

FINDING OF NO SIGNIFICANT IMPACT

South Unit Loop Road Reconstruction Project Environmental Assessment

US Department of the Interior
National Park Service
Theodore Roosevelt National Park

April 2022

BACKGROUND

Landslides of various magnitudes and poor subgrade material have caused sections of Scenic Loop Drive between mile marker 22 and mile marker 28 in the South Unit of Theodore Roosevelt National Park (park) to fail for many years. A 150-foot section of Scenic Loop Drive collapsed in spring 2019, requiring closure of the roadway, and subsequent sinkholes in the road have required further closures. These road closures have adversely affected visitor enjoyment of the area and the National Park Service's (NPS) ability to provide visitor services because portions of the road are currently unstable, inaccessible, and unsafe. In fall 2019, the park found two other areas of potential roadway failure at Scoria Point and West Ridgeline, with other areas of concern identified. These areas of concern showed continued deterioration when reassessed in winter 2019-2020.

Geotechnical and pavement engineering studies along Scenic Loop Drive have recommended approximately 6.15 miles of roadway for reconstruction, including bank stability repairs, roadway deep patches, drainage improvements, and slope regrading (Shannon and Wilson 2020). Pavement damage is prevalent in the form of depressions and cracking, which is likely due to unstable slopes, pumping of subgrade over impermeable clays, dissolution voids in embankment fill and the subsequent piping of fine fill material, and poor subgrade soils.

Additionally, evidence of embankment failures and slow downslope soil movement is found at several locations in the form of erosion, unstable slopes, and unstable trees. Historically, sections of the Scenic Loop Drive have failed because of subsurface water conditions and existing culverts that were partially or fully filled with sediment. Several active seeps (i.e., wetlands where groundwater reaches the surface through an aquifer) have been observed, and it is assumed most of the areas displaying embankment failure are experiencing a loss of strength because of high moisture content under the road surface.

Stabilizing sections of the Scenic Loop Drive will restore access to park resources in the South Unit by providing a more sustainable roadway that addresses visitor and staff safety, enhances the visitor's experience, improves efficiencies in park operations, and minimizes impacts on natural and cultural resources.

The public was provided an opportunity to comment on the *South Unit Loop Road Reconstruction Project Environmental Assessment* (EA) between February 14 and March 1, 2022 (NPS 2022). A summary of the substantive public comments received and NPS responses to these comments are found in appendix A. Minor modifications to the EA are provided in the errata (appendix B).

SELECTED ALTERNATIVE AND RATIONALE FOR DECISION

NPS analyzed two alternatives in detail in the EA—the no-action alternative and one action alternative. Based on this analysis, NPS selected *Alternative B: Reconstruction of South Unit Loop Road* as the alternative for

implementation because it best meets the purpose of, and need for, action without causing significant impacts on park resources. Alternative B will resolve the degraded road conditions that would otherwise continue under *Alternative A: No Action*. Alternative B will also address unstable slopes, pumping of subgrade over impermeable clays, dissolution voids in embankment fill and the subsequent piping of fine fill material, and poor subgrade soils.

Under the selected alternative, the Federal Highway Administration, Central Federal Lands Highway Division (FHWA-CFLHD) and NPS will reconstruct approximately 6.15 miles of Scenic Loop Drive from mile marker 22 to mile marker 28 for longevity and resilience. The selected alternative includes specific treatment options (roadway reconstruction; subgrade excavation, replacement, and stabilization; drainage improvements; structural improvements; and pull-out area improvements) for repairing this section of the road to address existing problems. These treatment options are based on existing data, geological and soil studies, field exploration, survey and mapping of surface features, groundwater and hydraulics analyses, geotechnical analysis, and stability analyses. All proposed treatment options will occur within the project area, with possible exceptions for stormwater drainage requirements.

The selected alternative also includes landslide mitigation and minimization measures, such as stabilization, that will protect natural aesthetics and reduce environmental impacts. Programmatic actions, or other means to address future maintenance and repair of the road in the project area, will be implemented. The Council on Environmental Quality (CEQ) defines “programmatic” as any broad or high-level analysis that assesses the environmental impacts of proposed policies, plans, programs, or projects implemented by subsequent actions (CEQ 2014). Programmatic actions under the selected alternative will include, but will not be limited to, conducting roadway condition assessments, filling cracked pavement, repaving sections of road surface, repairing deteriorating culverts, removing eroded sediment from the road surface and culverts, restoring riprap (human-placed rock or other material used to protect shorelines against scour or erosion) and retaining walls, monitoring historic structures, and tracking the effectiveness of revegetation.

More detail on the selected alternative and other alternatives considered are described in section 2, page 8, of the EA. In keeping with the NPS *Management Policies 2006*, a *Non-Impairment Determination* for the selected alternative was also prepared (appendix C).

STIPULATIONS AND MITIGATION

NPS places strong emphasis on avoiding, minimizing, and mitigating potentially adverse environmental impacts. Therefore, NPS will implement multiple stipulations and mitigation measures to protect the natural and cultural resources that the project could affect. These stipulations and mitigation measures are described in section 2.4, page 16, of the EA.

SIGNIFICANCE CRITERIA REVIEW

Potentially Affected Environment

The potentially affected environment covers approximately 300 acres within the 70,447-acre park and spans approximately 6.15 miles of Scenic Loop Drive, located southeast of East River Road, and approximately 6.5 miles from Medora, North Dakota. The potentially affected environment also consists of a 400-foot-wide corridor (i.e., approximately 200 feet from the centerline on each side of the road). The potentially affected environment may include several locations beyond the 400-foot-wide corridor to allow for adequate stormwater drainage based on hydraulics, erosion, geotechnical, and slope stability analysis.

Degree of Effects of the Action

NPS considered the following actual or potential project impacts in evaluating the degree of the effects (40 Code of Federal Regulations [CFR] 1501.3(b)(2)) for the selected action.

a. Beneficial and adverse, and short- and long-term effects of the proposed action.

Cultural Resources

The selected alternative will have beneficial impacts on three stone arch culverts (Feature Nos. 2, 3, and 29) because work will be conducted to reestablish the channel, clear sediment that has built up in the culverts, remove accumulated vegetation around the edges of the openings, and repair headwalls where mortar has been damaged. This work will improve water flow through the culverts and prevent further silting at each site, which will result in the long-term preservation of these structures. Reconstruction of the 6.15 miles of Scenic Loop Drive will not adversely affect the visual quality of the historic district or known archeological resources in the project area.

However, the selected alternative will adversely affect the design, workmanship, and materials of the Scenic Loop Drive Historic District and six contributing culverts (Feature Nos. 9, 16-18, 26, and 28) in the long-term because these culverts will require upsizing of culvert pipes and reassembly of stone headwalls and these features would be permanently changed. Feature Nos. 10, 24, and 25 will also be adversely affected because each site will be redesigned with new pipes to provide proper drainage. Adverse impacts on 11 other culverts (Feature Nos. 4-6, 8, 11-14, 15, 23 and 27) will be minimized by replacing culverts with the same size pipe, pipe alignment, and intakes/outlets as the original culvert pipe. Depending on their condition, the stone headwalls will be rehabilitated or repaired according to the *Secretary of the Interior's Standards for the Treatment of Historic Properties*, which will also minimize adverse effects.

Geology and Soils

Following the completion of construction under the selected alternative, the stability of geological features and soils in the project area will be improved because soils will be reinforced with geosynthetic materials, such as permeable fabrics, as part of the roadway design and backfilled with granular material, resulting in long-term, beneficial impacts. Furthermore, installing adequate stormwater drainage will minimize areas contributing to surface runoff and erosion throughout the project area, which will stabilize geology and soils and have a long-term, beneficial impact.

However, increased disturbance, exposure, and excavation during construction will adversely affect geology and soils in the project area in the short-term, lasting the duration of construction. New impervious surfaces (i.e., repaired roadways and pullouts) and the use of construction equipment could also have a long-term, adverse impact on geology and soils from soil compaction.

Paleontological Resources

Road reconstruction, slope stabilization, and drainage improvements could disturb non-renewable paleontological resources in the project area, while excavation activities could lead to the disturbance or loss of fossils under the selected alternative. If disturbance and/or loss occurs, the impact will be long-term and adverse from the damage incurred by individual fossils as these impacts are irreversible. Construction monitoring performed by a qualified paleontologist will reduce the potential for adverse impacts because specimens found will be collected and preserved. To help protect the context and integrity of paleontological resources in the project area, FHWA-CFLHD-approved engineering fill used for slope stabilization and roadway reconstruction that has been determined to be free of fossils will be obtained from an off-site source to prevent new fossils from being introduced that are not in natural geologic context within the park.

Visitor Use and Experience

The selected alternative will improve visitor access to the project area and enhance the overall visitor experience throughout the South Unit of the park by returning the scenic route to a 35-mile loop, as intended. The selected alternative will also eliminate unstable, inaccessible, and unsafe road conditions, thus improving visitor safety and resulting in long-term, beneficial impacts on the visitor experience. The pullout areas will be expanded slightly, which will increase opportunities for visitors to safely view the landscape and rest. Parking stalls will be delineated at the pullouts, and some additional parking will be constructed, providing visitors with enhanced access and reducing conflicts between vehicles. Accessibility will be improved, including parking for persons with disabilities, by reducing the grade at ramps in parking or pull-out areas. Emergency access will also be improved because reopening the loop will allow emergency vehicles to access the far end of Scenic Loop Drive quickly, and delineated pullout areas will allow vehicles to pull-over for emergency response personnel.

However, short-term, adverse impacts on visitor use and experience will occur during construction under the selected alternative. Visitor access to the project area will remain closed throughout the duration of project implementation. The approximately 6.15-mile project area will serve as a staging area during construction to ensure park visitors remain safe. It is anticipated that construction activities will occur during the spring, summer, and fall, with required tree removal conducted in the winter, over the course of two years. Traffic will temporarily increase during construction activities along the 6.5-mile section of East River Road between the park entrance station and the west end of the project area during the construction period. Visitors will still have access to nearly 22.5 miles of Scenic Loop Drive, as well as other roads in the park. The only designated trail within the project area, Ridgeline Nature Trail, will remain closed during construction for visitor safety and to avoid visitors experiencing visual and auditory disturbances from construction.

Water Resources

The selected alternative will restore streams to pre-roadway embankment failure conditions to maintain the free flow of surface water along the streambeds, resulting in long-term, beneficial impacts (e.g., reduction of erosion and sedimentation) on water resources.

However, the installation of new stormwater infrastructure or culverts under the road will temporarily affect stream segments in the project area. While several stream segments are located in the project area, short-term, adverse impacts (e.g., erosion, sedimentation, water quality) will be limited to the segments of 10 streams that cross the existing roadway. Impacts in these areas, including those near roadway embankment failures, are expected to be minimal based on the size, location, and type (ephemeral) of each stream segment and would occur during the construction period. Long-term, adverse impacts on streams and water quality during construction are not expected.

Under the selected alternative, best management practices will be implemented for drainage and sediment control to prevent or reduce nonpoint source pollution that could affect water quality and minimize soil loss and sedimentation in drainage areas. These practices may include, but are not limited to, silt fencing, filter fabric, temporary sediment ponds, check dams of pea gravel-filled burlap bags or other material, and/or immediate mulching of exposed areas to minimize sedimentation and turbidity impacts as a result of construction activities

The total area of impacted wetlands under the selected alternative will be 0.06 acres. Following construction and grading associated with the road repairs, the ground surface/contours of the area within and adjacent to wetlands will be restored.

b. Degree to which the proposed action affects public health and safety.

Any risks to public health and safety during implementation of the selected alternative from additional traffic to and from the project area, as well as the use of heavy equipment within the project area, will be minimized or avoided through the following actions:

- Informing visitors in advance of construction activities via multiple methods, including the park’s website, various signs, and at the visitor center. Having park staff available to address visitor questions during construction and providing regular updates to the public about project progress and any associated delays;
- Coordinating with the City of Medora and North Dakota Department of Transportation on installing appropriate signage regarding construction routes for public safety;
- Developing provisions for emergency vehicle access through construction zones; and
- Developing a cohesive aesthetic treatment plan throughout the project area corridor where treatments, like retaining walls, are visible.

Details on health and safety measures (including emergency management procedures) will be specified further in the project implementation plan.

c. Effects that would violate federal, state, tribal, or local law protecting the environment.

The selected alternative does not threaten or violate applicable federal, state, or local environmental laws or requirements imposed for the protection of the environment. A detailed description of consultation and coordination efforts for the project can be found in section 4, page 44, of the EA. A brief summary of those efforts is found below.

NPS initiated consultation with the US Fish and Wildlife Service (USFWS) on December 16, 2021, requesting concurrence with the park’s recommendation that the selected alternative “may affect, but is not likely to adversely affect” northern long-eared bat and describing the mitigation measures that will be implemented to avoid impacts on golden eagle and bald eagle nesting habitats. Furthermore, the park requested concurrence that there will be “no effect” on the endangered whooping crane and the candidate-for-listing monarch butterfly since there is no suitable habitat for either species within the project area. USFWS concurred with these recommendations and mitigation measures in a letter to the park superintendent, dated January 12, 2022 (USFWS 2022).

Related to water quality, NPS has initiated obtaining permits under Section 404 and 401 of the Clean Water Act. In compliance with Section 402 of the Clean Water Act a National Pollutant Discharge Elimination System Permit will also be obtained.

NPS also initiated consultation with the Advisory Council on Historic Preservation, North Dakota State Historic Preservation Office (North Dakota SHPO), and eight American Indian Tribes. In an e-mail received by NPS on January 21, 2022, the Advisory Council on Historic Preservation declined to participate further in consultation. However, several consultation and coordination efforts have occurred between the NPS, North Dakota SHPO, and American Indian Tribes.

NPS recommended to the North Dakota SHPO archeological site 32BI1195 (lithic scatter) and the portion of the historic district within the project area (32BI1196) as eligible for listing in the National Register of Historic Places. NPS submitted an assessment of effect letter to the North Dakota SHPO for review on December 9, 2021, stating that the project will have an adverse effect on 32BI1196 but not on 32BI1195. The North Dakota SHPO replied on December 13, 2021, with the following (North Dakota SHPO 2021):

We have reviewed ND SHPO Ref.: 21-6285, NHPA H4217, South Unit Scenic Loop Road Repairs Project, Theodore Roosevelt National Park, Billings County, North Dakota. We concur that site 32BI1195 is eligible and that the portion of the site within the area of potential effects does not contribute to its significance. Therefore, the proposed undertaking would have “No Adverse Effect” to 32BI1195. We further concur that site 32BI1196 is eligible for listing and that the undertaking will have an “Adverse Effect” to 32BI1196.

On December 13, 2021, NPS began the process of resolving the adverse effect on 32BI1196 by drafting a memorandum of agreement. NPS solicited the North Dakota SHPO's feedback on the draft memorandum of agreement on December 22, 2021, and held teleconferences and provided e-mail updates on January 20, January 23, February 23, February 24, and March 3, 2022. The stipulations in the *Memorandum of Agreement* (appendix D) have been incorporated into the design documents for the project.

American Indian Tribes were first consulted about the project via letter and e-mail on January 8, 2021. This correspondence discussed the damage to Scenic Loop Drive and its closure, asked tribal partners to identify if they had any concerns about resources along the road, and invited all to participate in a teleconference held on February 4, 2021. Based on these discussions and in preparation of NPS-Midwest Archeological Center's pedestrian survey of the project area in July 2021, the Standing Rock Sioux Tribe provided a tribal resource monitor to help NPS assess potential impacts on tribal resources.

