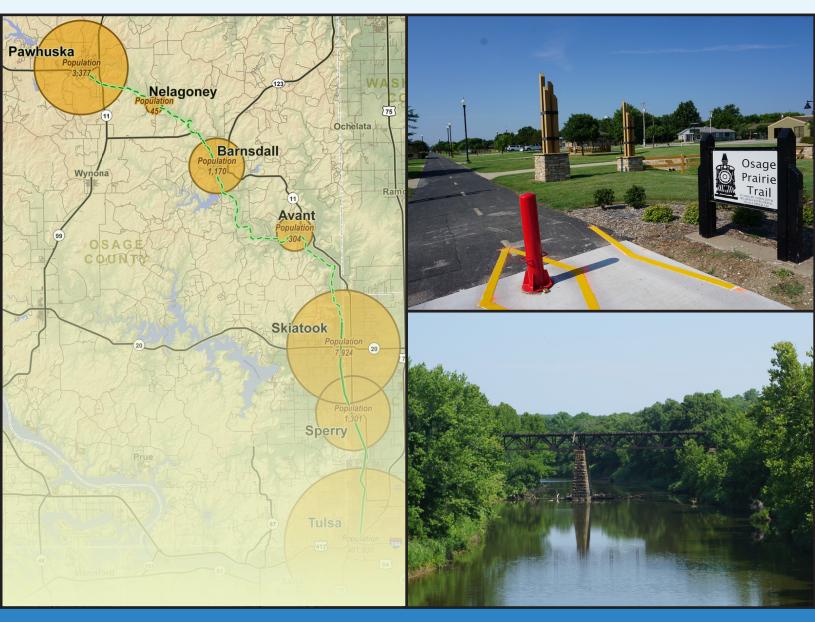
OSAGE PRAIRIE TRAIL PLANS SKIATOOK TO PAWHUSKA

U.S. Department of Transportation BUILD Transportation Discretionary Grant Program FY 2018

DUNS: 072406333



Rural Planning Grant Application Submitted by: The Osage Nation



Project Link http://www.incog.org/Transportation/BUILDFY18_OsageNation.html



Rural Planning Grant Application Information

Kui ai i	Planning Grant Application Information
Project Name	Osage Prairie Trail Plans - Skiatook to Pawhuska
Lead Applicant	Osage Nation
Contact Information	Mr. Christopher Standing Bear Grant Administrator Osage Nation 918-287-5633 clstandingbear@osagenation-nsn.gov
Project Type	Rural Planning Grant
Project Description	The Osage Nation is seeking funding for a planning project that will help complete a trail corridor plan that specifies the location, ownership of land, feasibility, conduit feasibility for fiber connectivity and provide renderings for a multi-use Osage Prairie Trail. The trail will connect rural communities located within the Osage Nation and Osage County to several rural town centers. A safe alternative route for pedestrians and people on bikes to get from residential subdivisions to the town centers is a service gap that currently exists in Osage County.
Project Cost	\$1,000,000
BUILD 2018 Funds Requested	\$865,000
Local Match Source(s) & Amounts	Osage Nation: \$100,000 INCOG: \$35,000
NEPA Status	The planning process for the multi-use trail will inform subsequent NEPA reviews, approvals and permits needed for construction.
Project Schedule	Planning project will be completed in 22 months after grant award.
Project Benefits	Plans for a multi-use trail will assist the Osage Nation with future construction of the trail, which will create a complete transportation network to include safe options for all mode users. It will encourage active transportation and fitness, which will bring health improvement outcomes, and favor economic growth by supporting bicycle and ecotourism. The project will also consider planning for buried fiber optic cables for broadband and other innovative transportation safety features as well as conduit for future uses.
Benefit-Cost Analysis Results	7% discount rate 0.98; 3% discount rate: 1.20
Innovative Elements	Planning for the implementation of below ground fiber optics for broadband, signal implementation for MUTCD approved Hawk Beacons or Rapid Flash Beacons at trail crossings and other innovative transportation safety features. The Osage Nation would also like to plan for additional conduit for future uses, to install at the same time as the fiber optic conduit.

以入. ぐへ. 以入 Geoffrey M. Standing Bear Principal Chief

Osage Nation

Office of the Principal Chief





July 19, 2018

The Honorable Elaine Chao Secretary, U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, D.C. 20590

Dear Secretary Chao:

The Osage Nation is pleased to submit this application for the Osage Prairie Trail Plans-Skiatook to Pawhuska under the Better Utilizing Investments for Leveraging Development (BUILD) program. The request is for \$865,000 in federal BUILD grant for the Planning Project, which would leverage \$135,000 (15.6%) in matching funds (in the form of cash and in-kind). The Osage Nation will be the lead implementing agency with partnerships from Indian Nation Council of Governments (INCOG), Osage County, Cities of Pawhuska and Barnsdall, the Town of Avant, Land Legacy and Tulsa County.

This trail will connect rural communities located within the Osage Nation and Osage County to several rural town centers. A safe alternative route for pedestrians and people on bikes to get from residential subdivisions to the town centers is a service gap that currently exists in Osage County.

We believe the Project is a strong candidate for BUILD funding with the release of a Request for Design Proposal within three months of the award date. This project will provide a safer mode of transportation for Osage County. Please contact Christopher Standingbear, Grant Administrator, Osage Nation if you have further questions regarding this project application.

Sincerely,

Geoffrey/Standing Bear

Principal Chief Osage Nation



Table of Contents

1 Project Description.	5
1.1 Challenge	6
2 Project Location.	9
2.1 Geographic Description of the Project	9 10
3 Grant Funds, Sources and Uses of Project Funds.	11
	11 11 12
4 Merit Criteria	13
4.5 Environmental Protection	15
5 Project Readiness.	23
	24
6 Benefits Cost Analysis.	24

Appendix

• Letters of Support



1 | Project Description

The Osage Nation is seeking funding for a planning project that will help complete a trail corridor plan that specifies the location, ownership of land, feasibility, conduit feasibility for fiber connectivity and provide renderings for a multi-use Osage Prairie Trail.

The trail will connect rural communities located within the Osage Nation and Osage County to several rural town centers. A safe alternative route for pedestrians and people on bikes to get from residential subdivisions to the town centers is a service gap that currently exists in Osage County. Plans for this trail is one step closer to filling the gap.

1.1 Challenge

The transportation challenge this project will address is the lack of safe alternative transportation connections for rural residents to the town centers within the Osage Nation. The tribal members and the rural county residents do not have any viable active transportation options. In rural America, services such as grocery stores, banks, medical clinics, schools and jobs are located within a small central area surrounded by a low-density population. The same goes for Osage County; the cities of Pawhuska (headquarters of the Osage Nation), Barnsdall, Avant and Skiatook are often the only locations for vital services within the southeast section of the county. A network of multi-use trails would provide safe access to these key destinations and limits users' exposure to fast moving vehicles. A complete transportation network includes facilities that support riding a bicycle and walking in addition to roads for automobile use.



