CRAZY HORSE SCENIC BYWAY

OGLALA SIOUX TRIBE · TRANSPORTATION DEPARTMENT ·

Pavement Resiliency &
Restoration Project







Project Name	Crazy Horse Scenic Byway Pavement Resiliency and Restoration Project	
	OPTION #1 - PRIORITY AREA	OPTION #2 - COMPLETE PROJECT
Total Project Cost	$ 13,260,000	$ 23,760,000
NSFLTP Program Grant Request Amount	$ 11,500,000	$ 22,000,000
Federal (DOT) Funding including Program Funds Requested	$ 11,500,000	$ 22,000,000
Total Non-Federal Funding	$ 1,760,000	$ 1,760,000
Is the project within, adjacent to, or accessing Federal and/or Tribal land	Yes	Yes
Supporting Documentation Website	www.inputcentral.com/oglalasiouxnsfltp	



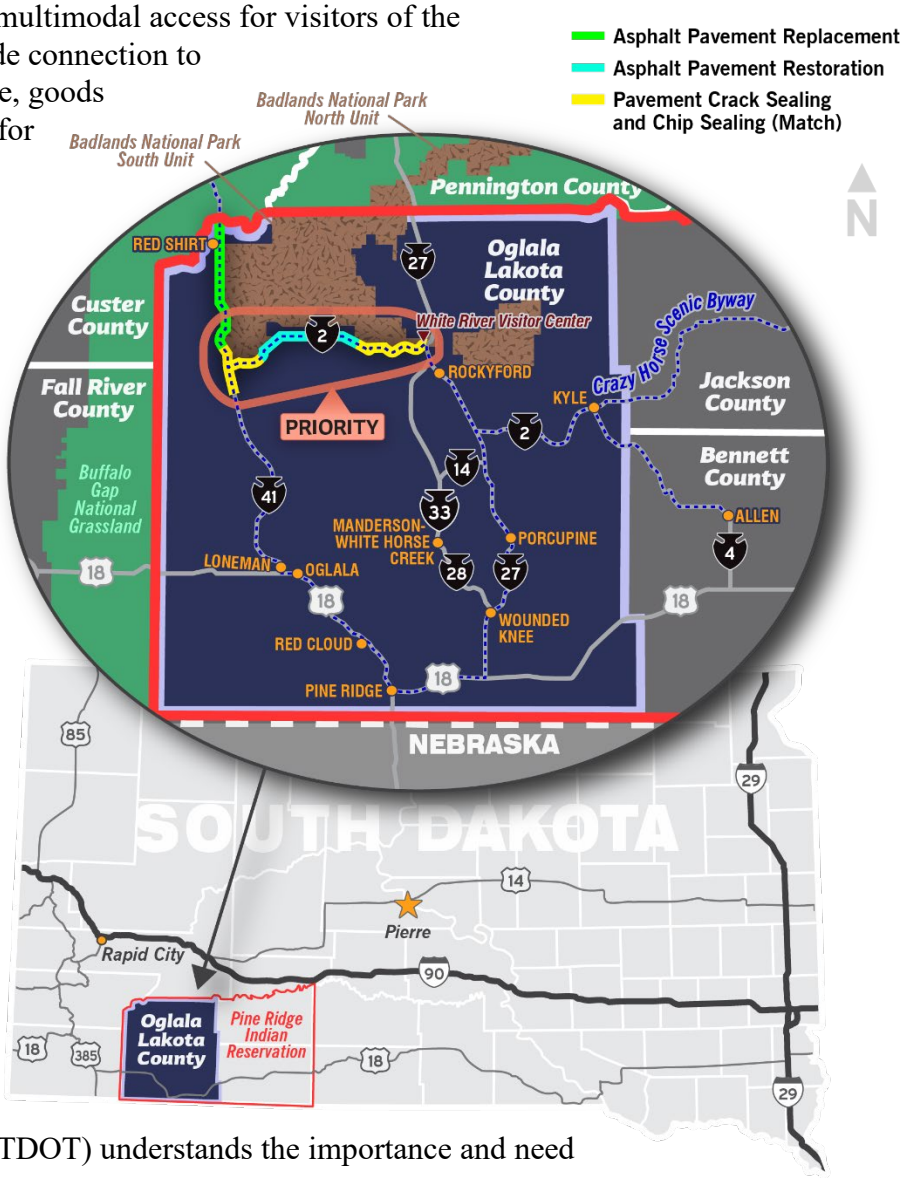
2024

OGLALA SIOUX TRIBE

CRAZY HORSE SCENIC BYWAY
Pavement Resiliency and Restoration Project

I. Basic Project Information

Description: The Oglala Sioux Tribe (OST) is requesting $22,000,000 for the Crazy Horse Scenic Byway Pavement Resiliency and Restoration Project (the Project). We recognize that the scope and funding request are significant. Therefore, if the entire project cannot be funded this fiscal year, we have identified a priority area for completion. The priority area covers 29.1 miles within the total project area of 37.6 miles along BIA Routes 2 and 41, which are located on the Pine Ridge Indian Reservation, part of the Tribally designated Crazy Horse Scenic Byway (CHSB) and run adjacent to the Badlands National Park South Unit. This region receives visitors from all over the world, causing a positive impact to the local and regional economy. The current condition of the roadway is deteriorating, insufficient to meet the traffic needs, and presents safety, accessibility, and sustainability risks. These sections of roadway need to be reconstructed, restored, widened for other modes of transportation, and made more resilient for the safety of travelers and enjoyment of visitors. The proposed construction project will address these issues and ensure consistent, year-round multimodal access for visitors of the Badlands National Park and provide connection to employment, education, health care, goods and services, and Tribal programs for the residents of the Pine Ridge Indian Reservation.