A second consultation period occurred between NPS and the Tribes on September 14, 2021, via e-mail. NPS again requested participation from tribal partners during another archeological survey and a wetland delineation in October 2021. On December 14, 2021, NPS sent all Tribes an e-mail and a letter identifying that the selected action will have an adverse effect on the 32BI1196 historic district, but no adverse effect on any other historic properties. A series of consultation letters, e-mails, and phone calls were conducted between January 10 and April 11, 2022, with the Tribes to clarify the components of the memorandum of agreement and determine which Tribes will be listed as signatories in the agreement and which will sign as concurring parties, and to identify Tribes that chose not to participate further in consultation. The Standing Rock Sioux Tribe signed the memorandum of agreement as an invited signatory, and the other tribes either requested to not be involved in further consultation or are listed as concurring parties without a signature.

FINDING OF NO SIGNIFICANT IMPACT

- Based on the information contained in the EA, I have determined that the proposed action does not constitute a major federal action having a significant effect on the human environment. Therefore, an environmental impact statement will not be required.
- This finding is based on consideration of the Council on Environmental Quality criteria for significance (40 CFR 1501.3 [b] [2020]), regarding the *potentially affected environment* and *degrees of effects* of the impacts described in the EA (which is hereby incorporated by reference).

Recommended:

ANGELA RICHMAN  Digitally signed by ANGELA RICHMAN
Date: 2022.04.11 17:48:32 -06'00'

Angela Richman, Acting Superintendent
Theodore Roosevelt National Park
National Park Service

Date

Approved:

Herbert C. Frost, Ph.D.
Regional Director, DOI Regions 3, 4, 5
National Park Service

Date

REFERENCES

Council on Environmental Quality, Executive Office of the President (CEQ)

- 2014 Memorandum for Heads of Federal Departments and Agencies: Effective Use of Programmatic NEPA Reviews. Executive Office of the President Council on Environmental Quality. December 18, 2014.

National Park Service, US Department of the Interior (NPS)

- 2022 *South Unit Loop Road Reconstruction Project Environmental Assessment*.
<https://parkplanning.nps.gov/THROSouthLoopRoadEA>

North Dakota State Historic Preservation Office (North Dakota SHPO)

- 2021 ND SHPO Ref.: 21-6285, NHPA H4217, South Unit Scenic Loop Road Repairs Project, Theodore Roosevelt National Park, Billings County, North Dakota.

Shannon and Wilson

- 2020 Geotechnical Design Report for South Unit Scenic Loop, Billings County, North Dakota. Submitted to HDR Engineering, Inc.

US Fish and Wildlife Service (USFWS)

- 2022 Informal consultation letter concerning the northern long-eared bat, golden eagle, whooping crane, and monarch butterfly and repairs to a segment of Scenic Loop Road at Theodore Roosevelt National Park. Executed by Drew Becker, USFWS, on January 12, 2022.

APPENDIX A

Public Comment Summary Report

**South Unit Loop Road Reconstruction Project
Environmental Assessment**

April 2022

US Department of the Interior
National Park Service
Theodore Roosevelt National Park
North Dakota



Theodore Roosevelt National Park

South Unit Loop Road Reconstruction Project
Environmental Assessment

Public Comment Summary Report

March 2022

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INTRODUCTION

The National Park Service (NPS) has developed an environmental assessment for the South Unit Loop Road Reconstruction Project at Theodore Roosevelt National Park (park) that will restore access to park resources in the South Unit by providing a stable and more sustainable section of roadway along Scenic Loop Drive. The project will address visitor and staff safety, enhance the visitor experience, improve efficiencies in park operations, and minimize impacts on natural and cultural resources.

The park released a newsletter for the project on February 14, 2022, announcing the release of the environmental assessment. The newsletter also provided the public with background on the project, the alternatives for the project, potential project impacts, and how the public can comment on the potential action(s). The newsletter was published on the NPS Planning, Environment, and Public Comment (PEPC) website at:

<https://parkplanning.nps.gov/document.cfm?parkID=167&projectID=98177&documentID=118069>.

The public comment period began on February 14, 2022, and ended on March 1, 2022. The NPS held a virtual public meeting on February 23, 2022 to further solicit public comments. Any comments received during the virtual public meeting, entered into PEPC, e-mails sent to park staff, and written comments mailed to park headquarters were considered and included in the overall project record. This *Public Comment Summary Report* provides a summary of the substantive concerns expressed during the public comment period.

DEFINITION OF TERMS

Correspondence: Correspondence is the entire document received from a commenter and includes letters, e-mails, comments entered directly into the PEPC database, and any other written comments provided either at the public meeting or in person at the park.

Comment: A comment is a portion of text within a correspondence that addresses a single subject such as “Paleontological Resources.” The comment could also question the accuracy of the information provided in the newsletter, question the adequacy of any background information, or present issues other than those contained in the newsletter or environmental assessment.

Code: A code is a grouping of comments centered on a common subject, such as “Alternative 2.” The codes were developed by NPS and used to track major subjects found in the newsletter and environmental assessment. In cases where no comments are received on an issue, the code is not identified or discussed in this report.

COMMENT ANALYSIS METHODOLOGY

Comment analysis is a process used to compile and correlate similar comments into a usable format for decision makers and the project interdisciplinary planning team. Comment analysis assists the NPS in organizing, clarifying, and addressing information pursuant to National Environmental Policy Act regulations. It also aids in identifying the topics and issues to be evaluated and considered throughout the planning process.

The process includes five main components:

- developing a coding structure
- employing a comment database for comment management
- reading and coding of comments
- interpreting and analyzing the comments to identify issues and themes

- preparing a comment summary report

A coding structure was developed to help sort comments into logical groups by topic and issue. NPS derived the coding structure from an analysis of the range of topics discussed in the newsletter and environmental assessment, past planning documents, and the comments themselves. The coding structure was designed to capture the content of the comments rather than to restrict or exclude any ideas.

The NPS PEPC database was used to manage the comments. The database stores the full text of all correspondence and allows each comment to be coded by topic and issue. The database tallies the total number of correspondences and comments received, can sort and report comments by a particular topic or issue, and provides demographic information on the sources of each comment.

Analysis of the public comments involved assigning codes to statements made in correspondences uploaded to the NPS PEPC database. All comments were read and analyzed, including those of a technical nature, opinions, suggestions, and comments of a personal or philosophical nature.

Under each code, all comments were grouped by similar themes. Although the analysis process attempts to capture the full range of public concerns, this report should be used with caution. *Comments from people who chose to respond do not necessarily represent the sentiments of the entire public.*

CONTENT ANALYSIS TABLES

The following tables were produced by the NPS PEPC database and provide information about the numbers and types of correspondence received, organized by code and by various demographics. Data on the number of correspondences received by correspondence type, organization type, state, and country are presented.

Also included below is a table detailing the number of comments identified by code. A total of 31 individual comments were derived from the 17 correspondences received.

TABLE 1. CORRESPONDENCE DISTRIBUTION BY CORRESPONDENCE TYPE

Correspondence Type	Correspondences
Web Form	17

TABLE 2. CORRESPONDENCE DISTRIBUTION BY ORGANIZATION TYPE

Organization Type	Correspondences
Unaffiliated Individual	17

TABLE 3. CORRESPONDENCE DISTRIBUTION BY STATE

State	Correspondences
ND	13
MN	2
NC	1
CA	1

TABLE 4. CORRESPONDENCE DISTRIBUTION BY COUNTRY

Country	Correspondences
USA	17

TABLE 5. COMMENT DISTRIBUTION BY CODE

Code	Description	Comments	Percentage
AL2100	Alternative 2 - Support	8	25.8%
GN1000	General Support	8	25.8%
IS4000	Issues & Impacts: Visitor Use and Experience	7	22.6%
ON1000	Other NEPA	3	9.7%
AL2000	Alternative 2 - Action Alternative / Proposed Action	3	9.7%
IS3000	Issues & Impacts: Paleontological Resources	1	3.2%
IS6000	Issues & Impacts: Other Resources	1	3.2%
TOTAL		31	100%

SUMMARY OF COMMENTS

The majority of comments received during the public comment period expressed support for the project. In many instances, the comments specifically supported implementation of alternative 2 (i.e., the NPS’ selected alternative) as it was described in the environmental assessment. No comments opposed to the project were received. NPS has provided a response below to *substantive* comments that raise, debate, or question the content of the newsletter or environmental assessment. These responses concern bike lanes, the potential efficacy of the selected alternative, and potential impacts of the project on paleontological resources.

Comment Summary	NPS Response
AL2000 - Alternative 2: Action Alternative / Proposed Action	
One commenter stated that alternative 2 did not contain references to bike lanes. The commenter inquired if the project area will provide a safe route upon completion for a family bike tour with overnight campouts.	Other than the closed section of Scenic Loop Drive (i.e., project area), all roads in the park are currently open to cycling. However, no bike lanes are delineated in the park and road shoulders are absent in some places. Therefore, cyclists should exercise caution as they ride in the park; they will share the narrow roads with large recreational vehicles and other vehicles. Vehicle traffic is heaviest in June, July, August, and September. Cyclists must obey all traffic laws. Further, having a bike lane would require a larger road prism and therefore create more ground disturbance to park resources. Campgrounds do not exist in the project area.

<p>One commenter questioned whether alternative 2 would be effective and a lasting solution since the project area contains unstable soils with a high moisture content. The commenter also inquired whether the limited amount of soil excavation during project implementation is sufficient to maintain soil stability and avoid the recurrence of road failure(s).</p>	<p>The project includes specific treatment options for repairing the closed section of Scenic Loop Drive. These treatment options are based on existing data, geological and soil studies, field exploration, survey and mapping of surface features, groundwater and hydraulics analyses, geotechnical analysis, and stability analyses. Furthermore, approximately 35,000 cubic yards of unstable soil will be excavated and replaced with soil suitable for roadway reconstruction to mitigate future road failure(s).</p>
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IS3000 - Issues & Impacts: Paleontological Resources

<p>One commenter stated that the project area contains fossil-bearing rock (i.e., paleontological resources). The commenter inquired whether visitors ever discover or experience these fossils and stated that the presence of fossils could be problematic for the project.</p>	<p>The project will not result in the impairment of paleontological resources because the project area has been surveyed for these resources. Furthermore, construction monitoring performed by a qualified paleontologist will reduce the potential for adverse impacts because specimens found will be collected and preserved.</p>
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APPENDIX B

Errata

**South Unit Loop Road Reconstruction Project
Environmental Assessment**

April 2022

ERRATA

An errata sheet is necessary for the project because factual corrections need to be made to the *South Unit Loop Road Reconstruction Project Environmental Assessment* (EA). The corrections made herein do not increase the degree of impacts described in the EA or change the determination that no significant impacts will occur under the selected alternative. Existing text to remain in the EA is found in *italics*, additions to the text are underlined, and deleted text is shown in ~~strikeout~~.

Page 9, Section 2.2 - Alternative 1: No Action

Under alternative 1, the approximately ~~6.15-mile~~ 4-mile section of Scenic Loop Drive would remain closed to visitors, erosion would continue to worsen the condition of the roadway, and structural and accessibility issues would remain (figures 4 through 7).

Page 21, Section 2.4.2 - Cultural Resources

Identify and delineate archeological or structural resources near the project area prior to project work. An archeologist who meets the Secretary of the Interior's professional qualification standards would monitor specific areas of ground disturbance indicated by NPS cultural resources staff. A tribal cultural specialist identified through consultation with tribal partners would also be present to monitor ground-disturbing activities, particularly in areas within or adjacent to known archeological sites. A historical landscape architect meeting the Secretary of the Interior's professional qualification standards would be present in certain instances to ensure that preservation efforts on historic culverts, such as repairs of stonework and reconstruction of headwalls, are carried out to maintain the historic character of those resources.

Page 29, Section 3.2.2.2, - Alternative 1 (No Action)

Current management of the project area (i.e., approximately ~~6.15~~ 4 miles of Scenic Loop Drive) would continue under alternative 1.

Page 30, Section 3.2.2.3 - Alternative 2 (Proposed Action and Preferred Alternative)

~~Twenty-three~~ Twenty-four contributing culverts within the historic district would be impacted by alternative 2. ~~Five~~ Six contributing culverts (Feature Nos. 9, 16-18, ~~and 26, and 28~~) would require upsizing of culvert pipes and reassembly of stone headwalls that would adversely affect the design, workmanship, and materials of these individual resources and the historic district as a whole. Feature Nos. 10, 24, and 25 would be adversely affected because each site would be redesigned with new pipes to provide proper drainage. Adverse impacts on 11 culverts (Feature Nos. 4-6, 8, 11-14, 15, 23 and 27) would be minimized by replacing culverts with the same size pipe, pipe alignment, and intakes/outlets as the original culvert pipe. Depending on their condition, the stone headwalls would be rehabilitated or repaired according to the Secretary of the Interior's Standards for the Treatment of Historic Properties, which would also minimize adverse impacts.

Alternative 2 would have beneficial impacts on ~~four~~ three stone arch culverts (Feature Nos. 2, 3, ~~28~~, and 29) because work would be conducted to reestablish the channel, clear sediment that has built up in the culverts, remove accumulated vegetation around the edges of the openings, and repair headwalls where mortar has been damaged.

Page 54, Section 4.3.3 - Advisory Council on Historic Preservation

The Advisory Council on Historic Preservation was notified using its e106 online system on December 22, 2021, of the determination of adverse impacts to historic properties under the proposed action/preferred alternative. The information shared included a summary of the proposed project, historic properties, assessment of effects, and consultation efforts with North Dakota SHPO and tribes, as described further below. In an e-mail received on January 21, 2022, the Advisory Council on Historic Preservation declined to participate further in consultation.

Page 54, Section 4.4.1 - North Dakota State Historic Preservation Office

On December 13, 2021, NPS began the process of resolving the adverse effect on 32BI1196 by composing a draft memorandum of agreement (appendix B). NPS solicited the North Dakota SHPO's feedback on the draft a draft version of the memorandum of agreement on December 22, 2021, and a teleconference to review and apply edits to the document was conducted on January 20, 2022 and teleconferences and e-mail updates on January 20, January 23, February 23, February 24, and March 3, 2022, were used to review and apply edits to the document was conducted on January 20, 2022. The draft memorandum of agreement included in this EA incorporates information provided by the North Dakota SHPO, but the final agreement will include any information provided during public comment for this EA. NPS has been making efforts to avoid and minimize disturbance to 32BI1196 throughout the design process. This includes preserving contributing features of the historic district, where possible. However, efforts to resolve the adverse effect, including mitigation measures, are incorporated into the draft memorandum of agreement and it contains input from various experts on historic preservation within NPS and consultation with the North Dakota SHPO. The stipulations in the draft memorandum of agreement have been incorporated into design documents, and all measures would be conducted with construction funding for the project.

Page 56, Section 4.5 - American Indian Tribes

On December 22, 2021, all tribes were sent e-mails and letters notifying them of NPS' plan to draft a memorandum of agreement to resolve the adverse effect to 32BI1196. Included in the e-mail was a copy of the draft final historic architecture report for 32BI1196, a draft memorandum of agreement, and a request for the tribes to confirm their participation further as concurring parties and potential signatories on the agreement. A series of consultation letters, e-mails, and phone calls were conducted between January 10 and March 3, 2022, with the tribes to clarify the components of the memorandum of agreement and determine which tribes would be listed as signatories in the agreement and which that would sign as concurring parties, and to identify Tribes that chose not to participate further in consultation. On January 10, 2022, the Blackfeet Tribe contacted NPS and noted they had decided not to participate in development of the memorandum of agreement. All tribes are listed as concurring parties at the end of the memorandum of agreement, although to date none have indicated a preference to sign the document. The agreement includes the Standing Rock Sioux Tribe as an invited signatory, in addition to the NPS and North Dakota SHPO. The Crow Tribes, Chippewa Cree Tribe, Fort Peck Assiniboine & Sioux Tribes, Spirit Lake Tribe of Fort Totten, and the Turtle Mountain Band of Chippewa are listed as concurring parties. The Blackfeet Nation and the Mandan, Hidatsa, and Arikara Nation (Three Affiliated Tribes) requested to not be involved further in consultation.

