HAVASUPAI INDIAN TRIBE LONG RANGE TRANSPORTATION PLAN

Final Report

November 2015

Prepared for:

Havasupai Indian Tribe

in collaboration with
Arizona Department of Transportation

Prepared by:

United Civil Group

in collaboration with
AMEC Foster Wheeler

HAVASUPAI TRIBAL COUNCIL
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HAVASUPAI TRIBAL COUNCIL
RESOLUTION NO.12-16
OF THE GOVERNING BODY OF THE
HAVASUPAI TRIVBE OF THE HAVASUPAI INDIAN RESERVATION
SUPAI, ARIZONA
Long Range Transportation Plan for Havasupai Reservation

WHEREAS, The Havasupai Tribal Council is the duly elected governing body of the Havasupai Tribe; and

WHEREAS, the Havasupai Tribe was awarded Panning Assistance for Rural Area's (PARAA) Grant Funding from the Arizona Department of Transportation (ADOT), Multimodal Planning Division, to prepare a Long Range Transportation Plan (LRTP) for the Havasupai Indian Reservation, which included updating the Tribe's National Tribal Transportation Facility Inventory (NTTFI); and

WHEREAS, United Civil Group was selected to perform the NTTFI update and prepare an updated LRTP, under the supervision of the Havasupai Tribe, ADOT and a Technical Advisory Committee, that promotes safety and mobility, enhances economic vitality, improves community livability and supports current and planned economic development; and

WHEREAS, changes to the NTTFI proposed by the Havasupai Tribe, as part of this LRTP update, are identified in the attached "Havasupai Indian Tribe - Inventory Update Comparison Listing"; and

WHEREAS, the Havasupai Tribe's LRTP was completed in November 2015, contains short-term, mid-term, and long-term road improvement and maintenance projects, and other transportation facility projects to meet Tribal Transportation needs that have been prioritized by the Tribal Council.

NOW THEREFORE BE IT RESOLVED that the Havasupai Tribal Council hereby approves the November 2015 Long Range Transportation Plan for the Havasupai Indian Tribe and adopts this document as their current (2015) Long Range Transportation Plan.

BE IT FURTHER RESOLVED that the Havasupai Tribal Council hereby approves the proposed changes to the National Tribal Transportation Facility Inventory (NTTFI), identified in the Long Range Transportation Plan which are listed in the attached "Havasupai Indian Tribe- Inventory Comparison Listing."

BE IT FURTHER RESOLVED that the Havasupai Tribal Council hereby authorizes the Bureau of Indian Affairs - Western Regional Office to take the necessary action needed to update the NTTFI database to incorporate road inventory update changes and additions identified in the attached "Havasupai Indian Tribe- Inventory Comparison Listing.

BE IT FURTHUR RESOLVED that the Havasupai Tribal Council will hereby work with the BIA – Western Regional Office, Division of Transportation and other State/County Transportation Agencies, to take the necessary action needed to implement projects based on the Tribe's current road construction and maintenance priorities.

BE IT FINALLY RESOLVED that the Havasupai Tribal Council hereby authorizes the Chairman or his designee to execute any and all documents necessary to implement this action.

CERTIFICATION

The foregoing Resolution is adopted pursuant to the authority of Article V, Section 1 of the Amended Constitution of the Havasupai Tribe, a federally recognized sovereign Indian Tribe and Article II of the Bylaws of the Havasupai Tribe at the Special Council Meeting of the Tribal Council on the 22nd day of March, 2016 by a vote of 4 for; 0 opposed and 0 abstained.

HAVASUPAI TRIBAL COUNCIL

Don E. Watahomigie
Tribal Chairman

ATTEST:

Bonnie Wescogame
Tribal Secretary

Havasupai Indian Tribe Long Range Transportation Plan

FINAL REPORT

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This report has been funded in part through grants from the Federal Highway Administration, US Department of Transportation. The contents of this report reflect the views of the authors, who are responsible for the facts and accuracy of the data, and for the use or adaptation of previously published material, presented herein. The contents do not necessarily reflect the official views or policies of the Arizona Department of Transportation or the Federal Highway Administration, US Department of Transportation. This report does not constitute a standard, specification or regulation. Trade or manufacturers' names that may appear herein are cited only because they are considered essential to the objectives of the report. The US Government and the State of Arizona do not endorse products or manufacturers.

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1.0 INTRODUCTION

The Havasupai Indian Tribe and the Arizona Department of Transportation (ADOT) collaborated to update the 1992 Havasupai Indian Tribe Long Range Transportation Plan (LRTP). This process was completed under the ADOT Planning Assistance to Rural Areas (PARA) Program which provides funding for transportation planning technical assistance to tribal, local, and county governments, statewide. The LRTP project area includes the Havasupai Indian Reservation and the major corridors of Indian Routes (IR) 18, 1, 5, and 4. The LRTP update identifies goals to meet transportation needs; forecasts needed roadway improvements over the next 20 years; and most importantly, will assist the Tribe in the transportation decision making process. The strategies to achieving these goals address current tribal land use, economic development, environmental (natural, human, and cultural), traffic demand, public safety, and health and social needs. The principal focus of this project was to address the most critical transportation planning needs identified by the Havasupai Indian Tribe.

This LRTP provides a framework for the Tribe to make decisions about the transportation system. Due to the remoteness of the Havasupai Indian Tribe, certain issues were considered during the update process. Two significant factors the Tribe faces regarding the integrity of the transportation system and its remoteness are: tourism and deliveries into Supai Village. Tourism is the main source of revenue for the Tribe because of the scenic waterfalls and plateaus surrounding Supai. When roadways are impassable, tourists are not able to get to Supai Village and the Tribe loses income.

This LRTP develops specific roadway and transit projects that address the needs and deficiencies of the Tribe. Projects were prioritized utilizing accepted planning criteria based on need, performance, and known funding sources. Implementation and funding strategies are addressed for each individual project. A comprehensive inventory update of the Havasupai Indian Tribe's roads in the Bureau of Indian Affairs' (BIA) National Tribal Transportation Facility Inventory (NTTFI) was prepared and updated in 2010.

Volume II of the Havasupai Indian Tribe LRTP contains all of the information that supplements the LRTP. The information includes: traffic counts, the Havasupai NTTFI (2010), public involvement summaries and interviews.

1.1 TECHNICAL ADVISORY COMMITTEE

The study was guided by a Technical Advisory Committee (TAC). The role of the TAC was to provide technical guidance, support, advice, suggestions, recommendations, and to perform document reviews throughout the study process. TAC members included representatives from:

- Havasupai Indian Tribe
- Hualapai Indian Tribe
- Hualapai Indian Tribe – Police Department
- Navajo Nation
- ADOT Flagstaff District
- ADOT Kingman District
- Inter-Tribal Council of Arizona – Transportation Program
- Arizona Game and Fish Department

- US Public Health Service
- BIA Western Regional Office – Division of Transportation
- Federal Highway Administration
- US Forest Service
- Grand Canyon National Park
- ADOT Multimodal Planning Division
- Arizona State Land Department
- Northern Arizona Council of Governments
- Coconino County
- Moro Wildlife
- Cholla Livestock

1.2 STAKEHOLDERS

To develop a thorough understanding of the issues, deficiencies and needs of the Tribe, the study team identified and interviewed a core group of stakeholders. The stakeholders included representatives from Havasupai Indian Reservation, Hualapai Indian Reservation, Navajo Nation, BIA, Indian Health Service, Arizona State Land, ADOT, and Coconino County. A questionnaire was distributed to each stakeholder to obtain the information. The questionnaire and a summary of the responses is included in Volume II: Havasupai Indian Tribe LRTP Additional Information.

1.3 STUDY AREA OVERVIEW

Bordered by the Grand Canyon, the Kaibab National Forest, and several thousand acres of undeveloped wilderness, the Havasupai Indian Reservation covers 187,077 acres in northern Arizona. The Havasupai have lived in the remote area south of the Grand Canyon for at least the past 1,000 years. The Havasupai Indian Reservation was created in 1882 and is a federally recognized Indian Tribe of the United States. The inception of the Grand Canyon National Park in 1919 forced the Havasupai Indian Tribe to abandon all but 500 acres of land in the Canyon. However, in 1975, the Tribe succeeded in regaining their ancestral land through the US Judicial System with the passage of the Grand Canyon National Park Enlargement Act. The Havasupai Indian Tribe is primarily located in Supai Village within Havasu Canyon as illustrated on Figure 1. Study Area Vicinity Map.

Figure 1. Study Area Vicinity Map

There are no roads that lead to Supai Village, making it the most remote settlement in the continental United States, and Supai Village can only be reached by foot, horse/mule, or helicopter from Hualapai Hilltop. Hualapai Hilltop is located on the north end of Indian Route 18 (IR18). The nearest community to the reservation is Peach Springs, 64 miles southwest from Hualapai Hilltop. Other nearby communities include: Seligman (90 miles south), Kingman (118 miles southwest), and Flagstaff (166 miles southeast).

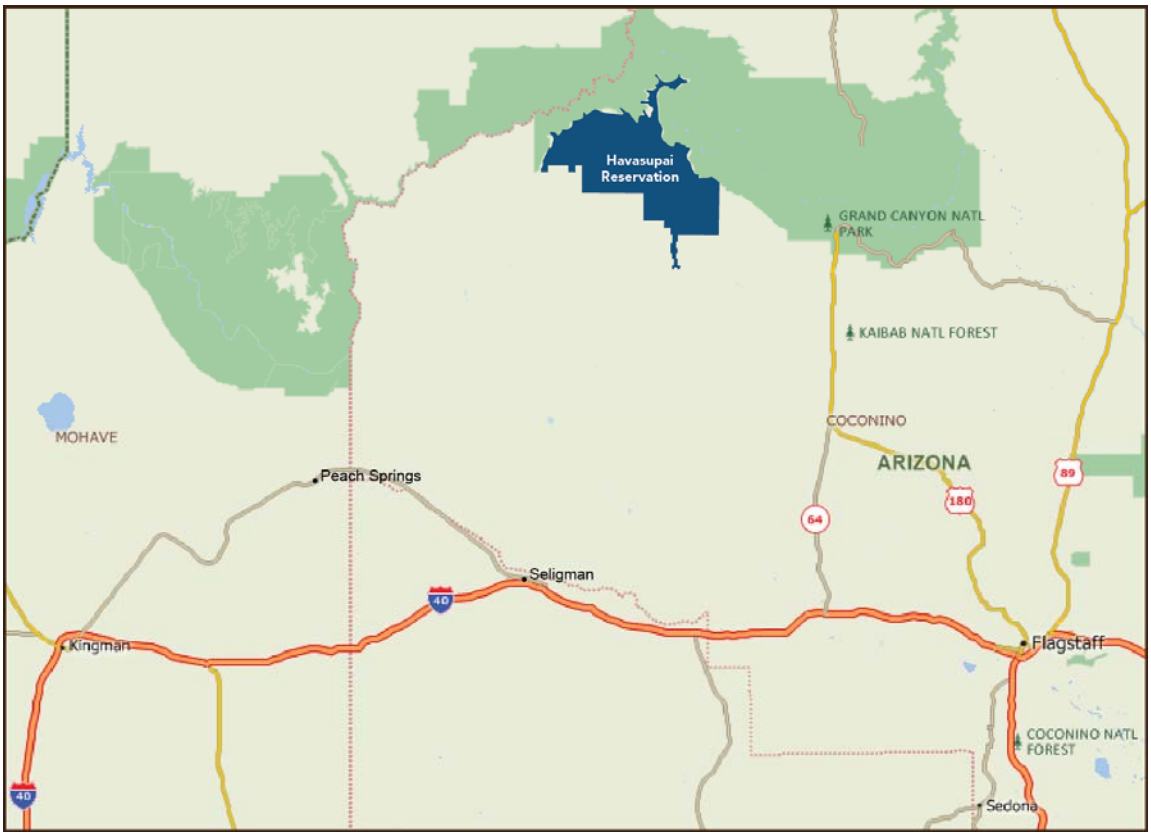


Figure 2. Havasupai Indian Reservation Remoteness

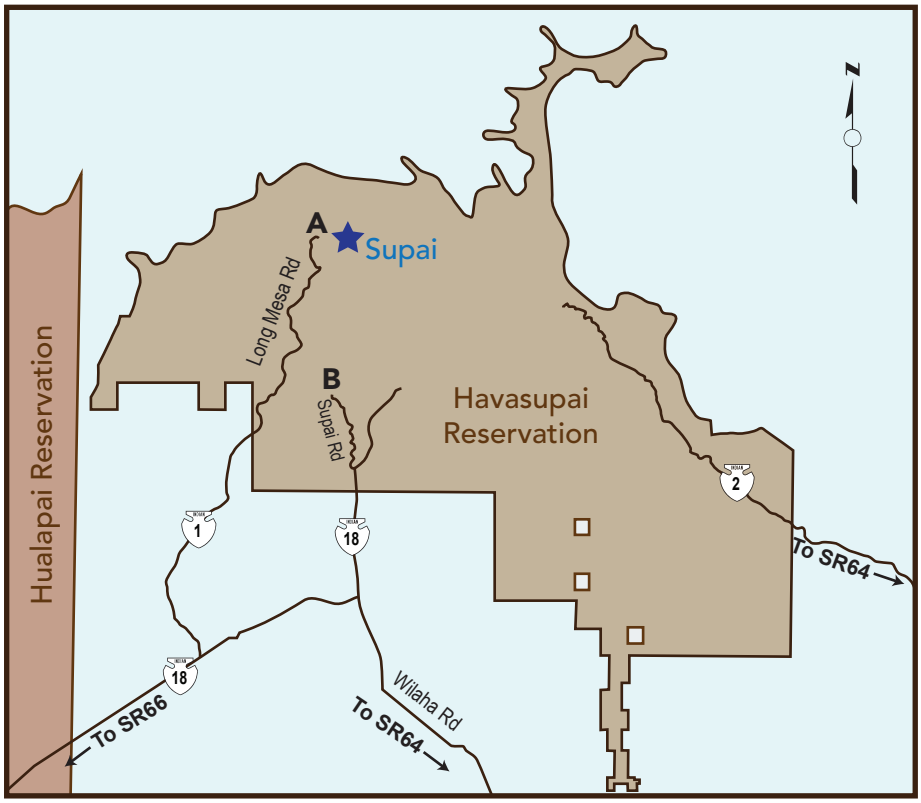
The remoteness of Supai Village impacts the quality of life of tribal members in the inaccessibility to basic needs: health services, banking, education, food, employment, shopping, and recreation.

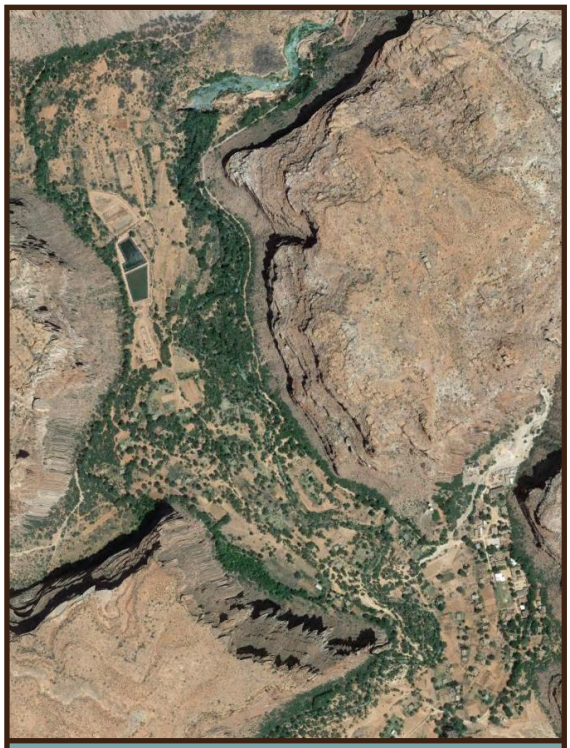
Most heavy supplies and deliveries come to Supai Village via IR1 (Long Mesa Road) where they are loaded onto helicopters and flown down into the canyon. However, IR1 is an unimproved dirt road that is owned and operated by multiple jurisdictions.

Tourism is the main source of revenue for the Tribe because of the scenic waterfalls and plateaus surrounding Supai. Tourists use IR18 (Hualapai Hilltop Highway) as their main route to travel to the Havasupai Indian Reservation and hike down into Supai Village. Parking areas exist on the north end of IR18 and have been recently reviewed and inventoried to make certain the parking facilities are in adequate supply. Because IR18 is the only paved roadway into the Havasupai Indian Reservation, it is categorized as a study corridor for review in this LRTP to assess needs and recommend future improvements.

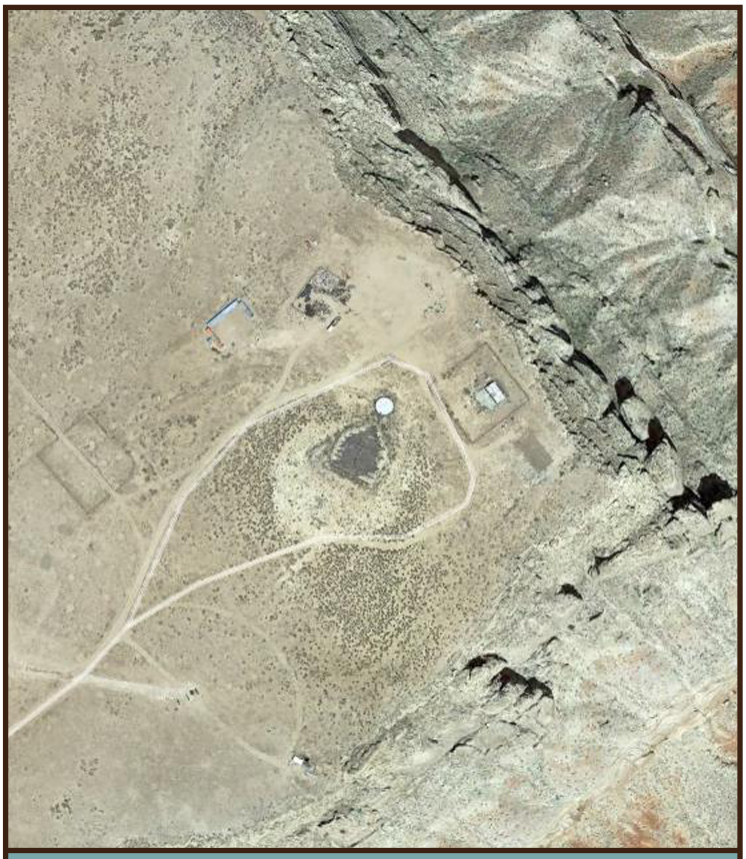
Havasu Falls

Figure 3. Project Area illustrates the Havasupai Indian Tribe LRTP project area and major roadway corridors.

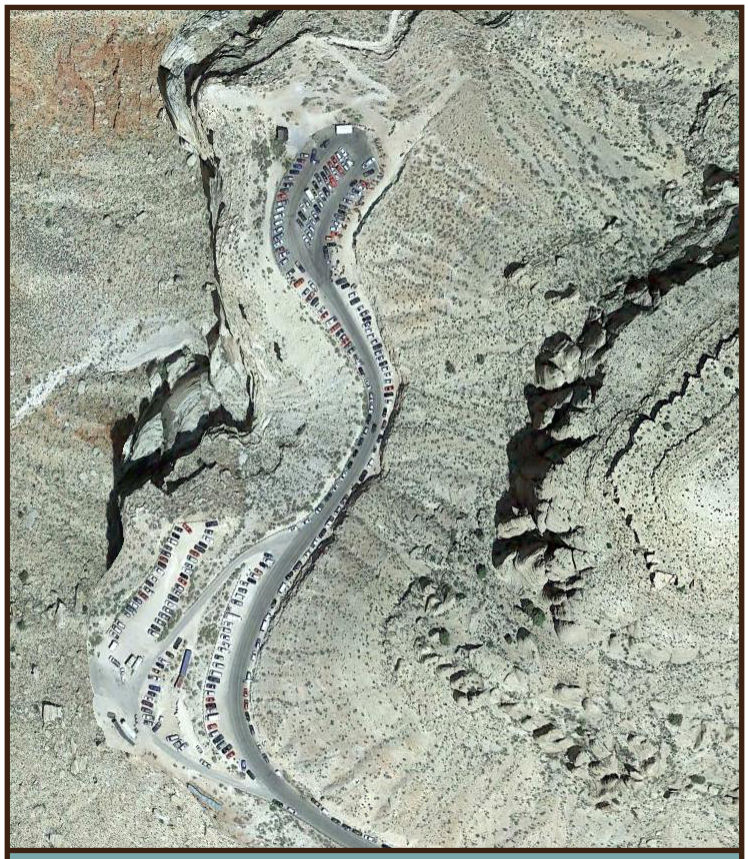




Supai Village



A. Long Mesa Road



B. Hualapai Hilltop Highway

Figure 3. Project Area

1.4 PURPOSE AND NEED

The Havasupai Indian Tribe LRTP was initiated to develop a phased, planning strategy to guide improvements with the ultimate goal of enhancing safety, accessibility, mobility, and economic growth. The need for this study stems from the Havasupai Indian Tribe's desire to improve community livability and enhance transportation conditions along the local and regional routes. The project purpose is demonstrated with the following statements of need:

- Promote Community Livability. A plan for transportation investments that encourage smart economic growth while maintaining the cultural and historic nature of the study area needs to be developed. Transportation investments that allow tribal members the opportunity to a more flexible travel schedule.
- Accommodate Planned Growth. Bar 4 is a proposed future residential development near the IR4 and IR5 intersection. When development occurs, upgrades to the roadways will be needed to accommodate traffic.
- Address Safety, Mobility, and Operational Needs. The current roadway network could be enhanced to optimize traffic operations. Key issues that need to be addressed include:
    - Additional drainage improvements on IR18 at Joe's Curve
    - Unpaved roadways, IR1, IR4, and IR5
    - Vehicles travel at high speeds on IR18, causing unsafe driving conditions
- Tram Concept. Hauling supplies into and solid waste out of Supai Village is a large undertaking. Therefore, a tram concept could be explored.

1.5 GOALS AND OBJECTIVES

The goal of this Havasupai Indian Tribe LRTP is to develop a meaningful document that guides Tribal Leaders and decision makers by identifying priorities for developing a safe and efficient transportation system with recommended improvements for the next 5-, 10- and 20- year planning horizon periods.

A number of study objectives that were addressed in order to achieve the goal.

(1) Establish a "proactive" working relationship with the TAC and all involved stakeholders.

(2) Assess the impacts of the Reservation's remoteness as it affects quality of life, cost of living, tourism, employment, emergency response, and health services.

(3) Conduct a needs analysis/evaluation of the existing conditions of roads within or providing access to the Reservation that will be evaluated, coupled with maintenance and right-of-way preservation needs. These evaluations will support the recommended strategies to improve access and mobility for Tribal members and tourists on the following roads: IR1 (Long Mesa Road), IR18 (Supai Road), IR4 and IR5.

(4) Perform a transportation safety review of the roadways within the study boundary and identify updates to the BIA NTTFI database.

(5) Inventory and assess the current transit program. Even though Supai is remote, the Tribe does have a small transit program which transports tribal members off the reservation to access various service needs. Two vans are located in a garage near the IR18/Bar 4 Road intersection. The Tribe may add on to the garage in the future as needed to accommodate two additional vehicles and a rear studio apartment, as well as storage and light mechanical work areas. Therefore, the Havasupai Indian Tribe LRTP Update will assess the current tribal public transportation program services and facilities along with recommendations to enhance the program for improved mobility needs of the tribal members.

(6) Develop planning level cost estimates for the recommended improvements as a result of this LRTP.

(7) Maintain the highest level of quality on the project, and meet or exceed expectations. Communicate with stakeholders, the public, and the Havasupai Indian Tribe to guarantee that all involved have the information they need to understand the project and make practicable decisions that guide Havasupai Tribal Leaders over the next 20 years.

1.6 TRIBAL TRANSPORTATION PROGRAM

The Tribal Transportation Program (TTP) is the largest program in the Office of Federal Lands Highway. Established in code 23USC 202 to address the transportation needs of tribal governments throughout the United States, the program receives $450,000,000 annually to provide safe and adequate transportation and public road access to and within Indian reservations, Indian lands, and Alaska Native Village communities. There are a total of 566 federally recognized tribes that share the funds from the TTP. A prime objective of the TTP is to contribute to the economic development, self-determination, and employment of Native Americans.

Each year under Moving Ahead for Progress in the 21st Century (Map-21), two percent of the available TTP funds are set aside for improving deficient bridges, and an additional two percent are set aside to address safety issues on Native lands. Funds are available through a competitive, discretionary program.

2.0 PREVIOUS PLANS AND STUDIES

This chapter presents a review of previously completed plans and studies relevant to this study. Review of completed planning efforts often provides an insight into previously identified transportation issues and potential transportation improvements.

2.1 1976 SECRETARIAL LAND USE PLAN

This plan provides land uses within the Havasupai Indian Reservation including residential, education, and other community purposes of members of the Tribe that are consistent with park uses and values. The plan was developed as part of Senate Bill 1296, which provided for the enlargement of the Havasupai Indian Reservation by 185,000 acres.

2.2 1996 HAVASUPAI TRANSPORTATION IMPROVEMENT PLAN FOR WILAHA ROAD

This transportation plan focused on improvements to Wilaha Road in Northern Arizona. It compares four alternatives: (1) No improvements, (2) Realign, grade, and drain Wilaha Road, (3) Pave and otherwise improve Wilaha Road, and (4) Pave Wilaha Road to bring it to high-speed standards and other network improvements.

The report suggested paving Wilaha Road from SR64 to IR18 to increase tourism. It also suggested developing facilities at Hualapai Hilltop such as a motel, gas station, convenience market, and campsite. When the demands for goods and services by Wilaha Road users are added to demand from the Havasupai Indian Tribe, and other visitors at Hualapai Hilltop, the aggregate demand may be enough to justify the development of these facilities; bringing additional revenue for the Havasupai Tribal enterprises.

2.3 2003 HAVASUPAI INDIAN RESERVATION TRANSPORTATION PLAN INTERIM REPORT

In 2003 the Havasupai Indian Reservation Transportation Plan Interim Report was initiated to analyze transportation needs throughout the Reservation. The plan addressed existing land uses, economic conditions, and employment. A roadway inventory was completed for the Havasupai Indian Tribe. However, part two of the plan was not completed and the transportation plan was never finalized.

2.4 2009 TRIBAL TRANSIT PLAN

This plan identifies a number of projects that will assist the Havasupai Indian Tribe in starting up a transit program with a Tribal Transit Start-up Grant. Some of the recommendations in this study include: developing transit plan policies and procedures for a transit program, purchasing vans, and initiating passenger and freight operations.

2.5 2011 ROAD SAFETY ASSESSMENT OF IR18

Conducted in 2011, the IR18 Road Safety Assessment (RSA) was requested by the Havasupai Indian Tribe to identify countermeasures to reduce motor vehicle crashes along the road. The study investigated roadway characteristics, historical crash records, and safety conditions to highlight various safety issues along the corridor.

Key elements identified in the study include:

- Based on an analysis of ten years of crash data (1997-2006) from the Inter Tribal Council of Arizona, Inc. (ITCA), the corridor's crash rate was 135 crashes per 100 million vehicle-miles (MVM), which is 62 percent higher than the average rate for Arizona 2-lane rural roads of 84 crashes per 100 MVM.

- 40 percent of all crashes that occurred on Supai Road (IR18) were animal related, with 27 percent striking an animal and 13 percent involving overturns due to drivers swerving to avoid an animal on the road.

- Safety issues identified along Supai Road (IR18) within the Havasupai Indian Reservation included:
    - Poor pavement conditions with potholes and cracks.
    - Lack of centerline and edge line pavement markings make nighttime travel difficult.
    - Improper signage and lack of signage warning vehicles of speeds and sharp curves.
    - Outdated guardrails with vegetation growth.

- Some of the recommended countermeasure improvements include:
    - Install thermoplastic centerline and edge line markings to provide 12-foot lanes and 2-foot shoulders.
    - Conduct a ball bank analysis of curves to determine appropriate warning signs, advisory speeds and sign locations.
    - Provide consistent signing for speed zones.
    - Install roadside delineators at curves.
    - Replace outdated guardrail and remove vegetation on front of guardrail.
    - Install "OPEN RANGE" signs where appropriate and repair fences and cattle guards at locations that provide openings for livestock to access the road.

2.6 HAVASUPAI INDIAN TRIBE LONG MESA ROAD COORDINATION MEETING NOTES 2014

A meeting was coordinated between the Havasupai Indian Tribe and ADOT at the ADOT Flagstaff District Training Room to identify Long Mesa Road issues, current concerns, and impacts of future improvements. Long Mesa Road is a 17-mile-long primitive dirt road on the Havasupai Indian Reservation, located south of and adjacent to Grand Canyon National Park. The road is critical to the economy, health, and welfare of the Tribe and is the most economical route available to transport supplies to Supai Village. Supai is the Tribe's largest settlement and is the center of governmental, educational, and commercial activities. The road is also the Tribe's only route that provides access to electrical utilities, telecommunications, and a solid waste transfer area. Discussions centered on responsibilities, ownership, right of way, fencing,

maintenance, solid waste movement, environmental issues, and potential strategies for funding improvements.

2.7 HAVASUPAI INDIAN TRIBE SOLID WASTE CABLE NETWORK STUDY

The Havasupai Indian Tribe and Indian Health Service engaged the services of Engineering Specialties Group to analyze the current methods of removing solid waste from Supai Village and recommend alternative waste transport methods. The resulting study produce by ESG was entitled *Havasupai Solid Waste Cable Network Study.* The study states that there are 108 homes in the Village whose residents generate solid waste; this waste must be collected and transported out of the Village for ultimate disposal. In terms of waste generated, the study references the *Integrated Solid Waste Management Engineering Principles* (SWMEP) *and Management Issues* study (Tchobanoglous/Theisen/ Vigil, 1993). The ISWMEP provides an estimate of the annual tons of solid waste generated using the standard waste generation of 4 pounds per person per day as discussed above to be 274 tons.

The proposed Supai waste handling tram is called a bicable reversible tram. The cable system has a fixed rope suspended between the terminals and towers. The cabins have wheels that roll on the fixed cable. There is a second cable attached to the cabins that moves and tows the cabins along the fixed cable. At the towers, the cabin rolls over the fixed cable on top of the tower and the moving cable is supported by wheels called sheaves. For this tram application, an open frame "basket" carrier would be used to move solid waste to the upper terminal or building supplies to the lower terminal.

The preferred method of waste removal is to develop a 4-cubic yard container, similar to the existing orange containers currently used throughout the Village. The trailer frame would be designed with a box steel frame mounted to a suitable axle allowing it to be efficiently moved though out the Village even in adverse weather. This could be accomplished by solid rubber wheels capable of rolling off and onto the cable system and finally transported out of the Village to Long Mesa eliminating the need for any additional handling of the waste in the Village or at Long Mesa.

2.8 2015 HUALAPAI TRIBE LONG RANGE TRANSPORTATION PLAN

The Hualapai Indian Tribe, adjacent to the Havasupai Indian Tribe, conducted a long range transportation plan to identify and address the most critical current and future transportation needs on the Hualapai Indian Reservation. The study was funded by the federal State Planning and Research Program and administered through ADOT's Multimodal Planning Division's Planning Assistance for Rural Areas (PARA) program.

The primary goal of this study was to develop a transportation plan that promotes safety and mobility, enhances economic vitality, improves community livability, encourages environmental and cultural sensitivity, and supports current and planned economic development. The study also included a comprehensive inventory update of the Hualapai Tribe's roads and the NTTFI.

Roadway conditions currently in the inventory were updated, additional roadways were added, and some roadways were removed.

The Hualapai LRTP suggests improvements to IR18 in the safety evaluation that include adding five feet of unpaved shoulders from SR66 to the Hualapai Reservation Boundary. The plan also suggests clearing roadside vegetation to the fence line and upgrading the existing fencing to ADOT and Arizona Game and Fish (AZGF) standards. Additional suggested roadway safety features include installing recessed reflective pavement markers, street name signs, and warning signs on IR18 from SR66 to the Hualapai Reservation Boundary.

2.9 2015 HUALAPAI TRANSPORTATION SAFETY PLAN

The Hualapai Indian Tribe completed a tribal transportation safety plan to address fatal and serious injury crashes within the Hualapai Reservation. Emphasis areas were identified and ranked for improvement. Some of the improvements for priority one include adding rumble strips, modifying pavement markings and widening shoulders on SR 66 to reduce road departure and rollover crashes.

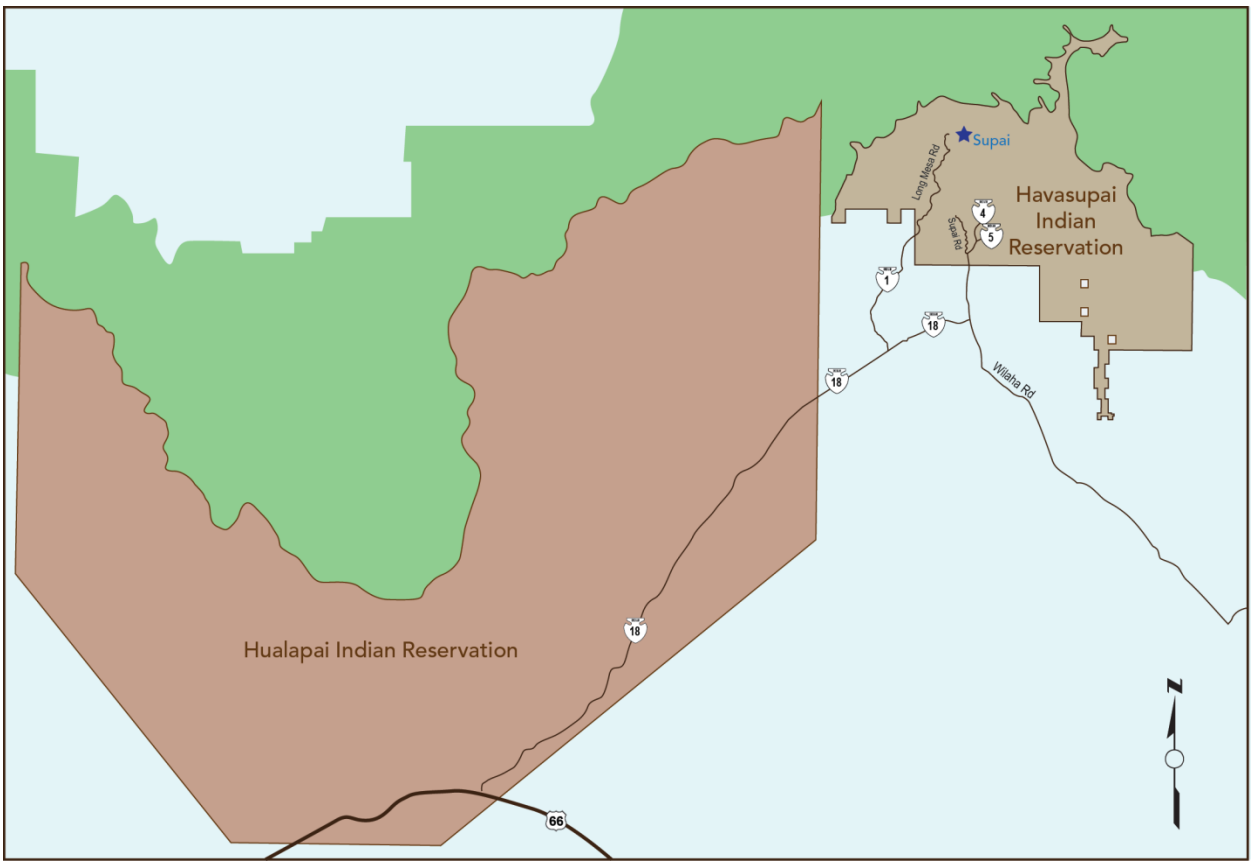


Figure 4. Hualapai Reservation

3.0 THE EFFECTS OF COMMUNITY REMOTENESS

Because Supai Village is the most remote community in the continental United States, the Havasupai Indian Tribal Members experience transportation hindrances that impact the quality of life in the inaccessibility to basic needs: health services, banking, education, food, employment, recreation, and shopping. The effects of community remoteness are presented herein.

3.1 EMERGENCY SERVICES (EMS/MEDICAL)

Emergency services are provided by Coconino County Search and Rescue, as well as through a contract with an EMS/helicopter service, separate from the Airwest Helicopter basic transportation uses.

3.2 HEALTH SERVICES

The remoteness of the Tribe makes the travel time to health services longer than average when compared to travel times for older adults in rural and small urban areas. See Table 1 for a comparison. The Tribe does have a Health Clinic within Supai Village, however, if the Clinic cannot provide the services needed, members of the Havasupai Indian Tribe must travel to Peach Springs, Kingman, Parker, or even Tuba City, depending upon the health condition, to receive medical care. This increases healthcare costs by requiring overnight stays and long commutes.

Table 1. Distance and Travel Time to Health Care Services Comparison

	Washington State*	North Dakota**	Havasupai Indian Tribe***
Time going to routine care (min.)	17.5	28.5	120
Distance going to routine care (mi.)	8.6	19.9	80
Time going to urgent care (min.)	17.9	29.9	160
Distance going to urgent care (mi.)	8.6	21.6	130

Source: * How Long and How Far Do Adults Travel and Will Adults Travel for Primary Care? http://www.ofm.wa.gov/researchbriefs/2013/brief070.pdf

** Transportation, Distance, and Health Care Utilization for Older Adults in Rural and Small Urban Areas, http://www.ugpti.org/pubs/pdf/DP236.pdf

*** Hualapai Hilltop to Peach Springs; does not include wait time for EMS/helicopter or travel time from Supai Village.

3.3 FOOD/RETAIL

Food supply and deliveries are brought in by helicopter (Airwest Helicopters) and horseback on a regular schedule throughout the year. This makes the cost of living greater in the Village due to the extra costs of hauling in supplies.

For most other regular food and retail shopping trips, tribal members typically travel to Peach Springs or Kingman. There is a new grocery store in Peach Springs, but this is more than a 150-mile round trip.

3.4 EDUCATION

There is a tribal Head Start school in Supai, as well as an elementary school through 8th grade. However, there is no high school in Supai. For high school, most of the children are sent to boarding schools in California, Oklahoma, Oregon, South Dakota, or eastern Arizona (Fort Apache). If a child attends one of the regional public schools they must travel to Seligman, Kingman, or Flagstaff. Peach Springs no longer has a high school. Some students also choose on-line schooling.

3.5 TRIBAL BUSINESS/GOVERNANCE

Off-site tribal/council travel can be cumbersome and inefficient. One interviewee offered an example of an upcoming meeting with the BIA in Williams: If the helicopter isn't flying on the day of the meeting and/or on the day of the return trip, then it would be necessary for tribal council members to spend up to 3 extra days/nights. This can cause a one-day trip/meeting to extend to five days. Such inefficiency results in added costs to the tribe, as well as time away from their families and the community.

3.6 HAULING OF SOLID WASTE

The hauling of solid wastes is a huge undertaking that affects the Havasupai Indian Tribe. Currently, solid waste is hauled out by helicopters or horseback. This increases the cost of living in Supai Village.

4.0 EXISTING TRANSPORTATION CONDITIONS

This section inventories essential elements of the existing land use, transportation system, and documents the status/condition of each element. Major elements inventoried include roadway characteristics, crash history, and roadway performance conditions.

4.1 EXISTING LAND USE

Integrating land use into transportation planning is essential so communities can accommodate "smart growth" processes and promote sustainable development. Sustainable development improves mobility, supports economic growth, and ensures the financial stability of the transportation system. This approach helps maintain the quality of living for the people, the quality of the community as a whole, and also reduces the need for roadway expansion. Existing land use data was compiled based on existing planning documents and a comprehensive field review and includes:

- Residential
- Agricultural/Forestry/Grazing
- Education – Tribal Elementary School
- Institutional/Government – The Havasupai Tribal Headquarters and all other government institutions are located within Supai Village, including the US Post Office.
- Health – Havasupai Health Clinic, The Senior Center
- Commercial – Havasupai Lodge, Tribal Café, The General Store, Museum, Cultural Center, and Silkscreen Studio
- Public and Recreation – Navajo Falls, Havasu Falls and Campground, Mooney Falls, Beaver Falls, Colorado River

Figures 5 and 6 illustrate the land uses of the Havasupai Indian Reservation and Supai Village.

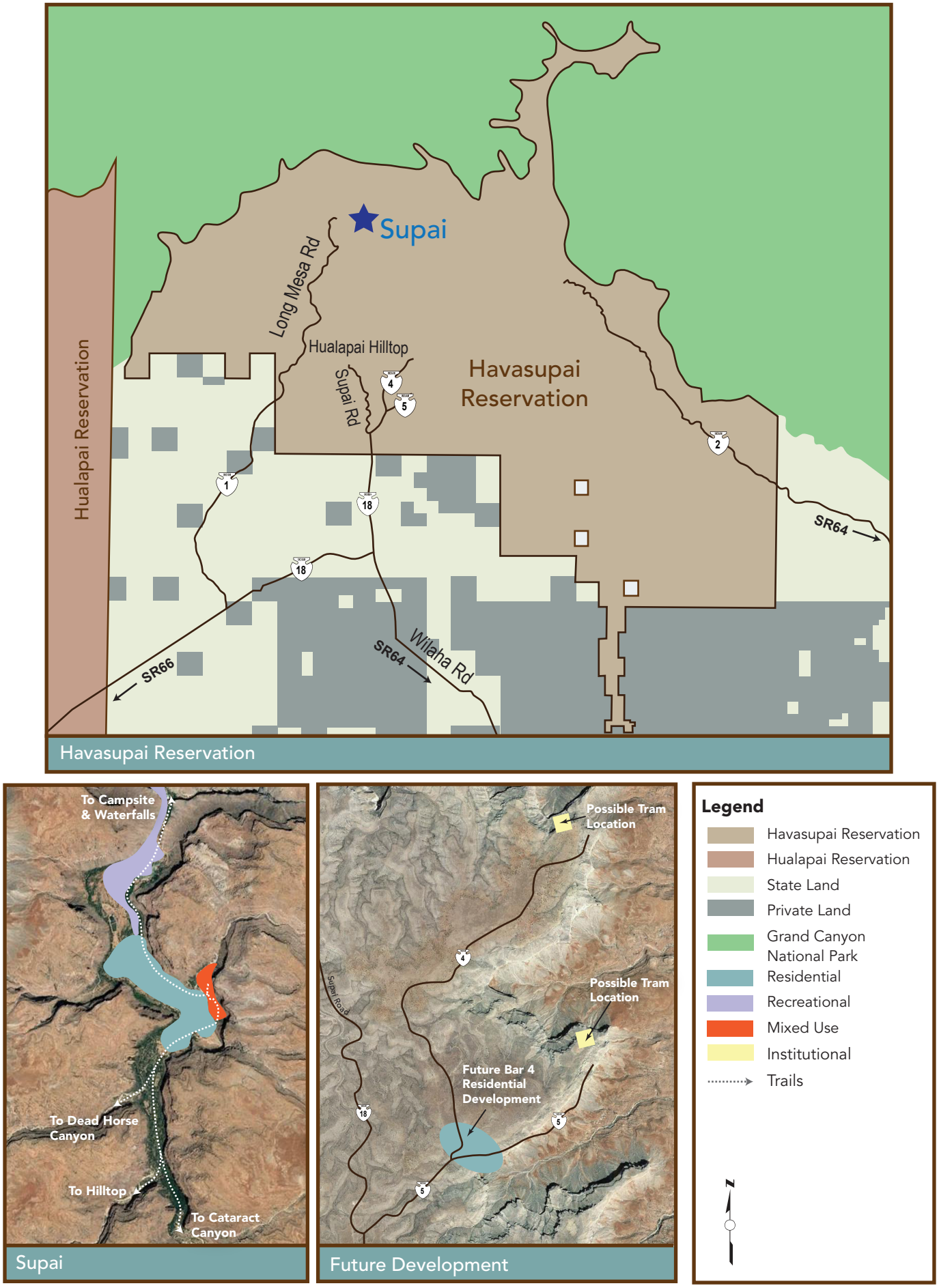


Figure 5. Havasupai Reservation Land Use

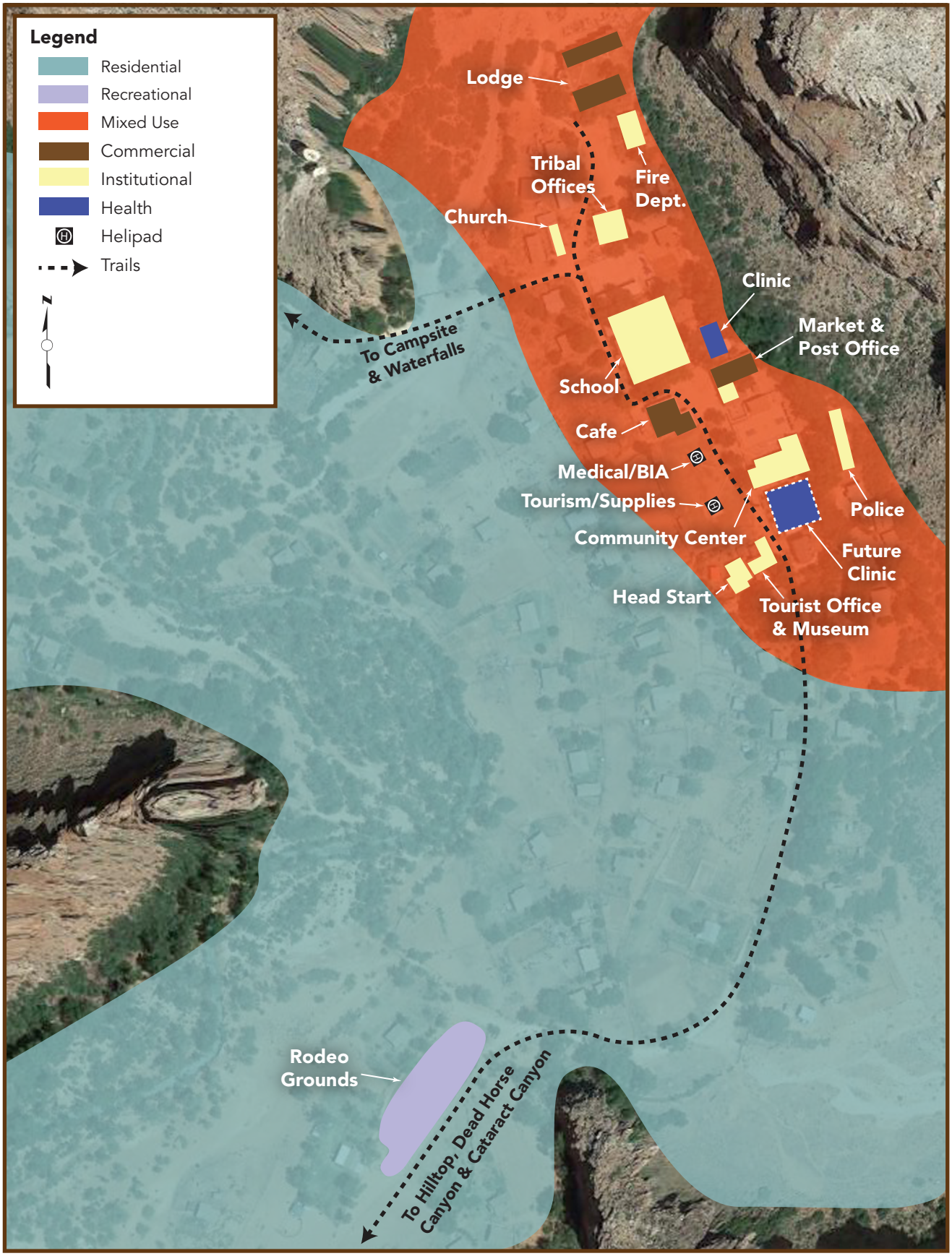


Figure 6. Supai Village Land Use

4.2 EXISTING ROADWAY CHARACTERISTICS AND ASSESSMENT

This section presents data on the current roadway conditions to identify needs of the transportation system.

4.2.1 BIA Functional Classification

Functional classification is the process by which streets and highways are grouped into classes according to their role of moving traffic through a roadway network. Planners and engineers utilize this hierarchy to establish a roadway's design standards, speed capacity, access management features, and land use development. Functional classification also impacts a road's eligibility for federal transportation funds for road improvements and maintenance. Roads within the Havasupai Indian Reservation are classified by the BIA functional classification system.

