

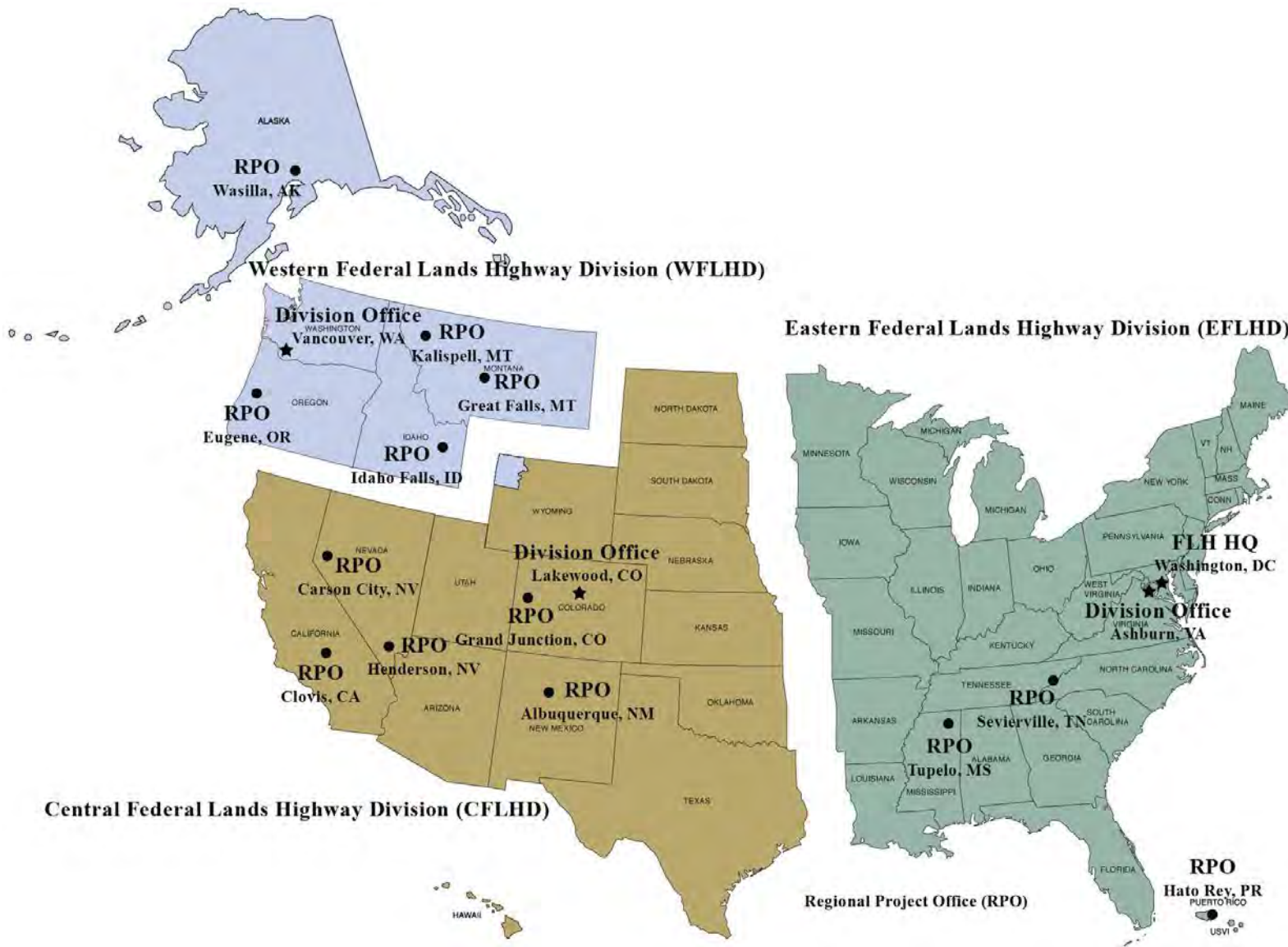
Federal Highway Administration
Office of Federal Lands Highway

2020

The Year in Review



U.S. Department of Transportation
Federal Highway Administration



For additional information please visit <https://highways.dot.gov/federal-lands> or contact our offices:

- FLH HQ • (202) 366-9494
- EFLHD • (703) 404-6201
- CFLHD • (720) 963-3500
- WFLHD • (360) 619-7700

Front Cover: Donner Pass, California
 Back Cover: South Lake Road, Inyo National Forest, California

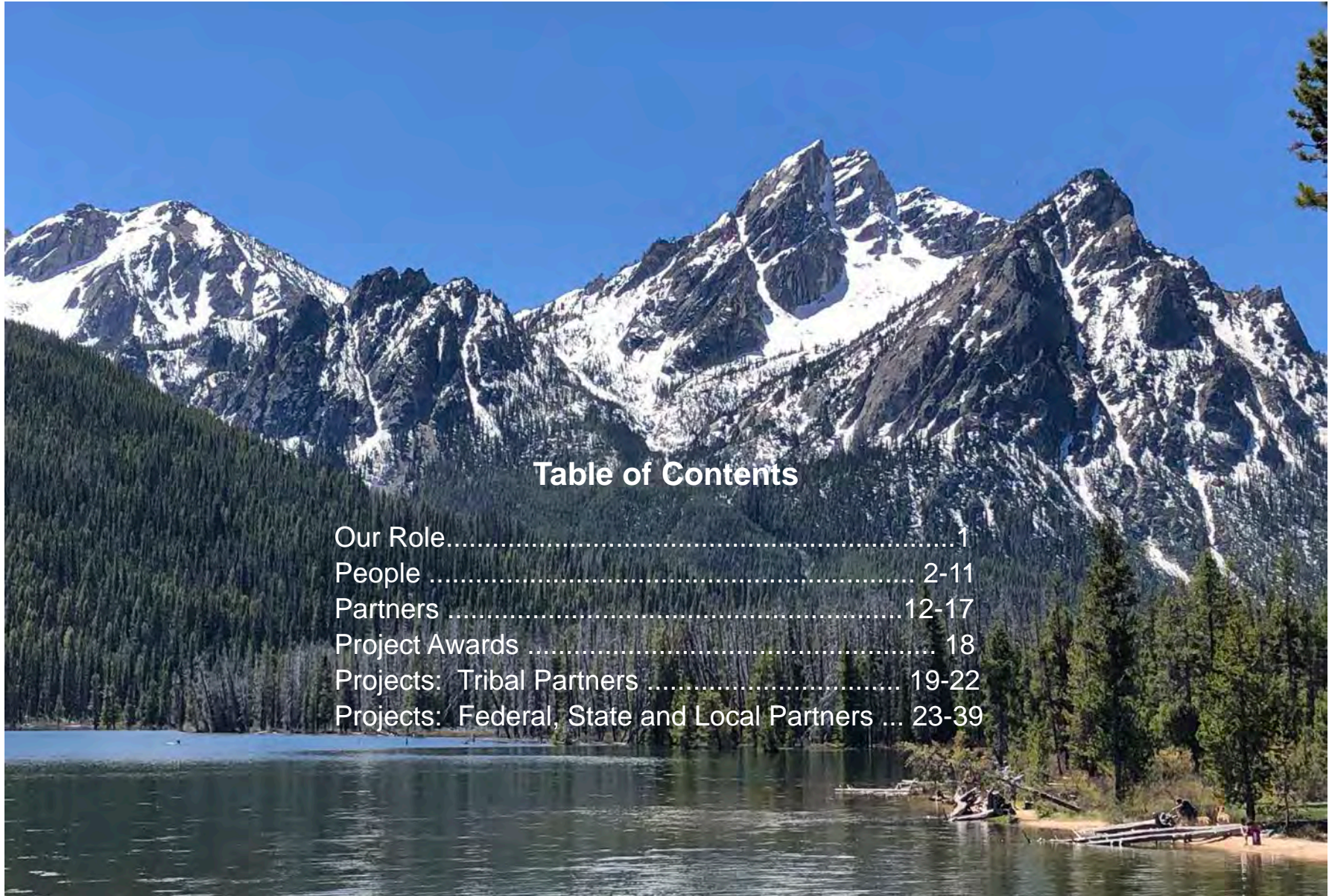


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Sawtooth National Recreation Area, Idaho

Images throughout this report unless otherwise noted were taken by FHWA employees. Special thanks to all contributors.



VISION

**To be the partner of choice
to Federal Lands Management Agencies and Tribes.
We will implement innovative transportation solutions
that provide access to and through public lands.**

MISSION

**Improving transportation
to and within Federal and Tribal Lands
by providing technical services
to the highway/transportation community,
as well as building accessible and scenic roads
that ensure the many national treasures,
within our Federal Lands, can be enjoyed by all.**

Spruce Railroad Trail — Crescent Lake National Park, Washington

Our Role

The Federal Highway Administration (FHWA) Federal Lands Highway Program (FLHP) was established in 1982 to promote effective, efficient, and reliable administration for a coordinated program of public roads and bridges; to protect and enhance our Nation's natural and cultural resources; and to provide needed transportation access for Native Americans. The Federal Government, through various Federal Land Management Agencies (FLMAs): the **National Park Service (NPS)**; **USDA Forest Service (FS)**; **U.S. Fish and Wildlife Service (FWS)**; **Bureau of Indian Affairs (BIA) and Tribal Governments**; **Bureau of Land Management (BLM)**; **Department of Defense (DOD)**; **U.S. Army Corps of Engineers (USACE)**; **Bureau of Reclamation (USBR)**; and **Presidio Trust**, have ownership responsibilities for more than 30% of the Nation's land. This responsibility covers more than 500,000 miles of public and administrative roads on federal land across the U.S. and its island territories.

The Office of Federal Lands Highway (FLH) is relied upon by these partners to solve and manage unique challenges that are wide-ranging in environment, geography and complexity, through engineering solutions that are sensitive to the context of the land. We are often confronted by unique terrain, work restrictions, and challenging deadlines. Whether it is building highly visible and political projects, constructing roads that are national landmarks, or providing critical access on low-volume transportation facilities, FLH is at the forefront of consistently delivering distinct and sound engineering projects. FLH consists of a Headquarters Office (HFL) in Washington, District of Columbia and three field Division Offices: Eastern Federal Lands (EFL) in Sterling, Virginia; Central Federal Lands (CFL) in Lakewood, Colorado; and Western Federal Lands (WFL) in Vancouver, Washington.

Federal Lands' role is categorized into two areas: Business Operations and Engineering. Business Operations addresses stewardship and oversight for our resources, as well as management and oversight of the program, totaling over \$1 billion per year. Engineering is the development of projects from scoping and preliminary design through the construction of a project.

FLH is uniquely enabled and entrusted to administer many different types of funds to facilitate transportation improvements for our Partners.

The Program and our role continue to expand to include more federal partners and road networks. FLH expertise and credibility has grown to deliver a wider variety of transportation projects and improvements nationwide.

