

Transportation Planning in Tribal Communities

Memorandum 1: Background and Literature Review

January 7, 2021



U.S. Department of Transportation
Federal Highway Administration

Table of Contents

Contents

Introduction	1
Laws and Regulations Overview	1
25 CFR 170 – Tribal Transportation Program.....	1
Tribal Consultation Laws and Regulations	2
Tribal Transportation Program Transportation Planning Overview	4
Allowable Uses of Funds	4
TTP Agreement	4
Planning Process	4
Government-to-Government Relationships and Coordination	11
Consultation in the Statewide Transportation Planning Process	12
Consultation in the Metropolitan Transportation Planning Process	13
Consultation in the Local Transportation Planning Process	14
Consultation in the FLH/FLMA Transportation Planning Process.....	15
Tribal Priorities.....	15
Safety	16
Cultural Heritage.....	18
Public Health	19
Economic Development.....	20
Documentation of Tribes’ Planning Processes.....	20
Planning Processes.....	20
Tools and Support Systems.....	21
Inputs	22
Transportation Planning Connections	26
Summary of Literature Gaps and Research Questions	29
Next Steps	30

Introduction

This memorandum summarizes a review of the literature about the Tribal transportation planning process and related topics to support the Federal Highway Administration's (FHWA) *Making Transportation Planning Applicable in Tribal Communities* research project. To conduct the literature review, the U.S. DOT Volpe Center (Volpe Center) conducted a scan of Federal laws, regulations, and executive orders that pertain to Tribal transportation planning, other Federal documents (e.g., guides, case studies), research documents, and State and Tribal planning documentation. The Memorandum 1 Appendix (MS Excel) lists each resource referenced in this document and provides additional information, including year, a brief description, and URLs.

In addition to summarizing the existing literature related to Tribal transportation planning, this memorandum also identifies research gaps that the existing literature does not address. These gaps will inform the content in *Memorandum 2: Study Methodology*, so that this research project can address the gaps through interviews with stakeholders and other means.

This memorandum will be updated throughout the course of the *Making Transportation Planning Applicable in Tribal Communities* research project as the project team identifies additional relevant literature. The final literature review will be included as part of the research project's final report.

Laws and Regulations Overview

There are several laws, regulations, and executive orders that pertain to Tribal transportation planning as well as requirements for State Departments of Transportation (DOT), metropolitan planning organizations (MPO), and other entities to consult with Tribes in their planning processes. This section summarizes the relevant laws, regulations, and executive orders.

25 CFR 170 – Tribal Transportation Program

Section 170 of Title 25 in the Code of Federal Regulations (CFR) includes the regulations for the Tribal Transportation Program (TTP), formerly known as the Indian Reservation Roads (IRR) program.¹ Effective December 7, 2016, the TTP Final Rule updates the TTP regulations to comply with statutory updates made in the Moving Ahead for Progress in the 21st Century Act (MAP-21). The rule reflects statutory changes in the delivery options for the program, clarifies the requirements for proposed roads and access roads to be added to, or remain in, the inventory, revises certain sections that were provided for informational purposes, and makes technical corrections.

The Tribal Transportation Program Transportation Planning Overview section of this memorandum summarizes the planning elements of the TTP, as described in the Tribal Transportation Program Delivery Guide. The FHWA TTP website² notes that since SAFETEA-LU, Indian Tribal governments have a choice of Federal partners (BIA or FHWA based on Tribal capacity) in the administration of the TTP. As a result, under 23 U.S.C. § 202(a)(2), the Secretary of Transportation is authorized to enter into a Tribal Transportation Program Agreement (TTPA) with an Indian Tribal government to carry out a transportation program and projects.

¹ Title 25, CFR, Part 170-Tribal Transportation Program, <https://www.govinfo.gov/app/details/CFR-2012-title25-vol1/CFR-2012-title25-vol1-part170>

² <https://highways.dot.gov/federal-lands/programs-tribal/agreement>

This allows Tribes the option of working directly with the FHWA in the administration of their Tribal Transportation Program. Furthermore, there are six program delivery options:³

1. Direct Service (BIA),
2. 638 contracting (BIA),
3. BIA Program Agreements (BIA),
4. FHWA Program Agreement (BIA),
5. DOI Self-Governance (DOI BIA),
6. USDOT Self-Governance (USDOT) (newly established and effective 10/1/2020).

Tribal Consultation Laws and Regulations

The FHWA Tribal Transportation Planning Module titled *Tribal Consultation*⁴ explains that Tribal consultation involves a federally mandated process for timely and meaningful engagement and discussion with Tribes related to actions proposed by government agencies that may affect Tribal lands and property. This element of the planning process relies on early notification by Federal, State, and local governments to Tribal governments pertaining to proposed actions, projects, or initiatives that may negatively impact Tribal lands and property. Due to the complicated history between Tribes and the U.S. Government, it is important that Federal, State, and local governments follow the orderly process of Tribal consultation to foster relationships, build trust, and initiate discussion before any action is taken. As part of this engagement, government agencies must also consider Tribal interests and ensure there are no procedural obstacles to working directly with Tribal governments. Tribal consultation ensures that Tribes are active stakeholders in planning processes, engaging as sovereign nations in government-to-government decision making to shape project priorities and goals.

The *Tribal Consultation* module also explains that consultation with Tribes is guided by three principles: communication, coordination, and cooperation. The success of the government-to-government relationships depends on how the three principles are addressed and executed in the project timeline. Communication involves information exchange and data and knowledge sharing such as through presentations, documents, and visual tools. Coordination involves the organization and planning of tasks, activities, and events to meet shared goals such as through workshops and Tribal consortium networks. Cooperation involves an agreement between the involved agencies to collaborate in planning, programming, and project delivery.

The next two subsections briefly describe the laws, regulations, and executive orders that require Tribal consultation, both generally in Government-to-Government relationships, and in the transportation planning process.

Tribal Planning Laws and Regulations

Title 23 of the United States Code (USC) includes provisions related to coordination and impacts to highways during Federal-aid projects and other public transportation facilities. Title 23 Section 201

³ https://apps.azdot.gov/files/training/az-tribal-training/ADOT_TribalTrainingHandbook.pdf

⁴ FHWA, Transportation Decision making Information Tools for Tribal Governments, Planning Modules: https://www.fhwa.dot.gov/planning/processes/Tribal/planning_modules/

requires uniform policies and coordination efforts between Federal and Tribal transportation facilities in partnership with Federal land management agencies (FLMAs), States, local governments, and MPOs.⁵

25 CFR 170, the TTP Rule, identifies requirements and procedures as part of long-range Tribal transportation planning, including provisions that requires Tribes to develop short- and long-range transportation plans (LRTPs), develop TTP budgets, facilitate public involvement, and perform other planning functions to meet program goals and objectives.⁶ The TTP requirement also provides transportation planning technical assistance to Tribal Governments to implement transportation planning procedures for Tribal transportation facilities.

Executive Orders

Executive orders related to consultation with Tribes include:

- The 1994 *Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments* outlines guiding principles that Federal agencies are required to follow in their interactions with Tribal governments in order to ensure that the rights of sovereign Tribal governments are fully respected.⁷
- The Executive Order 13007 of May 24, 1996, *Indian Sacred Sites* protects Tribal lands and religious practices by requiring FLMAs to prioritize “access to and ceremonial use of Indian sacred sites by Indian religious practitioners and to avoid adversely affecting the physical integrity of such sacred sites.”⁸
- The Executive Order 13175 of November 6, 2000, *Consultation and Coordination with Indian Tribal Governments* addresses the development of Federal policies and guidance that have Tribal implications, and requirements to engage with Tribes in the development process.⁹
- Similarly, the 2009 *Presidential Memorandum on Tribal Consultation* charges the heads of executive departments and agencies with meaningfully engaging with Tribes during the development of Federal policies that have impacts on Tribal communities.¹⁰
- The U.S. Department of Transportation (U.S. DOT) Order 5301.1, *Department of Transportation Programs, Policies, and Procedures Affecting American Indians, Alaska Natives, and Tribes* addresses the DOT’s relationship with Tribes, establishing the consultation process for projects that may affect Tribes as well as goals when delivering policies, programs, and activities that affect Tribal communities.¹¹

⁵ Title 23, USC-Highways, §201 Federal lands and Tribal transportation programs

[https://uscode.house.gov/view.xhtml?req=\(title:23%20section:201%20edition:prelim\)](https://uscode.house.gov/view.xhtml?req=(title:23%20section:201%20edition:prelim))

⁶ Title 25, CFR, Part 170-Tribal Transportation Program, <https://www.govinfo.gov/app/details/CFR-2012-title25-vol1/CFR-2012-title25-vol1-part170>

⁷ Presidential Memorandum on Government-to-Government Relations with Native American Tribal Governments, 1994,

https://www.justice.gov/archive/oti/Presidential_Statements/presdoc1.htm

⁸ Executive Order 13007, May 24, 1996, <https://www.nps.gov/history/local-law/eo13007.htm>

⁹ Executive Order 13175, November 6, 2000, <https://www.transportation.gov/regulations/executive-order-13175>

¹⁰ Presidential Memorandum on Tribal Consultation, 2009 <https://obamawhitehouse.archives.gov/the-press-office/memorandum-Tribal-consultation-signed-president>

¹¹ U.S. Department of Transportation Order 5301.1, <https://www.transportation.gov/individuals/foia/dot-order-53011-american-indiansalaska-nativesTribes>

Tribal Transportation Program Transportation Planning Overview

The Federal Lands Highway (FLH) Office of Tribal Transportation developed a *TTP Delivery Guide*¹² that provides guidance and technical program information for Tribes entering into or coordinating existing TTP Agreements with FHWA. This section summarizes the key topics that relate to Tribal transportation planning.

Allowable Uses of Funds

The *TTP Delivery Guide* provides information on allowable uses of TTP funds, which include planning, design, construction, and maintenance activities. The Guide lists eligible activities under each of these categories. The Guide also describes the spending limits that Tribes must adhere to for each category of spending. For example, Tribes can spend up to 100 percent of their TTP funds on planning activities if planning is identified as a priority on the FHWA-approved Tribal Transportation Improvement Program (TTIP). Tribes may propose to FHWA or the Bureau of Indian Affairs (BIA) a new use of TTP funds that is not listed in 25 CFR 170 (referring to a process outlined in 25 CFR 170.113).