Roadway functional classification data was obtained from the Havasupai Road Assessment dated July, 2010. Figure 7: Functional Classification presents the BIA classifications on the Havasupai Indian Reservation. Table 2 lists the BIA functional classification types and definitions. Upon discussion with the BIA Western Regional Office, it was determined that the functional classification of roadways in the current National Tribal Transportation Facilities Inventory (NTTFI) needs to be updated to reflect changes made to the BIA functional classification guidelines in 2007.

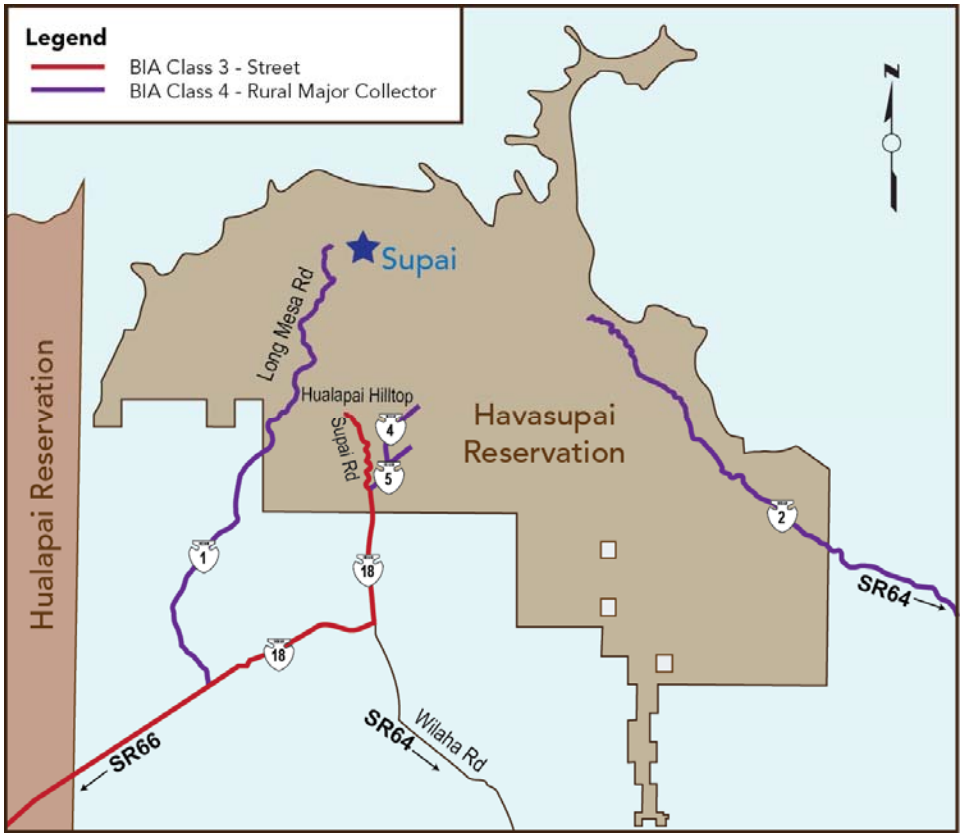


Figure 7. Functional Classification

Table 2. BIA Functional Classification Definitions

Class	Description
1	Major arterial roads providing an integrated network with characteristics for serving traffic between large population centers, generally without stub connections and having average daily traffic volumes of 10,000 vehicles per day or more with more than two lanes of traffic.
2	Rural minor arterial roads providing an integrated network having the characteristics of serving traffic between large population centers, generally without stub connections. May also link smaller towns and communities to major resort areas that attract travel over long distances and generally provide for relatively high overall travel speeds with minimum interference to through traffic movement. Generally provide for at least inter-country or inter-state service and are spaced at intervals consistent with population density. This class of road will have less than 10,000 vehicles per day.
3	Streets that are located within communities serving residential areas.
4	Rural major collector road is a collector to rural local road class.
5	Rural local road that is either a section line and/or stub type road, makes connections within the grid of the TIP system. This class of road may serve areas around villages, into farming areas, to schools, tourist attractions, or various small enterprises. Also, included are roads and motorized trails for administration of forests, grazing, mining, oil, recreation, or other purposes.
6	City minor arterial streets that are located within communities and serve as access to major arterials.
7	City collector streets that are located within communities and serve as collectors to the city local streets.
8	Encompasses all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, trail bikes, snowmobiles, all-terrain vehicles, or other uses to provide for the general access of non-vehicular traffic.
9	Encompasses other transportation facilities such as public parking facilities adjacent to TIP routes and scenic pullouts, ferry boat terminals, and transit terminals.
10	Encompasses airstrips that are within the boundaries of the TIP system grid and are open to the public. These airstrips are included for inventory and maintenance purposes only.
11	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.

4.2.2 Analysis of Roadways

The four roadways within the Havasupai Indian Reservation that were reviewed within this study include IR18, IR1, IR4, and IR5.

IR18 (Supai Road)

IR18 or Supai Road is the only paved roadway within the Havasupai Indian Reservation. IR18 is the route for tourists traveling to Hualapai Hilltop and hiking to the Havasu Falls. IR18 is a two-lane road with two-foot shoulders. The posted speed on IR18 varies from 35 mph to 50 mph. However, actual speeds were collected on IR18 near the IR1 (Long Mesa Road) intersection. The collected speed data on IR18 showed an average speed of 63 mph and an 85 percentile speed of 72 mph.

The Havasupai Indian Tribe requested and secured $980,174 of fiscal year 2013 TTP Safety Funds to improve IR18. Road improvement construction was completed in October 2015 and provided pavement rehabilitation, signing, and striping enhancements to IR18. No street lighting exists on IR18.

Roadway drainage conditions exist on IR18 at Joe's Curve. Drainage improvements were completed in this area; however, there are still drainage issues that need to be addressed within Joe's Curve.

IR1 (Long Mesa Road)

IR1 or Long Mesa Road is an unpaved, two-lane BIA Route which traverses through State Trust Land and Navajo Nation Land (Boquillas Ranch) to reach the Havasupai Indian Reservation. There is no existing right of way. IR1 is currently not fenced and wildlife game migration patterns within the area cross IR1. IR1 ends on top of the mesa overlooking Supai Village.

Long Mesa Road is critical to the economy, health, and welfare of the Tribe and is the most economical route available to transport supplies into Supai Village. Long Mesa Road is the Tribe's primary route for reaching electrical utilities, telecommunications, and solid waste transfer facilities that service Supai Village. Despite the Tribe's need to access Long Mesa Road to maintain facilities, the road is very difficult to traverse in ideal weather conditions and becomes impassible during the rainy seasons. Additionally, most heavy supplies come to Supai via IR1 (Long Mesa Road) where they are loaded onto helicopters and flown down into Supai. Therefore, it is imperative that this route remain open year round regardless of inclement weather. Currently this is not the case, because Long Mesa Road is an unimproved dirt road that traverses through multiple jurisdictions.

IR4 and 5

IR4 and 5 are unpaved, one-lane roadways which traverse from IR18 on the Havasupai Indian Reservation to the mesa overlooking Cataract Canyon. IR4 and 5 are not fenced and wildlife roams within this area. There is an existing maintenance shed located on IR5 near the intersection of IR18/IR5.

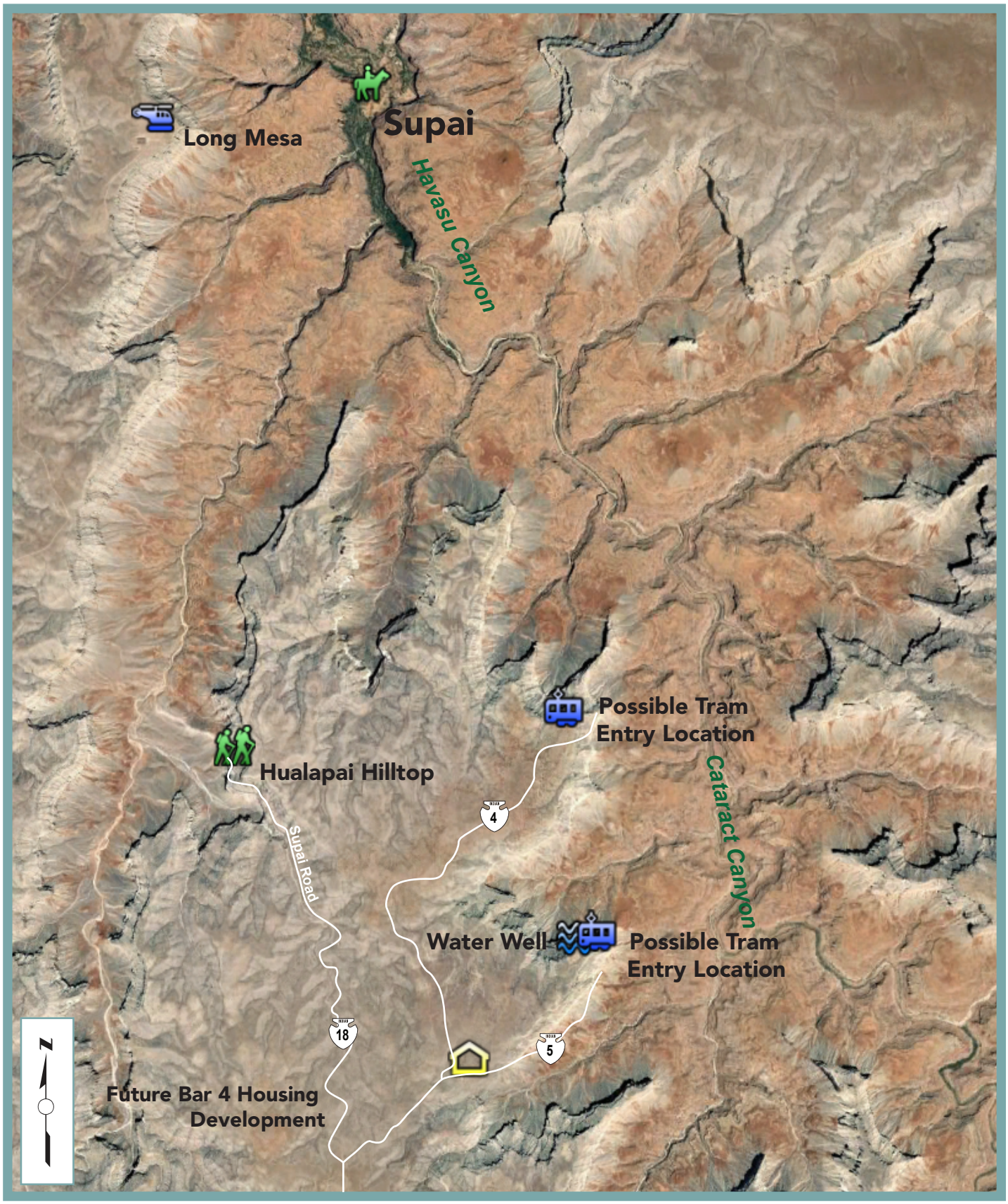


Figure 8: Site Plan of Havasupai Indian Reservation

4.2.3 Traffic Control

The usage of traffic control devices ensures orderly traffic flow at intersections and along roadway networks. Within the study area, there are no signalized intersections. Stop signs are generally located at major intersections with IR18. Traffic control signs on IR18 within the study area were upgraded in October 2015. Signing on IR1 is faded and should be inventoried and upgraded in the future.

4.3 EXSITING TRAFFIC CONDITIONS

Average daily traffic counts were collected in March and September 2015 on IR18 and IR1. The traffic counts also provided vehicle classification and travel speeds on IR18. The existing average daily traffic volumes on IR18 and IR1 are shown on Figure 7. Existing Average Daily Traffic Volumes. Tables 3 and 4 present the daily traffic volumes by date.

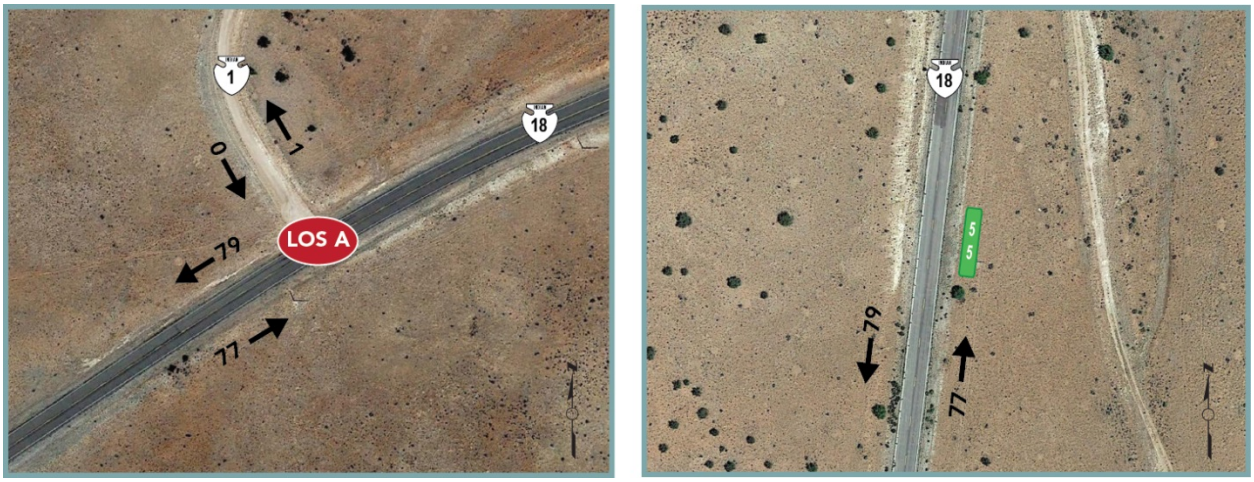


Figure 9. Existing Average Daily Traffic Volumes

Table 3. Daily Traffic Volumes at the Intersections of IR1 and IR18

	IR1			IR18		
Date	Eastbound Total Volume	Westbound Total Volume	Daily Traffic Volume	Northbound Total Volume	Southbound Total Volume	Daily Traffic Volume
Thursday April 23, 2015	0	0	0	133	5	138
Friday April 24, 2015	0	0	0	149	11	160
Saturday April 25, 2015	0	0	0	62	4	66
Sunday April 26, 2015	0	1	1	96	34	130

*Average daily traffic (ADT) not calculated. Minimum of one week data required for valid ADT.

Table 4. Daily Traffic Volumes on IR18 at Mile Post 55

Date	Northbound Total Volume	Southbound Total Volume	Daily Traffic Volume
Wednesday, September 2, 2015	31	33	64
Thursday, September 3, 2015	63	76	139
Friday, September 4, 2015	120	75	195
Saturday, September 5, 2015	116	41	157
Sunday, September 6, 2015	88	127	215
Monday, September 7, 2015	79	170	249
Tuesday, September 8, 2015	41	30	71
AVERAGE DAILY TRAFFIC (ADT)	77	79	156

The average daily traffic on IR18 is approximately 160 vehicles per day with a directional split of 50/50 northbound/southbound as shown in Table 4.

Average and 85 percentile speeds were collected on IR18 at MP 55. Northbound, the average speed was 70 mph with an 85th percentile speed of 81.5 mph. Southbound, the average speed was 61 mph with an 85th percentile speed of 71.5 mph.

4.4 METHODOLOGIES FOR TRAFFIC CHARACTERISTICS

The degree of traffic congestion at an intersection or along the roadway is expressed in terms of level of service (LOS). LOS is a measurement of traffic congestion conditions defined by the *Highway Capacity Manual* published by the Transportation Research Board (TRB).

4.4.1 Intersection Level of Service (LOS)

Levels of service provide a common and consistent means of evaluating the need for improvements. The LOS concept is widely used and offers a uniform analysis methodology. Beginning in 1965, the LOS concept has been used in traffic engineering to describe the quality of traffic flow and the degree of congestion a driver can expect. The concept defines the near-capacity condition as Level of Service "E", while a free flow condition under which a driver would experience very little or no delay is defined as Level of Service "A". Capacity analysis is a procedure used to compare the forecasted traffic volumes with the theoretical carrying capacity of an intersection. The results of the capacity analysis are an estimator of the quality of flow for that intersection.

The intersection's LOS was determined using the methodologies presented the *Highway Capacity Manual*. The delay thresholds for levels of service are shown in Table 5.

Table 5. Level of Service

Level of Service	Signalized Delay (Sec/Veh)	Unsignalized Delay (Sec/Veh)
A	≤ 10	≤ 10
B	> 10 and ≤ 20	> 10 and ≤ 15
C	> 20 and ≤ 35	> 15 and ≤ 25
D	> 35 and ≤ 55	> 25 and ≤ 35
E	> 55 and ≤ 80	> 35 and ≤ 50
F	> 80	> 50

Source: Highway Capacity Manual 2010

The LOS criteria for two-way stop controlled intersections is somewhat different from the criteria used for signalized intersections primarily because different transportation facilities create different driver perceptions. The expectation is that a signalized intersection is designed to carry higher traffic volumes and experience greater delay than an un-signalized intersection.

4.5.2 Roadway Level of Service (LOS)

For roadways, most jurisdictions strive to obtain an LOS of C or better. Roadways having a level of service in the E or F range are considered congested and warrant further review for possible upgrading. Where feasible, capacity improvements or other remedial actions are usually recommended if the level of service is worse than D.

Levels of service on roadway segments are defined as follows:

- LOS A – Free-flowing conditions. The operation of vehicles is virtually unaffected by the presence of other vehicles, and operations are constrained only the geometric features of the highway and driver preferences.
- LOS B – Indicative of free flow, but the presence of other vehicles begins to have a noticeable impact on speeds and freedom to maneuver.
- LOS C – Represents a range on which the influence of traffic density on operations becomes marked. The ability to maneuver within the traffic stream, and to select an operating speed is now clearly affected by the presence of other vehicles.
- LOS D – Borders on unstable flow. Speeds and ability to maneuver are severely restricted because of congestion.
- LOS E – Operations are near or at capacity and flow is quite unstable.
- LOS F – Represents forced or breakdown flow.

The analysis of roadway segment's level of service is based on the number of lanes, the functional classification of the roadway, the maximum desired level of service capacity, roadway geometrics, and the existing or forecasted average daily traffic volume

Table 6. Roadway Level of Service provides the proposed segment level of service (LOS C and D) maximum volumes, for various facility classifications.

Table 6. Roadway Level of Service

Roadway LOS	LOS C	LOS D
IR18 – 2 lanes	4,000	6,000
Paved Roadway – 2 lanes	1,000	2,000
Unpaved Roadway – 2 lanes	200	300

Volumes shown in the table should not be used to determine roadway classifications. Roadway classifications should be determined by definitions presented in Table 2. BIA Functional Classification Definitions.

Based on the methodologies presented in the Highway Capacity Manual, the intersection of IR18/IR1 operates at an acceptable level of service, LOS A. In addition, IR18 operates at a roadway LOS A.

4.5 CRASH DATA ANALYSIS

An RSA was conducted on IR18 in 2011. The crash data analysis included 10 years of crash data (January 1, 2000 to December 31, 2009) collected from the ADOT Information Technology Group's Safety Data Mart, which is ADOT's crash database. The following is a summary of the crashes occurring during this time period.

According to ADOT data, 15 crashes occurred on IR18 during the 10-year analysis period. In addition, an ITCA report showed that 37 crashes occurred on IR18 during a 10-year period ending December 31, 2006. Using the ITCA crash total, the crash rate was 135 crashes per hundred million vehicle miles (MVM); the average rate for Arizona 2-lane rural roads is 84 crashes per 100 MVM. The fatal crash rate was 18.3 fatal crashes per 100 MVM; the average rate for Arizona 2-lane rural roads is 3.9 fatal crashes per 100 MVM.
The severity of the 15 crashes is summarized below:

- 5 fatal crashes
- 1 incapacitating injury
- 3 possible injuries
- 6 property damage only

All of the reported crashes were single vehicle crashes. The crash type percentage is summarized below:

- 47 percent rollover
- 27 percent animal
- 13 percent fixed object
- 13 percent other non-collision

The light conditions at the time of each of the 15 crashes are summarized below.

- 60 percent daylight
- 40 percent dark/dawn

Eight of the 15 crashes occurred in 2000, indicating that a change in crash reporting to ADOT may have occurred after 2000, since the crash frequency dropped substantially.

A query of the ADOT crash database for any crashes that occurred on IR18 or IR1 between January 2010 and December 2014 showed 2 crashes: a single vehicle crash into a fixed object on IR18 near milepost 31, and another single vehicle crash into a tree on IR18 near milepost 31.

Hualapai Police Chief Bradley indicated that his department's traffic crash concerns are near mileposts 14-18, 42, and 46 on IR18.

4.6 OTHER MODES OF EXISTING TRANSPORTATION

4.6.1 Helicopter Service

Airwest Helicopters provides transportation between Hualapai Hilltop and Supai Village by authorization of the Havasupai Indian Tribe. The services are available most Fridays and Sundays each week. During the busier seasons in Supai Village (April through October) these services increase to Thursdays, Fridays, Sundays, and Mondays.

4.6.2 Pedestrians – Hiking, Horseback, and Mule

Pedestrians can hike or ride horses/mules into and out of Supai Village. The trail is approximately seven miles and consists of steep slopes at the beginning of the trailhead. The trail is located in the Havasu Wash; sand and gravel cover most of the path.

4.6.3 Transit

Currently there is no official public service transit within the Havasupai Indian Reservation; however, the Tribe has two vans. One van is used for head-start, the second van is used to shuttle passengers into Peach Springs or Kingman on an as-needed basis. The two vans are located in a garage near the IR18/Bar 4 Road intersection. According to the ADOT Transit Program, no state or federal funds have been used in their purchase or operation since 2008.

4.7 COMMUTING CHARACTERISTICS

Utilizing 2006-2010 American Community Survey (ACS) data, employee commuting patterns and vehicle availability was identified for the Havasupai Indian Tribe. Table 7 summarizes the means of transportation for workers age 16 and older to commute to work and Table 8 outlines the typical travel time to work on the Havasupai Indian Reservation. As presented in the table, approximately 60 percent of those surveyed walked to work. This is due to the fact that vehicles are not permitted in Supai Village.

As presented in Table 8, 46 percent of employees on the Havasupai Indian Reservation have a commute time under 10 minutes. This small commute time is due to the fact that 60 percent of

Tribal members walk to work. An additional, 4 percent of employees have a commute time over 90 minutes. More than likely, these employees work outside of Supai Village and commute to Peach Springs or Kingman.

Table 7. Means of Transportation to Work

Means of Transportation	Total Population	Percent
Car, Truck, or Van – Drove Alone	42	20%
Carpooled	17	8%
Public Transportation	0	0%
Walked	125	60%
Other Means	5	2%
Worked at Home	19	9%

Source: US Census Bureau, 2006-2010 American Community Survey

Table 8. Travel Time to Work

Travel Time	Total	Percent
Less than 5 Minutes	21	11%
5 to 9 Minutes	66	35%
10 to 14 Minutes	27	14%
15 to 19 Minutes	45	24%
20 to 24 Minutes	13	7%
25 to 29 Minutes	0	0%
30 to 89 Minutes	9	5%
Greater than 90 Minutes	8	4%

Source: US Census Bureau, 2006-2010 American Community Survey

In reality, the remoteness of Supai Village creates travel times much greater than 90 minutes. Traveling into and out of Supai Village usually takes all day.

5.0 EXISTING AND FUTURE DEMOGRAPHICS AND SOCIOECONOMIC CONDITIONS

This section summarizes the current and future socioeconomic conditions within the study area.

5.1 EXISTING DEMOGRAPHICS

A review of the existing population and employment was conducted to understand the demographic characteristics of the Havasupai Indian Reservation and the surrounding region.

As identified by the US Census Bureau, Table 9 summarizes the population and housing growth trends from 2000 to 2010 for the Havasupai Indian Reservation, Supai census designated place (CDP), Mohave, and Coconino County, and the State of Arizona. According to the US Census Bureau, the Havasupai Indian Reservation had a slight increase in total population since 2000.

Table 9. Population and Housing Unit Growth Trends

Graphic Area	Population		Population Growth	Housing Units		Housing Unit Growth
	2000	2010		2000	2010	
Havasupai Indian Reservation	645	662	3%	191	157	-17%
Supai CDP*	-	152**	-	-	47**	-
Mohave County	155,032	200,186	29.13%	53,443	63,321	18.5%
Coconino County	116,320	134,421	15.6%	80,062	110,911	38.5%
State of Arizona	5,130,632	6,392,017	24.6%	2,189,189	2,844,526	29.9%

Source: 2010 US Census, 2000 US Census
*Supai CDP was newly defined for the 2010 Census
**Data different from the Havasupai Indian Tribe Long Mesa Road Coordination Meeting

Based on the Havasupai Indian Tribe Long Mesa Road Coordination Meeting, dated February 28, 2014, and conversations with the Havasupai Tribal Council in June 2015, there are approximately 550-600 people that live in Supai Village, and it contains 112 home sites. Additionally, there are approximately five cabins where people live outside Supai Village, on top of the canyon, near the Grand Canyon.

The 2010 US Census determined that 100 percent of housing units on the Reservation are occupied with an average household size of 3.95; which is larger than the Arizona state average household size of 2.63.

To determine current employment levels within the Reservation, data was compiled from the 2010 US Census data. Based on this data, there are approximately 208 employees within the Havasupai Indian Reservation.

5.2 FUTURE DEVELOPMENT AND GROWTH TRENDS

Forecasting socioeconomic conditions allows planners to anticipate changes in future travel demand and to envision potential solutions. Development of rational projects for population,

housing units, and employment for each horizon year is vital to the process of forecasting realistic traffic volumes. Potential future developments within the study area were identified with input received by the TAC and shown in Table 10.

Table 10. Potential Study Area Developments

Planning Area	Potential Development
Hualapai Hilltop	• Transit Stop
Joe's Curve	• New parking area • Shuttle stop • Expanded maintenance facility and solid waste transfer station • Housing for additional van/paratransit service
IR5/IR4	• Bar 4 residential development – approximately 20 homes by 2025 and 20 additional homes by 2035 • Expanded maintenance facility
IR5 – Cataract Canyon	• Possible tram entry location for supplies and solid waste
Supai Village	• Expanded Health Clinic • Replace Administration Building
Havasu Falls	• Expanded Campground

5.3 FUTURE POPULATION HOUSING ESTIMATES

Table 11 lists the estimated population and housing unit totals for the next 5- 10- and 20-year horizon periods.

Table 11. Population and Housing Growth Estimates

	2015	2020	2025	2035
Population*	600	610	620	640
Housing Units	117	117	137	157

**Estimated. 3% growth rate over 10 years based on US Census Bureau 2010 data.*

The population and housing projections were based on discussions with the Tribal Council regarding current Havasupai Indian Tribe membership requirements. If these requirements are modified, the population or housing units could spike and not follow historical growth rates for the Supai Village.

6.0 FUTURE TRANSPORTATION CONDITIONS/NEEDS

The primary purpose of forecasting traffic volumes is to estimate the additional travel demand added to existing roadways and to determine congestion levels based on projected growth in population. In addition, the analysis provides valuable insight into potential transportation solutions.

6.1 TRAFFIC VOLUMES AND LEVEL OF SERVICE

Forecasted traffic volumes are based on future development within the area. Based on previous studies and discussions with Havasupai Indian Tribe representatives, future growth could include a proposed future housing development at Bar 4, and the expansion of the campground at Havasu Falls which could lead to additional tourism. If tourism increases, a satellite parking area may be necessary during the tourist season. The satellite parking area could be constructed near Joe's Curve and visitors could be shuttled to Hualapai Hilltop, as necessary.

If no additional growth is proposed or expected and all land uses remain as they currently are, traffic volumes will not increase over the next 20 years. *IR18 currently operates and is anticipated to continue to operate at an LOS A within the study area.*

6.2 ROADWAY IMPROVEMENT CONCEPTS

Initial concepts were developed based on deficiencies and needs identified in the existing conditions analyses, future land use, public input and the goals and objectives established by the study team and the TAC at the onset of the study.

6.2.1 IR18 Roadway Improvements

Based on the traffic analyses, IR18 has the capacity to accommodate future traffic demand. In order to enhance safety and to adhere to BIA standards, the following safety and general roadway improvements were evaluated:

- Roadway pavement treatments
- Street cross section enhancements
- Safety features

IR18

On-going paved road maintenance and pavement reconstruction is critical to the overall safety of IR18 within the Havasupai Indian Reservation Boundary. IR18 is the only paved route within the Havasupai Indian Reservation and is significant because IR18 accesses Hualapai Hilltop and the parking area to access Supai Village. Maintaining the pavement conditions in IR18 can lessen maintenance costs to vehicles, improve overall safety, and provide motorists with a smoother more comfortable ride.

Pavement improvements on IR18 include:

- Pavement Rehabilitation: Minor rehabilitation consists of non-structural enhancements to eliminate age-related, top-down surface cracking that developed in flexible pavements due to environmental exposure. Major rehabilitation consists of structural enhancements that both extend the service life of existing pavement and or improve its load-carrying capability. Surface treatment methods include micro-surfacing, chip seal, slurry seal, and crack seal.

The Havasupai Indian Tribe requested and secured $980,174 of fiscal year 2013 TTP Safety Funds to improve IR18. In October 2015, the Havasupai Indian Tribe improved approximately 20 miles of IR18 from mile post 21.4 to mile post 44 using some of these pavement rehabilitation techniques.

In the future, IR18 should continue to be maintained using similar pavement rehabilitation techniques when the roadway condition warrants improvements. These improvements should be considered in the short- and mid-term plans. By 2035, IR18 may require pavement reconstruction.

- Pavement Reconstruction: Complete removal and replacement of the existing pavement structure. Required when the pavement has either failed or has become functionally obsolete. Reconstruction is also warranted when pavement needs to be widened to meet BIA standards. According to the Code of Federal Regulations, Title 25, Part 170, Subpart C, Appendix D, functionally classified roadways require the following minimum standards.

    - Class 4: 32-foot roadway width with 4-foot shoulders
    - Class 5: 28-foot roadway width with 2-foot shoulders
    - Class 3: 21-foot roadway width

Pavement reconstruction on IR18 is recommended for the long-term, 2035.

- Signing and marking on IR18 are in need of maintenance. Therefore, this should be a short-term improvement to enhance signing and marking on IR18 and improve safety. A signing inventory/maintenance plan should be conducted.
- Drainage issues need to be addressed near Joe's Curve. Therefore, this should be a short-term improvement.

6.2.2 IR1 (Long Mesa Road) Roadway Improvements

In 2014, private and public partners came together to discuss the road's purpose, needed improvements, maintenance agreements, cost sharing and construction feasibility. Preliminary cost estimates from BIA to pave 18.2 miles of IR1 would be approximately $900,000 for design and $15.5 million for construction.

The next steps include land owners coming together and beginning the initial processes to pave IR1. In addition, it will be necessary to research the economic impact and cost savings to the Havasupai Indian Tribe if IR1 were paved. An emphasis should be placed on regional job creation and substantial economic impacts in the Tribe's application for funding. These tasks and preliminary reports could be accomplished in the short term.

In addition, a plan should be developed and grading/drainage on IR1 should be maintained so that IR1 is passible throughout the year. The ability to keep this roadway passible is imperative to maintaining utilities for Supai Village.

Mid-term improvements for IR1 include all of the environmental documentation to pave IR1 along with BIA approval documentation.

Long-term improvements include design and construction the IR1 pavement project.

6.2.3 IR4 and IR5 Roadway Improvements

The Bar 4 residential development is proposed near the intersection of IR4 and IR5. Therefore, these routes will require improvements when the development is proposed.

During construction of the residential development, the roadways should be improved and paved to accommodate the growth. The first phase of development and roadway improvements should be considered with the mid-term improvements.

Long-term improvements include additional roadway improvements to accommodate the second phase of growth at Bar 4.

The end of IR5 or IR4 at Cataract Canyon could potentially be ideal for a future tram entry. An entry at IR5 would be the closest entry point from IR18 and therefore, paving the roadway would be less expensive; however, it is further from Supai Village. The end of IR4 is another potential tram entry location and is approximately 2 miles closer to Supai Village. However, IR4 would require more construction and pavement.

6.2.4 Intersection Improvements IR18/IR5

A tribal shed exists on IR5 just north of IR18 that houses two transit vans for the Havasupai Indian Tribe. Individuals come and go from the shed throughout the day. IR5 enters IR18 at a skewed angle. There are also sight distance issues due to the vertical and horizontal curves of IR18 at the intersection.

Transit Van Housing

Therefore, improvements should be made to the intersection to provide adequate sight distance and improve safety. Additionally, if the Bar 4 residential development is planned, the intersection should be improved prior to occupying homes within the new development. This work should be considered in the short-term improvements.

Sight distance on IR5 and IR18 looking south

Sight distance on IR5 and IR18 looking north

6.3 PACKING NEEDS

If tribal membership and/or tourism increase within Supai Village, additional packing services may be required to maintain necessary supplies within the Village. Therefore, the Tribe should continually monitor packing needs and determine when additional services are required to support Supai Village.

6.4 TRANSIT NEEDS

As ridership increases, the Tribe may consider adding two additional vans to the existing transit fleet. However, given the Tribe's record of non-participation in ADOT or local transit programs, and the fact that no ridership data exists for their existing assets, it is difficult to predict future demand. In the future, the Tribe should create a transit/shuttle stop at Hualapai Hilltop to take

passengers to Peach Springs or Kingman. In addition, the Tribe may add on to the existing transit garage. The expansion would include space to accommodate the proposed two additional vans, a rear studio apartment, a storage area, and light mechanical work area.

6.4.1 Funding Eligibility

To be eligible for future funding through the ADOT Transit Program, any tribal project would need to be included the Human Services Transportation Plan of the Northern Arizona Council of Governments (NACOG).

6.4.2 Population Thresholds for Implementing Various Levels of Transit Service

Population density represents the number of people residing per square mile and is the most common measure used by agencies to evaluate potential usage of the system. It is the best representation of ridership potential at the point of origin. Nearly 74 percent of transit agencies use this measure as a criterion for route design, as cited in *TCRP Synthesis 10* (1995).

Transit service should be designed to provide a higher degree of accessibility to areas of high density (7 to 17.9 dwelling units per residential acre) and medium density (2.2 to 6.9 dwelling units per residential acre) than to areas of low density development or areas protected from development (Milwaukee County TDP 2005-2009). Another major factor that determines transit propensity is employment density. Employment density represents the number of jobs per square mile. Typically, work trips account for well over one-half of a transit system's ridership. Almost 66 percent of respondents to the survey in TCRP Synthesis 10 use this measure in route design. To be considered transit supportive, an area should have a density of at least four dwelling units per net residential acre or at least four jobs per gross acre (Milwaukee County TDP 2005-2009). (Source: http://www.nctr.usf.edu/pdf/77720.pdf)

Extremely low density service, also referred to as life-line or peripheral service, provides some level of minimal service in areas with low population density or low transit use. This type of service typically operates on secondary streets. Extremely low density services usually operate with one-hour headways or higher and may not operate a for full day or every day. They are operated primarily to provide accessibility to transit-dependent populations that have no other alternative. While productivity is low, this type of service is often less expensive to run as compared to demand response services. It also can serve as a vital connection to more frequent service. (From *Best Practices in Transit Service Planning*, Center for Urban Transportation Research, University of South Florida, 2009, Source: http://www.nctr.usf.edu/pdf/77720.pdf)

6.5 HELICOPTER SERVICE NEEDS

To allow the community to travel more freely into and out of Supai Village, when the demand is consistent, the helicopter service could be increased to provide daily access into Supai at pre-determined times. This should be considered in the short to mid-term to give tribal members more flexibility in their schedules.

6.6 FUTURE CABLE TRAM TRANSPORTATION SYSTEM NEEDS

In 2013, Havasupai Indian Tribe studied the viability of a potential tram to transport solid waste out of the canyon and supplies into the canyon. The report solely focused on a system from IR1 (Long Mesa Road) to Supai Village. Based on public comment, if a tram concept were to be a viable option for solid waste transfer, tribal members would prefer a location that is not visible from Supai Village. Therefore, two alternative locations, IR5 and IR4 into Cataract Canyon are proposed as additional possibilities.

Possible Tram Location on IR5

Based on the *Havasupai Tribe Solid Waste Cable Network Study*, the construction cost for a cable system would be approximately $10 million with an annual operating cost of $500,000. To offset the costs, a tram that may eventually carry passengers should be considered for future revenue and economic growth.

In the short term a second phase of the cable study should be considered to determine if there are alternate locations for the tram that are not visible from Supai Village. Additionally, environmental documents, BIA required documents, and public involvement meetings should completed to identify culturally sensitive areas at possible tram entry/exit locations in the mid-term and make certain that the Havasupai Tribal members are in support of the tram. Long-term improvements would include the construction and operation of the tram.

If the Tribe is in agreement, a cable/tram transportation system could create unique tourism opportunities in the future, as well as a regular stream of revenue for the tribe. Tourism is the largest industry of the Havasupai Indian Tribe, with approximately 12,000 annual tourists, and accounting for more than half of tribal per capita income (see *Havasupai Indian Reservation Transportation Plan Interim Report,* PAIKI). One option for the Tribe to consider is to offer a fee-based service to hikers, bicyclists, backpackers, and other tourists for a one- or two-way tram trip to/from Supai Village, which also could include a packer trip.

Several additional benefits were not articulated by the *Havasupai Tribe Solid Waste Cable Network Study*. Among these are additional options for emergency/medical transportation, food and supply deliveries, and utilitarian transportation. Utilitarian transport includes transporting community members to regular health/medical appointments, education opportunities, retail/shopping, tribal business/governance, religious visits/activities, and social activities.

7.0 EVALUATION CRITERIA

Transportation system field reviews in combination with input from the public, stakeholders, and the TAC resulted in a list of possible improvement concepts for the Havasupai Indian Tribe. These improvement concepts were evaluated to determine the projects/improvements that best serve the needs of the Tribe. Table 12. Evaluation Criteria summarizes the criteria utilized to evaluate the benefits of each potential improvement option. Based on the results of the evaluation, projects were prioritized into short-, mid-, and long-term implementation phases taking into account: environmental issues, community support, tribal development goals, traffic conditions, safety, operations impacts, project construction costs, and funding opportunities. Planning level cost estimates were also developed based on typical per mile construction costs for 2015. Estimated costs do not include right-of-way. Actual costs for projects could vary at the time of implementation; therefore a detailed analysis should be performed on a case-by-case basis to determine actual costs. None of the possible improvement concepts are funded at this time.

Table 12. Evaluation Criteria

Evaluation Criteria	Objective	Measure	Benefit Scale		
Safety	Reduce collisions on IR18	Improve overall safety on IR18	High (5)	Med (3)	Low (1)
Infrastructure Preservation and Maintenance	Preserve and maintain existing infrastructure	Preserves existing infrastructure	Yes (5)		No (1)
Mobility Accessibility	Support future traffic demand	Improved mobility	High (5)	Med (3)	Low (1)
	Increase accessibility on Reservation	Improves unpaved roadways	Yes (5)		No (1)
Economic Development	Support economic growth	Serves tourist or economic development	High (5)	Med (3)	Low (1)
Environmental and Title VI Impacts	Protect natural and cultural environment	Impact on environmental cultural resources	Low (5)	Med (3)	High (1)
	Minimize negative impacts on Title VI population groups	Impact on Title VI	Positive (5)	Neutral (3)	Low (1)
Implementation Feasibility	Minimize capital costs	Construction feasibility	High (5)	Med (3)	Low (1)

8.0 CANDIDATE TRANSPORTATION IMPROVEMENTS

This section presents the candidate transportation improvements for the short-, mid- and long-term improvements. The transportation plan is the result of field reviews, existing conditions analyses, and public input.

8.1 SHORT-TERM IMPROVEMENTS (2016-2020)

Short term phase projects are recommended to be completed as the study area reaches year 2020. Table 13. Short-Term Improvements presents a comprehensive list of the transportation recommendations for this phase, as well as the project number, location, description, and planning level cost estimate. Each project was assigned a unique number that can be used to track the project progress. Planning level cost estimates were developed based on typical per mile construction costs. Estimated costs for each project are expressed in 2015 dollars and do not include ROW acquisition costs. Actual costs for projects could vary at the time of implementation; therefore, a detailed analysis should be performed on a case-by-case basis to determine actual project costs. The recommended projects are not yet funded. Potential funding sources include the Tribal Transportation Program or TIGER Grant

For each short term project identified, one-page detailed project descriptions were prepared and are as follows.

The short term projects were scored according to the evaluation criteria in section 7.0. The project scorings are presented in Table 6 and on the detailed project description sheets. A higher the score means that more preference should be placed on the project for implementation.

Table 13. Short-Term Improvements (1-5 years)

Project ID	Project Location	Project Description	Length (miles)	Cost*	Score
IR18-1.1	Hualapai boundary to Hualapai Hilltop	Pavement Rehabilitation	20	$1M	34
IR18-1.2	Signing Inventory/Maintenance Plan	Inventory signing and develop a maintenance plan to replace signs as reflectivity decreases.	20	$15K	30
IR18-1.3	Replace Signs IR18	Replace signs based on first phase of signing recommendations.	20	$25K	30
IR18-1.4	Pavement Marking Review IR18	Review pavement marking and develop a recommended plan for improvements.	20	$15K	30
IR18-1.5	Restripe IR18	Modify striping per first phase of plan.	20	$25K	30
IR18-1.6	Drainage IR18 at Joe's Curve	Address drainage issues construct improvements at Joe's Curve.	-	$75K	20
IR18-1.7	IR18 Curve Assessment	Prepare a transportation report that assesses the roadway curves near Hualapai Hilltop and presents recommendations.	3	$75K	30

Project ID	Project Location	Project Description	Length (miles)	Cost*	Score
IR1-1.8	Initial documents and concept reports to pave IR1	Develop design concept report and cost estimates to pave IR1. Bring land owners together for their input and assistance.	20	$100K	20
IR1-1.9	Drainage and Grading	Prepare drainage and grading report/plans along with minor improvements to make IR1 passible throughout the year.	20	$300K	20
IR18/IR5-1.10	Intersection Improvement Reports and Plans	Bring IR5 into IR18 at 90 degrees and improve sight distance.	-	$100K	36
Transit-1.11	Havasupai Transit Program	Add Havasupai Transit Program to Human Transportation Services Plan at NACOG, for consideration in the ADOT transit plans. Create a bus/transit stop at Hualapai Hilltop for Tribal pick-up and drop-off.	- -	$5K $3K	- -
Tram-1.12	Candidate Location Cable Study	Prepare cable study to determine location of tram entrance/exit.	-	$50k	24

*Based on 2015 dollars and includes labor and materials, not ROW acquisition.

Figure 10a. Short-Term Recommendations illustrates the proposed short-term recommendations for the Havasupai Indian Tribe LRTP.