Our engineering and technical expertise includes:

- Construction Supervision and Inspection
- Consultant and Construction Contract Acquisition
- Contract Administration
- Design Visualization
- Environmental Compliance
- Funds Management
- Geotechnical Design
- Highway and Bridge Design
- Hydraulics and Hydrology
- Intelligent Transportation Systems
- Materials Sampling & Testing
- Plans, Specifications and Estimates
- Project Management
- Program Administration
- Road and Bridge Inventory and Inspection
- Safety
- Survey and Mapping
- Technical Assistance
- Technology Deployment
- Traffic
- Transportation Asset Management
- Transportation Planning

We employ practices and techniques of the FHWA Every Day Counts Innovations (EDC), designed to shorten project delivery, enhance durability and safety, improve environmental sustainability, and increase efficiency through technology and collaboration in our daily business.

People

Our most valued asset is our people; they are the key component to our continued success. We encourage our employees to build diverse skill sets and technical expertise to remain in step with the increasing diversity of the Federal Lands Highway Program and our partner's needs. Many of our employees were recognized with the following distinctions and awards in 2020. Kudos to all for representing Federal Lands as experts in your fields!

Contracting Expertise in Federal Lands

The Federal Acquisition Certification (FAC) Program is for contracting professionals in the Federal Government performing contracting and procurement activities and functions. The purpose of this program is to establish general education, training, and experience requirements for those contracting professionals. We are proud to say that we have a total of 426 contracting professionals in our ranks who hold certifications in all three certification categories, with some professionals holding certifications in more than one category!

FHWA Discipline Champion Awards

FHWA Discipline Champion Awards recognize individuals for their contributions to their respective disciplines, impact on the agency, and demonstrated leadership and expertise.

Structures Discipline Awards - Bridge Excellence and Career Achievement Awards

Karl Eikermann of the Central Federal Lands Highway Division Office is recognized for significant contributions to the FHWA Bridge Program through his distinguished FHWA career. Karl has demonstrated an outstanding level of technical expertise and sustained commitment to economical, innovative, constructible projects in the Federal Lands Bridge Office, including Every Day Counts initiatives. His technical expertise and commitment to quality project delivery has led to numerous successful projects requiring unique, cost-effective solutions.

Program and Management Analysis (PMA) Discipline Awards

The Western Federal Lands Quality Assurance Team (Michael Flynn, Todd Hashemi, Greg Kwock, Nathan Jones, David Mariman, and Dan Slanina) are recognized for their exemplary efforts to drive quality assurance through data at Western Federal Lands. This newly formed team took a corporate approach to quality assurance, instituted program analysis principles, and created new tools and processes to bring quality assurance to the hands of

all employees. The team identified what data was needed and established a process to collect and visualize the data. Within months, a dashboard was created that allowed staff to query project quality issues and conduct their own analysis.

Program Management Analyst of the Year Award

Colleen Fletcher, Strategic Planning and Evaluation Specialist, with the Federal Lands Highway Program Office is a results-oriented professional that re-energized PMA roles and responsibilities within Federal Lands Highway Headquarters and across units. She led a team of PMA staff to promote and implement a consistent and coordinated approach to risk assessment, unit planning, analysis assessment, and evaluation of program and project roll-up data and information. Some of her accomplishments include creation of a data and information resource that centralized Federal Lands Highway programs and project performance data into a single repository. Additionally, she streamlined Federal Lands Highway's annual report data tables. She has successfully re-established these important activities within and across Federal Lands Highway which raised-the-bar based on her leadership and corporate approach.

Construction and Project Management (CPM) Discipline Awards

Mike Traffalis of Western Federal Lands Highway Division has been the Project Management Discipline Champion for the past four years. During that time, Mr. Traffalis has elevated the PM discipline within Federal Lands Highway (FLH) in the areas of certifications and project scheduling platforms while continuing to deliver significant projects for Glacier National Park and other federal agencies. A direct outcome of his effort was that over 40 FLH program managers have been trained under the program he developed that recognized existing FLH-PM experience level, and this resulted in significant cost and time savings. He has also been instrumental in leading the FLH initiative to one common project management information system. Mike is awarded the Discipline Champion Award for his exceptional contributions to the CPM discipline.

Project Management (Preconstruction) Award

Recognizes individual project managers or teams for outstanding performance in the effective management and development of projects.

Chris Rossmiller of Western Federal Lands Highway Division is recognized with the Project Management (Preconstruction) Award. Chris is a Construction Project Engineer and a long time FHWA construction discipline member. He excels in the areas of construction discipline core competencies, cross project delivery knowledge, and participation and contribution to FHWA corporate capacity. During the 2019 construction

People

season, he completed the final task order on the over \$100M Glacier National Park Going to the Sun Road Rehabilitation Project work and immediately started a logistically complex pavement preservation project. Because of his experience and leadership abilities, Chris commands great trust with our project partners. He is also an incredible mentor through his innate ability to provide clear and constructive instruction to junior construction staff members.

FHWA Administrators Awards

The following Federal Lands employees were recognized for Superior Achievement:

Christine Black, Civil Engineer (Highway)
For providing exemplary leadership as the Safety Engineer for Central Federal Lands Highway Division and Team Leader for the Special Contract Requirements Team.

Charles Disson, Project Manager
For providing exemplary leadership as a Construction Operations Engineer in the Western Federal Lands Highway Division.

Anita Gebbie-Deisch, Lead Program Coordinator
For providing exemplary leadership in helping the Programming Team maintain a high level of efficiency and productivity.

Jonathan Herrera-Roldan, Civil Engineer
For exemplary leadership as a Geotechnical Engineer assisting in the recovery efforts for damage to Puerto Rico from Hurricanes Maria and Irma.

Wendy Hiciano, Civil Engineer (Hydraulics)
For demonstrating a superior level of performance as a Hydraulic Engineer at Eastern Federal Lands Highway Division.

Angela Johnson, Civil Engineer (Highway)
For providing significant Design Discipline contributions as a Senior Highway Designer for Central Federal Lands Highway Division.

Kyle Kitchel, Lead Transportation Specialist
For providing exemplary leadership as the Lead Transportation Specialist in the Federal Lands Highway Office of Tribal Transportation.

Kirk Loftsgaarden, Project Manager
For providing exemplary leadership as a Project Manager leading the development of projects for Olympic and Mount Rainier National Park Road Programs.

Margaret Moen, Architect-Engineer Technical Specialist
For exemplary leadership as the Architect-Engineer Technical Specialist in Western Federal Lands Highway Division.

Ryan Phillips, Contract Specialist
For providing significant contributions to Central Federal Lands Acquisitions Branch within the Office of Federal Lands Highway as a Senior Technical Specialist.

Judy Salomonson, Chief of Business Operations
For superior leadership as Acting Director and Chief of Business Operations for the Central Federal Lands Highway Division.

Thomas Shifflett, Civil Engineer (Highway)
For outstanding leadership and expert handling of highly sensitive projects with substantial political interest.

FHWA 2020 Corporate Award Recipients

The Federal Lands Access Program Implementation Team is awarded for developing and coordinating countless issues, as well as producing working instructions that supported implementation of the October 1st Federal Lands' Access Program changes.

Team members: Holly Bell, Corey Bobba, Robert Eatmon, Peter Field, Thomas Goldstein, Mark Hoinen, Rick Judd, Christopher Longley, Adam Makuley, Rajashree Mooney, Lloyd Rue, Joseph Taylor, Thanh Tran, and Marcus Wilner

The Lakewood Career Fair Team is awarded for leading the successful coordination and execution of a career fair to advertise hard to fill positions, becoming a model for FHWA and DOT.

Team members: Kasia Bartkow, Karen Dwyer, Peter Frantz, Juan Garcia, Steven Graham, Doug Hecox, Wendy Hilgers, Kathy Jones, Joy Liang, Kenneth Meister, Alice Rager, Kim Sheets, Renee Sigel, Katherine Sugnet, Vershun Tolliver, and Ron Toole.

People

This is how we work...

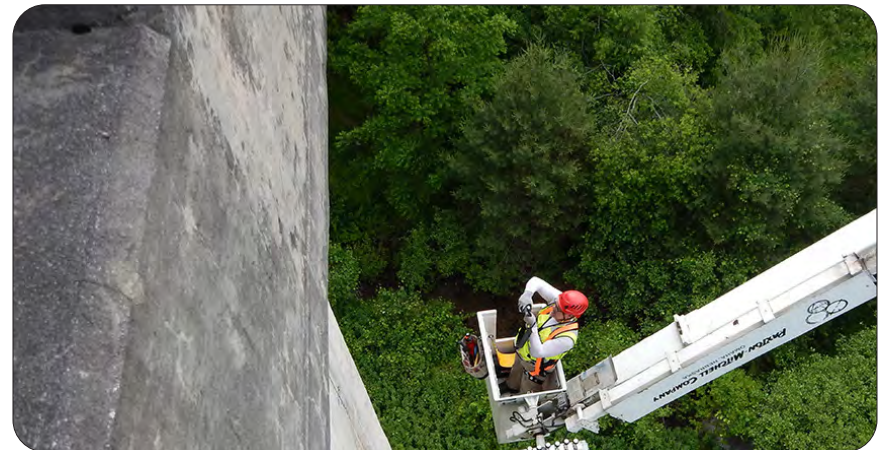
This year, our work dynamic underwent change. Field work still continued with safety protocols in place, "office" work continued for most of us from our homes like the rest of the agency and the nation. To a large extent Federal lands operations did not require a huge adjustment as the nature of our work "out in the field" has always required a degree of remote work. We have found that in some ways the new normal actually strengthened some of our operations.

