

National Park Service
Department of the Interior

Federal Lands Transportation Program
1849 C St. NW, MS 2420
Washington, DC 20240-0001



National Park Service Federal Lands Transportation Program Implementation Guide

JULY 2018

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NATIONAL PARK SERVICE

FEDERAL LANDS TRANSPORTATION PROGRAM

IMPLEMENTATION GUIDE

1 JULY 2018



This guide is intended as a ready reference to the program and project management processes of the National Park Service Federal Lands Transportation Program (NPS FLTP), a jointly administered transportation program of the National Park Service (NPS) and the Federal Highway Administration (FHWA). The agencies want to ensure that everyone who participates in the NPS FLTP understands what needs to be done to provide a high quality and cost-effective transportation system for our national park system.

This guidance document provides information on roles and responsibilities, goals, policies, planning, coordination, fund sources, budgeting, programming, project development, and project delivery. This version of the guide (2018) updates the processes and procedures for the program last detailed in the 2008 version that, in turn, was an update of the original 1998 program procedures document.

This guide to program implementation was written and edited by the many program stakeholders who contribute to the daily operation and success of the National Park Service Federal Lands Transportation Program. It reflects the cooperative approach of a multi-discipline group of professionals from the headquarters and field staff of the National Park Service and Federal Highway Administration. It provides a working representation of the NPS FLTP best practices and processes. The guide compiles all the important policies, procedures, and key milestone events at both the project and program levels and is written for a broad audience of readers to give them both a general and detailed accounting on how the program and project delivery aspects of the NPS Federal Lands and Transportation Program works on a day-to-day basis. It provides helpful pointers on how the program works as experienced and detailed by the staff who deliver the annual, multi-million transportation construction program.

These professionals are the custodians of a vast transportation system that includes approximately 5,500 miles of paved roads, 4,100 miles of publicly accessible unpaved roads, 1,442 bridges, 63 publicly accessible tunnels, 121 alternative transportation systems (e.g., buses, trolleys, ferries, and trams), and more than 5,000 miles of paved trails. The system of paved roads and bridges represent a federal investment of over \$35 billion dollars. Roads, bridges, transit, and trails provide critical access to and within the parks. With the support of our partner the Federal Highway Administration, the NPS Federal Lands Transportation Program maintains a 95+ percent obligation rate for program funds. Actual construction (e.g., paving roads and rehabilitating bridges) typically constitutes approximately 75 percent of the total expenditures from the NPS Federal Lands Transportation Program. The remaining 25 percent is used for design, environmental compliance, planning, and administration.

Standard practices and processes change over time through improvements to streamline processes, changes in legislation, increases and decreases in funding, and integration of new technologies. Accordingly, this evolving document changes and adapts to meet future challenges of the NPS Federal Lands Transportation Program.

This document does not take the place of formal laws, codes, regulations, executive and director orders, policies, design standards, and interagency agreements.

The following chapters describe the who, what, when, and how of the day-to-day management issues, procedures, and processes of the NPS Federal Lands Transportation Program. The chapters are organized as follows.

Chapter 1. Overview

This chapter presents some of the history of the Federal Lands Transportation Program, as well as a quick look at the program's structure.

Chapter 2. Roles and Responsibilities

The focus of this chapter is on how the two agencies have established the responsibilities of the National Park Service and Federal Highway Administration and their primary subunits involved with implementing the NPS Federal Lands Transportation Program and certain other federal transportation programs for the National Park Service. The chapter also describes the potential roles of public and private sector partners.

Chapter 3. Transportation Planning and Management Systems

This chapter includes a description of NPS transportation planning processes, reviews federal transportation planning requirements, including long range transportation plans and transportation improvement programs, and discusses various management systems that provide support to this performance-based program.

Chapter 4. Vision/Mission, Goals and Objectives, Performance Indices, and Investment Strategy

This chapter describes the vision and mission of the NPS transportation system, as presented in the NPS National Long Range Transportation Plan (NLRTP). It notes the NLRTP goals and objectives for transportation in national park system units, sets out performance measures to track progress in attaining those goals, and describes the National Transportation Investment Strategy.

Chapter 5. The NPS FLTP and Other Fund Sources

This chapter discusses the sources for funding for the NPS transportation systems and how these funds are dispersed across the bureau's programs. Other public programs and fund sources, which are used to supplement NPS FLTP projects or fully fund transportation capital projects and services in national park system units, are also described.

Chapter 6. Program Development and Management

This chapter describes how a multi-year program of projects is developed and budgeted and how funding is managed and monitored.

Chapter 7. Design and Construction Project Delivery

This chapter identifies the activities involved in designing and constructing or delivering transportation projects, from the initial project scoping through the completion of construction. Chapter subsections describe the key processes, procedures, and responsibilities of the staffs of the National Park Service and the Federal Highway Administration, in particular the operating units known as the Federal Lands Highway divisions.

FOREWORD	ii
DOCUMENT ORGANIZATION	iii
DOCUMENT ORGANIZATION	iv
Table of Contents	v
Table of Contents	vi
CHAPTER 1: OVERVIEW OF THE NPS TRANSPORTATION SYSTEM	7
A. NPS TRANSPORTATION ASSETS	8
B. VALUE AND CONDITION OF ASSETS	8
C. OVERVIEW OF THE NPS TRANSPORTATION PROGRAM	9
D. PLAYERS AND ROLES	9
E. SCOPE OF ACTIVITIES	10
F. NPS FEDERAL LANDS TRANSPORTATION PROGRAM	12
CHAPTER 2: ROLES AND RESPONSIBILITIES OF THE NPS FEDERAL LANDS TRANSPORTATION PROGRAM	16
A. FLTP AND FHWA INTERAGENCY AGREEMENT	16
B. AGENCY RESPONSIBILITIES	17
C. NPS SUBUNITS	20
D. FHWA SUBUNITS	22
E. NPS FLTP COORDINATION MECHANISMS	24
F. PARTNER AGENCIES	25
CHAPTER 3: TRANSPORTATION PLANNING AND MANAGEMENT SYSTEMS	26
A. TRANSPORTATION PLANNING	27
B. TRANSPORTATION MANAGEMENT SYSTEMS	33

CHAPTER 4: VISION/MISSION, GOALS AND OBJECTIVES, PERFORMANCE INDICES, AND INVESTMENT STRATEGY 35

- A. NPS TRANSPORTATION SYSTEM VISION AND MISSION 36
- B. NPS TRANSPORTATION SYSTEM GOALS AND OBJECTIVES FROM THE NATIONAL LRTP 37
- C. NPS NATIONAL TRANSPORTATION INVESTMENT STRATEGY 38
- D. NPS TRANSPORTATION SYSTEM PERFORMANCE INDICES 39

CHAPTER 5: THE NPS FEDERAL LANDS TRANSPORTATION PROGRAM AND OTHER FUND SOURCES 40

- A. THE NPS FLTP FUNDING 40
- B. FEDERAL LANDS ACCESS PROGRAM 47
- C. OTHER FEDERAL TRANSPORTATION PROGRAMS 48
- D. NPS FUNDING SOURCES 50
- E. STATE FUNDING FOR HIGHWAYS AND TRANSIT 50
- F. LOCAL AND PRIVATE FUNDING 51

CHAPTER 6: PROGRAM DEVELOPMENT AND MANAGEMENT 51

- A. PROGRAM DEVELOPMENT 52
- B. BUDGET DEVELOPMENT 58
- C. FUNDS MANAGEMENT 62

CHAPTER 7: DESIGN AND CONSTRUCTION PROJECT DELIVERY 70

- A. PROJECT MANAGEMENT, PROJECT VERIFICATION AND SCOPING, AND PROJECT AGREEMENTS 71
- B. DESIGN 74
- C. CONSTRUCTION (CN) 75
- D. CONSTRUCTION ENGINEERING (CE) 76
- E. PROJECT WRAP-UP AND CLOSE OUT 78

CHAPTER 1: OVERVIEW OF THE NPS TRANSPORTATION SYSTEM

Since its inception in 1916, the National Park Service (NPS) has developed and defined what is now an industry-accepted best practice: context-sensitive planning and design. This guiding principle results in providing safe, efficient, well-engineered transportation solutions by laying them “lightly on the land” in a way that helps preserve and protect park resources.

The NPS transportation system provides essential public access to parks, improves visitor mobility within park units, and allows the staff to conduct park operations. (Park or park unit refers to the [approximately 417 national park system units](#), including national parks, seashores, monuments, trails, historic sites, battlefields, etc.

Planning for transportation facilities of national park system units occurs within a framework of laws, policies, and guidance that starts with the enabling act for the National Park Service: the Organic Act of 1916 (54 U.S.C. 1). This Act established the following mission for the Park Service:

[T]o conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

The mission is the first and last test for the soundness of all transportation plans. Beyond the mission are federal laws that relate to various aspects of facility planning in general, such as: the [Antiquities Act of 1906](#), the [Wilderness Act of 1964](#), the [National Environmental Policy Act of 1969](#), and the [National Historic Preservation Act of 1966](#). There is also specific enabling legislation for each park unit that defines, among other things, the boundaries and purposes of the park unit. NPS Management Policies are designed to implement the relevant body of laws and to carry out the mission.

A. NPS TRANSPORTATION ASSETS

As of 2016, the NPS transportation system included:

- 5,690 miles of publicly accessible paved roads (of which 1,100 miles are parkways),
- 7,000 miles of unpaved roads,
- 1,451 publicly accessible bridges,
- 63 publicly accessible tunnels,
- 100 alternative transportation systems in 64 park units, and
- 17,872 miles of trails, of which 5,012 miles (28%) are paved.

B. VALUE AND CONDITION OF ASSETS

The development, operation, and maintenance of the NPS transportation system are a federal responsibility. The NPS transportation system represents a substantial public investment. The [estimated replacement value of all NPS surface transportation assets is \\$35 to \\$40 billion](#), representing approximately 20 percent of the value of all NPS assets.

Recent authorized funding levels have not been sufficient to keep all existing transportation assets in good condition; within each asset category, there are assets in need of reinvestment and refurbishment. According to the NPS Asset Inventory Summary (2017), the estimated accumulated deferred maintenance deficit is [approximately \\$11.6 billion](#).

C. OVERVIEW OF THE NPS TRANSPORTATION PROGRAM

The “NPS transportation program” is both a reference to the broad range of programs and activities that are involved with the NPS transportation system and to the cooperative program implemented by the

- NPS Washington Support Office (WASO);
- WASO Park Facility Management Division (PFMD): Transportation Branch and Facilities Planning Branch;
- Regional Transportation Program Coordinators;
- Denver Service Center (DSC); and
- Office of Federal Lands Highway (FLH).

D. PLAYERS AND ROLES (SEE CHAPTER 4 FOR MORE DETAIL)

1. Parks

Park units have an ongoing responsibility for project initiation, project development, and the operation and maintenance of the transportation assets within their respective borders.

2. Regions

Each of the seven NPS regions designates a single Regional Transportation Program Coordinator; often referred to simply as “regional coordinators” (per e-mail from Dawn Foy, dated October 30, 2017 conveying notes of October 26 meeting of FLTP). These individuals and other regional staff help develop and review, prioritize, and schedule transportation projects for the region, and confirm the eligibility of projects for Federal Lands Transportation Program (FLTP) funding. They also oversee the region’s FLTP allocation.

3. WASO

The WASO/PFMD Transportation Branch provides policy and oversight for the NPS transportation program. The Transportation branch determines allocations to each program category, calculates regional funding allocations, and prioritizes and schedules certain projects. The WASO/PFMD Facilities Planning Branch manages planning-related activities in support of the Federal Lands

Transportation Program.

4. Denver Service Center

The [Denver Service Center](#) provides project management services for DSC-delivered projects and tasks, project management liaison support for FLH-delivered projects, special studies, comprehensive National Environmental Policy Act and compliance services, and other transportation-related services as requested by the Washington Support Office, regions, or parks (through the regions).

5. United States Department of the Interior

The [United States Department of the Interior](#) includes several, federal land management agencies, including the National Park Service. The Department of the Interior coordinates with the US Department of Transportation on the Federal Lands Transportation Program.

6. Federal Lands Highway

The [Federal Highway Administration \(FHWA\)](#) administers program funds and allocates contract authority and obligation limitations to the Office of Federal Lands Highways, the three FLH divisions, and the National Park Service. The Office of the Federal Lands Highways monitors the program of projects and nec-



Shuttle, Zion National Park, UT

essary program changes and modification in the program as proposed by the National Park Service. FLH personnel cooperate with the National Park Service to detail and present the FLTP needs to Congress and, working with NPS personnel, provide responses to congressional inquiries and present project briefings.

E. SCOPE OF ACTIVITIES

1. Roads

In 2012, the NPS publicly-accessible paved road network [Pavement Condition Rating \(PCR\)](#), an FHWA-developed, industry standard condition metric, showed national park system roads at a PCR of 82, indicating network-wide “fair condition” for its pavements. The desired condition under sound asset management practices would be to improve the system and maintain it at a PCR of 85 (the lowest PCR still rated as “good condition”), which allows for a network of paved roads that can be economically and efficiently maintained with pavement preservation and a complete array of maintenance and rehabilitation strategies.

2. Bridges

The overall national park system bridge inventory is rated as being in “good condition,” with an industry standard Bridge Health Index of 0.92, although that rating places it on the border of “fair condition.” However, the bridge inventory is aging, with a number of existing bridges having been constructed in the 1940s, 50s, and 60s. A 2010 assessment reported 28 publicly accessible national park system bridges as “structurally deficient,” in need of rehabilitation or reconstruction. Protecting the bridge inventory requires strategies that identify and address these structural deficiencies, as well as additional funding.

3. Alternative Transportation Program

The NPS WASO Transportation Branch’s [Alternative Transportation Program \(ATP\)](#) oversees the various NPS alternative transportation systems (including transit, trails, water-based services, rail, and Intelligent Transportation Systems), assets, and services, intended to help national parks minimize resource impacts where traffic volume on existing roadway infrastructure has reached or is over capacity. These systems are important to the National Park Service and its visitors because they contribute to preserving resources including improvements to air quality, soundscapes, and reduced wildlife/

auto collisions. These systems also demonstrate leadership in using alternative transportation approaches to reduce fossil fuel consumption, greenhouse gas emissions, and promote active transportation.

As of May 2016, the National Park Service had 121 alternative transportation systems in 63 park units nationwide. The systems are provided through contractual, concession, and/or partnership agreements. Twenty of the systems are owned and operated by the National Park Service, 96 are contracted by the National Park Service through concession and/or service contracts, and 15 are provided under cooperative agreements with public or private partners:

- 61 systems are buses (over 70% of this fleet is comprised of alternative fueled vehicles including propane, compressed natural gas, and diesel/electric hybrid vehicles),
- 40 systems are water-based (ferry boats, canal boats, small tour boats),
- 5 systems are rail (historic trolleys and scenic railroads), and
- 25 systems are other small vans and specialty vehicles, including planes.

Trails. Of the nearly 18,000 miles of trails throughout all units of the NPS, most are natural surfaced trails in backcountry settings. However, the 5,000 miles of frontcountry trails are also an important element of the NPS transportation system, often connecting built facilities to popular overlooks, other tourist destinations, and local communities.

Frontcountry trails can provide an alternative to private motor vehicle access to many park units. Approximately 1,000 miles of NPS frontcountry trails are paved, helping to disperse users and allowing visitors who bicycle or walk to have a more first-hand park experience.

In 1988, 75% of park trails were in good or fair condition. As of 2013, 17% of all trails throughout the National Park Service—including 21% of front country trails—were considered in “poor or seriously deficient” condition, signaling the need for major repair and rehabilitation.

Intelligent Transportation Systems—Intelligent Transportation Systems is the umbrella term for numerous technologies deployed to manage transportation networks. These systems have gained widespread use nationally, improving the safety and efficiency of travel. In the



Parking and Transit transfer area, Denali National Park, AK

national parks, the availability of real-time information on delays from road construction, weather-related road conditions, and transit arrival times enable a more enjoyable visitor experience.

4. Operations and Maintenance

There is a maintenance responsibility and cost associated with every asset administered by the National Park Service. A regular, periodic inventory and condition assessment of park assets is performed to identify deficiencies and to ensure the cost-effective maintenance of all facilities.

Each NPS unit conducts a program of preventive and rehabilitative maintenance and preservation (1) to provide a safe, sanitary, environmentally protective, and esthetically pleasing environment for park visitors and employees; (2) to protect the physical integrity of facilities; and (3) to preserve or maintain facilities in their optimum sustainable condition to the greatest extent possible.

Preventive and rehabilitative maintenance programs incorporate sustainable design elements and practices to ensure that water and energy efficiency, pollution prevention, and waste prevention and reduction are standard practice.

5. Administration and Management

The [NPS Management Policies 2006](#) is the highest of three levels of guidance documents in the NPS Directives System. The [Directives System](#) is designed to provide NPS management and staff with clear and continuously updated information on NPS policy, required and/or recommended actions, and other information that will help them manage parks and programs effectively.

6. State and Local Partnerships

The National Park Service encourages active partnerships with state and local governments and organizations. Currently these range from joint operation of transit shuttles and systems to joint funding of trails and parking facilities. The law authorizing the Federal Lands Transportation Program also requires joint planning with state departments of transportation and regional metropolitan transportation planning organizations on regionally significant projects.

F. NPS FEDERAL LANDS TRANSPORTATION PROGRAM

The first interagency agreement between the National Park Service and the Bureau of Public Roads (predecessor of today's Federal Highway Administration) to provide road design and construction assistance was executed in February 1926. Today, the partnership between the two agencies continues as the Federal Lands Transportation Program. It is one of the longest formal partnerships between any two federal agencies. The NPS Federal Lands Transportation Program is a “performance-based” program.

The term Park Roads and Parkways Program (PRPP) was coined by Congress in the Surface Transportation and Assistance Act of 1982 to define a specific funding category, Park Roads and Parkways. Prior to 1982, there was no formal name for the program. It was funded via two-year Federal Aid Highway Acts under two funding categories with separate appropriation limits for each: Park Roads and Trails and Parkways. In 2012, under [MAP-21](#) (23 U.S.C. 203) the funding categories were combined into one—the Federal Lands Transportation Program. Congress allocates a specific level of FLTP funding to the National Park Service each year.

1. Program Scope and Priorities under the Federal Lands Transportation Program

Five broad goals have been identified to ensure that transportation systems in the national parks are consistent with the NPS vision and mission:

- Asset management — Sustainably manage NPS transportation assets and services;
- Transportation Finance — Allocate available transportation funding wisely;
- Resource Protection — Protect and preserve natural and cultural resources;
- Visitor Experience — Maintain and enhance the quality of visitor experiences; and
- Safety — Provide a safe transportation system for all users.

For a more involved discussion of NPS FLTP goals, objectives, and performance measures see [Chapter 4](#) of this Guide and the [National Long Range Transportation Plan](#) (July 2017).

2. FLTP Management

a. National Park Service

Daily management of the Federal Lands Transportation Program is accomplished by a small staff in the WASO/PFMD Transportation Branch and by designated individuals called the Regional Transportation Program Coordinators (also referred to as “regional coordinators”) in each of seven NPS regions. Each regional coordinator serves as a liaison between the park units in their respective region, the NPS Washington Support Office, and the appropriate FLH division offices.

Over the years, regional coordinators have taken on increased responsibilities within the transportation arena. In 1999, they assumed responsibility for managing the region's involvement in the Alternative Transportation Program. Most regional coordinators also handle the region's involvement in other federal transportation programs, including Emergency Relief.

The NPS Denver Service Center provides consulting services on transportation projects to NPS park units nationwide with a primary focus on landscape architecture, environmental compliance, revegetation, and other related disciplines.

Finally, the WASO/PFMD Facilities Planning Branch manages the development of long-range transportation plans to fulfill legislative requirements and to support the overall NPS transportation program.

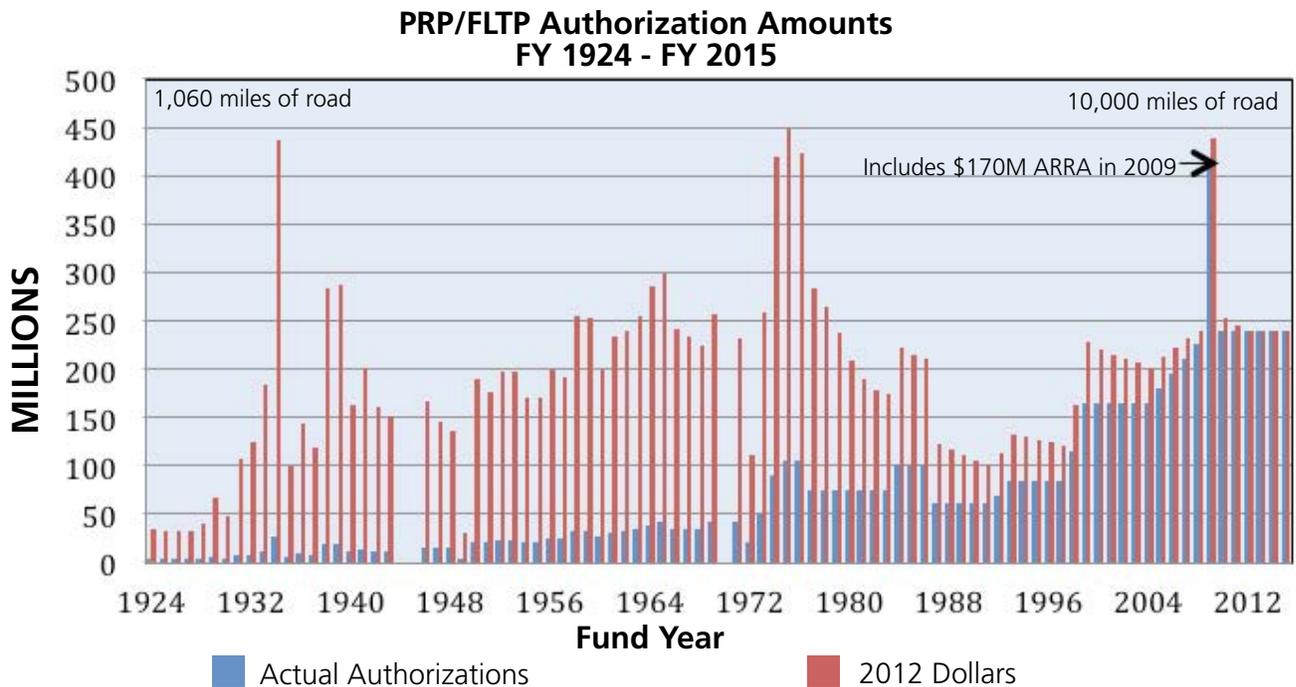
b. Office of Federal Lands Highway

The Federal Highway Administration's Office of Federal Lands Highway provides financial management, engineering, and construction management support for the Federal Lands Transportation Program and similar programs.