Figure 1. Shared Use Path, River Parks, Tulsa, OK Source: INCOG



Figure 2. Sidepath on Peoria Avenue, Tulsa, OK Source: INCOG



1.2 History

Osage Nation

Like many American Indian tribes, the Osage moved great distances over centuries. They originated from the plains and east of the Mississippi River before ultimately returning to America's midlands by the time Europeans came to the continent. In the treaties forced by the federal government in 1818 and 1825, the Osages gave up their Indian Territory holdings for land in southern Kansas. After the Civil War, homesteaders wanted the fertile farmland the Osage Nation held, and so the Osage were forced to sell their Kansas lands in 1870 to the government and bought nearly 1.5 million acres west of the Cherokee Nation in what was then known as Indian Territory and set up Pawhuska as the tribal headquarters. When the Dawes Act passed, the Five Civilized Tribes and the Osage Nation submitted to an allotment plan in which parcels were allotted to individual tribal members.

Today, Osage County is the largest county in Oklahoma with an area of 2,251 square miles and a rural population of 47,887. Focusing on the main census tracts that encompass the future Osage Prairie Trail, there are 15,024 residents and 632 jobs within 388 sq. miles. This area is home to the Pioneer Woman's Mercantile, ranches and the Nature Conservancy's Tallgrass Prairie Preserve, a significant bison reserve that is a focus of ecotourism. The Osage Nation is expending \$1.5 million of federal Reservation Roads



Map 1. Osage Ancestral Territory
Source: https://www.osagenation-nsn.gov

money on a new Eco Park which borders the planned Osage Trail at Pawhuska's eastern edge.

Railroad

The proposed location of the multi-use trail will follow the alignment of the old Midland Valley Railroad which was sometimes referred to as the Arkansas River Route. The railroad was first built in 1903 before Oklahoma became a state, to transport coal in western Arkansas and eastern Oklahoma to Indian Territory. Eventually the line extended all the way to Muskogee, Tulsa and into Arkansas City, Kansas. For six decades, this railroad served as transportation for oil, cattle and passengers before service ended and the rail right-of-way (ROW) succumbed to nature.



1.3 Previously Completed Components

The previously completed section of Osage Prairie Trail is from Oklahoma State University-Tulsa in downtown Tulsa to just north of Skiatook. Approximately 16.3 miles of the trail is through a mostly urbanized region and does not benefit Pawhuska nor the rural communities between Pawhuska and Skiatook. The existing trail is an ADA (Americans with Disabilities Act) compliant trail, 10' in width, hard surface and constructed on the old railroad ballast. The constructed trail accommodates horses, bicycles and pedestrians comfortably in this low-density area.



Figure 3. Osage Prairie Trail Sign, Skiatook, OK. Source: INCOG



Figure 4. Osage Prairie Trail Terminus, Skiatook, OK. Source: INCOG



Figure 5. Wayfinding Sign to Library, Skiatook, OK. Source: INCOG



Figure 6. Crushed Gravel Path from Osage Prairie Trail to Library, Skiatook, OK. Source: INCOG



Highlights / Purpose of the Project

- Multi-use trails will provide facility for active transportation (bicycle, pedestrian) in a safe environment.
- Ecotourism project to stimulate rural and tribal economy.
- Improves health and well-being of the community and residents.
- Improves cultural respect, strengthens ties and sustenance of the community.
- Impacts land and wildlife in the most sustainable way to enjoy for the long run.
- Recreational, transportation, environmental, health, economic, social-cultural, and educational benefits are not always entirely quantifiable but the history of trails in America suggests that these benefits are nearly endless.

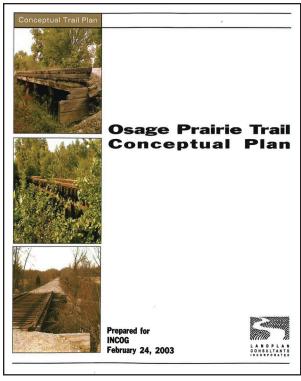


Figure 7. Osage Prairie Trail Conceptual Plan, covering from Tulsa to Skiatook, 2003. Source: INCOG

From the conceptual project to realize the benefits for the long-run in the future:

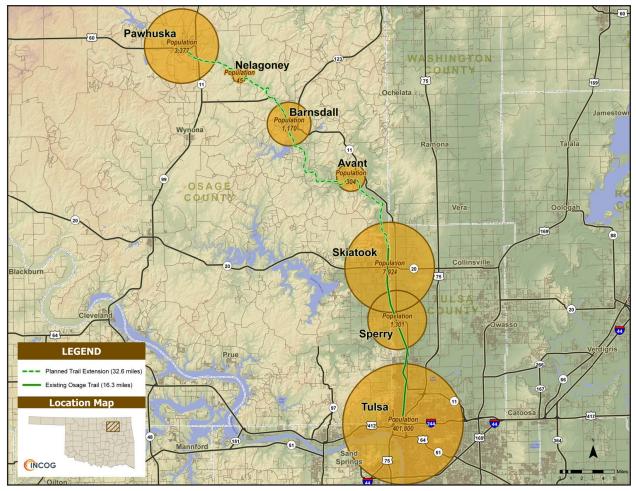
- Conduct a detailed survey for alignment, design and engineering plans for the multi-use trail.
- Conduct legal research to assess any issues in the rail abandonment section and Land Legacy's rail-banked part of the trail.
- Provide renderings and suggested crossings of the stream at three locations for the most economical way to connect.



2 | Project Location

2.1 Geographic Description of the Project

The following map shows the proposed trail extension, which will connect Pawhuska to Tulsa and the rural towns and cities in between.



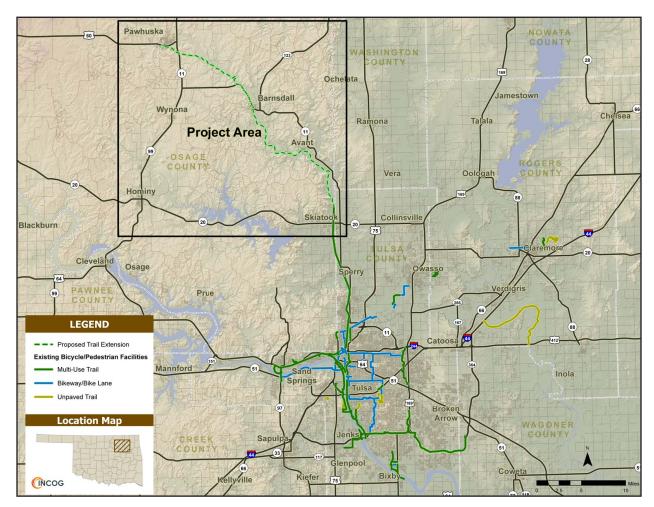
Map 2. Source: INCOG



2 | Project Location

2.2 Project Location and Connections to Existing Transportation Infrastructure

The following map shows the Project Area, and how it would connect to the existing bicycle and pedestrian facilities in the Tulsa Region.