TTP Agreement

The *TTP Delivery Guide* explains that, since the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), Tribes have been able to choose to work through the BIA or with FHWA in the administration of their TTP. Tribes that work with FHWA enter into a TTP Agreement (TTPA) with the Secretary of Transportation that transfers functions and duties of the Secretary of the Interior to the Tribe, including transportation planning, construction and construction management, and program administration, among others. The TTPA also provides TTP funds to the Tribe as a single annual lump sum payment. TTPAs remain in effect until a new Federal transportation authorization is approved, the TTPA is amended in writing, or the TTPA is terminated by the Tribe or FHWA.

The *TTP Delivery Guide* lays out a Tribal on-boarding process for TTPAs, which is the process for a Tribe to request and potentially gain approval for a TTPA with FHWA. The Guide also lays out the steps for obligation and payment of TTP (and other) funds to Tribes with an approved TTPA through Referenced Funding Agreements (RFAs).

Planning Process

There are many Federal documents that provide information to Tribes about the Tribal transportation planning process. Information about these resources and others are summarized in this section under the following headings:

- Planning Overview
- Roles and Responsibilities
- Tribal Long-Range Transportation Plan
- Pre-Project Planning
- Tribal Transportation Improvement Program
- National Tribal Transportation Facility Inventory Update
- Tools and Support Systems

¹² Federal Lands Highway, Office of Tribal Transportation, Tribal Transportation Program Delivery Guide, <https://highways.dot.gov/federal-lands/programs-tribal/guide/tribal-transportation-program-delivery-guide>

- Public Involvement

Planning Overview

Planning is a tool that helps agencies identify key priorities and goals to meet intended performance targets as well as achieve long-term visions for the future of the transportation system. The goal of transportation planning is to better understand the relationships and linkages between transportation, land use, cultural preservation, economic development, and the environment. Not only does the transportation network support the mobility of people and goods, but the availability and condition of transportation infrastructure and services also shapes community growth patterns, economic activity, and overall quality of life.

FHWA developed a series of planning modules outlining the transportation planning process with technical tools and resources for Tribal communities.¹³ The series includes eight planning modules: *Introduction to Planning, Developing a Long-Range Transportation Plan, Data Collection and Use, Public Involvement, Tribal Consultation* (described in more detail in the previous section), *Partnering and Leveraging, Developing the Tribal Transportation Improvement Program, Funding Resources, Financial Planning, Project Prioritization, Safety, and Asset Management*. The FHWA Tribal Transportation Planning Module titled *Introduction to Planning* describes the overall transportation planning process, summarizing elements and key products that support effective decision making.

Figure 1 depicts the basic steps of the transportation planning and decision making process, which includes continuous feedback from the public and the community linkages to ensure a flexible framework that accommodates different priorities. Although the graphic is helpful in generally describing the transportation planning process, this research aims to better understand the Tribal context and how Tribal processes compare to the framework outlined in the *TTP Delivery Guide*.

The *Introduction to Planning* module also discusses elements where Federal regulations require State DOTs and MPOs to involve and consult with Tribes in State and metropolitan transportation planning, including on LRTPs and Transportation Improvement Programs (TIPs). Federal, State, and regional planning agencies must consult with Tribes in their transportation planning processes. Tribes must also consult with relevant State agencies on regionally significant projects. If the project scope does not meet that criteria, then they are not mandated to consult with external agencies on their entire planning process.

The *Introduction to Planning* module lists five common barriers to Tribal participation:

- Varied interpretation of Federal regulations guiding Tribal programs;
- Differences in Tribal staffing capacities and skillsets;
- Limited training opportunities for Tribal governments;
- Limited Tribal transportation planning documents; and
- Competing responsibilities or priorities beyond transportation issues.

¹³ FHWA, Transportation Decision making Information Tools for Tribal Governments, Planning Modules: https://www.fhwa.dot.gov/planning/processes/Tribal/planning_modules/

To help address these barriers, FHWA and the BIA are required to provide transportation planning technical assistance to Tribes as defined in 25 CFR Part 170.401(e). The suggested approaches to mitigate each barrier contain a limited discussion of actions or strategies to meaningfully engage Tribal communities. The *Introduction to Planning* module highlights Federal resources from FHWA, FLH, and BIA such as through peer exchanges, the FHWA Tribal Capacity Building Program, and the BIA Tribal Technical Assistance Program (TAP).

Overall, the literature indicates some discrepancies in how the FHWA Tribal Transportation Planning Modules describe the Tribal transportation planning process compared to how the *TTP Delivery Guide* describes the TTP's planning requirements. But through this research and upcoming data collection efforts, the FHWA Project Team aims to determine whether these common barriers still apply, whether there are new barriers, and how Tribes have responded to or addressed planning challenges.

Roles and Responsibilities

The *TTP Delivery Guide* outlines the roles and responsibilities of Tribes and FHWA in the TTP planning process (this applies to Tribes working directly with FHWA on the TTP):

Tribes:

- Develop the Tribe's LRTP;
- Facilitate public involvement;
- Perform traffic studies;
- Conduct special transportation studies as needed;
- Prepare and enter updates in the National Tribal Transportation Facility Inventory (NTTFI) maintained by BIA;
- Mapping;
- Perform pre-project planning;
- Participate in transportation planning and other transportation related meetings;

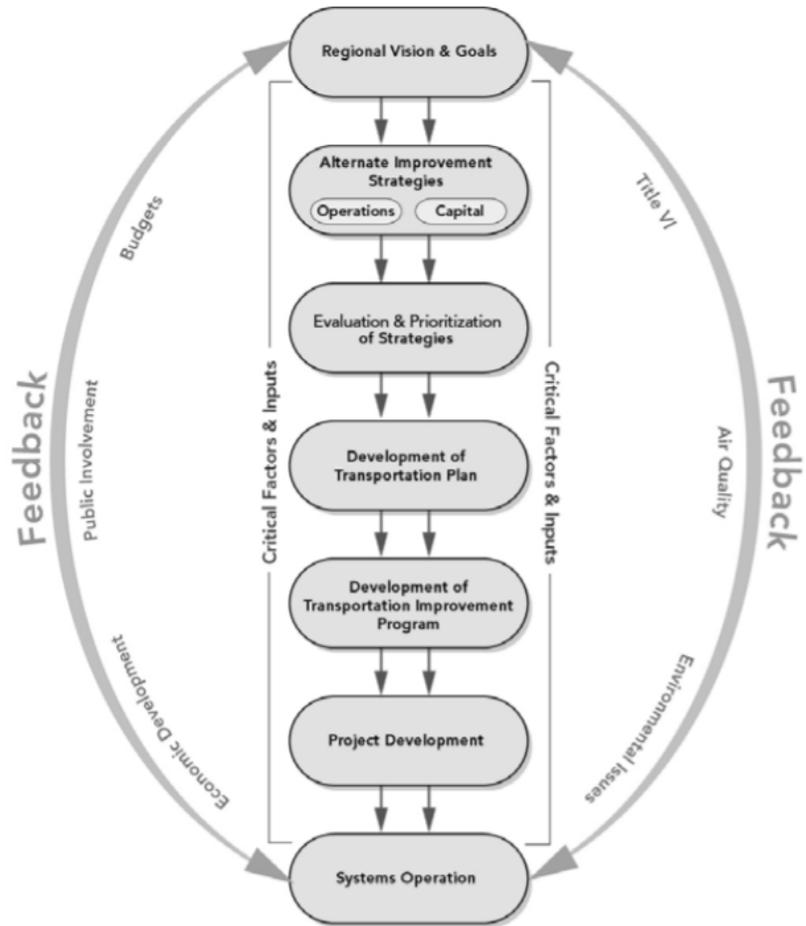


Figure 1: Basic Steps in Transportation Planning Process. (Source: FHWA Introduction to Planning Tribal Transportation Module)

- Develop Program budgets including transportation planning cost estimates;
- Perform transportation planning for operational and maintenance facilities;
- Research rights-of-way documents for project planning;
- Develop the Tribe’s Tribal Transportation Improvement Program (TTIP); and
- Coordinate with States, their political subdivisions.

FHWA:

- Reviews TTIPs developed by the Tribe;
- Approves TTIPs developed by the Tribe;
- Makes the TTIPs available to the States so they can append them to their Statewide Transportation Improvement Program (STIP);
- Reviews LRTPs developed by the Tribe;
- Provides technical assistance to Tribal governments;
- Coordinates with Tribal, State, regional, and local governments, as requested by the Tribe; and
- Coordinates with other Federal agencies, as requested by the Tribe.

The *TTP Delivery Guide* only applies to Tribes that have partnered directly with FHWA to administer the TTP. The Guide does not address the process for Tribes who partner with the BIA to administer the TTP. This research should explore the procedures that the BIA and their partner Tribes undertake to administer the TTP.

Tribal Long-Range Transportation Plan

The *TTP Delivery Guide* explains the 25 CFR 170 requirement that each Tribe develops an LRTP, which is a long-range (20+ year) strategy and capital improvement program that guides the investment of funds in multimodal transportation facilities. LRTPs are a critical decision making tool that prioritizes transportation investments, capturing current and future growth patterns related to land use, economic development, environment, traffic demand, and public health and safety. Tribes review and update their LRTPs every five years and are able to amend them as needed.

The *TTP Delivery Guide* lays out the following process for developing or updating a Tribe’s LRTP:

1. Establish the vision, goals, and/or objectives;
2. Take stock of existing and future conditions;
3. Identify transportation needs;
4. Develop short-, mid-, and long-term priorities;
5. Develop an implementation plan; and
6. Finish up the LRTP.

The *TTP Delivery Guide* refers Tribes to FHWA Office of Planning and TTAP resources for more information on developing LRTPs. These resources may be out-of-date and not directly aligned to the *TTP Delivery Guide*.

The FHWA Tribal Transportation Planning Module titled *Developing a Long Range Transportation Plan* provides a general framework on how to develop an LRTP, which includes a discussion of elements as required by Federal statute and regulations. The module discusses fundamental concepts and outlines a step-by-step process that can be customized to a Tribe’s planning priorities or community context.

Similar to the *TTP Delivery Guide*, the FHWA Planning Module notes the importance of implementing and monitoring the progress of the LRTP.