The project priority area includes 29.1 miles including 3 miles of asphalt pavement reconstruction, 12 miles of asphalt pavement restoration, and 14.1 miles of crack and chip seal surfacing. The expanded complete project area includes another 8.5 miles of asphalt pavement reconstruction, totaling 37.6 miles. For reference see the project website for the National Tribal Transportation Facility Inventory (NTTFI) maps of BIA 2 and BIA 41.

There have been a series of projects over the last 20 years that have improved these routes totaling nearly $19.5 million, however more work is needed to bring them to current highway safety standards and acceptable for visitors. OST Department of Transportation (OSTDOT) understands the importance and need

for the Project not only for its tribal members but all travelers of the roadway and has initiated planning and preconstruction. The Tribe has invested $60,000 in pre-construction activities.

Project Location: The Project encompasses parts of BIA 2 and BIA 41 located on the Pine Ridge Indian Reservation in rural southwestern SD in Oglala Lakota County and qualifies for **Rural Designation**. The Reservation encompasses over 2 million acres (3,469 square miles) in Oglala Lakota County, the southern half of Jackson County, and Bennett County in southwest South Dakota. Oglala Lakota County[1] has a population of 13,672 with 50.5 percent of that population living in poverty. Oglala Lakota County, census tract 9408, tribal tract T005, is identified as an Area of Persistent Poverty, Historically Disadvantaged, and Transportation Disadvantaged Community.

Project Parties: The OST, a federally recognized tribe is the Lead Applicant for this Project and the National Park Service (NPS), a federal agency, is a stakeholder providing interpretive signing for the Badlands National Park. OSTDOT has a long history of planning, designing, and delivering successful capital projects. This includes using Tribal Transportation Program funds to advance initiatives. In the past five years OSTDOT has expended an average of $7 million annually on transportation planning, construction, and maintenance. They have experience with grant reporting and works closely with the FHWA Tribal Transportation Program Coordinator. They have consistently proven to be a good steward of Federal funding and is well-versed in the reporting requirements associated with federal grants. OSTDOT has successfully administered TIGER, RAISE, TTPSF, ERFO, Tribal Bridge Improvement Program, and other federal and state grant awards.