APPENDIX C

Non-Impairment Determination

**South Unit Loop Road Reconstruction Project
Environmental Assessment**

April 2022

NON-IMPAIRMENT DETERMINATION

National Park Service (NPS) *Management Policies 2006* (section 1.4) require analysis of potential effects to determine whether or not proposed actions will impair a national park's resources and values. NPS decision makers must always seek ways to avoid or to minimize, to the greatest degree practicable, adverse impacts on park resources and values. NPS has the management discretion to allow impacts on park resources and values when necessary and appropriate to fulfill the purposes of the park, although that discretion is limited by the statutory requirement that NPS must leave resources and values unimpaired unless a particular law directly and specifically prescribes otherwise.

An impairment is an impact that, in the professional judgment of the responsible NPS decision maker, will harm the integrity of park resources or values, including the opportunities that otherwise will be present for the enjoyment of those resources or values. An impact on any park resource or value may, but does not necessarily, constitute impairment. An impact will be more likely to constitute impairment to the extent that it affects a resource or value whose conservation is:

- necessary to fulfill specific purposes identified in the establishing legislation or proclamation of the park, or
- key to the natural or cultural integrity of the park or to opportunities for enjoyment of the park, or
- identified in the park's general management plan or other relevant NPS planning documents as being of significance.

An impact may be less likely to constitute impairment if it is an unavoidable result of an action necessary to preserve or restore the integrity of park resources or values, and it cannot be further mitigated. Impairment may result from visitor activities; NPS administrative activities; or activities undertaken by concessioners, contractors, and others operating in the park. Impairment may also result from sources or activities outside the park.

An impairment determination is not made for subject matters such as visitor experience, public health and safety, socioeconomics, environmental justice, land use, and park operations because impairment determinations only relate to resources and values that maintain the park's purpose and significance.

The consideration of impairment to resources at Theodore Roosevelt National Park (park) applies to the remaining resources evaluated in the *South Unit Loop Road Reconstruction Project Environmental Assessment* (EA). Additionally, this determination applies only to NPS lands.

CULTURAL RESOURCES

The *Foundation Document* (2014) for the park states that "Depression-era cultural resources built by the Civilian Conservation Corps (CCC) and Works Progress Administration (WPA) are important historic resources eligible for listing in the national register [and archeological] sites provide an outstanding database for the study of cultural change in the region" (page 10). Furthermore, the park's *General Management Plan* (1984) states that "any activity in an area not previously surveyed that requires ground disturbance will first need an archeological inspection to prevent destruction of prehistoric or historic sites and artifacts. If cultural resources are or might be present, consultation would be conducted with the North Dakota State Historic Preservation Officer [North Dakota SHPO] and the Advisory Council on Historic Preservation" (page 44). Through a survey of the built environment, archeological surveys, and consultation with the North Dakota SHPO, Advisory Council on Historic Preservation, and American Indian Tribes, NPS has determined that the selected alternative will not result in the impairment of the cultural resources in the project area.

Although the selected alternative will adversely affect the design, workmanship, and materials of the historic district and 24 contributing culverts. Six contributing culverts (Feature Nos. 9, 16-18, 26, and 28) would require upsizing of culvert pipes and reassembly of stone headwalls that would adversely affect the design, workmanship, and materials of these individual resources and the historic district as a whole. Feature Nos. 10, 24, 25, and 28 would be adversely affected because each feature would be redesigned with new pipes to provide proper drainage. Adverse impacts on 11 culverts (Feature Nos. 4-6, 8, 11-14, 15, 23 and 27) would be minimized by replacing culverts with the same size pipe, pipe alignment, and intakes/outlets as the original culvert pipe. Depending on their condition, the stone headwalls would be rehabilitated or repaired according to the Secretary of the Interior's Standards for the Treatment of Historic Properties, which would also minimize adverse impacts. Rehabilitation and/or repairs to meet the Secretary of the Interior's *Standards for the Treatment of Historic Properties* will ensure the cultural integrity of these resources and the opportunity for visitors to enjoy these historic structures. Furthermore, this adverse effect has been addressed through various mitigation measures listed in appendix D, *Memorandum of Agreement*, attached to the *Finding of No Significant Impact* for the project.

Construction activities under the selected alternative will avoid identified archeological sites, and known archeological resources will be clearly delineated in the project area prior to construction. Continued coordination with the North Dakota SHPO and American Indian Tribes during construction will also minimize or mitigate adverse impacts on these resources.

GEOLOGY AND SOILS

Both the park's *Foundation Document* (2014) and *General Management Plan* (1984) state that geological formations in the park tend to be soft and erosive which causes sinkholes, hillside slumping, and landslides, resulting in damage to park roads, trails, and structures (pages 16 and 34, respectively). The selected alternative will not result in the impairment of the park's geology and soils because soil removal, compaction, and soil structure modification will be limited to the project area. The natural integrity of this resource will also not be harmed because the stability of geological features and soils in the project area will be improved using soils that have been reinforced with geosynthetic materials and backfilled with granular material. Furthermore, new stormwater drainage infrastructure and the implementation of erosion control techniques (e.g., silt fences and tarps) that provide for soil stability and prevent movement of soils during rain events will maintain the integrity of soils.

PALEONTOLOGICAL RESOURCES

The park's *Foundation Document* (2014) states that the park "contains a variety of Paleocene fossils, including the third largest concentration of petrified wood in the national park system, [and] vertebrates such as the aquatic reptile *Champsosaurus*, invertebrates, and plants" (page 9). The selected alternative will not result in the impairment of the park's paleontological resources because the project area has been surveyed for these resources. Furthermore, construction monitoring performed by a qualified paleontologist will reduce the potential for adverse impacts. All specimens found will be collected and preserved. To help protect the context and integrity of paleontological resources in the project area, FHWA-CFLHD-approved engineering fill will be used for slope stabilization and roadway reconstruction. This fill will be obtained from fossil-free sources to avoid introducing new fossils to the project area that are not in natural geologic context within the park.

WATER RESOURCES

The *Foundation Document* (2014) notes that the Little Missouri River is the park's primary surface water resource and serves "a critical role in the health of the park's ecosystem" (page 8). Furthermore, the *General*

Management Plan (1984) states that the park's "groundwater aquifers and surface waters [are] threatened by energy development and chemical transportation on highways and railroads within the Little Missouri River Watershed" (page 39). The selected alternative will not contribute to, or result in, the impairment of the Little Missouri River or water resources in the project area from these known threats.

The selected alternative will restore streams to pre-road embankment failure conditions to maintain the free-flow of surface water along streambeds, which will substantially reduce erosion and sedimentation of water resources and enhance the natural integrity of this resource. Qualified NPS staff or certified wetland scientists will also identify and clearly mark wetlands before construction activities occur to ensure that these activities will not damage delineated wetlands. Other mitigation measures, such as dust control and implementation of a stormwater pollution prevention plan, will ensure no impairment occurs to water resources.

CONCLUSION

NPS has determined that implementation of the selected alternative will not constitute an impairment of the resources or values of the park. This conclusion is based on consideration of the park's purpose and significance, a thorough analysis of the environmental impacts described in the EA, comments provided by consulting agencies and the general public, and the professional judgement of the decision maker guided by the direction of the NPS *Management Policies 2006*.

APPENDIX D

Memorandum of Agreement

**South Unit Loop Road Reconstruction Project
Environmental Assessment**

April 2022

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

WHEREAS, Theodore Roosevelt National Park (THRO) is a unit of the National Park Service (NPS) within Interior Region 5 in the state of North Dakota, and the NPS is charged to meet the directives of the NPS Organic Act of 1916 (PL 64-235, 39 Stat. 535) to “conserve the scenery and the natural and historic objects and the wildlife therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations,” as it applies to the park units; and

WHEREAS, NPS plans to repair and improve 6.15 miles of the South Unit Scenic Loop Road (Loop Road); and

WHEREAS, NPS initiated consultation with traditionally associated American Indian tribes and other groups (Tribes) on January 8, 2021 and continued consultations through March 11, 2022, and has involved the public through the public comment process of the National Environmental Quality Act, and NPS will maintain ongoing consultation with all parties as required, including the following Tribes: Blackfeet Nation, Crow Tribe, Chippewa Cree Tribe; Mandan, Hidatsa, and Arikara Nation (Three Affiliated Tribes), Fort Peck Assiniboine & Sioux Tribes, Spirit Lake Tribe, Standing Rock Sioux Tribe, and Turtle Mountain Band of Chippewa, and have invited the Tribes as concurring parties to this Memorandum of Agreement (Agreement) document; and

WHEREAS, NPS has developed the *Theodore Roosevelt National Park South Unit Loop Road Reconstruction Project Environmental Assessment* as part of compliance with the National Environmental Policy Act, and that this action constitutes an Undertaking as defined by the implementing regulations for Section 106 of the National Historic Preservation Act (NHPA), as amended, 54 USC 306108, and *Protection of Historic Properties*, found at 36 CFR 800 A herein referred to as Section 106 and a summary of the undertaking is provided as Appendix A to this Agreement; and

WHEREAS, the NPS has worked in collaboration with Federal Highway Administration (FHWA) to have the road designed and engineered to meet Park Road Standards; however, the NPS retains responsibility for compliance with Section 106; and

WHEREAS, FHWA, the project designer, agrees that the NPS is the lead federal agency, and FHWA is not an invited signatory to this Agreement; and

WHEREAS, the project is in the South Unit of THRO in Billings County and the NPS has defined the undertaking’s Area of Potential Effect (APE) as a 6.15-mile-long corridor that covers areas within 200 feet of the center line of the road. The APE is illustrated in Appendix B and the APE encompasses all direct, indirect, and cumulative effects of the undertaking; and

WHEREAS, the NPS had cultural resources surveys conducted for the APE as described in *Trip Report, South Unit Loop Road Pedestrian Inventory, Theodore Roosevelt National Park, July*

18-23, 2021 (Moody 2021), Theodore Roosevelt National Park South Unit Loop Road Reconstruction Project: A Class III Inventory and Formal Testing of 32BI1195 in Billings County, North Dakota (Hull 2021), and Theodore Roosevelt South Unit Scenic Loop Drive Reconstruction Project: Class III Cultural Resource Inventory, Billings County, North Dakota (McDonald 2021), and the McDonald reporting recommended that Loop Road (Site 32BI1196) was eligible for listing in the National Register under Criteria A and C; and

WHEREAS, the NPS has determined that the undertaking may adversely affect properties listed in, or eligible for listing in, the NRHP and the NPS has consulted with the North Dakota State Historic Preservation Officer (ND SHPO) pursuant to 36 CFR Part § 800.5(a); and

WHEREAS, the ND SHPO concurred on December 13, 2021 that the project constitutes an Undertaking and that APE encompasses all direct, indirect, and cumulative effects and concurred that 32BI1196 is eligible for listing on the National Register of Historic Places under Criteria A and C; and

WHEREAS, the NPS has determined that the undertaking will adversely affect 32BI1196 pursuant to 36 CFR Part § 800.5(a), and ND SHPO concurred with this assessment on December 13, 2021; and

WHEREAS, the NPS has determined that the undertaking will not adversely affect any other historic properties or potential historic properties as identified in associated reporting (Hull 2021; Moody 2021), and ND SHPO concurred with this assessment on December 13, 2021, though archeological site 32BI1195, which consists of a lithic scatter that overlaps the westernmost parking lot in the project area, is eligible for listing on the National Register of Historic Places under Criterion D but the portion of the site within the APE does not contribute to its significance and thus the undertaking will have no adverse effect to the site, and

WHEREAS, the SHPO is authorized to enter into this Agreement in order to fulfill its role of advising and assisting federal agencies in carrying out their responsibilities under Sections 101 and 106 of the NHPA (36 CFR §§ 800.2[c][1][i] and 800.6[b]), and SHPO is a signatory to this MOA; and

WHEREAS, the Standing Rock Sioux Tribe has requested to be a signatory as part of this Agreement to ensure successful completion of its stipulations and has been welcomed by the NPS and SHPO as a signatory to this MOA; and

WHEREAS, in accordance with 36 CFR § 800.6(a)(1), the NPS notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination December 22, 2021 with specified documentation, and on January 21, 2022, the ACHP informed the NPS that they chose not to participate in the consultation pursuant to 36 CFR § 800.6(a)(1)(iii); and

WHEREAS, pursuant to 36 CFR§800.2(d), the NPS solicited and considered public comment throughout the Section 106 process, utilizing accepted practices including public newsletters, a public meeting, and review of the draft MOA, and no comments or concerns were received; and

WHEREAS, the definitions in this MOA follow 36 CFR § 800.16; and

NOW, THEREFORE, the NPS, the ND SHPO, and the Standing Rock Sioux Tribe agree that should NPS proceed with the undertaking, NPS will ensure that the following stipulations are implemented to take into account the effect of the undertaking on historic properties.

STIPULATIONS

The NPS shall ensure that the following measures are carried out:

I. PROFESSIONAL QUALIFICATIONS

- A. All work carried out pursuant to this MOA shall meet the *Secretary of the Interior's Standards for Archaeology and Historic Preservation*, as per Section 112(a)(1)(A) of the NHPA and § 800.2(a)(1) of the implementing regulations.
- B. All work to address historic structures will be conducted by or under the direct supervision of a Historical Architect or Historical Landscape Architect that meets the Secretary of Interior's Standards for Historic Preservation, Professional Historic Landscape Architect, Historian, or Historic Architect, who are able to demonstrate completion of previous similar research (Appendix C, DO-28, 1997). These include a graduate degree in the associated discipline, demonstrated ability to implement and carry historical research to completion, and at least 36 months of full-time professional experience and/or specialized training including at least 12 months experience and/or specialized training in documentation and evaluation of historic structures. At least two individuals will be identified to conduct field work.
- C. All archeological work shall be conducted by or under the direct supervision of an archeologist who meet the Secretary of the Interior's Professional Qualifications Standards for Archeology (NPS Director's Order-28: Appendix C). These include an advanced degree in archeology, demonstrated ability to implement and carry archeological research to completion, and at least 36 months of full-time professional experience and/or specialized training including at least 12 months experience and/or specialized training in construction monitoring in lands within or adjacent to the Park. At least two individuals will be identified to conduct field work.
- D. All tribal monitoring work shall be conducted by personnel that are qualified and experienced with tribal monitoring for ground disturbing activities in North Dakota and identification of historic properties of traditional cultural significance, preferably with previous experience in the Park. The monitor will be identified through NPS consultation with tribes that are traditionally associated with the Park. Up to two alternate monitors will also be identified to address any personnel shifts or unanticipated logistical challenges or emergencies. Tribal governments will decide, in consultation with the Park, who will perform the work.

II. ROLES AND RESPONSIBILITIES

The signatories and invited signatory agree that NPS is the lead agency for administering and implementing this MOA. These responsibilities include, but are not limited to, consulting and coordinating with the consulting parties, conducting Government-to-Government consultation with the consulting Tribes, overseeing all cultural resources work, assembling all submissions to the consulting parties including cultural resources monitoring and reporting; and seeking SHPO concurrence with all agency compliance decisions. It is anticipated that monitoring and associated documentation, while being overseen by the NPS, would be completed by a qualified contractor working on the construction project, with tribal monitoring provided by tribes traditionally associated with THRO and working under the construction contract.

