-
3.9.7	Route	Additions 8	5
3.9.8	Invent	ory Comparison Listing 8	6
		lementation and Updating8	
3.10.1	Proced	lures for Development Roads	7
3.11 Ro	oad Ma	intenance8	8
		ad Maintenance Funding8	
		Maintenance Guidelines	
3.11.3	Maint	enance Priority Methodology9	1
Appen	dice	s	
Appendix	( A:	Exhibit Maps	
Appendix	к В:	Inventory Comparison Listing (ICL)	
Appendix	c C:	Public Involvement Documentation	
Appendix	D:	Level of Service Analysis	
Appendix	ε:	Tribal Resolution	
Appendix	( F:	Route Maps and 5704 Forms	
List of	Tab	es	
Table 1: F	undin	g Authorities under MAP-21	7
Table 2: S	Southe	rn Ute Tribal Enrollment1	3
Table 3: 2	2013 D	OI Labor Force Determination for the Southern Ute Reservation1	4
Table 4: N	Month	y Average Climate Data in Ignacio, CO1	4
Table 5: L	and O	wnership Status Key Terminology1	5
Table 6: S	Southe	rn Ute Facilities1	6
Table 7: F	Road Ir	ventory Overview – Proposed 2015 Inventory2	4
Table 8: F	ROW -	Roles and Responsibilities3	5
Table 9: 1	Γraffic	Counts Summary Table4	8
Table 10:	Trip G	eneration Rates, Typical Reservation Land Use Categories6	7
Table 11:	Inven	cory Comparison Summary8	4



Southern Ute Indian Tribe	
Table 12: Functional Classification Changes from Previous Inventory	84
Table 13: Road Maintenance Costs per Mile by Surface Type	90
Table 14: Level of Maintenance Requirement	92
List of Figures	
Figure 1: Native American Reservations Location on the Colorado Plateau	5
Figure 2: New Transportation Funding Formula for TTP Program under MAP-21	9
Figure 3: Colorado Scenic and Historical Byways	21
Figure 4: CDOT Statewide Highway System	27
Figure 5: Bridge Number Unavailable / Route 8012-820 on La Boca Ranch Road	36
Figure 6: Bridge Number M516 / Route 0101-050 on La Plata County Road 322	36
Figure 7: Bridge Number M501 / Route 0107-010 on Bear Dance Drive	37
Figure 8: Bridge Number Unavailable / Route 0151-815 on Colorado State Highway 151	37
Figure 9: Bridge Number M502 / Route 0159-020 on BIA Route 0159	37
Figure 12: Bridge Number M506 / Route 0169-020 on BIA Route 0169/Trujillo Rd	38
Figure 12: Bridge Number M507 / Route 0169-040 on BIA Route 0169/Trujillo Rd	38
Figure 12: Bridge Number 503M / Route 0163- 020 on BIA Route 0163	38
Figure 13: Bridge Number M508 / Route 0169-060 BIA Route 0169/Juanita Rd	39
Figure 14: Road Runner Transit Route Schedule and Maps	41
Figure 15: Road Runner Stage Lines Route Schedule and Map	42
Figure 16: Colorado Fatality and Serious Injury Rates	44
Figure 17: Causes of Accidents on the Southern Ute Reservation, FY14- June FY15	45
Figure 18: Path Diagram	58
Figure 19: Colorado Public Use Airports	59
Figure 20: Issues of Concern	64

Figure 21: Optimal Frequency of Maintenance ......89



## Southern Ute Indian Tribe

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## Southern Ute Indian Tribe

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The more than 100 individuals who returned transportation plan questionnaires



Southern Ute Indian Tribe

## 1 Background Information

In May 2015, the Southern Ute Indian Tribe (SUIT) contracted with WHPacific to produce the Tribe's Long Range Transportation Plan (LRTP) and road inventory update. This transportation plan for the Southern Ute Reservation was prepared in accordance with Section 1B of the Memorandum of Agreement (MOA) between the Bureau of Indian Affairs (BIA) and the Federal Highway Administration (FHWA), dated May 23, 1983, which requires the BIA to carry out a transportation planning process for Indian Reservation Roads (now Tribal Transportation Program), deemed to be adequate to support their construction and improvement program similar to 23 U.S.C. 307, and 25 U.S.C.

The National Tribal Transportation Program (TTP) encompasses public roads, including roads on the federal-aid system that are located within or provide access to an American Indian Reservation, Indian trust land or restricted Tribal land that is not subject to fee title alienation without the approval of the federal government. Also included are roads that provide access to Native American Reservations and Alaskan Native villages, groups, or communities in which Native Americans and Alaska Natives reside, whom the Secretary of the Interior has determined are eligible for services under federal laws specifically applicable to Native Americans. The TTP includes the following systems:

- <u>Bureau of Indian Affairs Federal-Aid Roads System</u>: Existing public highways and proposed routes that qualify as federal-aid routes pursuant to the provisions of Section 103 of 23 U.S.C. for which the BIA has or plans to obtain right-of-way.
- <u>Bureau of Indian Affairs Reservation Development Roads System</u>: Existing public highways and proposed routes for which the BIA has or plans to obtain legal right-of-way and that serve the development needs of Reservations and Alaskan Native Villages.
- <u>Highway Trust Fund Road System</u>: Existing BIA routes or sections of routes that were improved with the use of highway trust funds.
- <u>Tribal Roads System</u>: Public roads with right-of-way(s) under the jurisdiction of the Tribe.
- <u>County or Township Road System</u>: Public roads with right-of-way(s) under the jurisdiction of a county or township.
- State Highway System: Public roads with right-of-way(s) under the jurisdiction of a state.
- Other Federal Agency Roads: Public roads with right-of-way(s) under the jurisdiction of various federal agencies such as Bureau of Land Management (BLM), Forest Service (USFS), Bureau of Reclamation or National Park Service (NPS).

## 1.1 PURPOSE AND SCOPE

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

• Identify, evaluate and determine present and future public transportation needs.



#### Southern Ute Indian Tribe

- Provide a 20-year transportation plan that defines the Tribe's short and long-term transportation needs based on an analysis of current resources, demographic trends and future development projects.
- Develop a prioritized listing of recommended road improvements/construction projects for use by the Tribe, FHWA, and the BIA in implementing a construction program to meet current and projected (20-year) transportation needs.

The transportation plan is a fiscally and developmentally sound document that is intended to address the funding issues and eligibility restrictions associated with Highway Trust Fund (HTF) monies. Each tribe is a politically and geographically diverse entity with a unique set of transportation goals and objectives. However, because the TTP system is composed of public roads, many of which fall under BIA, state, county or municipal responsibility, several transportation goals common to all tribes can be identified. These are:

- Provide safe and convenient public access within Reservation boundaries
- Provide access to new and existing development
- Complement surrounding public transportation facilities as part of the area-wide public transportation system
- Promote the economic development of the Tribe
- Produce a plan for providing transportation facilities

#### 1.2 METHODOLOGY

The intent of the Long Range Transportation Plan is to identify current and future transportation needs of the Tribe and provide a 20-year plan that is reflective of short, mid and long-term development goals. The project was organized into three components, as outlined below:

- 1. Background Information
  - Purpose and scope
  - Methodology
  - Regional context
  - Transportation plan summary
- 2. Existing Conditions
  - Background data
  - Transportation system
  - Existing traffic volume
  - Trail and path system
  - Airports
  - Land use element
- 3. Transportation Plan
  - Public involvement
  - Future development plans
  - Projected travel demand



#### Southern Ute Indian Tribe

- Trip generation
- Recommended transportation plan (short-term, mid-term, long-term projects)
- BIA Roads Program
- Federal Highway Administration (FHWA) and BIA Functional Classification Comparison
- Plan implementation and updating
- Road maintenance

Production of the Southern Ute Indian Tribe's Long Range Transportation Plan (LRTP) involved a multipronged approach to assess the condition and adequacy of roadways serving the Reservation in accordance with Tribal transportation goals. Information and data were gathered through the following activities:

<u>Field Work</u>: WHPacific documented the Tribe's road inventory through weeks of field work where each route was visually examined, GPS documented and photographed. WHPacific performed dozens of traffic counts on select routes.

<u>Stakeholder Meetings</u>: WHPacific participated in multiple meetings with tribal staff and leadership during the course of the study – both in-person and via conference call. Additional information is provided under the "Community Input" heading below.

<u>Agency Coordination</u>: During the course of this planning effort, WHPacific staff spoke with Tribal staff and contacted other local, county, and state agencies to obtain the most current information on socioeconomic conditions, transportation needs and goals, development trends and traffic data. Main contacts for each entity included:

Tribe: Edward Box III, Tribal Planning Director Southern Ute Indian Tribe
 BIA: Vickie Begay, Southern Ute Agency, Bureau of Indian Affairs
 State/Region: Matt Muraro, Colorado Department of Transportation (CDOT)

• La Plata County Jim Davis , County Engineer

Tribal Community Input: WHPacific conducted a total of three onsite meetings involving the participation of SUIT members and/or staff. The WHPacific planning team met with SUIT planners on May 11, 2015 to discuss strategies for the project. The project kick-off meeting on May 12, 2015 was attended by representatives from multiple Tribal Directors and Divisions, as well as county, state and federal agencies. This group provided extensive input for the plan during the meeting and subsequently via telephone conversations and email. A Tribal Membership meeting was held in the evening of May 12, to obtain feedback on the proposed Long Range Transportation Plan, as required by federal regulations. Additionally, SUIT planners distributed a transportation questionnaire to obtain community feedback on transportation priorities. More than 100 surveys were returned. The draft plan was presented to the leadership and community on November 17, 2015. After the meeting, all comments will be collected and delivered to WHPacific for incorporation into the final draft. The final draft will be presented to the Council for final approval.

<u>Content Analysis of Historical Documents / Demographic Analysis:</u> Multiple documents from the Tribe, BIA, CDOT and other governmental agencies were consulted in the course of the planning



Southern Ute Indian Tribe

process. Secondary data sources were reviewed to determine the demographic makeup and growth patterns of the Reservation. Select documents consulted included:

#### BIA:

- Current population data: Resident Indian Population and Labor Force Status Report, including data work sheets
- The Native American Housing Assistance and Self Determination Act of 1996 (NAHASDA)
   Population Report
- Current land status report: Annual Report of Indian Lands
- Maps showing reservation boundaries and trust lands
- Road inventory information

#### TRIBE:

- Tribal enrollment (on-reservation and off-reservation)
- Reservation map identifying all trust lands and fee lands owned by the Tribe
- Land use plan (The Tribe's Comprehensive Land Use Plan (CLUP) dates from 2006. At the time of this LRTP, the Tribe is anticipating updating the CLUP in the near future.)
- Proposed development projects that will impact access or existing roads
- Ignacio Area Corridor Access Plan, a collaborative transportation planning project undertaken by the SUIT, CDOT, the Town of Ignacio, and La Plata County
- General background data about the Reservation
- Traffic control information
- U.S. Postal Service information
- Vehicle Accident Data
- Tribal Transportation Improvement Program (TTIP)

#### OTHER AGENCIES / SOURCES:

- U.S. Census 2010 population and employment data
- Airport Proximity Data
- CDOT: State Transportation Improvement Plan (STIP)

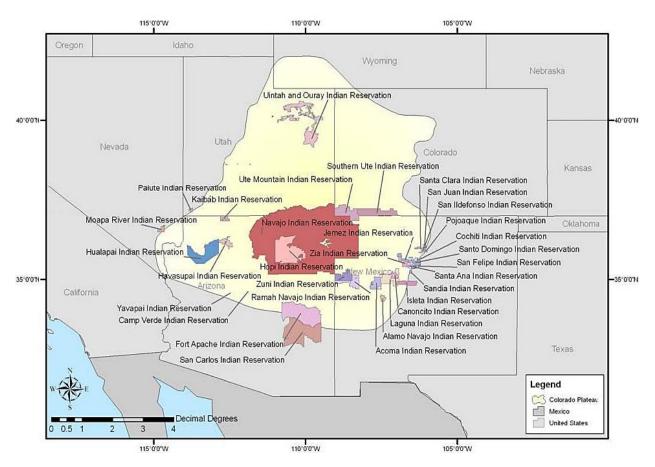
## 1.3 REGIONAL CONTEXT

The Southern Ute Reservation is located in southwest Colorado, near the border with northern New Mexico. It is one of more than 30 tribes located on the Colorado Plateau, as shown in Figure 1.



#### Southern Ute Indian Tribe

Figure 1: Native American Reservations Location on the Colorado Plateau



Source: Federal Geographic Data Committee (2008). Map of Native American Reservations located on the Colorado Plateau. Retrieved from https://www.fgdc.gov/grants/2005CAP/projects/05HQAG0140\_map/image\_view\_fullscreen.

The approximately 1,059-square mile reservation land area encompasses the communities of Ignacio, Allison, Arboles, Tiffany, Oxford and Red Mesa. Tribal lands fall within La Plata, Archuleta and Montezuma Counties. The Southern Ute Indian Tribe main campus is located just North of Ignacio near State Highway 172 and County Road 517. The Reservation's location relative to the state of Colorado is shown in "SUIT Reservation State Location Map" and its regional location is shown in "SUIT Reservation Regional Location Map." Full-page maps are located in Appendix A.

The highways that run through the Southern Ute Reservation are State Highway 140 (from the New Mexico border to the town of Hesperus), U.S. Highway 160 (from Hesperus to Pagosa Springs), U.S. Highway 550 (from the New Mexico Border to Durango), State Highway 172 (from the New Mexico Border to U.S. Highway 160) and State Highway 151 (from Ignacio to U.S. Highway 160).

#### 1.4 Transportation Plan Summary

The transportation plan should be considered a "living document" adaptable to the changing needs and conditions of the Southern Ute Indian community. An up-to-date transportation plan is a valuable reference tool when programming and budgeting future roadway improvement projects. However,



#### Southern Ute Indian Tribe

regularly scheduled updates are crucial to the effective longevity of the plan. The priority list must be reviewed and modified as needed on an annual basis. The overall plan must also be updated every five years, or following major land use changes.

The 2015 Long Range Transportation Plan provides a foundation for economic development by identifying transportation needs associated with access to tribal services and enterprises. A large number of improvement projects need to be projected and documented to cover the next 20 years. Based on forecasts, improvement projects are grouped into three time periods: short range (0 to 3 years), mid-range (4 to 7 years), and long range (over 7 years), based on their relative urgency for completion. Road construction priorities are discussed in Sections 3.6 to 3.8.

The 2013 BIA Indian Reservation Road (IRR) road system mileage report for SUIT consisted of 234.6 miles of BIA road inventory mileage and 527.9 non-BIA road inventory mileage, for a total of 762.5 miles. In 2015, mileage adjustments will result in a total of 893.9 miles. A full inventory comparison report is presented Appendix B.

#### 1.4.1 Funding Allocations

This section discusses the implementation of the new transportation bill, Moving Ahead for Progress in the 21<sup>st</sup> Century (MAP-21).

Federal Lands Highways Program (FLHP) funds can be used for transportation planning, research, engineering and construction of highways, roads, parkways and transit facilities within public lands, national parks and Indian Reservations. In addition, FLHP funds can be used as the state/local match for most types of federal-aid highway funded projects. Eligible uses of Public Lands Highways funds include up to \$20 million per year for maintenance of forest highways, \$1 million per year for signage identifying public hunting and fishing access, and \$10 million by the Secretary of Agriculture to facilitate the passage of aquatic species beneath roads in the national forest system.

On July 6, 2012, President Obama signed into law P.L. 112-141, the Moving Ahead for Progress in the 21st Century Act (MAP-21). Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first major highway authorization enacted since Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) in 2005. In MAP-21, Congress replaced the Indian Reservation Roads Program with the Tribal Transportation Program, which in part includes a new statutory funding distribution formula that replaced the Relative Need Formula found in the regulations at 25 CFR Part 170. The MAP-21 program was implemented on October 1, 2012. Table 1 illustrates funding authorizations under MAP-21.



#### Southern Ute Indian Tribe

Table 1: Funding Authorities under MAP-21

Division A - Federal-aid and Highway Safety Construction Programs	FY13	FY14*	Total	Average
Title I - Federal-aid Highways				
Federal-aid Highway Program	37,476,819,674	37,798,000,000	75,274,819,674	37,637,409,837
Estimated Split among Programs:				
National Highway Performance Program	[21,751,779,050]	[21,935,691,598]	[43,687,470,648]	[21,843,735,324]
Surface Transportation Program	[10,005,135,419]	[10,089,729,416]	[20,094,864,835]	[10,047,432,418]
Highway Safety Improvement Program	[2,390,305,390]	[2,410,515,560]	[4,800,820,950]	[2,400,410,475]
Railway-Highway Crossings (set aside)	[220,000,000]	[220,000,000]	[220,000,000]	[220,000,000]
Congestion Mitigation & Air Quality Improvement Program	[2,209,172,618]	[2,227,860,477]	[4,437,033,095]	[2,218,516,548]
Metropolitan Transportation Planning	[311,667,197]	[314,302,948]	[625,970,145]	[312,985,073]
Transportation Alternatives	[808,760,000]	[819,900,000]	[1,628,660,000]	[814,330,000]
Transportation Infrastructure Finance and Innovation Program	750,000,000	1,000,000,000	1,750,000,000	875,000,000
Tribal Transportation Program	450,000,000	450,000,000	900,000,000	450,000,000
Federal Lands Transportation Program	300,000,000	300,000,000	600,000,000	300,000,000
Federal Lands Access Program	250,000,000	250,000,000	500,000,000	250,000,000
Territorial and Puerto Rico Highway Program	190,000,000	190,000,000	380,000,000	190,000,000
Puerto Rico Highway Program	[150,000,000]	[150,000,000]	[300,000,000]	[150,000,000]
Territorial Highway Program	[40,000,000]	[40,000,000]	[80,000,000]	[40,000,000]
FHWA Administrative Expenses	454,180,326	440,000,000	894,180,326	447,090,163
Emergency Relief	100,000,000	100,000,000	200,000,000	100,000,000
Projects of National and Regional Significance (General Fund)	500,000,000	-	500,000,000	250,000,000
Construction of Ferry Boats and Ferry Terminal Facilities	67,000,000	67,000,000	134,000,000	67,000,000
Tribal High Priority Projects Program (General Fund)	30,000,000	30,000,000	60,000,000	30,000,000
Total Division A	40,568,000,000	40,625,000,000	81,193,000,000	40,596,500,000

<sup>\*</sup> Complete figures for FY15 not yet available.

Source: "Highway Authorizations: Moving Ahead for Progress in the 21st Century Act | Federal Highway Administration." Highway Authorizations: Moving Ahead for Progress in the 21st Century Act | Federal Highway Administration. Web. 27 Oct. 2015. <a href="https://www.fhwa.dot.gov/map21/docs/hamap21.pdf">https://www.fhwa.dot.gov/map21/docs/hamap21.pdf</a>.

The funds resulting from this apportionment are available for obligation until September 30, 2018. Any amounts not obligated on or before that date will lapse. As outlined in greater detail in section 1.4.3, the MAP-21 funding formula is being implemented in phases.

#### 1.4.2 Performance Management

Performance management is a unique component of MAP-21 that impacts government entities at multiple levels. FHWA defines Transportation Performance Management as "a strategic approach that uses system information to make investment and policy decisions to achieve national performance goals.<sup>1"</sup> MAP-21 establishes national performance goals for Federal highway programs:<sup>2</sup>

 Safety — To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.

<sup>&</sup>lt;sup>1</sup> Transportation Performance Management Brochure. Federal Highway Administration. <a href="https://www.fhwa.dot.gov/tpm/resources/publications.cfm">https://www.fhwa.dot.gov/tpm/resources/publications.cfm</a>.

<sup>&</sup>lt;sup>2</sup> National performance goals are excerpted from *Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), A Summary of Highway Provisions*, from the Federal Highway Administration website.



#### Southern Ute Indian Tribe

- **Infrastructure condition** To maintain the highway infrastructure asset system in a state of good repair.
- **Congestion reduction** To achieve a significant reduction in congestion on the NHS.
- **System reliability** To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- **Environmental sustainability** To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced project delivery delays To reduce project costs, promote jobs and the economy, and
  expedite the movement of people and goods by accelerating project completion through
  eliminating delays in the project development and delivery process, including reducing regulatory
  burdens and improving agencies' work practices.

Under MAP-21, FHWA works with states, metropolitan planning organizations (MPOs) and other entities to establish performance measures for pavement condition, bridge condition, traffic accidents and congestion, and other safety measures. As the establishment of performance goals is still in process, SUIT should closely monitor performance measures rulemaking, and update this plan accordingly.

## 1.4.3 Transition from Indian Reservation Roads Program to MAP-21 Funding Formula

On July 19, 2004 the Department of Interior published the Final Rule for the Indian Reservation Roads Program.<sup>3</sup> The final rule established a funding distribution methodology called the Tribal Transportation Allocation Methodology (TTAM). The TTAM includes a factor for allocating IRR Program funds based on the relative needs of Indian Tribes and Reservations/communities for transportation assistance. The Relative Need Distribution Factor (RNDF) is a mathematical formula used for distributing the IRR Program construction funds. The RNDF is derived from a combination of the cost to construct, vehicle miles traveled, and population.

Under MAP-21, a new funding formula was established as of October 1, 2012. Under the new formula, tribal population will account for 39% of each tribe's formula share compared to 20% under the Relative Need Formula. Under both formulas, tribal population is determined by using the process set forth under the Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA). On Tuesday, July 3, 2012, the Department of Housing and Urban Development (HUD) issued a Notice of Intent to Initiate Negotiated Rulemaking for the purpose of developing regulatory changes to the NAHASDA funding formula. Since the population factor is part of the NAHASDA funding formula, this rulemaking process could affect the population factor under the MAP-21 funding formula. The new formula is being implemented in phases, as follows:<sup>4</sup>

<sup>&</sup>lt;sup>3</sup> Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations: Codified at 25 Code of Federal Regulations ("CFR") Part 170.

<sup>&</sup>lt;sup>4</sup> As MAP-21 is a two-year law, it is possible that the TTP funding formula could change yet again before its full implementation in 2016. This document should be updated following any future changes to the funding formula.