II. Grant Funds, Sources, and Use of Project Funds

OST is requesting $22,000,000 in NSFTLP grant funds toward a total project construction cost of $23,760,000. In the event the NSFLTP program is unable to fund the entire proposed project, OST would be grateful for an allocation of $11,500,000 for the priority area. Due to the NSFLTP Grant Program's limited funding, OSTDOT applied for FY 2024 USDOT Rural funds for the north 6 miles of BIA 41 of this project, a section within the complete project and not within the priority area. Tribal Transportation Program (TTP) dollars and allocation funding from the NPS will be utilized for the match amount totaling $1,760,000. TTP dollars will be utilized to complete patching, crack and chip sealing, pavement striping, new guardrail, and Crazy Horse Scenic Byway guide signage. NPS has committed to provide $60,000 in funding to be used to cover the costs of interpretive signing at pull-off and parking areas located along BIA 2.

Funding Source	Option #1 – Priority Area		Option #2 – Complete Project	
	Amount	Percent (%)	Amount	Percent (%)
NSFLTP Grant	$ 11,500,000	86.7	$ 22,000,000	92.6
TTP Funds	$ 1,700,000	12.8	$ 1,700,000	7.2
NPS Funds	$ 60,000	0.5	$ 60,000	0.2
Total Project Cost	**$ 13,260,000**	**100**	**$ 23,760,000**	**100**

[1] Oglala Lakota County, South Dakota - Census Bureau Profile

The Project budget is current and has been calculated based on known variables. The budget contains adequate contingency to address any potential overruns, but if actual construction costs exceed the NSFLTP grant funding, the OSTDOT will further dedicate TTP formula funding to cover the cost overruns. For a complete detailed outline of project costs, please see the Project Cost Estimate at the project website.

III. Primary Merit Criteria

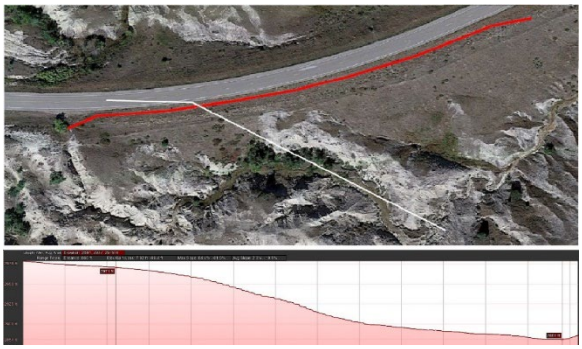
Primary Merit Criteria 1: DOT Goals:

Safety: The Project will address major safety concerns along both BIA 2 and BIA 41. Crash data recorded by the OST Department of Public Safety (2014-2023) showed 27 total crashes within the project area including 15 injury and 3 fatal type crashes. The project area has a fatality rate 3 times the state of South Dakota and the national average. Based on an average daily traffic of 511 over the 10-year period, the crash fatality rate in the project area is 4.28 per 100 Million Miles Traveled compared to South Dakota's latest report of 1.35 (2022) which is similar to the National average of 1.4 (2021).[2] Detailed crash data can be viewed at the project website.

To further understand the transportation and safety challenges of this corridor, the OSTDOT invested in the completion of a Road Safety Audit (RSA) in 2023-2024. It was determined from the crash data that 32-percent of crashes along BIA 2 were occurring because of Overturn /Rollover and Runoff Road crashes. RSA recommendations which will be implemented along BIA 2 will include adding guardrail and chevrons to the steep embankment, restoring the road surface, adding rumble strips, and installing wider (6-inch) edge line lane markings. Improvements to BIA 41 will include adding pedestrian and bicycle-friendly shoulders with rumble strips, improving the pavement cross-slope to remove rutting areas that hold water, and installing wider (6-inch) edge line lane markings.

A safety concern for both BIA 2 and BIA 41 is the deterioration of the roadways. Pavement ruts are especially dangerous during inclement weather when water, snow, slush, and ice fills the ruts and doesn't drain off the road creating slippery areas. Replacing the asphalt surface with an effective cross slope will drain water off the road surface, minimizing ponding issues which will help prevent maintenance problems and reduce icing on the roadway, creating a safer driving surface.

Additionally, as shown in the adjacent image, a steep embankment on BIA 2 occurs that is especially dangerous due to the adjacent 100-foot-deep ravine. The Project will add guardrail and chevrons along this embankment to prevent fatal run-off road crashes.