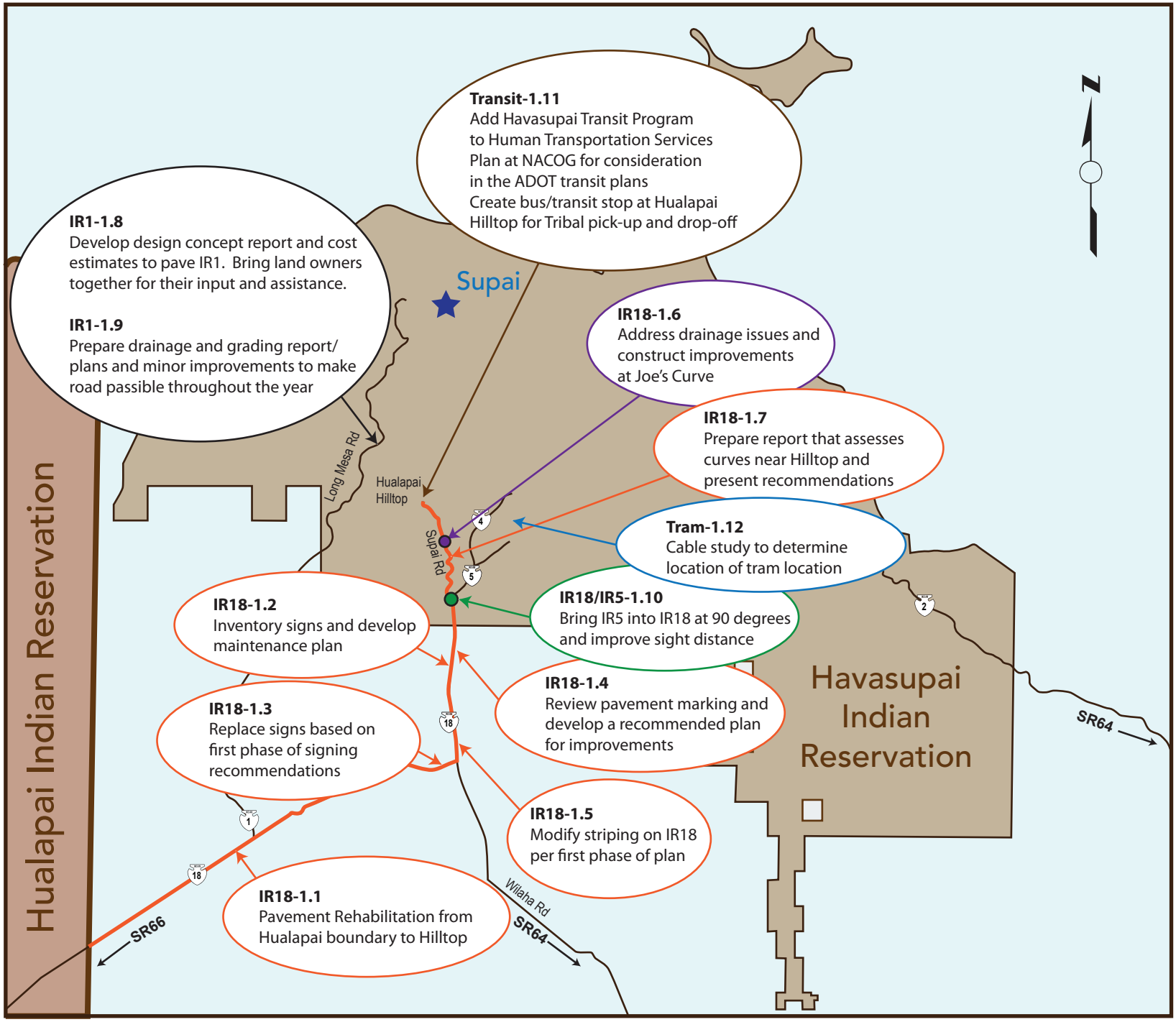
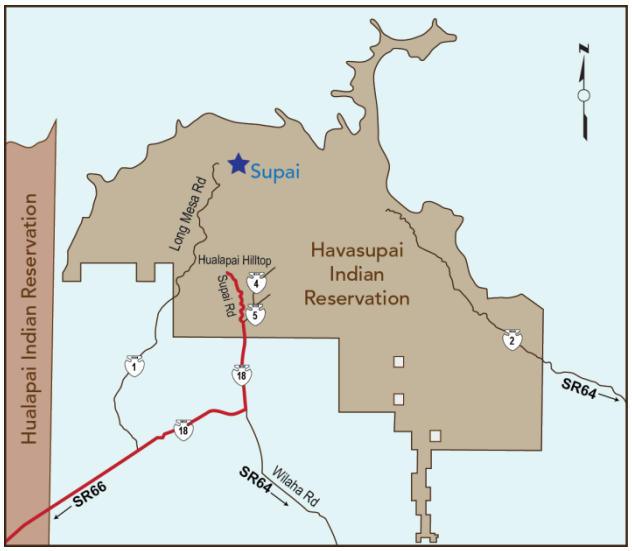
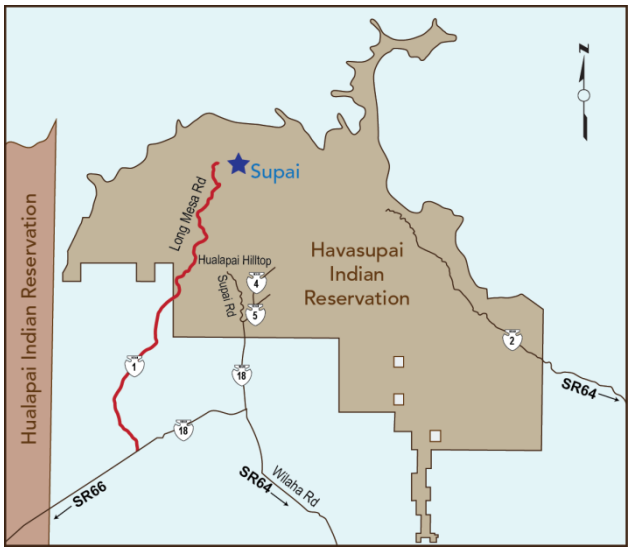


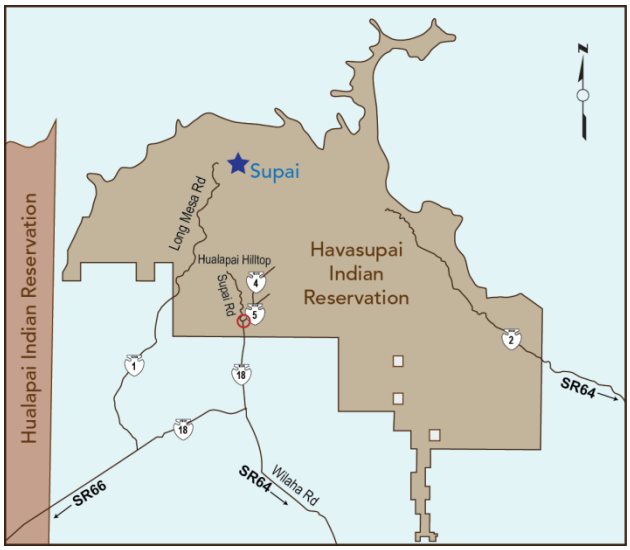
Figure 10a. Short-Term Recommended Improvements

Project # IR18 1.1-1.7	
Route Name:	IR18 (Supai Road)
Project Map:	
Project Length	20 Miles
Existing and Future Conditions	• Paved Roadway to Hualapai Hilltop, Tourist Corridor to Havasu Falls • Functional Classification: BIA Class 3 – Street • Speed Limit: 50-55 mph
Existing and Projected Traffic Conditions	Existing ADT: 160 Existing LOS: A

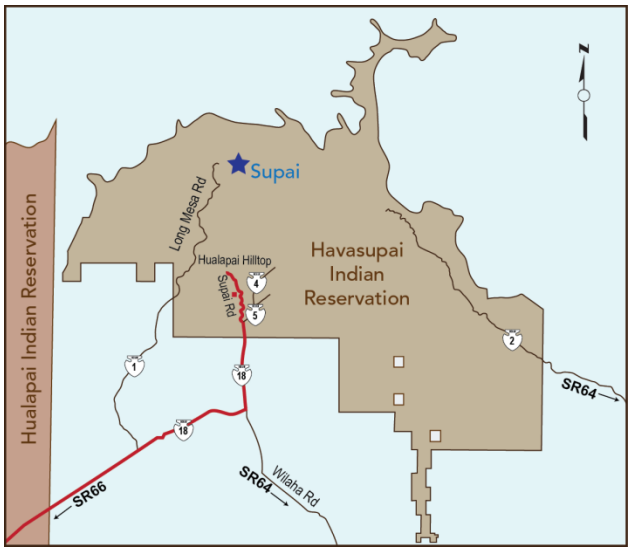
Project Description:				
Project ID	Location	Improvement	Cost Estimate	Purpose/Benefit
IR18-1.1	IR18 – Hualapai boundary to Hilltop	Pavement Rehabilitation	$1M	Pavement Rehabilitation
IR18-1.2	IR18	Signing Inventory/ Maintenance Plan	$15K	Inventory signing and develop a maintenance plan to replace signs as reflectivity decreases
IR18-1.3	IR18	Replace Signs	$25K	Replace signs based on first phase of signing recommendations
IR18-1.4	IR18	Pavement Marking Review	$15K	Review pavement marking and develop a recommended plan for improvements
IR18-1.5	IR18	Restripe	$25K	Modify striping per first phase of plan
IR18-1.6	Joe's Curve	Drainage	$75K	Address drainage issues construct improvements at Joe's Curve
IR18-1.7	Curve Assessment	IR18 Curves	$75K	Assess condition of curves versus posted speed near Hualapai Hilltop
Environmental Overview:		Projects are along established roadway, therefore environmental impacts are minimal. Consideration should be given to impacts on cultural resources, utilities, and wildlife.		
Issues Addressed:		Safety, signing and striping, maintenance		
Project Benefits:		Increased safety, improved driving conditions		
Potential Funding Sources:		Tribal Transportation Program (TTP); TIGER Grant		

Project # IR1 1.8-1.9	
Route Name:	IR1 (Long Mesa Road
Project Map:	
Project Length	20 Miles
Existing and Future Conditions	• Unimproved dirt roadway, significant route to maintain Supai Village utilities • Functional Classification: BIA Class 5 – Rural Local Dirt Road • Speed Limit: 15-20 mph • No planned development
Existing and Projected Traffic Conditions	Existing ADT: N/A Existing LOS: A

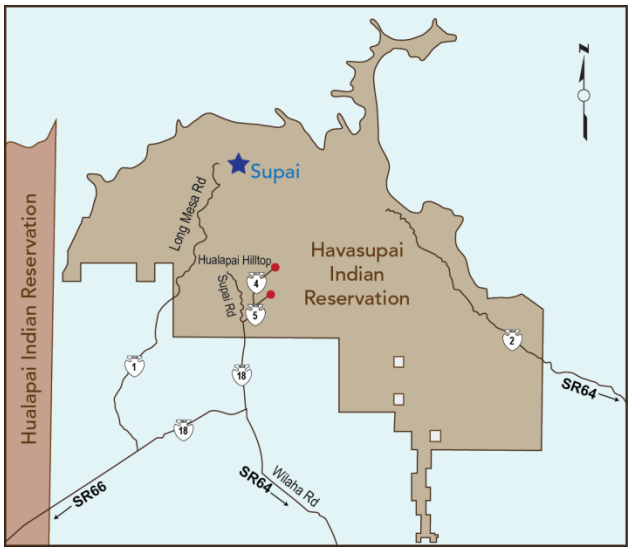
Project Description:				
Project ID	Location	Improvement	Cost Estimate	Purpose/Benefit
IR1-1.8	IR1	Initial documents and concept reports to pave IR1	$100K	Develop design concept report and cost estimates to pave IR1
IR1-1.9	IR1	Drainage and Grading	$300K	Maintain utilities to Supai Village, year long
Environmental Overview:		Environmental impacts should be carefully reviewed. Consideration should be given to impacts on cultural resources, utilities, and wildlife		
Issues Addressed:		Roadway safety		
Project Benefits:		Ability to access utilities to Supai Village, improved driving conditions		
Potential Funding Sources:		Tribal Transportation Program (TTP); TIGER Grant		

Project # IR18/IR5 Intersection 1.10	
Route Name:	IR18/IR5 Intersection
Project Map:	
Project Length	N/A
Existing and Future Conditions	• IR18 – Paved; IR5 – Unimproved • Functional Classification: o IR18 – BIA Class 3 – Street o IR5 – BIA Class 5 – Rural Local Dirt Road • Speed Limit: 50 mph
Existing and Projected Traffic Conditions	Existing ADT: N/A Existing LOS: A

Project Description:				
Project ID	Location	Improvement	Cost Estimate	Purpose/Benefit
IR5/IR18-1.10	IR5/IR18	Intersection Improvement Reports and Plans	$100K	Bring IR5 into IR18 at 90 degrees and improve sight distance
Environmental Overview:		Environmental impacts should be carefully reviewed. Consideration should be given to impacts on cultural resources, utilities, and wildlife		
Issues Addressed:		Safety concerns		
Project Benefits:		Increased sight distance exiting IR5 onto IR18		
Potential Funding Sources:		Tribal Transportation Program (TTP); TIGER Grant		

Project # Transit 1.11	
Route Name:	N/A
Project Map:	
Project Length	N/A
Existing and Future Conditions	• IR18 – Paved; IR5 – Unimproved • Functional Classification: o IR18 – BIA Class 3 – Street o IR5 – BIA Class 5 – Rural Local Dirt Road • Speed Limit: 50 mph
Existing and Projected Traffic Conditions	Existing ADT: N/A Existing LOS: A

Project Description:				
Project ID	Location	Improvement	Cost Estimate	Purpose/Benefit
Transit-1.11		Add to Havasupai Transit Plan to Human Transportation Services Plan at NACOG. Create bus/transit stop at Hualapai Hilltop.	$5K	Able to apply for ADOT Transit funds in the future
Environmental Overview:		N/A		
Issues Addressed:		Funding for Transit		
Project Benefits:		Increase Havasupai transit capabilities		
Potential Funding Sources:		N/A		

Project # Tram 1.12	
Route Name:	IR4 or IR5
Project Map:	
Project Length	N/A
Existing and Future Conditions	• IR4 – Unimproved; IR5 – Unimproved • Functional Classification: o IIR4 – BIA Class 5 – Rural Local Dirt Road o IR5 – BIA Class 5 – Rural Local Dirt Road • Speed Limit: 20 mph
Existing and Projected Traffic Conditions	Existing ADT: N/A Existing LOS: N/A

Project Description:				
Project ID	Location	Improvement	Cost Estimate	Purpose/Benefit
Tram-1.9	IR4/IR5	Candidate Location Cable Tram Study	$50K	Cable study to determine location of tram entrance/exit
Environmental Overview:		May have environmental impacts. New area of construction. Consideration should be given to impacts on cultural resources, utilities and noise.		
Issues Addressed:		Location of cable tram service		
Project Benefits:		Cost reduction in hauling supplies in and solid waste out of canyon		
Potential Funding Sources:		Tribal Transportation Program (TTP); TIGER Grant		

8.2 MID-TERM IMPROVEMENTS (2021-2026)

Mid-term projects are recommended to be completed as the study area reaches year 2030. Table 14. Mid-Term Improvements presents a comprehensive list of the transportation recommendations for this phase, as well as the project number, location, description and estimated costs. Each project was assigned a unique project number that can be used to track project progress. Planning level cost estimates were developed based on typical per mile construction costs. Estimated costs for each project are expressed in 2015 dollars and do not include ROW acquisition costs. Actual costs for projects could vary at the time of implementation; therefore, a detailed analysis should be performed on a case-by-case basis to determine actual project costs. The recommended projects are not yet funded. Potential funding sources include the Tribal Transportation Program or TIGER Grant. Figure 10b. Mid-Term Recommendations illustrates the proposed mid-term recommendations for the Havasupai Indian Tribe LRTP.

Table 14. Mid-Term Improvements (5-10 years)

Project ID	Project Location	Project Description	Length (miles)	Cost*
IR18-2.1	Hualapai boundary-Hilltop	Pavement Rehabilitation	20	$1M
IR18-2.2	Replace Signs IR18	Replace signs based on signing recommendations	20	$25K
IR18-2.3	Restripe IR18	Modify striping per plan recommendations	20	$25K
IR18-2.4	Minor Improvements at Curves	Modify signing and/or curve alignment per recommendations	3	$250K
IR1-2.5	Enviro Docs to pave IR1	Develop environmental documents to pave IR1	20	$100K
IR4-2.6	IR4 – pave from IR5 to Bar 4 development	As specified with residential development	2	$M
IR5-2.7	IR5 – pave from IR18 to Bar 4 development	As specified with residential development	3	$3M
IR5/IR18-2.8	Intersection Construction	Construct improvements to realign IR5 at IR18 intersection	-	$250K
Wilaha Road-2.9	Corridor Study of Wilaha Road	Prepare a corridor study to recommend needed improvements	30	$250K
IR2-2.10	Corridor Study of IR2	Prepare a corridor study to recommend needed improvements	40	$250K
Tram-2.11	Environmental Documentation	Prepare environmental documentation for Tram concept	-	$100K
Transit-2.12	Add vans	Add two additional vans for improved needs	-	$70K
Transit-2.13	Add studio apartment/ maintenance facility	Add studio apartment and maintenance facility in transit garage for drivers and mechanics	-	$200K
Helicopter-2.14	Expand Service	Expand helicopter service to give tribal Members more flexibility with schedules	-	Dependent upon ridership

*Based on 2015 dollars and includes labor and materials, not ROW acquisition.

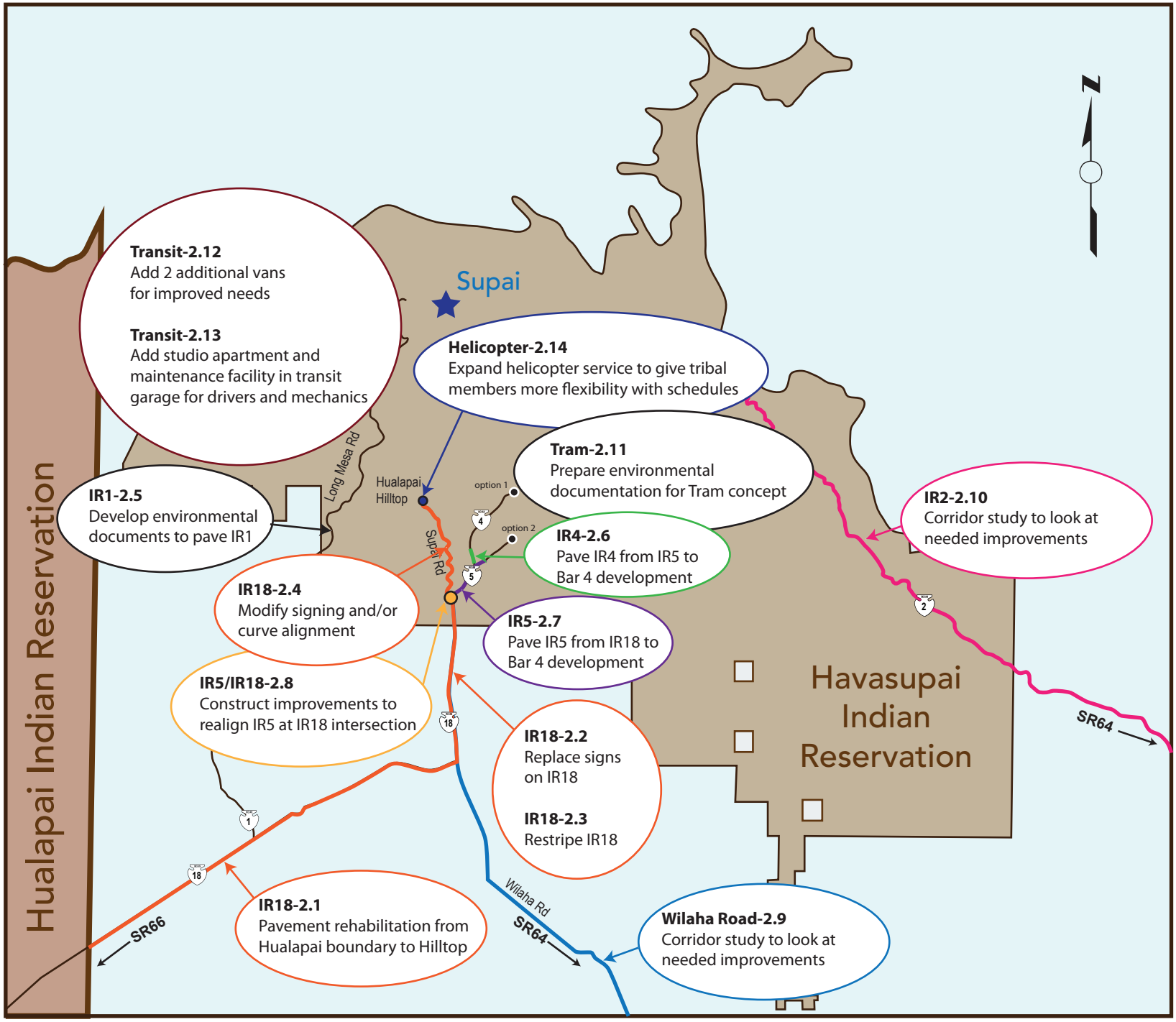


Figure 10b. Mid-Term Recommended Improvements

8.2 LONG-TERM IMPROVEMENTS (2026 - 2036)

Long-term phased projects are recommended to be completed as the study area reaches year 2035. Table 15. Long-Term Improvements presents a comprehensive list of the transportation recommendations for this phase, as well as the project number, location, description and estimated costs. Each project was assigned a unique project number that can be used to track project progress. Planning level cost estimates were developed based on typical per mile construction costs. Estimated costs for each project are expressed in 2015 dollars and do not include ROW acquisition costs. Actual costs for projects could vary at the time of implementation; therefore, a detailed analysis should be performed on a case-by-case basis to determine actual project costs. The recommended projects are not yet funded.

Table 15. Long-Term Improvements (10 to 20 years)

Project ID	Project Location	Project Description	Length (miles)	Cost*
IR18-3.1	IR18 – Hualapai boundary to Hualapai Hilltop	Pavement Reconstruction – spot areas	20	$5mil
IR1-3.2	IR1 – IR18 to Supai Overlook	Pave IR1	20	$20mil
Tram-3.3	Construct Tram	Construct Tram	-	$10mil

*Based on 2015 dollars and includes labor and materials, not ROW acquisition.

Potential funding sources include the Tribal Transportation Program or TIGER Grant

Figure 10c. Long-Term Recommendations illustrates the proposed long term recommendations for the Havasupai Indian Tribe LRTP.

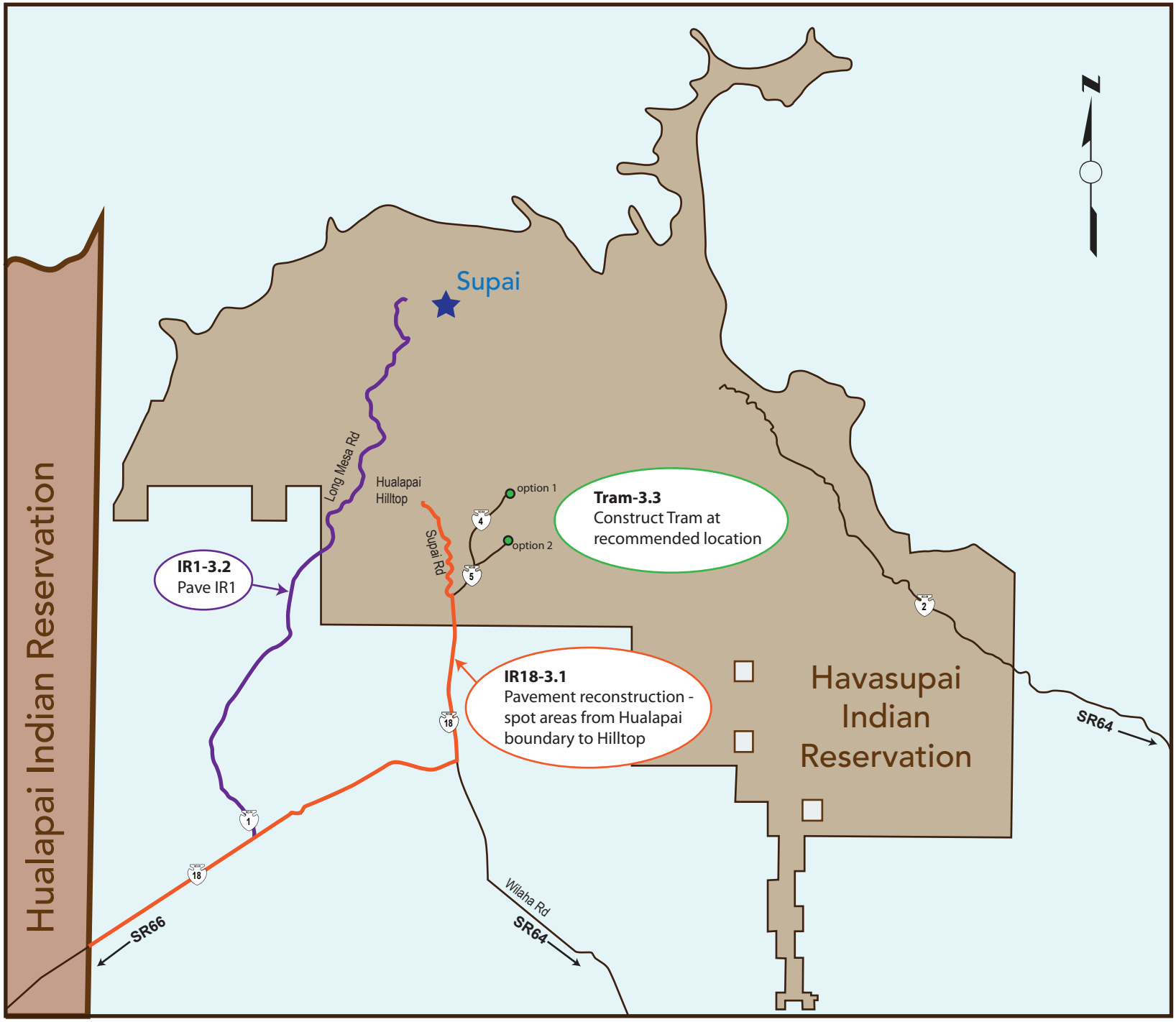


Figure 10c. Long-Term Recommended Improvements

9.0 FUNDING SOURCES

The successful implementation of the Havasupai Indian Tribe Long Range Transportation Plan is contingent upon the availability of funding for design and construction of the improvement projects. Primary funding sources for the area include Federal programs, BIA, ADOT, and other regional governmental agencies.

Passed in July 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) reauthorized surface transportation programs through fiscal year 2014 and was extended for fiscal year 2015. The program was enacted to create a streamlined, performance based, and multimodal program to address the many challenges facing the Nation's transportation system. MAP-21 authorizes Federal aid highway programs while maintaining current spending levels by consolidating core highway programs of SAFTEA-LU.

Under MAP-21 the new Tribal Transportation Program (TTP) provides $450 million annually with the goal to provide safe and adequate transportation and public road access to and within Indian reservations and Indian lands. TTP also includes new standards that 2 percent of the funds are allocated to tribal bridge and 2 percent are allocated toward tribal safety projects. Funds through the TTP are allocated to Tribes utilizing a statutory formula based on tribal population, road mileage, and average tribal shares of SAFETEA-LU funding. In accordance with MAP-21, tribes may utilize up to 25 percent or $500,000 of their TTP funds, whichever is greater, for eligible road maintenance activities identified in 25CFR 170.800.

In addition, MAP-21 gives FTA significant new authority to strengthen the safety of public transportation systems throughout the United States. The Act aims to align Federal funding to progress towards the goals of restoring and replacing aged public transportation infrastructure, supporting development, and improving efficiency of administering grant programs by consolidating and streamlining several programs. MAP-21 provides federal funding for public transit assistance through the TTP. The TTP is a set aside from the Formula Grants for Rural Areas Program and consists of a $25 million formula program and a $5 million discretionary grant program.

Table 16 presents some potential funding sources for roadway, safety, pedestrian, and transit improvements that the Havasupai Indian Tribe can apply for funding to implement the Plan of Improvements.

Table 16. Potential Funding

Funding Program	Eligible Uses	Administering Agency	Funding Details	Application Deadline	Contact
Tribal Transportation Program (TTP)	TTP funds may be used by the Tribe to pay for the following: transportation planning, research, maintenance, engineering, rehabilitation, restoration, construction, and reconstruction of tribal transportation facilities. Operation and maintenance of transit programs and facilities that are located on or provide access to tribal land or are administered by a tribal government.	Federal Funds. Allocated to BIA-DOT Western Regional Office on a formula basis	Funding formula is based on each tribe's total population and mileage. Improvement projects must be included on Havasupai's TIP.	August	Paul Bonar Transportation Planner BIA-DOT Western Regional Office Division of Transportation 4th Floor Mailroom, MS 370 Phoenix, AZ 85004 602- 379-6782 Paul.bonar@bia.gov
Tribal High Priority Projects (THPP)	Repair or reconstruction of eligible facilities in the national inventory of tribal transportation planning, research, routine maintenance activities, structures and erosion protection, landscaping, purchasing equipment, or condemnation of land for recreational trails	Federal Funds. Allocated to BIA-DOT Western Regional Office on a formula basis	Funds appropriated from the Federal General Fund, to remain available until September 30 of the third fiscal year after the year appropriated. An applicant may have only one application for assistance pending at any one time. Project funding is limited to $1M per application.		Paul Bonar Transportation Planner BIA-DOT Western Regional Office Division of Transportation 4th Floor Mailroom, MS 370 Phoenix, AZ 85004 602- 379-6782 Paul.bonar@bia.gov
Tribal Transportation Planning Program	Transportation Planning procedures for the TIP must be consistent with Statewide and Metropolitan planning processes.	Federal Funds allocated to BIA-DOT Western Regional Office formula basis and distributed on a project by project basis.	Funded by a set-aside of up to 2% from TTP funds. Funds are allocated directly to Tribe		Paul Bonar Transportation Planner BIA-DOT Western Regional Office Division of Transportation 4th Floor Mailroom, MS 370 Phoenix, AZ 85004 602- 379-6782 Paul.bonar@bia.gov

Funding Program	Eligible Uses	Administering Agency	Funding Details	Application Deadline	Contact
Tribal Transportation Program Safety Funds (TTPSF)	MAP-21 established tribal safety funds by setting aside not more than 2% of the funds made available under the TTP. Eligible activities include: tribal safety plans, enforcement and EMS, education programs, engineering improvements, data collection, data analysis and improvements, and RSA's	Federal funds are allocated to the Regional Office based on approved Tribal applications for these funds.	Projects ranked by BIA, FHWA and Tribes. Funded by a set-aside of up to 2% from TTP funds.		Russell Garcia TTPSF Program Manager FHWA 1200 New Jersey Avenue Washington, DC 20590 (202) 366-9815 russell.garcia@dot.gov
Tribal Bridge Program	A bridge must have an opening of at least 20 feet, be classified as a tribal transportation facility, and be structurally deficient or functionally obsolete	Federal Funds are allocated to the Regional Office based on approved applications from the region.	Funded by a set-aside of up to 2% from TTP funds.		Paul Bonar Transportation Planner BIA-DOT Western Regional Office Division of Transportation 4th Floor Mailroom, MS 370 Phoenix, AZ 85004 602- 379-6782 Paul.bonar@bia.gov
Tribal Transit Program	Federally recognize tribes may use the funding for capital, operating, planning and administrative expenses for public transit projects that meet the growing needs of rural tribal communities.	US Department of Transportation Federal Transit Administration	A set aside from the Formula Grants for Rural Areas program, but now consists of $25 million formula program and $5 million discretionary grant program, subject to availability.		USDOT Federal Transit Administration Region 9 Leslie T Rodgers 7th St Suite 15-300 San Francisco, CA 94103 202-385-2100
5311 Formula Grant for Other than Urbanized Areas	A rural program that is formula based and provides funding to states for the purpose of supporting public transportation on rural area with population less than 50,000	US Department of Transportation Federal Transit Administration	FTA apportions Section 5311 funds to the States by a statutory formula using the latest available US decennial census data.		USDOT Federal Transit Administration Region 9 Leslie T Rodgers 7th St Suite 15-300 San Francisco, CA 94103 202-385-2100

Funding Program	Eligible Uses	Administering Agency	Funding Details	Application Deadline	Contact
Section 5310 Program	The program awards grants to private non-profit organizations to serve the transportation needs of elderly persons and persons with disabilities.	US Department of Transportation Federal Transit Administration	A State may allocate the funds apportioned to it to non-profit organizations if public transportation is unavailable, insufficient or inappropriate		USDOT Federal Transit Administration Region 9 Leslie T Rodgers 7th St Suite 15-300 San Francisco, CA 94103 202-385-2100
Surface Transportation Program (STP)	States and metropolitan regions may use these funds for highway, bridge, transit (including intercity bus terminals), and pedestrian and bicycle infrastructure projects. Eligible projects include, but are not limited to: • Construction, reconstruction, rehabilitation, resurfacing, restoration, preservation, or operational improvements for highways, bridges, and tunnels on any public roadway • Construction of new bridges and tunnels on a Federal aid highway • Inspection and evaluation of bridges, tunnels and other highway assets as well as training for bridge and tunnel inspectors • Transit capital projects • Bicycle, pedestrian, and recreational trail • Environmental mitigation efforts	Federal Highway Administration Funds Administered Through ADOT and Planning Organizations	In general, STP projects may not be on local or rural minor collectors. Special rule allows States to use up to 15% of funds sub allocated for areas with a population of 5,000 or less on rural minor collectors. Project is scoped and request for funding submitted to WACOG.		Craig Raborn WACOG Transportation Planner 208 N. 4th Street Kingman, AZ 86401 928-377-1070 craigr@wacog.com
Surface Transportation Program (STP) - Off-System Bridges	From the State's STP apportionment, States are required to obligate a portion of funds (not from sub allocated amounts) for bridges not on Federal-aid highways (off-system bridges). Eligible projects include, but are not limited to: replacement, deicing, construction, inspection and evaluation of bridges.	Federal Highway Administration Funds Administered through ADOT and Regional Planning Organizations	For projects to replace or rehabilitate deficient off-system bridges funded wholly by State/local sources, any amounts spent post-enactment that are in excess of 20% of project costs may be credited to the non-Federal share of eligible bridge projects in the State.		Craig Raborn WACOG Transportation Planner 208 N. 4th Street Kingman, AZ 86401 928-377-1070 craigr@wacog.com
Technical Assistance for Rural and Tribal Communities	Provides technical assistance for small communities less than 50,000 people and helps Native American tribes enhance economic growth and development by improving transportation facilities	Community Transportation Association of America			Charles Ruthowski Assistant Director CTAA 800-891-0590 (719)

Funding Program	Eligible Uses	Administering Agency	Funding Details	Application Deadline	Contact
Federal Lands Access Program (Access Program)	Eligible projects include, but are not limited to: • Program administration, transportation planning, research, preventive maintenance, engineering, rehabilitation, restoration, construction, and reconstruction of Federal lands transportation facilities • Operations and maintenance of transit facilities • Any transportation project eligible under title 23 of the U.S. Code that is within or adjacent to, or that provides access to Federal lands open to the public	Funded by contract authority from the Highway Account of the Highway Trust Fund	On October 1 of each fiscal year, funds will be allocated among Federal Land Management Agency (FLMA) partners		Arizona Division Federal Highway Administration 4000 N. Central Ave 1500 Phoenix, Arizona 85012 (602) 379-3646 http://www.fhwa.dot.gov/azdiv
Highway Safety Improvement Program (HSIP)	The HSIP is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads, including non-State-owned public roads and roads on tribal lands. Any project on a public road, trail or path that is consistent with the State's Strategic Highway Safety Plan and corrects a safety problem is eligible for HSIP funding. Eligible projects include, but are not limited to: • Intersection improvements • Construction of shoulders • Traffic calming • Improvements for bicyclists, pedestrians, and individuals with disabilities • Minimum standards of retro-reflectivity of traffic signs and pavement markings	Federal Highway Administration Funds Administered Through ADOT and Planning Organizations	Project is scoped and request for funding submitted to Regional Planning Organization. The HSIP Local Government Coordinator provides assistance to local agencies throughout the process of identifying and developing the projects. 5.7% for most projects	May	Mona Aglan-Swick HSIP Manager ADOT Statewide HSIP Program (602) 712-7374 maglan@azdot.gov
National Priority Safety Program	Programs include: • Section 405(b): Occupant Protection • Section 405(c): State Traffic Safety Information • System Improvements • Section 405(d): Impaired Driving Countermeasures • Section 405(e): Distracted Driving • Section 405(f): Motorcyclist Safety • • Section 405(g): Graduated Driver Licensing	National Highway Traffic Safety Administration (NHTSA) at the federal level and Arizona Governor's Office of Highway Safety at the state level		July	Director Alberto Gutier Governor's Office of Highway Safety 3030 North Central Ave #1550 Phoenix, Arizona 85012
Governor's Office of Highway Safety	Finances State and local government highway safety projects. Eligible projects include: inventories, need studies, engineering studies, system development, program implementation, or for purchasing equipment. Cannot be used for the construction, design, or maintenance of highways or for highway construction research papers.	Arizona Governor's Office of Highway Safety (GOHS)	Project funding is limited to a maximum of $50,000 per project contract	February	Director Alberto Gutier Governor's Office of Highway Safety 3030 North Central Ave #1550 Phoenix, Arizona 85012

Funding Program	Eligible Uses	Administering Agency	Funding Details	Application Deadline	Contact
Road Safety Assessment	The Road Safety Assessments (RSA) program conducts RSAs on state, local and tribal road facilities. An RSA is defined as a formal examination of user safety of a future or existing roadway by an independent multidisciplinary audit team, which includes qualified and experienced members.	ADOT Traffic Safety Section	Technical assistance, no actual awarding of funds	On-going	Richard S. Weeks, PE, PTOE Program Manager Road Safety Assessment 1615 West Jackson Mail Drop 065R Phoenix, AZ 85007 602-712-4382 rweeks@azdot.gov
Section 402 State and Community Highway Safety Grant Program	Funds can be spent in accordance with national guidelines for programs such as reducing impaired driving; reducing speeding; encouraging the use of occupant protection; improving motorcycle safety; improving pedestrian and bicycle safety; improving enforcement of traffic safety laws; improving traffic records; and emergency services.	Arizona Governor's Office of Highway Safety	MAP-21 authorizes funding for the 402 program at $235 million each year in FY 2013 and FY 2014.	April/May	Director Alberto Gutier Governor's Office of Highway Safety 3030 North Central Ave #1550 Phoenix, Arizona 85012
USDA Community Facility Grants	Grant funds may be used to assist in the development of essential community facilities. Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety, and community and public services. This can include the purchase of equipment required for a facility's operation.				USDA Rural Development 230 N 1st Avenue, Suite 509 Phoenix, AZ 85003 (602) 280-8701 http://www.rurdev.usda.gov /RD_grants.html
AmeriCorps Indian Tribes Planning Grants	AmeriCorps planning grants provide up to $75,000 for a one-year period to provide support to an Indian Tribe for the development of an AmeriCorps program that will engage AmeriCorps members in order to address pressing community problems.	AmeriCorps	AmeriCorps State and National sets aside one percent of grant funds to support programs operated by American Indian Tribes		(202) 606-7508 americorpsgrants@cns.gov http://www.nationalservice.gov/ build-your-capacity/grants/
Planning Assistance for Rural Areas (PARA)	PARA funds are limited to planning applications and may not be used for the design or construction of transportation facilities. PARA funds may be applied to address a broad range of planning issues related to roadway and non-motorized transportation modes. Funds may also be applied to studies dedicated solely to the planning of public transportation services.	Federal funds administered through ADOT	The PARA program is funded 100% by ADOT using Federal Statewide Planning and Research (SPR) funds. The awarded funding is a limit or cap of $250,000 for each PARA study process. Applications for projects are submitted to ADOT MPD on an annual basis.	Early Summer	Justin Feek, Program Manager ADOT - MPD 206 S. 17th Ave., MD 310B Phoenix, AZ 85007 602.712.6196 602.712.6412 jfeek@azdot.gov

Funding Program	Eligible Uses	Administering Agency	Funding Details	Application Deadline	Contact
Accelerated Innovation Deployment (AID) Demonstration	Eligible projects include, but are not limited to: • Accelerate adoption of innovative technologies in all • aspects of highway transportation • Construct longer-lasting highways • Improve highway efficiency, safety, mobility, reliability, service life, environmental protection, and sustainability	Federal Highway Administration Funds	Award recipients must obligate awarded funds to project within 6 months of allocation	Open Rolling Solicitation	For general program information, visit: http://www.fhwa.dot.gov/accelerating/grants/
TIGER Grants	Eligible projects include, but are not limited to: • Highway or bridge projects eligible under Title 23 • United States Code • Public transportation projects eligible under chapter 53 of title 49, United States Code • Freight rail projects • High speed and intercity passenger rail projects • Port infrastructure investments	United States Department of Transportation	• $1 million min grant • No match requirement, though competitive • applications often feature a match • Tribal Transportation Program (TTP) Funds are eligible to match/complete financing		Office of the Under Secretary for Policy Office of the Secretary of Transportation 1200 New Jersey Ave, SE Washington, DC 20590 202-366-4544
Transportation Alternatives Program (TAP)	Eligible projects include, but are not limited to: • Bicycle and pedestrian facilities • Safe routes projects for non-drivers • Construction of turnouts and overlooks • Community improvement activities including vegetation management and historic preservation • Environmental mitigation activity including NEPA	Federal Highway Administration Funds Administered Through ADOT and Regional Planning Organizations	TAP funds are available for obligation for a period of 3 years after the last day of the fiscal year for which the funds are authorized		Patrick Stone TE Section Manager Department of Transportation 1615 W. Jackson, Phoenix, AZ 85226 602-712-4428 pstone@azdot.gov

Sources: FHWA, ADOT, USDOT, AmeriCorps, USDA, Arizona State Park

10.0 IMPLEMENTATION GUIDELINES

Implementation of the recommended Improvement Plan to enhance the safety and mobility along roadways within the study requires active participation from Tribal members, County, and State government officials. The following actions are recommended in order to successfully implement the Plan for Improvements developed as part of this study.

- The Havasupai Tribal Council needs to formally approve this plan in order to initiate the process of requesting inclusion in the BIA TTP TIP and to subsequently receive Federal Lands Highway Program Funds or other MAP-21 funds.
- Incorporate high-priority improvement projects in the State Transportation Improvement Program (STIP). In order to receive any federal funding, transportation improvement projects must be included in the STIP.
- Coordinate with BIA on the entry of updated Havasupai road inventory data into the Road Inventory Field Data System (RIFDS) for inclusion in the National Tribal Transportation Facility Inventory (NTTFI). See Appendix D titled Road Assessment which includes the Havasupai Indian Tribe – Inventory Update Comparison Listing.
- Establish a partnership with Hualapai Indian Tribe for ongoing planning, maintenance, and funding improvements for IR18.

11.0 TITLE IV AND ENVIRONMENTAL JUSTICE

United States Environmental Protection Agency's (USEPA) definition of environmental justice (EJ) indicates that a primary purpose of EJ analysis should be to characterize negative consequences or *adverse effects* of decisions on different demographic and socioeconomic groups. According the USEPA Guidelines, assuring fair treatment to various segments of population means that no group of people including racial, ethnic, or socio-economic groups should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, local and tribal programs and policies (USEPA, 1998). In the context of statewide transportation planning, adverse effects refer to the burdens of transportation improvements such as the deterioration of air quality, increases in ambient noise, and the dislocation of residences and businesses by transportation improvement projects (USDOT, 1998). Various definitions are presented in Table 17 from different sources.

Table 17. Definitions of Environmental Justice

Definition	Source
Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies.	USEPA, 1998
Environmental justice is a public policy goal of ensuring that the adverse human health or environmental effects of government activities do not fall disproportionally upon minority populations or low-income populations.	Forenbrock and Schweitzer, 2000
Environmental justice focuses on measures to prevent or correct disparities in benefits and costs.	Bullard, 2000
Environmental equity refers to the equal protection of environmental laws. Environmental justice is broader in scope than environmental equity. It refers to those cultural norms and values, rules, regulations, behaviors, policies, and decisions to support sustainable communities where people can interact with confidence that their environmental is safe, nurturing and productive.	Bryant, 1995
Environmental equity typically refers to the distribution of amenities and disadvantages across individuals and groups. Environmental justice focuses more on procedures to ensure fair distribution.	Quoted in Liu, 2001

Source: http://people.ce.gatech.edu/~amekudzi/Envir_Justice_MTPT.pdf

From the review of available literature, the authors identified three documents that provide useful guidance on the requirements for EJ analysis in statewide transportation planning. In the 2000 *Proposed Rule for Statewide Transportation Planning and Metropolitan Transportation Planning*, the EJ requirements for Statewide Transportation Planning provide the most detailed guidance for EJ analysis in statewide transportation planning (USDOT, 2000).

Developed for transportation planning and programming purposes, the United States Department of Transportation's (USDOT) Order on EJ: *FHWA Actions to Address*

Environmental Justice in Minority Populations and Low-Income Populations (1998) provides similar guidance that is more relevant to transportation. In addition to defining several key terms for EJ analysis for transportation plans, programs and projects, the document also provides an extensive list of the adverse effects that may be evaluated in an EJ analysis. These include:

- Increased traffic congestion, air, noise, and water pollution;
- The destruction or disruption of community's cohesion or economic vitality;
- The displacement of persons, businesses and farms;
- The destruction or disruption of the availability of public and private facilities and services; and,
- The denial of, reduction in, or significant delay in the receipt of, benefits provided by Federal Highway Administration programs, policies, and activities.

The 2000 *Proposed Rule for Statewide Transportation Planning and Metropolitan Transportation Planning* (USDOT, 2000) requires a statewide planning process that will support and enhance seven categorical factors of transportation. According to the rule, the planning process should provide for consideration of projects and strategies that will:

1. Support the *economic vitality* of the US, states and metropolitan areas;
2. Increase the *safety and security* of the transportation system for motorized and non-motorized users;
3. Increase the *accessibility and mobility* options available to people and for freight;
4. *Protect and enhance the environment*, promote energy conservation and improve the quality of life;
5. *Enhance the integration and connectivity of the transportation system*, across and between modes throughout the state, and for people and freight;
6. Promote efficient system management and operation; and,
7. Emphasize the *preservation* of the existing transportation system.

11.1 EXECUTIVE ORDERS

There are two Presidential Executive Orders that place further emphasis upon the Title VI protections of race and national origin. These are Executive Order #12898 ("Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations") and Executive Order #13166 ("Improving Access To Services For Persons With Limited English Proficiency"). Executive Order #12898 (Environmental Justice) directs federal agencies to develop strategies to address disproportionately high and adverse human health or environmental effects of their programs on minority and low-income populations.

Executive Order # 13166 (Limited-English-Proficiency) directs federal agencies to evaluate services provided and implement a system that ensures that Limited English Proficiency persons are able to meaningfully access the services provided consistent with and without unduly

burdening the fundamental mission of each federal agency. Additionally, each federal agency shall ensure that recipients of federal financial assistance provide meaningful access to their Limited-English-Proficiency applicants and beneficiaries. Please note that while an Executive Order has the force of law, a lawsuit may not be brought under an Executive Order.

11.2 UNITED STATES DEPARTMENT OF JUSTICE

The United States Department of Justice under Executive Order #12250 ("Leadership and Coordination of Nondiscrimination Laws") has been directed to ensure the consistent and effective implementation of Title VI and other Nondiscrimination requirements (including Environmental Justice and Limited English Proficiency) by prohibiting discriminatory practices in Federal programs and programs receiving federal financial assistance. Under the USDOJ's Civil Rights Division, the Federal Compliance and Coordination Section (FCS) is responsible for providing assistance and oversight to the Civil Rights Offices of federal Agencies. (http://www.fhwa.dot.gov/civilrights/programs/tvi.cfm)

Environmental clearances were prepared for IR18, including the portion of IR18 from the Havasupai Indian Reservation boundary to Hualapai Hilltop. These documents were prepared as part of the safety improvements to enhance IR18.

11.3 MINORITY

Based on the US Census Data, American Indians and Alaska Natives alone make up 1.2 percent of the Nation's population and 5.3 percent of the State of Arizona's population. Within the Supai CDP American Indians and Alaska Natives alone make up at least 95 percent of the population, according to the US Census, 2006-2010 American Community Survey.

11.4 INCOME LEVEL

The Federal poverty level is $24,250 for a family of four, add/subtract $4,160 for each additional/fewer person in the household. The median household income for the Havasupai Indian Tribe is $32,000. Approximately 37 percent of the population is below the Federal poverty level within the Havasupai Indian Tribe.

Table 18. Income Levels

	Havasupai Indian Tribe	Arizona	United States
Median household income	$32,000	$50,448	$53,046
Per capita money income	$12,707	$25,680	$28,155
Persons below poverty level	37%	15%	15.4%

Source: http://azcia.gov/Documents/Links/DemoProfiles/Havasupai%20Tribe.pdf

11.5 CULTURAL RESOURCES

The environmental review includes research of cultural resources along IR18 and IR1 within the reservation and one-mile outside the reservation boundaries. Cultural resources may include archaeological sites (prehistoric or historic), structures, buildings, landscapes, districts, or objects, and Traditional Cultural Places.

Background research for cultural resources was conducted at the Arizona State Museum (ASM) using AZSITE (the state's electronic inventory of cultural resources) for the portions of this project extending onto private land for one mile beyond the boundary of the Havasupai Indian Tribal lands along IR1 and IR18. No cultural resource surveys have been conducted in those areas and no previously identified cultural resources have been recorded with ASM along these portions of the project corridor. Because information regarding cultural resources on tribal lands is not available to researchers from AZSITE without the permission of the tribe, the Project Management Team contacted the Tribal Technical Contact inquiring as to whether the Tribe has concerns regarding archaeological sites, historic properties, or Traditional Cultural Places that they would like to share and have included in the LRTP. The Tribe does not have any specific archeological locations which they would like to be presented in this LRTP.

As part of the project planning process, coordination, and consultation with the Havasupai Indian Tribe should occur so that information and concerns of the Tribe regarding cultural resources is incorporated in to the evaluation process. Additional cultural resources studies, which may include more background research and inventory surveys, may be required as the project progresses.

11.6 BIOLOGICAL RESOURCES

The study area occurs within several vegetation communities and habitat types. The US Fish and Wildlife Service (USFWS) Information, Planning and Conservation Tool and the Arizona Game and Fish Department (AGFD) Environmental Online Review Tool (ERT) were accessed for information on sensitive species within the project vicinity. The USFWS and AGFD resources indicate nine federally protected species or their habitats may exist within the project vicinity. This includes seven threatened or endangered species; critical habitat for one species; one candidate species; and one experimental population/non-essential (black-footed ferret). Based on the USFWS National Wetlands Inventory mapper and USGS topographic maps, numerous washes and several wetlands occur within the project vicinity.

The ERT is one tool to initially identify special status species potentially occurring in within the project limits. Direct communication and coordination with the AGFD shall occur during the design planning phase of any project identified in this report to confirm sensitive species within the Havasupai Indian Tribe Reservation and identify potential impacts. The AGFD advocates direct and early consultation with their Project Evaluation Program prior to any design project. Contact the AGFD, Region 3 (Kingman) if there are questions on the initiation process.

As part of the project planning process, coordination with the Havasupai Indian Tribe should occur so that tribal-sensitive species and biological resources data can be incorporated in the biological evaluation process. The USFWS and AGFD resources queried for this preliminary environmental review do not include tribal biological resources information. Coordination with tribal, federal, and state agencies will be necessary for the biological impact assessment process. Coordination with the US Army Corps of Engineers and Havasupai Indian Tribe may be needed to address potential impacts to surface water resources in the study area as the project progresses.

APPENDIX A
Public Involvement Summaries 1 & 2

HAVASUPAI INDIAN TRIBE LONG RANGE TRANSPORTATION PLAN

Public Involvement Summary Report
First Phase Public Involvement – August 2015

September 21, 2015

Prepared for:

Havasupai Indian Tribe

in collaboration with
Arizona Department of Transportation

Prepared by:

United Civil Group

in collaboration with
AMEC Foster Wheeler

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1.0 INTRODUCTION

The Havasupai Indian Tribe and the Arizona Department of Transportation (ADOT) are collaborating to update the 1992 Havasupai Indian Tribe Long Range Transportation Plan (LRTP). This process is being completed under the ADOT Planning Assistance to Rural Areas (PARA) Program which provides funding for transportation planning technical assistance to tribal, local and county governments, statewide. The LRTP project area includes the Havasupai Reservation and the major corridors of Indian Routes (IR) 18, 1, 5 and 4. The LRP update will identify goals to meet transportation needs; forecast needed roadway improvements over the next 20 years; and most importantly, assist the Tribe in the transportation decision making process. The strategies to achieving these goals will address current and future tribal land use, economic development, environmental (natural, human and cultural), traffic demand, public safety, and health and social needs. The principal focus of this project is to address the most critical transportation planning needs identified by the Havasupai Indian Tribe.

This study is being conducted in two phases. The first phase will document current and future conditions and needs, which is the focus of this Public Involvement Summary Report #1. The second phase will focus on evaluation criteria and specific plans for improvement.

The success of this LRTP depends on the involvement of the people of the Havasupai Indian Tribe. Actively engaging the public is an important aspect of assuring the project's final improvements are locally acceptable and successful as well as building local support for funding transportation improvements. Gathering public input will help assure that the improvements recommended within this report are acceptable and keep within the Tribe's vision.

The first public meeting was held on August 6, 2015, at the Baaja Thagabo Community Building (Meeting Hall) in Supai, Arizona. The project team requested the ideas and comments from the public on the transportation needs within the study area. This Public Involvement Summary recaps the information provided and the comments and concerns received during the open house meeting. The findings, plans and future transportation system recommendations will be presented at the second public meeting preliminary scheduled for October 16, 2015.

2.0 PLANNING EFFORTS

2.1 PUBLIC INVOLVEMENT PLAN

Prior to planning the public meetings, the project team developed a Public Involvement Plan (PIP) is to outline the strategy for obtaining meaningful input from the Havasupai Tribal Members and stakeholders throughout the process of developing the LRTP. The PIP also identified public outreach mechanisms, the public meeting format and public involvement program evaluation criteria. This public involvement plan establishes the program that will identify stakeholders and engage them in the planning process. If necessary, the PIP can be revised as the project evolves.