The *Developing a Long Range Transportation Plan* module discusses the purpose of and planning considerations for each step of the LRTP development process. The module includes the Federal, State, and local resources that are available to support Tribes such as technical data and mapping. The module also provides a table that summarizes the general format of a Tribal LRTP. The steps feature practices by Tribal agencies to provide examples of Tribal approaches, although it contains a limited discussion from the Tribal perspective, particularly related to common planning challenges, goals, and best practices. The conclusion highlights flexibility in the process through minimal budgets and simplified processes, however it is unclear what that simplified process entails as these elements are not further discussed within the Tribal context.

The FHWA Tribal Transportation Planning Module titled *Data Collection and Use* explains that LRTPs, TTIPs, safety audits, and the TTP TIP all rely heavily on consistent data sources. The module focuses on data collection and analysis for the purpose of learning more about the conditions of transportation systems in Tribal communities and data collection strategies. Some applications for Tribes include:

- Identifying Tribal holdings, locations with high crash rates, and culturally or historically significant sites;
- Describing Tribal system inventories and demographic trends; and
- Developing a list for transportation inventories, a list that prioritizes projects/investments, and a visual representation of transportation projects such as maps, drawings, or models.

The *Data Collection and Use* module includes a table listing the types of data Tribal planners can use to develop an LRTP. After collecting the data, it is analyzed to identify and prioritize areas of improvement. Data creates a baseline understanding of transportation system conditions that can be used as a reference for project development. Collecting information on the success of a project, using measurements like visitor trends or crash reporting, can help justify future projects or additional project funds. This research will further explore Tribes' use of data in transportation, as well as challenges and opportunities in data collection and use.

Pre-Project Planning

The *TTP Delivery Guide* explains that pre-project planning is necessary before projects can be placed on the Tribe's TIP. Pre-project planning evaluates the viability of actual project delivery by exploring associated risks and defining a specific approach to delivering the project. Through pre-project planning Tribes will get a more realistic scope, schedule, and budget for the project before deciding whether or not to pursue the project. Through pre-project planning, Tribes:

- Consider project alternatives;
- Develop a preliminary cost estimate;
- Determine if the project warrants a public hearing;
- Determine the regional significance of the project; and
- Identify the need for preliminary environmental and archaeological reviews.

The *TTP Delivery Guide* provides a two-page pre-project planning worksheet (Exhibit 5.4 in the *TTP Delivery Guide*) to support Tribes in conducting pre-project planning. The *TTP Delivery Guide* does not

provide examples that illustrate the level of detail that Tribes must go into when conducting pre-project planning.

Tribal Transportation Improvement Program

The *TTP Delivery Guide* explains that a Tribe develops a TTIP, which is a list of transportation projects and activities eligible for TTP funding covering a period of four years. FHWA approves all TTIP funding, to include funds from BIA, and authorizes Tribes to spend TTP funds on the activities included in the TTIP.

The *TTP Delivery Guide* provides information on the following TTIP guidelines and procedures:

- The TTIP must be financially/fiscally constrained
- The TTIP must be consistent with the LRTP and the Inventory
- The TTIP must document the available or anticipated funding sources necessary to implement the planned projects and activities
- The Tribe should coordinate with the State DOT and other relevant entities when developing the TTIP
- The TTIP must comply with the relevant provisions in 25 CFR 170
- The public must be provided the opportunity to review and comment on the TTIP. A public hearing must be held if a project:
 - Is a new route or facility;
 - Would significantly change the layout or function of connecting or related roads;
 - Would cause a substantial adverse effect on adjacent property; or
 - Is controversial or expected to be controversial in nature
- Tribes should include administration, planning, preliminary engineering, construction, construction engineering, transit, and maintenance as categories in the TTIP

The *TTP Delivery Guide* also provides a process and timeline for the development and review of the TTIP. The *TTP Delivery Guide* provides a FHWA TTIP Template (Exhibit 5.1 in the *TTP Delivery Guide*) to guide Tribes in developing the TTIP. The Guide also refers Tribes to the TTP Planning page, which provides resources and guidance on Tribal planning.¹⁴

The FHWA Tribal Transportation Planning Module titled *Developing the Tribal Transportation Improvement Program* describes the TTIP development process including coordination with LRTP development. While the LRTP focuses on long-term goals and planning projections, the TTIP addresses short-term improvements and outputs. Although separate, the two documents must inform and be consistent with one another. Tribes can develop the TTIP based on the LRTP or using the data from a Tribal priority list. By building on these efforts, Tribes can develop a short-term program or plan that lists transportation improvements projects to be implemented in three to five years, including the identified funding sources of each project.

This module includes a strong focus on the different types of Federal transportation funding sources available to Tribes and related TTIP funding relationships. Unlike the other planning modules, this module does not contain a case study example of a Tribal TIP development process. The module provides information about key Federal stakeholders and related funds with some procedural recommendations. The module contains a limited discussion of common challenges that Tribes

¹⁴ <https://highways.dot.gov/federal-lands/programs-tribal/planning>

experience in each step of TTIP development, including key actions or best practices to address issues. Although it discusses the relationship and coordination between the development of the LRTP and TTIP, it does not provide recommendations on how to best implement and maintain both programs once developed.

National Tribal Transportation Facility Inventory Update

As defined in 25 CFR § 170.442, the National Tribal Transportation Facility Inventory (NTTFI) is a database of Tribal transportation facilities including public highways, roads, bridges, trails, transit systems, or other approved facilities that are located on or provide access to Tribal lands.¹⁵ The *TTP Delivery Guide* explains that the NTTFI is a comprehensive database of all transportation facilities eligible for TTP funding by Tribe, reservation, BIA agency and region, Congressional district, State, and county. Developed through the LRTP process, Tribes can use the NTTFI to assist in transportation and project planning, justify expenditures, identify transportation goals and strategies, maintain existing TTP transportation facilities, and develop management systems.

The *TTP Delivery Guide* notes that BIA Regional offices maintain, certify, and review the data for their Region's portion of the NTTFI database. However, it is important for Tribes to periodically update their inventory information to determine eligibility of facilities for TTP funding of improvements. Tribes should submit their inventory updates through the BIA Regional Office.

On April 29, 2020, the BIA and Department of Interior (DOI) finalized an update to a provision in the TTP regulations related to proposed roads that are in the NTTFI.¹⁶ The final rule eliminates the requirement for Tribes to collect and submit specific data to maintain proposed roads in the NTTFI. However, the requirement to collect and submit data regarding the addition of new proposed roads to the NTTFI remains.

Tools and Support Systems

As defined under 25 CFR Part 170.401(m) and 25 CFR Part 170.401(n), FHWA and/or BIA provide mapping and develop and maintain management systems to support Tribal transportation planning. FHWA and/or the BIA may also assist Tribes in updating the NTTFI data at the request of the Tribe under 25 CFR Part 170.444(b)(1).

As part of maintaining the NTTFI, Tribes may also coordinate data efforts with their asset management programs. The FHWA Tribal Transportation Planning Module titled *Asset Management* describes asset management as a data-driven process that analyzes both financial and technical issues, capturing the condition and performance of pavement, bridges, and other assets to ensure they meet performance targets. Asset data typically includes cataloguing:

- An asset's geographic location;
- An asset's age and condition;
- The organizational unit in tribal government that manages the asset;
- Information about the use of the asset performance characteristics, construction history, maintenance activities, and cost; and

¹⁵ Title 25 CFR - National Tribal Transportation Facility Inventory, <https://www.govinfo.gov/app/details/CFR-2017-title25-vol1/CFR-2017-title25-vol1-part170-subpartD-subjectgroup-id2869>

¹⁶ Bureau of Indian Affairs, Tribal Transportation Program; Inventory of Proposed Roads, <https://www.federalregister.gov/documents/2020/03/30/2020-06061/Tribal-transportation-program-inventory-of-proposed-roads>

- An electronic database of relevant documents.

The FHWA Tribal Transportation Planning Module titled *Data Collection and Use* notes that Tribes can perform geospatial analyses using Geographic Information System (GIS) mapping. GIS systems provide robust data analysis and visualization or mapping capabilities that may be beneficial to Tribes through the display of land parcels, environmentally sensitive areas, and other priority locations for improvements. However, not all Tribes have access to data tools or the capacity to provide staff training and education. Future research should consider alternative data analysis methods and resources for Tribes.

Public Involvement

Public involvement is a critical element of the comprehensive planning process that provides opportunities for stakeholders to share concerns and identify potential solutions or strategies. It allows planners and decision makers to better understand the community's values, build trust, and exchange ideas. As discussed in various FHWA Tribal Transportation Planning Modules, public involvement is an important first step in comprehensive planning because it shapes the outputs of the plan and opens up partnership opportunities.

The FHWA module titled *Public Involvement* reviews the public engagement process and its potential in capturing the Tribal community's values and goals, sharing information, and consensus building on planning issues. The module also provides brief case studies of Tribes engaging their partners through a variety of processes and offers recommendations on how to identify partners. Stakeholder discussions can begin internally with the Tribal council and the Tribal membership or with neighboring Tribes and public transit providers. The module suggests using Tribal events planned for other purposes as opportunities to engage the public. The module also discusses the importance of public hearings and how to utilize public notices. Other techniques such as mailing lists, public information materials, focus groups, and presentations are practical tools to gather community input.

Government-to-Government Relationships and Coordination

Optimal performance of the multimodal transportation system relies on coordination between government agencies on the construction, operation, and maintenance of the transportation network. The FHWA Office of Planning *Tribal Transportation Best Practices Guidebook* discusses notable practices and program achievements in Tribal transportation across the country through research and case studies.¹⁷ The research findings capture key concepts from the National Cooperative Highway Research Program (NCHRP) Synthesis 366: *Tribal Transportation Program*, which describes the composition, capacity, and operations of 30 Tribal transportation organizations.¹⁸ The FHWA Guidebook includes highlights from 13 Tribal transportation programs, including 12 from the NCHRP Synthesis 366 and one from the 2006 FHWA publication *Tribal Seat Belt Initiative - Final Report*.¹⁹ FHWA assessed Tribal achievements based on successful implementation in "traditional" transportation program areas such as finance, inter-governmental relations, technical application, safety, and public transportation. These

¹⁷ FHWA Office of Planning, Tribal Transportation Best Practices Guidebook, 2009

https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/bestpractices_guidebk.cfm

¹⁸ Transportation Research Board, National Cooperative Highway Research Program Synthesis 366: Tribal Transportation Programs, <http://www.trb.org/Main/Blurbs/158883.aspx>

¹⁹ Unable to locate a web link for the 2006 FHWA publication Tribal Seat Belt Initiative - Final Report.

achievements capture success stories and real experiences of Tribal transportation practitioners, presenting effective program management methods that practitioners have successfully applied.