Safety countermeasures will be constructed to prevent vehicles from a fatal run-off road crash landing into the steep ravine

Section 70 of BIA 41 is very narrow without paved shoulders. The Project includes widening the

[2] https://dps.sd.gov/application/files/5816/9575/2342/2022-facts-book.pdf

roadway surface to add 4-foot shoulders, resulting in a reduction of crashes and an increase in overall transportation safety.

A preliminary benefit-cost analysis (BCA) was conducted to determine project criteria benefits. The improvements designed into this project anticipate a 14-percent decrease in accidents which is anticipated to provide $12.8 million in safety benefits over the 20 years post-construction.

State of Good Repair: The Project will provide much needed reconstruction to areas of BIA 2 and BIA 41 that are in poor condition. Due to the Tribe's lack of funding, there has been continuous maintenance and patch fixes instead of a much-needed investment into a long-term solution to bring the roadway to a state of good repair. The most recent reconstruction of BIA 2, completed in 2013 with TIGER funds, provided a hard surface from BIA 41 to BIA 27. Due to limited TIGER funding, the center 12-miles of BIA 2 was constructed with a thin double chip seal surface. The double chip seal has experienced a multitude of potholes and needs annual maintenance to repair and patch potholes. It has also been extremely susceptible to damage due to increased severe storm events, which saturate the subgrade. This section needs to be restored to a resilient, asphalt-paved surface.

BIA 41 was originally constructed in the late 1980's to early 1990's and in 2019, a spot leveling project was completed to fill many of the pavement ruts. The asphalt surface has continued to show signs of rutting and deterioration. A map of the 2019 storm damage asphalt pavement repairs to BIA 2 and BIA 41 can be found on the project website.

In 2023, OSTDOT invested in a pavement testing report which measured roughness using a high-speed inertial profilometer and found significant areas of poor condition. BIA 2, Section 25 is over 50-percent fair and poor condition. By contrast BIA 41, Section 60 which was reconstructed with geotextiles within the asphalt pavement structure is 100-percent good condition. The report can be found on the project website.



To address the long-term sustainability the project will incorporate an **innovative technique** that will incorporate the use of geotextile and geogrid within the pavement structure on BIA 41's asphalt replacement. The use of separation fabric under the pavement structure maintains separation of soil and base course and prevents soil from pumping up into the base course and intermixing which would weaken the pavement structure over time. The use of geogrid increases the base course strength, prevents rutting, and reduces movement of the asphalt pavement which will reduce cracking. The geotextile integrated pavement structure replacement planned for BIA 41 will be stronger, more resilient, and have a longer life span than a standard pavement structure of asphalt over base course. In 2018, this method was tested by the OSTDOT on BIA 41, Section

60's 4.8 miles which had extreme heaving due to fat clay in the Badlands geology. In fact, the road only had one lift of asphalt concrete prior to the storms of 2019 and performed so well that no repairs were needed. After 5 years, the road asphalt pavement shows very few asphalt cracks.

Economic Benefits: Oglala Lakota County's income level is one of the worst in the Nation, but the Oglala Sioux Tribe has a rich cultural history which they share with visitors from across world. In December 2019, the Tribal Council formally designated the Crazy Horse Scenic Byway as a Tribally designated scenic byway, of which BIA 2 and BIA 41 are a large part. The Byway's diverse landscapes, breathtaking views, unique wildlife, vast geologic characteristics, iconic monuments, and Tribal history are showcased throughout the Crazy Horse Scenic Byway.

Currently, the Badlands South Unit receives a fraction of visitors than that of the North Unit. In 2023, there were over 1 million visitors to the North Unit, and by comparison, only 16,500 visitors to the South Unit. The current conditions of BIA 2 and BIA 41 restrict economic activity from tourism. To further state the impact of how good transportation facilities affect local economies, visitors to the Badlands National Park South Unit White River Visitor Center have increased 75% since 2013 following the first paving project of BIA 2. Prior to 2011, 19.5 miles was gravel surface and impassable during inclement weather. On average, each visitor contributes $95.30 to the tourism industry. Improving BIA 2 and BIA 41 adjacent to the South Unit will, at the very least maintain growth of visitors to the South Unit. A 75% increase of visitors in ten years would be 28,875 by 2033, contributing $2,751,787 to the local economy.