Transit transfer area, Grand Canyon National Park

Figure 1.1



Note: Conversion from actual authorizations to FY2012 dollars was made using CPI inflation factors. This is not exactly relative to construction inflation over the same time period, but is a reasonable approximation.

The three FLH divisions provide technical services to develop projects, as well as to support research and data collection and analysis relating to transportation. Ideally, each NPS region would work with one of the divisions. However, because of the different geographic boundaries for the NPS regions and the FLH divisions, three of the seven NPS regions work with two different FLH divisions.

3. NPS FLTP Funding Levels (See Fig. 1.1)

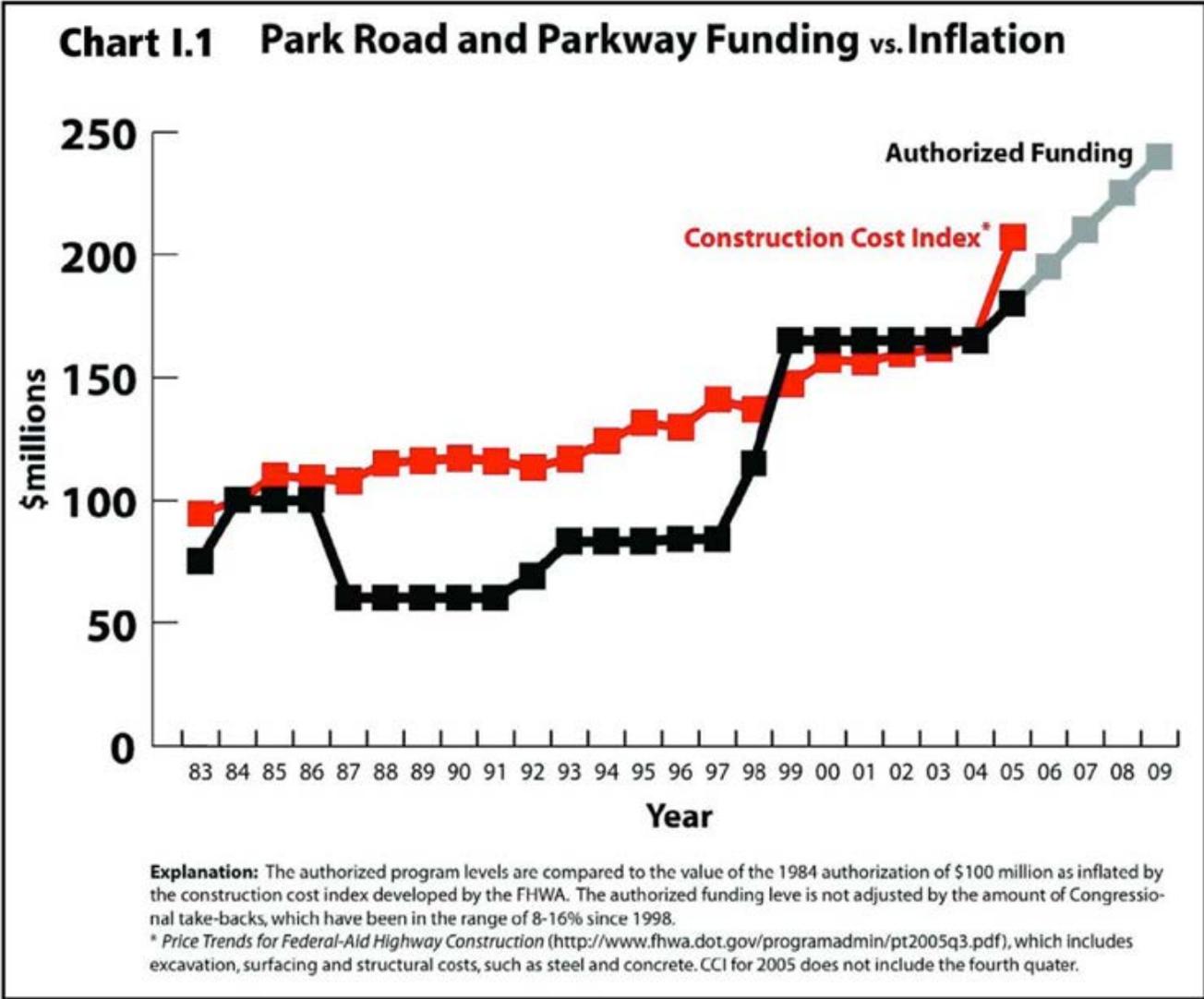
The use of federal transportation funds for NPS transportation projects began in 1924, and the first interagency agreement was struck in February 1926. From 1926 through 1982, the park roads, trails, and parkways were funded through two-year, Federal-aid Highway Acts, with funds directed to the National Park Service through the Federal Highways Administration. The majority of what was then called the “Park Roads” work was funded via these Federal-aid bills.

By 1982, with increasing park visitation and greater demands for spending on all types of infrastructure, the condition of the NPS transportation system was deteriorating. A more secure funding mechanism allowing greater long-term planning for transportation projects was sought. In 1982, the Park Roads and Parkways Pro-

gram, predecessor of the Federal Lands Highway Program, was established with the hope that a dedicated funding source for park roads from the Highway Trust Fund would reverse this trend.

In 1987, after four years of reasonably adequate funding, financial support for the program was substantially cut. A decade of reduced funding resulted in an accelerated decline in the condition of park system roads and bridges. Funding remained low until the passage of the [Transportation Equity Act for the 21st Century \(TEA-21\)](#) in 1998; this federal legislation doubled the annual dollars available for NPS transportation programs. At the same time, Congress placed controls—known as obligation limits—on spending. This limitation reduces the funding available to the Federal Lands Transportation Program each year by 8% to 16% below the authorized levels.

During the 2005 legislative cycle, Congress increased funding for the then Park Roads and Parkways Program to more than \$200 million annually as part of the passage of the [Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users \(SAFETEA-LU\)](#). At this level, the Park Roads and Parkways Program became one of the largest NPS programs. Still, this funding level was sufficient to only slow the deterioration of the NPS-



owned roads, bridges, and other transportation-related assets.

During the years of SAFETEA-LU—2006 to 2012—the National Park Service was authorized or awarded from all sources a total of \$3.3 billion for transportation. These funds came primarily from two sources: 23 U.S.C. (Highway) provided approximately two-thirds of the funding; 16 U.S.C. (now 54 U.S.C.) (Department of the Interior, NPS) programs provided roughly one-third of the funding.

In 2012, the [Moving Ahead for Progress in the 21st Century Act \(MAP-21\)](#) provided continued funding for the Federal Lands Transportation Program at 2009-2012 levels, but the real effect of this funding was eroded (because

of inflation) to pre-SAFETEA-LU levels. At the same time, park visitation increased, the deferred maintenance backlog for transportation assets increased, and construction costs and legislated requirements expanded.

In 2015, the [Fixing America’s Surface Transportation Act, or “FAST Act,”](#) was signed into law. It is the first law enacted in more than ten years that provides a real increase in funding for the NPS Federal Lands Transportation Program.

Since 1987, appropriated funds have been adequate to generally arrest the decline in road pavement conditions, but the overall condition of NPS transportation facilities remains at a much lower level than desired. The backlog of maintenance and rehabilitation needs for paved roads

and unpaved roads (i.e., “deferred maintenance”) was estimated at \$6.1 billion as of September 30, 2017. At that time, total deferred maintenance for NPS assets stood at \$11.6 billion.

Funds are allocated to the Federal Lands Transportation Program on an annual basis from the federal Highway Trust Fund (or simply “Trust Fund”), which is supported by the federal motor vehicle gas tax and certain excise taxes. Funds are appropriated by Congress and then allocated to the Federal Highway Administration/Federal Lands Highway, which provides funds to Divisions and Federal Land Management agencies including the National Park Service. These funds may only be used on roads and transportation facilities open to the public, as opposed to administrative and residential roads. The funds may not be used for routine roadway maintenance activities such as snow plowing, patching, and restriping. All operational and routine maintenance costs remain the responsibility of each land management agency.

Alternative Transportation Program Funding. In 2005, as part of SAFETEA-LU, Congress approved a program for funding transit, trails, and bicycle and pedestrian facilities, known as the Alternative Transportation in Parks and Public Lands (ATPPL) Program. The U.S. Department of Transportation and the Department of the Interior jointly administered the ATPPL program. The ATPPL program was later renamed the Paul S. Sarbanes Transit In Parks program, which provided funding for projects that improve multi-modal transportation options for visitors to federal recreation areas. This program was eliminated in MAP-21, and ATP activities are now funded through the Federal Lands Transportation Program and the Federal Lands Access Program.

4. NPS FLTP Program Structure

In the early years of the Federal Lands Transportation Program (formerly the Park Roads and Parkways Program), most of the funds were expended on projects to widen and upgrade roads to more modern standards. These types of projects were extremely expensive, with a high cost per mile of construction. The result was that very few miles of the NPS road system were rehabilitated or reconstructed in a given year. This pattern of spending, combined with inflation in costs and inadequate funding, accelerated the rate of decline in roadway conditions. In addition, there was a general feeling among both NPS and FHWA staffs that the program was not operating in the most efficient manner.

In 1998, the two agencies restructured the Park Roads and Parkways Program, recognizing that the previous approach was unsustainable and that program management improvements were needed. These changes were phased in over three years and fully implemented by 2001 (and are largely still being used in the NPS Federal Lands Transportation Program). The major components of this restructuring were as follows:

a. Creating three program categories

- Category I for rehabilitation and reconstruction of the primary road system
- Category II to complete the congressionally authorized parkways
- Category III as a pilot to develop alternate modes of transportation

b. Shifting management of the Category I and Category III portion of the program

The Category I portion of the PRPP was shifted from the NPS Washington Office headquarters (known as WASO) to each of the seven NPS regional offices. Management of Categories II and III remained in the Washington office until 2014, when Category III was also shifted to the regions. The Washington Support Office retained the primary responsibility for setting policy and overseeing program direction.

c. Allocating Category I and III funds among the NPS regions using a formula based on system metrics.

d. Within Category I, establishing two subcategories of projects and allocating funds between the two subcategories in a manner that optimizes investments.

See [Chapter 5](#) for additional discussion of the three program categories, what they cover, and how they are managed.

CHAPTER 2: ROLES AND RESPONSIBILITIES OF THE NPS FEDERAL LANDS TRANSPORTATION PROGRAM

Chapter 2 describes how the agencies have established the responsibilities of the National Park Service (NPS) and the Federal Highway Administration (FHWA) and their primary subunits involved in implementing a collaborative NPS Federal Lands Transportation Program (NPS FLTP). The possible roles of public and private sector partners are also indicated.

Section 201 of Title 23 of the U.S. Code establishes the several Federal lands and tribal transportation programs as collaborative programs with policies coordinated between the Secretary of Transportation and the Secretary of the respective federal lands agency. Title 23 U.S.C. 203 (a) authorizes a broad array of transportation projects and related activities that are “on a public road within or adjacent to, or that provides access to, Federal lands open to the public.”

A. FLTP AND FHWA INTERAGENCY AGREEMENT

For the two agencies to effectively administer the NPS FLTP, good communication and a clear understanding of roles and responsibilities of each organization are required. This need for clarity was recognized and addressed in the [Interagency Agreement of 1983 \(Agreement\)](#), which under current law and procedures is technically a Memorandum of Agreement. The 1983 agreement responds to the legislative directives of the Surface Transportation Assistance Act of 1982 that created the Park Roads and Parkways Program (PRPP)—the precursor of the Federal Lands Transportation Program—and sets clear roles for each organization and, in some cases, individual positions.

Under the 1983 agreement, the National Park Service generally has responsibility for planning, selecting projects, meeting the requirements of the [National Environmental Policy Act \(NEPA\)](#), contracting, engineering, design, construction, administering contracts and preparing plans, specifications, and estimates (PS&Es) for those projects the National Park Service chooses to do in-house. Generally, the role of the Federal Highway Administration through the Office of Federal Lands Highway (FLH) is to:

- allocate FLTP funds,
- report to Congress on the progress and use of funds,
- provide technical guidance for the program, and

- respond to NPS requests for support in planning, contracting, engineering, design, construction, and construction management services for projects—when appropriate to the needs of the project.

The National Park Service has responsibility for all landscape architecture.

Since the agreement, Congress has added planning and coordination responsibilities that affect administration of the program in several ways. Chief among these are the following:

- The US Department of Transportation, delegated to the Office of Federal Lands Highway, should develop rules in consultation with the National Park Service to establish transportation planning procedures that are consistent with state and metropolitan planning requirements for the Federal-Aid Highway Program. The resulting rule can be found as part of the comprehensive planning rules for all Title 23 programs at 23 CFR Part 420.
- Regionally significant projects are to be developed in cooperation with the respective state or metropolitan planning organization (MPO) and included in their plans and FLH transportation improvement programs (TIPs).
- Four management systems—pavement conditions, bridge conditions, safety

management, and congestion management—are to be developed jointly.

- The two agencies are to coordinate research and technology development activities.
- A national inventory of transportation facilities is to be maintained.
- The setting of administrative fees is to be agreed to annually prior to the beginning of the upcoming fiscal year.

These changes in the law have added to the responsibilities and work and reporting requirements for both agencies. The agency roles and division of responsibilities are described in the following section.

B. AGENCY RESPONSIBILITIES

In addition to the traditional NPS FLTP responsibilities, the program staff has been tasked with responding to most issues involving federal highway and transit programs. In 1997, the Secretaries of the Department of the Interior (DOI) and the Department of Transportation (DOT) executed a [Memorandum of Understanding \(MOU\)](#) to supplement the 1983 agreement between the FHWA and the National Park Service. The MOU was in response to growing traffic and parking congestion and the resulting

need for better options to access to park units. The memorandum was intended to serve as the foundation for developing more comprehensive, intermodal, and financially sustainable transportation systems to preserve NPS cultural and natural resources while providing gratifying experiences for future generations.

The primary agency responsibilities are summarized below.

1. General and Shared Responsibilities of the National Park Service and Federal Highway Administration

- Jointly agree on a division of program and project responsibility based upon the NPS-approved program of projects.
- Exchange information in connection with any claims or litigation arising as the result of or in connection with a project. When the National Park Service is the contracting officer, the DOI Board of Contract Appeals will have jurisdiction. When the FHWA is the contracting officer, the US Department



Visiting Badlands National Park

- of Transportation Contract Appeals Board will have jurisdiction.
- c. Conduct interagency program and policy review meetings.
 - d. Develop program information, strategies, and funding needs and prepare reports on same to Congress and other stakeholders, as well as use for proposals to reauthorize the Federal Lands Transportation Program.
 - e. Conduct and execute all construction activities by either the National Park Service or Office of Federal Lands Highway to minimize impact of the project on park management and operation.
 - f. Agree on direct and indirect overhead charges (Part of this is now set by Congress; see 23 U.S.C. 104.
 - g. Approve all contract changes affecting program priorities (refers to NPS director and FHWA administrator, who have delegated responsibilities).
 - h. Keep the appropriate regional director and park superintendent or designee apprised of the construction schedule for assigned projects.
 - i. Collaborate on the definition of standards for collecting and reporting data.
 - j. Develop and maintain four management systems: safety, bridge, pavement, and congestion management.
 - k. Develop regionally significant projects in cooperation with respective state department of transportation and/or metropolitan planning organization.
 - l. Develop and maintain a comprehensive national inventory of public federal lands transportation facilities.
 - m. Jointly agree on a division of program responsibility and provide for stewardship and oversight related to management of the program based on the NPS approved program of projects.
 - n. Identify opportunities to use appropriate new technologies in national parks to collaborate on research activities.

2. NPS Responsibilities

- a. Maintain and operate park roads and parkways in accordance with adopted National Park Service standards under 54 U.S.C. and pursuant to 23 U.S.C. develop standards for design and construction, maintenance, and safety in accordance with applicable provisions of 23 U.S.C. and 54 U.S.C.
- b. Carry out a transportation planning process required in 23 U.S.C. 201, including the collection and reporting of data necessary to implement the program and to maintain accurate inventories of public NPS transportation facilities (roads, bridges, trails, and transit).
- c. Develop an annual and multi-year program of projects and submit to the Office of Federal Lands Highway for concurrence and for transmission to appropriate state, regional, and local officials as a Transportation Improvement Program (TIP). Similarly, submit any changes or modifications to the FLH program. (NOTE: The National Park Service is revising its business requirements for planning procedures for the program of projects and TIP submissions.



There are 63 publicly accessible tunnels in the National Park System

- d. Provide architectural, landscape architectural, and specialized resource services for all projects.
- e. Approve (refers to the NPS regional director) all preliminary and final designs and all contract changes for projects.
- f. Prepare environmental documents and coordinate public notice and involvement in accordance with agency responsibilities under 54 U.S.C.
- g. Obtain right-of-way, railroad agreement, and utility adjustments, unless otherwise agreed upon with respect to a project.
- h. Submit a written request to the appropriate FLH division if FLH technical assistance is needed.
- i. Perform planning, design, engineering, construction, construction management, and administer contracts and prepare plans, specifications, and estimates
- j. Submit quarterly and annual reports, as required by the FHWA, on budget execution, obligation, and expenditure for NPS FLTP projects.
- k. Collaborate with affected states and metropolitan planning organizations on regionally significant projects as part of the planning and project development process. Coordinate with other federal land management agencies (FLMAs) as appropriate.
- l. Coordinate with the FHWA on legislative needs of the program and on information to Congress.
- m. Provide stewardship and oversight as it specifically relates to the management of the shared program.

3. FHWA Responsibilities

- a. Administer program funds and allocate contract authority and obligation limitation to FLH divisions and the National Park Service.

- b. Concur with the NPS FLTP program of projects and necessary program changes and modifications in the program, as proposed by the National Park Service.
- c. Provide technical expertise for assigned projects in planning, research, engineering studies, traffic engineering, project development, design and construction, and contract administration, as well as develop plans, specifications, and estimates (PS&Es).
- d. Serve as the joint lead agency for environmental impact statements for all projects.
- e. Consult with the National Park Service in developing transportation planning procedures and process to ensure consistency with sections 134 and 135 of Title 23, as appropriate to NPS policy.
- f. Review and submit the NPS FLTP program of projects to affected states and metropolitan planning organizations for inclusion in the relevant transportation improvement programs.
- g. Comply with the National Environmental Policy Act in accordance with the requirements of 23 U.S.C. as agreed to in the joint rules issued July 20, 2012 *NEPA Compliance Guidance*.
- h. Collaborate with the National Park Service on legislative needs, strategies, and information to Congress, including furnishing responses to congressional inquiries and information for project briefings.
- i. Provide stewardship and oversight as it

specifically relates to management of the shared program.

C. NPS SUBUNITS

This section lists the current responsibilities for NPS organizational units. What is described is often more detailed than what is in the 1983 agreement as it reflects NPS and FLH administrative decisions on how to manage workflows and increasing responsibilities.

1. NPS Washington Support Office (WASO)

- a. Provide policy and program oversight for the NPS FLTP in consultation with the Office of Federal Lands Highway and other federal highway and transit programs.
- b. Determine allocations to each NPS FLTP category and the 3R/4R investment split (typically at the time of each new authorization of the NPS FLTP).
- c. Use fund allocation formulae to distribute Category I and III funds among the seven regions. Allocate available funds for special projects.
- d. Allocate available planning, bridge inspection, and data collection funding to regions based on the established need for such funding.
- e. Update and recalculate the regional funding allocation formulae as appropriate to new authorizing legislation and changed allocation criteria or supporting data.
- f. Maintain inventories of facilities, infrastructure, and systems eligible for NPS FLTP funding.
- g. Develop and maintain the [NPS Park Road Standards document](#).

- h. Collect and inventory condition, safety, traffic, and other needed data, as well as develop the four management systems in cooperation with the Office of the Federal Highway Administration.
- i. Coordinate transportation rulemaking between the NPS and the FHWA.
- j. Prioritize and schedule Category II projects and any other special projects, such as Theme II projects that are too ambitious for the regularly available resources. (This responsibility includes approval of NPS and FHWA expenditures for administration, planning, design, construction, and construction engineering.)
- k. Develop and maintain NPS director's orders and technical implementation manuals.
- l. Consult with the FHWA on program needs and provide information and strategies for new NPS FLTP authorizing legislation (every 5-6 years)

2. NPS Regions

- a. Designate a single FLTP management position (FLTP Regional Transportation Program Coordinator).
- b. Rate, prioritize, and schedule Category I and III projects for each region.
- c. Determine eligibility of projects for NPS FLTP funding and for other federal lands programs.
- d. Develop an annual and multi-year program of projects that efficiently use all allocated funds on eligible project work.
- e. Deliver Category I and III programs within allocated funds and established

spending limits on design and administrative costs (including approval of NPS and FHWA expenditures for administration, planning, design, construction, and construction engineering).

- f. Work on a day-to-day basis with the respective FLH divisions and the NPS Denver Service Center (DSC) to implement the program and efficiently use funds.
- g. Report future-year programs and other pertinent information to the NPS WASO for inclusion in the NPS annual [budget justifications](#) (a.k.a. "the Greenbook").
- h. Approve all project plans, specifications, and estimates for the region .
- i. Administer Category II projects and any special projects (if any exist in the region) in accordance with NPS WASO priorities and schedules.
- j. Report to the WASO annually on previous year program accomplishments and other relevant information.
- k. Facilitate technical and professional staff assistance for parks.
- l. Coordinate with FLH divisions on stewardship and oversight compliance needs as related to program management. Provide stewardship and oversight support to WASO regarding core agency mission requirements.

3. Parks

- a. Propose and initiate projects and planning needs to their respective regions.
- b. Incorporate transportation planning in the park planning processes.

- c. Fully participate in the project development, planning, environmental, and design processes, and recommend DSC and FLH division roles in projects.
- d. Recommend project plans, specifications, and estimates for approval by regional directors or their designees.
- e. Collaborate with states and metropolitan planning organizations on regionally significant projects.
- f. Maintain and operate facilities after improvement.
- g. Report traffic accident data in the Incident Management, Analysis and Reporting System (IMARS).
- h. Input and maintain an asset management system such as the Facility Management Software System (FMSS) that organizes and stores work orders and is used to develop projects.
- i. Report project completion in Project Management Information System (PMIS).
- j. Identify park projects that may trigger conformity requirements in air quality nonattainment and maintenance areas. In such cases, coordinate and collaborate on the conformity modeling that the metropolitan planning organization will assist with on the project.