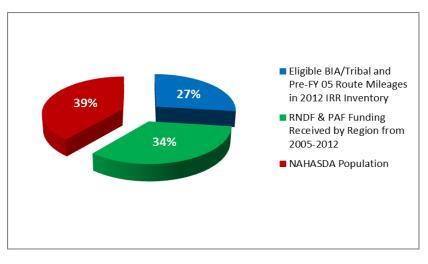
#### Southern Ute Indian Tribe

- FFY-13 80% old Formula, 20% new Formula
- FFY-14 60% old Formula, 40% new Formula
- FFY-15 40% old Formula, 60% new Formula
- FFY-16 20% old Formula, 80% new Formula

The new formula will calculate tribal shares using three different factors (as percentages of national or regional totals):

- 27% of funding based on the Tribe's approved road mileage (national percentage)
- 39% of funding based on the Tribe's most recent Native American Housing Assistance and Self Determination Act (NAHASDA) population (national percentage)

Figure 2: New Transportation Funding Formula for TTP Program under MAP-21



• 34% of funding based on the Tribe's RNDF and Population Adjustment Factor (PAF) amounts from FY05 to FY12 (regional percentage)

At the time of this report, 23 CFR part 170 is still in the process of being updated. The public review and comment period for the revised document has yet to be completed. Consequently, some details regarding the implementation of MAP-21 are still undetermined.



## Southern Ute Indian Tribe

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Southern Ute Indian Tribe

## 2 EXISTING CONDITIONS

## 2.1 BACKGROUND DATA

Many components must be analyzed when undertaking a holistic transportation plan that will address the community's needs in both the short and long term. These components include cultural values, government, demographics, economy, and land use, in addition to the current transportation system and the future development plans of the community. This chapter looks at those elements.

## 2.1.1 Culture and History<sup>5</sup>

The Southern Ute Tribe is composed of two bands, the Mouache and Capote, and is governed by a seven member Tribal Council elected by the membership. The Tribe has approximately 1,500 tribal members, with half the population under the age of 30.

The Ute people are the oldest residents of Colorado, inhabiting the mountains and vast areas of Colorado, Utah, Wyoming, Eastern Nevada, Northern New Mexico and Arizona. The Utes first settled around the lake areas of Utah, some of which became the Paiute, other groups spread north and east and separated into the Shoshone and Comanche people, and some traveled south becoming the Chemehuevi and Kawaiisus. The remaining Ute people became the Southern Ute Tribe which comprises the Mouache and Capote bands and are headquartered at Ignacio, Colorado.

Around 1895 the Southern Ute Reservation was created. It was 15 miles wide and 110 miles long. In 1895 the Hunter Act enabled lands within the Ute Strip to be allotted to tribal members, and the surplus lands were homesteaded and sold to non-Indians.

The Southern Ute Indian Tribe has a rich cultural tradition and holds several events throughout the year to keep these traditions alive. Some of the main events consist of the Ute Bear Dance each spring, the Sun Dance in midsummer which is the most important spiritual ceremony, and the Southern Ute Tribal Fair in late summer. The Southern Ute Tribe also maintains a close relationship with its sister tribes, the Northern Ute located northeastern Utah and headquartered in Fort Duchesne, UT and Ute Mountain Tribe located in the southwestern corner of Colorado and headquartered in Towaoc, CO.

Many years after the Brunot Treaty of 1874 that took much of their land away, the SUIT signed a Memorandum



Bison carry great dietary, spiritual, and cultural significance among the Utes.

Source: sudrum.com

of Agreement (MOA) in 2009 which assured the tribe with hunting and fishing rights in the off-reservation

WHPacific May 2016 11

<sup>&</sup>lt;sup>5</sup> Section excerpted from: "History of the Southern Ute." Southern Ute Indian Tribe. Web. 5 Nov. 2015. <a href="https://www.southernute-nsn.gov/history/">https://www.southernute-nsn.gov/history/</a>.



#### Southern Ute Indian Tribe

Brunot area, including rare game species. Tribal hunters participate in fishing activities and hunting bison, deer, elk, mountain lion, turkey, and waterfowl with special permits.

#### 2.1.2 Government

The Southern Ute Indian Tribal Council is the governing body of the Tribal Government as established by the passage of the Indian Reorganization Act by Congress (commonly called the Wheeler-Howard Act). The Constitution of the Southern Ute Indian Tribe, which was initially approved on November 4th, 1936 and subsequently amended on October 1, 1975 and August 27, 1991, authorizes and defines the Tribe's governing body as the Southern Ute Indian Tribal Council, which is composed of seven members (a Chairman and six council members). Principle officers include the Chairman, Vice-Chairman and Treasurer, with all council members serving three-year staggered terms.<sup>6</sup>

## 2.1.3 Demographics

The Southern Ute Indian Reservation primarily falls within La Plata County, Colorado and also extends into Archuleta and Montezuma Counties. The population of the State of Colorado is projected to grow by about 2,702,904 people from 2010 through 2040.<sup>7</sup> La Plata County includes 53,989 residents and experienced an annual growth rate of 5.2 percent between 2010 and 2014. <sup>8</sup> Approximately 6.6 percent of La Plata County residents are American Indian or Alaska Native.

Durango is the closest City to the Reservation boundaries, while the Towns of Ignacio and Bayfield are located within the exterior boundaries of the Reservation. Tribal Council headquarters are located north of the Town of Ignacio. Ignacio has a population of approximately 710 residents, with a 0.7% annual growth rate. The city includes approximately 411 housing units, with a homeownership rate of 54.3%. The median household income for residents is \$49,375 and approximately 16.3% of individuals live below the poverty level.

The U.S. Census population estimate for the Southern Ute Census Designated Place (CDP) is 1,572 people. The median household income in the Southern Ute CDP is \$64,167 and there is a poverty rate of approximately 11% according to the U.S. Census Bureau's American Community Survey. Approximately 12.9% of families in the SUIT CDP were estimated to live below the poverty level.

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<sup>&</sup>lt;sup>6</sup> "Government." Southern Ute Indian Tribe. Web. 5 Nov. 2015. <a href="http://www.southernute-nsn.gov/government/">http://www.southernute-nsn.gov/government/</a>

<sup>&</sup>lt;sup>7</sup> State Demography Office – Dashboard. Colorado Department of Local Affairs. Web. 2015. <a href="https://dola.colorado.gov/demog\_webapps/dashboard.jsf">https://dola.colorado.gov/demog\_webapps/dashboard.jsf</a>.

<sup>&</sup>lt;sup>8</sup> American FactFinder. U.S. Census Bureau. Web. 17 Oct. 2015. <a href="http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF">http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?src=CF>.

<sup>&</sup>lt;sup>9</sup> Population Totals for Colorado Municipalities. Colorado Department of Local Affairs. Web. 17 Oct. 2015. <a href="https://www.colorado.gov/pacific/dola/node/104471">https://www.colorado.gov/pacific/dola/node/104471</a>.



#### Southern Ute Indian Tribe

The Tribe's Vital Statistics Division reports a total of 1,504 tribal members, with 926 of those members as part of their total service population and 578 living off the reservation. Twenty percent of tribal members (312) are youth under 16 years of age and eight percent of members are over 64 years old.

Table 2: Southern Ute Tribal Enrollment

Enrollment Data	Male	Female	Total
Tribal Enrollment	745	759	1,504
Total Service Population for 2010 (all	466	460	926
individuals eligible for on-reservation			
DOI services)			
Number under 16	175	137	312
Number 16-64	515	547	1,062
Number over age 64	55	75	130
Living Off Reservation-Tribal Members			578

Source: SUIT Vital Statistics Division

## 2.1.4 Economy and Employment

Of the 1,504 total tribal members enrolled, there are 1,062 members between the ages of 16-64 that comprise the tribal workforce. In addition to U.S. Census data, employment data for the Southern Ute Reservation was collected from the Sky Ute Casino Resort, Southern Ute Growth Fund and Permanent Fund. The cost of government activities and services is funded by the Tribe's Permanent Fund. This endowment fund operates separately from the business and investment activities that are analyzed and managed by the Tribe's Growth Fund.

The Southern Ute Indian Tribe is a major contributor to the local economy. The Tribe's business activity generates millions of dollars each year for La Plata and Archuleta Counties. Likewise, the Tribe is currently the largest employer in La Plata County and supports many area non-profit organizations.

The Sky Ute Casino Resort alone reported employing approximately 400 individuals. In addition, the Tribe is aggressively creating and operating new businesses both on and off Reservation in the areas of oil and gas production, natural gas gathering, real estate development, housing construction, and gaming. Companies operated by the Growth Fund include the Red Willow Production Company, Red Cedar Gathering Company, Aka Energy Group, Southern Ute Alternative Energy, GF Properties Group, Department of Energy, Sky Ute Fairgrounds, and the Southern Ute Utilities Division. The continued growth of reservation-based employment will improve the long-term socioeconomic status of Tribal members. According to the 2013 American Indian Population and Labor Force Report, between 37 and 49 percent of the Tribe's population age 16 and older are employed in civilian (nongovernmental) jobs as seen in Table 3.



#### Southern Ute Indian Tribe

Table 3: 2013 DOI Labor Force Determination for the Southern Ute Reservation

DOI Labor Force Determination	Percent of Tribal population
Population NOT available for work	31.8%
Population available for work, including those not considered to be actively seeking work	68.2%
Estimated population available for work, but not working*	11-21%
Estimated population employed in civilian workforce*	37-49%
Estimated population employed in governmental jobs*	17-20%
Estimated families with income below the poverty line*	18-21%

<sup>\*</sup> Population percentage based on Native Americans in Colorado, not specific to Southern Ute Reservation. These numbers are for planning purposes and do not reflect exact Southern Ute Reservation numbers.

Source: "2013 American Indian Population and Labor Force Report." U.S. Department of the Interior, Office of the Secretary. 16 Jan. 2014. Web. 5 Nov. 2015.

## 2.1.5 Physical Characteristics and Climate

The Southern Ute reservation consists of timberlands on high mountains with elevations over 9,000 feet in the eastern portion, and flat arid mesas on the west. The eastern part of the reservation is forested, with elevations of more than 9000 feet.

The climate conditions are generally mild, with average high temperatures typically reaching the low 40s/ high 30s during winter to the high 80s during the summer. July is typically the warmest month of the year. Most precipitation falls August through November.

Table 4: Monthly Average Climate Data in Ignacio, CO

Statistic	Unit	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Avg.
Minimum	°F	9.2	15.3	22.6	27.5	34.8	42	49.4	48.5	40.6	30.7	20.8	12.3	29.48
Temperature														
Maximum	°F	39.1	45.3	53.2	61.8	71.7	83.2	87.2	84.5	77.3	65.2	50.2	41.1	63.32
Temperature														
<b>Heating Degree</b>		1266	972	841	611	366	118	19	41	195	528	886	1188	585.92
Days														
Cooling Degree		0	0	0	0	2	45	121	89	12	0	0	0	22.42
Days														
Monthly	ln.	1.29	1.11	1.37	0.84	0.94	0.4	1.19	1.71	1.51	1.43	1.27	1.02	1.17
Precipitation														

Source: "IGNACIO 1 N, Colorado, USA: Climate, Global Warming, and Daylight Charts and Data." Climate-charts.com, 2010. Web. 12 Oct. 2015. <a href="http://www.climate-charts.com/USA-Stations/CO/CO054250.php">http://www.climate-charts.com/USA-Stations/CO/CO054250.php</a>.

Portions of the Tribal Campus are located in the Los Pinos River floodplain. This is an important factor for consideration when designing roads. Roads in the floodplain include portions of the following:

- Scotts Pond Road
- Ute Road
- Ute Drive
- Meadowbrook Mobile Home Park



## Southern Ute Indian Tribe

### 2.1.6 Land Ownership

The following data regarding tribal land ownership was collected from the Southern Ute Indian Tribe's Land Division webpage. In 1984, Congress confirmed the exterior boundaries of the Reservation, spanning an area of approximately 700,000 acres and roughly extending from the eastern edge of Montezuma County to the middle of Archuleta County, and from points south of U.S. Highway 160 to the Colorado/New Mexico state line. The current-day Reservation includes tribal trust lands, Indian allotments, homestead fee tracts, Tribally-owned or Indian-owned fee land, and Bureau of Reclamation lands and National Forest lands. This patchwork pattern of land ownership is commonly referred to as a "checkerboard" reservation. The Southern Ute Indian Tribe currently has title interest in approximately 300,000 acres of the surface estate within the exterior boundary of the Reservation as well as title to much of the mineral estate.

Jurisdiction on the Reservation is complex. A common misconception is that the Reservation includes only Tribal trust land and allotments. In fact, all land within the Reservation's exterior boundary is "Indian Country," and is considered to be "on the Reservation," regardless of the land's ownership status. "Indian Country" status is a key factor in determining the relative jurisdiction of the United States, the State, and Tribe over activities conducted on those lands. A list of key land status terms is provided in Table 5 as a reference and a land ownership status map is included in Appendix A as "Federal Land Ownership for SUIT Reservation."

Table 5: Land Ownership Status Key Terminology

Land Status	Status Description
Allotted Lands (a/k/a	Parcels of land that were distributed by the federal government to individual
allotments)	Tribal members for agricultural development. The allotment process was
	discontinued by Congress in 1934, yet allotted lands are still owned by the
	federal government in trust for individual Indians and are either held in trust
	by the federal government or are subject to statutory restrictions regarding
	the transfer of title.
Fee Land	Lands where the owner holds title to and controls the property. Generally,
	non-Indian owners may make decisions about the use of the land without
	Tribal oversight. Fee land was created within the Reservation when the
	federal government opened lands on the Reservation to homesteading by
	non-Indians, or original allotted trust lands were transferred to fee status.
Tribal Trust Land	Land that has been set aside for the exclusive use and benefit of the Tribe but
	is owned by the United States in trust for the Tribe. The Tribe may use, lease,
	mortgage, or sell the Tribe's interests in this land only if the federal
	government consents.
Tribally-owned or	Land owned by the Tribe or an individual Tribal member or non-member
Indian-owned Fee Land	Indian.

Source: SUIT Lands Division

## 2.1.7 Existing Land Use/Facilities

The Reservation includes a variety of tribally operated facilities that serve community members. The locations of these facilities are listed in the table below, and illustrated in the "SUIT Tribal Campus Facilities" map included in Appendix A.



## Southern Ute Indian Tribe

Table 6: Southern Ute Facilities

Facility Address

Animal Control	16464 CO-172	Ignacio, CO	81137
Annex	116 Memorial Drive	Ignacio, CO	81137
Chapel	290 Memorial Drive	Ignacio, CO	81137
Construction Services	198 CO-151	Ignacio, CO	81137
Construction Services - Wood Yard	198 CO-151	Ignacio, CO	81137
Cultural Center	77 County Road 517	Ignacio, CO	81137
Elder Center	356 Ouray Drive	Ignacio, CO	81137
Environmental Programs Division	116 Memorial Drive	Ignacio, CO	81137
Food Distribution Program	740 Goddard Ave.	Ignacio, CO	81137
Growth Fund Building	14929 CO-172, P.O. Box 367	Ignacio, CO	81137
Health Center - Dental Office	123 Weminuche Ave.	Ignacio, CO	81137
Health Center - Optometry Office	123 Weminuche Ave.	Ignacio, CO	81137
Housing Authority	26 Shoshone Ave.	Ignacio, CO	81137
Justice Department	149 CR 517	Ignacio, CO	81137
KSUT Radio Station	123 Capote Drive	Ignacio, CO	81137
Los Pinos Fire Department	275 Browning Ave.	Ignacio, CO	81137
Maintenance Building	205 Ouray Drive	Ignacio, CO	81137
Montessori and Head Start	279 Capote Drive	Ignacio, CO	81137
Multipurpose Facility	290 Memorial Drive	Ignacio, CO	81137
Natural Resources Division - Tribal Rangers	149 CR 517	Ignacio, CO	81137
Peaceful Spirit Rehabilitation Center	296 Memorial Drive	Ignacio, CO	81137
Police Department	515 Goddard Ave	Ignacio, CO	81137
Sky Ute Casino Resort	14324 CO-172	Ignacio, CO	81137
Sky Ute Fairgrounds & RV Park	200 CO-151	Ignacio, CO	81137
Social Services Department	205 Ouray Drive	Ignacio, CO	81137
Sun Ute Community Center	290 Memorial Drive	Ignacio, CO	81137
TERO Division Office	149 CR 517	Ignacio, CO	81137
Tribal Court	149 CR 517	Ignacio, CO	81137
Tribal Headquarters	356 Ouray Drive	Ignacio, CO	81137
Tribal Housing Office	26 Shoshone Ave.	Ignacio, CO	81137
USDA Ignacio Tribal Office	601 CR 517, P.O. Box 737	Ignacio, CO	81137



#### Southern Ute Indian Tribe

#### Residential:

The Tribe's residential areas are mainly clustered into four residential subdivisions: 1) the Northridge Area; 2) Pow Wow Area; 3) Cedar Point; and 4) Ignacio Peak. Additional housing is planned for development at Cedar Point. The locations of the subdivisions are illustrated in the "SUIT Subdivisions" map in Appendix A.

#### Commercial

Commercial and business activities are primarily concentrated within Ignacio City limits where the Tribe owns scattered parcels of land along major travel routes.

## The Sky Ute Casino Resort

The Sky Ute Casino and Resort provides gaming, lodging, restaurants, concerts, bowling, miniature golf, and space for conventions, meetings and banquets.

The facility includes 140 resort rooms and guest amenities, gaming opportunities, dining, a day spa and salon, a swimming pool and sun deck, a fitness center, and a laundry facility.

The Resort also has an RV park. RV spaces provide water, sewer and hookups for 20, 30 and 50 amps. Amenities at the RV park include access to the pool, fitness center, showers, and laundry facilities.

## Southern Ute Growth Fund Buildings

The Southern Ute Indian Tribe Growth Fund building serves as the company's headquarters. The company's business ventures include energy, real estate, and private equity. Red Cedar Gathering Company, a natural gas gathering and treating company owned by the Growth Fund, has most of its operations on the Southern Ute Reservation.



Sky Ute Casino Resort



Sky Ute Casino Resort RV Park



Southern Ute Growth Fund Buildings



## Southern Ute Indian Tribe

## Institutional/Governmental

The Tribe's administrative facilities are clustered mainly along Memorial and Ouray Drives.



The Annex houses Tribal Planning, Construction and Project Management, Wildlife Department and Natural Resources.



The Southern Ute Cultural Center and Museum provides interactive exhibits and informational displays depicting Southern Ute history and modern life. Exhibits include a teepee, ceremonial dress, and a Ute house and school room replica.



Leonard C. Burch Building



Southern Ute Cultural Center and Museum

## Public Safety

The Tribe operates a Police Department and a Tribal Court and is served by Los Pinos Fire Department. Detailed information on the public safety departments is included in Sections 2.2.11 (Law Enforcement) and 2.2.12 (Fire Protection Services), and in the SUIT Transportation Safety Plan.



Los Pinos Fire Department Station No. 1



## Southern Ute Indian Tribe

#### Recreational

The SunUte Community Center offers a 5,000 square foot fitness center, including a pool, gymnasium, exercise and weight training equipment, meeting rooms, a kitchen, and outdoor recreational space. The facility also offers league sports and hosts community events and activities, as well as housing the Southern Ute Boys and Girls Club.

Baseball fields are located by the Community Center and near the Multi-Purpose Facility.

The Sky Ute Fairgrounds is a venue for fairs, rodeos and other community events. It also offers a 64-space RV Park with shower facilities.



SunUte Community Center



Indoor Arena at Sky Ute Fairgrounds Source: http://www.skyutefairgrounds.com/Facilities.aspx

## Education

SUIT youth attend one of several area schools, including the Southern Ute Montessori Academy, and Ignacio, Durango, and Bayfield Public Schools. The Southern Ute Montessori Academy serves Southern Ute Tribal Members' children and Tribal decedents through age 12. The Southern Ute Community Action Program (SUCAP) operates a Head Start program serving 140 families a year.<sup>10</sup>



Ignacio High School student artwork

WHPacific May 2016 19

<sup>&</sup>lt;sup>10</sup> *Head Start*. Southern Ute Community Action Programs Inc. 9 Dec. 2014. Web. 28 Oct. 2015. http://sucap.org/head-start/.



## Southern Ute Indian Tribe

## Health and Social Services

The Tribe operates a number of health and social programs, housed in various facilities. The Southern Ute Health Center and Pharmacy is located on Weminuche Drive, and provides urgent care and primary care provider appointments, a pharmacy, behavioral health, vision, dental, nursing, laboratory and radiology services, and referral services. The Southern Ute Community Action Programs Elders' Center includes a kitchen and dining hall and meeting spaces. The SUIT Social Services Division is located on Ouray Drive. Other social services

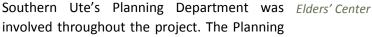


Southern Ute Health Center Source: http://www.southernute-nsn.gov/tribal-health/.

buildings include a Food Distribution Program building and a rehabilitation facility.

## 2.1.8 Respect for Cultural Resources

The Southern Ute Indian Tribe ensures that tribal lands are preserved, occupied or developed in a manner which at all times considers and adheres to the best interests of generally Tribe. Departments that implement transportation and roads development projects include the Planning Department and the Construction and Project Management Department.





Department works with outside agencies (e.g. CDOT) on right-of-way issues. Planning provides updates and recommendations to Tribal Council on proposed development projects and land acquisitions. The Planning Department was represented at the project kick-off meeting. Planning staff had the opportunity to review the interim draft of the Long Range Transportation Plan, and provided comments for implementation.

The Tribe's Planning and Project Management departments coordinate with the Culture Department to protect culturally sensitive areas. The Culture Department consists of Education, Ute Language, Special Events, Native American Graves and Repatriation Act (NAGPRA), Traditional Events, and Traditional Committees. The NAGPRA Division is primarily involved in the transportation development process although all divisions carry out its mission to revitalize, promote, sustain and document the culture, language and history. NAGPRA requires museums and institutes to document and return objects and remains of historical significance to their appropriate tribes and protects Native American burial sites from further removal of cultural items. The NAGPRA program develops policies and procedures in the best interest of the tribe and consults within the State of Colorado and adjacent states.