III. RESOLUTION OF ADVERSE EFFECTS

A. Treatment of Historic Properties

Pursuant to Section 800.6(a) of the NHPA, this document describes measures to be taken to resolve adverse effects to historic properties. This document was developed in consultation with the ND SHPO and tribes that are traditionally associated with THRO. The treatments discussed below focus on the Loop Road historic district 32BI1196, including measures to treat contributing features in the district and associated documentation. Additional measures are provided for conducting archeological and tribal construction monitoring within site 32BI1195, locations where potential resources of traditional significance have been identified, and protection and documentation of any unanticipated discoveries. This document specifies:

- A. The contributing elements of the Loop Road that would be affected by the undertaking where monitoring and documentation would be carried out.
- B. A brief summary of field and laboratory methods to be used.
- C. Specification of the level of effort to be expended on the treatment of the property, including construction monitoring, treatment locations, and methods of documentation.
- D. Guidelines for repair of contributing features of the historic district and placement of new masonry and riprap.
- E. Rehabilitation measures for stone culverts 32BI1196 Features 2, 3 (32BI540), and 29 (32BI541).
- F. Completion of an updated North Dakota Cultural Resources Survey form and National Register of Historic Places nomination form for 32BI1196.
- G. Completion of a Historic American Landscapes Survey (HALS) for the portion of 32BI1196 within the project area.

- H. An updated North Dakota Cultural Resource Survey form for archeological site 32BI1195.
- I. A general schedule to implement cultural resources reporting and reviews.
- J. Procedures for monitoring, evaluating, and treating discoveries of unanticipated or newly identified cultural resources during construction associated with the Undertaking, including consultation with appropriate parties.
- K. A protocol for the treatment of ancestral human remains, if such remains are encountered, describing methods and procedures for the recovery, inventory, treatment, and disposition of ancestral remains, associated and unassociated funerary objects, and objects of tribal patrimony.
- L. An interpretive sign within the project area and an update to the park's website to provide background information on the historic significance of 32BI1196.

The NPS shall ensure that all construction documents include these provisions.

IV. CULTURAL RESOURCES MONITORING GENERAL PROVISIONS

- A. The NPS will ensure that the location of contributing elements of the historic district, archeological sites, and places of potential traditional significance within or adjacent to the project area are incorporated into construction design documents. This process will make sure to safeguard this information to not to identify sensitive resources to personnel not directly involved with the undertaking. Historic features, such as culverts, will be labeled with their associated feature number and associated treatment measure (following Appendix A). Polygons for other resources will be labeled as "Cultural Monitoring Required During Ground Disturbance" and incorporate a buffer of 100 feet. Having the extent of these resources in the designs will allow for more efficient communication and ensure that crew members coordinate with cultural monitors.
- B. Construction crews will notify the NPS 14 calendar days before working within or adjacent to culturally sensitive areas, such as contributing features of the historic district, archeological sites, and locations of potential traditional significance, and shall specify the estimated length of time and extent of ground-disturbing and structural actions (e.g., digging within the road prism or outside of it, estimated depth, removal and reconstruction of culvert headwalls, repairing stone culverts). This information will be shared with the associated historical architecture, archeological, and tribal monitors to determine if their presence is required during construction.
- C. If previously unreported cultural resources are identified during the monitoring, the work shall be halted until the discovery is documented and evaluated for its significance and NRHP eligibility in coordination with the NPS archeologist. Consultation with ND SHPO and Tribes will follow, as appropriate. The NPS will

notify SHPO and Tribes of the discovery following instructions in Stipulation VII of this MOA.

V. HISTORIC DISTRICT TREATMENT, CONSTRUCTION MONITORING, AND REPORTING

- A. The NPS will include the expertise of a historical landscape architect as part of construction design teams and during implementation. This is to ensure requirements to avoid, minimize, and mitigate effects to the historic district 32BI1196 are implemented in the project. The historical landscape architect will be included in the project kick-off meeting to identify contributing features of the district, discuss construction requirements associated with repair and rehabilitation of those features (e.g., masonry requirements to conduct in-kind replacement of stone headwalls), and address questions. The historical landscape architect will also be available for project update meetings and intermittent monitoring of implementation of masonry and similar measures on contributing elements of the district, following recommendations provided in McDonald (2021) and in Appendix A. Findings from these efforts will be incorporated into the regular quality control assessments during construction.
- B. The monitor and construction team will ensure repair of contributing features of the historic district and placement of new masonry and riprap will be designed to minimize the effects to the historic character of contributing culverts, headwalls, rock retaining walls, and the overall historic setting of the district. This includes use of masonry techniques that replicate the aesthetics of existing significant features. Masonry shall utilize techniques that include matching mortar type, composition, color, and joint profile for each feature. Repairs to contributing features and construction of new culvert headwalls and riprap shall incorporate locally sourced sandstone (or stone with similar attributes), reuse historic fabric (e.g., stones, masonry) where possible, rebuild stone headwalls in the same alignment, and place riprap in consideration of visual compatibility with the historic setting.
- C. The project will include rehabilitation measures for stone culvert Features 2, 3 (32BI540), and 29 (32BI541). These structures represent the most aesthetically and technologically impressive and best-preserved examples from the period of significance. Associated treatments include repointing mortar, replacing displaced rocks, removing accumulated sediment, and reducing accumulated hazard fuels in the immediate area.
- D. Any source of building materials will be assessed for potential disturbance to historic properties and fully comply with associated requirements of the National Historic Preservation Act.
- E. The project will include a Historic American Landscapes Survey (HALS) for the portion of the Loop Road within the APE and will ensure it is consistent with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering

Documentation (68 FR No. 139, 44730-34). This will include documentation of contributing features of the historic district prior to and after construction and will include relevant information from the McDonald (2021) reporting, including recommendations for treatment (see Appendix A).

- F. The project will include an update National Register of Historic Places nomination form for 32BI1196, to include changes to the district after construction (especially for repairs to contributing features), and recommendations for further research and treatment, where applicable. This form will incorporate relevant details from the McDonald (2021) reporting and associated North Dakota cultural resources survey form. The form will include a summary of implemented project actions that altered contributing features of the district such as updated photographs, descriptions, location information, and associated narratives.
- G. The project will include an update to the North Dakota Cultural Resources Survey site record form for 32BI1196, to include changes to all contributing features, photos during and after construction, updates to relevant fields in the form for (e.g., feature description, condition, integrity, eligibility, etc.), and recommendations for further research and treatment, where applicable
- H. A summary of HALS documentation, the updated nomination form, and the architectural site record form will be provided after completion of all ground disturbance and modification of contributing features of the historic district. This reporting will be submitted to Theodore Roosevelt National Park, the Midwest Archeological Center, and the ND SHPO for 30-day review and comment. The HALS documentation will be submitted concurrently to the Midwest Regional Office HALS coordinator for 45-day review and comment. All review comments and edits will be integrated into final reporting. As construction is anticipated to last multiple seasons, it is likely the reporting would be submitted in approximately Fall 2024.
- I. Within 30 days of approval of the final report, the NPS shall submit the HALS documentation to the Washington office and the Library of Congress. This includes complying with the archival requirements of the Library of Congress. The NPS is encouraged to contact HALS staff in the Washington office if questions arise. All such items shall be made available to educational institutions and individual scholars for appropriate exhibit and/or research under the operating policies of the NPS.

VI. ARCHEOLOGICAL AND TRIBAL CONSTRUCTION MONITORING

- D. The NPS will ensure that ground disturbance associated with construction within or adjacent archeological site 32BI1195 includes archeological monitoring. Depending on the organizational composition of the contractor providing the monitoring services (i.e., if the archeological work is subcontracted), an Archeological Resources Protection Act permit may be required. If required, this permit will be obtained through the NPS Midwest Archeological Center. All monitoring will

include review of the archeological Phase II investigation findings at the site (Hull 2021), which provides context for surface and subsurface findings. It is anticipated that very minimal cultural materials will be identified during monitoring, as the portion of the site within the APE was determined to be ineligible for the National Register of Historic Places. In particular, intensive surface reconnaissance and a total of 22 shovel test probes (35 cm diameter) and two 1-x-1-m excavation units revealed only a single piece of flaked stone debitage in the APE. An archeological monitor will be on hand for a project kick-off meeting at the project area to identify the location and extent of this resource, provide an educational briefing describing the types of archeological materials that have been found and could be encountered during construction, and provide guidance for protecting and reporting any discoveries during construction. At least two alternative monitors will also be identified to address any personnel shifts or unanticipated logistical challenges or emergencies. The portions of the site outside of the APE will be marked with flagging or plastic fencing to ensure ground disturbance does not occur in these areas. Monitoring will include observation of the ground disturbance during construction and sampling of displaced soils using ¼-inch wire mesh throughout the APE. Once construction reaches the full extent of ground disturbance in any location, with remaining work in that spot limited to construction of the expanded parking area and reconstruction of the road, archeological monitoring during these phases will not be required, unless significant cultural materials are identified. The monitor will be authorized to halt ground disturbing activities within the associated specific location of the findings while recovering materials and data. If through this process minimal or no cultural materials are encountered, the soil sampling may be significantly reduced or discontinued. Monitoring will not be recommended in areas where previous archeological controlled excavations were completed with no associated findings. Monitoring will include digital photographs of construction in progress, diagnostic or rare artifacts not previously documented, archeological screening in progress, and site overviews once construction is complete.

- E. The archeological monitor will complete an update to the North Dakota Cultural Resources Survey site record form for 32BI1195 to reflect monitoring findings and changes, including updates to the site sketch map for construction actions and new findings. The archeological monitor will also compose a report of construction monitoring findings, to include an introduction, project background and summary of findings, field methods, results, and recommendations for further site investigation and management will be included. This reporting will incorporate information from the Hull (2021) report and be submitted to Theodore Roosevelt National Park, NPS Midwest Archeological Center, and the ND SHPO for 30-day review and comment after completion of all ground disturbance within or adjacent to archeological sites. All review comments and edits will be integrated into final reporting. As construction is anticipated to last multiple seasons, it is likely the reporting would be submitted in approximately Fall 2024.
- F. Archeological monitors will consider if artifacts should be collected or left in place based on their potential to address significant research questions or if they represent rare or unique items that would be damaged during construction. Further discussion

on collections may require additional consultation with ND SHPO and the Tribes, as tribes have previously recommended returning materials to the ground, while ND SHPO advocated for collection. An associated collection and discard policy will be integrated into the archeological monitoring contract, and artifact collection will also be discussed with the tribal monitor. All collections will include initial processing at the archeological contractor's facility and will be submitted to Theodore Roosevelt National Park for final curation.

- G. In consultation with tribal partners, the NPS will ensure that road construction within or adjacent to archeological site 32BI1195 and adjacent to resources outside of areas of potential ground disturbance but identified by tribal partners as potential resources of traditional significance will include tribal cultural monitoring. These resources include five large sandstone rocks identified in field studies as "LR 4" and an isolated find consisting of a large sandstone rock with a bowl-shaped depression on one side. All monitoring will include review of the archeological pedestrian survey of the larger project area (Moody 2021) and the Phase II investigation findings at site 32BI1195 (Hull 2021), which provide context for surface and subsurface findings. The tribal monitors will be present during the project kick-off meeting to identify the location and extent of these resources, provide a briefing on traditional use of the area and measures to protect associated resources, and describe the process for protecting and reporting any unanticipated resources. The monitor will be authorized to halt ground disturbing activities within the associated specific location of the findings while recovering materials and data. A summary of field notes and any recommendations for further site treatment will be provided by the tribal monitor to the NPS after completion of all ground disturbance within or adjacent to archeological sites and potential resources of traditional significance. As construction is anticipated to last multiple seasons, it is likely the reporting would be submitted in approximately Fall 2024.
- H. Archeological and tribal monitoring will occur in partnership with construction crews. The NPS and tribes can decide, through discussion with the monitors in the field, if proposed work requires monitoring in certain areas and not in others. This decision will be based on the location of work, findings during previous surveys, and excavations, findings from previous days of monitoring, the extent of ground disturbance, and the nature of proposed work. This will allow for flexibility during the months of implementation of the project and unanticipated challenges such as construction delays, shifts in schedule, and differences in the location, extent, and significance of findings during monitoring.
- I. The NPS, tribes, and construction contractor will ensure that efforts to communicate with the monitors are thorough and that the correct contact information is shared between parties prior to construction. This includes any changes in monitor personnel, as it is anticipated that through the lengthy period of construction there will be shifts in who is conducting the monitoring. Monitors and construction crews should also ensure that monitors are regularly briefed as to the nature of work to occur on a given day and that any change in personnel includes a briefing to that

new person to include personnel contact information, the work location, scheduling, anticipated duration, and previous findings.

- J. If all communication provisions in this agreement are adhered to and the archeological or tribal monitor does not appear for scheduled work, and alternative monitors are not available, the work may proceed. However, the NPS contracting officer shall be notified by the contractor at the start of the workday, and the contractor and contracting officer shall attempt to clarify why the monitor and any alternates were not available and resolve, where possible, any communication or logistical challenges that may have contributed to the monitors' absence. In cases of a monitor being delayed for a reasonable and short-term duration, the contractor and NPS contracting officer shall coordinate to attempt to conduct work in non-sensitive areas not requiring monitoring where feasible, to allow for the monitor to be present during work in sensitive areas. Written documentation of this effort and outcome will be composed by the contractor, monitor, and NPS for project records and to address any lingering issues.

VII. POST REVIEW DISCOVERIES

The NPS shall ensure that all construction documents include the following provisions:

- A. If previously unidentified historic properties or unanticipated effects to historic properties are discovered during construction activities, the contractor shall immediately halt all activity within a 100-foot radius of the discovery, notify the NPS of the discovery, and implement interim measures to protect the discovery from looting and vandalism.
- B. Immediately upon receipt of the notification required in Stipulation VII.A of this document, the NPS shall:
 1. Inspect the site to determine the extent of the discovery and ensure that construction activities have halted.
 2. Clearly mark the area of the discovery.
 3. Implement additional measures, as appropriate, to protect the discovery from looting and vandalism.
 4. Have a qualified subject matter expert (archeologist, architect, etc. as appropriate) inspect the construction site to determine the extent of the discovery and provide recommendations regarding its NRHP eligibility and treatment.
 5. Depending on recommendations from the archeological and/or tribal monitor after discussion with NPS cultural resources personnel, for resources that could potentially be eligible for the NRHP notify ND SHPO. For new findings that are limited to new architectural features associated with the road, notification can be limited to ND SHPO. For any new findings of archeological or traditional cultural value that could be potentially eligible for the NRHP, notify ND SHPO and tribes

traditionally associated with THRO. Notification will include a description of the finding and the measures that have been implemented to comply with Stipulations VII.B.1-4 of this document.

- C. Within 48 hours of receipt of the notification described in Stipulation VII.B.5 of this document, the NPS shall provide the ND SHPO and tribes traditionally associated with THRO with its assessment of the NRHP eligibility of the discovery and the measures it proposes to take to resolve adverse effects. In making its official evaluation, the NPS, in consultation with the ND SHPO and tribes may assume the discovery to be NRHP eligible for the purposes of Section 106 pursuant to 36 CFR Part § 800.13(c). The ND SHPO and tribes shall respond within 48 hours of receipt.
- D. The NPS, which shall take into account the consulting parties' recommendations on eligibility and treatment of the discovery, shall ensure that appropriate actions are carried out and provide the ND SHPO and the other consulting parties with a report on these actions when they have been implemented.
- E. Construction activities may proceed in the discovery area when the NPS has determined that implementation of the actions undertaken to address the discovery pursuant to Stipulation VII.A-D are complete.