The FHWA Guidebook indicates effective program management methods must be “fully or methodically applied” to Tribal transportation programs to meet planning goals. Through a series of case studies, it provides learning tools across six building blocks or common best practice areas: (1) leadership, (2) problem identification, (3) resource allocation, (4) creative problem solving, (5) collaboration and partnership, and (6) communications. The Tribes highlighted in the selected case studies administered programs or projects that reflect achievements in each of the building blocks.

The FHWA Office of Planning also published a set of standalone case studies through coordination with the Federal Transit Administration and a Tribal Technical Working Group.²⁰ Similarly, these standalone case studies depict successes and achievements in Tribal transportation planning. The following sections highlight several of the case studies from both FHWA resources, providing examples of how Tribes coordinate with different stakeholders to address planning goals.

Overall, the case studies demonstrate the successful outcomes in transparent, meaningful engagement with Tribes in transportation planning. Tribal consultation at the Federal, State, MPO, and local levels may range in coordination activities but generally operate with a shared goal of collaborating with Tribal governments in the planning process. Prioritizing community engagement and involving the public early in the process ensures that the plan is inclusive of the community’s priorities, delivering programs and solutions that are specific to local issues. Future data collection and stakeholder discussions will identify more recent examples of government-to-government relationships and coordination, and seek to better understand whether the six common best practice areas are still applicable in current Tribal transportation planning contexts.

Consultation in the Statewide Transportation Planning Process

Although guided by the same Federal regulations and laws, Tribal consultation within the statewide transportation planning process varies across States. For example, a FHWA case study noted that New Mexico represents the second highest proportion of Tribal communities in the country, which includes 22 federally recognized Tribes in the State. Tribal consultation has been a component of the State’s LRTP processes for over 20 years. The FHWA Office of Planning case study explains that the New Mexico DOT (NMDOT) manages a Tribal Transportation Program and Tribal Liaison Program to improve partnerships with Tribal governments in the State, and provides mechanisms that promote Tribal involvement and increase visibility of Tribal goals.²¹ NMDOT’s Tribal Transportation Program encourages Tribes to identify Tribal roadways to include in the State’s inventories and funding processes. The Tribal Liaison Program supports a full-time position at NMDOT that is responsible for maintaining relationships with all 22 Tribes in the State. These efforts have led to successful improvement projects in the State including Exit 102 along I-140. The Tribal Liaison at the time advocated for reconstruction of the interchange and prioritized administrative tasks with the Tribal community to move the project forward. These efforts demonstrate the value of building and enhancing relationships with Tribes to meet larger project and program goals.

²⁰ FHWA Office of Planning, Tribal Transportation Case Studies https://www.fhwa.dot.gov/planning/processes/tribal/case_studies/

²¹ FHWA Office of Planning, New Mexico Tribal Consultation Process Case Study, 2017
https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/new_mexico.cfm

Another FHWA case study indicated that in South Dakota, coordination efforts between the South Dakota DOT and the nine federally recognized Tribes in the State have significantly evolved over the past 30 years.²² South Dakota DOT previously lacked Tribal involvement on project selection and prioritization for its STIP because the former structure of its Tribal consultation process did not provide adequate opportunity for the Tribes to express priorities and concerns. Recognizing this gap, South Dakota DOT increased emphasis on Tribal relationships within State programs in 2005, which provided the foundation for more focused efforts on Tribal projects and deeper community engagement through in-person meetings. This change in structure led to stronger working partnerships with an increasing attendance of SDDOT staff attending meetings of Tribal transportation staff that were hosted by the Bureau of Indian Affairs (BIA) and FHWA. Similarly, FHWA staff began attending BIA meetings with individual South Dakota Tribes and made in-person visits to introduce themselves to the State's resident Tribes..

A third FHWA case study indicated that the Wisconsin DOT (WisDOT) has several processes to incorporate Tribal insight and consultation such as meetings, the use of liaisons, a Tribal Historic Preservation Project, and the WisDOT Tribal Task Force.²³ These processes are meant to promote clear and effective communication. Tribes meet with WisDOT leadership at an annual consulting meeting to discuss transportation priorities and the Secretary's office develops a matrix of transportation improvements based on Tribal priorities. For communicating throughout the year, WisDOT has two full-time statewide Tribal liaisons located at its headquarters and five other regional liaisons. These methods have strengthened WisDOT's Tribal relationship and there is increased Tribal satisfaction with transportation policies and transportation projects.

Consultation in the Metropolitan Transportation Planning Process

As described in a FHWA Office of Planning case study, the North Central Regional Transit District (NCRTD) is a partnership between Tribes and local governments aimed at improving regional planning and coordination on transit services in New Mexico.²⁴ The partnership includes representation from all five of the Indian Pueblos in the region. The case study highlighted the Tribes' ability to lobby the State DOT to not infringe on their right-of-way and leverage their finances to obtain State DOT funds and expertise to build transportation infrastructure that provided benefits to the Tribe and broader community. The NCRTD held public meetings at each member's jurisdiction to explain the benefits of the project and obtained written commitments signed by participating governments.

In Washington State, the Nisqually Tribe and the Confederated Tribes of the Chehalis Reservation participate as members of the Thurston Regional Planning Council (TRPC).²⁵ The FHWA Office of Planning case study reports that a willingness of each of the Tribes and TRPC to work together has been the primary reason for success in improving relationships among these organizations. A tribe contracts with TRPC both directly including through State grants and other sources to conduct specific projects.

²² FHWA Office of Planning, South Dakota Tribal Consultation Process Case Study, 2017
https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/south_dakota.cfm

²³ FHWA Office of Planning, Wisconsin Tribal Consultation Process Case Study, 2017,
https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/wisconsin.cfm

²⁴ FHWA Office of Planning, North Central New Mexico: Development of a Regional Transit District Case Study,
https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/newmexico.cfm

²⁵ FHWA, Thurston County, Washington: Partnership between Tribes and an MPO Case Study,
https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/thurston.cfm

The council contracts work for its members and provides technical assistance. TRPC collects demographic data on behalf of members for the purpose of informing development, and ensures that all TRPC mapping products display the reservations. TRPC produces a Population and Employment Forecast, which is updated every three years and is used extensively for planning purposes. Finally, TRPC pool funds that are then allocated to smaller Tribes so that they do not have to compete with larger Tribes.

TRPC members and staff also participate in Tribal events, which builds positive working relationships and deeper engagement.²⁶ Tribal involvement in regional transportation planning process has contributed to the development and construction of several transportation projects focused on Tribal priorities, including safety improvements along State Route 510. The Nisqually Tribe identified the need for safety improvements by partnering with TRPC and State DOT representatives to conduct a one-year safety study of Route 510. Due to the project team's ability to quickly move from conceptual planning to a plan of action, the legislature appropriated Federal funding to cover all project costs. This framework demonstrates the value of formalizing Tribal involvement planning processes, which has advanced Tribal transportation priorities into construction improvements within the region.

Consultation in the Local Transportation Planning Process

The FHWA Office of Planning case studies highlight the use of contract agreements to support Tribal consultation in local transportation planning projects. The City and Borough of Wrangell (CBW) in Alaska and the Wrangell Cooperative Association (WCA), a Tribe in the CBW, use a memorandum of understanding (MOU) to collaborate on transportation infrastructure projects.²⁷ The project construction is done on CBW owned roadways and financed by the Tribe. The MOU, which is renewed annually, establishes a general framework for cooperation between the CBW and the Tribe, including project development and project resource information-sharing for transportation as a mutual Tribe and local government interest. The WCA funded a project through the MOU using a combination of Indian Reservation Roads and American Recovery and Reinvestment funds. Some of the benefits from this relationship are improved roadways for the WCA that connect Tribal members to their communities and workplaces as well as newly constructed transportation corridors for the city without incurring capital costs.

The Southern Ute Indian Tribe Tribal Council, the town of Ignacio, La Plata County, and the Colorado DOT partnered to address safety and Tribal and non-Tribal development along Colorado State Highway 172.²⁸ The community experienced an increase in local traffic due to significant redevelopment in the study area including construction of a new casino, museum, and cultural center and other economic development opportunities in the area. The agencies entered into a collaborative agreement to develop the Ignacio Area Corridor Access Plan (IACAP) which includes strategies to support mobility for freight vehicles and pedestrian safety along Highway 172. The partner agencies developed a memorandum of agreement (MOA) since all have jurisdictional authority within the study area. Based on the MOA, the

²⁶ FHWA, Washington Tribal Consultation Process Case Study, https://www.fhwa.dot.gov/planning/processes/Tribal/case_studies/washington.cfm

²⁷ FHWA Wrangell, Alaska: Tribe and Local Government Collaborate to Improve Transportation Corridors in Wrangell, Alaska Case Study, https://www.fhwa.dot.gov/planning/processes/tribal/case_studies/wrangell.cfm

²⁸ FHWA, Southern Ute: Tribe, Town, County, and State Collaborate on Ignacio Area Corridor Access Plan, https://www.fhwa.dot.gov/planning/processes/tribal/case_studies/southern_ute.cfm

participating agencies agreed to each bear equal responsibility and share costs for the development of the IACAP.