Additionally, if current roadway conditions are not addressed, and temporary detours are needed due to road closures from emergency service or severe weather events, average detour route is approximately 75 miles. In 2019, severe damage occurred to BIA 2's double chip seal surfacing due to a Presidential Disaster declared storm event which blocked traffic and required a 75-mile detour. The damage occurred in late March and early April, but asphalt was not available until May due to temperatures. For one month, traffic avoided BIA 2 and detoured an additional 75 miles each way. Based on the preliminary BCA, the project is anticipated to reduce the Vehicle Hours Traveled (VHT) over the 20-year analysis by 149,200 hours equal to $4.7 million in travel time savings. Vehicle operating cost calculated using Vehicle miles traveled (VMT), is estimated to reduce VMT during the same period by 9.2 million miles equal to $4.8 million in cost savings. This includes a fuel savings of 510,000 gallons estimated as over $1.8 million.

Quality of Life: According to 2021 Census data, 50.5[3] percent of Oglala Lakota County residents live in poverty, with the community's median household income approximately 50 percent lower than that of South Dakota. Many residents also lack access to vehicles and must walk or use transit. BIA 2 currently has a 6-foot bicycle shoulder along the north side, but it also has potholes. There are no shoulders on BIA 41 Section 70 and pedestrians and bicyclists are forced to use the driving lane. The Tribe's Transit provides connections across the Pine Ridge

[3] https://data.census.gov/all?q=Oglala+Lakota+County,+South+Dakota

Indian Reservation including the communities of Red Shirt and Rapid City via BIA 41. Residents who rely on BIA 2 and BIA 41 for travel must navigate deteriorated and at times unsafe roadways to access goods and critical services, including health care, education, employment, childcare, recreation, and other essential Tribal services. The Project will enrich the quality of life for the rural communities by increasing efficiency and resiliency of the roadway, providing safe and improved shoulders to walk or bike, provide consistent access and connectivity to living-wage employment and essential services while decreasing the number of traffic incidents, delay time for emergency services, and burdensome deterioration of vehicles including Transit buses. The multimodal project creates transportation connectivity for all among cities and counties across the Reservation.

BIA 2 and BIA 41 are a part of the Reservation's arterial road network. These roads serve an area approximately 800 square miles. As noted above, this project will reduce the need for detours which are estimated to equal approximately 3 percent of trips annually. Although, this project is not estimated to reduce the number of trips, according to the preliminary BCA, the travel time and mileage for travelers is estimated to decrease by 9.2 million miles savings 149,000 hours due to the removal of the potential of a closure on either BIA 2 or BIA 41 due to floods or road damage.

Primary Merit Criteria 2: Improvement of Condition of Critical Transportation Facilities:



BIA 41: Road deterioration, 3-inch ruts, and no shoulders

BIA 41 runs North/South, adjacent to the west edge of the Badlands National Park, and provides primary access from Rapid City, SD to Pine Ridge Village, the largest community on the Reservation. The Oglala Sioux Transit has a daily fixed route from Pine Ridge Village to Red Shirt community located at the northern end of BIA 41 and extends to Rapid City on a regular basis using BIA 41. The asphalt surface is narrow, without shoulders, and significantly deteriorated. The Tribe barely receives enough funding for maintenance, let alone upgrade or repair roads. The Project proposes to reconstruct the asphalt pavement from the north Pine Ridge Indian Reservation line to 11.5 miles south with the most southern 3 miles in the priority area. The Project will widen the roadway to include 4' asphalt shoulders to improve safety of the traveling public, provide a bicycle and pedestrian friendly shoulder, maintain usability, and construct a more resilient pavement surface. The existing asphalt will be milled, recycled, and reused in new asphalt concrete pavement. The new pavement structure will incorporate geotextile woven separator fabric and multi-axial geogrid between layers of subgrade and base course.