See Appendix A for the Public Involvement Plan

2.2 LIST OF STAKEHOLDERS

A list of stakeholders was developed through discussions the ADOT Project Manager, Tribal Project Manager and the technical advisory committee. The stakeholder list is used to distribute public meeting announcements and project updates via email.

See Appendix B for the current list of stakeholders by name and entity represented.

2.3 PMT AND TAC MEETINGS

Prior to the Public Involvement Meeting, project team members attended Project Management Team (PMT) and Technical Advisory Committee (TAC) meetings in order to assure the project was on task and on schedule. These meetings also serve as a way to keep the team informed on the needs of the Havasupai Indian Tribe and stakeholders.

3.0 PUBLIC OUTREACH EFFORTS

The following outreach efforts were made in order to notify the public and stakeholders of the project and the first public meeting.

Table 1: Public Outreach

Outreach Method	Location/Media	Date
Verbal discussion during TAC Meeting #1	Teleconference/Webinar	February 23, 2015
Verbal announcement of first public meeting during TAC Meeting #2	Teleconference/Webinar	June 5, 2015
Newspaper ad	*Arizona Daily Sun* – Flagstaff, AZ	July 11, 2015 July 22, 2015
Newspaper ad	*Kingman Daily Miner* – Kingman, AZ	July 12, 2015 July 22, 2015
Newsletter announcement	*Gam'Yu* – Hualapai Tribe	July 17, 2015
Fliers	Posted in public areas in Supai Village	July 7, 2015 through August 6, 2015

See Appendix C for copies of ads and fliers.

4.0 PUBLIC MEETINGS AND COMMENTS

The first Public Involvement Meeting was held on Thursday, August 6, 2015, from 1:00 pm to 3:00 pm at the Baaja Thagabo Community Building (Meeting Hall) in Supai, Arizona. Fourteen people signed in for the meeting. The meeting was held in an open workshop format. Tables were set up with maps so the community could discuss their concerns and suggestions with the Project Management Team. A continual PowerPoint presentation was also on display that illustrated the first phase of the Havasupai Indian Tribe LRTP.

According to the sign-in sheet the following groups were represented:

- Havasupai Tribal Council
- Havasupai Tourist Office
- Indian Health Service (IHS)
- ADOT
- Havasupai Animal Control
- Colby & Powell
- United Civil Group
- Amec Foster Wheeler

See Appendix D for sign-in sheet, participant surveys, and presentation

4.1 PUBLIC SURVEYS

Two surveys were submitted during the public involvement meeting, the Transportation Survey and the Travel Stress Index Survey.

In order to access the current transportation needs and challenges for the members of the Havasupai community, a Transportation Survey was distributed during the Public Involvement meeting. This survey focused on transportation mobility, safety, accessibility, multimodal accommodation, public transit, and economic conditions and services.

Some of the key results from this survey are as follows:

- The main purpose of trips outside of Supai Village are shopping and healthcare.
- 70 percent of the respondents indicated that the biggest travel burden is the high cost.
- Respondents listed their top five transportation safety concerns as follows:
    - Wildlife on Roadway
    - Other Drivers Distracted or Impaired
    - Driving on 2-Lane Roads
    - Parking/Driving at Hualapai Hilltop
    - Helicopter Travel

- Respondents felt most safe walking which is also their most used travel mode.
- The respondents unanimously agreed they would use transit more often if it expanded.
- The respondents unanimously agreed that they are not able to get regular doctor appointments in an affordable and timely manner.

See Appendix E for a detailed summary of the Transportation Survey.

In addition to the Transportation Survey, a Travel Index Survey was also distributed to try and quantify how the remoteness of Supai Village affects community members. Because this is the first Travel Stress Index Summary, it can be used as a baseline when compared to future scores or peer communities. The community travel stress was calculated to be 16.5.

Individual annual trips were estimated from the Travel Index Survey. The average person in Supai Village makes approximately 67 shopping trips per year, followed by 26 health care trips per year.

See Appendix F for a detailed summary of the Travel Index Survey.

4.2 PUBLIC COMMENTS

No public comments or concerns were voiced at the meeting.

APPENDIX C

Legal No. 18817

Public Open House Meeting

Havasupai Indian Tribe Long Range Transportation Plan

The Havasupai Indian Tribe and Arizona Department of Transportation (ADOT) are collaborating to compile a long range transportation plan, which will promote mobility, pedestrian accessibility, safety, enhance economic vitality, improve community livability, encourage environmental and cultural sensitivity, and support current and planned economic development.

WE WANT TO HEAR FROM YOU

Join us on Thursday, **August 6, 2015 from 1 pm to 3 pm** for a public open house meeting to learn more about the study and share your ideas and thoughts on the transportation needs in the Havasupai community. Your input will provide valuable insight into transportation improvements to address current and future transportation issues.

Meeting Location:
Baaja Thagabo Community Building
(Meeting Hall)
Supai, AZ

Learn more about this plan at:
http://azdot.gov/Havasupai-lrtp

If you require special assistance in order to participate in the public open house meeting, please contact Don Sneed, ADOT Project Manager, at 602.712.6736. Requests should be made as soon as possible to allow time to arrange the accommodation.

ADOT

For More Information:
602.712.6736
dsneed@azdot.gov

PUB: July 11, 2015 18817

Arizona Daily Sun - Flagstaff

Public Open House Meeting

Havasupai Indian Tribe Long Range Transportation Plan

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Baaja Thagabo Community Building (Meeting Hall)
Supai, AZ

Learn more about this plan at:
http://azdot.gov/Havasupai-lrtp

If you require special assistance in order to participate in the public open house meeting, please contact Don Sneed, ADOT Project Manager, at 602.712.6736. Requests should be made as soon as possible to allow time to arrange the accommodation.

ADOT

For More Information:
602.712.6736
dsneed@azdot.gov

Daily Miner- Kingman

Havasupai Tribe Long Range Transportation Plan • Thursday, August 6th
Submitted by: April Wilson | United Civil Group

Public Open House Meeting

Havasupai Indian Tribe Long Range Transportation Plan

The Havasupai Indian Tribe and Arizona Department of Transportation (ADOT) are collaborating to compile a long range transportation plan, which will promote mobility, pedestrian accessibility, safety, enhance economic vitality, improve community livability, encourage environmental and cultural sensitivity, and support current and planned economic development.

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Baaja Thagabo Community Building (Meeting Hall)
Supai, AZ

Learn more about this plan at:
http://azdot.gov/Havasupai-lrtp

If you require special assistance in order to participate in the public open house meeting, please contact Don Sneed, ADOT Project Manager, at 602.712.6736. Requests should be made as soon as possible to allow time to arrange the accommodation.

ADOT

For More Information:
602.712.6736
dsneed@azdot.gov

Gam'Yu - Hualapai

APPENDIX D

Havasupai Indian Reservation Long Range Transportation Plan

Public Involvement Meeting #1

August 6, 2015

PLEASE SIGN IN

	NAME	TRIBE
1	Lorin W Manakaja	HAVASupai
2	Carrie Sinyella	Havasupai
3	TRICIA HUNTER	IHS
4	Jane Preston	IHS
5	[illegible]	Havasupai
6	[illegible]	T.C.V.C.
7	ERIC BISCOE	SDRiolWorks.
8	Mike Blankenship	Amec Foster Wheeler
9	Arnold Marshall	Havasupai Member
10	Matthew Putesay Sr	H.T.C
11	Tim Uqualle	Tourist Office
12	Thatchas/Wesuogame	Animal Control/Havasupai
13	Sarah Simpson	United Civil Group
14	Jim Uservitch	Colby + Powell
15		
16		
17		
18		
19		

Havasupai Indian Tribe Long Range Transportation Plan
Public Involvement Meeting – Supai Village
August 6, 2015
Transportation Survey Questions

Transportation/mobility

1. For what purposes do you need or want to travel outside of Supai Village?

___ Shopping ___ Doctor visits ___ Job ___ Other business
___ Visit children ___ School ___ Other

2. Where do you typically travel (choose all that apply)?

___ Peach Springs ___ Williams
___ Kingman ___ Flagstaff
___ Other _____

3. For the travel mode you use, which is a bigger travel burden (choose only one)?

___ Travel cost ___ Trip infrequency ___ Lack of vehicle

Transportation safety

4. What are your transportation safety concerns (choose all that apply)?

___ Driving on 2-lane roads (IR 18, SR 66)
___ Driving on unpaved roads
___ Driving on highways (I-40)
___ Driving at night
___ Other drivers driving distracted (cell phone, texting)
___ Other drivers driving while impaired (includes alcohol, drugs, and prescription meds)
___ Other drivers speeding
___ Wildlife/horses/cattle on the road
___ Tourists driving in/near Hualapai Hilltop
___ Tourists traveling in/near Supai Village
___ Walking within Supai Village
___ Hiking from Supai Village to Hualapai Hilltop
___ Parking/driving at Hualapai Hilltop
___ Helicopter travel

5. Where are the locations of your concerns? (list below and identify on the map)

_____

_____

6. How safe do you feel when you DRIVE?

	Not safe									Very safe	
N/A	0	1	2	3	4	5	6	7	8	9	10

Where is the safest place (name of route/intersection)?

_____

Where is the LEAST safe place (name of route/intersection)?

_____

7. How safe do you feel when you WALK/HIKE?

	Not safe									Very safe	
N/A	0	1	2	3	4	5	6	7	8	9	10

Where is the safest place (Supai Village/Recreational Area/Trail/Route name)?

_____

Where is the LEAST safe place (Supai Village/Recreational Area/Trail/Route name)? _____

8. How safe do you feel when you travel on the HELICOPTER?

	Not safe									Very safe	
N/A	0	1	2	3	4	5	6	7	8	9	10

Where is the safest place (general location)? _____

Where is the LEAST safe place (general location)? _____

Accessibility

9. Where do you have physical difficulty travelling (when walking/hiking)?

___ Supai Village ___ Hualapai Hilltop ___ Supai Village to Hualapai Hilltop

___ Other: _____

Multimodal accommodation

10. What travel modes do you use? (Choose all that apply)

___ Walk/Hike
___ Bicycle
___ ATV
___ Horse/Mule
___ Truck/car
___ Bus/van
___ Helicopter

11. Do you think you would use different travel modes in the future if they were available?

___ No ___ Yes ___ If yes, what kind?

_____

Public Transit

12. Do you currently use any transit/paratransit/van service?

___ No ___ Yes ___ If yes, which?

_____

13. Do you think you would use transit more often if service was expanded?

___ No ___ Yes

14. When/how often do you feel a tribal transit/paratransit service should run?

Weekdays and hours: _____

Weekends and hours: _____

Health

15. a) Do you feel the deliveries of food to Supai Village are nutritious?

___ No ___ Yes

b) Are they in sufficient quantities?

___ No ___ Yes

16. Are you able to easily travel to other places to buy nutritious food?

___ No ___ Yes

Health services

17. Are you able get to your regular doctor appointments in an affordable and timely manner?

___ No ___ Yes

18. Does your emergency medical service provider respond in a timely manner?

___ No ___ Yes

Housing/transportation

19. Is there a need for transportation to/from existing or other tribal housing?

___ No ___ Yes

Transport of solid waste

20. Are you concerned about the accumulation of trash and other items by residents and visitors?

___ No ___ Yes

Transport of fresh water

21. a) Do you feel the deliveries of water Supai Village receives are fresh?

___ No ___ Yes

b) Are the deliveries in sufficient quantities?

___ No ___ Yes

Transport of waste water

22. How is your waste water (sewage, etc.) disposed:

___ Stored in ponds/treated
___ Transported away from Supai Village
___ Dumped elsewhere
___ Other

Tourism/recreation

23. Would additional tourism be positive for the Havasupai community?

___ No ___ Yes

Community development

24. Can you suggest improvements or programs that would help the Havasupai community develop?

_____
_____
_____

25. How could better and/or safer transportation help create this?

_____
_____
_____

Economic development

26. Can you suggest improvements or programs that would bring additional jobs and/or revenue into the Havasupai community?

_____
_____
_____

27. How could better and/or safer transportation help create this?

_____
_____
_____

Havasupai Tribe Long Range Transportation Plan

Public Involvement Meeting – Supai Village, August 6, 2015

Travel Stress Index survey

One of the major goals for this transportation plan is to assess the current transportation needs and challenges of community members. By doing so, the Arizona Department of Transportation can recommend more appropriate infrastructure and strategies. Please provide your answers to the following questions relating to the transportation trips you take, estimating for an average two-week period of your choice. If you travel out of Supai Village infrequently, include that trip in your two-week period.

Travel Trips

On average, during any TWO-WEEK period, HOW MANY trips do you make out of Supai Village?

Write the numbers in the boxes below:

Shopping	☐
Medical/health	☐
Job	☐
School-related	☐
Family	☐
Other	☐

Travel Mode - Choice

On average, during that same two-week period, HOW MANY times do you use the following modes for these trips?

Write the numbers in the boxes below:

	Outbound Trip	Return Trip
Hike/walk	☐	☐
Pack/horse/mule	☐	☐
Helicopter	☐	☐
Vehicle	☐	☐

Travel Mode – Details

Please provide us with information about the different travel modes you use for trips from Supai Village to Hualapai Hilltop/rim. Then, also include additional trips you take to another destination. Indicate how long you wait for travel trips, how long your trips take, and how much they cost. For all of your trips, please provide the following information: *(Circle your answers on the next four pages)*

Walk/Hike trips

How long do you typically wait for your OUTBOUND walk/hike trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your OUTBOUND walk/hike trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

How long do you typically wait for your RETURN walk/hike trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your RETURN walk/hike trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

What is the cost/fee for your walk/hike ROUND TRIP?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

How much extra do you sometimes need to spend on your walk/hike trip?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

Have you ever delayed or extended a walk/hike trip due to logistical considerations such as trail conditions? If so, please explain: _____

_____

_____

Pack/horse/mule trips

How long do you typically wait for your OUTBOUND horse/mule trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your OUTBOUND horse/mule trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

How long do you typically wait for your RETURN horse/mule trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your RETURN horse/mule trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

What is the cost/fee for your horse/mule ROUND TRIP?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

How much extra do you sometimes need to spend on your horse/mule trip?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

Have you ever delayed or extended a horse/mule trip due to logistical considerations such as trail conditions or unavailability of service? If so, please explain: _____

_____

_____

Truck/car trips

How long do you typically wait for your OUTBOUND truck/car trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your OUTBOUND truck/car trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

How long do you typically wait for your RETURN truck/car trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your RETURN truck/car trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

What is the cost/fee for your truck/car ROUND TRIP?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

How much extra do you sometimes need to spend on your truck/car trip?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

Have you ever delayed or extended a truck/car trip due to logistical considerations such as road conditions or mechanical problems? If so, please explain: _____

_____

_____

Helicopter trips

How long do you typically wait for your OUTBOUND helicopter trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your OUTBOUND helicopter trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

How long do you typically wait for your RETURN helicopter trip?

0-2 hours	3-4 hours	5-8 hours	9-12 hours	13-24 hours	1-2 days

How long does your RETURN helicopter trip take?

0-1 hours	2-3 hours	4-5 hours	6-7 hours	8-9 hours	9+ hours

What is the cost/fee for your helicopter ROUND TRIP?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

How much extra do you sometimes need to spend on your helicopter trip?

$0-10	$11-20	$21-40	$41-60	$61-80	$80+

Have you ever delayed or extended a helicopter trip due to logistical considerations such as the unavailability of service, helicopter operating on certain days, etc.? If so, please explain: _____

_____

_____

_____

Welcome

to the Havasupai Indian Tribe Long Range Transportation Plan

Public Open House Meeting #1

August 6, 2015

Baaja Thagabo Community Building
Supai, Arizona

UCG United Civil Group

ADOT

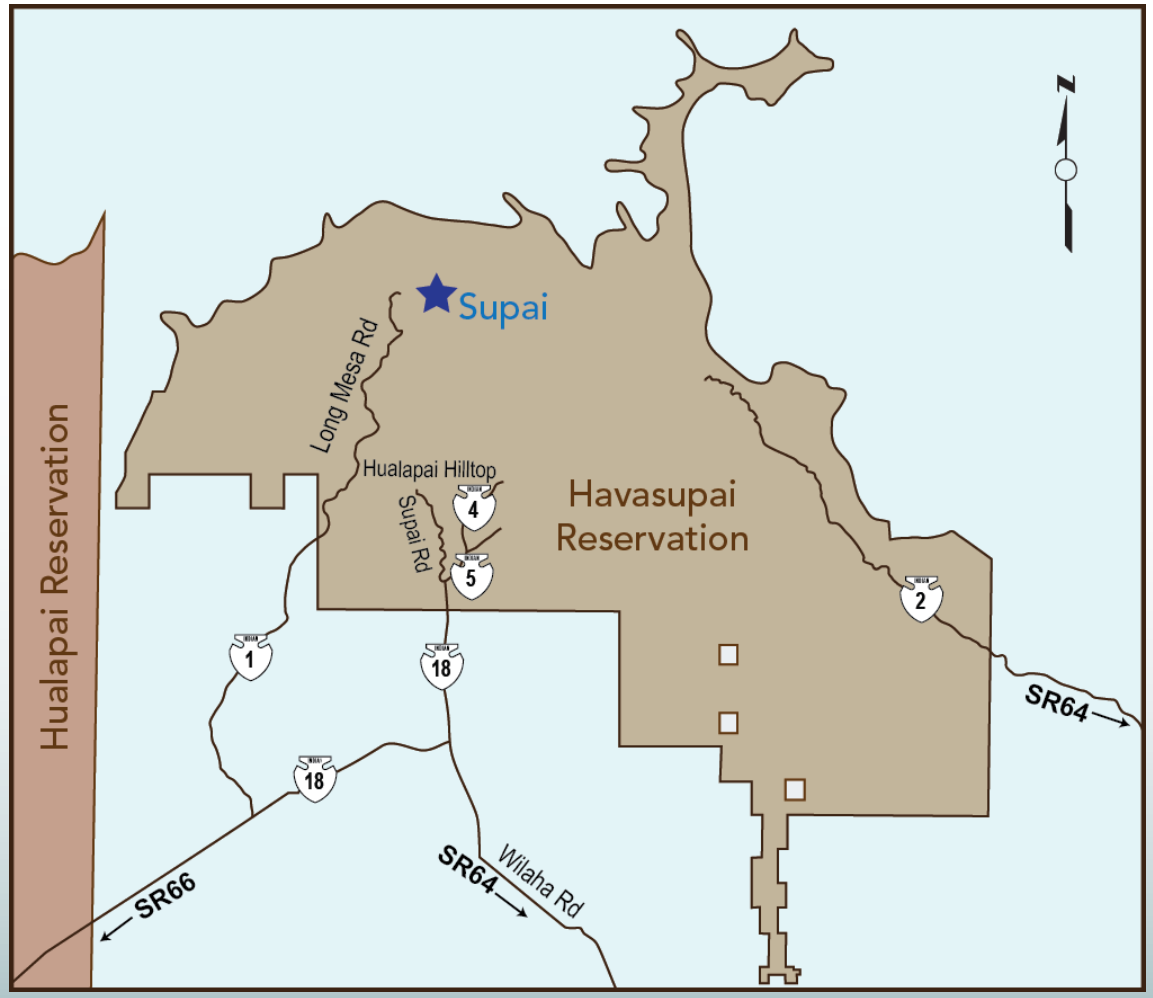
amec foster wheeler

Why are we here?

- The Havasupai Indian Tribe and the Arizona Department of Transportation (ADOT) are in the process of completing a planning study to address transportation needs of the Tribe.

- We need your valuable input on current identified issues and to inform us of any other needs.

Study Area



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amec foster wheeler

Study Goal

Develop a meaningful plan that guides tribal leaders and decision makers by identifying priorities for developing a safe and efficient transportation system with recommended improvements for the next 5-, 10-, and 20-year planning horizon periods.

Study Objectives

- Establish a proactive working relationship with the Technical Advisory Committee (TAC) and stakeholders
- Assess impacts of the reservation's remoteness
- Conduct a needs analysis/evaluation of the existing road conditions
- Perform a transportation safety review and identify updates to the BIA Road Inventory database
- Inventory and assess the current transit program
- Develop planning level cost estimates
- Maintain the highest level of quality on the project

Study Expectations

What this study WILL do

- ☑ Identify current and future transportation deficiencies
- ☑ Provide transportation recommendations
- ☑ Identify potential funding sources
- ☑ Provide the Tribe with a phased transportation implementation plan

What this study WON'T do

- ⊗ Provide instantaneous solutions to current transportation issues
- ⊗ Recommend exact alignments and design drawings for any proposed new roads
- ⊗ Provide funding to implement the recommendations
- ⊗ Conduct detailed environmental analysis

UCG United Civil Group

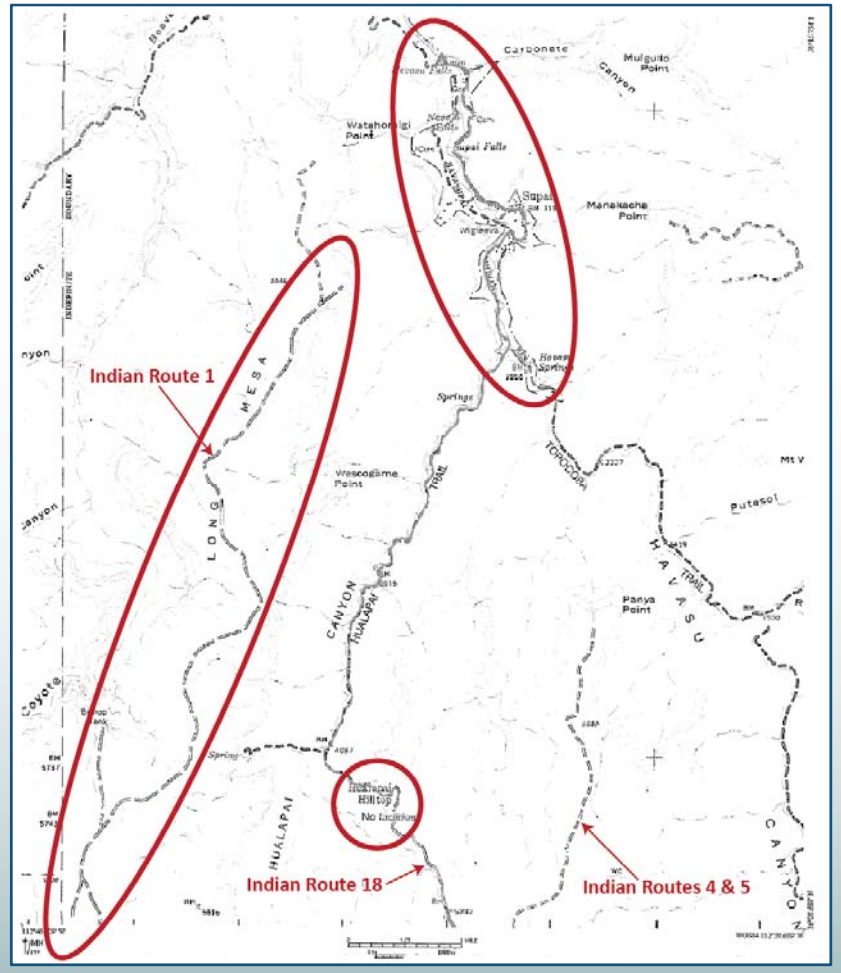
ADOT

amec foster wheeler

Study Process

Task	Action	Dates
TAC Meetings	Coordination	Feb/March, Apr/May, July 2015
Project Management Team Meetings	Monthly coordination	December 2014 – November 2015
Technical Memo 1	Refine the work plan	December 2014 – February 2015
Working Paper 1	Current and future conditions	June 2015
Public Involvement Phase 1	Summary Report 1	August 2015
Working Paper 2	Develop evaluation criteria and plan for improvements	September 2015
Public Involvement Phase 2	Summary Report 2	October 2015
Draft Final Report	Final Comments	July 2015 – October 2015
Final Report	Council Resolution	July 2015 – November 2015

Study Area Transportation Conditions and Concerns



United Civil Group

ADOT

amec foster wheeler

Study Area Roadway Conditions and Concerns

Location:
Indian Route 18
(Hualapai Hilltop Highway)

Issues:
- Narrow/deteriorated shoulders
- Sharp curves
- Water drainage
- Faded striping
- Speeding
- Wildlife crossings

Study Area Roadway Conditions and Concerns

Location:
Indian Route 1 (Long Mesa Road)

Issues:

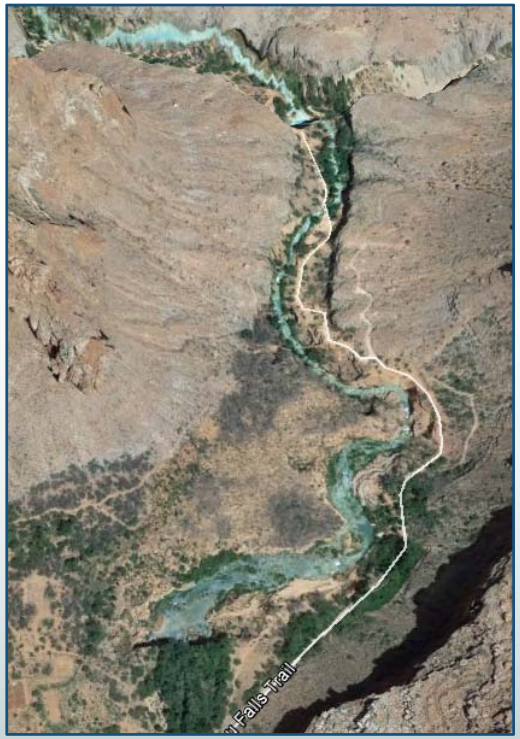
- Unpaved with wildlife crossing and no existing right of way
- Critical route for transport of supplies and to access utility facilities yet difficult to traverse during bad weather
- Impassable during the rainy season

Study Area Roadway Conditions and Concerns

Location:
Indian Routes 4 & 5
(Bar 4 Access Roads)

Issue:
- Unpaved/Non-road type path
- Possible access to tram entry alternate location
- Possible access to new housing
- Requires corridor alignment planning

Study Area Roadway Conditions and Concerns



Location:
Havasu Falls

Issue:
- Possible campground expansion could lead to additional tourists

Study Area Roadway Conditions and Concerns

Location:
Supai Village

Issue:
- Possible helicopter service expansion
- Possible connection to tram service
- Possible increased tourism

Public Involvement Meeting #2

OCTOBER 16, 2015 from 1pm to 3pm

Baaja Thagabo Community Building
(MeetingHall)
Supai, Arizona

UCG United Civil Group

ADOT

amec foster wheeler

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Amec Foster Wheeler
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http://azdot.gov/Havasupai-lrtp

HAVASUPAI INDIAN TRIBE LONG RANGE TRANSPORTATION PLAN

Public Involvement Summary Report
Second Phase Public Involvement – November 2015

November 9, 2015

Prepared for:

Havasupai Indian Tribe

in collaboration with
Arizona Department of Transportation

Prepared by:

United Civil Group

in collaboration with
AMEC Foster Wheeler

1.0 INTRODUCTION 3
2.0 PLANNING EFFORTS 4
2.1 PMT and TAC Meetings 4
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4.1 Public Comments 6

Appendix A – Ads and Fliers
Appendix B – Sign-in sheet and Presentation
Appendix C – Comment Form

1.0 INTRODUCTION

The Havasupai Indian Tribe and the Arizona Department of Transportation (ADOT) are collaborating to update the 1992 Havasupai Indian Tribe Long Range Transportation Plan (LRTP). This process is being completed under the ADOT Planning Assistance to Rural Areas (PARA) Program which provides funding for transportation planning technical assistance to tribal, local and county governments, statewide. The LRTP project area includes the Havasupai Reservation and the major corridors of Indian Routes (IR) 18, 1, 5 and 4. The LRP update will identify goals to meet transportation needs; forecast needed roadway improvements over the next 20 years; and most importantly, assist the Tribe in the transportation decision making process. The strategies to achieving these goals will address current and future tribal land use, economic development, environmental (natural, human and cultural), traffic demand, public safety, and health and social needs. The principal focus of this project is to address the most critical transportation planning needs identified by the Havasupai Indian Tribe.

This study is being conducted in two phases. The first phase will document current and future conditions and needs, which is the focus of this Public Involvement Summary Report #1. The second phase will focus on evaluation criteria and specific plans for improvement.

The success of this LRTP depends on the involvement of the people of the Havasupai Indian Tribe. Actively engaging the public is an important aspect of assuring the project's final improvements are locally acceptable and successful as well as building local support for funding transportation improvements. Gathering public input helps assure that the improvements recommended within this report are acceptable and keep within the Tribe's vision.

The second public meeting was held on November 6, 2015, at the Baaja Thagabo Community Building (Meeting Hall) in Supai, Arizona. In the first public meeting, the project team requested the ideas and comments from the public on the transportation needs within the study area. The findings, plans, and future transportation system recommendations were presented at the second public meeting. This Public Involvement Summary 2 recaps the comments received during this open house meeting.

2.0 PLANNING EFFORTS

2.1 PMT AND TAC MEETINGS

Prior to the Public Involvement Meeting, project team members attended Project Management Team (PMT) and Technical Advisory Committee (TAC) meetings in order to assure the project was on task and on schedule. These meetings also served as a way to keep the team informed on the needs of the Havasupai Indian Tribe and stakeholders.

3.0 PUBLIC OUTREACH EFFORTS

The following outreach efforts were made in order to notify the public and stakeholders of the project and the second public meeting.

Table 1: Public Outreach

Outreach Method	Location/Media	Date
Verbal discussion during TAC Meetings	Teleconference/Webinar	9/21/15
Verbal announcement of second public meeting during TAC Meeting	Teleconference/Webinar	9/21/15
Newspaper ad	*Arizona Daily Sun* – Flagstaff, AZ	10/11/15* 10/31/15
Newspaper ad	*Kingman Daily Miner* – Kingman, AZ	9/27/2015* 10/11/15* 10/30/15
Newsletter announcement	*Gam'Yu* – Hualapai Tribe	10/9/15* 11/6/15
Fliers	Posted in public areas in Supai Village	10/11/15* – 11/6/15

** The initial meeting planned for 10/16/2015 was canceled due to a funeral for community members. The public meeting was rescheduled for 11/6/2015.*

See Appendix A for copies of ads and fliers.

4.0 PUBLIC MEETINGS AND COMMENTS

The second Public Involvement Meeting was held on Friday, November 6, 2015 from 1:00 pm to 3:00 pm at the Baaja Thagabo Community Building (Meeting Hall) in Supai, Arizona. Eight people signed in for the meeting. The meeting was held in an open workshop format. Tables were set up with maps so the community could discuss their concerns and suggestions with the Project Management Team. A continual PowerPoint presentation was also on display that illustrated the second phase of the Havasupai Indian Tribe LRTP.

According to the sign-in sheet the following groups were represented:

- Tribal Members
- ADOT
- KT Consulting
- Colby & Powell
- United Civil Group
- Amec Foster Wheeler

See Appendix B for sign-in sheet, and presentation

4.1 PUBLIC COMMENTS

A comment form was available for participates to give their input on the following topics:

- IR18 Pavement Preservation
- IR1 Paving Project
- IR4 and IR5 Paving Project
- Tram Concept

See Appendix C for an example of the comment form.

With the help of a tribal member, land use maps were updated. Trails, helipads, and additional buildings were added.

The Tribe suggested an interim recommendation to grade IR1 so it would be passible in all types of weather in the immediate condition. Paving IR1 is a long-term improvement, it would be beneficial to the Tribe to improve the road in the interim through other methods (e.g. grading.

Other comments captured during the public involvement meeting are as follows:

- A roadway into Supai Village is not supported at this time. It would be dangerous to tribal members.
- The helicopter pad should be relocated from the center of the Village. The helicopter noise and wind are bothersome.
- Some community members would be interested in living on the rim (Hilltop)/Bar 4.
- IR18 should have guide signs. Tourists have a difficult time finding the Supai Village Trail Head.
- Tribal members would like to keep IR1 unpaved.
- Concern with getting tractor/trailers to tram line for solid waste removal.

APPENDIX A

Public Open House Meeting

Havasupai Indian Tribe Long Range Transportation Plan

The Havasupai Indian Tribe and Arizona Department of Transportation (ADOT) are collaborating to compile a long range transportation plan, which will promote mobility, pedestrian accessibility, safety, enhance economic vitality, improve community livability, encourage environmental and cultural sensitivity, and support current and planned economic development.

WE WANT TO HEAR FROM YOU

Join us on Friday, **October 16, 2015, from 1 pm to 3 pm** for a public open house meeting to learn more about the study and share your ideas and thoughts on the transportation needs in Supai Village and the Hualapai Hilltop area. Your input will provide valuable insight into transportation improvements to address current and future transportation issues.

Meeting Location:

Baaja Thagabo Community Building (Meeting Hall)
Supai, AZ

Short Presentations at 1:30pm and 2:30pm

Learn more about this plan at:
http://azdot.gov/Havasupai-lrtp

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ADOT

For More Information:
602.712.6736
dsneed@azdot.gov

Havasupai Indian Tribe Long Range Transportation Plan • Friday, October 16th

Submitted by: April Wilson | United Civil Group

Public Open House Meeting

Havasupai Indian Tribe Long Range Transportation Plan

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Supai, AZ

Short Presentations at 1:30pm and 2:30pm

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Public Open House Meeting

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Supai, AZ

Short Presentations at 1:30pm and 2:30pm

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Legal No. 19061

PUBLIC OPEN HOUSE MEETING RESCHEDULED

Havasupai Indian Tribe Long Range Transportation Plan

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Join us on Friday, **November 6, 2015, from 1 pm to 3 pm** for a public open house meeting to learn more about the study and share your ideas and thoughts on the transportation needs in Supai Village and the Hualapai Hilltop area. Your input will provide valuable insight into transportation improvements to address current and future transportation issues.

Meeting Location:

Baaja Thagabo Community Building (Meeting Hall)
Supai, AZ

Short Presentations at 1:30pm and 2:30pm

Learn more about this plan at:
http://azdot.gov/Havasupai-lrtp

If you require special assistance in order to participate in the public open house meeting, please contact Don Sneed, ADOT Project Manager, at 602.712.6736. Requests should be made as soon as possible to allow time to arrange the accommodation.

ADOT

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602.712.6736
dsneed@azdot.gov

PUB: Oct. 31, 2015 19061

PUBLIC OPEN HOUSE MEETING RESCHEDULED

Havasupai Indian Tribe Long Range Transportation Plan

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Supai, AZ

Short Presentations at 1:30pm and 2:30pm

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For More Information:
602.712.6736
dsneed@azdot.gov

PUBLIC OPEN HOUSE MEETING RESCHEDULED

Havasupai Indian Tribe Long Range Transportation Plan

The Havasupai Indian Tribe and Arizona Department of Transportation (ADOT) are collaborating to compile a long range transportation plan, which will promote mobility, pedestrian accessibility, safety, enhance economic vitality, improve community livability, encourage environmental and cultural sensitivity, and support current and planned economic development.

Join us on Friday, **November 6, 2015, from 1 pm to 3 pm** for a public open house meeting to learn more about the study and share your ideas and thoughts on the transportation needs in Supai Village and the Hualapai Hilltop area. Your input will provide valuable insight into transportation improvements to address current and future transportation issues.

Meeting Location:

Baaja Thagabo Community Building (Meeting Hall)
Supai, AZ

Short Presentations at 1:30pm and 2:30pm

Learn more about this plan at:
http://azdot.gov/Havasupai-lrtp

If you require special assistance in order to participate in the public open house meeting, please contact Don Sneed, ADOT Project Manager, at 602.712.6736. Requests should be made as soon as possible to allow time to arrange the accommodation.

ADOT

For More Information:
602.712.6736
dsneed@azdot.gov

APPENDIX B

HAVASUPAI INDIAN RESERVATION
LONG RANGE TRANSPORTATION PLAN

Public Involvement Meeting #2

November 6, 2015

PLEASE SIGN IN

	Name	Tribe/Company
1	Davis Jones	
2	Daley Manakaja	Community Member
3	Don Sneed	ADOT
4	Jim Usevitch	Colby + Powell
5	Mike Blankenship	Amec Foster Wheeler
6	Lori Goodlue	UCG
7	Kevin Turner	KT Consulting
8	Sarah Simpson	UCG
9		
10		
11		
12		
13		
14		
15		
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17		
18		
19		
20		

Welcome

to the Havasupai Indian Tribe Long Range Transportation Plan

Public Open House Meeting #2

November 6, 2015

Baaja Thagabo Community Building
Supai, Arizona

UCG United Civil Group

ADOT

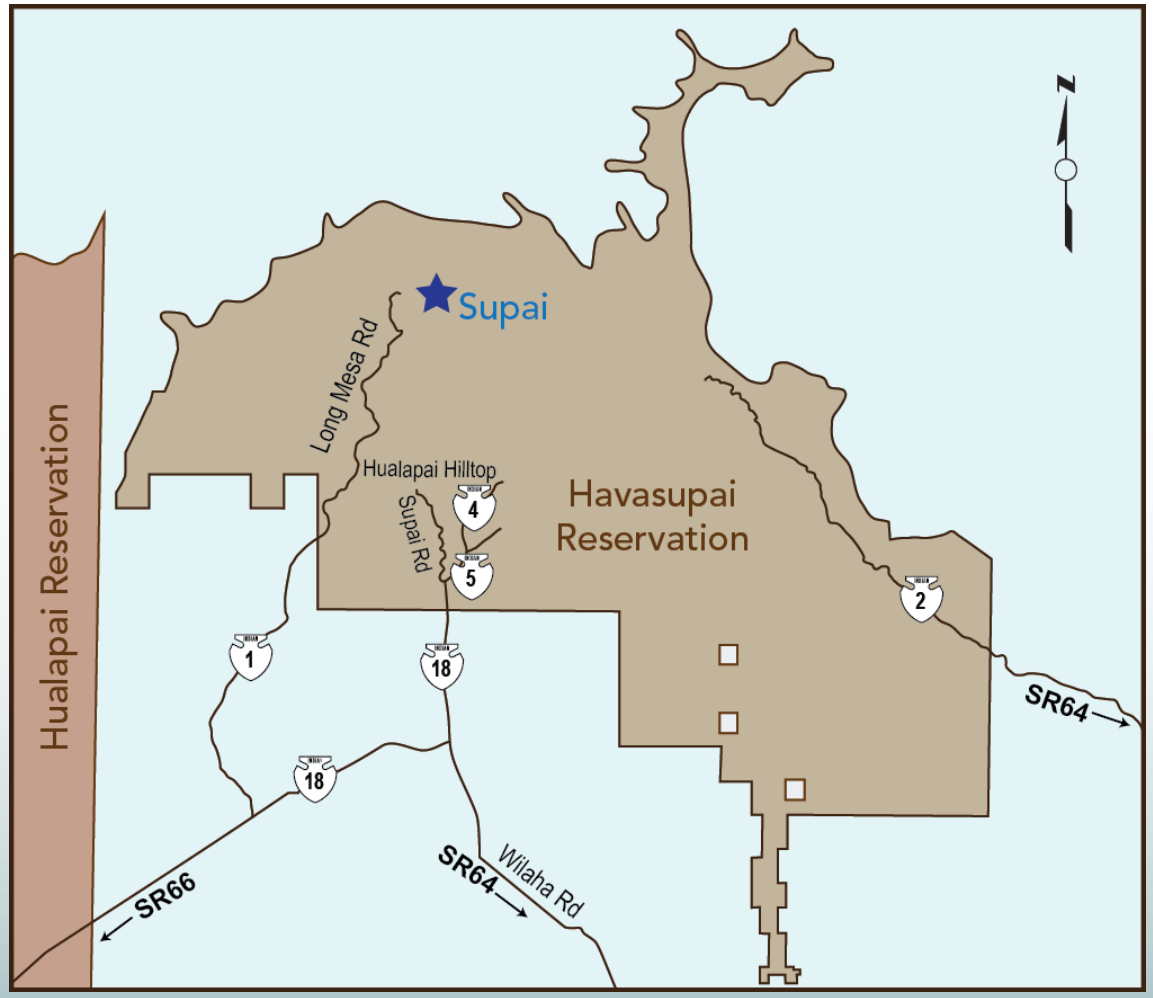
amec foster wheeler

Why are we here?

- The Havasupai Indian Tribe and the Arizona Department of Transportation (ADOT) are in the process of completing a planning study to address transportation needs of the Tribe.

- We need your valuable input on current identified issues and to inform us of any other needs.

Study Area



UCG United Civil Group

ADOT

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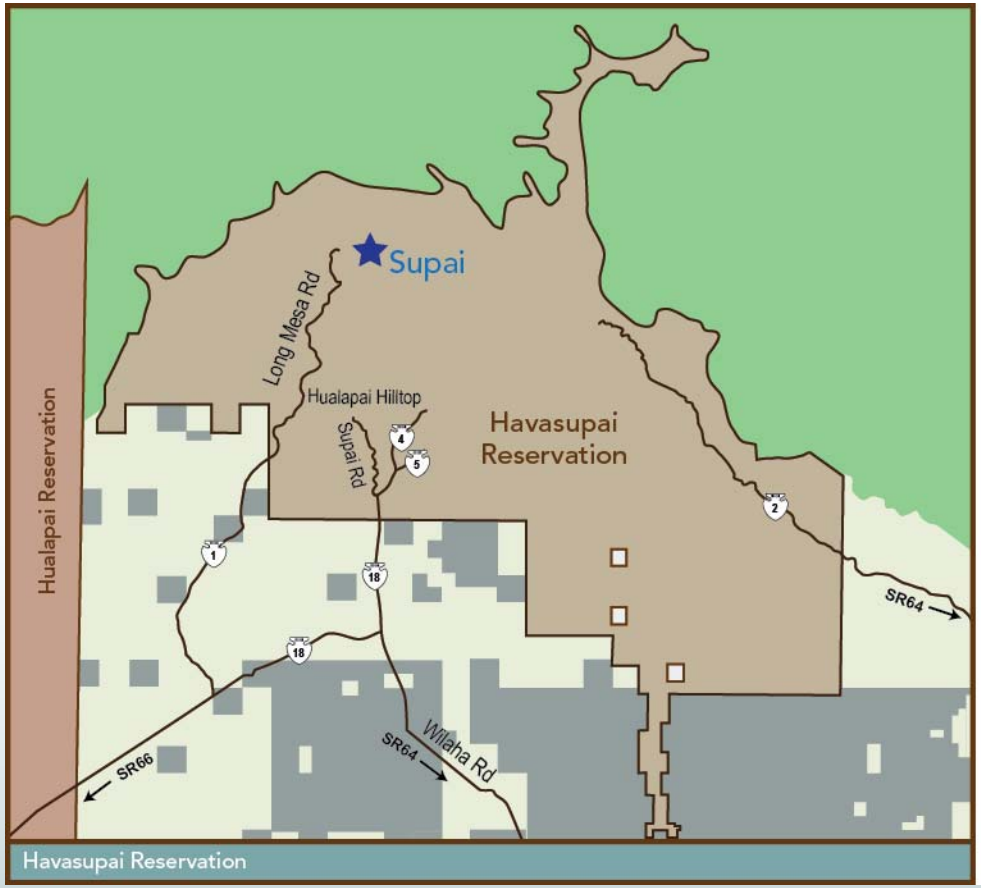
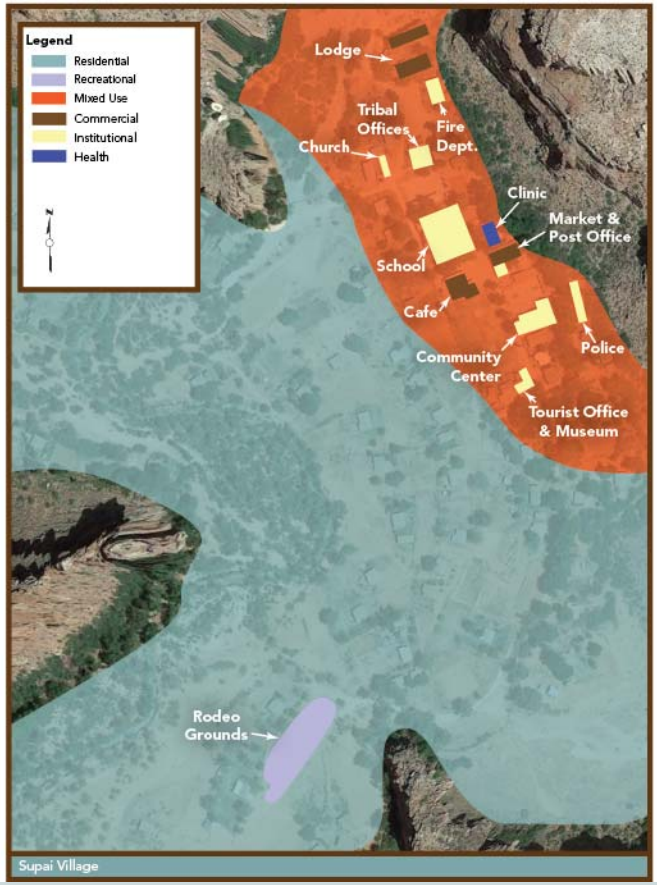
Preliminary Land Use Map





UCG United Civil Group

ADOT

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Study Goal

Develop a meaningful plan that guides tribal leaders and decision makers by identifying priorities for developing a safe and efficient transportation system with recommended improvements for the next 5-, 10-, and 20-year planning horizon periods.