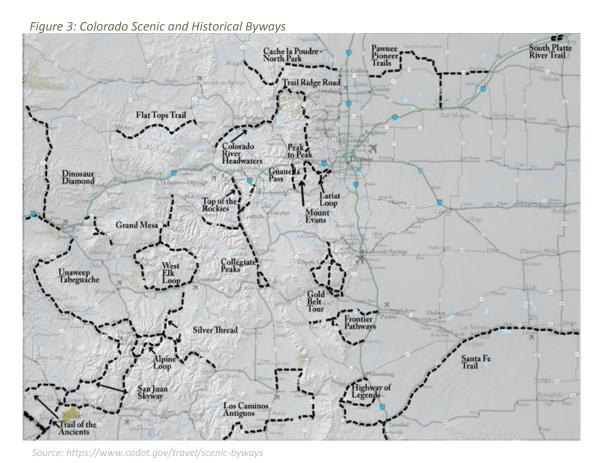


#### Southern Ute Indian Tribe

The NAGPRA coordinator was invited to attend a project planning meeting. The Tribe's NAGPRA Coordinator, Mr. Allen Naranjo, a Southern Ute Tribal elder, is occasionally contacted by the Planning Department for input in the project development process. The coordinator provides feedback and consultation regarding development projects that have the potential to disturb cultural sites and/or pose a significant cultural impact. During the meeting, NAGPRA staff requested that the Southern Ute Long Range Transportation Plan avoid including specific information on the location of cultural sites. To continue protecting the privacy and integrity of cultural sites, the NAGPRA coordinator should also be included in the development of the Tribe's Comprehensive Land Use Plan.

### 2.1.9 Scenic Byways

The National Scenic Byways Program (NSBP) has traditionally provided funding to states and tribes to implement projects on highways designated as National Scenic Byways. <sup>11</sup> Under the new transportation bill MAP-21, the National Scenic Byways Program still exists within the Federal Highway Administration; however, direct funding/grants for scenic byways is no longer provided. Future funding may be provided under the Transportation Alternatives (TA) program. Scenic byways include highways of outstanding



<sup>11</sup> National Scenic Byways Program. Federal Highway Administration, Office of Planning, Environment, & Real Estate. Web. 6 Oct. 2015. <a href="http://www.fhwa.dot.gov/hep/scenic">http://www.fhwa.dot.gov/hep/scenic</a> byways/>.

WHPacific May 2016 21



#### Southern Ute Indian Tribe

scenic, historic, cultural, natural, recreational and archaeological qualities designated as National Scenic Byways, All-American Roads, America's Byways, State scenic or Indian Tribe scenic byways.

Eleven of Colorado's 25 byways are designated as America's Byways, which gives Colorado more national designations than any other state. Colorado's Scenic and Historical Byways program has grown from a number of sources, both within the state and nationally. The Colorado Scenic and Historic Byways Commission and state agencies work in partnership with the U.S. Forest Service, Bureau of Land Management, local byways organizations and public and private resources to serve and develop infrastructure and byway management plans. Management plans include interpretation, promotion, and protection of distinctive byway characteristics. The success of Colorado's Byways program will depend on continued coordination and cooperation among government and private organizations at all levels.

## Trail of the Ancients Scenic Byway

The scenic byway nearest to the Reservation is Trail of the Ancients. Trail of the Ancients highlights the long and intriguing occupation of the Four Corners Region American Indian peoples. The route takes visitors to remote archaeological sites and significant cultural and historic sites in Southwest Colorado. 12 It is one of America's eleven **Byways** designated in Colorado. This 114mile route across the broken, arid terrain of the Anasazi - known as "Ancient ones" to the later Navajo former civilization is heavily laden with cliff dwellings, rock art, and pottery shards.13



Ute Mountain Tribal Park
Source: fourcornersgeotourism.com

Highlights along the byway include Mesa Verde National Park, Hovenweep National Monument, Anasazi Heritage Center, Ute Mountain Tribal Park, Lowry Pueblo in Canyons of the Ancients National Monument,

<sup>&</sup>lt;sup>12</sup> Trail of the Ancients National Scenic Byway - Colorado - Four Corners Region Geotourism Mapguide. Trail of the Ancients National Scenic Byway - Colorado - Four Corners Region Geotourism Mapguide. Web. 6 Oct. 2015. <a href="http://www.fourcornersgeotourism.com/content/trail-of-the-ancients-national-scenic-byway-colorado/fca7AB01B0F3E3EB7C8B">http://www.fourcornersgeotourism.com/content/trail-of-the-ancients-national-scenic-byway-colorado/fca7AB01B0F3E3EB7C8B>.

<sup>&</sup>lt;sup>13</sup>Travel Center." Trail of the Ancients. Colorado Department of Transportation. Web. 6 Oct. 2015. <a href="https://www.codot.gov/travel/scenic-byways/southwest/trail-ancients">https://www.codot.gov/travel/scenic-byways/southwest/trail-ancients</a>.



#### Southern Ute Indian Tribe

Cortez Cultural Center, Four Corners Monument, Crow Canyon Archaeological Center, and Galloping Goose Railcar and Museum.

#### 2.1.10 Prior Planning Efforts

The following planning efforts have contributed to improved safety on SUIT lands:

Colorado State Highway Safety Plan: Moving Towards Zero Deaths (SHSP): Colorado's SHSP represents a shared vision to significantly reduce serious injuries and fatalities on the state's transportation network. The emphasis areas, strategies and action steps outlined in the plan are the product of a data-driven, collaborative



effort by numerous traffic safety professionals and stakeholders statewide.

Ignacio Area Corridor Access Plan (IACAP): This plan represents a collaboration between the SUIT, CDOT, the Town of Ignacio, and La Plata County. Because of aggressive current and future development including the Sky Ute Casino and Museum and Cultural Center, it was vital to consider how such development would influence traffic in the Ignacio area. The IACAP creates a blueprint for how the major corridors in the area will serve traffic for the Tribal Membership, local residents, workers, and visitors. IACAP identifies a series of recommended improvements and a phased implementation approach. Several alternatives were proposed in the plan that would improve safety in the Ignacio corridor.

**Colorado Statewide Transportation Plan (SWP):** Colorado's Statewide Transportation Plan (SWP) identifies future needs for its transportation system and provides strategic direction to achieve these goals. SWP outlines four goals for its multi-modal transportation system – Safety, Mobility, Economic Vitality, and Maintaining the System. It also discusses ways to balance maintaining the system and capacity improvements, new travel choices, and increasing efficiency. The Statewide Transportation Plan combines perspectives from regional stakeholders, multi-modal transportation interests, and the public.

Southern Ute Indian Tribe Transportation Safety Plan (TTSP): As part of their transportation planning efforts, the Southern Ute Indian Tribe prepared a Tribal Transportation Safety Plan (TTSP) in fall of 2015. The Southern Ute Indian Tribe Transportation Safety Plan was developed to identify unsafe conditions associated with the Tribe's transportation infrastructure, and develop a clear plan for protecting the life and safety of community members, visitors and guests. Once complete, the plan will be used to provide safer travel options and conditions for motorists, bicyclists, and pedestrians traveling on or in the vicinity of tribal lands.

The plan used survey, crash analysis, and stakeholder interview data to identify transportation safety emphasis areas and outlined goals with associated strategies to improve safety conditions within each area. The data collected indicated that motorists driving while intoxicated and vehicular animal collisions were a high priority. Other priority issues identified were distracted driving, speeding and use of seatbelts and child safety seats. Strategies to address vehicular animal collisions indicated the intersection of U.S Highway 160 and State Highway 151 should be considered for dedicated wildlife crossing structures (underpasses) and fencing due to its high volume of deer and elk crossings. To counteract problems such



#### Southern Ute Indian Tribe

as intoxicated driving, speeding and distracted driving, a new tribal code has been developed and is under Council review to make all traffic violations civil and therefore subject to enforcement in Tribal Court.

**SUIT Long Range Transportation Plan (LRTP), March 2006:** The Southern Ute Indian Tribe conducted an LRTP Update in 2006, which revealed that the Reservation's administrative campus, located just north of Ignacio, Colorado, was on the verge of significant redevelopment. The development of this current document provides an update to the Tribe's 2006 LRTP simultaneously with the development of the tribal safety planning effort. The changes in development and resulting projects have been addressed in this planning effort.

Best Management Practices for Wildlife and Roads in La Plata County: This document was prepared by Felsburg Holt & Ullevig for La Plata County and serves as a guide to assist with planning, design, and implementation of appropriate transportation related wildlife best management practices for projects in La Plata County. This document will serve as an important resource when the SUIT moves forward with its efforts to reduce vehicle animal crashes.

## 2.2 Transportation System

The transportation network on the Southern Ute Reservation includes nearly 900 miles of roadway. Main travel routes on the reservation have paved surfaces, but the total also includes many miles of gravel and dirt roadways. This section provides an overview of SUIT's transportation network and provides updated road inventory information. The inventory data was submitted to the national Road Inventory Field Data System (RIFDS).

## 2.2.1 Roadway System

Public roads within and surrounding the Reservation were constructed and maintained by the Bureau of Indian Affairs, SUIT, the State of Colorado, or La Plata, Archuleta or Montezuma County. The table below provides a snapshot view of SUIT's inventory characteristics.

Table 7: Road Invent	ory Overview –	- Proposed 2015	Inventory
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Jurisdiction	Road Mileage by Surface Type						
	Proposed	Earth	Gravel	Bituminous < 2"	Bituminous > 2"	Concrete	Total Miles
BIA Roads		142.1	46.4		21	0.2	209.7
County	10.6	45.9	289	1	65.6		412.1
State					129.8		129.8
Tribe			57.7	0.1	3.7	0.1	61.6
TOTAL	10.6	188	393.1	1.1	220.1	0.3	813.2
BIA Roads as % of Total	0%	76%	12%	0%	10%	67%	26%

A base map of the Tribe's overall inventory is provided as a folded poster in a pocket in Appendix A.



#### Southern Ute Indian Tribe

### 2.2.2 Roadway Inventory

SUIT has performed a complete inventory of BIA Roads under its jurisdiction, as well as all other Indian Reservation Roads (i.e. State, Tribal, etc.). The primary objective of the TTP inventory is to collect current, accurate, uniform and verifiable data on all TTP roads for the purpose of updating the Regional Office road inventory database, documenting valuable information for roadway planning and management activities. The inventory is also used to update the Nationwide RIFDS database used by the BIA-Division of Transportation (BIADOT) to compute Regional Office and Tribal allocations of TTP program funds (Highway Trust Funds) using the applicable formula.

The TTP inventory provides information regarding the physical characteristics and condition of each road. The inventory typically includes the following major categories:

- Identification (including length, class, location, etc.)
- Traffic (existing and future)
- Roadway section (grades, curves and sight distances)
- Alignment condition
- Roadway conditions (surface, drainage, railroad crossings)
- Inventory status (including date of update)

For inventory purposes, the minimum criterion for an "improved road" is a graded road with drainage improvements (e.g. side ditches and culverts at cross-drainages).

## 2.2.3 Roadway Classifications

Roads are classified based on the functions they perform with regard to the movement of traffic and access to property. Within the TTP system there are two types of road classifications: State Highway Classifications and BIA/Tribal Road Classifications. Both the state and the Tribal/BIA systems use functional classification as the basis for classifying their roads.

## Generalized Functional Classification Definitions

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

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



#### Southern Ute Indian Tribe

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

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

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

#### State Highway Classification

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

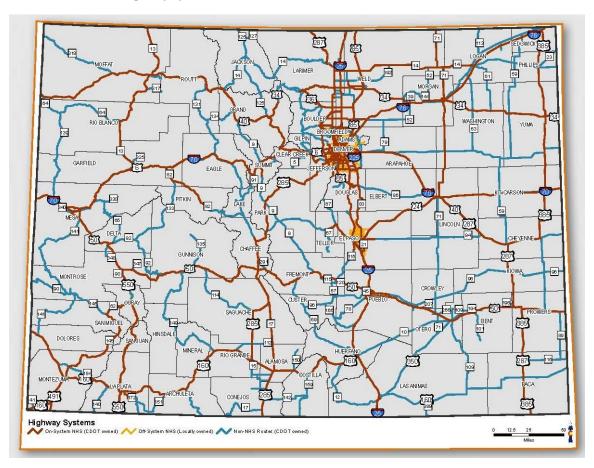
The state highway system includes all of the highways that CDOT owns, operates, and maintains. A subset of the state highway system includes a portion of the NHS routes. All NHS facilities are routes designated as important to the nation's economy, defense, and mobility. NHS facilities can be either on-system (CDOT



#### Southern Ute Indian Tribe

owned, operated, and maintained), or off-system (locally owned and maintained by cities and counties). The off-system NHS routes are not part of the state highway system.<sup>14</sup>

Figure 4: CDOT Statewide Highway System



Source: CDOT Website: coloradotransportationmatters.com

#### **BIA Road Classifications**

The BIA currently uses a functional classification system that is unique from the one used by FHWA (however, the two systems will be reconciled within the next two years). The BIA road system has several classes of routes. Functional classification is intended to reflect current and future traffic generators, and their relationship to connecting or adjacent BIA, state, county, federal, and/or local roads and other intermodal facilities. BIA functional classifications are used to delineate the difference between the various road and/or intermodal transportation facility standards eligible for funding under the TTP program. As

WHPacific May 2016 27

<sup>&</sup>lt;sup>14</sup> Colorado DOT Statewide Transportation Plan Executive Summary. Colorado Department of Transportation. <a href="http://coloradotransportationmatters.com/wp-content/uploads/2015/07/CDOT-SWP-Executive-Summary-2015-07-01.pdf">http://coloradotransportationmatters.com/wp-content/uploads/2015/07/CDOT-SWP-Executive-Summary-2015-07-01.pdf</a>.



#### Southern Ute Indian Tribe

part of the TTP system management, all transportation facilities included in or added to the TTP inventory must be classified according to the following functional classification system:

<u>Class 1.</u> Major arterial roads provide an integrated network with characteristics for serving traffic between large population centers, generally without stub connections and have average daily traffic volumes of 10,000 vehicles per day or more with more than two lanes of traffic. There are no Class 1 roads included in SUIT's 2015 inventory.

<u>Class 2</u>. Rural minor arterial roads provide an integrated network having the characteristics for serving traffic between large population centers, generally without stub connections. They 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. Class 2 roads generally provide for at least inter-county or inter-state service and are spaced at intervals consistent with the population density. This class of road generally accommodates less than 10,000 vehicles per day. The following SUIT roads are designated as Class 2 in the 2015 Inventory Update:

- Route 0140 New Mexico State Hwy 170, Colorado State Highway 140
- Route 0151 Colorado State Highway 151
- Route 0160 U.S. Highway 160

<u>Class 3.</u> Class 3 roads are defined as streets located within communities, serving residential areas.

The following SUIT roads are designated as Class 3 in the 2015 Inventory Update:

- Route 0173 Shoshone Avenue
- Route 0175 Archuleta County Road 175
- Route 0182 Arrow Street
- Route 0183 Burning Cedar Avenue
- Route 0184 Fry Bread Avenue
- Route 0185 Shadow Spirit Street
- Route 0186 Elk Street
- Route 0187 Sage Brush Avenue
- Route 0188 Mountain Dew Street
- Route 0189 Mountain Dew Circle
- Route 0191 Blue Moon Court
- Route 0192 Gray Stroke Court
- Route 0193 Red Dawn Court
- Route 0301 Weeminuche Drive
- Route 0302 Capote Drive
- Route 0303 Memorial Drive
- Route 0305 Mouache Drive
- Route 0306 Piwood Circle
- Route 0307 Tamuche Drive
- Route 0308 Buckskin Charlie Drive



#### Southern Ute Indian Tribe

- Route 0310 Mountain View Road
- Route 0311 Northridge Drive
- Route 0312 Sunset Meadows Drive
- Route 0313 Sunset Circle
- Route 0315 Ignacio Peak Drive, Jefferson Drive, Chief Shavano Drive
- Route 0317 Howe Street

<u>Class 4.</u> Class 4 roads are rural major collectors that are collectors to rural local roads. The following SUIT roads are designated as Class 4 in the 2015 Inventory Update:

- Route 0101 La Plata County Road 321
- Route 0105 La Plata County Road 105
- Route 0107 Bridge M501
- Route 0111 BIA Route 0111
- Route 0122 La Plata County Road 122
- Route 0128 La Plata County Road 128
- Route 0134 La Plata County Road 134
- Route 0136 La Plata County Road 136
- Route 0152 BIA Route 0152
- Route 0153 BIA Route 0153
- Route 0154 BIA Route 0154
- Route 0155 BIA Route 0155
- Route 0156 BIA Route 0156
- Route 0169 BIA Route 0169/Trujillo Rd., BIA Route 0169/Juanita Rd.
- Route 0213 La Plata County Road 213
- Route 0214 La Plata County Road 214
- Route 0221 La Plata County Road 221
- Route 0222 Skyline Drive
- Route 0311 La Plata County Road 311
- Route 0314 BIA Route 314
- Route 0316 La Plata County Road 316
- Route 0317 La Plata County Road 317
- Route 0318 La Plata County Road 318
- Route 0334 La Plata County Road 334
- Route 0500 Archuleta County Road 500
- Route 0513 La Plata County Road 513
- Route 0516 La Plata County Road 516
- Route 0517 La Plata County Road 516
- Route 0521 Buck Hwy. / LC 521 (sometimes known as "Buckskin Charlie Highway")
- Route 0522 La Plata County Road 522
- Route 0526 La Plata County Road 526
- Route 0542 Archuleta County Road 542



#### Southern Ute Indian Tribe

- Route 0550 U.S. Highway 550
- Route 0700 AC 700 / Cat Creek Rd.
- Route 0973 Archuleta County Road 973
- Route 0975 Archuleta County Road 975
- Route 0977 Archuleta County Road 977
- Route 0988 Archuleta County Road 988
- Route 6101 La Plata County Road 101
- Route 6102 La Plata County Road 102
- Route 6110 La Plata County Road 110
- Route 6116 La Plata County Road 116
- Route 6120 La Plata County Road 120
- Route 6130 La Plata County Road 130
- Route 6131 La Plata County Road 131
- Route 6141 La Plata County Road 141
- Route 6301 La Plata County Road 301
- Route 6302 La Plata County Road 302
- Route 6307 La Plata County Road 307
- Route 6309 La Plata County Road 309
- Route 6319 La Plata County Road 319
- Route 6320 La Plata County Road 320
- Route 6328 La Plata County Road 328
- Route 6329 La Plata County Road 329
- Route 6331 La Plata County Road 331
- Route 6332 La Plata County Road 332
- Route 6509 La Plata County Road 509
- Route 6510 La Plata County Road 510
- Route 8001 Tribal Route 8001
- Route 8002 Tribal Route 8002
- Route 8003 Tribal Route 8003
- Route 8004 Tribal Route 8004
- Route 8005 Tribal Route 8005
- Route 8006 Tribal Route 8006
- Route 8007 Tribal Route 8007
- Route 8008 Tribal Route 8008
- Route 8009 Tribal Route 8009
- Route 8010 Tribal Route 8010
- Route 8011 Ball Field Access Road

<u>Class 5.</u> Class 5 includes rural local roads that are either a section line and/or stub type road or provide connections within the grid of the TTP system. This class of road may serve areas around villages, farming areas, schools, tourist attractions or various small enterprises. Also included are roads and motorized trails



#### Southern Ute Indian Tribe

for administration of forests, grazing, mining, oil, recreation or other use purposes. The following SUIT roads are designated as Class 5 in the 2015 Inventory Update:

- Route 8012 La Boca Ranch Road
- Route 0100 La Plata County Road 100
- Route 0106 End of Trail, La Plata County Road 106
- Route 0107 La Plata County Road 107
- Route 0108 La Plata County Road 108
- Route 0109 La Plata County Road 109
- Route 0111 La Plata County Road 111
- Route 0112 BIA Route 0112
- Route 0113 BIA Route 0113
- Route 0114 BIA Route 0114
- Route 0118 La Plata County Road 118
- Route 0132 La Plata County Road 132
- Route 0135 La Plata County Road 135
- Route 0139 BIA Route 0139
- Route 0140 BIA Route 0140
- Route 0150 BIA Route 0150
- Route 0151 BIA Route 0151
- Route 0159 BIA Route 0159
- Route 0160 BIA Route 0160
- Route 0161 BIA Route 0161
- Route 0162 BIA Route 0162
- Route 0163 BIA Route 0163
- Route 0165 BIA Route 0165
- Route 0166 BIA Route 0166
- Route 0167 BIA Route 0167
- Route 0168 BIA Route 0168
- Route 0172 BIA 0172/Sky Ute Events, New Mexico State Highway 511, Colorado State Highway 172
- Route 0193 Fosset Gulch Road/LC193
- Route 0217 La Plata County Road 217
- Route 0218 La Plata County Road 218
- Route 0219 La Plata County Road 219
- Route 0305 La Plata County Road 305
- Route 0306 La Plata County Road 306
- Route 0308 La Plata County Road 308
- Route 0312 La Plata County Road 312
- Route 0313 La Plata County Road 313
- Route 0314 La Plata County Road 314
- Route 0315 La Plata County Road 315



- Route 0323 La Plata County Road 323
- Route 0325 La Plata County Road 325
- Route 0335 La Plata County Road 335
- Route 0337 La Plata County Road 337
- Route 0338 La Plata County Road 338
- Route 0515 La Plata County Road 515
- Route 0518 La Plata County Road 518
- Route 0519 La Plata County Road 519
- Route 0520 La Plata County Road 520
- Route 0524 La Plata County Road 524
- Route 0525 La Plata County Road 525
- Route 0557 Archuleta County Road 557
- Route 0917 Archuleta County Road 917
- Route 0982 Archuleta County Road 982
- Route 6103 La Plata County Road 103
- Route 6104 La Plata County Road 104
- Route 6113 La Plata County Road 113
- Route 6114 La Plata County Road 114
- Route 6115 La Plata County Road 115
- Route 6117 La Plata County Road 117
- Route 6119 La Plata County Road 119
- Route 6121 La Plata County Road 121
- Route 6123 La Plata County Road 123
- Route 6126 La Plata County Road 126
- Route 6127 La Plata County Road 127
- Route 6129 La Plata County Road 129
- Route 6133 La Plata County Road 133
- Route 6138 La Plata County Road 138
- Route 6215 La Plata County Road 215
- Route 6216 La Plata County Road 216
- Route 6220 La Plata County Road 220
- Route 6300 La Plata County Road 300
- Route 6303 La Plata County Road 303
- Route 6304 La Plata County Road 304
- Route 6310 La Plata County Road 310
- Route 6324 La Plata County Road 324
- Route 6326 La Plata County Road 326
- Route 6327 La Plata County Road 327
- Route 6330 La Plata County Road 330
- Route 6333 La Plata County Road 333
- Route 6336 La Plata County Road 336



#### Southern Ute Indian Tribe

- Route 6511 La Plata County Road 511
- Route 6512 La Plata County Road 512
- Route 6514 La Plata County Road 514
- Route 8014 Mike Frost Way

<u>Class 6.</u> Class 6 includes city minor arterial streets that are located within communities and serve as access to major arterials. No SUIT roads are designated as Class 6 in the 2015 Inventory Update.