Existing Potholes on BIA 2

BIA 2 runs E/W along the southern portion of the Badlands National Park and is currently 34' wide with 12' lanes, 4' shoulder along the south side, and a 6' bicycle shoulder along the north side. The Project's priority area, encompassing all of BIA 2, will restore surfacing along BIA 2, from 1.8 miles east of BIA 41 to 7.5 miles west of BIA 27. BIA 2, NTTFI Section 25 has an existing double chip seal surface, less than 1 inch thick, which leaves the roadway and bicycle lane/shoulder vulnerable to truck

traffic and severe weather events and has developed potholes which are a safety risk to the traveling public. The 12-mile section needs subgrade and patching repairs followed by an asphalt pavement overlay. Asphalt pavement overlay on BIA 2 will include repairing existing soft spots by removing the existing damaged surface, recompacting the subgrade, adding base course to strengthen, and topping with 3 to 4-inches of asphalt concrete pavement which will reestablish the road cross slope and road smoothness.

Primary Merit Criteria 3: Need for Project: The Project will provide much needed reconstruction to areas of BIA 2 and BIA 41 that are in poor condition. The project will ensure the ongoing use of BIA 41 by OST Transit, create a bicycle and pedestrian-friendly shoulder along BIA 41, and improve the condition of the bicycle shoulder along BIA 2. In addition, the completion of this project will eliminate a 75-mile detour that is required if either BIA 2 or BIA 41 is closed due flooding or damage. The elimination of the detour will improve the condition of the detour route by saving an additional $1.3 million in maintenance costs over the preliminary BCA analysis period. Due to the Tribe's lack of funding, there has been continuous maintenance and patch fixes instead of a much-needed investment into a long-term solution to bring the roadway to a well-maintained condition. The most recent reconstruction of BIA 2, completed in 2013 with TIGER funds, provided a hard surface from BIA 41 to BIA 27. Due to limited TIGER funding, the center 12-miles of BIA 2 was constructed with a thin double chip seal surface. The double chip seal has experienced a multitude of potholes and needs annual maintenance to repair and patch potholes. It has also been extremely susceptible to damage due to increased severe storm events, which saturate the subgrade. This section needs to be restored to a resilient, asphalt-paved surface. In 2019, a spot leveling project was completed on BIA 41 to fill many of the pavement ruts. The asphalt surface has continued to show signs of rutting and deterioration. A map of the 2019 storm damage asphalt pavement repairs to BIA 2 and BIA 41 can be found on the project website.



Picture of road damage to BIA 2 from 2019 storm

The proposed Project will address these deficiencies by reconstructing 11.5 miles of asphalt pavement, restoring 12 miles of asphalt pavement, and completing 14.1 miles of crack and chip seal surfacing.

The Tribe receives inadequate funding to meet the transportation needs across the Reservation. Reconstruction projects of this scale need to be supplemented with significant grant funding to come to fruition. This project has been in the Tribe's TIP since 2007 when they took over the roads program. In the past 5 years, the Tribe has been forced to spend approximately $10 Million of TTP funds on the repair of roads and culverts following disasters, which has further depleted funding. Without the grant funding the Project will not be able to proceed forward.

Primary Merit Criteria 4: Matched Costs: Although Tribes are not required to provide matching grant funds, the Tribe feels this project is of the highest priority, essential to ensuring

safety and connectivity within the Reservation transportation. A 13.3-percent match of TTP dollars and allocation funding from the NPS will be utilized totaling $1,760,000.

Primary Merit Criteria 5: National Register of Historic Places: There are 13 previously recorded cultural resources within one mile of the project, particularly within Badlands National Park, that are eligible for inclusion on the National Register of Historic Places. One resource, an eligible bridge, is immediately adjacent to the project area. Other sites within the Badlands National Park South Unit, visible from BIA 2, would be highlighted on interpretive signs provided by the Badlands National Park. These signs could be located at the White River Visitor Center on the east end of BIA 2 and at the four pull-off and parking areas along BIA 2. A map of these eligible sites is available upon request.