Where we experienced continued or added success this year:

- Program & Project Delivery
- Virtual Recruitment Events
- Virtual Public Involvement
- Hiring overall
- Rotational Assignment accommodations
- Virtual Pathway Intern Orientation/On-Boarding/Successful Assignment
- Development and effective use of Telework-ready Workspace Process for ORD/CADD users
- Virtual Training & I2I sessions
- Bridge Inspection Program, 70% of bridges inspected were completed with in-house resources



Pictured above, Phillip Clark a participant in the Professional Development Program (PDP) accompanied by CFLHD Project Engineer, Dusty Escamilla perform a Pile Driving Inspection on the Southfork project in Park County, Wyoming. The Southfork Road project was a widening/reconstruction, resurfacing, restoration, rehabilitation (4R) and gravel resurfacing project including a two span concrete bridge. The route is primarily used as recreational access to Shoshone National Forest, and provides agricultural and residential access. — Shoshone National Forest, Wyoming



EFLHD Bridge Inspection Team perform core sampling (left) and structural review (above) — Laurel Fork Bridge, Blue Ridge Parkway, North Carolina

People



Traveling under precaution on his way to a field inspection in Yellowstone National Park, Benn Oltmann, WFLHD Bridge Engineer, pauses to pay homage to the old and the new. The "original" carpet pattern shown on his commemorative socks sparked a social media craze amongst travelers passing through Portland International Airport. The original carpet design received such a positive reception by Portland residents and airport visitors, that it eventually reached "local icon" status. Its pattern was used on a variety of products, including bicycle helmets, socks and T-shirts. The tradition continues with the replacement carpet pattern. There is no other carpet in the world that has the cult following that the Portland International Airport enjoys. — Portland, Oregon



CFLHD Survey Crew — Elephant Butte Dam, New Mexico



This year certainly expanded our team concept. Federal Lands Bridge Engineer, Nathan Marshall, showing daughter, Emily, how bridges and walls are designed and detailed. She suggested a need for more pink and purple bridges! — Home Office, Colorado

WFLHD Project Engineer, Jamie Speer, onsite at West Fork Sulphur Bridge Preservation Project, located one mile north of Kohm Yah-Mah-Nee Visitor Center. The project was completed ahead of schedule with preservation including paint removal and repainting. — Lassen Volcanic National Park, California



WFLHD Team Field Review — Denali National Park, Alaska



People



Members of the EFLHD Bridge Team onsite at the NC Route 18 Bridge — Blue Ridge Parkway, North Carolina



EFLHD Materials Engineering Laboratory Technician, Eric Johnson in the Materials lab. — Sevierville, Tennessee



CFLHD Project Engineer, Jack E. Carlson onsite at the Cottonwood Trail Project under the Architectural Barriers Act (ABA) this project provides better access on trails for visitors with disabilities. — Merced National Wildlife Refuge, California

People

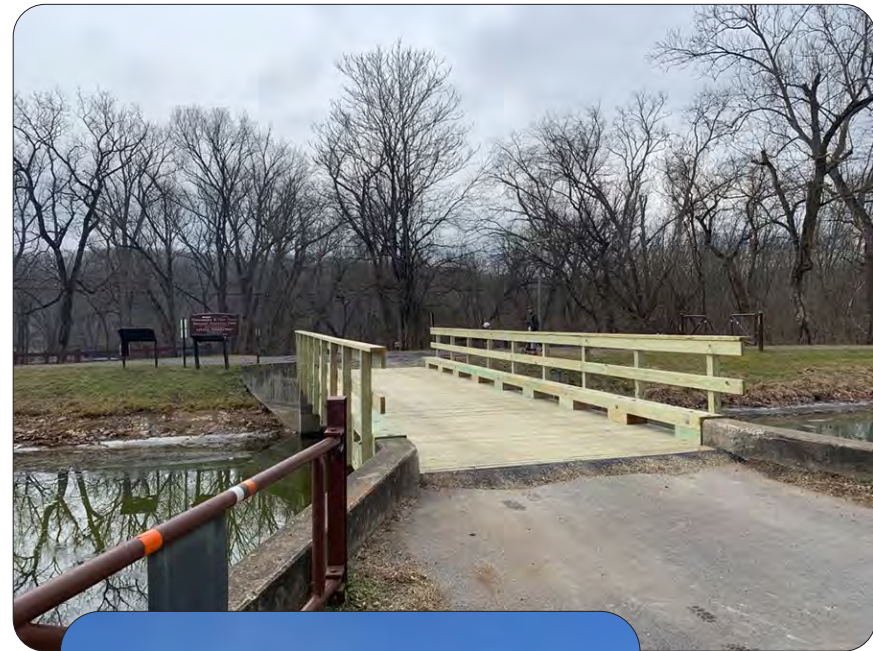
Chesapeake and Ohio Canal National Historical Park Project, Little Tonoloway Bridge, is located in Washington County, Maryland. Rehabilitation of Little Tonoloway bridge and bridge approaches. The work includes the replacement of bridge deck, bridge rail, steel beams, bearings and curbs, reconstruction of bridge approaches, and other miscellaneous work. The existing bridge was closed in November of 2019 due to deteriorated steel beams making it unsafe to drive on the bridge. The existing bridge provides access to a boat ramp, making it a popular destination throughout the year. Also, the bridge is used by bicyclists and pedestrians. The existing bridge is 12' wide and 40' long. A new 42" bicyclist rail was installed on the bridge due to history of bicyclist trashes. Bridge and Highway design completed the design in 1 month. All photos were taken during a 99% field review at the end of February 2020, just before the shutdown.



Bridge Design Team leader discussing construction access across the canal with NPS employees onsite. — Chesapeake and Ohio Canal National Historical Park, Maryland



The Design Team checking the site against the plans. — Chesapeake and Ohio Canal National Historical Park, Maryland



Little Tonoloway Bridge under construction (left) and the completed project above. — Chesapeake and Ohio Canal National Historical Park, Maryland

People



Office of Bridges and Structures, Eastern Bridge Design team onsite during the placement of the Ultra-High Performance Concrete (UHPC) to connect the precast concrete deck panels. — Arlington Memorial Bridge, DC/Virginia



The Bridge Inspection team performs a pier inspection and has been monitoring a wind meter to help the NPS gauge the safety of the aging structure (above left and right). With wind being a critical loading factor on this aging bridge, a wind meter was mounted on the bridge to monitor the wind speeds. A crucial tool in determining when the bridge would need to be closed for safety pending its replacement with a new segmental concrete bridge in Fall 2021. — Laurel Fork Bridge, Blue Ridge Parkway, North Carolina



EFLHD Bridge Design Team Leader, George Choubah and FLH Bridge Branch Chief, Rich Pakhchanian on a project visit. — Arlington Memorial Bridge, DC/Virginia

People

FLH Bridge Team

Bridge Design: FLH Bridge currently has 197 active structural projects: 76 (EFLHD), 56 (CFLHD), and 65 (WFLHD) in various stages.

CFLHD is managing the Structures Management Preservation Program for three Air Force bases and finalized the FY20 recommendation letters. They also participated in the annual DAR meeting and continue to work with MDOT and the FHWA MT Division to develop a plan for preserving/replacing timber structures on T-E routes.

Bridge Inspection: Budgeted \$4,500,000.00 and spend all of it. This will include purchase of the new Snooper (partial payment) Money may be used to inspect non-NBI Bridges and removal of falsework from identified post tension box girder structures pending approvals.

Performed 1,099 NBI/NTI structure inspections, including inspections for NPS (688), USAF (204), BIA (172), USVI (26), National Zoo (3), GSA (3), NASA (1) and Tribal Transportation Program (2); transmitted approximately 922 inspection reports. Evaluated numerous overload permit requests for bridges at Yellowstone NP and Denali NP. Performed deck and substructure studies for several bridges in SER. Performed deck studies for bridges at Colonial NHP and National Mall, and load ratings for Linn Cove Viaduct at Blue Ridge Parkway and several segmental concrete bridges at Foothills Parkway. Awarded task order for inspection and load rating of Tribal Transportation Bridges. Completed inspections for Blue Ridge Parkway (81), Great Smoky Mountains NP (82), Hubbell Trading Post NHS (1), Tuzigoot NM (1), Petrified Forest NP (5), Chickasaw NRA (3), Fort Pulaski NM (1), Russell Cave NM (1), Wilsons Creek NB (6), Buffalo NR (1), Big South Fork NRA, Ozark NSR, Yellowstone NP, and Cuyahoga NP.

WFLHD – performed 350 NBIS bridge inspections for BLM/NPS. Hosted one rotational employee from WFL Construction for a Bridge Inspection Assignment. Budgeted \$550,000 for BLM inspections and load ratings. Budgeted \$70,000 for USBR special inspections (3 structures)

CFLHD – performed 270 NBIS bridge inspections. This number includes October: AGFO (1), FOLA (3), DETO (1), Petersen AFB (3), November: Navajo Western (22), December: Navajo Eastern (19), January: Navajo Ft. Defiance (49), February: Navajo Shiprock & NIIP (55), March: Navajo Chinle (27); May: MEVE (1), CACH (1), CHCU (3), PECO (1), CHIC (2); June: Bureau of Reclamation (2), DINO (1), ARCH (3), CANY (3), CARE (1), COLM (3); July: YOSE (28), PINN (1); September: Buckley AFB (1), Warren AFB (5), Malmstrom AFB (2), USAF Academy (19), Kirtland AFB (7), Tucson National Guard (1), Luke AFB (5).

Bridge Management: Element level data collection is in progress. Final Regional Structure Priority and Preservation Lists were delivered to NPS regions - SER, MWR, AKR, NCR, NER, IMR, and PWR.

Life Cycle Record: Date records on file associated with the latest rehabilitation/replacement work done on Joints, Bearings, Paint, Deck, and Pavement for all NPS structures are complete.

FLH NBIS Review Update:

NBIS Compliance Review Final Reports for scheduled agencies:

US Air Force:

- Load Rating: 60% Structures completed
- Fracture Critical Plans: 100% complete
- Scour Evaluation: 95% scour screening completed

Washington Airport Authority (MWAA):

- Load Rating: 100% Structures completed
- Fracture Critical Plans: 100% Structures completed
- Scour Evaluation: 100% scour screening completed



Bridge Design & Inspection Team — Linn Cove Viaduct, Blue Ridge Parkway, North Carolina

People

Road Inventory Program (RIP) Team

The RIP Team completed final reporting of data for the Alaska Region in early 2020. In Alaska, the RIP team collected 277 USFS miles, 165 NPS miles, 76 FWS miles, 37 USACE miles, 17 BLM miles, and numerous parking lot data at each FLMA location.

While initially travel delays impeded the RIP team's data collection efforts, the overall impact throughout 2020 was minimal. Cycle 5 data collection for FWS, Cycle 6 data collection for NPS, and Cycle 1 data collection for BOR safely continued in DOI Regions 1, 3, 5, 7, and 9. Data collection for NPS Cycle 6 is expected to conclude in the first half of 2021.



RIP data collection vehicle — Hopewell Furnace National Historic Site, Pennsylvania



Hopewell Furnace National Historic Site, Pennsylvania



People

The RIP team's gravel road assessments are a major component of the Alaska Long Range Transportation Plan, here are a few images from their travels.



Denali Park Road, Denali National Park & Preserve, Alaska



Nome Creek Road—West, White Mountains National Recreation Area, Alaska



Frosty Peak Road, Izembek National Wildlife Refuge, Alaska



Birch Hill Road, Lake Clark National Park & Preserve, Alaska

Partners

Program Overview

Federal Lands and Tribal Transportation Program (FLTTP)

The FLTTP, established under the Moving Ahead for Progress in the 21st Century Act (MAP-21) and continued under the Fixing America's Surface Transportation Act (FAST Act), authorizes annual funding for three primary programs: the Federal Lands Access Program (FLAP), the Federal Lands Transportation Program (FLTP), and the Tribal Transportation Program (TTP). Through these programs, FLH works with numerous Federal agencies and Indian Tribes, as well as State and Territorial partners, to deliver projects.

Federal Lands Access Program (FLAP)

The FLAP, authorized at \$270 million in FY 2019, provides flexibility for a wide range of transportation projects in the 50 States, the District of Columbia, Puerto Rico and the US Virgin Islands. FLAP was established to improve state and county transportation facilities that provide access to high-use recreation sites and economic generators within Federal lands.