Consultation in the FLH/FLMA Transportation Planning Process

FLMAs, such as the U.S. Forest Service, Bureau of Land Management (BLM), U.S. Fish and Wildlife Service, and National Park Service (NPS), administer a large proportion of land that is Tribal ancestral land and contemporary Tribal lands. It is important to distinguish between ancestral and tribal lands because what Tribes are involved in the consultation process depends on their connection to that land. Even when the ancestral lands of a respective Tribe are now within the jurisdiction of another entity (whether that be another Tribe, a State, an FLMA, etc.) a strong ancestral, cultural, and spiritual ties to those ancestral lands remain. Therefore, it is important to notify a Tribe or Tribes whose ancestral lands may be affected by an action and afforded an opportunity to engage in consultation. Furthermore, due to the complicated history between Tribes and the United States government, policy implementation and project development on both contemporary Tribal lands and Tribal ancestral lands must be approached in coordination with the affected Tribes. The management of public lands is further analyzed in the book *The Environmental Politics and Policy of Western Federal Lands*, which includes a chapter that discusses the implications of Tribal Sovereignty on land management activities, including common challenges that Tribes face in these processes.²⁹ This chapter provides examples of projects that established formal co-management roles for Tribal Governments, such as the partnership between BLM and Cochiti Pueblo regarding the management of Kasha Katuwe Tent Rocks National Monument in New Mexico. The chapter explains that there is no standard process for co-management of Federal public lands as often this coordination may derive from unique treaty rights of reservation lands, or they may be the result of traditional negotiation and collaboration techniques.

Tribal Priorities

In Tribal transportation planning, Tribal priorities largely reflect the values and principles that are central to supporting Tribal quality of life. Although planning goals and priorities vary from Tribe to Tribe, topics such as safety, cultural heritage, public health, and economic development describe the overall social constructs that impact Tribal mobility and livelihood.

Overall, the research indicates a range of approaches to addressing Tribal planning priorities, highlighting proactive problem identification, partnerships, and creative problem solving techniques. Through this study, the project team aims to learn about Tribal transportation safety priorities in current contexts and how Tribes communicate the importance of incorporating cultural heritage, respect, and trust to planning partners and stakeholders. This may also include research into how State DOTs, MPOs, and other agencies consider and approach Tribal safety, public health, economic development, and cultural heritage priorities, including whether there are any gaps and opportunities for improvement. The case studies also demonstrate that Tribes have a greater prevalence of certain health conditions that require strategic coordination. This study aims to explore how transportation planning can help mitigate health concerns in Tribal communities and provide mobility options that promote the quality of life.

²⁹ Erika Wolters and Brent Steel, *The Environmental Politics and Policy of Western Federal Lands*, Chapter 14: Implications of Tribal Sovereignty, Federal Trust Responsibility, and Congressional Plenary Authority for Native American Lands Management, Oregon State University Press, 2020: <https://open.oregonstate.edu/enviromentalpolitics/chapter/chapter-14/>

Safety

Safety is paramount in transportation planning. The FHWA Tribal Transportation Planning Module titled *Developing a Transportation Safety Plan* discusses the planning process of safety studies and the importance of integrating safety goals into planning efforts.

These plans provide a proactive approach in identifying safety issues while also:

- Establishing a baseline understanding of their transportation system;
- Fostering multidisciplinary cooperation and encouraging the development of partnerships with Tribal members, stakeholders, and government agencies;
- Helping to create safer roadways and other transportation utilities; and
- Updating safety plans to justify a Tribal funding request by documenting specific safety improvements, especially when competing for limited funding.

The *Developing a Transportation Safety Plan* module is discussed more in detail on its relevance to Tribal planning further below. Additional resources on safety considerations in Tribal transportation planning were also reviewed. Their focus ranged from pedestrian and roadway safety to policing and human trafficking.

Bicycle and Pedestrian Safety

For many Tribal communities, infrastructure that promotes safe walkable routes and facilities that allow for nonmotorized travel is crucial in supporting active transportation safety. In the July 2020 FHWA *Fostering Multimodal Connectivity Newsletter*, the Tribal transportation process is highlighted to show the benefits of improving pedestrian safety priorities.³⁰ The spotlight discusses the collaborative efforts between the Navajo Nation, Cameron Chapter, and the Arizona DOT (ADOT) in delivering safe pedestrian infrastructure along a high-speed corridor. Despite the area being rural, much of the community travels by foot and some with livestock. Early engagement with Tribal leadership opened up right-of-way access that was critical in project implementation. Most importantly, with this partnership all parties involved made it a point to maintain and respect Tribal culture. This was accomplished by hiring a Navajo consultant team who had an understanding of Navajo culture ensuring that ADOT respected important procedures and ceremonies of the Navajo people, such as the blessing of the project before and after construction.

Active transportation planning can also increase access to schools and support the mobility of children in Tribal communities. Safe Routes to School programs³¹ promote walking and bicycling to school through infrastructure improvements, enforcement, tools, safety education, and incentives to use alternative transportation. A program fact sheet describes the nuances Tribes face when implementing a Safe Routes to School program.³² Planning walking and bicycling routes to schools can be more complex for Tribal communities for a variety of reasons, such as location of school in proximity to Tribal communities, school governance structure and Tribal sovereignty, land road jurisdictional conflicts, and the funding of a Safe Routes program using different funding sources. Information on each of the

³⁰ FHWA, *Fostering Multimodal Connectivity Newsletter*, July 2020, Engaging Tribal Partnerships to Improve Pedestrian Safety Priorities in Arizona, https://www.fhwa.dot.gov/livability/newsletter/july_2020/index.cfm#story2

³¹ Although the Federal Safe Routes to School program has expired, this program exists in other forms at the State and municipal level. For more information visit the Safe Routes Partnership, <https://www.saferoutespartnership.org/>

³² National Partnership for Safe Routes to School, *Walking and Bicycling in Indian Country: Safe Routes to School in Tribal Communities*, 2016 <https://www.saferoutespartnership.org/resources/fact-sheet/Tribal-brief>

considerations can be found in the Safe Routes document. Challenges to implementing a Safe Route program that may be more prevalent for Tribal communities are also discussed in short detail. They are: rural conditions, loose animals and wildlife near transportation infrastructure, limited capacity of staff to advocate for improvements, as well as limited capacity to seek funding, administer grants, or run programs. Examples of Tribal communities overcoming these challenges to put in place Safe Route programs are described in case studies provided in the latter portion of the document.

The FHWA Office of Planning case study series highlights a partnership between the Lummi Nation, Whatcom County, the Washington State DOT, the BIA, and FHWA to provide a safe facility for bicyclists and pedestrians through the development of a two-mile trail along Haxton Way.³³ Prior to the construction of Haxton Way, the community experienced a high rate of roadway conflicts between motorists, bicyclists, and pedestrians due to a lack of available sidewalks and bicycle lanes. The Lummi Nation designed a facility based on community input that included adequate spacing and lighting to address safety concerns, and to ensure use of the trail in the evening. Not only did the project improve nonmotorized access, it also enhanced connectivity through the major corridor and increased physical activity among community members.

Roadway Safety

Road Safety Audits (RSA) allow Tribes to evaluate road safety issues, identify opportunities for improvement, collect safety data, and inform project prioritization. The *FHWA Road Safety Audit Toolkit for Federal Land Management Agencies and Tribal Governments* provides general information on the RSA process and is aimed at both FLMAs and Tribal governments. One section that addresses the Tribal transportation process specifically is on Funding Mechanisms. The Toolkit recommends that Tribal agencies coordinate with their MPO/Council of Governments/Regional Planning Commission partners to learn more about available funding mechanisms. The Tribal Highway Safety Improvement Implementation Guide is referenced and it advises that the implementation plan for a Tribal Highway Safety Improvement Project (THSIP) or highway safety project will depend greatly on which funding sources the Tribe pursues, since each source has different program eligibility requirements. Two websites are provided that list funding opportunities.³⁴ Furthermore, some of the most important safety-funding sources are presented in a table.

Other notable sections relevant to the Tribal transportation process are on cultural and institutional history and the TTIP. It is important to have cultural heritage representatives engaged early on in the RSA process to ensure Tribal tradition is maintained and respected. The RSA document briefly addresses the TTIP and how an RSA contributes to the overall planning process. This process is elaborated further in a link referring to the *Developing the Tribal Transportation Improvement Program*; however, it is a broken link leading to an error page.

As described in the FHWA *Tribal Transportation Best Practices Guidebook*, the Inter-Tribal Council of Arizona deployed creative problem solving to address roadway safety issues. The Council developed seat belt safety campaigns with culturally sensitive messaging targeted at the local Tribal community to mitigate the high incidence of traffic-related serious injuries and fatalities. The Council also addressed

³³ FHWA, Lummi Nation: Haxton Way Pedestrian Pathway Project Case Study, https://www.fhwa.dot.gov/planning/processes/tribal/case_studies/lummi.cfm

³⁴ [Tribal Highway Safety Improvement Implementation Guide, Tribal Transportation Funding Resources](#)

resource gaps by leveraging community ties and forming an advisory committee comprised of regional and local partners with a shared vision of increased traffic safety on Tribal lands.

Policing and Human Trafficking

The Transportation Research Board (TRB) released a set of resources³⁵ discussing the role of transportation in stopping human trafficking of Native American/American Indian women in the U.S. The resources suggest that specific social structures make mobility difficult for Native American/American Indian women and girls, such as the lack of pedestrian access and a lack of pedestrian (or non-motorized) facilities within the Tribal communities, resulting in alarming rates of missing and murdered Native American/American Indian women each year. Researchers hosted a webinar discussing the social determinants and risk factors of missing and murdered Native American/American Indian women, including the current Federal Indian laws and Tribal guidelines that may affect human trafficking, and the unique mobility patterns of Tribal communities from rural Tribal areas to urban centers.³⁶ The resources also outline reading materials and tools to better protect Native American/American Indian women, provide considerations for transit agencies and airport operations, and address the issue in rural transportation.

Cultural Heritage

Tribal communities are concerned with protecting, preserving, and maintaining their cultural heritage. As discussed in previous sections, acknowledgement and incorporation of Tribal cultural heritage throughout the transportation planning process is critical. For example, the *aforementioned Fostering Multimodal Connectivity Newsletter* article indicates that when ADOT worked with the Navajo Nation on the Little Colorado Bridge replacement project, the project team updated a design for a nearby roundabout during the construction phase after it determined that the Navajo interpretation and meaning of the original designs were culturally inappropriate. Through direct input from the Tribe, ADOT updated the designs to incorporate a turtle design, representing new beginnings.³⁷

The TRB NCHRP web-only document 281 titled *Integrating Tribal Expertise into Processes to Identify, Evaluate, and Record Cultural Resources* describes how Tribal cultural perspectives can be integrated into other parts of the Tribal transportation process.³⁸ The main focus is on how Tribal expertise and insight can inform the requirements and intent of the Section 106 process of the National Historic Preservation Act. Challenges and solutions to facilitating the integration of Tribal expertise into the Section 106 process were addressed and listed. Main challenges faced were:

- Tribal responsiveness due to capacity issues and limited financial and personnel resources;
- Lack of trust between Tribes and agencies; and
- Resolving conflicting perspectives on data and information acquisition, cultural sensitivity, cultural perspectives, and confidentiality issues.