Primary Merit Criteria 6: New Technologies and Innovations: The Project will add guardrail and chevrons along a 100-foot-deep ravine to prevent fatal run-off road crashes on BIA 2. As identified on the Every Day Counts, EDC-7 Innovations (2023-2024), Nighttime Visibility for Safety, horizontal curve delineation enhancements using chevrons provide 16- to 25-percent reduction in crashes. As identified on the Every Day Counts, EDC-7 Innovations (2023-2024), Strategic Workforce Development, the Oglala Sioux Tribe has an established Tribal Employment Rights Ordinance (TERO). Under the ordinance, contractors must give employment preference to Native Americans for work needed on the project for the purpose of training and improving career opportunities for Tribal members. Prior to construction Notice to Proceed, a TERO Compliance Plan for the prime contractor and subcontractors, must be approved by the Tribe's TERO Office. Additionally, a TERO fee of 4-percent will be paid throughout the project to support the TERO Office's employment training program.

Primary Merit Criteria 7: Support to Construct, Maintain, and Operate the Facility: In 2007, the Tribe entered into an agreement with FHWA to become one of five initial Tribes to be a "direct funded" transportation program at which point the OSTDOT began to manage all planning and construction of BIA and Tribal transportation facilities within the Reservation. OSTDOT is committed to maintaining this infrastructure investments as they are critical to the Reservation's economic competitiveness and quality of life. Successful administration of nearly 1,700 miles of BIA and Tribal roads, over 25 maintained bridges, and dozens of other major and ancillary asset types relies on sound investment strategies and management practices. OSTDOT have successfully managed, stretched the funding received, and improved the surface transportation within the Reservation since 2007.

State of good repair is a critical piece of the OSTDOT's TTIP and maintenance asphalt pavement crack and chip seals are scheduled. Once constructed the Project will be maintained as a critical piece of Tribal transportation infrastructure. Road asphalt paving will be crack and chip sealed every seven years. All analysis at the OSTDOT include plans for ongoing operation and maintenance as part of the overall state of good repair for transportation infrastructure on the Reservation. By reconstructing and restoring the pavement surfaces, maintenance costs will be drastically reduced. Based on the preliminary BCA, the completion of this project will reduce maintenance costs within the project area by $4.6 million over the 20-year analysis.

Primary Merit Criteria 8: Spans Two or More States: The project is in South Dakota and does not extend into another state.

Primary Merit Criteria 9: Serves Land Owned by Multiple Federal Agencies or Indian Tribes: This project serves the OST and the NPS. The routes cross the Badlands National Park South Unit boundary and provide access to the White River Visitor Center and Red Shirt Overlook site. These routes are primary arterials for the Oglala Sioux Tribe within the Reservation. The South Unit is co-managed by the OST Parks and Recreation Authority and the NPS through a General Management Plan which can be found at project website.

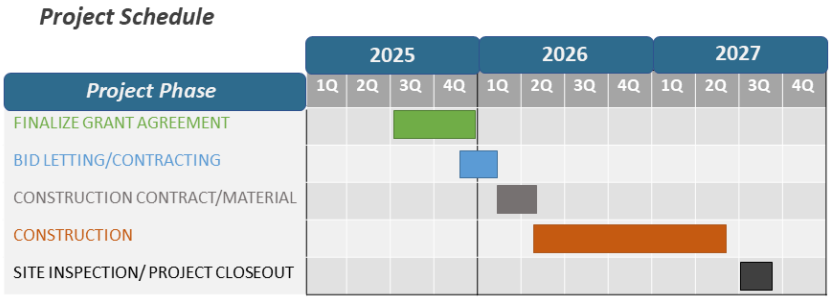
IV. Secondary Merit Criteria

Not evaluated due to a proposed project on Tribal transportation facilities.

V. Project Readiness

Technical Feasibility: The project is technically feasible and engineering design is complete. Details of the design and engineering can be found in the Project Description and Merit Criteria Sections. There is no right-of-way acquisition required (all work will take place within the existing ROW), resulting in an ability to move forward with bid letting and construction following grant award and obligation. NEPA has been completed and environmental impacts are considered minimal. The Project meets requirements for a Categorical Exclusion (CatEx) and the checklist was approved September 29, 2023.