4. NPS Denver Service Center

- a. Provide project management services, special studies, planning and compliance, engineering and landscape architectural design.
- b. Provide contracting services for A/E (architectural and/or engineering)

design services, construction contract award, construction administration, and inspection services.

- c. Lead the development of revegetation plans and coordination with the Natural Resources Conservation Service (NRCS).
- d. Provide guidance and recommendations for maintaining park design standards in coordination with the WASO and regions.
- e. In response to requests by the WASO or the region/park:
 - Review and comment on all FHWA or A/E design work and recommend project plans, specifications and estimates for approval by NPS regional directors or their designees.
 - Monitor projects to ensure design sustainability and context-sensitive solutions.
 - Monitor projects to ensure that accessibility requirements are met.
 - Present and provide documentation to the Development Advisory Board (DAB) meetings.
 - Coordinate construction activities and provide technical recommendations and inspections to minimize the impact of the project on park operations.
 - Provide technical expertise in transportation planning
 - Serve as NPS agency coordinator for the preparation and review of environmental documents and public notice and involvement, and also review and monitor the completion of all federal and local permits.

D. FHWA SUBUNITS

1. FLH Headquarters

- a. Administer program funds and provide broad program oversight in cooperation with the WASO.

- b. Allocate contract authority and obligation limitation to FLH divisions and the National Park Service.
- c. Concur with the FLTP program of projects proposed by the National Park Service.
- d. Cooperate with the National Park Service on the development of program policies, goals, and performance measures.
- e. Support the development of public Federal Lands Transportation inventories of facilities.
- f. Serve as lead in developing planning procedures in consultation with NPS/WASO staff.
- g. Coordinate with the National Park Service on providing Congress information, strategies, and funding needs and in furnishing responses to Congressional inquiries and project briefings.
- h. Provide assistance and support to the National Park Service when working with other USDOT programs and agencies and Federal Lands Highway agencies.
- d. Make final acceptance of the NPS FLTP construction projects upon recommendation by a park or region.
- e. When requested by an NPS region, perform planning and engineering studies, inventories, investigations, reconnaissance surveys, or other studies and submit these to the National Park Service for review and concurrence.
- f. Review plans, specifications, and estimates for eligibility and conformance with approved NPS FLTP guidelines.
- g. Ensure that proposed changes to plans, specifications, and estimates have the approval of the national park system sites and regions.
- h. Furnish project status and completion reports to NPS regions and the Washington Support Office as may be required and give NPS staff the opportunity to participate in project inspections, including final inspection.
- i. For FHWA work, make all payments to contractors and state and local governments in a timely manner.

2. FLH Divisions

- a. Concur with project selections and submit the program of projects to state transportation departments and metropolitan planning organizations for inclusion in Transportation Improvement Programs (TIPs).
- b. Design and administer the construction of NPS FLTP projects, as requested by the National Park Service.
- c. Undertake the preparation of project plans, specifications, and estimates, and submit for approval to the NPS regions.
- j. Maintain and provide current information on key milestones for projects, as requested by the National Park Service.
- k. Coordinate with NPS regions on stewardship and oversight compliance needs as related to management of the shared program.

E. NPS FEDERAL LANDS TRANSPORTATION PROGRAM COORDINATION MECHANISMS

This joint agency program requires close coordination and cooperation to ensure the effective and timely delivery of transportation projects in the national parks. To that end, teamwork is emphasized through the establishment of working groups and task forces. The length of establishment varies because of new challenges caused by new laws, technology, disaster, or other changes. Examples of these entities follow.

1. The Leadership Advisory Committee

The Committee was established in 2014 to bring together senior executives of both the Federal Highway Administration and the National Park Service to discuss past, present, and future challenges and to facilitate a continuous sound partnership that ensures efficient and effective delivery of a multi-agency program. The committee is comprised of six members from each agency.

Under the partnering agreement, the committee is to meet annually to set strategic direction for the Federal Lands Transportation Program and related programs, to help ensure a working environment conducive to improved communication, a better understanding of the decision-making process within each agency, and to improve partnering, particularly in resolving issues and conflicts and fostering successful approaches to program issues. The committee also provides guidance and direction to the SMAC-FLTP Committee as required to carry out initiatives agreed to by both agencies.

2. NPS FLTP Coordination Team (Team)

The team is a joint agency working group. In the late 1990s, this advisory subcommittee was formed to make recommendations to an NPS coordinating body, the Ser-vice-wide Maintenance Advisory Committee (SMAC) of the FLTP. The team is made up of the seven NPS Regional Transportation Coordinators (Regional Coordinators), three Transportation Branch Chiefs from the Denver Service Center, two program leads from the NPS Washington Support Office, as well as one representative from each of the [three FLH divisions](#) and one from the FLH office. Thus, 16 people plus additional staff and others who have input on specific issues are regular participants.

The team has face-to-face meetings one or two times per year and attempts to rotate meeting sites to cost-effective locations around the continental United States. Between face-to-face meetings, weekly and bi-weekly teleconferences are used to discuss program issues. The group is typically co-chaired by one of the NPS regional coordinators and a representative from one of the FLH division offices, each serving approximately a two-year term with alternating tenure to ensure continuity.

The group's purpose is to serve as a sounding board for both NPS and FHWA management, and to help in developing policy and technical solutions, [such as the four management systems required by legislation, the Transportation Equity Act for the 21st Century in 1998](#). The team planned the successful transition to regional management of the roads transportation program (Category I) and later to the alternative transportation program (Category III). Subsequently, the group worked with the WASO to develop the Internet-based project implementation system, the Park Transportation Allocation and Tracking System (PTATS), which allowed both agencies to request, approve, and allocate project funds.

3. Standing Working Groups (SWGs)

In 2014, the team determined a need for standing working groups that would make recommendations in key policies and procedures where change is needed because of new legal requirements, technology advances, as well as the natural progression of an effective program. While these groups will vary over time in composition and scope of activity, they represent useful mechanisms to ensure continual improvement and innovation in such areas as planning, technology, partnerships, safety, administration, and systems management. The Program Administration Standing Working Group serves as the coordinating body for the Standing Working Groups.

Generally, the agencies work together daily to identify needed improvements: plan, select and develop projects; develop budgets; coordinate on policy, plans, and requirements; and identify issues. When innovations or problems occur, there is a standard operating procedure to communicate to the Washington Support Office and the Office of Federal Lands Highway and to celebrate or resolve the matter.

F. PARTNER AGENCIES

1. Federal Land Management Agencies (FLMA)

The FLTP provides support for transportation improvements at these agencies: US Fish and Wildlife Service (FWS), USDA Forest Service (Forest Service), Bureau of Land Management (BLM), US Army Corps of Engineers (USACE), Bureau of Reclamation and independent Federal agencies with land and natural resource management responsibilities. The programs, however, vary considerably in their scope, funding, and administration. The National Park Service, along with the US Fish and Wildlife Service and US Forest Service, receive an annual allocation of FLTP dollars. The remaining agencies compete for funding under current legislation.

The agencies meet periodically to exchange technical information and to collaborate on mutually beneficial projects.

2. Non-Federal Agencies and Interests

Congress enacted legislation in 1998 requiring the Federal Lands Highway and the National Park Service to coordinate with state departments of transportation and metropolitan planning organizations on regionally significant projects. The next authorization in 2005, directed these state/local organizations to incorporate FLTP projects in their plans and transportation improvement programs. Subsequent legislation has continued these requirements.

a. State Departments of Transportation (DOTs) or Highway Agencies

State Departments of Transportation work with parks and regions to develop and include regionally significant projects in transportation improvement programs required of both the state DOTs and metropolitan planning organizations. The transportation improvement program is the project-funding document for federal transportation funds. The FLH divisions disseminate the annual program to appropriate states for inclusion in their state transportation improvement programs and the metropolitan plans. State Departments of Transportation are also important players in the Federal Lands Access program, which has provided significant funding for projects to improve access to and within parks.

b. Metropolitan Planning Organizations

Metropolitan planning organizations (MPOs) were es-

tablished under Title 23 US Code in the 1970s to help states coordinate their transportation programs in urbanized areas.

Where parks are within the MPO planning area, they are required by 23 U.S.C. 203 to cooperate with MPOs on the development of regional projects; the MPOs are in turn to include regionally significant projects in their plans and transportation improvement programs (see F 2a. above).

Where parks are in non-attainment, or maintenance areas for air quality purposes, MPOs also have a substantial role in developing plans for air quality attainment, and making conformity determinations on projects, including Federal Lands Transportation Programs.

These organizations often make decisions on funding



Covered bridge, Cayahoga Valley National Park

projects under a special FHWA program called the [Congestion, Mitigation, and Air Quality Improvement Program](#) (CMAQ) as well as on other federal funding, which has benefited NPS units, such as the [TIGER program](#) (now BUILD grants).

c. Local and Tribal Governments

Local governments may have a role in the decision-making process of the Federal Lands Transportation Program if they participate in a metropolitan planning organization or when park access is through roads under the jurisdiction of local governments. For alternative transportation projects, the local governments may serve as the transit operator or provide funding for operation and/or capital for such projects.

During the 2000s, the National Park Service has increasingly sought local partners—governments, civic and business organizations, and private foundations—to achieve mutually beneficial projects beyond the budget or authority of the National Park Service. Often these partnerships increase visitation by improving the visitor’s experience in the park and in the gateway community. Examples include Gettysburg National Military Park where partners constructed and operate a new visitor center and museum and provide shuttle services that connect the park, community, and [Kennesaw National Battlefield Park](#), where the park’s trail system connects to the regional trail system and gateway communities.

CHAPTER 3: TRANSPORTATION PLANNING AND MANAGEMENT SYSTEMS

This chapter describes the processes and procedures to conduct transportation plans and studies for the National Park Service Federal Lands Transportation Program (NPS FLTP). As a jointly administered program of the National Park Service (NPS) and Federal Highway Administration (FHWA), planning for projects funded by the Federal Lands Transportation Program (FLTP) should reflect the applicable decision support systems of both agencies. This chapter includes a discussion of park unit transportation planning, and programmatic transportation planning that is done in long-range transportation plans (LRTPs). This chapter does not include project-level planning and delivery (see [Chapter 7](#)), or regional transportation improvement plans/program of projects (see [Chapter 6](#)). The chapter concludes with a review of major management systems that support the planning process.

A. TRANSPORTATION PLANNING

1. NPS PARK PLANNING LEGAL/POLICY FRAMEWORK

Planning for NPS units begins with the Organic Act of 1916. The NPS mission is the first and last test for the soundness of all transportation program, park, and project plans. Beyond the mission are laws that govern the activities of Federal Land Management Agencies (including the National Park Service), such as the Antiquities Act of 1906, the Wilderness Act of 1964, the National Environmental Policy Act of 1969, and the National Historic Preservation Act of 1966. [Specific requirements and guidance for NPS park planning are in the following resources:](#)

- DO 2: Program Standards for Park Planning
- DO 12: Conservation Planning, Environmental Impact Analysis and Decision-Making
- DO 87A: NPS Transportation Planning Guidebook and Park Road Standards
- DO 87D: Non-NPS Roads
- [Management Policies 2006](#), “Chapter 2, “Park System Planning” and Section 9.2, Transportation Systems and Alternative Transportation

Each park unit has enabling legislation that defines the boundaries and purposes of the park unit. Enabling legislation is complemented and enhanced by general management plans, which usually include guidance on transportation issues and concerns, and Foundation Documents, which may identify a range of transportation planning

needs. The primary decision-making role for any park plan rests with the park superintendent and the regional director.

2: PARK TRANSPORTATION PLAN DEVELOPMENT

NPS transportation planning typically covers opportunities and impacts related to managing multimodal traffic (recreational and nonrecreational) to reduce impacts on visitor experience, resources, park operations and local gateway communities; it is also one form of visitor use management. Plans respond to a problem (or a series of problems) and offer a range of possible solutions appropriate to each park’s conditions, enabling legislation, and management challenges (Figure 1, page 28).

Topics such as reducing congestion, improving safety, mobility, connectivity, and access are typically covered. Operations and asset management for park facilities such as roads, bridges, parking lots, entrance stations, transit services and trails are part of transportation planning as well. Finally, monitoring the transportation planning efforts of nearby state Departments of Transportation, Metropolitan Planning Organizations, and cities and counties are included under the umbrella of transportation planning, because these external plans may significantly impact the ability of parks to manage their facilities, staff, resources, and visitor experience.



Figure 1. Framework for Park Planning

Transportation planning activities are typically included in multiple NPS planning efforts, such as:

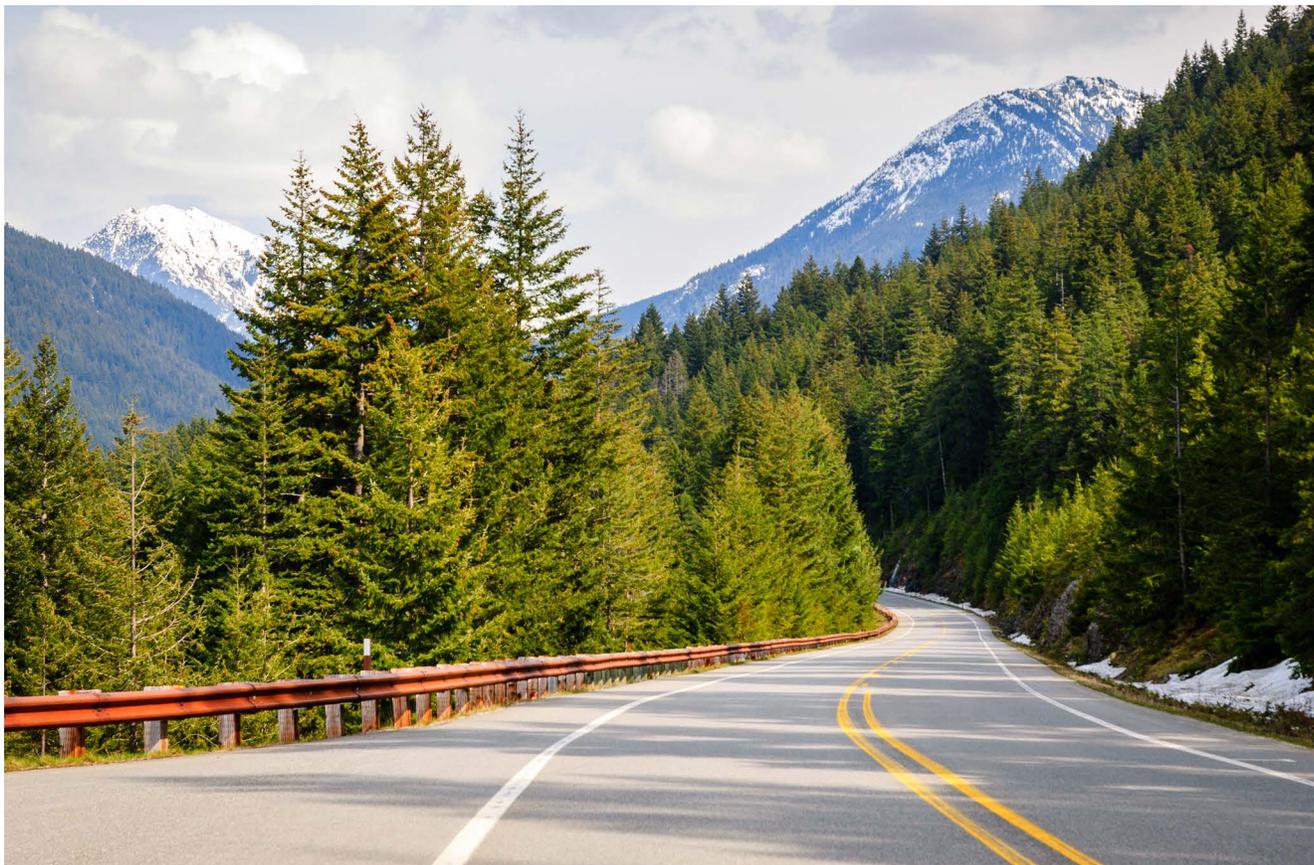
- Comprehensive plans, such as general management plans and visitor use management plans
- Strategic plans, such as transportation plans
- Studies/inventories/reports, multiple transportation examples (see below)
- Implementation plans, integrated planning initiative

There are basically two types of transportation planning activities, and numerous examples of both types are available in [Electronic Technical Information Center \(eTIC\)](#):

TRANSPORTATION PLANS. These strategic plans include setting goals/desired conditions, identifying problem(s), collecting data (park and regional transportation networks), conducting field/map verification, and con-

sidering a range of operational and capital solutions, as well as an approach to testing/monitoring implementation. A systems approach (roads, bridges, trails, parking, rideshare, transit, mobility, access, connectivity, opportunity) is typically used, since changes in the use of one facility often impact other transportation facilities/services. Since these are decision-making documents, an environmental assessment (EA) or environmental impact statement (EIS) will be needed and public engagement must be conducted. Cost and time vary; however, these plans typically take at least two years to complete and cost \$250,000 or more. Visitor use management plans (not FLTP funded), incorporate transportation planning.

TRANSPORTATION PLANNING-RELATED STUDIES/REPORTS. Many studies and reports contain some or many of the elements of a full transportation plan. Since they are not decision-making documents, they do not require an environmental assessment or environmental impact statement.



North Cascades National Park

Time to completion is generally less than one year and the cost is less than \$100,000. Examples include:

- a. Congestion Assessments: Short-term support for early or intermediate congestion issues; also, for heavy congestion conditions that need “triage” while comprehensive plans are underway.
- b. Road Safety Audits: Field survey of existing conditions, observations and recommendations made in response to major injury and/or fatal injury traffic accidents. Crash data summary, field review, findings, site-specific recommendations.
- c. Transportation Advisory Groups: Quickly test a proposed project to verify high-level viability and issues of concern (“red face test”). High level review of feasibility, potential impacts, funding, partnerships, risks, peer review, [Class C cost estimates](#).
- d. Integrated Planning Initiative: Pre-project formulation, produces holistic, tangible transportation improvements. Directly informs the Project Management Information System’s (PMIS) SCC Call, DAB submissions, A&E design contract awards. Goals and objectives, asset management strategy, financial baseline, and funding alignment. Comprehensive Development Program (scope), Implementation Methodology (schedule), O&M/TCFO and Initial Budget Assessment (costs).
- e. Transit pro formas: Parks that have transit systems are required to complete an annual financial spreadsheet “check-up” to assess the cost of operations, maintenance and recapitalization, and identify any funding gaps.

3. Park Transportation Plan Implementation

Once a plan, study or report is completed, the final document is uploaded to eTIC. At that point, the focus shifts to plan implementation, including testing of operational changes, writing PMIS statements, identifying funding, and securing technical support. Plan implementation is the responsibility of the park superintendent, with support from the region. Sample planning implementation activities include:

- **Capital projects:** If a plan or study recommends a capital project, parks are responsible for working with the region to develop a description, justification, and cost estimate placed into the Project Management Information System. The region can support the park in the search for funding if needed. Before a project can receive funding, it must be approved for funding in a specific fiscal year (FY). Once funding is received by the park, the next step is typically to develop a scope of work and send out a Request for Proposal (RFP) for a contractor or request project support from the Federal Highway Administration.
- **Operational changes:** If a plan or study recommends a capital project, parks are responsible for determining next steps. In some cases, (such as changing parking lot circulation or renting Variable Messaging signs), the park can proceed directly to implementation. When proposed operational changes are more complex (testing temporary parking lot closures, launching bike rentals, or changing fee structure), the park will need assistance from the region.
- **Partnership building:** Plans and studies often recommend working with partners to improve implementation success and build community relationships. Many parks have long experience working with partners like cities or the Chamber of Commerce; however, transportation planning often involves less familiar partners like the Department of Transportation and/or a Metropolitan Planning Organization (MPO). Since these are technical organizations, and often make decisions on non-NPS roads that have secondary impacts on park operations,

resources, and visitor satisfaction, parks may need technical assistance to work effectively with these partners.

4. Long Range Transportation Plans

The FLTP requires long range transportation plans, which provide program management, policy, tools, processes, and guidance to support a comprehensive approach to NPS FLTP investment. These LRTP documents address multimodal transportation needs, resource and environmental stewardship, visitor experience, and asset management to ensure that transportation systems provide efficient, enjoyable, and safe access in harmony with park resources and experiences.

a. US Department of Transportation Planning Requirements

Legislation authorizing the Federal Lands Transportation Program (23 U.S.C. 201) requires the National Park Service to follow program planning and performance processes that generally align with metropolitan and state planning processes (23 U.S.C. 134 and 135) and 49 U.S.C. 5313 and 5303, respectively). Planning procedures are defined by rulemaking (23 CFR 420(A) and 23 CFR 970 for Management Systems) by the Secretary of Transportation in consultation with the Secretary of the Interior:

1. Prepare a transportation improvement program (TIP) for the NPS Federal Lands Transportation Program resulting from the planning process;
2. Coordinate regionally significant NPS projects with the appropriate state and metropolitan planning organizations; and
3. Develop four management (information) systems: pavement conditions, bridge conditions, safety management, and congestion management (23 CFR 450).

USDOT Planning Factors ¹	National LRTP Goal Areas				
	Asset Management	Transportation Finance	Resource Protection	Visitor Experience	Safety
Economic Vitality	●	●	●	●	
Safety				●	●
Security					●
Accessibility & Mobility	●			●	●
Environment	●		●		
Connectivity	●	●		●	
Efficiency	●	●		●	
System Preservation	●	●			
Resiliency & Reliability	●		●		●
Travel & Tourism				●	

Table 1-1. Comparison of NPS and USDOT Planning Factors

b. NPS National Long Range Transportation Plan

The [NPS National Long Range Transportation Plan](#) (and related regional LRTPs reflect NPS’ commitment to improving its transportation systems and to responding to the requirements for FLTP plans) sets forth a performance-based, 20-year vision for providing access to our nation’s most special and treasured places. The plan recognizes that transportation investment needs significantly outpace current and forecasted funding levels from multiple sources (including the Federal Lands Transportation Program). As a result, the plan includes a fiscally-constrained, prioritized investment strategy that calls upon the many National Park Service programs that support our multimodal transportation system to coordinate investments even more effectively. The NPS Capital Investment Strategy is fully integrated into the National Long Range Transportation Program.