³⁵ Transportation Helps Fight Back Against Human Trafficking: <https://www.nationalacademies.org/trb/blog/human-trafficking>

³⁶ TRB Standing Committee on Native American Transportation Issues, Human Trafficking and Mobility of Missing and Murdered Indigenous Women, Webinar hosted on July 29, 2020: <https://www.nationalacademies.org/event/07-29-2020/trb-webinar-human-trafficking-and-mobility-of-missing-and-murdered-indigenous-women>

³⁷ FHWA, Fostering Multimodal Connectivity Newsletter, July 2020, Engaging Tribal Partnerships to Improve Pedestrian Safety Priorities in Arizona, https://www.fhwa.dot.gov/livability/newsletter/july_2020/index.cfm#story2

³⁸ TRB National Cooperative Highway Research Program, Web-Only Document 281: Integrating Tribal Expertise into Processes to Identify, Evaluate, and Record Cultural Resources: <http://www.trb.org/main/blurbs/180505.aspx>

The document identifies possible solutions resulting from the research, some of which include:

- Enhance the capacity of Tribes to contribute their expertise to project development by compensating Tribes for their participation in the same way an agency would pay a consultant;
- Dedicate agency staff, such as Tribal liaisons, who are involved in different phases of the entire project delivery process (not just the Section 106 process), from early transportation planning (long-range planning, corridor planning, 10-year plans, and project programming) to project completion;
- Collaborate on the development of memoranda of understanding or protocols detailing the use of Tribal expertise in both early planning and project development;
- Develop protocols that can be used in laying out a process for communication between Tribes and agencies and addressing information and data acquisition, cultural sensitivity, cultural perspective, and confidentiality issues;
- Create opportunities for face-to-face interactions and discussions during all aspects of project delivery, from early planning to resolution of adverse effects; and
- Provide continuous feedback to Tribes on how their expertise is used in early planning and project development decision making.

Public Health

As mentioned earlier, Tribal communities have a long history of lower health status as compared with other Americans, facing a significant number of chronic diseases and poor health conditions as a result of social structures and systemic issues.³⁹ The Centers for Disease Control and Prevention's (CDC) *Tribal Health* web page notes that Tribal communities have higher rates of chronic diseases than other ethnic groups in the U.S., including increasing rates of heart disease, diabetes, cancer, and obesity.⁴⁰ Robust transportation systems are critical in accessing public health infrastructure as well as creating opportunities for physical activity and connecting communities to sources of nutritious food. Some Tribal communities face challenges in accessing goods and services whether that is due to limited, rural infrastructure or other obstacles.

The FHWA Office of Planning case study on the Cherokee Nation describes a local partnership with Collinsville, Oklahoma, to support public health and promote physical activity through active transportation improvements. Through its Healthy Nation program, the Cherokee Nation supports healthy lifestyles with physical activity encouragement, nutrition, health screenings, and commercial tobacco prevention strategies. The Cherokee Nation expanded its Healthy Nation program to include a focus on safe walking and bicycling as an approach to increased physical activity, partnering with Collinsville to develop a complete streets policy and coordinate safe routes to school programming. In another example from the National Congress of American Indians Policy and Research Center, the Colorado River Indian Tribes created and implemented a Tribal Motor Vehicle Injury Prevention Program that featured strategies to enforce seat belt use and decrease alcohol-impaired driving, particularly in

³⁹ Indian Health Service, Disparities, <https://www.ihs.gov/newsroom/factsheets/disparities/>

⁴⁰ Centers for Disease Control and Prevention, Tribal Health, <https://www.cdc.gov/tribal/data-resources/information/chronic-diseases.html>

teen drivers. Through the project, the Tribes partnered with the Indian Health Services and a local health board to track progress and monitor results.⁴¹

Economic Development

The healthy economic condition of a Tribal community is greatly influenced by the transportation systems that connect businesses and services to people. The existing literature is limited on the economic impacts of transportation, as well as the opportunities for transportation in Tribal communities to enhance economic development. However, a few case studies demonstrated the importance of having robust transportation systems that reflect Tribal goals. For instance, early public deliberation with the Navajo Cameron Chapter in Arizona indicated that tourist industry workers and ranchers with livestock needed to cross a dangerous highway that was lacking safe pedestrian infrastructure. The successful collaboration between ADOT and the Cameron Chapter led to the construction of a roundabout. The final design included an undercrossing so that ranchers could safely move their livestock under the road. Tourist industry workers were also able to use the undercrossing to travel from a vehicle park to the shops where they work.⁴²

Documentation of Tribes' Planning Processes

This section summarizes a review of literature developed by non-Federal sources, including Tribal governments and State DOTs. There are few non-Federal resources summarized in this section, presumably because the documents are not publicly available online.

The Arizona DOT released a research report titled *The Role of Tribes in Arizona Transportation Decision Making (2012-2015)* that analyzed the role of Tribal governments in transportation decision making in the State as well as Tribal transportation planning practices in California, Minnesota, Montana, New Mexico, South Dakota, and Washington.⁴³ The research highlights how States participate in selecting and funding multimodal transportation projects. The findings indicate fostering quality communication and building partnerships between Tribes and regional partners as key recommendations. The following section provides documentation of various Tribal planning processes across the country, including the approaches Tribes follow to achieve planning priorities.

Planning Processes

As described in the FHWA *Tribal Transportation Best Practices Guidebook*, effective planning and program management relies on six building blocks or common best practice areas:

1. Leadership relies on visioning and direction from a program director, working group, or a combination of both. Effective leaders provide advisory support and address programmatic challenges by identifying appropriate resources or actions.
2. Problem identification involves focus on a clearly defined problem to determine the best solutions.

⁴¹ National Congress of American Indians Policy and Research Center, Tribal Transportation Insights: Preventing Unintentional Injury and Death, 2014, https://www.ihs.gov/sites/injuryprevention/themes/responsive2017/display_objects/documents/motor-safety/Tribal-Transportation-Insights-Preventing-Unintentional-Injury-and-Death-2014.pdf

⁴² FHWA, Fostering Multimodal Connectivity Newsletter, July 2020, Engaging Tribal Partnerships to Improve Pedestrian Safety Priorities in Arizona, https://www.fhwa.dot.gov/livability/newsletter/july_2020/index.cfm#story2

⁴³ Arizona DOT, The Role of Tribes in Arizona Transportation Decision Making (2012-2015) https://apps.azdot.gov/ADOTLibrary/publications/project_reports/pdf/SPR718.pdf

3. Resource allocation involves administrative decision making to achieve Tribal transportation program goals and objectives, often through allocating staffing, funding, and technical resources.
4. Creative problem solving may be necessary when traditional planning approaches are ineffective or unsuccessful at addressing program goals.
5. Collaboration and partnership relies on coordination with partners, stakeholders, and external agencies for assistance and support. Not only does building community relationships enhance existing programs, it also opens opportunities for data sharing, information exchange, funding support, and long-term coordination.
6. Effective communications is important in relaying program updates and information to various audiences, including Tribal organizations, external partner agencies, and the broader community.

Tools and Support Systems

The FHWA modules included in this literature review highlights numerous Federal tools, support systems, and programs that are available to Tribes, however a limited body of literature exists on the technical planning tools, support systems, and programs that Tribes actually use in their planning processes. The FHWA *Tribal Transportation Best Practices Guidebook* describes a case study on the Mashantucket Pequot Tribe, which improved their asset management program with new data integration tools to support program management, reporting, and information sharing. The Tribe also coordinated staff training in-house to build awareness and an understanding of the new data tools and to ensure proper use of the new software. Future data collection efforts and stakeholder discussions will determine the effectiveness of the Federal resources and identify support systems that Tribes find the most useful.

Who is Involved, and How

The FHWA Tribal Transportation Planning Module titled *Partnering and Leveraging* is a resource for identifying the general stakeholders within the Tribal transportation planning process. This module describes the process of developing partnerships and how to leverage those partnerships to maximize transportation opportunities. Suggested Tribal partners listed include State DOTs, MPOs, County/City DOTs, Transit agencies, and Tribal agencies.

The module states that there are four steps in building partnerships: cultivate partner relationships, define a specific need, structure the partnership, and manage the process. Cultivating partnerships is a continuous process that involves networking whether there are immediate opportunities or not. This module helps illustrate the strengths of potential partners in comparison to others, which could help prioritize a Tribe's time in collaborating with a partner that is the best fit. Managing the process emphasizes the need to continually monitor and build partnerships. It is especially important to evaluate the performance of a partnerships and understand the lessons learned so that the value of partnerships can be maximized. Most importantly, the benefits and successes of a partnership should be celebrated. Doing so can build trust and justify future partnerships.

The module also discusses how the Upper Sioux Community took the initiative to leverage their partnership with the State DOT, which resulted in advancing a road improvement project by three years and with better materials. The case study describes the roles and responsibilities of each party, which in turn demonstrates how Tribal governments can envision roles forming in their own partnerships. In

another example, the Passamaquoddy Tribe completed projects ahead of schedule through partnerships with the State DOT. On one project the Passamaquoddy Tribe had funds to conduct environmental assessments and a preliminary design, but could not commit unless there were funds for the actual construction. The State DOT was able to commit those funds and make use of the Tribal funds.

The *Partnering and Leveraging* module provides information on who Tribes should involve in planning, and several case studies provide examples of partnerships. However, there is insufficient existing literature that provides information about who a broader set of Tribes involve in their Tribal transportation planning processes, including at which points in the process they are involved and the nature of their involvement.

Tribal Transportation Planning Decision makers

The existing literature is limited in describing Tribes' decision making processes, who makes the decisions, and on what information and analysis the decisions are based. However, there are a few examples. One of the FHWA Office of Planning case studies noted that the Reservation Transportation Authority (RTA) is a Tribal government established consortium of 24 Tribes in California, which came together to pool resources and more effectively coordinate on transportation issues.⁴⁴ The FHWA case study discussed the legal concerns over State partnerships with Tribes and ensuring that sovereignty of a Tribe was not infringed. It should be noted that the RTA case study is an older example and may not reflect current practices of the parties involved. Many tribes are more familiar with the requirements of Section 106 of the National Historic Preservation Act than the transportation planning process making coordination at the state level difficult.