VIII. HUMAN REMAINS

To prepare for the unlikely event that human remains are encountered during the undertaking, the NPS will implement an Inadvertent Discovery Plan as part of construction documents, which is included in Appendix C. This includes treating all human remains in a manner consistent with the ACHP's "Policy Statement Regarding Treatment of Burial Sites, Human Remains and Funerary Objects" (February 23, 2007) or ACHP policy in effect at the time remains and funerary artifacts are handled.

- A. If the remains found on federal lands are determined to be of Native American origin, the NPS shall comply with the provisions of the Native American Graves Protection and Repatriation Act (NAGPRA) (25 U.S.C. Sec 3001 et seq.). If the remains are determined not to be of Native American origin, the NPS shall coordinate with North Dakota law enforcement to ensure compliance with the North Dakota Century Code 23-06: Care and Custody of the Dead.
- B. The NPS shall use reasonable efforts to ensure that the general public is excluded from viewing any burial site or associated funerary artifacts. The consulting parties to this Agreement shall release no photographs of any burial site or associated funerary artifacts to the press or general public. The NPS shall notify the tribes when burials, human skeletal remains, or funerary artifacts are encountered on the project.
- C. All remains will be protected in place and treated in a kind and respectful manner. The tribes will be afforded the opportunity to bundle the ancestral remains appropriately based on their traditional knowledge and practices. If through consultation the remains must be removed, such as through implementation of a

NAGPRA plan of action, the remains may be reburied in an appropriate location, determined through consultation, as close to where there were found as possible.

IX. INTERPRETIVE PANEL AND WEBSITE

As part of construction, the NPS will, in consultation with ND SHPO and Tribes, develop and install a professionally designed interpretive panel to communicate the Loop Road's history and significance. The interpretive sign will be installed at former east entrance station parking lot at the east end of the project area adjacent to an existing interpretive sign that discusses the original entrance to the park and construction of the associated road. Placement in this location will provide consistency with the existing sign. The NPS will also update the Theodore Roosevelt National Park website to include a webpage detailing similar information, with associated pictures and links to more information. This may be correlated to similar construction present at other park units completed by the Civilian Conservation Corps in the 1930s-early 1940s. Materials should highlight the stone culverts 32BI540 and 32BI541, particularly for their workmanship and excellent preservation.

X. REVIEW AND COMMENT

The NPS will submit all documentation related to the undertaking (e.g., 32BI1196 records updates and HALS reporting, archeological and tribal construction monitoring findings, etc.) to the consulting parties for review and comment, unless stipulated elsewhere in this MOA. Consulting parties shall have 30 days from receipt to provide written comments. If a party does not comment on a submittal during this period, the NPS will follow-up by telephone or e-mail with the party. If, after such reasonable and good faith efforts to reach an unresponsive consulting party, there has still been no response, the NPS will proceed to the next step.

XI. ANNUAL REPORTING AND REVIEW

- A. Each year following the execution of this Agreement until it expires or is terminated, the NPS will compose an annual letter report (Annual Report) to review the progress under this Agreement and associated treatment measures. The Annual Report will include an update on project schedule, status, and any ongoing cultural resources monitoring or mitigation activities, discovery situations, proposed future actions, or outstanding tasks to be completed under this Agreement. Consulting parties will have 30 calendar days to review the Annual Report and provide comments to the NPS, who will then address the comments. The NPS will share the report with consulting parties to this Agreement and ask if parties are interested in attending a virtual annual meeting.
- B. If an annual meeting is requested by consulting parties, the NPS will address the comments on the annual report to develop the meeting agenda. The meeting shall include a discussion of construction progress, any scheduling changes proposed, any problems encountered, associated findings for any disturbances or enhancements to

historic properties, identification of any new discoveries, and any disputes and objections received in NPS's efforts to carry out the terms of this Agreement.

- C. Within 14 days after the annual meeting, the NPS will summarize the meeting, including proposed action items and how they are to be addressed, in a letter to consulting parties. Consulting parties will have 20 days to review and comment on the meeting notes and, if necessary, provide the NPS with any edits to the meeting notes. If changes are needed, the NPS will produce revised meeting notes within 30 days of receipt of comments and will provide the final notes to the consulting parties.

XII. DISPUTE RESOLUTION

Should any signatory to this Agreement object at any time to any actions proposed or the manner in which the terms of this Agreement are implemented, the NPS shall consult with such party to resolve the objection. If the NPS determines that such objection cannot be resolved, the NPS will:

- A. Forward all documentation relevant to the dispute, including NPS's proposed resolution, to the ACHP. The ACHP shall provide the NPS with its advice on the resolution of the objection within 30 days of receiving adequate documentation. Prior to reaching a final decision on the dispute, the NPS shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP, signatories and concurring parties, and provide them with a copy of this written response. The NPS will then proceed according to its final decision.
- B. If the ACHP does not provide its advice regarding the dispute within the 30-day period, the NPS may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, the NPS shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the Agreement and provide them and the ACHP with a copy of such written response.
- C. The NPS's responsibility to carry out all other actions subject to the terms of this Agreement that are not the subject of the dispute remain unchanged.

XIII. CONFIDENTIALITY

To the maximum extent allowed by federal and state law, the NPS will maintain confidentiality of sensitive information regarding historic properties that could be damaged through looting or disturbance, and/or to help protect a historic property to which a Tribe attaches religious or cultural significance. However, any documents or records the NPS has in its possession are subject to the Freedom of Information Act (FOIA) (5 USC 552 et seq.) and its exemptions, as applicable. The NPS shall evaluate whether a FOIA request for records or documents would involve a sensitive historic property, or a historic property to which a Tribe attaches religious or cultural

significance, and if such documents contain information that the NPS is authorized to withhold from disclosure by other statutes including the Section 304 of the NHPA, as well as the Archeological Resources Protection Act. If this is the case, then the NPS will consult with the Keeper of the National Register of Historic Places and the ACHP regarding withholding the sensitive information. If a Tribally sensitive property is involved, the NPS will also consult with the relevant Tribe prior to making a determination in response to a FOIA request.

XIV. AMENDMENTS

This Agreement may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all the signatories is filed with the ACHP.

XV. TERMINATION

- A. If any signatory to this Agreement determines that its terms will not or cannot be carried out, that party shall immediately consult with the other parties to attempt to develop an amendment per Stipulation XIV of this Agreement. If within 30 days an amendment cannot be reached, any signatory may terminate the Agreement upon written notification to the other signatories and concurring parties.
- B. Once the Agreement is terminated, and prior to work continuing on the undertaking, the NPS must either (a) execute a Memorandum of Agreement pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. The NPS shall notify the signatories as to the course of action it will pursue.

XVI. DURATION

This Agreement will expire if its terms are not carried out within five years from the date of its execution. Prior to such time, the signatories may consult and agree in writing to an extension for carrying out the terms of the Agreement in accordance with Stipulation XIV above.

XVII. ANTI-DEFICIENCY ACT

The NPS's obligations under this Agreement are subject to the availability of appropriated funds, and the stipulations of this Agreement are subject to the provisions of the Anti-Deficiency Act. The NPS shall make reasonable and good faith efforts to secure the necessary funds to implement this Agreement in its entirety. If compliance with the Anti-Deficiency Act alters or impairs the NPS's ability to implement the stipulations of this agreement, the NPS shall consult in accordance with the amendment and termination procedures found at Stipulations XIV and XV of this agreement.

Execution of this Agreement by the NPS, the ND SHPO, and the Standing Rock Sioux Tribe and implementation of its terms are evidence that the NPS has taken into account the effects of this undertaking on historic properties and afforded the ACHP an opportunity to comment, and that the NPS has satisfied its Section 106 responsibilities for the undertaking covered by this Agreement.

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

SIGNATORY:

National Park Service – Theodore Roosevelt National Park

A handwritten signature in cursive script that reads "Angela Richman".

Date 3/11/2022

Angela Richman, THRO Acting Superintendent

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

SIGNATORY:

North Dakota Historic Preservation Officer

 Date 3-15-2022
Bill Peterson, State Historic Preservation Officer

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

SIGNATORY:

Standing Rock Sioux Tribe

_____ Date _____
Janet Alkire, Chairwoman

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

CONCURRING PARTY:

Crow Tribe

_____ Date _____
Aaron Brien, Director Crow Tribal Historic Preservation Office

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

CONCURRING PARTY:

Chippewa Cree Tribe

_____ Date _____
Harlan Gopher Baker, Chairman

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

CONCURRING PARTY:

Fort Peck Assiniboine & Sioux Tribes

_____ Date _____
Floyd Azure, Chairman

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

CONCURRING PARTY:

Spirit Lake Tribe of Fort Totten

_____ Date _____
Douglas Yankton, Sr., Chairman

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

CONCURRING PARTY:

Turtle Mountain Band of Chippewa

_____ Date _____
Jamie Azure, Chairman

**MEMORANDUM OF AGREEMENT
BETWEEN THE NATIONAL PARK SERVICE AT THEODORE ROOSEVELT
NATIONAL PARK, THE NORTH DAKOTA STATE HISTORIC PRESERVATION
OFFICER, AND THE STANDING ROCK SIOUX TRIBE REGARDING THE SOUTH
UNIT SCENIC LOOP ROAD REPAIR PROJECT, BILLINGS COUNTY**

ADDITIONAL CONSULTING PARTIES (DECLINED FURTHER PARTICIPATION):

Blackfeet Nation

_____ Date _____
Timothy Davis, Chairman

Mandan, Hidatsa, and Arikara Nation (Three Affiliated Tribes)

_____ Date _____
Mark N. Fox, Chairman

Appendix A: Description of Undertaking

Introduction

The National Park Service (NPS) proposes to conduct repairs and improvements to the South Unit Scenic Loop Road (Loop Road) at Theodore Roosevelt National Park (Park). Roughly the southern half of the loop has been closed since spring 2019 due to various damages, including collapse of a 150-foot portion of the road. The project area covers the closed approximately 6.15 miles of the road between mile marker 22 and 28 from its junction with the East River Road to the Old East Entrance Station pull off. The road is one of the major attractions of the Park and provides access to the stunning Badlands ecosystem and exciting views present in the area. The project involves various proposed repairs to the road and associated drainage system and parking lots, including some improvements.

Background

The Loop Road was constructed in 1936-1939 largely through cut and fill in the steep Badlands topography and has been afflicted by recurring damages primarily associated with erosion. It includes a complex network of drainage culverts, rundown pipes, curbing, and small ditches. Multiple road repair projects have occurred in the historic and modern eras, with emphasis on fixing locations where the downslope shoulder, partial lane, or entire lane has been displaced. This includes efforts to repair damaged areas in 2001 and 2016. In April 2019, an approximately 150-foot-long section of the road slid. Multiple other areas with similar topography and hydrology were also found to have signs of analogous deterioration. This includes two locations of potential roadway failure at Scoria Point and West Ridgeline, which were identified in fall 2019 and shown to have worsened when reassessed in winter 2019-2020. Additional damages present throughout the project area include pavement cracking, downslope soil movement, embankment failures, unstable trees, and damaged drainage features. Subsequent geotechnical, pavement engineering, visitor use, and hydrological analyses have recommended various repairs and improvements. These include fixing failure points, reconstructing the road with stable subgrade and road base materials, repairing and upgrading drainage systems, constructing retaining walls, expanding parking areas to include accessibility improvements, and repaving to provide long-term solutions to recurring damages. This undertaking has been prioritized by the political leadership in North Dakota, as the road is one of the premier attractions in the state.

Project Undertaking and Area of Potential Effects

The construction extent includes 6.15-miles of road to consist of repairs within the prism, large-scale repair of a large road failure, construction of retaining walls below the road in unstable areas, modification of existing culverts and installation of new culverts, installation of drainage run down pipes below the road prism, and modification of parking areas. The planning and design for the undertaking has included a 400-foot-wide corridor (200 feet on each side of the road centerline) to assess potential effects to resources. However, the anticipated construction extent, and associated ground disturbance, varies widely between project actions and locations and is generally within 50 feet of the centerline. Proposed actions are best summarized in draft schematic design documents that include areas of increased complexity designated as Sites A-D,

F, I-M, and Parking Sites 1-9. Of all proposed actions, only erosion control planned for the large road failure (Site A) extends close to the edge of the 200-foot corridor. Guardrails are also proposed for locations where new walls are proposed. These would be composed of wood posts connected by metal rails that would be 3 feet tall located between the downslope shoulder and the top of the wall. The rails and hardware would be painted with a brown Natina finish.

In general, the minimum extent of disturbance involves removal of the asphalt layer, subbase (primarily scoria), and subgrade to a depth of approximately 1-2 feet below the asphalt, and rebuilding within the same extent with stable soil and subbase gravels and repaving. This is anticipated throughout the project area. The project also plans to install wire mesh exclusion fencing below the subbase in an approximately 0.4-mile-long portion of the road that passes through a prairie dog town at the west end of the project area, which includes a parking lot. The prairie dog town has been present in this location for decades and the animals cause recurring damages by creating holes in the asphalt. The mesh will prevent this process from occurring. The anticipated ground disturbance is 1 foot deep directly below the pavement, though the mesh may extend up to approximately 3 feet from the edge of pavement buried 1 foot deep.

Construction will include removal of vegetation in various locations along the road prism and adjacent areas, particularly for parking lot expansion, new culverts, run down pipes, and reconstruction of road failures. Revegetation and erosion control efforts will be conducted in these areas, with emphasis on replanting native herbaceous plants, shrubs, and trees. Additional measures include placing organic filter fabric, fiber rolls, wooden posts to keep fabric and rolls in place, small earth and rock berms, stone riprap, stone and soil benching, and placement of native slash. Ground disturbance for these actions is anticipated to be a maximum of 1-2 feet below surface.

The project includes nine existing parking areas, of which eight are proposed for improvements. Parking lots proposed for expansion (Sites 1, 3, 4, 6, 7, and 9) would include measures such as increasing the amount of parking spaces, adding pull-through parking for large recreation vehicles (Sites 1, 6, 7, and 9), adding accessible grades and sidewalks (Sites 1, 3, 7, 9), eliminating or reducing small vegetated islands surrounded by existing pavement (Sites 3, 7, and 9), improving trailhead access by paving the heavily eroded starting point (Site 6), ecologically restoring social trails and denuded areas, and constructing or rebuilding retaining walls. Proposed improvements also include six benches, likely composed of sandstone blocks similar to the materials present in the local area, and replacement bear-proof trash cans. New curbing will also be installed and a few parking areas (Sites 1, 2, 4) will have small portions removed and revegetated. The extent of ground disturbance in these areas is anticipated to be a maximum of 2 feet below ground surface. These modifications will only be visible from the local area, but are focal points for visitors.

The project includes installation of various new culverts, upsizing or combining existing culverts, and installing run down pipes. These modifications are proposed in various locations throughout the project area and approximately 64 culverts are already present, with an anticipated 10-15 additional culverts proposed. The necessity to add or upsize culverts or install run down piping was determined based on a hydrological modeling study that considered the upslope watershed, anticipated average rainfall and storm events (including adjustments for climate change), and the condition of existing culverts and any associated upslope or downslope

erosion. Installation of a culvert involves excavating an approximately 3-foot-wide trench across the road prism to a depth of approximately 3-5 feet. A concrete pipe is laid, and inlets and outlets are positioned. In some cases, drop inlets, positioned on the road shoulder, are used, while most culverts have inlets at the edge of the prism. Culvert pipes are anticipated to be 18-30 inches in diameter and existing corrugated metal pipes will be replaced with concrete. In one case, a triple-pipe culvert, consisting of three 18-inch metal corrugated metal pipes connected by an 8-foot-long headwall, will be consolidated into a single 42-inch concrete pipe and associated headwall. Some of the existing inlets and outlets have stacked rock riprap to reduce erosion. These structures will remain in place or be repaired, with associated ground disturbance to 2 feet below surface. In cases where culverts are replaced, if an existing headwall constructed in the historic period is present, it will be rebuilt using the same materials (e.g., sandstone rocks and blocks, mortar) and architectural style (e.g., same positioning and alignment of rocks) to the extent possible. Existing stone culverts that have structural damage (e.g., loose rock, damaged headwalls) or have filled with sediment will be repaired and cleaned out.