Federal Lands Transportation Program (FLTP)

The FLTP, authorized at \$375 million in FY 2019, provides funding for the management and upkeep of more than 130,000 miles of federal public roads and other assets comprising partners' Federal lands transportation facility inventory. The Program provides funding to the NPS, FS, FWS, BLM, BOR, USACE, and eligible independent federal agencies (IFAs). To date, the Presidio Trust Corporation is the sole IFA to be included in the FLTP. Presidio Trust Corporation began receiving funds in 2017. Of the three programs that comprise the FLTTP, the FLTP incorporates performance-based management principles outlined in MAP-21 and reinforced under the FAST Act. The FLTP places emphases on performance goals defined by the Secretary of Transportation and FLMAs, and is intended to target funds toward multi-modal transportation facilities that access high-use recreation destinations and federal economic generators within the federal estate.

Tribal Transportation Program (TTP)

The TTP, authorized at \$505 million in FY 2019, provides funds to 574 federally recognized Tribes to improve the transportation systems located within, or that provide access to, Indian country. These roads, bridges, trails and transit systems most often provide basic access to community services and help to enhance the quality of life of Tribal members. Federal Lands co-administers the TTP with the BIA and is responsible for the primary stewardship and oversight of Program funds. Approximately 135 of the Tribal governments operate their TTP directly through Program Funding Agreements with FHWA.

TTP Bridge Program

The TTP Bridge Program is a nationwide priority program for improving TTP bridges in poor condition, having low load capacity, or needing

geometric improvements. TTP bridges are funded by a set-aside of up to 3 percent of the TTP funds. In accordance with 23 CFR Part 661, set-aside bridge funds can be used to carry out any planning, design, engineering, preconstruction, construction, and inspection of a project for replacement, rehabilitation, and protection (including scour countermeasures, seismic retrofits, impact protection measures, security countermeasures, and protection against extreme events) of TTP bridges in poor condition, low load capacity, or need highway geometric improvements. To be eligible, a bridge must have an opening of at least 20 feet, be classified as a tribal transportation facility, be classified as a poor condition bridge, have low load capacity, or need highway geometric improvements, and recorded on the FHWA National Bridge Inventory (NBI).

In FY2020, \$13.7 million was made available for the TTP Bridge Program. There were 25 bridge applications received with total funding request of approximately \$29 million. The program funded 16 bridge applications for a total of approximately \$13.7 million

Nationally Significant Federal Lands and Tribal Transportation Projects (NSFLTTP)

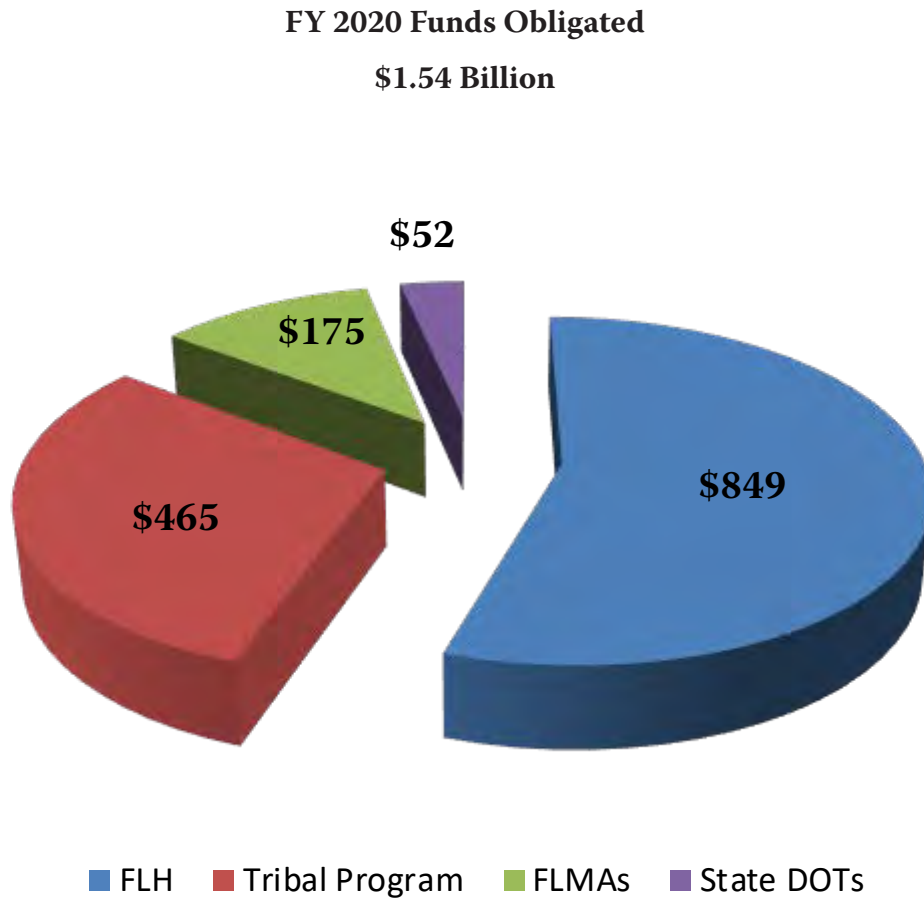
The NSFLTTP, created under the FAST Act, is intended to provide a reliable source of funding for major, high-cost projects that typically cannot be funded with FLTTP resources due to the scope and expense of the project. This program is funded through the General Fund at a maximum of \$100 million per year. It received appropriations of \$300 million, \$25 million, and \$70 million in FY 2018, FY 2019 and FY 2020 respectively. The program made 2 awards in FY 2020, based on applications of need.

Defense Access Roads Program (DAR)

The DAR Program is a jointly administered program that provides a means for the military to pay their share of the cost of public highway improvements necessary to mitigate an unusual impact of a defense activity. An unusual impact could be a significant increase in personnel at a military installation, relocation of an access gate, or the deployment of an oversized or overweight military vehicle or transporter unit.

Emergency Relief for Federally Owned Roads (ERFO)

The ERFO Program, assists federal agencies with the repair or reconstruction of Tribal transportation facilities, federal lands transportation facilities, and other federally owned roads that are open to public travel, which are found to have suffered serious damage by a natural disaster over a wide area or by a catastrophic failure. The ERFO program is not intended to cover all repair costs but rather supplement Federal Land Management Agency (FLMA) repair programs.



**FAST ACT FY 2020
PROGRAM FUNDING**

\$375 million FLTP

\$270 million FLAP

\$505 million TTP

PROJECT DELIVERY SUCCESS

1338 Lane Miles Improved

109 Bridges Improved

154,626 Square Feet
of Bridge Deck Improved

PROGRAM DELIVERY SUCCESS

77%
Funds On The Ground

91%
Obligation Rate

Partners

Our definition of partner is diverse, ranging from state and territorial governments, traditional Federal Agency partners with strong resource protection missions, to our Tribal partners, focused on building self sufficiency and providing basic access to community services and improved quality of life for their people.

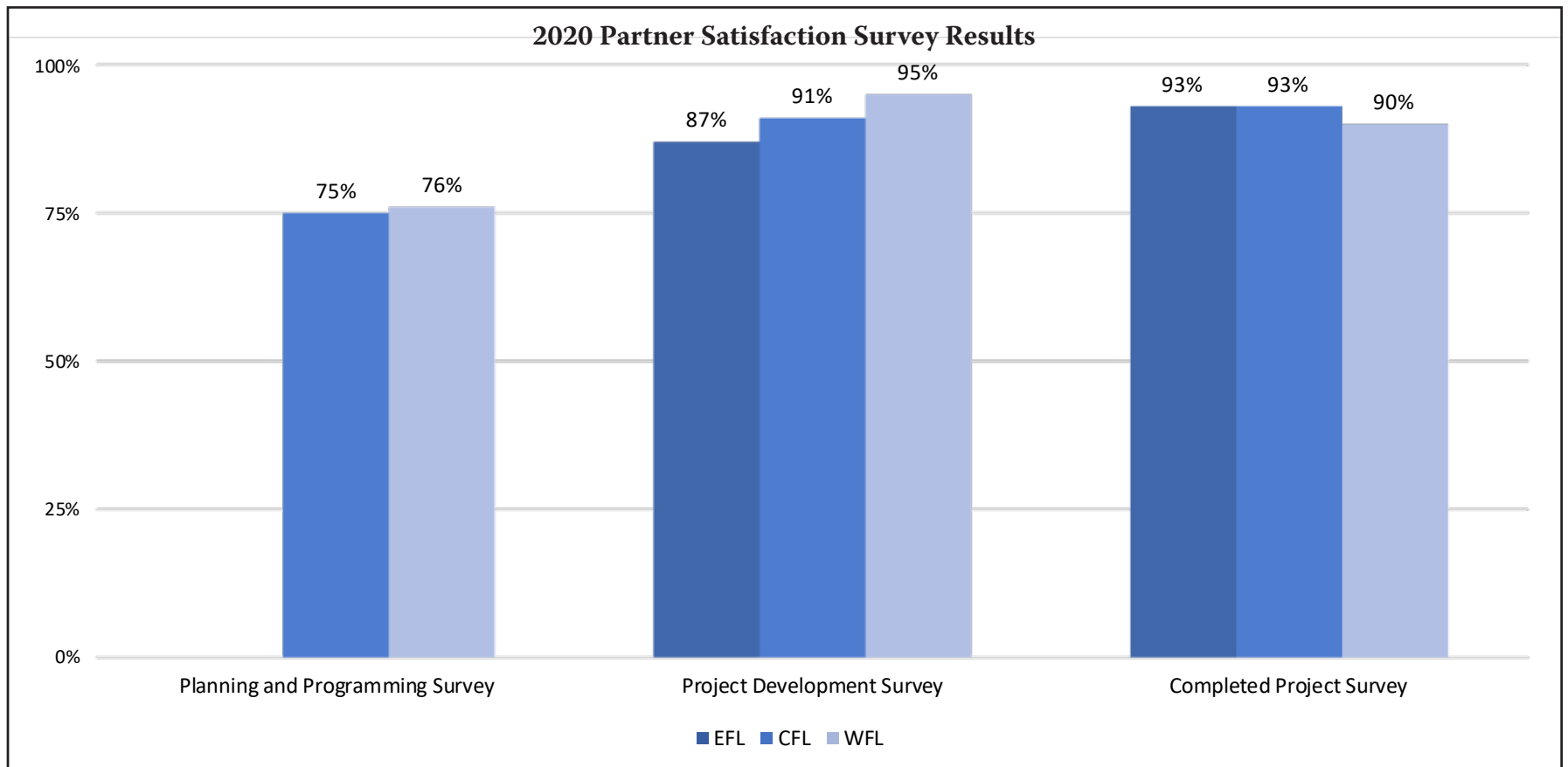
Partner Satisfaction Survey

The questions in our yearly survey touch on all aspects of program administration from policy and communication to day-to-day program management. Completed project results exceeded the 85% target for the fourth year in a row. This highlights the overall satisfaction of our partners with the final product, the constructed project.