Study Objectives

- Establish a proactive working relationship with the Technical Advisory Committee (TAC) and stakeholders
- Assess impacts of the reservation's remoteness
- Conduct a needs analysis/evaluation of the existing road conditions
- Perform a transportation safety review and identify updates to the BIA Road Inventory database
- Inventory and assess the current transit program
- Develop planning level cost estimates
- Maintain the highest level of quality on the project

Study Expectations

What this study WILL do

- ☑ Identify current and future transportation deficiencies
- ☑ Provide transportation recommendations
- ☑ Identify potential funding sources
- ☑ Provide the Tribe with a phased transportation implementation plan

What this study WON'T do

- ⊗ Provide instantaneous solutions to current transportation issues
- ⊗ Recommend exact alignments and design drawings for any proposed new roads
- ⊗ Provide funding to implement the recommendations
- ⊗ Conduct detailed environmental analysis

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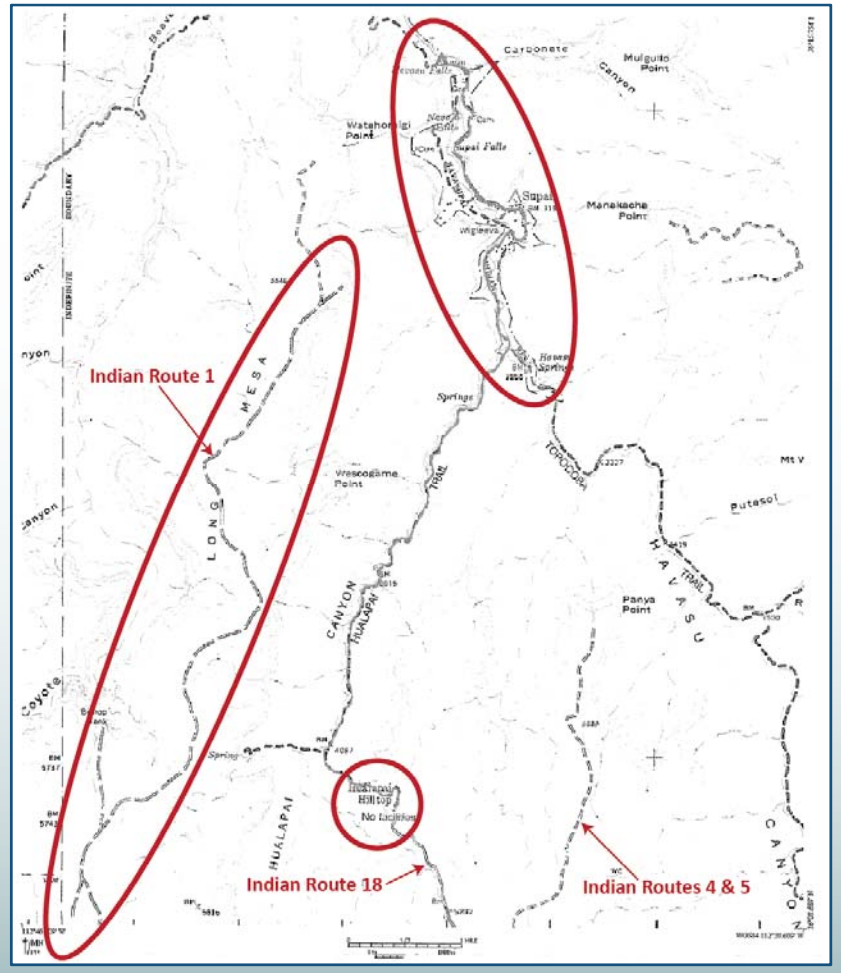
Study Process

Task	Action	Dates
TAC Meetings	Coordination	Feb/March, Apr/May, July 2015
Project Management Team Meetings	Monthly coordination	December 2014 – November 2015
Technical Memo 1	Refine the work plan	December 2014 – February 2015
Working Paper 1	Current and future conditions	June 2015
Public Involvement Phase 1	Summary Report 1	August 2015
Working Paper 2	Develop evaluation criteria and plan for improvements	September 2015
Public Involvement Phase 2	Summary Report 2	November 2015
Draft Final Report	Final Comments	November 2015
Final Report	Council Resolution	December 2015

Transportation Study Area



United Civil Group

ADOT

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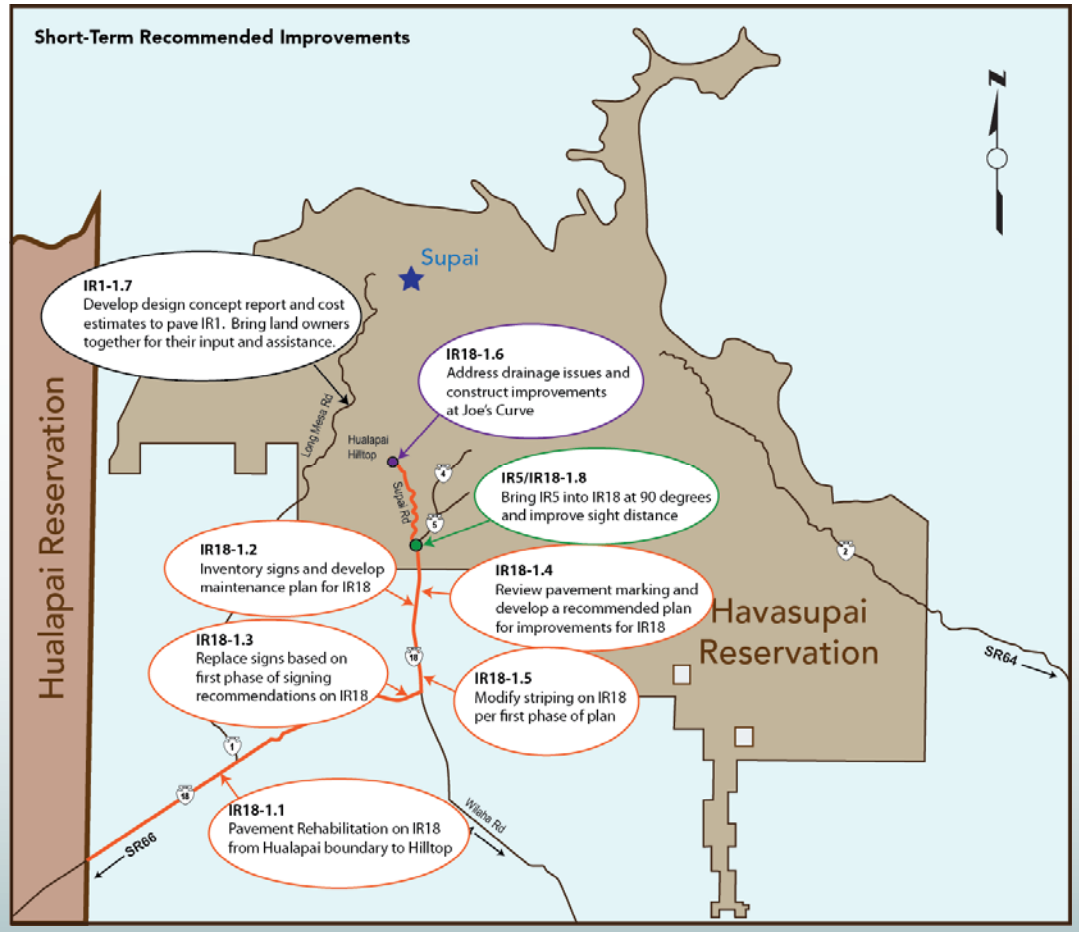
Transportation Recommendations

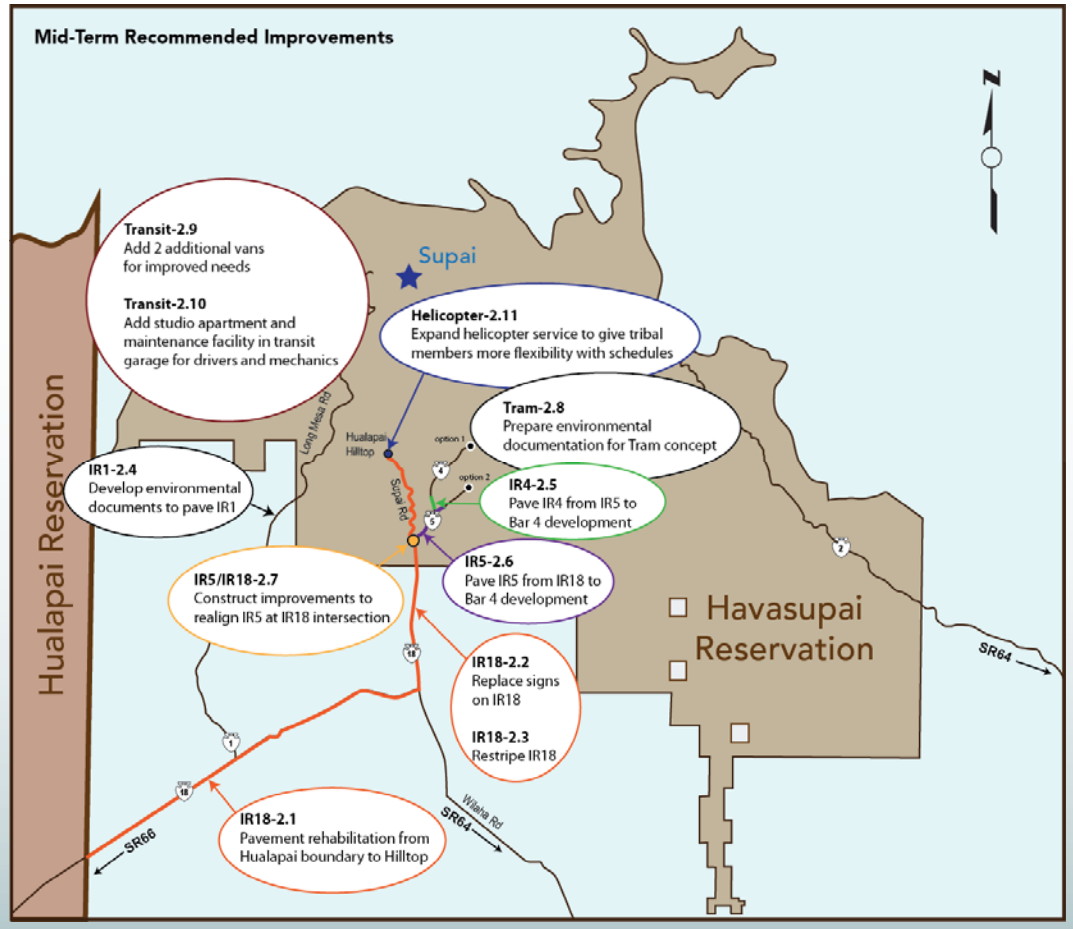


UCG United Civil Group

ADOT

amec foster wheeler

Transportation Recommendations

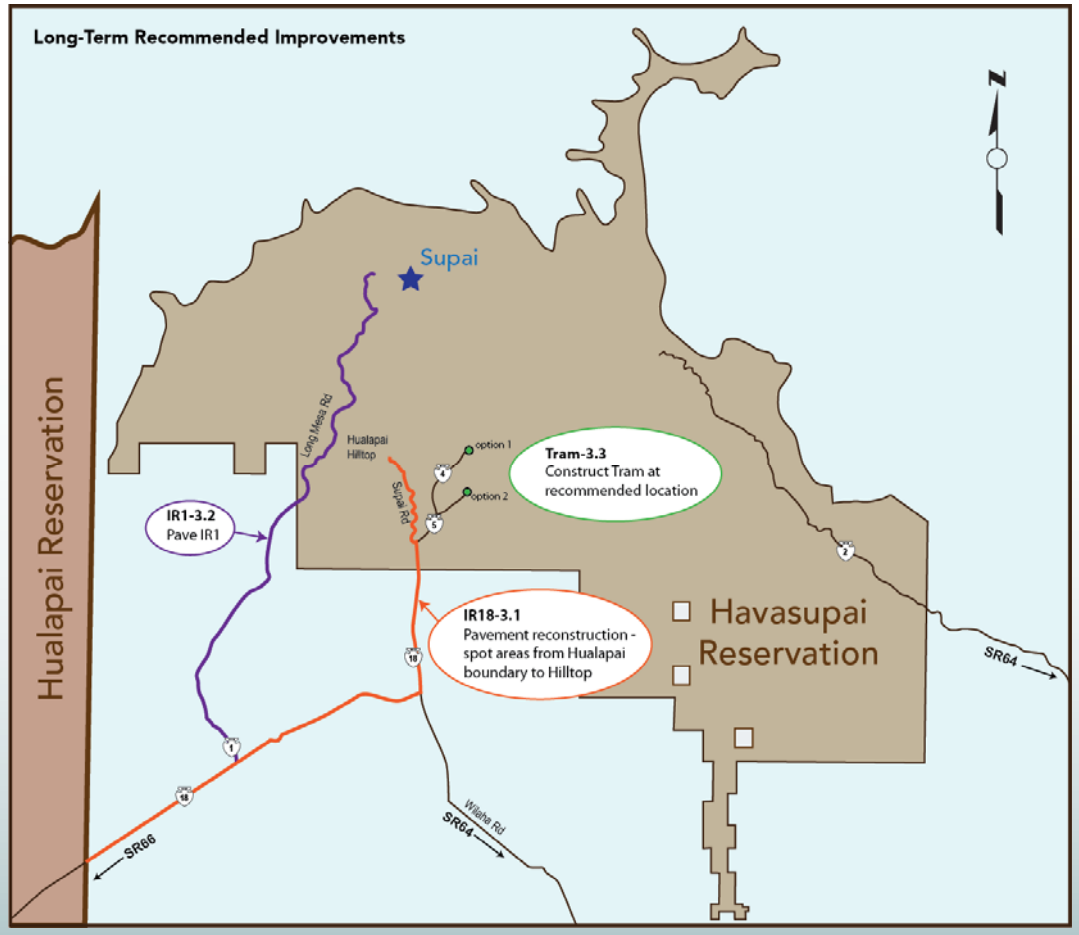


UCG United Civil Group

ADOT

amec foster wheeler

Transportation Recommendations



IR 18 (Supai Road) Recommendations

SHORT TERM (1-5 years):

- Pavement Rehabilitation
- Signing/Striping Inventory
- Sign Replacement & Marking Improvements (as needed)
- Address Drainage at Joe's Curve

MID TERM (5-10 years):

- Pavement Rehabilitation
- Sign Replacement & Marking Improvements (as needed)

LONG TERM (10-20 years):

- Pavement Reconstruction

IR 1 (Long Mesa Road) Recommendations

SHORT TERM (1-5 years):

- Bring Land Owners Together
- Initial Environmental Documents and Concept Reports

MID TERM (5-10 years):

- Environmental Documentation

LONG TERM (10-20 years):

- Roadway Design
- Pavement/Construction

IR 4 & 5 Recommendations

SHORT TERM (1-5 years):

- Bring IR 5 into IR 18 at a 90 degree angle

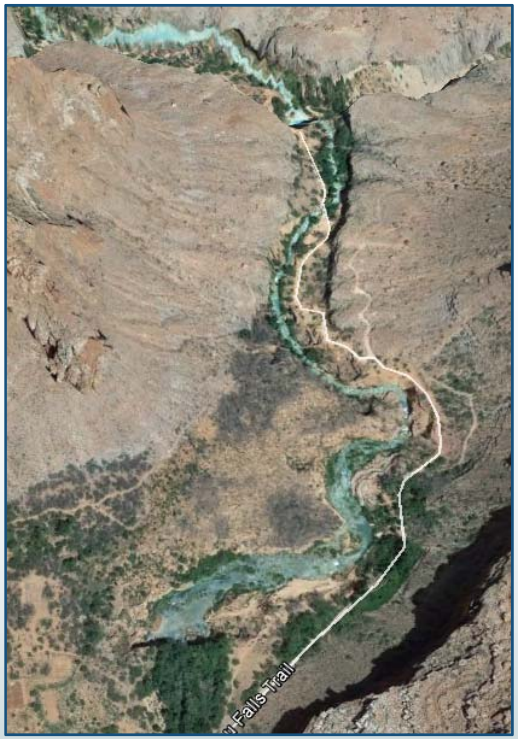
MID TERM (5-10 years):

- Pave IR 4 and IR 5 (as needed with new development plans)

LONG TERM (10-20 years):

- Pave IR 4 or IR 5 to new cable tram location (as needed)

Multi-Modal Recommendations



SHORT TERM (1-5 years):

- Reinstate the transit service on an as needed basis

MID TERM (5-10 years):

- Add two additional vans for improved service, when required.
- Add studio apartment/maintenance facility for transit operations.
- Expand helicopter service, as needed.
- Expand packing services as required.

Cable Tram Concept Recommendations

SHORT TERM (1-5 years):

- Prepare a Cable Tram Candidate Location Study.

MID TERM (5-10 years):

- Prepare Environmental Documentation

LONG TERM (10-20 years):

- Design Cable Tram
- Construct Cable Tram

UCG United Civil Group

ADOT

amec foster wheeler

Contacts

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Amec Foster Wheeler
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michael.blankenship@amecfw.com

http://azdot.gov/Havasupai-lrtp

APPENDIX C

HAVASUPAI INDIAN RESERVATION
LONG RANGE TRANSPORTATION PLAN

Comment Form

November 6, 2015

IR18 Pavement Preservation

IR1 Paving Project

IR4 and IR5 Paving Project

Tram Concept

APPENDIX B
Stakeholder Summary

Stakeholder List

Name	Title	Agency *Department*	Phone Number	Email Address
Rex Tilousi	Chairman	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htchair@havasupai-nsn.gov
Roland Manakaja	Vice-Chairman	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htvchair@havasupai-nsn.gov
Thomas Siyuja Sr	Council Member	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htc1@havasupai-nsn.gov
Matthew Putesoy	Council Member	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htc2@havasupai-nsn.gov
Carletta Tilousi	Council Member	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htc3@havasupai-nsn.gov
Brian Chamberlain	Council Member	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htc4@havasupai-nsn.gov
Carrie Sinyella	Council Member	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htc5@havasupai-nsn.gov
Bonnie Wescogame	Tribal Secretary	Havasupai Indian Tribe *Tribal Council*	928-448-2731	htsec0@havasupai-nsn.gov
Kevin Turner	Planning Consultant/Project Manager	Havasupai Indian Tribe *Tribal Planning*	602-679-0256	jkturner1261@yahoo.com
Armando Marshall	Tribal Facilities Director	Havasupai Indian Tribe *Tribal Facilities*	928-448-2070	armando.marshall@yahoo.com
Jim Usevitch	Controller	Havasupai Indian Tribe *Tribal Controller's Office*	480-635-3200, Ext. 2222	jusevitch@colbypowell.com
Sheldon Manakaja	Wildlife Manager	Havasupai Indian Tribe *Tribal Wildlife Department*	928-448-2731	htwild0@Havasupai-nsn.gov
Phillip Wisely	Public Works Director	Hualapai Tribe *Tribal Public Works Department*	928-769-2216	pwisely@hualapai-nsn.gov
Chief Bradley	Police	Hualapai Tribe *Police Department*		Francis.Bradley@hualapaipd.org
Julie Alpert	Transportation Planner	Hualapai Tribe Public Services Department	928-769-2216	JAlpert@hualapai-nsn.gov
Gloria Tom	Department Manager	Navajo Nation *Navajo Fish and Wildlife*	928-871-6450	gtom@nndfw.org
Frederick H. White	Deputy Executive Director	Navajo Nation *Division of Natural Resources*	928-871-6592	fhwhite@frontiernet.net
W Mike Halona	Department Manager III	Navajo Nation *Land Department*	928-871-6524	m_halona@frontiernet.net
Ferdinand Notah	Tribal Ranch Program Project Specialist	Navajo Nation *Tribal Ranch Program*	928-871-6605	notahf@yahoo.com
Jim Williams	Superintendent	Bureau of Indian Affairs *Truxton Canon Agency*	928-769-2286	james.williams@bia.gov
Paul Bonar	Transportation Planner	Bureau of Indian Affairs *Western Region Roads Planning*	602-379-6782	paul.bonar@bia.gov
Dave Smith	Roads Engineer	Bureau of Indian Affairs *Western Region Roads Engineering*	602-379-6782, Ext. 1346	David.Smith@bia.gov

Name	Title	Agency *Department*	Phone Number	Email Address
Esther Corbett	Transportation Project Coordinator	Inter-Tribal Council of Arizona *Transportation Program*	602-258-4822	Esther.Corbett@itcaonline.com
Robert Morones	District Injury Prevention Coordinator	US Public Health Service *Indian Health Service*	480-592-0091, Ext. 231	Robert.Morones@ihs.gov
Vincent Garcia	District Environmental Health Officer	US Public Health Service *Indian Health Service*	480-592-0091, Ext. 222	Vincent.Garcia@ihs.gov
Trevor Buhr	Habitat Program Manager	Arizona Game and Fish Department *Region 3 - Kingman*	928-692-7700, Ext. 2305	tbuhr@azgfd.gov
Gordon Taylor	Planner IV	Arizona State Land Department *Real Estate/Planning Section*	602-542-2647	gtaylor@azland.gov
Adam Moro	Wildlife Bologist	Moro Wildlife		morowildlife@gmail.com
Tim Dalegowski	Transportation Planner	Coconino County *Public Works Department*	928-526-2735, Ext. 43	TimDalegowski@coconino.az.gov
Romare Truely	Community Planner	Federal Highway Administration *Arizona Division*	602-382-8978	Romare.Truely@dot.gov
Ammon Heier	District A-1 Area Engineer	Federal Highway Administration *Arizona Division*	602-382-8983	Ammon.Heier@dot.gov
Harvey Dietrich	Owner	Cholla Livestock	602-220-9820	chollalivestock@aol.com
Jason Kelly	Planning Mobility Manager	Northern Arizona Council of Governments	928-774-1895	jkelly@nacog.org
Janet Cohen	Tribal Program Manager	Grand Canyon National Park	928-638-7445	janet_cohen@nps.gov
Nate Reisner	Development Engineer	Arizona Department of Transportation *Flagstaff District*	928-779-7545	NReisner@azdot.gov
Kara Lavertue	Engineer Associate	Arizona Department of Transportation *Kingman District*	928-681-6023	KLavertue@azdot.gov
Michele Beggs	Community Relations Officer	Arizona Department of Transportation *Kingman District*	928-681-6054	MBeggs@azdot.gov
Mike Lyndon	Tribal Relations Program Manager	US Forest Service	928-635-8272	mlyndon@fs.fed.us
Don Sneed	Senior Planner	Arizona Department of Transportation *Multimodal Planning Division*	602-712-6736	dsneed@azdot.gov
Mike Blankenship	Project Manager	Amec Foster Wheeler	602-733-6054	michael.blankenship@amecfw.com
Sarah Simpson	Traffic Engineer	United Civil Group	602-265-6155	sarah@unitedcivilgroup.com

APPENDIX C
Funding Resources

Appendix – Transit and transportation safety funding opportunities

Transit
(Apply through ADOT. Application cycle opens January 2016; closes April 2016)

5310 – Transportation for Elderly Persons and Persons with Disabilities

Program Overview
This program (49 U.S.C. 5310) provides formula funding to States for the purpose of assisting private nonprofit groups in meeting the transportation needs of the elderly and persons with disabilities when the transportation service provided is unavailable, insufficient, or inappropriate to meeting these needs.

Eligible Recipients
States are direct recipients. Eligible subrecipients are private non-profit organizations, governmental authorities where no non-profit organizations are available to provide service and governmental authorities approve to coordinate services.

Eligible Activities
Capital expenses that support transportation to meet the special needs of older adults and persons with disabilities.

Match
The Federal share of eligible capital costs may not exceed 80 percent of the net cost of the activity. The 10 percent that is eligible to fund program administrative costs including administration, planning, and technical assistance may be funded at 100 percent Federal share. The local share of eligible capital costs shall be no less than 20 percent of the net cost of the activity.

5311 – Rural Transit Assistance Program
(Apply through ADOT. Application cycle opens January 2016; closes April 2016. Eligible, but first must do a planning study.)

Program Overview
The goal of the program is to provide the following services to communities with population less than 50,000:

- Enhance the access of people in nonurbanized areas to health care, shopping, education, employment, public services, and recreation.
- Assist in the maintenance, development, improvement, and use of public transportation systems in nonurbanized areas.
- Assist in the development and support of intercity bus transportation.
- Provide for the participation of private transportation providers in nonurbanized transportation.

The Rural Transit Assistance Program and the Tribal Transit Program are funded as a takedown from the Section 5311 program.

Eligible Recipients
Section 3013 (s) of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), amend eligible recipients to include a State or Indian tribe that receives a Federal transit program grant directly from the Federal Government. A subrecipient of the program includes a State or local governmental authority, a nonprofit organization, or an operator of public transportation or intercity bus service that receives federal transit program grant funds indirectly through a recipient.

Eligible Activities
An eligible recipient may use the funding for capital, operating, and administrative expenses for public transportation projects that meet the needs of rural communities. Examples of eligible activities include: capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of public transportation services, including service agreements with private providers of public transportation services.

The state must use 15 percent of its annual apportionment to support intercity bus service, unless the Governor certifies, after consultation with affected intercity bus providers that the needs of the state are adequately met.

Match
The Federal share of eligible capital and project administrative expenses may not exceed 80 percent of the net cost of the project. For operating, the Federal share may not exceed 50 percent of the net operating cost of the project. For projects that meet the requirements of the Americans with Disabilities Act, the Clean Air Act, or bicycle access projects, they may be funded at 90 percent Federal match.

5311(c) -- Tribal Transit Program
(Apply through ADOT)

Eligible Recipients
Only Federally-recognized tribes are eligible recipients under the Tribal Transit Program. However, tribes which are not federally recognized remain eligible to apply to the State as a subrecipient for funding under the State's apportionment.

Eligible Activities
Federally recognize tribes may use the funding for capital, operating, planning, and administrative expenses for public transit projects that meet the growing needs of rural tribal communities. Examples of eligible activities include: capital projects; operating costs of equipment and facilities for use in public transportation; and the acquisition of

public transportation services, including service agreements with private providers of public transportation services.

Safety

State Highway Safety Program (Section 402)
(Apply through Arizona Governor's Office of Highway Safety)

Overview

The State Highway Safety Program, commonly referred to as Section 402, was initially authorized by the Highway Safety Act of 1966 and has been reauthorized and amended a number of times, including most recently on July 6, 2012 under the "Moving Ahead for Progress in the 21st Century Act" (MAP-21).

Section 402 supports State highway safety programs, designed to reduce traffic crashes and resulting deaths, injuries, and property damage. A State may use these grant funds only for highway safety purposes; at least 40 percent[1] of these funds are to be used by or for the benefit of political subdivisions of the State to address local traffic safety problems.

The program is administered by the National Highway Traffic Safety Administration (NHTSA) at the Federal level and by the State Highway Safety Offices (SHSO) at the State level.

Eligibility

A State is eligible for State Highway Safety Program grants by having and implementing an approved Highway Safety Plan (HSP). The HSP establishes goals, performance measures, targets, strategies and projects to improve highway safety in the State. It also documents the State's efforts to coordinate the HSP, data collection and information systems with the State Strategic Highway Safety Plan (SHSP).

Use of Grant Funds

To receive Section 402 grant funds, a State must have an approved HSP and provide assurances that it will implement activities in support of national goals that also reflect the primary data-related factors within the State, as identified by the State highway safety planning process.

States may spend 402 funds in accordance with an approved Highway Safety Plan that complies with the uniform national guidelines for highway safety programs to:

- Reduce injuries and deaths resulting from driving in excess speeds
- Encourage the proper use of occupant protection devices
- Reduce injuries and deaths resulting from driving while impaired

- Prevent accidents and reduce injuries and deaths resulting from accidents involving motor vehicles and motorcycles
- Reduce injuries and deaths from school bus accidents
- Reduce accidents from unsafe driving behavior
- Improve law enforcement services in motor vehicle accident prevention, traffic supervision, and post-accident procedures
- Improve driver performance
- Improve pedestrian and bicycle safety
- Improve traffic records, accident investigations, vehicle registration, operation, and inspection, and emergency services

In addition, States may spend 402 funds on teen driver programs. If they do choose to fund these programs, they must include peer-to-peer education and prevention strategies in schools and communities. Section 402 funds *cannot* be spent on automated traffic enforcement systems.

Implementing State Highway Safety Programs

For information on your State's Section 402 Highway Safety Program, contact your State Highway Safety Office. You can also contact the NHTSA Regional Office for your State.

APPENDIX D
Road Assessments

Havasupai Indian Reservation
INVENTORY COMPARISON LISTING
November 2015

Inventory Update		Existing DOT Inventory		Inventory Update	Existing DOT	Inventory Update	Existing DOT	Inventory Update	Existing DOT	Inventory Update	Existing DOT	Section Name
Route	Section	Route	Section	Class		Length (Mi)		Surface Type		Const.	Need	
0001	10	0001	10	5	5	10.1	10.1	9	9	1	1	Long Mesa Road – MP 0.00 to 10.1
0001	20	0001	20	5	5	8.1	8.1	9	1	1	1	Long Mesa Road – MP 10.2 to 18.3
TOTAL for Route 0001						*18.2*	*18.2*					
0004	10	0004	10	5	5	0.3*	0.3	1	1	1	1	Panya Po
0004	20	0004	20	5	5	0.4*	0.4	3	1	1	1	Panya Po
0004	30	0004	30	5	5	2.4*	2.4	1	1	1	1	Panya Po
TOTAL for Route 0004						*3.1**	*3.1*					
0005	10	0005	10	5	5	2.4*	2.4	9	1	1	1	Bar 4
0005	20			5		*		9		1		Bar 4
0005	30			5		*		9		1		Bar 4
0005	40			5		*		9		1		Bar 4
TOTAL for Route 0005						*2.4**	*2.4*					
0018	10	0018	10	4	4	11.0*	11.0	4	5	1	1	Supai Road – MP 40 to 46.7
0018	20	0018	20	4	4	5.0*	5.0	4	5	1	1	Supai Road – MP 46.7 to 51
0018	30	0018	30	4	4	4.5*	4.5	4	5	1	1	Supai Road – MP 51 to 58
0018	40			4		*		4		1		Supai Road – MP 58 to 60
TOTAL for Route 0018						*20.5**	*20.5*					

*NOTE: See the Havasupai Road Assessment prepared by KT Consulting July, 26, 2010. Some of the roadway lengths may very slightly from the existing information listed in the official NTTFI inventory.

Indian Reservation Roads Program
Miles of Road by Organizational Responsibility and Surface Type
Present System
FY 2016 Inventory

H - Western
H68 - Truxton Canyon
H68605 - Havasupai

Ownership	Mileage* (mi) with CN of 0, 1, 2, or 3 Classified by Existing Surface Type Code								Mileage* (mi) with CN = 4 Classified by Future Surface Type Code				Total (mi) CN 0 1 2 3 4	Bridges	
	Proposed** (0)	Earth (1)	Gravel (3)	< 2 inch (4)	> 2 inch (5)	Concrete (6)	Trail (9)	None (null)	Earth (E)	Gravel (G)	Paved (P)	None (null)		Count	Length (ft)
1 - BIA	0.0	60.1	0.0	0.0	20.5	0.0	57.2	0.0	2.9	0.0	0.0	0.0	140.7	0	0.0
3 - State	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
6 - Other BIA Offices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
5 - County And Township	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
2 - Tribe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
4 - Urban	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
7 - Other Federal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
8 - Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0	0.0
Total:	0.0	**60.1**	0.0	0.0	**20.5**	0.0	**57.2**	0.0	**2.9**	0.0	0.0	0.0	**140.7**	0	0.0

*All mileage in OFFICIAL records excep for class 11 (overlap).
**This column contains mileage where the surface type is 0 (proposed) but the construction need is not 4.

Indian Reservation Roads Program
Miles of Road by Class and Organizational Responsibility
Present System
FY 2016 Inventory

H - Western
H68 - Truxton Canyon
H68605 - Havasupai

Ownership	Mileage (mi) Classified According to Class Code with class 11 (overlap) excluded*											Total Mileage (mi)		
	Major Arterial (1)	Rural Minor Arterial (2)	City Local (3)	Rural Major Collector (4)	Rural Local (5)	City Minor Arterial (6)	City Collector (7)	Trail (8)	Other Trans Fac (9)	Airstrip (10)	None (null)	Classes 1 2 3 4 5 6 7 8	Classes 9 10 none	Classes 1 2 3 4 5 6 7 5 9 10 none
1 - BIA	0.0	0.0	3.0	20.5	62.1	0.0	0.0	55.1	0.0	0.0	0.0	140.7	0.0	140.7
2 - Tribe	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3 - State	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4 - Urban	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5 - County And Township	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6 - Other BIA Offices	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7 - Other Federal	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8 - Other	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total:	0.0	0.0	3.0	20.5	62.1	0.0	0.0	55.1	0.0	0.0	0.0	140.7	0.0	140.7

***Mileage includes proposed construction (CN=4).**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name	Long Mes	Long Mes			Supai Tr	Supai Tr	Supai Tr	Supai Tr
4-IRR Route Number	0001	0001	0002	0003	0003	0003	0003	0003
5-Section Number	10	20	10	10	10	20	30	40
10-Class	5	5	5	8	8	8	8	8
15-Length of Section	10.1	8.1	12.8	8.0	0.6	0.9	4.4	0.7
18-Bridge Number								
19-Bridge Condition								
20-Bridge Length								
32-County	*005*	*005*	*005*	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*02*	*01*	*02*	*02*	*02*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	1	1	1	1	1	1	1	1
12-Construction Need	1	1	1	1	1	1	1	1
11-Terrain	2	2	1	1				
25-Roadbed Condition	1	2	2	2				
24-Surface Condition Index	0	0	0	0				
16-Surface Width	20	12	12	10	6	8	10	8
13-Surface Type	9	1	1	1	1	1	1	1
9-Federal Aid Category	1	1	1	1	1	1	1	1
28-Right of Way Status	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*
29-Right of Way Width		*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100
30-Additional Incidental Percent								
17-Shoulder Width		0	0	0				
14-Shoulder Type	1							
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width	**20**	**12**	**12**	**10**	**6**	**8**	**10**	**8**
TTAM Future ADT	**74**	**74**	**74**	**30**	**30**	**30**	**30**	**30**
TTAM ADS Number	**14**	**14**	**13**	**19**	**19**	**19**	**19**	**19**
TTAM Future Surface Type	**G**	**G**	**G**					
35-Drainage Condition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
37/38 # RR X I NG/RR XING TYPE				*0*	*0*	*0*	*0*	*0*
39-Right of Way Utility				*0*	*0*	*0*	*0*	*0*
40-Right of Way Cost				*0*	*0*	*0*	*0*	*0*
26-Level of Maintenance		*1*	*1*	*1*	*1*	*1*	*1*	*1*
27-Snow & Ice Control			*2*	*1*	*1*	*1*	*1*	*1*
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Safe	*0 0 9*	*8*	*8*	*9*	*9*	*9*	*9*	*9*
51-Road Category	*A*	*A*	*A*					
52-Year of Construction Change	*1959*							
Update Year	**2009**	**2008**	**2010**	**1988**	**2014**	**2011**	**2011**	**2011**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name	Supai Tr	Panya Po	Panya Po	Panya Po	Bar 4			
4-IRR Route Number	0003	0004	0004	0004	0005	0006	0007	0008
5-Section Number	50	10	20	30	10	10	10	10
10-Class	8	5	5	5	5	5	8	8
15-Length of Section	0.5	0.3	0.4	2.4	2.4	18.6	1.2	12.1
18-Bridge Number								
19-Bridge Condition								
20-Bridge Length								
32-County	*005*	*005*	*005*	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*02*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	1	1	1	1	1	1	1	1
12-Construction Need	1	1	1	1	1	1	1	1
11-Terrain		2	2	2	2	2		
25-Roadbed Condition		2	2	2	2	1		
24-Surface Condition Index		0	0	0	0	0		
16-Surface Width	10	10	10	10	11	10	10	20
13-Surface Type	1	1	1	1	1	1	9	9
9-Federal Aid Category	1	1	1	1	1	1	1	1
28-Right of Way Status	*0*	*1*	*1*	*1*	*1*	*0*	*0*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	100	100	100	100	100	100	100	100
30-Additional Incidental Percent								
17-Shoulder Width		0	0	0	0	0		
14-Shoulder Type						1		
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width	**10**	**10**	**10**	**10**	**11**	**10**	**10**	**20**
TTAM Future ADT	**30**	**74**	**74**	**74**	**74**	**74**	**30**	**30**
TTAM ADS Number	**19**	**14**	**14**	**14**	**14**	**14**	**19**	**19**
TTAM Future Surface Type		**G**	**G**	**G**	**G**	**G**		
35-Drainage Condition	*0*	*0*		*2*	*0*	*0*		*0*
36-Shoulder Condition	*0*	*0*		*0*	*0*	*0*		*0*
37/38 # RR X I NG/RR XING TYPE	*0*							
39-Right of Way Utility	*0*							
40-Right of Way Cost	*0*							
26-Level of Maintenance	*1*	*2*	*1*	*2*	*1*	*2*	*1*	*1*
27-Snow & Ice Control	*1*		*1*	*1*	*1*			
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*		*01*	*01*
46-50 Grade/Sight/Curve/Stop / Safe	*9*		*9*	*9*	*9*		*9*	
51-Road Category		*A*	*A*	*A*	*A*	*A*	*A*	*A*
52-Year of Construction Change							*1959*	*1959*
Update Year	**2011**	**2010**	**2010**	**2010**	**2010**	**2009**	**2010**	**2010**
Status	**IN-PROCESS**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name								Hualapai
4-IRR Route Number	0008	0009	0009	0009	0010	0011	0012	0018
5-Section Number	20	10	20	30	10	10	10	10
10-Class	8	8	5	5	5	8	8	4
15-Length of Section	5.3	9.3	0.4	1.0	5.6	4.2	15.0	11.0
18-Bridge Number								
19-Bridge Condition								
20-Bridge Length								
32-County	*005*	*005*	*005*	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	1	1	1	1	1	1	1	1
12-Construction Need	1	1	1	1	1	1	1	1
11-Terrain			2	2	2			3
25-Roadbed Condition			2	2	1			5
24-Surface Condition Index			0	0	0			86
16-Surface Width	20	8	8	8	10	10	10	27
13-Surface Type	9	9	1	1	1	9	9	5
9-Federal Aid Category	1	1	1	1	1	1	1	1
28-Right of Way Status	*1*	*0*	*0*	*0*	*0*	*1*	*0*	*3*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*50*
TTAM BIA Share	100	100	100	100	100	100	100	100
30-Additional Incidental Percent								
17-Shoulder Width			0	0	0			0
14-Shoulder Type			1	1	1			
22-Existing ADT								156
21-ADT Year								2002
23-Percent Trucks								10
34-Owner Route Number								
Roadway Width	**20**	**8**	**8**	**8**	**10**	**10**	**10**	**27**
TTAM Future ADT	**30**	**30**	**74**	**74**	**74**	**30**	**30**	**232**
TTAM ADS Number	**19**	**19**	**14**	**14**	**14**	**19**	**19**	**12**
TTAM Future Surface Type			**G**	**G**	**G**			**G**
35-Drainage Condition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*3*
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								*0*
40-Right of Way Cost								*0*
26-Level of Maintenance	*1*	*1*	*1*	*1*	*1*	*1*	*1*	*4*
27-Snow & Ice Control								*1*
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]	*01*		*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Safe								*3*
51-Road Category	*A*	*A*	*A*	*A*	*A*	*A*	*A*	*A*
52-Year of Construction Change	*1959*					*1959*		*1983*
Update Year	**2010**	**2010**	**2010**	**2010**	**2009**	**2010**	**2010**	**2008**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name	Hualapai	Hualapai	County R	County R	County R	Bar 4 Ho	Bar 4 Ho	Bar 4hou
4-IRR Route Number	0018	0018	0347	0347	0347	0501	0501	0501
5-Section Number	20	30	10	20	30	10	20	30
10-Class	4	4	5	5	5	3	3	3
15-Length of Section	5.0	4.5	7.9	7.5	10.9	0.1	0.1	0.2
18-Bridge Number								
19-Bridge Condition								
20-Bridge Length								
32-County	*005*	*005*	*005*	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*02*	*02*	*02*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	1	1	5	5	1	1	1	1
12-Construction Need	1	1	2	2	1	4	1	4
11-Terrain	2	2	2	2	2			
25-Roadbed Condition	5	5	3	3	3		0	
24-Surface Condition Index	86	86	0	0	0		0	
16-Surface Width	27	27	20	20	10		24	
13-Surface Type	5	5	3	3	3		1	
9-Federal Aid Category	1	1	1	1	1	1	1	1
28-Right of Way Status	*3*	*3*	*0*	*0*	*0*	*0*	*0*	*0*
29-Right of Way Width	*50*	*50*	*0*	*0*	*0*	*0*	*0*	
TTAM BIA Share	100	100	100	100	100	100	100	100
30-Additional Incidental Percent								
17-Shoulder Width	0	0	0	0	0		0	
14-Shoulder Type			1	1	1			
22-Existing ADT	156	108						
21-ADT Year	2002	1988						
23-Percent Trucks	10	0						
34-Owner Route Number			0					
Roadway Width	**27**	**27**	**20**	**20**	**10**		**24**	
TTAM Future ADT	**232**	**160**	**74**	**74**	**74**	**37**	**37**	**37**
TTAM ADS Number	**11**	**11**	**14**	**14**	**14**	**18**	**18**	**18**
TTAM Future Surface Type	**G**	**G**	**G**	**G**	**G**	**E**	**E**	**E**
35-Drainage Condition	*3*	*3*	*0*	*0*	*0*			
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*			
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility		*0*						
40-Right of Way Cost		*0*						
26-Level of Maintenance	*4*	*4*	*3*	*3*	*3*			
27-Snow & Ice Control	*1*	*1*						
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Safe	*3*	*3*						
51-Road Category	*A*	*A*	*A*	*A*	*A*			
52-Year of Construction Change	*1983*	*1983*	*1959*	*1959*	*1959*			
Update Year	**2008**	**2008**	**2009**	**2009**	**2009**	**2010**	**2010**	**2010**
Status	**OFFICIAL**	**OFFICIAL**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name	Bar 4hou	Bar 4hou	Bar 4hou	Bar 4hou	Bar 4hou	Bar 4hou	Bar 4hou	Bar 4hou
4-IRR Route Number	0501	0501	0501	0501	0501	0501	0501	0501
5-Section Number	40	50	60	70	80	90	100	110
10-Class	3	3	3	3	3	3	3	3
15-Length of Section	0.1	0.4	0.2	0.3	0.8	0.1	0.4	0.3
18-Bridge Number								
19-Bridge Condition								
20-Bridge Length								
32-County	*005*	*005*	*005*	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	1	1	1	1	1	1	1	1
12-Construction Need	4	4	4	4	4	4	4	4
11-Terrain								
25-Roadbed Condition								
24-Surface Condition Index								
16-Surface Width								
13-Surface Type								
9-Federal Aid Category	1	1	1	1	1	1	1	1
28-Right of Way Status	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*
29-Right of Way Width								
TTAM BIA Share	100	100	100	100	100	100	100	100
30-Additional Incidental Percent								
17-Shoulder Width								
14-Shoulder Type								
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width								
TTAM Future ADT	**37**	**37**	**37**	**37**	**37**	**37**	**37**	**37**
TTAM ADS Number	**18**	**18**	**18**	**18**	**18**	**18**	**18**	**18**
TTAM Future Surface Type	**E**	**E**	**E**	**E**	**E**	**E**	**E**	**E**
35-Drainage Condition								
36-Shoulder Condition								
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2010**	**2010**	**2010**	**2010**	**2010**	**2010**	**2010**	**2010**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

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Filter Criteria				
H	2016	68	605	

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name								
4-IRR Route Number	C066	C066	C066	C066	C066	C066	C066	C066
5-Section Number	10	20	30	40	50	60	70	80
10-Class	2	2	2	2	2	2	2	2
15-Length of Section	3.2		2.1		1.6		2.2	
18-Bridge Number		1111		2222		3333		4444
19-Bridge Condition		9		9		9		9
20-Bridge Length		70		42		21		48
32-County	*025*	*025*	*025*	*025*	*025*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain	2		2		2		2	
25-Roadbed Condition	5		5		5		5	
24-Surface Condition Index	70		70		70		70	
16-Surface Width	24		24		24		24	
13-Surface Type	5		5		5		5	
9-Federal Aid Category	3		3		3		3	
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width	7		7		7		7	
14-Shoulder Type	3		3		3		3	
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width	**38**		**38**		**38**		**38**	
TTAM Future ADT	**149**		**149**		**149**		**149**	
TTAM ADS Number	**8**		**8**		**8**		**8**	
TTAM Future Surface Type	**P**		**P**		**P**		**P**	
35-Drainage Condition								
36-Shoulder Condition								
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name								Forest R
4-IRR Route Number	C066	C066	C066	C066	C066	C066	C066	F328
5-Section Number	90	100	110	120	130	140	150	10
10-Class	2	2	2	3	2	2	2	5
15-Length of Section	2.1		7.5	0.9	0.3		0.4	5.0
18-Bridge Number		5555				6666		
19-Bridge Condition		9				9		
20-Bridge Length		48				70		
32-County	*025*	*025*	*025*	*025*	*025*	*025*	*025*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*02*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	7
12-Construction Need	0	0	0	0	0	0	0	2
11-Terrain	2		2	1	2		2	2
25-Roadbed Condition	5		5	7	5		5	2
24-Surface Condition Index	70		70	70	70		70	0
16-Surface Width	24		24	60	24		24	17
13-Surface Type	5		5	5	5		5	1
9-Federal Aid Category	3		3	3	3		3	1
28-Right of Way Status								*0*
29-Right of Way Width								*0*
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	100
30-Additional Incidental Percent								
17-Shoulder Width	7		7	0	7		7	0
14-Shoulder Type	3		3	4	3		3	1
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width	**38**		**38**	**60**	**38**		**38**	**17**
TTAM Future ADT	**149**		**149**	**37**	**149**		**149**	**74**
TTAM ADS Number	**8**		**8**	**18**	**8**		**8**	**14**
TTAM Future Surface Type	**P**		**P**	**E**	**P**		**P**	**G**
35-Drainage Condition								*0*
36-Shoulder Condition								*0*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								*2*
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								*01*
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								*A*
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2009**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name	Forest R	Usrt66		Usrt66	Usrt66			Usrt66
4-IRR Route Number	F328	S066	S066	S066	S066	S066	S066	S066
5-Section Number	20	10	20	30	40	50	60	70
10-Class	5	3	3	3	3	5	5	5
15-Length of Section	15.8	0.6		0.3	1.9			1.3
18-Bridge Number			4208			4209	4210	
19-Bridge Condition			9			9	9	
20-Bridge Length			53			53	54	
32-County	*005*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*02*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	7	3	3	3	3	3	3	3
12-Construction Need	2	0	0	0	0	0	0	0
11-Terrain	2							1
25-Roadbed Condition	2	7		7	5			7
24-Surface Condition Index	0	70						90
16-Surface Width	17	84		84	84			28
13-Surface Type	1	5		6	5			5
9-Federal Aid Category	1	3		3	3			3
28-Right of Way Status	*0*							
29-Right of Way Width	*0*							
TTAM BIA Share	100	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width	0	4		4	4			7
14-Shoulder Type	1	4		4	4			3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width	**17**	**92**		**92**	**92**			**42**
TTAM Future ADT	**74**	**37**		**37**	**37**			**74**
TTAM ADS Number	**14**	**18**		**18**	**18**			**13**
TTAM Future Surface Type	**G**	**E**		**E**	**E**			**G**
35-Drainage Condition	*0*	*2*		*2*	*2*			*2*
36-Shoulder Condition	*0*	*2*		*2*	*2*			*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance	*2*							
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]	*01*							
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category	*A*							
52-Year of Construction Change								
Update Year	**2009**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name			Usrt66	Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	80	90	100	110	120	130	140	150
10-Class	5	5	2	2	2	2	2	2
15-Length of Section			1.4	0.3		0.4		0.9
18-Bridge Number	4211	4212			4213		4214	
19-Bridge Condition	9	9			9		9	
20-Bridge Length	86	87			43		98	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain			2	2		2		2
25-Roadbed Condition			5	5		5		5
24-Surface Condition Index			90	90		90		90
16-Surface Width			28	28		28		28
13-Surface Type			5	5		5		5
9-Federal Aid Category			3	3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width			7	7		7		7
14-Shoulder Type			3	3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width			**42**	**42**		**42**		**42**
TTAM Future ADT			**149**	**149**		**149**		**149**
TTAM ADS Number			**8**	**8**		**8**		**8**
TTAM Future Surface Type			**P**	**P**		**P**		**P**
35-Drainage Condition			*2*	*2*		*2*		*2*
36-Shoulder Condition			*2*	*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

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Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66		Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	160	170	180	190	200	210	220	230
10-Class	2	2	2	2	2	2	2	2
15-Length of Section		0.4		1.4		0.3		0.6
18-Bridge Number	4215		4216		4217		4218	
19-Bridge Condition	9		9		9		9	
20-Bridge Length	43		21		32		32	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2		2		2		2
25-Roadbed Condition		5		5		5		5
24-Surface Condition Index		90		90		90		90
16-Surface Width		28		28		28		28
13-Surface Type		5		5		5		5
9-Federal Aid Category		3		3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7		7		7		7
14-Shoulder Type		3		3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**42**		**42**		**42**		**42**
TTAM Future ADT		**149**		**149**		**149**		**149**
TTAM ADS Number		**8**		**8**		**8**		**8**
TTAM Future Surface Type		**P**		**P**		**P**		**P**
35-Drainage Condition		*2*		*2*		*2*		*2*
36-Shoulder Condition		*2*		*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

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Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66		Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	240	250	260	270	280	290	300	310
10-Class	2	2	2	2	2	2	2	2
15-Length of Section		2.4		0.2		0.9		0.6
18-Bridge Number	4219		4220		4221		4222	
19-Bridge Condition	9		9		9		9	
20-Bridge Length	43		32		32		64	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2		2		2		2
25-Roadbed Condition		5		5		5		5
24-Surface Condition Index		90		90		60		60
16-Surface Width		28		28		28		28
13-Surface Type		5		5		5		5
9-Federal Aid Category		3		3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7		7		7		7
14-Shoulder Type		3		3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**42**		**42**		**42**		**42**
TTAM Future ADT		**149**		**149**		**149**		**149**
TTAM ADS Number		**8**		**8**		**8**		**8**
TTAM Future Surface Type		**P**		**P**		**P**		**P**
35-Drainage Condition		*2*		*2*		*2*		*2*
36-Shoulder Condition		*2*		*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

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Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66		Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	320	330	340	350	360	370	380	390
10-Class	2	2	2	2	2	2	2	2
15-Length of Section		0.4		2.2		2.7		0.1
18-Bridge Number	4223		4224		4225		4226	
19-Bridge Condition	9		9		9		9	
20-Bridge Length	32		32		21		21	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2		2		2		2
25-Roadbed Condition		5		5		5		5
24-Surface Condition Index		60		60		60		60
16-Surface Width		28		28		28		28
13-Surface Type		5		5		5		5
9-Federal Aid Category		3		3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7		7		7		7
14-Shoulder Type		3		3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**42**		**42**		**42**		**42**
TTAM Future ADT		**149**		**149**		**149**		**149**
TTAM ADS Number		**8**		**8**		**8**		**8**
TTAM Future Surface Type		**P**		**P**		**P**		**P**
35-Drainage Condition		*2*		*2*		*2*		*2*
36-Shoulder Condition		*2*		*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