<u>Class 7</u>. Class 7 includes city collector streets located within communities that serve as collectors to the city local streets. The following SUIT roads are designated as Class 7 in the 2015 Inventory Update:

- Route 8013 Sky Ute Casino Road
- Route 0180 Rolling Thunder Avenue
- Route 0181 Lodge Pole Way
- Route 0300 Ouray Drive
- Route 0304 Severo Avenue
- Route 0309 Ute Road

<u>Class 8.</u> This class encompasses all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, trail bikes, snowmobiles, all-terrain vehicles, or other uses to provide general access for non-vehicular traffic. No SUIT roads are designated as Class 8 in the 2015 Inventory Update.

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

- Route 9001 Hotel Parking
- Route 9002 Casino Parking
- Route 9003 Rolling Thunder Parking
- Route 9004 Overflow Parking
- Route 9005 Rangers/Animal Control Pk.
- Route 9006 Police Station Parking
- Route 9007 Justice Center Parking
- Route 9008 Museum Parking
- Route 9009 Day Care/School Parking
- Route 9010 L.C. Burch Admin. Parking
- Route 9011 Recreation Center Parking
- Route 9012 Health Center Parking
- Route 9013 Annex Parking
- Route 9014 Unknown Facility Parking
- Route 9015 Dental/Optometry Parking
- Route 9016 Mouache Capote Parking
- Route 9017 Auxiliary Parking 1



#### Southern Ute Indian Tribe

- Route 9018 Auxiliary Parking 2
- Route 9019 Auxiliary Parking 3
- Route 9020 Ballfield Parking
- Route 9021 Multi-Purpose Fac. Parking
- Route 9022 BIA Administration Parking 1 and 2
- Route 9023 Bear Dance Parking
- Route 9024 Park Parking 1 and 2
- Route 025 Growth Fund Parking
- Route 026 Red Willow Parking
- Route 9027 RV Parking
- Route 9028 Employee Parking
- Route 9029 Sky Ute Events Ctr. Parking

<u>Class 10.</u> This classification encompasses airstrips that are within the boundaries of the TTP system grid and are open to the public. These airstrips are included for inventory and maintenance purposes only. No SUIT roads are designated as Class 10 in the 2015 Inventory Update.

<u>Class 11.</u> This classification indicates an overlapping or previously inventoried section or sections of a route and is used to indicate that it is not to be used for accumulating needs data. This class is used for reporting and identification purposes only. No SUIT roads are designated as Class 11 in the 2015 Inventory Update.

In accordance with Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations, (codified at 25 Code of Federal Regulations (CFR) Part 170), the transportation plan must identify the classification for each road on the TTP inventory. The "Inventory Comparison Listing" in Appendix B illustrates the BIA road classifications for every route on the SUIT Inventory.

#### 2.2.4 Right-of-Way Status

Right-of-way (ROW) refers to real property and rights therein used for the construction, operation, or maintenance of a transportation or related facility. Construction cannot begin unless the ROW is certified. The following table provides examples of potential agency or governmental roles and responsibilities when establishing a project agreement for Tribal projects:



#### Southern Ute Indian Tribe

Table 8: ROW - Roles and Responsibilities

Land	Roles and Responsibilities
Trust Land	<b>Tribe:</b> Drafts Project Agreement, provides review copies for cooperating agencies, and executes the Project Agreement with cooperating agencies. <b>BIA Regional Office:</b> Processes right-of-way: reviews right-of-way applications and certifications; approves right-of-way documents; processes grants and acquisitions of rights-of-way requests for allocated lands; responds to information requests; files Affidavit of Completion Forms; performs custodial functions related to storing rights-of-way documents; ROW appraisal and negotiation; provides Title Status Reports (TSRs), Grants of Easement, and files ROW documents; reviews and approval. <b>FHWA:</b> Ensures ROW process is complete.
Restricted Fee Land	<b>Tribe:</b> Drafts Project Agreement, provides review copies for cooperating agencies, and executes the Project Agreement with cooperating agencies. <b>BIA Regional Office:</b> Processes right-of-way: reviews right-of-way applications and certifications; approves right-of-way documents; processes grants and acquisitions of rights-of-way requests for allocated lands; responds to information requests; files Affidavit of Completion Forms; performs custodial functions related to storing rights-of-way documents; ROW appraisal and negotiation; provides Title Status Reports (TSRs), Grants of Easement, and files ROW documents; reviews and approval. <b>FHWA:</b> Ensures ROW process is complete.
Fee Land	<b>Tribe:</b> Drafts Project Agreement, provides review copies for cooperating agencies, and executes the Project Agreement with cooperating agencies. <b>FHWA:</b> Ensures ROW process is complete.
State Owned	State DOT: Obtains necessary ROW and ensures utility relocation (both at State's expense).  Tribe: Drafts Project Agreement, provides review copies for cooperating agencies, and executes the Project Agreement with cooperating agencies.  FHWA: Ensures ROW process is complete.
County or Local Agency Owned Roads	<b>Tribe:</b> Drafts Project Agreement, provides review copies for cooperating agencies, and executes the Project Agreement with cooperating agencies. <b>County/Local Agency:</b> Obtains necessary ROW and ensures utility relocation (both at County's expense). <b>FHWA:</b> Ensures ROW process is complete.

 $Source: FHWA\ Tribal\ Transportation\ Program\ Delivery\ Guide,\ A\ Manual\ for\ FHWA\ Program\ Agreement\ Tribes\ 2011.$ 

#### 2.2.5 Traffic Control

Traffic control devices include all signs, signals, markings, and devices placed on or adjacent to, a street or highway by a public body having authority to regulate, warn or guide traffic. Most intersections on the SUIT Reservation have stop signs. Several intersections on the Reservation are signalized, and several intersection signalization projects identified in the Ignacio Area Corridor Access Plan (IACAP) are underway.



#### Southern Ute Indian Tribe

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

### 2.2.6 Bridges

The SUIT road inventory includes nine bridges, as detailed below:

Bridge No: Unavailable

Road: La Boca Ranch Road

Route / Section: Route 8012, Section 820

Bridge Length: 190 ft.

Bridge Condition: Replacement



Figure 5: Bridge Number Unavailable / Route 8012-820 on La Boca Ranch Road

Bridge No: M516

Road: La Plata County Road 322

Route / Section: Route 0101, Sec 050

Bridge Length: 88 ft.

Bridge Condition: Excellent



Figure 6: Bridge Number M516 / Route 0101-050 on La Plata County Road 322



### Southern Ute Indian Tribe

Bridge No: M501

Road: Bear Dance Drive

Route / Section: Route 0107, Sec 010

Bridge Length: 124 ft.

Bridge Condition: Excellent

Bridge No: Unavailable

Road: Colorado State Highway 151

Route / Section: Route 0151, Sec 815

Bridge Length: 288 ft.

Bridge Condition: Excellent

Bridge No: M502

Road: BIA Route 0159

Route / Section: Route 0159, Sec 020

Bridge Length: 30 ft.

Bridge Condition: Excellent



Figure 7: Bridge Number M501 / Route 0107-010 on Bear Dance Drive



Figure 8: Bridge Number Unavailable / Route 0151-815 on Colorado State Highway 151



Figure 9: Bridge Number M502 / Route 0159-020 on BIA Route 0159



### Southern Ute Indian Tribe

Bridge No: 503M

Road: BIA Route 0163

Route / Section: Route 0163, Sec 020

Bridge Length: 85 ft.

Bridge Condition: Excellent

Bridge No: M506

Road: BIA Route 0169/Trujillo Rd.

Route / Section: Route 0169, Sec 020

Bridge Length: 59 ft.

Bridge Condition: Excellent



Figure 12: Bridge Number 503M / Route 0163- 020 on BIA Route 0163



Figure 12: Bridge Number M506 / Route 0169-020 on BIA Route 0169/Trujillo Rd.

Bridge No: M507

Road: BIA Route 0169/Trujillo Rd.

Route / Section: Route 0169, Sec 040

Bridge Length: 53 ft.

Bridge Condition: Excellent



Figure 12: Bridge Number M507 / Route 0169-040 on BIA Route 0169/Trujillo Rd.



#### Southern Ute Indian Tribe

Bridge No: M508

Road: BIA Route 0169/Juanita Rd.

Route / Section: Route 0169, Sec 060

Bridge Length: 122 ft.

Bridge Condition: Excellent



Figure 13: Bridge Number M508 / Route 0169-060 BIA Route 0169/Juanita Rd.

TTP Bridge Inventory:<sup>15</sup> The TTP bridge inventory involves the gathering, maintaining, and distribution of all information as required for the national bridge inventory database. This includes information such as route number, bridge location and type, length, width, surface type, bridge sufficiency ratings and bridge number. This database is an important tool in identifying existing bridges with the most significant repair and/or replacement needs.

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

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

MAP-21 requires inspection of all public bridges, including tribal bridges; data must be reported for inclusion in FHWA's National Bridge Inspection System (NBIS). To be eligible for rehabilitation or replacement, a bridge must be structurally deficient and/or functional obsolete, with a sufficiency rating of 80 or less for rehabilitation, or 50 or less for replacement. The only bridge currently meeting the criteria for rehabilitation or replacement is the bridge on La Boca Ranch Road, Route 8012, Section 820.

<sup>&</sup>lt;sup>15</sup> Transportation Planning Activity Guidelines. U.S. Department of Transportation Federal Highway Administration Indian Reservation Roads Program. https://www.planning.dot.gov/focus tribal.asp.



#### Southern Ute Indian Tribe

#### 2.2.7 Mail Service

There are four U.S. Post Offices within or near the Reservation.

- 1001 Williams St, Ignacio, CO 81137-9990
- 222 W 8th St, Durango, CO 81301-9998
- 145 W Park St, Bayfield, CO 81122-9997
- 10864 US-160 Hesperus, CO 81326

All mail to the reservation is distributed through the above post office facilities. Courier service delivery (e.g. FedEx and UPS) is available to Tribal addresses.

#### 2.2.8 School Bus Routes

Students on the reservation attend schools in the Ignacio, Bayfield and Durango School Districts.

The Ignacio School District consists of Ignacio Elementary, Ignacio Middle School, and Ignacio High School, serving students of all ages from kindergarten through grade twelve. The District provides busing for each of its schools. In total, there are seven regular bus routes and two routes for students with special needs although there is currently only one special needs route in effect. Bus routes are not established on BIA or Tribal roads, including roads along housing subdivisions. The District only establishes bus routes on state or county roads to guarantee that the roads used for commuting are regularly maintained by county or state agencies.

Some students also attend schools in the Bayfield School District, including Bayfield Primary School, Bayfield Elementary School, Bayfield Middle School, and Bayfield High School, as well as the Southern Ute Head Start Program and Southern Ute Indian Montessori Academy (SUIMA).

#### 2.2.9 Public Transportation

Reservation-area Transit<sup>16</sup>

Area public transit is provided by Road Runner Transit, a division of the Southern Ute Community Action Programs, Inc. (SUCAP). Road Runner Transit connects La Plata County with medical services, jobs, education, and shopping in Durango from Ignacio and Bayfield [and] from Ignacio to Aztec, NM. Road Runner Transit's initial purpose was to increase mobility among seniors, and persons without cars or licenses. As gas prices have increased in recent years, ridership has increased as many commuters have found that they can save money by riding the Road Runner.

The service was started in 1999 with major support from the Southern Ute Indian Tribe, and a federal grant managed by CDOT. Road Runner Transportation is funded by the Southern Ute Indian Tribe, Towns of Ignacio & Bayfield, City of Durango, La Plata County, Archuleta County, Greyhound Lines, Inc., CDOT and the Federal Transit Agency (FTA).

WHPacific May 2016 40

<sup>&</sup>lt;sup>16</sup> Road Runner. Southern Ute Community Action Programs Inc. 9 Dec. 2014. Web. 28 Aug. 2015. <a href="http://sucap.org/road-runner/">http://sucap.org/road-runner/</a>.

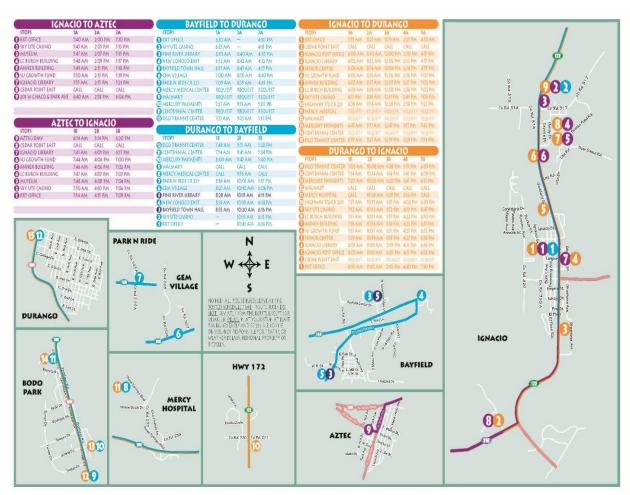


#### Southern Ute Indian Tribe

Road Runner Transit is compliant with the Americans with Disabilities Act and the Civil Rights Act of 1964. Road Runner Transit will travel up to one mile off the main route to provide service to persons with disabilities.

Road Runner Transit routes are shown in Figure 14. Additional schedules and other information may be found on the Road Runner website at: http://sucap.org/road-runner/.<sup>17</sup>

Figure 14: Road Runner Transit Route Schedule and Maps



Source: Transit Information. Southern Ute Community Action Programs Inc. 9 Jan. 2015. Web. 14 Oct. 2015. <a href="http://sucap.org/road-runner/transit-information/">http://sucap.org/road-runner/transit-information/</a>.

Road Runner Transportation also operates Road Runner Stage Lines which offers daily service from Durango to Grand Junction and can offer connections nationwide via Greyhound Lines, Inc. Road Runner Stage Lines operates 7 days a week, 365 days a year between Durango and Grand Junction with stops in Mancos, Cortez, Dolores, Rico, Telluride, Placerville, Ridgway, Montrose, and Delta.

<sup>&</sup>lt;sup>17</sup> "Road Runner." Southern Ute Community Action Programs Inc. 9 Dec. 2014. Web. 5 Nov. 2015.



# Southern Ute Indian Tribe

Figure 15: Road Runner Stage Lines Route Schedule and Map

# **Durango to Grand Junction**

Location	Arrives	Departs
Durango		7:00am
Mancos		7:30am
Cortez	7:47am	8:02am
Dolores		8:15am
Rico		8:57am
Telluride	9:39am	10:09am
Placerville		10:18am
Ridgway		10:45am
Montrose	11:17am	11:32am
Delta		11:58am
Grand Junction	12:43pm	



# Grand Junction to Durango

Location	Arrives	Departs
Grand Junction		1:45pm
Delta		2:30pm
Montrose	2:56pm	3:11pm
Ridgway		3:43pm
Placerville		4:26pm
Telluride	4:35pm	5:05pm
Rico		5:47pm
Dolores		6:29pm
Cortez	6:42pm	6:57pm
Mancos		7:14pm
Durango	7:44pm	



#### Southern Ute Indian Tribe

Archuleta County Transit

Archuleta County operates Mountain Express Public Transit. Mountain Express serves residents in the City of Pagosa Springs. Fixed bus routes are limited within City and Archuleta County limits, transporting riders within and between Pagosa Springs uptown and downtown areas all the way to Aspen Springs and Turkey Springs. Ridership consists of approximately 7,000 customers, most of whom are senior riders in and around Pagosa Springs. Most paratransit riders are also seniors that take transit to the senior center. Paratransit services are available for persons unable to reach a bus stop or with medical issues that keep them from using the fixed route system. Paratransit riders can make a reservation by phone at least one day in advance.

Operation hours are limited due to budget and staffing needs. The bus system operates from 7:00 a.m. to 4:00 p.m., Monday through Friday. Weekend service is currently unavailable. Mountain Express Public Transit's office and parking lot facilities are located in the Stevens Field County Airport. Mountain Express owns three buses which are in need of replacement soon. Transit operators, however, have applied for the Caring for Colorado State Grant which would enable them to purchase three new vehicles while keeping one bus as back up. There are currently three full-time bus drivers on hand and two on-call bus drivers. The grant award would also allow operators to hire more substitute drivers.

Mountain Express Public Transit officials noted they are in the process of planning service expansion and would like to connect Archuleta County's Mountain Express Public Transit system with SUIT's reservation-area transit. Doing so requires funding and collaboration between Archuleta County, the Southern Ute Indian Tribe, SUCAP, and CDOT. Mountain Express officials have initiated discussions in the past with the Tribe's Planning Department about linking services but follow up is needed to discuss expectations and logistics. Such a connection would be advantageous for both Pagosa Springs residents and the Tribe. The Tribe would benefit by bringing more people into the Casino and increasing revenue while Pagosa Springs residents would have increased access to jobs and entertainment in Ignacio. Bus schedules may be found on the Archuleta County website at: http://www.archuletacounty.org.

#### 2.2.10 Vehicle Accident Data and Traffic Hazards

Motor vehicle travel is the primary means of transportation in the United States, providing an unprecedented degree of mobility. Yet for all its advantages, deaths and injuries resulting from motor vehicle crashes are one of the leading causes of death for people of every age. Fortunately, traffic fatalities have declined in recent years. Nationally, traffic fatalities decreased by 25 percent from 2005 to 2010. Moreover, fatality rates per 100 million vehicle miles traveled (VMT) has decreased from 1.46 in 2005 to a projected rate of 1.08 in 2014. Indeed, traffic fatalities have reached their lowest level since 1950. The decline in fatalities may be attributed to multiple factors, including 1) technological and manufacturing advances producing safer vehicles better equipped to endure crashes; 2) safer roadways and intersections;

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<sup>&</sup>lt;sup>18</sup> Traffic Safety Facts (Crash Stats). U.S. Department of Transportation, National Highway Traffic Safety Administration. April 2011. < http://www-nrd.nhtsa.dot.gov/Pubs/811754AR.pdf>.

<sup>&</sup>lt;sup>19</sup>Traffic Safety Facts (Crash Stats). U.S. Department of Transportation, National Highway Traffic Safety Administration. April 2011. < http://www-nrd.nhtsa.dot.gov/Pubs/811754AR.pdf>.

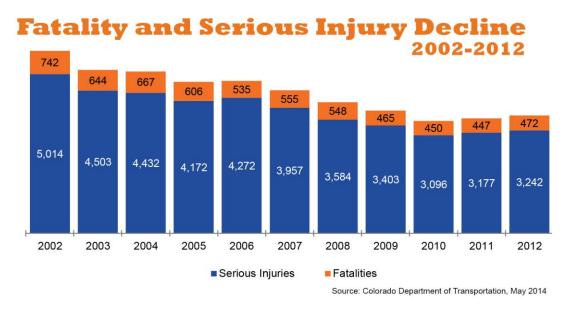


#### Southern Ute Indian Tribe

3) driver behavioral changes based on safety campaigns (e.g. seatbelts, not drinking while intoxicated); and 4) improved enforcement of traffic laws through red light and speed cameras.<sup>20</sup>

Colorado has made tremendous progress in reducing the deaths and preventable injuries caused by traffic crashes. In the recent 10 year period (2002 to 2012), traffic-related fatalities in Colorado dropped 36 percent and serious injuries declined 35 percent.<sup>21</sup>

Figure 16: Colorado Fatality and Serious Injury Rates



A 2012 study by the National Academies' Transportation Research Board (TRB) showed Colorado far above the country in fatal crash reduction and effective use of state and federal roadway safety dollars. Between 2000 and 2008 Colorado reduced crash fatalities by 24%, far exceeding every other state in the nation. In recent years the number of fatalities has remained leveled or slightly increased. <sup>22</sup>

The average crash rate from 2010-2011 was estimated to be 1.57 crashes per million VMT in Colorado's Southwest Transportation Planning Region which encompasses the Southern Ute Reservation. This rate is lower than the statewide average of 1.70 crashes per million VMT for the same time period. The two most

<sup>&</sup>lt;sup>20</sup> Decline in Traffic Fatalities a Good Sign, But We Will Not Relent on Safety. Fast Lane: The Official Blog of the U.S. Department of Transportation. September 9, 2010.

<sup>&</sup>lt;sup>21</sup> Strategic Highway Safety Plan. Colorado Department of Transportation. 2015. Web. 15 Oct. 2015.http://coloradotransportationmatters.com/wp-content/uploads/2013/04/Colorado-Strategic-Highway-Safety-Plan-2015-05.pdf.

<sup>&</sup>lt;sup>22</sup> CDOT Launches Moving Towards Zero Deaths. Colorado Department of Transportation. Web. 16 Oct. 2015. < https://www.codot.gov/safety/cdot-launches-moving-towards-zero-deaths>.



#### Southern Ute Indian Tribe

prominent crash types in the Southwest TPR for 2010–2011 were vehicular animal collisions and rear-end accidents.<sup>23</sup>

Accident data received from the Colorado Department of Transportation and the SUPD reveals that the majority of accidents on Southern Ute lands are associated with two main thoroughfares, State Highway 172 and State Highway 151. The greatest single causative factor in crashes on the reservation is vehicular animal collisions, making up just under 37 percent of crashes. Over the period from October 2013 through June 2015, Tribal police responded to 116 vehicular animal collisions, 105 of which involved deer. Intoxication constitutes the next highest single factor in crashes, at nearly nine percent of total crashes. Traffic citations may denote distracted driving, failure to stop, signal, yield, etc., and careless driving in general. Speeding makes up nearly 30 percent of citations, and is considered by the Southern Ute Police Department to be their biggest driver behavior concern. Alcohol and drug citations make up a similarly high percentage of citations issued, although speed is the most frequent cause of citation. Detailed safety issue and vehicle collision data for the Reservation is included in the Southern Ute Transportation Safety Plan.