In addition, long range transportation plans have been completed for all seven NPS regions (some are beginning their first LRTP update) and a few park units. The long-

range transportation plans developed at the region or park level also should be coordinated with the appropriate state or metropolitan planning organizations, as well as other local officials not in metropolitan planning organizations, especially gateway communities. Several states and federal land management agencies have prepared collaborative long-range transportation plans (CLRTP) that cover entire states or regions (Alaska CLRTP, Northwest CLRTP, California CLRTP and Southwest CLRTP).

A guidebook for how to create and update a long range transportation plan is forthcoming from the Park Facility Management Division, Facilities Planning Branch.

5. Transportation Planning Trends That May Affect NPS

Over the next five to 15 years, changes in the transportation industry will likely affect park transportation systems, FLTP program investments and funding, and the National Park Service's ability to protect visitor experience and resources. These trends include:

- a. Automated/connected vehicles:
Automated vehicles will bring new visitor opportunities and in-vehicle visitor information avenues, and they have the potential to greatly change visitor use patterns (for example, overnight and multi-day travel will be much easier and safer). This technology is expected to greatly increase safety for drivers, cyclists, and pedestrians and may reduce the need for some intrusive transportation infrastructure like guardrails.
- b. Vehicle-to-infrastructure technology:
Automated/connected vehicles will be sending information about road conditions via wireless connections. This communication interface may require new infrastructure (much like smartphones need cell towers), and the FLTP program will need to monitor this development for potential changes to the asset management portfolio as well as resource protection and safety.
- c. Sharing economy for transportation:
 - Rideshare: early research shows that rideshare is causing a sharp spike in vehicle miles traveled (meaning that roadway congestion will likely increase) with a corresponding drop in parking demand
 - Bikeshare (docked and dockless): docking stations may have impacts on cultural landscapes; dockless bicycles may be left anywhere

and may cause concerns for park operations and resource impacts

- d. New/modified modes: electric bicycles, scooters, jitneys, etc. – these modes are still emerging, and all of them may modify how visitors travel to and between park destinations. Some of them are already producing some disruption in cities and along trails.
- e. Changes in tourism travel patterns:
Disruptions in the economy, international travel demand, gas prices, and changes in visitor activity preferences can all affect planning for transportation services and visitor use patterns. More information on these trends is available from [the NPS Social Science program](#), or the [NPS National Tourism Program](#).
- f. Continuing emphasis on system performance and reducing deferred maintenance.

Future Planning Trends

- 1) Automated/connected vehicles
- 2) Vehicle-to infrastructure technology
- 3) The sharing economy
 - a. Rideshare
 - b. Bikeshare
- 3) New/modified modes:
- 4) Changes in tourism travel patterns

B. TRANSPORTATION MANAGEMENT SYSTEMS



Road construction, Glacier National Park

In addition to the plans and programs described previously, four management systems are required [23 U.S.C. 201 (c) (5)] and have become important decision support tools for the NPS FLTP. These systems provide parks and regions with basic condition, performance, and cost data related to pavement and bridge conditions and are used to help set priorities for project selection. They provide servicewide information to NPS managers concerned with overall performance, which is used in:

- [Reports to the Office of Management and Budget \(OMB\)](#) to meet requirements such as OMB Circular A-1,
- Reports to Congress to show progress in meeting congressional directives, including performance management, and,
- To help implement servicewide policies such as the Capitol Investment Strategy.

These transportation management systems are part of a broader group of information systems used by the NPS to help manage park assets.

The four management systems described below are being jointly developed and managed by the FLH and NPS and are in varying stages of implementation. Because of the need for regular updates and maintenance, the management systems will continue to require the support of NPS and FLH staff.

1. Pavement Management System

The FLH and the NPS have developed and maintain a [Pavement Management System](#) (PMS) for the FLTP. This system is intended to help identify potential road resurfacing, rehabilitation, and reconstruction projects and to assist in making informed decisions when selecting projects. The PMS application is known as the Highway Pavement Management Application (HPMA). It factors

in nine climatic zones, and identifies 21 different surface treatments and uses these factors to model anticipated pavement deterioration.

The PMS uses data from the Road Inventory Program (RIP), which includes condition and inventory information on NPS roads. The RIP collects data by use of an automated road analyzer, which

- provides an inventory of asset types (pavement type and quantities), point (culverts, etc.), and linear features (ditches, guardrails, etc.);
- identifies pavement distress, and,
- evaluates the condition of existing park roads pavements.

The PMS information provides the NPS at all levels with the basic information for effective road system planning, management, operations, and maintenance. It also provides timely, cost-effective, and accurate roadway inventories and pavement surveys of all NPS paved, public roads. The information is used:

- as a basis for formula calculations for allocation of funds by region,
- to prioritize road maintenance needs by condition assessments,
- to project funding requirements for future needs,
- to determine and describe specific maintenance items, and,
- as a video log of existing conditions.

2. Bridge Management System

The [Bridge Management System](#) (BMS) helps improve decision-making about the type and priority of bridge investments. It is based on inspection data collected as part of the Bridge Inspection Program (BIP), which is required under 23 U.S.C. 144. FLH and NPS staff collect condition data on all bridge structures greater than 20 feet in length and open to vehicular traffic. Under this inspection program, the following occurs:

- Safety inspections are performed on public bridges and tunnels (vehicular) and nonpublic bridges (vehicular), as defined and required by the National Bridge Inspection Standards (NBIS), to ensure public safety;
- Inspection reports are produced for each structure to summarize condition and corrective action needed;
- NBIS data is provided to FHWA headquarters on an annual basis; and
- In-depth field-testing is performed as indicated by initial analysis to determine the bridge needs.

Additionally, the BMS produces two lists:

- Priority List: replacement; rehabs
- Preservation List: routine maintenance; responsive or preventative maintenance actions

The BMS provides a basis for recommendations for optimal expenditure of funds and identifies critical needs on nationwide and regional levels. The information collected also provides input to the preparation of rehabilitation plans and specifications and for construction support.

3. Safety Management System

Increasing traffic, larger vehicles, and crashes with wildlife and vehicles are just a few of the factors contributing to NPS concern for visitor and staff safety on park roads. The NPS is implementing a [Safety Management System](#) (SMS) as one of the FLTP's decision-making tools.

This system, which will help to unify required safety activities, is being developed with the FLH, and will utilize data from the DOI-wide Incident Management Analytical Reporting System (IMARS). With this system, staff can identify potential safety issues and better understand the effects of road condition and design on safety.

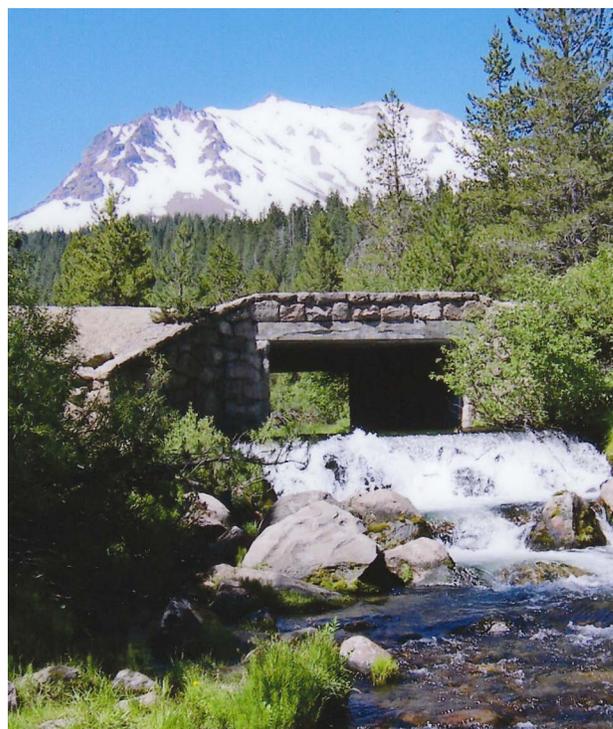
The mission of the NPS Transportation Safety Program (TSP) is to:

...reduce fatal and injury crashes on transportation infrastructure in national parks by guiding and coordinating transportation safety efforts in concert with the NPS resource protection mission.

The collection and transmission of crash data to a national database by each park forms the basis of this system. Park rangers and park police are key to acquiring the crash data and understanding traffic conditions.

[Note: Traffic counts are conducted in a sample of park units as part of a national count program managed by the NPS Washington Office (WASO). This data can be used to help calculate crash rates.]

As with other management systems, the safety system is being built in stages, with the parks having the most visitation or vehicle miles of travel and/or crashes being included first.



Hat Creek Bridge, Lassen Volcanic National Park

4. Congestion Management System

An NPS [Congestion Management System](#) (CMS) is being built by an NPS–FLH team in stages. The CMS will:

- Identify and document measures for congestion (e.g., level of service),
- Identify the causes of congestion,
- Include processes for evaluating the cost and effectiveness of alternative strategies,
- Identify the anticipated benefits of appropriate alternative traditional and nontraditional congestion management strategies,
- Determine methods to monitor and evaluate the performance of the multi-modal transportation system, and
- Appropriately consider strategies, or combinations of strategies for each area, such as (1) transportation demand management measures, (2) traffic operational improvements, (3) public transportation improvements, (4) [ITS technologies](#), and (5) additional system capacity.

One important assumption of this effort is that, for leisure travel in a park environment, congestion may involve other factors and user perceptions than those for a commuter, whose primary concern is time lost in traffic.

In its first stages, NPS and FLH staff surveyed parks and collected data. Next, a [Congestion Management Toolkit](#) was developed, tested and deployed. The CMS Toolkit includes 59 tools that park units can select from and apply. A series of pilot assessments using the Toolkit are being conducted.

Ongoing discussion is focused on assessing how regions what to manage park congestion impacts.

For leisure travel in a park environment, congestion may involve other factors and user perceptions than those for a commuter, whose primary concern is time lost in traffic.



Congestion, Yellowstone National Park

CHAPTER 4: VISION/MISSION, GOALS AND OBJECTIVES, PERFORMANCE INDICES, AND INVESTMENT STRATEGY

Chapter 4 describes the vision and mission of the National Park Service (NPS) transportation system; presents the goals and objectives set forth in the National Long Range Transportation Plan (NL RTP); briefly addresses the National Transportation Investment Strategy (as described in the National Long Range Transportation Plan); and provides a list of the performance indices used by the program.

A. NPS TRANSPORTATION SYSTEM VISION AND MISSION

National park transportation systems must be designed with care and sensitivity with respect to the terrain, wild-life, resources, and the surroundings through which they pass—they are “laid lightly on the land.” This has been a fundamental tenet of park road design since the creation of the National Park Service, as noted in 1916 Organic Act establishing the National Park Service (54 U.S.C. 1) that states that the NPS mission is, in part:

... to conserve the scenery and the natural and historic objects and the wild life herein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.

The NPS mission is supported by the NPS transportation system, which includes roads, trails, and transit systems, by respecting and relating to the resources through which they traverse and move. The journey is designed to provide visitors a visually enjoyable and informative experience.

As stated in the [Park Roads Standards](#), published in May 1968:

The design and location of park roads must be in accordance with the philosophy that how a person views the park can be as significant as what he sees, thereby insuring that national parks remain places to which people go for a special kind of experience, rather than merely places to view famous scenic wonders.

1. Vision

The [National Long Range Transportation Plan](#) is a strategic, long-range plan that provides guidance to programs

and managers throughout the National Park Service. The plan is implemented through the actions of existing programs and managers in alignment with agency priorities and procedures. The National Long Range Transportation Plan provides the following vision for the NPS transportation system:

The National Park Service provides a mission-focused transportation system that is safe and seamless, enabling high-quality access to essential park unit experiences. The agency responsibly plans and effectively manages the transportation system to accommodate changing environmental, social, and financial conditions. [NPS NL RTP, p. 3]

2. Mission

The National Park Service will preserve and protect resources while providing safe and enjoyable access within the national park system units by using sustainable, appropriate, integrated transportation systems and services.

Roadway alignments and cross sections will be sensitive to the terrain and designed to be sustainable and blend into the environs. Transportation systems will be intuitive and logical in design and will have integrated and convenient transfer points between modes. Planning will involve surrounding communities to foster systems of mutual interest and connections to the park.

Innovative technologies such as multimodal systems, alternative fuels and vehicles that minimize air, noise, and water pollution will be explored and adopted when possible. Associated infrastructure will be designed, constructed, operated, and maintained using approaches that improve efficiency and effectiveness, as well as harmony in the natural surroundings.



Shuttle , Zion National Park

B. NPS TRANSPORTATION SYSTEM GOALS AND OBJECTIVES FROM THE NATIONAL LRTP

The goals and objectives for the NPS transportation system presented in the National Long Range Transportation Plan and listed below are rooted in the NPS mission. The National Long Range Transportation Plan sets goals that address both the traditional transportation topics, such as asset management, transportation finance, and safety, and broader mission-focused topics, such as visitor experience and natural and cultural resource protection.

Asset Management: Sustainably manage NPS transportation assets and services

Objectives:

- Maintain critical assets and services in good operating condition through targeted investment
- Adapt transportation systems to climate change

Transportation Finance: Allocate available transportation funds wisely

Objectives:

- Identify and prioritize investments based on the NPS mission, anticipated life-cycle cost,

and consideration of likely available future funding

- Maintain flexible use of transportation funding sources while improving identification of investments and needs

Resource Protection: Protect and preserve natural and cultural resources

Objectives:

- Incorporate natural and cultural resource considerations into all aspects of transportation decision making and operations to avoid, minimize, or mitigate negative impacts on these resources
- Minimize and mitigate the greenhouse gas emissions of the NPS transportation system

Visitor Experience: Maintain and enhance the quality of visitor experiences

Objectives:

- Improve ease of access to and within national park units for all people
- Create a range of appropriate transportation options that support a network of seamless connections within each park unit and to surrounding communities

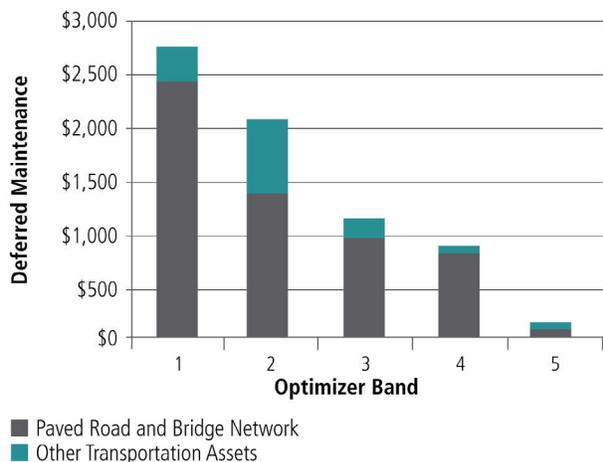


Fig. 1 2014 Transportation Asset Deferred Maintenance by OB (\$ in Millions) NPS transportation inventory assets accounted for 62 percent of the total NPS DM backlog of \$11.5 billion as of 2014. Referenced in the National LRTP, pg. 42. This figure is sourced from the Final FY14 asset-level data, which are used to develop the “OMB Eight Major Industry Standard Assets Report”, 11/12/2014

- Provide state-of-the-art traveler information and wayfinding and, where appropriate, interpretation and education opportunities that complement transportation options

Safety: Provide a safe transportation system for all users

Objectives:

- Institute a comprehensive, performance-based transportation safety program that addresses engineering, education, and enforcement
- Reduce serious and fatal transportation-related injuries
- Maximize safety without impairing park resources and values
- Enable effective emergency response

C. NPS NATIONAL TRANSPORTATION INVESTMENT STRATEGY

The NPS National Transportation Investment Strategy addresses the goals and diverse transportation needs identified in the [National Long Range Transportation](#)

Deferred Maintenance

Deferred Maintenance (DM) is defined as “maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.” Because of funding shortfalls, not all necessary or recommended maintenance can be performed for all transportation assets in each year. This reality leads to deferred Maintenance, a measure of the accumulated total costs of necessary improvements to correct deficiencies resulting from unaccomplished past recommended maintenance and repairs. The Paved Road and Bridge Network accounts for \$5.63 billion of DM, while Other Transportation Assets account for \$1.49 billion of DM. [For current year information see: [NPS Deferred Maintenance Reports.](#)]

Plan. Per the plan, this investment strategy, which is driven by congressional requirements in 23 U.S.C. 203, is consistent with the NPS Capital Investment Strategy and consists of the following three principles:

1. Fund highest priorities first: the strategy focuses funding on highest priority transportation needs. It addresses the deferred maintenance (DM) on highest priority assets that are crucial to meeting the NPS mission.
2. Align capital and operations and maintenance (O&M) investments: the strategy emphasizes funding operations and maintenance activities that keep assets in good condition longer, focusing on the highest priority assets. It stresses that capital and O&M investments should align to the same portfolio of highest priority transportation assets.
3. Reflect a multimodal NPS transportation system: the strategy focuses a modest amount of funding that might have been spent on low-priority roads to highest priority “Other Transportation Assets,” including transit, trails, ferries and other multimodal assets.

D. NPS TRANSPORTATION SYSTEM PERFORMANCE INDICES

The NPS Federal Lands Transportation Program uses a number of measuring systems and indices to monitor the health of its transportation assets. Additional metrics are under development for NPS alternative transportation systems. Measures and indices are noted below.

1. Facility Condition Index (FCI).

The [Facility Condition Index](#) measures the cost of deferred maintenance versus replacement cost and indicates the condition of individual facilities or major components of transportation facilities. The FCI is a simple measure of a facility’s relative condition at a particular point in time. It is the value of all deficiencies divided by the current replacement value. The higher the facili-

ty condition index, the worse the condition of the asset. The facility condition index applies to all transportation assets other than roads, tunnels, and bridges.

2. Pavement Condition Rating (PCR).

This rating measures overall pavement condition either for a segment of road or the total network. The pavement condition rating contains as one of its components the International Roughness Index, which is a national and international pavement metric. Gravel roads are evaluated using the [Pavement Surface Evaluation and Rating \(PASER\) system](#).

3. Bridge Health Index (BHI).

This index measures overall bridge condition for either a single bridge or the total network. The bridge health index is a national and international metric used by more than 45 states and several countries.

4. Percentage of Structurally Deficient Bridges.

This measure demonstrates the percentage of bridges in the network that have immediate or short-term heavy rehabilitation or replacement needs. Structurally deficient bridges are generally in poor condition because of both deferred maintenance and reaching the end of their service lives.

5. Funding Level Indexed to Facility Condition.

This indexes roadway and bridge conditions to a funding level to indicate progress toward a transportation condition goal.

6. Program Delivery Costs.

Program delivery costs establish measures for program expenditures in the areas of lifecycle planning, design and engineering, construction, construction supervision, maintenance and program administrative costs.

CHAPTER 5: THE NPS FEDERAL LANDS TRANSPORTATION PROGRAM AND OTHER FUND SOURCES

Chapter 5 discusses the sources for funding for the National Park Service (NPS) and how those funds are dispersed across the bureau’s programs. Other public programs and fund sources, which are used to supplement NPS Federal Lands Transportation Program (FLTP) projects or fully fund transportation capital projects and services in national park system units, are also described.

The National Park Service receives transportation infrastructure funding from the Federal Highway Trust Fund (HTF) through a program called the Federal Lands Transportation Program. The National Park Service allocates FLTP dollars primarily through designated categories described in this chapter. The “Federal Lands Planning Program (FLPP),” congressionally mandated reserved funds (from FLTP and [Federal Lands Access Program \[FLAP\]](#)), provides funding for planning, management systems, bridge inspections, and data collection.

A. THE NPS FLTP FUNDING

The NPS FLTP is authorized through US Department of Transportation (DOT) legislation (23 U.S.C.) rather than included in NPS statutes (54 U.S.C.).

Many legal requirements for the use of Highway Trust Fund monies are unique and unfamiliar to government budget and finance personnel outside the Department of Transportation. A clear understanding of HTF requirements is necessary for effective operation of the NPS Federal Lands Transportation Program. Although this program is subject to requirements of the Highway Trust Fund, it is jointly administered by the secretaries of the Department of the Interior (DOI) and the Department of Transportation under federal statute (23 U.S.C. 203(a) (3) and 315). It is important to note that these funds are meant for long-term improvements; operations and routine maintenance are not eligible for NPS FLTP dollars. (See the [NPS “Interim Policy” \[October 2016\]](#) for the current guidelines on implementing the Fixing America’s Surface Transportation [FAST] Act.)

The NPS Federal Lands Transportation Program is the main source of funding for transportation infrastructure improvements in NPS units, including the resurfacing, rehabilitation, and reconstruction of public roads, bridges, parking areas, and development and maintenance of NPS-owned alternative transportation systems. The latter includes transit, certain trails, ferries, and intelligent transportation systems (ITS).

The National Park Service enjoys some distinct advantages from the Federal Lands Transportation Program being funded through the Highway Trust Fund. Chief among these benefits is the multi-year authorization of funding that enables long-term planning of capital improvements. The FLTP funds are available the year of authorization and three additional years, providing a reliable source of funding for improvements that often cannot be completed in a single fiscal year.

Another advantage of the Highway Trust Fund is that the FLTP funds do not require any match, and they can be used as a “non-federal match” to leverage funding from other programs such as grants and the Federal Lands Access Program. When the National Park Service is able to use other Federal transportation program funds, the match is usually 20% although the rate varies according to requirements of 23 U.S.C. 104.

Operational aspects of the Federal Lands Transportation Program often change with new Trust Fund authorizations, which occur every two to six years. The description of funding in this chapter is consistent with the most recent authorization, the [Fixing America’s Surface Transportation \(FAST\) Act](#) in 2015, which provides funds for FY2016 through FY2020. Revisions to this document with subsequent reauthorizations should be expected.

Federal Lands Planning Program (FLPP)

The Federal Lands Planning Program is a fund source within the Federal Lands Highway (FLH) program that is used to fund the programs and projects necessary to develop, implement, and maintain a performance-based transportation program within the National Park Service. Title 23 U.S.C. 201 requires Federal Lands Highway, in consultation with the Federal Land Management Agencies (FLMAs), to develop planning procedures that are consistent with metropolitan and statewide planning processes 23 U.S.C. Sections 134 and 135.

The funding of the Federal Lands Planning Program is capped at 5% for each fiscal year of the funds authorized under 23 U.S.C. 203 (Federal Lands Transportation Program) and 23 U.S.C. 204 (Federal Lands Access Program). Activities under the Federal Lands Planning Program include long range transportation plans; performance management activities, including the development and implementation of safety, bridge, pavement, and congestion management systems; road and bridge inventory; and development and updating of the Transportation Improvement Program. [Section 1120 of the FAST Act](#) added eligibility for Cooperative Research and Technology Deployment Program activities under 23 U.S.C. 201(c). Such activities are to be carried out by the Secretary of Transportation in coordination with Federal Land Management Agencies, as determined appropriate by the Secretary of the Interior.