Project sponsors would often contact Tribes after a project already has been planned. The case study suggests that earlier involvement of tribes in working with Caltrans, MPOs, and other entities in the transportation planning process would help Tribes play a more meaningful role in shaping planning decisions and in developing projects. The RTA learned that by working together in a regional consortium, Tribes have a greater voice to articulate their transportation goals and strategies.

Inputs

This section summarizes the information, data, processes, and tools that Tribes are currently using in their transportation planning processes. This section includes the following subsections:

- Types of Data Used
- Prioritized Project Lists
- Tribal Long-Range Transportation Plan
- Safety Plans
- Implementation Plans
- Financial Planning

Types of Data Used

The existing literature does not contain examples from the last five years of the types of data that Tribes are using in the planning process, or the challenges that Tribes face in data collection. However, the FHWA Tribal Transportation Planning Module titled *Data Collection and Use* discusses where Tribes

⁴⁴ FHWA Office of Planning, San Diego, California: A Tribal Consortium Enhances Tribal/State Coordination Efforts Case Study, https://www.fhwa.dot.gov/planning/processes/tribal/case_studies/sandiego.cfm

could find data. The first recommendation is to identify data already within the Tribal community. Examples of possible transportation-related data sources include existing plans, studies, reports, and surveys, communication with the Tribal community such as transportation relevant public correspondence they may have recorded, casino operators, Indian Health Service, Tribal government agencies, State and local police departments, day care centers, head start programs, and many other local sources. The module provides a detailed list. Data management and maintenance is discussed at length in the latter portion of the module. It is important to understand that data is only as good as its quality. Quality assurance, ensuring that the data collection process provides consistent data results, and quality control, or the evaluation method that determines if data is reasonable and consistent, are described at length. The module concludes on how data could be visualized. The module primarily focused on GIS systems and how they can be beneficial to Tribes such as showing the location of land parcels and environmentally sensitive areas.

As mentioned in the Public Involvement section of this memorandum, Tribes can collect data and information through Tribal events planned for other purposes as opportunities to introduce projects and engage the public. Tribes may also wish to visit local events in neighboring areas to engage with partners and build relationships. There are limited case study examples of Tribes that utilized anecdotal information and non-traditional planning techniques in place of data. In the FHWA *Tribal Transportation Planning Best Practices Guidebook*, the creative problem-solving example provided is the seat belt safety campaign from the Inter-Tribal Council of Arizona.

Prioritized Project Lists

The existing literature provides information about how FHWA recommends that Tribes prioritize projects, but provides few recent examples of the processes that Tribes are using for prioritization. The FHWA Tribal Transportation Planning Module titled *Project Prioritization* notes that project prioritization is the method for listing transportation projects critical to the success of the Tribal transportation program in order of importance for implementation purposes. This process strengthens a Tribe's ability to strategically plan and address Tribal transportation goals and strategies. Importantly, Federal law (23 USC and 25 CRF Part 170) requires projects to be prioritized.

There are five steps listed on how to prioritize projects: identify projects, seek public input, develop criteria and evaluation measures, report findings and seek consensus, and put it all together. This module describes each step while providing examples of documents and processes, such as developing quantitative values for each project. One example template, with definitions of criteria, is the Project Data book, which contains information (collected by a Tribe's own research) for each project. The final product of this process is a list of projects contained in the Project Summary Sheet. Projects are listed as a snap shot of all the projects from the data book. Typically, the list of projects is submitted to a Tribal governing body for endorsement by Tribal Resolution. The list and resolution is then sent to funding agencies for inclusion in their TIPs. These agencies may be the BIA, FHWA, State DOT, MPO, or other partnering agencies.

The *Project Prioritization* module provides a project prioritization toolbox that lists several techniques and strategies for prioritizing projects. The module summarizes the prioritization process described in the first few pages of the module, along with a few definitions, but it could act as a quick reference for Tribal transportation staff.

The module includes a case study discussing the Quinault Indian Nation’s project prioritization process. The process took four years and started in response to their Transportation Plan and Comprehensive Land Use Plan. The project prioritization list demonstrates clear tangible results of a complicated process. The priority list allowed the Tribe to pursue funding made available through the American Recovery and Reinvestment Act. Lastly, one of the Tribe’s objectives was to achieve a balanced, multimodal approach. Tribal leaders showcased in the article described how their experience helped them see the landscape of their transportation projects, which led them to reconfiguring their priorities to reflect that balanced approach.

Tribal Long-Range Transportation Plan

Generally the Tribal LRTP process requires a qualitative analysis of future goals and long term visioning. The FHWA *Tribal Transportation Best Practices Guidebook* provides guiding questions that are targeted at Tribes, helping practitioners to reflect and apply the information and lessons to their own programs. The Guidebook suggests that Tribal practitioners routinely and periodically revisit the questions particularly when Tribes address improvements or updates to existing transportation programs. The Guidebook also includes a customizable checklist for applying best practices to specific program issues and strategies. The checklist provides a framework to help Tribal practitioners to identify program challenges, assess existing conditions, and determine new management approaches and techniques to Tribal transportation programs. The Guidebook also includes a listing of technical resources and publications for further reading from FHWA, TRB, and other agencies related to asset management, historic preservation, partnerships, real estate, safety, and transportation planning.

The Sault Ste. Marie Tribe of Chippewa Indians Transportation Department Staff developed a 2018-2038 LRTP, which aligned with the Tribe’s Strategic Master Plan and all Tribal codes and ordinances.⁴⁵ The plan indicates that projects are prioritized based on guidance found in the Michigan Transportation Asset Management Council Management Guide, which includes standards and processes to rate current road conditions and systems as a prioritization task.

During the public involvement process for the Navajo Nation 2016 LRTP, the project team learned that the majority of respondents in the community survey did not know what an LRTP was, although they did know about the Community Land Use Plan (CLUP).⁴⁶ CLUPs are comprehensive land use planning documents developed by local government subdivisions, or Chapters, in the Navajo Nation. Since the CLUP typically had limited information on transportation, the Navajo Nation used the opportunity to update the CLUP structure and coordinate its use and structure with LRTPs through shared visioning and goals.

Safety Plans

The existing literature provides information about how FHWA recommends that Tribes conduct safety planning, but provides few recent examples of the processes that Tribes are using for safety planning. The FHWA Tribal Transportation Planning Module titled *Developing a Transportation Safety Plan* provides a general overview of the transportation safety planning process with Tribal Governments as the target audience. A Tribe can use a transportation safety plan to coordinate its efforts between Tribal

⁴⁵ Sault Ste. Marie Tribe of Chippewa Indians LRTP 2018-2038
<https://www.saulttribe.com/images/downloads/about%20us/Transportation%20Department/Long%20Range%20Transportation%20and%20Capital%20Improvement%20Plan.pdf>

⁴⁶ Navajo Nation LRTP 2016 <http://fortbertholdplan.org/wp-content/uploads/2016/06/LRTP-website-draft.pdf>

and other government leadership to better share data and information, determine emphasis areas for safety, identify strategies to improve safety, prioritize and fund priority safety projects, and evaluate safety outcomes. The module provides a hypothetical example of a Tribe's efforts to create a transportation safety plan as an example to illustrate what a Tribe might encounter when developing their own similar plan.

There are several steps listed in the module on how to develop a transportation safety plan:

- Establish a safety leadership framework;
- Collect and analyze safety data;
- Determine an emphasis area;
- Research and identify potential strategies;
- Prioritize and incorporate strategies;
- Draft the plan; and
- Evaluate and update the plan.

The module goes into detail discussing each step and their sub-steps. The sections are standard in detail for a transportation plan, but are accompanied by short case study descriptions on how the Wind Tribe tackled those points in their planning process. The data section provides relevant information for Tribes by listing several ways to use data to include identifying problems, evaluating strategies, and assessing outcomes. Tribes can gather data from a number of existing sources that are listed out in the module, such as National Highway Traffic Safety Administration's Fatality Analysis Reporting System (FARS). If existing data is insufficient for a Tribe's specific project, then the safety plan could include strategies to gather data in the future.

The final section of the module includes potentially beneficial materials in the appendix for Tribes to use. The module's appendix includes a table of sample emphasis areas with their corresponding measures and potential strategies, a sample agenda for a working group meeting, and a list of web based resources on data collection and strategy identification.

Implementation Plans

The existing literature provides few recent examples of how Tribes develop implementation plans. Implementation plans ensure projects are delivered and meet program goals. The Sault Ste. Marie Tribe of Chippewa Indians' LRTP includes a discussion on the planning process for Tribal nonmotorized transportation (NMT) such as off-street paths, trails, and sidewalks, which involved extensive stakeholder consultation and coordination with implementation planning. The NMT Plan provides a roadmap of NMT-related goals and objectives that are used to guide investment decisions.

Financial Planning

The financial planning of a transportation plan can often be complex. The funding of a project may require multiple funding sources as well as several partnerships with external agencies. The FHWA Transportation Planning Module titled *Financial Planning* for Tribal governments discusses Tribal transportation funding sources, financing concepts, and methods for estimating revenues.

The module outlines four steps in financial planning: identify funding streams, estimate future revenue, match funding to projects, and writing the financial plan. These steps are then described in detail as well as a step-by-step guide to financial planning. The majority of the information within the Financial

Planning module is fairly standard. But there are a few sections specifically relevant to Tribal transportation planning.

The *Financial Planning* module provides links to various online resources to help Tribes estimate infrastructure cost estimates to be used in a financial plan. However, it is mentioned that not all projects will cost the same because of various factors such as the variable costs in land, costs for the right of way, and environmental remediation.

Finding funding is often the most difficult aspect of the transportation planning process. The FHWA *Financial Planning* module and the *Financial Resources* module discuss fundamental funding stream activities including grants and bonds. However, the information in the *Funding Resources* module is largely outdated.