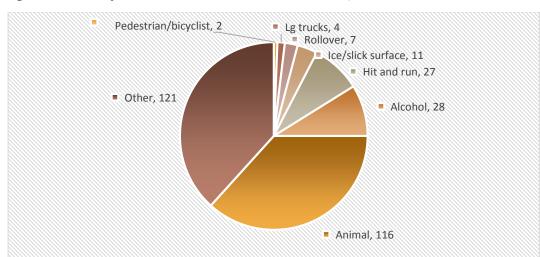


Figure 17: Causes of Accidents on the Southern Ute Reservation, FY14- June FY15

WHPacific May 2016 45

<sup>&</sup>lt;sup>23</sup> Regional Transportation Plans - CDOT Statewide Plan. CDOT Statewide Plan. 1 Feb. 2015. Web. 15 Oct. 2015. <a href="http://coloradotransportationmatters.com/regional-transportation-plans/">http://coloradotransportationmatters.com/regional-transportation-plans/</a>



#### Southern Ute Indian Tribe

### 2.2.11 Law Enforcement<sup>24</sup>

The Southern Ute Indian Tribe operates its own Tribal Police Department. Law enforcement officers patrol Reservation lands, and work cooperatively with work regularly with other agencies including Colorado

State Patrol, La Plata and Archuleta Counties Sheriff's Departments, Ignacio Police Department and the Federal Bureau of Investigations.

Southern Ute Police Department (SUPD) officers have cross-jurisdictional responsibilities that allow them to serve Tribal members, non-members and non-Indians that live and work within the boundaries of the Southern Ute Reservation. Officers receive cross-deputization that enable them to work efficiently with the many jurisdictions within the Reservation. SUIT also operates a Tribal Court.



Southern Ute Law Enforcement Officers Source: sudrum.com

#### 2.2.12 Fire Protection Services<sup>25</sup>

The Los Pinos Fire Protection District provides fire suppression and emergency medical services to a 325 square mile area of Southwest Colorado. The Fire District encompasses portions of La Plata and Archuleta Counties, and includes the communities of Oxford, Tiffany, Allison, Arboles, and the Town of Ignacio. A substantial portion of the District consists of Southern Ute Tribal Lands, Bureau of Land Management property, territory belonging to the U.S. Forest Service, Division of Wildlife areas, and land owned by the State of Colorado. The district is made up of five stations and a fleet maintenance and training facility.



Los Pinos Fire Station, Ignacio

WHPacific May 2016 46

<sup>&</sup>lt;sup>24</sup> Southern Ute Police Department. Southern Ute Indian Tribe. Web. 1 Sept. 2015.<a href="https://www.southernute-nsn.gov/supd/">https://www.southernute-nsn.gov/supd/</a>.

<sup>&</sup>lt;sup>25</sup> The Los Pinos Fire Protection District - About Us. Los Pinos Fire Protection District. Web. 14 Oct. 2015. <a href="http://lospinosfire.com/about.html">http://lospinosfire.com/about.html</a>.



#### Southern Ute Indian Tribe

In addition to Fire Suppression and Emergency Medical Services, the Fire District also provides Technical Rescue, Wildland Fire Suppression, as well as an Operations Level Hazardous Materials Response. The district maintains a strong working relationship with the Bureau of Indian Affairs Southern Ute Agency's Fire Management Branch and participates in providing mutual aid assistance to all of the neighboring fire agencies.

### 2.3 EXISTING TRAFFIC VOLUME

Traffic volume counts are the most common measure of roadway use, and are a required component of most traffic engineering analyses. The traffic volume study estimates the Annual Average Daily Traffic volumes (AADT) and peak-hour traffic of any routes affecting traffic within the Reservation and public roads within the TTP system. This data is used to update the road inventory files, determine capacity deficiencies, and identify potential roadway improvement projects.

#### 2.3.1 Short Duration Counts

The short count program is designed to provide roadway segment-specific traffic count information on a cyclical basis. Average daily traffic (ADT) is defined as the sum of all traffic, in terms of vehicles per day (VPD), passing a specific point during a given time period (in whole days), greater than one day and less than one year, divided by the number of days in that time period. Except for permanent count stations maintained by various highway agencies, the ADT for most locations is estimated based on counts taken over a relatively short period of time.

#### 2.3.2 Methodology

In June and September of 2015, mechanical 48-hour traffic counts were conducted at 86 locations on the SUIT Reservation using pneumatic tube counters. Traffic volumes derived from these traffic counts were used to compute current and projected (20 year) ADTs that reflect seasonal adjustment factors from CDOT. Once the current ADTs were generated, projected (20 year) ADTs were computed. A growth rate of two percent per year was established for inventory purposes.

The results of the mechanical 48-hour traffic counts, including vehicle classification percentages, are summarized in the following table. The locations of the traffic counts are noted on the base map included in Appendix A.



Field Technicians laying Pneumatic Tube Counters



Table 9: Traffic Counts Summary Table

Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
001	BIA 0181-010	North of La Plata County Rd. 318	5/29/2015	641	0.89	570	846	6.0%
	Lodge Pole Way		Friday					
002	BIA 0185-010	West of Lodge Pole Way (BIA 181)	5/29/2015	114	0.89	101	150	5.3%
	Shadow Spirit Street		Friday					
003	BIA 0183-010	East of Lodge Pole Way (BIA 181)	5/29/2015	315	0.89	280	416	5.1%
	Burning Cedar Avenue		Friday					
004	BIA 0182-010	East of Fry Bread Ave. (BIA 184)	5/29/2015	48	0.89	43	63	0.0%
	Arrow Street		Friday					
005	BIA 0184-010	East of Lodge Pole Way (BIA 181)	5/29/2015	240	0.89	213	317	2.9%
	Fry Bread Avenue		Friday					
006	BIA 0180-010	North of La Plata County Rd. 318	5/29/2015	461	0.89	410	609	6.0%
	Rolling Thunder Avenue		Friday					
007	BIA 0188-010	West of Rolling Thunder Ave. (180)	6/2/2015	243	1.02	247	367	7.8%
	Mountain Dew Street		Tuesday					
800	BIA 0189-010	North of Mountain Dew St. (BIA 188)	6/2/2015	53	1.02	54	80	1.9%
	Mountain Dew Circle		Tuesday					
009	BIA 0186-010	East of Rolling Thunder Ave. (0180)	6/2/2015	240	1.02	244	363	6.6%
	Elk Street		Tuesday					
010	BIA 0187-010	North of Elk Street (BIA 186)	6/2/2015	106	1.02	108	160	6.6%
	Sage Brush Avenue		Tuesday					



Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
011	BIA 0315-020	East of State Highway 172	6/1/2015	273	1.02	278	412	11.7%
	Ignacio Peak Drive		Monday					
012	BIA 0315-030	East of Ignacio Peak Dr. (0315- 020)	6/1/2015	92	1.02	94	139	5.4%
	Jefferson Drive		Monday					
013	BIA 0315-010	East of State Highway 172	6/2/2015	72	1.02	73	109	15.3%
	Ignacio Peak Drive		Tuesday					
014	BIA 0317-010	West of County Road 517	6/2/2015	146	1.02	149	221	13.0%
	Howe Street		Tuesday					
015	Tribal Route 8013-030	West of County Road 517	6/2/2015	692	1.02	704	1,046	9.4%
	Sky Ute Casino Parkway		Tuesday					
016	BIA Route 0307- 010	West of County Road 517	6/2/2015	120	1.02	122	181	5.0%
	Tamuche Drive		Tuesday					
017	BIA Route 0306- 010	West of County Road 517	6/2/2015	90	1.02	92	136	4.4%
	Piwood Circle		Tuesday					
018	BIA Route 0309- 010	East of County Road 517	6/1/2015	635	1.02	646	959	14.0%
	Ute Road		Monday					
019	BIA Route 0309- 010	East of State Highway 172	6/2/2015	890	1.02	906	1,345	22.0%
	Ute Road		Tuesday					
020	BIA Route 0308- 010	West of Ute Road (BIA 309)	6/2/2015	21	1.02	21	32	4.8%
	Buckskin Charlie Drive		Tuesday					
	<b>5.4.5</b>		6 14 19 5 : -	0-0		0=4	4.005	4 = 6-7
021	BIA Route 0107- 010	East of Ute Road (BIA 309)	6/1/2015	856	1.02	871	1,293	15.6%
	Bear Dance Drive		Monday					



Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
022	BIA Route 0313- 010	South of County Road 314	6/2/2015	151	1.02	154	228	0.7%
	Sunset Circle		Tuesday					
023	BIA Route 0311- 010	South of County Road 314	6/1/2015	345	1.02	351	521	10.1%
	Northridge Drive		Monday					
024	BIA Route 0312- 010	East of County Road 316	6/1/2015	59	1.02	60	89	3.4%
	Sunset Meadows Drive		Monday					
025	BIA Route 0310- 010	East of County Road 316	6/2/2015	131	1.02	133	198	11.4%
	Mountain View Road		Tuesday					
026	County Route 0316-010	North of County Road 314	6/1/2015	592	1.02	602	894	19.4%
	County Road 316		Monday					
027	BIA Route 0315- 040	North of Ignacio Peak Drive	6/5/2015	82	0.90	74	109	6.1%
	Chief Shavano Drive		Friday					
028	BIA Route 0193- 010	South of Mountain Dew Street	6/4/2015	30	0.96	29	43	6.6%
	Red Dawn Court		Thursday					
029	BIA Route 0192- 010	South of Mountain Dew Street	6/4/2015	55	0.96	53	79	7.3%
	Gray Stroke Court		Thursday					
030	BIA Route 0191- 010	South of Mountain Dew Street	6/4/2015	19	0.96	18	27	5.3%
	Blue Moon Court		Thursday					
031	BIA Route 0173- 010	South of State Highway 151	6/4/2015	792	0.96	763	1,134	13.2%
	Shoshone Avenue		Thursday					



Site	Route Number	Location	Count Date	Volume	Conversion	Current ADT**	Projected	%Heavy
#	DIA D. 1 0470	6 1 60 1	Day of Week	Counted	Factors*		ADT***	Trucks^
032	BIA Route 0172- 010	South of State Highway 151	6/4/2015	157	0.96	151	225	13.3%
	Sky Ute Events	LIGHWAY 131	Thursday					
	Center Road		Tituisuay					
033	State Route	East of State	6/4/2015	3939	0.96	3,797	5,639	32.2%
	0151-810	Highway 172	0, 1,2013	3333	0.50	3,737	3,033	32.270
	Colorado State	0 - 7	Thursday					
	Highway 151		ŕ					
034	State Route	West of Valley	6/4/2015	3244	0.96	3,127	4,644	36.5%
	0151-820	Drive						
	Colorado State		Thursday					
	Highway 151							
035	State Route	West of LC334	6/4/2015	2747	0.96	2,648	3,932	36.5%
	0151-830							
	Colorado State		Thursday					
026	Highway 151	Foot of Ctoto	C / E / 201 E	1550	0.00	1 202	2.000	11 00/
036	Tribal Route 8013-020	East of State Highway 172	6/5/2015	1550	0.90	1,393	2,069	11.0%
	Sky Ute Casino	nigiiway 1/2	Friday					
	Road		Triday					
037	Tribal Route	East of State	6/5/2015	1646	0.90	1,480	2,197	8.9%
	8013-010	Highway 172				,	,	
	Sky Ute Casino		Friday					
	Road							
038	BIA Route 0300-	North of County	6/5/2015	540	0.90	485	721	9.5%
	030	Road 517						
	Ouray Drive		Friday					
039	Tribal Route	East of Ouray	6/5/2015	122	0.90	110	163	5.7%
	8014-810	Drive	Fui day.					
040	Mike Frost Way BIA Route 0314-	West of State	Friday 6/4/2015	1302	0.96	1,255	1,864	13.4%
040	010	Highway 172	0/4/2015	1302	0.96	1,233	1,004	15.4%
	La Plata County	ingilway 1/2	Thursday					
	Road 314							
041	Count Route	East of County	6/4/2015	1299	0.96	1,252	1,860	20.0%
	0314-820	Road 316				·		
	La Plata County		Thursday					
	Road 314							
042	Count Route	West of Sunset	6/4/2015	633	0.96	610	906	26.1%
	0314-810	Circle (SU313)						
	La Plata County		Thursday					
	Road 314							



Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
043	Count Route 0315-810	South of State Highway 172	6/4/2015	137	0.96	132	196	44.4%
	La Plata County Road 315		Thursday					
044	Count Route 0316-820	South of State Highway 172	6/4/2015	116	0.96	112	166	8.5%
	La Plata County Road 316		Thursday					
045	Count Route 0317-810	West of State Highway 172	6/4/2015	162	0.96	156	232	8.6%
	La Plata County Road 317		Thursday					
046	Count Route 0516-810	East of State Highway 172	6/4/2015	532	0.96	513	762	15.0%
	La Plata County Road 516		Thursday					
047	BIA Route 0173- 005	East of State Highway 172	6/9/2015	198	1.02	202	299	17.2%
	Shoshone Avenue		Tuesday					
048	BIA Route 0101- 010	South of State Highway 151	6/9/2015	526	1.02	535	795	21.5%
	BIA 0101/County 321		Tuesday					
049	BIA Route 0101- 020	South of County Road 321	6/9/2015	192	1.02	195	290	24.5%
	BIA 0101/County 322		Tuesday					
050	BIA Route 0101- 060	East of State Highway 172	6/9/2015	98	1.02	100	148	29.5%
	BIA 0101/County 322		Tuesday					
051	BIA Route 0101- 020	East of State Highway 172	6/9/2015	94	1.02	96	142	32.0%
	BIA 0101/County 322		Tuesday					



Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
052	County Route 0521-810	North of State Highway 151	6/8/2015	1433	1.02	1,457	2,164	27.4%
	Buck Hwy. / County Rd. 521		Monday					
053	County Route 0517-810	East of State Highway 172	6/8/2015	3120	1.02	3,173	4,712	13.6%
	La Plata County Road 517		Monday					
054	County Route 0516-810	East of County Road 517	6/9/2015	2072	1.02	2,109	3,132	16.4%
	La Plata County Road 516		Tuesday					
055	State Route 0172-810	South of County Road 317	6/9/2015	4743	1.02	4,828	7,170	19.2%
	Colorado State Highway 172		Tuesday					
056	County Route 0318-820	West of State Highway 172	6/8/2015	3462	1.02	3,521	5,228	33.0%
	La Plata County Road 318		Monday					
057	BIA Route 0150- 010	West of BIA 0151	6/9/2015	40	1.02	41	60	30.0%
	BIA Route 0150		Tuesday					
058	BIA Route 0151- 010	East of BIA 0150	6/9/2015	103	1.02	105	156	56.3%
	BIA Route 0151		Tuesday					
059	BIA Route 0151- 020	North of County Road 318	6/9/2015	209	1.02	213	316	56.5%
	BIA Route 0151		Tuesday					
Site #	Route Number	Location	Date of Count Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	% Heavy Trucks^
060	County Route 0318-810	East of U.S. Highway 550	6/8/2015	2810	1.02	2,858	4,244	36.3%
	La Plata County Road 318		Monday					
061	State Route 0550-810	South of north reservation boundary	6/9/2015	7869	1.02	8,011	11,896	8.4%
	U.S. Highway 550		Tuesday					



Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
062	County Route	South of River	6/8/2015	3059	1.02	3,111	4,620	25.4%
	0213-810	Road						
	La Plata County		Monday					
063	Road 213 BIA Route 0111-	West of La Plata	6/9/201E	232	1.02	236	350	25.5%
003	020	County Road 213	6/8/2015	232	1.02	230	330	25.5%
	BIA Route 111	County Road 213	Monday					
064	BIA Route 0114-	West of La Plata	6/9/2015	47	1.02	48	71	40.5%
	010	County Road 136	0,0,00				. –	
	BIA Route 114		Tuesday					
065	BIA Route 0112-	North of BIA	6/8/2015	40	1.02	41	60	55.0%
	010	Route 111						
	BIA Route 112		Monday					
066	BIA Route 0111-	West of La Plata	6/9/2015	125	1.02	127	189	60.8%
	010	County Road 136						
	BIA Route 111		Tuesday	4.0	4.00	10		0= 40/
067	BIA Route 8001-	East of BIA Route	6/16/2015	19	1.02	19	29	37.4%
	010 BIA Route 8001	151	Tuesday					
068	BIA Route 8001	South of La Plata	Tuesday 6/17/2015	236	1.00	236	350	58.1%
008	010	County Road 318	0/1//2015	230	1.00	230	330	36.1%
	BIA Route 8002	County Road 518	Wednesday					
069	BIA Route 8004-	South of BIA	6/16/2015	32	1.02	33	48	69.8%
	010	Route 8002	0, 20, 2020					
	BIA Route 8004		Tuesday					
070	BIA Route 8005-	South of BIA	6/16/2015	22	1.02	22	33	77.2%
	010	Route 8002						
	BIA Route 8005		Tuesday					
071	BIA Route 8006-	West of BIA Route	6/17/2015	73	1.00	73	108	41.0%
	010	111						
	BIA Route 8006		Wednesday			••		
072	BIA Route 8007-	North of BIA	6/16/2015	42	1.02	43	63	54.8%
	010 BIA Route 8007	Route 8006	Tuesday					
073	BIA Route 8010-	South of BIA	6/17/2015	76	1.00	76	113	34.2%
0/3	020	Route 111	0/17/2013	70	1.00	70	113	34.270
	BIA Route 8010	Noute 111	Wednesday					
074	BIA Route 8009-	South of BIA	6/16/2015	34	1.02	35	51	65.7%
	010	Route 111	,					
	BIA Route 8009		Tuesday					
075	BIA Route 0113-	South of BIA	6/16/2015	22	1.02	22	33	59.1%
	010	Route 114						
	BIA Route 113		Tuesday					



Site #	Route Number	Location	Count Date Day of Week	Volume Counted	Conversion Factors*	Current ADT**	Projected ADT***	%Heavy Trucks^
076	BIA Route 0169- 010	East of State Highway 151	6/17/2015	194	1.00	194	288	43.8%
	BIA 169/AC 500/Trujillo Rd.		Wednesday					
077	BIA Route 0169- 030	West of BIA 156	6/17/2015	181	1.00	181	269	33.2%
	BIA 169/AC 500/Trujillo Rd.		Wednesday					
078	BIA Route 0169- 050	West of AC 700 / Cat Creek Road	6/17/2015	46	1.00	46	68	30.4%
	BIA 169/AC 500/Trujillo Rd.		Wednesday					
079	BIA Route 0169- 070	South of Trujillo Road	6/17/2015	31	1.00	31	46	32.3%
	Juanita Road / BIA 169		Wednesday					
080	BIA Route 0301- 010	West of Capote Drive	9/30/2015	570	0.99	561	834	5.9%
	Weeminuche Drive		Wednesday					
081	BIA Route 0303- 010	East of Capote Drive	9/30/2015	231	0.99	228	338	8.1%
	Memorial Drive		Wednesday					
082	BIA Route 0300- 020	South of County Road 517	9/30/2015	815	0.99	803	1,192	6.3%
	Ouray Drive		Wednesday					
083	BIA Route 0302- 020	West of Ouray Drive	9/30/2015	230	0.99	227	336	1.5%
	Capote Drive		Wednesday					
084	BIA Route 0302- 010	South of Memorial Drive	9/30/2015	222	0.99	219	325	9.0%
	Capote Drive		Wednesday					
085	BIA Route 0300- 010	East of State Highway 172	9/30/2015	278	0.99	274	407	4.4%
	Ouray Drive		Wednesday					
086	BIA Route 0302- 005	East of State Highway 172	9/30/2015	65	0.99	64	95	1.5%
	Capote Drive		Wednesday					

<sup>\*</sup> CDOT conversion factors used to mitigate seasonal, daily or other generally predictable fluctuations in traffic.

<sup>\*\*</sup>Current ADT: Current Average Daily Traffic (Volume Counted with applied Conversion Factors)

<sup>\*\*\*</sup>Projected ADT: Current ADT Projected twenty years.

<sup>^</sup>Heavy Vehicles, i.e., trucks (vehicles having more than 4 wheels) and buses.

<sup>^^</sup>Information from the office of the Colorado Department of Transportation



#### Southern Ute Indian Tribe

#### 2.4 TRAIL AND PATH SYSTEM

Off-street facilities, better known as shared-use paths or trails, should serve areas that are not adjacent to streets or highways. The most favorable locations for these facilities are often found along parkways, streams, and park and recreation areas. An off-street path is preferred if it provides better connections, is more scenic, is a more efficient transportation route than an on-street facility, and does not pose a hazard at intersections. These paths should be wide enough to accommodate use. The following are guidelines for developing a trail and path system for the Southern Ute Reservation.

#### Community wellness and recreation

The system shall provide Southern Ute Tribal members and residents with safe, diverse, well-marked, and attractive options for traveling between and among community destinations and for enjoying outdoor fitness and recreation.

#### Transportation system expansion, enhancement and diversification

The system shall complement the existing network of roads and bridges with safe, accessible, intermodal options for movement within and across Reservation lands.

#### Tourism-focused economic development

The system shall increase revenues and employment opportunities by expanding the number and diversity of recreational and interpretive opportunities – both guided and unguided – for visitors to the Southern Ute Reservation.

#### Reservation-focused trail identification, documentation and protection

The system shall service the most useful portions of trails networks along Reservation lands.

#### 2.4.1 Pedestrian and Bicycle Facilities

Careful planning involving a wide variety of stakeholders should precede any future construction of cycling or mixed use paths. When planning for cycling and pedestrian facilities, users can be grouped into at least three groups, with appropriate facilities provided for each:

#### Group A - Skilled Cyclists

Skilled cyclists are experienced riders who usually prefer riding on roads, which often feel safer and more efficient than off-street paths. They are interested in using off-street paths only if the paths allow for separation between bicyclists and pedestrians, are designed to allow for higher speeds, and offer a more direct route than the nearest alternative on-street route.

### Group B - Less Skilled, Youthful or Family Cyclists

Group B cyclists are uncomfortable in traffic. They may be cycling either for recreation or transportation, traveling at slower speeds, taking shorter trips, and may not be able to handle steeper grades. They may also require frequent rest stops.

Most parents discourage younger, less experienced cyclists from cycling on roads. When properly designed, bike paths can provide more appropriate routes for this group. Paths that are designed to bypass highways



#### Southern Ute Indian Tribe

and busy streets and provide direct connections between parks, open space, schools, recreation centers, shopping and other youth-oriented destinations are especially useful.

Family cyclists often have young children in trailers, in bike seats, or following on small bikes. Residential streets, bike lanes or sidewalks often provide linkages to off-street bike paths. When these linkages are not feasible, these cyclists often drive to trail head parking to access a path.

#### Group C - Pedestrians

Walkers, joggers, skateboarders, in-line skaters and roller skaters are the "slower speed" users of sidewalks and paths. They generally can, and often do, change their speed and direction suddenly, leaving bicyclists insufficient time to react to avoid collisions.

#### 2.4.2 Trails for the Southern Ute Reservation

Trails can be developed in every region, connected to a variety of natural resources and made accessible for a wide diversity of users. Trail plans include legal and administrative requirements, resource identification and public input. It is the recommendation of this transportation plan that SUIT develop a trails plan which will address the expanded vision of SUIT lands and set priorities for trail development.