The National Park Service has developed [FLPP guidelines for implementing the Federal Lands Planning Program](#) in cooperation with the Federal Lands Highway. These guidelines define the goals, purpose, eligibility and prioritization criteria and the program mechanics for the Federal Lands Planning Program.

The NPS Federal Lands Planning Program is a national-level program co-managed by the Park Facility Management Division's (PFMD) Transportation and Facility Planning Branches. As discussed in the guidelines, long-range planning activities are coordinated through the Facilities Planning Branch, and inventory and management system activities are coordinated through the Transportation Branch.

1. Contract and Budget Authority

Budget authority is the empowerment by Congress to allow agencies to incur obligations to spend or lend money. This empowerment is generally in the form of an authorization and a separate appropriation.

In the case of the Highway Trust Fund (HTF), Congress makes available contract authority for the various programs (including for the FLTP) through multi-year authorizations. Contract authority is provided in the authorizing HTF legislation that provides a multi-year commitment of funding enabling long-term planning of capital improvements. There are key differences between contract authority and budget authority that are important to understand:

- a. Contract authority requires one legislative act (an authorization act); budget authority requires two legislative acts (an authorization act and a yearly appropriations act).
- b. Contract authority typically has four years of availability; budget authority

usually has one year of availability.

- c. Budgetary control is placed on a contract authority program through Congressional approval of obligation authority, which places a limit on the amount of funding that may be obligated in a year, which is called obligation limitation (OL). Traditionally, obligation limitation is less than contract authority. While this adds complexity, contract authority has proven to be more assured than relying on an annual appropriation.
- d. Contract authority and obligation authority are both required to actually obligate or expend funds for any authorized program.

The bottom line is that both obligation authority from an annual appropriations act and contract authority from authorizing legislation are required to expend or obligate FLTP



Other road users, Yellowstone National Park

funds. Thus, actual cash from the Treasury cannot be provided for the project until Congress passes an appropriation for the US Department of Transportation (USDOT), which in the case of the Highway Trust Fund establishes an annual **obligation (spending) limitation** on contract authority. For this reason, the allocation of contract authority is usually limited to a percentage of the total annual authorization at the beginning of each fiscal year controlled by a continuing resolution or, if there is no appropriations act, a basic operation of salary needs until a continuing resolution is enacted.

2. Available Funding

Allocation of annual funding provided for the NPS Federal Lands Transportation Program follows a specific route through the two agencies (National Park Service and Federal Highway Administration). Along the way, the amount is adjusted for a number of congressionally directed purposes that reduces the amount of authority available for projects. This process is intended to occur once at the beginning of a fiscal year, but more typically, the US Department of Transportation may operate under one or more continuing resolutions each year. Under these circumstances, contract authority and obligation limitation will be available in increments. Funding is distributed in the manner described in items (a) through (f) below.

The following program funding process can be expected in any given fiscal year:

- a. The Federal Highway Administration (FHWA) budget office takes the amount authorized for the program and adjusts the amount available by the authorized takedowns and reductions, such as obligation limitations. The obligation limit alone may reduce available funding by 5 to 15%. In some years, Congress also directs funds to be rescinded from the Trust Fund (also known as “rescissions”), and the FHWA budget office will further reduce the FLTP funds by a pro-rated share of the amount rescinded. (Note: Obligation limitation, or lop-off, has historically been between 5 and 15 percent. When there is a continuing resolution, the initial obligation limitation will be higher but adjusted lower if/when an annual appropriation is passed. If no annual appropriation is passed, then the lop-off will continue to rise the next fiscal year. This is because the difference between Contract Authority for the new fiscal year and the last approved Budget Authority is increasing too until a new appropriation is passed.)
- b. The FHWA budget office allots the resulting amount, plus the prior year’s FLTP unobligated carryover balance, to the Office of Federal Lands Highway.
- c. The Office of Federal Lands Highway advises the NPS Washington Support Office (WASO) of the amount of funds available for obligation.
- d. The Washington Support Office establishes ceilings for program administration and the various categories of funding (see below). This office then distributes Category I and III funds to NPS regions based on an allocation formula that is revisited periodically. The Washington Support Office also allocates Category II and special project funding, including Theme II project funding.
- e. During the funds distribution process, the Washington Support Office repays loans to lending regions that were made under the loan/borrow process (see section B.4, “Loan/Borrow Agreements”). Unless agreed upon in advance, loans are paid back in full. Additionally, each region’s prior year unallocated balance is incorporated into the annual ceiling at this time. The adjusted ceiling amounts allocated to each region are posted by the Washington Support Office to the Park Transportation Allocation and Tracking



Sunrise area, Mount Rainier National Park

System (PTATS). These allocations become the balances that each NPS Regional Transportation Coordinator (RTC) manages to carry out their respective program during that fiscal year.

- f. August Fund Redistribution—Highway Trust Fund programs like the Federal Lands Transportation Program go through an important process called August Redistribution. This process is intended to ensure that funding (from whatever authority) is efficiently used each year to accomplish the greatest level of improvement of agency facilities. It is important to understand that the multi-year authority provided to FLTP (and FLAP) funds enables the National Park Service to plan ahead

with confidence of a certain level of funding availability—but not to spend ahead. The NPS FLTP program has an admirable history of achieving a high, annual rate of obligation and expenditure of these limited funds. This is accomplished through teamwork and cooperation across the National Park Service and Federal Lands Highway at the end of each fiscal year and requires close monitoring of project status throughout the year.

3. Distribution of NPS FLTP Funds

The National Park Service has elected to divide its Federal Lands Transportation Program into three funding categories known simply as Categories I, II, and III. The process for allocating funds among the three categories and further, among the seven NPS regions, and the process for selecting projects is described in [Chapter 6](#).

a. Category I—Road Rehabilitation (3R) and Road Reconstruction/Realignment (4R).

Category I is administered by the seven NPS regional offices, with coordination, funding allocation, and oversight provided by the NPS Washington Support Office. Each region is responsible for coordination with other intra-regional programs and with park units, as well as implementation of the regional transportation program.

Category I is comprised of two subcategories described below.

Resurfacing, Restoration, and Rehabilitation (3R)—Typically, 3R work is performed to extend the service life of roads and enhance safety. In most cases, 3R projects are limited to the roadway bench (figure 2). Occasionally, a 3R project will extend beyond the bench for repairs to drainage structures, existing retaining walls, and to deal with slope failures. No more than 5% of project costs should be allocated to work outside the roadway bench without it being designated as 4R work, which has different standards for funding approval.

Bridgework may be done independently of roadwork. Some bridge projects will be 3R and some 4R.

As part of the 3R program, each NPS region implements a pavement preservation program to extend the life of pavement through one or more of these activities: minor rehabilitation and preventive maintenance. The Federal Lands Highway Divisions provide technical support to these activities, as described in chapter 4. There is also general guidance and best practice information on the [FHWA web site](#).

Reconstruction (4R)—The fourth “R” of Category I work is either “reconstruction” or “realignment.” This work consists of altering the geometry of an existing roadway, intersection, or bridge. Widening lanes or modifying the horizontal and vertical alignment of the road bench is typical of 4R work. In addition, 4R projects in Category I include such work as the replacement of large bridges; the relocation of roads; and the construction of new roads, bridges, and parking areas.

These types of projects are typically much more complex and costly than 3R projects and may result in more impacts to resources along the road. There are numerous reasons for considering 4R types of improvements for a given segment of roadway, including:

- congestion
- poor lateral (side) clearance between

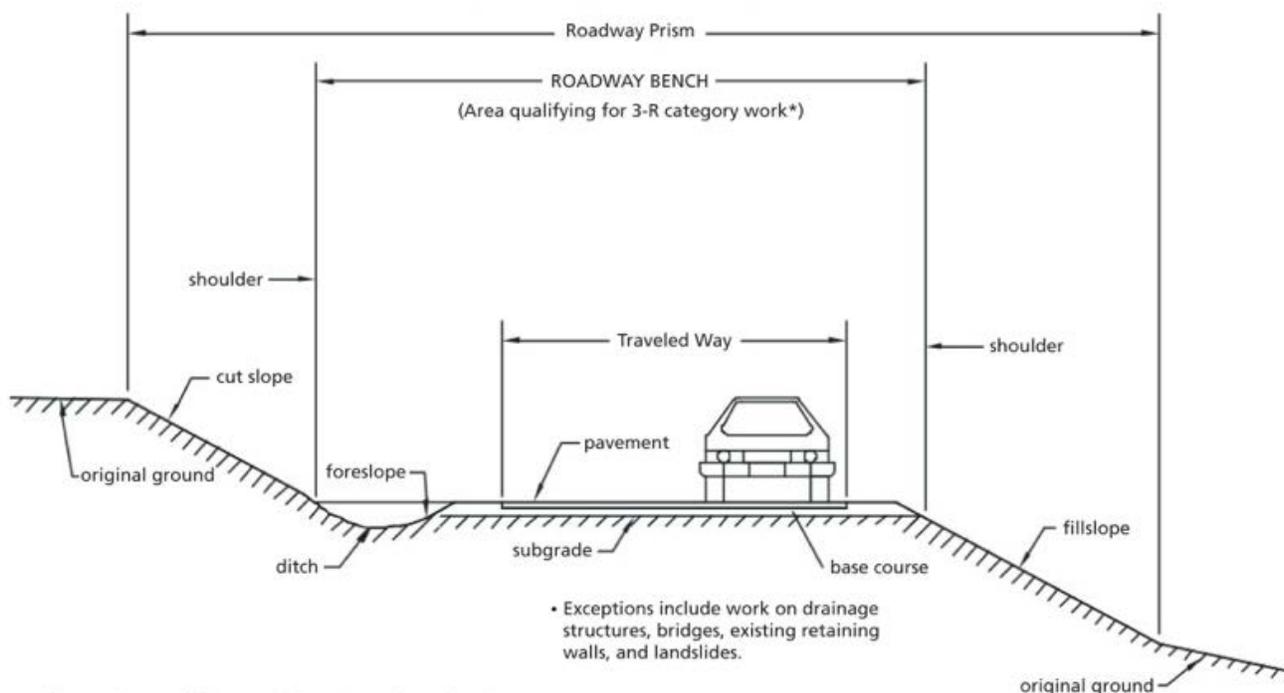


Illustration of the Roadway Bench and Prism

- oncoming vehicles or roadside obstructions
- poor sight or passing distances
- substandard alignment (either vertical or horizontal) that creates unsafe driving conditions
- improvements to road geometry to accommodate contemporary requirements
- the need for better access to resources by realigning the road
- protecting threatened resources by moving people and vehicles away from sensitive areas
- need to realign roadways away from areas subject to frequent flood damage or landslide, problems that are becoming increasingly severe in some areas because of global climate change effects

The condition of the road surface (ruts, cracks, potholes, etc.) generally is not a reason for pursuing reconstruction. Most surface defects in a roadway can be addressed using 3R techniques. There may also be alternatives to road reconstruction to address these problems, such as limiting the numbers and/or sizes of vehicles or providing alternate modes of transportation. Because the NPS FLTP funds are limited, the number of roads selected for more costly 4R work is limited to only the most critical, high-priority segments. [See chapter 6: Program Development and Project Selection](#) for more information about investment strategies for 3R and 4R work.

b. Category II—Congressionally Mandated Parkways.

This category is fairly self-explanatory and now consists of the new construction necessary to complete the Foothills Parkway’s “missing link,” and the multi-use trails on the Natchez Trace Parkway. Category II is administered by the NPS Washington Support Office, with concurrence from the regions. Other parkways that have been completed under this category include the following:

- Baltimore-Washington Parkway
- Cumberland Gap Tunnel Project
- Chickamauga-Chattanooga National Military Park Bypass
- George Washington Memorial Parkway (in Maryland, it is the Clara Barton Parkway)

c. Category III—Alternative Transportation Program.

The Alternative Transportation Program (ATP), launched in 1998, works to integrate all modes of travel in to national park system units, including transit, bicycle, pedestrian, and motor vehicle. The Alternative Transportation Program also supports park- and project-level transportation planning studies.

The NPS regions administer this program category, with guidance provided by the Washington Support Office. Park units, the NPS Denver Service Center (DSC), and the Federal Lands Highway Divisions provide input on the individual projects.

Privately owned vehicles are the predominant mode of access to our national parks, generating more than 2.4 billion vehicle miles traveled within park units annually (2014 levels). Privately owned vehicles can have negative impacts on the very resources being protected. In addition to requiring appropriately sized roads and parking areas, the use of these vehicles can create traffic congestion and generate air, noise, and water pollution.

Alternative transportation systems (ATS) help park units minimize resource impacts where traffic volume on ex-



Road damage following flooding, YELL



Bridge, Colonial Parkway, Colonial National Historical Park

isting roadway infrastructure has reached or is over capacity. These systems help preserve resources, reduce wildlife/auto collisions, improve air quality, and reduce noise. These systems also demonstrate leadership in using alternative transportation to reduce fossil fuel consumption through such investments as electric vehicle charging stations and through partnerships to expand trails and transit services to better link gateway communities as well as park assets. Some parks also require ferries to reach them or significant park assets, and these also are part of the ATP program.

d. Theme 2 – Nationally Significant Transportation Enhancements/Repairs.

Some NPS transportation facilities that have become functionally obsolete or have exceeded their design life will require large investments. The National Park Service has some regionally critical transportation projects so large as to exceed the funds available annually to the regions in which these projects are located; the projected cost in some cases would exceed the funds currently available to the entire NPS transportation program on an annual basis.

The Theme 2 funding class was created to help address the challenge of funding these large projects (i.e., costing a minimum of \$20 million). Theme 2 projects are ambitious undertakings that often require structured partnerships with other public and private partners to meet funding requirements. The idea behind Theme 2 is to reserve some NPS funds to help leverage additional funding from other federal, state, municipal, or private partners to accomplish these projects (e.g., Arlington Memorial Bridge Reconstruction in Washington, DC). [See NPS “Interim Policy for Implementing FAST Act.” October 2016.]

B. FEDERAL LANDS ACCESS PROGRAM

The [Federal Lands Access Program \(FLAP\)](#) was established in the 2012 federal transportation act, known as MAP-21 (codified as 23 U.S.C. 204), to improve transportation facilities that provide access to, are adjacent to, or are located within federal lands. The program is intended to provide a flexible approach to support a wide range of transportation projects in the 50 states, the District of Columbia, and the Commonwealth of Puerto Rico. (See [FLH’s FLAP Implementation Guidance](#).)

The FLAP supplements state and local resources for public roads, transit systems, and other transportation facilities, with an emphasis on providing access to high-use recreation sites and economic generators. The Federal Lands Access Program is funded by contract authority from the Highway Trust Fund and subject to obligation limitations. Funds are allocated among the states using a statutory formula based on road mileage, number of bridges, land area, and visitation.

Projects are selected by a Programming Decision Committee (PDC) established in each state. The Programming Decision Committees request project applications through a call for projects. The committee establishes the frequency of the calls.

According to FLH guidance, the Secretary may transfer funds authorized under the Federal Lands Transportation Program and the Federal Lands Access Program between recipients of funds within those programs (i.e., Federal Land Management Agencies) or between the two programs. Several NPS regions have used the FLAP “loan/barrow (credit)” provision. This allows flexibility for the National Park Service to leverage additional FLTP funds from other regions, other Federal Land Management Agencies, or from the FLAP program, which will convert the FLAP funding into FLTP funding. Finally, FLTP funds can be used as matching funds for FLAP projects.

C. OTHER FEDERAL TRANSPORTATION PROGRAMS

1. Emergency Relief Programs

Many NPS staff working on the Federal Lands Transportation Program are also responsible for NPS involvement in and implementation of other federal transportation programs. For some regions, these other federal programs represent a substantial amount of regularly anticipated work. These include programs involving emergency relief because of natural and man-made disasters.

a. Emergency Relief for Federally Owned Roads

The Emergency Relief for Federally Owned Roads (ERFO) program was established in July 1977 and is authorized under 23 U.S.C. 125(e). The goal of the program is to provide funding and engineering services to restore

access to public lands after a natural or man-made disaster or emergency. Federal land transportation facilities are only one of several categories of roads eligible for ERFO funding.

According to the ERFO Manual, the ERFO program is intended to help pay the unusually heavy expenses associated with the repair and reconstruction of federal roads and bridges seriously damaged by a natural disaster over a wide area or catastrophic failure because of an external cause other than normal deterioration or structural deficiency. Restoration to pre-disaster conditions is expected to be the predominate type of repair with ERFO funds.

Federal, tribal, state, and local governments that have the authority to repair or reconstruct federal roads may apply for ERFO funds. The National Park Service and other federal land management agencies are considered “applicants” under the ERFO program. Other governmental entities must apply through an applicant. The federal share of an ERFO-funded project is 100%; no match is required.

b. Other Emergency Relief Programs

There is a second emergency repair program, but it is rarely used by the National Park Service. When park unit roads and bridges also are designated as part of the federal-aid highway system, they may be eligible for the US DOT Emergency Relief program. Participation in the emergency relief program is largely at the election of the respective state. The federal share for these projects ranges from 80% to 100%.

2. Other Sources of Federal Funding

a. Better Utilizing Investments to Leverage Development (BUILD) Grants

The Better Utilizing Investments to Leverage Development (BUILD), or BUILD Discretionary Grant program, provides a unique opportunity for the Department of Transportation to invest in road, rail, transit and port projects that promise to achieve national objectives. Since 2009, Congress has dedicated nearly \$5.1 billion for eight rounds of the what was called the Transportation Investment Generating Economic Recovery (TIGER) program, (which is now the BUILD program) to fund projects that have a significant impact on the nation, a region, or a metropolitan area.

The eligibility requirements of the Better Utilizing Invest-

ments to Leverage Development program allow project sponsors at the state and local levels to obtain funding for multi-modal, multi-jurisdictional projects that are more difficult to support through traditional DOT programs. The National Park Service, partnering with various state departments of transportation, successfully competed for TIGER grants (including support for the Tamiami Trail Next Steps 2.6 Mile Bridge and Roadway Improvements project in Florida’s Everglades and the Foothills Parkway in Great Smoky Mountains National Park).

Per the Consolidated Appropriations Act, 2017, BUILD discretionary grants may be used for up to 80% of the costs of projects located in an urban area and up to 100% of the costs of a project located in a rural area. For a project located in an urban area, total federal assistance for a project receiving a BUILD grant may not exceed 80%.

b. INFRA (was FASTLANE) Grants

The [Infrastructure for Rebuilding America \(INFRA\)](#) program is a restructuring of the FAST Act’s “FASTLANE” grant program. It preserves the focus on “nationally and regionally significant freight and highway projects” while adding new project selection criteria. The National Park Service has received FASTLANE support for the Arlington Memorial Bridge project (2017-NCR).

Eligible projects for INFRA grants include highway or bridge projects carried out on the National Highway System (NHS), including projects that add capacity on the Interstate System to improve mobility or projects in a national scenic area.

c. Nationally Significant Federal Lands and Tribal Projects (NSFLTP)

The FAST Act established the [Nationally Significant Federal Lands and Tribal Projects \(NSFLTP\)](#) program to provide funding for the construction, reconstruction, and rehabilitation of nationally significant projects on federal or tribal lands.

This program is aimed at major projects costing more than \$25 million and is subject to annual appropriations. It should be noted that unlike other projects described in this subsection (which were enacted with “contract authority,” the Nationally Significant Federal Lands and Tribal Projects program requires an annual appropriation.

Recently, funds have been appropriated for this program.

d. Federal-Aid Highway Funding to States

To secure funding from any of the Federal-Aid Highway Programs administered by the states, early involvement of the relevant state department of transportation is needed. Many of these programs are discretionary, and funding is not guaranteed. To secure these funds, an application must be prepared and submitted to the state department of transportation where the project is located, requesting consideration under a given program. These applications may need to be prepared one or more years before the funds are needed.

The relevant Federal Lands Highway division and NPS regional office evaluates these additional funding sources yearly to maximize funding availability. The FLH division can provide assistance in coordinating applications to the states for these funds. Note that under SAFETEA-LU, [23 U.S.C. 132](#) was revised to enable states to transfer these federal-aid highway and federal transit funds directly to federal agencies, such as the National Park Service. When the park is in a metropolitan area, the project must be coordinated with the metropolitan planning organization and included in its required plans and programs.

e. Coordinated Technology Implementation Program (CTIP)

[From the CTIP web site] The Federal Lands Highway Coordinated Technology Implementation Program, or CTIP, is a cooperative technology deployment and sharing program between the FHWA Federal Lands Highway office and the Federal Land Management Agencies. It provides a forum for identifying, studying, documenting, and transferring new technology to the transportation community.

Many new innovative technologies have been funded through the CTIP program. These technologies include a variety of concentration areas such as pavement, bridges, and low volume roads. CTIP funds are normally used for technology projects related to transportation networks on federal public lands. Projects related to the transportation infrastructure, transit, safety, public use, and natural environments are considered.



Spring paving, Glacier National Park

D. NPS FUNDING SOURCES

Although the Federal Lands Transportation Program is the primary source of transportation funding for the National Park Service, FLTP projects can be supplemented with funds from other federal, National Park Service, and private sources. (See the National Long Range Transportation Plan for a detailed discussion of funds used to support and sustain NPS transportation assets.) Interagency Agreements (IAs) are used to transfer funds between agencies via Treasury Intra-Governmental Payment and Collection (IPAC) system.

The following are the four key NPS funding sources:

1. Repair / Rehabilitation Program

Funding for minor repairs to roads and bridges can be provided through the Repair/Rehabilitation Program. These program funds are approved as part of the NPS operating budget that is appropriated every fiscal year. Repair/Rehabilitation funds are two-year funds that expire at the end of the second fiscal year.

2. NPS Line-Item Construction Program

Funds to develop new parks and areas within parks are budgeted through the Line-Item Construction program. Funds from this program are appropriated by line item in the annual Department of the Interior appropriation act. Line-item funds normally do not expire.

3. Federal Lands Recreation Enhancement Act (FLREA) Program

The FLREA Program allows park units to charge fees for access to specific areas/attractions. The park units are allowed to use a portion of these funds for certain purposes within the park unit, including transportation projects. An interagency agreement can permit FHWA work to be accomplished with FLREA funds.