Map 3.
Source: INCOG



3 | Grant Funds, Sources and Uses of Project Funds

3.1 Project Cost

Source of Funds	Amount
BUILD Grant 2018	\$865,000.00
Osage Nation	\$100,000.00
Indian Nations Council of Governments (INCOG)	\$35,000.00
TOTAL	\$1,000,000.00

Table 1. Source: INCOG

3.2 Non-federal Funds

Entity and Form of Support	Cash	In-Kind	TOTAL
Osage Nation. Staff will provide support for legal research, history, design concept, integrating into the Eco Park	\$50,000.00	\$50,000.00	\$100,000.00
INCOG. Staff will provide support for GIS, mapping, analysis, public meetings as needed, consultant selection	-	\$35,000.00	\$35,000.00
TOTAL	\$50,000.00	\$85,000.00	\$135,000.00

Table 2. Source: INCOG



3 | Grant Funds, Sources and Uses of Project Funds

3.3 Budget

Major Activity	Non-Federal*	BUILD	Other Federal	TOTAL	% of Total
Phase I Planning					
Conception & Alignment	\$32,500.00	\$100,000.00	-	\$132,500.00	13%
Survey & Environment Documentation	\$10,000.00	\$75,000.00	-	\$85,000.00	9%
Legal Research	\$75,000.00	\$100,000.00	-	\$175,000.00	18%
Phase II Planning					
Final Design	\$17,500.00	\$580,000.00	-	\$597,500.00	60%
Communications Engi	neer				
Fiber Optic Plans	-	\$10,000.00	-	\$10,000.00	1%
TOTAL	\$135,000.00	\$865,000.00	-	\$1,000,000.00	100%

^{*}Non-federal support includes \$35,000 in-kind support from INCOG; \$50,000 in-kind and \$50,000 cash support from Osage Nation.

Table 3. Source: INCOG



4 | Merit Criteria

4.1 Safety

Rural areas make up 81% of the United States and are home to only 19% of the nation's population¹, however, 49% of all traffic fatalities occur on rural roads². Nationwide, pedestrians and bicyclists represent 12% of trips made, but disproportionately make up 17% of all roadway fatalities³. In Osage County, from 2007-2016, there were 855 crashes within proximity of the future Osage Prairie Trail. Of the 855 crashes, 20 were fatalities and 171 were injuries; the injury crashes include 7 bicycles and 6 pedestrian crashes⁴.

Current transportation options in this rural area consist mostly of two-lane roads, some with shoulders that have rumble strips (not conducive for bikes) and many others with no shoulders. On the roads that have shoulders, the rumble strips are placed in such a way that a person on a bike must either ride a bicycle near the edge of the road where debris collects or next to the white line of the road close to cars. None of the roads have sidewalks or sidepaths. The posted speed limit on these rural roads is between 45 mph and 65 mph. Due to these factors, the roads are unsuitable for safe active transportation options. Crash data and current conditions enforce the reason why the Osage Nation needs alternative safe transportation to improve the resiliency and safety of the population.



Figure 8. Two-lane rural road with no shoulders, Osage County, OK. Source: INCOG

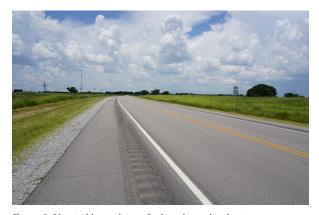


Figure 9. Unsuitable conditions for bicycles and pedestrians, Osage County, OK. Source: INCOG

¹ Federal Highway Administration, "Small Town & Rural Multi-modal Networks," (2016).

² U.S. Department of Transportation, "Notice of Funding Opportunity for the Department of Transportation's National Infrastructure Investments Under the Consolidated Appropriations Act," (2018).

³ League of American Bicyclists, Member Newsletter, Summer 2018.

⁴ Oklahoma State Department of Transportation, "SAFE-T Collision Database," Collision Table; generated by Chase Phillips; https://www.oksafe-t.org. (July 2018).



A plan for a multi-use trail will assist the Osage Nation with construction of the trail. which will create a complete transportation network to include safe options for vehicles, pedestrians and people on bikes. By definition a multi-use trail fully separates users from vehicles and is located along a separate alignment from the street's or highway's ROW. *Map 2* shows the alignment of the trail, which follows the old Midland Valley Railroad line generally adjacent to the alignment of State Highways (SH-11 and SH-99). This is the safest form of a bicycle/pedestrian facility as the exposure to fast traveling vehicles is greatly reduced. There are two factors when quantifying harm done to a bicyclist or pedestrian by a motor vehicle, a convergence point and speed. In order to quantifiably decrease fatalities and injuries, these two factors need to be reduced.

The current conflict zones for active transportation users from Skiatook to Pawhuska is 35 miles. With the implementation of a multi-use trail, this nearly eliminates all vehicular conflict to a minimal few feet of shared roadway that are required to cross a 2-lane highway. The three remaining conflict zones can be mitigated by using the Manual on Uniform Traffic Control Devices (MUTCD) approved Hawk Beacons in tandem with signage and crosswalk reflective paint. In addition, rumble strips can be used as a slowing mechanism for vehicles. Also, by cutting back vegetation at these crossings,



Figure 10. Hawk Beacon Crossing at Hwy 20 & Osage Prairie Trail, Skiatook, OK. Source: INCOG

motorists have an increased visibility of trail users and can decrease their speed accordingly. Another safety aspect of creating a multi-use trail is the positive correlation that built bicycle and pedestrian infrastructure will encourage more active transportation. From 2007 to 2013 the Federal Highway Administration (FHWA) conducted a study of four communities and researched the effects an increase of bicycle/pedestrian infrastructure had on the population. The highlights of the study show that combined, walking mode share increased by 15.8%, bicycle mode share increased by 44% and 85.1 vehicle miles traveled (VMT) were averted by nonmotorized trips⁵. The more VMTs are averted, the less motorized vehicles on the road which in turn decreases the overall crash rate. This project has the potential to be a pilot for similar circumstances in all rural and tribal regions, with the possibility for increased use along with safety and positive health outcomes.

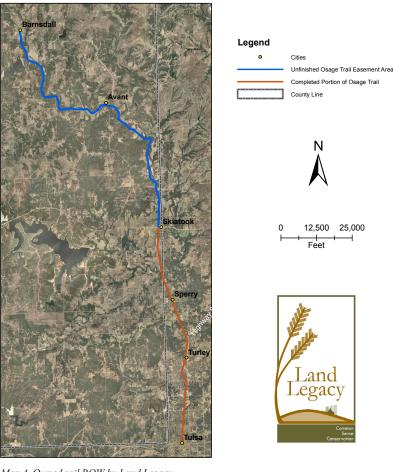
⁵ Federal Highway Administration, "Nonmotorized Transportation Pilot Program, Continued Progress in Developing Walking and Bicycling Networks," (2014).