The Reservation includes the following recreational trails:

- La Plata County Road 517 between State Highway 172 and Howe Road is currently undergoing improvements including the addition of a marked bicycle lane adjacent to traffic lanes and a sidewalk.
- A dirt walking trail connects the Southern Ute Multipurpose Facility and the Southern Ute Center.

The SUIT transportation priority survey revealed that there is public interest in expanding trail access on the Reservation to promote the health, safety and mobility of Tribal pedestrians and cyclists. One suggestion included constructing a pedestrian bridge between the Multipurpose Facility and the Bear Dance Grounds to alleviate pedestrian activity in the roadway during the Bear Dance celebration. Others suggested adding mixed use paths or additional shoulder width between Ignacio and Bayfield and between residential areas and Ignacio to facilitate walking or bicycling as transportation.

The Southern Ute Tribal Council may wish to consider developing and implementing a plan to promote walking and biking on the Reservation.

#### 2.4.3 Typical Primary Multi-Purpose Off-Street Trail Cross Section

The following is a description of the two community types trails. All trails should be designed and constructed to current Americans with Disabilities Act (ADA) standards.

Primary Multi-Purpose, Off-Street Trails: Paved multi-purpose, off-street trails form the major trail spines. They accommodate a variety of trail users, including walkers, joggers, recreational bikers and occasional commuter bikers within the same trail corridor. The preferable location of these trails should be along drainage ways or other linear features, connecting parks, open space areas, recreational facilities and major destination nodes. Environmentally sensitive areas should be avoided. Primary trails that must be located adjacent to roadways should incorporate a 50-foot easement where feasible and appropriate. A



#### Southern Ute Indian Tribe

three-foot wide, soft surface shoulder on one side of the trail should be provided for joggers and walkers who prefer a softer surface. The following figure illustrates the cross-section of a primary multi-purpose, off-street trail and includes trail widths, trail shoulders and clearance requirements.

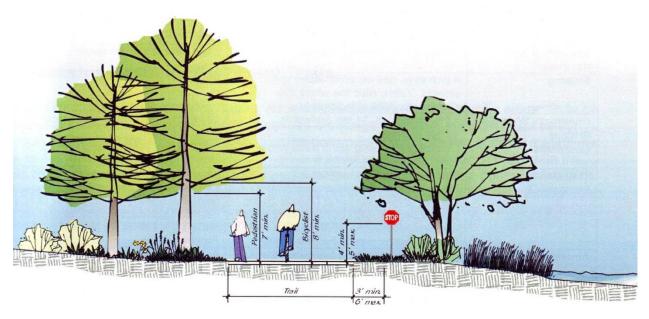


Figure 18: Path Diagram

Secondary Multi-Purpose, Off-Street Trails: Secondary trail links should be provided through development areas to the primary trail system, as well as to parks and open space areas that are not on the primary system. These paved multi-purpose, off-street trails are integral to the circulation and open space system of the development. Like primary trails, the secondary trails should be located in an open space corridor and accommodate a variety of trail users, including walkers, joggers and bicyclists. Secondary trails that must be located adjacent to roadways should incorporate a 30-foot easement where feasible and appropriate.

#### 2.5 AIRPORTS

The Colorado Airport System includes a total of 74 public-use airports, of which 14 are categorized as commercial service airports and 60 categorized as non-commercial service general aviation airports. Almost all 74 airports are accessed via the State Highway System, making those highways priority corridors for purposes of aviation.<sup>26</sup> The Southern Ute Tribal Campus is just under 14 miles by road, or approximately 20 minutes, away from Durango-La Plata County Airport.

<sup>&</sup>lt;sup>26</sup> CDOT Statewide Transportation Plan. Colorado Department of Transportation. Web. 27 Oct. 2015. <a href="http://coloradotransportationmatters.com/statewide-transportation-plan/">http://coloradotransportationmatters.com/statewide-transportation-plan/</a>.

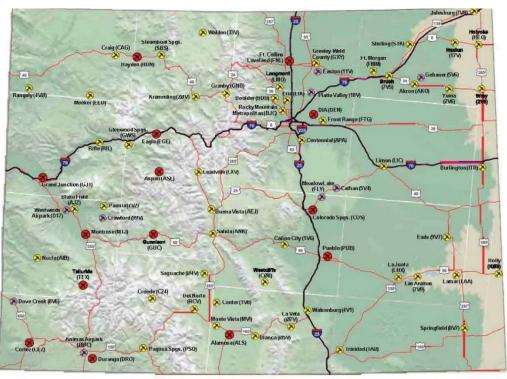


#### Southern Ute Indian Tribe

Durango-La Plata County Airport is co-owned by the City of Durango and La Plata County. The airport is overseen by the Durango-La Plata County Airport Commission. Daily service is provided from American Airlines, United Express, and US Airways, receiving about 125,000 visitors annually. Durango-La Plata County Airport has one of the longest runways in the Four Corners at 9,200 feet long and 150 feet wide. It has a 36,500-square-foot terminal, three airlines, five rental car agencies, a deli, and a gift shop. Durango-La Plata County Airport is professionally staffed with professional aircraft firefighters (ARFF). It receives approximately 50 inches of snow annually. The airport uses large plows, a broom sweeper, and two large rotary snow blowers to keep the runway clear during winter. A map of Colorado's airport system is provided in Figure 19.

Figure 19: Colorado Public Use Airports





Commercial Service Airport

Publicly-Owned & Operated Airport

Privately-Owned Airport Open to the Public

### 2.6 LAND USE ELEMENT

Through the use of Tribal goals and objectives, the intent of the land use element is for the Tribe to establish policies applicable to the community concerning natural resource protection, environmental

<sup>&</sup>lt;sup>27</sup> City of Durango- Airport. City of Durango Colorado. Web. 27 Oct. 2015. <a href="http://www.durangogov.org/index.aspx?nid=202.">http://www.durangogov.org/index.aspx?nid=202.</a>.



#### Southern Ute Indian Tribe

constraints, recreation, open space and the land needs derived from the population, housing, economic development and transportation objectives.

Some basic principles govern the development of a future land-use plan. They are as follows:

- Existing uses One of the main factors that motivate people to engage in community planning is the desire to protect what they perceive as valuable. It is the presumption that future use of land already in active use will be the same as the present use.
- Use compatibility Land-use planning evolved simultaneously with its implementation tool, zoning, which is based on the principle of separating land uses into compatible districts. Today, the most basic principles of compatibility separate industrial uses from residential ones, for the protection of each of those categories of use, and generally also separate residential uses from intense commercial uses.
- Land demand A starting point in land-use planning is often land-demand projection, typically
  focusing on developed land needs. This document projects future population and then determines
  how much land will be necessary to house that population. Governmental, industrial and
  commercial needs are based on the Tribe's goals and objectives and economic development
  opportunities.
- Environmental opportunities and constraints Environmental analysis helps to determine which areas are most appropriate for future development and which areas should be protected.
- Transportation influences Transportation significantly influences land-use patterns. An example of this is the compatibility of particular land uses with types of roads.
- Agricultural Reservation If protecting agricultural land is a priority then agricultural land becomes a major principle of land-use planning.

#### 2.6.1 Land Use Designations

**Residential Designation** – This designation identifies areas primarily made up of and planned for housing units. This designation encompasses the majority of single-family housing units currently located on the Reservation. While the basic character is single-family dwellings, a mixture of duplexes and apartment complexes may also occur within this designation.

Many communities today plan for housing to help ensure that there will be housing opportunities for all people. Housing must fit into some sort of land-use plan. Those living in housing will depend on a transportation system to provide access to work, shopping and services.

**Mixed Use Designation** – The specific purposes of a mixed-use designation is to encourage residential uses in conjunction with commercial activities and to create more flexibility.

**Cemetery Designation** – This designation is for an area set apart for containing graves, a burial ground or graveyard and for traditional burial ceremonies.

**Conservation and Open Space Designation** – This designation identifies an area that is not developed and is expected to remain in a natural state. This designation is for the protection of natural resources as well as preservation of wildlife habitat.



#### Southern Ute Indian Tribe

**Public and Governmental Designation** – The specific purposes of public and governmental land use is to provide an area for schools, cultural facilities, public safety facilities, government offices, public buildings in parks, recreation areas, medical offices, and other public uses which are beneficial to the community.

**Commercial Designation** – The commercial designation will provide appropriately located areas consistent with the economic development plans of the Tribe. This area will provide opportunities to strengthen the Tribe's economic base, and provide employment opportunities close to home for residents.

**Park and Recreation Designation** – This designation provides for the orderly and attractive grouping of recreational-oriented service establishments. This designation also includes public buildings in parks and recreation areas.

**Agricultural Designation** – Land allocated to farming and non-farming uses; routine and on-going agricultural activities.

Other designations may apply to the reservation, such as forest, grazing and/or restricted areas. This should be addressed as part of a comprehensive plan.



# Southern Ute Indian Tribe

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Southern Ute Indian Tribe

## 3 THE TRANSPORTATION PLAN

The Transportation Plan chapter builds on the data gathered in development of the previous section and looks forward toward meeting the needs of the Southern Ute Reservation over the next 20 years. To accomplish this, planners engaged in public involvement, considered the Tribe's future infrastructure development, travel demand, and trip generators (the reasons people drive along reservation roads). From these, they developed recommendations for future transportation projects.

### 3.1 Public Involvement

In accordance with Federal Register/Vol. 69, No. 137/Monday, July 19, 2004/Rules and Regulations, (codified at 25 Code of Federal Regulations (CFR) Part 170), §170.413, BIA or the Tribe must solicit public involvement. Public involvement occurs throughout the transportation planning process. Public involvement activities for this plan included: one stakeholder/kick-off meeting; community survey; one public meeting; and one presentation to Tribal Council. Public involvement documentation is included in Appendix C.

#### 3.1.1 Tribal Goals

#### Mission

The Southern Ute Indian Tribe transportation plan seeks to provide a framework for transportation systems that move people, goods and services safely; provide opportunity for economic development; protect the Reservation's cultural traditions and environment; and preserve natural resources, quality of life, and the health and education of tribal members.

#### Goals

The Southern Ute transportation goals include the following key components:

- To provide roads that promote the safe transport of Southern Ute members and the public
- To protect and manage the Tribe's natural and cultural resources
- Develop transportation systems that support tribal programs and community needs
- To obtain adequate funding to support transportation planning, design, construction, operations and maintenance
- To develop a plan to improve all roads that are within the Reservation's lands to safely transport people, goods and services for all its tribal members and others, and to support the Tribe's economy

#### 3.1.2 Community Needs and Priorities

Tribal planners distributed a transportation needs survey in April and May of 2015 to assess community members' perspectives on transportation needs and priorities for the Reservation. More than 100 completed surveys were received. Respondents included Tribal members, Tribal residents, Tribal employees, and state and regional agency representatives.



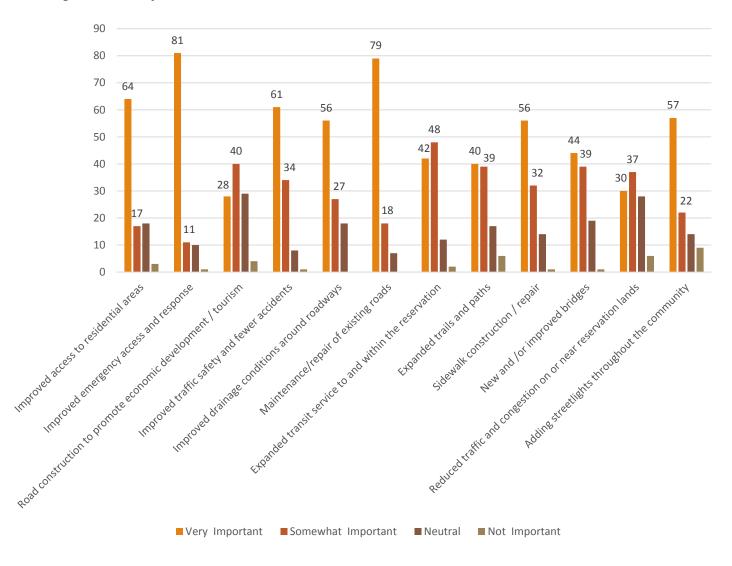
### Southern Ute Indian Tribe

The responses were tallied and the concerns ranked based on the number of responses indicating that a particular issue is "very important" or "somewhat important." The top five priorities identified (in order) by community members include:

- Maintenance and repair of existing roads
- Improved traffic safety and fewer accidents
- Improved emergency access and response
- Expanded transit service to and within the reservation
- Sidewalk construction or repair
- Improved drainage conditions around roadways

This information is shown graphically in Figure 20.

Figure 20: Issues of Concern





#### Southern Ute Indian Tribe

#### Comments received included the following concerns:

- Improve ADA access throughout the Reservation
- Expand CR 517 to two-lanes each way
- Dangerous curve on CR 321
- Improve road conditions
  - o Repair potholes on the road to the cemetery
  - o Potholes on CR 314, 315, and 316
  - Maintain residential and business area roads
  - o Improve maintenance on CR 521 (Buck Highway)
  - Large trucks produce additional wear on roads
  - Snow plowing from Elmore's Corner to Ignacio
  - o Pave CR 524, post speed limits
  - Pave driveways to reduce road dust

#### Drainage

- At bridge on SH 172 near Southern Ute Utilities. Water accumulates in bad weather covering inside lane.
- o Mountain Dew Circle
- Pow Wow Circle along both sides of CR 316
- Add streetlights
  - o At Cedar Point
  - o Shoshone
  - Pow Wow Circle (CR 314, 316): some streetlights present but not functioning.
  - o On SH 151 and SH 172
  - On Tribal lands and roadways
- Reduce congestion at the intersection between the museum and the clinic
- Need signalized intersection
  - At the intersection between Wells Fargo (615 Goddard Ave, Ignacio, CO 81137) and Subway Restaurant
  - SH 172 and CR 318 (suggest flashing light)
  - o SH 151 and CR 521 (Buck Highway)
  - Sky Ute Casino Resort entrance road
- Improve safety at the Sky Ute Casino Resort parking lot (bushes impair visibility)
- Improve transit coverage
- Pedestrian or mixed use facilities (trails, paths or sidewalks)
  - o From Cedar Point to Ignacio
  - o Shoshone
  - Residential areas to community center
  - o More bike paths
  - o Along CR 314 to Sunset Circle
  - CR 316 (or expanded shoulders)
  - Along CR 521, Ignacio to Bayfield (Buck Highway)
  - o Along SH 172 and CR 517



#### Southern Ute Indian Tribe

### 3.2 FUTURE DEVELOPMENT PLANS

SUIT does not currently have a capital improvement plan in place, but considers funding for individual projects as needed. The IACAP outlines planned improvements for transportation along the Ignacio Area Corridor. The Tribe develops an annual Control Schedule for their BIA funding.

#### 3.2.1 Cedar Point Subdivision Road Improvements

One of the issues the Tribe is currently faced with is the limited availability of housing for Tribal Members. To alleviate this problem, the Southern Ute Tribe has decided to proceed with a series of planned housing developments at the Cedar Point Subdivision. Because of the influx of new residences and commercial opportunities in the area, the Tribe will need to address traffic issues that arise from this development.

At the time of this report, Phase 1 of the subdivision expansion has been approved by Tribal Council. This will add several new housing lots, twenty five town-homes, and prepare the area for commercial development near the intersection of Highway 172 and County Road 318. Due to these changes in the near future, some roads in the area will be immediately effected.

The Tribe would like to see Sagebrush Ave (SU 187) extended from where the cul-de-sac currently is constructed up to Lodge Pole Way (SU 181). This will ease the traffic for the proposed housing lots on the eastern side of Sagebrush. The Tribe also anticipates an exit from Highway 172 that will connect to Lodge Pole Way just north of the proposed town-homes.

In addition to these immediate projects, future phasing calls for more road improvements and in many cases entire new roads within the Cedar Point Subdivision. The Tribe anticipates substantial road improvements over the course of this housing development. The creation of these new routes and improvements on existing ones should be added to the TTIP for funding in future fiscal years, with the estimation that nearly two miles of new roads and improvements will be considered adequate for this residential expansion. A map of the Cedar Point Housing Initiative Phasing Plan is included in Appending A.

#### 3.3 PROJECTED TRAVEL DEMAND

Travel demand is a measure of the number of people (or vehicles) that travel to and from all the various possible locations within and outside of a given area. A level of service (LOS) analysis was performed on BIA routes on the reservation to determine current and projected ability of the roads to accommodate travel demand. In addition, a LOS analysis was performed on County Road 517 due to comments received in the survey. Levels of service are characterized by American Association of State Highway and Transportation Officials (AASHTO) as follows:<sup>28</sup>

- LOS A Completely free flow conditions.
- LOS B Free flow of traffic, however the presence of other vehicles is noticeable. There is a slight decrease in maneuverability on the roadway.

WHPacific May 2016 **66** 

<sup>&</sup>lt;sup>28</sup> Highway Capacity Manual 2000. Washington, D.C.: Transportation Research Board, National Research Council, 2000. Print.



### Southern Ute Indian Tribe

- LOS C Denser traffic presents a noticeable influence on operations. Maneuverability is lessened, and travel speeds are reduced in some cases. Minor disruptions can cause serious decreases in service.
- LOS D Maneuverability is severely restricted due to traffic congestion, and travel speed is reduced due to the volume of traffic.
- LOS E Operations are at or near capacity for the roadway, with vehicles operating with minimum spacing for maintaining uniform flow. Disruptions cause queues to form and level of service to deteriorate further.
- LOS F Represents forced or breakdown flow, with operations at capacity and queues formed at breakdown locations. Brief periods of movement are followed by stoppages.

Only County Road 517 demonstrated low levels of service, with a current LOS of C and projected LOS of D. Ouray Drive demonstrated a current LOS of B, which is projected to remain the same. All other BIA routes showed current and projected LOS of A, or completely free flow conditions. The LOS analysis is included as Appendix D.

### 3.4 Trip Generation

The most reliable way to estimate the traffic generated by a proposed development is to reference trip generation rates observed at an existing development of similar land use and building type. For this purpose, the Institute of Transportation Engineers (ITE) *Trip Generation*, 8<sup>th</sup> Edition (2008) manual was consulted.<sup>29</sup>The following table illustrates typical land use categories on American Indian Reservations.

Table 10: Trip Generation Rates, Typical Reservation Land Use Categories

Land Use	ADT Rate
Residential	10 trips/day/dwelling
Community Center	22.88 trips/day/1000 sq. ft.
Light Industrial	6.97 trips/day/1000 sq. ft
Commercial (Shopping Center)	42.92 trips/day/1000 sq. ft.
Commercial (Convenience Market)	737.99 trips/day/1000 sq. ft.
Commercial (Fast Food Rest.)	496.12 trips/day/1000 sq. ft.
Health Clinic	31.45 trips/day/1000sq. ft.
Campground/RV Park	74 trips/day/acre
Community Park	12.14 trips/day/acre
Elementary School	12.03 trips/day/1000 sq. ft.
High School	13.27 trips/day/1000 sq. ft.
Bingo*	64 trips/day/1000 sq. ft.
Casino*	521 trips/day/1000 sq. ft.
Poker Room*	64 trips/day/1000 sq. ft.

<sup>\*</sup>No trip rates are available from ITE for similar full service casinos that are often seen on Indian Reservations. Trip estimates were based on Casino of the Sun Traffic Impact Analysis, March, 2001.

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<sup>&</sup>lt;sup>29</sup> Trip Generation, Eighth Edition - Washington, D.C. Institute of Transportation Engineers. 2008



#### Southern Ute Indian Tribe

Source: Trip Generation, 8th Edition, Institute of Transportation Engineers (ITE), 2008.

The planned Cedar Point housing development will have some impact on travel demand depending on the number of units, but barring a very large development, it is likely that existing routes could accommodate associated traffic. Oil and gas development over time may also have an impact on traffic volume, and may require revisiting how well the network is accommodating demand.

### 3.5 RECOMMENDED TRANSPORTATION PLAN

The recommended transportation plan for the Southern Ute Reservation presented herein consists of an integrated set of roadway improvement and construction projects needed to meet current and projected housing and economic development goals within the Reservation and identifies the governmental agency responsibilities for carrying out the plan. The plan is detailed in Section 3.5 of this document, as follows.

#### 3.5.1 Evaluation Criteria

The following criteria were used in evaluating the various roadway alternatives developed during the course of this study. The criteria are divided into four sections: Traffic Operations, Community Impacts, Economic Impacts, and Construction.

#### Traffic Operations

*Traffic Operations* – This is a measure of traffic operational characteristics. Objective measures include capacity, level of service, delay, and progression efficiency.

*Network Completion* – This measure assesses whether or not the project closes gaps in the transportation network.

*Traffic Safety* – Traffic safety is a measure of expected conflict points and improvement of existing problems.

### **Community Impacts**

*Displacement* – This is a measure of the magnitude of displacement that would be necessary to construct the project.

Aesthetics – This measure assesses whether the project is visually pleasing.

*Environmental Impact* – This is a measure of each project's impact on the environment, including noise, air quality and wetlands.

Community Support – This is a measure of how much opposition or support there may be for the project.

### **Economic Impacts**

Local Access – This criterion measures the level of directness, convenience and availability of access to existing and future development. Emergency access is included in this measure.

Economic Development Opportunities – This criterion assesses the impact of the project on future development opportunities (i.e. does the project change or encourage the potential for access for future development?).



#### Southern Ute Indian Tribe

#### Construction

Ability to Phase – This measure assesses whether or not the project lends itself to being constructed in phases, or if it would have to be constructed as one project.

Constructability – This is a measure of how difficult it would be to construct the projects, looking at the need to relocate utilities, change drainage facilities, or alter a railroad crossing.

Relative Cost — This is a comparison of costs to obtain any necessary right-of-way and to construct improvement for the project.

*Right-of-Way* - This measure assesses the availability of right-of-way for the project and the potential costs associated with right-of-way acquisition.

### 3.5.2 Proposed Projects

The recommended 20-year transportation plan for SUIT consists of an integrated set of roadway improvements and construction projects needed to meet current and projected goals. The proposed projects are listed in the order of priority, as identified by the Tribe, in Section 2.5.6. The prioritization of the projects and any additional projects or deletion of the following projects will be upon the approval of the Tribal Council.