"On behalf of the Natural Resource Management Program at USACE, we want to extend our thanks to your ERFO team at the Divisions. Towards the end of the FY I had a request for ERFO training and your staff was able to develop and offer this 2-hour overview within two months of that request. Over the last two days they hosted two general awareness training sessions that were attended by over 60 USACE staff representing nearly all USACE Districts. Currently, we have about seven Districts that regularly use the ERFO program. Your ERFO staff from all three FLH Divisions participated in the training, providing effective content to give USACE a high level overview of the program parameters and the ability to initiate the first steps in the ERFO process. We hope this introduction will increase participation in the ERFO program among USACE Districts as events occur.

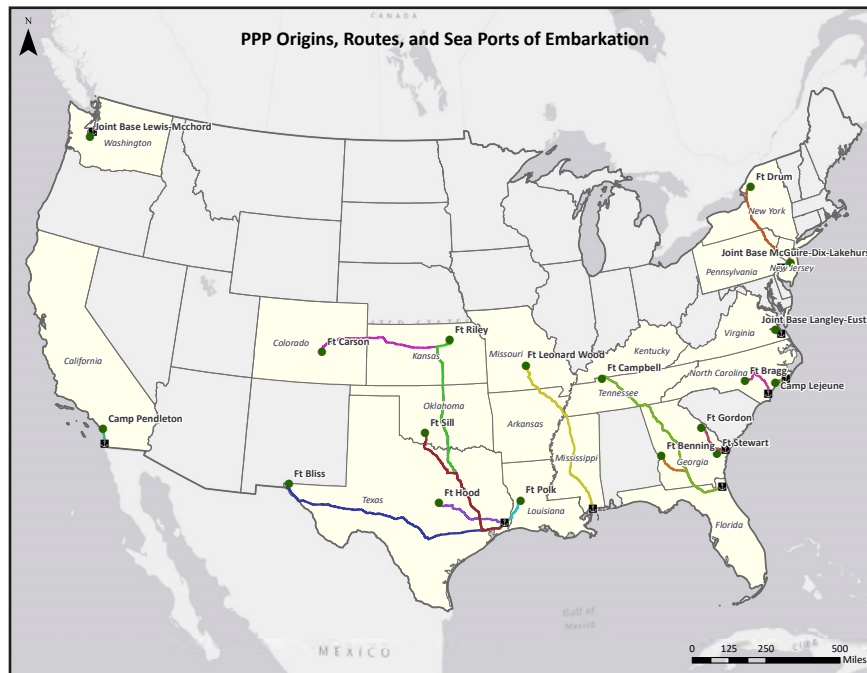
Want you to know how much USACE appreciates the quick response to a request and resulting support we received from Eric, Lorell, Steve, Melissa, Vivian, and the rest of your ERFO team." — November 12, 2020

Meredith Bridgers
 US Army Corps of Engineers
 Institute for Water Resources
 Natural Resources Management Technical Support Program



Partners

In cooperation with FLH Headquarters staff, members of the EFLHD Planning Team have been heavily involved in the conduct of a national scale project in support of the Department of Defense (DOD) Surface Deployment and Distribution Command Transportation Engineering Agency (SDDCTEA) for an examination of the ability of a group of 18 Power Projection Platform (PPP) routes to accommodate major military equipment movements during periods of conflict.



FHWA, EFLHD



Project Scoping meeting at State Highway (SH)-21, the project in development includes construction of a wildlife over-crossing and big game fence paralleling SH-21. SH-21 corridor lies within a critical habitat linkage area for deer, elk, antelope and other wildlife and stands between the historic home range of these animals, from summer range to winter range and vice versa primarily within adjacent public lands. The fence will include access and maintenance gates as needed and tie into existing fencing to the south. Wildlife jump-outs will also be installed to allow animals trapped between fence lines adequate escape routes from the highway corridor. Cameras will be installed on and around the over-crossing to capture and observe animal usage. — Wildlife Overpass at Cervidae Peak, Boise County, Idaho

Partners



Fishing Bridge to Indian Pond East Entrance Road — Yellowstone National Park, Wyoming



Socially distanced Partner meeting at the Fishing Bridge to Indian Pond East Entrance Road Project site. The project included reconstruction of the road, rehabilitation of Fishing Bridge, drainage work, reconstruction of parking areas and construction of a new parking area within Fishing Bridge Village. — Yellowstone National Park, Wyoming

Partners



WFLHD Project Review meeting for the Canyon to Tower Phase 3 construction project. The project utilized Nationally Significant Federal Lands and Tribal Projects (NSFLTP) funds and consisted of reconstruction of 6.1 miles of main line, reconstruction of the Mae West curve, Buffalo Paddock picnic area improvement, Tower Falls Store parking area reconstruction and expansion, reconditioning of Chittenden road and Mount Washburn parking lot reconstruction. — Yellowstone National Park, Wyoming

Projects

Project Awards

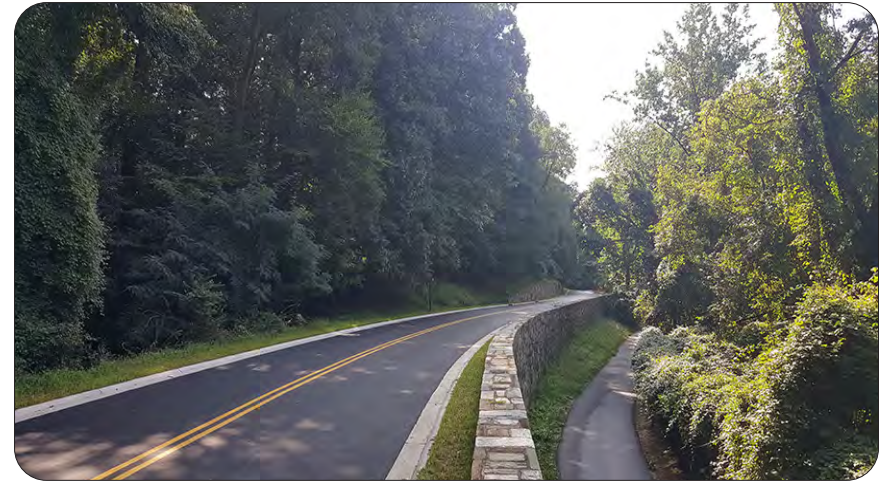
Williams Creek (Shoups) Bridge completed by the Western Federal Lands Highway Division in 2019 was awarded the 2020 American Institute of Steel Construction Merit Award for Medium Span Bridges.



Williams Creek (Shoups) Bridge — Salmon, Idaho



Rock Creek Park Beach Drive Reconstruction completed by the Eastern Federal Lands Highway Division in 2019 was awarded the 2020 Excellence in Construction by the Associated Builders and Contractors Virginia Chapter competition representing the Metro Washington and Virginia Chapters of Associated Builders and Contractors.



Beach Drive and trail — Rock Creek, Washington, DC



Bioretention pond and trail — Smithsonian National Zoological Park Gate, Washington, DC

Projects

Tribal Partner Delivered Projects

The Mashantucket Pequot Tribal Nation Project, Joseph Williams Drive is a short, roughly 1,000 foot, dead end road. The cul-de-sac ends with a one-way 'eye-loop.' This roadway is the only area within Mashantucket zoned for multi-family dwellings. Currently, there are four two-family townhouse units with plans for an additional two units. The units are serviced by a full complement of utilities that are installed below ground.

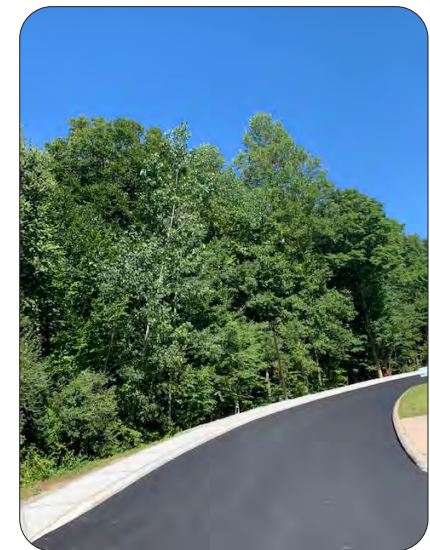
Joseph Williams Drive was constructed with a curb-to-curb width of only eighteen feet, two feet narrower than typically specified to accommodate emergency vehicle access. Driveways of townhomes barely accommodate off-road parking for two cars per unit, so the narrow passage is exacerbated by occasional street parking. This situation makes it common to encounter on-road parking within the area. In addition to posing a general inconvenience, these conditions could prove a significant hazard by obstructing emergency vehicle response. It was this specific reason that Joseph Williams Drive was identified by two of the Tribe's Constitutional Standing Committees (Housing & Community Planning) as a safety concern.



Joseph Williams Drive
— Mashantucket,
Connecticut



Joseph Williams Drive
— Mashantucket,
Connecticut



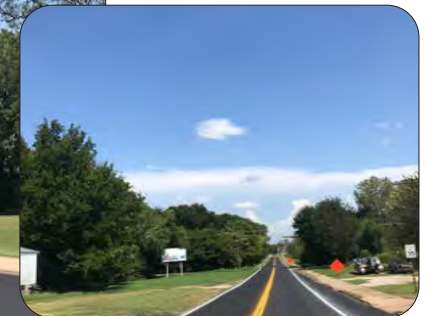
In 2018, the Pawnee Nation adopted the Construction Management/ General Contractor (CM/GC) method a pilot process through FHWA at the time. The Pawnee Nation had internal meetings and developed a vision, projects and goals. The vision was to provide safety improvements, quality of life and cultural enhancements around the Pawnee Nation complex. Thirteen projects with differing funding sources were selected. The following are some that have been completed:

- 1st Street Safety Project consisting of Roadway reconstruction, School Bus Safety, sidewalks, LED lights, drainage, and intersection improvement. This was a main project for the Nation and it provided them their biggest achievement and innovation using CM/GC. by having the sub-contractors involved in the production they were able to reduce the pavement design by \$300,000, through an innovation never used before in Oklahoma.
- Morris Road Project consisting of sidewalks and lighting along Morris Road. Used existing terrain to eliminate the need for curb & gutter, a \$150,000 cost savings.
- Morris Rd. to Hwy 16/18 is a project using savings from other projects for road maintenance and entrance signs.
- Fog Seal Project consisting of road maintenance and re-stripping on the roads within the Pawnee Nation Tribal Complex; Lights on Catlett Road Project consisting of lights from the War Mothers Bridge up to the Elders Center.
- Directional Signage Project consisting of (4) Four signs place around the Pawnee Nation tribal Complex guiding visitors to their destinations.
- Meet Me at the Park Project consisting of an expansion of Pirau Park funded through a Walt Disney grant.
- ICDBG Campgrounds and Fit Trail Project which included ADA restrooms, a redesigned arbor, electrical upgrades, and a fitness trail.
- Building 1 Roof consisting of Remove and Replace roof.
- Building 1 Addition Demo consisting of Demolition of a 348 sqft non-original add-on.
- Removal and replacement of the Trading Post Roof
- Green Bridge project consists of rehabilitation of a fracture critical bridge on the main route into the Pawnee Nation Tribal Complex. The project

was delayed due to the current health crises, the preliminary bridge design is complete. Pawnee Nation submitted an application for Tribal Transportation Bridge Program funding and was awarded \$500,000. They are currently working on finalizing the plans and will begin work Spring 2021.