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Filter Criteria				
H	2016	68	605	

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66		Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	400	410	420	430	440	450	460	470
10-Class	2	2	2	2	2	2	2	2
15-Length of Section		4.2		0.3		1.3		3.1
18-Bridge Number	4227		738		4229		4230	
19-Bridge Condition	9		9		9		9	
20-Bridge Length	21		351		37		21	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2		2		2		2
25-Roadbed Condition		5		5		5		5
24-Surface Condition Index		80		70		70		60
16-Surface Width		28		28		28		28
13-Surface Type		5		5		5		5
9-Federal Aid Category		3		3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7		7		7		7
14-Shoulder Type		3		3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**42**		**42**		**42**		**42**
TTAM Future ADT		**149**		**149**		**149**		**149**
TTAM ADS Number		**8**		**8**		**8**		**8**
TTAM Future Surface Type		**P**		**P**		**P**		**P**
35-Drainage Condition		*2*		*2*		*2*		*2*
36-Shoulder Condition		*2*		*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66		Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	480	490	500	510	520	530	540	550
10-Class	2	2	2	2	2	2	2	2
15-Length of Section		6.6		1.0		0.1		1.6
18-Bridge Number	4231		192		4232		4233	
19-Bridge Condition	9		9		9		9	
20-Bridge Length	43		115		49		49	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2		2				2
25-Roadbed Condition		5		5		5		5
24-Surface Condition Index		60		60		6		6
16-Surface Width		28		28		28		28
13-Surface Type		5		5		5		5
9-Federal Aid Category		3		3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7		7		7		7
14-Shoulder Type		3		3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**42**		**42**		**42**		**42**
TTAM Future ADT		**149**		**149**		**149**		**149**
TTAM ADS Number		**8**		**8**				**8**
TTAM Future Surface Type		**P**		**P**		**P**		**P**
35-Drainage Condition		*2*		*2*		*2*		*2*
36-Shoulder Condition		*2*		*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66		Usrt66		Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	560	570	580	590	600	610	620	630
10-Class	2	2	2	2	2	2	2	2
15-Length of Section		1.0		0.8		0.8		1.7
18-Bridge Number	4234		141		134		4235	
19-Bridge Condition	9		9		9		9	
20-Bridge Length	43		110		110		32	
32-County	*015*	*015*	*015*	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2		2		2		2
25-Roadbed Condition		5		5		5		5
24-Surface Condition Index		6		60		60		60
16-Surface Width		28		28		28		24
13-Surface Type		5		5		5		5
9-Federal Aid Category		3		3		3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7		7		7		7
14-Shoulder Type		3		3		3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**42**		**42**		**42**		**38**
TTAM Future ADT		**149**		**149**		**149**		**149**
TTAM ADS Number		**8**		**8**		**8**		**8**
TTAM Future Surface Type		**P**		**P**		**P**		**P**
35-Drainage Condition		*2*		*2*		*2*		*2*
36-Shoulder Condition		*2*		*2*		*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name		Usrt66	Usrt66	Usrt66	Usrt66		Usrt66	
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	640	650	660	670	680	690	700	710
10-Class	2	2	2	5	5	2	2	2
15-Length of Section		1.0	7.2	0.3	0.6		5.0	
18-Bridge Number	142					6077		4236
19-Bridge Condition	9					9		9
20-Bridge Length	110					21		64
32-County	*015*	*015*	*015*	*015*	*015*	*017*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain		2	2	2	2		2	
25-Roadbed Condition		5	5	7	5		5	
24-Surface Condition Index		60	60	80	80		70	
16-Surface Width		24	24	36	28		24	
13-Surface Type		5	5	5	5		5	
9-Federal Aid Category		3	3	3	3		3	
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width		7	7	14	7		7	
14-Shoulder Type		3	3	4	3		3	
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width		**38**	**38**	**64**	**42**		**38**	
TTAM Future ADT		**149**	**149**	**74**	**74**		**149**	
TTAM ADS Number		**8**	**8**	**14**	**14**		**8**	
TTAM Future Surface Type		**P**	**P**	**G**	**G**		**P**	
35-Drainage Condition		*2*	*2*	*2*	*2*		*2*	
36-Shoulder Condition		*2*	*2*	*2*	*2*		*2*	
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

Filter Criteria				
H	2016	68	605	

For construction costs use the Greenbook Report

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

Location ID	H68605	H68605	H68605	H68605	H68605	H68605	H68605	H68605
Region	Western	Western	Western	Western	Western	Western	Western	Western
Agency	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa	Havasupa
Road Name	Usrt66	Usrt66	Usrt66	Usrt66	Usrt66	Usrt66		Usrt66
4-IRR Route Number	S066	S066	S066	S066	S066	S066	S066	S066
5-Section Number	720	730	740	750	760	770	780	790
10-Class	2	2	2	2	2	2	2	2
15-Length of Section	0.3	3.0	2.6	0.9	2.7	0.9		1.3
18-Bridge Number							4237	
19-Bridge Condition							9	
20-Bridge Length							32	
32-County	*015*	*005*	*005*	*005*	*025*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*	*01*	*01*	*01*	*01*
7-State	AZ	AZ	AZ	AZ	AZ	AZ	AZ	AZ
8-Ownership	3	3	3	3	3	3	3	3
12-Construction Need	0	0	0	0	0	0	0	0
11-Terrain	2	2	2	2	2	2		2
25-Roadbed Condition	5	5	5	5	5	5		5
24-Surface Condition Index	70	70	70	70	70	70		70
16-Surface Width	24	24	24	24	24	24		24
13-Surface Type	5	5	5	5	5	5		5
9-Federal Aid Category	3	3	3	3	3	3		3
28-Right of Way Status								
29-Right of Way Width								
TTAM BIA Share	5.7	5.7	5.7	5.7	5.7	5.7	5.7	5.7
30-Additional Incidental Percent								
17-Shoulder Width	7	7	7	7	7	7		7
14-Shoulder Type	3	3	3	3	3	3		3
22-Existing ADT								
21-ADT Year								
23-Percent Trucks								
34-Owner Route Number								
Roadway Width	**38**	**38**	**38**	**38**	**38**	**38**		**38**
TTAM Future ADT	**149**	**149**	**149**	**149**	**149**	**149**		**149**
TTAM ADS Number	**8**	**8**	**8**	**8**	**8**	**8**		**8**
TTAM Future Surface Type	**P**	**P**	**P**	**P**	**P**	**P**		**P**
35-Drainage Condition	*2*	*2*	*2*	*2*	*2*	*2*		*2*
36-Shoulder Condition	*2*	*2*	*2*	*2*	*2*	*2*		*2*
37/38 # RR X I NG/RR XING TYPE								
39-Right of Way Utility								
40-Right of Way Cost								
26-Level of Maintenance								
27-Snow & Ice Control								
41-Begin Latitude								
42-End Latitude								
43-Begin Longitude								
44-End Longitude								
45-Atlas Map Number [99]								
46-50 Grade/Sight/Curve/Stop / Safe								
51-Road Category								
52-Year of Construction Change								
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

Indian Reservation Roads Program
Inventory Data Sheet (ver2)
FY 2016 Inventory

For construction costs use the Greenbook Report

Filter Criteria				
H	2016	68	605	

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

Location ID	H68605	H68605	H68605
Region	Western	Western	Western
Agency	Truxton	Truxton	Truxton
Reservation	Havasupa	Havasupa	Havasupa
Road Name		Usrt66	
4-IRR Route Number	S066	S066	S066
5-Section Number	800	810	820
10-Class	2	2	2
15-Length of Section		0.4	
18-Bridge Number	4238		4239
19-Bridge Condition	9		9
20-Bridge Length	32		21
32-County	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*
7-State	AZ	AZ	AZ
8-Ownership	3	3	3
12-Construction Need	0	0	0
11-Terrain		2	
25-Roadbed Condition		5	
24-Surface Condition Index		70	
16-Surface Width		24	
13-Surface Type		5	
9-Federal Aid Category		3	
28-Right of Way Status			
29-Right of Way Width			
TTAM BIA Share	5.7	5.7	5.7
30-Additional Incidental Percent			
17-Shoulder Width		7	
14-Shoulder Type		3	
22-Existing ADT			
21-ADT Year			
23-Percent Trucks			
34-Owner Route Number			
Roadway Width		**38**	
TTAM Future ADT		**149**	
TTAM ADS Number		**8**	
TTAM Future Surface Type		**P**	
35-Drainage Condition		*2*	
36-Shoulder Condition		*2*	
37/38 # RR X I NG/RR XING TYPE			
39-Right of Way Utility			
40-Right of Way Cost			
26-Level of Maintenance			
27-Snow & Ice Control			
41-Begin Latitude			
42-End Latitude			
43-Begin Longitude			
44-End Longitude			
45-Atlas Map Number [99]			
46-50 Grade/Sight/Curve/Stop / Safe			
51-Road Category			
52-Year of Construction Change			
Update Year	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**

28-MAR-16

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-0001/10	H68605-0001/20	H68605-0002/10	H68605-0003/10	H68605-0003/10
10-Class	5	5	5	8	8
15-Length of Section	10.1	8.1	12.8	8	.6
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*02*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	1	1	1	1	1
11-Terrain	2	2	1	1	
25-Roadbed Condition	1	2	2	2	
24-Surface Condition Index	0	0	0	0	
16-Surface Width	20	12	12	10	6
13-Surface Type	9	1	1	1	1
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*0*	*1*	*0*	*0*	*0*
29-Right of Way Width		*0*	*0*	*0*	*0*
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width		0	0	0	
14-Shoulder Type	1				
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**20**	**12**	**12**	**10**	**6**
TTAM Future ADT	**74**	**74**	**74**	**30**	**30**
TTAM ADS Number	**14**	**14**	**13**	**19**	**19**
TTAM Future Surface Type	**G**	**G**	**G**		
TTAM Incidental Percent	**65**	**65**	**65**	**100**	**100**
TTAM Grade & Drain Percent	**100**	**100**	**100**	**0**	**0**
TTAM Aggregate Percent	**100**	**100**	**100**	**0**	**0**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**235.0**	**235.0**	**3.3**	**25.0**	**25.0**
TTAM Grade & Drain Adjusted Rat	**106.7**	**106.7**	**70.0**	**0.0**	**0.0**
TTAM Aggregate Adjusted Rate	**314.6**	**314.6**	**70.0**	**0.0**	**0.0**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**2373.5**	**1903.5**	**41.6**	**200.0**	**15.0**
TTAM Grade & Drain CTC	**1077.9**	**864.4**	**896.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**3177.5**	**2548.3**	**896.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**6628.9**	**5316.3**	**1833.6**	**200.0**	**15.0**
TTAM BIA CTC	**6628.9**	**5316.3**	**1833.6**	**200.0**	**15.0**
35-Drainage Condition	*0*	*0*	*0*	*0*	*0*
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*
37-Number of R.R. Crossings				*0*	*0*
38-Railroad Crossing Type					
39-Right of Way Utility				*0*	*0*
40-Right of Way Cost				*0*	*0*
26-Level of Maintenance		*1*	*1*	*1*	*1*
27-Snow & Ice Control			*2*	*1*	*1*
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves	*0*				
49-Number of Stopping Restrictions	*0*				
50-Safety Study	*9*	*8*	*8*	*9*	*9*
51-Road Category	*A*	*A*	*A*		
52-Year of Construction Change	*1959*				
Update Year	**2009**	**2008**	**2010**	**1988**	**2014**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**IN-PROCESS**
Modify Date	**04-AUG-2009**	**04-AUG-2009**	**01-SEP-2010**		**16-FEB-2011**
Last BIADOT Approval Date	**04-AUG-2009**	**04-AUG-2009**	**01-SEP-2010**	**24-APR-2004**	**24-APR-2004**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-0003/20	H68605-0003/30	H68605-0003/40	H68605-0003/50	H68605-0004/10
10-Class	8	8	8	8	5
15-Length of Section	.9	4.4	.7	.5	.3
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*02*	*02*	*02*	*02*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	1	1	1	1	1
11-Terrain					2
25-Roadbed Condition					2
24-Surface Condition Index					0
16-Surface Width	8	10	8	10	10
13-Surface Type	1	1	1	1	1
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*0*	*0*	*0*	*0*	*1*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width					0
14-Shoulder Type					
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**8**	**10**	**8**	**10**	**10**
TTAM Future ADT	**30**	**30**	**30**	**30**	**74**
TTAM ADS Number	**19**	**19**	**19**	**19**	**14**
TTAM Future Surface Type					**G**
TTAM Incidental Percent	**100**	**100**	**100**	**100**	**65**
TTAM Grade & Drain Percent	**0**	**0**	**0**	**0**	**100**
TTAM Aggregate Percent	**0**	**0**	**0**	**0**	**100**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**25.0**	**25.0**	**25.0**	**25.0**	**235.0**
TTAM Grade & Drain Adjusted Rat	**0.0**	**0.0**	**0.0**	**0.0**	**106.7**
TTAM Aggregate Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**314.6**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**22.5**	**110.0**	**17.5**	**12.5**	**70.5**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**32.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**94.4**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**22.5**	**110.0**	**17.5**	**12.5**	**196.9**
TTAM BIA CTC	**22.5**	**110.0**	**17.5**	**12.5**	**196.9**
35-Drainage Condition	*0*	*0*	*0*	*0*	*0*
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*
37-Number of R.R. Crossings	*0*	*0*	*0*	*0*	
38-Railroad Crossing Type					
39-Right of Way Utility	*0*	*0*	*0*	*0*	
40-Right of Way Cost	*0*	*0*	*0*	*0*	
26-Level of Maintenance	*1*	*1*	*1*	*1*	*2*
27-Snow & Ice Control	*1*	*1*	*1*	*1*	
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study	*9*	*9*	*9*	*9*	
51-Road Category					*A*
52-Year of Construction Change					
Update Year	**2011**	**2011**	**2011**	**2011**	**2010**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**OFFICIAL**
Modify Date	**16-FEB-2011**	**16-FEB-2011**	**16-FEB-2011**	**16-FEB-2011**	**01-SEP-2010**
	24-APR-2004	**24-APR-2004**	**24-APR-2004**	**24-APR-2004**	**01-SEP-2010**

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Location ID	H68605-0004/20	H68605-0004/30	H68605-0005/10	H68605-0006/10	H68605-0007/10
10-Class	5	5	5	5	8
15-Length of Section	.4	2.4	2.4	18.6	1.2
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	1	1	1	1	1
11-Terrain	2	2	2	2	
25-Roadbed Condition	2	2	2	1	
24-Surface Condition Index	0	0	0	0	
16-Surface Width	10	10	11	10	10
13-Surface Type	1	1	1	1	9
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*1*	*1*	*1*	*0*	*0*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width	0	0	0	0	
14-Shoulder Type				1	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**10**	**10**	**11**	**10**	**10**
TTAM Future ADT	**74**	**74**	**74**	**74**	**30**
TTAM ADS Number	**14**	**14**	**14**	**14**	**19**
TTAM Future Surface Type	**G**	**G**	**G**	**G**	
TTAM Incidental Percent	**65**	**65**	**65**	**65**	**100**
TTAM Grade & Drain Percent	**100**	**100**	**100**	**100**	**0**
TTAM Aggregate Percent	**100**	**100**	**100**	**100**	**0**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**235.0**	**235.0**	**235.0**	**235.0**	**25.0**
TTAM Grade & Drain Adjusted Rat	**106.7**	**106.7**	**106.7**	**106.7**	**0.0**
TTAM Aggregate Adjusted Rate	**314.6**	**314.6**	**314.6**	**314.6**	**0.0**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**94.0**	**564.0**	**564.0**	**4371.0**	**30.0**
TTAM Grade & Drain CTC	**42.7**	**256.1**	**256.1**	**1985.0**	**0.0**
TTAM Aggregate CTC	**125.8**	**755.1**	**755.1**	**5851.7**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**262.5**	**1575.2**	**1575.2**	**12207.7**	**30.0**
TTAM BIA CTC	**262.5**	**1575.2**	**1575.2**	**12207.7**	**30.0**
35-Drainage Condition		*2*	*0*	*0*	
36-Shoulder Condition		*0*	*0*	*0*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance	*1*	*2*	*1*	*2*	*1*
27-Snow & Ice Control	*1*	*1*	*1*		
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*		*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study	*9*	*9*	*9*		*9*
51-Road Category	*A*	*A*	*A*	*A*	*A*
52-Year of Construction Change					*1959*
Update Year	**2010**	**2010**	**2010**	**2009**	**2010**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**
Modify Date	**01-SEP-2010**	**01-SEP-2010**	**25-MAY-2011**	**04-AUG-2009**	**01-SEP-2010**
	01-SEP-2010	**01-SEP-2010**	**25-MAY-2011**	**04-AUG-2009**	**01-SEP-2010**

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Location ID	H68605-0008/10	H68605-0008/20	H68605-0009/10	H68605-0009/20	H68605-0009/30
10-Class	8	8	8	5	5
15-Length of Section	12.1	5.3	9.3	.4	1
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	1	1	1	1	1
11-Terrain				2	2
25-Roadbed Condition				2	2
24-Surface Condition Index				0	0
16-Surface Width	20	20	8	8	8
13-Surface Type	9	9	9	1	1
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*1*	*1*	*0*	*0*	*0*
29-Right of Way Width	*0*	*0*	*0*	*0*	*0*
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width				0	0
14-Shoulder Type				1	1
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**20**	**20**	**8**	**8**	**8**
TTAM Future ADT	**30**	**30**	**30**	**74**	**74**
TTAM ADS Number	**19**	**19**	**19**	**14**	**14**
TTAM Future Surface Type				**G**	**G**
TTAM Incidental Percent	**100**	**100**	**100**	**65**	**65**
TTAM Grade & Drain Percent	**0**	**0**	**0**	**100**	**100**
TTAM Aggregate Percent	**0**	**0**	**0**	**100**	**100**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**25.0**	**25.0**	**25.0**	**235.0**	**235.0**
TTAM Grade & Drain Adjusted Rat	**0.0**	**0.0**	**0.0**	**106.7**	**106.7**
TTAM Aggregate Adjusted Rate	**0.0**	**0.0**	**0.0**	**314.6**	**314.6**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**302.5**	**132.5**	**232.5**	**94.0**	**235.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**42.7**	**106.7**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**125.8**	**314.6**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**302.5**	**132.5**	**232.5**	**262.5**	**656.3**
TTAM BIA CTC	**302.5**	**132.5**	**232.5**	**262.5**	**656.3**
35-Drainage Condition	*0*	*0*	*0*	*0*	*0*
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance	*1*	*1*	*1*	*1*	*1*
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*		*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category	*A*	*A*	*A*	*A*	*A*
52-Year of Construction Change	*1959*	*1959*			
Update Year	**2010**	**2010**	**2010**	**2010**	**2010**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**
Modify Date	**01-SEP-2010**	**01-SEP-2010**	**01-SEP-2010**	**01-SEP-2010**	**01-SEP-2010**
	01-SEP-2010	**01-SEP-2010**	**01-SEP-2010**	**01-SEP-2010**	**01-SEP-2010**

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Location ID	H68605-0010/10	H68605-0011/10	H68605-0012/10	H68605-0018/10	H68605-0018/20
10-Class	5	8	8	4	4
15-Length of Section	5.6	4.2	15	11	5
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	1	1	1	1	1
11-Terrain	2			3	2
25-Roadbed Condition	1			5	5
24-Surface Condition Index	0			86	86
16-Surface Width	10	10	10	27	27
13-Surface Type	1	9	9	5	5
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*0*	*1*	*0*	*3*	*3*
29-Right of Way Width	*0*	*0*	*0*	*50*	*50*
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width	0			0	0
14-Shoulder Type	1				
22-Existing ADT				156	156
21-ADT Year				2002	2002
23-Percent Trucks				10	10
34-Owner Route Number					
Roadway Width	**10**	**10**	**10**	**27**	**27**
TTAM Future ADT	**74**	**30**	**30**	**232**	**232**
TTAM ADS Number	**14**	**19**	**19**	**12**	**11**
TTAM Future Surface Type	**G**			**G**	**G**
TTAM Incidental Percent	**65**	**100**	**100**	**30**	**30**
TTAM Grade & Drain Percent	**100**	**0**	**0**	**0**	**0**
TTAM Aggregate Percent	**100**	**0**	**0**	**0**	**0**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**235.0**	**25.0**	**25.0**	**9.0**	**167.5**
TTAM Grade & Drain Adjusted Rat	**106.7**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate Adjusted Rate	**314.6**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**1316.0**	**105.0**	**375.0**	**99.0**	**837.6**
TTAM Grade & Drain CTC	**597.6**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**1761.8**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**3675.4**	**105.0**	**375.0**	**99.0**	**837.6**
TTAM BIA CTC	**3675.4**	**105.0**	**375.0**	**99.0**	**837.6**
35-Drainage Condition	*0*	*0*	*0*	*3*	*3*
36-Shoulder Condition	*0*	*0*	*0*	*0*	*0*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility				*0*	
40-Right of Way Cost				*0*	
26-Level of Maintenance	*1*	*1*	*1*	*4*	*4*
27-Snow & Ice Control				*1*	*1*
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study				*3*	*3*
51-Road Category	*A*	*A*	*A*	*A*	*A*
52-Year of Construction Change		*1959*		*1983*	*1983*
Update Year	**2009**	**2010**	**2010**	**2008**	**2008**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**
Modify Date	**04-AUG-2009**	**01-SEP-2010**	**01-SEP-2010**	**04-AUG-2009**	**04-AUG-2009**
	04-AUG-2009	**01-SEP-2010**	**01-SEP-2010**	**04-AUG-2009**	**04-AUG-2009**

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Location ID	H68605-0018/30	H68605-0347/10	H68605-0347/20	H68605-0347/30	H68605-0501/10
10-Class	4	5	5	5	3
15-Length of Section	4.5	7.9	7.5	10.9	.1
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*02*	*02*	*02*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	5	5	1	1
12-Construction Need	1	2	2	1	4
11-Terrain	2	2	2	2	
25-Roadbed Condition	5	3	3	3	
24-Surface Condition Index	86	0	0	0	
16-Surface Width	27	20	20	10	
13-Surface Type	5	3	3	3	
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*3*	*0*	*0*	*0*	*0*
29-Right of Way Width	*50*	*0*	*0*	*0*	*0*
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width	0	0	0	0	
14-Shoulder Type		1	1	1	
22-Existing ADT	108				
21-ADT Year	1988				
23-Percent Trucks	0				
34-Owner Route Number		0			
Roadway Width	**27**	**20**	**20**	**10**	
TTAM Future ADT	**160**	**74**	**74**	**74**	**37**
TTAM ADS Number	**11**	**14**	**14**	**14**	**18**
TTAM Future Surface Type	**G**	**G**	**G**	**G**	**E**
TTAM Incidental Percent	**30**	**75**	**75**	**75**	**65**
TTAM Grade & Drain Percent	**0**	**100**	**100**	**100**	**100**
TTAM Aggregate Percent	**0**	**100**	**100**	**100**	**0**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**167.5**	**271.2**	**271.2**	**271.2**	**145.6**
TTAM Grade & Drain Adjusted Rat	**0.0**	**106.7**	**106.7**	**106.7**	**205.8**
TTAM Aggregate Adjusted Rate	**0.0**	**314.6**	**314.6**	**314.6**	**0.0**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**753.8**	**2142.1**	**2033.6**	**2955.6**	**14.6**
TTAM Grade & Drain CTC	**0.0**	**843.1**	**800.4**	**1163.3**	**20.6**
TTAM Aggregate CTC	**0.0**	**2485.4**	**2359.6**	**3429.2**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC		**0.0**	**0.0**	**0.0**	
TTAM Raw CTC	**753.8**	**5470.6**	**5193.6**	**7548.1**	**35.1**
TTAM BIA CTC	**753.8**	**5470.6**	**5193.6**	**7548.1**	**35.1**
35-Drainage Condition	*3*	*0*	*0*	*0*	
36-Shoulder Condition	*0*	*0*	*0*	*0*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility	*0*				
40-Right of Way Cost	*0*				
26-Level of Maintenance	*4*	*3*	*3*	*3*	
27-Snow & Ice Control	*1*				
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study	*3*				
51-Road Category	*A*	*A*	*A*	*A*	
52-Year of Construction Change	*1983*	*1959*	*1959*	*1959*	
Update Year	**2008**	**2009**	**2009**	**2009**	**2010**
Status	**OFFICIAL**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**OFFICIAL**
Modify Date	**04-AUG-2009**	**15-JUL-2009**	**15-JUL-2009**	**15-JUL-2009**	**25-MAY-2011**
	04-AUG-2009				**25-MAY-2011**

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Location ID	H68605-0501/20	H68605-0501/30	H68605-0501/40	H68605-0501/50	H68605-0501/60
10-Class	3	3	3	3	3
15-Length of Section	.1	.2	.1	.4	.2
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	1	4	4	4	4
11-Terrain					
25-Roadbed Condition	0				
24-Surface Condition Index	0				
16-Surface Width	24				
13-Surface Type	1				
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*0*	*0*	*0*	*0*	*0*
29-Right of Way Width	*0*				
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width	0				
14-Shoulder Type					
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**24**				
TTAM Future ADT	**37**	**37**	**37**	**37**	**37**
TTAM ADS Number	**18**	**18**	**18**	**18**	**18**
TTAM Future Surface Type	**E**	**E**	**E**	**E**	**E**
TTAM Incidental Percent	**65**	**65**	**65**	**65**	**65**
TTAM Grade & Drain Percent	**100**	**100**	**100**	**100**	**100**
TTAM Aggregate Percent	**0**	**0**	**0**	**0**	**0**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**145.6**	**145.6**	**145.6**	**145.6**	**145.6**
TTAM Grade & Drain Adjusted Rat	**205.8**	**205.8**	**205.8**	**205.8**	**205.8**
TTAM Aggregate Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**14.6**	**29.1**	**14.6**	**58.2**	**29.1**
TTAM Grade & Drain CTC	**20.6**	**41.2**	**20.6**	**82.3**	**41.2**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**35.1**	**70.3**	**35.1**	**140.6**	**70.3**
TTAM BIA CTC	**35.1**	**70.3**	**35.1**	**140.6**	**70.3**
35-Drainage Condition					
36-Shoulder Condition					
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2010**	**2010**	**2010**	**2010**	**2010**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**
Modify Date	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**
	25-MAY-2011	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**

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Location ID	H68605-0501/70	H68605-0501/80	H68605-0501/90	H68605-0501/100	H68605-0501/110
10-Class	3	3	3	3	3
15-Length of Section	.3	.8	.1	.4	.3
18-Bridge Number					
19-Bridge Condition					
20-Bridge Length					
32-County	*005*	*005*	*005*	*005*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	1	1	1	1	1
12-Construction Need	4	4	4	4	4
11-Terrain					
25-Roadbed Condition					
24-Surface Condition Index					
16-Surface Width					
13-Surface Type					
9-Federal Aid Category	1	1	1	1	1
28-Right of Way Status	*0*	*0*	*0*	*0*	*0*
29-Right of Way Width					
TTAM BIA Share	**100**	**100**	**100**	**100**	**100**
30-Additional Incidental Percent					
17-Shoulder Width					
14-Shoulder Type					
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width					
TTAM Future ADT	**37**	**37**	**37**	**37**	**37**
TTAM ADS Number	**18**	**18**	**18**	**18**	**18**
TTAM Future Surface Type	**E**	**E**	**E**	**E**	**E**
TTAM Incidental Percent	**65**	**65**	**65**	**65**	**65**
TTAM Grade & Drain Percent	**100**	**100**	**100**	**100**	**100**
TTAM Aggregate Percent	**0**	**0**	**0**	**0**	**0**
TTAM Paving Percent	**0**	**0**	**0**	**0**	**0**
TTAM Incidental Adjusted Rate	**145.6**	**145.6**	**145.6**	**145.6**	**145.6**
TTAM Grade & Drain Adjusted Rat	**205.8**	**205.8**	**205.8**	**205.8**	**205.8**
TTAM Aggregate Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving Adjusted Rate	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
GPRA Bridge Rate					
TTAM Incidental CTC	**43.7**	**116.5**	**14.6**	**58.2**	**43.7**
TTAM Grade & Drain CTC	**61.7**	**164.7**	**20.6**	**82.3**	**61.7**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC					
TTAM Raw CTC	**105.4**	**281.1**	**35.1**	**140.6**	**105.4**
TTAM BIA CTC	**105.4**	**281.1**	**35.1**	**140.6**	**105.4**
35-Drainage Condition					
36-Shoulder Condition					
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*	*01*	*01*	*01*
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2010**	**2010**	**2010**	**2010**	**2010**
Status	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**	**OFFICIAL**
Modify Date	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**
	25-MAY-2011	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**	**25-MAY-2011**

Indian Reservation Roads Program
Inventory Change Sheet
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Location ID	H68605-C066/10	H68605-C066/20	H68605-C066/30	H68605-C066/40	H68605-C066/50
10-Class	2	2	2	2	2
15-Length of Section	3.2		2.1		1.6
18-Bridge Number		1111		2222	
19-Bridge Condition		9		9	
20-Bridge Length		70		42	
32-County	*025*	*025*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2		2		2
25-Roadbed Condition	5		5		5
24-Surface Condition Index	70		70		70
16-Surface Width	24		24		24
13-Surface Type	5		5		5
9-Federal Aid Category	3		3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7		7		7
14-Shoulder Type	3		3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**38**		**38**		**38**
TTAM Future ADT	**149**		**149**		**149**
TTAM ADS Number	**8**		**8**		**8**
TTAM Future Surface Type	**P**		**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition					
36-Shoulder Condition					
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

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Location ID	H68605-C066/60	H68605-C066/70	H68605-C066/80	H68605-C066/90	H68605-C066/100
10-Class	2	2	2	2	2
15-Length of Section		2.2		2.1	
18-Bridge Number	3333		4444		5555
19-Bridge Condition	9		9		9
20-Bridge Length	21		48		48
32-County	*025*	*025*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	
25-Roadbed Condition		5		5	
24-Surface Condition Index		70		70	
16-Surface Width		24		24	
13-Surface Type		5		5	
9-Federal Aid Category		3		3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	
14-Shoulder Type		3		3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**38**		**38**	
TTAM Future ADT		**149**		**149**	
TTAM ADS Number		**8**		**8**	
TTAM Future Surface Type		**P**		**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition					
36-Shoulder Condition					
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

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Inventory Change Sheet
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Location ID	H68605-C066/110	H68605-C066/120	H68605-C066/130	H68605-C066/140	H68605-C066/150
10-Class	2	3	2	2	2
15-Length of Section	7.5	.9	.3		.4
18-Bridge Number				6666	
19-Bridge Condition				9	
20-Bridge Length				70	
32-County	*025*	*025*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2	1	2		2
25-Roadbed Condition	5	7	5		5
24-Surface Condition Index	70	70	70		70
16-Surface Width	24	60	24		24
13-Surface Type	5	5	5		5
9-Federal Aid Category	3	3	3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7	0	7		7
14-Shoulder Type	3	4	3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**38**	**60**	**38**		**38**
TTAM Future ADT	**149**	**37**	**149**		**149**
TTAM ADS Number	**8**	**18**	**8**		**8**
TTAM Future Surface Type	**P**	**E**	**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition					
36-Shoulder Condition					
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

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Location ID	H68605-F328/10	H68605-F328/20	H68605-S066/10	H68605-S066/20	H68605-S066/30
10-Class	5	5	3	3	3
15-Length of Section	5	15.8	.6		.3
18-Bridge Number				4208	
19-Bridge Condition				9	
20-Bridge Length				53	
32-County	*005*	*005*	*015*	*015*	*015*
33-Congressional District	*02*	*02*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	7	7	3	3	3
12-Construction Need	2	2	0	0	0
11-Terrain	2	2			
25-Roadbed Condition	2	2	7		7
24-Surface Condition Index	0	0	70		
16-Surface Width	17	17	84		84
13-Surface Type	1	1	5		6
9-Federal Aid Category	1	1	3		3
28-Right of Way Status	*0*	*0*			
29-Right of Way Width	*0*	*0*			
TTAM BIA Share	**100**	**100**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	0	0	4		4
14-Shoulder Type	1	1	4		4
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**17**	**17**	**92**		**92**
TTAM Future ADT	**74**	**74**	**37**		**37**
TTAM ADS Number	**14**	**14**	**18**		**18**
TTAM Future Surface Type	**G**	**G**	**E**		**E**
TTAM Incidental Percent	**65**	**65**			
TTAM Grade & Drain Percent	**100**	**100**			
TTAM Aggregate Percent	**100**	**100**			
TTAM Paving Percent	**0**	**0**			
TTAM Incidental Adjusted Rate	**235.0**	**235.0**			
TTAM Grade & Drain Adjusted Rat	**106.7**	**106.7**			
TTAM Aggregate Adjusted Rate	**314.6**	**314.6**			
TTAM Paving Adjusted Rate	**0.0**	**0.0**			
GPRA Bridge Rate					
TTAM Incidental CTC	**1175.0**	**3713.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**533.6**	**1686.2**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**1573.0**	**4970.8**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**3281.6**	**10370.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**3281.6**	**10370.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*0*	*0*	*2*		*2*
36-Shoulder Condition	*0*	*0*	*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance	*2*	*2*			
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]	*01*	*01*			
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category	*A*	*A*			
52-Year of Construction Change					
Update Year	**2009**	**2009**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**15-JUL-2009**	**15-JUL-2009**	**01-OCT-2008**	**30-SEP-2008**	**30-SEP-2008**

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Location ID	H68605-S066/40	H68605-S066/50	H68605-S066/60	H68605-S066/70	H68605-S066/80
10-Class	3	5	5	5	5
15-Length of Section	1.9			1.3	
18-Bridge Number		4209	4210		4211
19-Bridge Condition		9	9		9
20-Bridge Length		53	54		86
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain				1	
25-Roadbed Condition	5			7	
24-Surface Condition Index				90	
16-Surface Width	84			28	
13-Surface Type	5			5	
9-Federal Aid Category	3			3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	4			7	
14-Shoulder Type	4			3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**92**			**42**	
TTAM Future ADT	**37**			**74**	
TTAM ADS Number	**18**			**13**	
TTAM Future Surface Type	**E**			**G**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*			*2*	
36-Shoulder Condition	*2*			*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/90	H68605-S066/100	H68605-S066/110	H68605-S066/120	H68605-S066/130
10-Class	5	2	2	2	2
15-Length of Section		1.4	.3		.4
18-Bridge Number	4212			4213	
19-Bridge Condition	9			9	
20-Bridge Length	87			43	
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2	2		2
25-Roadbed Condition		5	5		5
24-Surface Condition Index		90	90		90
16-Surface Width		28	28		28
13-Surface Type		5	5		5
9-Federal Aid Category		3	3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7	7		7
14-Shoulder Type		3	3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**42**	**42**		**42**
TTAM Future ADT		**149**	**149**		**149**
TTAM ADS Number		**8**	**8**		**8**
TTAM Future Surface Type		**P**	**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*	*2*		*2*
36-Shoulder Condition		*2*	*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/140	H68605-S066/150	H68605-S066/160	H68605-S066/170	H68605-S066/180
10-Class	2	2	2	2	2
15-Length of Section		.9		.4	
18-Bridge Number	4214		4215		4216
19-Bridge Condition	9		9		9
20-Bridge Length	98		43		21
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	
25-Roadbed Condition		5		5	
24-Surface Condition Index		90		90	
16-Surface Width		28		28	
13-Surface Type		5		5	
9-Federal Aid Category		3		3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	
14-Shoulder Type		3		3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**42**		**42**	
TTAM Future ADT		**149**		**149**	
TTAM ADS Number		**8**		**8**	
TTAM Future Surface Type		**P**		**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*		*2*	
36-Shoulder Condition		*2*		*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/190	H68605-S066/200	H68605-S066/210	H68605-S066/220	H68605-S066/230
10-Class	2	2	2	2	2
15-Length of Section	1.4		.3		.6
18-Bridge Number		4217		4218	
19-Bridge Condition		9		9	
20-Bridge Length		32		32	
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2		2		2
25-Roadbed Condition	5		5		5
24-Surface Condition Index	90		90		90
16-Surface Width	28		28		28
13-Surface Type	5		5		5
9-Federal Aid Category	3		3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7		7		7
14-Shoulder Type	3		3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**42**		**42**		**42**
TTAM Future ADT	**149**		**149**		**149**
TTAM ADS Number	**8**		**8**		**8**
TTAM Future Surface Type	**P**		**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*		*2*		*2*
36-Shoulder Condition	*2*		*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/240	H68605-S066/250	H68605-S066/260	H68605-S066/270	H68605-S066/280
10-Class	2	2	2	2	2
15-Length of Section		2.4		.2	
18-Bridge Number	4219		4220		4221
19-Bridge Condition	9		9		9
20-Bridge Length	43		32		32
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	
25-Roadbed Condition		5		5	
24-Surface Condition Index		90		90	
16-Surface Width		28		28	
13-Surface Type		5		5	
9-Federal Aid Category		3		3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	
14-Shoulder Type		3		3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**42**		**42**	
TTAM Future ADT		**149**		**149**	
TTAM ADS Number		**8**		**8**	
TTAM Future Surface Type		**P**		**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*		*2*	
36-Shoulder Condition		*2*		*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/290	H68605-S066/300	H68605-S066/310	H68605-S066/320	H68605-S066/330
10-Class	2	2	2	2	2
15-Length of Section	.9		.6		.4
18-Bridge Number		4222		4223	
19-Bridge Condition		9		9	
20-Bridge Length		64		32	
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2		2		2
25-Roadbed Condition	5		5		5
24-Surface Condition Index	60		60		60
16-Surface Width	28		28		28
13-Surface Type	5		5		5
9-Federal Aid Category	3		3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7		7		7
14-Shoulder Type	3		3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**42**		**42**		**42**
TTAM Future ADT	**149**		**149**		**149**
TTAM ADS Number	**8**		**8**		**8**
TTAM Future Surface Type	**P**		**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*		*2*		*2*
36-Shoulder Condition	*2*		*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

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Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/340	H68605-S066/350	H68605-S066/360	H68605-S066/370	H68605-S066/380
10-Class	2	2	2	2	2
15-Length of Section		2.2		2.7	
18-Bridge Number	4224		4225		4226
19-Bridge Condition	9		9		9
20-Bridge Length	32		21		21
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	
25-Roadbed Condition		5		5	
24-Surface Condition Index		60		60	
16-Surface Width		28		28	
13-Surface Type		5		5	
9-Federal Aid Category		3		3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	
14-Shoulder Type		3		3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**42**		**42**	
TTAM Future ADT		**149**		**149**	
TTAM ADS Number		**8**		**8**	
TTAM Future Surface Type		**P**		**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*		*2*	
36-Shoulder Condition		*2*		*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**

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Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/390	H68605-S066/400	H68605-S066/410	H68605-S066/420	H68605-S066/430
10-Class	2	2	2	2	2
15-Length of Section	.1		4.2		.3
18-Bridge Number		4227		738	
19-Bridge Condition		9		9	
20-Bridge Length		21		351	
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2		2		2
25-Roadbed Condition	5		5		5
24-Surface Condition Index	60		80		70
16-Surface Width	28		28		28
13-Surface Type	5		5		5
9-Federal Aid Category	3		3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7		7		7
14-Shoulder Type	3		3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**42**		**42**		**42**
TTAM Future ADT	**149**		**149**		**149**
TTAM ADS Number	**8**		**8**		**8**
TTAM Future Surface Type	**P**		**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*		*2*		*2*
36-Shoulder Condition	*2*		*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**30-SEP-2008**	**01-OCT-2008**

Indian Reservation Roads Program
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Location ID	H68605-S066/440	H68605-S066/450	H68605-S066/460	H68605-S066/470	H68605-S066/480
10-Class	2	2	2	2	2
15-Length of Section		1.3		3.1	
18-Bridge Number	4229		4230		4231
19-Bridge Condition	9		9		9
20-Bridge Length	37		21		43
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	
25-Roadbed Condition		5		5	
24-Surface Condition Index		70		60	
16-Surface Width		28		28	
13-Surface Type		5		5	
9-Federal Aid Category		3		3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	
14-Shoulder Type		3		3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**42**		**42**	
TTAM Future ADT		**149**		**149**	
TTAM ADS Number		**8**		**8**	
TTAM Future Surface Type		**P**		**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*		*2*	
36-Shoulder Condition		*2*		*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/490	H68605-S066/500	H68605-S066/510	H68605-S066/520	H68605-S066/530
10-Class	2	2	2	2	2
15-Length of Section	6.6		1		.1
18-Bridge Number		192		4232	
19-Bridge Condition		9		9	
20-Bridge Length		115		49	
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2		2		
25-Roadbed Condition	5		5		5
24-Surface Condition Index	60		60		6
16-Surface Width	28		28		28
13-Surface Type	5		5		5
9-Federal Aid Category	3		3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7		7		7
14-Shoulder Type	3		3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**42**		**42**		**42**
TTAM Future ADT	**149**		**149**		**149**
TTAM ADS Number	**8**		**8**		
TTAM Future Surface Type	**P**		**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*		*2*		*2*
36-Shoulder Condition	*2*		*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/540	H68605-S066/550	H68605-S066/560	H68605-S066/570	H68605-S066/580
10-Class	2	2	2	2	2
15-Length of Section		1.6		1	
18-Bridge Number	4233		4234		141
19-Bridge Condition	9		9		9
20-Bridge Length	49		43		110
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	
25-Roadbed Condition		5		5	
24-Surface Condition Index		6		6	
16-Surface Width		28		28	
13-Surface Type		5		5	
9-Federal Aid Category		3		3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	
14-Shoulder Type		3		3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**42**		**42**	
TTAM Future ADT		**149**		**149**	
TTAM ADS Number		**8**		**8**	
TTAM Future Surface Type		**P**		**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*		*2*	
36-Shoulder Condition		*2*		*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/590	H68605-S066/600	H68605-S066/610	H68605-S066/620	H68605-S066/630
10-Class	2	2	2	2	2
15-Length of Section	.8		.8		1.7
18-Bridge Number		134		4235	
19-Bridge Condition		9		9	
20-Bridge Length		110		32	
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2		2		2
25-Roadbed Condition	5		5		5
24-Surface Condition Index	60		60		60
16-Surface Width	28		28		24
13-Surface Type	5		5		5
9-Federal Aid Category	3		3		3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7		7		7
14-Shoulder Type	3		3		3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**42**		**42**		**38**
TTAM Future ADT	**149**		**149**		**149**
TTAM ADS Number	**8**		**8**		**8**
TTAM Future Surface Type	**P**		**P**		**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*		*2*		*2*
36-Shoulder Condition	*2*		*2*		*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/640	H68605-S066/650	H68605-S066/660	H68605-S066/670	H68605-S066/680
10-Class	2	2	2	5	5
15-Length of Section		1	7.2	.3	.6
18-Bridge Number	142				
19-Bridge Condition	9				
20-Bridge Length	110				
32-County	*015*	*015*	*015*	*015*	*015*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2	2	2	2
25-Roadbed Condition		5	5	7	5
24-Surface Condition Index		60	60	80	80
16-Surface Width		24	24	36	28
13-Surface Type		5	5	5	5
9-Federal Aid Category		3	3	3	3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7	7	14	7
14-Shoulder Type		3	3	4	3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**38**	**38**	**64**	**42**
TTAM Future ADT		**149**	**149**	**74**	**74**
TTAM ADS Number		**8**	**8**	**14**	**14**
TTAM Future Surface Type		**P**	**P**	**G**	**G**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*	*2*	*2*	*2*
36-Shoulder Condition		*2*	*2*	*2*	*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/690	H68605-S066/700	H68605-S066/710	H68605-S066/720	H68605-S066/730
10-Class	2	2	2	2	2
15-Length of Section		5		.3	3
18-Bridge Number	6077		4236		
19-Bridge Condition	9		9		
20-Bridge Length	21		64		
32-County	*017*	*015*	*015*	*015*	*005*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain		2		2	2
25-Roadbed Condition		5		5	5
24-Surface Condition Index		70		70	70
16-Surface Width		24		24	24
13-Surface Type		5		5	5
9-Federal Aid Category		3		3	3
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width		7		7	7
14-Shoulder Type		3		3	3
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width		**38**		**38**	**38**
TTAM Future ADT		**149**		**149**	**149**
TTAM ADS Number		**8**		**8**	**8**
TTAM Future Surface Type		**P**		**P**	**P**
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition		*2*		*2*	*2*
36-Shoulder Condition		*2*		*2*	*2*
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/740	H68605-S066/750	H68605-S066/760	H68605-S066/770	H68605-S066/780
10-Class	2	2	2	2	2
15-Length of Section	2.6	.9	2.7	.9	
18-Bridge Number					4237
19-Bridge Condition					9
20-Bridge Length					32
32-County	*005*	*005*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3	3
12-Construction Need	0	0	0	0	0
11-Terrain	2	2	2	2	
25-Roadbed Condition	5	5	5	5	
24-Surface Condition Index	70	70	70	70	
16-Surface Width	24	24	24	24	
13-Surface Type	5	5	5	5	
9-Federal Aid Category	3	3	3	3	
28-Right of Way Status					
29-Right of Way Width					
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent					
17-Shoulder Width	7	7	7	7	
14-Shoulder Type	3	3	3	3	
22-Existing ADT					
21-ADT Year					
23-Percent Trucks					
34-Owner Route Number					
Roadway Width	**38**	**38**	**38**	**38**	
TTAM Future ADT	**149**	**149**	**149**	**149**	
TTAM ADS Number	**8**	**8**	**8**	**8**	
TTAM Future Surface Type	**P**	**P**	**P**	**P**	
TTAM Incidental Percent					
TTAM Grade & Drain Percent					
TTAM Aggregate Percent					
TTAM Paving Percent					
TTAM Incidental Adjusted Rate					
TTAM Grade & Drain Adjusted Rat					
TTAM Aggregate Adjusted Rate					
TTAM Paving Adjusted Rate					
GPRA Bridge Rate					
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*	*2*	*2*	*2*	
36-Shoulder Condition	*2*	*2*	*2*	*2*	
37-Number of R.R. Crossings					
38-Railroad Crossing Type					
39-Right of Way Utility					
40-Right of Way Cost					
26-Level of Maintenance					
27-Snow & Ice Control					
41-Begin Latitude					
43-Begin Longitude					
42-End Latitude					
44-End Longitude					
45-Atlas Map Number [99]					
46-Grade Deficiencies					
47-Sight Deficiencies					
48-Number of Sharp Curves					
49-Number of Stopping Restrictions					
50-Safety Study					
51-Road Category					
52-Year of Construction Change					
Update Year	**2008**	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

Indian Reservation Roads Program
Inventory Change Sheet
FY 2016 Inventory

Location ID	H68605-S066/790	H68605-S066/800	H68605-S066/810	H68605-S066/820
10-Class	2	2	2	2
15-Length of Section	1.3		.4	
18-Bridge Number		4238		4239
19-Bridge Condition		9		9
20-Bridge Length		32		21
32-County	*025*	*025*	*025*	*025*
33-Congressional District	*01*	*01*	*01*	*01*
7-State	04 - AZ	04 - AZ	04 - AZ	04 - AZ
8-Ownership	3	3	3	3
12-Construction Need	0	0	0	0
11-Terrain	2		2	
25-Roadbed Condition	5		5	
24-Surface Condition Index	70		70	
16-Surface Width	24		24	
13-Surface Type	5		5	
9-Federal Aid Category	3		3	
28-Right of Way Status				
29-Right of Way Width				
TTAM BIA Share	**5.7**	**5.7**	**5.7**	**5.7**
30-Additional Incidental Percent				
17-Shoulder Width	7		7	
14-Shoulder Type	3		3	
22-Existing ADT				
21-ADT Year				
23-Percent Trucks				
34-Owner Route Number				
Roadway Width	**38**		**38**	
TTAM Future ADT	**149**		**149**	
TTAM ADS Number	**8**		**8**	
TTAM Future Surface Type	**P**		**P**	
TTAM Incidental Percent				
TTAM Grade & Drain Percent				
TTAM Aggregate Percent				
TTAM Paving Percent				
TTAM Incidental Adjusted Rate				
TTAM Grade & Drain Adjusted Rat				
TTAM Aggregate Adjusted Rate				
TTAM Paving Adjusted Rate				
GPRA Bridge Rate				
TTAM Incidental CTC	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Grade & Drain CTC	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Aggregate CTC	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Paving CTC	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Bridge CTC	**0.0**	**0.0**	**0.0**	**0.0**
TTAM Raw CTC	**0.0**	**0.0**	**0.0**	**0.0**
TTAM BIA CTC	**0.0**	**0.0**	**0.0**	**0.0**
35-Drainage Condition	*2*		*2*	
36-Shoulder Condition	*2*		*2*	
37-Number of R.R. Crossings				
38-Railroad Crossing Type				
39-Right of Way Utility				
40-Right of Way Cost				
26-Level of Maintenance				
27-Snow & Ice Control				
41-Begin Latitude				
43-Begin Longitude				
42-End Latitude				
44-End Longitude				
45-Atlas Map Number [99]				
46-Grade Deficiencies				
47-Sight Deficiencies				
48-Number of Sharp Curves				
49-Number of Stopping Restrictions				
50-Safety Study				
51-Road Category				
52-Year of Construction Change				
Update Year	**2008**	**2008**	**2008**	**2008**
Status	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**	**IN-PROCESS**
Modify Date	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**	**01-OCT-2008**

BIA INVENTORY UPDATE - RIFDS MR-3Ci FIELD CODING QUICK REFERENCE

Field 8 - Ownership

1	BIA (DOT Owned/Maintained)
2	Tribe
3	State
4	Urban
5	County or Township
6	Other BIA Branches
7	Other Federal Govt.
8	Other

Field 9 - Federal Aid Code

Blank	Bridges and Class 10 & 11 Rtes
1	Local Roads - Formerly Other
2	STP - Surface Trans. Program Formerly FAS
3	NHS - National Highway System Formerly FAP
4	IM - Interstae Maintenance Formerly FAI
5	Obsolete - DO NOT USE Formerly FAU

Field 10 - Functional Class

1	Major Arterial
2	Rural Minor Arterials
3	Community/Residential Streets
4	Rural Major collector
4	Major Collector
5	Rural Local/Stub
6	City Minor Arterial
7	Local Collector
8	Non-Road type Path
9	Transportation Facility
10	Airstrip
11	Overlapping Route

Field 11 - Terrain

Blank	Class 3 and Class 6 thru 11
1	Flat
2	Rolling
3	Mountainous

Field 12 - Construction Need

0	Improved within the last 5-years
1	BIA Route needing improvement
2	Const. Need of Others
3	Maintenance Only
4	Proposed (Non-Existant) Roads

Field 13 - Surface Type

0	Proposed Road
9	Primative Trail
1	Earth
2	Gravel
4	Bituminous Pavement< 2"
5	Bituminous Pavement> 2"
6	Concrete

Field 14 - Shoulder Type

Blank	Proposed Road
Blank	No Shoulder
1	Earth
2	Gravel or Chip Seal
3	Paved
4	Curb

Field 19 - Bridge Condition Codes

1	Status Code = SD
2	Status Code = FO
8	No Bridge - one is needed
9	Status Code = ND

Field 24 - Surface Condition Index/SCI

Blank	Proposed, Primative or Earth Roads
01-19	Very Poor
20-39	Poor
40-59	Fair
60-79	Good
80-100	Very Good

Gravel Roads must have a SCI rating

Field 25 - Roadbed Condition

0	Proposed Road
1	Primative Trail
2	Bladed Unimproved Road
3	Min. Built-up Roadbed
4	Designed and Constructed Road with some improvements needed
5	Designed and Constructed Road with no improvements needed
6	Roadbed constructed to Adequate Standard - C& G one side
7	Roadbed constructed to Adequate Standard - C&G both sides

Field 26 - Level of Maintenance

Blank	Proposed Roads & Bridges
1	Primitive Road (jeep Trail)
2	Graded Earth Road
3	Gravel Surfaced Road
4	Paved Roads

Field 27 - Snow & Ice Control/Descriptions

0	None
1	Slight
2	Light/Medium
3	Medium
4	Medium/Heavy
5	Heavy
6	Very Heavy

See Snow Code Table for Reservation snow control codes

Field 28 - ROW Status

0	No. ROW or Tribal Resolution
1	Tribal Resolution/Consent
2	ROW Acquired but not Recorded
3	Recorded ROW
4	Statutory ROW

Field 30 - Additional Incidenal Percent

1	Fencing
9	Landscaping
9	Structural Concrete
3	Traffic Signals
3	Utilities

If more than one item, add together and encode total

Field 31 - Owner No./I.D.