### 3.5.3 State and Regional Transportation Projects

There are numerous state and county projects planned on and near the Reservation. State projects include:

#### **Current Construction:**

FY15 Bridge Preventative Maintenance

Budget: \$2,800,000

Funding: CBR

Awarded: G.A. Western Construction Co.

Includes maintenance of 2 bridges on tribal lands: P-05-R on SH 172 at MM 19.490 over the Florida River and US 160 P-07-B MM 124.963 over Devil Creek. This project is expected to be completed by the end of November 2015.

SH 172/CR 307 Intersection Improvement

Budget: \$626,000 Funding: HSIP

Awarded: Tricon2 LLC

This project includes adding a left-turn deceleration lane from SH 172 onto CR 307 (between MP 21.9 and MP 22.4 west of Oxford, which is halfway between the junction with US 160 on the north and the airport to the south). The project increases safety at this intersection that receives increasingly high volumes of large truck traffic. The project construction is scheduled from September 1 to late November 2015.



#### Southern Ute Indian Tribe

SH 151/CR 521 Intersection Improvements

Budget: \$815,700 Funding: HSIP

Awarded: Tricon2 LLC

This project includes adding a continuous left-turn lane on SH 151, just east of Ignacio, to serve both CR 521 (Buck Highway) to the north and CR 321 to the south; adds shoulders between MP 0.33 and MP 0.73. The project increases safety at this off-set intersection, where an accident history shows a higher incidence of collisions involving left-turning vehicles. The project construction is scheduled from September 8 to late November 2015.

#### 2016 Planned Construction:

SH 172/151 Signalization

Budget: \$1,800,000 (CDOT: \$1,430,000; La Plata County: \$180,000; Southern Ute Tribe: \$180,000, Town of

Ignacio: \$10,000) Funding: RAMP

Ad Date: October 2015

This RAMP project consists of the signalization and intersection improvements in the Town of Ignacio at the intersection of SH 151 and SH 172. This is a partnership with the Town, La Plata County and the Southern Ute Indian Tribe. Improvements include the installation of signal, curb and gutter reconstruction, ADA ramps, converting the west leg of the intersection (Ute St.) to one-way westbound, developing diagonal parking along Ute St., installing luminaires, pedestrian signal poles, re-striping, and possible utility relocates. Construction will begin in the spring of 2016 and should finish in the early May 2016.

#### 2017 Planned Construction:

SH 151 Culvert Replacement, MP 13.36

Project involves removing existing culverts and replacing with a CBC at Stollsteimer Creek.

In addition, La Plata County plans two projects:

- CR 517 from SH 172 to Howe Road improvements, including widening the road, adding a two-way left turn lane, bike lane, and sidewalk. This project is underway at the time of this report, and is a joint endeavor of La Plata County, SUIT, and CDOT, as part of the IACAP process.
- CR 318 mill and overlay a three-mile section of the roadway

At this time, Archuleta County has no planned projects beyond continuing standard maintenance tasks on county roads on the Reservation.

### 3.5.4 Transportation Improvement Plan Overview

A tribal Transportation Improvement Plan (TTIP) is a multi-year, financially constrained, list of proposed transportation projects to be implemented within or providing access to tribal lands during the next three to five years. Developed from the tribal priority list, the TTIP is consistent with the tribal long-range transportation plan and must contain all Tribal Transportation Program (TTP) funded projects. The TTIP may also contain information regarding other federal, state, county, municipal, and tribal transportation projects initiated by or developed in cooperation with the Tribal Government. Only those projects



#### Southern Ute Indian Tribe

approved for funding by the sponsoring governmental entity may be included in the TTIP. It is reviewed and updated as necessary. The only entity that can change the TTIP is the Tribal Government.

Examples of transportation projects include, but are not limited to: new road construction, road reconstruction or resurfacing, road sealing, bridge construction, transit facilities, bike and pedestrian enhancements, highway safety, etc.

The TTIP identifies the implementation year of each project. The development of the TTIP establishes Tribal priorities for TTP and other transportation projects. It is the Tribal Government's voice in selecting the year in which projects are programmed. It is also a useful tool for tracking transportation projects programmed by other government agencies (e.g. Federal Transit Administration (FTA), Federal Highway Administration, Federal Aviation Administration, etc.) to ensure coordination with TTP transportation projects. By developing a TTIP, the Tribal Government is taking a proactive role in the transportation planning process and exercising its sovereignty in controlling the programming of transportation projects on tribal land.

The FHWA and BIA have until September of the current fiscal year to approve the TTIP (BIA will concur). Once the TTIP is processed by the federal agency, the document is forwarded to FHWA-FLH Headquarters Office in Washington DC where it is considered for approval. Once approved by FHWA the TTIP becomes part of the official TTPTIP. The Tribe will then receive a signed copy of the TTPTIP (see Appendix E). If some projects are not eligible, the Tribe will receive a "partial" TTIP approval.

FHWA provides copies of the approved TTPTIP to the FHWA division office for transmittal to the State transportation agency for inclusion in the State Transportation Improvement Program (STIP). Having a project listed on the STIP does not guarantee State funding.

The regional TTPTIP is included in the Statewide Transportation Improvement Program (STIP) developed by each state transportation agency without further action. If a TTP project lies within a metropolitan area, it must be included in the metropolitan area TIP without further action. The timeframe for the annual update of TTIPs should be coordinated with the state transportation agencies within its service area. This will ensure that approved TTPTIP updates are included with the STIPs when they are printed and distributed.

The following is a resource that can assist in developing a TTIP. Tribal Transportation Planning –FHWA Tribal Transportation Planning website at http://www.fhwa.dot.gov/planning/processes/tribal/index.cfm.

#### 3.5.5 Tribal Transportation Improvement Program

The Southern Ute Indian Tribe establishes an annual control schedule of projects for their Tribal Transportation Improvement Plan. The current Control Schedule covers FY2015 through FY2018 and includes the following projects:

- Southern Ute Transportation Planning Project
- SU169 (1) 3 Narrow Gauge Road, Sections 70 and 80
- Reservation-wide Safety and Guardrail
- Reservation-wide Striping
- Southern Ute Road Maintenance
- SR172 Traffic Study/Intersection Design



#### Southern Ute Indian Tribe

- CR517 Traffic Study/Intersection Design/Corridor Improvements (IACAP)
- SU106 End of Trail Drive
- SU152 Sections 10, 20, and 30

### 3.6 SHORT-TERM PROJECTS

As a result of the public and agency comments, inventory work and research involved in this plan, the following projects were identified and prioritized by the Tribe. They are scheduled for the short term (0-3 years), mid term (3-7 years) and long term (over 7 years). Costs listed are planning level estimates.

The following projects should be pursued in the short term:

**Project Name: Ouray Drive Improvements** 

Route Number: 0300 Road Name: Ouray Drive

#### **Description:**

Eliminate parking on the west side of Ouray Drive. Pedestrian access from the parking lot on the west side of Memorial Park to the buildings on Ouray Drive is good. No Parking signage would be needed on Ouray Drive. The curb should be painted red and parking will need to be enforced by SUPD. This would require a parking ordinance to be enacted by the Tribe. If additional parking is needed to compensate for on-street parking that is eliminated, better utilize the lot on the west side of Capote Drive by adding tire stops or divider wires to show where rows and spaces should be.

Project would improve access and safety in the tribal campus area.

ADT on Ouray Drive near the Museum: 745

Coordinates: Beg. Lat/Long: 37.1291N/107.6364W, End Lat/Long 37.1367N/107.6328W

**Cost:** \$5,000 **Timeframe:** 2016-2017

Responsible Agency: SUIT

Project Name: Complete Construction of Route 0187 linking Sage Brush Avenue to Lodge Pole Way

Route Number: 0187 Road Name: Sage Brush Drive

#### **Description:**

Sage Brush Drive should be extended from where the cul-de-sac currently is constructed up to Lodge Pole Way (SU 181). This will ease the traffic for the proposed housing lots on the eastern side of Sagebrush. The Tribe also anticipates an exit from Highway 172 that will connect to Lodge Pole Way just north of the proposed town-homes.

See Cedar Point Housing Initiative in Appendix A



#### Southern Ute Indian Tribe

o Route number 0187, 0.3 mile

#### **Coordinates:**

- Cedar Point
  - Rte 0187 Beg. Lat/Long: 37° 6'10.80"N/107°38'44.41"W End Lat/Long: 37° 6'12.05"N/107°38'43.21"W

Responsible Agency: BIA/SUIT

Project Name: Enact new code making traffic citations civil so that Native and non-Natives can be prosecuted equally in Tribal Court

Route Number: N/A Road Name: N/A

#### **Description:**

Only Natives are under the jurisdiction of the SUPD when it comes to traffic citations. Nonnatives are issued a written warning. So in the same time period where about 580 citations were written, 3,416 written warnings were issued. To counteract this problem, new Tribal code has been developed and is under Council review that would make all traffic violations civil and therefore subject to enforcement in Tribal Court.

Coordinates: N/A

Cost: Legal/no direct cost Timeframe: 2016

Responsible Agency: SUIT

Project Name: Increase signage at La Posta

Route Number: Road Name:

### **Description:**

Motorists miss curve and crash in neighboring yard.

Post increased signage at La Posta to warn drivers of upcoming curve. Consider reflectors or guardrails along the curve to additionally alert drivers and protect neighboring properties. Consider developing guardrail plan for reservation roads.

ADT on La Posta Road is north of the project location is 745.



### Southern Ute Indian Tribe

**Coordinates:** 

Beg. Lat/Long: 37°9'9.76N, 107°53'4.46W

**Cost:** \$5,000 Timeframe: **2016** 

Responsible Agency: SUIT

Project Name: Prepare feasibility study for La Boca Bridge.

Route Number: 8012 Bridge Name: La Boca Bridge on La Boca Ranch Rd.

### **Description:**

• Perform a feasibility study at La Boca Bridge (190 ft) to determine if a new bridge is needed or rehabilitation of the old one could be sufficient.

Seek funding to perform necessary design and construction to improve crossing.

Existing bridge is in poor condition; a feasibility study would determine appropriate steps to secure a safe crossing for nearby residential and commercial development.

Coordinates: Beg. Lat/Long: 37.009706°, End Lat/Long -107.599366°

Responsible Agency: BIA/SUIT/CDOT

Project Name: Continue signal projects as outlined in the IACAP

Route Number: Multiple Road Name: Multiple

#### **Description:**

Various locations were designated in the IACAP for intersection improvements to reduce traffic congestion and improve safety. These projects are ongoing.

#### **Coordinates:**

Various°

Cost: N/A Timeframe: 2016-2018

Responsible Agency: SUIT/La Plata County/CDOT/Town of Ignacio



#### Southern Ute Indian Tribe

Project Name: Intersection improvements at CR318/CR 310

Route Number: 0318, 6310 Road Name: La Plata County Road 318, 310

#### **Description:**

Investigate whether alterations to the landscape at CR 318/CR 310 intersection would improve sight distances and allow vehicles coming around the curve to be seen.

ADT: 687

#### **Coordinates:**

Beg. Lat/Long: 37.0455N/107.4815W

Cost: \$350,000 Timeframe: Begin 2017-2018, may extend into mid

term time period.

Responsible Agency: La Plata County

Project Name: Monitor intersection congestion at SH 172/151

Route Number: 0151, 0172 Road Name: SH 151, 172

**Description:** Monitor congestion at SH 172/151 to determine if level of service merits reevaluation of intersection geometry. IACAP recommended signal installation at this intersection, and the signal is planned for installation in fall 2016. Long term, the tribe should consider conducting turning movement counts to determine if additional lanes or other intersection modifications are warranted to improve LOS and safety.

#### **Coordinates:**

Lat/Long: 37° 6'54.50"N/ 107°37'59.90"W

Cost: \$2,000 for turning movement counts – local Timeframe: 2022

personnel

Responsible Agency: SUIT/CDOT/La Plata County

### 3.7 MID-TERM PROJECTS

**Project Name: Lighting Assessment and Improvements** 

Route Number: Multiple - see below Road Name: Multiple - see below

**Description:** 



#### Southern Ute Indian Tribe

Assess lighting at multiple locations:

For Cedar Point, Shoshone and Pow Wow Circle, see Map "SUIT Subdivisions" in Appendix A

- Cedar Point
  - o Route number 0180, 0.7 mile
  - o Route number 0181, 0.4 mile
  - o Route number 0182, 0.3 mile
  - o Route number 0184, 0.4 mile
  - o Route number 0185, 0.3 mile
  - o Route number 0186, 0.2 mile
  - o Route number 0187, 0.3 mile
  - o Route number 0191, 0.2 mile
  - o Route number 0192, 0.1 mile
- Shoshone
  - o Route number 0173, 0.7 mile
- Pow Wow Circle
  - o County Road 310, Route number 0310, 0.2 mile
  - o County Road 316, Southern Ute Route Number 0312, 0.2 mile
- State Highway 151 from Buck Hwy to Ignacio
  - o Route number 0151, 0.54 miles
- State Highway 172 from Cedar Point housing to Sky Ute Casino turn off
  - o Route number 0172, 24.5 miles

Pursue improvements if needed. Current lighting may be inadequate, and an assessment would help to target areas that would benefit from improvements.

#### **Coordinates:**

- Cedar Point
  - Rte 0180 Beg. Lat/Long: 37.0970N/107.6502W, End Lat/Long: 37.1067N/107.6466W
  - Rte 0181 Beg. Lat/Long: 37.0991N/107.6421W, End Lat/Long: 37.1040N/107.6464W
  - Rte 0184 Beg. Lat/Long: 37.1033N/107.6453W End Lat/Long: 37.1079N/107.6441W
  - Rte 0185 Beg. Lat/Long: 37.0990N/107.6458W End Lat/Long: 37.1011N/107.6433W
  - Rte 0186 Beg. Lat/Long: 37.0992N/107.6497W End Lat/Long: 37.0997N/107.6469W
  - Rte 0187 Beg. Lat/Long: 37.0995N/107.6475W End Lat/Long: 37.1030N/107.6457W
  - o Rte 0191 Beg. Lat/Long: 37.0984N/107.6515W End Lat/Long: 37.0975N/107.6516W
  - o Rte 0192 Beg. Lat/Long: 37.0986N/107.6526W End Lat/Long: 37.0977N/107.6528W
- Shoshone Beg. Lat/Long: 37.1071N/107.6334W, End Lat/Long
- Pow Wow Circle
  - Rte 0310 Beg. Lat/Long: 37.1375N/107.6412W End Lat/Long: 37.1375N/107.6375W
  - Rte 0312 Beg. Lat/Long: 37.1365N/107.6412W End Lat/Long: 37.1365N/107.6386W
- Highway 151 Beg. Lat/Long: 37.0656N/107.3724W, End Lat/Long 37.0654N/107.3759W
- Highway 172 Beg. Lat/Long: 37.0559N/107.3823W, End Lat/Long 37.0814N/107.3803W



Responsible Agency: BIA/SUIT/CDOT

Project Name: Install separated pedestrian crossing between the Multipurpose Facility and Bear

**Dance Grounds** 

Route Number: None Road Name: Proposed crossing of Los Pinos

**Description:** If the Tribe wants to apply tribal shares funding to this project, the new crossing will need to be entered into the inventory as a proposed route.

During the annual Bear Dance, pedestrians crossing the Los Pinos River Bridge on Bear Dance Road often walk in traffic lanes and cause congestion and potential safety concerns. A separate pedestrian bridge between the Multipurpose Facility and Bear Dance Grounds would alleviate this issue and could provide

a new cultural and recreational pedestrian facility.

**Coordinates:** 

Beg. Lat/Long: 37° 7'38.63"N/107°37'51.77"W, End Lat/Long: 37° 7'38.44"N/107°37'50.70"W°

**Cost**: \$200,000 **Timeframe**: 2019-2021

Responsible Agency: SUIT/BIA

**Project Name: Accessibility Improvements Assessment** 

Route Number: Multiple Road Name: Multiple

**Description:** 

Conduct an assessment of sidewalks and other walking areas to Improve accessibility throughout the SUIT tribal campus and residential areas to determine where improvements are needed.

Coordinates: Beg. Lat/Long: Various, End Lat/Long -Various

Responsible Agency: SUIT

**Project Name: Pedestrian and Bicycle Plan** 

Route Number: Multiple Road Name: Multiple

**Description:** 

Identify deficiencies in pedestrian and bicycle facilities on the SUIT reservation. Existing facilities are



#### Southern Ute Indian Tribe

limited and not continuous, and a plan could benefit community members by working toward a cohesive bike and pedestrian network for recreational and commuter use.

#### **Coordinates:**

Beg. Lat/Long: Various, End Lat/Long -Various°

**Cost**: \$15,000 Timeframe: 2019-2020

Responsible Agency: SUIT

**Project Name: Road surface improvements** 

Route Number: Multiple Road Name: Multiple

### **Description:**

Coordinate improved road maintenance with responsible agency—BIA, State or County—to reduce potholes and other road surface problems. Tribal staff will take the initiative to notify the responsible agency of areas of need. The Tribe may choose to make road improvements a part of their Control Schedule and dedicate a portion of their tribal shares to joint road surface improvement projects with the various responsible agencies.

#### Coordinates:

Beg. Lat/Long: Various°, End Lat/Long -Various

Cost: \$300,000 Timeframe: Ongoing

Responsible Agency: SUIT/BIA/La Plata County/Archuleta County/CDOT

**Project Name: Prepare Transit Plan** 

Route Number: Multiple Road Name: Multiple

#### **Description:**

Prepare a transit plan to take advantage of opportunity to link with Mountain Express Public Transit, connecting Archuleta County's Mountain Express Public Transit system with SUIT's reservation-area transit. Effective planning would maximize additional traffic to the casino and area business and increase access for Pagosa Springs residents to jobs and entertainment in Ignacio.

#### **Coordinates:**

(N/A)

**Cost**: \$25,000 **Timeframe**: **2019** 



#### Southern Ute Indian Tribe

**Responsible Agency:** SUIT/Archuleta County

### 3.8 LONG TERM PROJECTS

**Project Name: Install wildlife crossing structures** 

Route Number: 0151, 0160, 0172 Road Name: SH 0151 and 172, U.S. 160

#### **Description:**

Partner with CDOT and La Plata County to determine the appropriate locations and types of structure most beneficial for wildlife passage along Highways 160, 151, and possibly 172. These routes are located in deer migration corridors and have a very high rate of vehicle animal crashes.

Short term solutions may also include installation of warning signage and animal management fencing.

This project is considered a mid term to long term project and will occur sooner if opportunities for improvements arise in conjunction with other roads projects or if other mid term projects have been completed.

#### ADTs:

- Highway 160 Station 104822: 5,200
- Highway 151 Station 104746: 760, Station 104745: 1,100, Station 104744: 1,800
- Highway 172: Station 104960: 4,500

#### **Coordinates:**

- Highway 160 Beg. Lat/Long: 37°12'53.99"N/107°20'22.57"W, End Lat/Long 37°12'54.04"N/ 107°13'40.17"W
- Highway 151 Beg. Lat/Long: 37°6'54.27"N/107°37'59.15"W, End Lat/Long 37°12'37.10"N/ 107°15'48.17"W
- Highway 172 Beg. Lat/Long: 37° 0'0.01"N/107°36'18.85"W, End Lat/Long 37°12'54.14"N/ 107°47'44.08"W

**Cost:** Varies per type of structure **Timeframe:** 2019-2020

Responsible Agency: CDOT/La Plata County/SUIT

Project Name: Install speed humps in residential areas where needed

Route Number: Multiple Road Name: Multiple

**Description:** 



#### Southern Ute Indian Tribe

Assess residential areas for speeding issues and potential need for speed humps. Install speed humps to slow traffic in the housing areas as needed. Target streets where children wait for school busses. Renovate or replace damaged and degraded speed humps as needed.

For Cedar Point, Shoshone and Pow Wow Circle, see Map "SUIT Subdivisions" in Appendix A

- Cedar Point
  - o Route number 0180, 0.7 mile
  - o Route number 0181, 0.4 mile
  - o Route number 0182, 0.3 mile
  - o Route number 0184, 0.4 mile
  - o Route number 0185, 0.3 mile
  - o Route number 0186, 0.2 mile
  - o Route number 0187, 0.3 mile
  - o Route number 0191, 0.2 mile
  - o Route number 0192, 0.1 mile
- Shoshone
  - o Route number 0173, 0.7 mile
- Pow Wow Circle
  - o County Road 310, Route number 0310, 0.2 mile
  - o County Road 312, Route number 0312, 0.2 mile

Coordinates: Precise coordinates of project to be determined by assessment

Beg. Lat/Long: TBD°, End Lat/Long -TBD°

Cost: \$10,000 for 8. Price per location will vary Timeframe: 2022

depending on the number needed.

Responsible Agency: SUIT

#### 3.9 BIA ROADS PROGRAM

The BIA Division of Transportation's mission is to provide for and assist tribes in the development of their capacity to plan, construct and maintain safe and efficient transportation networks. Funding for transportation is dynamic, as available resources fluctuate and administrative priorities change. This section provides background on BIA's funding mechanisms and road inventory structure.

#### 3.9.1 BIA Construction Funding

The enactment of MAP-21 fundamentally changed the BIA Construction Funding Methodology. It is important to understand both the previous (expired) Relative Needs Formula under SAFETEA-LU, as well



#### Southern Ute Indian Tribe

as the new formula under MAP-21, as implementation has been phased over a period of four years. Consequently, both formulas will apply to Tribal allocations through 2016.<sup>30</sup>

Under Map-21, tribal population accounts for 39% of each tribe's formula share. Tribal population is determined by using the process set forth under the Native American Housing Assistance and Self-Determination Act of 1996 (NAHASDA).

As discussed in section 1.4.3, the new formula is being implemented through 2016, to ease the transition and allow Tribes time to adjust to their new funding levels. The implementation schedule appears below:

- FFY-13 80% old Formula, 20% new Formula
- \* FFY-14 60% old Formula, 40% new Formula
- \* FFY-15 40% old Formula, 60% new Formula
- \* FFY-16 20% old Formula, 80% new Formula

### 3.9.2 Tribal High Priority Program (THPP)

MAP-21 includes a new Tribal High Priority Program (THPP). While the THPP program is included in MAP-21, it is no longer a designated special pool of Tribal Transportation Program (TTP) funds. The THPP is not contract authority. An appropriation is needed from the general fund before funding can be made available for the THPP. Funding for this program, under MAP-21, is subject to an annual appropriation amount to be established by Congress. It is unknown (at the time of this report) what THPP funding will be made available to tribes during the Relative Needs Distribution Formula and TTP Formula transition.