4.2 State of Good Repair

A total of 217 acres of the old Midland Valley Railroad ROW has been acquired by Land Legacy, a nonprofit conservation organization whose mission is to conserve, enhance and restore urban and rural lands. Land Legacy works with farmers and ranchers to acquire conservation easements through donation or purchase to preserve open spaces while still allowing for agricultural production. All conservation easements are voluntary yet legally binding. Land Legacy has preserved the Midland Valley ROW for the specific purpose of connecting the Osage Prairie Trail from Skiatook to Pawhuska.

Osage Trail 35 Linear Miles, Osage & Tulsa Co., OK



Map 4. Owned rail ROW by Land Legacy. Source:Land Legacy



In addition to the ROW already owned by Land Legacy, the Osage Nation has already purchased 4.77 acres of the abandoned rail line just outside of Pawhuska. Another state of good repair fact is the future path used to be a functioning railroad for six decades, which means there will be less excavation through the land as the railroad company completed this when it was built.



Figure 11. Railroad Right-of-Way near Barnsdall, OK. Source: INCOG

Overall the lifecycle cost of a path is less than that of a road. In comparison to rural road projects, which can cost between \$2 million to \$3 million per mile to construct⁶, a multiuse paved path's average cost is \$481,140 per mile⁷. For maintenance of both types of facilities, the difference in cost is similar. The completed portion of the Osage Prairie Trail is cooperatively maintained (capital and financial) by three different jurisdictions, City of Tulsa, Tulsa County and City of Skiatook. Part of the planning process is to communicate with local jurisdictions and assign responsibility of maintenance for the trail once constructed.



Figure 12. Osage Prairie Trail Terminus in north Skiatook, OK.
The foreground shows the old railroad bed is still in good condition.
Source: INCOG



Figure 13. Former railroad bridge over Bird Creek, Avant, OK. Source: INCOG

⁶ American Road & Transportation Builders Association, "How much does it cost to build a mile of road?" https://www.artba.org/about/faq/.

⁷ University of North Carolina Hwy Safety Research Center, "Costs for Pedestrian and Bicyclist Infrastructure and Improvements." http://www.pedbikeinfo.org/cms/downloads/Countermeasure%20Costs_Report_Nov2013.pdf.



4.3 Economic Competitiveness

Census tracts that include the current and future Osage Prairie Trail show the average percentage of total housing units without a vehicle is 4.8%. This population is the most vulnerable as they would be the ones most likely to walk or ride a bicycle on the two-lane roads to access jobs. doctor appointments and grocery stores. Also, rural households earn 32% less than their urban counterparts. In Osage County, the per capita income is \$23,416, this is 15% less than the Tulsa MSA per capita income of \$27,621 and 21.5% less than the national average of \$28,829. In Osage County, the average annual cost a household spends on auto and transportation in the three Osage County census tracts this trail will go through is \$10,630.129. Providing safe alternative access to business districts benefits the households in Osage County that do not own a car and/or are lowincome households.

The Osage Nation would like to take the opportunity to use this planning grant to help their economy by supporting bicycle and ecotourism, a growing industry in the United States¹⁰. According to the Outdoor Recreation Economy, bicycle tourists spend \$83 billion on trip-related sales and generate \$97 billion in retail spending per year. This spending contributes to the creation of 848,000 jobs in the United States. A 2012 economic case study of Missouri's Katy Trail (a 237 mile trail that traverses rural Missouri) reports that of 400,000 visitors, 1 in 5 stopped in a small town on their bicycle trip, which contributed \$8 million to the local economy of rural Missouri. These eco-tourists also supported 367 jobs¹¹.

The Osage Nation has reclaimed 31.01 acres of the original Midland Valley depot property in Pawhuska, and purchased a historic 4-story bank building directly across the street from the Pioneer Woman's Mercantile and restaurant. The reclaimed depot property, the terminus of the planned Osage Trail, extends to within a few hundred feet of that bank building, and represents outstanding development potential along the south edge of Pawhuska's Main Street, where thousands of new visitors travel and shop. The property lies within the Pawhuska city limits and is in close proximity to the Pioneer Woman's Mercantile. The Pioneer Woman is a Food Network

⁸ U.S. Census Bureau, "American Community Survey, 5- year estimate," Table B25044; generated by Barbara Gibson;

⁹ Experian Marketing Solutions, Inc., "Consumer Expenditure Automotive Transportation Detail Summary," generated by Barbara Gibson; using DemographicsNow; http://db.tulsalibrary.org:2341/dnow/?p=DNOW&u=tulsa. (June 2018).

10 Adventure Cycling Association, "Economic Impact." https://www.adventurecycling.org/bicycle-tourism/build-ing-bike-tourism/economic-impact/.

¹¹ James Pona Associates, Pragmatic Research, Inc., Synergy Group, "Katy Trail Economic Impact Report: Visitors and MGM2 Economic Impact Analysis." https://mostateparks.com/sites/mostateparks/files/Katy Trail Economic Impact Report Final.pdf. (July 30, 2012).



celebrity and food blogger who has followers all over the world. Her mercantile attracts up to 15,000 visitors a day and has helped put life back into downtown Pawhuska. The Osage Nation would like to take advantage of the economic drive the Pioneer Woman has created by routing the Osage Prairie Trail to the old train depot, which is near The Mercantile and where tourists on bicycles can stop and enjoy a refreshment and purchase items from local stores.

The Osage Nation also owns a 77-acre tract adjoining the planned Osage Trail, with a 27-acre Eco Park at the ground-breaking stage. These tracts lie just east of the 31-acre Midland Valley depot property. In addition, the proximity of Pawhuska to the Nature Conservancy's Tallgrass Prairie Preserve complements those looking for an extra adventure. The Tallgrass Prairie Preserve is the largest tallgrass prairie in the United States and is home to 2,500 free-ranging bison. The south entrance of the park is just north of Pawhuska.

In 2017 there were a total of 21,200 visitors to the preserve. These visitors could use the Osage Prairie Trail as a means to safely ride a bicycle to the communities of Barnsdall, Avant and all the way to Tulsa, spending money in towns and cities along the way.



Figure 14. Line outside the Pioneer Woman's Mercantile, Pawhuska, OK. Source: INCOG

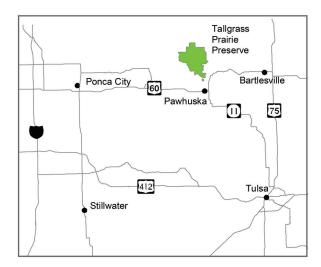


Figure 15 Gateway to the Tallgrass Prairie Preserve, Pawhuska, OK. Source: INCOG





Map 5. Source:Bird Creek Farms



Map 6. Source: Tallgrass Prairie Preserve

Another economic benefit of a multi-use path is that research shows the addition of bicycle infrastructure increases property values. The 2016 Alliance for Biking and Walking report analyzed recent U.S. Complete Streets projects, and their findings show transportation corridors that changed from car-centric to multimodal have seen an increase in property value and increased investment from the private sector¹². When small town America property values have seen a decline over the years and town centers have emptied out, the potential for increased investment to add life back into downtown and create a safe transportation corridor for bicycles and pedestrians is a win-win situation.