Blank	BIA Route or Non-BIA Route with 9000 Series Rte No.

Field 35 - Drainage Condition

0	Unimproved Road
1	Severe Drainage Problems
2	Short Period Drainage Problems
3	Excellent

Field 36 - Shoulder Condition

0	No Shoulders
1	Critical - Not Repairable
2	Tolerable
3	Excellent

Field 38 - Type of RR Crossing

1	Single Track with gates
2	Single Track with automatic signals
3	NOT USED
4	Single Track with cross-bucks
5	Multiple Tracks with gates
6	Mult. Tracks with automatic signals
7	NOT USED
8	Multiple Tracks with cross-bucks
9	Other

Field 39 - ROW Utility

0	
1	None
2	Underground
3	Surface/Above Ground
	Both

Field 46 - Maximum Grade Condition

1	
2	Over 50% > Max. Allowable
3	41-50% > Max. Allowable
4	31 - 40% > Max. Allowable
5	21 - 30% > Max. Allowable
6	11 - 20% > Max. Allowable
7	1 - 10% > Max. Allowable
	None > Max. Allowable

Field 47 - P.S.D. Allowable

0	
1	0 -9% meets or exceeds ADS
2	10 -29% meets or exceeds ADS
3	30 -49% meets or exceeds ADS
4	50 -69% meets or exceeds ADS
5	70 - 89% meets or exceeds ADS
	90 -100% meets or exceeds ADS

Field 50 - Safety Study

Blank	
0	Proposed Roads
1	No Unsafe Conditions
2	Structure Restricts Road Width
3	Bad Bridge Approach Alignment
4	Unexpected Sharp Curves
5	Abrupt or Svere Grade Change
6	Blind RR Crossing
7	Blind Intersection
8	Combination of Above
9	Any Other Condition
	Primitive or Unimproved Road

Field 51 - Road Category

Blank	
A	Proposed
E	General
F	Recreational - Annual
	Recreational - Seasonal

Field 52 - Year of Construction Change

Blank	Surface Type "0" or "1" and/or Roadbed Condition "0","1", "2"
1959	Default Year if const. year unknown Roadbed Condition "0","1", "2"

1-19-15

AMEC

Michael R. Blankenship

Re: PARA for Havasupai Tribe

Mike:

Here are the road evaluations as promised. Hope it helps.

Kevin Turner

KTCM

HAVASUPAI TRIBAL COUNCIL
P.O. Box 10 • Supai, Arizona 86435 • (520) 448-2731

To: Rebecca Smith

From: Kevin Turner, KT Consulting

Date: 7-26-2010

Re: Roads Assessment

Ms. Smith:

Pursuant to the requirements of our grant award for Project #H6860504 "HAIR Road R & R" please find enclosed the Assessment Check List for roads identified and scheduled for repair.

If you have any questions regarding this matter, please feel free to contact me at 602-679-0256.

Respectfully,

Kevin Turner
KT Consulting

Cc: Joe Cano

HAVASUPAI ROAD ASSESSMENT

INDIAN ROUTE 1

Section 10 – MP 0.00 to 10.3

Section 20 – MP 10.2 to 18.5

INDIAN ROUTE 1 NARRATIVE:

Indian Route 1 is divided into two sections. The first 10.1 miles is located on the Hualapai Reservation. The second section is 8.1 miles and located on the Havasupai Reservation.

Indian Route 1 starts at Milepost 45.5 on Indian Route 18. It heads north and west, and parallels the canyon opposite of Indian Route 18.

This assessment covers the both sections of Indian Route 1.

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIR ROAD R'R H6860504

ROUTE NO.: INDIAN ROUTE 1

SECTION(S): 10

ROAD NAME: INDIAN ROUTE 1

RESERVATION: WALAPAI / HAVASUPAI

LOCATION: MP 40 ON ROUTE 18 NORTH

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

- X 0 – PROPOSED ROAD
- X 9 – PRIMITIVE TRAIL
- ___ 1 – EARTH
- ___ 3 – GRAVEL
- ___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
- ___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
- ___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

- ___ 1 – Major Arterial
- ___ 2 – Rural Minor Arterials
- ___ 3 – Community Residential Streets
- ___ 4 – Rural Major Collector
- ___ 5 – Rural Local /Stub
- ___ 6 – City Minor Arterial
- ___ 7 – Local Collector
- X 8 – Non-Road Type Path
- ___ 9 – Transportation Facility
- ___ 10 – Airstrip
- ___ 11 – Overlapping Route

ROAD WIDTH: 6-12' ROAD LENGTH: 18.5 miles

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:
____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:
____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS
____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:
____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:
____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15

Total / # of Items = Overall LOS Rating

3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: JK Turner

Signature: John K Turner

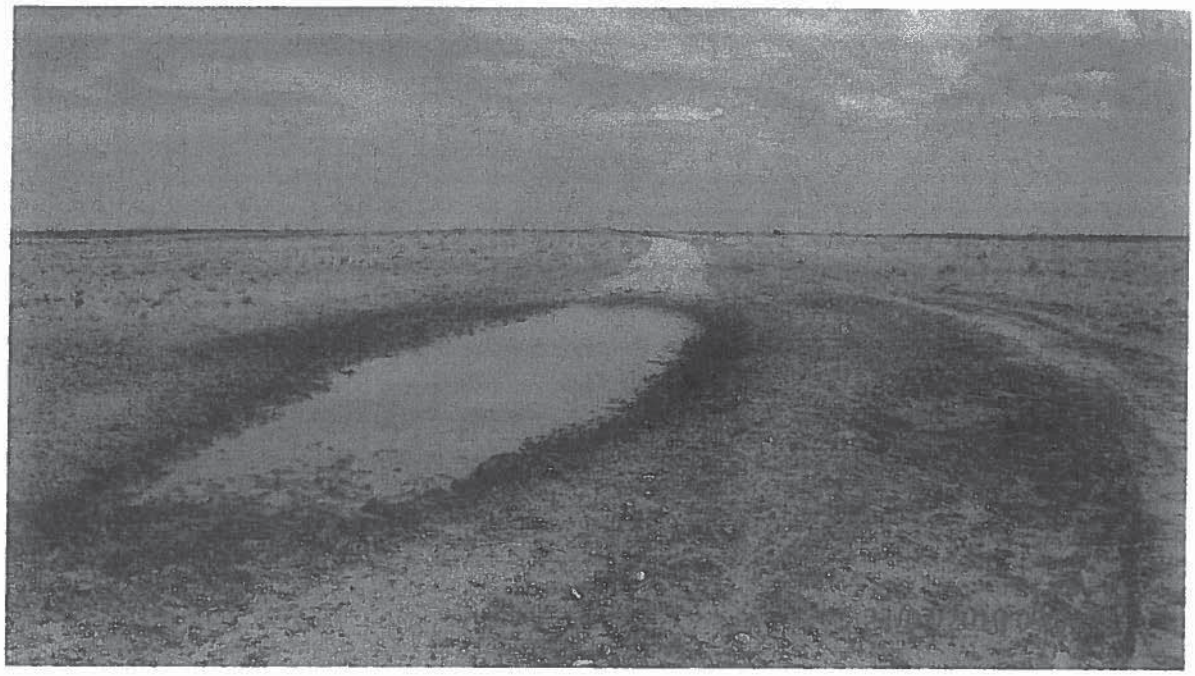
Date: 3-29-2011

INDIAN ROUTE 1 ASSESSMENT

Indian Route 1 starts at MP 45.5 on Indian Route 18. This is a primitive road, very much in need of maintenance. There are many drainage issues and rough road.

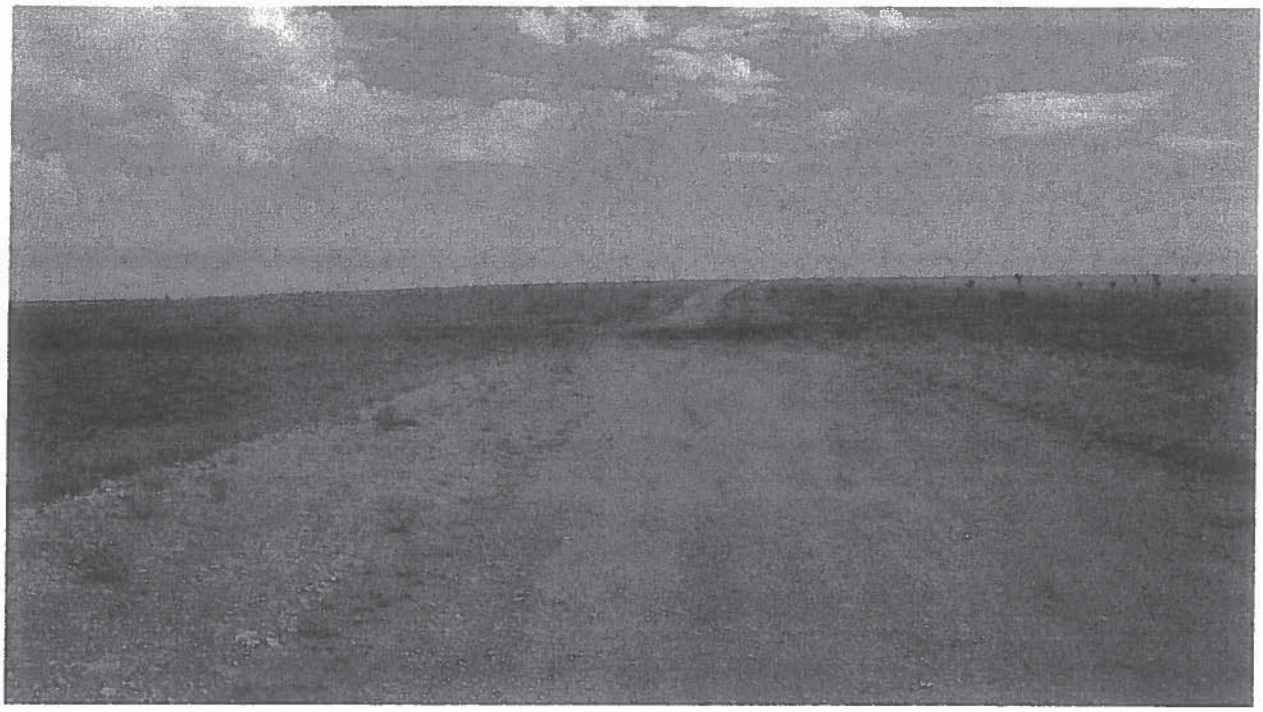
MP 0 to MP 1 – Rutted and shows effect of recent storms in the area

MP 2



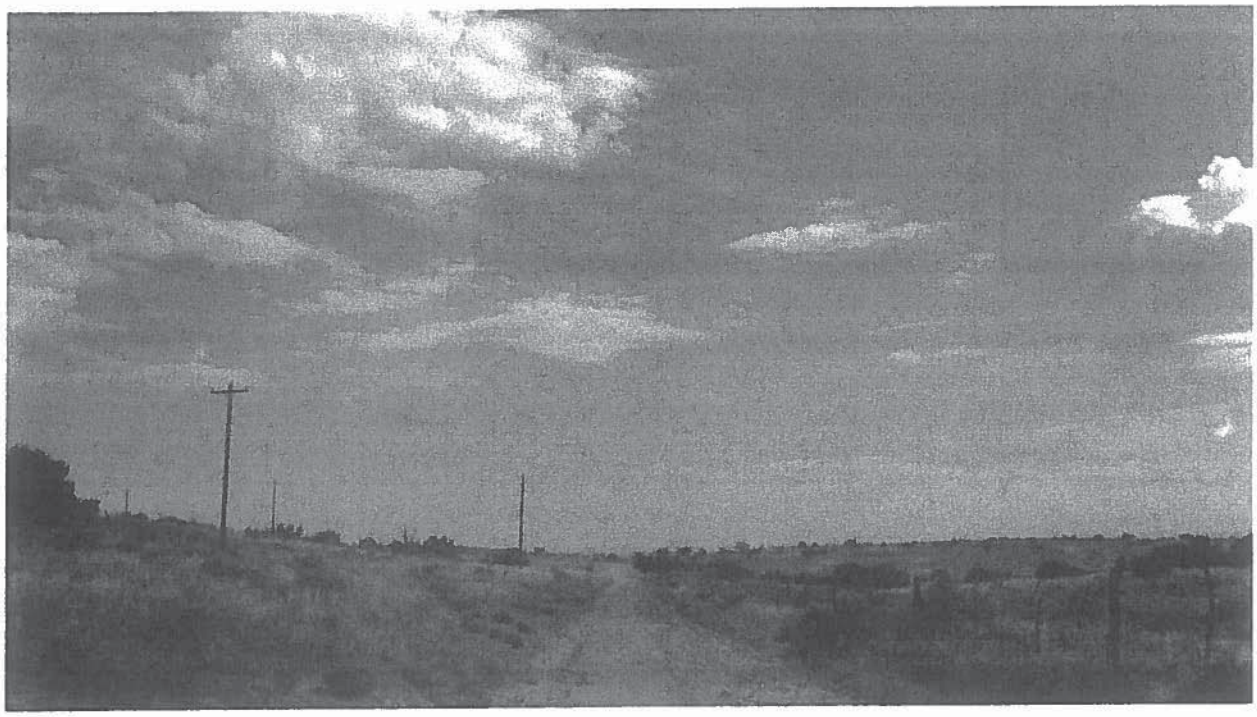
MP 3 to MP 3.3 Washed out area and very rough

MP 4.2



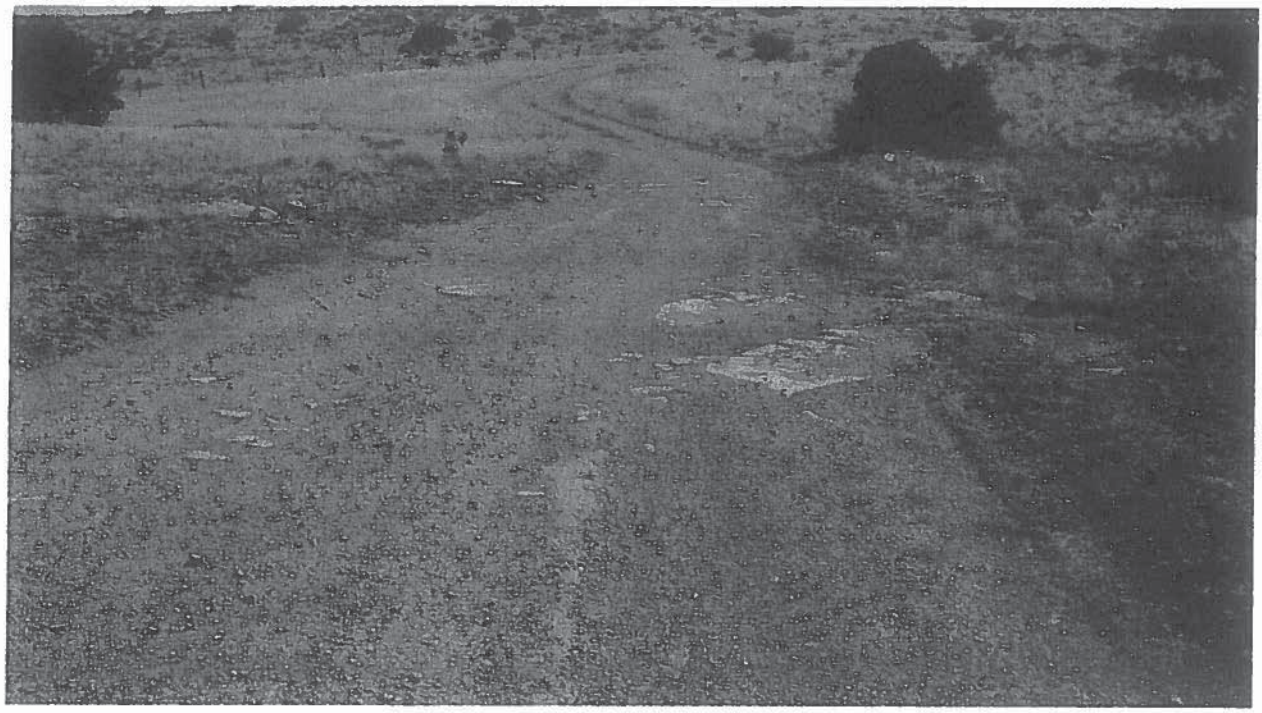
MP 5.0 – Very Rough

MP 7.0 to MP 10.0 Somewhat better through some parts



MP 7.0 to MP 10.00 Some more drainage issues

MP 10.O



MP 10.1 Start of Indian Route 1 through the Havasupai Reservation – Much better shape

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAAR ROAD R&R H68 60504

ROUTE NO.: Indian Route 1

SECTION(S): 20

ROAD NAME: Indian Route 1

RESERVATION: Walapai / Havasupai

LOCATION: MP 40 ON Route 18 NORTH

STATE: Arizona

COUNTY: Coconino

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-10 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

- X 0 – PROPOSED ROAD
- X ~~9~~ – PRIMITIVE TRAIL
- ___ 1 – EARTH
- ___ 3 – GRAVEL
- ___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
- ___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
- ___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

- ___ 1 – Major Arterial
- ___ 2 – Rural Minor Arterials
- ___ 3 – Community Residential Streets
- ___ 4 – Rural Major Collector
- ___ 5 – Rural Local /Stub
- ___ 6 – City Minor Arterial
- ___ 7 – Local Collector
- X 8 – Non-Road Type Path
- ___ 9 – Transportation Facility
- ___ 10 – Airstrip
- ___ 11 – Overlapping Route

ROAD WIDTH: 6–12' ROAD LENGTH: 18.5 miles

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:

____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:

____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS

____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:

____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:

____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15

Total / # of Items = Overall LOS Rating

3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

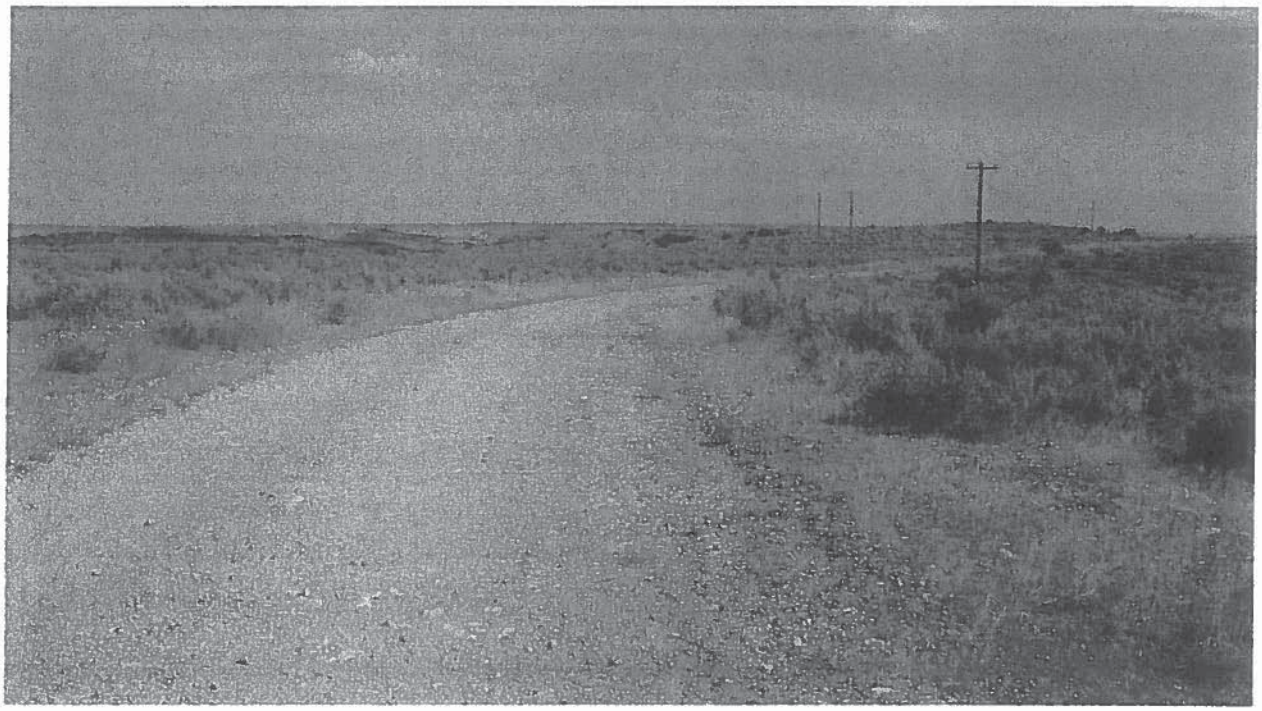
____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: JK Turner

Signature: JK Turner

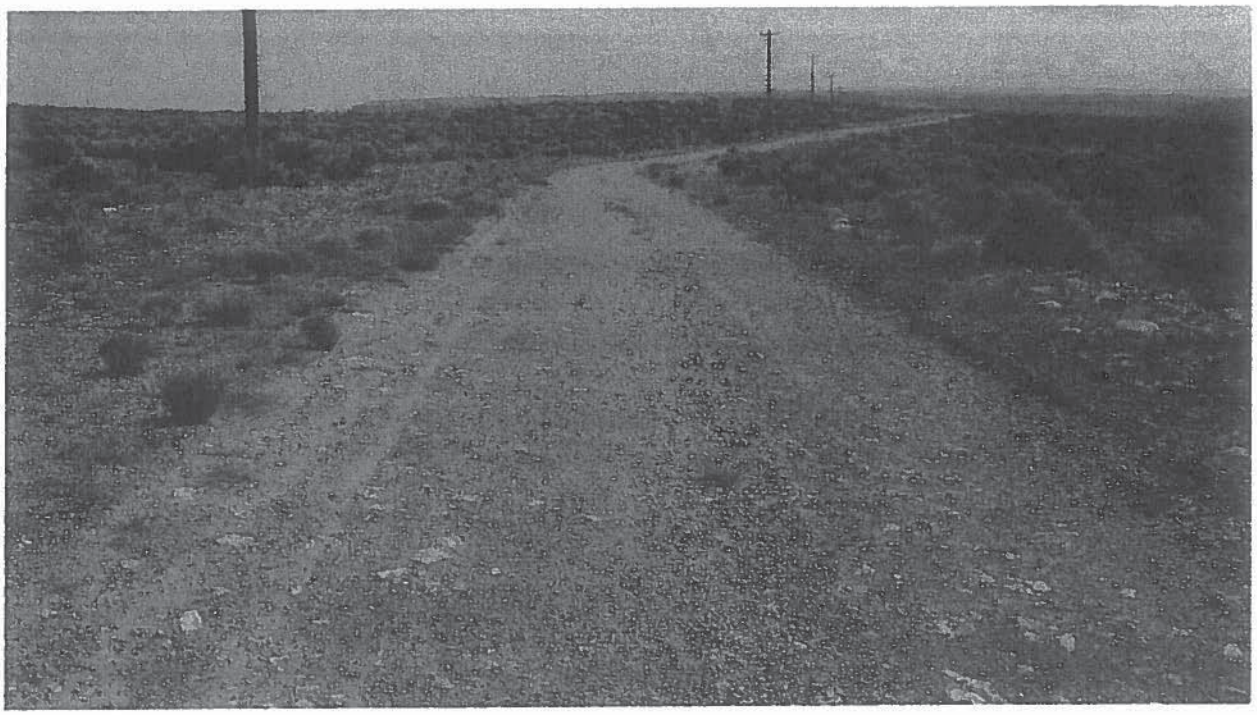
Date: 3-29-2011

MP 11.1 Somewhat better, but still rough

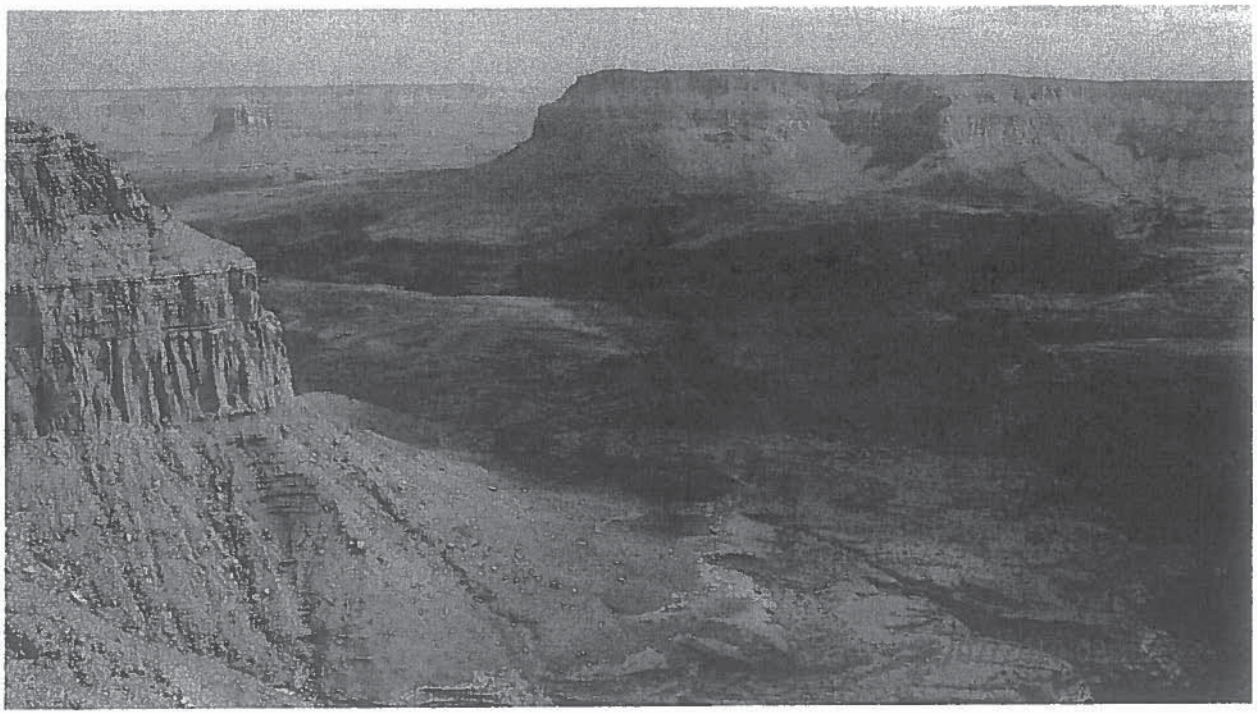


MP 13.8

MP 14 – MP 18.1 Somewhat better



End of Indian Route 1 looking down at Supai



Indian Route 1 has many drainage issues. It also looks like there has been little or no maintenance done to this road in many years. At the end of Indian Route 1 is a storage area and helicopter landing site.

This is a **Service Level 5** dirt road. There is no maintenance and service level has this roadway and associated features in very poor to failing condition. There are significant deficiencies present in all maintenance activities. The overall appearance is not aesthetically pleasing. Preventive maintenance is not realistic for any maintenance activity. Significant backlogs of maintenance treatments are not enough to correct the deficiencies that exist, necessitating additional high-cost remedial construction preservation projects in the future. Overall maintenance operations are at their highest life-cycle cost.

HAVASUPAI ROAD ASSESSMENT

INDIAN ROUTE 2

Section 10 – MP 0.00 to MP 13.5

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: Haul Road R/R H6860504

ROUTE NO.: Indian Route 2

SECTION(S): 10

ROAD NAME: Indian Route 2

RESERVATION: HAVASUPAI

LOCATION: NW Indian Route 18

STATE: Arizona

COUNTY: Yavapai / Coconino

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
X 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

___ 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
X 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: VARIES 6'-12' ROAD LENGTH: 13.5 miles

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:

____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
X Level 5 (Roadway Surface > 50% Washboards)

RUTS:

____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
X Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS

____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:

____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:

____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
X Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE:
SIGNS:
VEGETATION: + 5
Total: 25

Total / # of Items = Overall LOS Rating

25 / 3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: Tom Tucker

Signature: [illegible]

Date: 3-29-2011

INDIAN ROUTE 2 – MP 1.5 – Graded road in fair condition

INDIAN ROUTE 2 – MP 6.0 – Fair condition

HAVASUPAI ROAD ASSESSMENT

INDIAN ROUTE 3

Indian Route 3 is the Hualapai Trail located on the Havasupai Indian Reservation. Please see the attached assessment of the Hualapai Trail.

Indian Route 4

Section 10 - .2 miles

Section 20 - .3 miles

Section 30 – 3.0 miles

Indian Route 5

Section 10 – 1.1 miles

Section 20 - .9 miles

Section 30 - .3 miles

Section 40 - .3 miles

INDIAN ROAD 501

Section 10 - .6 miles

INDIAN ROUTE 4 NARRATIVE:

Indian Route 4 is divided into three sections. Section one is .2 miles long. Section two is .3 miles long. The last section is 3.0 miles long. Total length is 3.5 miles. It is located North East of Indian 18 and is part of a future sub-division off of Indian Road 5.

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: Haul Road R/R H6860504

ROUTE NO.: Indian Route #4

SECTION(S): 10 .2 MILES

ROAD NAME: Indian Route #4

RESERVATION: Havasupai

LOCATION: Havasupai Reservation NW Route 68

STATE: Arizona

COUNTY: Coconino

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

- ___ 0 – PROPOSED ROAD
- ___ 9 – PRIMITIVE TRAIL
- X 1 – EARTH
- ___ 3 – GRAVEL
- ___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
- ___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
- ___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

- ___ 1 – Major Arterial
- ___ 2 – Rural Minor Arterials
- ___ 3 – Community Residential Streets
- ___ 4 – Rural Major Collector
- X 5 – Rural Local /Stub
- ___ 6 – City Minor Arterial
- ___ 7 – Local Collector
- ___ 8 – Non-Road Type Path
- ___ 9 – Transportation Facility
- ___ 10 – Airstrip
- ___ 11 – Overlapping Route

ROAD WIDTH: 6' – 12' ROAD LENGTH: 3.5 MILES .2 this Section

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:
____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:
____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS
____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
5 Level 5 (Opening > ½ Blocked)

SIGNS:
____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:
____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: 5
SIGNS: ____
VEGETATION: + 5
Total: 20

Total / # of Items = Overall LOS Rating

4 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: Tom K Turner

Signature: [signature]

Date: 3-29-2011

INDIAN ROUTE 4 SECTION 10 - .2 miles

MP .1 Right where Indian Route 4 and 5 meet. Primitive road

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: Haul Road R/R H6860504

ROUTE NO.: Indian Route #4

SECTION(S): 20 .3 miles

ROAD NAME: Indian Route #4

RESERVATION: Havasupai

LOCATION: Havasupai Reservation NW Route 18

STATE: Az

COUNTY: Coconino

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD

___ 9 – PRIMITIVE TRAIL

___ 1 – EARTH

X 3 – GRAVEL

___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"

___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"

___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

___ 1 – Major Arterial

___ 2 – Rural Minor Arterials

___ 3 – Community Residential Streets

___ 4 – Rural Major Collector

X 5 – Rural Local /Stub

___ 6 – City Minor Arterial

___ 7 – Local Collector

___ 8 – Non-Road Type Path

___ 9 – Transportation Facility

___ 10 – Airstrip

___ 11 – Overlapping Route

ROAD WIDTH: 6'-12' ROAD LENGTH: 3-5 miles .3 This Section

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) **Key: Less than < Greater than > >**

Greater than

WASHBOARD:
____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
__X__ Level 5 (Roadway Surface > 50% Washboards)

RUTS:
____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
__X__ Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS
____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked) none
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:
____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured) none
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:
____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
__X__ Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ___
SIGNS: ___
VEGETATION: + 5
Total: 15

Total / # of Items = Overall LOS Rating

15 / 3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: Tom Turner

Signature: [signature] Date: 3-29-2011

INDIAN ROUTE 4 Section 20 .3 miles

Picture shows extreme rutting and rough road

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIR ROAD R/R H6860504

ROUTE NO.: INDIAN ROUTE #4

SECTION(S): 30 3.0 miles

ROAD NAME: INDIAN ROUTE #4

RESERVATION: HAVASUPAI

LOCATION: HAVASUPAI RESERVATION NW ROUTE 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD

___ 9 – PRIMITIVE TRAIL

X 1 – EARTH

___ 3 – GRAVEL

___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"

___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"

___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

___ 1 – Major Arterial

___ 2 – Rural Minor Arterials

___ 3 – Community Residential Streets

___ 4 – Rural Major Collector

X 5 – Rural Local /Stub

___ 6 – City Minor Arterial

___ 7 – Local Collector

___ 8 – Non-Road Type Path

___ 9 – Transportation Facility

___ 10 – Airstrip

___ 11 – Overlapping Route

ROAD WIDTH: 6'-12' ROAD LENGTH: 3.0 This Section

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X 3.5 TOTAL

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:
____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:
____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS
____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:
____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:
____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15

Total / # of Items = Overall LOS Rating

15 / 3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

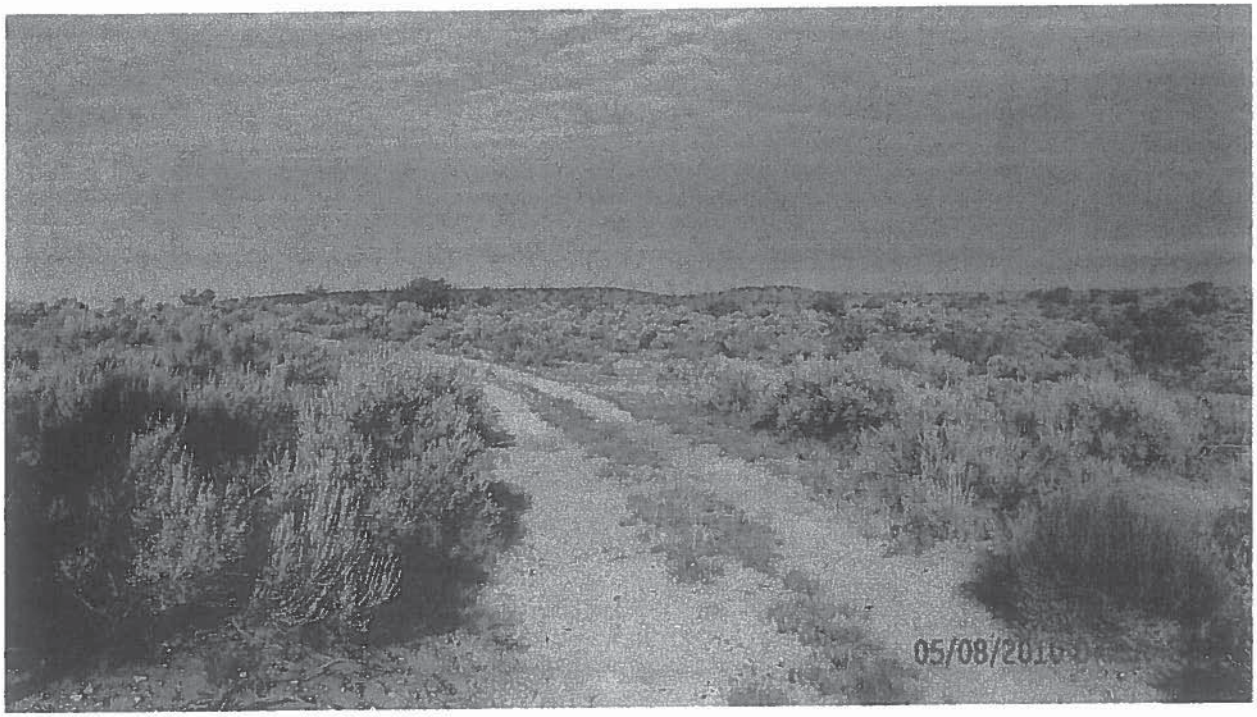
(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

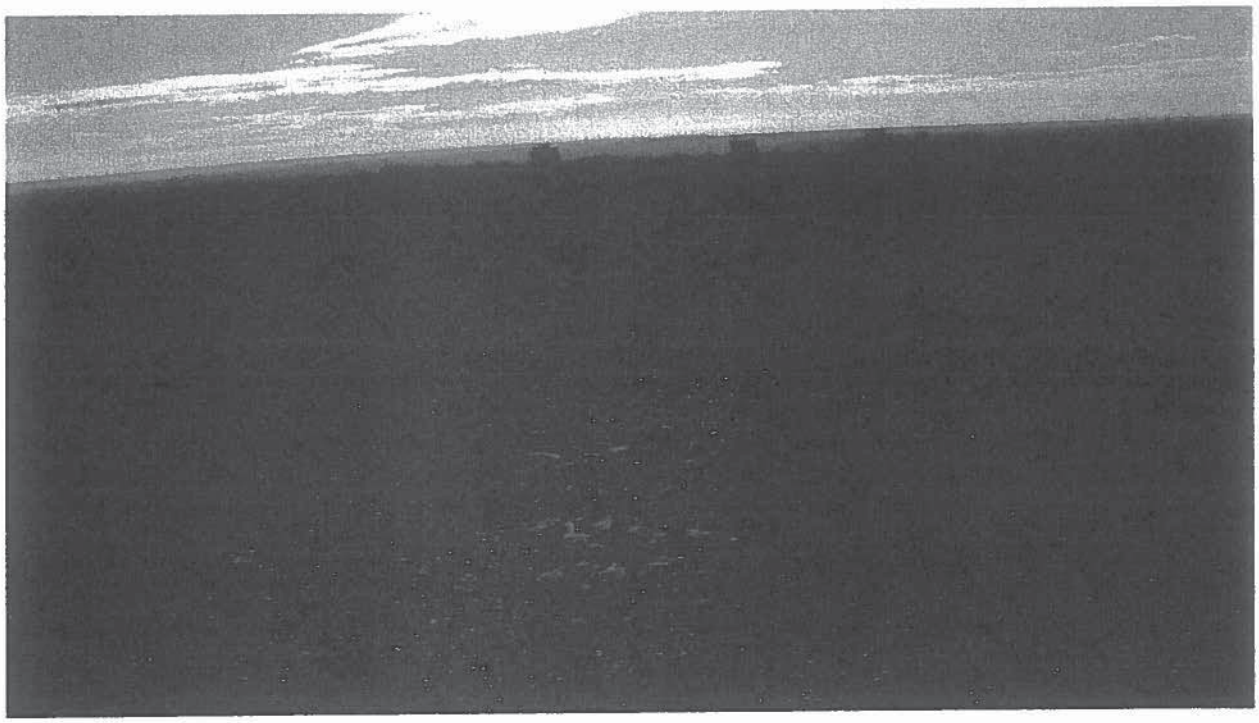
Print Name: John Turner

Signature: [signature] Date: 3-29-2011

INDIAN ROUTE 4 Section 30 3.0 Miles



Picture shows extreme rutting and rough road – MP 1.2



Milepost 1.9 Route 4

INDIAN ROUTE 5 NARRATIVE:

Indian Route 5 is divided into four sections. The first is 1.1 miles long. Second section is .9 miles long. Third section is .3 miles long. Fourth section is .3 miles long. Total length is 2.6 miles long.

This section is North-East of Indian 18 about ¾ miles north of the Big Red Barn.

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIR ROAD R/R H6860504

ROUTE NO.: 5

SECTION(S): 10

ROAD NAME: Indian Route 5

RESERVATION: HAVASUPAI

LOCATION: NW Route 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 5 *(See Project Listing)*

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
X 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS *(See Functional Class Map for description)*

___ 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
X 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 6-12' ROAD LENGTH: 4.9 miles

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:

____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:

____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS

____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:

____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:

____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15

Total / # of Items = Overall LOS Rating

15 / 3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: JK Turner

Signature: John K Turner

Date: 3-29-2011

INDIAN ROUTE 5 Section 10 – 1.1 miles

MP .3 very primitive

Looking North East – MP .3

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIR ROAD R!R H6860504

ROUTE NO.: 5

SECTION(S): 20

ROAD NAME: Indian Route 5

RESERVATION: HAVASUPAI

LOCATION: NW Route 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 5 *(See Project Listing)*

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
X 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS *(See Functional Class Map for description)*

___ 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
X 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 6-12' ROAD LENGTH: 4.9 MILES

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:
____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:
____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS
____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:
____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:
____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15

Total / # of Items = Overall LOS Rating

3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: John K Turner

Signature: JK Turner

Date: 3-29-2011

INDIAN ROUTE 5 Section 20 .9 Miles – MP 1.1 to 2.0

MP 1.5 – Primitive Road

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAUL ROAD R/R H6860504

ROUTE NO.: 5

SECTION(S): 30

ROAD NAME: Indian Route 5

RESERVATION: HAVASUPAI

LOCATION: NW Route 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 5 *(See Project Listing)*

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

- ___ 0 – PROPOSED ROAD
- X 9 – PRIMITIVE TRAIL
- ___ 1 – EARTH
- ___ 3 – GRAVEL
- ___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
- ___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
- ___ 6 – CONCRETE

FUNCTIONAL CLASS *(See Functional Class Map for description)*

- ___ 1 – Major Arterial
- ___ 2 – Rural Minor Arterials
- ___ 3 – Community Residential Streets
- ___ 4 – Rural Major Collector
- ___ 5 – Rural Local /Stub
- ___ 6 – City Minor Arterial
- ___ 7 – Local Collector
- X 8 – Non-Road Type Path
- ___ 9 – Transportation Facility
- ___ 10 – Airstrip
- ___ 11 – Overlapping Route

ROAD WIDTH: 6-12' ROAD LENGTH: 4.9 miles

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:

____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:

____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS

____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:

____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:

____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15 / 3

Total / # of items = Overall LOS Rating

15 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

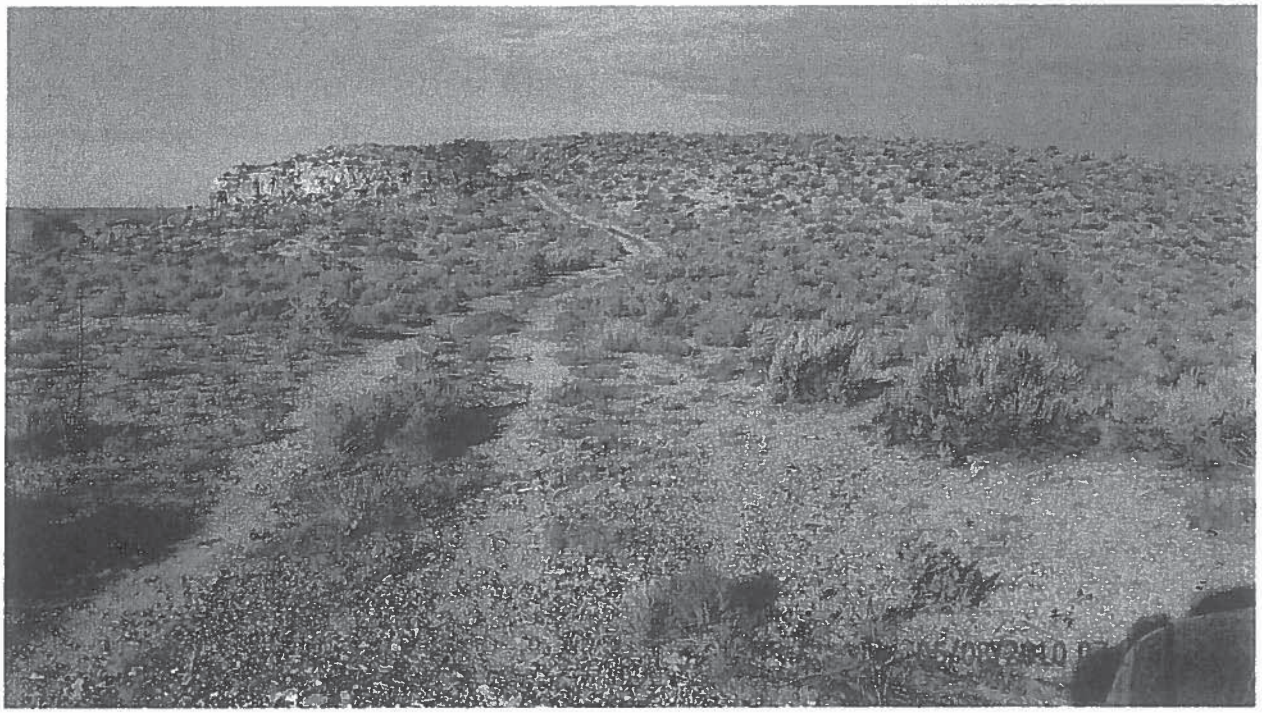
Print Name: Tom K Turner

Signature: [signature]

Date: 3-28-2011

INDIAN ROUTE 5 Section 30 MP 2.0 to 2.3

MP 2.1 Primitive Road



MP 2.2 Primitive Road

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAUL ROAD R!R H6860504

ROUTE NO.: 5

SECTION(S): 40

ROAD NAME: Indian Route 5

RESERVATION: HAVASUPAI

LOCATION: NW ROUTE 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
X 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

___ 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
X 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 6-12' ROAD LENGTH: 4.9 miles

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:
____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
____ Level 5 (Roadway Surface > 50% Washboards)

RUTS:
____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
____ Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS
____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:
____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:
____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
____ Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

WASHBOARD: ____
RUTS: ____
DRAINAGE: ____
SIGNS: ____
VEGETATION: + ____
Total: ____

(Total ÷ by # of Items = Overall LOS Rating)

Total / # of items = Overall LOS Rating

____ = ____ (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

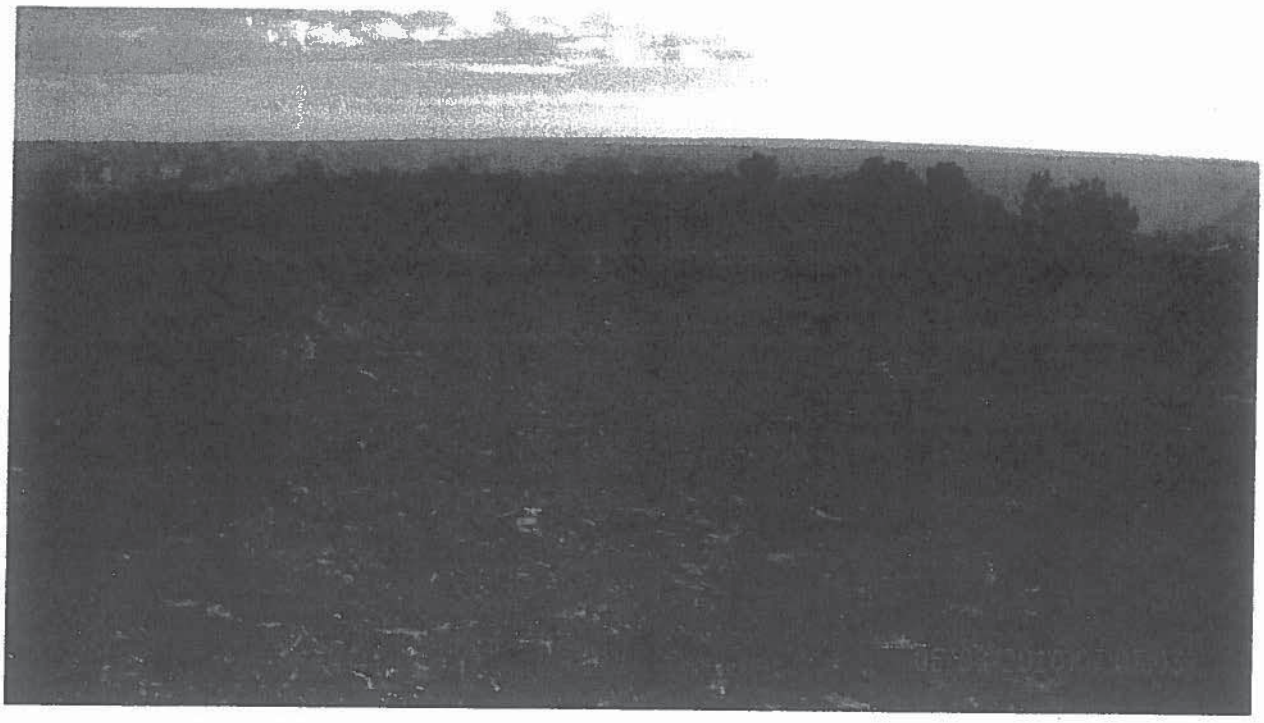
(See Work Activities for Unpaved Roads)

____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: _____

Signature: _____ Date: _____

INDIAN ROUTE 5 Section 40 MP 2.3 to 2.6



MP 2.6 End of the road. This is a very primitive road

INDIAN ROUTE 501 NARRATIVE:

Indian Route 501 is only one section that is .6 miles long. It is located North East of Indian 18 and is part of a future sub-division off of Indian Road 5.