Run down pipes are longer than culverts and are placed in locations with significant erosion issues, usually on very steep slopes where the outlet flow has scoured a gully that either has already backed up to the fill slope of the road prism or will erode to that point if left untreated. Various existing run down pipes are present at the road, and consist of corrugated metal placed slightly above or on the ground surface. Proposed new pipes would be buried and surrounded by gravels, rock, and native plants designed to reduce erosion. These pipes may extend to approximately 150 feet from the road centerline. Construction in these very steep areas will require benching the slope to provide stable working conditions for heavy equipment. Access in most cases will be direct from the road in line with the pipe, while in others it may require a slightly displaced route that follows the slope contour more closely. Anticipated ground disturbance for these pipes is a maximum of 2-3 feet below ground surface, though benching may require excavation to 5 feet into the slope. As the heavy equipment is moved back up the slope, the benching will be filled and the grade adjusted to natural contour. Disturbed areas will be revegetated and erosion control measures will be installed.

At least six soldier pile retaining wall segments are planned for portions of the road with signs of displacement of the fill slope and heavy erosion. These areas are identified on the schematics as Sites A, B, C, and F, with a short additional wall proposed between road stations 235 and 245. The length of these walls varies, with the shortest section approximately 40 feet long between stations 235 and 245. The remaining walls include 325 feet at Site A (large road failure), 430 feet at Site B, 400 feet at Site C, and 200 feet at Site F (Scoria Point). These walls will be constructed using steel piles connected by wood lagging. In some cases, the wall will include tiebacks to increase stability. The walls will be a significant departure from the existing design of the road, as the few retaining walls currently present are generally short and composed of dry laid or mortared sandstone rock. The new walls will vary in height, generally 10-20 feet above the surrounding slope. In most cases only the tops of the walls will be visible from the road. However, the wall proposed at Site F will be visible while approaching on the road from the northwest, as here the road turns sharply back toward itself in a deep ravine. Construction of these walls will require removing the road shoulder and some of the fill slope. The steel piles will be driven into the ground to a maximum of 15 feet below the surface and connected with the wood lagging. The fill slope and road would then be rebuilt behind the walls. Drainage measures

such as weep holes and culverts will also be integrated into the design. Alternative wall options were considered as part of project planning, such as colored shotcrete, mortared stone, and concrete, but through the value analysis process were determined to be less desirable, particularly due to concerns about cost, visual impact, and longevity.

The most intensive proposed ground disturbance will be for repair of the portion of the road that has failed at Site A. Here the slope has broken and shifted and only a small portion of the upslope lane remains in its original position. Existing damaged culvert pipes, subbase, and paving will be removed, and the associated damaged areas of the road prism fully excavated to stable sediments or bedrock and rebuilt. The road prism will be supported by the soldier pile wall mentioned above and will include at least one drop inlet and associated culvert. The estimated ground disturbance for reconstruction of the road is 2 to 15 feet below surface. On the slope below, various erosion control measures are also proposed, which extend from the road to the bottom of a natural drainage. The proposed construction area is up to 100-170 feet north of the road centerline. Construction in this area will require benching to support heavy equipment, which will be used to install a culvert pipe that includes a protective rock apron on each end. This rockwork will be lined on the bottom with geotextile fabric. A series of existing gabion baskets at the bottom of the damaged culverts will be removed. The benching will be filled and the grade adjusted to natural contour. Erosion control efforts will include placement of fiber rolls and blanketing, planting, and recurring treatments to ensure vegetation growth and slope stability. Anticipated ground disturbance will be a maximum of 5 feet below surface along the slope for benching, while erosion control efforts will generally require 1-2 feet of disturbance below surface. The resulting site area, with its engineered slope and walls, will look significantly different from the original landscape, though will only be visible from adjacent areas on the road.

The project will involve a combination of heavy equipment and hand tools and will require importing thousands of cubic yards of subbase gravels from existing commercial quarries. Equipment and materials staging will occur along the road and associated parking areas. Thousands of cubic yards of removed asphalt, subbase, filter fabric, rock, vegetation, and culvert pipes will be hauled to an existing disposal facility. This work will include use of the currently closed and open portions of the Loop Road and East River Road, which connects to Medora.

Proposed Actions on Loop Road Historic District (32BI1196)

The significant components of the historic district 32BI1196 include the road itself, 24 contributing culverts and headwalls (including two previously documented stone arch culverts [32BI540 and 32BI541]), and two partially mortared stone retaining walls. The proposed undertaking involves various proposed modifications to the road and historically significant components, in addition to adding various modern features (Table 1). Please note that this table includes both the temporary field designation for the features and the architectural feature number assigned as part of the North Dakota cultural resource survey architectural form for the district. The adverse effect was determined particularly from addition of various retaining walls, replacement of corrugated pipe culverts with concrete, upsizing some culverts, and combining the one triple-pipe culvert into a single large culvert. Notably, the proposed undertaking includes some repairs to historic structures, including 32BI1196 Features 2, 3 (32BI540), and 29 (32BI541), which are the best preserved and largest examples from the period of significance.

This includes repointing mortar, replacing displaced rocks, removing accumulated sediment, and reducing accumulated hazard fuels in the immediate area. Repair actions vary slightly between features.

Table 1. Contributing Features of 32BI1196 (Loop Road) Impacted by the Undertaking.

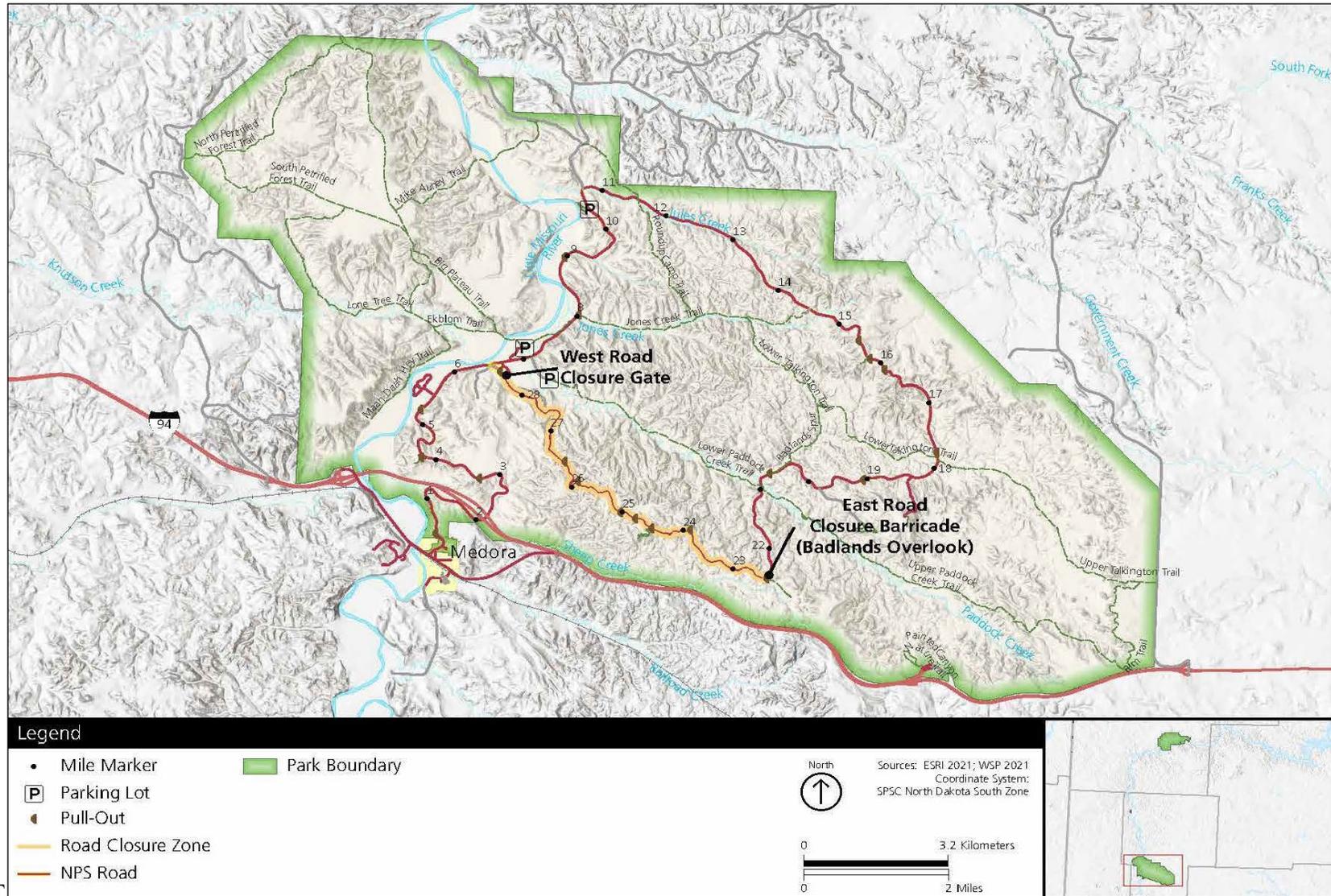
Feature Number	Road Station	Field Designation	Type	Project Activity
2	292+75	THRO LR2	Stone arch culvert	Clean out accumulated sediment, repoint mortar, and return displaced rocks to their original positions
3	288+20	THRO LR2.5 (32BI540)	Stone arch culvert	Clean out accumulated sediment, repoint mortar, and return displaced rocks to their original positions
4	282+92	THRO LR3	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch diameter concrete pipe, rebuild headstone with salvaged stone
5	191+30	THRO LR4	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch diameter concrete pipe, preserve wall as much as possible/repair as needed
6	180+65	THRO LR8	Corrugated metal pipe culvert, 18-inch diameter	Replace with 18-inch concrete pipe, rebuild headwall with salvaged stone
7	178+75	THRO LR5	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch concrete pipe, rebuild headwall with salvaged stone
8	164+45	THRO LR6	Corrugated metal pipe culvert, 36-inch diameter	Replace with 36-inch diameter concrete pipe, rebuild headwall with salvaged stone
9	158+98	THRO LR7	Corrugated metal pipe culvert, 18-inch diameter	Upsize with 24-inch diameter concrete pipe, rebuild headwall with salvaged stone
10	152+29	THRO LR14	Plastic pipe culvert with stone headwall	Heavily damaged surrounding slope, particularly erosion below outlet. Headwall will not be preserved. A pipe run down will be installed in this location, out falling well below the existing outlet, and the existing culvert will be removed.
11	148+73	THRO LR13	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch diameter concrete pipe, rebuild headwall, with salvaged stone, and install riprap on the outlet

Feature Number	Road Station	Field Designation	Type	Project Activity
12	146+64	THRO LR12	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch diameter concrete pipe, rebuild headwall with salvaged stone, install riprap on downstream side and rundowns
13	136+50	THRO LR11	Concrete pipe culvert, 36-inch diameter	Replace with 36-inch diameter concrete pipe, rebuild headwall with salvaged stone
14	134+22	THRO LR10	Concrete pipe culvert, 24-inch diameter	Replace with 24-inch diameter concrete pipe, rebuild headwall on south side with salvaged stone
15	131+70	THRO LR9	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch concrete pipe, rebuild headwall with salvaged stone
16	128+50	THRO LR23	Corrugated metal pipe culvert, unclear diameter (damaged)	Upsize to 30-inch diameter concrete pipe, rebuild headwall with salvaged stone, potentially install additional culverts
17	124+55	THRO LR22	Plastic pipe culvert with stone headwall, unclear diameter (damaged)	Upsize to 30-inch diameter concrete pipe, rebuild headwall with salvaged stone, potentially install additional culverts
18	120+65	THRO LR21	Corrugated metal pipe culvert, 18-inch diameter	Upsize to 24-inch diameter concrete pipe, rebuild headwall with salvaged stone
19	111+50 to 112+00	THRO LR20	Stone retaining wall	Repoint mortar and return any displaced rocks to their original positions
20	110+47	THRO LR19	Corrugated metal pipe culvert, 30-inch diameter	Replace with 30-inch concrete pipe, rebuild headwall with salvaged stone
21	107+40	THRO LR18	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch concrete pipe, rebuild headwall with salvaged stone
22	105+70	THRO LR17	Stone retaining wall (dry laid)	Return any displaced rocks to their original positions
23	97+60	THRO LR16	Corrugated metal pipe culvert, 24-inch diameter	Replace with a 24-inch diameter concrete pipe, rebuild headwall with salvaged stone
24	94+10	THRO LR15	Triple corrugated metal pipe culvert, 18-inch diameter	Replace with single 42-inch diameter concrete pipe or four 18-inch diameter concrete pipes, rebuild headwall with salvaged stone

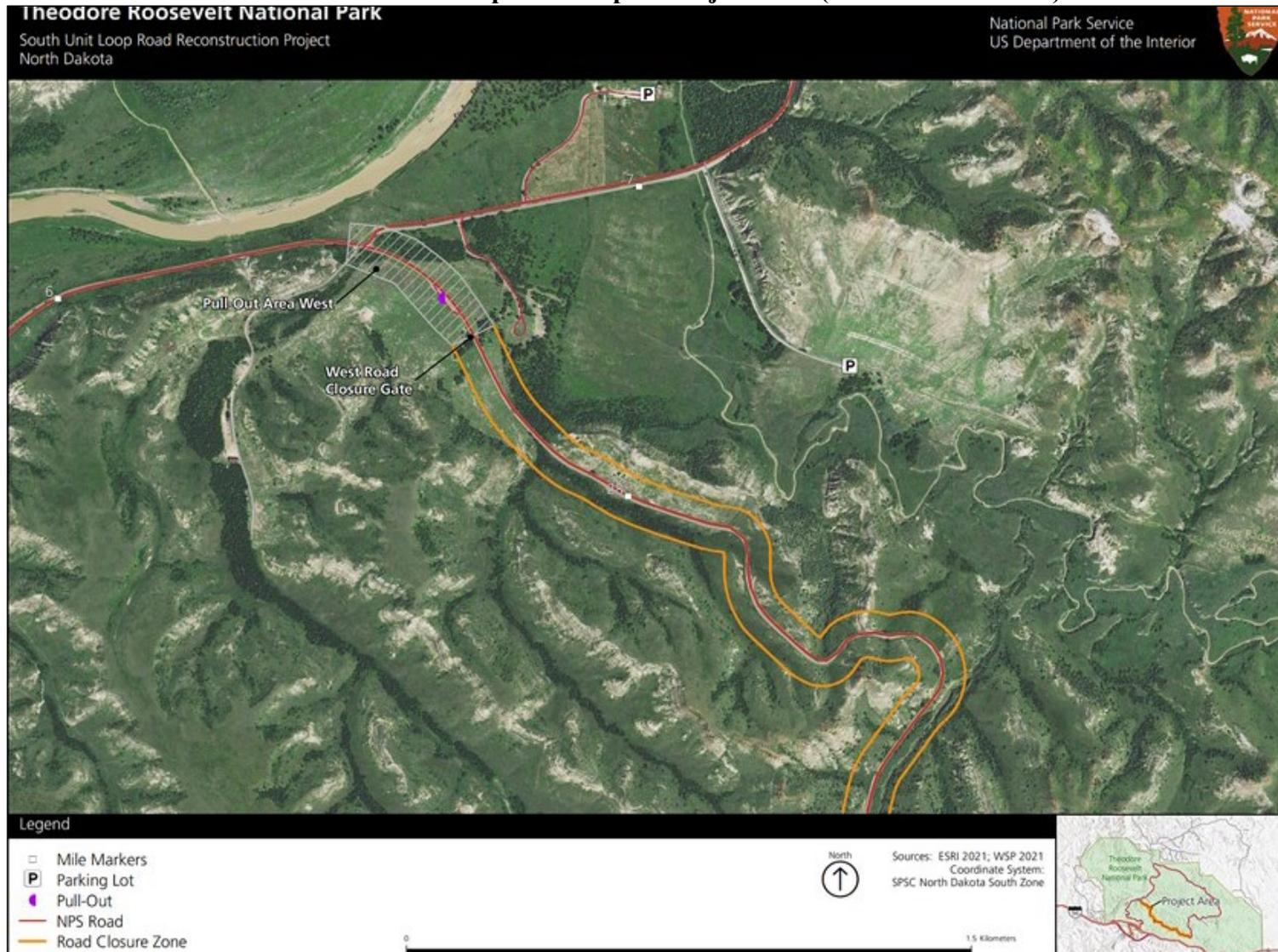
Feature Number	Road Station	Field Designation	Type	Project Activity
25	86+06	THRO LR24	Corrugated metal pipe culvert, 18-inch diameter, with large stone wall on outlet side	Remove culvert, rehabilitate stone wall, and redirect flows to new 24-inch diameter concrete pipe outside of the limits of the existing culvert and associated stone wall
26	85+90	THRO LR25	Corrugated metal pipe culvert, 24-inch diameter	Replace with 24-inch diameter concrete pipe, rebuild headwall with salvaged stone
27	45+40	THRO LR26	Corrugated metal pipe culvert, 18-inch diameter	Replace with 18-inch concrete pipe, rebuild headwall with salvaged stone, and install additional adjacent culvert
28	35+00	THRO LR27	Stone arch culvert	Replace with larger diameter concrete pipe, clean out accumulated sediment, rebuild headwalls with salvaged stone, and salvage interior stones for use on repairing and rebuilding headwalls on other historic culverts
29	191+70	32BI541	Large stone arch culvert	Clean out accumulated sediment, repoint mortar, and return displaced rocks to their original positions
		Scenic Loop Drive Road	Road alignment and associated prism	Replace with new road along same alignment, additional culverts including some drop inlets, install six soldier pile walls with wood lagging, improve and expand Site 7 parking area, place riprap or vegetation in strategic locations to slow stormwater and reduce erosion, and place additional curbing.