The intent of the THPP program is to provide funding to Tribal governments whose annual TTP allocation is insufficient to complete its highest priority projects and for emergency or disaster projects.

### Statutory/Regulatory Requirements

The THPP is a special funding pool that can be used:

- 1. By a Tribe whose annual allocation is insufficient to complete its highest priority project;
- 2. By a governmental subdivision of a Tribe that is authorized to administer the Tribe's TTP Program funding and whose annual allocation is insufficient to complete its highest priority project; or
- 3. By any Tribe for an emergency/disaster on any TTP transportation facility. Eligible applicants may have only one THPP application pending at any time. This includes emergency/disaster applications. THPP funds cannot be used for transportation planning, research, routine maintenance activities, Project funding is limited to a maximum of \$1 million per application.

### Guidelines/ Procedures

- A Tribe may apply for THPP funds by submitting a complete application for a nonemergency disaster project to the Federal Lands Highways HPP Coordinator.
- However, an emergency/disaster application may be submitted at any time during the fiscal year.

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<sup>&</sup>lt;sup>30</sup> As MAP-21 is a two-year law, it is possible that the TTP funding formula could change yet again before its full implementation in 2016. This document should be updated following any future changes to the funding formula.



#### Southern Ute Indian Tribe

- Eligible applicants may have only one THPP application pending at any time. This includes emergency/disaster applications.
- Projects will be ranked and funded based on the THPP scoring matrix.
- THPP funds cannot be used for transportation planning, research, routine maintenance activities, purchase of equipment, and the condemnation of land for recreational trails.
- Applications are due no sooner than 60 days after funding is made available.
- Within the limit of funding, FHWA and BIA will jointly produce a funding priority list (FPL) approved projects.

#### 3.9.3 Tribal Transportation Bridge Program

A description of the Indian Reservation Roads Bridge Program is a required component of the Long Range Transportation Plan. Under MAP-21, the program formerly known as the Indian Reservation Roads Bridge Program (IRRBP) has changed to the TTP Bridge Program. The TTP Bridge Program under MAP-21 functions in the same manner as the IRR Bridge Program established in SAFETEA-LU. However, the program is funded as a 2% set-aside of the \$450 million authorized for the TTP, and funding will later decrease from \$13 million/year to \$9 million/year.

The TTP Bridge Program addresses the replacement of deficient bridges on tribes' inventories. TTP Bridge Program funds may only be used for construction and construction engineering (CE) and may not be used for project development. The statute provides that these funds can be used to replace, rehabilitate, seismically retrofit, paint, apply calcium magnesium acetate to, apply sodium acetate/formate or other environmentally acceptable, minimally corrosive anti-icing and deicing compositions, or install scour countermeasures for deficient bridges, including multiple pipe culverts.

Bridge eligibility requires the following:

- 1. An opening of 20 feet or more
- 2. Bridge is on the Tribe's Inventory
- 3. Bridge is unsafe due to structural deficiencies, physical deterioration or functional obsolescence
- 4. Bridge is recorded in the national bridge inventory (NBI) maintained by the FHWA.

Bridges that were constructed, rehabilitated or replaced in the last ten years will be eligible only for seismic retrofit or installation of scour countermeasures.

To be eligible for replacement, the bridge must be considered deficient for reasons of structural deficiency or functional obsolescence. Also, the bridge must have a sufficiency rating of less than 50 to be eligible for replacement. A bridge would be eligible for replacement if the total life cycle cost for bridge rehabilitation exceeds the costs to replace.

To be eligible for rehabilitation, the bridge must be considered deficient for reasons of structural deficiency or functional obsolescence. Also, the bridge must have a sufficiency rating of less than or equal to 80 to be eligible for rehabilitation.

Funding for successful TTP bridge applications will be distributed on a quarterly basis.



#### Southern Ute Indian Tribe

MAP-21 requires the inspection of all public bridges, including tribal bridges, and the reporting of data into FHWA's National Bridge Inspection System (NBIS).

### 3.9.4 Revisions to BIA Road System

Listed below are recommended Road System Guidelines, intended to assist tribes, regional directors, and engineers in deciding which roads should be on the BIA road system. These are not rules (as special circumstances may apply) but rather deviations from the guidelines should be accompanied by an explanation of the special circumstances.<sup>31</sup>

- 1. A road which is only for service to a single residence or land use is a private driveway, not a public road, and should not be on the BIA Road System. A road serving only three or fewer closely grouped residences or land uses should be considered a common private driveway.
- 2. Roads primarily used for a single purpose should not be included in the BIA road system such as:
  - a. Logging roads for timber sale, administrative, or fire access only and which are not open to the public or used for such purposes as recreation, wood cutting, gathering, fishing or hunting.
  - b. Agricultural roads to fields, pump houses, headgate, dams or positioned along canals which are not open for other purposes such as fishing, boating or hunting.
  - c. Administrative roads to power plants, sewage treatment plants or water towers which are not open to the public for other uses.
  - d. Tribal roads to a single purpose tribal enterprise such as a fish hatchery, saw mill, manufacturing plant, cemetery or other single uses which are not open to the public.
- 3. The proportion of state and county road miles to BIA Road System road miles within a Reservation should be at least equal to the proportion of fee land to trust land within that particular Reservation. BIA should not participate in state or county road construction projects on a Reservation unless the local governments meet their own road construction responsibilities.
- 4. Where state/county road systems are substantially under guideline #3, efforts to correct the imbalance and/or secure state/county funding for BIA road construction projects should be documented, with copies to the Regional Office and Central Office Division of Transportation. This also applies to cases where the state/county established a road system, but fails to meet construction needs on that system.
- 5. Use Class 11 trails to separate pedestrian (especially school) traffic, and bicycle traffic from vehicular traffic.
- 6. The following are to be considered when evaluating what is "vital to the economic development" of tribes.
  - a. Connects active center of population

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<sup>&</sup>lt;sup>31</sup> April 4, 1994, Memorandum from the Deputy Commissioner of the Indian Affairs, recommending BIA Road System Guideline.



### Southern Ute Indian Tribe

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

# 3.9.5 Revisions to Road Inventory Mileage

As shown in Table 11, the TTP inventory update increases the Tribe's total road mileage from 762.5 miles to 893.9 miles.

Table 11: Inventory Comparison Summary

# **Inventory Comparison**

Existing BIA Inventory Mileage	234.6
Road Mileage to be Added to the BIA Inventory	4.5
Road Mileage to be Deleted from the BIA Inventory	24.2
Proposed BIA Road System	214.9
Existing Non-BIA DOT Inventory Mileage	527.9
Road Mileage to be Added to Non-BIA DOT Inventory	201.2
Road Mileage to be Deleted from Non-BIA DOT Inventory	50.1
Proposed Non-BIA Road System	679.0
Proposed Total IRR System	893.9

Copies of route maps and 5704 forms are included in Appendix F.

# 3.9.6 Functional Classification Changes

The following routes were subject to functional classification changes between the existing inventory and the 2015 update:

Table 12: Functional Classification Changes from Previous Inventory

Route	Section	Road Name	<b>Previous Class</b>	<b>2015 Class</b>
0111	010	BIA Route 0111	5	4
0111	020	BIA Route 0111	5	4
0139	010	BIA Route 0139	4	5
0140	010	BIA Route 0140	4	5



#### Southern Ute Indian Tribe

Route	Section	Road Name	<b>Previous Class</b>	<b>2015 Class</b>
0159	010	BIA Route 0159	4	5
0159	020	Bridge No. M502	4	5
0159	030	BIA Route 0159	4	5
0159	040	BIA Route 0159	4	5
0160	010	BIA Route 0160	4	5
0161	010	BIA Route 0161	4	5
0162	010	BIA Route 0162	4	5
0163	010	BIA Route 0163	4	5
0163	020	BIA Route 0163	4	5
0163	030	BIA Route 0163	4	5
0165	010	BIA Route 0165	4	5
0166	010	BIA Route 0166	4	5
0167	010	BIA Route 0167	4	5
0168	010	BIA Route 0168	4	5
0172	010	BIA Route 0172/Sky Ute Events	3	5
0172	810	Colorado State Highway 172	2	5
0314	010	BIA Route 314	7	4
0550	810	U.S. Highway 550	n/a	4

#### 3.9.7 Route Additions

The following routes were added to the SUIT inventory with this update:

- Route 0105, Section 820
- Route 0140, Section 805
- Route 0140, Section 820
- Route 0151, Section 815
- Route 0160, Section 810
- Route 0160, Section 830
- Route 0172, Section 805
- Route 0172, Section 810
- Route 0173, Section 005
- Route 0221, Section 820
- Route 0300, Section 030
- Route 0302, Section 005
- Route 0304, Section 010
- Route 0500, Section 830
- Noute 0500, Section 050
- Route 0500, Section 840Route 0516, Section 820
- Route 0517, Section 820Route 0518, Section 810
- Route 0521, Section 820
- Route 0526, Section 820

- Route 0542, Section 820
- Route 0550, Section 805
- Route 0550, Section 820
- Route 0700, section 820
- Route 6117, Section 820
- Route 6120, Section 820
- Route 6121, Section 820
- Route 6123, Section 820
- Route 6141, Section 820Route 6307, Section 820
- Route 6309, Section 820
- Route 6509, Section 820Route 6510, Section 820
- Route 8001, Section 810
- Route 8002, Section 810
- Route 8003, Section 810
- Noute 8003, Section 810

Route 8004, Section 810

- Route 8005, Section 810
- Route 8006, Section 810
- Route 8007, Section 810



#### Southern Ute Indian Tribe

- Route 8008, Section 810
- Route 8009, Section 810
- Route 8010, Section 810
- Route 8010, Section 820
- Route 8011, Section 810
- Route 8012, Section 810
- Route 8012, Section 820
- Route 8012, Section 830
- Route 8013, Section 810
- Route 8013, Section 820
- Route 8013, Section 830
- Route 8014, Section 810
- Route 9001, Section 810
- Route 9002, Section 810
- Route 9003, Section 810
- Route 9004, Section 810
- Route 9005, Section 810
- Route 9006, Section 810
- Route 9007, Section 810
- Route 9008, Section 810
- Route 9009, Section 810
- Route 9010, Section 810
- Route 9011, Section 810

Route 9018, Section 810
Route 9019, Section 810
Route 9020, Section 810
Route 9021, Section 810
Route 9022, Section 810
Route 9022, Section 820

Route 9012, Section 810

Route 9013, Section 810

Route 9014, Section 810

Route 9015, Section 810

Route 9016, Section 810

Route 9017, Section 810

- Pouto 0022 Coation 910
- Route 9023, Section 810
- Route 9024, Section 810
- Route 9024, Section 820
- Route 9025, Section 810
- Route 9026, Section 810Route 9027, Section 810
- Route 9028, Section 810
- Route 9029, Section 810

# 3.9.8 Inventory Comparison Listing

The Inventory Comparison Listing table is included in Appendix B.

#### 3.10 PLAN IMPLEMENTATION AND UPDATING

This transportation plan presents the results of a study completed in 2015. It reflects the current requirements for transportation facilities to satisfy the community's needs and is based upon the existing conditions and anticipated future development within the community and tribal priorities. The plan should not be viewed as a static document, but rather should be regarded as a dynamic document capable of being modified to meet changing social and economic development demands.

Once finalized, the implementation of MAP-21 may impact certain sections of this document, particularly those referencing CFR guidelines. These sections will need to be updated once the complexities of MAP-21, and its impact on SUIT, are more fully understood.

It is recommended that the Council adopt this plan and use it as the basis for programming and budgeting road construction funds. The plan should be reviewed by SUIT and the BIA Regional office on an annual basis to assess whether changes in community development may warrant a change in the project listing and/or prioritization. Changes in the project listing should be coordinated with, and accomplished within the timeframes established by the funding agency so as not to hamper the implementation of the agency's road improvement program. The overall community transportation plan should be reviewed and updated



#### Southern Ute Indian Tribe

every five years, or following any major changes in SUIT's land use plan, which is soon to be updated at the time of this report.

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

### 3.10.1 Procedures for Development Roads

In the future, it is possible that roads will be constructed using funds from developers who will benefit from the road construction. Therefore, it is important that the Tribal Government establishes policies and guidelines to monitor and control the construction of roads by developers. It is the recommendation of this study that the Tribe consider this approach to funding development roads. Should such an approach be found to be acceptable, the Tribe should adopt a process for approving these roads to ensure that they will be constructed to an adequate standard and properly maintained. The essential elements of such a process are outlined below.

#### Design Standards

The first element in the process is to define expectations. When a development project is submitted for review, it should only be given conditional approval subject to the roads and other infrastructure improvements constructed to proper standards. Roads should be designed to meet minimum geometric and structural standards for the anticipated traffic volumes and classification of vehicle loads. Roadway design standards should be adopted by the Tribe and available to potential developers. Standards currently used by the BIA and CDOT are readily available. These design standards could be adopted as is, or modified, as the Tribe would prefer for specific design items.

#### Plan Submittal and Review

The second element in the approval process is the submittal and review of construction documents (e.g. plans and specifications). SUIT should employ an experienced engineering consultant to review proposals and insure that the plans are in accordance with minimum design standards. The BIA should be asked to review and approve road construction documents from a developer if the Tribe anticipates that the road will be added to the BIA's road system for long-term maintenance. Plans and specifications should be approved for construction only when they are in conformance with minimum design standards based on anticipated traffic and loads.

#### Construction Monitoring

Another essential step in the process is the monitoring of the actual construction. Construction should be inspected periodically by a qualified representative of the Tribe to ensure that construction is proceeding



#### Southern Ute Indian Tribe

in conformance with the approved plans. A final inspection should also be performed prior to accepting the responsibility for maintenance. To ensure proper construction, most jurisdictions require that the developer post a performance bond. The bond is held until the roadway has been accepted and all conditions for release have been met.

### 3.11 ROAD MAINTENANCE

Road maintenance is performed by the state of Colorado, La Plata County, the town of Ignacio, or BIA, depending on road ownership. The BIA prioritizes maintenance of routes based on a combination of traffic volume and road condition. Routes with high traffic volume and low levels of service have a higher priority for maintenance. Maintenance was an area of concern expressed by residents in public meeting comments and in the LRTP community survey responses. Potholes are a concern, as well as road dust, and general road conditions.

### 3.11.1 BIA Road Maintenance Funding

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

Typically the agency road engineers/managers work with the tribes in establishing a road maintenance program to determine the type and level of maintenance to be performed on BIA roads within each Reservation based on agency's road maintenance budget. Maintenance priorities are frequently determined by weather and/or road conditions which inhibit access to and from communities to employment centers, community services and health facilities. Emergency road conditions have highest priority. Other priorities are determined based on surface type and use.

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

MAP-21 allows 25 percent of the annual TTP tribal shares (not including the 2 percent planning funds), or \$500,000, to be used for maintenance. The Tribe may only use these funds to maintain roads on the TTP inventory.



#### Southern Ute Indian Tribe

#### 3.11.2 Road Maintenance Guidelines

Guidelines for road maintenance are published in the BIA Manual 58 (58 BIAM) Road Maintenance Handbook. Updated guidelines are currently under development, and will be published in the new Indian Affairs Manual (IAM).32

The BIA defines the optimal level of maintenance as "the frequency of maintenance which keeps the road in the desired condition at minimum total cost."33 Ongoing preventative maintenance will result in less deferred maintenance and lower reconstruction costs. The Tribe's road maintenance plan should establish a level and frequency of maintenance that ensures efficient and well-timed use of resources for the maximum long-term value in minimizing the reconstruction costs.

Figure 21: Optimal Frequency of Maintenance

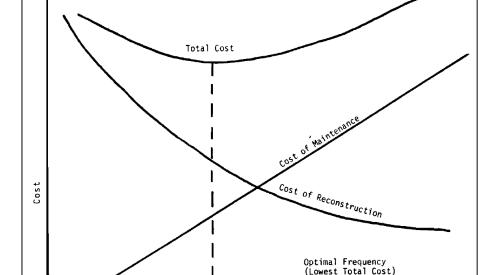
The BIA Manual (BIAM) states that a long-range road maintenance program is needed for every Reservation. The program should address:34

- Budget
- Work schedule
- Staffing

Equipment, materials and supplies needed

Examples οf maintenance tasks may include the following:

Grade, fill potholes and reshape roads: Grading will be done by routine blading and adding gravel



Frequency of Maintenance

89

Source: BIA Manual

as needed either by "spot graveling" or regraveling entire sections. Potholes will be filled and additional maintenance may be performed to maintain a drivable surface. Grading and reshaping will be accomplished as needed during the summer months.

32 BIA Maintenance Manual (58 BIAM) http://www.bia.gov/idc/groups/public/documents/text/idc-000461.pdf

Indian Affairs Manual (IAM) http://www.bia.gov/WhatWeDo/Knowledge/Directives/IAM/index.htm

33 58 BIAM: Road Maintenance – General (Optimal Level)

34 BIAM Manual, 58 BIAM 8.1, Release 58-4

**WHPacific** May 2016



#### Southern Ute Indian Tribe

*Snow removal:* Any significant accumulation of snow will be removed as soon as practical, generally within 24 to 48 hours, prioritizing roads within the TPP inventory.

*Dust control:* Measures will be taken to control dust generated by traffic or road construction. Dust control may be implemented through use of calcium chloride, magnesium chloride, or other forms. Frequency of application may be determined based on need and funding availability.

*Brush removal:* Brush removal will be performed to prevent the encroachment of vegetation on roadways. Brush will be regularly cleared from the "road clear zone" to provide an extra margin of safety for travelers.

A desirable procedure would be to make those who benefit from the road responsible for the long-term maintenance. If a road is primarily for the benefit of the adjacent tenants, then SUIT would need some form of revenue generated by the tenants. This could be in the form of an annual assessment or fee for the use of roads, and other non-revenue generating components of the infrastructure. This revenue would be very similar to an ad valorem tax assessed by most municipalities against the value of land. The funds received should be put into a separate account that would accumulate and be available for maintenance as needed.

The BIA Southern Ute Agency Branch of Roads has been performing maintenance on the reservation roads and supplied the following costs per mile for maintenance

Table 13: Road Maintenance Costs per Mile by Surface Type

Category	Surface	Cost per mile
5	Bituminous greater than 2 inches	\$2,351
5	Bituminous less than 2 inches	\$2,312
5	Bituminous with curb, gutter and sidewalk, greater than 2 inches	\$2,810
5	Bituminous with curb, gutter and sidewalk, less than 2 inches	\$1,248
6	Concrete with curb, gutter and sidewalk	\$4,615
1	Earthen road	\$2,200
3	Gravel surface	\$2,351

Mobilization costs would increase for road maintenance at a greater distance from the shop due to the cost of transporting heavy equipment to the site.



#### Southern Ute Indian Tribe

### 3.11.3 Maintenance Priority Methodology

WHPacific has developed a simplified method of prioritizing maintenance requirements for Tribal and BIA owned roads in a community or on a reservation. The methodology utilizes collected road inventory data from the Tribe's Transportation Plan, using certain RIFDS fields as variables in assessing road deterioration and maintenance needs. Each variable (field) is assigned a value of zero (0), one (1) or two (2) depending on the relevance of that field to road condition and rate of deterioration.

The eight variables utilized by this matrix are summarized below:

- 1) Class Class 1-4 roads are assumed to have greater maintenance needs due to increased vehicle traffic. Consequently, Class 1-4 roads are assigned a value of one (1), whereas Class 5-11 roads are assigned a value of zero (0).
- 2) Surface Type Unpaved roads (value of one) are assumed to require more frequent maintenance than paved roads (value of zero).
- 3) ADT Average daily traffic is a critical factor in the need for maintenance. This variable is assigned a value of zero (0) for an ADT of less than 100; a value of one (1) for ADT of 100 to 400; or a value of two (2) for greater than 400.
- 4) SCI Existing surface condition index (SCI) is another critical factor in the need for maintenance. A SCI of 0 to 39 (poor condition) generates a value of two (2); a SCI of 40 to 79 (fair condition) generates a value of one (1); and a SCI of 80 or greater (very good) generates a value of zero (0).
- 5) Roadbed Condition Assessment of roadbed condition assumes that a constructed road (value of zero) will require less maintenance than a primitive or unimproved road (value of one).
- 6) Drainage Condition Roadways with severe drainage conditions or the absence of a drainage design (value of 1-2) will require more maintenance than roads with good drainage (value of zero).
- 7) Date of Last Construction If a road was constructed within the last 10 years, it is likely to have fewer maintenance issues than one constructed more than 10 years ago. A value of zero (0) is assigned to roads constructed less than 10 years ago; a value of one (1) is assigned to roads constructed over 10 years ago.
- 8) Safety Issues This variable is assessed based on a subjective consideration of past safety issues, accident history, community feedback, sight distance, number of intersections, terrain, and observation of the route maps. Also, a road that functions as a school bus route or is critical for emergency vehicles would warrant a higher safety need. A value of one (1) is assigned if possible safety issues have been identified.



#### Southern Ute Indian Tribe

Table 14: Level of Maintenance Requirement

Field	Code	Maint. Value	Code	Maint. Value	Code	Maint. Value
Class	1 to 4	1	5 to 11	0		
Surface Type	0 to 3	1	4 to 6	0		
ADT	<100	0	100-400	1	>400	2
SCI	0-39	2	40-79	1	80-100	0
Roadbed Condition	0 to 3	0	4 to 7	1		
Drainage Condition	0 to 1	1	2 to 3	0		
Date of Last Const.	>10 Yrs	1	<10 Yrs	0		
Safety Problems*	Yes	1	No	0		

\*Safetey is base on reviewer judgement from route maps

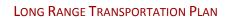
Possible score per section = 0 to 10

0 = No Maintenance Required, 10 = Immediate Maintenance Need

Based on the presented matrix, the highest possible score for any road will be 10, and the lowest score will be zero (0). A score a 10 indicates the need for immediate maintenance, whereas a score of zero (0) indicates a low priority for maintenance.

The above Level of Maintenance Requirement Matrix provides a summary of the fields (variables) referenced from the inventory, and their respective values. The Maintenance Value associated with each group of codes indicates the relative need for maintenance for that field.

Upon establishment of the values using the Inventory 5704 Forms, the values are entered into a Level of Maintenance spreadsheet (provided in the appendix to this document). The total Level of Maintenance Requirement values for each route and section are sorted to provide a prioritized list.





SOUTHERN UTE INDIAN TRIBE

Appendix A:

**Exhibit Maps** 



SOUTHERN UTE INDIAN TRIBE

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