¹² Alliance for Biking & Walking, "Bicycling & Walking in the United States: Benchmarking Report." https://www.aarp.org/content/dam/aarp/livable-communities/documents-2016/2016-WalkingBicyclingBenchmarkingReport.pdf. (2016).



4.4 Quality of Life

An added benefit of having a plan to implement a multi-use trail for the rural communities of Pawhuska, Barnsdall, Avant and Skiatook is the increased availability for using the trail for fitness. Health statistics from the Oklahoma State Department of Health show a high level of obesity among adults, and diseases associated with inactivity and obesity such as diabetes and heart disease are leading causes of death. In Osage County, a person who is obese has \$2,741 higher medical expenses than a person who is not obese¹³. Research also shows that increased access to a multi-use trail increases physical activity, which increases the health of a community. 30 minutes a day of moderate exercise reduces the chances of diabetes, high blood pressure and increases overall wellness14.

As previously mentioned, long-term quality of life benefits of this project for the Osage Nation are safer connectivity to central business districts in Pawhuska, Barnsdall, Avant and Skiatook, improved public health, decrease of bicycle and pedestrian crashes and a decrease in overall crashes due to a decrease in VMT.

An additional quality of life benefit is the Osage Nation's intention to use this opportunity to include planning for buried fiber optic cables for broadband. To decrease the disparity of educational attainment and wealth between rural and urban populations. the implementation of broadband is necessary. Broadband access increases annual median business revenue by \$300,000, students save up to \$600 annually by using material from the internet instead of purchasing hard copies. 79% of Americans search for jobs online and home values increase by 3.1%¹⁵.



Figure 16. Downtown Pawhuska, OK. Source: INCOG

¹³ Oklahoma State Department of Health, "Health on the Horizon: Osage County," https://www.ok.gov/health2/docu-

ments/Osage%202014.pdf. (Spring 2014).

14 Walljasper, Jay, "10 Ways Bicycle Friendly Streets are Good for People Who Don't Ride Bikes." AARP Livable Communities, (September 2016). https://www.aarp.org/livable-communities/getting-around/info-2016/why-bicycling-infrastructure-is-good-for-people-who-dont-ride-bikes.html.

¹⁵ Bates, Katherine. "Leveraging Federal Opportunities to Increase Rural Broadband Access." Keynote Speaker at National Association of Regional Councils, Orlando, FL, June 4, 2018.



4.5 Environmental Protection

The planning project for the Osage Prairie Trail will consider storm water runoff for the portions of the trail that will be near houses. For example, the plan will study the existing culverts that run underneath the abandoned railroad alongside private property. Also, steps will be built into the plan to mitigate any adverse impacts at creek crossings.

In the long-term, a multi-use trail for the rural communities of Osage County will add a low energy form of transportation to the existing network of roads. This can be quantified by evaluating the American Community Survey's data collection on mode share. If the mode share of bicycle and walking increases (as a percentage of the total population), then energy consumption of oil and gas has decreased because the mode share for automobiles has decreased. The current percentage of mode share in Osage County for the census tracts that follow the old Midland Valley Railroad line is as follows: automobile – 98%, walking- 1.9%, bicycle- .01%.



Figure 17. The Osage Nation's natural landscapes, Avant, OK. Source: INCOG



Figure 18. Former railroad bridge over Bird Creek, Avant, OK. Source: INCOG

4.6 Innovation

Planning for the implementation of below ground fiber optics for broadband was already mentioned in the Quality of Life section above. Beyond broadband, fiber optics can be used for a variety of other innovative uses such as signal implementation for MUTCD approved Hawk Beacons or Rapid Flash Beacons at trail crossings. In addition, the Osage Nation would like to plan for extra conduit for future uses. It would represent great savings to install the extra conduit while at the same time as the fiber optic conduit rather than deciding to install additional conduit at a later date.



An innovative safety feature that can be included in the plans are 9-1-1 GPS mile markers. The mile markers will increase response time in the event of an incident along the 32.6 miles of planned trail.

For improved project delivery date, the Request for Proposal (RFP) will request the project be designed in Civil 3D for improved accuracy and more accurate construction bid documents. The RFP will also request that a LiDAR system be used when surveying the Midland Valley ROW. LiDAR stands for Light Detection and Ranging and is a remote sensing method that uses light in the form of a pulsed laser to measure distances. A LiDAR system reduces the overall project delivery time by 2-3 months. In addition, due to the nature of this project, there wouldn't be extraordinary permitting or approval needs as the project would qualify for a nationwide 404 permit and environmental categorical exclusion (Cat Ex).

4.7 Partnership

Entity	Form of Support
Osage Nation	Support for legal research, history, design concept, integrating into the Eco Park.
INCOG	Support for GIS, mapping, analysis, public meetings as needed, consultant selection.
Osage County	Knowledge of land records, ROW.
City of Pawhuska City of Barnsdall Town of Avant	Assist with public meetings, citizen participation and notification.
Land Legacy	Knowledge of ROW from Skiatook to Barnsdall.
Tulsa County	Provide support for planning for a multi-jurisdictional trail and knowledge of maintenance.
Table 4. Source: INCOG	



5 | Project Readiness

Once awarded, the tribe will reach out to INCOG, the Metropolitan Planning Organization that the Osage Nation is a member of, as evidenced by their attached support letter, to include the multi-use trail in the Transportation Improvement Program (TIP), State Transportation Improvement Program (STIP) and the Tribal Transportation Plan (TTP). Once this is complete and when construction funds become available, the tribe will be ready to let the project.

5.1 Project Schedule

Entity	Form of Support	Deliverables	Month
INCOG	Add Osage Prairie Trail Plans Project in the TIP and STIP.	-	Month 1-2
Osage Nation	Add Osage Prairie Trail Plans Project in the TTP	-	Month 2-3
Osage Nation	Release Request for Design Proposal.	Develop scope of work and advertise RFP, present recommendations to Osage Nation Congress.	Month 3
Osage Nation	Award Trail Design Contract.	-	Month 5
Design Consultant	Prepare engineering designs for review.	30% Plans Completion	Month 13
Design Consultant	Prepare engineering designs for review, conduct community meeting.	60% Plans Completion	Month 13-15
Design Consultant	Prepare engineering designs for review.	90% Plans Completion	Month 17-19
Design Consultant	Schedule Completion.	100% Plans Completion	Month 21-22
Table 5. Source: INCOG			

Osage Nation | OKLAHOMA



5.2 Required Approvals

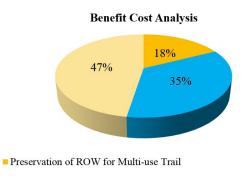
The planning process for the multi-use trail will inform any NEPA reviews, approvals and permits needed for construction.

6 | Benefit Cost Analysis

The Benefit Cost Ratio for the planning grant lists the three benefits as the preservation of the ROW for a multi-use trail, creation of jobs and ecotourism.