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: Hack Road R'R H6860504

ROUTE NO.: Indian Route 501

SECTION(S): 10

ROAD NAME: Indian Route 501

RESERVATION: Havasupai

LOCATION: NW Indian 18 ! 5

STATE: Arizona

COUNTY: Coconino

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 8-5-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
X 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

___ 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
X 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 6'-12' ROAD LENGTH: .6

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

UNPAVED ROADS

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than > >

Greater than

WASHBOARD:

____ Level 1 (No Washboards)
____ Level 2 (Roadway Surface < 50% Washboards)
____ Level 3 (Roadway Surface < 10% Washboards)
____ Level 4 (Roadway Surface < 25% Washboards)
5 Level 5 (Roadway Surface > 50% Washboards)

RUTS:

____ Level 1 (Roadway Surface < 50% Ruts)
____ Level 2 (Roadway Surface < 50% Ruts)
____ Level 3 (Roadway Surface < 25% Ruts)
____ Level 4 (Roadway Surface < 25% Ruts)
5 Level 5 (Roadway Surface > 50% Ruts)

DITCHES/: CULVERTS

____ Level 1 (Free Flowing)
____ Level 2 (Opening < ¼ Blocked)
____ Level 3 (Opening < 1/3 Blocked)
____ Level 4 (Opening < ½ Blocked)
____ Level 5 (Opening > ½ Blocked)

SIGNS:

____ Level 1 (Highly Reflective)
____ Level 2 (< 10% Obscured)
____ Level 3 (> 10% Obscured)
____ Level 4 (Non Standard Signs)
____ Level 5 (Missing Signs)

VEGETATION:

____ Level 1 (Well Maintained)
____ Level 2 (Heavy Growth/No Encroachment
____ Level 3 (Starting to Encroach)
____ Level 4 (Significant Encroachment)
5 Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

(Total ÷ by # of Items = Overall LOS Rating)

WASHBOARD: 5
RUTS: 5
DRAINAGE: ____
SIGNS: ____
VEGETATION: + 5
Total: 15

Total / # of items = Overall LOS Rating

15 / 3 = 5 (Overall LOS Rating)

RECOMMENDED WORK ACTIVITY FOR REPAIR

(See Work Activities for Unpaved Roads)

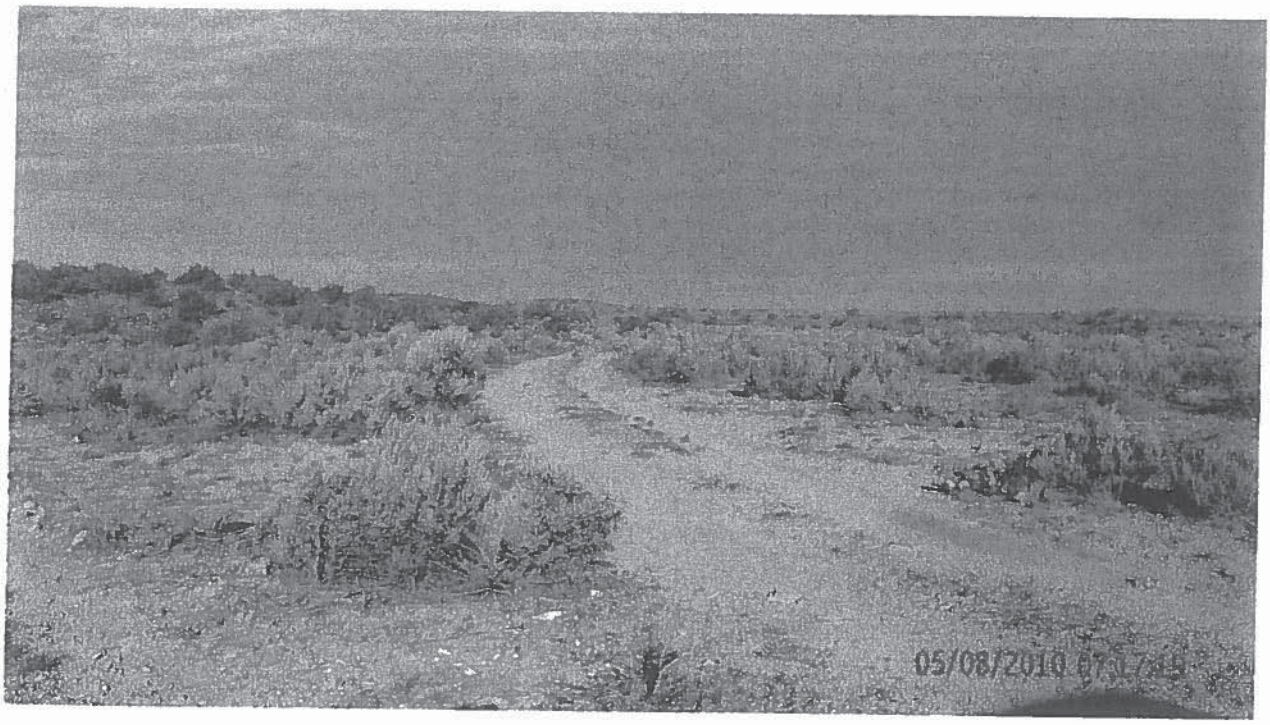
____ Work Activity U1 – Culvert Cleaning
____ Work Activity U2 – Vegetation Removal
____ Work Activity U3 – Ditch Grading
____ Work Activity U4 – Roadway Grading
____ Work Activity U5 – Gravel (Place Leveling or Stabilizing Course)
____ Work Activity U6 – Install/Replace Signs

Print Name: John K Turner

Signature: [signature]

Date: 3-29-2011

INDIAN ROAD 501 .6 miles – 4 locations



Where Route 5 and 501 meet. Very primitive road.

HAVASUPAI ROAD ASSESSMENT

INDIAN ROUTE 18

Section 10 – MP40 to MP46.7

Section 20 – MP 46.7 to MP 51

Section 30 – MP 51 to MP58

Section 40 – MP 58 to MP 60

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIR ROAD R-R H6860504

ROUTE NO.: INDIAN ROUTE 18

SECTION(S): SECTION 10

ROAD NAME: INDIAN ROUTE 2

RESERVATION: WALAPAI / HAVASUPAI

LOCATION: 40 MILES NORTH 66 ON ROUTE 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 3 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
___ 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
X 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

X 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
___ 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 24' ROAD LENGTH: MP 40 - MP 60

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X 6-7 in this section

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

CONDITION OF PAVED/UNDPAVED ROAD

(See LOS Assessment Process Guide for Description of Condition Level)

PAVED ROADS:

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than >

STRIPING:
- ____ Level 1 (Clearly Visible)
- ____ Level 2 (90% Visible)
- ____ Level 3 (75% Visible)
- ____ Level 4 (50% Visible)
- 5 Level 5 (< 50% Visible)

STORM DRAINS/ DITCHES/ CULVERTS:
- 1 Level 1(Free Flowing)
- ____ Level 2(Opening < ¼ Blocked)
- ____ Level 3(Opening < 1/3 Blocked)
- ____ Level 4(Opening < ½ Blocked)
- ____ Level 5(Opening > ½ Blocked)

POT HOLES:
- ____ Level 1 (100% Level Patches/or None)
- ____ Level 2 (Minimal Settled Patches)
- 3 Level 3 (Moderate Settled Patches/ < 10% unfilled)
- ____ Level 4 Significant # of Settled Patches/ < 25% Unfilled)
- ____ Level 5 (> 25% Unfilled)

GUARDRAIL:
- 1 Level 1 (Sound & Functional)
- ____ Level 2 (Minor Dents)
- ____ Level 3 (Some Structural Deterioration)
- ____ Level 4 (Old Standard or Major Dents)
- ____ Level 5 (Major Damage and/or Posts Broken)

SIGNS:
- ____ Level 1 (Highly Reflective)
- ____ Level 2 (< 10% Obscured)
- ____ Level 3 (> 10% Obscured)
- 4 Level 4 (Non Standard Signs)
- ____ Level 5 (Missing Signs)

CRACKING:
- ____ Level 1 (100% Sealed/No Cracks)
- ____ Level 2 (90% Sealed)
- ____ Level 3 (75% Sealed)
- 4 Level 4 (50% Sealed)
- ____ Level 5 (< 50% Sealed)

VEGETATION:
- ____ Level 1 (Well Maintained)
- ____ Level 2 (Heavy Growth/No Encroachment)
- 3 Level 3 (Starting to Encroach)
- ____ Level 4 (Significant Encroachment)
- ____ Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

STRIPING:	5
POT HOLES:	3
SIGNS:	4
VEGETATION:	3
DRAINAGE:	1
GUARDRAIL:	1
CRACKING: +	4
Total:	21

(Total ÷ by # of Items = Overall LOS Rating)

$\frac{\text{Total}}{\text{\#Items}} = \text{Overall LOS Rating}$

$\frac{21}{7} = 3$ (Overall LOS Rating)

RECOMMENDED REPAIR

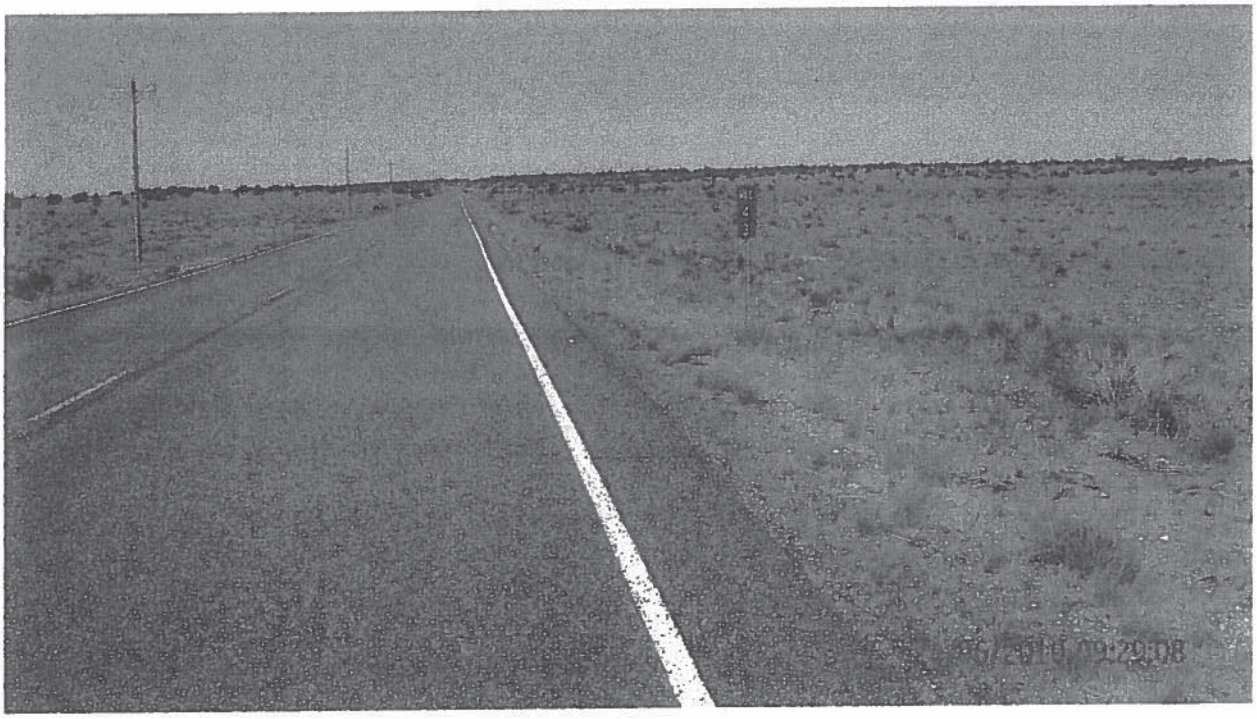
(See Work Activities for Paved Roads)

- ____ Work Activity **P1** – Crack Sealing
- ____ Work Activity **P2** – Pot Hole Patching
- ____ Work Activity **P3** – Scrub Sealing
- ____ Work Activity **P4** – Chip Sealing
- ____ Work Activity **P5** – 1" AC Overlay
- ____ Work Activity **P6** – Guard Rail
- ____ Work Activity **P7** – Striping
- ____ Work Activity **P8** – Fog Seal
- ____ Work Activity **P9** – Install/Replace Signs

INDIAN ROUTE 18 - MP 40 Southeast (newer chip seal)

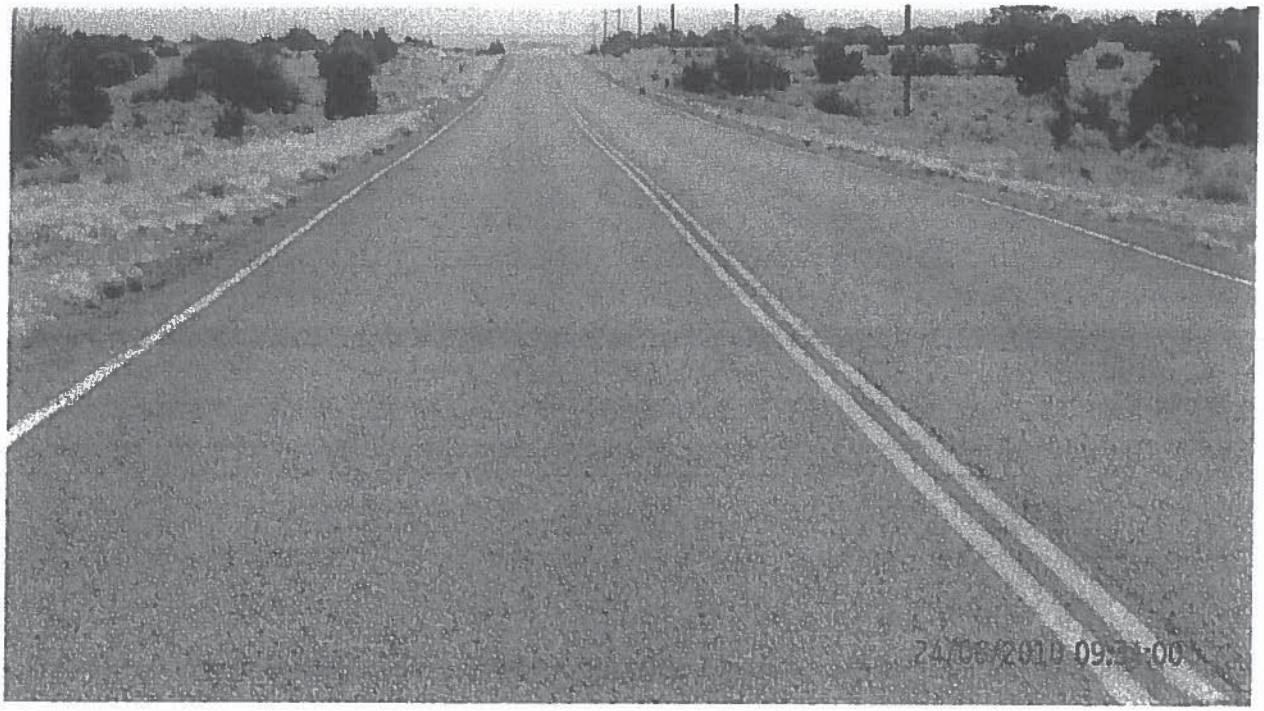
INDIAN ROUTE 18 - MP 40.0 to 42.0 – Some isolated fatigue cracking

INDIAN ROUTE 18 – MP 43.0 Newer Chip Seal



INDIAN ROUTE 18 - MP 43.0 to 44.0 – Isolated fatigue

INDIAN ROUTE 18 - MP 43.0 to 44.0 (Typical) Newer chip seal



ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HARROAD R-R H6860504

ROUTE NO.: Indian Route 18

SECTION(S): 20

ROAD NAME: Indian Route 18

RESERVATION: WALAPAI / HAVASUPAI

LOCATION: 40 miles NTH 66 on Indian 18

STATE: Arizona

COUNTY: COCONINO

CURRENT LOS RATING: 3 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

- ___ 0 – PROPOSED ROAD
- ___ 9 – PRIMITIVE TRAIL
- ___ 1 – EARTH
- ___ 3 – GRAVEL
- X 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
- ___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
- ___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

- X 1 – Major Arterial
- ___ 2 – Rural Minor Arterials
- ___ 3 – Community Residential Streets
- ___ 4 – Rural Major Collector
- ___ 5 – Rural Local /Stub
- ___ 6 – City Minor Arterial
- ___ 7 – Local Collector
- ___ 8 – Non-Road Type Path
- ___ 9 – Transportation Facility
- ___ 10 – Airstrip
- ___ 11 – Overlapping Route

ROAD WIDTH: 24'

ROAD LENGTH: MP 40 – MP 60 4.3 miles in this section

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

CONDITION OF PAVED/UNDPAVED ROAD

(See LOS Assessment Process Guide for Description of Condition Level)

PAVED ROADS:

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than >

STRIPING:
- ____ Level 1 (Clearly Visible)
- ____ Level 2 (90% Visible)
- ____ Level 3 (75% Visible)
- ____ Level 4 (50% Visible)
- 5 Level 5 (< 50% Visible)

STORM DRAINS/ DITCHES/ CULVERTS:
- 1 Level 1(Free Flowing)
- ____ Level 2(Opening < ¼ Blocked)
- ____ Level 3(Opening < 1/3 Blocked)
- ____ Level 4(Opening < ½ Blocked)
- ____ Level 5(Opening > ½ Blocked)

POT HOLES:
- ____ Level 1 (100% Level Patches/or None)
- ____ Level 2 (Minimal Settled Patches)
- 3 Level 3 (Moderate Settled Patches/ < 10% unfilled)
- ____ Level 4 Significant # of Settled Patches/ < 25% Unfilled)
- ____ Level 5 (> 25% Unfilled)

GUARDRAIL:
- 1 Level 1 (Sound & Functional)
- ____ Level 2 (Minor Dents)
- ____ Level 3 (Some Structural Deterioration)
- ____ Level 4 (Old Standard or Major Dents)
- ____ Level 5 (Major Damage and/or Posts Broken)

SIGNS:
- ____ Level 1 (Highly Reflective)
- ____ Level 2 (< 10% Obscured)
- ____ Level 3 (> 10% Obscured)
- 4 Level 4 (Non Standard Signs)
- ____ Level 5 (Missing Signs)

CRACKING:
- ____ Level 1 (100% Sealed/No Cracks)
- ____ Level 2 (90% Sealed)
- ____ Level 3 (75% Sealed)
- 4 Level 4 (50% Sealed)
- ____ Level 5 (< 50% Sealed)

VEGETATION:
- ____ Level 1 (Well Maintained)
- ____ Level 2 (Heavy Growth/No Encroachment)
- 3 Level 3 (Starting to Encroach)
- ____ Level 4 (Significant Encroachment)
- ____ Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

STRIPING:	5
POT HOLES:	3
SIGNS:	4
VEGETATION:	3
DRAINAGE:	1
GUARDRAIL:	1
CRACKING: +	4
Total:	21

(Total ÷ by # of Items = Overall LOS Rating)

Total / #Items = Overall LOS Rating

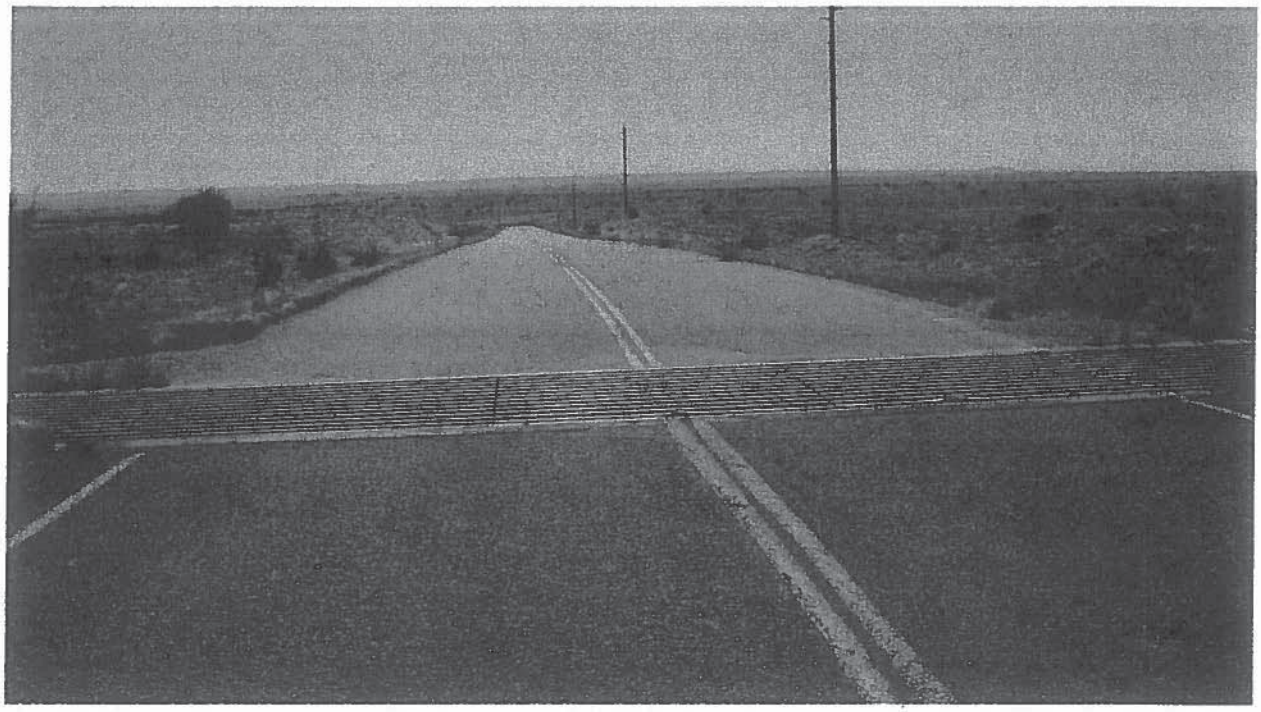
7 = 3 (Overall LOS Rating)

RECOMMENDED REPAIR

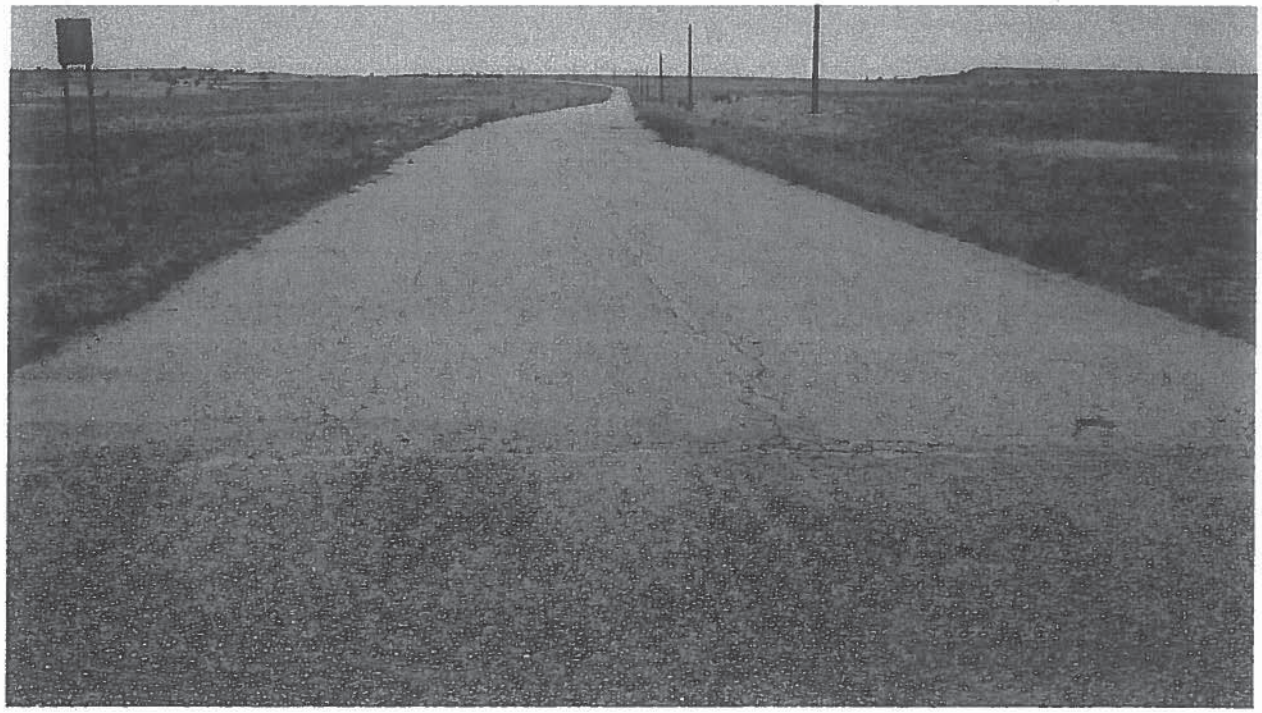
(See Work Activities for Paved Roads)

- ____ Work Activity **P1** – Crack Sealing
- ____ Work Activity **P2** – Pot Hole Patching
- ____ Work Activity **P3** – Scrub Sealing
- ____ Work Activity **P4** – Chip Sealing
- ____ Work Activity **P5** – 1" AC Overlay
- ____ Work Activity **P6** – Guard Rail
- ____ Work Activity **P7** – Striping
- ____ Work Activity **P8** – Fog Seal
- ____ Work Activity **P9** – Install/Replace Signs

INDIAN ROUTE 18 MP 46.4 Start of Project (Rubberized Chip Seal) looking northwest



INDIAN ROUTE 18 - MP 51.0- Fatigue and block type cracking



ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: Hack Road R/R - H6860504

ROUTE NO.: Indian Route 2

SECTION(S): 10

ROAD NAME: Indian Route 2

RESERVATION: HAVASUPAI

LOCATION: NW Indian Route 18

STATE: Arizona

COUNTY: Yavapai / Coconino

CURRENT LOS RATING: 5 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
X 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
___ 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

___ 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
X 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 6'-12' VARIES ROAD LENGTH: 13.5 MILES

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

INDIAN ROUTE 18 - MP 56.5 – Fatigue and block type cracking

INDIAN ROUTE 18 - MP 52.2 West (Typical) Longitudinal and transverse cracking

INDIAN ROUTE 18 - MP 56.5 - Cracking

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIRROAD R-R H6860504

ROUTE NO.: INDIAN ROUTE 18

SECTION(S): 30

ROAD NAME: INDIAN ROUTE 18

RESERVATION: WALAPAI / HAVASUPA.

LOCATION: 40 MILES NTH 66 ON INDIAN 18

STATE: ARIZONA

COUNTY: COCONINO

CURRENT LOS RATING: 3 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-10 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

- ___ 0 – PROPOSED ROAD
- ___ 9 – PRIMITIVE TRAIL
- ___ 1 – EARTH
- ___ 3 – GRAVEL
- X 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
- ___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
- ___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

- X 1 – Major Arterial
- ___ 2 – Rural Minor Arterials
- ___ 3 – Community Residential Streets
- ___ 4 – Rural Major Collector
- ___ 5 – Rural Local /Stub
- ___ 6 – City Minor Arterial
- ___ 7 – Local Collector
- ___ 8 – Non-Road Type Path
- ___ 9 – Transportation Facility
- ___ 10 – Airstrip
- ___ 11 – Overlapping Route

ROAD WIDTH: 22' ROAD LENGTH: MP 40 - MP60

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

7 miles this section

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

CONDITION OF PAVED/UNDPAVED ROAD

(See LOS Assessment Process Guide for Description of Condition Level)

PAVED ROADS:

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than >

STRIPING:
- ____ Level 1 (Clearly Visible)
- ____ Level 2 (90% Visible)
- ____ Level 3 (75% Visible)
- ____ Level 4 (50% Visible)
- 5 Level 5 (< 50% Visible)

STORM DRAINS/ DITCHES/ CULVERTS:
- 1 Level 1(Free Flowing)
- ____ Level 2(Opening < ¼ Blocked)
- ____ Level 3(Opening < 1/3 Blocked)
- ____ Level 4(Opening < ½ Blocked)
- ____ Level 5(Opening > ½ Blocked)

POT HOLES:
- ____ Level 1 (100% Level Patches/or None)
- ____ Level 2 (Minimal Settled Patches)
- 3 Level 3 (Moderate Settled Patches/ < 10% unfilled)
- ____ Level 4 Significant # of Settled Patches/ < 25% Unfilled)
- ____ Level 5 (> 25% Unfilled)

GUARDRAIL:
- 1 Level 1 (Sound & Functional)
- ____ Level 2 (Minor Dents)
- ____ Level 3 (Some Structural Deterioration)
- ____ Level 4 (Old Standard or Major Dents)
- ____ Level 5 (Major Damage and/or Posts Broken)

SIGNS:
- ____ Level 1 (Highly Reflective)
- ____ Level 2 (< 10% Obscured)
- ____ Level 3 (> 10% Obscured)
- 4 Level 4 (Non Standard Signs)
- ____ Level 5 (Missing Signs)

CRACKING:
- ____ Level 1 (100% Sealed/No Cracks)
- ____ Level 2 (90% Sealed)
- ____ Level 3 (75% Sealed)
- 4 Level 4 (50% Sealed)
- ____ Level 5 (< 50% Sealed)

VEGETATION:
- ____ Level 1 (Well Maintained)
- ____ Level 2 (Heavy Growth/No Encroachment)
- 3 Level 3 (Starting to Encroach)
- ____ Level 4 (Significant Encroachment)
- ____ Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

STRIPING:	5
POT HOLES:	3
SIGNS:	4
VEGETATION:	3
DRAINAGE:	1
GUARDRAIL:	1
CRACKING: +	4
Total:	21

(Total ÷ by # of Items = Overall LOS Rating)

Total / #Items = Overall LOS Rating

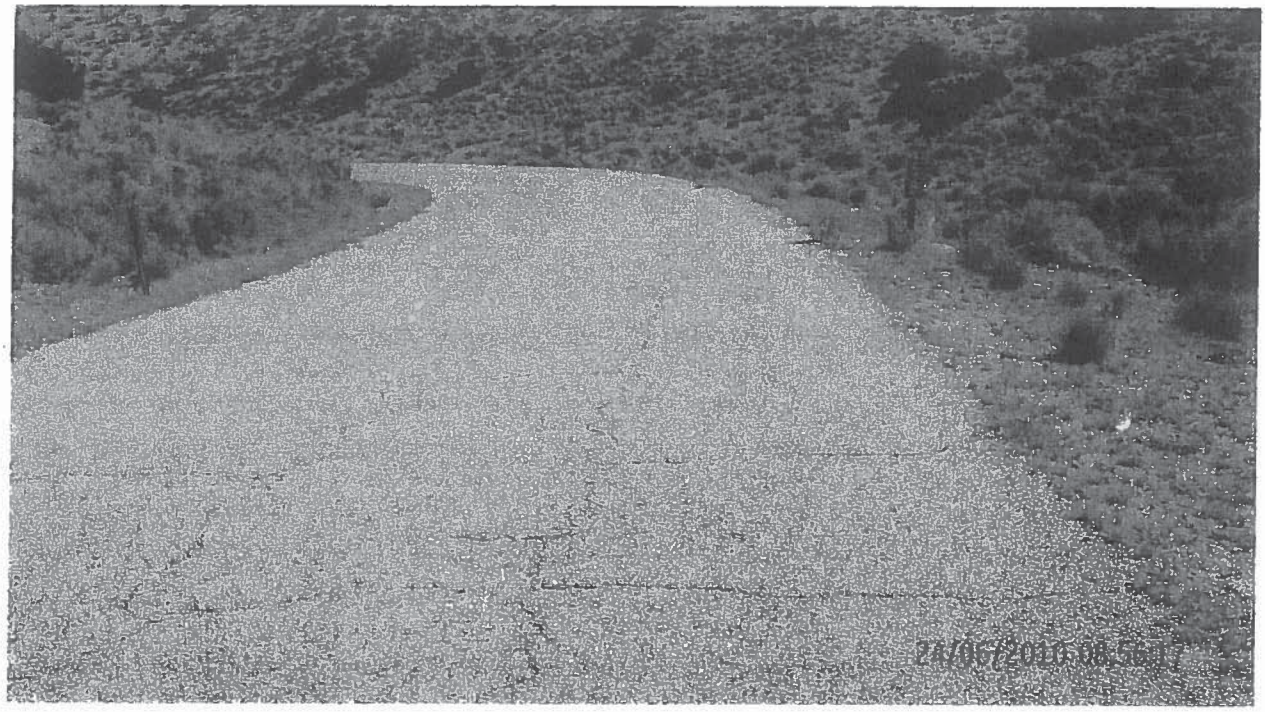
7 = 3 (Overall LOS Rating)

RECOMMENDED REPAIR

(See Work Activities for Paved Roads)

- ____ Work Activity **P1** – Crack Sealing
- ____ Work Activity **P2** – Pot Hole Patching
- ____ Work Activity **P3** – Scrub Sealing
- ____ Work Activity **P4** – Chip Sealing
- ____ Work Activity **P5** – 1" AC Overlay
- ____ Work Activity **P6** – Guard Rail
- ____ Work Activity **P7** – Striping
- ____ Work Activity **P8** – Fog Seal
- ____ Work Activity **P9** – Install/Replace Signs

INDIAN ROUTE 18 - MP 58.0 – Isolated fatigue and block type cracking



INDIAN ROUTE 18 - MP 58.0 (Typical) Cracking at 10' to 20' intervals

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

PROJECT INFORMATION

PROJECT ID: HAIR Rd R'R H6860504

ROUTE NO.: Indian Route 18

SECTION(S): 40

ROAD NAME: Indian Route 18

RESERVATION: Walapai / Hualapai

LOCATION: 40 miles nth 66 on Indian 18

STATE: Arizona

COUNTY: Coconino

CURRENT LOS RATING: 3 ***(See Project Listing)***

IS CONGRESSIONAL DISTRICT CORRECT? YES ___ NO X IF NO, WHAT IS CORRECT CONGRESSIONAL DISTRICT: 1
(See State Congressional District Map)

BEFORE PICTURE OF ROUTE TAKEN ON: *(Date)* 7-22-2010 **AFTER** PICTURE OF ROUTE TAKEN ON: *(Date)* _____

SURFACE TYPE:

___ 0 – PROPOSED ROAD
___ 9 – PRIMITIVE TRAIL
___ 1 – EARTH
___ 3 – GRAVEL
X 4 – BITUMINOUS PAVEMENT **LESS** THAN 2"
___ 5 – BITUMINOUS PAVEMENT **GREATER** THAN 2"
___ 6 – CONCRETE

FUNCTIONAL CLASS ***(See Functional Class Map for description)***

X 1 – Major Arterial
___ 2 – Rural Minor Arterials
___ 3 – Community Residential Streets
___ 4 – Rural Major Collector
___ 5 – Rural Local /Stub
___ 6 – City Minor Arterial
___ 7 – Local Collector
___ 8 – Non-Road Type Path
___ 9 – Transportation Facility
___ 10 – Airstrip
___ 11 – Overlapping Route

ROAD WIDTH: 26' ROAD LENGTH: MP 40-60

HIGH TRAFFIC (ADT): _____ **OR** LOW TRAFFIC (ADT): X

7 miles
Mix Section

ATTACHMENT B
ASSESSMENT CHECKLIST FOR PAVED/UNPAVED ROADS

CONDITION OF PAVED/UNDPAVED ROAD

(See LOS Assessment Process Guide for Description of Condition Level)

PAVED ROADS:

CONDITION LEVEL (1-Excellent, 2-Good, 3-Fair, 4-Poor, or 5-Failing) Key: Less than < Greater than >

STRIPING:
- ____ Level 1 (Clearly Visible)
- ____ Level 2 (90% Visible)
- ____ Level 3 (75% Visible)
- ____ Level 4 (50% Visible)
- 5 Level 5 (< 50% Visible)

STORM DRAINS/ DITCHES/ CULVERTS:
- 1 Level 1(Free Flowing)
- ____ Level 2(Opening < ¼ Blocked)
- ____ Level 3(Opening < 1/3 Blocked)
- ____ Level 4(Opening < ½ Blocked)
- ____ Level 5(Opening > ½ Blocked)

POT HOLES:
- ____ Level 1 (100% Level Patches/or None)
- ____ Level 2 (Minimal Settled Patches)
- 3 Level 3 (Moderate Settled Patches/ < 10% unfilled)
- ____ Level 4 Significant # of Settled Patches/ < 25% Unfilled)
- ____ Level 5 (> 25% Unfilled)

GUARDRAIL:
- 1 Level 1 (Sound & Functional)
- ____ Level 2 (Minor Dents)
- ____ Level 3 (Some Structural Deterioration)
- ____ Level 4 (Old Standard or Major Dents)
- ____ Level 5 (Major Damage and/or Posts Broken)

SIGNS:
- ____ Level 1 (Highly Reflective)
- ____ Level 2 (< 10% Obscured)
- ____ Level 3 (> 10% Obscured)
- 4 Level 4 (Non Standard Signs)
- ____ Level 5 (Missing Signs)

CRACKING:
- ____ Level 1 (100% Sealed/No Cracks)
- ____ Level 2 (90% Sealed)
- ____ Level 3 (75% Sealed)
- 4 Level 4 (50% Sealed)
- ____ Level 5 (< 50% Sealed)

VEGETATION:
- ____ Level 1 (Well Maintained)
- ____ Level 2 (Heavy Growth/No Encroachment)
- 3 Level 3 (Starting to Encroach)
- ____ Level 4 (Significant Encroachment)
- ____ Level 5 (Heavy Encroachment)

OVERALL LEVEL OF SERVICE (LOS) AFTER ASSESSMENT:
(See Page 4 – Example on calculating the overall LOS Rating)

STRIPING:	5
POT HOLES:	3
SIGNS:	4
VEGETATION:	3
DRAINAGE:	1
GUARDRAIL:	1
CRACKING: +	4
Total:	21

(Total ÷ by # of Items = Overall LOS Rating)

Total / #Items = Overall LOS Rating

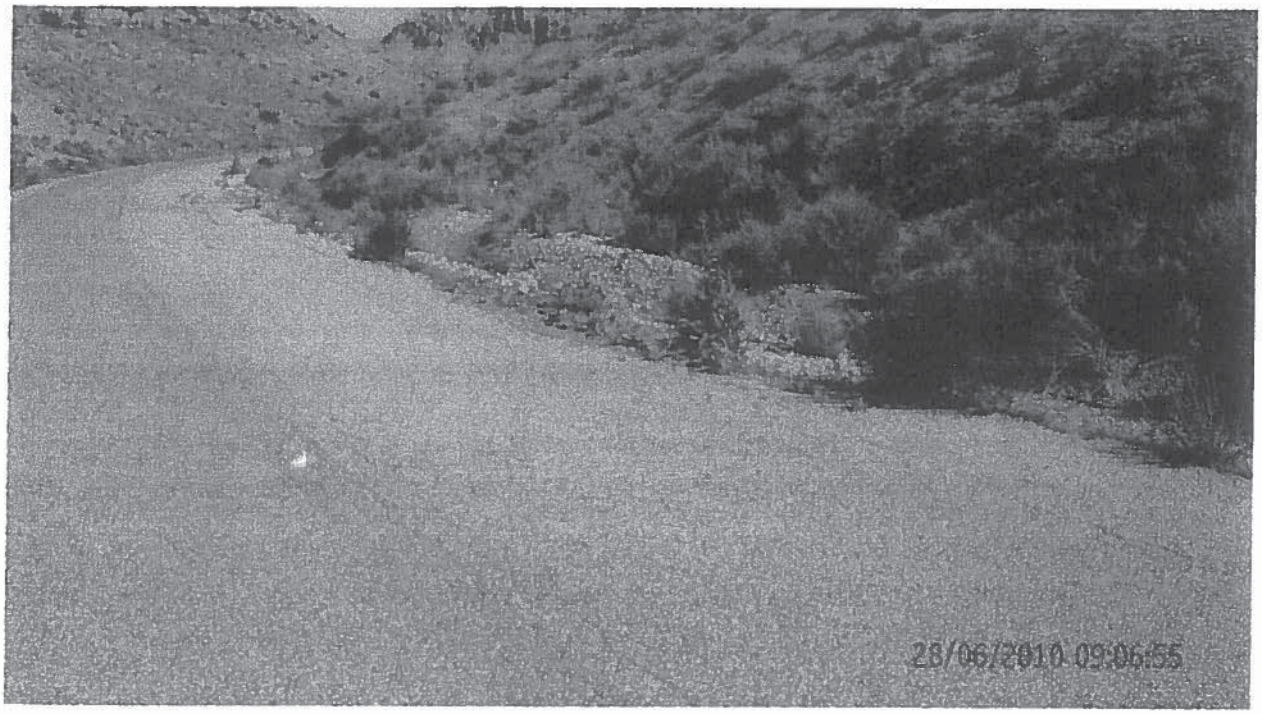
7 = 3 (Overall LOS Rating)

RECOMMENDED REPAIR

(See Work Activities for Paved Roads)

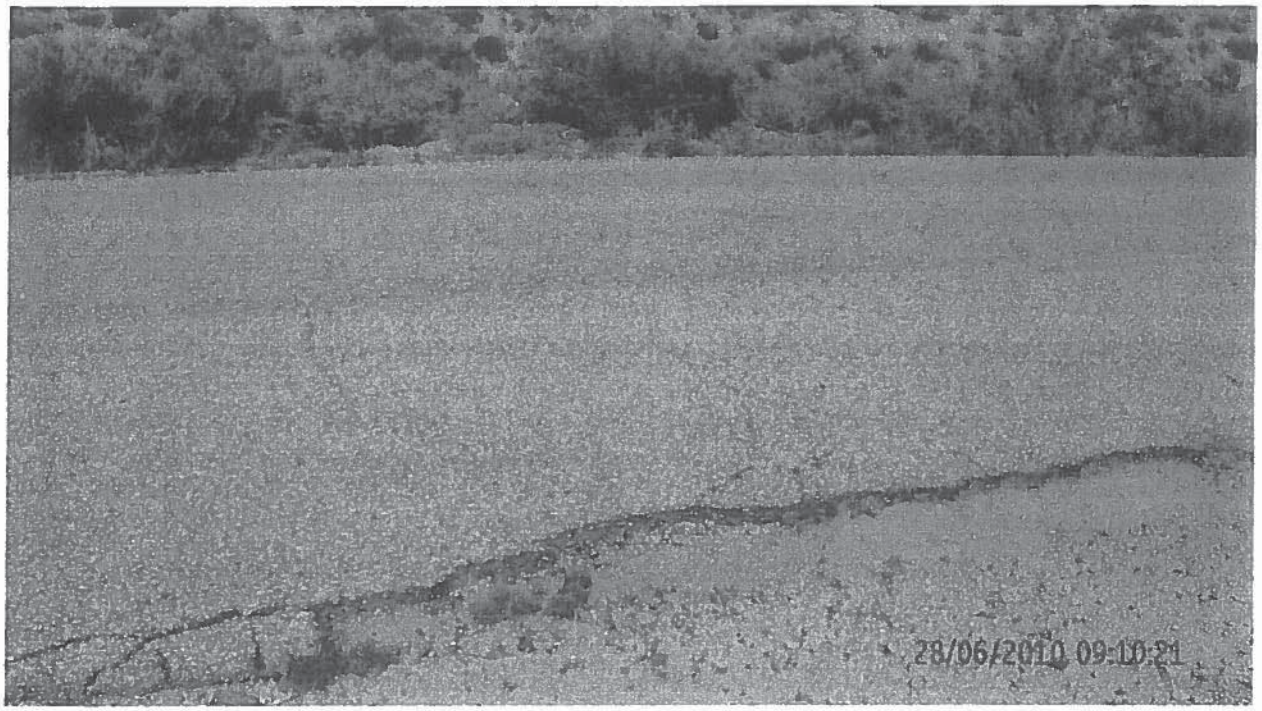
- ____ Work Activity **P1** – Crack Sealing
- ____ Work Activity **P2** – Pot Hole Patching
- ____ Work Activity **P3** – Scrub Sealing
- ____ Work Activity **P4** – Chip Sealing
- ____ Work Activity **P5** – 1" AC Overlay
- ____ Work Activity **P6** – Guard Rail
- ____ Work Activity **P7** – Striping
- ____ Work Activity **P8** – Fog Seal
- ____ Work Activity **P9** – Install/Replace Signs

INDIAN ROUTE 18 – MP 59.6 - DRAINAGE FAILURE #1



DRAINAGE FAILURE #2 – MP 59.6 - (Shoulder Failure)

INDIAN ROUTE 18 - DRAINAGE FAILURE #3



INDIAN ROUTE 18 - DRAINAGE FAILURE #4

INDIAN ROUTE 18 - DRAINAGE FAILURE #5 (Shoulder failure)