Pawnee Nation ICDBG Ceremonial Campgrounds and Nature Fit Trail Project was the 2nd to use a "Fast Cast Bridge" system and the 1st to use a "Fast Cast Bridge" system for a Pedestrian Bridge. — Pawnee, Oklahoma



Pawnee Nation Tribal Complex, Fog Seal Project — Pawnee, Oklahoma

The Gila River Indian Community Pecos Road Re-Construction Project consisted of increasing the pavement surface width by 10 feet to the north of the existing edge of pavement, installing an 8-barrel box culvert in the wash immediately to the east of the Komatke Boys and Girls Club, installing a sidewalk running parallel to and offset from the southern edge of pavement, and installing pedestrian/street lighting along the sidewalk and at pedestrian crossing location on Pecos Road in front of the new Gila Crossing Community School. The new pedestrian crossing includes flashing lights activated by button. In addition, the project included chip sealing the entire asphalt surface and re-stripping.



8-barrel box culvert — Pecos Road, Maricopa County, Arizona



Pecos Road looking West at new Gila Crossing Community School — Maricopa County, Arizona



Pecos Road Pedestrian Crossing looking West at new Gila Crossing Community School — Maricopa County, Arizona



Above Left before, right after construction — Pecos Road, Maricopa County, Arizona

Projects

Tribal Safety

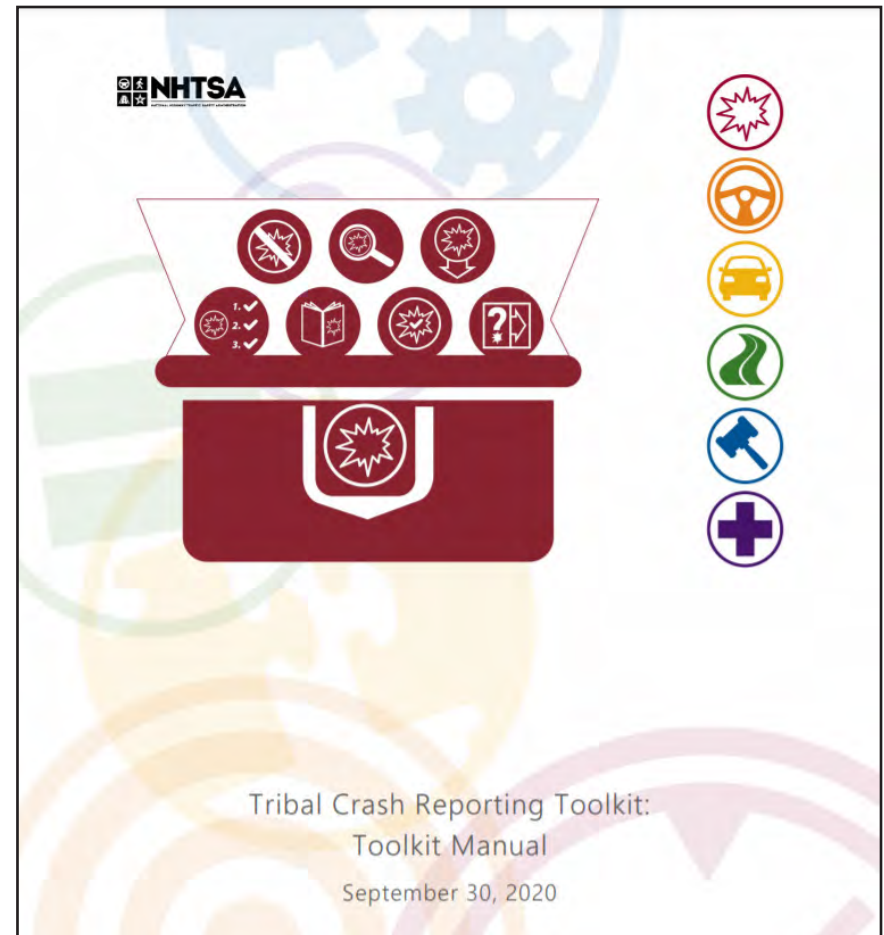
The new Tribal Crash Reporting Toolkit enables improved collection and use of crash data by Tribal governments. The toolkit enables Tribal Governments to maintain data sovereignty while consistently collecting a standardized set of data elements for each crash.

The National Highway Traffic Safety Administration (NHTSA) published the toolkit in October 2020 to help Tribes in all phases of safety data improvement. Tribes can use the Self-Assessment tool to identify elements of safety data management that could be improved. The Crash Reporting Facts and Fictions Tool can further enhance the planning of safety data improvements by dispelling common barriers to crash data improvement. A data analysis tool describes common ways that safety data is used to improve transportation safety. Other tools contain the framework needed to establish a crash reporting system. These include a crash reporting form, officer's instruction manual, database, quality control guide, and a manual that describes all of the available tools. All of these tools are available at no cost at <https://www.tribalsafety.org/tribal-crash-reporting-toolkit>.

The toolkit is based on the Model Minimum Uniform Crash Criteria (MMUCC) standard and was developed by NHTSA in partnership with the Federal Highway Administration (FHWA). Several Tribes participated in a pilot of the toolkit contents. The Cheyenne River Sioux Tribe Police Department tested the Crash Reporting Form and Database.

The 2015 Fixing America's Surface Transportation (FAST) Act addressed crash reporting in Tribal areas by stating "without more accurate reporting of crashes... it is difficult or impossible to fully understand the nature of the problem and develop appropriate countermeasures..." and "improved crash reporting by tribal law enforcement agencies would facilitate safety planning and would enable Indian tribes to apply more successfully for State and Federal funds for safety improvements." In response to the FAST Act, the FHWA developed a report to Congress titled "Tribal governments and transportation safety data." Later, the Bureau of Indian Affairs Office of Justice Services published the report "Indian Highway Safety Program: Tribal Crash Reporting Assessments." Based on this research, at least 20% of Tribal Police departments may not be using a standardized crash report. Also, half of the Tribes participating in a recent study reported using a paper reporting system rather than electronic. The Tribal Crash Reporting Toolkit addresses these and many other improvements for crash reporting.

For additional information about the Tribal Crash Reporting Toolkit, please contact Tom Bragan (Tom.Bragan@dot.gov) or Adam Larsen (Adam.Larsen@dot.gov).



<https://www.tribalsafety.org/>

Projects

Federal, State and Local Partner Projects



This FLAP project pulverized and repaved 6.9 miles of South Lake Road from the intersection with State Route 168 to South Lake. It included minor widening to accommodate a widened, multi-use shoulder in addition to grading, pulverization of existing pavement, replacement of minor drainage structures, spot repairs to major drainage structures, slope stabilization, rock scaling, placement of crushed aggregate base and asphalt pavement, signing, striping, and other safety-related features. — South Lake Road, Inyo National Forest, California

Projects



Major work elements included reconstruction of 14.52 miles of the main road located within Petrified Forest National Park. This project included cold recycle asphalt base course using existing pavement, subgrade preparation, finish grading, asphalt concrete paving, concrete curb, replacement of Corrugated Metal Pipe (CMP) culverts, riprap placement, and installation of multi-cell box culverts in three different locations, with a total installation of 120 culverts. — Main Park Road, Petrified Forest National Park, Arizona

Projects



Roadway and Striping completed, — Main Park Road, Petrified Forest National Park, Arizona



East Fork Concrete box culvert (CBC) completed — Main Park Road, Petrified Forest National Park, Arizona



Dry wash concrete box culvert (CBC) completed — Main Park Road, Petrified Forest National Park, Arizona

Projects

Warren Wagon Road Project located in McCall, Idaho, just north of Payette Lake and a popular resort and recreation area in central Idaho, this project made substantial safety and drainage improvements to a well-travelled roadway.

One of the more significant, and cost effective, roadway improvements on this project was the use of cold asphalt recycling. The cold recycled asphalt is used as the roadway base course, replacing one of two asphalt layers, also called “lifts”, making up the roadway driving surface. Traditionally, this driving surface would have contained two lifts of hot mix asphalt, which may cost up to twice the amount of cold recycled asphalt, per lift.

To obtain the material for the cold asphalt lift, the existing roadway surface is milled, meaning the existing asphalt is ground into a finer, loose material, also called “millings”. The millings are then combined with emulsified asphalt binder, cement, and water, into a cold asphalt mix. The cold recycled asphalt mix was produced in an asphalt batch plant onsite and placed in a 2-inch thick lift with paving equipment.

To achieve the final 2-inch base course depth, the cold recycled asphalt is compacted with both smooth drum and pneumatic tire equipment. This process produces a tightly knit material and is allowed to cure for several hours. Subsequently, a 2-inch lift of hot mix asphalt is placed on top of the cold recycled asphalt base course and compacted to produce the smooth finished roadway surface, recreationists expect and enjoy.



Views of the completed project — Warren Wagon Road, Idaho



Asphalt batch plant nearby — Warren Wagon Road, Idaho



Placing the mix — Warren Wagon Road, Idaho



Projects



FLAP program project in Lake Havasu (before & after). A new RV park campground built to replace an older one will generate revenue for the state park fund, BLM and BIA. — Lake Havasu Recreation Area, Arizona.



Pavement Preservation— Grand Canyon National Park, Arizona

Projects

The Ridgefield Main Avenue Access Improvements Project nestled only a mile from the city of Ridgefield, Washington, Ridgefield National Wildlife Refuge invites visitors to view large populations of migratory birds in their natural habitat, including the dusky subspecies of Canada goose, Trumpeter and Tundra swans. As you pass the Ridgefield city limits, the two-lane rural road approaching the refuge was unsafe for hikers, bikers, runners, and families with baby strollers. Due to narrow shoulders, drainage ditches and missing sidewalks, these recreationists were forced to travel in the vehicle lanes. With the speed limit at 50 miles per hour, this caused a significant safety hazard. A new pedestrian path and sidewalks were added along with other safety measures included installation of guardrail and raising the roadway to mitigate sight distance concerns.

To improve drainage on the roadway, two large culverts were installed. One 10-foot corrugated metal pipe and another large precast concrete arch culvert to convey Gee Creek.