Currently, the existing abandoned rail ROW is land not available for public use. Railroad ROW measures 100 feet wide, and the planned multi-use trail extension is for 32.6 miles. 18% of the cost benefit of the Osage Prairie Trail Planning Project is to conduct legal research and survey the existing ROW for public use for a safe transportation option. As mentioned under the Safety Merit Criteria, from 2007-2016 there were a total of 855 (this includes bicycle and pedestrian data) crashes along the planned corridor of the Osage Prairie Trail.

This application is requesting funds for a planning grant, which is the first step towards making this trail a realization. Once the Osage Nation and partners have secured funding for the construction of the multi-use trail, the number of pedestrian and bicycle crashes will decrease as the conflict points with automobiles will decrease. According to the National Cooperative Highway Research Program's Report 552, "...on average respondents [of the survey] are willing to travel about 22 additional minutes if an



- 3 FTE Planner Jobs (Employment)
- Promotional Value of Eco Tourism of the preserved ROW for trail



Figure 19. Multi-Use Trail, Sperry, OK. Source: INCOG



off-road bike path is available if the alternative is to bike in traffic". 16

It is estimated that 35% of the planning grant's cost benefit will add salaries for three planner jobs, the estimated number of people it will take to complete the planning of the multi-use facility. In a rural region, this is an important positive economic impact. The legal research and planning of the trail also shows an economic opportunity by focusing on the potential for ecotourism. A trail count in Skiatook at the existing Osage Prairie Trail showed 47 pedestrians per hour on weekends. Even if only 20% of all Osage Prairie Trail users used the trail for ecotourism, a conservative estimate of 1,000 users would be passing through the rural communities of Osage County, spending dollars and adding to local economies. If 20% of visitors (21,200 in 2017) to the Tallgrass Prairie Preserve





Figure 20. Natives Helping Natives Butterfly Program. Source: https://www.nativebutterflies.org/our-butterflies

were added into the equation 4,240 additional eco-tourists would also be visiting rural Osage County. The benefit cost analysis shows 47% of the project would benefit tourism; however, this has the potential to greatly increase because as the trail improves, it is expected that there would be an increase in visitors from the Tulsa MSA. As stated above, a result of this grant is the Osage Nation will have plans for 32.6 miles of abandoned rail ROW where they can promote cultural development. The Osage Nation has already purchased land adjacent to the Midland Valley railroad ROW and has begun implementing amenities for their Bird Creek Farms Eco Park which includes a community garden and the Euchee Butterfly Farm.

To conclude, as the BCA shows, the planning of the Osage Prairie Trail from Skiatook to Pawhuska falls in line with the Nation's 25-year strategic plan which includes health, economic and cultural development.

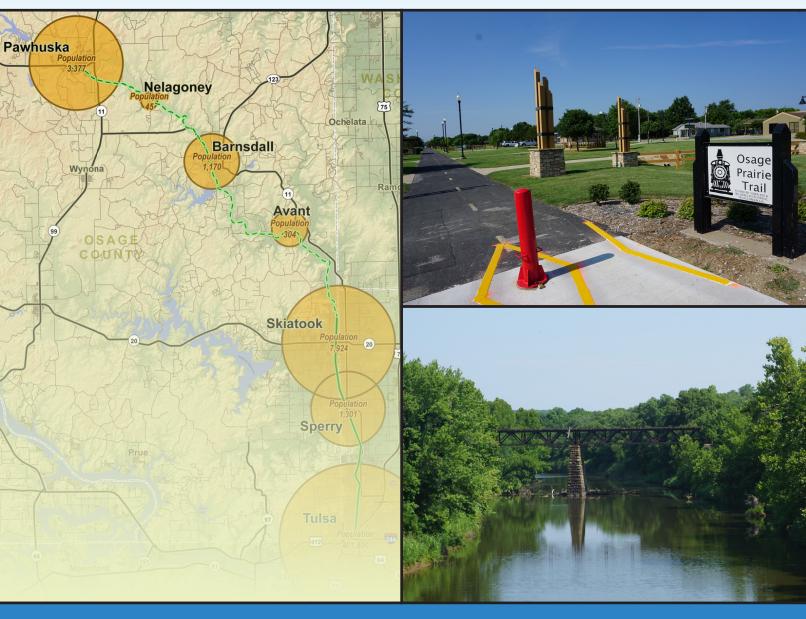
¹⁶ Transportation Research Board, "National Cooperative Highway Research Program, Report 552," (2006).

Benefit Cost Analysis - OSAGE PRAIRIE TRAIL PLANS FROM SKIATOOK TO PAWHUSKA

							\$ 650,000	\$ 50,000	\$ 250,000	
			0		0		0	0	0	2048
		\$ 30,000	0		0		0	0	0	2047
		\$ 30,000	0		0		0	0	0	2046
		\$ 30,000	0		0		0	0	0	2045
		\$ 30,000	0		0		0	0	0	2044
		\$ 30,000	0		0		0	0	0	2043
		\$ 30,000	0		0		0	0	0	2042
		\$ 30,000	0		0		0	0	0	2041
		\$ 30,000	0		0		0	0	0	2040
			0		0		0	0	0	2039
			0		0		0	0	0	2038
		\$ 30,000	0		0		0	0	0	2037
			0		0		0	0	0	2036
		\$ 30,000	0		0)	0	0	0	2035
			0		0		0	0	0	2034
		\$ 30,000	0		0		0	0	0	2033
		\$ 30,000	0		0		0	0	0	2032
		\$ 30,000	0		0		0	0	0	2031
		\$ 30,000	0		0		0	0	0	2030
		\$ 30,000	0		0		0	0	0	2029
			0		0)	0	0	0	2028
			0		0)	0	0	0	2027
			0		0		0	0		2026
			0		0)	0	0	0	2025
			0		0)	0	0	0	2024
		\$ 30,000	0		0)	0	0	0	2023
		\$ 30,000	0		0		0	0	0	2022
		0	J	\$ 200,000	000,000 \$		\$ 350,000	0	\$	2021
		0)	\$ 200,000	\$ 100,000		\$ 300,000	\$ 50,000	\$	2020
		0	0		0		0	0		2019
		0	0		0		0	0	0	2018
1.20	\$1,060,476.17	\$503,154.90	<u>1</u>	\$371,547.51	\$185,773.76	\$887,312.20	\$603,078.35	\$47,129.80	\$237,104.05	3% Disc Rate
										Net Present Value @
0.98	<u>\$800,462.74</u>	\$293,541.75			\$168,973.66	§ <u>\$813,024.52</u>	\$547,735.88	\$43,671.94	1	Net Present Value @ 7% Disc Rate
Benefit/Cost Ratio	Total Benefits	Tourism of the preserved ROW for trail	Tourism of th ROW for trail	3 FTE Planner Jobs (Employment)	Preservation of ROW for Multi-use Trail	Total Cost	Detailed Design & Specs	Legal Research	Preliminary Planning	
		Promotional Value of Eco	Promoti							
					Benefits				Costs	
					:					



Appendix



以入. ぐへ. 以入 Geoffrey M. Standing Bear Principal Chief

Osage Nation

Office of the Principal Chief





July 19, 2018

The Honorable Elaine Chao Secretary, U.S. Department of Transportation 1200 New Jersey Avenue, SE Washington, D.C. 20590

Dear Secretary Chao:

The Osage Nation is pleased to submit this application for the Osage Prairie Trail Plans-Skiatook to Pawhuska under the Better Utilizing Investments for Leveraging Development (BUILD) program. The request is for \$865,000 in federal BUILD grant for the Planning Project, which would leverage \$135,000 (15.6%) in matching funds (in the form of cash and in-kind). The Osage Nation will be the lead implementing agency with partnerships from Indian Nation Council of Governments (INCOG), Osage County, Cities of Pawhuska and Barnsdall, the Town of Avant, Land Legacy and Tulsa County.