Project Schedule: All planning, environmental and design work has been completed for the Project resulting in the Project being "shovel ready." Assuming the grant agreement can be finalized in 4th quarter of 2025, and an early start date in the construction season of 2026, the Project construction could be substantially completed by 2nd quarter of 2027. The roadway will remain open for the duration of the project.



Required Approvals: All planning activities including NEPA/TTP Environmental Review/Approval, preliminary engineering and design activities have been completed. The Project aligns with the Tribe's Long-Range Transportation Plan (LRTP) and is included in the Tribal Transportation Improvement Plan (TTIP). A TTP Environmental Checklist has been completed which includes analysis of potential impacts of the project for environmental, socioeconomic, and culture resources. Environmental clearance has been completed and it has been determined that no significant Project risks or impacts exist. FHWA has approved the Categorical Exclusion. Following award and finalized grant agreement, the Plans, Specifications, and Cost Estimate Certification will be submitted to FHWA and BIA prior to construction bid letting. The NEPA documents and detailed cost estimate can be found on the project website.

Public Engagement: OSTDOT updates the TTIP annually and holds public meetings for all projects listed in the draft TTIP. The Project was listed at the public meeting held in Pine Ridge, SD on March 5, 2024, no comments, concerns or objections were received. The Project aligns with the priorities of the LRTP. While drafting the LRTP the Tribe coordinated efforts with

several key community stakeholders including emergency medical and Indian Health Services, South Dakota Department of Transportation, BIA, law enforcement, Department of Environmental Science, Economic Development and Tribal Transportation staff, all of whom had input into the ongoing planning and operations of the transportation program.

In December 2019, following the Tribal designation of Crazy Horse Scenic Byway, OSTDOT met with Tribal District Representatives and counties to solicit support for a proposal to SDDOT for state designation. The Project will support that proposal and is located along the Tribally designated Byway. Additionally, a Market Study was completed in 2022 to assess the market for enhancing existing or creating new amenities, programs, services, and partners for the Crazy Horse Scenic Byway. Public engagement included a visioning session, community meetings, interviews, a survey, and ongoing discussions with architectural, engineering, and financial consultants. The LRTP and TTIP, as well as Letters of Support for the Project can be found at project website.

Assessment of Project Risks & Mitigation Strategies

The overall level of risk to the Project costs and schedule are considered low. Disturbed areas will be minimized and kept within the existing right-of-way to limit environmental impacts. If an environmentally sensitive area is identified, it will be avoided or mitigated depending on the oversight agency's request. Due to the existing area being previously disturbed, it is unlikely a major environmental issue will arise and if it does, the designs will be revised to mitigate the impact. A summary of risk assessment is provided in the following table.

Project Risk Matrix			
Potential Risk Area	Risk Type	Current Status/Proposed Mitigation	Risk Level
Technical Feasibility	Feasibility	All planning activities including design & environmental are completed	Low
Design Standards Conformance	Feasibility	Design developed to meet Oglala Sioux Tribe, BIA and FHWA standards	Low
Partner Approvals	Schedule	Design developed in coordination with the Oglala Sioux Tribe, BIA and FHWA	Low
Tribal Approvals	Schedule	Tribal Council has approved the Project, supporting the NSFLTP grant application, and OSTDOT has committed match	Low
Environmental Approvals	Cost/Schedule	CatEx is completed.	Low
Public & Stakeholder Support	Cost/Schedule	The Project is included in the TTIP and aligns with priorities of the LRTP, both of which included engagement with the public and stakeholders.	Low
Right-of-Way (ROW)	Cost/Schedule	There is no ROW acquisition	Low
Construction	Cost/Schedule	Project Cost Estimate reflects realistic and verified prices, inflation, Tribal fees, and appropriate contingency to mitigate potential cost risks	Low
Grant Management	Compliance	Grant management will be done by the OSTDOT experienced staff with the assistance of construction management staff who have managed multiple other federal and state grant awards	Low