Drainage work — Gee Creek, Ridgefield National Wildlife Refuge, Washington



Significant environmental and habitat improvements were completed by installing willow and cottonwood cuttings, and redefining a historical overflow channel of Gee Creek. — Ridgefield National Wildlife Refuge, Ridgefield, Washington

Projects



National Forest System Route 104 provides access to the Mingus Mountain Recreation area, picnic areas, and safety and recreational facilities. This project included rehabilitation of the unpaved route to the Mingus Mountain Vista Overlook and Picnic Area, and addressed numerous safety concerns along the route. — Prescott National Forest, Arizona



In partnership with the Bureau of Reclamation Wyoming Area Office, CFLHD performed road reconstruction on Boysen Dam Road and the access road which runs between the dam and Upper Wind River Campground. — Boysen Dam, Wyoming

Projects

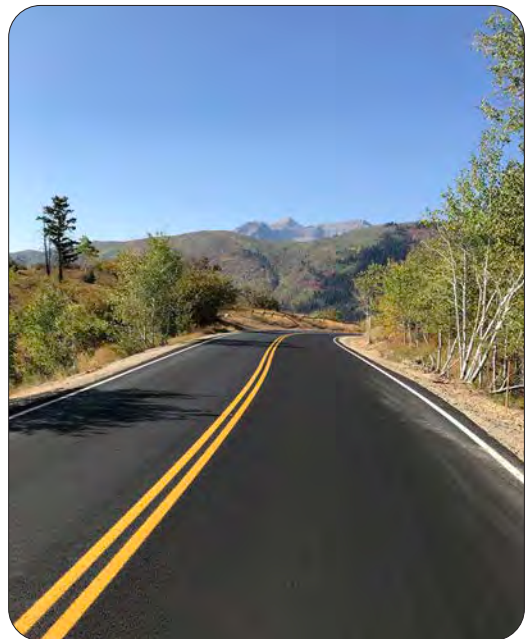
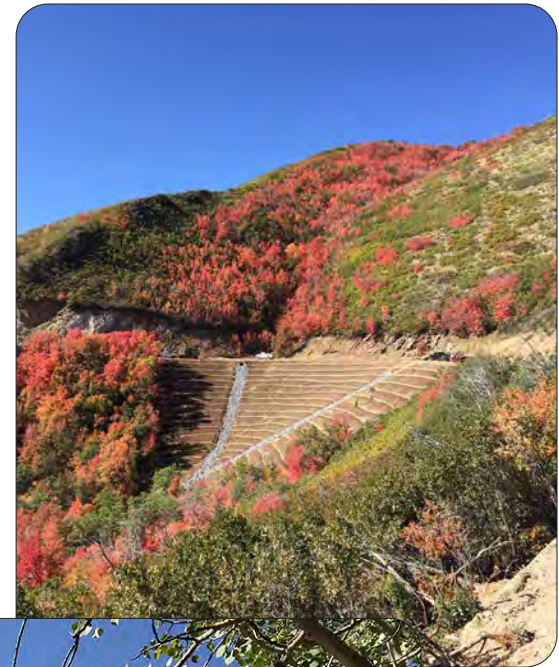


Nestucca River Back Country Byway Phase 1 project paved the remaining three miles of this scenic road, a very important legacy project for our partner, the Bureau of Land Management (BLM). Imagine driving through the beautiful Oregon Coast Range following the Nestucca River on a paved road, when all of a sudden you feel this jarring sensation as the pavement ends and a gravel road begins. The Nestucca River, a Federally designated Wild and Scenic River and critical habitat for endangered salmon, is directly adjacent to the project and protection of this river was paramount. Endangered Chinook and Coho salmon swim and spawn in these waters over various times of year. In addition, Red Tree Voles inhabit old growth trees in the region, a species of concern for the BLM.

The project was in compliance with seven different state and local permits, which required numerous (10+) modifications and extensions to cover multiple seasons and design changes. The nearby town of Beaver, Oregon receives 84 inches of rainfall a year, so stormwater runoff was one major concern. The construction contractor, had to be very careful not to allow any construction sediment to enter the Nestucca River. In the winter of 2018-2019, the road was winterized by covering it with plastic sheeting held down with sandbags to protect the river from sediment runoff during a time when the National Marine Fisheries Service advised any further work on the road would be too risky for the adjacent fish. The plastic sheeting fully protected both the fish and the work that had already been done to construct the road base.

The project was started in 2017 and completed in September of 2020. No more gravel, it is now a smooth ride through this beautiful area of our country. — Nestucca River Back Country Byway, Oregon

Projects



Cascade Springs Road FLAP project consisted of drainage and safety improvements, rehabilitation and paving. — Uinta-Wasatch-Cache National Forest, Utah

Projects



The scope of this FLAP project included the rehabilitation and addition of roadway base followed by the construction of a paved surface, providing a safe route for recreationists access to US Army Corps of Engineer (USACE) lands, Lake Sakakawea and an existing boat ramp. The route was gravel surfaced which provided poor driving conditions for vehicles hauling boat trailers and was difficult to maintain. In addition, guardrail and cattle guards were replaced. — USACE Little Missouri Public Use Area, North Dakota

Projects



The historic Arlington Memorial Bridge over the Potomac River in Washington, DC, is a concrete deck arch structure with a steel bascule (movable) span, constructed in 1932. The National Park Service owns the bridge which is inspected by EFLHD. Multiple emergency repair contracts were performed to keep the bridge operational prior to the recently completed rehabilitation project.

This Design-Build project included the design and construction for the rehabilitation of the concrete approach spans, removal and replacement of the concrete deck, replacement of the bascule span at the center of the bridge, concrete repairs to the existing structure, rehabilitation of the bridge substructure, removal and resetting granite curb and railing, repairing and cleaning the bridge's stone masonry and other miscellaneous work. Above provides a skyline view of the bridge along with before and after shots of the bascule span. — Washington, DC/Virginia

Projects



The I-564 Intermodal Connector Project extends from the International Terminal Boulevard near I-64 to Hampton Boulevard at the Entrance to the Norfolk Naval Air Station. The Eastern Division signed a Memorandum of Agreement with Virginia DOT, and the U.S. Navy outlining the roles and responsibilities of each party. The project consisted of planning, preliminary engineering, preparation of environmental documentation, permits and other clearances, acquisition of right-of-way, relocation of utilities, and construction and contract administration. EFLHD was responsible for design and construction, stewardship and oversight of the Navy administered improvements, as well as coordination and facilitation of the overall schedule. This project included 2.82 miles of new four-lane limited access highway, and a reconfigured commercial vehicle inspection station for Naval Station Norfolk. Improvements included construction of the I-564 interchange, bridges and local connectors, stormwater management areas and other infrastructure associated with the I-564 Intermodal Connector. The project ends just short of the future Patriot's Tunnel Crossing under the Elizabeth River. In addition, the project includes improvements on Naval Station Norfolk, Naval Support Activity Hampton Roads, and Norfolk International Terminals. Adjustments and tie-ins will also be required at the interface with Norfolk International Terminal at the location of the recently approved Virginia Port Authority North Gate TIGER Grant project and Norfolk Southern Railroad. — Norfolk, Virginia

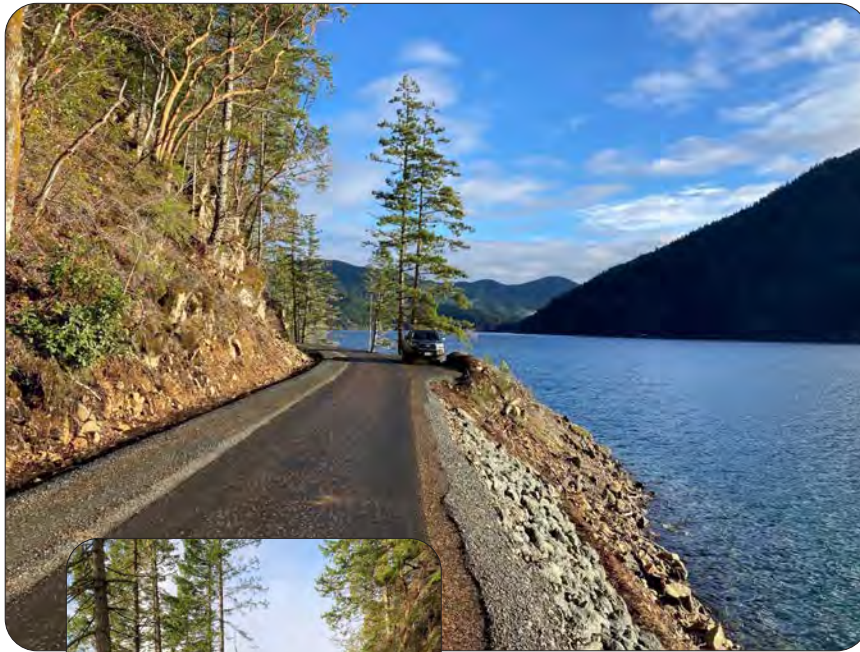
Projects



Southfork Road project was a widening/reconstruction, resurfacing, restoration, and rehabilitation (4R) and gravel resurfacing project in Park County, Wyoming. The project is the southern 13 miles of the route, starting at the existing termini at the Cabin Creek Trailhead and extending northeast to Cody. The route is primarily used as recreational access to Shoshone National Forest, as well as agricultural and residential access along the route. — Shoshone National Forest, Wyoming

Projects

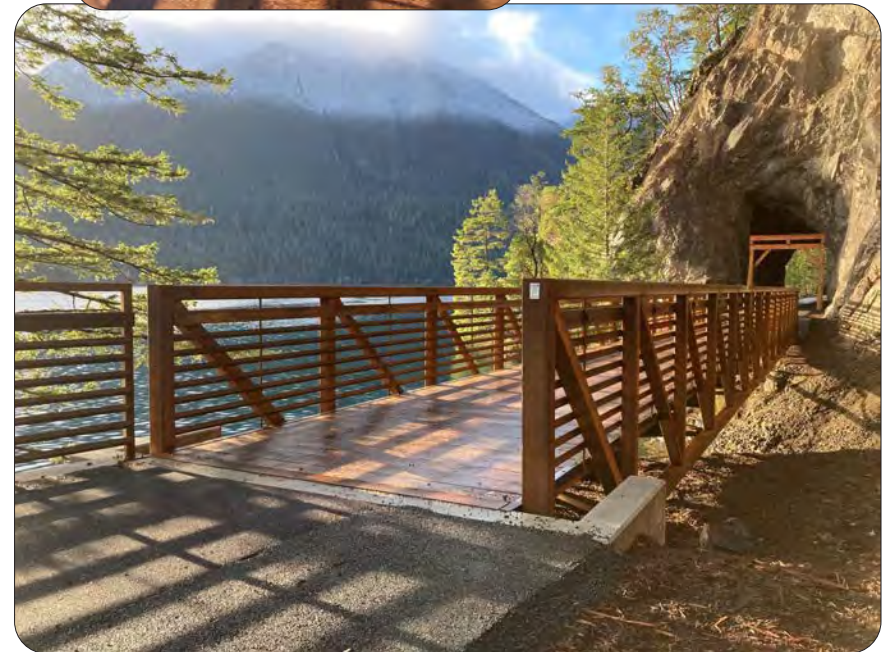
The Spruce Railroad Trail Segment B project was part of a multi-year collaborative effort to establish the entire 10 mile length of the trail to be shared by hikers, bicyclists, and equestrians funded jointly by Clallam County and Olympic National Park. This segment includes bank stabilization, culvert installation, bridge construction, tunnel refurbishment and trail improvements for the 1.8 mile portion east of the Camp David Jr. Trailhead. The project also include paving 3.8 miles between Camp David Jr. trailhead and the Lyle River parking lot trailhead.