This trail will connect rural communities located within the Osage Nation and Osage County to several rural town centers. A safe alternative route for pedestrians and people on bikes to get from residential subdivisions to the town centers is a service gap that currently exists in Osage County.

We believe the Project is a strong candidate for BUILD funding with the release of a Request for Design Proposal within three months of the award date. This project will provide a safer mode of transportation for Osage County. Please contact Christopher Standingbear, Grant Administrator, Osage Nation if you have further questions regarding this project application.

Sincerely,

Geoffrey/Standing Bear

Principal Chief Osage Nation



Regional Partners - Regional Solutions

2 West Second Street Suite 800 | Tulsa, OK 74103 | 918.584.7526 | www.INCOG.org

July 3, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

The Indian Nations Council of Governments (INCOG) is pleased to join the Osage Nation as a partner to make the Osage Prairie Trail from Skiatook to Pawhuska a reality.

As the Metropolitan Planning Organization for the region, INCOG championed the development of the existing Osage Trail, which is Oklahoma's longest rail-to-trail project, and extends from downtown Tulsa to Skiatook. The Osage Nation is working to extend the multi-use trial from its existing terminus in Skiatook to the central business district of Pawhuska. This grant will assist with funding for conceptual and final design plans for the trail extension to Pawhuska, home to the County Seat of Osage County and the headquarters of the Osage Nation.

INCOG understands the importance of creating safe routes for rural Oklahoma. Bringing people and communities together has been the mission of INCOG for over fifty years. The Osage Prairie Trail will connect some of the most rural parts of Northeast Oklahoma including the small towns of Pawhuska, Barnsdall, and Avant with Skiatook and provide a safe alternative for active transportation.

Improving safety for all modes of transportation is a commitment INCOG takes seriously. Over half of crashes occur in rural areas while just under 20% of the population lives in rural America. Even one crash is too many. This multi-use path will help mitigate crashes by decreasing the conflict zones between bicycle/pedestrians and automobiles.

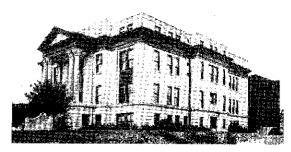
INCOG's knowledge gained by participating and planning the design of other multi-use trails in the region will be shared with the Osage Nation. We will also enthusiastically provide support in the form of GIS, mapping, analysis, consultant selection and public meetings as needed. To this end INCOG will provide \$35,000 of in-kind staff support as match for the project. In addition, INCOG is ready to include the multi-use trail in the TIP and STIP.

We look forward to partnering with the Osage Nation and the USDOT to move this project forward.

Sincerely,

Rich Brierre

Executive Director



OSAGE COUNTY COMMISSIONERS P.O. BOX 87 PAWHUSKA, OKLAHOMA 74056

July 9, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

Osage County is pleased to submit a letter of support for a planning grant for the continuation of the Osage Prairie Trail from Skiatook to Pawhuska. The connection of the Tulsa urban corridor through Tulsa County all the way to Pawhuska in Osage County would be a transportation and economic asset to this region of Oklahoma.

COMMISSIONERS: JERRY HOWERTON 918-287-1570

KEVIN PASLAY 918-396-2747

IST DISTRICT, PAWHUSKA

2ND DISTRICT, SKIATOOK DARREN MCKINNEY 918-642-5217

3RD DISTRICT, FAIRFAX

Osage County is a rural county, and recent FHWA studies have shown rural populations are one of the most vulnerable populations for automobile crashes. Only 19% of the nation's population lives in rural areas, 49% of all traffic fatalities occur on rural roads. Rural Oklahoma is no different, The Osage Prairie multi-use trail will connect the small towns of Pawhuska, Avant, Barnsdall and Skiatook, centers of economic development in Osage County. The trail will provide a safe alternative for active transportation and will be moving people off of our two-lane highways.

In addition to improving safety, this trail has the potential to promote economic development in Osage County by taking advantage of the burgeoning eco-tourism market which is estimated to generate \$97 billion in retail spending per year by tourists, and often in small-town America. The Osage Nation has already invested in this project by purchasing 47 acres to build Bird Creek Farms Eco Park.

I know you'll agree our nation's transportation infrastructure needs continued investment to remain economically competitive, even alternative transportation options such as a multi-use path. I fully support the Osage Nation in its endeavor for a planning grant, and I hope USDOT partners with the Osage Nation to move the project forward.

Regards,

Osage County Commissioner, District 1 Juny How

Kevin Paslay

Osage County Commissioner, District 2

Darren McKinney

Osage County Commissioner, District 3



Board of County Commissioners

Tulsa County Administration Bldg. 500 South Denver Tulsa, Oklahoma 74103-3832 918 596 5015

KAREN KEITH DISTRICT 2

July 3, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

Tulsa County is pleased to submit a letter of support for a planning grant for the continuation of the Osage Prairie Trail from Skiatook to Pawhuska. The connection of the Tulsa urban corridor all the way to Pawhuska in Osage County would be a transportation and economic asset to this region of Oklahoma.

The existing portion of the trail that connects downtown Tulsa to Skiatook has become a safe transportation corridor for north Tulsa County, an area that has a low percentage of household vehicle ownership. In addition, in the evenings, the trail is often used for recreational purposes, which helps improve the high rate of poor health outcomes for this area.

As Board Chair of INCOG, the Tulsa regional metropolitan planning organization, I fully support the mission of the organization, to bring people and communities together by creating safe transportation corridors for all modes. Even one bicycle or pedestrian crash is too many, and the expansion of this trail will help decrease the crash rate by eliminating points of conflict with vehicles.

As a Tulsa County Commissioner, the Tulsa County will support Osage County and the Osage Nation by sharing our knowledge of planning and implementing a multi-jurisdictional trail. I hope USDOT partners with the Osage Nation to move the project forward. Please let me know if I can be of further assistance.