4. Cyclic Maintenance

The Cyclic Maintenance Program is a key component in meeting the Administration's goal of reducing the deferred maintenance backlog. Cyclic maintenance incorporates a number of regularly scheduled preventive maintenance procedures and preservation techniques into a comprehensive program that prolongs the life of a particular resource, utility, or facility. Cyclic maintenance funding is most optimally applied to facilities in "good" or "fair" condition. Projects undertaken in this program are performed as often as every two years or as infrequently as every ten years.

E. STATE FUNDING FOR HIGHWAYS AND TRANSIT

All states have transportation programs that do not involve federal funding. In most states, this funding includes a program that provides funds to counties, cities, or towns for assistance with construction of lower-volume roads. Funds for these programs are normally appropriated through the state legislature and administered

NPS Fund Transfers

NOTE: The National Park Service has no legal authority to transfer any NPS funds to a state or local government for road projects. Procedures for handling these and other situations involving multiple fund sources are described in chapter 6 (C)(2).

by the state Department of Transportation. When a NPS FLTP project involves work on a lower-volume road, state-aid funds may be available; the state or local agency will determine if funds are available for such use. Normally, these funds are available until expended, but this varies by state.

All but four states provide funding for various forms of transit. These programs vary substantially state to state and usually involve a significant amount of local funding. However, some states provide all funding for regular transit projects and operations. To learn more about transit funding, including for road improvements to support transit, the [American Association of State Highway and Transportation Officials \(AASHTO\)](#) conducts a survey of all state transit programs every two to three years and publishes the findings.

NPS road and transit projects also have been supported by other state agencies such as departments of tourism and economic development.

F. LOCAL AND PRIVATE FUNDING

A city, town, or county highway or transit agency usually contributes local funding for a project. Such local funding sources are often needed to provide matching funds in lieu of state funds. Normally, these funds are available until expended.

Donations also are accepted from private individuals, foundations, corporations, associations, etc., that may have special interest in a NPS FLTP project. Nonprofit organizations such as Chambers of Commerce and land trusts are frequent partners. Unlike the National Park Service, the Federal Highway Administration has no legal authority to accept private funding. If private funds are anticipated to be used on an FHWA-administered project, the National Park Service must receive these funds.

State, local, and private funding sources may also provide in-kind donations instead of cash. These types of donations may include property, construction materials, equipment, etc., that have value and contribute to the completion of the project. Often, in-kind donations are used as matching shares.

All funds or contributions, regardless of source, may be used only for the purpose intended, and surplus funds remaining will be returned to the original source promptly

after completion of the project and project fiscal records are closed. Information on the transfer or exchange of other funding sources to and from the National Park Service or Federal Lands Highway office can be found in [“Chapter 6 C. Funds Management.”](#)

Use of outside funding for projects is generally done in partnership with the contributors, and in these cases there are certain requirements for partnerships that are described in [NPS Director’s Order #21](#). To better understand how to use funds besides the NPS Federal Lands Transportation Program or other NPS programs, consult the NPS Regional Transportation Coordinator or the FLH Division program coordination staff.

NPS FLTP funds can usually be used as the nonfederal matching funds. However, NPS policy limits the use of these funds for such purposes and NPS Washington Support Office approval depends on the type of project and whether it is included in the Eligibility Guidelines.

CHAPTER 6: PROGRAM DEVELOPMENT AND MANAGEMENT

This chapter describes how a multi-year program of projects is developed and budgeted and how funding is managed and monitored. As described in chapter 5, there are many advantages of the multi-year funding authorization from the Federal Highway Trust Fund (HTF), but some policies and procedures are different from those used for National Park Service (NPS) fund sources and require close collaboration with the Federal Lands Highway (FLH), as well as other Federal Lands Management Agencies (FLMA).

A. PROGRAM DEVELOPMENT

Both the National Park Service and the Federal Lands Highway have procedures and systems in place to establish improvement projects and related studies. The Federal Lands Transportation Program of projects must reflect the goals and legal requirements of both agencies.

Under current law, the National Park Service develops a multi-year program of projects (PoP) at the regional level, and it is aggregated by the Washington Support Office (WASO) and submitted to the Federal Lands Highway. The multi-year PoP is established and managed in several distinct stages, with an annual (current year) element being the most important to the process of ensuring the best use of limited funding. (This process is under review by the National Park Service.)

The National Park Service similarly requires a multi-year program of projects for all its facility improvement projects. The National Park Service uses several data systems for managing projects and accounting for financial transactions. These processes are described in detail in the Desk Reference: Facility Projects, published in October 2016. In summary from the Desk Reference, these systems include:

- The Facility Management Software System (FMSS) and its associated Project Scoping Tool (PST). The FMSS is used to create work orders, which are bundled into projects in the Project Scoping Tool.
- The Project Management Information System (PMIS). The PMIS is an essential tool for the program development process. All NPS facility projects must be included in the PMIS

to be funded. The Project Scoping Tool is the interface tool that migrates projects and their components from the FMSS to the PMIS.

- The Financial and Business Management System (FBMS), is the primary financial information system and includes the work breakdown structure (WBS), which assigns project numbers that indicate many project types and characteristics. The FBMS provides official obligation information for each project account established for expenditure by the National Park Service.
- The Parks Transportation Allocation and Tracking System (PTATS) addresses the information gaps between the systems and enables the agencies to operate this multi-agency program more efficiently. The WASO Transportation Branch staff and regional transportation coordinators created the PTATS as an automated budget implementation tool.

Each of these systems needs to be understood to properly and optimally deliver FLTP projects. The Parks Transportation Allocation and Tracking System, however, is the link between the two agencies and provides for overall management and oversight of the Federal Lands Transportation Program by both agencies. The Parks Transportation Allocation and Tracking System tracks administrative and program management costs such as management systems through “F” projects manually created in the PTATS. These activities do not meet the definition of PMIS projects.

The key difference between the PMIS and the PTATS is that the PMIS is a project need identification system and budget formulation program, while the PTATS is a system for requesting, approving, and creating actual funding allocations (the next step after a project is entered,

reviewed, and formulated in PMIS). Most importantly, the PTATS allows FLH personnel to view PMIS project information. FLH staff are responsible for delivering most NPS FLTP projects each year, making their access to this information critical to the efficient operation of the Federal Land Transportation Program.

FHWA/FLH expenditure and obligation information for the entire system is provided by the Western Federal Lands Highway Division as a spreadsheet on a bi-annual basis for reconciliation and updating into the PTATS by the system administrator to provide a complete history of project obligations.

1. Project Prioritization and Selection

Category I

NPS regions are responsible for reviewing and prioritizing projects proposed for FLTP funding. The challenge of the FLTP process is that projects need to respond to criteria of both agencies and reflect the unique circumstances and needs of the parks and regions. For example, Federal highway law (23 U.S.C. 201) directs the agencies to treat public lands facilities similarly to the policies that apply to Federal-Aid roads built by the states.

At the same time, NPS statute (54 U.S.C. 100101) requires that resources under its jurisdiction are protected and that impacts on resources and park operation are to be minimized. These dual mandates require creativity and innovation. Both agencies share the responsibility for providing for park visitor and staff safety.

Standard rating criteria across the regions include:

- Protect health and safety
- Protect park resources
- Provide for visitor enjoyment
- Improve efficiency of park operations
- Provide cost-effective, environmentally responsible, and otherwise beneficial development for the national park system

In addition to these fundamental considerations, regions rank projects from highest to lowest according to guidance provided in the annual Servicewide Comprehensive Call (SCC) issued by the Washington Support Office. Instructions vary somewhat each year, but since the SCC in 2015, a key consideration is the Capital Investment Strategy's (CIS) Financial Sustainability score. This score is automatically generated in the PMIS based on each

park unit's prioritization of the underlying asset and their commitment to funding preventive maintenance—accomplished through asset assignment to what are termed optimizer bands. According to WASO guidance, regions should only advance projects for further consideration if their combined total estimated cost falls under a threshold of 150% of available funding pursuant to the regional allocation, starting with the highest ranked project and moving downwards.

It should be noted that individual regions may not reprioritize project submissions every year. Depending on how well the existing regional priority lists reflect current priorities, regional coordinators may defer priority setting to a later SCC and may reprioritize only about once every four years. This is because of the relatively predictable nature of most Category I needs and the desire to maintain a stable program that must be coordinated between the Federal Lands Highway and the National Park Service.

In years in which project submissions are collected, regional coordinators facilitate priority-setting and arrange for formal approval by the regional director. The regional coordinator then develops the region's five-year Category I program based on the priority order and taking into account other factors such as anticipated funding levels, any project cost estimate revisions, and management of construction-related disruption at individual parks. Projects already in development by design teams remain unchanged in the five-year program, but projects previously included in the program, but not underway, may be displaced by the newly defined priorities.

Regional coordinators occasionally need to insert emergency projects into their five-year programs to address urgent needs that may emerge between reprioritization efforts. These needs usually arise from sudden damage related to flooding, landslides, earthquakes, etc., or from unforeseen safety issues such as rockfall. The transportation safety program often must accommodate emerging needs. While some projects are planned, programmed, and undertaken to make needed safety improvements, others cannot wait for the SCC process. Occasionally acute safety problems emerge, and effective mitigation projects should be defined and executed immediately.

Pavement and bridge preservation programs are typically established through recommendations provided by the Federal Lands Highway through their highway pavement and bridge management applications. These programs are generally noncompetitive, as the National Park Service



Red bus at Glacier National Park

seeks to apply preservation treatments to all park roadways and bridges that stand to benefit. The regional coordinator sets the priorities based on factors such as bridge vulnerability index and pavement treatment cost-benefit ratio and then enters them into a five-year program, as with the 3R and 4R projects. Programming of projects depends on grouping similar construction types and nearby locations to maximize cost efficiency.

Category II

Congressionally mandated projects that are not prioritized.

Category III

Project submission and prioritization for FLTP Category III projects are accomplished similarly to Category I. When regional coordinators determine that Category III needs in their region should be reprioritized to reflect current needs, they request project submissions from parks as part of the SCC. Unlike Category I, however, the Washington Support Office provides a defined scoring rubric that regions are expected to apply to proposed projects. There are two distinct rubrics depending on whether the proposed alternative transportation project is a planning

or implementation project. Each rubric is designed to help regions make informed decisions on how they prioritize and program limited Category III funding.

Implementation projects include capital projects for transit, transportation trail, and intelligent transportation systems. Implementation criteria include:

- Demonstration of Need
- Visitor Experience
- Cost Effectiveness
- Protection of Resources
- Deferred Maintenance

Criteria for alternative transportation planning projects include:

- Demonstration of Need
- Planning Strategy/Process
- Visitor Experience and Resource Benefits
- Financial Sustainability/Analysis
- Facility Conditions/Asset Management

2. Program Preparation

(a) Primary Considerations

Each region determines when construction funds for Category I and III projects will be programmed based on the available funds approved for the region by the NPS FLTP allocation formula and other funding sources, provided by Federal-Aid Highway through its several programs and/or NPS funding available to supplement the Federal Lands Transportation Program.

For planning purposes and based on past program experience, it can be assumed that about 60% to 65% of the region's fiscal year allocation should be programmed for construction of the projects approved on a given year's project list. The remaining funds are programmed for planning, design, compliance, contract modifications, contingencies, program administration, and other activities or costs. The goal is to put as much into the construction program as possible, while maintaining consistent project development including move-up projects.

Project scheduling decisions should be based primarily on each project's regional priority and then adjusted when the design and compliance work can be completed for obligation. Examples of other factors that may alter this order include one project needing to be completed before another could start or several projects of varying priorities in one park being bundled together to improve construction efficiencies. Another factor is that each year

a region will need a mix of project sizes to fully use the anticipated funding levels. This consideration may lead to some lower priority projects being advanced. It is understandable that park unit staff can be concerned if their high-scoring and high regional priority project is delayed to then advance a lower priority project, but obligating all the available funds each year is an important program objective.

Once the schedule is determined, regional coordinators formulate projects in the PMIS, where they are assigned an approved net construction funding amount and a planned year of obligation. (Note: Funds for construction, construction management, and post-construction monitoring that may be required are often referred to as "net construction." NPS regional coordinators or the system administrator can use the PTATS - Update PMIS Data feature (which is a web service) to pull formulated projects into PTATS.

(b) Adjustments to the Base Program

"Move-up" (or "swing") projects should also be planned, programmed, and coordinated between both agencies to replace projects that may be delayed by unforeseen circumstances past the proposed fiscal year or to maximize obligations and use surplus funds that may become available at the end of a fiscal year. Move-up projects are projects from a future year of the multi-year program that are advanced ahead of normal schedule. The design of a move-up project must be scheduled to be completed



The Ranger III—Isle Royale National Park; not all transportation assets relate to roads

before the fiscal year in which funding for construction has been programmed. This requires commitment of design resources from the 35% of funds reserved for project support costs (non-construction).

Changes in the annual program of projects may also occur when the estimate for a previously programmed project exceeds the approved amount. Adjustments can be made within the region's program based on regional priorities, project schedules, and project costs.

In years when funding authority from the Highway Trust Fund is delayed or allocated in small amounts for short periods of time alternative programming is needed, bid options may be used to address shortages with the expectation of funding potentially becoming available after project award.

At such times, the region has the following options:

- Increase the program amount for the project if projected needs indicate the increase can be funded within contingency funds available for the current fiscal year;
- Establish a loan/borrow agreement with another region or the Washington Support Office to fund the increased need;
- Request a change to the project's scope of work to meet the available programmed funds;
- Defer another project to a later fiscal year to make funds available for the increased need; or,
- Defer the project to a later fiscal year when additional funds can be made available for the increased need.

All changes to a project's funding or timing and significant changes in scope are entered in the PTATS by the regional coordinator or by WASO staff in the case of Category II projects. Changes to data provided by the PMIS cannot be altered in the PTATS and can only be changed within the PMIS.

3. Regional Coordination

The NPS and FLH staff who manage the FLTP program need to be in regular communication to ensure that they continue to deliver the program successfully. Many approaches are used to keep up with program needs and resolve issues that inevitably arise. In some regions, annual

program meetings are held to discuss and coordinate the multi-year program. Program meetings may be attended by the NPS regional coordinator; DSC representative(s); FLH division program coordinators; and other key division, park, and regional personnel, depending on the range of projects and their requirements. This meeting is focused on the FLTP but may also cover projects relating to other fund sources from both NPS and FLH authorized programs, as well as non-federal funds.

Among the objectives that may be accomplished through these meetings and other coordination mechanisms are the following:

- Inform each agency on the status of current design and construction projects, discuss delivery schedules, and identify problems and potential funding needs.
- Review and program Category I and Category III projects recommended from the project selection process.
- Coordinate the proposed Category II projects.
- Discuss which agency will perform planning, compliance, design, construction, and contract administration for proposed projects.
- Identify move-up projects for potential obligation at the end of each fiscal year.
- Consider strategies for funding various projects, including alternate funding source applications, loan/borrow agreements, and leveraging their funding sources.
- Recommend and justify proposed changes to the current program of projects.
- Review the financial status as of the end of the prior fiscal year and determine potential effect on funding as a result of proposed program changes.
- Discuss preliminary engineering (PE) and construction engineering (CE) budgets on individual projects and within the region to ensure cost-effective program and project delivery.
- Identify engineering or other special studies necessary for future program updates.
- Coordinate the submittal of projects for Development Advisory Board (DAB) review.
- Ensure the completion of project agreements before requesting engineering funds



Construction on the missing link of the Foothills Parkway, Great Smoky Mountains N.P.

- Discuss future project needs that park units should submit in subsequent Servicewide Comprehensive Calls.
- Discuss incorporation of new technology when developing NPS projects. Alternate funding sources may be available for technology applications.
- Discuss program performance and how well the program is achieving program goals.
- Consider how to partner better.
- Consider planning strategies in the respective long range transportation plans and assess how well the program is advancing those strategies
- A list of projects that are ready before their scheduled construction fiscal year and that could be move-up projects should other projects be delayed or surplus funds become available.
- Recommendations and justifications of proposed program changes to a previously approved program of projects.

4. Loan/Borrow Agreements

Program meetings should be scheduled between January and May to inform the SCC. Decisions and recommendations from a program meeting, or other methods of involving the multiple parties, are critical to plan budgets for current and future fiscal years.

After the program meeting, the NPS regional coordinator and FLH division staff will resolve any remaining issues and jointly prepare the finalized program of projects. Programs will not exceed available funds for each fiscal year, unless prior coordination and approval has been received for loan/borrow arrangements. The multi-year program of projects within a region will include the following:

- Priority lists of projects and the proposed fiscal year for construction.

The loan/borrow agreement is an innovation of the WASO-Regional partnership and it is intended to provide program flexibility to NPS regions to plan and use available funds and, on a Servicewide basis, to maximize the use of available funds within a fiscal year. A loan/borrow agreement allows a region to either lend or borrow funds from another region or the WASO under an agreement that requires the amount to be reimbursed within an agreed upon time period (normally one year). For example, a region may have the design completed for a project, but funds are not sufficient for construction. The region may borrow the needed funds to construct the project under a loan/ borrow agreement that requires the region to pay back the lending region in the following fiscal year.

Generally, regional coordinators oversee the loan/borrow agreement between regions with WASO support and concurrence. The agreement is used as the official document to describe the terms and conditions of the loan/borrow arrangement. Each NPS regional director or designee signs the agreement. Copies of the executed loan/borrow

agreement will be distributed to the lending region, borrowing region, the WASO, the FLH division, and the FLH Office. Loan/Borrow is tracked in the PTATS.

The following requirements apply to a loan/borrow agreement:

- Loan/borrow agreements should be entered into with caution when the current program authorization is set to expire because there is the uncertainty of funding.
- Funds are designated as to the type of funds (Category).
- Repayment of the loan/borrow to the lending region at the beginning of a new fiscal year is the first order of business by the FLH Office and the Washington Support Office upon allotment of FLTP funds, according to the terms of the agreement. Both the loan and the repayment will be tracked in the Parks Transportation and Allocation Tracking System on the “Regional Ceiling by Category” table. The Washington Support Office will make entries in the Parks Transportation and Allocation Tracking System after receipt of signed agreements.
- The loan/borrow agreement does not imply banking funds (carryover). Loan/borrow agreements are used to maximize obligations for the overall NPS Federal Lands Transportation Program.

5. Program Approval

The finalized multi-year program with a cover memo signed by each NPS regional director will be submitted to the Associate Director for Park Facilities Management with copies to the Denver Service Center (DSC) and the region’s respective FLH division. For Categories I and III, the submitted program is considered approved at that time unless specifically rejected by the Washington Support Office.

6. Program Priority Adjustments

Further adjustments in each category of projects may be necessary later in the fiscal year because of funding shortfalls, emergencies, and changes in project conditions. Any of these issues may require altering program priorities

to advance, add, or delay one or more projects in a fiscal year.

Changes in NPS regional priorities for Category I and III projects are determined solely by the region, assuming that changes are within the regional budget and maximize proposed obligations. Changes to the regional program of projects are coordinated with, and forwarded to, the Washington Support Office. Any project with required documentation for concurrence and incorporation into Category II and any Theme II projects are submitted to the Washington Support Office.

B. BUDGET DEVELOPMENT

1. Budget Elements

An annual budget is prepared for all expenditures planned for a given fiscal year. The budget should be comprehensive and used to program and track all NPS FLTP expenditures at the parks, regions, Denver Service Center, the Washington Support Office, and FLH Office and divisions. There are five work activities that account for all spending:

- a. **Planning (PL)**—Planning is the process of identifying, planning, and preparing an approved program of transportation projects for design and construction. Planning includes transportation planning at the park unit and project levels, engineering and safety studies, transportation planning studies, and the development of the four management systems (safety, pavement condition, bridge condition, safety management, and congestion management).
- b. **Preliminary Engineering (PE)**—This stage includes all work necessary to take a project from an approved proposal (within an approved multiyear program of projects) to a completed set of contract documents (plans, specifications, and estimates, or PS&Es) ready for funds obligation and contract solicitation/award. This includes environmental compliance/NEPA, survey, mapping, subsurface



Shoulder damage, Yellowstone National Park

investigation, preliminary and final design, drainage design, erosion control, traffic control, scoping, permitting, right-of-way and utility coordination, landscape design, specifications, estimates, consultant contract administration, consultant contracts, construction contract solicitation, bid evaluation, and contract award.

- c. **Construction Engineering (CE)**—All work necessary to oversee the construction of the contract from award of contract to the completion of the project is categorized as construction engineering. Contract administration, construction inspection, materials testing, and design assistance during construction necessary to ensure contractor conformance with the construction contract are included in

construction engineering. Compliance monitoring associated with an approved environmental work plan (EWP) may also be included.

- d. **Administration (AD)**—This activity is necessary to coordinate the NPS Federal Lands Transportation Program in both agencies and at all levels. Administration includes developing and approving the program of projects, managing regional and national funds, and providing necessary program guidance.
- e. **Construction (CN)**—Construction is the actual improvement of park transportation infrastructure, typically accomplished through the award of a construction contract. Construction work that is not part of a primary construction contract, such as revegetation performed by

park crews and also considered construction, must also be included in the annual budget. For the FLH divisions, this work may also include utility relocation costs, FLTP payments to states for construction work, or other activities. Funds for this latter type of work come directly from the net construction amount available for the project; however, because they are not part of a construction contract and they can be accessed before or after a contract is awarded, they must be tracked separately. This “Business Practice for Creation of Transportation Projects in PMIS: Create Add-on Component” explains how this can be accommodated in the PMIS.

PL, CE, and PE activities are generally termed project support and account for most of the funds not allocated to construction of specific projects in a given fiscal year.

2. Budget Preparation

FLTP project, regional, and national budgets are prepared using the PTATS. All planned obligations for a given fiscal year must be entered into this database. When projects in the PMIS are regionally approved and formulated for one of the FLTP fund sources, they are pulled into the PTATS by the system administrator or regional coordinator. If a project is not formulated in the PMIS, it will not appear in the PTATS database, and funding cannot be allotted to that project (except for F projects).

Once a project has appeared in the PTATS, funds may be requested for any of the five work activities listed in the prior section. Parks, the region, the Denver Service Center, and the FLH divisions can make requests for funds at any time during the fiscal year. Regional coordinators will approve or disapprove requests for Category I and III projects/funds. For Category II projects, regions first approve all fund requests, and then the Washington Support Office must approve the requests before funds will be allocated.