The Park and design team advocated for the minimum amount of disturbance to historical components of the district by clarifying the need for drainage improvements and road modifications, particularly installation of the soldier pile walls. This included not installing walls, or construction walls built with shotcrete textured and colored to look similar to the surrounding soils. These options were both determined to result in further deterioration of the road and could not be constructed to appear natural and consistent with the surrounding landscape. Each existing culvert was assessed in hydrological detail, and some culverts initially proposed for upsizing were left the same diameter if adjacent culverts could be used.

Appendix B: Area of Potential Effects



South Unit Scenic Loop Road Repair Project APE (Road Closure Zone)

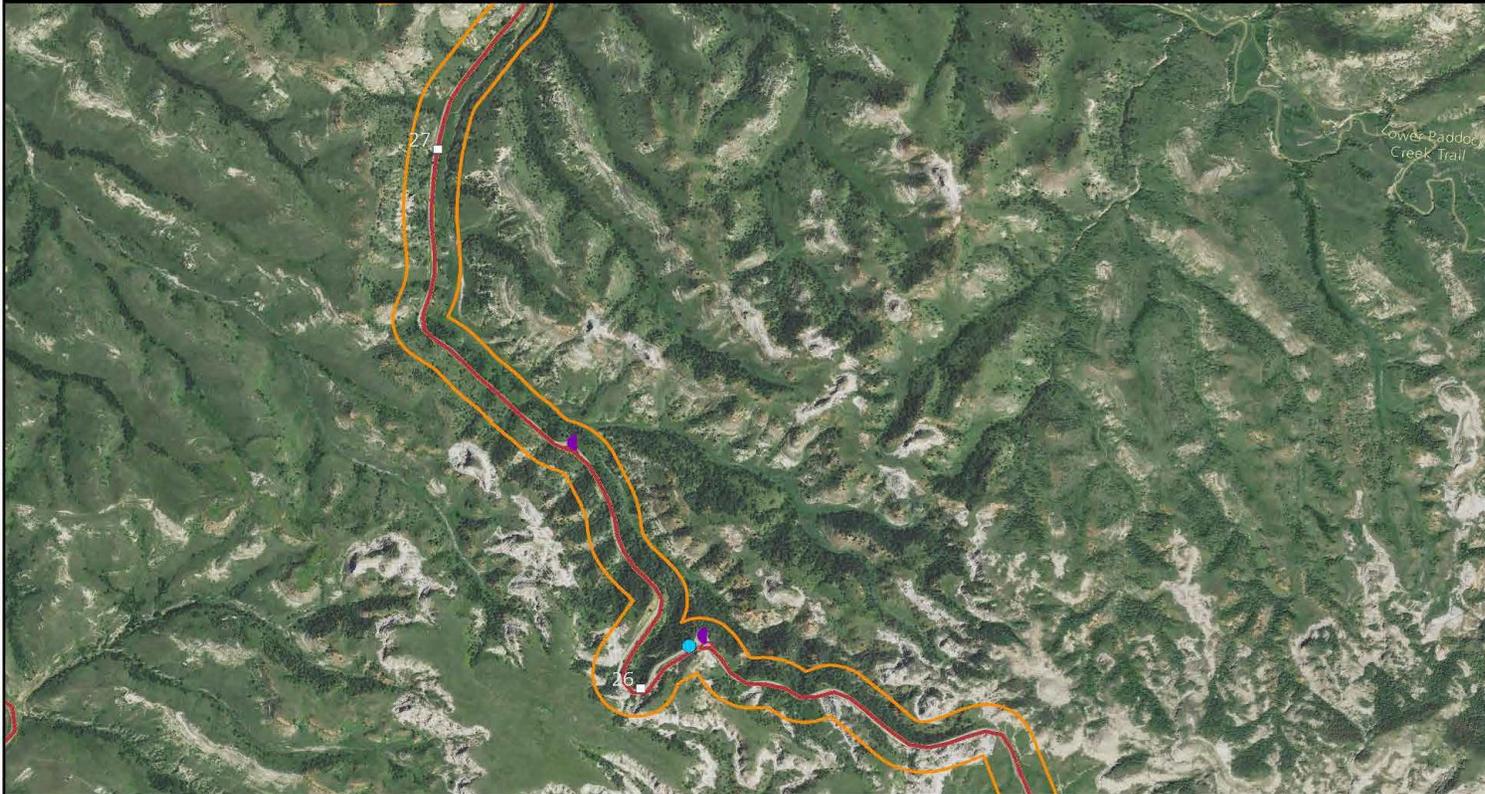


South Unit Scenic Loop Road Repair Project Area: Detail 1

Theodore Roosevelt National Park

South Unit Loop Road Reconstruction Project
North Dakota

National Park Service
US Department of the Interior



Legend

- Mile Markers
 - Pull-Out
 - NPS Road
 - Road Closure Zone
- Road Problem Areas (20191025)**
- Major Issue - Needs Detailed Examination



Sources: ESRI 2021; WSP 2021
Coordinate System:
SPSC North Dakota South Zone



South Unit Scenic Loop Road Repair Project Area: Detail 2

Theodore Roosevelt National Park
 South Unit Loop Road Reconstruction Project
 North Dakota

National Park Service
 US Department of the Interior

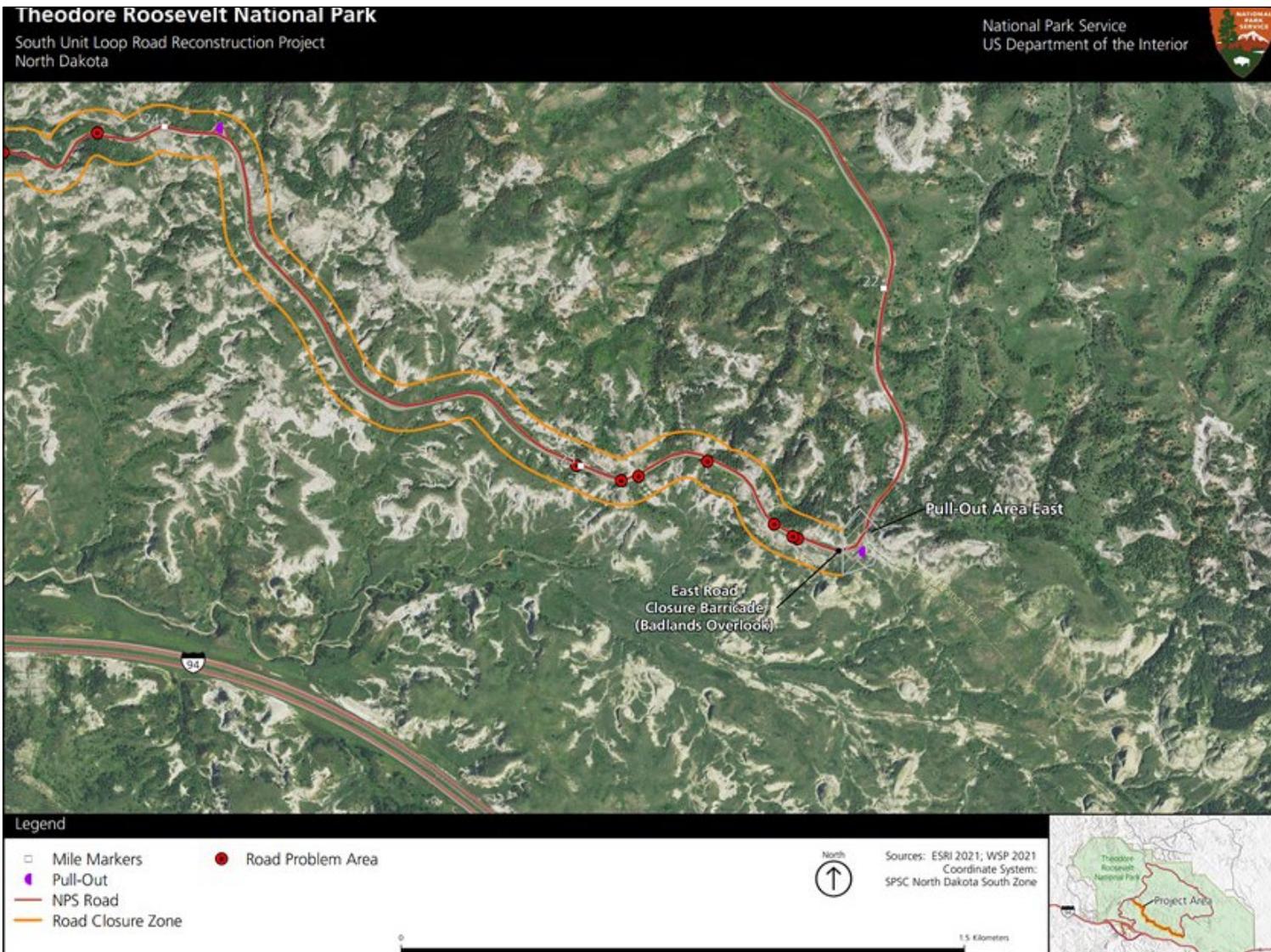


Legend

□ Mile Markers	Road Problem Areas (20191025)	<p>Sources: ESRI 2021; WSP 2021 Coordinate System: SPSC North Dakota South Zone</p>
● Pull-Out	● Major Issue - Road Failure	
— NPS Road	● Major Issue - Needs Detailed Examination	
— Road Closure Zone	● Continued Monitoring of Area	

0 1.5 Kilometers
 0 1 Miles

South Unit Scenic Loop Road Repair Project Area: Detail 3



South Unit Scenic Loop Road Repair Project Area: Detail 4

Appendix C: NAGPRA Inadvertent Discovery Plan

Procedure for Treatment of Inadvertently Discovered Native American Human Remains, Funerary Objects, Sacred Objects, or Objects of Cultural Patrimony for Road Construction Actions Associated with the Theodore Roosevelt National Park South Unit Loop Road Reconstruction Mile Marker 22.8-28 and Slide Repairs Project

I. AUTHORITY AND PURPOSE

The purpose of this inadvertent discovery plan is to establish a common suite of procedures and consultation protocols for the appropriate treatment and disposition of Native American human remains, funerary objects, sacred objects and objects of cultural patrimony (i.e., NAGPRA items) that may be encountered during construction for the proposed South Unit Loop Road Reconstruction Mile Marker 22.8-28 and Slide Repairs Project, which will take place in Theodore Roosevelt National Park (hereafter the Park). This plan conforms to the requirements of the Native American Graves Protection and Repatriation Act (NAGPRA) of 1990, as amended (104 Stat. 3048-3058; 25 U.S.C. 3001-3013), its implementing regulations as set forth in 43 CFR Part 10, the Archaeological Resources Protection Act (ARPA) of 1979, as amended (93 Stat. 721, et seq.; 16 U.S.C. 470 *et. seq.*), with its implementing regulations (43 CFR Part 7), and the National Historic Preservation Act (NHPA) of 1966, as amended (16 U.S.C. 470f; 479h-2).

II. BACKGROUND

A. Project Title: South Unit Loop Road Reconstruction Mile Marker 22.8-28 and Slide Repairs

B. Project Information

- i. Project Sponsor:** Theodore Roosevelt National Park
- ii. Location:** South Unit
- iii. Federal Land Manager:** National Park Service (NPS)
- iv. Federal Agency Official:** Park Superintendent
- v. Details on Determination of Likelihood:** No evidence of NAGPRA items has been encountered within or adjacent to the project area or in adjacent archeological sites and discovery of NAGPRA items is not anticipated as part of this undertaking.
- vi. Dates of Construction:** Approximately October 2022 – December 2024
- vii. Park Traditionally Associated Tribal Groups:** Blackfeet Tribes, Crow Tribe, Chippewa Cree Tribe; Mandan, Hidatsa, and Arikara Nation (Three Affiliated Tribes), Fort Peck Assiniboine & Sioux Tribes, Spirit Lake Sioux Tribe, Standing Rock Sioux Tribe, Turtle Mountain Band of Chippewa
- viii. Definitions:** See end of this document

C. Project Description and Planned Archeological Work

The project consists of ground disturbance of varying extents and depth to conduct a suite of road repairs and install new features (see Appendix A for more details). Archeological and tribal monitoring are anticipated to occur in all areas within 100 feet of known archeological sites and locations of potential traditional significance to tribes. Construction crews will work for two seasons performing various tasks. The only archeological site in the project area, 32BI1195 (lithic scatter) was determined eligible for the National Register of Historic Places, with concurrence received from SHPO, but all associated Phase I and II archeological studies did not identify any NAGPRA items.

All monitoring work will conform to standard archeological preservation practices as specified in the Secretary of the Interior's Standards for Treatment of Archeological and Historic Properties, and NPS guidance for management and treatment of archeological resources. The Park shall submit copies of final reports to SHPO and traditionally associated tribes and groups. Intentional excavation of NAGPRA items is not planned during these investigations.

No evidence of NAGPRA items has been encountered within or adjacent to the project area or in adjacent archeological sites. None of the investigations being proposed as a part of this project are intended or designed to excavate, uncover, disturb or remove Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony. In the event that human remains, funerary objects, sacred objects, or objects of cultural patrimony are unintentionally exposed by some aspect of research in this study, procedures identified in "Guidance for National Park Service Compliance with the Native American Graves Protection and Repatriation Act (NAGPRA), NPS Cultural Resource Management Guideline, Appendix R will be followed.

If Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony are inadvertently discovered, the project archeologist or tribal monitor must stop work and immediately notify the superintendent by telephone and confirm in writing. The project archeologist or tribal monitor will immediately stop all ground disturbing activities in the area of the inadvertent discovery and make a reasonable effort to protect the remains and objects from further disturbance. As soon as possible, but not later than three working days after receipt of the written confirmation of notification, the superintendent must certify receipt of the written notification, further secure and protect the remains and/or items, and notify lineal descendants, and the appropriate Indian tribes about the inadvertent discovery. If appropriate, the cultural items may be stabilized or covered to ensure their protection and to protect them from public viewing. The superintendent will initiate consultation about the cultural affiliation and disposition of Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony. Ground disturbance in the area of the inadvertent discovery will not continue until a written agreement is executed between the NPS and the affiliated Indian tribe (s) that allows the Native American human remains, funerary objects, sacred objects, or objects of cultural patrimony to remain safely *in situ* or that adopts a recovery plan for the excavation or removal of the remains and objects. The disposition of all Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony will be carried out according to the priority listing in the regulations [43 CFR 10.6].

III. PROTOCOLS FOR TREATMENT OF NAGRA ITEMS

A. On- and Off-Site Determinations

If potential NAGPRA items are discovered during excavations, the following on-site protocols will apply:

i. As soon as any potential NAGPRA items are discovered, the Contractor (and Park) will cease ground disturbing activities within 5 meters on all sides of the finding until osteological determinations and tribal notifications are completed.

ii. The Contractor, in collaboration with on-site tribal representative(s) and the Park, will make a reasonable effort to protect the potential NAGPRA items from further disturbance, including stabilization or covering. These procedures will follow stipulations contained in Section III.D.: Planned Treatment, Care, and Handling.

iii. Initial notifications about potential NAGPRA item discoveries will be carried out in accordance with the Discovery Chain of Contact protocols outlined in Section III.B.

iv. On-Site Determinations: In the case that potential NAGPRA items are discovered, the lead archeologist, in partnership with the tribal monitor (if available), will attempt to verify whether the items are of human and Native American origin by establishing facts and the preponderance of evidence using on-site comparative and reference osteological materials. Depending on the results of on-site determination, the following protocols will apply:

1. If remains are determined to be non-human, ground disturbance may resume immediately.
2. If remains are determined to be human but not Native American, ground disturbance within 5 meters on all sides of the discovery will remain suspended and consultation with the Coroner and NPS Law Enforcement will be initiated.
3. If remains are determined to be human and Native American, archeological work within 5 meters on all sides of the discovery will remain suspended and NAGPRA consultation procedures will be initiated, as described in Section IV and in accordance with 43 CFR 10.5.
4. If bone material cannot be reasonably identified as non-human on site, the bone will be transferred to the Contractor's osteologist for a more in-depth analysis using comparative human materials. Archeological work within 5 meters on all sides of the discovery will remain suspended. NAGPRA consultation procedures shall be initiated, as described in Section IV and in accordance with 43 CFR 10.5. Consultation will address appropriate next steps for identification and treatment.

v. Off-Site Determination: If an off-site determination is necessary, the remains will be transported by the Contractor's personnel to the contractor's designated laboratory. The remains will be analyzed in a controlled setting where comparative materials are available. The Park will notify culturally affiliated tribal groups at least 24 hours in advance of transport. The Park will

provide information regarding the location and person to which the bone material will be transported, how the bone material will be transported and how identification will be carried out. The Contractor or Park will attempt to complete the off-site determinations within 7 calendar days. The Park will provide status of the bone determination to culturally affiliated tribal groups within 5 days. Status updates may be provided through electronic mail.

Depending on the results of off-site physical examinations the following protocols will apply:

1. If remains are determined to be non-human, ground disturbing work may resume immediately.
2. If remains are determined to be human but not Native American, ground disturbing work within 5 meters on all sides of the discovery will remain suspended and consultation with the Coroner and NPS Law Enforcement will be initiated.
3. If remains are determined to be human and Native American, archeological work within 5 meters on all sides of the discovery will remain suspended and NAGPRA consultation procedures will be initiated, as described in Section IV and in accordance with 43 CFR 10.5.

B. Discovery Chain of Contact

Upon any discovery of human remains, the lead archeologist will immediately notify the following individuals (see Table 1 for contact information):

- Tribal Monitor: To be determined
- Park Director, Resources Management and Science: Blake McCann
- Park Chief Ranger: Josh Wentz

- i.** Blake McCann will contact the Billings County coroner and notify the Park Superintendent and culturally affiliated American Indian tribes and groups by telephone or electronic mail.
- ii.** The lead archeologist will also notify the Project Manager and NPS Contracting Officer's Representative of the finding.
- iii.** Formal written confirmation by the lead archeologist, will also be provided to the Park Superintendent for dissemination to tribal representatives within 3 days of verification and confirmation that a NAGPRA discovery has occurred.

Table 1. NAGPRA Inadvertent Discovery Plan Key Personnel

Personnel	Affiliation	Role	Contact Information
Lead Archeologist (To be determined)	Construction contractor to be determined	Lead Archeologist	Cell: Office: Email:
Blake McMann	NPS – Theodore Roosevelt National Park	Director, Resources Management and Science	Office: 701-623-4466 blake_mccann@nps.gov
Angela Richman	NPS – Theodore Roosevelt National Park	Acting Superintendent	Office: 701-623-4730, Ext. 1409 angela_richman@nps.gov
Bret Morton	NPS – Theodore Roosevelt National Park	Chief Ranger	Office: 701-623-4730, Ext. 1414 bret_morton@nps.gov
Ann Bauermeister	NPS – Midwest Archeological Center	Center Manager	Office: 402-437-5392, Ext. 140 ann_bauermeister@nps.gov
Various Personnel	Billings County, North Dakota	Medical Examiner and Coroner	Office: 701-483-6017 33 9 th Street West, Dickinson, ND 58601
Fern Swenson	North Dakota State Historic Preservation Officer	Deputy State Historic Preservation Officer	Office: 701-328-3575 fswenson@nd.gov
To Be Determined	Tribe to be determined	Tribal Monitor	Email, phone number
Dyan Youpee	Fort Peck Assiniboine and Sioux Tribes	Tribal Historic Preservation Officer	d.youpee@fortpecktribes.net; 406-630-2245
John Eagle	Standing Rock Sioux Tribe	Tribal Historic Preservation Officer	j.eagle@standingrock.com; 701-854-8645
Kenneth Graywater	Spirit Lake Sioux Tribe	Tribal Historic Preservation Officer	kjgraywater@spiritlakenation.com
John Murray	Blackfeet Tribe	Tribal Historic Preservation Officer	jmflysdown@gmail.com; 406-338-7521
Aaron Brien	Crow Tribe	Tribal Historic Preservation Officer	aaron.brien@crow-nsn.gov; Chairman' Office: 406-638-3715
Jonathan Windy Boy	Chippewa Cree Tribe	Tribal Historic Preservation Officer	jonathan.windyboy@nei-yahw.com; 406-395-4700

Personnel	Affiliation	Role	Contact Information
Allan Demaray	Mandan, Hidatsa, and Arikara Nation (Three Affiliated Tribes)	Tribal Historic Preservation Officer	701-421-6640
Jeffrey Desjarlais	Turtle Mountain Band of Chippewa	Tribal Historic Preservation Officer	jeffrey@yahoo.com; 701-477-2640

C. ARPA Compliance

Any excavations of NAGPRA items will be conducted according to the requirements of the Archaeological Resources Protection Act (ARPA) (16 U.S.C. 470aa *et. seq.*) and its implementing regulations as specified by 10.3(b)(1).

D. Planned Treatment, Care, and Handling

In the event of a potential NAGPRA discovery and pursuant to the tribal consultation protocols outlined in Section IV: Consultation Process, the following on-site procedures will be observed:

- i.** The Contractor’s personnel will treat NAGPRA items with dignity and respect.
- ii.** NAGPRA items will be protected from the elements by stabilizing the site and covering the discovery location with plywood, tarps, or other materials. The Contractor (or Park) will confer with the American Indian Tribal Monitor before using any materials not listed herein.
- iii.** The area will be secured by the lead archeologist and supporting personnel, restricting access to designated Contractor and Park personnel, tribal representatives, and American Indian tribal monitors. Securing the area may entail erecting fencing, placing barricades, and increasing law enforcement patrols.
- iv.** All NAGPRA items removed from excavated sediments will be stored in a secured, climate-controlled environment.
- v.** All archeological sediments associated with a discovery will be covered and saved for eventual placement back in their original location, unless through construction that location cannot be protected from further ground disturbance.
- vi.** The tribes will be afforded the opportunity to bundle the ancestral remains appropriately based on their traditional knowledge and practices.
- vii.** If through consultation the remains must be removed to accommodate construction, such as through implementation of a NAGPRA plan of action, the remains may be reburied in an appropriate location, determined through consultation, as close to where there were found as possible.

E. Archeological and Osteological Recording and Analysis

The following non-invasive, non-destructive methods of archaeological and osteological recording and analysis of NAGPRA items may proceed without tribal consultation to accomplish initial identification and recordation of the remains:

- Measurements
- Physical descriptions
 - Age
 - Condition
 - Heat-alteration
 - Type of element
 - Quantities
 - Pathology
 - Sex
- Provenience

F. Traditional Treatment

The Park, in collaboration with tribal groups culturally affiliated with the Park, will designate a tribal field representative to be on-site during construction. The designated tribal representative will provide on-site traditional cultural treatments for Native American human remains, potential Native American human remains and/or NAGPRA items encountered during construction and any archeological investigations.

Post-field treatments of NAGPRA items will be determined in consultation with lineal descendants and/or culturally affiliated American Indian tribes.

G. Reporting

The Contractor will coordinate with the NPS to determine the appropriate level of reporting needed to address NAGPRA findings. This is anticipated to include a Draft Report detailing the recording and analyses of Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony after completion of field work. The Draft Report will be provided to lineal descendants or culturally affiliated American Indian tribal groups for review and comment. Associated scheduling will be negotiated through consultation with lineal descendants or culturally affiliated tribal groups.

A Final Report will be distributed to lineal descendants or culturally affiliated American Indian tribal groups after distribution of the Draft Report. A copy of the Final Report will be kept on file at the Park. Associated scheduling will be negotiated through consultation with lineal descendants or culturally affiliated tribal groups.

H. Custody and Disposition of NAGPRA Items

i. Custody and disposition of NAGPRA items will be determined in consultation with the identified lineal descendants or culturally affiliated tribal groups, in accordance with 43 CFR 10.6.

ii. If desired, the Park will provide a protected location within Theodore Roosevelt National Park for the reinterment of any excavated NAGPRA items, as determined through consultation. Prior to reinterment, the remains and/or NAGPRA items will be treated respectfully and housed in a secure environment.

IV. CONSULTATION PROCESS

In the event of a discovery of NAGPRA items, consultation with potentially culturally affiliated tribal groups will be conducted in accordance with 43 CFR 10.5 Consultation.

i. Custody and disposition of Native American human remains, funerary objects, sacred objects and objects of cultural patrimony will follow 43 CFR 10.6. and will be determined during consultation with the parties having claim(s) to the remains and materials in question. During consultation(s), the Native American human remains and/or objects shall be treated respectfully and stored in a secure location.

Definitions

Associated funerary objects: those funerary objects for which the human remains with which they were placed intentionally are also in the possession or control of a museum or Federal agency. Associated funerary objects also mean those funerary objects that were made exclusively for burial purposes or to contain human remains.

ARPA: Archaeological Resource Protection Act (16 U.S.C. 470 *et seq.*)

Covering: Refers to plywood, tarps, soil, or other materials used to protect NAGPRA items from further disturbance.

Cultural affiliation: There is a relationship of shared group identity that can be reasonably traced historically or prehistorically between members of a present-day Indian tribe or Native Hawaiian organization and an identifiable earlier group. Cultural affiliation is established when the preponderance of the evidence—based on geographical, kinship, biological, archaeological, anthropological, linguistic, folklore, oral tradition, historical evidence, or other information or expert opinion—reasonably leads to such a conclusion.

Custody: Control of human remains, funerary objects, sacred objects, or objects of cultural patrimony excavated intentionally or discovered inadvertently in Federal or tribal lands after November 16, 1990.

Disposition: The transfer of control over Native American human remains, funerary objects, sacred objects, and objects of cultural patrimony by a museum or Federal agency.

Funerary objects: Items that, as part of the death rite or ceremony, are reasonably believed to have been placed intentionally at the time of death or later with or near individual human remains. Funerary objects must be identified by a preponderance of the evidence as having been removed from a specific burial site of an individual affiliated with a particular Indian tribe or Native Hawaiian organization or as being related to specific individuals or families or to known human remains. (43 CFR Part 2(d)(2)).

Human remains: The physical remains of the body of a person of Native American ancestry. The term does not include remains or portions of remains that may reasonably be determined to have been freely given or naturally shed by the individual from whose body they were obtained, such as hair made into ropes or nets. For the purposes of determining cultural affiliation, human remains incorporated into a funerary object, sacred object, or object of cultural patrimony, as defined below, must be considered as part of that item. (43 CFR Part 2(d)(1)).

Inadvertent discovery: The unanticipated encounter or detection of human remains, funerary objects, sacred objects, or objects of cultural patrimony found under or on the surface of Federal or tribal lands pursuant to section 3 (d) of NAGPRA.

Indian tribe: Any tribe, band, nation, or other organized Indian group or community of Indians, including any Alaska Native village or corporation as defined in or established by the Alaska Native Claims Settlement Act (43 U.S.C. 1601 *et seq.*), which is recognized as eligible for the special programs and services provided by the United States to Indians because of their status as Indians.

Intentional Excavation: The planned archaeological removal of human remains, funerary objects, sacred objects, or objects of cultural patrimony found under or on the surface of Federal or tribal lands pursuant to section 3 (c) of NAGPRA.

Lineal descendant: An individual tracing his or her ancestry directly and without interruption by means of the traditional kinship system of the appropriate Indian tribe or Native Hawaiian organization or by the common law system of descentance to a known Native American individual whose remains, funerary objects, or sacred objects are being claimed under these regulations.

NAGPRA items: Collectively refers to human remains, funerary objects, sacred objects, and objects of cultural patrimony

Objects of cultural patrimony: Items having ongoing historical, traditional, or cultural importance central to the Indian tribe or Native Hawaiian organization itself, rather than property owned by an individual tribal or organization member. These objects are of such central importance that they may not be alienated, appropriated, or conveyed by any individual tribal or organization member. Such objects must have been considered inalienable by the culturally affiliated Indian tribe or Native Hawaiian organization at the time the object was separated from the group. (43 CFR Part 2(d)(4)).

Sacred objects: Items that are specific ceremonial objects needed by traditional Native American religious leaders for the practice of traditional Native American religions by their present-day adherents. While many items, from ancient pottery sherds to arrowheads, might be imbued with sacredness in the eyes of an individual, these regulations are specifically limited to objects that were devoted to a traditional Native American religious ceremony or ritual and which have religious significance or function in the continued observance or renewal of such ceremony. (43 CFR Part 2(d) (3)).

Stabilization: preparing the earth around the inadvertent discovery to minimize further movement of soil and NAGPRA items.

Unassociated funerary objects: Funerary objects for which the human remains with which they were placed intentionally are not in the possession or control of a museum or Federal agency. Objects that were displayed with individual human remains as part of a death rite or ceremony of a culture and subsequently returned or distributed according to traditional custom to living descendants or other individuals are not considered unassociated funerary objects.