Regards,

Karen Keith

Tulsa County Commissioner, District 2 INCOG, Board Chair



July 8, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

Land Legacy is pleased to submit a letter of support for a planning grant for the continuation of the Osage Prairie Trail from Skiatook to Pawhuska. Land Legacy is a 501(c)3 Land Trust organization whose mission is to conserve and enhance rural and urban landscapes, thereby improving the quality of life.

The existing Osage Prairie Trail from Tulsa to Skiatook is a transportation and economic asset to the community. Not only that, but it provides a natural environment for recreational purposes. Land Legacy has been an integral part of creating the existing section of the Osage Prairie Trail from Tulsa to Skiatook, and we are committed to the continuing the trail to Pawhuska by partnering with the Osage Nation.

Land Legacy owns 17 miles of the old Midland Valley railroad right-of-way. We acquired this property with the intention of gifting it to a government entity when the time came for expansion of the trail.

Land Legacy fully supports the Osage Nation in its endeavor for a planning grant, and I hope USDOT partners with the Osage Nation to move the project forward. Please let me know if I or my staff can be of any further assistance as you consider this exceptional project.

Regards,

Michael Patton

Land Legacy, Executive Director



July 12, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

The City of Pawhuska supports the Osage Nation's leadership in continuing the Osage Prairie Trail from Skiatook to Pawhuska.

Pawhuska is located in the heart of Osage County and is considered the gateway to the Tallgrass Prairie Preserve. According to the U.S. Census, in 2017, the estimated population of Pawhuska was 3,377.

As a rural community, we would greatly benefit from this multi-use trail passing through our town. Of the three main roads that go through Pawhuska, two of them are two-lane highways. These highways are dangerous for our residents who, out of necessity, sometimes have to walk or ride a bicycle on them. Osage County is a rural county, and therefore some of the housing developments are just outside Pawhuska City limits, and the only connection to vital services such as grocery stores and schools is via these two-lane highways.

In addition, this multi-use trail will assist with creating an eco-tourism economy for Pawhuska. We already have the Tallgrass Prairie Preserve just to our north and the Osage Nation's eco-park east of town. Tourists will be starting their eco-vacations in Tulsa and ride the trail through rural Osage County to the terminus in Pawhuska.

Sincerely,

Larry Eulert

City Manager, City of Pawhuska

(918) 287-3040 P.O. Box 539 118 W. Main Pawhuska, OK 74056



July 3, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

The City of Skiatook would like to support the Osage Nation's BUILD planning grant application for the continuation of the Osage Prairie Trail. This trail currently connects the rural town of Skiatook, a population of 7,924, to the Tulsa urban area with a population of 812,834.

Skiatook's population has benefited from this existing trail by providing people of all ages a safe mode of transportation to Skiatook's Central Park, schools and the library. Along with safer transportation options, residents of Skiatook use the trail for fitness purposes to improve their overall health & wellness which will decrease healthcare costs over the long run.

In addition, on the weekends, there are recreational cyclists that ride their bikes up to Skiatook from Tulsa and purchase refreshments at Skiatook's convenience stores, which benefits our local economy. The extension of the Osage Prairie Trail through Osage County to Pawhuska would increase eco-tourism and benefit Skiatook even more. In fact, Skiatook believes this connection is so vital for our region that we applied for and received TAP funding to construct the trail north of Hwy 20 for approximately 2 miles. The match funding for this came from a voter approved Vision Tulsa County tax package. This shows that Skiatook residents that live in Tulsa County support an increase in multi-modal transportation facilities.

The City of Skiatook fully supports the Osage Nation in their efforts to create a more livable, walkable and economically viable rural region for Osage County through this grant. We hope USDOT will recognize the need for the continuation of the Osage Prairie Trail.

Sincerely,

Patrick Young

Mayor, City of Skiatook

TOWN OF AVANT PO Box 147 Avant, OK 74001-0147

Phone: 918-263-3205 Fax: 918-263-1083

July 9, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

The Town of Avant supports the Osage Nation's leadership in continuing the Osage Prairie Trail from Skiatook to Pawhuska.

Avant is a rural town in Osage County with a population of 304. We support the Osage Nation's request for funding to plan the extension of the Osage Prairie Trail from Skiatook to Pawhuska on the old Midland Valley railroad. The old railroad line runs to the south of Avant near the town center.

Multi-use trails have shown not only to provide safe transportation corridors for bicycles and pedestrians by providing an opportunity for separating them from vehicles, but they have also shown to boost economies of rural communities. Eco-tourists who use these trails tend to stop in small towns and purchase goods such as refreshments or any other items they need for their trip.

In addition, the Osage Prairie Trail will also benefit the health of Avant. The Oklahoma State Department of Health shows a high level of obesity and diseases associated with inactivity such as diabetes and heart disease in Osage County. Residents of Avant will be able to use the Osage Prairie Trail for physical activity which will increase our health outcomes for the better.

Should the Osage Nation request support for public meetings in Avant during the planning phase, the Town of Avant will certainly help as we understand the importance this trail will provide to our town. We hope USDOT will also recognize the need for the continuation of the Osage Prairie Trail through Osage County.

Sincerely,

James Monk

Vice Mayor, Town of Avant

1

CITY OF BARNSDALL BARNSDALL, OKLAHOMA 74002

Russell Hayman, Mayor Lisa Yarber, City Clerk Paulette Thompson, City Treasurer

Drawer 879 Phone (918) 847-2980 Phone (918) 847-2795 Fax (918) 847-3909

July 9, 2018

Honorable Elaine Chao Secretary of Transportation U.S. Department of Transportation 1200 New Jersey Ave., SE Washington, DC 20590

Dear Secretary Chao:

The City of Barnsdall supports the Osage Nation's leadership in continuing the Osage Prairie Trail from Skiatook, through Barnsdall and terminating at Pawhuska.

Barnsdall, population 1,316 is an incorporated rural community in eastern Osage County. Our town is located approximately 16 miles southeast of Pawhuska and 40 miles north of Tulsa on Hwy 11.

As a rural community, we would greatly benefit from the Osage Prairie Trail, a multi-use path passing through our town. Highway 11 is the main artery that runs through the center of our downtown and connects houses on the outskirts of town to schools, Dollar General and jobs. This two-lane highway is dangerous for our residents who, out of necessity, have to walk or ride a bicycle on them. The Osage Prairie trail would increase transportation safety for our town by separating pedestrians and people on bikes from fast moving vehicles.

We are also fully supportive of the Osage Nation's plan to use these grant funds to plan for fiber optic cables for broadband. As a rural community, most of our residents do not have broadband. Broadband access can help our students save up to \$600.00 annually by using materials from the internet instead of purchasing hard copies, and 79% of Americans search for jobs online. Barnsdall does have a library with internet access, but the hours are limited.

Again, the City of Barnsdall would like to reiterate our support for the Osage Nation's planning grant application to continue the Osage Prairie Trail. Barnsdall sees this trail as a safe transportation option, economic generator, a form of recreation for our citizens and an innovative method to expand technology to our town.

Sincerely,

Russell Hayman

Mayor, City of Barnsdall