Regional coordinators typically respond to fund requests within one week. In the event that fund requests are not

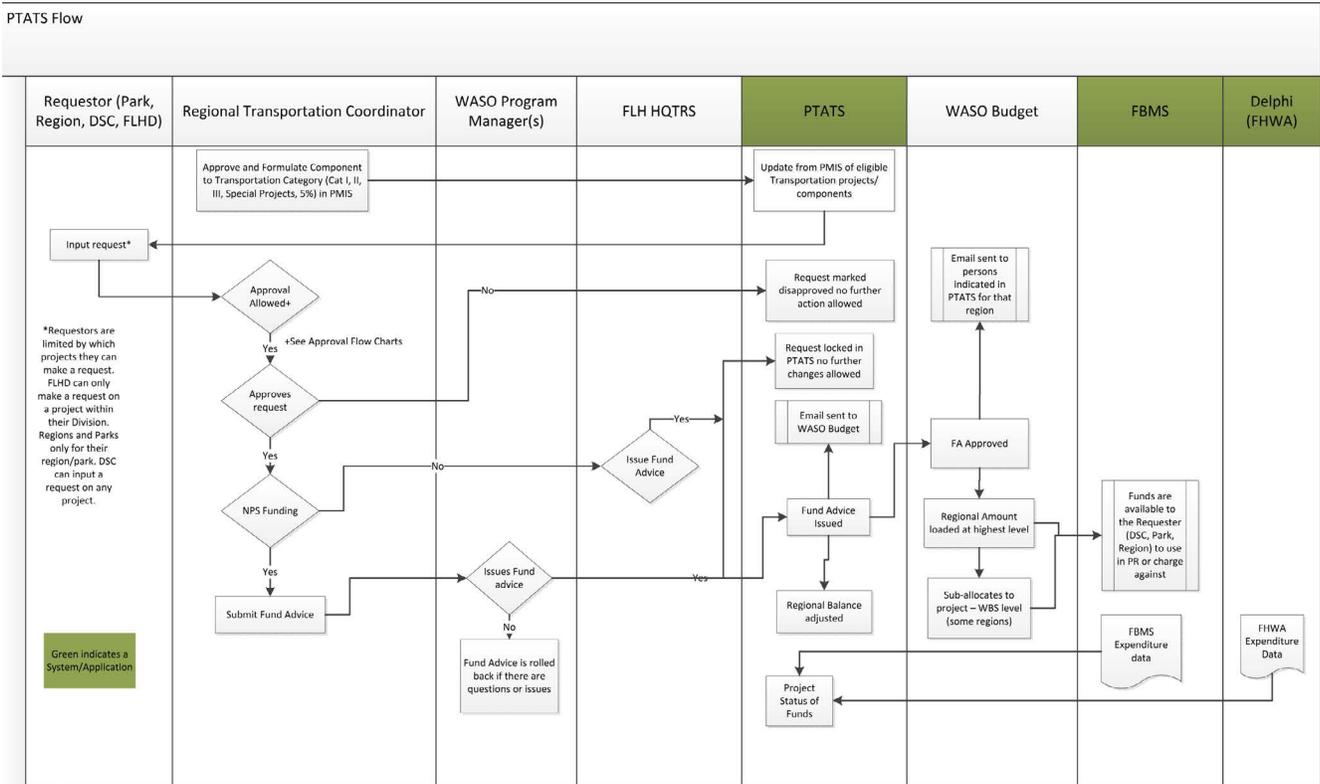
approved or concurred with, it is incumbent upon project managers to negotiate an acceptable resolution with the regional coordinator. Neither regional coordinators nor the WASO staff can change fund requests (amount, activity, or account information) unilaterally. Only the requestor or system administrator can adjust the fund requests. (See **PTATS Flow Chart with Delphi** next page)

All obligations are summed against the regional allocation for Categories I and III. The WASO allocates for Category II. The WASO and the regions input these amounts in to PTATS based on available funding. When the sum of approved requests exceeds the funds allocated, they will be shown in the PTATS balance table in red.

Coordination with all participating NPS and FLH units at this stage is important. Some regions do this by holding formal budget meetings often after or in conjunction with program meetings. Adjustments are made according to the desired action: changes made to the allocation ceiling and to Category II are made by WASO staff; changes to loan/borrow agreements and to Categories I and III are made by the region.

Budgets cannot exceed available allocations in each fiscal year unless prior coordination and approval has been received for loan/borrow arrangements. The budget for the current year program of projects within a region will include sections detailing the following:

- a. All proposed FLTP activities for Category I and III by project and fiscal year, including obligations to date and estimates per activity per each year over the life of the project.
- b. All proposed engineering or other special studies necessary for future program updates.
- c. All activities that are not specific to a project or special study (salaries, travel, and other expenses for regional coordinator, etc.) within a region and that are paid from the FLTP funds.
- d. Proposed loan/borrow agreements to support funds over the regional allotment.



e. All proposed activities for Category II projects, including obligations to date and estimates per activity for each year over the life of the project. This information should highlight revisions based on recommendations for proposed program changes.

3. Current Fiscal Year Budget Approval

The approval process varies by region and is affected by national issues and legislation. The process, however, will include certain activities as described below.

Once funds are approved, the WASO issues funding advice to regional and DSC budget officers. Project-specific account numbers must first be created via the PMIS in the FBMS and entered into the PTATS as provided by regional budget offices before a funding advice can be generated for a project. For Category I and III projects, this is typically done by the regional coordinators and for some large parks, by the field budget staff. If the account is not in FBMS, the interface with the PTATS will not work properly. It is important to keep NPS regional and DSC budget offices well informed regarding any changes

in approved funding levels. Budget offices must either establish account numbers or modify the amount available for one that is already established.

The FLTP program coordinator at the FLH office allo-cates funding to FLH Divisions (by state) commensurate with the approvals for FLH work recorded in the PTATS. The Program and Planning offices in the three FLH divi-sions then ensure that account numbers are established for charging approved costs within the divisions.

For Category II, the account number mechanics are the same, but the final approval resides with the WASO. Funds are allocated only after the regional coordinator concurs with a funding request and the WASO program manager approves the request.

Because the PTATS is a “real time” system (requests and approvals are instantaneous), and project budgets are rarely static, budget requests and adjustments occur routinely throughout the fiscal year. Regional coordinators are responsible for ensuring that budgets are within fiscal guidelines and should not approve requests where delivery costs are excessive.

4. Beginning the New Fiscal Year

NPS and FLH project managers should have project-specific budgets prepared by September 1st of the preceding year for the next fiscal year's operations. Several business practices have been developed by the regions and WASO to guide the process of getting new fiscal year funding flowing. These are identified in Business Practices for the Start of a New Fiscal Year.

Financial transactions at the beginning of a fiscal year are often complicated by pending appropriations/ authorization legislation. Frequently, the Office of the Federal Lands Highway cannot issue the majority of funds until the US Department of Transportation appropriation is passed and signed by the President and interpretive guidance has been issued. This often creates a situation where new contract awards cannot be executed and only enough funds to continue basic operations are available. As a result, regional allocations from the WASO may be small early in the year and fund approvals will need to be tailored accordingly.

C. FUNDS MANAGEMENT

Funds management involves the timely coordination, monitoring, and management of available funding and execution of programmed budgets within a fiscal year. Effective funds management ensures financial accountability, maximum use of available funds, and cost-effective improvements to park unit transportation infrastructure and program credibility. Seven major activities are involved in doing the job well.

1. Point of Obligation

To use funds within a fiscal year, funds must be obligated. Funds can be obligated in two ways: (1) through cash expenditure or (2) by committing the federal government to pay for services rendered, normally through a contract, agreement, or other legal document or transaction. To be credited as an obligation, the accounting systems within the agencies must recognize the funds as obligated. Total obligations are equal to funds expended plus funds committed. The unobligated balance is the difference between the funds allocated to a project or activity and total obligations.

For FLTP funds, the point of obligation for construction and engineering services contracts is approval of plans, specifications, and estimates (PS&Es). Award of a con-

tract is not required to obligate funds. (Note: this only applies to contract work, not work performed by agency staff.) This differs from other appropriated funds (budget authority) where contract award is the typical point when funds are obligated by an agency. Please note, however, that the NPS budget office does not have the ability to recognize two points of obligation in the financial system; until this is remedied, only the FLH office recognizes approval of plans, specifications, and estimates on FLH delivered projects as fund obligation.

For professional service projects administered by the Federal Lands Highway, the funds are authorized and obligated when a Statement of Work has been approved by an authorized official. For construction contracts, the funds are obligated when the plans, specifications, and estimates for a project is approved. PS&E approval requires that all elements required for construction of the project are in place: (1) funding is available, (2) environmental compliance/NEPA has been completed (Record of Decision, Finding of No Significant Impact, or categorical exclusion has been executed), (3) necessary right-of-way is acquired (a rare occasion for a NPS FLTP project), and (4) permits for construction have been obtained. Plans, specifications, and estimates may be approved for obligation conditionally on a case-by-case basis as long as items 1, 2, and 3 have been met.

The project description and conditions and the amount of the authorization is documented and included as part of the project or contract files. For the FLH divisions, the division engineer is the approving official for obligation, but the authority may be delegated.

For planning, engineering, and construction performed by federal land management agency staff (i.e., the National Park Service), funds are not subject to the FLH defined point of obligation and cannot be obligated before the work is performed. Expenditures are obligated as work progresses.

For planning, engineering, and construction contracts delivered by the National Park Service, funds are obligated at time of contract award.

2. Multiple Fund Sources

NPS FLTP projects can be supplemented with funds from other NPS, federal, state, local, or even private sources. Transfer and use of these funds trigger several requirements that need to be understood for the transactions to be efficient and legal.

It is important to verify with the relevant budget office that the combining of sources is legal and appropriate, particularly if the use of multiple sources has not previously been documented in proposed scopes of work.

Where the National Park Service is administering the work, the FLTP funds will be transferred by the FLH office to the agency. Any additional funds to be applied to the project can be administered by establishing appropriate accounts for those sources. Please note that these non-FLTP funds cannot be included in the PTATS and must be tracked as a separate element in the PMIS. The PTATS can note when “Other Fund Sources” are used as well as the fund amount. (See more information below at Managing Non-FLTP Funds.)

In instances where the project is being administered by one of the FLH divisions, any supplementing funds must be provided to the FLH office. This occurs in one of two ways:

- a. Funds may be applied by requesting that the appropriate regional NPS budget office process a transfer request through the Washington budget office to activate a request to the US Treasury Department to make the transfer. Generally, this is the way NPS-appropriated fund sources, such as Repair/ Rehab, are made available to the FLH division.
- b. Alternatively, and particularly where NPS funds are obtained through receipts (donations, fees, etc.), use of the funds by a FLH division requires a reimbursable agreement (typically an interagency agreement or “IA”). Funds are obtained by the Federal Lands Highway billing the National Park Service. Such agreements are an official government contract and require involvement by a warranted NPS contracting officer. Once the agreement is finalized, the Federal Lands Highway



The Lowell Trolley, Lowell National Historical Park

will establish a reimbursable account to which their costs are charged. As the obligations occur, “cash” is obtained from the National Park Service via electronic billing (called IPAC or Intergovernmental Payment and Accounting)—a responsibility that is managed between the two agencies’ financial offices. This process is complicated, and additional time must be planned to finalize the agreements.

In the case of NPS receipt accounts, this process is required because if the income is transferred, the NPS systems will lose track that they were received, which adversely impacts reporting and distribution of funds. Many receipt funds in the National Park Service have legislated formulas that require proportional distribution of income based on the percentage of total income by unit.

When administering multisource-funded projects, funds are obligated on the NPS side via an Interagency Agreement (IAA), it is important to distinguish that obligation occurs through an Interagency Agreement but transfers and reimbursable agreements do not legally obligate funds.

A reimbursable agreement between two federal agencies only serves to authorize the other to execute the formal obligation on behalf of one of the agencies; in other words, it serves only as a “commitment.” Because the NPS financial system (FBMS) does not accommodate commitment accounting, it is posted as though it were an obligation, but legally, it is not. The funds are officially obligated only when the receiving agency—Federal Lands Highway—completes their obligating document, which they must do within the same timeframe that would be required of the source agency. Please refer to the *FLH Transfer Guide*.

Because funding transfers or exchanges of all types are time-consuming, early planning and coordination are necessary to ensure that the contract awards can be made on the anticipated schedule or are obligated within the programmed fiscal year. Whenever requesting funds from a source other than the Federal Land Transportation Program, it is important to remember to include all

the costs associated with the project, including design and construction administration. Finally, funding must be formally authorized (i.e., funds must be transferred or a reimbursable agreement must be completed) by the agency before issuing a solicitation for consultant services or construction.

4. Managing Non-FLTP Funding

The following information is a list of the most commonly used sources and their administrative requirements. None of the following types of funding sources are currently tracked in the PTATS:

- a. NPS Appropriated Funding Sources (Examples: Repair/Rehabilitation and Line-item Programs)
- b. NPS Federal Lands Recreation Enhancement Act (FLREA) Program
- c. Federal DOT Funding Sources at 100% Federal Share—Federal funding sources, such as [Emergency Relief for Federally Owned Roads \(ERFO\)](#), that do not require a matching share can be transferred between the NPS region and FLH division similar to the standard process for transferring FLTP funds. Because the fund’s attributes remain, any eligibility requirements associated with the fund source must also be met.
- d. Federal DOT Funding Sources Requiring State or Local Matching Share and State or Local Aid— For projects where the federal agency (such as the NPS) will receive Federal-Aid Highway and/ or state or local matching funds, the transfer of funds to the federal agency must be consistent with 23 U.S.C. 132. This section was revised in SAFETEA-LU to make direct transfers of funds from states to the National Park Service and other federal agencies possible. Many states and local governments have their own administrative requirements that



The Anacostia Riverwalk Trail

make such transfers difficult regardless of federal law. In these cases, the appropriate means of transfer will be through the FHWA because of its long-standing agreements with each state. In all cases, an agreement is required to be executed between the National Park Service and the state agency (and any other involved agency, such as the Federal Lands Highway) documenting the scope, work responsibilities of each party, budget and schedule for the project, billing or electronic transfer information, and any designated accounting information.

- e. NPS-Appropriated Funds for a State or Local Project—The National Park Service has no legal authority to transfer agency funds to a state, county, or local

government except where specific grant authority is authorized. Standing grant authority tends to be specific to certain types of NPS funds (those whose main purpose is to assist states), and this authority is also authorized for most work falling under the auspices of the Alaska National Interest Lands Conservation Act. There are other exceptions, but they should be confirmed with the appropriate NPS regional or Washington Budget Office before execution. Unless specific grant authority exists, NPS-appropriated funds to be used by state and local governments must be executed via a contract document (typically a cooperative agreement). The implementing organization (vendor) ultimately gets their cash by billing

the National Park Service as work is completed—similar to an interagency agreement process. Where the funding constitutes only a portion of the project, NPS funds must at least be executed by a contract document even if the other funds (such as FLH funds) can be transferred directly to the states.

f. Federal DOT Funding Sources

Requiring State or Local Matching Share and State or Local Aid— For projects where the federal agency (such as the National Park Service) will receive Federal-Aid Highway and/or state or local matching funds, the transfer of funds to the federal agency must be consistent with 23 U.S.C. 132. This section was revised in SAFETEA-LU to make direct transfers of funds from states to the National Park Service and other federal agencies possible. Many states and local governments have their own administrative requirements that make such transfers difficult regardless of federal law. In these cases, the appropriate means of transfer will be through the Federal Highway Administration because of its long-standing agreements with each state. In all cases, an agreement is required to be executed between the National Park Service and the state agency (and any other involved agency, such as the Federal Lands Highway) documenting the scope, work responsibilities of each party, budget and schedule for the project, billing or electronic transfer information, and any designated accounting information.

- g. Private Funding Sources—Policies on accepting private funding vary with each federal agency. The Federal Lands Highway, for example, has no authority

to accept funding from private sources. If private funds are considered for use on an FLH-administered project, arrangements for reimbursement or transfer of those funds should be evaluated on a case-by-case basis. It is extremely important to note that if any contract includes government funds—no matter how small—federal contracting requirements (such as Davis-Bacon wage rates) apply, even if the private party (or state/local government) is doing the contracting.

- h. Miscellaneous Sources—Technology funds that are available through the Federal Lands Highway cannot be transferred to the National Park Service. If the National Park Service is responsible for carrying out this type of activity, funding must be obtained via a reimbursable agreement process. To understand the type of the agreement that is needed and its scope, [see Director’s Order 20](#).

- i. Unused Funds—All funds, regardless of source, may be used only for the purpose intended, and surplus funds remaining must be returned



Paving the North 89 Pathway, Teton Valley

to the original source promptly after completion of the project and project fiscal records are closed. Unused funds that are formally “transferred” are returned to the source agency by initiating a transfer in reverse; funds that are authorized via a reimbursable agreement are released for other uses by de-obligating them in the process of closing the fiscal records.

5. Program Monitoring

It is the responsibility of the FLH office and NPS/ WASO to track and monitor the allocations and obligations on a Servicewide level. At the same time, the NPS regions and FLH divisions are required to track and monitor their own obligations and expenditures at the regional level, including the allocations and obligations of each office, project, and work activity. This ongoing review includes the following:

- a. Review of all current accounts to determine if funds are sufficient for the remainder of the current fiscal year.
- b. Review of contract accounts for completed projects to determine if any surplus funds can be released for redistribution and re-obligation.
- c. Identification of any new or changed needs.
- d. Ensure that necessary project agreements have been prepared to obtain new funding.
- e. Ensure that applicable projects have been through the Development Advisory Board (DAB) process.

As modifications are identified, funds are reallocated in the Parks Transportation and Allocation System as necessary between the NPS region and FLH division to fund the changes. The regional coordinator is responsible for determining the appropriateness of funds requested in excess of authorized amounts. Changes to the regional program exceeding 5% require concurrence by the WASO program manager.

6. Project Fund Monitoring and Modifications

Many situations will require the unanticipated expenditure of funds within a fiscal year, including high bids, contract modifications, additional design or compliance work, awarding options and schedules on contracted work, or emergency needs. For these reasons, the WASO maintains a small contingency fund for the NPS FLTP at the beginning of the fiscal year. As the year progresses, these funds are committed to projects and eligible FLTP activities. However, regions are responsible for unanticipated expenses within their allocation of funds for Category I projects.

The PTATS provides numerous reports and project and program data that enable tracking of project and fund balances. This starts with the home page of the PTATS, which shows the regional allocations for all categories by year as well as special projects and loan/borrow totals among other relevant data.

Prior year activity that affects the current year’s bud-get is another reality and must be accounted for in the Parks Transportation and Allocation System. Funds that augment the current year’s budget are entered as a con-struction de-obligation. Prior year activities that create a current year liability are entered the same way any other obligation is entered.

In the latter half of the third quarter, the region will eval-uate the amount remaining in the region’s allocation and will reallocate the funds to support “move-up” or “swing” projects and contract modifications through the end of the fiscal year. Funds may also be used for eligi-ble emergency projects at the discretion of the regional director. The following criteria will apply to the manage-ment of regional funds.

- a. Funds may be used for only those activities eligible for FLTP funding.
- b. The region controls any allotment of funds including those established at the FLH divisions. All funds are tracked and monitored by both the NPS region and the FLH division.

- c. Funds may not be used for work outside the original scope of the project as determined by the project agreement.
- d. Potential contract modifications that could affect project scope and/or budget need to be considered urgent and communicated to program personnel quickly. For construction and A/E (architectural and/ or engineering) contract modifications, NPS regions or the FLH division (or Denver Service Center for projects they administer) will respond within five business days of receipt of a request to avoid delays that may affect a contractor's progress and, ultimately, may result in delay costs. The Washington Support Office reviews and approves all contract modifications that are estimated to result in a 5% increase in net construction costs over the life of the project.
- e. Upon creation of the work breakdown structure, the region, park, Denver Service Center, or FLH division will ensure that the funds are promptly obligated.
- f. If the funds requested exceed the actual amount needed, remaining funds will be returned via a negative dollar amount request in the Parks Transportation and Allocation System, as soon as practical to the regional allocation.
- g. When a region, park, Denver Service Center, or the FLH division releases engineering or construction funds (through a de-obligation action) from a completed Category I or III project, the region determines how these funds are reprogrammed.

When funds are required to accommodate a necessary, but unanticipated, change in a fiscal year (i.e., an emergen-

cy request that may or may not qualify for ERFO [Emergency Relief for Federally Owned Roads] funds), but the regional balance is insufficient to fund the change, the region has the following options to consider:

- a. Surplus funds from another Category I or III project can be reassigned within the FLH division or NPS region for another approved activity.
- b. A Category I or III project can be dropped from the current fiscal year program to fund the proposed change. The dropped project is bumped to the next fiscal year. This may create a ripple effect on each year of the multiyear program, requiring a project of similar amount to be bumped in each fiscal year.
- c. Funds can be borrowed from another region or the WASO through a loan/borrow arrangement. Because the funds must be paid back (usually



Maintenance on Duck Brook Bridge, Acadia N.P.

the next fiscal year), this creates the same ripple effect as in the item above. However, this approach may benefit the NPS FLTP as a whole if it helps another region obligate funds that otherwise would be lost to the program.

The WASO is responsible for addressing any changes in fund requirements for Category II projects (and any special program funds). The criteria for management of these events are similar to those for Category I funds, including the end of fiscal year review and reallocation.

For Category II, both the NPS region and FLH division will contact their respective headquarters offices to request any changes. Although these projects are nationally managed, the NPS region or FLH division will typically initiate a change request. The WASO will determine whether the request will be funded. If additional funds are needed, the WASO has the following options:

- a. The FLH division or NPS region may be able to release funds from a prior year Category II contract and request that the FLH office and/or WASO forward the funds to either the NPS region or FLH division if agreed to between the two agencies.
- b. Surplus funds from another Category II project can be reallocated within the FLH division or NPS region if agreed to between the two agencies.
- c. The funds can be taken from the WASO contingency fund if available and agreed to between the two agencies.
- d. A project can be dropped from the fiscal year program to make funds available for the proposed change.

Depending on the decision, the NPS region and/or FLH division staff changes the PTATS database for WASO and FLH office review. If funds are available, an allocation providing the requested funds will be made by the headquarters offices. Fund requests and adjustments may be provided at any time of the year as the need or urgency for funds arises.

7. August Redistribution

Every year in early July, the FLH budget office asks for an evaluation of obligation limitation for all HTF programs. The objective is to redistribute authority to ensure the maximum use of funds, as described in [FLH guidance on Stewardship and Oversight](#). Federal agencies allocated other Title 23 program funds must return any contract authority and obligation limitation that is not expected to be used by the end of the fiscal year. This is referred to as the “August Redistribution.”