Views of Spruce Railroad Trail along Lake Crescent — Olympic National Park, Washington



Spruce Railroad Trail, then & now — Olympic National Park, Washington

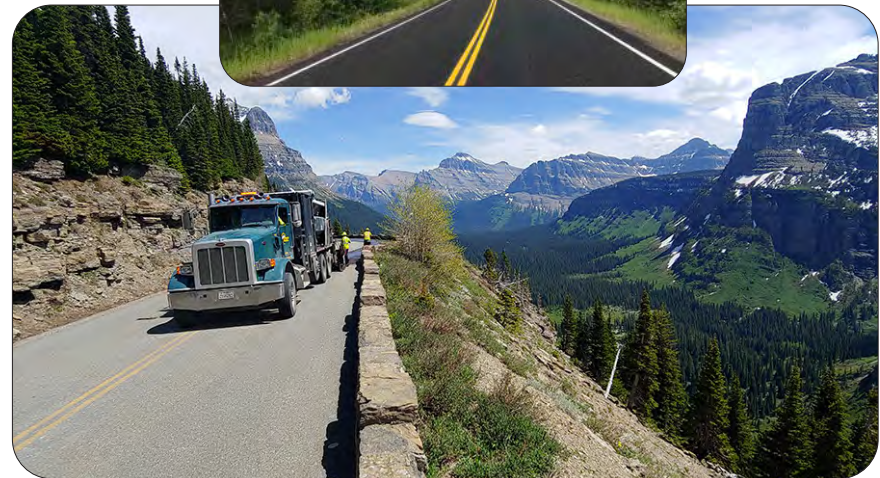
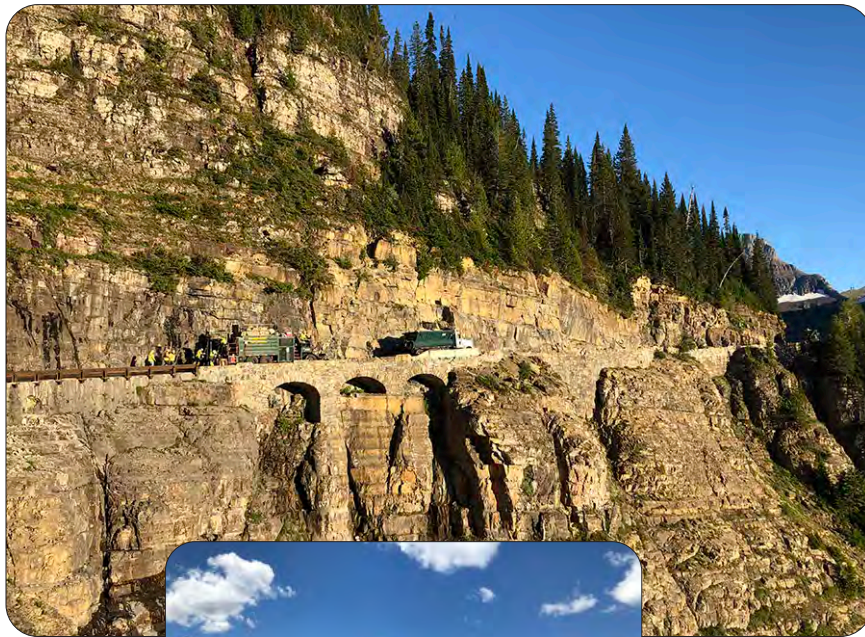


Fully restored Daley Rankin Tunnel along Lake Crescent — Olympic National Park, Washington

Projects

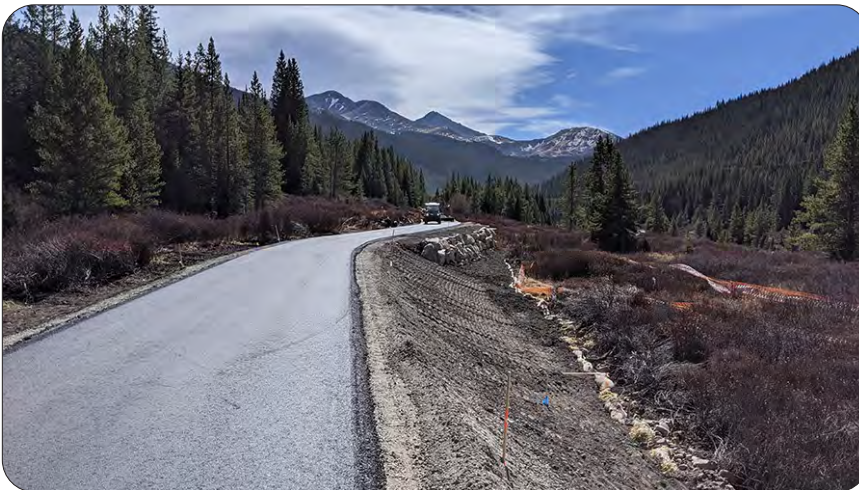


All images, Pavement Preservation — Glacier National Park, Montana



Glacier National Park roads including the Going-to-the-Sun Road received a protective coating similar to a chip seal to extend the life of the road surfaces. Typically, pavement preservation is recommended every seven years. The treatment will protect the \$200 million investment in the Going-to-the-Sun Road, including preserving significant roadbed and pavement work that was undertaken during the Going-to-the-Sun Road rehabilitation project over the last decade. — Glacier National Park, Montana

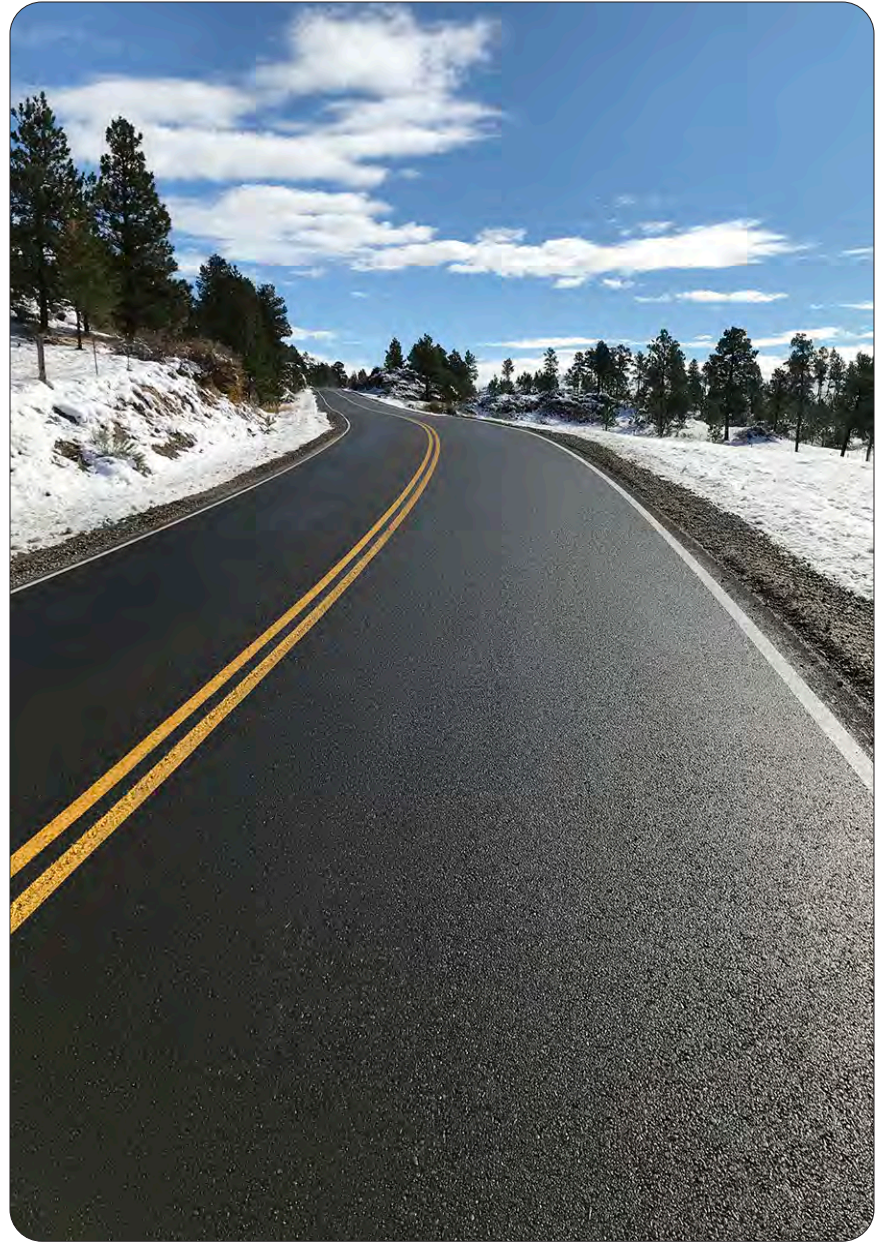
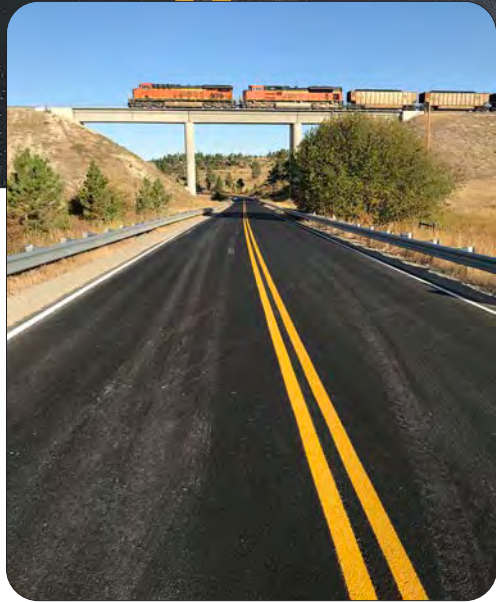
Projects



Fremont Pass Recreational Pathway, FLAP project. — Summit County, Colorado



The Hanapepe Bridge project is located on the Kaunualii Highway and crosses the Hanapepe River. The project improves safety and reliability addressing bridge width, load capacity, bridge railing and transitions, bridge approaches and to mitigate the effects of scour. — Kauai, Hawaii



Asphalt overlay — Main Park Road, Old Divide Road, U.S. Highway 87, Montana



U.S. Department of Transportation
Federal Highway Administration