Tribal Transportation Program funding can support roadway and infrastructure improvements adjacent to roads such as bike lanes. In contrast, the Tribal Transit Program provides support for public transit on public lands such as trains or busses. Tribes must apply and compete for this type of funding. Tribes can pursue other Federal funding by either applying for grants or partnering with other agencies or governments. Other funding sources are discussed in the FHWA *Financial Planning* module such as issuing local bonds and collecting tolls. Gas taxes as a means for raising revenue for transportation projects are briefly discussed. Taxes imposed and revenue collected from those taxes by a Tribe is entirely under the authority of that Tribe.

As discussed earlier, the *Developing a Transportation Safety Plan* module briefly discusses funding of transportation safety plans. These plans are important with regard to financial planning because they may increase a Tribe's ability to secure grant funding to implement its safety strategies. They can also be useful for leveraging private funds from local businesses interested in investing in transportation safety. The safety module briefly describes possible funding sources: Highway Safety Improvement Program, Tribal Transportation Program Safety Fund (grant funding for projects that improve transportation safety on Tribal lands, including funds to support Tribal transportation safety planning), and Indian Highway Safety Program (funds from the BIA can address data improvement, behavioral activities, and law enforcement in coordination with Tribal Governments). Funding can be limited but there may be assistance to develop safety plans with the help of Tribal Technical Assistance Program Centers, universities, or other governmental partners.

The *Financial Planning* module includes an example from the White Earth Nation in Minnesota that demonstrates how the Tribe linked financial planning to its transportation priorities. The Tribe's public works director started with identifying projects listed within the Tribal transportation plan that was developed with the help of their Tribal Transportation Advisory Committee. The committee includes representation from Minnesota DOT and county engineers and helps identify projects for one another's TIP. By communicating closely with other governments, the White Earth Nation was able to share costs and project schedules so that opportunities for matching funding from non-Tribal sources can be maximized.

[Transportation Planning Connections](#)

The planning connections resources documented in this section suggest the value of applying a broader lens to the transportation planning process and consider the overall goals of the Tribal community. Tribal planning takes shape in a variety of formats due to varied resources and unique assets and

challenges. The literature and case studies summarized in this section describe opportunities for partnerships, creative problem solving, and leveraging existing resources to meet goals. Future tasks in this research may identify additional planning connections that Tribes consider in transportation planning, including any unforeseen program goals that may open opportunities for collaboration between other government agencies.

This section includes the following subsections:

- Planning and Project Delivery
- Planning and Land Use
- Planning and Economic Development Plans
- Planning and Environmental, Right of Way, and Utility Considerations
- Planning and Resiliency

Transportation Planning and Project Delivery

The existing literature provides few examples of how Tribes link the planning process to project delivery. However, the ‘Define a Specific Need’ section of FHWA’s Tribal Transportation Planning Module titled *Partnering and Leveraging* mentions the need to consider the legal ramifications of a sovereign Tribe engaging with external partners. In the initial phase of a partnership it is crucial that legal counsel should review whether or not a partnership would impact the sovereignty of the Tribe. This module recommends that Tribal legal counsel participates in many of the steps during the project planning and implementation process. Legal consultation leads into formal structure of a partnership. MOAs or MOUs can be used to organize partnerships, set responsibilities, create expectations, and hold parties accountable to their roles. There is an example of a MOA between Indian Township Passamaquoddy and the Maine DOT in the Appendix.

Transportation Planning and Land Use

Effective planning and overall community development involves engagement coordination between transportation and land use. The existing literature provides few examples of how Tribes link the transportation planning process to land use planning. However, as discussed earlier, comprehensive Master Plans generally include a section or discussion on transportation conditions and priorities. For example, the Spokane Tribe of Indians’ *2013 Community Master Plan* discusses safety concerns particularly for pedestrians due to a lack of separation on roadways between vehicles, bicycles, and pedestrians.⁴⁷ These conditions make walking extremely dangerous. The plan suggested improvements such as sidewalks, pedestrian and bicycle paths, and street lighting.

Transportation Planning and Economic Development Plans

Transportation planning is a critical element of economic development planning. Limited public transportation often impedes Tribal communities from accessing employment, commerce, and schools. Although many of the case studies reviewed for this literature review can illustrate the success of a Tribal community securing economic benefits through transportation planning, there were few examples of explicit connections between transportation planning and economic development planning. As one example, the Confederate Tribes of the Umatilla Indian Reservation in Oregon established a public transit system through the use of Federal Tribal Transit funds, Small City and Rural Program funds,

⁴⁷ Spokane Tribe of Indians 2013 Master Plan, <http://fortbertholdplan.org/wp-content/uploads/2016/08/Final-SCMP.pdf>

Tribal Transportation Program funds, contributions from the Tribe's administration budget, and State grants for county transit authorities. The system was comprised of a bus fleet that serviced ten towns and cities in five counties within two states. The With this service, Tribal communities connected three airports, multiple rail lines, eight hospitals, several regional retail centers, four universities, and three community colleges.⁴⁸

Transportation Planning and Environmental, Right of Way, and Utility Considerations

Right of way conflicts can be a common occurrence when mapping out transportation projects. Preserving and maintaining the sovereign rights of a Tribal community creates trust and clarifies roles and responsibilities within jurisdictional boundaries. The existing literature does not provide tangible examples of how the Tribal transportation process is linked to environmental review, right of way, and utilities. However, the example of the North Central Regional Transit District (NCRTD) mentioned earlier in this document demonstrates how right of way can be managed appropriately. In this case, three Tribes within a rural region of New Mexico determined that the widening of the road would be unacceptable because it would require additional right of way from the Pueblos. They banded together to lobby NMDOT for a study to be conducted on alternative transportation demand management (TDM) measures. FHWA conducted a major investment study of the corridor and for the first time included all the Tribal pueblos. Their efforts successfully lead to alternative methods to alleviate traffic congestion while also preserving their own right of way rights. Communicating with partner governments to determine jurisdictional boundaries ensure that little conflict occurs when planning transportation projects.

Transportation Planning and Resiliency

Risk management is a critical tool in the transportation asset management process because it allows Tribes to assess potential threats and mitigation strategies to extreme events, external hazards, and uncertainties. Severe weather events in recent years have also emphasized the importance of integrating resiliency goals into transportation asset management planning. Tribes may wish to conduct risk analyses to examine the likelihood and impacts of different risks to their transportation assets and facilities. Consideration of resiliency in the planning process sets a standard for preparedness and readiness. The FHWA Tribal Transportation Planning module titled *Asset Management* explains that a lack of planning may result in asset failure such as poor condition, unexpected loading, poor work practices, and other risks. However, the existing literature does not provide ample details about how the Tribal transportation planning process and project delivery are linked.

⁴⁸ Board of Governors of the Federal Reserve System. 2012. Growing Economies in Indian Country: Taking Stock of Progress and Partnerships.

Summary of Literature Gaps and Research Questions

The following is a summary of the literature gaps and research questions pertaining to the Transportation Planning in Tribal Communities research project.

Tribal Transportation Planning
<ul style="list-style-type: none"> • Do Tribal communities use the methods and practices described in Federal documents and modules to assist them in their transportation planning processes? • How are the six common best practice areas identified in the 2009 FHWA Tribal Transportation Best Practices Guidebook (leadership, problem identification, resource allocation, creative problem solving, collaboration and partnerships, and effective communications) applicable in current Tribal transportation planning contexts? Are there any recent examples of government-to-government coordination or relationships that demonstrate how these best practices are put into practice? • Who do Tribes involve in their transportation planning processes? At what point in the process are these individuals involved and what is their involvement? • Who are the decision makers within a Tribe’s transportation planning processes? What information is used to help inform those decisions? • What considerations impact a Tribe’s transportation planning decision making (e.g., economic development, safety, access to jobs, maintaining infrastructure)? • How do changes in Tribal leadership influence transportation planning priorities and decision making? • How do Tribes’ internal staffing capacity affect the transportation planning process?
Long-Range Transportation Plans
<ul style="list-style-type: none"> • What are the common processes that Tribes use to develop long-range transportation plans (LRTPs), including partnerships with other agencies and tools that facilitate the planning process? • How do Tribes incorporate their LRTP priorities into other comprehensive planning documents, such as master plans, land use plans, safety plans, and statewide or regional plans? How do Tribes incorporate recommendations from other planning documents into their LRTPs? • What are the post-LRTP decision points (e.g., project selection, programming) that an LRTP should inform?
Tribal Transportation Improvement Program
<ul style="list-style-type: none"> • What methods or tools do Tribes use to prioritize projects? • What challenges do Tribes experience with the Tribal Transportation Improvement Program (TTIP) process? What are the solutions or tools to address those challenges throughout the development of the TTIP? • How do the Tribes utilize their TTIPs?
Legal Framework
<ul style="list-style-type: none"> • How do Tribal governments or planners navigate the legal and regulatory requirements for Tribal transportation planning? • How do Tribes consider Tribal sovereignty when making transportation planning and funding decisions?
Data Collection and Use
<ul style="list-style-type: none"> • What types and sources of data do Tribes use to support their transportation planning processes?

<ul style="list-style-type: none"> • What challenges do Tribes face in collecting and using data in the transportation planning process? How do Tribes address those challenges or gaps in information? • What informal strategies do Tribal planners use when data is limited or not available? • What alternative data and analysis methods assist Tribes when formal methods are not available?
Financial Planning
<ul style="list-style-type: none"> • How do Tribes conduct financial planning including budgeting, cost estimating, and allocating resources? • What sources of funding do Tribes use for conducting planning activities? • What grant funding sources do Tribes seek to fund projects? • What resources do Tribes need to better manage received funds?
Tools and Resources
<ul style="list-style-type: none"> • What tools and support systems do Tribes currently use to support the transportation planning process? How are they useful/helpful? • What tools or resources would be helpful in the Tribal transportation planning process?
Transportation Planning Connections
<ul style="list-style-type: none"> • How do Tribes link the Tribal transportation planning process to project delivery (including preliminary engineering, environmental review, right-of-way, utilities, and construction) and infrastructure maintenance and operations?

Next Steps

The project team will use the information in this literature review memorandum as background information as the research progresses. In particular, the literature review provides context for the planning topic to discuss with Tribal transportation planning stakeholders. The examples summarized in this document may also lead to contacts to interview for additional information.

The project team will consider the literature gaps and research questions identified in the previous section to inform future phases of the research. Activities to fill those gaps may include interviews with stakeholders and the review of documents gathered through interviews that are not currently publicly available.