Each FLH division and NPS regional office must coordinate closely, reexamine all current active accounts, and reevaluate the amount of funds needed (obligations) for the remainder of the current fiscal year. The Washington Support Office closely monitors the obligation levels and at this time works with the FLH office to reevaluate the needs on a Servicewide basis to maximize obligations and return any projected unused contract authority and obligation limitation. For the August Redistribution, the NPS region and FLH division should use the following procedures:

- a. The regional coordinator works closely with the parks, Denver Service Center, and other NPS offices to evaluate fiscal year needs, determine the projected unobligated balance, and identify projects or activities for possible year-end funding.
- b. The FLH division evaluates fiscal year needs, determines the projected unobligated amount, and identifies projects or activities for possible year-end funding.
- c. The NPS region and FLH division work together to determine which move-up projects and other activities can or cannot be funded. Unobligated balances will be evaluated to determine how to maximize obligations within the program.
- d. At the beginning of loan/borrow discussions, the NPS region and FLH division work together to identify any

loan/borrow arrangements to either release or obtain more funds to fund possible activities or to maximize the use of any unobligated balance.

- e. The NPS region and FLH division update the Parks Transportation and Allocation System PTATS to determine needed funds or any unobligated balance and submit the information to the Washington Support Office.

The NPS region should report the following to the WASO:

- a. total anticipated obligations through the end of the fiscal year for all Category I, II, and III projects;
- b. anticipated carryover balance to the next fiscal year for Category I projects; and
- c. proposed changes to balance and redistribute funds between the region and FLH division for all Category I, II, and III projects. Redistributed balances returned at this time will be returned to the regions without penalty in the next fiscal year.

The WASO will summarize all anticipated obligations and carryover balances of all NPS FLTP funds and submit the information to the FLH office. All projected unobligated balances from the NPS regions and FLH divisions will be reported to the FLH budget office by the FLH office at the beginning of August. In some years, there will be an additional redistribution process.

8. Fiscal Year Close-Out

At the end of the fiscal year, NPS and FLH staff must again coordinate closely to redistribute the remaining unobligated funds and reallocate funds as necessary to balance and obligate the maximum amount of funds possible.

Note that project close out is addressed in [Chapter 7, pg. 78](#). Once projects are closed out in the PMIS and the PTATS, there are effects on the regional budget and fund availability that must be taken into account and reconciled.

To summarize the process for fiscal year program and fund closure:

1. The NPS region and FLH division work closely, and with the parks, Denver Service Center, and other NPS offices finalize fiscal year needs, determine the unobligated balance, and return any balance to the WASO. In many years, several iterations of this activity are necessary. Regions need to have move-up projects available or secure loan/borrow agreements with other regions to minimize any unobligated balance. Coordinators need to work closely with NPS budget offices to determine unobligated account balances.
2. The WASO finalizes the needs for all itemized activities per project for the Washington Office, region, and the park and submits that list to the FLH office.

The goal of this process is to obligate all available funds. Any remaining unobligated balance from the NPS regions and FLH divisions is returned to the FLH budget office by the FLH office.

If a region ends a fiscal year with an unobligated balance, this may cause the Washington Support Office to apply a penalty to the region in the next fiscal year. Unobligated balances at fiscal year-end negatively affect the NPS FLTP funding level in the subsequent fiscal year.

9. Reporting Statements

To report back to FLH office on the Federal Lands Transportation Program, the NPS Washington budget office prepares a Standard Form (SF) 133, Expenditure Report. This form is prepared quarterly for the first three quarters of the fiscal year, then monthly. The FLH budget office uses the SF-133 to track obligations and expenditures throughout the fiscal year. At the end of the fiscal year, the SF-133 is used to resolve unobligated balances and carryover calculations.

The WASO also prepares an Accomplishments Report, which is available in the PTATS by region, project and current and recent fiscal years. A number of other reports are in the PTATS Support Docs/Appendices area.

CHAPTER 7: DESIGN AND CONSTRUCTION PROJECT DELIVERY

The purpose of this chapter is to identify the activities involved in designing and constructing or delivering transportation projects, from the initial project scoping through the completion of construction. Chapter subsections describe the key processes, procedures, and responsibilities of the staffs of the National Park Service (NPS) and the Federal Highway Administration (FHWA), in particular the operating units known as the Federal Lands Highway (FLH) divisions. Although the wording may be different for a project designed and contracted by the National Park Service through the Denver Service Center (DSC), for example, the overall nomenclature is important as every Federal Lands Transportation Program (FLTP) project is managed through the Parkways Transportation Allocation and Tracking System (PTATS) system.

A. PROJECT MANAGEMENT, PROJECT VERIFICATION AND SCOPING, AND PROJECT AGREEMENTS

1. Project Management

Federal Lands Highway and the NPS Denver Service Center are Project Management Organizations (PMO), and Park Facility Management divisions often operate in a PMO style, especially those parks that will assume the project management role for FLTP projects. Both agencies are responsible for ensuring responsible expenditure of federal funds and both use the project management system for successful completion of projects. Because the National Park Service and Federal Highway Administration are co-leads of the FLTP delivery process, each will assign a project manager to every project. Though there are two project managers, the tasks of each are complementary.

Typically, the NPS project manager (park, region or Denver Service Center) serves as the owner's representative. All project communication should be directed through the NPS project manager to ensure effective and clear communication to all key NPS staff especially related to project scope, schedule, and budget, as well as any issues or concerns that arise.

Additionally, the NPS project manager is responsible for environmental compliance, landscape architecture, and revegetation when applicable. The FLH project manager is typically responsible for the engineering design, technical engineering activities, construction contracting and management. However, if the National Park Service is delivering the entire project, then all the responsibilities of design and construction fall to the National Park Service.

Project managers are responsible for:

- managing the details of the project (scope, schedule, and budget),
- providing leadership by anticipating problems before they become serious and taking preventive action to mitigate their effects,
- ensuring effective communication, and
- ensuring that all the people involved in project delivery are on track, including any A/E (architectural and/or engineering) consultants.

Project managers are also responsible for managing these activities:

- developing the project agreements (see note above concerning the drafting of project agreements and amendments)
- scheduling and facilitating design review meetings
- developing scopes of service for A/E contractors
- ensuring that all project development and technical services are in place
- being knowledgeable about general project details and sensitive issues
- managing the project schedule and budget

- managing the project scope
- being knowledgeable about program requirements and ensuring project compliance with the requirements
- understanding and implementing the project direction established by park and regional management
- maintaining relationships with the client
- maintaining relationships within the project team
- acting as an advocate for the project and the interests of the National Park Service/Federal Lands Highway
- obtaining the endorsement of all stakeholders
- ensuring effective communication
- making presentations about project progress if required during regional work sessions, the NPS Development Advisory Board, and other management briefings

(Please note the above list is not comprehensive.)

To finance work in any stage of a project, the region, park unit, FLH division, and DSC staff request funds for their part of the required work. All FLTP funds are requested through the Parkways Transportation Allocation and Tracking System (PTATS). The regional transportation managers approve funds as appropriate through the PTATS database. When funds other than FLTP funds are used, the appropriate documentation is necessary.

When the National Park Service transfers funds to the Federal Lands Highway, an Interagency Agreement (IAAs) is executed between the parties. These agreements are coordinated between the National Park Service and Federal Highway Administration to ensure that proper documentation and billing occur and funds are kept separate for accounting purposes. (See chapter 6 for detailed information on how projects are funded.) When park funds are used by the DSC to carry out work, the park provides an account number and a Project Direct Charge (PDC) is prepared.

2. Project Verification and Scoping

Work on a project can officially begin when it is formulated in the Project Management Information System (PMIS) and brought in to the PTATS. At that time, up to \$50,000 may be requested to begin the project scoping process.

The regional transportation coordinator, working with FLH and NPS partners, initiates field level project verification, if necessary, and the project scoping meeting. Each organization assigns the specific individuals needed for the project team depending on the needs of the project. The design process usually starts approximately two to three years prior to the programmed construction year.

Project verification is a process used to confirm information gathered through use of the transportation data systems (HPMA, Bridge, etc.), often including a site visit with minimal staff to verify conditions. During the project verification process, a go/no go determination will be made, and the scope of the project may be revised to more clearly define the work.

To initiate project delivery, a scoping meeting is held on



Rockfall road closure at Zion National Park

site for members of the project team to view the project area and discuss the general project parameters, identify potential compliance and permitting requirements, review budget and schedule, discuss team composition, and review other potential issues or specific project concerns. The nature and extent of the project scope dictates the assignment of professional resources (archaeologist, hydrologist, etc.). Project roles and responsibilities are a key item for discussion to define the office or individual responsible for carrying out specific items of work (park resource manager, DSC compliance staff) and identify gaps where additional team members could be needed. Team members may include:

- Project managers for both agencies
- Park Superintendent (or designated representative)
- Park maintenance and resource management staff
- DSC project specialist and/or compliance staff
- Contractors
- Regional coordinator or representative

A major outcome of the scoping effort is the preparation of a Comprehensive Project Agreement (CPA).

3. Project Agreements

a. Comprehensive Project Agreements. The project agreement is the document that consolidates all parties responsible for a project and binds them to the process. A project agreement is required for every project. The project agreement outlines project scope, roles and responsibilities, budget, and schedule for the project. The agreement is prepared as a charter based on information from the PMIS and refinement from subsequent project scoping; it sets the project in motion when signed and uploaded into the PTATS.

The project agreement is informed by the PMIS scope along with professional judgment, observations, conversations and understandings reached through the project scoping phase. The project agreement should be drafted during or immediately after the project scoping trip, once the project manager(s) determines scope of the proposed project, the services required to deliver the project, various roles and responsibilities, schedule, and overall budget. The final project scope should reflect issues that are fully developed, with problems and initial solutions identified.

The project agreement also commits the project team to resolving differences that may arise by including a conflict escalation matrix. The matrix identifies a hierarchy of situations and responsibilities of individuals along with timeframes for resolution or escalation to a higher level of management involvement.

The responsibility for drafting the project agreement is determined at the scoping meeting but is typically drafted by the project delivery lead project manager. The project agreement enables all project planning, compliance, and engineering funds to be authorized and is signed by the designated official in the Federal Lands Highway Division, the region and the park, and Denver Service Center.

b. Preliminary Project Agreements. In some cases, there are extenuating circumstances that make it necessary to move a project forward prior to the completion of a comprehensive project agreement. In those cases, a preliminary project agreement (PPA) can be used. Preliminary project agreements are used when a comprehensive project agreement cannot be written and approved timely—usually because of the complexity of the job or questions that need to be resolved during the preliminary engineering (PE) process. Use of a Preliminary Project Agreement allows no limit of preliminary engineering funding and up to \$10,000 of construction funding to be requested and approved in the PTATS. A comprehensive agreement is required prior to moving beyond the PE stage of work.

c. Amendments to the Project Agreement and Construction Agreements. The project agreement should be amended or re-signed when scope, schedule, or budget change significantly, as outlined in the Project Agreement Best Practices.

An amendment of the agreement or a new project agreement at the time of construction may also be warranted. The purpose of a construction amendment/agreement would be to identify the new roles and responsibilities that will be in place during the construction process and to ensure the construction management team understands the design intent, critical decisions, and obligations made in the environmental compliance documents.

Project agreements and their amendments provide a valuable paper trail to substantial changes in the project and are uploaded in the Parkways Transportation Allocation and Tracking System. Signatures on amendments should follow the best practices for project agreements.



Birdsong Hollow Bridge, Natchez Trace Parkway

B. DESIGN

1. Preliminary Engineering (PE)

Preliminary engineering encompasses all work necessary to take a project from an approved scope to a set of contract documents—plans, specifications, and estimate, or PS&E—ready for advertisement and award. Preliminary engineering only goes through the contract award process; construction engineering (CE) covers the actual construction phase.

Preliminary engineering can include:

- surveying
- mapping
- subsurface investigation
- environmental compliance
- acquisition of permits
- preliminary and final layout
- grading
- drainage design
- erosion control
- traffic control
- right-of-way and utility coordination
- landscaping design
- specifications
- estimates
- consultant contract administration
- bid evaluation
- contract award

If the project is to be delivered on schedule, the design process must be synchronized with the environmental compliance process (since the compliance process determines the preferred alternative), revegetation plan-

ning, and landscape architectural design work. If one activity gets significantly ahead or behind schedule, it can adversely affect project decision-making, the multi-year program, critical timing to meet the park and/or resource agency expectations, and budget.

2. Design Reviews

During the preliminary engineering process, periodic reviews are scheduled by the project managers to assess progress of the design work and to resolve issues that may arise during the development of the PS&E package. It is very important that all team members be engaged during the review process. A project schedule can begin to slip if reviews are not timely and complete. Some projects are not complex, and fewer reviews may be needed on these projects; however, the number of reviews necessary should be included in the project agreement.

- a. **Thirty Percent Review.** The first review occurs when the design is approximately 30% complete. Drawings should show the preliminary centerline and profile with an approximate design footprint of the project.
- b. **Seventy Percent Review.** The second review usually occurs when the design is about 70% complete. The compliance process should be complete by this stage. Usually called the plan-in-hand review, this review covers in detail the design criteria used, potential environmental mitigation for each alternative considered, exceptions to standards, and other matters pertinent to the project, including special contract

requirements. At this stage, all team members should be able to determine if their respective concerns are being adequately addressed in the plans and specifications. This is the time to raise concerns to ensure solutions can be found.

- c. **Final Design Review.** The final design review occurs when the project PS&E is approximately 90% to 95% complete. At this point, major items should have been addressed and review comments should be minimal and be easily resolved by project designers. The NPS project manager, the park superintendent, and the regional manager are asked to review and recommend the final design to the NPS regional director for approval using a PS&E Partner Approval Form.

Following review and approval by the regional director and division engineer, the PS&E package is forwarded

to contracting for advertisement, bid, negotiation, and award. Prior to advertisement, the estimated project cost is entered into the PTATS under the construction (CN) category. Oftentimes, the programmed construction amount will be used to allow for more flexibility within the program. This request for funds needs to be approved by the regional manager prior to project advertisement.

The contracting process will be different depending on the type of contract being used on the project; however, approximately 45 days should be scheduled for the contracting process.

C. CONSTRUCTION (CN)

After the final award amount is determined, the CN request in the Parkways Transportation Allocation and Tracking System is adjusted accordingly to reflect the actual award amount. Programmed construction is the amount of money identified for award of the initial construction contract and is requested prior to advertisement. Net construction typically includes the amount of the contract award plus any contract options or bid schedules awarded to the construction contractor.



Road wall maintenance, Grand Canyon National Park

D. CONSTRUCTION ENGINEERING (CE)

Construction engineering encompasses all work necessary to oversee the construction of the project from the point that the contract is awarded to the completion of construction and project acceptance. This includes such items as contract administration, construction inspection, and materials testing. The FLH division is the contracting office and responsible for the construction phase of projects designed by Federal Lands Highway. When the National Park Service designs and contracts projects, the NPS is the lead for construction. In both cases, the same basic procedures and requirements described in the sections below are followed.

1. Contract Administration

In general, the contracting officer (CO) is ultimately responsible for the construction contract. For FLHD-delivered contracts, the construction operations engineer (COE) directly represents the contracting officer in the day-to-day management of the contract. The project engineer, inspectors and other team members coordinate through the construction operations engineer. For NPS-delivered contracts, the contracting officer representative (COR) serves in essentially the same capacity as a construction operations engineer. The NPS project manager responsible for the design phase of the project continues as the project manager for the construction phase. To make this document clear, the term construction manager will be used for project engineer, project manager, and construction officer representative.

Proper communication channels for construction projects are discussed in detail with the contractor and all other interested parties during the pre-construction meeting. The pre-construction meeting is the preferred time for NPS personnel and FHWA staff not on the construction team to discuss with the contractor any specific areas of concerns.

Although only the contracting officer may make contractual commitments for the government, some construction operations engineers do have limited warrants. The construction operations engineer has authority for executing and administering FLH construction contract activities. The contracting officer has the ultimate responsibility for making not only the financial contractual commitments on behalf of the government, but may also direct the contractor to execute certain actions, stop work, etc.

NPS personnel or FHWA personnel not part of the construction management team may not direct the contractor in any way with regard to actions that may suggest the commitment of government funds. However, this does not preclude NPS or FHWA personnel from informing the contractor directly on issues such as speed enforcement or other park safety or resource issues. In these instances, the construction manager should also be informed immediately.

The construction manager must include the appropriate NPS staff (park, region, and/or Denver Service Center) in any significant discussions and decisions affecting the project. This is true from the initial design phases through the construction process. Any changes that affect the amount of funding needed to complete the project must be coordinated through and approved by the regional manager prior to the contracting officer issuing a change. Under the [1983 agreement](#), contract changes also require the approval of the NPS regional director. Regardless of who is responsible for the construction phase, the National Park Service—often through the Denver Service Center—monitors construction and adherence to environmental commitments and the final PS&E and/or other agreements such as the revegetation of areas disturbed by the construction activity.

a. Contract Modifications

Contract modifications may be negotiated to change the contract and adjust the contract amount. Only Contracting Officers acting within the scope of their warrant are authorized to execute contract modifications on behalf of the contracting office.

It is important that construction managers communicate early and often regarding potential modifications that will affect project funding. Once the need for a contract modification has been identified, the construction manager should coordinate with all of the parties who may have an interest in the modification.

The NPS region must concur with the decision to modify the contract and is responsible for approving any additional funding. Substantial contract modifications require review and approval by both the regional coordinator and WASO staff. “Substantial” is defined as 5% of net construction cost or a modification that, in combination with earlier or anticipated modifications, will equal or exceed 5% of net construction.

Funds for proposed modifications can originate from two places:

1. Funds from within the contract—These are project funds that will not be used because of quantity underruns or unused incentives. Even if funds for a modification are provided by “within the contract” sources, the construction manager must coordinate with the FLH or DSC programming staff and the regional manager to ensure concurrence with the proposed action and for proper tracking of funds.
2. Funds from outside the contract—These are funds that are in addition to what has been obligated for the project. The construction manager must coordinate with the regional manager to determine the source of the needed funds or if the project will need to be modified to stay within the obligated funding. Contract modifications may affect other projects in the current fiscal year or projects programmed for future years.

b. Quantity Overruns

When an overrun on an estimate clearly will affect the budget of the project, the construction manager should notify the contracting officer and the regional coordinator to determine the source of additional funds, or how the project will need to be modified if no additional funds will be available. (This process is described in more detail in [Chapter 6](#)).

2. Construction Inspections

The construction manager is responsible for verifying and documenting that the project work conforms to the plans and specifications and complies with the terms of the contract. To accomplish this, s/he must conduct periodic inspections and testing as each phase or element of the work is completed. S/he has the authority to reject unsatisfactory workmanship and materials. Only qualified staff and contractors will perform the inspections.

Construction methods and sources of materials are usually the contractor’s option as long as the end product fulfills the specified requirements and the contractor works only within the specified project limits. In no cir-

cumstance, however, is the contractor allowed to borrow materials from a park source unless this has been previously agreed to.

The goal of all construction inspections is to ensure the final product meets the intent of the plans and specifications.

3. Materials Testing

Specific requirements for all materials are stated in the contract. The contractor is required to maintain an adequate inspection system and perform inspections to ensure that materials conform to the contract requirements. The project engineer or project inspectors should witness all sample collection or testing when possible and should review all test reports for accuracy and completeness.

4. Environmental Monitoring

The Environmental Commitment Summary (FLH) or and Environmental Mitigation Plan (NPS) describes all environmental requirements that were identified in the NEPA process. All natural and cultural resource commitments that are relevant to the construction work are included in the contract. Work to mitigate construction impacts to resources on site is monitored by assigned FLH and NPS staff.

5. Revegetation

Any commitments to revegetation of the site may be a part of the construction contract or may be a separate action but must be part of an approved revegetation plan. Revegetation plans are only required when it is expected to be complicated or unusual.

6. Right-of-Way (ROW)

Right-of-way acquisition is generally not needed on NPS FLTP projects and review of ROW issues is normally completed during the design phase. When ROW acquisition is identified, however, the regional FLH office will coordinate the acquisition with the appropriate NPS Regional Lands office. Acquisition would be funded using CN funds.

7. Utilities

Work that will impact utilities not owned by the National Park Service is coordinated directly with the utility companies by the construction contractor.



Yosemite National Park

8. Traffic Control

Traffic control plans are developed in preliminary engineering and must be implemented by the contractor, park staff, or both, as indicated in the plan. Traffic control requires close cooperation with the park in any case. United States Park Police are sometimes involved, specifically in the National Capital Region (NCR).

E. PROJECT WRAP-UP AND CLOSE OUT

1. Project Acceptance

After final inspection is complete and punch list items have been rectified, the construction manager prepares a final acceptance letter for Superintendent and Regional Director final acceptance of the finished project.

2. Archiving As-Built Plans/Drawings

The National Park Service is responsible for managing project documentation. NPS Director's Order 11D states that the Denver Service Center's Technical Information

Center (TIC) is the central repository for all planning, design, and construction products. TIC's scope of collection also includes drawings, maps, plans, and related technical reports produced during the life of the project.

Records and data collected, created, or generated by other organizations or by individuals working for the National Park Service under contracts, interagency agreements, cooperative agreements, or other agreement instruments with the National Park Service, including research permits, are considered NPS records unless the contract, agreement, or permit specifically provides otherwise. See Document Archiving Business Practices for FLTP Projects in Guide Library.

The construction contractor for both FLHD and NPS delivered contracts is required to submit as-built plans at the completion of the construction project to the appropriate agency for verification. At present, the Federal Land Highway Division prefers two "hard copies" (paper copies) and the DSC requires a digital copy.

After the as-built plans are verified as accurate, they are



Tour Bus, Denali National Park

sent distributed as follows: the park unit in which the work was done, one hard copy, and digital version.

- a. The park unit where the work was performed: one hard copy and a digital version.
- b. The NPS Denver Service Center, Technical Information Center: one hard copy and a digital version.
- c. The Regional Transportation Program Coordinator: one hard copy and a digital version.
- d. When the National Park Service delivers work, copies of the as-builts should be sent to the appropriate Federal Lands Highway Division as part of the stewardship and oversight requirement.

For FLHD projects, the construction branch reviews the as-builts and provides the approved documents to the FLH project development branch. The FLH project development branch creates an electronic version of the as-built plans and are responsible for archiving and distributing the plans per the list, above.

3. Project Closeout

Following project completion, the project needs to be closed out. This includes closing work orders in the FMSS and filing the completion report in the PMIS.